

## Worldwide Locations

### U.S.A

**Sumitomo Machinery Corporation of America (SMA)**  
4200 Holland Blvd. Chesapeake, VA 23323, U.S.A.  
TEL (1)757-485-3355 FAX (1)757-485-7490

### Canada

**SM Cyclo of Canada, Ltd. (SMC)**  
1453 Cornwall Road, Oakville, Canada ON L6J 7T5  
TEL (1)905-469-1050 FAX (1)905-469-1055

### Mexico

**SM Cyclo de Mexico, S.A. de C.V. (SMME)**  
Av. Desarrollo 541, Col. Finsa, Guadalupe,  
Nuevo León, México, CP67132  
TEL (52)81-8144-5130 FAX (52)81-8144-5130

### Brazil

**Sumitomo Industrias Pesadas do Brasil Ltda. (SHIB)**  
Rodovia do Acucar (SP-075) Km 26  
Itu, Sao Paulo, Brasil  
TEL (55)11-4886-1000 FAX (55)11-4886-1000

### Chile

**SM Cyclo de Chile, Ltda. (SMCH)**  
San Pablo 3507, Quinta Normal, Santiago, Chile  
TEL (56)2-892-7000 FAX (56)2-892-7001

### Argentina

**SM Cyclo de Argentina S.A. (SMAR)**  
Ing. Delpini, 2236 Area de Promocion el Triangulo,  
Partido Malvinas Argentinas Grand Bourg,  
Buenos Aires, Argentina B1615KGB  
TEL (54)3327-45-4095 FAX (54)3327-45-4099

### Guatemala

**SM Cyclo de Guatemala Ensambladora, Ltda. (SMGT)**  
Parque Industrial Unisur, 0 Calle B 19-50 Zona 3,  
Bodega D-1 Delta Bárcenas en Villa Nueva, Guatemala  
TEL (502)6648-0500 FAX (502)6631-9171

### Colombia

**SM Cyclo Colombia, S.A.S.**  
Carrera 11, No.93A-53, Office 203, Bogotá, Colombia  
TEL (57)1-3000673

### Germany

**Sumitomo (SHI) Cyclo Drive Germany GmbH (SCG)**  
Cyclostraße 92, 85229 Markt Indersdorf, Germany  
TEL (49)8136-66-0 FAX (49)8136-5771

### Austria

**Sumitomo (SHI) Cyclo Drive Germany GmbH (SCG)**  
SCG Branch Austria Office  
Gruentalerstraße 30A, 4020 Linz, Austria  
TEL (43)732-330958 FAX (43)732-331978

### Belgium

**Sumitomo (SHI) Cyclo Drive Germany GmbH (SCG)**  
SCG Branch Benelux Office  
Heikneuterlaan 23, 3010 Kessel-Lo, Leuven, Belgium  
TEL (32)16-60-83-11 FAX (32)16-60-16-39

### France

**SM-Cyclo France SAS (SMFR)**  
8 Avenue Christian Doppler, 77700 Serris, France  
TEL (33)164171717 FAX (33)164171718

### Italy

**SM-Cyclo Italy Srl (SMIT)**  
Via dell' Artigianato 23, 20010 Cornaredo (MI), Italy  
TEL (39)293-481101 FAX (39)293-481103

### Spain

**SM-Cyclo Iberia, S.L.U. (SMIB)**  
C/Landabarrí No. 3, 6° B, 48940 Leioa, Vizcaya, Spain  
TEL (34)9448-05389 FAX (34)9448-01550

### Sweden

**SM-Cyclo Scandinavia AB (SMSC)**  
Industrigatan 21B, 234 35 Lomma, Sweden  
TEL (46)40220030

### United Kingdom

**SM-Cyclo UK Ltd. (SMUK)**  
Unit 29, Bergen Way, Sutton Fields Industrial Estate,  
Kingston upon Hull, HU7 0YQ, East Yorkshire,  
United Kingdom  
TEL (44)1482-790340 FAX (44)1482-790321

### Turkey

**SM Cyclo Turkey Güç Aktarım Sis. Tic. Ltd. Sti. (SMTR)**  
Büyükdere Çayırbaşı Cd. Dede Yusuf Sk. No:11,  
34453 Sarıyer Istanbul, Turkey  
TEL (90)216-384-4482 FAX (90)216-384-4482

### China

**Sumitomo (SHI) Cyclo Drive China, Ltd. (SCT)**  
11F, SMEG Plaza, No.1386 Hongqiao Road,  
Changning District, Shanghai, China (P.C.200336)  
TEL (86)21-3462-7877 FAX (86)21-3462-7922

### Hong Kong

**SM-Cyclo of Hong Kong Co.,Ltd. (SMHK)**  
Rm 1301, CEO Tower, 77 Wing Hong Street,  
Cheung Sha Wan, Kowloon, Hong Kong  
TEL (852)2460-1881 FAX (852)2460-1882

### Korea

**Sumitomo (SHI) Cyclo Drive Korea, Ltd. (SCK)**  
Royal Bldg. 9F Rm.913, 5 Danju-Dong, Chongro-Ku,  
Seoul, Korea 110-721  
TEL (82)2-730-0151 FAX (82)2-730-0156

### Taiwan

**Tatung SM-Cyclo Co., Ltd. (TSC)**  
22 Chungshan N. Road 3rd., Sec. Taipei, Taiwan 104,  
R.O.C.  
TEL (886)2-2595-7275 FAX (886)2-2595-5594

### Singapore

**Sumitomo (SHI) Cyclo Drive Asia Pacific Pte. Ltd. (SCA)**  
15 Kwong Min Road, Singapore 628718  
TEL (65)6591-7800 FAX (65)6863-4238

### Philippines

**Sumitomo (SHI) Cyclo Drive Asia Pacific Pte. Ltd. (SCA)**  
Philippines Branch Office  
B2B Granville Industrial Complex, Carmona, Cavite,  
Philippines  
TEL (63)2-584-4921 FAX (63)2-584-4922  
TEL (63)46-430-3591  
TEL (63)46-482-0580  
TEL (63)46-482-0581

### Vietnam

**SM-Cyclo (Vietnam) Co., Ltd.**  
Factory 2B, Lot K1-2-5, Road No.: 2-3-5A,  
Le Minh Xuan Industrial Park, Binh Chanh Dist.,  
HCMC, Vietnam.  
TEL (84)8-37-663-709 FAX (84)8-37-663-710

### Malaysia

**SM-Cyclo of Malaysia Sdn. Bhd. (SMMA)**  
No.7C, Jalan Anggerik Mokara 31/56, Kota Kemuning,  
Seksyen 31, 40460 Shah Alam, Selangor D.E., Malaysia  
TEL (60)3-51210455 FAX (60)3-51210578

### Indonesia

**PT. SM-Cyclo Indonesia**  
Cikarang Jalan Sungkai Blok F 25 No.09 K,  
Delta Silicon 5, Lippo Cikarang, Bekasi, Indonesia  
TEL (62)21-2961-2100 FAX (62)21-2961-2211

### Thailand

**SM-Cyclo (Thailand) Co., Ltd.**  
195 Empire Tower, 21st Fl., Unit 2103-4, South Sathorn Rd.,  
Yannawa Sathorn, Bangkok 10120, Thailand  
TEL (66)2-670-0998 FAX (66)2-670-0999

### Australia

**Sumitomo (SHI) Hansen Australia Pty. Ltd. (SHAU)**  
181 Power Street Glendenning NSW 2761, Australia  
TEL (61)2-9208-3000 FAX (61)2-9208-3050

### India

**Sumi-Cyclo Drive India Pvt. Ltd. (SMIN)**  
Survey No.130, Hissa No.02, Jeevan Nagar, Off Mumbai-  
Bangalore bypass, Tathawade, Pune-411 033, India  
TEL (91)20-6674-2900 FAX (91)20-6674-2901

### Japan

**Sumitomo Heavy Industries, Ltd.**  
ThinkPark Tower, 1-1 Osaki 2-chome, Shinagawa-ku,  
Tokyo 141-6025, Japan  
TEL (81)3-6737-2511 FAX (81)3-6866-5160

Sumitomo Drive Technologies

CYCLO® 6000 Series

Gearmotor & Speed Reducer

## Sumitomo Drive Technologies



CYCLO®  
6000 Series  
Gearmotor & Speed Reducer

Specifications, dimensions, and other items are subject to change without prior notice.

 Sumitomo Heavy Industries, Ltd.

Power Transmission & Controls Group

Headquarter ThinkPark Tower, 1-1 Osaki 2-chome, Shinagawa-ku, Tokyo 141-6025, Japan

No.C2001E-7.8

EA03 Printed 2015.11

 Sumitomo Heavy Industries, Ltd.

No.C2001E-7

# Table of Contents

	Page
<b>A. Common</b>	<b>A-1~12</b>
Features & Benefits	A-3
Product Line-up	A-4
Product Range of CYCLO® DRIVE	A-6
Product Range of Motor	A-9
<b>B. Gearmotors</b>	<b>B-1~154</b>
1. How to Select	B-2
2. Selection Tables	B-13
3. Dimension Tables	B-97
<b>C. Speed Reducers</b>	<b>C-1~88</b>
1. How to Select	C-2
2. Selection Tables	C-11
3. Dimension Tables	C-69
<b>D. Gearmotor with AF Motor for Inverters</b>	<b>D-1~40</b>
1. How to Select	D-2
2. Selection Tables	D-11
3. Dimension Tables	D-27
<b>E. Technical Data</b>	<b>E-1~68</b>
1. Reducer	E-2
2. Motor	E-31
3. Common	E-61
Warranty Standard	F-1
Warning	F-2

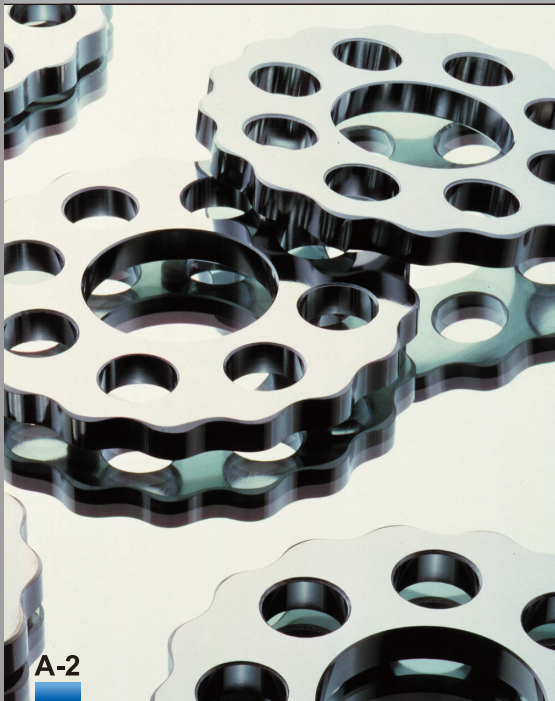
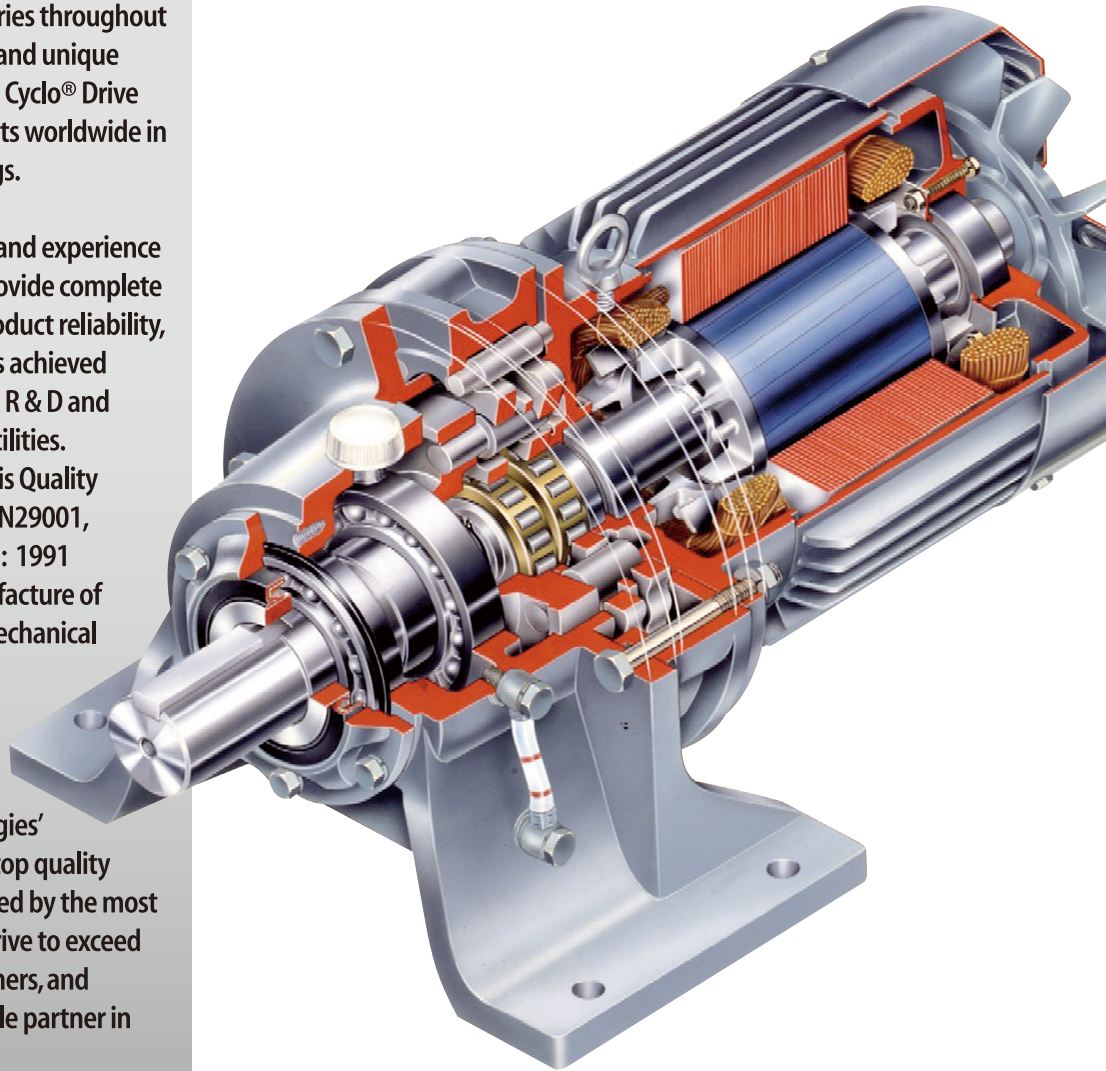
## Over 12 Million in the Making

Sumitomo Drive Technologies is a world-class leader in power transmission and control devices. Our top lined product, the Cyclo® Drive is actively serving industries throughout the world through its popular and unique epitrochoidal mechanism. The Cyclo® Drive has served over ten million units worldwide in a wide range of model offerings.

With the technical know-how and experience cultivated over 80 years, we provide complete satisfaction with unrivalled product reliability, durability and economy. This is achieved through our continual product R & D and state-of-the-art production facilities. Sumitomo Drive Technologies is Quality System Certified to ISO 9001, EN29001, BS5750 Part 1: 1987, JIS Z9901: 1991 standard for design and manufacture of mechanical speed reducers, mechanical variators, electric motors and gearmotors in over 30 facilities located around the world.

The Sumitomo Drive Technologies' brand guarantees innovative, top quality products and services developed by the most advanced technologies. We strive to exceed the expectations of our customers, and continue to be your dependable partner in business.

## High Shock Load, High Reliability Cycloidal Speed Reducers and Gearmotors



## Exceptional Performance, Unmatched Reliability

The Sumitomo Cyclo® Drive is unsurpassed by any other inline drive available in the market today. Cyclo®'s unique cycloid design has advantages superior to speed reducers using common involute tooth gears.

Compared to gear teeth with limited contact points of involute gears, the Cyclo® has two to three times more of its reduction components in contact at all times. Cyclo® speed reducers and gearmotors are designed to withstand shock loads exceeding ratings of 500%, provide exceptional performance, reliability, and long life in the most severe applications.

## Features & Benefits

### ❖ Outstanding Reliability - 2 Year Warranty

Cyclo® Drive speed reducers and gearmotors provide customers with a typical operating life of 20 years. We back this assurance with a two year warranty on all Cyclo® products.

### ❖ Smooth Operation and Low Noise

In comparison to the sliding tooth contact of the conventional gearing, the rolling contact of the Cyclo® system provides a reduced noise level.

### ❖ Durable, Robust Construction

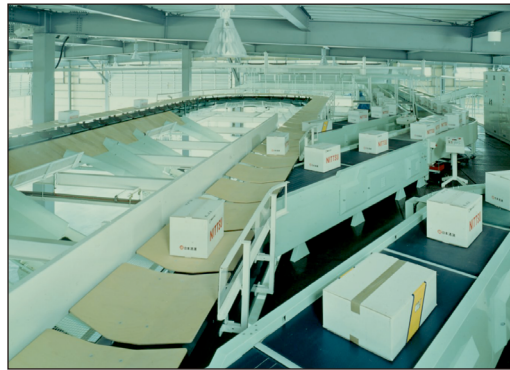
On top of the unique mechanism and design, Cyclo® housings are made of cast iron with the exception of our three smallest size models. All rotating elements are made from Chromium Molybdenum bearing steel, which have been hardened and ground.

### ❖ Selection and Variety

Reduction Ratios from 1/2.5 to 1/119 are available for the single stage; for triple stages we offer ratios up to 658503:1.

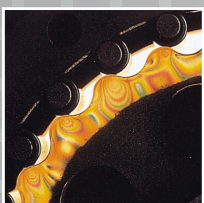
## Applications

**Applications Include:** Conveyors, Automotive Plants, Recycling Machines, Wastewater Treatment, Steel Mills, Construction Equipment, Paper Mills, Food Machinery, Poultry Plants, Sawmills and Wood Mills, Processing Plants, etc.



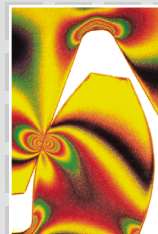
Clockwise from Top-Left: Chemical and Food Industry (agitator, mixer), Logistics and Handling Machines (sorting machines, conveyors), Iron and Steel Manufacturing (conveyors) and Water Treatment Machines (agitators).

## ❖ Superior Design, Powerful Performance ❖



### CYCLO® SPEED REDUCER

All torque transmitting parts roll, not grind. The gear tooth profile of the Cyclo® reducer enables the sharing of the load by a number of teeth, thus not susceptible to tooth breakage.



### CONVENTIONAL HELICAL REDUCER

Involute gears allow for small tooth engagement rate. Torque transmitting parts grind, wear, and can break off with the sliding contact.

# Product Line-up

6W

Commercial

Industrial

In-Line

## CYCLO®

Unmatched Reliability,  
Exceptional Performance Cycloidal Drives



6000 Series

Unique Cycloidal gear teeth and mechanism is unsurpassed by any other inline drive. Simple and compact design.

Power: 0.1kW~132kW Ratio: 1/2.5~1/658503

Offset-Parallel

## ASTERO®

Practical and Convenient



ASTERO®

Modular system of motors and gearheads. Maximum flexibility and interchangeability.

Power: 6W~90W Ratio: 1/3~1/2000



HBB Series

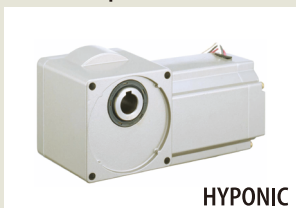
Integrated parallel shaft mount design, single stage, helical gearbox for durability.

Power: 0.1kW~30kW Ratio: 1/11~1/4365

Right-Angle

## HYPONIC DRIVE®

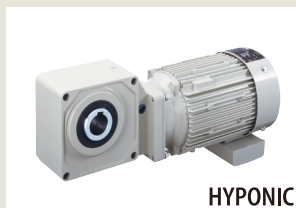
Quiet, Compact & Maintenance Free



HYPONIC

Highly efficient, grease lubricated, compact design hypoid gearing.

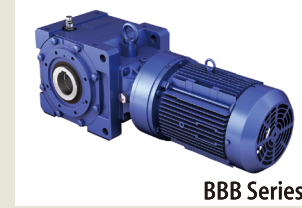
Power: 15W~90W Ratio: 1/5~1/240



HYPONIC

Patented all-steel hypoid gear technology is extremely high-performance and more efficient than worm gearing.

Power: 40W~11kW Ratio: 1/5~1/1440



BBB Series

Incorporates the strength and flexibility of the Cyclo® Drive with adaptability of a shaft-mounted design in a right angle spiral bevel gearbox for exceptional reliability.

Power: 0.1kW~55kW Ratio: 1/11~1/10658

## Motion Control Drives (MCD)

High Precision, Very Low Backlash



### F Series CYCLO®

Rolling contact of cycloid discs, optimum load distribution, and low vibration yields highest efficiencies.

Torque: 142N·m~4415N·m Ratio: 1/29~1/171  
Backlash: No Backlash Lost Motion: 0.5~1.0arc min



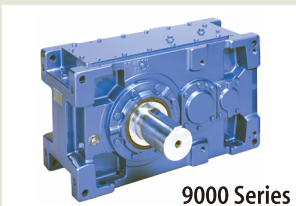
### IB Series P1 Type

Precision planetary gearheads for Servomotor applications in the most compact design.

Torque: 10.0N·m~101N·m Ratio: 1/3.7~1/81  
Backlash: 3min, 15min

**PARAMAX®**

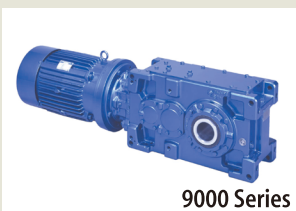
High Quality & Maximum Efficiency,  
Computer-Aided Design



9000 Series

The offset-parallel 9000 Series allow direct motor mounting and has universal housing for unique mounting positions.

Power: 2.6~552kN•m Ratio: 1/6.3~1/500



9000 Series

The new 9000 Series design combines helical gears and bevel gears in a right-angle gearbox for compact drive assembly.

Power: 2.6~552kN•m Ratio: 1/6.3~1/450



**LB Series CYCLO®**

The reputation of the Cyclo® Drive's strength to the Servomotor gives us a direct coupling gearhead possibility for a maintenance free operation.

Torque: 30N•m~630Nm Ratio: 1/11~1/29  
Backlash: 6min

**Sumitomo Drives**

**Speed Variators**



BEIER Variator  
BEIER CYCLO® Variator

Constant power torque converters with extremely accurate speed/ratio holding and repeatability to control speeds on industrial machinery.

Capacity: 0.2kW~150kW



Inverters  
SF-520, HF-520, HF-430a

Multiple functions, easy to use highly efficient Inverter. Output Power: 0.1kW~55kW

**Shaft-Mounted Speed Reducer**



HSM

Maximum loading and the highest efficiency torque output in the most compact design.

Power: 0.2kW~224kW

**Worm Gears**



HEDCON®

Unique double contact theory, high efficiency, and high strength work reduction mechanism.

Power: 0.8~82kN•m  
Ratio: 1/5~1/100

**Planetary Gears**



COMPOWER®

Unique load sharing mechanism, high precision carburized ground gears. Power: 0.46~736kN•m  
Ratio: 1/5~1/1400

# Product Range of CYCLO® DRIVE

## CYCLO® Frame Size

Table A-1 CYCLO Frame Size

6000SK Series Frame Size	6000 Series							
	Single Reduction				Double Reduction			
	Frame Size		Frame Size (Output side + Input side)		Frame Size (Output side + Input side)		Frame Size (Output side + Input side)	
6070SK	6060	6140	6060DA	(6060+6060)	6140DC	(6140+6105)	6190DA	(6190+6125)
6075SK	6065	6145	6065DA	(6065+6060)	6145DA	(6145+6075)	6190DB	(6190+6135)
6080SK	6070	614H	6070DA	(6070+6065)	6145DB	(6145+6095)	6195DA	(6195+6125)
6085SK	6075	6160	6075DA	(6075+6065)	6145DC	(6145+6105)	6195DB	(6195+6135)
6090SK	6080	6165	6090DA	(6090+6075)	6160DA	(6160+6095)	6205DA	(6205+6125)
6095SK	6085	616H	6095DA	(6095+6075)	6160DB	(6160+6105)	6205DB	(6205+6135)
6100SK	6090	6170	6100DA	(6100+6075)	6160DC	(6160+6125)	6215DA	(6215+6135)
6105SK	6095	6175	6105DA	(6105+6075)	6165DA	(6165+6095)	6215DB	(6215+6165)
6110SK	6100	6180	6120DA	(6120+6075)	6165DB	(6165+6105)	6225DA	(6225+6135)
6115SK	6105	6185	6120DB	(6120+6095)	6165DC	(6165+6125)	6225DB	(6225+6175)
	610H	6190	6125DA	(6125+6075)	6170DA	(6170+6095)	6235DA	(6235+6165)
	6110	6195	6125DB	(6125+6095)	6170DB	(6170+6105)	6235DB	(6235+6185)
	6115	6205	6130DA	(6130+6075)	6170DC	(6170+6125)	6245DA	(6245+6165)
	6120	6215	6130DB	(6130+6095)	6175DA	(6175+6095)	6245DB	(6245+6185)
	6125	6225	6130DC	(6130+6105)	6175DB	(6175+6105)	6255DA	(6255+6175)
	612H	6235	6135DA	(6135+6075)	6175DC	(6175+6125)	6255DB	(6255+6195)
	6130	6245	6135DB	(6135+6095)	6180DA	(6180+6105)	6265DA	(6265+6195)
	6135	6255	6135DC	(6135+6105)	6180DB	(6180+6135)	6275DA	(6275+6195)
		6265	6140DA	(6140+6075)	6185DA	(6185+6105)		
		6275	6140DB	(6140+6095)	6185DB	(6185+6135)		

COMMON

## Reduction Ratio

Table A-2 6000 Series

Single Reduction											
6	8	11	13	15	17	21	25	29			
35	43	51	59	71	87	119					
Double Reduction indicated in catalog (Upper row: reduction ratio, lower row: output side reduction ratio x input side reduction ratio)											
104	121	143	165	195	231	273	319	377	473	559	
(13 × 8)	(11 × 11)	(13 × 11)	(15 × 11)	(15 × 13)	(21 × 11)	(21 × 13)	(29 × 11)	(29 × 13)	(43 × 11)	(43 × 13)	
649	731	841	1003	1247	1479	1849	2065	2537	3045	3481	
(59 × 11)	(43 × 17)	(29 × 29)	(59 × 17)	(43 × 29)	(87 × 17)	(43 × 43)	(59 × 35)	(59 × 43)	(87 × 35)	(59 × 59)	
4437	5133 <sup>Note: 1</sup>	6177	7569								
(87 × 51)	(87 × 59)	(87 × 71)	(87 × 87)								

Note: 1. Frame size 6205# ~ 6265# are (59 × 87).

## Other Reduction Ratios (Under certain conditions, the following reduction ratios may also be available, please consult us.)

Reduction Ratio	88	90	102	120	126	136	150	168	169	174	187	200	210	221	225	232	255	258	275
	(11 × 8)	(15 × 6)	(17 × 6)	(15 × 8)	(21 × 6)	(17 × 8)	(25 × 6)	(21 × 8)	(13 × 13)	(29 × 6)	(17 × 11)	(25 × 8)	(35 × 6)	(17 × 13)	(15 × 15)	(29 × 8)	(17 × 15)	(43 × 6)	(25 × 11)
Output speed 50Hz	16.5	16.1	14.2	12.1	11.5	10.7	9.67	8.63	8.58	8.33	7.75	7.25	6.90	6.56	6.44	6.25	5.69	5.62	5.27
r/min 60Hz	19.9	19.4	17.2	14.6	13.9	12.9	11.7	10.4	10.4	10.1	9.36	8.75	8.33	7.92	7.78	7.54	6.86	6.87	6.36
Reduction Ratio	280	289	306	315	325	344	354	357	375	385	408	425	426	435	441	455	472	493	522
	(35 × 8)	(17 × 17)	(51 × 6)	(21 × 15)	(25 × 13)	(43 × 8)	(59 × 6)	(21 × 17)	(25 × 15)	(35 × 11)	(51 × 8)	(25 × 17)	(71 × 6)	(29 × 15)	(21 × 21)	(35 × 13)	(59 × 8)	(29 × 17)	(87 × 6)
Output speed 50Hz	5.18	5.02	4.74	4.60	4.46	4.22	4.10	4.06	3.87	3.77	3.55	3.41	3.40	3.33	3.29	3.19	3.07	2.94	2.78
r/min 60Hz	6.25	6.06	5.72	5.56	5.38	5.09	4.94	4.90	4.67	4.55	4.29	4.12	4.11	4.02	3.97	3.85	3.71	3.55	3.35
Reduction Ratio	525	561	568	595	609	625	645	663	696	725	735	765	767	781	867	875	885	903	923
	(35 × 15)	(51 × 11)	(71 × 8)	(35 × 17)	(29 × 21)	(25 × 25)	(43 × 15)	(51 × 13)	(87 × 8)	(29 × 25)	(35 × 21)	(51 × 15)	(59 × 13)	(71 × 11)	(51 × 17)	(35 × 25)	(59 × 15)	(43 × 21)	(71 × 13)
Output speed 50Hz	2.76	2.58	2.55	2.44	2.38	2.32	2.25	2.19	2.08	2.00	1.97	1.90	1.89	1.86	1.67	1.66	1.64	1.61	1.57
r/min 60Hz	3.33	3.12	3.08	2.94	2.87	2.80	2.71	2.64	2.51	2.41	2.38	2.29	2.28	2.24	2.02	2.00	1.98	1.94	1.90
Reduction Ratio	957	1015	1065	1071	1075	1131	1207	1225	1239	1275	1305	1475	1491	1505	1711	1775	1785	1827	2059
	(87 × 11)	(35 × 29)	(71 × 15)	(51 × 21)	(43 × 25)	(87 × 13)	(71 × 17)	(35 × 35)	(59 × 21)	(51 × 25)	(87 × 15)	(59 × 25)	(71 × 21)	(43 × 35)	(59 × 29)	(71 × 25)	(51 × 35)	(87 × 21)	(71 × 29)
Output speed 50Hz	1.52	1.43	1.36	1.35	1.35	1.28	1.20	1.18	1.17	1.14	1.11	0.98	0.97	0.96	0.85	0.82	0.81	0.79	0.70
r/min 60Hz	1.83	1.72	1.64	1.63	1.63	1.55	1.45	1.43	1.41	1.37	1.34	1.19	1.17	1.16	1.02	0.99	0.98	0.96	0.85
Reduction Ratio	2175	2193	2485	2523	2601	3009	3053	3621	3741	4189	5041	Calculation of output speed is based on the following input speed.							
	(87 × 25)	(51 × 43)	(71 × 35)	(87 × 29)	(51 × 51)	(59 × 51)	(71 × 43)	(71 × 51)	(87 × 43)	(71 × 59)	(71 × 71)								
Output speed 50Hz	0.67	0.66	0.58	0.57	0.56	0.48	0.47	0.40	0.39	0.45	0.29	50Hz: 1450r/min							
r/min 60Hz	0.80	0.80	0.70	0.69	0.67	0.58	0.57	0.48	0.47	0.42	0.35	60Hz: 1750r/min							

Table A-3 6000SK Series (Actual Reduction Ratio)

Frame Size	Nominal Reduction Ratio						
	2.5	3	4	5	6	8	10
6070SK, 6075SK	2.514	2.911	3.985	5.109	5.915	8.097	9.848
6080SK, 6085SK	2.475	2.931	3.878	5.114	6.164	7.660	9.474
6090SK, 6095SK	2.492	2.878	4.100	5.017	5.623	8.169	9.996
6100SK, 6105SK	2.492	2.878	4.100	5.017	5.623	8.169	9.996
6110SK, 6115SK	2.483	3.063	3.859	4.707	5.980	7.738	10.07

\*Note that reduction ratio differs for each frame size for 6000SK Series.

## Product Range of CYCLO® DRIVE

## Available Combination

Table A-4 6000SK Series

Nominal Reduction Ratio	2.5	3	4	5	6	8	10
Output Speed 50Hz	580	483	363	290	242	181	145
[r/min] 60Hz	700	583	438	350	292	219	175
0.4 × 4P kW	●	●	●	●	●	●	●
0.55 × 4P kW	●	●	●	●	●	●	●
0.75 × 4P kW	●	●	●	●	●	●	●
1.1 × 4P kW	●	●	●	●	●	●	●
1.5 × 4P kW	●	●	●	●	●	●	●
2.2 × 4P kW	●	●	●	●	●	●	●
3.0 × 4P kW	●	●	●	●	●	●	●
3.7 × 4P kW	●	●	●	●	●	●	●
5.5 × 4P kW	●	●	●	●	●	●	●

Table A-5 6000 Series Single Reduction

Reduction Ratio	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119
Output Speed 50Hz	242	181	132	112	96.7	85.3	69	58	50	41.4	33.7	28.4	24.6	20.4	16.7	12.2
[r/min] 60Hz	292	219	159	135	117	103	83.3	70	60.3	50	40.7	34.3	29.7	24.6	20.1	14.7
0.1 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
0.2 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
0.25 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
0.4 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
0.55 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
0.75 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1.1 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1.5 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2.2 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3.0 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3.7 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5.5 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
7.5 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
11 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
15 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
18.5 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
22 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
30 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
37 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
45 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
55 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
75 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Reduction Ratio	11	15	21	29	43	59	87
Output Speed 50Hz	89.1	65.3	46.7	33.8	22.8	16.6	11.3
[r/min] 60Hz	106	77.7	55.5	40.2	27.1	19.7	13.4
15 × 6P kW						●	●
18.5 × 6P kW					●	●	●
22 × 6P kW					●	●	●
30 × 6P kW			●	●	●	●	●
37 × 6P kW		●	●	●	●	●	●
45 × 6P kW		●	●	●	●	●	●
55 × 6P kW	●	●	●	●	●	●	●
75 × 6P kW	●	●	●	●	●	●	●
90 × 6P kW	●	●	●	●	●	●	●
110 × 6P kW	●	●	●	●	●	●	●
132 × 6P kW	●	●	●	●	●	●	●

Note: 1. Calculation of output speed is based on the following input speed.

- 4P Motor
  - 50Hz: 1450 r/min
  - 60Hz: 1750 r/min
- 6P Motor
  - 50Hz: 980 r/min
  - 60Hz: 1165 r/min

2. Combination in the table is based on service factor 1.0. Refer to Gearmotor Selection Table for combinations with other service factors.

3. Reduction ratios in 6000SK Series table are nominal ratios. Output speeds are based on these ratios. Refer to "Reduction Ratio" tables in the previous page for actual reduction ratio.

4. The rated current of 6P motor is different from the one of 4P motor even if the power is same.



# Product Range of CYCLO® DRIVE

Table A-6 6000 Series Double Reduction

COMMON

Reduction Ratio	104	121	143	165	195	231	273	319	377	473	559	649	731	841	1003	1247	1479	1849	2065	
Output Speed 50Hz	13.9	12	10.1	8.79	7.44	6.28	5.31	4.55	3.85	3.07	2.59	2.23	1.98	1.72	1.45	1.16	0.98	0.784	0.702	
[r/min] 60Hz	16.8	14.5	12.2	10.6	8.97	7.58	6.41	5.49	4.64	3.7	3.13	2.7	2.39	2.08	1.74	1.4	1.18	0.946	0.847	
0.1 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
0.2 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
0.25 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
0.4 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
0.55 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
0.75 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1.1 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1.5 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
2.2 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3.7 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5.5 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
7.5 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
11 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
15 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
18.5 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
22 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
30 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
37 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
45 × 4P kW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Reduction Ratio	2537	3045	3481	4437	5133	6177	7569
Output Speed 50Hz	0.572	0.476	0.417	0.327	0.282	0.235	0.192
[r/min] 60Hz	0.69	0.575	0.503	0.394	0.341	0.283	0.231
0.1 × 4P kW	●	●	●	●	●	●	●
0.2 × 4P kW	●	●	●	●	●	●	●
0.25 × 4P kW	●	●	●	●	●	●	●
0.4 × 4P kW	●	●	●	●	●	●	●
0.75 × 4P kW	●	●	●	●	●	●	●
1.5 × 4P kW	●	●	●	●	●	●	●
2.2 × 4P kW	●	●	●	●	●	●	●
3.7 × 4P kW	●	●	●	●	●	●	●
5.5 × 4P kW	●	●	●	●	●	●	●

Note: 1. Calculation of output speed is based on the following input speed.

- 4P Motor
  - 50Hz: 1450 r/min
  - 60Hz: 1750 r/min
- 6P Motor
  - 50Hz: 980 r/min
  - 60Hz: 1165 r/min

2. Combination in the table is based on service factor 1.0. Refer to Gearmotor Selection Table for combinations with other service factors.
3. Reduction ratios in 6000SK Series table are nominal ratios. Output speeds are based on these ratios. Refer to "Reduction Ratio" tables in the previous page for actual reduction ratio.
4. The rated current of 6P motor is different from the one of 4P motor even if the power is same.

# Product Range of Motor

Table A-7 3-Phase Induction Motors

⊙: Standard & Available Option ○: Manufactured Models

Specification Capacity [kW]   P	Indoor Type		Outdoor Type		Corrosion Proof Class 2		Thermal Class				Inverter Motors (Constant Torque)			
	4	6	4	6	4	6	F		H		Indoor Type		Outdoor Type	
0.1	○		○		○	○	⊙		○		○		○	
0.2	○		○		○	○	⊙		○		○		○	
0.25	○		○		○	○	⊙		○					
0.4	○	○	○	○	○	○	⊙	⊙	○	○	○		○	○
0.55	○		○		○	○	⊙		○					
0.75	○	○	○	○	○	○	⊙	⊙	○	○	○		○	○
1.1	○		○		○	○	⊙		○					
1.5	○	○	○	○	○	○	⊙	⊙	○	○	○		○	○
2.2	○	○	○	○	○	○	⊙	⊙	○	○	○		○	○
3.0	○		○		○	○	⊙		○					
3.7	○	○	○	○	○	○	⊙	⊙	○	○	○		○	○
5.5	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
7.5	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
11	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
15	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
18.5	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
22	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
30	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
37	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
45	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
55	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
Remarks	Continuous Rating Applicable Voltage: 4P: 3.7kW and below 220 - 240V 50Hz 220V 60Hz 380 - 420V 50Hz 5.5kW and above 380 - 420V 50Hz 440 - 480V 60Hz 6P: 200V 50/60Hz 220V 60Hz 400V 50/60Hz 440V 60Hz Provided that the base frequency for driving an inverter is 60Hz.													

COMMON

Table A-8 3-Phase Induction Motors with Built-in Brakes ⊙: Standard Thermal Class ○: Manufactured Models

Specification Capacity [kW]   P	Indoor Type		Outdoor Type		Corrosion Proof Class 2		Thermal Class				Inverter Motors (Constant Torque)			
	4	6	4	6	4	6	F		H		Indoor Type		Outdoor Type	
0.1	○		○		○	○	⊙		○		○		○	
0.2	○		○		○	○	⊙		○		○		○	
0.25	○		○		○	○	⊙		○					
0.4	○	○	○	○	○	○	⊙	⊙	○	○	○		○	○
0.55	○		○		○	○	⊙		○					
0.75	○	○	○	○	○	○	⊙	⊙	○	○	○		○	○
1.1	○		○		○	○	⊙		○					
1.5	○	○	○	○	○	○	⊙	⊙	○	○	○		○	○
2.2	○	○	○	○	○	○	⊙	⊙	○	○	○		○	○
3	○		○		○	○	⊙		○					
3.7	○	○	○	○	○	○	⊙	⊙	○	○	○		○	○
5.5	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
7.5	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
11	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
15	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
18.5	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
22	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
30	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
37	○	○	○	○	○	○	⊙	⊙	○	○	○	○	○	○
Remarks	Continuous Rating Applicable Voltage: 4P: 3.7kW and below 220 - 240V 50Hz 220V 60Hz 380 - 420V 50Hz 5.5kW and above 380 - 420V 50Hz 400V 60Hz 6P: 200V 50/60Hz 220V 60Hz 400V 50/60Hz 440V 60Hz Provided that the base frequency for driving an inverter is 60Hz. Brake Thermal Class: F													

Note: 1. Motors with capacities and specifications other than as listed in Tables A-7 ~ A-10 are also manufactured. Consult factory.  
 Examples: Special voltage, dust-proof, humidity proof, tropical treatment, high temperature, ship use, dual shaft (round & square shaft), CSA

Standard, NEMA Standard, etc. For other corresponding Standards, refer to Comparison of Sumitomo Standards with International Standards on Page F52 ~ 56 of Technical Information.

- Indicate outdoor type when placing 6P motor outdoor. Structure differs for indoor and outdoor type although protection type is IP54 or IP55.
- For inverter drive use, consult us with ambient temperature, input speed, mounting method, load characteristics, and other operation conditions. Startup properties, lubrication, thermal rating, and such must be reviewed for selection of proper CYCLO DRIVE frame size for combination.
- For standard electric motor use with inverter, consult us if input voltage is high (400V or more), carrier frequency is high (typical in IGBT), or wiring distance is large. Review of withstand voltage of the motor may be necessary.

# Product Range of Motor

COMMON

Table A-9 Increased Safety (eG3) 3-Phase Induction Motor

⊙: Standard Thermal Class ○: Manufactured Models

Specification Capacity [kW]   P	Indoor Type (IP44)		Outdoor Type (IP44)		Corrosion Proof Class 2		Thermal Class			
	4	6	4	6	4	6	B		F	
0.1	○		○		○		⊙			○
0.2	○		○		○		⊙			○
0.4	○		○		○					⊙
0.75	○		○		○					⊙
1.5	○		○		○					⊙
2.2	○		○		○					⊙
3.7	○		○		○		⊙			○
5.5	○		○		○		⊙			○
7.5	○	○	○	○	○	○	⊙	⊙		○
11	○	○	○	○	○	○	⊙	⊙		○
15	○	○	○	○	○	○	⊙	⊙		
18.5	○	○	○	○	○	○	⊙			⊙
22	○	○	○	○	○	○	⊙			⊙
30	○	○	○	○	○	○	⊙			○
37	○	○	○	○	○	○				⊙
45	○	○	○	○	○	○				⊙
55	○	○	○	○	○	○				⊙
Remarks	Continuous Rating Applicable Voltage: 200V, 220V, 350V, 380V, 400V, 440V, 50/60Hz									

Table A-10 Flame-Proof (d2G4) 3-Phase Motor

⊙: Standard Thermal Class ○: Manufactured Models

Specification Capacity [kW]   P	Indoor Type (IP44)		Outdoor Type (IP44)		Corrosion Proof Class 1, 2		Thermal Class				Inverter Motors (Constant Torque)	
	4	6	4	6	4	6	B		F		Indoor Type	Outdoor Type
0.1	○		○		○		⊙			○		
0.2	○		○		○		⊙			○		○
0.4	○		○		○		⊙			○		○
0.75	○		○		○		⊙			○		○
1.5	○		○		○		⊙			○		○
2.2	○		○		○		⊙			○		○
3.7	○		○		○		⊙			○		○
5.5	○		○		○		⊙			○		○
7.5	○	○	○	○	○	○	⊙	⊙		○		○
11	○	○	○	○	○	○	⊙	⊙		○		○
15	○	○	○	○	○	○	⊙	○	○	○		○
22	○	○	○	○	○	○	⊙	⊙	○	○		○
30	○	○	○	○	○	○	⊙	⊙	○	○		○
37	○	○	○	○	○	○		⊙	⊙	○		○
Remarks	Continuous Rating Applicable Voltage: 200V, 220V, 350V, 380V, 400V, 440V, 50/60Hz 200V 60Hz 220V 60Hz 400V 60Hz 440V 60Hz Applicable inverter: Applicable only to Sumitomo inverters. (Refer to Inverter catalogue.)											

**⚠ Safety Precautions**

1. Authorized combination in Japan for motor and inverter is 1:1 when explosion protection motor is driven with inverter.  
Always operate with the specific indicated inverter. Always locate inverter unit in the area without explosive gas; it does not have explosion protection structure.
2. Consult us when the unit is exposed to the elements or to frequent water splashing.

M E M O

COMMON

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares. The grid is mostly empty, with the word 'MEMO' written in the top-left corner.

M E M O

COMMON

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares.

# B

## CYCLO® GEARMOTORS

---

	Page
1. How to Select	
Standard Specifications	B-3
Model Selection	B-4
Selection of Load Factor	B-7
Nomenclature	B-9
2. Selection Tables	B-13
3. Dimension Tables	B-97

# **B** CYCLO® GEARMOTORS

---

## 1. HOW TO SELECT

# Standard Specifications of Gearmotor

## Motor

Items	Standard Specification		Standard Specification with Built-in Brake	
Capacity Range	0.1 - 55kW × 4P 15 - 55kW × 6P		0.1 - 30kW × 4P FB Brake (Non-Asbestors) 37kW × 4P ESB Brake *For 6P motor with brake, consult us.	
Enclosure	Totally enclosed fan cooled type (0.1kW × 4P totally enclosed non-ventilated)		Totally enclosed fan cooled type (0.1kW × 4P totally enclosed non-ventilated)	
Power Source	0.1 - 3.7kW:	220 - 240V 50Hz 220V 60Hz	0.1 - 3.7kW:	220 - 240V 50Hz 220V 60Hz
	5.5 - 55kW:	380 - 420V 50Hz 440V 60Hz	5.5 - 37kW:	380 - 420V 50Hz 440V 60Hz
Thermal Class	F		F	
Time Rating	Continuous rating		Continuous rating	
Terminal Box Position & Lead Wire Direction	On the left side viewed from the load side. Regarding the draw out hole direction, refer to Table below.		On the left side viewed from the load side. Regarding the draw out hole direction, refer to Table below.	
Lead Wiring	6 Wires	4P 0.1~3.7kW (Direct starting)	6P -	4P 0.1~3.7kW (Direct starting)
		Note: 2 5.5~55kW (λ - Δ starting available)		Note: 2 15~55kW (λ - Δ starting available)
Standards	Conforms to IEC.			

GEARMOTORS

How to  
Select

## Reducer

Items	Specifications	
Model	CYCLO 6000 Series	CYCLO 6000SK Series
Lubrication Method	Grease lubricated and oil lubricated models available	
Speed Reduction Method	Internal planetary gear mechanism with trochoidal curved tooth profile	
Direction of Output Shaft Rotation	Single reduction	Counter-clockwise rotation
	Double reduction	Clockwise rotation
	clockwise rotation *Note that it is different from CYCLO 6000 series single reduction type As observed from the load side when connected to R-U, S-V, T-W motors.	

## Common to Motor and Reducer

Items	Specifications	
Ambient Conditions	Installation location	Indoor or outdoor (Minimal dust and humidity)
	Ambient Temperature	-10°C ~ 40°C
	Ambient Humidity	Under 85%
	Elevation	Lower than 1,000 meters above sea level
	Atmosphere	Well ventilated location, free of corrosive gases, explosive gases, vapors, and dust.
Method of Mounting <sup>Note: 3</sup>	CHHM Type: Slow speed shaft in horizontal direction and with foot CHFM Type: Slow speed shaft in horizontal direction and with flange (not for 6000SK Series) CVVM Type: Slow speed shaft down in vertical direction and with V-flange *Models with "N" for the second nomenclature symbol (such as CNHM Type) may be mounted in any direction.	
Method of Coupling with Driven Machine	Coupling, gears, chain sprocket or belt.	
Painting	Type: Acrylic modified phthalic Color: Equivalent to Munsell 6.5PB 3.6/8.2.	

- Note: 1. Refer to the technical section (Page F-31~57) for motor specification other than standard one.  
2. Consult us when λ - Δ start is necessary for non-standard voltage.  
3. Models for universal mounting (types with N for the second digit of nomenclature) can be manufactured for following frame sizes only. Other frame sizes require indication for mounting direction.

[Frame sizes for universal mounting direction] \*□ of the frame size indicates 0, 5, or H.

606□, 607□, 608□, 609□, 610□, 611□, 612□,

606□DA, 607□DA, 608□DA, 609□DA, 610□DA, 612□DA, 612□DB

## Direction of Withdrawing Lead Wire

Main frame mounting direction	Standard
Horizontal Type (Slow speed shaft in horizontal direction)	
Vertical Type (Slow speed shaft in vertical direction)	

Note: Whenever not specified, the above direction shall be used. When the direction of withdrawal from the terminal box is other than specified above, refer to Page F-34.



# Model Selection

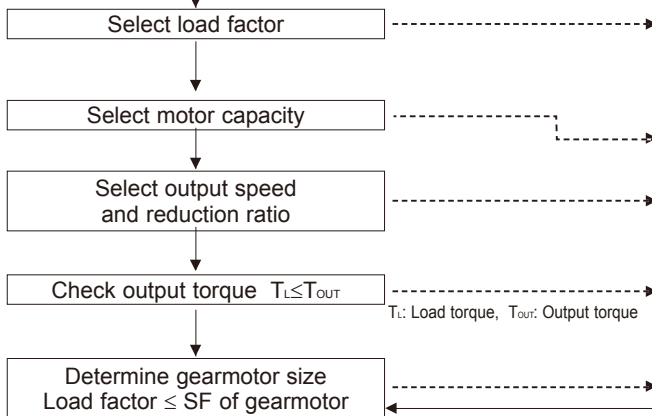
Select models referring to the following flowchart. Consult us if there is any question.  
 Step 1: Determination of Operating Condition

Determine the following condition before starting selection.

- Application
- Continuous operation, or operation with frequent startup and stop
- Motor capacity (kW) and output speed or reduction ratio
- Radial load and axial load
- Operation hours per day
- Level of shock load
- Mounting direction (slow speed shaft direction), mounting shape
- Motor specification (power source frequency, voltage, with or without brake, etc.)
- Other ambient conditions (temperature, humidity, indoor or outdoor, and other environments)

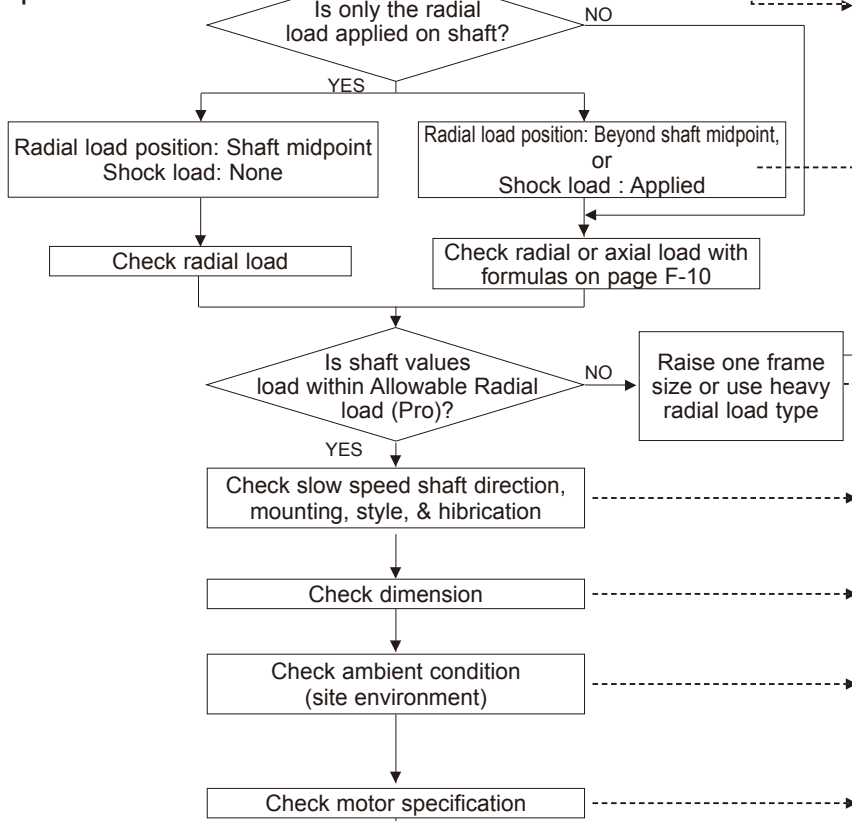
\* Refer to section "D. CYCLO® GEARMOTORS (WITH AF MOTOR FOR INVERTERS)" for gearmotors with inverter motors.

## Step 2: Model Selection

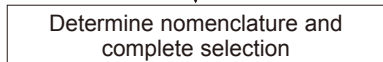


Procedure
- Select appropriate load factor from page B-7~8. Check allowable thermal capacity for motor in page B-9 if startup and stop is repeated during operation.
- Open the page with selection table for your motor capacity, starting from page B-13.
- Select the cell containing close value to your output speed or reduction ratio in the selection table.
- Check whether the output torque is sufficient for your usage. Raise motor capacity by one frame size if the output torque is not sufficient.
- Select combination with service factor (SF), which is larger than the load factor, from the selection table.
- Check whether only the radial load is applied on slow speed shaft. Refer to Technical Data starting at page F-10 and calculate if axial load is also applied.
- Refer to Technical Data starting at page F-10 depending on where the radial load is applied, or if any shock load is applied or not.
- *1 Allowable radial load for slow speed shaft in the selection table is when the load position is at the midpoint of the shaft.
- *2 Calculate radial load including initial tension if they are applied using chain, V-belt, synchronous belt, etc.
- Check whether the calculated radial load does not exceed allowable radial load of the slow speed shaft.
- Check whether the selected combination is sufficient for your slow speed shaft direction, mounting style, and lubrication method.
- Check whether the dimension is adequate. Consult us if it does not match your operation condition.
- Check whether the selected combination is sufficient for your operation condition, such as surrounding environment. Refer to "Standard Specifications of Gearmotor" in page B-3 or section "F. Technical Data" for checking.
- Check whether the selected motor is sufficient for your operation condition (power source, environment, thermal class, etc.).
- Determine nomenclature for selected model referring to "Nomenclature" in page B-10. Now, the selection process is complete.

## Step 3: Check



## Step 4: Nomenclature Determination, Selection Complete



# Model Selection

## Description of Our Selection Table


This is a brief description of our tables on page B-13 and after.

Motor capacity [kW] → **7.5 kW**

Input speed [r/min] (Indicated for each motor frequency and number of poles.)

n: Motor Speed

Hz		50Hz		60Hz	
P	r/min	4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165



CHHM/CNHM

50Hz					60Hz					Nomenclature				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N-m] [kgf-m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N-m] [kgf-m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity Symbol	Frame Size	Reduction Ratio
242	282	28.7	5980	610	1.25	292	233	23.8	5650	576	1.25	10 -	6130	- 6
			5980	610	1.51				5650	576	1.51	10 -	6135	- 6
			9330	951	1.73				8830	901	1.73	10 -	6140	- 6
			9330	951	2.01				8830	901	2.01	10 -	6145	- 6
181	375	38.3	10400	1070	2.71	219	311	31.7	9830	1000	2.71	10 -	6160	- 6
			6650	678	1.25				6290	641	1.25	10 -	6130	- 8
			6650	678	1.51				6290	641	1.51	10 -	6135	- 8
			10300	1050	1.73				9790	998	1.73	10 -	6140	- 8
132	516	52.6	11700	1190	2.63	159	428	43.6	9790	998	2.01	10 -	6145	- 8
			7570	771	1.25				11000	1120	2.63	10 -	6160	- 8
			7570	771	1.51				7150	729	1.25	10 -	6130	- 11
			11600	1180	1.73				7150	729	1.51	10 -	6135	- 11
			11600	1180	2.01				11000	1120	2.01	10 -	6145	- 11
			13200	1350	2.63				12500	1270	2.63	10 -	6160	- 11
			7860	801	1.25				7430	758	1.25	10 -	6130	- 13
			7860	801	1.36				7430	758	1.51	10 -	6135	- 13

Output speed [r/min]      Service factor      Input capacity symbol - Frame size - Reduction ratio

\*Note that "reduction ratio = normal ratio" for models with "SK" at the end of frame size (6000 SK Series with "\*\*3" on the side of reduction ratio). (Indicated reduction ratio is the same as actual reduction ratios for other models.)

GEARMOTORS  
How to Select

# Selection Example

Below is an example selection process following the model selection procedure in page B-4.

<ul style="list-style-type: none"> <li>• Operation condition                             <ul style="list-style-type: none"> <li>- Application: Chain conveyer</li> <li>- Operation hours per day: 24 hours/day</li> <li>- Operation pattern: Continuous operation</li> <li>- Load capacity: 0.7kW</li> <li>- Output speed: 33.7r/min</li> <li>- Connection with application:                                     <ul style="list-style-type: none"> <li>Chain sprocket</li> <li>Initial tension = 0</li> <li>Sprocket pitch circle radius: R=61mm</li> <li>Load position: Midpoint of shaft</li> </ul> </li> <li>- Level of shock load: None</li> <li>- Mounting direction (slow speed shaft direction), and mounting style: horizontal, foot mount</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Motor specification                             <ul style="list-style-type: none"> <li>Electric frequency: 50Hz</li> <li>Voltage: 200V</li> <li>Brake: None</li> <li>Others: Indoor type</li> </ul> </li> <li>- Surrounding condition                             <ul style="list-style-type: none"> <li>Ambient temperature 20°C for indoor use</li> </ul> </li> </ul>
--	--



The model is selected based on above operation conditions in this example.

Operation condition, selection, and calculation results	Reference pages
<ul style="list-style-type: none"> <li>• <b>Select load factor</b> Load condition for chain conveyer application → Uniform load (U) Load factor = 1.2 (U, 24 hours/day operation)</li> </ul>	Page B-7~9 Table B-2: Reducer Load Classification Table B-1: Reducer Load Factor
<ul style="list-style-type: none"> <li>• <b>Select motor capacity</b> Load capacity=0.7kW → Motor capacity=0.75kW</li> </ul>	Page A-7: Product Range of Motor
<ul style="list-style-type: none"> <li>• <b>Select output speed</b> Power source frequency 50Hz, output speed 33.7r/min → 1450/33.7 = Reduction ratio 43</li> </ul>	Page B-38: CYCLO® GEARMOTORS Selection Tables
<ul style="list-style-type: none"> <li>• <b>Check output torque</b> <math>T_L = \frac{9550 \times 0.7(kw)}{1450} \times 43 = 199 \text{ N}\cdot\text{m} \leq 202 \text{ N}\cdot\text{m} \rightarrow \text{OK}</math> T<sub>L</sub>=Load torque</li> </ul>	Page B-38: CYCLO® GEARMOTORS Selection Tables
<ul style="list-style-type: none"> <li>• <b>Determine reducer frame size</b> Load factor = 1.2 ≤ 1.44 Reducer frame size &amp; reduction ratio: 1-6105-43</li> </ul>	Page B-38: CYCLO® GEARMOTORS Selection Tables
<ul style="list-style-type: none"> <li>• <b>Check radial load</b> Pr = TL/R ≤ Pro/Cf Pr = 199(N·m)/0.061(m) = 3262(N) ≤ 5400(N)/1 = 5400(N) → OK</li> </ul>	Page F-10: Allowable Radial and Axial Load
<ul style="list-style-type: none"> <li>• <b>Check slow speed shaft direction, mounting style, lubrication method</b> Slow speed shaft direction: Horizontal, Mounting style: Foot mount → Nomenclature: CNHM (Grease lubrication method)</li> </ul>	Page B-38: CYCLO® GEARMOTORS Selection Tables
<ul style="list-style-type: none"> <li>• <b>Check dimension</b> Check dimension using Dimension Tables.</li> </ul>	Page B-10: Nomenclature
<ul style="list-style-type: none"> <li>• <b>Check surrounding condition</b> Ambient temperature: 20°C → OK</li> </ul>	Page B-101: Dimension Tables
<ul style="list-style-type: none"> <li>• <b>Check motor specification</b> 200V, 50Hz, for indoor use → OK with standard specificationn</li> </ul>	Page B-3: Standard Specifications of Gearmotor
<ul style="list-style-type: none"> <li>■ <b>Determine nomenclature</b> Determine nomenclature: CNHM1-6105-43</li> </ul>	Page A-7: Product Range of Motor
<p>The selection is complete.</p>	Page B-10: Nomenclature

# Selection of Load Factor

The Load Factor is rated for the characteristics of the driven machine.

The tabulated ratings are based on a running time of 10 hours per day with uniform load.

For your reference, please see method (1) and (2) shown below.

## (1) Recommended Load Factor by the Driven Application.

[Load Factor] U: Uniform load M: Moderate shock H: Heavy shock

**Table B-1 Reducer Load Factor**

Daily duty	~3 hours/day			~10 hours/day			~24 hours/day		
	U	M	H	U	M	H	U	M	H
Load Factor	0.80	1.00	1.35	1.00	1.20	1.50	1.20	1.35	1.60

**Table B-2 Recommended Load Classifications**

Type of APPLICATION	Type of LOAD	Type of APPLICATION	Type of LOAD	Type of APPLICATION	Type of LOAD	Type of APPLICATION	Type of LOAD
*Aerator		Elevators		slab conveyor.....	H	suction roll.....	U
Agitators.		bucket - uniform load.....	U	small waste-conveyor-belt.....	U	washers & thickeners.....	M
pure liquids.....	U	bucket - heavy load.....	M	small waste-conveyor-chain.....	M	winders.....	U
liquids & solids.....	M	bucket - cont.....	U	sorting table.....	M	*Printing Presses	
liquids-variable density.....	M	centrifugal discharge.....	U	tipple hoist conveyor.....	M	Pullers	
Blowers		escalators.....	U	tipple hoist drive.....	M	barge haul.....	H
centrifugal.....	U	freight.....	M	transfer conveyors.....	M	Pumps	
lobe.....	M	gravity discharge.....	U	transfer rolls.....	M	centrifugal.....	U
vane.....	U	*man lifts.....	M	tray drive.....	M	proportioning.....	M
Brewing & Distilling		*passenger.....	M	trimmer feed.....	M	reciprocating single acting, 3 or more cylinders.....	M
bottling machinery.....	U	**Extruders (Plastics)		waste conveyor.....	M	double acting, 2 or more cylinders M	
brew kettles, cont. duty.....	U	blow molders.....	M	Machine Tools		*single acting, 1 or 2 cylinders.....	U
cookers-cont. duty.....	U	coating.....	U	bending roll.....	M	*double acting, single cylinder.....	M
mash tubs-cont. duty.....	U	film.....	U	punch press-gear driven.....	H	rotary-gear type.....	U
scale hopper, frequent starts.....	M	pipe.....	U	*notching press-belt driven.....	M	rotary-lobe, vane.....	U
Can Filling Machines.....	U	pre-plasticizers.....	M	plate planers.....	H	Rubber & Plastics Industries	
*Cane Knives.....	M	rods.....	U	tapping machine.....	H	*crackers.....	H
Car Dumpers.....	H	sheet.....	U	other machine tools		laboratory equipment.....	M
Car Pullers.....	M	tubing.....	U	main drives.....	M	*mixing mills.....	H
Clarifiers.....	U	Fans		auxiliary drives.....	U	*refiners.....	M
Classifiers.....	M	centrifugal.....	U	Metal Mills		*rubber calendars.....	M
Clay Working Machinery		*cooling towers.....	U	draw bench carriage & main drive.....	M	*rubber mill (2 on line).....	M
brick press.....	H	induced draft.....	U	forming machines.....	H	*rubber mill (3 on line).....	U
briquette machine.....	H	*forced draft.....	M	*pinch, dryer & scrubber rolls, reversing.....	M	*sheeter.....	M
clay working machinery.....	M	induced draft.....	M	slitters.....	M	*tire building machines.....	U
pug mill.....	M	large (mine, etc.).....	M	table conveyors-non-reversing group drives.....	M	*tire & tube press openers.....	U
Compressors		large (industrial).....	M	individual drives.....	H	*tubers & strainers.....	M
centrifugal.....	U	light (small diameter).....	U	*table conveyors-reversing.....	M	*warming mills.....	M
lobe.....	M	Feeders		wire drawing & flattening machine M		Sand Muller.....	M
reciprocating, multi-cylinder.....	M	apron.....	M	wire winding machine.....	M	Screeners	
reciprocating, single-cylinder.....	H	belt.....	M	Mills, Rotary Type		air washing.....	U
Conveyors-Uniformly Loaded or Fed		disc.....	U	**ball.....	M	rotary-stone or gravel.....	M
apron.....	U	reciprocating.....	H	*cement kilns.....	M	traveling water intake.....	U
assembly.....	U	screw.....	M	**dryers & coolers.....	M	Sewage Disposal Equipment	
belt.....	U	Food industry		kilns.....	M	bar screens.....	U
bucket.....	U	beet slicer.....	M	**pebble.....	M	chemical feeders.....	U
chain.....	U	cereal cooker.....	U	**rod, plain & wedge bar.....	M	collectors, circuline or straightline.....	U
flight.....	U	dough mixer.....	M	tumbling barrels.....	H	dewatering screws.....	M
oven.....	U	meat grinders.....	M	Mixers		grit collectors.....	U
screw.....	U	Generators (not welding).....	U	concrete mixers, cont.....	M	scum breakers.....	M
Conveyors-Heavy Duty Not Uniformly Fed		Hammer mills.....	H	concrete mixers, intermittent.....	M	slow or rapid mixers.....	M
apron.....	M	Hoists		constant density.....	U	sludge collectors.....	U
assembly.....	M	heavy duty.....	H	variable density.....	M	thickeners.....	M
belt.....	M	medium duty.....	M	Oil Industry		vacuum filters.....	M
bucket.....	M	skip hoist.....	M	chillers.....	M	Slab Pushers.....	M
chain.....	M	Laundry Washers		*oil well pumping.....	M	*Steering Gear	
flight.....	M	reversing.....	M	paraffin filter press.....	M	Stokers.....	U
*live roll.....	U	Laundry Tumblers.....	M	rotary kilns.....	M	Sugar Industry	
oven.....	H	Line Shaft		Paper Mills		*cane knives.....	M
reciprocating.....	M	driving processing equipment.....	M	agitators (mixers).....	M	**crushers.....	M
screw.....	M	light.....	U	barker-auxiliaries-hydraulic.....	M	**mills.....	H
shaker.....	M	other line shafts.....	U	barker-mechanical.....	M	Textile Industry	
Cranes (Except for Dry Dock Cranes)		Lumber Industry		barking drum.....	H	batchers.....	M
main hoists.....	H	barkers-hydraulic.....	H	beater & pulper.....	M	calendars.....	M
*bridge travel.....	H	burner conveyor.....	M	bleacher.....	U	cards.....	M
*trolley travel.....	H	chain saw & drag saw.....	H	calendars.....	M	dry cans.....	M
Crusher		chain transfer.....	H	calendars-super.....	H	dryers.....	M
ore.....	H	craneway transfer.....	H	converting machine, except cutters, platers.....	M	dyeing machinery.....	M
stone.....	H	de-barking drum.....	H	conveyors.....	U	*knitting machines.....	U
**sugar.....	M	edger feed.....	M	couch.....	M	looms.....	M
Dredges		gang feed.....	H	cutters-platers.....	H	mangles.....	M
cable reels.....	M	green chain.....	M	cylinders.....	M	nappers.....	M
conveyors.....	M	live rolls.....	H	dryers.....	M	pads.....	M
cutter head drives.....	H	log haul-locline.....	H	Paper Mills		*range drives.....	M
jig drives.....	H	log haul-well type.....	H	felt stretcher.....	M	slashers.....	M
maneuvering winches.....	M	log turning device.....	H	felt whipper.....	H	soapers.....	M
pumps.....	M	main log conveyor.....	H	jordans.....	H	spinners.....	M
screen drive.....	H	off bearing rolls.....	M	log haul.....	H	tenter frames.....	M
stackers.....	M	planer feed chains.....	M	presses.....	U	washers.....	M
utility winches.....	M	planer floor chains.....	M	pulp machine reel.....	M	winders.....	M
*Dry Dock Cranes		planer tilting hoist.....	M	stock chests.....	M	*Windlass	
		re-saw merry-go-round conveyor M					
		roll cases.....	H				

Remarks: \* Refer to factory. \*\* To be selected on basis of 24hr. service only.

Note: Table above contains reference value. Names and mechanical characteristics of the actual machine may differ from the table above.

GEARMOTORS

How to Select

# Selection of Load Factor

## (2) Recommended Load Factor Modifications for Frequent Start-Stop Operation

Please see table B-3 and B-4.

**Table B-3 Number of Starts-Stops and Load Factor**

Number of starts-stops [times/hour]	~3 hours/day			~10 hours/day			~24 hours/day		
	I	II	III	I	II	III	I	II	III
~10	0.80	1.00	1.20	1.00	1.10	1.35	1.20	1.25	1.50
~200	0.85	1.10	1.30	1.10	1.30	1.50	1.25	1.50	1.65
~500	0.90	1.20	1.40	1.15	1.45	1.60	1.30	1.60	1.75

The ratio of Moment of Inertia (The ratio of  $GD^2$ ) =  $\frac{\text{Total Moment of Inertia (GD}^2\text{) as seen from the motor shaft}}{\text{Moment of Inertia (GD}^2\text{) of motor}}$

Load Factor

- 1: Allowable ratio of Moment of Inertia ( $GD^2$ )  $\leq 0.3$
- 2: Allowable ratio of Moment of Inertia ( $GD^2$ )  $\leq 3$
- 3: Allowable ratio of Moment of Inertia ( $GD^2$ )  $\leq 10$

Note: 1. The number of starts-stops includes brake or clutch operation times.  
 2. Consult us when starting under loaded conditions.  
 3. Consult us when start-stop frequency exceeds 500 times/hour. Brake for high frequency use may be necessary.

**Table B-4 MOTOR THERMAL RATING (C × Z)**

Motor Power [kW]	Allowable C × Z				Motor moment of inertia kg·m <sup>2</sup>		Motor GD <sup>2</sup>		kgf·m <sup>2</sup>	
	(35%ED)	(35%ED~50%ED)	(50%ED~80%ED)	(80%ED~100%ED)	Standard	With brake	Standard	With brake	Standard	With brake
0.1	3200	3000	2000	1200	0.00033	0.00035	0.0013	0.0014	0.0013	0.0014
0.2	2200	2800	2800	2500	0.00050	0.00055	0.002	0.0022	0.002	0.0022
0.25	2200	2800	2800	2500	0.00050	0.00055	0.002	0.0022	0.002	0.0022
0.4	1800	2200	1500	1500	0.00065	0.00068	0.0026	0.0027	0.0026	0.0027
0.55	1800	2200	1500	1500	0.00101	0.00111	0.00405	0.00445	0.00405	0.00445
0.75	1400	1400	800	500	0.00120	0.00130	0.0048	0.0052	0.0048	0.0052
1.1	1400	1400	800	500	0.00185	0.00208	0.0074	0.0083	0.0074	0.0083
1.5	1200	1200	500	400	0.00213	0.00235	0.0085	0.0094	0.0085	0.0094
2.2	1000	900	400	200	0.00333	0.00373	0.0133	0.0149	0.0133	0.0149
3.0	1000	900	400	200	0.00700	0.00810	0.0281	0.0325	0.0281	0.0325
3.7	800	800	800	700	0.00848	0.00958	0.0339	0.0383	0.0339	0.0383
5.5	300	300	200	150	0.01143	0.01253	0.0457	0.0501	0.0457	0.0501
7.5	400	350	300	300	0.02675	0.03025	0.1070	0.121	0.1070	0.121
11	200	200	150	150	0.03750	0.04100	0.1500	0.164	0.1500	0.164

C × Z calculated by below steps (1) ~ (3) must be less than allowable C × Z listed in Table B-4.

(1) Calculate C from formula below.

$$[\text{SI units}] \quad C = \frac{J_M + J_L}{J_M}$$

$J_M$ ; Moment of inertia of motor [kg·m<sup>2</sup>]  
 $J_L$ ; Total moment of inertia (excluding motor) at motor shaft [kg·m<sup>2</sup>]

$$[\text{Gravitational units}] \quad C = \frac{GD_M^2 + GD_L^2}{GD_M^2}$$

$GD_M^2$ ;  $GD^2$  of motor [kgf·m<sup>2</sup>]  
 $GD_L^2$ ; Total  $GD^2$  (excluding motor) at motor shaft [kgf·m<sup>2</sup>]

Continues to the next page.

# Selection of Load Factor

(2) Calculate Z (number of startup times/hour).

- (a) Assume that one operating period consists of "on time  $t_a$  [sec]" and "off time  $t_b$  [sec]" and the motor is started  $n_r$  [times/cycle].

$$Z_r = \frac{3600n_r}{t_a + t_b} \text{ [times/hr]}$$

- (b) When inching,  $n_i$  [times/cycle] is included in 1 cycle ( $t_a+t_b$ ), the number of inching times per hour  $Z_i$ , and then included in the number of starts.

$$Z_i = \frac{3600n_i}{t_a + t_b} \text{ [times/hr]}$$

- (c) Calculate Z [times/hr] by (a) and (b).

$$Z = Z_r + \frac{1}{2} Z_i = \frac{3600n_r}{t_a + t_b} \cdot \left( n_r + \frac{1}{2} n_i \right) \text{ [times/hr]}$$

(3) Calculate C multiplied by Z.

Use the C obtained in step (1) and Z in step (2).

(4) Obtain the duty cycle %ED and check with table above.

$$\%ED = \frac{t_a}{t_a + t_b} \times 100$$

# Nomenclature

Slow Speed Shaft Direction	
Horizontal, slow speed shaft level	H
Vertical, slow speed shaft down	V
Vertically, slow speed shaft up	W
Universal mounting	N

Mounting style	
Foot	H
V flange	V
Flange	F

Type of Input	
Gearmotor	M
With adaptor	JM

Special Specifications	
Standard specification	blank
Special specification	S

		Motor Capacity Symbol					
4P	Capacity symbol	01	02	03	05	08	1
	kW (HP)	0.1 (1/8)	0.2 (1/4)	0.25 (1/3)	0.4 (1/2)	0.55 (3/4)	0.75 (1)
	Capacity symbol	1H	2	3	4	5	8
	kW (HP)	1.1 (1.5)	1.5 (2)	2.2 (3)	3.0 (4)	3.7 (5)	5.5 (7.5)
	Capacity symbol	10	15	20	25	30	40
	kW (HP)	7.5 (10)	11 (15)	15 (20)	18.5 (25)	22 (30)	30 (40)
6P	Capacity symbol	50	60	75	100		
	kW (HP)	37 (50)	45 (60)	55 (75)	75 (100)		
	Capacity symbol	016	026	036	056	086	16
	kW (HP)	0.1 (1/8)	0.2 (1/4)	0.25 (1/3)	0.4 (1/2)	0.55 (3/4)	0.75 (1)
	Capacity symbol	1H6	26	36	46	56	86
	kW (HP)	1.1 (1.5)	1.5 (2)	2.2 (3)	3.0 (4)	3.7 (5)	5.5 (7.5)
	Capacity symbol	106	156	206	256	306	406
	kW (HP)	7.5 (10)	11 (15)	15 (20)	18.5 (25)	22 (30)	30 (40)
	Capacity symbol	506	606	756	1006	1256	1506
	kW (HP)	37 (50)	45 (60)	55 (75)	75 (100)	90 (125)	110 (150)
	Capacity symbol	1756					
	kW (HP)	132 (175)					

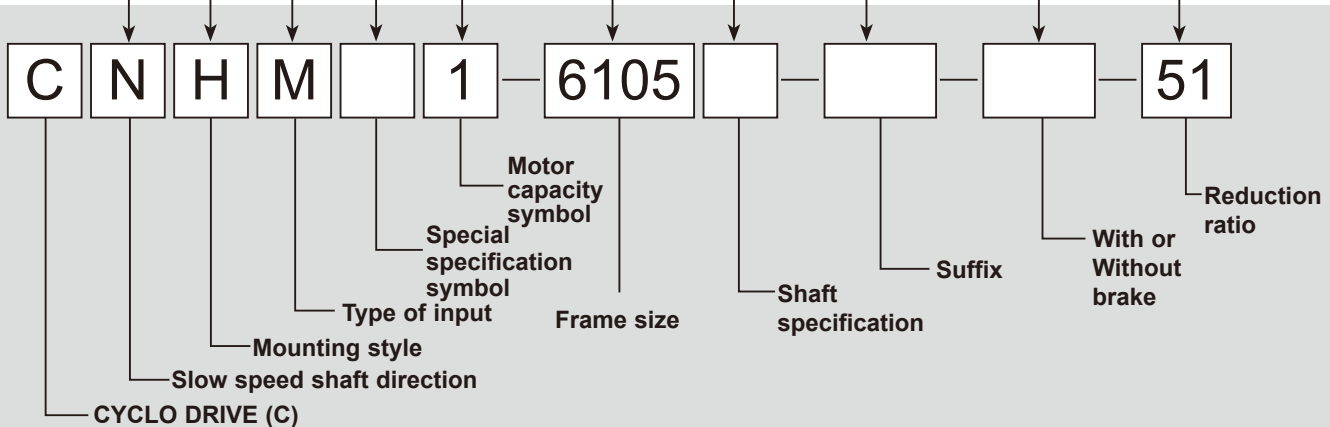
Shaft specification	
Metric JIS (Standard)	-
Inch size	Y
Metric DIN	G

Suffix			
Standard	-	Low Backlash	LB
High Capacity Bearing	R1	With AF (inverter) motor	AV
High Cap. Brg. Ductile Casing	R2	Servo Motor	SV
Baseplate	BP	DC Motor	DV
HH Type Ceiling	H1	High Efficiency Motor	ES
Modification Left Wall	H2	Torque Limiter	TL
Modification Right Wall	H3		

With or Without Brake	
Without brake	-
With brake	B

Frame size  
(Refer to Selection Tables starting from page B-13.)

Nominal ratio



GEARMOTORS  
How to Select

# Nomenclature and Product Examples

## Nomenclature Examples (Gearmotor)

### Example 1.

**CNHM2 - 6115 - 29**

C:	Model	- CYCLO® DRIVE
N:	Slow speed shaft direction	- Universal direction
H:	Mounting style	- Foot
M:	Type of input	- Gearmotor type
2:	Motor capacity	- 1.5kW
6115:	Frame size	- 6115
29:	Reduction ratio	- 29

### Example 2.

**CVVM5 - 6195DA - B - 377**

C:	Model	- CYCLO® DRIVE
V:	Slow speed shaft direction	- Vertical mounting
V:	Mounting style	- V flange
M:	Type of input	- Gearmotor type
5:	Motor capacity	- 3.7kW
6195DA:	Frame size	- 6195DA
B:	Brake	- With brake
377:	Reduction ratio	- 377

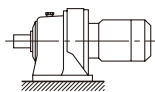
GEARMOTORS  
How to Select

## Product and Nomenclature Symbol Examples (Gearmotor)

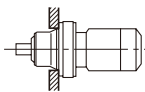
Standard and various application products of CYCLO® GEARMOTOR are classified by their nomenclature symbol as below. Refer to specific catalogs or consult us for details on our application products.

### CYCLO® GEARMOTOR

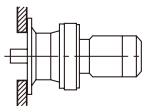
CHHM  
(CNHM)



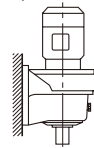
CHFM  
(CNFM)



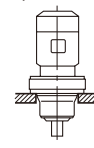
CHVM  
(CNVM)



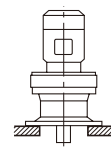
CVHM  
(CNHM)



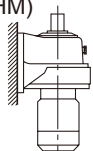
CVFM  
(CNFM)



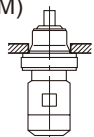
CVVM  
(CNVM)



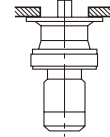
CWHM  
(CNHM)



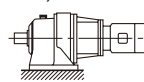
CWFM  
(CNFM)



CVVM  
(CNVM)

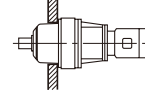


CHHJM  
(CNHJM)



With Adaptor

CHFJM  
(CNFJM)



With Adaptor

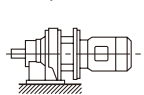
CVVJM  
(CNVJM)



With Adaptor

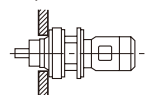
### CYCLO® GEARMOTOR Application Products

CHHXM  
(CNHXM)



Input Side Hollow Shaft

CHFXM  
(CNFXM)



Input Side Hollow Shaft

CVVXM  
(CNVXM)



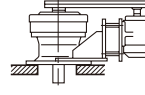
Input Side Hollow Shaft

CHHPM



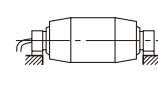
Top Mount Type

CVVPM



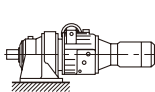
Side Mount Type

CPM



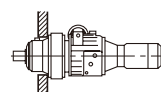
Cyclo Motor Pulley

CHHBM



Beier Cyclo Variator

CHFBM



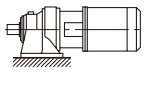
Beier Cyclo Variator

CVVBM



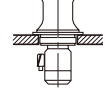
Beier Cyclo Variator

CHHCM



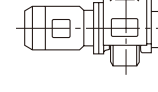
Cyclo Pack with Clutch Brake

C11WM



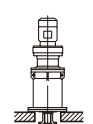
Cyclo Capstan

C10CM



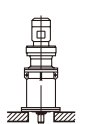
Cyclo Wheel

C14VM

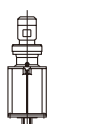


Vertical Special Base Mount

C15VM

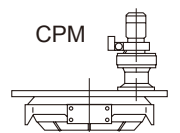
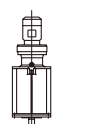


C17VM



Vertical Special Base Mount

C18VM



Center Post Type



M E M O

GEARMOTORS

How to  
Select

# **B** CYCLO® GEARMOTORS

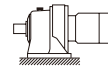
---

## 2. Selection Tables

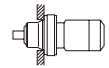
# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>0.1 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



CHHM/CNHM



CHFМ/CNFM

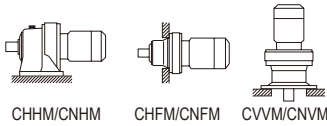


CVVM/CNVVM

50Hz						60Hz						Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVМ
242	3.75	0.383	804	82.0	2.00	292	3.11	0.317	756	77.1	2.00	01 -	6060	- 6	B-100	B-116	B-135
			804	82.0	2.86				756	77.1	2.86	01 -	6065	- 6	B-100	B-116	B-135
181	5.01	0.510	921	94	2.00	219	4.15	0.423	866	88	2.00	01 -	6060	- 8	B-100	B-116	B-135
			921	94	2.86				866	88	2.86	01 -	6065	- 8	B-100	B-116	B-135
132	6.88	0.702	1180	120	2.00	159	5.70	0.581	1180	120	2.00	01 -	6060	- 11	B-100	B-116	B-135
			1180	120	2.86				1180	120	2.86	01 -	6065	- 11	B-100	B-116	B-135
112	8.1	0.83	1180	120	2.00	135	6.7	0.69	1180	120	2.00	01 -	6060	- 13	B-100	B-116	B-135
			1180	120	2.86				1180	120	2.86	01 -	6065	- 13	B-100	B-116	B-135
96.7	9.4	0.96	1180	120	2.00	117	7.8	0.79	1180	120	2.00	01 -	6060	- 15	B-100	B-116	B-135
			1180	120	2.86				1180	120	2.86	01 -	6065	- 15	B-100	B-116	B-135
85.3	10.6	1.08	1180	120	2.00	103	8.8	0.90	1180	120	2.00	01 -	6060	- 17	B-100	B-116	B-135
			1180	120	2.82				1180	120	2.86	01 -	6065	- 17	B-100	B-116	B-135
69.0	13.1	1.34	1180	120	1.83	83.3	10.9	1.11	1180	120	2.00	01 -	6060	- 21	B-100	B-116	B-135
			1180	120	2.28				1180	120	2.34	01 -	6065	- 21	B-100	B-116	B-135
58.0	15.6	1.59	<b>1180</b>	<b>120</b>	<b>1.10</b>	70.0	13.0	1.32	<b>1180</b>	<b>120</b>	<b>1.10</b>	<b>01 -</b>	<b>6060</b>	<b>- 25</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			1180	120	1.66				1180	120	1.66	01 -	6065	- 25	B-100	B-116	B-135
			1770	180	2.30				1770	180	2.30	01 -	6070	- 25	B-100	B-116	B-135
			1770	180	2.94				1770	180	2.94	01 -	6075	- 25	B-100	B-116	B-135
50.0	18.1	1.85	<b>1180</b>	<b>120</b>	<b>1.10</b>	60.3	15.0	1.53	<b>1180</b>	<b>120</b>	<b>1.10</b>	<b>01 -</b>	<b>6060</b>	<b>- 29</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			1180	120	1.65				1180	120	1.66	01 -	6065	- 29	B-100	B-116	B-135
			1770	180	2.26				1770	180	2.26	01 -	6070	- 29	B-100	B-116	B-135
			1770	180	2.86				1770	180	2.86	01 -	6075	- 29	B-100	B-116	B-135
41.4	21.9	2.23	<b>1180</b>	<b>120</b>	<b>1.10</b>	50.0	18.1	1.85	<b>1180</b>	<b>120</b>	<b>1.10</b>	<b>01 -</b>	<b>6060</b>	<b>- 35</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			1180	120	1.37				1180	120	1.43	01 -	6065	- 35	B-100	B-116	B-135
			1770	180	2.05				1770	180	2.11	01 -	6070	- 35	B-100	B-116	B-135
			1770	180	2.72				1770	180	2.79	01 -	6075	- 35	B-100	B-116	B-135
			2560	261	2.90				2560	261	3.29	01 -	6080	- 35	B-100	B-116	B-135
33.7	26.9	2.74	<b>1180</b>	<b>120</b>	<b>1.12</b>	40.7	22.3	2.27	<b>1180</b>	<b>120</b>	<b>1.13</b>	<b>01 -</b>	<b>6065</b>	<b>- 43</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			1770	180	1.67				1770	180	1.70	01 -	6070	- 43	B-100	B-116	B-135
			1770	180	2.23				1770	180	2.26	01 -	6075	- 43	B-100	B-116	B-135
			2560	261	2.50				2560	261	2.50	01 -	6080	- 43	B-100	B-116	B-135
			2560	261	2.94				2560	261	2.94	01 -	6085	- 43	B-100	B-116	B-135
28.4	31.9	3.25	<b>1770</b>	<b>180</b>	<b>1.00</b>	34.3	26.4	2.70	<b>1770</b>	<b>180</b>	<b>1.00</b>	<b>01 -</b>	<b>6070</b>	<b>- 51</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			1770	180	1.43				1770	180	1.43	01 -	6075	- 51	B-100	B-116	B-135
			2560	261	1.92				2560	261	1.92	01 -	6080	- 51	B-100	B-116	B-135
			2560	261	2.41				2560	261	2.41	01 -	6085	- 51	B-100	B-116	B-135
24.6	36.9	3.76	<b>1770</b>	<b>180</b>	<b>1.00</b>	30.0	30.6	3.12	<b>1770</b>	<b>180</b>	<b>1.00</b>	<b>01 -</b>	<b>6070</b>	<b>- 59</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			1770	180	1.36				1770	180	1.36	01 -	6075	- 59	B-100	B-116	B-135
			2560	261	1.85				2560	261	1.85	01 -	6080	- 59	B-100	B-116	B-135
			2560	261	2.34				2560	261	2.34	01 -	6085	- 59	B-100	B-116	B-135
20.4	44.4	4.53	<b>2560</b>	<b>261</b>	<b>1.20</b>	24.6	36.8	3.75	<b>2560</b>	<b>261</b>	<b>1.20</b>	<b>01 -</b>	<b>6080</b>	<b>- 71</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			2560	261	1.65				2560	261	1.87	01 -	6085	- 71	B-100	B-116	B-135
			3340	340	2.52				3340	340	2.52	01 -	6090	- 71	B-100	B-116	B-135
			3340	340	2.78				3340	340	3.01	01 -	6095	- 71	B-100	B-116	B-135
16.7	54.4	5.55	<b>2560</b>	<b>261</b>	<b>1.21</b>	20.0	45.10	4.600	<b>2560</b>	<b>261</b>	<b>1.21</b>	<b>01 -</b>	<b>6085</b>	<b>- 87</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			3340	340	2.11				3340	340	2.11	01 -	6090	- 87	B-100	B-116	B-135
			3340	340	2.63				3340	340	3.01	01 -	6095	- 87	B-100	B-116	B-135
13.9	24.0	2.45	1180	120	*	16.8	24.0	2.45	1180	120	*	01 -	6060DA	- 104	B-108	B-124	B-143
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 -	6065DA	- 104	B-108	B-124	B-143
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 -	6070DA	- 104	B-108	B-124	B-143
			1770	180	0.97				1770	180	1.17	01 -	6075DA	- 104	B-108	B-124	B-143
	61.6	6.28	3340	340	2.43		51.1	5.21	3340	340	2.94	01 -	6090DA	- 104	B-108	B-124	B-143
			3340	340	2.93				3340	340	3.54	01 -	6095DA	- 104	B-108	B-124	B-143

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFМ, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



CHHM/CNHM

CHFM/CNFM

CVVM/CNVVM

n: Motor Speed

0.1 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
															CHHM	CHFM	CVVM
12.2	74.5	7.59	3340	340	1.25	14.7	61.7	6.29	3340	340	1.51	01 - 6090	- 119		B-100	B-116	B-135
			3340	340	1.45				3340	340	1.51	01 - 6095	- 119		B-100	B-116	B-135
12.0	24.0	2.45	1180	120	*	14.5	24.0	2.45	1180	120	*	01 - 6060DA	- 121		B-108	B-124	B-143
	30.0	3.06	1140	116	*		30.0	3.06	1140	116	*	01 - 6065DA	- 121		B-108	B-124	B-143
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 121		B-108	B-124	B-143
	50.8	5.18	1770	180	*		50.8	5.18	1770	180	*	01 - 6075DA	- 121		B-108	B-124	B-143
	71.7	7.31	3340	340	2.09		59.4	6.06	3340	340	2.52	01 - 6090DA	- 121		B-108	B-124	B-143
			3340	340	2.24				3340	340	2.70	01 - 6095DA	- 121		B-108	B-124	B-143
10.1	24.0	2.45	1180	120	*	12.2	24.0	2.45	1180	120	*	01 - 6060DA	- 143		B-108	B-124	B-143
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 143		B-108	B-124	B-143
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 143		B-108	B-124	B-143
	60.0	6.12	1770	180	*		60.0	6.12	1770	180	*	01 - 6075DA	- 143		B-108	B-124	B-143
			3340	340	1.77				3340	340	2.14	01 - 6090DA	- 143		B-108	B-124	B-143
	84.8	8.64	3340	340	2.16		70.2	7.16	3340	340	2.61	01 - 6095DA	- 143		B-108	B-124	B-143
			5400	550	2.95				5400	550	3.56	01 - 6100DA	- 143		B-108	B-124	B-143
8.79	24.0	2.45	1180	120	*	10.6	24.0	2.45	1180	120	*	01 - 6060DA	- 165		B-108	B-124	B-143
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 165		B-108	B-124	B-143
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 165		B-108	B-124	B-143
	60.0	6.12	1770	180	*		60.0	6.12	1770	180	*	01 - 6075DA	- 165		B-108	B-124	B-143
			3340	340	1.53				3340	340	1.85	01 - 6090DA	- 165		B-108	B-124	B-143
	97.8	9.97	3340	340	2.04		81.0	8.26	3340	340	2.47	01 - 6095DA	- 165		B-108	B-124	B-143
			5400	550	2.56				5400	550	3.08	01 - 6100DA	- 165		B-108	B-124	B-143
7.44	24.0	2.45	1180	120	*	8.97	24.0	2.45	1180	120	*	01 - 6060DA	- 195		B-108	B-124	B-143
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 195		B-108	B-124	B-143
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 195		B-108	B-124	B-143
	60.0	6.12	1770	180	*		60.0	6.12	1770	180	*	01 - 6075DA	- 195		B-108	B-124	B-143
			3340	340	1.30				3340	340	1.57	01 - 6090DA	- 195		B-108	B-124	B-143
	116	11.8	3340	340	1.73		95.8	9.76	3340	340	2.09	01 - 6095DA	- 195		B-108	B-124	B-143
			5400	550	2.16				5400	550	2.61	01 - 6100DA	- 195		B-108	B-124	B-143
			5400	550	2.60				5400	550	3.13	01 - 6105DA	- 195		B-108	B-124	B-143
6.28	24.0	2.45	1180	120	*	7.58	24.0	2.45	1180	120	*	01 - 6060DA	- 231		B-108	B-124	B-143
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 231		B-108	B-124	B-143
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 231		B-108	B-124	B-143
	60.0	6.12	1770	180	*		60.0	6.12	1770	180	*	01 - 6075DA	- 231		B-108	B-124	B-143
			3340	340	1.10				3340	340	1.32	01 - 6090DA	- 231		B-108	B-124	B-143
			3340	340	1.46				3340	340	1.76	01 - 6095DA	- 231		B-108	B-124	B-143
	137	14.0	5400	550	1.83		113	11.6	5400	550	2.20	01 - 6100DA	- 231		B-108	B-124	B-143
			5400	550	2.19				5400	550	2.64	01 - 6105DA	- 231		B-108	B-124	B-143
5.31	24.0	2.45	1180	120	*	6.41	24.0	2.45	1180	120	*	01 - 6060DA	- 273		B-108	B-124	B-143
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 273		B-108	B-124	B-143
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 273		B-108	B-124	B-143
	60.0	6.12	1770	180	*		60.0	6.12	1770	180	*	01 - 6075DA	- 273		B-108	B-124	B-143
			3340	340	1.24				3340	340	1.49	01 - 6095DA	- 273		B-108	B-124	B-143
	162	16.5	5400	550	1.54		134	13.7	5400	550	1.86	01 - 6100DA	- 273		B-108	B-124	B-143
			5400	550	1.85				5400	550	2.24	01 - 6105DA	- 273		B-108	B-124	B-143

GEARMOTORS

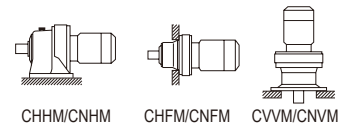
Selection Tables  
0.1 kW

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>0.1 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

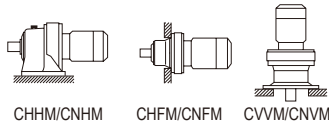


GEARMOTORS  
Selection Tables  
0.1 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
4.55	24.0	2.45	1180	120	*	5.49	24.0	2.45	1180	120	*	01 - 6060DA	- 319	B-108	B-124	B-143
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 319	B-108	B-124	B-143
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 319	B-108	B-124	B-143
	60.0	6.12	1770	180	*		60.0	6.12	1770	180	*	01 - 6075DA	- 319	B-108	B-124	B-143
	150	15.3	3290	336	*		150	15.3	3290	336	*	01 - 6090DA	- 319	B-108	B-124	B-143
			<b>3220</b>	<b>328</b>	<b>1.06</b>				<b>3280</b>	<b>334</b>	<b>1.28</b>	<b>01 - 6095DA</b>	<b>- 319</b>	<b>B-108</b>	<b>B-124</b>	<b>B-143</b>
189	19.3	5400	550	1.32	157	16.0	5400	550	1.60	01 - 6100DA	- 319	B-108	B-124	B-143		
		5400	550	1.59			5400	550	1.91	01 - 6105DA	- 319	B-108	B-124	B-143		
		9810	1000	2.75			9810	1000	3.32	01 - 6120DA	- 319	B-108	B-124	B-143		
3.85	24.0	2.45	1180	120	*	4.64	24.0	2.45	1180	120	*	01 - 6060DA	- 377	B-108	B-124	B-143
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 377	B-108	B-124	B-143
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 377	B-108	B-124	B-143
	60.0	6.12	1770	180	*		60.0	6.12	1770	180	*	01 - 6075DA	- 377	B-108	B-124	B-143
	150	15.3	3290	336	*		150	15.3	3290	336	*	01 - 6090DA	- 377	B-108	B-124	B-143
			3150	321	0.89				3230	329	1.08	01 - 6095DA	- 377	B-108	B-124	B-143
		5400	550	1.12			5400	550	1.35	01 - 6100DA	- 377	B-108	B-124	B-143		
		5400	550	1.34			5400	550	1.62	01 - 6105DA	- 377	B-108	B-124	B-143		
223	22.8	9810	1000	2.33	185	18.9	9810	1000	2.81	01 - 6120DA	- 377	B-108	B-124	B-143		
		9810	1000	2.33			9810	1000	2.81	01 - 6120DB	- 377	B-108	B-124	B-143		
		9810	1000	2.82			9810	1000	3.40	01 - 6125DA	- 377	B-108	B-124	B-143		
3.07	24.0	2.45	1180	120	*	3.70	24.0	2.45	1180	120	*	01 - 6060DA	- 473	B-108	B-124	B-143
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 473	B-108	B-124	B-143
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 473	B-108	B-124	B-143
	60.0	6.12	1660	169	*		60.0	6.12	1660	169	*	01 - 6075DA	- 473	B-108	B-124	B-143
	150	15.3	3310	338	*		150	15.3	3310	338	*	01 - 6090DA	- 473	B-108	B-124	B-143
	200	20.4	3220	328	*		200	20.4	3220	328	*	01 - 6095DA	- 473	B-108	B-124	B-143
		<b>5400</b>	<b>550</b>	<b>1.07</b>			<b>5400</b>	<b>550</b>	<b>1.29</b>	<b>01 - 6105DA</b>	<b>- 473</b>	<b>B-108</b>	<b>B-124</b>	<b>B-143</b>		
280	28.6	9810	1000	1.87	232	23.7	9810	1000	2.26	01 - 6120DA	- 473	B-108	B-124	B-143		
		9810	1000	2.25			9810	1000	2.71	01 - 6125DA	- 473	B-108	B-124	B-143		
2.59	24.0	2.45	1180	120	*	3.13	24.0	2.45	1180	120	*	01 - 6060DA	- 559	B-108	B-124	B-143
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 559	B-108	B-124	B-143
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 559	B-108	B-124	B-143
	60.0	6.12	1660	169	*		60.0	6.12	1660	169	*	01 - 6075DA	- 559	B-108	B-124	B-143
	150	15.3	3310	338	*		150	15.3	3310	338	*	01 - 6090DA	- 559	B-108	B-124	B-143
	200	20.4	3220	328	*		200	20.4	3220	328	*	01 - 6095DA	- 559	B-108	B-124	B-143
		4380	446	0.91			5400	550	1.09	01 - 6105DA	- 559	B-108	B-124	B-143		
331	33.8	9810	1000	1.58	275	28.0	9810	1000	1.91	01 - 6120DA	- 559	B-108	B-124	B-143		
		9810	1000	1.90			9810	1000	2.29	01 - 6125DA	- 559	B-108	B-124	B-143		
2.23	45.0	4.59	1770	180	*	2.70	45.0	4.59	1770	180	*	01 - 6070DA	- 649	B-108	B-124	B-143
	57.4	5.85	1580	161	*		57.4	5.85	1580	161	*	01 - 6075DA	- 649	B-108	B-124	B-143
	146	14.9	3300	336	*		146	14.9	3300	336	*	01 - 6090DA	- 649	B-108	B-124	B-143
	250	25.5	5400	550	*		250	25.5	5400	550	*	01 - 6100DA	- 649	B-108	B-124	B-143
	296	30.2	5090	519	*		296	30.2	5090	519	*	01 - 6105DA	- 649	B-108	B-124	B-143
			9810	1000	1.36				9810	1000	1.65	01 - 6120DA	- 649	B-108	B-124	B-143
385	39.2	9810	1000	1.64	319	32.5	9810	1000	1.98	01 - 6125DA	- 649	B-108	B-124	B-143		
1.98	24.0	2.45	1180	120	*	2.39	24.0	2.45	1180	120	*	01 - 6060DA	- 731	B-108	B-124	B-143
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 731	B-108	B-124	B-143
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 731	B-108	B-124	B-143
	60.0	6.12	1660	169	*		60.0	6.12	1660	169	*	01 - 6075DA	- 731	B-108	B-124	B-143
	150	15.3	3310	338	*		150	15.3	3310	338	*	01 - 6090DA	- 731	B-108	B-124	B-143
	200	20.4	3220	328	*		200	20.4	3220	328	*	01 - 6095DA	- 731	B-108	B-124	B-143
		5400	550	*			5400	550	*	01 - 6100DA	- 731	B-108	B-124	B-143		
250	25.5	5400	550	*	250	25.5	5400	550	*	01 - 6105DA	- 731	B-108	B-124	B-143		
300	30.6	5400	550	*	300	30.6	5400	550	*	01 - 6105DA	- 731	B-108	B-124	B-143		
		9810	1000	1.21			9810	1000	1.46	01 - 6120DA	- 731	B-108	B-124	B-143		
433	44.2	9810	1000	1.45	359	36.6	9810	1000	1.75	01 - 6125DA	- 731	B-108	B-124	B-143		

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



CHHM/CNHM

CHF/CNFM

CVVM/CNVM

0.1 kW

n: Motor Speed

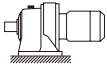
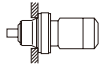
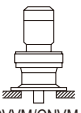
Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

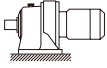
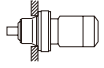
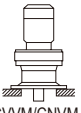
50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>		Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>		Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
[r/min]	[N·m]	[kgf·m]	[N]	[kgf]		[r/min]	[N·m]	[kgf·m]	[N]	[kgf]					CHHM	CHF	CVVM
1.72	24.0	2.45	1180	120	*	2.08	24.0	2.45	1180	120	*	01 - 6060DA	- 841	B-108	B-124	B-143	
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 841	B-108	B-124	B-143	
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 841	B-108	B-124	B-143	
	60.0	6.12	1770	180	*		60.0	6.12	1770	180	*	01 - 6075DA	- 841	B-108	B-124	B-143	
	150	15.3	3290	336	*		150	15.3	3290	336	*	01 - 6090DA	- 841	B-108	B-124	B-143	
	200	20.4	3200	326	*		200	20.4	3200	326	*	01 - 6095DA	- 841	B-108	B-124	B-143	
	250	25.5	5400	550	*		250	25.5	5400	550	*	01 - 6100DA	- 841	B-108	B-124	B-143	
300	30.6	5400	550	*	300	30.6	5400	550	*	01 - 6105DA	- 841	B-108	B-124	B-143			
499	50.8	<b>9810</b>	<b>1000</b>	<b>1.04</b>	413	42.1	<b>9810</b>	<b>1000</b>	<b>1.26</b>	<b>01 - 6120DA - 841</b>	<b>B-108 B-124 B-143</b>						
		9810	1000	1.26			9810	1000	1.53	01 - 6125DA - 841	B-108 B-124 B-143						
1.45	45.0	4.59	1770	180	*	1.74	45.0	4.59	1770	180	*	01 - 6070DA	- 1003	B-108	B-124	B-143	
	57.4	5.85	1580	161	*		57.4	5.85	1580	161	*	01 - 6075DA	- 1003	B-108	B-124	B-143	
	146	14.9	3300	336	*		146	14.9	3300	336	*	01 - 6090DA	- 1003	B-108	B-124	B-143	
	250	25.5	5400	550	*		250	25.5	5400	550	*	01 - 6100DA	- 1003	B-108	B-124	B-143	
	296	30.2	5090	519	*		296	30.2	5090	519	*	01 - 6105DA	- 1003	B-108	B-124	B-143	
<b>595</b>	<b>60.6</b>	<b>9810</b>	<b>1000</b>	<b>1.06</b>	<b>493</b>	<b>50.2</b>	<b>9810</b>	<b>1000</b>	<b>1.28</b>	<b>01 - 6125DA - 1003</b>	<b>B-108 B-124 B-143</b>						
1.16	24.0	2.45	1180	120	*	1.40	24.0	2.45	1180	120	*	01 - 6060DA	- 1247	B-108	B-124	B-143	
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 1247	B-108	B-124	B-143	
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 1247	B-108	B-124	B-143	
	60.0	6.12	1660	169	*		60.0	6.12	1660	169	*	01 - 6075DA	- 1247	B-108	B-124	B-143	
	150	15.3	3310	338	*		150	15.3	3310	338	*	01 - 6090DA	- 1247	B-108	B-124	B-143	
	200	20.4	3220	328	*		200	20.4	3220	328	*	01 - 6095DA	- 1247	B-108	B-124	B-143	
	250	25.5	5400	550	*		250	25.5	5400	550	*	01 - 6100DA	- 1247	B-108	B-124	B-143	
	300	30.6	5400	550	*		300	30.6	5400	550	*	01 - 6105DA	- 1247	B-108	B-124	B-143	
525	53.5	9810	1000	*	525	53.5	9810	1000	*	01 - 6120DA	- 1247	B-108	B-124	B-143			
739	75.3	9810	1000	0.85	612	62.4	9810	1000	1.03	01 - 6125DA - 1247	B-108 B-124 B-143						
0.980	150	15.3	3310	338	*	1.18	150	15.3	3310	338	*	01 - 6090DA	- 1479	B-108	B-124	B-143	
	193	19.6	3240	330	*		193	19.6	3240	330	*	01 - 6095DA	- 1479	B-108	B-124	B-143	
	250	25.5	5400	550	*		250	25.5	5400	550	*	01 - 6100DA	- 1479	B-108	B-124	B-143	
	300	30.6	4780	488	*		300	30.6	4780	488	*	01 - 6105DA	- 1479	B-108	B-124	B-143	
	525	53.5	9780	997	*		525	53.5	9780	997	*	01 - 6120DA	- 1479	B-108	B-124	B-143	
630	64.2	9560	974	*	630	64.2	9560	974	*	01 - 6125DA	- 1479	B-108	B-124	B-143			
0.784	24.0	2.45	1180	120	*	0.946	24.0	2.45	1180	120	*	01 - 6060DA	- 1849	B-108	B-124	B-143	
	30.0	3.06	1180	120	*		30.0	3.06	1180	120	*	01 - 6065DA	- 1849	B-108	B-124	B-143	
	45.0	4.59	1770	180	*		45.0	4.59	1770	180	*	01 - 6070DA	- 1849	B-108	B-124	B-143	
	60.0	6.12	1660	169	*		60.0	6.12	1660	169	*	01 - 6075DA	- 1849	B-108	B-124	B-143	
	150	15.3	3310	338	*		150	15.3	3310	338	*	01 - 6090DA	- 1849	B-108	B-124	B-143	
	200	20.4	3220	328	*		200	20.4	3220	328	*	01 - 6095DA	- 1849	B-108	B-124	B-143	
	250	25.5	5400	550	*		250	25.5	5400	550	*	01 - 6100DA	- 1849	B-108	B-124	B-143	
	300	30.6	5400	550	*		300	30.6	5400	550	*	01 - 6105DA	- 1849	B-108	B-124	B-143	
525	53.5	9810	1000	*	525	53.5	9810	1000	*	01 - 6120DA	- 1849	B-108	B-124	B-143			
630	64.2	9810	1000	*	630	64.2	9810	1000	*	01 - 6125DA	- 1849	B-108	B-124	B-143			
0.702	45.0	4.59	1770	180	*	0.847	45.0	4.59	1770	180	*	01 - 6070DA	- 2065	B-108	B-124	B-143	
	57.4	5.85	1580	161	*		57.4	5.85	1580	161	*	01 - 6075DA	- 2065	B-108	B-124	B-143	
	146	14.9	3300	336	*		146	14.9	3300	336	*	01 - 6090DA	- 2065	B-108	B-124	B-143	
	250	25.5	5400	550	*		250	25.5	5400	550	*	01 - 6100DA	- 2065	B-108	B-124	B-143	
	296	30.2	5090	519	*		296	30.2	5090	519	*	01 - 6105DA	- 2065	B-108	B-124	B-143	
	525	53.5	9810	1000	*		525	53.5	9810	1000	*	01 - 6120DA	- 2065	B-108	B-124	B-143	
630	64.2	9810	1000	*	630	64.2	9810	1000	*	01 - 6125DA	- 2065	B-108	B-124	B-143			
0.572	45.0	4.59	1770	180	*	0.690	45.0	4.59	1770	180	*	01 - 6070DA	- 2537	B-108	B-124	B-143	
	57.4	5.85	1580	161	*		57.4	5.85	1580	161	*	01 - 6075DA	- 2537	B-108	B-124	B-143	
	146	14.9	3300	336	*		146	14.9	3300	336	*	01 - 6090DA	- 2537	B-108	B-124	B-143	
	250	25.5	5400	550	*		250	25.5	5400	550	*	01 - 6100DA	- 2537	B-108	B-124	B-143	
	296	30.2	5090	519	*		296	30.2	5090	519	*	01 - 6105DA	- 2537	B-108	B-124	B-143	
	525	53.5	9810	1000	*		525	53.5	9810	1000	*	01 - 6120DA	- 2537	B-108	B-124	B-143	
630	64.2	9810	1000	*	630	64.2	9810	1000	*	01 - 6125DA	- 2537	B-108	B-124	B-143			

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

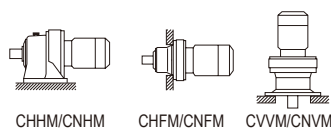
Selection Tables  
0.1 kW, 0.2 kW

0.1 kW		n <sub>1</sub> : Motor Speed								  					
		Hz		50Hz		60Hz									
		P	r/min	4	6	4	6	CHHM/CNHM	CHFM/CNFM	CVVM/CNVVM					
n <sub>2</sub>	r/min	1450	980	1750	1165										
50Hz		60Hz						Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
[r/min]	[N·m] [kgf·m]	[N]	[kgf]	*	[r/min]	[N·m] [kgf·m]	[N]	[kgf]	*				CHHM	CHFM	CVVM
0.476	150	15.3	3310	338	0.575	150	15.3	3310	338	01 - 6090DA	- 3045		B-108	B-124	B-143
	192	19.6	3240	330		192	19.6	3240	330	01 - 6095DA	- 3045		B-108	B-124	B-143
	250	25.5	5400	550		250	25.5	5400	550	01 - 6100DA	- 3045		B-108	B-124	B-143
	300	30.6	4780	488		300	30.6	4780	488	01 - 6105DA	- 3045		B-108	B-124	B-143
	525	53.5	9780	997		525	53.5	9780	997	01 - 6120DA	- 3045		B-108	B-124	B-143
	630	64.2	9560	974		630	64.2	9560	974	01 - 6125DA	- 3045		B-108	B-124	B-143
0.417	146	14.9	3300	336	0.503	146	14.9	3300	336	01 - 6090DA	- 3481		B-108	B-124	B-143
	250	25.5	5400	550		250	25.5	5400	550	01 - 6100DA	- 3481		B-108	B-124	B-143
	296	30.2	5090	519		296	30.2	5090	519	01 - 6105DA	- 3481		B-108	B-124	B-143
	525	53.5	9810	1000		525	53.5	9810	1000	01 - 6120DA	- 3481		B-108	B-124	B-143
	630	64.2	9810	1000		630	64.2	9810	1000	01 - 6125DA	- 3481		B-108	B-124	B-143
	150	15.3	3310	338		0.394	150	15.3	3310	338	01 - 6090DA	- 4437		B-108	B-124
192	19.6	3240	330	192	19.6		3240	330	01 - 6095DA	- 4437		B-108	B-124	B-143	
250	25.5	5400	550	250	25.5		5400	550	01 - 6100DA	- 4437		B-108	B-124	B-143	
300	30.6	4780	488	300	30.6		4780	488	01 - 6105DA	- 4437		B-108	B-124	B-143	
525	53.5	9780	997	525	53.5		9780	997	01 - 6120DA	- 4437		B-108	B-124	B-143	
630	64.2	9560	974	630	64.2		9560	974	01 - 6125DA	- 4437		B-108	B-124	B-143	
0.282	150	15.3	3310	338	0.341	150	15.3	3310	338	01 - 6090DA	- 5133		B-108	B-124	B-143
	192	19.6	3240	330		192	19.6	3240	330	01 - 6095DA	- 5133		B-108	B-124	B-143
	250	25.5	5400	550		250	25.5	5400	550	01 - 6100DA	- 5133		B-108	B-124	B-143
	300	30.6	4780	488		300	30.6	4780	488	01 - 6105DA	- 5133		B-108	B-124	B-143
	525	53.5	9780	997		525	53.5	9780	997	01 - 6120DA	- 5133		B-108	B-124	B-143
	630	64.2	9560	974		630	64.2	9560	974	01 - 6125DA	- 5133		B-108	B-124	B-143
0.235	525	53.5	9780	997	0.283	525	53.5	9780	997	01 - 6120DB	- 6177		B-108	B-124	B-143
	630	64.2	9560	974		630	64.2	9560	974	01 - 6125DB	- 6177		B-108	B-124	B-143
0.192	525	53.5	9780	997	0.231	525	53.5	9780	997	01 - 6120DB	- 7569		B-108	B-124	B-143
	630	64.2	9560	974		630	64.2	9560	974	01 - 6125DB	- 7569		B-108	B-124	B-143

0.2 kW		n <sub>1</sub> : Motor Speed								  							
		Hz		50Hz		60Hz											
		P	r/min	4	6	4	6	CHHM/CNHM	CHFM/CNFM	CVVM/CNVVM							
n <sub>2</sub>	r/min	1450	980	1750	1165												
50Hz		60Hz						Nomenclature			Page of Dimension Sheet						
Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM		
[r/min]	[N·m] [kgf·m]	[N]	[kgf]	*	[r/min]	[N·m] [kgf·m]	[N]	[kgf]	*				CHHM	CHFM	CVVM		
242	7.51	0.765	<b>798</b>	<b>81.4</b>	<b>1.00</b>	292	6.22	0.634	1.00	<b>02 - 6060</b>	- 6		<b>B-100</b>	<b>B-116</b>	<b>B-135</b>		
			798	81.4	1.43					751	76.6	1.43	02 - 6065	- 6	B-100	B-116	B-135
			1390	142	1.74					1310	134	1.74	02 - 6070	- 6	B-100	B-116	B-135
			1390	142	2.04					1310	134	2.04	02 - 6075	- 6	B-100	B-116	B-135
			1930	197	2.96					1820	185	2.96	02 - 6080	- 6	B-100	B-116	B-135
181	10.0	1.02	<b>912</b>	<b>93.0</b>	<b>1.00</b>	219	8.29	0.846	1.00	<b>02 - 6060</b>	- 8		<b>B-100</b>	<b>B-116</b>	<b>B-135</b>		
			912	93	1.43					859	88	1.43	02 - 6065	- 8	B-100	B-116	B-135
			1540	157	1.74					1450	148	1.74	02 - 6070	- 8	B-100	B-116	B-135
			1540	157	2.04					1450	148	2.04	02 - 6075	- 8	B-100	B-116	B-135
			2100	214	2.96					1970	201	2.96	02 - 6080	- 8	B-100	B-116	B-135

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



0.2 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

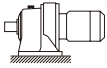
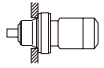

50Hz					60Hz					Nomenclature			Page of Dimension Sheet							
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM					
132	13.8	1.40	1.00		159	11.4	1.16	1.00		02 -	6060	- 11	B-100	B-116	B-135					
			1.43					1.43								6065	- 11	B-100	B-116	B-135
			1.74					1.74								6070	- 11	B-100	B-116	B-135
			2.04					2.04								6075	- 11	B-100	B-116	B-135
			2.96					2.96								6080	- 11	B-100	B-116	B-135
112	16.3	1.66	1.00		135	13.5	1.37	1.00		02 -	6060	- 13	B-100	B-116	B-135					
			1.43					1.43								6065	- 13	B-100	B-116	B-135
			1.74					1.74								6070	- 13	B-100	B-116	B-135
			2.04					2.04								6075	- 13	B-100	B-116	B-135
			2.96					2.96								6080	- 13	B-100	B-116	B-135
96.7	18.8	1.91	1.00		117	15.6	1.59	1.00		02 -	6060	- 15	B-100	B-116	B-135					
			1.43					1.43								6065	- 15	B-100	B-116	B-135
			1.74					1.74								6070	- 15	B-100	B-116	B-135
			2.04					2.04								6075	- 15	B-100	B-116	B-135
			2.96					2.96								6080	- 15	B-100	B-116	B-135
85.3	21.3	2.17	1.00		103	17.6	1.80	1.00		02 -	6060	- 17	B-100	B-116	B-135					
			1.41					1.43								6065	- 17	B-100	B-116	B-135
			1.74					1.74								6070	- 17	B-100	B-116	B-135
			2.04					2.04								6075	- 17	B-100	B-116	B-135
			2.96					2.96								6080	- 17	B-100	B-116	B-135
69.0	26.3	2.68	1.14		83.3	21.8	2.22	1.17		02 -	6065	- 21	B-100	B-116	B-135					
			1.60					1.60								6070	- 21	B-100	B-116	B-135
			2.04					2.04								6075	- 21	B-100	B-116	B-135
			2.39					2.39								6080	- 21	B-100	B-116	B-135
			2.75					2.75								6085	- 21	B-100	B-116	B-135
58.0	31.3	3.19	0.83		70.0	25.9	2.64	0.83		02 -	6065	- 25	B-100	B-116	B-135					
			1.15					1.15								6070	- 25	B-100	B-116	B-135
			1.47					1.47								6075	- 25	B-100	B-116	B-135
			1.70					1.70								6080	- 25	B-100	B-116	B-135
			2.38					2.38								6085	- 25	B-100	B-116	B-135
50.0	36.3	3.70	0.83		60.3	30.1	3.07	0.83		02 -	6065	- 29	B-100	B-116	B-135					
			1.13					1.13								6070	- 29	B-100	B-116	B-135
			1.43					1.43								6075	- 29	B-100	B-116	B-135
			1.70					1.70								6080	- 29	B-100	B-116	B-135
			2.34					2.34								6085	- 29	B-100	B-116	B-135
41.4	43.8	4.46	1.03		50.0	36.3	3.70	1.06		02 -	6070	- 35	B-100	B-116	B-135					
			1.36					1.40								6075	- 35	B-100	B-116	B-135
			1.45					1.65								6080	- 35	B-100	B-116	B-135
			1.64					1.86								6085	- 35	B-100	B-116	B-135
			3.06					3.06								6090	- 35	B-100	B-116	B-135
33.7	53.8	5.49	1.12		40.7	44.6	4.54	1.13		02 -	6075	- 43	B-100	B-116	B-135					
			1.25					1.25								6080	- 43	B-100	B-116	B-135
			1.47					1.47								6085	- 43	B-100	B-116	B-135
			2.18					2.18								6090	- 43	B-100	B-116	B-135
			2.80					2.80								6100	- 51	B-101	B-117	B-136
28.4	63.8	6.51	1.21		34.3	52.9	5.39	1.21		02 -	6085	- 51	B-100	B-116	B-135					
			1.66					1.66								6090	- 51	B-100	B-116	B-135
			2.04					2.11								6095	- 51	B-100	B-116	B-135
			2.80					2.80								6100	- 51	B-101	B-117	B-136
			2.80					2.80								6100	- 59	B-101	B-117	B-136
24.6	73.8	7.53	1.17		29.7	61.2	6.24	1.17		02 -	6085	- 59	B-100	B-116	B-135					
			1.55					1.55								6090	- 59	B-100	B-116	B-135
			1.68					1.87								6095	- 59	B-100	B-116	B-135
			2.58					2.58								6100	- 59	B-101	B-117	B-136
			2.58					2.58								6100	- 59	B-101	B-117	B-136
20.4	88.8	9.06	0.83		24.6	73.6	7.50	0.94		02 -	6085	- 71	B-100	B-116	B-135					
			1.26					1.26								6090	- 71	B-100	B-116	B-135
			1.39					1.51								6095	- 71	B-100	B-116	B-135
			2.18					2.18								6100	- 71	B-101	B-117	B-136
			2.53					2.81								6105	- 71	B-101	B-117	B-136

Selection Tables 0.2 kW GEARMOTORS

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

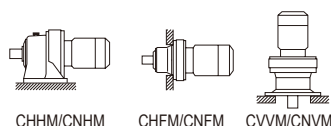


# Selection Tables Gearmotors

0.2 kW		n <sub>1</sub> : Motor Speed								  																	
		Hz		50Hz		60Hz		CHHM/CNHM    CHF/CNFM    CVVM/CNVM																			
		P	r/min	4	6	4	6																				
n <sub>2</sub>	r/min	1450	980	1750	1165																						
50Hz		60Hz						Nomenclature			Page of Dimension Sheet																
Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM												
[r/min]	[N·m] [kgf·m]	[N]	[kgf]		[r/min]	[N·m] [kgf·m]	[N]	[kgf]					CHHM	CHF	CVVM												
16.7	109	11.1	<b>3340</b>	<b>340</b>	<b>1.06</b>	20.1	90.2	9.20	1.51	02 -	6090	- 87	B-100	B-116	B-135												
			3340	340	1.32											6095	- 87	B-100	B-116	B-135							
			5400	550	2.17											6100	- 87	B-101	B-117	B-136							
			5400	550	2.52											6105	- 87	B-101	B-117	B-136							
13.9	123	12.6	60.0	6.12	1770	180	*	16.8	102	10.4	1.47	02 -	6075DA	- 104	B-108	B-124	B-143										
			3340	340	1.22	6090DA	- 104											B-108	B-124	B-143							
			3340	340	1.47	6095DA	- 104											B-108	B-124	B-143							
			5400	550	2.03	6100DA	- 104											B-108	B-124	B-143							
5400	550	2.03	6105DA	- 104	B-108	B-124	B-143																				
12.2	149.0	15.2	<b>5400</b>	<b>550</b>	<b>1.05</b>	14.7	123	12.6	1.43	02 -	6100	- 119	B-101	B-117	B-136												
			5400	550	1.43											6105	- 119	B-101	B-117	B-136							
12.0	143	14.6	<b>3340</b>	<b>340</b>	<b>1.05</b>	14.5	119	12.1	1.26	02 -	6090DA	- 121	B-108	B-124	B-143												
			3340	340	1.12											6095DA	- 121	B-108	B-124	B-143							
			5400	550	1.74											6100DA	- 121	B-108	B-124	B-143							
			5400	550	2.03											6105DA	- 121	B-108	B-124	B-143							
9810	1000	2.03	6120DA	- 121	B-108	B-124	B-143																				
10.1	170	17.3	<b>3340</b>	<b>340</b>	<b>1.08</b>	12.2	140	14.3	1.30	02 -	6095DA	- 143	B-108	B-124	B-143												
			5400	550	1.47											6100DA	- 143	B-108	B-124	B-143							
			5400	550	1.77											6105DA	- 143	B-108	B-124	B-143							
			9810	1000	2.15											6120DA	- 143	B-108	B-124	B-143							
8.79	196	19.9	150	15.3	3340	340	*	10.6	162	16.5	1.23	02 -	6090DA	- 165	B-108	B-124	B-143										
			<b>3340</b>	<b>340</b>	<b>1.02</b>	5400	550											1.54	6100DA	- 165	B-108	B-124	B-143				
			5400	550	1.28	5400	550											1.85	6105DA	- 165	B-108	B-124	B-143				
			9810	1000	2.15	9810	1000											2.15	6120DA	- 165	B-108	B-124	B-143				
9810	1000	2.68	9810	1000	3.24	6120DB	- 165	B-108	B-124	B-143																	
7.44	231	23.6	150	15.3	3340	340	*	8.97	192	19.5	1.04	02 -	6090DA	- 195	B-108	B-124	B-143										
			3340	340	0.87	3340	340											1.04	6095DA	- 195	B-108	B-124	B-143				
			5400	550	1.08	5400	550											1.31	6100DA	- 195	B-108	B-124	B-143				
			5400	550	1.30	5400	550											1.57	6105DA	- 195	B-108	B-124	B-143				
			9810	1000	2.15	9810	1000											2.15	6120DA	- 195	B-108	B-124	B-143				
			9810	1000	2.27	9810	1000											2.74	6120DB	- 195	B-108	B-124	B-143				
9810	1000	2.73	9810	1000	3.29	6125DB	- 195	B-108	B-124	B-143																	
6.28	274	27.9	150	15.3	3340	340	*	7.58	227	23.1	1.32	02 -	6090DA	- 231	B-108	B-124	B-143										
			200	20.4	3340	340	*											200	20.4	3340	340	*	6095DA	- 231	B-108	B-124	B-143
			5400	550	1.10	5400	550											1.32	6105DA	- 231	B-108	B-124	B-143				
			9810	1000	1.91	9810	1000											2.15	6120DA	- 231	B-108	B-124	B-143				
			9810	1000	1.91	9810	1000											2.30	6120DB	- 231	B-108	B-124	B-143				
			9810	1000	2.15	9810	1000											2.15	6125DA	- 231	B-108	B-124	B-143				
9810	1000	2.30	9810	1000	2.78	6125DB	- 231	B-108	B-124	B-143																	
14700	1500	2.85	14700	1500	3.44	6130DB	- 231	B-109	B-125	B-143																	
5.31	324	33.0	150	15.3	3340	340	*	6.41	268	27.3	1.12	02 -	6090DA	- 273	B-108	B-124	B-143										
			200	20.4	3340	340	*											200	20.4	3340	340	*	6095DA	- 273	B-108	B-124	B-143
			250	25.5	5400	550	*											250	25.5	5400	550	*	6100DA	- 273	B-108	B-124	B-143
			5400	550	0.93	5400	550											1.12	6105DA	- 273	B-108	B-124	B-143				
			9810	1000	1.61	9810	1000											1.95	6120DA	- 273	B-108	B-124	B-143				
			9810	1000	1.95	9810	1000											2.15	6125DA	- 273	B-108	B-124	B-143				
			9810	1000	1.95	9810	1000											2.35	6125DB	- 273	B-108	B-124	B-143				
			14700	1500	2.15	14700	1500											2.15	6130DA	- 273	B-109	B-125	B-144				
14700	1500	2.41	14700	1500	2.91	6130DB	- 273	B-109	B-125	B-143																	
14700	1500	2.90	14700	1500	3.51	6135DB	- 273	B-109	B-125	B-144																	

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHF, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



CHHM/CNHM

CHFM/CNFM

CVVM/CNVM

n: Motor Speed

0.2 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

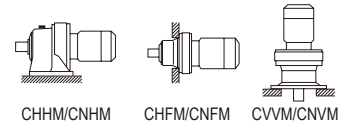
50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
4.55	200	20.4	3200	326	*	4.55	200	20.4	3200	326	*	02 - 6095DA - 319	B-108	B-124	B-143	
	250	25.5	5400	550	*		250	25.5	5400	550	*	02 - 6100DA - 319	B-108	B-124	B-143	
	300	30.6	5400	550	*		300	30.6	5400	550	*	02 - 6105DA - 319	B-108	B-124	B-143	
	378	38.6	9810	1000	1.38		378	313	31.9	9810	1000	1.66	02 - 6120DA - 319	B-108	B-124	B-143
			9810	1000	1.67					02 - 6125DA - 319	B-108	B-124	B-143			
			14700	1500	2.03					02 - 6130DA - 319	B-109	B-125	B-144			
			14700	1500	2.06					02 - 6130DB - 319	B-109	B-125	B-144			
	14700	1500	2.03	02 - 6135DA - 319	B-109		B-125	B-144								
	14700	1500	2.49	02 - 6135DB - 319	B-109		B-125	B-144								
	3.85	200	20.4	3200	326		*	3.85	200	20.4	3200	326	*	02 - 6095DA - 377	B-108	B-124
250		25.5	5400	550	*	250	25.5		5400	550	*	02 - 6100DA - 377	B-108	B-124	B-143	
300		30.6	5400	550	*	300	30.6		5400	550	*	02 - 6105DA - 377	B-108	B-124	B-143	
447		45.6	9810	1000	1.16	447	370		37.7	9810	1000	1.40	02 - 6120DA - 377	B-108	B-124	B-143
			9810	1000	1.41					02 - 6125DA - 377	B-108	B-124	B-143			
			14700	1500	1.75					02 - 6130DA - 377	B-109	B-125	B-144			
			14700	1500	2.03					02 - 6135DA - 377	B-109	B-125	B-144			
14700		1500	2.10	02 - 6135DB - 377	B-109	B-125	B-144									
16000		1630	2.03	02 - 6140DA - 377	B-109	B-125	B-144									
16000		1630	2.74	02 - 6140DB - 377	B-109	B-125	B-144									
3.07	250	25.5	5400	550	*	3.07	250	25.5	5400	550	*	02 - 6100DA - 473	B-108	B-124	B-143	
	300	30.6	5400	550	*		300	30.6	5400	550	*	02 - 6105DA - 473	B-108	B-124	B-143	
	561	57.2	9810	1000	1.12		561	465	47.4	9810	1000	1.36	02 - 6125DA - 473	B-108	B-124	B-143
			14700	1500	1.39					02 - 6130DA - 473	B-109	B-125	B-144			
			14700	1500	1.68					02 - 6135DA - 473	B-109	B-125	B-144			
			16000	1630	2.03					02 - 6140DA - 473	B-109	B-125	B-144			
	16000	1630	2.18	02 - 6140DB - 473	B-109		B-125	B-144								
	16000	1630	2.44	02 - 6145DB - 473	B-109		B-125	B-144								
2.59	300	30.6	5400	550	*	2.59	300	30.6	5400	550	*	02 - 6105DA - 559	B-108	B-124	B-143	
	525	53.5	9810	1000	*		525	53.5	9810	1000	*	02 - 6120DA - 559	B-108	B-124	B-143	
	663	67.6	9810	1000	0.95		663	549	56.0	9810	1000	1.15	02 - 6125DA - 559	B-108	B-124	B-143
			14700	1500	1.18					02 - 6130DA - 559	B-109	B-125	B-144			
			14700	1500	1.42					02 - 6135DA - 559	B-109	B-125	B-144			
			16000	1630	1.85					02 - 6140DA - 559	B-109	B-125	B-144			
	16000	1630	1.85	02 - 6140DB - 559	B-109		B-125	B-144								
	16000	1630	2.03	02 - 6145DA - 559	B-109		B-125	B-144								
	16000	1630	2.07	02 - 6145DB - 559	B-109		B-125	B-144								
	2.23	525	53.5	9810	1000		*	2.23	525	53.5	9810	1000	*	02 - 6120DA - 649	B-108	B-124
630		64.2	9810	1000	*	630	64.2		9810	1000	*	02 - 6125DA - 649	B-108	B-124	B-143	
769		78.4	9810	1000	0.82	769	638		65.0	9810	1000	0.98	02 - 6125DA - 649	B-108	B-124	B-143
			14700	1500	1.19					02 - 6130DA - 649	B-109	B-125	B-144			
			14700	1500	1.36					02 - 6135DA - 649	B-109	B-125	B-144			
			16000	1630	1.59					02 - 6140DA - 649	B-109	B-125	B-144			
16000		1630	1.78	02 - 6145DA - 649	B-109	B-125	B-144									
1.98		525	53.5	9810	1000	*	1.98		525	53.5	9810	1000	*	02 - 6120DA - 731	B-108	B-124
	630	64.2	9810	1000	*	630		64.2	9810	1000	*	02 - 6125DA - 731	B-108	B-124	B-143	
	867	88.3	14700	1500	1.08	867		718	73.2	14700	1500	1.31	02 - 6135DA - 731	B-109	B-125	B-144
			16000	1630	1.41					02 - 6140DA - 731	B-109	B-125	B-144			
			16000	1630	1.58					02 - 6145DA - 731	B-109	B-125	B-144			
1.72	520	53.0	9810	1000	*	1.72	520	53.0	9810	1000	*	02 - 6120DA - 841	B-108	B-124	B-143	
	630	64.2	9810	1000	*		630	64.2	9810	1000	*	02 - 6125DA - 841	B-108	B-124	B-143	
	780	79.5	14700	1500	*		780	79.5	14700	1500	*	02 - 6130DA - 841	B-109	B-125	B-144	
	997	102	14700	1500	0.94		997	826	84.2	14700	1500	1.14	02 - 6135DA - 841	B-109	B-125	B-144
			16000	1630	1.23					02 - 6140DA - 841	B-109	B-125	B-144			
16000	1630	1.37	02 - 6145DA - 841	B-109	B-125	B-144										

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

0.2 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



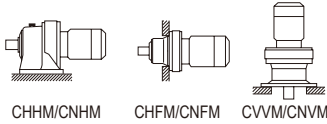
GEARMOTORS

Selection Tables  
0.2 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM CHHM	CNFM CHFM	CNVM CVVM	
1.45	525	53.5	9810	1000	1.74	525	53.5	9810	1000	02 - 6120DA	- 1003		B-108	B-124	B-143	
	630	64.2	9810	1000		630	64.2	9810	1000	02 - 6125DA	- 1003		B-108	B-124	B-143	
	912	93.0	14700	1500		912	93.0	14700	1500	02 - 6130DA	- 1003		B-109	B-125	B-144	
			14700	1500				14700	1500	1.07	02 - 6135DA	- 1003		B-109	B-125	B-144
	1190	121	<b>16000</b>	<b>1630</b>		<b>1.03</b>	985	100	<b>16000</b>	<b>1630</b>	<b>1.24</b>	<b>02 - 6140DA</b>	<b>- 1003</b>	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>
		16000	1630	1.15			16000	1630	1.39	02 - 6145DA	- 1003		B-109	B-125	B-144	
1.16	630	64.2	9810	1000	1.40	630	64.2	9810	1000	02 - 6125DA	- 1247		B-108	B-124	B-143	
	780	79.5	14700	1500		780	79.5	14700	1500	*	02 - 6130DA	- 1247		B-109	B-125	B-144
	940	95.8	14700	1500		940	95.8	14700	1500	*	02 - 6135DA	- 1247		B-109	B-125	B-144
	1230	125	16000	1630		1230	125	16000	1630	*	02 - 6140DA	- 1247		B-109	B-125	B-144
	1480	151	15200	1540		0.93	1220	125	16000	1630	1.12	02 - 6145DA	- 1247		B-109	B-125
0.980	848	86.5	14700	1500	1.18	848	86.5	14700	1500	*	02 - 6130DA	- 1479	B-109	B-125	B-144	
	979	99.8	14700	1500		979	99.8	14700	1500	*	02 - 6135DA	- 1479		B-109	B-125	B-144
	1230	125	16000	1630		1230	125	16000	1630	*	02 - 6140DA	- 1479		B-109	B-125	B-144
	1250	127	16000	1630		1250	127	16000	1630	*	02 - 6145DA	- 1479		B-109	B-125	B-144
	780	79.5	14700	1500		*	780	79.5	14700	1500	*	02 - 6130DA	- 1849		B-109	B-125
0.784	940	95.8	14700	1500	*	940	95.8	14700	1500	*	02 - 6135DA	- 1849		B-109	B-125	B-144
	1230	125	16000	1630	*	1230	125	16000	1630	*	02 - 6140DA	- 1849		B-109	B-125	B-144
	1370	140	15700	1600	*	1370	140	15700	1600	*	02 - 6145DA	- 1849		B-109	B-125	B-144
	1740	177	22100	2250	*	1740	177	22100	2250	*	02 - 6160DA	- 1849		B-110	B-126	B-145
	912	93.0	14700	1500	*	912	93.0	14700	1500	*	02 - 6130DA	- 2065		B-109	B-125	B-144
0.702	1050	107	14700	1500	*	1050	107	14700	1500	*	02 - 6135DA	- 2065		B-109	B-125	B-144
	1230	125	16000	1630	*	1230	125	16000	1630	*	02 - 6140DA	- 2065		B-109	B-125	B-144
	1370	140	16000	1630	*	1370	140	16000	1630	*	02 - 6145DA	- 2065		B-109	B-125	B-144
	1760	179	22100	2250	*	1760	179	22100	2250	*	02 - 6160DA	- 2065		B-110	B-126	B-145
	2450	250	22100	2250	0.86	2030	207	22100	2250	1.04	02 - 6165DA	- 2065		B-110	B-126	B-145
0.572	912	93.0	14700	1500	*	912	93.0	14700	1500	*	02 - 6130DA	- 2537		B-109	B-125	B-144
	1050	107	14700	1500	*	1050	107	14700	1500	*	02 - 6135DA	- 2537		B-109	B-125	B-144
	1230	125	16000	1630	*	1230	125	16000	1630	*	02 - 6140DA	- 2537		B-109	B-125	B-144
	1370	140	16000	1630	*	1370	140	16000	1630	*	02 - 6145DA	- 2537		B-109	B-125	B-144
	1760	179	22100	2250	*	1760	179	22100	2250	*	02 - 6160DA	- 2537		B-110	B-126	B-145
0.476	2100	214	22100	2250	*	2100	214	22100	2250	*	02 - 6165DA	- 2537		B-110	B-126	B-145
	848	86.5	14700	1500	*	848	86.5	14700	1500	*	02 - 6130DA	- 3045		B-109	B-125	B-144
	979	99.8	14700	1500	*	979	99.8	14700	1500	*	02 - 6135DA	- 3045		B-109	B-125	B-144
	1230	125	16000	1630	*	1230	125	16000	1630	*	02 - 6140DA	- 3045		B-109	B-125	B-144
	1250	127	16000	1630	*	1250	127	16000	1630	*	02 - 6145DA	- 3045		B-109	B-125	B-144
0.417	1760	179	22100	2250	*	1760	179	22100	2250	*	02 - 6160DA	- 3045		B-110	B-126	B-145
	2050	209	21800	2220	*	2050	209	21800	2220	*	02 - 6165DA	- 3045		B-110	B-126	B-145
	2530	258	29500	3010	*	2530	258	29500	3010	*	02 - 6170DA	- 3045		B-110	B-126	B-145
	3610	368	29500	3010	0.87	2990	305	29500	3010	1.05	02 - 6175DA	- 3045		B-110	B-126	B-145
	912	93.0	14700	1500	*	912	93.0	14700	1500	*	02 - 6130DA	- 3481		B-109	B-125	B-144
0.503	1050	107	14700	1500	*	1050	107	14700	1500	*	02 - 6135DA	- 3481		B-109	B-125	B-144
	1230	125	16000	1630	*	1230	125	16000	1630	*	02 - 6140DA	- 3481		B-109	B-125	B-144
	1370	140	16000	1630	*	1370	140	16000	1630	*	02 - 6145DA	- 3481		B-109	B-125	B-144
	1760	179	22100	2250	*	1760	179	22100	2250	*	02 - 6160DA	- 3481		B-110	B-126	B-145
	2100	214	22100	2250	*	2100	214	22100	2250	*	02 - 6165DA	- 3481		B-110	B-126	B-145
2530	258	29500	3010	*	2530	258	29500	3010	*	02 - 6170DA	- 3481		B-110	B-126	B-145	
3150	321	29500	3010	*	3150	321	29500	3010	*	02 - 6175DA	- 3481		B-110	B-126	B-145	

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



0.2 kW	n: Motor Speed	
	Hz	50Hz      60Hz
	P	4      6      4      6
n <sub>1</sub>	r/min	1450    980    1750    1165

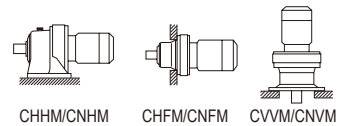
50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
0.327	848	86.5	14700	1500	*	0.394	848	86.5	14700	1500	*	02 - 6130DA	- 4437	B-109	B-125	B-144	
	979	99.8	14700	1500	*		979	99.8	14700	1500	*	02 - 6135DA	- 4437	B-109	B-125	B-144	
	1230	125	16000	1630	*		1230	125	16000	1630	*	02 - 6140DA	- 4437	B-109	B-125	B-144	
	1250	127	16000	1630	*		1250	127	16000	1630	*	02 - 6145DA	- 4437	B-109	B-125	B-144	
	1760	179	22100	2250	*		1760	179	22100	2250	*	02 - 6160DA	- 4437	B-110	B-126	B-145	
	2050	209	21800	2220	*		2050	209	21800	2220	*	02 - 6165DA	- 4437	B-110	B-126	B-145	
	2530	258	29500	3010	*		2530	258	29500	3010	*	02 - 6170DA	- 4437	B-110	B-126	B-145	
3150	321	29500	3010	*	3150	321	29500	3010	*	02 - 6175DA	- 4437	B-110	B-126	B-145			
0.282	848	86.5	14700	1500	*	0.341	848	86.5	14700	1500	*	02 - 6130DA	- 5133	B-109	B-125	B-144	
	979	99.8	14700	1500	*		979	99.8	14700	1500	*	02 - 6135DA	- 5133	B-109	B-125	B-144	
	1230	125	16000	1630	*		1230	125	16000	1630	*	02 - 6140DA	- 5133	B-109	B-125	B-144	
	1250	127	16000	1630	*		1250	127	16000	1630	*	02 - 6145DA	- 5133	B-109	B-125	B-144	
	1760	179	22100	2250	*		1760	179	22100	2250	*	02 - 6160DA	- 5133	B-110	B-126	B-145	
	2050	209	21800	2220	*		2050	209	21800	2220	*	02 - 6165DA	- 5133	B-110	B-126	B-145	
	2530	258	29500	3010	*		2530	258	29500	3010	*	02 - 6170DA	- 5133	B-110	B-126	B-145	
3150	321	29500	3010	*	3150	321	29500	3010	*	02 - 6175DA	- 5133	B-110	B-126	B-145			
0.235	848	86.5	14700	1500	*	0.283	848	86.5	14700	1500	*	02 - 6130DB	- 6177	B-109	B-125	B-143	
	979	99.8	14700	1500	*		979	99.8	14700	1500	*	02 - 6135DB	- 6177	B-109	B-125	B-144	
	1230	125	16000	1630	*		1230	125	16000	1630	*	02 - 6140DB	- 6177	B-109	B-125	B-144	
	1250	127	16000	1630	*		1250	127	16000	1630	*	02 - 6145DB	- 6177	B-109	B-125	B-144	
	1760	179	22100	2250	*		1760	179	22100	2250	*	02 - 6160DA	- 6177	B-110	B-126	B-145	
	2050	209	21800	2220	*		2050	209	21800	2220	*	02 - 6165DA	- 6177	B-110	B-126	B-145	
	2530	258	29500	3010	*		2530	258	29500	3010	*	02 - 6170DA	- 6177	B-110	B-126	B-145	
3150	321	29500	3010	*	3150	321	29500	3010	*	02 - 6175DA	- 6177	B-110	B-126	B-145			
0.192	848	86.5	14700	1500	*	0.231	848	86.5	14700	1500	*	02 - 6130DB	- 7569	B-109	B-125	B-143	
	979	99.8	14700	1500	*		979	99.8	14700	1500	*	02 - 6135DB	- 7569	B-109	B-125	B-144	
	1230	125	16000	1630	*		1230	125	16000	1630	*	02 - 6140DB	- 7569	B-109	B-125	B-144	
	1250	127	16000	1630	*		1250	127	16000	1630	*	02 - 6145DB	- 7569	B-109	B-125	B-144	
	1760	179	22100	2250	*		1760	179	22100	2250	*	02 - 6160DA	- 7569	B-110	B-126	B-145	
	2050	209	21800	2220	*		2050	209	21800	2220	*	02 - 6165DA	- 7569	B-110	B-126	B-145	
	2530	258	29500	3010	*		2530	258	29500	3010	*	02 - 6170DA	- 7569	B-110	B-126	B-145	
3150	321	29500	3010	*	3150	321	29500	3010	*	02 - 6175DA	- 7569	B-110	B-126	B-145			

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

0.25 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

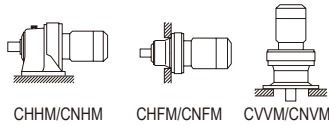


GEARMOTORS  
Selection Tables  
0.25 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet					
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM			
242	9.39	0.957	1.14	795	292	7.78	0.793	1.14	749	03 -	6065	- 6	B-100	B-116	B-135			
				1390					1310				03 -	6070	- 6	B-100	B-116	B-135
				1390					1310				03 -	6075	- 6	B-100	B-116	B-135
181	12.5	1.28	1.14	908	219	10.4	1.06	1.14	855	03 -	6065	- 8	B-100	B-116	B-135			
				1530					1450				03 -	6070	- 8	B-100	B-116	B-135
				1530					1450				03 -	6075	- 8	B-100	B-116	B-135
132	17.2	1.75	1.14	1180	159	14.3	1.45	1.14	1160	03 -	6065	- 11	B-100	B-116	B-135			
				1720					1620				03 -	6070	- 11	B-100	B-116	B-135
				1720					1620				03 -	6075	- 11	B-100	B-116	B-135
112	20.3	2.07	1.14	1180	135	16.8	1.72	1.14	120	03 -	6065	- 13	B-100	B-116	B-135			
				1770					1710				03 -	6070	- 13	B-100	B-116	B-135
				1770					1710				03 -	6075	- 13	B-100	B-116	B-135
96.7	23.5	2.39	1.14	1180	117	19.4	1.98	1.14	120	03 -	6065	- 15	B-100	B-116	B-135			
				1770					1720				03 -	6070	- 15	B-100	B-116	B-135
				1770					1720				03 -	6075	- 15	B-100	B-116	B-135
85.3	26.6	2.71	1.13	1180	103	22.0	2.25	1.14	120	03 -	6065	- 17	B-100	B-116	B-135			
				1770					1770				03 -	6070	- 17	B-100	B-116	B-135
				1770					1770				03 -	6075	- 17	B-100	B-116	B-135
69.0	32.8	3.35	0.91	1180	83.3	27.2	2.77	0.94	120	03 -	6065	- 21	B-100	B-116	B-135			
				1770					1770				03 -	6070	- 21	B-100	B-116	B-135
				1770					1770				03 -	6075	- 21	B-100	B-116	B-135
58.0	39.1	3.99	1.18	1770	70.0	32.4	3.30	1.18	180	03 -	6075	- 25	B-100	B-116	B-135			
				2560					2540				03 -	6080	- 25	B-100	B-116	B-135
				2560					2540				03 -	6085	- 25	B-100	B-116	B-135
50.0	45.4	4.62	1.14	1770	60.3	37.6	3.83	1.14	180	03 -	6075	- 29	B-100	B-116	B-135			
				2560					2560				03 -	6080	- 29	B-100	B-116	B-135
				2560					2560				03 -	6085	- 29	B-100	B-116	B-135
41.4	54.7	5.58	1.09	1770	50.0	45.4	4.62	1.12	180	03 -	6075	- 35	B-100	B-116	B-135			
				2560					2560				03 -	6080	- 35	B-100	B-116	B-135
				2560					2560				03 -	6085	- 35	B-100	B-116	B-135
33.7	67.3	6.86	0.89	1500	40.7	55.7	5.68	0.90	178	03 -	6075	- 43	B-100	B-116	B-135			
				2560					2560				03 -	6080	- 43	B-100	B-116	B-135
				2560					2560				03 -	6085	- 43	B-100	B-116	B-135
28.4	79.8	8.13	0.96	2490	34.3	66.1	6.74	0.96	261	03 -	6085	- 51	B-100	B-116	B-135			
				3340					3340				03 -	6090	- 51	B-100	B-116	B-135
				3340					3340				03 -	6095	- 51	B-100	B-116	B-135
24.6	92.3	9.41	0.94	2390	29.7	76.5	7.79	0.94	259	03 -	6085	- 59	B-100	B-116	B-135			
				3340					3340				03 -	6090	- 59	B-100	B-116	B-135
				3340					3340				03 -	6095	- 59	B-100	B-116	B-135
			2.06	5400				2.06	5400	03 -	6100	- 59	B-101	B-117	B-136			
			2.72	5400				2.83	5400	03 -	6105	- 59	B-101	B-117	B-136			

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



CHHM/CNHM

CHFM/CNFM

CVVM/CNVM

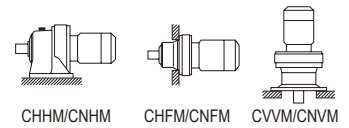
n<sub>1</sub>: Motor Speed

0.25 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet								
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM						
20.4	111	11.3	3340	340	1.01	24.6	92	9.4	1.01	03 -	6090	- 71	B-100	B-116	B-135						
			3340	340	1.11											03 -	6095	- 71	B-100	B-116	B-135
			5400	550	1.74											03 -	6100	- 71	B-101	B-117	B-136
			5400	550	2.02											03 -	6105	- 71	B-101	B-117	B-136
16.7	136	13.9	3340	340	1.05	20.1	113	11.5	1.20	03 -	6095	- 87	B-100	B-116	B-135						
			5400	550	1.73											03 -	6100	- 87	B-101	B-117	B-136
			5400	550	2.01											03 -	6105	- 87	B-101	B-117	B-136
			3340	340	1.17											03 -	6095DA	- 104	B-108	B-124	B-143
13.9	154	15.7	5400	550	1.62	16.8	128	13.0	1.63	03 -	6100DA	- 104	B-108	B-124	B-143						
			5400	550	1.63											03 -	6105DA	- 104	B-108	B-124	B-143
			3340	340	1.17											03 -	6095DA	- 104	B-108	B-124	B-143
			5400	550	1.63											03 -	6105DA	- 104	B-108	B-124	B-143
12.2	186	19.0	5400	550	1.14	14.7	154	15.7	1.14	03 -	6105	- 119	B-101	B-117	B-136						
			3340	340	0.89											03 -	6095DA	- 121	B-108	B-124	B-143
			5400	550	1.39											03 -	6100DA	- 121	B-108	B-124	B-143
			5400	550	1.63											03 -	6105DA	- 121	B-108	B-124	B-143
12.0	179	18.3	9810	1000	2.93	14.5	149	15.1	3.53	03 -	6120DB	- 121	B-108	B-124	B-143						
			3340	340	*											03 -	6090DA	- 143	B-108	B-124	B-143
			3340	340	0.87											03 -	6095DA	- 143	B-108	B-124	B-143
			5400	550	1.18											03 -	6100DA	- 143	B-108	B-124	B-143
10.1	212	21.6	5400	550	1.42	12.2	176	17.9	1.63	03 -	6105DA	- 143	B-108	B-124	B-143						
			9810	1000	1.63											03 -	6120DA	- 143	B-108	B-124	B-143
			9810	1000	2.48											03 -	6120DB	- 143	B-108	B-124	B-143
			9810	1000	2.97											03 -	6125DB	- 143	B-108	B-124	B-143
8.79	245	24.9	3340	340	*	10.6	203	20.7	1.48	03 -	6105DA	- 165	B-108	B-124	B-143						
			3340	340	0.82											03 -	6095DA	- 165	B-108	B-124	B-143
			5400	550	1.02											03 -	6100DA	- 165	B-108	B-124	B-143
			5400	550	1.23											03 -	6105DA	- 165	B-108	B-124	B-143
8.79	245	24.9	9810	1000	1.63	10.6	203	20.7	1.63	03 -	6120DA	- 165	B-108	B-124	B-143						
			9810	1000	2.15											03 -	6120DB	- 165	B-108	B-124	B-143
			9810	1000	2.58											03 -	6120DB	- 165	B-108	B-124	B-143
			9810	1000	2.58											03 -	6125DB	- 165	B-108	B-124	B-143
7.44	289	29.5	3340	340	*	8.97	239	24.4	1.25	03 -	6105DA	- 195	B-108	B-124	B-143						
			5400	550	1.04											03 -	6120DA	- 195	B-108	B-124	B-143
			9810	1000	1.63											03 -	6120DB	- 195	B-108	B-124	B-143
			9810	1000	1.82											03 -	6120DB	- 195	B-108	B-124	B-143
7.44	289	29.5	9810	1000	2.18	8.97	239	24.4	2.19	03 -	6125DB	- 195	B-108	B-124	B-143						
			14700	1500	2.70											03 -	6130DB	- 195	B-109	B-125	B-144
			3340	340	*											03 -	6100DA	- 231	B-108	B-124	B-143
			5400	550	1.06											03 -	6105DA	- 231	B-108	B-124	B-143
6.28	342	34.9	9810	1000	1.52	7.58	284	28.9	1.63	03 -	6120DA	- 231	B-108	B-124	B-143						
			9810	1000	1.52											03 -	6120DB	- 231	B-108	B-124	B-143
			9810	1000	1.63											03 -	6125DA	- 231	B-108	B-124	B-143
			9810	1000	1.84											03 -	6125DB	- 231	B-108	B-124	B-143
6.28	342	34.9	14700	1500	2.28	7.58	284	28.9	2.22	03 -	6125DB	- 231	B-108	B-124	B-143						
			14700	1500	2.75											03 -	6130DB	- 231	B-109	B-125	B-144
			14700	1500	2.75											03 -	6135DB	- 231	B-109	B-125	B-144
			3340	340	*											03 -	6100DA	- 273	B-108	B-124	B-143
5.31	405	41.2	5400	550	*	6.41	335	34.2	1.56	03 -	6105DA	- 273	B-108	B-124	B-143						
			9810	1000	1.29											03 -	6120DA	- 273	B-108	B-124	B-143
			9810	1000	1.56											03 -	6125DA	- 273	B-108	B-124	B-143
			9810	1000	1.56											03 -	6125DB	- 273	B-108	B-124	B-143
5.31	405	41.2	14700	1500	1.63	6.41	335	34.2	1.88	03 -	6125DB	- 273	B-108	B-124	B-143						
			14700	1500	1.63											03 -	6130DA	- 273	B-109	B-125	B-144
			14700	1500	1.93											03 -	6130DB	- 273	B-109	B-125	B-144
			14700	1500	2.32											03 -	6135DB	- 273	B-109	B-125	B-144

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors



0.25 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub> r/min		1450	980	1750	1165

n<sub>1</sub>: Motor Speed

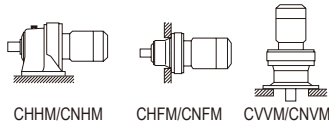
Selection Tables  
0.25 kW

GEARMOTORS

50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM CHHM	CNFM CHFM	CNVM CVVM	
4.55	473	48.2	9810	1000	1.10	5.49	392	39.9	9810	1000	1.33	03 - 6120DA	- 319	B-108	B-124	B-143
			9810	1000	1.33				9810	1000	1.61	03 - 6125DA	- 319	B-108	B-124	B-143
			14700	1500	1.63				14700	1500	1.63	03 - 6130DA	- 319	B-109	B-125	B-144
			14700	1500	1.65				14700	1500	1.99	03 - 6130DB	- 319	B-109	B-125	B-144
			14700	1500	1.63				14700	1500	1.63	03 - 6135DA	- 319	B-109	B-125	B-144
			14700	1500	1.99				14700	1500	2.40	03 - 6135DB	- 319	B-109	B-125	B-144
			16000	1630	2.59				16000	1630	3.13	03 - 6140DB	- 319	B-109	B-125	B-144
			16000	1630	2.90				16000	1630	3.50	03 - 6145DB	- 319	B-109	B-125	B-144
3.85	559	56.9	9810	1000	1.13	4.64	463	47.2	9810	1000	1.36	03 - 6125DA	- 377	B-108	B-124	B-143
			14700	1500	1.40				14700	1500	1.63	03 - 6130DA	- 377	B-109	B-125	B-144
			14700	1500	1.63				14700	1500	1.63	03 - 6135DA	- 377	B-109	B-125	B-144
			14700	1500	1.68				14700	1500	2.03	03 - 6135DB	- 377	B-109	B-125	B-144
			16000	1630	1.63				16000	1630	1.63	03 - 6140DA	- 377	B-109	B-125	B-144
			16000	1630	2.19				16000	1630	2.65	03 - 6140DB	- 377	B-109	B-125	B-144
			16000	1630	2.45				16000	1630	2.96	03 - 6145DB	- 377	B-109	B-125	B-144
3.07	701	71.5	525	53.5	*	3.70	581	59.2	525	53.5	*	03 - 6120DA	- 473	B-108	B-124	B-143
			9810	1000	0.90				9810	1000	1.08	03 - 6125DA	- 473	B-108	B-124	B-143
			14700	1500	1.11				14700	1500	1.34	03 - 6130DA	- 473	B-109	B-125	B-144
			14700	1500	1.34				14700	1500	1.62	03 - 6135DA	- 473	B-109	B-125	B-144
			16000	1630	1.63				16000	1630	1.63	03 - 6140DA	- 473	B-109	B-125	B-144
			16000	1630	1.75				16000	1630	2.11	03 - 6140DB	- 473	B-109	B-125	B-144
			16000	1630	1.95				16000	1630	2.36	03 - 6145DB	- 473	B-109	B-125	B-144
2.59	828	84.4	630	64.2	*	3.13	686	70.0	630	64.2	*	03 - 6125DA	- 559	B-108	B-124	B-143
			14700	1500	1.13				14700	1500	1.37	03 - 6135DA	- 559	B-109	B-125	B-144
			16000	1630	1.48				16000	1630	1.63	03 - 6140DA	- 559	B-109	B-125	B-144
			16000	1630	1.48				16000	1630	1.78	03 - 6140DB	- 559	B-109	B-125	B-144
			16000	1630	1.63				16000	1630	1.63	03 - 6145DA	- 559	B-109	B-125	B-144
			16000	1630	1.65				16000	1630	2.00	03 - 6145DB	- 559	B-109	B-125	B-144
2.23	962	98.0	14700	1500	1.09	2.70	797	81.2	14700	1500	1.32	03 - 6135DA	- 649	B-109	B-125	B-144
			16000	1630	1.27				16000	1630	1.54	03 - 6140DA	- 649	B-109	B-125	B-144
			16000	1630	1.42				16000	1630	1.63	03 - 6145DA	- 649	B-109	B-125	B-144
1.98	1080	110	780	79.5	*	2.39	898	91.5	780	79.5	*	03 - 6130DA	- 731	B-109	B-125	B-144
			14700	1500	0.87				14700	1500	1.05	03 - 6135DA	- 731	B-109	B-125	B-144
			16000	1630	1.13				16000	1630	1.36	03 - 6140DA	- 731	B-109	B-125	B-144
			16000	1630	1.26				16000	1630	1.53	03 - 6145DA	- 731	B-109	B-125	B-144
1.72	1250	127	940	95.8	*	2.08	1030	105	940	95.8	*	03 - 6135DA	- 841	B-109	B-125	B-144
			16000	1630	1.10				16000	1630	1.21	03 - 6145DA	- 841	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>
			16000	1630	1.10				16000	1630	1.33	03 - 6145DB	- 841	B-109	B-125	B-144
1.45	1230	125	1050	107	*	1.74	1230	125	1050	107	*	03 - 6135DA	- 1003	B-109	B-125	B-144
			16000	1630	*				16000	1630	*	03 - 6140DA	- 1003	B-109	B-125	B-144
			1490	152	0.92				1230	126	1.11	03 - 6145DA	- 1003	B-109	B-125	B-144
1.16	1370	140	15700	1600	*	1.40	1370	140	15700	1600	*	03 - 6145DA	- 1247	B-109	B-125	B-144
0.702	2100	214	22100	2250	*	0.847	2100	214	22100	2250	*	03 - 6165DA	- 2065	B-110	B-126	B-145
0.572	2530	258	29500	3010	*	0.690	2530	258	29500	3010	*	03 - 6170DA	- 2537	B-110	B-126	B-145
0.476	3150	321	29500	3010	*	0.575	3150	321	29500	3010	*	03 - 6175DA	- 3045	B-110	B-126	B-145

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



CHHM/CNHM

CHFM/CNFM

CVVM/CNVM

0.4 kW

n: Motor Speed

Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM CHHM	CNFM CHFM	CNVM CVVM	
580	6.26	0.638	1180	120	2.78	700	5.18	0.528	1120	114	2.78	05 - 6070SK - 2.5 (K)	B-98	-	B-133	
			1180	120	3.47				1120	114	3.47	05 - 6075SK - 2.5 (K)	B-98	-	B-133	
			1310	134	4.12				1250	127	4.12	05 - 6080SK - 2.5 (K)	B-98	-	B-133	
483	7.51	0.765	1240	126	2.65	583	6.22	0.634	1180	120	2.65	05 - 6070SK - 3 (K)	B-98	-	B-133	
			1240	126	3.31				1180	120	3.31	05 - 6075SK - 3 (K)	B-98	-	B-133	
			1380	141	4.12				1300	133	4.12	05 - 6080SK - 3 (K)	B-98	-	B-133	
363	10.0	1.02	1340	137	2.34	438	8.29	0.846	1290	131	2.34	05 - 6070SK - 4 (K)	B-98	-	B-133	
			1340	137	2.92				1290	131	2.92	05 - 6075SK - 4 (K)	B-98	-	B-133	
			1500	153	4.12				1420	145	4.12	05 - 6080SK - 4 (K)	B-98	-	B-133	
290	12.5	1.28	1370	140	2.22	350	10.4	1.06	1290	132	2.22	05 - 6070SK - 5 (K)	B-98	-	B-133	
			1370	140	2.78				1290	132	2.78	05 - 6075SK - 5 (K)	B-98	-	B-133	
			1640	167	3.88				1550	158	3.88	05 - 6080SK - 5 (K)	B-98	-	B-133	
242	15.0	1.53	1370	140	1.96	292	12.4	1.27	1290	132	1.96	05 - 6070SK - 6 (K)	B-98	-	B-133	
			1370	140	2.45				1290	132	2.45	05 - 6075SK - 6 (K)	B-98	-	B-133	
			1720	175	3.24				1630	166	3.24	05 - 6080SK - 6 (K)	B-98	-	B-133	
			1720	175	4.05				1630	166	4.05	05 - 6085SK - 6 (K)	B-98	-	B-133	
			<b>1370</b>	<b>140</b>	<b>1.02</b>				<b>1290</b>	<b>132</b>	<b>1.02</b>	<b>05 - 6075</b>	<b>- 6</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			1920	196	1.48				1810	184	1.48	05 - 6080	- 6	B-100	B-116	B-135
			1920	196	1.95				1810	184	1.95	05 - 6085	- 6	B-100	B-116	B-135
2860	292	2.88	2690	275	2.88	05 - 6090	- 6	B-100	B-116	B-135						
181	20.0	2.04	1510	154	1.47	219	16.6	1.69	1430	145	1.47	05 - 6070SK - 8 (K)	B-98	-	B-133	
			1510	154	1.84				1430	145	1.84	05 - 6075SK - 8 (K)	B-98	-	B-133	
			1820	186	2.74				1730	176	2.74	05 - 6080SK - 8 (K)	B-98	-	B-133	
			1820	186	3.43				1730	176	3.43	05 - 6085SK - 8 (K)	B-98	-	B-133	
			3280	334	3.76				3110	317	3.76	05 - 6090SK - 8 (K)	B-98	-	B-133	
			3280	334	4.43				3110	317	4.43	05 - 6095SK - 8 (K)	B-98	-	B-133	
			<b>1510</b>	<b>154</b>	<b>1.02</b>				<b>1430</b>	<b>145</b>	<b>1.02</b>	<b>05 - 6075</b>	<b>- 8</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			2080	212	1.48				1960	200	1.48	05 - 6080	- 8	B-100	B-116	B-135
2080	212	1.95	1960	200	1.95	05 - 6085	- 8	B-100	B-116	B-135						
3190	326	2.88	3000	306	2.88	05 - 6090	- 8	B-100	B-116	B-135						
145	25.0	2.55	<b>1680</b>	<b>171</b>	<b>1.13</b>	175	20.7	2.11	<b>1590</b>	<b>162</b>	<b>1.13</b>	<b>05 - 6070SK</b>	<b>- 10 (K)</b>	<b>B-98</b>	<b>-</b>	<b>B-133</b>
			1680	171	1.42				1590	162	1.42	05 - 6075SK - 10 (K)	B-98	-	B-133	
			1930	197	2.20				1840	188	2.20	05 - 6080SK - 10 (K)	B-98	-	B-133	
			1930	197	2.75				1840	188	2.75	05 - 6085SK - 10 (K)	B-98	-	B-133	
			3590	366	3.50				3390	346	3.50	05 - 6090SK - 10 (K)	B-98	-	B-133	
3590	366	4.43	3390	346	4.43	05 - 6095SK - 10 (K)	B-98	-	B-133							
132	27.5	2.81	<b>1680</b>	<b>171</b>	<b>1.02</b>	159	22.8	2.33	<b>1590</b>	<b>162</b>	<b>1.02</b>	<b>05 - 6075</b>	<b>- 11</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			2300	234	1.48				2160	220	1.48	05 - 6080	- 11	B-100	B-116	B-135
			2300	234	1.95				2160	220	1.95	05 - 6085	- 11	B-100	B-116	B-135
3340	340	2.88	3340	340	2.88	05 - 6090	- 11	B-100	B-116	B-135						
112	32.5	3.32	<b>1770</b>	<b>180</b>	<b>1.02</b>	135	27.0	2.75	<b>1680</b>	<b>171</b>	<b>1.02</b>	<b>05 - 6075</b>	<b>- 13</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			2470	251	1.48				2320	237	1.48	05 - 6080	- 13	B-100	B-116	B-135
			2470	251	1.95				2320	237	1.95	05 - 6085	- 13	B-100	B-116	B-135
			3340	340	2.88				3340	340	2.88	05 - 6090	- 13	B-100	B-116	B-135
96.7	37.5	3.83	<b>1770</b>	<b>180</b>	<b>1.02</b>	117	31.1	3.17	<b>1680</b>	<b>171</b>	<b>1.02</b>	<b>05 - 6075</b>	<b>- 15</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			2550	260	1.48				2400	245	1.48	05 - 6080	- 15	B-100	B-116	B-135
			2550	260	1.95				2400	245	1.95	05 - 6085	- 15	B-100	B-116	B-135
			3340	340	2.88				3340	340	2.88	05 - 6090	- 15	B-100	B-116	B-135
85.3	42.5	4.34	<b>1770</b>	<b>180</b>	<b>1.02</b>	103	35.3	3.59	<b>1770</b>	<b>180</b>	<b>1.02</b>	<b>05 - 6075</b>	<b>- 17</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			2560	261	1.48				2510	256	1.48	05 - 6080	- 17	B-100	B-116	B-135
			2560	261	1.95				2510	256	1.95	05 - 6085	- 17	B-100	B-116	B-135
3340	340	2.88	3340	340	2.88	05 - 6090	- 17	B-100	B-116	B-135						
69.0	52.6	5.36	<b>1770</b>	<b>180</b>	<b>1.02</b>	83.3	43.5	4.44	<b>1770</b>	<b>180</b>	<b>1.02</b>	<b>05 - 6075</b>	<b>- 21</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			2560	261	1.20				2450	250	1.20	05 - 6080	- 21	B-100	B-116	B-135
			2560	261	1.38				2450	250	1.38	05 - 6085	- 21	B-100	B-116	B-135
3340	340	1.90	3340	340	1.90	05 - 6090	- 21	B-100	B-116	B-135						

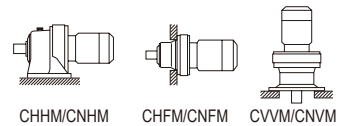
- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.



# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

0.4 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

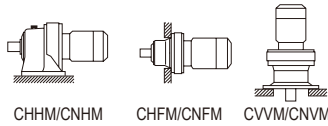


GEARMOTORS  
Selection Tables  
0.4 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
58.0	62.6	6.38	<b>2560</b>	<b>261</b>	<b>1.19</b>	70.0	51.8	5.28	<b>2520</b>	<b>256</b>	<b>1.19</b>	05 -	<b>6085</b>	- 25	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			3340	340	1.68				3340	340	1.68	05 -	6090	- 25	B-100	B-116	B-135
			3340	340	2.17				3340	340	2.17	05 -	6095	- 25	B-100	B-116	B-135
50.0	72.6	7.40	<b>2560</b>	<b>261</b>	<b>1.17</b>	60.3	60.1	6.13	<b>2560</b>	<b>261</b>	<b>1.17</b>	05 -	<b>6085</b>	- 29	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			3340	340	1.56				3340	340	1.56	05 -	6090	- 29	B-100	B-116	B-135
			3340	340	1.96				3340	340	1.96	05 -	6095	- 29	B-100	B-116	B-135
41.4	87.6	8.93	2560	261	0.82	50.0	72.6	7.40	2560	261	0.93	05 -	6085	- 35	B-100	B-116	B-135
			3340	340	1.53				3340	340	1.53	05 -	6090	- 35	B-100	B-116	B-135
			3340	340	1.90				3340	340	1.90	05 -	6095	- 35	B-100	B-116	B-135
			5400	550	2.44				5400	550	2.44	05 -	6100	- 35	B-101	B-117	B-136
			5400	550	3.00				5400	550	3.00	05 -	6105	- 35	B-101	B-117	B-136
33.7	108	11.0	<b>3340</b>	<b>340</b>	<b>1.09</b>	40.7	89.2	9.09	<b>3340</b>	<b>340</b>	<b>1.09</b>	05 -	<b>6090</b>	- 43	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			3340	340	1.51				3340	340	1.51	05 -	6095	- 43	B-100	B-116	B-135
			5400	550	1.95				5400	550	1.95	05 -	6100	- 43	B-101	B-117	B-136
			5400	550	2.70				5400	550	2.70	05 -	6105	- 43	B-101	B-117	B-136
28.4	128	13.0	<b>3320</b>	<b>339</b>	<b>1.02</b>	34.3	106	10.8	<b>3340</b>	<b>340</b>	<b>1.06</b>	05 -	<b>6095</b>	- 51	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			5400	550	1.40				5400	550	1.40	05 -	6100	- 51	B-101	B-117	B-136
			5400	550	1.94				5400	550	1.94	05 -	6105	- 51	B-101	B-117	B-136
			7610	776	2.36				7610	776	2.36	05 -	6110	- 51	B-101	B-117	B-136
24.6	148	15.1	3300	336	0.84	29.7	122	12.5	3340	340	0.93	05 -	6095	- 59	B-100	B-116	B-135
			<b>5400</b>	<b>550</b>	<b>1.29</b>				<b>5400</b>	<b>550</b>	<b>1.29</b>	05 -	<b>6100</b>	- 59	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			5400	550	1.70				5400	550	1.77	05 -	6105	- 59	B-101	B-117	B-136
			7610	776	2.15				7610	776	2.15	05 -	6110	- 59	B-101	B-117	B-136
			7610	776	2.53				7610	776	2.53	05 -	6115	- 59	B-101	B-117	B-136
20.4	178	18.1	<b>5400</b>	<b>550</b>	<b>1.09</b>	24.6	147	15.0	<b>5400</b>	<b>550</b>	<b>1.09</b>	05 -	<b>6100</b>	- 71	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			5400	550	1.27				5400	550	1.40	05 -	6105	- 71	B-101	B-117	B-136
			7610	776	1.67				7610	776	1.67	05 -	6110	- 71	B-101	B-117	B-136
			7610	776	1.90				7610	776	1.90	05 -	6115	- 71	B-101	B-117	B-136
			9810	1000	2.39				9810	1000	2.39	05 -	6120	- 71	B-101	B-117	B-136
			9810	1000	2.85				9810	1000	3.00	05 -	6125	- 71	B-101	B-117	B-136
16.7	218	22.2	<b>5400</b>	<b>550</b>	<b>1.08</b>	20.1	180	18.4	<b>5400</b>	<b>550</b>	<b>1.08</b>	05 -	<b>6100</b>	- 87	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			5400	550	1.26				5400	550	1.41	05 -	6105	- 87	B-101	B-117	B-136
			7610	776	1.65				7610	776	1.65	05 -	6110	- 87	B-101	B-117	B-136
			7610	776	1.90				7610	776	1.90	05 -	6115	- 87	B-101	B-117	B-136
			9810	1000	2.36				9810	1000	2.36	05 -	6120	- 87	B-101	B-117	B-136
			9810	1000	2.58				9810	1000	2.83	05 -	6125	- 87	B-101	B-117	B-136
13.9	150	15.3	3340	340	*	16.8	150	15.3	3340	340	*	05 -	6090DA	- 104	B-108	B-124	B-143
			181	18.4	3340				340	*	05 -	6095DA	- 104	B-108	B-124	B-143	
			<b>5400</b>	<b>550</b>	<b>1.01</b>				<b>5400</b>	<b>550</b>	<b>1.02</b>	05 -	<b>6100DA</b>	- 104	B-108	B-124	B-143
	5400	550	1.07	5400	550		1.07	05 -	6105DA	- 104	B-108	B-124	B-143				
	247	25.1	9810	1000	2.13		204	20.8	9810	1000	2.57	05 -	6120DB	- 104	B-108	B-124	B-143
			9810	1000	2.55				9810	1000	3.08	05 -	6125DB	- 104	B-108	B-124	B-143
12.0	150	15.3	3340	340	*	14.5	150	15.3	3340	340	*	05 -	6090DA	- 121	B-108	B-124	B-143
			160	16.4	3340				340	*	05 -	6095DA	- 121	B-108	B-124	B-143	
	<b>5400</b>	<b>550</b>	<b>1.07</b>	<b>5400</b>	<b>550</b>		<b>1.02</b>	05 -	<b>6105DA</b>	- 121	B-108	B-124	B-143				
	9810	1000	1.83	9810	1000		2.21	05 -	6120DB	- 121	B-108	B-124	B-143				
	287	29.2	9810	1000	2.17		238	24.2	9810	1000	2.62	05 -	6125DB	- 121	B-108	B-124	B-143
14700			1500	2.72	14700	1500			3.28	05 -	6130DB	- 121	B-109	B-125	B-144		

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



n<sub>1</sub>: Motor Speed

<b>0.4 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM		
10.1	183	18.7	3340	340	12.2	183	18.7	3340	340	05 - 6095DA	- 143	-	B-108	B-124	B-143		
	250	25.5	5400	550		250	25.5	5400	550	05 - 6100DA	- 143	-	B-108	B-124	B-143		
	339	34.6	5400	550		0.88	281	28.6	5400	550	1.02	05 - 6105DA	- 143	-	B-108	B-124	B-143
			<b>9810</b>	<b>1000</b>		<b>1.02</b>			<b>9810</b>	<b>1000</b>	<b>1.02</b>	<b>05 - 6120DA</b>	<b>- 143</b>	-	B-108	B-124	B-143
			9810	1000		1.55			9810	1000	1.87	05 - 6120DB	- 143	-	B-108	B-124	B-143
			9810	1000		1.86			9810	1000	2.24	05 - 6125DB	- 143	-	B-108	B-124	B-143
			14700	1500		2.30			14700	1500	2.78	05 - 6130DB	- 143	-	B-109	B-125	B-144
14700	1500	2.77	14700	1500	3.35	05 - 6135DB	- 143	-	B-109	B-125	B-144						
8.79	250	25.5	5400	550	10.6	250	25.5	5400	550	05 - 6100DA	- 165	-	B-108	B-124	B-143		
	300	30.6	5400	550		300	30.6	5400	550	*	05 - 6105DA	- 165	-	B-108	B-124	B-143	
	391	39.9	<b>9810</b>	<b>1000</b>		<b>1.02</b>	324	33.0	<b>9810</b>	<b>1000</b>	<b>1.02</b>	<b>05 - 6120DA</b>	<b>- 165</b>	-	<b>B-108</b>	<b>B-124</b>	<b>B-143</b>
			9810	1000		1.34			9810	1000	1.62	05 - 6120DB	- 165	-	B-108	B-124	B-143
			9810	1000		1.61			9810	1000	1.94	05 - 6125DB	- 165	-	B-108	B-124	B-143
14700	1500	1.99	14700	1500	2.41	05 - 6130DB	- 165	-	B-109	B-125	B-144						
14700	1500	2.40	14700	1500	2.90	05 - 6135DB	- 165	-	B-109	B-125	B-144						
7.44	250	25.5	5400	550	8.97	250	25.5	5400	550	05 - 6100DA	- 195	-	B-108	B-124	B-143		
	300	30.6	5400	550		300	30.6	5400	550	*	05 - 6105DA	- 195	-	B-108	B-124	B-143	
	462	47.1	<b>9810</b>	<b>1000</b>		<b>1.02</b>	383	39.1	<b>9810</b>	<b>1000</b>	<b>1.02</b>	<b>05 - 6120DA</b>	<b>- 195</b>	-	<b>B-108</b>	<b>B-124</b>	<b>B-143</b>
			9810	1000		1.14			9810	1000	1.37	05 - 6120DB	- 195	-	B-108	B-124	B-143
			9810	1000		1.36			9810	1000	1.64	05 - 6125DB	- 195	-	B-108	B-124	B-143
			14700	1500		1.69			14700	1500	2.04	05 - 6130DB	- 195	-	B-109	B-125	B-144
			14700	1500		2.03			14700	1500	2.45	05 - 6135DB	- 195	-	B-109	B-125	B-144
16000	1630	2.65	16000	1630	3.20	05 - 6140DB	- 195	-	B-109	B-125	B-144						
16000	1630	2.94	16000	1630	3.54	05 - 6145DB	- 195	-	B-109	B-125	B-144						
6.28	300	30.6	5400	550	7.58	300	30.6	5400	550	05 - 6105DA	- 231	-	B-108	B-124	B-143		
	548	55.8	<b>9810</b>	<b>1000</b>		<b>1.02</b>	454	46.3	<b>9810</b>	<b>1000</b>	<b>1.02</b>	<b>05 - 6125DA</b>	<b>- 231</b>	-	<b>B-108</b>	<b>B-124</b>	<b>B-143</b>
			9810	1000		1.15			9810	1000	1.39	05 - 6125DB	- 231	-	B-108	B-124	B-143
			14700	1500		1.42			14700	1500	1.72	05 - 6130DB	- 231	-	B-109	B-125	B-144
			14700	1500		1.72			14700	1500	2.07	05 - 6135DB	- 231	-	B-109	B-125	B-144
			16000	1630		2.24			16000	1630	2.70	05 - 6140DB	- 231	-	B-109	B-125	B-144
16000	1630	2.44	16000	1630	2.95	05 - 6145DB	- 231	-	B-109	B-125	B-144						
5.31	522	53.2	9810	1000	6.41	522	53.2	9810	1000	05 - 6120DA	- 273	-	B-108	B-124	B-143		
	647	66.0	9810	1000		0.97	536	54.7	9810	1000	1.02	05 - 6125DA	- 273	-	B-108	B-124	B-143
			9810	1000		0.97			9810	1000	1.17	05 - 6125DB	- 273	-	B-108	B-124	B-143
			<b>14700</b>	<b>1500</b>		<b>1.02</b>			<b>14700</b>	<b>1500</b>	<b>1.02</b>	<b>05 - 6130DA</b>	<b>- 273</b>	-	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>
			14700	1500		1.21			14700	1500	1.45	05 - 6130DB	- 273	-	B-109	B-125	B-144
			14700	1500		1.45			14700	1500	1.75	05 - 6135DB	- 273	-	B-109	B-125	B-144
			16000	1630		1.89			16000	1630	2.28	05 - 6140DB	- 273	-	B-109	B-125	B-144
			16000	1630		2.07			16000	1630	2.49	05 - 6145DB	- 273	-	B-109	B-125	B-144
22100	2250	2.71	22100	2250	3.27	05 - 6160DA	- 273	-	B-110	B-126	B-145						
4.55	520	53.0	9810	1000	5.49	520	53.0	9810	1000	05 - 6120DA	- 319	-	B-108	B-124	B-143		
	756	77.1	9810	1000		0.83	627	63.9	9810	1000	1.01	05 - 6125DA	- 319	-	B-108	B-124	B-143
			<b>14700</b>	<b>1500</b>		<b>1.02</b>			<b>14700</b>	<b>1500</b>	<b>1.02</b>	<b>05 - 6130DA</b>	<b>- 319</b>	-	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>
			14700	1500		1.03			14700	1500	1.24	05 - 6130DB	- 319	-	B-109	B-125	B-144
			14700	1500		1.02			14700	1500	1.02	05 - 6135DA	- 319	-	B-109	B-125	B-144
			14700	1500		1.24			14700	1500	1.50	05 - 6135DB	- 319	-	B-109	B-125	B-144
			16000	1630		1.62			16000	1630	1.95	05 - 6140DB	- 319	-	B-109	B-125	B-144
			16000	1630		1.81			16000	1630	2.19	05 - 6145DB	- 319	-	B-109	B-125	B-144
			22100	2250		2.32			22100	2250	2.80	05 - 6160DA	- 319	-	B-110	B-126	B-145
			22100	2250		2.78			22100	2250	3.35	05 - 6165DA	- 319	-	B-110	B-126	B-145

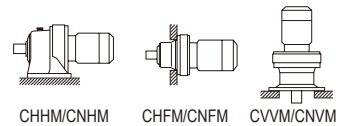
Selection Tables  
GEARMOTORS  
0.4 kW

6. "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
7. Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
8. "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
9. Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

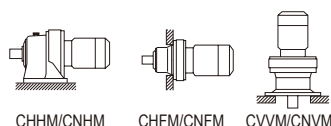
0.4 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



50Hz					60Hz					Nomenclature			Page of Dimension Sheet																					
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM																			
3.85	520	53.0	9810	1000	4.64	520	53.0	9810	1000	05 -	6120DA	- 377	B-108	B-124	B-143																			
																630	64.2	9810	1000	6125DA	- 377	B-108	B-124	B-143										
	894	91.1	16000	1630		1.37	741	75.5	16000		1630	1.65	05 -	6140DA	- 377	B-109	B-125	B-144																
																			14700	1500	1.02	<b>05 - 6135DA - 377</b>	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>									
																			14700	1500	1.05	6135DB	- 377	B-109	B-125	B-144								
																			16000	1630	1.02	6140DA	- 377	B-109	B-125	B-144								
																			16000	1630	1.53	6140DB	- 377	B-109	B-125	B-144								
																			22100	2250	1.96	6145DB	- 377	B-109	B-125	B-144								
																			22100	2250	2.37	6160DA	- 377	B-110	B-126	B-145								
																			22100	2250	2.84	6165DA	- 377	B-110	B-126	B-145								
29500	3010	2.83	6170DA	- 377	B-110	B-126	B-145																											
3.07	630	64.2	9810	1000	3.70	630	64.2	9810	1000	05 -	6125DA	- 473	B-108	B-124	B-143																			
																780	79.5	14700	1500	6130DA	- 473	B-109	B-125	B-144										
	1120	114	16000	1630		1.08	929	94.7	16000		1630	1.01	05 -	6135DA	- 473	B-109	B-125	B-144																
																			16000	1630	1.02	<b>05 - 6140DA - 473</b>	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>									
																			16000	1630	1.09	6140DB	- 473	B-109	B-125	B-144								
																			16000	1630	1.22	6145DB	- 473	B-109	B-125	B-144								
																			22100	2250	1.55	6160DA	- 473	B-110	B-126	B-145								
																			22100	2250	1.87	6165DA	- 473	B-110	B-126	B-145								
																			29500	3010	2.26	6170DA	- 473	B-110	B-126	B-145								
																			29500	3010	2.81	6175DA	- 473	B-110	B-126	B-145								
2.59	780	79.5	14700	1500	3.13	780	79.5	14700	1500	05 -	6130DA	- 559	B-109	B-125	B-144																			
																940	95.8	14700	1500	6135DA	- 559	B-109	B-125	B-144										
	1330	135	15900	1620		1.03	1100	112	16000		1630	1.25	05 -	6145DB	- 559	B-109	B-125	B-144																
																			15900	1620	1.02	<b>05 - 6145DA - 559</b>	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>									
																			22100	2250	1.31	6160DA	- 559	B-110	B-126	B-145								
																			22100	2250	1.58	6165DA	- 559	B-110	B-126	B-145								
																			29500	3010	1.91	6170DA	- 559	B-110	B-126	B-145								
																			29500	3010	2.38	6175DA	- 559	B-110	B-126	B-145								
																			2.23	912	93.0	14700	1500	2.70	912	93.0	14700	1500	05 -	6130DA	- 649	B-109	B-125	B-144
1370	140	16000	1630	*	1230	125	16000	1630	*	05 -	6140DA	- 649	B-109	B-125	B-144																			
																1370	140	16000		1630	6145DA	- 649	B-109		B-125	B-144								
																22100	2250	1.14		6160DA	- 649	B-110	B-126		B-145									
																22100	2250	1.36		6165DA	- 649	B-110	B-126		B-145									
																29500	3010	1.64		6170DA	- 649	B-110	B-126		B-145									
																29500	3010	2.05		6175DA	- 649	B-110	B-126		B-145									
																1.98	940	95.8		14700	1500	2.39	940		95.8	14700	1500	05 -		6135DA	- 731	B-109	B-125	B-144
1370	140	15700	1600	*	1370	140	15700	1600	*	05 -	6145DA	- 731	B-109	B-125	B-144																			
																	22100	2250	1.00	<b>05 - 6160DA - 731</b>	<b>B-110</b>		<b>B-126</b>	<b>B-145</b>										
																	22100	2250	1.21	6165DA	- 731		B-110	B-126	B-145									
																	29500	3010	1.46	6170DA	- 731		B-110	B-126	B-145									
																	29500	3010	1.82	6175DA	- 731		B-110	B-126	B-145									
																	1.72	1230	125	16000	1630		2.08	1230	125	16000	1630		05 -	6140DA	- 841	B-109	B-125	B-144
																		1990	203	29500	3010			1.27	1650	168	29500			3010	1.53	05 -	6170DA	- 841
22100	2250	1.05	<b>05 - 6165DA - 841</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>																												
29500	3010	1.58	6175DA	- 841	B-110	B-126	B-145																											

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



CHHM/CNHM

CHFM/CNFM

CVVM/CNVM

0.4 kW

n: Motor Speed

Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
0.980	1760	179	22100	2250	*	1.18	1760	179	22100	2250	*	05 - 6160DA	- 1479	B-110	B-126	B-145
	2050	209	21800	2220	*		2050	209	21800	2220	*	05 - 6165DA	- 1479	B-110	B-126	B-145
	2530	258	29500	3010	*		2530	258	29500	3010	*	05 - 6170DA	- 1479	B-110	B-126	B-145
	3510	357	29500	3010	0.90		2910	296	29500	3010	1.08	05 - 6175DA	- 1479	B-110	B-126	B-145
0.784	2100	214	22100	2250	*	0.946	2100	214	22100	2250	*	05 - 6165DA	- 1849	B-110	B-126	B-145
	2530	258	29500	3010	*		2530	258	29500	3010	*	05 - 6170DA	- 1849	B-110	B-126	B-145
	3150	321	29500	3010	*		3150	321	29500	3010	*	05 - 6175DA	- 1849	B-110	B-126	B-145
	4380	447	41700	4250	0.93		3630	370	41700	4250	1.12	05 - 6180DA	- 1849	B-110	B-126	B-145
0.702	2530	258	29500	3010	*	0.847	2530	258	29500	3010	*	05 - 6170DA	- 2065	B-110	B-126	B-145
	3150	321	29500	3010	*		3150	321	29500	3010	*	05 - 6175DA	- 2065	B-110	B-126	B-145
	4050	413	41700	4250	*		4050	413	41700	4250	*	05 - 6180DA	- 2065	B-110	B-126	B-145
0.572	3150	321	29500	3010	*	0.690	3150	321	29500	3010	*	05 - 6175DA	- 2537	B-110	B-126	B-145
	4050	413	41700	4250	*		4050	413	41700	4250	*	05 - 6180DA	- 2537	B-110	B-126	B-145
	5000	510	41600	4240	*		5000	510	41600	4240	*	05 - 6185DA	- 2537	B-110	B-126	B-145
	6020	613	41200	4200	0.83		4980	508	41600	4240	1.00	05 - 6185DA	- 2537	B-110	B-126	B-145
0.476	4060	414	41700	4250	*	0.575	4060	414	41700	4250	*	05 - 6180DA	- 3045	B-110	B-126	B-145
	5000	510	41700	4250	*		5000	510	41700	4250	*	05 - 6185DA	- 3045	B-110	B-126	B-145
0.417	4050	413	41700	4250	*	0.503	4050	413	41700	4250	*	05 - 6180DA	- 3481	B-110	B-126	B-145
	5000	510	41600	4240	*		5000	510	41600	4240	*	05 - 6185DA	- 3481	B-110	B-126	B-145
0.327	4060	414	41700	4250	*	0.394	4060	414	41700	4250	*	05 - 6180DA	- 4437	B-110	B-126	B-145
	5000	510	41700	4250	*		5000	510	41700	4250	*	05 - 6185DA	- 4437	B-110	B-126	B-145
0.282	4060	414	41700	4250	*	0.341	4060	414	41700	4250	*	05 - 6180DA	- 5133	B-110	B-126	B-145
	5000	510	41700	4250	*		5000	510	41700	4250	*	05 - 6185DA	- 5133	B-110	B-126	B-145
0.235	4060	414	41700	4250	*	0.283	4060	414	41700	4250	*	05 - 6180DA	- 6177	B-110	B-126	B-145
	5000	510	41700	4250	*		5000	510	41700	4250	*	05 - 6185DA	- 6177	B-110	B-126	B-145
0.192	4060	414	41700	4250	*	0.231	4060	414	41700	4250	*	05 - 6180DA	- 7569	B-110	B-126	B-145
	5000	510	41700	4250	*		5000	510	41700	4250	*	05 - 6185DA	- 7569	B-110	B-126	B-145

GEARMOTORS

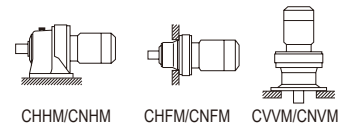
Selection Tables  
0.4 kW

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

0.55 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

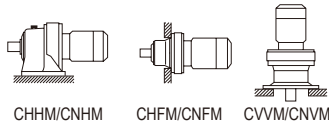


Selection Tables  
0.55 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM		
580	8.60	0.877	2.02		700	7.13	0.727	2.02		08 -	6070SK	- 2.5 (K)	B-98	-	B-133		
			2.53					2.53					08 - 6075SK	- 2.5 (K)	B-98	-	B-133
			3.00					3.00					08 - 6080SK	- 2.5 (K)	B-98	-	B-133
			3.75					3.75					08 - 6085SK	- 2.5 (K)	B-98	-	B-133
			4.36					4.36					08 - 6090SK	- 2.5 (K)	B-98	-	B-133
483	10.3	1.05	1.93		583	8.55	0.872	1.93		08 -	6070SK	- 3 (K)	B-98	-	B-133		
			2.41					2.41					08 - 6075SK	- 3 (K)	B-98	-	B-133
			3.00					3.00					08 - 6080SK	- 3 (K)	B-98	-	B-133
			3.75					3.75					08 - 6085SK	- 3 (K)	B-98	-	B-133
			4.25					4.25					08 - 6090SK	- 3 (K)	B-98	-	B-133
363	13.8	1.40	1.70		438	11.4	1.16	1.70		08 -	6070SK	- 4 (K)	B-98	-	B-133		
			2.12					2.12					08 - 6075SK	- 4 (K)	B-98	-	B-133
			3.00					3.00					08 - 6080SK	- 4 (K)	B-98	-	B-133
			3.75					3.75					08 - 6085SK	- 4 (K)	B-98	-	B-133
			4.25					4.25					08 - 6090SK	- 4 (K)	B-98	-	B-133
290	17.2	1.75	1.61		350	14.3	1.45	1.61		08 -	6070SK	- 5 (K)	B-98	-	B-133		
			2.02					2.02					08 - 6075SK	- 5 (K)	B-98	-	B-133
			2.82					2.82					08 - 6080SK	- 5 (K)	B-98	-	B-133
			3.31					3.31					08 - 6085SK	- 5 (K)	B-98	-	B-133
			4.06					4.06					08 - 6090SK	- 5 (K)	B-98	-	B-133
242	20.6	2.10	1.42		292	17.1	1.74	1.42		08 -	6070SK	- 6 (K)	B-98	-	B-133		
			1.78					1.78					08 - 6075SK	- 6 (K)	B-98	-	B-133
			2.36					2.36					08 - 6080SK	- 6 (K)	B-98	-	B-133
			2.95					2.95					08 - 6085SK	- 6 (K)	B-98	-	B-133
			3.47					3.47					08 - 6090SK	- 6 (K)	B-98	-	B-133
			4.13					4.13					08 - 6095SK	- 6 (K)	B-98	-	B-133
			<b>1.08</b>					<b>1.08</b>					<b>08 - 6080</b>	<b>- 6</b>	<b>B-100 B-116 B-135</b>		
			1.41					1.41					08 - 6085	- 6	B-100 B-116 B-135		
			2.09					2.09					08 - 6090	- 6	B-100 B-116 B-135		
			2.76					2.76					08 - 6095	- 6	B-100 B-116 B-135		
			181	27.5				2.81	1.07					219	22.8	2.33	1.07
1.34		1.34				08 - 6075SK	- 8 (K)		B-98	-	B-133						
1.99		1.99				08 - 6080SK	- 8 (K)		B-98	-	B-133						
2.49		2.49				08 - 6085SK	- 8 (K)		B-98	-	B-133						
2.74		2.74				08 - 6090SK	- 8 (K)		B-98	-	B-133						
3.22		3.22				08 - 6095SK	- 8 (K)		B-98	-	B-133						
3.85		3.85				08 - 6100SK	- 8 (K)		B-99	-	B-134						
<b>1.08</b>		<b>1.08</b>				<b>08 - 6080</b>	<b>- 8</b>		<b>B-100 B-116 B-135</b>								
1.41		1.41				08 - 6085	- 8		B-100 B-116 B-135								
2.09		2.09				08 - 6090	- 8		B-100 B-116 B-135								
2.76		2.76				08 - 6095	- 8		B-100 B-116 B-135								
145	34.4	3.51	<b>1.03</b>		175	28.5	2.91	<b>1.03</b>		08 -	6075SK	- 10 (K)	<b>B-98</b>	-	<b>B-133</b>		
			1.60					1.60					08 - 6080SK	- 10 (K)	B-98	-	B-133
			2.00					2.00					08 - 6085SK	- 10 (K)	B-98	-	B-133
			2.55					2.55					08 - 6090SK	- 10 (K)	B-98	-	B-133
			3.22					3.22					08 - 6095SK	- 10 (K)	B-98	-	B-133
			3.60					3.60					08 - 6100SK	- 10 (K)	B-99	-	B-134
			4.00					4.00					08 - 6105SK	- 10 (K)	B-99	-	B-134
132	37.9	3.86	<b>1.08</b>		159	31.4	3.20	<b>1.08</b>		08 -	6080	- 11	<b>B-100 B-116 B-135</b>				
			1.41					1.41					08 - 6085	- 11	B-100 B-116 B-135		
			2.09					2.09					08 - 6090	- 11	B-100 B-116 B-135		
			2.76					2.76					08 - 6095	- 11	B-100 B-116 B-135		
112	44.7	4.56	<b>1.08</b>		135	37.1	3.78	<b>1.08</b>		08 -	6080	- 13	<b>B-100 B-116 B-135</b>				
			1.41					1.41					08 - 6085	- 13	B-100 B-116 B-135		
			2.09					2.09					08 - 6090	- 13	B-100 B-116 B-135		
			2.76					2.76					08 - 6095	- 13	B-100 B-116 B-135		

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



0.55 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
96.7	51.6	5.26	<b>2520</b>	<b>257</b>	<b>1.08</b>	117	42.8	4.36	<b>2380</b>	<b>242</b>	<b>1.08</b>	08 -	6085	- 15	B-100	B-116	B-135
			2520	257	1.41				2380	242	1.41						
			3340	340	2.09				3340	340	2.09						
85.3	58.5	5.96	<b>2560</b>	<b>261</b>	<b>1.08</b>	103	48.5	4.94	<b>2490</b>	<b>254</b>	<b>1.08</b>	08 -	6085	- 17	B-100	B-116	B-135
			2560	261	1.41				2490	254	1.41						
			3340	340	2.09				3340	340	2.09						
69.0	72.3	7.37	<b>2560</b>	<b>261</b>	<b>1.00</b>	83.3	59.9	6.10	<b>2430</b>	<b>247</b>	<b>1.00</b>	08 -	6085	- 21	B-100	B-116	B-135
			3340	340	1.38				3340	340	1.38						
			3340	340	2.75				3340	340	2.75						
58.0	86.0	8.77	2510	256	0.86	70.0	71.3	7.27	2490	254	0.86	08 -	6085	- 25	B-100	B-116	B-135
			<b>3340</b>	<b>340</b>	<b>1.22</b>				<b>3340</b>	<b>340</b>	<b>1.22</b>						
			3340	340	1.57				3340	340	1.57						
			5400	550	2.31				5400	550	2.31						
50.0	99.8	10.2	2300	235	0.85	60.3	82.7	8.43	2480	253	0.85	08 -	6085	- 29	B-100	B-116	B-135
			<b>3340</b>	<b>340</b>	<b>1.14</b>				<b>3340</b>	<b>340</b>	<b>1.14</b>						
			3340	340	1.43				3340	340	1.43						
			5400	550	2.20				5400	550	2.20						
41.4	120	12.3	5400	550	2.89	50.0	99.8	10.2	5400	550	2.89	08 -	6105	- 29	B-101	B-117	B-136
			<b>3340</b>	<b>340</b>	<b>1.11</b>				<b>3340</b>	<b>340</b>	<b>1.11</b>						
			3340	340	1.38				3340	340	1.38						
			5400	550	1.77				5400	550	1.77						
			5400	550	2.18				5400	550	2.18						
33.7	148	15.1	7510	765	2.73	40.7	123	12.5	7530	767	2.73	08 -	6110	- 35	B-101	B-117	B-136
			<b>3320</b>	<b>338</b>	<b>1.10</b>				<b>3340</b>	<b>340</b>	<b>1.10</b>						
			5400	550	1.42				5400	550	1.42						
			5400	550	1.96				5400	550	1.96						
			7610	776	2.36				7610	776	2.36						
28.4	176	17.9	7610	776	2.76	34.3	145	14.8	7610	776	2.76	08 -	6115	- 43	B-101	B-117	B-136
			<b>5400</b>	<b>550</b>	<b>1.02</b>				<b>5400</b>	<b>550</b>	<b>1.02</b>						
			5400	550	1.41				5400	550	1.41						
			7610	776	1.72				7610	776	1.72						
			7610	776	2.02				7610	776	2.02						
24.6	203	20.7	9810	1000	2.96	29.7	168	17.1	9810	1000	2.96	08 -	6120	- 51	B-101	B-117	B-136
			<b>5400</b>	<b>550</b>	<b>1.24</b>				<b>5400</b>	<b>550</b>	<b>1.24</b>						
			7610	776	1.56				7610	776	1.56						
			7610	776	1.84				7610	776	1.84						
			9810	1000	2.36				9810	1000	2.36						
20.4	244	24.9	9810	1000	2.95	24.6	202	20.6	9810	1000	2.95	08 -	6125	- 59	B-101	B-117	B-136
			<b>5400</b>	<b>550</b>	<b>1.29</b>				<b>5400</b>	<b>550</b>	<b>1.29</b>						
			7610	776	1.56				7610	776	1.56						
			7610	776	1.84				7610	776	1.84						
			9810	1000	2.36				9810	1000	2.36						
16.7	299	30.5	9810	1000	2.07	20.1	248	25.3	9810	1000	2.07	08 -	6105	- 71	B-101	B-117	B-136
			<b>5380</b>	<b>549</b>	<b>0.92</b>				<b>5400</b>	<b>550</b>	<b>1.02</b>						
			<b>7610</b>	<b>776</b>	<b>1.22</b>				<b>7610</b>	<b>776</b>	<b>1.22</b>						
			7610	776	1.38				7610	776	1.38						
			9810	1000	1.74				9810	1000	1.74						
			9810	1000	2.07				9810	1000	2.18						
			4800	489	0.91				5400	550	1.03						
<b>7610</b>	<b>776</b>	<b>1.20</b>	<b>7610</b>	<b>776</b>	<b>1.20</b>												
7610	776	1.38	7610	776	1.38												
9810	1000	1.72	9810	1000	1.72												
9810	1000	1.87	9810	1000	2.05												
14700	1500	2.58	14200	1450	2.58												
14700	1500	3.00	14200	1450	3.47												

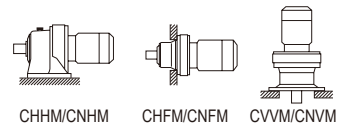
Selection Tables  
0.55 kW  
GEARMOTORS

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

0.55 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

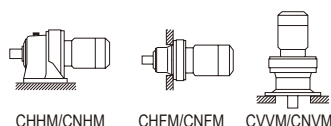


GEARMOTORS  
Selection Tables  
0.55 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
13.9	339	34.6	9810	1000	1.55	16.8	281	28.6	9810	1000	1.87	08 - 6120DB	- 104	- 104	B-108	B-124	B-143
			9810	1000	1.86				9810	1000	2.24	08 - 6125DB	- 104	- 104	B-108	B-124	B-143
			14700	1500	2.30				14700	1500	2.77	08 - 6130DB	- 104	- 104	B-109	B-125	B-144
			14700	1500	2.77				14700	1500	2.77	08 - 6135DB	- 104	- 104	B-109	B-125	B-144
			14700	1500	2.77				14700	1500	3.35	08 - 6135DC	- 104	- 104	B-109	B-125	B-144
			16000	1630	2.91				16000	1630	2.77	08 - 6140DB	- 104	- 104	B-109	B-125	B-144
12.0	394	40.2	9810	1000	1.33	14.5	327	33.3	9810	1000	1.61	08 - 6120DB	- 121	- 121	B-108	B-124	B-143
			9810	1000	1.58				9810	1000	1.90	08 - 6125DB	- 121	- 121	B-108	B-124	B-143
			14700	1500	1.98				14700	1500	2.39	08 - 6130DB	- 121	- 121	B-109	B-125	B-144
			14700	1500	2.38				14700	1500	2.77	08 - 6135DB	- 121	- 121	B-109	B-125	B-144
			16000	1630	2.77				16000	1630	2.77	08 - 6140DB	- 121	- 121	B-109	B-125	B-144
10.1	466	47.5	9810	1000	1.13	12.2	386	39.4	9810	1000	1.36	08 - 6120DB	- 143	- 143	B-108	B-124	B-143
			9810	1000	1.35				9810	1000	1.63	08 - 6125DB	- 143	- 143	B-108	B-124	B-143
			14700	1500	1.67				14700	1500	2.02	08 - 6130DB	- 143	- 143	B-109	B-125	B-144
			14700	1500	2.02				14700	1500	2.43	08 - 6135DB	- 143	- 143	B-109	B-125	B-144
			16000	1630	2.63				16000	1630	2.77	08 - 6140DB	- 143	- 143	B-109	B-125	B-144
			16000	1630	2.63				16000	1630	3.17	08 - 6140DC	- 143	- 143	B-109	B-125	B-144
			16000	1630	2.77				16000	1630	2.77	08 - 6145DB	- 143	- 143	B-109	B-125	B-144
			16000	1630	2.94				16000	1630	3.55	08 - 6145DC	- 143	- 143	B-109	B-125	B-144
8.79	538	54.8	9810	1000	1.17	10.6	446	45.4	9810	1000	1.41	08 - 6125DB	- 165	- 165	B-108	B-124	B-143
			14700	1500	1.45				14700	1500	1.75	08 - 6130DB	- 165	- 165	B-109	B-125	B-144
			14700	1500	1.75				14700	1500	2.11	08 - 6135DB	- 165	- 165	B-109	B-125	B-144
			16000	1630	2.28				16000	1630	2.75	08 - 6140DB	- 165	- 165	B-109	B-125	B-144
			16000	1630	2.52				16000	1630	2.77	08 - 6145DB	- 165	- 165	B-109	B-125	B-144
			16000	1630	2.52				16000	1630	3.05	08 - 6145DC	- 165	- 165	B-109	B-125	B-144
			22100	2250	2.77				22100	2250	2.77	08 - 6160DA	- 165	- 165	B-110	B-126	B-145
525	53.5	9810	1000	*	525	53.5	9810	1000	*	08 - 6120DB	- 195	- 195	B-108	B-124	B-143		
7.44	636	64.8	9810	1000	0.98	8.97	527	53.7	9810	1000	1.20	08 - 6125DB	- 195	- 195	B-108	B-124	B-143
			14700	1500	1.23				14700	1500	1.48	08 - 6130DB	- 195	- 195	B-109	B-125	B-144
			14700	1500	1.48				14700	1500	1.78	08 - 6135DB	- 195	- 195	B-109	B-125	B-144
			16000	1630	1.93				16000	1630	2.33	08 - 6140DB	- 195	- 195	B-109	B-125	B-144
			16000	1630	2.14				16000	1630	2.58	08 - 6145DB	- 195	- 195	B-109	B-125	B-144
			22100	2250	2.76				22100	2250	2.77	08 - 6160DA	- 195	- 195	B-110	B-126	B-145
			22100	2250	2.76				22100	2250	3.33	08 - 6160DB	- 195	- 195	B-110	B-126	B-145
22100	2250	2.77	22100	2250	2.77	08 - 6165DA	- 195	- 195	B-110	B-126	B-145						
522	53.2	9810	1000	*	522	53.2	9810	1000	*	08 - 6120DB	- 231	- 231	B-108	B-124	B-143		
6.28	753	76.8	9810	1000	0.84	7.58	624	63.6	9810	1000	1.01	08 - 6125DB	- 231	- 231	B-108	B-124	B-143
			<b>14700</b>	<b>1500</b>	<b>1.04</b>				<b>14700</b>	<b>1500</b>	<b>1.25</b>	<b>08 - 6130DB</b>	<b>- 231</b>	<b>- 231</b>	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>
			14700	1500	1.25				14700	1500	1.51	08 - 6135DB	- 231	- 231	B-109	B-125	B-144
			16000	1630	1.63				16000	1630	1.96	08 - 6140DB	- 231	- 231	B-109	B-125	B-144
			16000	1630	1.78				16000	1630	2.14	08 - 6145DB	- 231	- 231	B-109	B-125	B-144
			22100	2250	2.33				22100	2250	2.77	08 - 6160DA	- 231	- 231	B-110	B-126	B-145
			22100	2250	2.77				22100	2250	2.77	08 - 6165DA	- 231	- 231	B-110	B-126	B-145
			22100	2250	2.79				22100	2250	3.37	08 - 6165DB	- 231	- 231	B-110	B-126	B-145
29500	3010	2.77	29500	3010	2.77	08 - 6170DA	- 231	- 231	B-110	B-126	B-145						

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



CHHM/CNHM

CHFM/CNFM

CVVM/CNVM

n: Motor Speed

0.55 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet					
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM			
5.31	890	90.7	1.06		6.41	737	75.2	1.27		08 -	6135DB	- 273	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>			
			1.38					1.66					08 -	6140DB	- 273	B-109	B-125	B-144
			1.50					1.81					08 -	6145DB	- 273	B-109	B-125	B-144
			1.97					2.38					08 -	6160DA	- 273	B-110	B-126	B-145
			2.36					2.77					08 -	6165DA	- 273	B-110	B-126	B-145
			2.77					2.77					08 -	6170DA	- 273	B-110	B-126	B-145
			2.84					3.43					08 -	6170DB	- 273	B-110	B-126	B-145
2.77		2.77		08 -	6175DA	- 273	B-110	B-126	B-145									
4.55	1040	106	*		5.49	862	87.8	*		08 -	6125DB	- 319	B-108	B-124	B-143			
			*					*					08 -	6130DB	- 319	B-109	B-125	B-144
			0.90					1.09					08 -	6135DB	- 319	B-109	B-125	B-144
			1.18					1.42					08 -	6140DB	- 319	B-109	B-125	B-144
			1.32					1.59					08 -	6145DB	- 319	B-109	B-125	B-144
			1.69					2.04					08 -	6160DA	- 319	B-110	B-126	B-145
			2.02					2.44					08 -	6165DA	- 319	B-110	B-126	B-145
2.43		2.77		08 -	6170DA	- 319	B-110	B-126	B-145									
2.43		2.94		08 -	6170DB	- 319	B-110	B-126	B-145									
2.77		2.77		08 -	6175DA	- 319	B-110	B-126	B-145									
3.85	1230	125	*		4.64	1020	104	*		08 -	6130DB	- 377	B-109	B-125	B-144			
			*					*					08 -	6135DB	- 377	B-109	B-125	B-144
			1.00					1.20					<b>08 -</b>	<b>6140DB</b>	<b>- 377</b>	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>
			1.11					1.35					08 -	6145DB	- 377	B-109	B-125	B-144
			1.43					1.72					08 -	6160DA	- 377	B-110	B-126	B-145
			1.71					2.06					08 -	6165DA	- 377	B-110	B-126	B-145
			2.06					2.48					08 -	6170DA	- 377	B-110	B-126	B-145
2.56		2.77		08 -	6175DA	- 377	B-110	B-126	B-145									
2.56		3.09		08 -	6175DB	- 377	B-110	B-126	B-145									
3.07	1540	157	*		3.70	1280	130	*		08 -	6135DB	- 473	B-109	B-125	B-144			
			*					*					08 -	6140DB	- 473	B-109	B-125	B-144
			0.89					1.07					08 -	6145DB	- 473	B-109	B-125	B-144
			1.13					1.36					08 -	6160DA	- 473	B-110	B-126	B-145
			1.36					1.64					08 -	6165DA	- 473	B-110	B-126	B-145
			1.64					1.98					08 -	6170DA	- 473	B-110	B-126	B-145
			2.04					2.47					08 -	6175DA	- 473	B-110	B-126	B-145
2.59	1820	186	*		3.13	1510	154	*		08 -	6140DB	- 559	B-109	B-125	B-144			
			*					*					08 -	6145DB	- 559	B-109	B-125	B-144
			1.15					1.39					08 -	6165DA	- 559	B-110	B-126	B-145
			1.39					1.68					08 -	6170DA	- 559	B-110	B-126	B-145
			1.73					2.09					08 -	6175DA	- 559	B-110	B-126	B-145
2.23	2120	216	*		2.70	1750	179	*		08 -	6145DB	- 649	B-109	B-125	B-144			
			*					*					08 -	6160DA	- 649	B-110	B-126	B-145
			0.98					1.20					08 -	6165DA	- 649	B-110	B-126	B-145
			1.20					1.44					08 -	6170DA	- 649	B-110	B-126	B-145
			1.49					1.80					08 -	6175DA	- 649	B-110	B-126	B-145
1.98	2380	243	*		2.39	1970	201	*		08 -	6160DA	- 731	B-110	B-126	B-145			
			0.88					1.06					08 -	6165DA	- 731	B-110	B-126	B-145
			1.06					1.28					<b>08 -</b>	<b>6170DA</b>	<b>- 731</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>
			1.32					1.60					08 -	6175DA	- 731	B-110	B-126	B-145

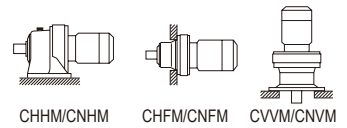
- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.



# Selection Tables Gearmotors

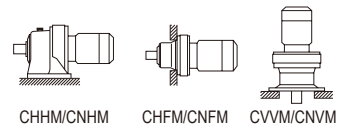
Selection Tables  
0.55 kW, 0.75 kW

0.55 kW	n <sub>1</sub> : Motor Speed					
	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub>	Output Torque Tout		Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque Tout		Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
[r/min]	[N·m]	[kgf·m]	[N]	[kgf]		[r/min]	[N·m]	[kgf·m]	[N]	[kgf]					CHHM	CHF	CVVM
1.72	1760	179	22100	2250	*	2.08	1760	179	22100	2250	*	08 - 6160DA	- 841		B-110	B-126	B-145
	2100	214	22100	2250	*		2100	214	22100	2250	*	08 - 6165DA	- 841		B-110	B-126	B-145
	2740	279	29500	3010	1.15		2270	232	29500	3010	1.39	08 - 6175DA	- 841		B-110	B-126	B-145
1.45	2100	214	22100	2250	*	1.74	2100	214	22100	2250	*	08 - 6165DA	- 1003		B-110	B-126	B-145
	2530	258	29500	3010	*		2530	258	29500	3010	*	08 - 6170DA	- 1003		B-110	B-126	B-145
	3270	333	29500	3010	0.96		2710	276	29500	3010	1.16	08 - 6175DA	- 1003		B-110	B-126	B-145
1.16	2530	258	29500	3010	*	1.40	2530	258	29500	3010	*	08 - 6170DA	- 1247		B-110	B-126	B-145
	3150	321	29500	3010	*		3150	321	29500	3010	*	08 - 6175DA	- 1247		B-110	B-126	B-145
0.980	3150	321	29500	3010	*	1.18	3150	321	29500	3010	*	08 - 6175DA	- 1479		B-110	B-126	B-145
0.784	4060	414	41700	4250	*	0.946	4060	414	41700	4250	*	08 - 6180DA	- 1849		B-110	B-126	B-145

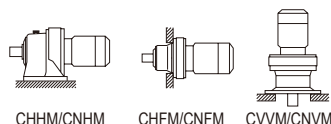
0.75 kW	n <sub>1</sub> : Motor Speed					
	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



50Hz					60Hz					Nomenclature			Page of Dimension Sheet						
Output Speed n <sub>2</sub>	Output Torque Tout		Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque Tout		Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM		
[r/min]	[N·m]	[kgf·m]	[N]	[kgf]		[r/min]	[N·m]	[kgf·m]	[N]	[kgf]					CHHM	CHF	CVVM		
580	11.7	1.20	1130	115	1.48	700	9.72	0.991	1080	110	1.48	1	- 6070SK	- 2.5 (K)		B-98	-	B-133	
			1130	115	1.85				1080	110	1.85				1 - 6075SK	- 2.5 (K)	B-98	-	B-133
			1260	128	2.20				1190	121	2.20				1 - 6080SK	- 2.5 (K)	B-98	-	B-133
			1260	128	2.75				1190	121	2.75				1 - 6085SK	- 2.5 (K)	B-98	-	B-133
			2250	229	3.20				2130	217	3.20				1 - 6090SK	- 2.5 (K)	B-98	-	B-133
			2250	229	3.61				2130	217	3.61				1 - 6095SK	- 2.5 (K)	B-98	-	B-133
483	14.1	1.44	1180	120	1.41	583	11.7	1.19	1120	114	1.41	1	- 6070SK	- 3 (K)		B-98	-	B-133	
			1180	120	1.77				1120	114	1.77				1 - 6075SK	- 3 (K)	B-98	-	B-133
			1310	134	2.20				1250	127	2.20				1 - 6080SK	- 3 (K)	B-98	-	B-133
			1310	134	2.75				1250	127	2.75				1 - 6085SK	- 3 (K)	B-98	-	B-133
			2340	239	3.12				2220	226	3.12				1 - 6090SK	- 3 (K)	B-98	-	B-133
			2340	239	3.51				2220	226	3.51				1 - 6095SK	- 3 (K)	B-98	-	B-133
363	18.8	1.91	<b>1270</b>	<b>129</b>	<b>1.25</b>	438	15.6	1.59	<b>1220</b>	<b>124</b>	<b>1.25</b>	1	- <b>6070SK</b>	- <b>4 (K)</b>	<b>B-98</b>	-	<b>B-133</b>		
			1270	129	1.56				1220	124	1.56				1 - 6075SK	- 4 (K)	B-98	-	B-133
			1420	145	2.20				1350	138	2.20				1 - 6080SK	- 4 (K)	B-98	-	B-133
			1420	145	2.75				1350	138	2.75				1 - 6085SK	- 4 (K)	B-98	-	B-133
			2660	271	3.12				2520	257	3.12				1 - 6090SK	- 4 (K)	B-98	-	B-133
			2660	271	3.51				2520	257	3.51				1 - 6095SK	- 4 (K)	B-98	-	B-133
290	23.5	2.39	<b>1370</b>	<b>140</b>	<b>1.18</b>	350	19.4	1.98	<b>1290</b>	<b>132</b>	<b>1.18</b>	1	- <b>6070SK</b>	- <b>5 (K)</b>	<b>B-98</b>	-	<b>B-133</b>		
			1370	140	1.48				1290	132	1.48				1 - 6075SK	- 5 (K)	B-98	-	B-133
			1530	156	2.07				1460	149	2.07				1 - 6080SK	- 5 (K)	B-98	-	B-133
			1530	156	2.47				1460	149	2.43				1 - 6085SK	- 5 (K)	B-98	-	B-133
			2820	287	2.98				2680	273	2.98				1 - 6090SK	- 5 (K)	B-98	-	B-133
			2820	287	3.51				2680	273	3.51				1 - 6095SK	- 5 (K)	B-98	-	B-133

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHF, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



0.75 kW	n: Motor Speed	
	Hz	50Hz
	P	4 6
n <sub>1</sub>	r/min	1450 980
		4 6
		1750 1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM		
242	28.2	2.87	1.04	292	23.3	2.38	1.04	1	6070SK	6	(K)	B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
181	37.5	3.83	1.04	219	31.1	3.17	1.04	1	6085	6	(K)	B-100	B-116	B-135	
												B-100	B-116	B-135	
												B-100	B-116	B-135	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
145	46.9	4.78	1.17	175	38.9	3.96	1.17	1	6080SK	10	(K)	B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
												B-98	-	B-133	
132	51.6	5.26	1.04	159	42.8	4.36	1.04	1	6085	11	(K)	B-100	B-116	B-135	
												B-100	B-116	B-135	
												B-100	B-116	B-135	
												B-100	B-116	B-135	
112	61.0	6.22	1.04	135	50.5	5.15	1.04	1	6085	13	(K)	B-100	B-116	B-135	
												B-100	B-116	B-135	
												B-100	B-116	B-135	
96.7	70.4	7.18	1.04	117	58.3	5.95	1.04	1	6085	15	(K)	B-100	B-116	B-135	
												B-100	B-116	B-135	
												B-100	B-116	B-135	
85.3	79.8	8.13	1.04	103	66.1	6.74	1.04	1	6085	17	(K)	B-100	B-116	B-135	
												B-100	B-116	B-135	
												B-100	B-116	B-135	
												B-101	B-117	B-136	
69.0	98.5	10.0	1.01	83.3	81.7	8.32	1.01	1	6090	21	(K)	B-100	B-116	B-135	
												B-100	B-116	B-135	
												B-101	B-117	B-136	
58.0	117	12.0	1.15	70.0	97.2	9.91	1.15	1	6095	25	(K)	B-100	B-116	B-135	
												B-101	B-117	B-136	
												B-101	B-117	B-136	
												B-101	B-117	B-136	
												B-101	B-117	B-136	
50.0	136	13.9	1.05	60.3	113	11.5	1.05	1	6095	29	(K)	B-100	B-116	B-135	
												B-101	B-117	B-136	
												B-101	B-117	B-136	
												B-101	B-117	B-136	
												B-101	B-117	B-136	
												B-101	B-117	B-136	

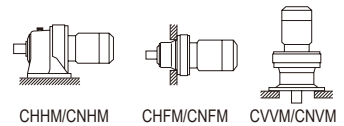
Selection Tables 0.75 kW GEARMOTORS

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

0.75 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

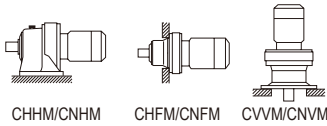


GEARMOTORS  
Selection Tables  
1.1 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet																
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM														
41.4	164	16.7			50.0	136	13.9			1 -	6095	- 35	B-100	B-116	B-135														
33.7	202	20.6			40.7	167	17.0			1 -	6095	- 43	B-100	B-116	B-135														
28.4	239	24.4			34.3	198	20.2			1 -	6105	- 51	B-101	B-117	B-136														
24.6	277	28.2			29.7	229	23.4			1 -	6105	- 59	B-101	B-117	B-136														
20.4	333	34.0			24.6	276	28.1			1 -	6115	- 71	B-101	B-117	B-136														
16.7	408	41.6			20.1	338	34.5			1 -	6115	- 87	B-101	B-117	B-136														
13.9	462	47.1			16.8	383	39.1			1 -	6120DB	- 104	B-108	B-124	B-143														
12.0	538	54.8			14.5	446	45.4			1 -	6125DB	- 121	B-108	B-124	B-143														

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



0.75 kW	n: Motor Speed	
	Hz	50Hz      60Hz
	P n <sub>1</sub> r/min	4      6      4      6 1450   980   1750   1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
10.1	525	53.5	9810	1000	*	12.2	527	53.7	9810	1000	1.20	1 - 6120DB	- 143	B-108	B-124	B-143	
			9810	1000	0.98				1 - 6125DB	- 143	B-108	B-124	B-143				
	636	64.8	14700	1500	1.23		14700	1500	1.48	1 - 6130DB	- 143	B-109	B-125	B-144			
			14700	1500	1.48		14700	1500	1.78	1 - 6135DB	- 143	B-109	B-125	B-144			
			16000	1630	1.93		16000	1630	2.03	1 - 6140DB	- 143	B-109	B-125	B-144			
			16000	1630	1.93		16000	1630	2.33	1 - 6140DC	- 143	B-109	B-125	B-144			
			16000	1630	2.03		16000	1630	2.03	1 - 6145DB	- 143	B-109	B-125	B-144			
			16000	1630	2.15		16000	1630	2.60	1 - 6145DC	- 143	B-109	B-125	B-144			
			22100	2250	2.76		22100	2250	3.33	1 - 6160DB	- 143	B-110	B-126	B-145			
			22100	2250	2.76		22100	2250	3.33	1 - 6160DB	- 143	B-110	B-126	B-145			
8.79	525	53.5	9810	1000	*	10.6	608	62.0	9810	1000	*	1 - 6120DB	- 165	B-108	B-124	B-143	
			9810	1000	0.86				9810	1000	1.04	1 - 6125DB	- 165	B-108	B-124	B-143	
	734	74.8	<b>14700</b>	<b>1500</b>	<b>1.06</b>		<b>14700</b>	<b>1500</b>	<b>1.28</b>	<b>1 - 6130DB</b>	<b>- 165</b>	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>			
			14700	1500	1.28		14700	1500	1.55	1 - 6135DB	- 165	B-109	B-125	B-144			
			16000	1630	1.67		16000	1630	2.02	1 - 6140DB	- 165	B-109	B-125	B-144			
			16000	1630	1.85		16000	1630	2.03	1 - 6145DB	- 165	B-109	B-125	B-144			
			16000	1630	1.85		16000	1630	2.23	1 - 6145DC	- 165	B-109	B-125	B-144			
			22100	2250	2.03		22100	2250	2.03	1 - 6160DA	- 165	B-110	B-126	B-145			
			22100	2250	2.39		22100	2250	2.89	1 - 6160DB	- 165	B-110	B-126	B-145			
			22100	2250	2.86		22100	2250	3.46	1 - 6165DB	- 165	B-110	B-126	B-145			
7.44	630	64.2	9810	1000	*	8.97	718	73.2	9810	1000	*	1 - 6125DB	- 195	B-108	B-124	B-143	
			14700	1500	1.08				14700	1500	1.31	1 - 6135DB	- 195	B-109	B-125	B-144	
	867	88.4	16000	1630	1.41		16000	1630	1.71	1 - 6140DB	- 195	B-109	B-125	B-144			
			16000	1630	1.57		16000	1630	1.89	1 - 6145DB	- 195	B-109	B-125	B-144			
			22100	2250	2.02		22100	2250	2.03	1 - 6160DA	- 195	B-110	B-126	B-145			
			22100	2250	2.02		22100	2250	2.44	1 - 6160DB	- 195	B-110	B-126	B-145			
			22100	2250	2.03		22100	2250	2.03	1 - 6165DA	- 195	B-110	B-126	B-145			
			22100	2250	2.42		22100	2250	2.92	1 - 6165DB	- 195	B-110	B-126	B-145			
			29500	3010	2.92		29500	3010	3.52	1 - 6170DB	- 195	B-110	B-126	B-145			
			29500	3010	2.92		29500	3010	3.52	1 - 6170DB	- 195	B-110	B-126	B-145			
6.28	630	64.2	9810	1000	*	7.58	851	86.7	9810	1000	*	1 - 6125DB	- 231	B-108	B-124	B-143	
			14700	1500	0.92				14700	1500	1.10	1 - 6135DB	- 231	B-109	B-125	B-144	
	1030	105	16000	1630	1.19		16000	1630	1.44	1 - 6140DB	- 231	B-109	B-125	B-144			
			16000	1630	1.30		16000	1630	1.57	1 - 6145DB	- 231	B-109	B-125	B-144			
			22100	2250	1.71		22100	2250	2.03	1 - 6160DA	- 231	B-110	B-126	B-145			
			22100	2250	2.03		22100	2250	2.03	1 - 6165DA	- 231	B-110	B-126	B-145			
			22100	2250	2.04		22100	2250	2.47	1 - 6165DB	- 231	B-110	B-126	B-145			
			29500	3010	2.03		29500	3010	2.03	1 - 6170DA	- 231	B-110	B-126	B-145			
			29500	3010	2.46		29500	3010	2.97	1 - 6170DB	- 231	B-110	B-126	B-145			
			29500	3010	2.46		29500	3010	2.97	1 - 6170DB	- 231	B-110	B-126	B-145			
5.31	780	79.5	14700	1500	*	6.41	1010	103	14700	1500	*	1 - 6130DB	- 273	B-109	B-125	B-144	
			14700	1500	*				14700	1500	*	1 - 6135DB	- 273	B-109	B-125	B-144	
	1210	124	<b>16000</b>	<b>1630</b>	<b>1.01</b>		<b>16000</b>	<b>1630</b>	<b>1.22</b>	<b>1 - 6140DB</b>	<b>- 273</b>	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>			
			16000	1630	1.10		16000	1630	1.33	1 - 6145DB	- 273	B-109	B-125	B-144			
			22100	2250	1.45		22100	2250	1.75	1 - 6160DA	- 273	B-110	B-126	B-145			
			22100	2250	1.73		22100	2250	2.03	1 - 6165DA	- 273	B-110	B-126	B-145			
			29500	3010	2.03		29500	3010	2.03	1 - 6170DA	- 273	B-110	B-126	B-145			
			29500	3010	2.08		29500	3010	2.52	1 - 6170DB	- 273	B-110	B-126	B-145			
			29500	3010	2.03		29500	3010	2.03	1 - 6175DA	- 273	B-110	B-126	B-145			
			29500	3010	2.60		29500	3010	3.13	1 - 6175DB	- 273	B-110	B-126	B-145			

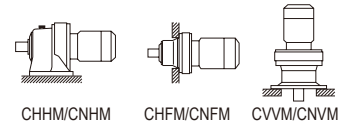
Selection Tables 1.5 kW

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

0.75 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

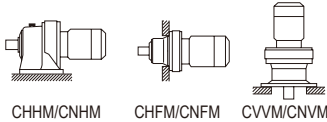


Selection Tables  
0.75 kW  
GEARMOTORS

50Hz					60Hz					Nomenclature			Page of Dimension Sheet									
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM							
4.55	940	95.8	14700	1500	4.59	1180	120	14700	1500	1	6135DB	- 319	B-109	B-125	B-144							
													B-109	B-125	B-144							
3.85	1230	125	16000	1630	4.64	1390	142	16000	1630	1	6140DB	- 377	B-109	B-125	B-144							
													B-109	B-125	B-144							
3.07	1370	140	15700	1600	3.70	1740	178	15700	1600	1	6145DB	- 473	B-109	B-125	B-144							
													B-110	B-126	B-145							
2.59	1740	177	22100	2250	3.13	2060	210	22100	2250	1	6160DA	- 559	B-110	B-126	B-145							
													B-110	B-126	B-145							
2.23	2100	214	22100	2250	2.70	2390	244	22100	2250	1	6165DA	- 649	B-110	B-126	B-145							
													B-110	B-126	B-145							
1.98	2100	214	22100	2250	2.39	2690	274	22100	2250	1	6165DA	- 731	B-110	B-126	B-145							
													B-110	B-126	B-145							
1.72	2530	258	29500	3010	2.08	3100	316	29500	3010	1	6170DA	- 841	B-110	B-126	B-145							
													B-110	B-126	B-145							
1.45	3150	321	29500	3010	1.74	3690	377	29500	3010	1	6175DA	- 1003	B-110	B-126	B-145							
													B-110	B-126	B-145							

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



0.75 kW	n: Motor Speed	
	Hz	50Hz      60Hz
	P	4      6      4      6
n <sub>1</sub>	r/min	1450    980    1750    1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub>	Output Torque Tout		Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque Tout		Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
[r/min]	[N·m]	[kgf·m]	[N]	[kgf]		[r/min]	[N·m]	[kgf·m]	[N]	[kgf]					CHHM	CHFM	CVVM
1.16	4060	414	41700	4250	*	1.40	4060	414	41700	4250	*	1 - 6180DA	- 1247	B-110	B-126	B-145	
			41700	4250	0.90					41700	4250	1.09	1 - 6185DA	- 1247	B-110	B-126	B-145
	5540	565	59000	6010	1.15			4590	468	59000	6010	1.39	1 - 6190DA	- 1247	B-111	B-128	B-147
			59000	6010	1.44				59000	6010	1.73	1 - 6195DA	- 1247	B-111	B-128	B-147	
0.980	4060	414	41700	4250	*	1.18	4060	414	41700	4250	*	1 - 6180DA	- 1479	B-110	B-126	B-145	
	5000	510	41700	4250	*			5000	510	41700	4250	*	1 - 6185DA	- 1479	B-110	B-126	B-145
	6580	670	58800	5990	1.21			5450	555	59000	6010	1.46	1 - 6195DA	- 1479	B-111	B-128	B-147
0.784	5000	510	41700	4250	*	0.946	5000	510	41700	4250	*	1 - 6185DA	- 1849	B-110	B-126	B-145	
	6380	650	59000	6010	*			6380	650	59000	6010	*	1 - 6190DA	- 1849	B-111	B-128	B-147
	8220	838	58900	6000	0.97			6810	694	59000	6010	1.17	1 - 6195DA	- 1849	B-111	B-128	B-147
0.702	5000	510	41600	4240	*	0.847	5000	510	41600	4240	*	1 - 6185DA	- 2065	B-110	B-126	B-145	
	6380	650	58600	5970	*			6380	650	58600	5970	*	1 - 6190DA	- 2065	B-111	B-128	B-147
	9180	936	57800	5890	0.87			7610	775	58200	5940	1.05	1 - 6195DA	- 2065	B-111	B-128	B-147
0.572	6380	650	58600	5970	*	0.690	6380	650	58600	5970	*	1 - 6190DA	- 2537	B-111	B-128	B-147	
	7960	811	58100	5930	*			7960	811	58100	5930	*	1 - 6195DA	- 2537	B-111	B-128	B-147
	9300	948	84100	8570	*			9300	948	84100	8570	*	1 - 6205DA	- 2537	B-112	B-129	B-148
	11300	1150	84100	8570	0.82		9350	953	84100	8570	1.00	1 - 6205DA	- 2537	B-112	B-129	B-148	
0.476	6380	650	58900	6000	*	0.575	6380	650	58900	6000	*	1 - 6190DA	- 3045	B-111	B-128	B-147	
	7960	811	58400	5950	*			7960	811	58400	5950	*	1 - 6195DA	- 3045	B-111	B-128	B-147
	8760	893	84100	8570	*			8760	893	84100	8570	*	1 - 6205DA	- 3045	B-112	B-129	B-148
0.417	6380	650	58600	5970	*	0.503	6380	650	58600	5970	*	1 - 6190DA	- 3481	B-111	B-128	B-147	
	7960	811	58100	5930	*			7960	811	58100	5930	*	1 - 6195DA	- 3481	B-111	B-128	B-147
	9300	948	84100	8570	*			9300	948	84100	8570	*	1 - 6205DA	- 3481	B-112	B-129	B-148
0.327	6380	650	58900	6000	*	0.394	6380	650	58900	6000	*	1 - 6190DA	- 4437	B-111	B-128	B-147	
	7960	811	58400	5950	*			7960	811	58400	5950	*	1 - 6195DA	- 4437	B-111	B-128	B-147
	8760	893	84100	8570	*			8760	893	84100	8570	*	1 - 6205DA	- 4437	B-112	B-129	B-148
0.282	6380	650	58900	6000	*	0.341	6380	650	58900	6000	*	1 - 6190DA	- 5133	B-111	B-128	B-147	
	7960	811	58400	5950	*			7960	811	58400	5950	*	1 - 6195DA	- 5133	B-111	B-128	B-147
	9300	948	84100	8570	*			9300	948	84100	8570	*	1 - 6205DA	- 5133	B-112	B-129	B-148
0.235	6380	650	58900	6000	*	0.283	6380	650	58900	6000	*	1 - 6190DA	- 6177	B-111	B-128	B-147	
	7960	811	58400	5950	*			7960	811	58400	5950	*	1 - 6195DA	- 6177	B-111	B-128	B-147
	8760	893	84100	8570	*			8760	893	84100	8570	*	1 - 6205DA	- 6177	B-112	B-129	B-148
0.192	6380	650	58900	6000	*	0.231	6380	650	58900	6000	*	1 - 6190DA	- 7569	B-111	B-128	B-147	
	7960	811	58400	5950	*			7960	811	58400	5950	*	1 - 6195DA	- 7569	B-111	B-128	B-147
	8760	893	84100	8570	*			8760	893	84100	8570	*	1 - 6205DA	- 7569	B-112	B-129	B-148

GEARMOTORS

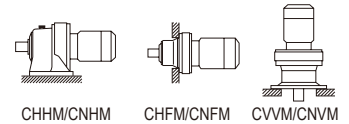
Selection Tables  
0.75 kW

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>1.1 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



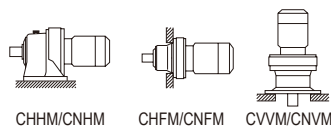
GEARMOTORS

Selection Tables  
1.1 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
580	17.2	1.75	1200	122	700	14.3	1.45	1140	116	1H - 6080SK	- 2.5 (K)	B-98	-	B-133	
			1200	122				1140	116	1.87	1H - 6085SK	- 2.5 (K)	B-98	-	B-133
			2230	227				2120	216	2.18	1H - 6090SK	- 2.5 (K)	B-98	-	B-133
			2230	227				2120	216	2.46	1H - 6095SK	- 2.5 (K)	B-98	-	B-133
			2230	227				2120	216	2.90	1H - 6100SK	- 2.5 (K)	B-99	-	B-134
			2230	227				2120	216	3.41	1H - 6105SK	- 2.5 (K)	B-99	-	B-134
483	20.6	2.10	1250	127	583	17.1	1.74	1200	122	1H - 6080SK	- 3 (K)	B-98	-	B-133	
			1250	127				1200	122	1.87	1H - 6085SK	- 3 (K)	B-98	-	B-133
			2310	235				2210	225	2.13	1H - 6090SK	- 3 (K)	B-98	-	B-133
			2310	235				2210	225	2.39	1H - 6095SK	- 3 (K)	B-98	-	B-133
363	27.5	2.81	1330	136	438	22.8	2.33	1290	131	1H - 6080SK	- 4 (K)	B-98	-	B-133	
			1330	136				1290	131	1.87	1H - 6085SK	- 4 (K)	B-98	-	B-133
			2560	261				2450	250	2.13	1H - 6090SK	- 4 (K)	B-98	-	B-133
			2560	261				2450	250	2.39	1H - 6095SK	- 4 (K)	B-98	-	B-133
			2560	261				2450	250	2.93	1H - 6100SK	- 4 (K)	B-99	-	B-134
			2560	261				2450	250	3.45	1H - 6105SK	- 4 (K)	B-99	-	B-134
290	34.4	3.51	1420	145	350	28.5	2.91	1370	140	1H - 6080SK	- 5 (K)	B-98	-	B-133	
			1420	145				1370	140	1.65	1H - 6085SK	- 5 (K)	B-98	-	B-133
			2740	279				2600	265	2.03	1H - 6090SK	- 5 (K)	B-98	-	B-133
			2740	279				2600	265	2.39	1H - 6095SK	- 5 (K)	B-98	-	B-133
			2740	279				2600	265	2.86	1H - 6100SK	- 5 (K)	B-99	-	B-134
242	41.3	4.21	<b>1450</b>	<b>148</b>	292	34.2	3.49	<b>1410</b>	<b>144</b>	<b>1H - 6080SK</b>	<b>- 6 (K)</b>	<b>B-98</b>	-	<b>B-133</b>	
			1450	148				1410	144	1.47	1H - 6085SK	- 6 (K)	B-98	-	B-133
			2800	285				2670	272	1.74	1H - 6090SK	- 6 (K)	B-98	-	B-133
			2800	285				2670	272	2.06	1H - 6095SK	- 6 (K)	B-98	-	B-133
			2800	285				2670	272	2.43	1H - 6100SK	- 6 (K)	B-99	-	B-134
			2800	285				2670	272	2.85	1H - 6105SK	- 6 (K)	B-99	-	B-134
			2820	287				2650	270	1.05	1H - 6090	- 6	B-100	B-116	B-135
			2820	287				2650	270	1.38	1H - 6095	- 6	B-100	B-116	B-135
			4140	422				3900	397	2.14	1H - 6100	- 6	B-101	B-117	B-136
			4140	422				3900	397	2.89	1H - 6105	- 6	B-101	B-117	B-136
181	55.1	5.61	<b>1490</b>	<b>152</b>	219	45.6	4.65	<b>1450</b>	<b>148</b>	<b>1H - 6080SK</b>	<b>- 8 (K)</b>	<b>B-98</b>	-	<b>B-133</b>	
			1490	152				1450	148	1.25	1H - 6085SK	- 8 (K)	B-98	-	B-133
			3060	312				2930	299	1.37	1H - 6090SK	- 8 (K)	B-98	-	B-133
			3060	312				2930	299	1.61	1H - 6095SK	- 8 (K)	B-98	-	B-133
			3060	312				2930	299	1.92	1H - 6100SK	- 8 (K)	B-99	-	B-134
			3060	312				2930	299	2.26	1H - 6105SK	- 8 (K)	B-99	-	B-134
			4080	416				3870	395	3.37	1H - 6110SK	- 8 (K)	B-99	-	B-134
			3130	319				2950	301	1.05	1H - 6090	- 8	B-100	B-116	B-135
			3130	319				2950	301	1.38	1H - 6095	- 8	B-100	B-116	B-135
			4620	471				4350	443	2.14	1H - 6100	- 8	B-101	B-117	B-136
4620	471	4350	443	2.89	1H - 6105	- 8	B-101	B-117	B-136						
145	68.8	7.02	<b>1540</b>	<b>157</b>	175	57.0	5.81	<b>1510</b>	<b>154</b>	<b>1H - 6085SK</b>	<b>- 10 (K)</b>	<b>B-98</b>	-	<b>B-133</b>	
			3220	328				3070	313	1.27	1H - 6090SK	- 10 (K)	B-98	-	B-133
			3220	328				3070	313	1.61	1H - 6095SK	- 10 (K)	B-98	-	B-133
			3220	328				3070	313	1.80	1H - 6100SK	- 10 (K)	B-99	-	B-134
			3220	328				3070	313	2.00	1H - 6105SK	- 10 (K)	B-99	-	B-134
			4400	449				4180	426	2.78	1H - 6110SK	- 10 (K)	B-99	-	B-134
4400	449	4180	426	3.47	1H - 6115SK	- 10 (K)	B-99	-	B-134						
132	75.7	7.72	<b>3340</b>	<b>340</b>	159	62.7	6.39	<b>3340</b>	<b>340</b>	<b>1H - 6090</b>	<b>- 11</b>	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>	
			3340	340				3340	340	1.38	1H - 6095	- 11	B-100	B-116	B-135
			5250	536				4950	504	2.14	1H - 6100	- 11	B-101	B-117	B-136
			5250	536				4950	504	2.89	1H - 6105	- 11	B-101	B-117	B-136

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



<b>1.1 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

50Hz					60Hz					Nomenclature			Page of Dimension Sheet							
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM			
112	89.5	9.12	3340	340	1.05	135	74.1	7.56	3340	340	1.38	1H -	6090	- 13	B-100	B-116	B-135			
			3340	340	1.38				3340	340	1.38				1H -	6095	- 13	B-100	B-116	B-135
			5400	550	2.14				5140	524	2.14				1H -	6100	- 13	B-101	B-117	B-136
96.7	103	10.5	3340	340	1.05	117	85.5	8.72	3340	340	1.38	1H -	6090	- 15	B-100	B-116	B-135			
			3340	340	1.38				3340	340	1.38				1H -	6095	- 15	B-100	B-116	B-135
			5400	550	2.14				5400	550	2.14				1H -	6100	- 15	B-101	B-117	B-136
85.3	117	11.9	3340	340	1.05	103	96.9	9.88	3340	340	1.38	1H -	6090	- 17	B-100	B-116	B-135			
			3340	340	1.38				3340	340	1.38				1H -	6095	- 17	B-100	B-116	B-135
			5400	550	1.81				5400	550	1.81				1H -	6100	- 17	B-101	B-117	B-136
69.0	145	14.7	5400	550	2.24	83.3	120	12.2	5400	550	2.24	1H -	6105	- 17	B-101	B-117	B-136			
			6660	679	2.89				6270	639	2.89				1H -	6110	- 17	B-101	B-117	B-136
			3340	340	1.37				3340	340	1.38				1H -	6095	- 21	B-100	B-116	B-135
58.0	172	17.5	5400	550	1.73	70.0	143	14.5	5400	550	1.75	1H -	6100	- 21	B-101	B-117	B-136			
			5400	550	2.07				5400	550	2.13				1H -	6105	- 21	B-101	B-117	B-136
			7080	722	2.47				6670	679	2.47				1H -	6110	- 21	B-101	B-117	B-136
50.0	200	20.3	7080	722	2.83	60.3	165	16.9	6670	679	2.83	1H -	6115	- 21	B-101	B-117	B-136			
			5400	550	1.15				5400	550	1.15				1H -	6100	- 25	B-101	B-117	B-136
			5400	550	1.52				5400	550	1.52				1H -	6105	- 25	B-101	B-117	B-136
41.4	241	24.6	7180	732	1.74	50.0	200	20.3	6770	690	1.74	1H -	6110	- 25	B-101	B-117	B-136			
			7180	732	2.02				6770	690	2.02				1H -	6115	- 25	B-101	B-117	B-136
			8700	887	2.81				8190	835	2.81				1H -	6120	- 25	B-101	B-117	B-136
33.7	296	30.2	5400	550	1.10	40.7	245	25.0	5400	550	1.10	1H -	6100	- 29	B-101	B-117	B-136			
			5400	550	1.45				5400	550	1.45				1H -	6105	- 29	B-101	B-117	B-136
			7350	750	1.73				6960	709	1.73				1H -	6110	- 29	B-101	B-117	B-136
28.4	351	35.8	7350	750	2.02	34.3	291	29.6	6960	709	2.02	1H -	6115	- 29	B-101	B-117	B-136			
			9050	922	2.61				8510	868	2.72				1H -	6120	- 29	B-101	B-117	B-136
			5400	550	1.09				5400	550	1.09				1H -	6105	- 35	B-101	B-117	B-136
24.6	406	41.4	7400	754	1.36	29.7	336	34.3	7430	758	1.36	1H -	6110	- 35	B-101	B-117	B-136			
			7400	754	1.65				7430	758	1.65				1H -	6115	- 35	B-101	B-117	B-136
			9560	975	2.15				9000	918	2.26				1H -	6120	- 35	B-101	B-117	B-136
20.4	489	49.8	9560	975	2.62	24.6	405	41.3	9000	918	2.89	1H -	6125	- 35	B-101	B-117	B-136			
			5400	550	0.98				5380	548	0.98				1H -	6105	- 43	B-101	B-117	B-136
			7610	776	1.18				7610	776	1.18				1H -	6110	- 43	B-101	B-117	B-136
13100	1340	1.92	7610	776	1.38	29.7	336	34.3	7610	776	1.38	1H -	6115	- 43	B-101	B-117	B-136			
			9810	1000	1.74				9580	976	1.74				1H -	6120	- 43	B-101	B-117	B-136
			9810	1000	2.13				9580	976	2.16				1H -	6125	- 43	B-101	B-117	B-136
16000	1630	2.69	12000	1220	2.64	29.7	336	34.3	11300	1150	2.72	1H -	6130	- 43	B-102	B-118	B-137			
			7600	775	1.01				7610	776	1.01				1H -	6115	- 51	B-101	B-117	B-136
			9810	1000	1.48				9810	1000	1.56				1H -	6120	- 51	B-101	B-117	B-136
16000	1630	2.89	9810	1000	1.79	29.7	336	34.3	9810	1000	2.07	1H -	6125	- 51	B-101	B-117	B-136			
			12500	1270	2.22				11800	1200	2.31				1H -	6130	- 51	B-102	B-118	B-137
			12500	1270	2.32				11800	1200	2.66				1H -	6135	- 51	B-102	B-118	B-137
16000	1630	2.21	7570	772	0.92	29.7	336	34.3	7610	776	0.92	1H -	6115	- 59	B-101	B-117	B-136			
			9810	1000	1.18				9810	1000	1.18				1H -	6120	- 59	B-101	B-117	B-136
			9810	1000	1.47				9810	1000	1.47				1H -	6125	- 59	B-101	B-117	B-136
16000	1630	2.21	13100	1340	1.92	29.7	336	34.3	12300	1260	1.99	1H -	6130	- 59	B-102	B-118	B-137			
			13100	1340	2.22				12300	1260	2.29				1H -	6135	- 59	B-102	B-118	B-137
			16000	1630	2.69				16000	1630	2.69				1H -	6140	- 59	B-102	B-118	B-137
16000	1630	2.38	16000	1630	2.89	29.7	336	34.3	16000	1630	3.32	1H -	6145	- 59	B-102	B-118	B-137			
			9810	1000	1.04				9810	1000	1.09				1H -	6125	- 71	B-101	B-117	B-136
			13900	1410	1.60				13100	1330	1.66				1H -	6130	- 71	B-102	B-118	B-137
16000	1630	2.21	13900	1410	1.85	24.6	405	41.3	13100	1330	1.97	1H -	6135	- 71	B-102	B-118	B-137			
			16000	1630	2.21				16000	1630	2.21				1H -	6140	- 71	B-102	B-118	B-137
			16000	1630	2.75				16000	1630	2.75				1H -	6145	- 71	B-102	B-118	B-137

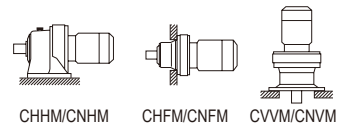
- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.



# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>1.1 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

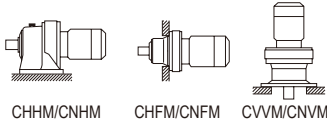


GEARMOTORS  
Selection Tables  
1.1 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM		
16.7	599	61.0	0.94	9620	20.1	496	50.6	1.03	9810	1H -	6125	- 87	B-101	B-117	B-136		
			<b>1.29</b>	<b>14700</b>				<b>14100</b>	<b>1430</b>	<b>1H -</b>	<b>6130</b>	<b>- 87</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>		
			1.50	14700				14100	1430	1H -	6135	- 87	B-102	B-118	B-137		
			1.80	16000				16000	1630	1H -	6140	- 87	B-102	B-118	B-137		
			1.96	16000				16000	1630	1H -	6145	- 87	B-102	B-118	B-137		
			2.93	22100				22100	2250	1H -	6160	- 87	B-103	B-119	B-138		
13.9	678	69.1	*	525	16.8	562	57.3	*	525	1H -	6120DB	- 104	B-108	B-124	B-143		
			0.93	9810				9810	1000	1H -	6125DB	- 104	B-108	B-124	B-143		
			1.15	14700				14700	1500	1H -	6130DB	- 104	B-109	B-125	B-144		
			1.39	14700				14700	1500	1H -	6135DB	- 104	B-109	B-125	B-144		
			1.39	16000				16000	1630	1H -	6140DB	- 104	B-109	B-125	B-144		
			1.81	16000				16000	1630	1H -	6140DC	- 104	B-109	B-125	B-144		
			2.02	16000				16000	1630	1H -	6145DC	- 104	B-109	B-125	B-144		
			2.59	22100				22100	2250	1H -	6160DB	- 104	B-110	B-126	B-145		
2.59	22100	22100	2250	1H -	6160DC	- 104	B-111	B-127	B-146								
12.0	789	80.4	*	525	14.5	654	66.6	*	525	1H -	6120DB	- 121	B-108	B-124	B-143		
			*	622				622	63.4	9810	1000	1H -	6125DB	- 121	B-108	B-124	B-143
			1.19	14700				14700	1500	1H -	6135DB	- 121	B-109	B-125	B-144		
			1.39	16000				16000	1630	1H -	6140DB	- 121	B-109	B-125	B-144		
			1.55	16000				16000	1630	1H -	6140DC	- 121	B-109	B-125	B-144		
			1.64	16000				16000	1630	1H -	6145DC	- 121	B-109	B-125	B-144		
			2.22	22100				22100	2250	1H -	6160DB	- 121	B-110	B-126	B-145		
			2.66	22100				22100	2250	1H -	6165DB	- 121	B-110	B-126	B-145		
2.66	22100	22100	2250	1H -	6165DC	- 121	B-111	B-127	B-146								
10.1	932	95.0	*	630	12.2	773	78.8	*	630	1H -	6125DB	- 143	B-108	B-124	B-143		
			<b>1.01</b>	<b>14700</b>				<b>14700</b>	<b>1500</b>	<b>1H -</b>	<b>6135DB</b>	<b>- 143</b>	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>		
			1.31	16000				16000	1630	1H -	6140DB	- 143	B-109	B-125	B-144		
			1.31	16000				16000	1630	1H -	6140DC	- 143	B-109	B-125	B-144		
			1.39	16000				16000	1630	1H -	6145DB	- 143	B-109	B-125	B-144		
			1.47	16000				16000	1630	1H -	6145DC	- 143	B-109	B-125	B-144		
			1.88	22100				22100	2250	1H -	6160DB	- 143	B-110	B-126	B-145		
			2.25	22100				22100	2250	1H -	6165DB	- 143	B-110	B-126	B-145		
2.71	29500	29500	3010	1H -	6170DB	- 143	B-110	B-126	B-145								
2.71	29500	29500	3010	1H -	6170DC	- 143	B-111	B-127	B-146								
8.79	1080	110	*	630	10.6	891	90.9	*	630	1H -	6125DB	- 165	B-108	B-124	B-143		
			*	780				780	79.5	14700	1500	1H -	6130DB	- 165	B-109	B-125	B-144
			0.87	14700				14700	1500	1H -	6135DB	- 165	B-109	B-125	B-144		
			1.14	16000				16000	1630	1H -	6140DB	- 165	B-109	B-125	B-144		
			1.26	16000				16000	1630	1H -	6145DB	- 165	B-109	B-125	B-144		
			1.26	16000				16000	1630	1H -	6145DC	- 165	B-109	B-125	B-144		
			1.39	22100				22100	2250	1H -	6160DA	- 165	B-110	B-126	B-145		
			1.63	22100				22100	2250	1H -	6160DB	- 165	B-110	B-126	B-145		
			1.95	22100				22100	2250	1H -	6165DB	- 165	B-110	B-126	B-145		
			2.35	29500				29500	3010	1H -	6170DB	- 165	B-110	B-126	B-145		
			2.89	29500				29500	3010	1H -	6175DB	- 165	B-110	B-126	B-145		
			2.93	29500				29500	3010	1H -	6175DC	- 165	B-111	B-127	B-146		

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFMCNFM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



CHHM/CNHM

CHFM/CNFM

CVVM/CNVM

1.1 kW

n: Motor Speed

Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

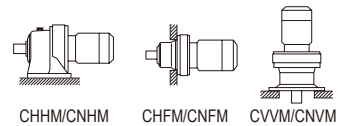
50Hz					60Hz					Nomenclature			Page of Dimension Sheet						
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM		
7.44	780	79.5	14700	1500	*	8.97	780	79.5	14700	1500	*	1H - 6130DB	- 195	B-109	B-125	B-144			
	940	95.8	14700	1500	*		940	95.8	14700	1500	*	1H - 6135DB	- 195	B-109	B-125	B-144			
			<b>16000</b>	<b>1630</b>	<b>1.07</b>					<b>16000</b>	<b>1630</b>	<b>1.29</b>	<b>1H - 6145DB</b>	<b>- 195</b>	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>		
			22100	2250	1.38					22100	2250	1.39	1H - 6160DA	- 195	B-110	B-126	B-145		
			22100	2250	1.38					22100	2250	1.67	1H - 6160DB	- 195	B-110	B-126	B-145		
	1270	130	22100	2250	1.39		7.58	1050	107	22100	2250	1.39	1H - 6165DA	- 195	B-110	B-126	B-145		
			22100	2250	1.65						22100	2250	1.99	1H - 6165DB	- 195	B-110	B-126	B-145	
			29500	3010	1.99						29500	3010	2.40	1H - 6170DB	- 195	B-110	B-126	B-145	
			29500	3010	2.48						29500	3010	2.89	1H - 6175DB	- 195	B-110	B-126	B-145	
			15500	1580	0.89						16000	1630	1.07	1H - 6145DB	- 231	B-109	B-125	B-144	
		22100	2250	1.17					22100	2250	1.39	1H - 6160DA	- 231	B-110	B-126	B-145			
6.28	940	95.8	14700	1500	*	7.58	940	95.8	14700	1500	*	1H - 6135DB	- 231	B-109	B-125	B-144			
	1230	125	16000	1630	*			1230	125	16000	1630	*	1H - 6140DB	- 231	B-109	B-125	B-144		
			15500	1580	0.89					16000	1630	1.07	1H - 6145DB	- 231	B-109	B-125	B-144		
			22100	2250	1.17					22100	2250	1.39	1H - 6160DA	- 231	B-110	B-126	B-145		
			22100	2250	1.39					22100	2250	1.39	1H - 6165DA	- 231	B-110	B-126	B-145		
	1510	154	22100	2250	1.39					22100	2250	1.68	1H - 6165DB	- 231	B-110	B-126	B-145		
			29500	3010	1.39			1250	127	29500	3010	1.39	1H - 6170DA	- 231	B-110	B-126	B-145		
			29500	3010	1.68					29500	3010	2.03	1H - 6170DB	- 231	B-110	B-126	B-145		
			29500	3010	2.09					29500	3010	2.52	1H - 6175DB	- 231	B-110	B-126	B-145		
			41700	4250	2.69					41700	4250	2.89	1H - 6180DA	- 231	B-110	B-126	B-145		
		41700	4250	2.69				41700	4250	3.25	1H - 6180DB	- 231	B-111	B-127	B-146				
5.31	1230	125	16000	1630	*	6.41	1230	125	16000	1630	*	1H - 6140DB	- 273	B-109	B-125	B-144			
	1340	136	16000	1630	*			1340	136	16000	1630	*	1H - 6145DB	- 273	B-109	B-125	B-144		
			22100	2250	1.18					22100	2250	1.39	1H - 6165DA	- 273	B-110	B-126	B-145		
			29500	3010	1.39					29500	3010	1.39	1H - 6170DA	- 273	B-110	B-126	B-145		
			29500	3010	1.42					29500	3010	1.72	1H - 6170DB	- 273	B-110	B-126	B-145		
	1780	181	29500	3010	1.39					29500	3010	1.39	1H - 6175DA	- 273	B-110	B-126	B-145		
			29500	3010	1.77			1470	150	29500	3010	2.14	1H - 6175DB	- 273	B-110	B-126	B-145		
			41700	4250	2.28					41700	4250	2.75	1H - 6180DA	- 273	B-110	B-126	B-145		
			41700	4250	2.81					41700	4250	2.89	1H - 6185DA	- 273	B-110	B-126	B-145		
			41700	4250	2.81					41700	4250	3.39	1H - 6185DB	- 273	B-111	B-127	B-146		
4.55	1230	125	16000	1630	*	5.49	1230	125	16000	1630	*	1H - 6140DB	- 319	B-109	B-125	B-144			
	1370	140	15800	1610	*			1370	140	15800	1610	*	1H - 6145DB	- 319	B-109	B-125	B-144		
			<b>22100</b>	<b>2250</b>	<b>1.01</b>					<b>22100</b>	<b>2250</b>	<b>1.22</b>	<b>1H - 6165DA</b>	<b>- 319</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>		
			29500	3010	1.22					29500	3010	1.39	1H - 6170DA	- 319	B-110	B-126	B-145		
			29500	3010	1.22					29500	3010	1.47	1H - 6170DB	- 319	B-110	B-126	B-145		
	2080	212	29500	3010	1.39					29500	3010	1.39	1H - 6175DA	- 319	B-110	B-126	B-145		
			29500	3010	1.51			1720	176	29500	3010	1.83	1H - 6175DB	- 319	B-110	B-126	B-145		
			41700	4250	1.95					41700	4250	2.35	1H - 6180DA	- 319	B-110	B-126	B-145		
			41700	4250	2.40					41700	4250	2.89	1H - 6185DA	- 319	B-110	B-126	B-145		
			41700	4250	2.81					41700	4250	3.39	1H - 6185DB	- 319	B-111	B-127	B-146		
3.85	1760	179	22100	2250	*	4.64	1760	179	22100	2250	*	1H - 6160DA	- 377	B-110	B-126	B-145			
			22100	2250	0.85					22100	2250	1.03	1H - 6165DA	- 377	B-110	B-126	B-145		
			<b>29500</b>	<b>3010</b>	<b>1.03</b>					<b>29500</b>	<b>3010</b>	<b>1.24</b>	<b>1H - 6170DA</b>	<b>- 377</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>		
			29500	3010	1.28					29500	3010	1.39	1H - 6175DA	- 377	B-110	B-126	B-145		
	2460	251	29500	3010	1.28					29500	3010	1.55	1H - 6175DB	- 377	B-110	B-126	B-145		
			41700	4250	1.65			2040	208	41700	4250	1.99	1H - 6180DA	- 377	B-110	B-126	B-145		
			41700	4250	2.03					41700	4250	2.45	1H - 6185DA	- 377	B-110	B-126	B-145		
			59000	6010	2.60					59000	6010	3.13	1H - 6190DA	- 377	B-111	B-128	B-147		

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>1.1 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

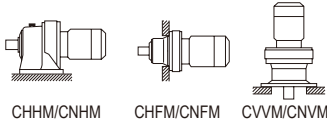


GEARMOTORS  
Selection Tables  
1.1 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
3.07	2100	214	22100	2250	*	3.70	2100	214	22100	2250	*	1H -	6165DA	- 473	B-110	B-126	B-145
	2530	258	29500	3010	*		2530	258	29500	3010	*	1H -	6170DA	- 473	B-110	B-126	B-145
			<b>29500</b>	<b>3010</b>	<b>1.02</b>				<b>29500</b>	<b>3010</b>	<b>1.23</b>	<b>1H - 6175DA</b>	<b>- 473</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>	
			41700	4250	1.32				41700	4250	1.59	1H -	6180DA	- 473	B-110	B-126	B-145
	3080	314	41700	4250	1.62		2560	260	41700	4250	1.96	1H -	6185DA	- 473	B-110	B-126	B-145
			59000	6010	2.07				59000	6010	2.50	1H -	6190DA	- 473	B-111	B-128	B-147
		59000	6010	2.58			59000	6010	3.11	1H -	6195DA	- 473	B-111	B-128	B-147		
2.59	2100	214	22100	2250	*	3.13	2100	214	22100	2250	*	1H -	6165DA	- 559	B-110	B-126	B-145
	2530	258	29500	3010	*		2530	258	29500	3010	*	1H -	6170DA	- 559	B-110	B-126	B-145
			29500	3010	0.86				29500	3010	1.04	1H -	6175DA	- 559	B-110	B-126	B-145
			41700	4250	1.11				41700	4250	1.34	1H -	6180DA	- 559	B-110	B-126	B-145
	3640	372	41700	4250	1.37		3020	308	41700	4250	1.66	1H -	6185DA	- 559	B-110	B-126	B-145
			59000	6010	1.75				59000	6010	2.11	1H -	6190DA	- 559	B-111	B-128	B-147
		59000	6010	2.18			59000	6010	2.64	1H -	6195DA	- 559	B-111	B-128	B-147		
2.23	2530	258	29500	3010	*	2.70	2530	258	29500	3010	*	1H -	6170DA	- 649	B-110	B-126	B-145
	3150	321	29500	3010	*		3150	321	29500	3010	*	1H -	6175DA	- 649	B-110	B-126	B-145
			41700	4250	1.18				41700	4250	1.43	1H -	6185DA	- 649	B-110	B-126	B-145
	4230	431	59000	6010	1.51		3510	357	59000	6010	1.82	1H -	6190DA	- 649	B-111	B-128	B-147
		59000	6010	1.88			59000	6010	2.27	1H -	6195DA	- 649	B-111	B-128	B-147		
1.98	3150	321	29500	3010	*	2.39	3150	321	29500	3010	*	1H -	6175DA	- 731	B-110	B-126	B-145
			<b>41700</b>	<b>4250</b>	<b>1.05</b>				<b>41700</b>	<b>4250</b>	<b>1.27</b>	<b>1H - 6185DA</b>	<b>- 731</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>	
	4770	486	59000	6010	1.34		3950	403	59000	6010	1.62	1H -	6190DA	- 731	B-111	B-128	B-147
			59000	6010	1.67				59000	6010	2.02	1H -	6195DA	- 731	B-111	B-128	B-147
1.72	3150	321	29500	3010	*	2.08	3150	321	29500	3010	*	1H -	6175DA	- 841	B-110	B-126	B-145
	4050	413	41700	4250	*		4050	413	41700	4250	*	1H -	6180DA	- 841	B-110	B-126	B-145
			41700	4250	0.91				41700	4250	1.10	1H -	6185DA	- 841	B-110	B-126	B-145
	5480	559	59000	6010	1.16	4540	463	59000	6010	1.40	1H -	6190DA	- 841	B-111	B-128	B-147	
		59000	6010	1.45			59000	6010	1.75	1H -	6195DA	- 841	B-111	B-128	B-147		
1.45	4050	413	41700	4250	*	1.74	4050	413	41700	4250	*	1H -	6180DA	- 1003	B-110	B-126	B-145
	5000	510	41600	4240	*		5000	510	41600	4240	*	1H -	6185DA	- 1003	B-110	B-126	B-145
	6540	667	58500	5970	1.22		5420	552	58800	6000	1.47	1H -	6195DA	- 1003	B-111	B-128	B-147
1.16	5000	510	41700	4250	*	1.40	5000	510	41700	4250	*	1H -	6185DA	- 1247	B-110	B-126	B-145
	6380	650	59000	6010	*		6380	650	59000	6010	*	1H -	6190DA	- 1247	B-111	B-128	B-147
	8130	829	58900	6010	0.98		6740	687	59000	6010	1.18	1H -	6195DA	- 1247	B-111	B-128	B-147
0.980	6380	650	58900	6000	*	1.18	6380	650	58900	6000	*	1H -	6190DA	- 1479	B-111	B-128	B-147
	7960	811	58400	5950	*		7960	811	58400	5950	*	1H -	6195DA	- 1479	B-111	B-128	B-147
	9640	983	57800	5900	0.83		7990	815	58400	5950	1.00	1H -	6195DA	- 1479	B-111	B-128	B-147
0.784	7960	811	59000	6010	*	0.946	7960	811	59000	6010	*	1H -	6195DA	- 1849	B-111	B-128	B-147
0.702	7960	811	58100	5930	*	0.847	7960	811	58100	5930	*	1H -	6195DA	- 2065	B-111	B-128	B-147

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



CHHM/CNHM

CHFM/CNFM

CVVM/CNVM

1.5 kW

n: Motor Speed

Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

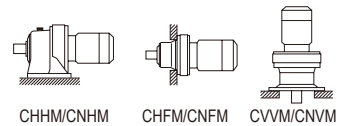
50Hz					60Hz					Nomenclature			Page of Dimension Sheet								
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM						
580	23.5	2.39	1.10	1130	700	19.4	1.98	1.10	1090	2 - 6080SK	- 2.5	(K)	B-98	-	B-133						
				1130					1090							2 - 6085SK	- 2.5	(K)	B-98	-	B-133
				2140					2050							2 - 6090SK	- 2.5	(K)	B-98	-	B-133
				2140					2050							2 - 6095SK	- 2.5	(K)	B-98	-	B-133
				2140					2050							2 - 6100SK	- 2.5	(K)	B-99	-	B-134
				2140					2050							2 - 6105SK	- 2.5	(K)	B-99	-	B-134
483	28.2	2.87	1.10	1170	583	23.3	2.38	1.10	1130	2 - 6080SK	- 3	(K)	B-98	-	B-133						
				1170					1130							2 - 6085SK	- 3	(K)	B-98	-	B-133
				2230					2120							2 - 6090SK	- 3	(K)	B-98	-	B-133
				2230					2120							2 - 6095SK	- 3	(K)	B-98	-	B-133
				2230					2120							2 - 6100SK	- 3	(K)	B-99	-	B-134
				3060					2120							2 - 6105SK	- 3	(K)	B-99	-	B-134
363	37.5	3.83	1.10	1250	438	31.1	3.17	1.10	1210	2 - 6080SK	- 4	(K)	B-98	-	B-133						
				1250					1210							2 - 6085SK	- 4	(K)	B-98	-	B-133
				2470					2370							2 - 6090SK	- 4	(K)	B-98	-	B-133
				2470					2370							2 - 6095SK	- 4	(K)	B-98	-	B-133
				2470					2370							2 - 6100SK	- 4	(K)	B-99	-	B-134
				3280					2370							2 - 6105SK	- 4	(K)	B-99	-	B-134
290	46.9	4.78	1.21	1290	350	38.9	3.96	1.21	1270	2 - 6085SK	- 5	(K)	B-98	-	B-133						
				2590					2490							2 - 6090SK	- 5	(K)	B-98	-	B-133
				2590					2490							2 - 6095SK	- 5	(K)	B-98	-	B-133
				2590					2490							2 - 6100SK	- 5	(K)	B-99	-	B-134
				2590					2490							2 - 6105SK	- 5	(K)	B-99	-	B-134
				3460					3290							2 - 6110SK	- 5	(K)	B-99	-	B-134
242	56.3	5.74	1.08	1290	292	46.7	4.76	1.08	1290	2 - 6085SK	- 6	(K)	B-98	-	B-133						
				2660					2530							2 - 6090SK	- 6	(K)	B-98	-	B-133
				2660					2530							2 - 6095SK	- 6	(K)	B-98	-	B-133
				2660					2530							2 - 6100SK	- 6	(K)	B-99	-	B-134
				2660					2530							2 - 6105SK	- 6	(K)	B-99	-	B-134
				3700					3510							2 - 6110SK	- 6	(K)	B-99	-	B-134
				2790					2630							2 - 6095	- 6		B-100	B-116	B-135
				4130					3880							2 - 6100	- 6		B-101	B-117	B-136
				4130					3880							2 - 6105	- 6		B-101	B-117	B-136
				4670					4390							2 - 6110	- 6		B-101	B-117	B-136
4670	4390	2 - 6115	- 6		B-101	B-117	B-136														
181	75.1	7.65	1.00	1290	219	62.2	6.34	1.00	1290	2 - 6085SK	- 8	(K)	B-98	-	B-133						
				2870					2780							2 - 6090SK	- 8	(K)	B-98	-	B-133
				2870					2780							2 - 6095SK	- 8	(K)	B-98	-	B-133
				2870					2780							2 - 6100SK	- 8	(K)	B-99	-	B-134
				2870					2780							2 - 6105SK	- 8	(K)	B-99	-	B-134
				3950					3770							2 - 6110SK	- 8	(K)	B-99	-	B-134
				3950					3770							2 - 6115SK	- 8	(K)	B-99	-	B-134
				3090					2920							2 - 6095	- 8		B-100	B-116	B-135
				4600					4330							2 - 6100	- 8		B-101	B-117	B-136
				4600					4330							2 - 6105	- 8		B-101	B-117	B-136
				5210					4900							2 - 6110	- 8		B-101	B-117	B-136
				5210					4900							2 - 6115	- 8		B-101	B-117	B-136
145	93.9	9.57	1.18	2990	175	77.8	7.93	1.18	2900	2 - 6095SK	- 10	(K)	B-98	-	B-134						
				2990					2900							2 - 6100SK	- 10	(K)	B-99	-	B-134
				2990					2900							2 - 6105SK	- 10	(K)	B-99	-	B-134
				4250					4050							2 - 6110SK	- 10	(K)	B-99	-	B-134
				4250					4050							2 - 6115SK	- 10	(K)	B-99	-	B-134

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>1.5 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

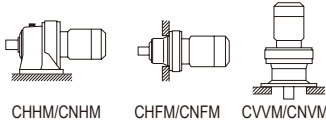


GEARMOTORS  
Selection Tables  
1.5 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
132	103	10.5	<b>3340</b>	<b>340</b>	<b>1.01</b>	159	85.5	8.72	<b>3300</b>	<b>336</b>	<b>1.01</b>	2 - 6095	- 11	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			5220	532	1.57				4920	501	1.57	2 - 6100	- 11	B-101	B-117	B-136
			5220	532	2.12				4920	501	2.12	2 - 6105	- 11	B-101	B-117	B-136
			5950	606	2.37				5600	571	2.37	2 - 6110	- 11	B-101	B-117	B-136
			5950	606	2.61				5600	571	2.61	2 - 6115	- 11	B-101	B-117	B-136
112	122	12.4	<b>3340</b>	<b>340</b>	<b>1.01</b>	135	101	10.3	<b>3300</b>	<b>336</b>	<b>1.01</b>	2 - 6095	- 13	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			5400	550	1.57				5110	521	1.57	2 - 6100	- 13	B-101	B-117	B-136
			5400	550	2.12				5110	521	2.12	2 - 6105	- 13	B-101	B-117	B-136
			6150	627	2.37				5790	591	2.37	2 - 6110	- 13	B-101	B-117	B-136
			6150	627	2.60				5790	591	2.60	2 - 6115	- 13	B-101	B-117	B-136
96.7	141	14.4	<b>3340</b>	<b>340</b>	<b>1.01</b>	117	117	11.9	<b>3280</b>	<b>335</b>	<b>1.01</b>	2 - 6095	- 15	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			5400	550	1.57				5400	550	1.57	2 - 6100	- 15	B-101	B-117	B-136
			5400	550	2.12				5400	550	2.12	2 - 6105	- 15	B-101	B-117	B-136
			6560	669	2.37				6180	630	2.37	2 - 6110	- 15	B-101	B-117	B-136
			6560	669	2.60				6180	630	2.60	2 - 6115	- 15	B-101	B-117	B-136
85.3	160	16.3	<b>3340</b>	<b>340</b>	<b>1.01</b>	103	132	13.5	<b>3290</b>	<b>336</b>	<b>1.01</b>	2 - 6095	- 17	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			5400	550	1.33				5400	550	1.33	2 - 6100	- 17	B-101	B-117	B-136
			5400	550	1.64				5400	550	1.64	2 - 6105	- 17	B-101	B-117	B-136
			6620	675	2.12				6240	636	2.12	2 - 6110	- 17	B-101	B-117	B-136
			6620	675	2.60				6240	636	2.60	2 - 6115	- 17	B-101	B-117	B-136
69.0	197	20.1	<b>3340</b>	<b>340</b>	<b>1.01</b>	83.3	163	16.6	<b>3260</b>	<b>332</b>	<b>1.01</b>	2 - 6095	- 21	<b>B-100</b>	<b>B-116</b>	<b>B-135</b>
			5400	550	1.27				5400	550	1.29	2 - 6100	- 21	B-101	B-117	B-136
			5400	550	1.52				5400	550	1.56	2 - 6105	- 21	B-101	B-117	B-136
			7020	716	1.81				6620	675	1.81	2 - 6110	- 21	B-101	B-117	B-136
			7020	716	2.07				6620	675	2.07	2 - 6115	- 21	B-101	B-117	B-136
58.0	235	23.9	<b>5400</b>	<b>550</b>	<b>1.11</b>	70.0	194	19.8	<b>5400</b>	<b>550</b>	<b>1.11</b>	2 - 6105	- 25	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			7120	726	1.27				6720	685	1.27	2 - 6110	- 25	B-101	B-117	B-136
			7120	726	1.48				6720	685	1.48	2 - 6115	- 25	B-101	B-117	B-136
			8650	882	2.06				8150	831	2.06	2 - 6120	- 25	B-101	B-117	B-136
			8650	882	2.64				8150	831	2.64	2 - 6125	- 25	B-101	B-117	B-136
50.0	272	27.7	<b>5400</b>	<b>550</b>	<b>1.06</b>	60.3	226	23.0	<b>5400</b>	<b>550</b>	<b>1.06</b>	2 - 6105	- 29	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			7290	743	1.27				6900	703	1.27	2 - 6110	- 29	B-101	B-117	B-136
			7290	743	1.48				6900	703	1.48	2 - 6115	- 29	B-101	B-117	B-136
			8990	916	1.91				8470	863	1.99	2 - 6120	- 29	B-101	B-117	B-136
			8990	916	2.31				8470	863	2.51	2 - 6125	- 29	B-101	B-117	B-136
41.4	328	33.5	<b>7310</b>	<b>745</b>	<b>1.00</b>	50.0	272	27.7	<b>7360</b>	<b>751</b>	<b>1.00</b>	2 - 6110	- 35	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			7310	745	1.21				7360	751	1.21	2 - 6115	- 35	B-101	B-117	B-136
			9490	967	1.58				8940	912	1.66	2 - 6120	- 35	B-101	B-117	B-136
			9490	967	1.92				8940	912	2.12	2 - 6125	- 35	B-101	B-117	B-136
			11100	1130	2.37				10400	1060	2.47	2 - 6130	- 35	B-102	B-118	B-137
33.7	404	41.1	<b>7540</b>	<b>769</b>	<b>1.01</b>	40.7	334	34.1	<b>7610</b>	<b>776</b>	<b>1.01</b>	2 - 6115	- 43	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			9810	1000	1.27				9510	969	1.27	2 - 6120	- 43	B-101	B-117	B-136
			9810	1000	1.56				9510	969	1.59	2 - 6125	- 43	B-101	B-117	B-136
			11900	1210	1.93				11200	1140	1.99	2 - 6130	- 43	B-102	B-118	B-137
			11900	1210	2.23				11200	1140	2.51	2 - 6135	- 43	B-102	B-118	B-137
28.4	479	48.8	<b>9810</b>	<b>1000</b>	<b>1.09</b>	34.3	397	40.4	<b>9810</b>	<b>1000</b>	<b>1.15</b>	2 - 6120	- 51	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			9810	1000	1.31				9810	1000	1.52	2 - 6125	- 51	B-101	B-117	B-136
			12400	1260	1.63				11700	1190	1.69	2 - 6130	- 51	B-102	B-118	B-137
			12400	1260	1.70				11700	1190	1.95	2 - 6135	- 51	B-102	B-118	B-137
			16000	1630	2.29				16000	1630	2.29	2 - 6140	- 51	B-102	B-118	B-137
			16000	1630	2.47				16000	1630	2.81	2 - 6145	- 51	B-102	B-118	B-137

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



CHHM/CNHM

CHF/CNFM

CVVM/CNVM

1.5 kW

n: Motor Speed

Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

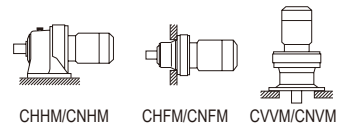
50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
24.6	554	56.4	9810	1000	1.08	29.7	459	46.8	9810	1000	1.08	2 -	6125	- 59	B-101	B-117	B-136
			13000	1320	1.46				12200	1250	1.46	2 -	6130	- 59	B-102	B-118	B-137
			13000	1320	1.63				12200	1250	1.68	2 -	6135	- 59	B-102	B-118	B-137
			16000	1630	1.97				16000	1630	1.97	2 -	6140	- 59	B-102	B-118	B-137
			16000	1630	2.12				16000	1630	2.43	2 -	6145	- 59	B-102	B-118	B-137
20.4	666	67.9	13700	1400	1.17	24.6	552	56.3	12900	1320	1.22	2 -	6130	- 71	B-102	B-118	B-137
			13700	1400	1.35				12900	1320	1.45	2 -	6135	- 71	B-102	B-118	B-137
			16000	1630	1.62				16000	1630	1.62	2 -	6140	- 71	B-102	B-118	B-137
			16000	1630	1.75				16000	1630	2.02	2 -	6145	- 71	B-102	B-118	B-137
			22100	2250	2.31				22100	2250	2.31	2 -	6160	- 71	B-103	B-119	B-138
16.7	817	83.2	14700	1500	1.10	20.1	677	69.0	13900	1420	1.27	2 -	6135	- 87	B-102	B-118	B-137
			16000	1630	1.32				16000	1630	1.32	2 -	6140	- 87	B-102	B-118	B-137
			16000	1630	1.44				16000	1630	1.65	2 -	6145	- 87	B-102	B-118	B-137
			22100	2250	2.15				22100	2250	2.15	2 -	6160	- 87	B-103	B-119	B-138
			22100	2250	2.51				22100	2250	2.60	2 -	6165	- 87	B-103	B-119	B-138
13.9	925	94.3	630	64.2	*	16.8	766	78.1	630	64.2	*	2 -	6125DB	- 104	B-108	B-124	B-143
			14700	1500	1.02				14700	1500	1.02	2 -	6135DB	- 104	B-109	B-125	B-144
			14700	1500	1.02				14700	1500	1.23	2 -	6135DC	- 104	B-109	B-125	B-144
			16000	1630	1.02				16000	1630	1.02	2 -	6140DB	- 104	B-109	B-125	B-144
			16000	1630	1.32				16000	1630	1.60	2 -	6140DC	- 104	B-109	B-125	B-144
			16000	1630	1.48				16000	1630	1.79	2 -	6145DC	- 104	B-109	B-125	B-144
			22100	2250	1.90				22100	2250	2.12	2 -	6160DB	- 104	B-110	B-126	B-145
			22100	2250	1.90				22100	2250	2.29	2 -	6160DC	- 104	B-111	B-127	B-146
			22100	2250	2.12				22100	2250	2.12	2 -	6165DB	- 104	B-110	B-126	B-145
			22100	2250	2.27				22100	2250	2.74	2 -	6165DC	- 104	B-111	B-127	B-146
12.0	1080	110	780	79.5	*	14.5	891	90.9	780	79.5	*	2 -	6130DB	- 121	B-109	B-125	B-144
			14700	1500	0.87				14700	1500	1.02	2 -	6135DB	- 121	B-109	B-125	B-144
			16000	1630	1.02				16000	1630	1.02	2 -	6140DB	- 121	B-109	B-125	B-144
			16000	1630	1.14				16000	1630	1.37	2 -	6140DC	- 121	B-109	B-125	B-144
			16000	1630	1.20				16000	1630	1.45	2 -	6145DC	- 121	B-109	B-125	B-144
			22100	2250	1.63				22100	2250	1.97	2 -	6160DB	- 121	B-110	B-126	B-145
			22100	2250	1.95				22100	2250	2.12	2 -	6165DB	- 121	B-110	B-126	B-145
			22100	2250	1.95				22100	2250	2.36	2 -	6165DC	- 121	B-111	B-127	B-146
			29500	3010	2.12				29500	3010	2.12	2 -	6170DB	- 121	B-110	B-126	B-145
			29500	3010	2.35				29500	3010	2.84	2 -	6170DC	- 121	B-111	B-127	B-146
10.1	1270	130	780	79.5	*	12.2	1050	107	780	79.5	*	2 -	6130DB	- 143	B-109	B-125	B-144
			940	95.8	*				940	95.8	*	2 -	6135DB	- 143	B-109	B-125	B-144
			16000	1630	1.02				16000	1630	1.02	2 -	6145DB	- 143	B-109	B-125	B-144
			16000	1630	1.08				16000	1630	1.30	2 -	6145DC	- 143	B-109	B-125	B-144
			22100	2250	1.38				22100	2250	1.67	2 -	6160DB	- 143	B-110	B-126	B-145
			22100	2250	1.65				22100	2250	1.99	2 -	6165DB	- 143	B-110	B-126	B-145
			29500	3010	1.99				29500	3010	2.12	2 -	6170DB	- 143	B-110	B-126	B-145
			29500	3010	1.99				29500	3010	2.40	2 -	6170DC	- 143	B-111	B-127	B-146
			29500	3010	2.12				29500	3010	2.12	2 -	6175DB	- 143	B-110	B-126	B-145
			29500	3010	2.48				29500	3010	2.99	2 -	6175DC	- 143	B-111	B-127	B-146

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>1.5 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

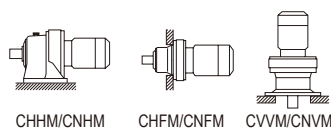


GEARMOTORS  
Selection Tables  
1.5 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet											
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM							
8.79	940	95.8	14700	1500	*	10.6	1220	124	14700	1500	*	2	- 6135DB - 165		B-109	B-125	B-144							
															16000	1630	1.02	2	- 6145DB - 165	B-109	B-125	B-144		
															16000	1630	1.12	2	- 6145DC - 165	B-109	B-125	B-144		
															<b>22100</b>	<b>2250</b>	<b>1.02</b>	<b>2</b>	<b>- 6160DA - 165</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>		
															22100	2250	1.44	2	- 6160DB - 165	B-110	B-126	B-145		
	22100	2250	1.43	2	- 6165DB - 165		B-110	B-126	B-145															
	29500	3010	1.72	2	- 6170DB - 165		B-110	B-126	B-145															
	29500	3010	2.12	2	- 6175DB - 165		B-110	B-126	B-145															
	41700	4250	2.12	2	- 6180DA - 165		B-110	B-126	B-145															
	41700	4250	2.77	2	- 6180DB - 165		B-111	B-127	B-146															
7.44	1230	125	16000	1630	*	8.97	1440	146	16000	1630	*	2	- 6140DB - 195		B-109	B-125	B-144							
															1360	138	16000	1630	*	2	- 6145DB - 195	B-109	B-125	B-144
															<b>22100</b>	<b>2250</b>	<b>1.01</b>	<b>2</b>	<b>- 6160DA - 195</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>		
															22100	2250	1.01	2	- 6160DB - 195	B-110	B-126	B-145		
															22100	2250	1.01	2	- 6165DA - 195	B-110	B-126	B-145		
	22100	2250	1.21	2	- 6165DB - 195		B-110	B-126	B-145															
	29500	3010	1.46	2	- 6170DB - 195		B-110	B-126	B-145															
	29500	3010	1.82	2	- 6175DB - 195		B-110	B-126	B-145															
	41700	4250	2.12	2	- 6180DA - 195		B-110	B-126	B-145															
	41700	4250	2.34	2	- 6180DB - 195		B-111	B-127	B-146															
41700	4250	2.84	2	- 6185DB - 195	B-111	B-127	B-146																	
6.28	1340	136	16000	1630	*	7.58	1700	173	16000	1630	*	2	- 6145DB - 231		B-109	B-125	B-144							
															<b>22100</b>	<b>2250</b>	<b>1.02</b>	<b>2</b>	<b>- 6165DA - 231</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>		
															22100	2250	1.02	2	- 6165DB - 231	B-110	B-126	B-145		
															29500	3010	1.02	2	- 6170DA - 231	B-110	B-126	B-145		
															29500	3010	1.23	2	- 6170DB - 231	B-110	B-126	B-145		
	29500	3010	1.23	2	- 6175DB - 231		B-110	B-126	B-145															
	29500	3010	1.23	2	- 6170DB - 231		B-110	B-126	B-145															
	29500	3010	1.53	2	- 6175DB - 231		B-110	B-126	B-145															
	41700	4250	1.97	2	- 6180DA - 231		B-110	B-126	B-145															
	41700	4250	1.97	2	- 6180DB - 231		B-111	B-127	B-146															
41700	4250	2.12	2	- 6185DA - 231	B-110	B-126	B-145																	
41700	4250	2.43	2	- 6185DB - 231	B-111	B-127	B-146																	
5.31	1760	179	22100	2250	*	6.41	2010	205	22100	2250	*	2	- 6160DA - 273		B-110	B-126	B-145							
															<b>29500</b>	<b>3010</b>	<b>1.02</b>	<b>2</b>	<b>- 6170DA - 273</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>		
															29500	3010	1.02	2	- 6170DB - 273	B-110	B-126	B-145		
															29500	3010	1.02	2	- 6175DA - 273	B-110	B-126	B-145		
															29500	3010	1.02	2	- 6175DB - 273	B-110	B-126	B-145		
	29500	3010	1.30	2	- 6180DA - 273		B-110	B-126	B-145															
	41700	4250	1.67	2	- 6180DB - 273		B-110	B-126	B-145															
	41700	4250	2.06	2	- 6185DA - 273		B-110	B-126	B-145															
	41700	4250	2.06	2	- 6185DB - 273		B-111	B-127	B-146															
	59000	6010	2.63	2	- 6190DA - 273		B-111	B-128	B-147															
4.55	1760	179	22100	2250	*	5.49	2350	240	22100	2250	*	2	- 6160DA - 319		B-110	B-126	B-145							
															2100	214	22100	2250	*	2	- 6165DA - 319	B-110	B-126	B-145
															<b>29500</b>	<b>3010</b>	<b>1.02</b>	<b>2</b>	<b>- 6175DA - 319</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>		
															29500	3010	1.11	2	- 6175DB - 319	B-110	B-126	B-145		
															41700	4250	1.43	2	- 6180DA - 319	B-110	B-126	B-145		
	41700	4250	1.76	2	- 6185DA - 319		B-110	B-126	B-145															
	59000	6010	2.25	2	- 6190DA - 319		B-111	B-128	B-147															
	59000	6010	2.81	2	- 6195DA - 319		B-111	B-128	B-147															

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



1.5 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
3.85	2100	214	22100	2250	*	4.64	2100	214	22100	2250	*	2 - 6165DA - 377	B-110	B-126	B-145
	2530	258	29500	3010	*		2530	258	29500	3010	*	2 - 6170DA - 377	B-110	B-126	B-145
	3350	342	29500	3010	0.94		29500	3010	1.02	2 - 6175DA - 377	B-110	B-126	B-145		
			29500	3010	0.94		29500	3010	1.13	2 - 6175DB - 377	B-110	B-126	B-145		
			41700	4250	1.21		41700	4250	1.46	2 - 6180DA - 377	B-110	B-126	B-145		
			41700	4250	1.49		41700	4250	1.80	2 - 6185DA - 377	B-110	B-126	B-145		
59000	6010	1.90	59000	6010	2.30	2 - 6190DA - 377	B-111	B-128	B-147						
59000	6010	2.37	59000	6010	2.87	2 - 6195DA - 377	B-111	B-128	B-147						
3.07	3150	321	29500	3010	*	3.70	3150	321	29500	3010	*	2 - 6175DA - 473	B-110	B-126	B-145
	4210	429	41700	4250	1.19		41700	4250	1.43	2 - 6185DA - 473	B-110	B-126	B-145		
			59000	6010	1.52		59000	6010	1.83	2 - 6190DA - 473	B-111	B-128	B-147		
			59000	6010	1.89		59000	6010	2.28	2 - 6195DA - 473	B-111	B-128	B-147		
2.59	3150	321	29500	3010	*	3.13	3150	321	29500	3010	*	2 - 6175DA - 559	B-110	B-126	B-145
	4060	414	41700	4250	*		4060	414	41700	4250	*	2 - 6180DA - 559	B-110	B-126	B-145
	4970	507	41700	4250	1.01		41700	4250	1.21	2 - 6185DA - 559	B-110	B-126	B-145		
			59000	6010	1.28		59000	6010	1.55	2 - 6190DA - 559	B-111	B-128	B-147		
59000	6010	1.60	59000	6010	1.93	2 - 6195DA - 559	B-111	B-128	B-147						
2.23	4050	413	41700	4250	*	2.70	4050	413	41700	4250	*	2 - 6180DA - 649	B-110	B-126	B-145
	5770	588	41300	4210	0.87		41700	4250	1.05	2 - 6185DA - 649	B-110	B-126	B-145		
			58700	5990	1.11		59000	6010	1.33	2 - 6190DA - 649	B-111	B-128	B-147		
58700	5990	1.38	59000	6010	1.66	2 - 6195DA - 649	B-111	B-128	B-147						
1.98	4060	414	41700	4250	*	2.39	4060	414	41700	4250	*	2 - 6180DA - 731	B-110	B-126	B-145
	5000	510	41700	4250	*		5000	510	41700	4250	*	2 - 6185DA - 731	B-110	B-126	B-145
	6500	663	59000	6010	1.22		5390	549	59000	6010	1.48	2 - 6195DA - 731	B-111	B-128	B-147
1.72	5000	510	41700	4250	*	2.08	5000	510	41700	4250	*	2 - 6185DA - 841	B-110	B-126	B-145
	7480	762	59000	6010	1.06		6200	632	59000	6010	1.28	2 - 6195DA - 841	B-111	B-128	B-147
1.45	6380	650	58600	5970	*	1.74	6380	650	58600	5970	*	2 - 6190DA - 1003	B-111	B-128	B-147
	8920	909	57900	5900	0.89		7390	753	58300	5940	1.08	2 - 6195DA - 1003	B-111	B-128	B-147
1.16	7960	811	59000	6010	*	1.40	7960	811	59000	6010	*	2 - 6195DA - 1247	B-111	B-128	B-147
	0.980	8760	893	84100	8570		*	1.18	8360	853	84100	8570	*	2 - 6205DA - 1479	B-112
13200		1340	104000	10600	0.86	10900	1110		104000	10600	1.03	2 - 6215DA - 1479	B-112	B-129	B-148
0.784	9300	948	84100	8570	*	0.946	9300	948	84100	8570	*	2 - 6205DA - 1849	B-112	B-129	B-148
	12700	1290	104000	10600	*		12700	1290	104000	10600	*	2 - 6215DA - 1849	B-112	B-129	B-148
0.702	16400	1680	145000	14800	0.97	0.847	13600	1390	145000	14800	1.17	2 - 6225DA - 1849	B-113	B-130	B-149
	9300	948	84100	8570	*		9300	948	84100	8570	*	2 - 6205DA - 2065	B-112	B-129	B-148
0.572	12700	1290	104000	10600	*	0.690	12700	1290	104000	10600	*	2 - 6215DA - 2065	B-112	B-129	B-148
	15900	1620	145000	14800	*		15200	1550	145000	14800	1.04	2 - 6225DA - 2065	B-113	B-130	B-149
0.476	12700	1290	104000	10600	*	0.575	12700	1290	104000	10600	*	2 - 6215DA - 2537	B-112	B-129	B-148
	15100	1540	145000	14800	*		15900	1620	145000	14800	*	2 - 6225DA - 2537	B-113	B-130	B-149
0.417	11300	1150	104000	10600	*	0.503	11300	1150	104000	10600	*	2 - 6215DA - 3045	B-112	B-129	B-148
	15100	1540	145000	14800	*		15100	1540	145000	14800	*	2 - 6225DA - 3045	B-113	B-130	B-149
0.327	12700	1290	104000	10600	*	0.394	12700	1290	104000	10600	*	2 - 6215DA - 3481	B-112	B-129	B-148
	15900	1620	145000	14800	*		15900	1620	145000	14800	*	2 - 6225DA - 3481	B-113	B-130	B-149
0.282	11300	1150	104000	10600	*	0.341	11300	1150	104000	10600	*	2 - 6215DA - 4437	B-112	B-129	B-148
	15100	1540	145000	14800	*		15100	1540	145000	14800	*	2 - 6225DA - 4437	B-113	B-130	B-149
0.282	12700	1290	104000	10600	*	0.341	12700	1290	104000	10600	*	2 - 6215DA - 5133	B-112	B-129	B-148
	15900	1620	145000	14800	*		15900	1620	145000	14800	*	2 - 6225DA - 5133	B-113	B-130	B-149

Selection Tables 1.5 kW GEARMOTORS

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

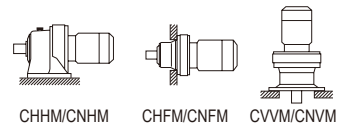


# Selection Tables Gearmotors

GEARMOTORS

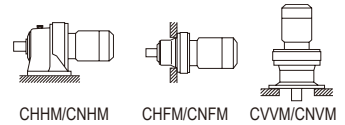
Selection Tables  
1.5 kW, 2.2 kW

<b>1.5 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM		
[r/min]	[N·m] [kgf·m]	[N]	[kgf]	*	[r/min]	[N·m] [kgf·m]	[N]	[kgf]	*				CHHM	CHF	CVVM		
0.235	11300	1150	104000	10600	0.283	11300	1150	104000	10600	2	-	6215DA	-	6177	B-112	B-129	B-148
	15100	1540	145000	14800		15100	1540	145000	14800						2	-	6225DA
0.192	11300	1150	104000	10600	0.231	11300	1150	104000	10600	2	-	6215DA	-	7569	B-112	B-129	B-148
	15100	1540	145000	14800		15100	1540	145000	14800						2	-	6225DA

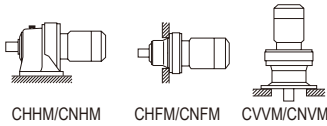
<b>2.2 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



50Hz					60Hz					Nomenclature			Page of Dimension Sheet														
Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM												
[r/min]	[N·m] [kgf·m]	[N]	[kgf]	*	[r/min]	[N·m] [kgf·m]	[N]	[kgf]	*				CHHM	CHF	CVVM												
580	34.4	3.51	<b>2050</b>	<b>209</b>	<b>1.09</b>	700	28.5	2.91	1.09	3	-	6090SK	-	2.5	(K)	<b>B-98</b>	-	<b>B-133</b>									
			2050	209	1.23											1970	201	1.23	3	-	6095SK	-	2.5	(K)	B-98	-	B-133
			2050	209	1.45											1970	201	1.45	3	-	6100SK	-	2.5	(K)	B-99	-	B-134
			2050	209	1.70											1970	201	1.70	3	-	6105SK	-	2.5	(K)	B-99	-	B-134
			2790	284	2.34											2650	270	2.34	3	-	6110SK	-	2.5	(K)	B-99	-	B-134
			2790	284	2.93											2650	270	2.93	3	-	6115SK	-	2.5	(K)	B-99	-	B-134
483	41.3	4.21	<b>2120</b>	<b>216</b>	<b>1.06</b>	583	34.2	3.49	1.06	3	-	6090SK	-	3	(K)	<b>B-98</b>	-	<b>B-133</b>									
			2120	216	1.20											2040	208	1.20	3	-	6095SK	-	3	(K)	B-98	-	B-133
			2120	216	1.50											2040	208	1.50	3	-	6100SK	-	3	(K)	B-99	-	B-134
			2120	216	1.76											2040	208	1.76	3	-	6105SK	-	3	(K)	B-99	-	B-134
			2960	302	2.40											2820	287	2.40	3	-	6110SK	-	3	(K)	B-99	-	B-134
			2960	302	3.00											2820	287	3.00	3	-	6115SK	-	3	(K)	B-99	-	B-134
363	55.1	5.61	<b>2300</b>	<b>234</b>	<b>1.06</b>	438	45.6	4.65	1.06	3	-	6090SK	-	4	(K)	<b>B-98</b>	-	<b>B-133</b>									
			2300	234	1.20											2240	228	1.20	3	-	6095SK	-	4	(K)	B-98	-	B-133
			2300	234	1.46											2240	228	1.46	3	-	6100SK	-	4	(K)	B-99	-	B-134
			2300	234	1.72											2240	228	1.72	3	-	6105SK	-	4	(K)	B-99	-	B-134
			3170	323	2.43											3010	307	2.43	3	-	6110SK	-	4	(K)	B-99	-	B-134
			3170	323	3.04											3010	307	3.04	3	-	6115SK	-	4	(K)	B-99	-	B-134
290	68.8	7.02	<b>2420</b>	<b>247</b>	<b>1.02</b>	350	57.0	5.81	1.02	3	-	6090SK	-	5	(K)	<b>B-98</b>	-	<b>B-133</b>									
			2420	247	1.20											2330	238	1.20	3	-	6095SK	-	5	(K)	B-98	-	B-133
			2420	247	1.43											2330	238	1.43	3	-	6100SK	-	5	(K)	B-99	-	B-134
			2420	247	1.68											2330	238	1.68	3	-	6105SK	-	5	(K)	B-99	-	B-134
			3330	339	2.09											3180	324	2.09	3	-	6110SK	-	5	(K)	B-99	-	B-134
			3330	339	2.62											3180	324	2.62	3	-	6115SK	-	5	(K)	B-99	-	B-134
242	82.6	8.42	<b>2410</b>	<b>246</b>	<b>1.03</b>	292	68.4	6.98	1.03	3	-	6095SK	-	6	(K)	<b>B-98</b>	-	<b>B-133</b>									
			2410	246	1.21											2370	242	1.21	3	-	6100SK	-	6	(K)	B-99	-	B-134
			2410	246	1.43											2370	242	1.43	3	-	6105SK	-	6	(K)	B-99	-	B-134
			3520	359	1.92											3370	344	1.92	3	-	6110SK	-	6	(K)	B-99	-	B-134
			3520	359	2.40											3370	344	2.40	3	-	6115SK	-	6	(K)	B-99	-	B-134
			<b>4090</b>	<b>417</b>	<b>1.07</b>											<b>3860</b>	<b>393</b>	<b>1.07</b>	<b>3</b>	<b>-</b>	<b>6100</b>	<b>-</b>	<b>6</b>		<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			4090	417	1.45											3860	393	1.45	3	-	6105	-	6		B-101	B-117	B-136
			4640	473	1.61											4370	445	1.61	3	-	6110	-	6		B-101	B-117	B-136
			4640	473	1.78											4370	445	1.78	3	-	6115	-	6		B-101	B-117	B-136
			5260	536	2.30											4950	505	2.30	3	-	6120	-	6		B-101	B-117	B-136

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHF, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



CHHM/CNHM

CHF/CNFM

CVVM/CNVM

2.2 kW

n: Motor Speed

Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
181	110	11.2	2540	259	0.80	219	91.2	9.30	2500	255	0.80	3	6095SK	- 8 (K)	B-98	-	B-133
			<b>2540</b>	<b>259</b>	<b>1.13</b>				<b>2500</b>	<b>255</b>	<b>1.13</b>	<b>3</b>	<b>6105SK</b>	<b>- 8 (K)</b>	<b>B-99</b>	-	<b>B-134</b>
			3730	380	1.68				3580	365	1.68	3	6110SK	- 8 (K)	B-99	-	B-134
			3730	380	2.10				3580	365	2.10	3	6115SK	- 8 (K)	B-99	-	B-134
			<b>4560</b>	<b>465</b>	<b>1.07</b>				<b>4300</b>	<b>438</b>	<b>1.07</b>	<b>3</b>	<b>6100</b>	<b>- 8</b>	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			4560	465	1.45				4300	438	1.45	3	6105	- 8	B-101	B-117	B-136
			5170	527	1.61				4870	496	1.61	3	6110	- 8	B-101	B-117	B-136
5170	527	1.78	4870	496	1.78	3	6115	- 8	B-101	B-117	B-136						
5870	598	2.30	5520	563	2.30	3	6120	- 8	B-101	B-117	B-136						
145	138	14.0	2610	266	0.80	175	114	11.6	2580	263	0.80	3	6095SK	- 10 (K)	B-98	-	B-133
			<b>2610</b>	<b>266</b>	<b>1.00</b>				<b>2580</b>	<b>263</b>	<b>1.00</b>	<b>3</b>	<b>6105SK</b>	<b>- 10 (K)</b>	<b>B-99</b>	-	<b>B-134</b>
			3960	404	1.39				3820	389	1.39	3	6110SK	- 10 (K)	B-99	-	B-134
			3960	404	1.74				3820	389	1.74	3	6115SK	- 10 (K)	B-99	-	B-134
132	151	15.4	<b>5170</b>	<b>527</b>	<b>1.07</b>	159	125	12.8	<b>4870</b>	<b>497</b>	<b>1.07</b>	<b>3</b>	<b>6100</b>	<b>- 11</b>	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			5170	527	1.45				4870	497	1.45	3	6105	- 11	B-101	B-117	B-136
			5900	601	1.61				5560	567	1.61	3	6110	- 11	B-101	B-117	B-136
			5900	601	1.78				5560	567	1.78	3	6115	- 11	B-101	B-117	B-136
			6670	680	2.30				6280	640	2.30	3	6120	- 11	B-101	B-117	B-136
			6670	680	2.69				6280	640	2.69	3	6125	- 11	B-101	B-117	B-136
112	179	18.2	<b>5360</b>	<b>547</b>	<b>1.07</b>	135	148	15.1	<b>5060</b>	<b>516</b>	<b>1.07</b>	<b>3</b>	<b>6100</b>	<b>- 13</b>	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			5360	547	1.45				5060	516	1.45	3	6105	- 13	B-101	B-117	B-136
			6090	621	1.61				5740	586	1.61	3	6110	- 13	B-101	B-117	B-136
			6090	621	1.77				5740	586	1.77	3	6115	- 13	B-101	B-117	B-136
			6890	702	2.30				6490	662	2.30	3	6120	- 13	B-101	B-117	B-136
6890	702	2.69	6490	662	2.69	3	6125	- 13	B-101	B-117	B-136						
96.7	206	21.0	<b>5400</b>	<b>550</b>	<b>1.07</b>	117	171	17.4	<b>5340</b>	<b>544</b>	<b>1.07</b>	<b>3</b>	<b>6100</b>	<b>- 15</b>	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			5400	550	1.45				5340	544	1.45	3	6105	- 15	B-101	B-117	B-136
			6490	662	1.61				6120	624	1.61	3	6110	- 15	B-101	B-117	B-136
			6490	662	1.77				6120	624	1.77	3	6115	- 15	B-101	B-117	B-136
			7390	753	2.30				6960	710	2.30	3	6120	- 15	B-101	B-117	B-136
7390	753	2.69	6960	710	2.69	3	6125	- 15	B-101	B-117	B-136						
85.3	234	23.9	<b>5400</b>	<b>550</b>	<b>1.12</b>	103	194	19.8	<b>5400</b>	<b>550</b>	<b>1.12</b>	<b>3</b>	<b>6105</b>	<b>- 17</b>	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			6550	668	1.45				6180	630	1.45	3	6110	- 17	B-101	B-117	B-136
			6550	668	1.77				6180	630	1.77	3	6115	- 17	B-101	B-117	B-136
			7460	760	2.22				7030	716	2.30	3	6120	- 17	B-101	B-117	B-136
7460	760	2.57	7030	716	2.57	3	6125	- 17	B-101	B-117	B-136						
69.0	289	29.5	<b>5400</b>	<b>550</b>	<b>1.04</b>	83.3	240	24.4	<b>5400</b>	<b>550</b>	<b>1.06</b>	<b>3</b>	<b>6105</b>	<b>- 21</b>	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			6920	706	1.24				6540	667	1.24	3	6110	- 21	B-101	B-117	B-136
			6920	706	1.41				6540	667	1.41	3	6115	- 21	B-101	B-117	B-136
			8180	834	1.80				7710	786	1.80	3	6120	- 21	B-101	B-117	B-136
			8180	834	2.18				7710	786	2.22	3	6125	- 21	B-101	B-117	B-136
9580	976	2.70	9020	919	2.79	3	6130	- 21	B-102	B-118	B-137						
58.0	344	35.1	<b>7010</b>	<b>715</b>	<b>1.01</b>	70.0	285	29.1	<b>6620</b>	<b>675</b>	<b>1.01</b>	<b>3</b>	<b>6115</b>	<b>- 25</b>	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			8560	873	1.40				8070	823	1.40	3	6120	- 25	B-101	B-117	B-136
			8560	873	1.80				8070	823	1.80	3	6125	- 25	B-101	B-117	B-136
			9950	1010	2.27				9370	955	2.35	3	6130	- 25	B-102	B-118	B-137
9950	1010	2.61	9370	955	2.70	3	6135	- 25	B-102	B-118	B-137						
50.0	399	40.7	<b>7160</b>	<b>730</b>	<b>1.01</b>	60.3	331	33.7	<b>6800</b>	<b>693</b>	<b>1.01</b>	<b>3</b>	<b>6115</b>	<b>- 29</b>	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			8880	905	1.30				8380	854	1.36	3	6120	- 29	B-101	B-117	B-136
			8880	905	1.58				8380	854	1.71	3	6125	- 29	B-101	B-117	B-136
			10500	1070	1.95				9850	1000	2.04	3	6130	- 29	B-102	B-118	B-137
			10500	1070	2.22				9850	1000	2.56	3	6135	- 29	B-102	B-118	B-137
			15000	1530	2.70				14200	1450	2.70	3	6140	- 29	B-102	B-118	B-137

GEARMOTORS

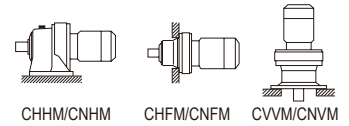
Selection Tables  
2.2 kW

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>2.2 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

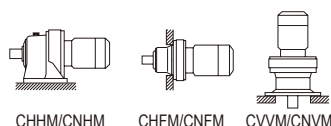


GEARMOTORS  
Selection Tables  
2.2 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet					
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM			
41.4	482	49.1	0.82	4960	50.0	399	40.7	0.82	7230	3 -	6115	- 35	B-101	B-117	B-136			
			<b>1.08</b>	<b>9350 954</b>				<b>1.13</b>	<b>8830 900</b>				<b>6120</b>	<b>- 35</b>	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>	
			1.31	9350 954				1.45	8830 900				6125	- 35	B-101	B-117	B-136	
			1.62	11000 1120				1.69	10300 1050				6130	- 35	B-102	B-118	B-137	
			1.87	11000 1120				1.93	10300 1050				6135	- 35	B-102	B-118	B-137	
			2.37	16000 1630				2.37	15200 1550				6140	- 35	B-102	B-118	B-137	
33.7	592	60.3	1.06	<b>9810 1000</b>	40.7	490	50.0	1.06	<b>9380 956</b>	3 -	<b>6125</b>	<b>- 43</b>	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>			
			1.32	11800 1200				1.36	11100 1130				6130	- 43	B-102	B-118	B-137	
			1.52	11800 1200				1.71	11100 1130				6135	- 43	B-102	B-118	B-137	
			1.79	16000 1630				1.79	15900 1620				6140	- 43	B-102	B-118	B-137	
			2.12	16000 1630				2.45	15900 1620				6145	- 43	B-102	B-118	B-137	
			2.93	20600 2100				3.39	19300 1970				6160	- 43	B-103	B-119	B-138	
28.4	702	71.6	0.90	9810 1000	34.3	582	59.3	0.90	9760 995	3 -	6125	- 51	B-101	B-117	B-136			
			<b>1.11</b>	<b>12200 1250</b>				<b>1.15</b>	<b>11500 1180</b>				<b>6130</b>	<b>- 51</b>	<b>B-101</b>	<b>B-118</b>	<b>B-137</b>	
			1.16	12200 1250				1.33	11500 1180				6135	- 51	B-102	B-118	B-137	
			1.56	16000 1630				1.56	16000 1630				6140	- 51	B-102	B-118	B-137	
			1.68	16000 1630				1.92	16000 1630				6145	- 51	B-102	B-118	B-137	
			2.50	21300 2180				2.61	20100 2050				6160	- 51	B-103	B-119	B-138	
24.6	812	82.8	1.11	<b>12800 1300</b>	29.7	673	68.6	1.11	<b>12100 1230</b>	3 -	<b>6135</b>	<b>- 59</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>			
			1.35	16000 1630				1.35	16000 1630				6140	- 59	B-102	B-118	B-137	
			1.45	16000 1630				1.66	16000 1630				6145	- 59	B-102	B-118	B-137	
			2.01	22100 2250				2.01	22100 2250				6160	- 59	B-103	B-119	B-138	
			2.59	22100 2250				2.61	22100 2250				6165	- 59	B-103	B-119	B-138	
			0.92	13500 1380				0.98	12800 1300				6135	- 71	B-102	B-118	B-137	
20.4	977	99.6	1.10	<b>16000 1630</b>	24.6	810	82.5	1.10	<b>16000 1630</b>	3 -	<b>6140</b>	<b>- 71</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>			
			1.19	16000 1630				1.38	16000 1630				6145	- 71	B-102	B-118	B-137	
			1.58	22100 2250				1.58	22100 2250				6160	- 71	B-103	B-119	B-138	
			2.15	22100 2250				2.57	22100 2250				6165	- 71	B-103	B-119	B-138	
			0.98	16000 1630				1.13	16000 1630				6145	- 87	B-102	B-118	B-137	
			1.46	22100 2250				1.58	22100 2250				6160	- 87	B-103	B-119	B-138	
13.9	780	79.5	*	14700 1500	20.1	992	101	*	14700 1500	3 -	6130DC	- 104	B-109	B-125	B-144			
			*	14700 1500				*	14700 1500				6135DC	- 104	B-109	B-125	B-144	
			<b>1.01</b>	<b>16000 1630</b>				<b>1.22</b>	<b>16000 1630</b>				<b>6145DC</b>	<b>- 104</b>	<b>B-109</b>	<b>B-125</b>	<b>B-144</b>	
			1.29	22100 2250				1.45	22100 2250				6160DB	- 104	B-110	B-126	B-145	
			1.29	22100 2250				1.56	22100 2250				6160DC	- 104	B-111	B-127	B-146	
			1.45	22100 2250				1.45	22100 2250				6165DB	- 104	B-110	B-126	B-145	
	1360	138	138	1.55	22100 2250	16.8	1120	115	1.55	22100 2250	3 -	6165DC	- 104	B-111	B-127	B-146		
				1.86	29500 3010				1.87	29400 3000				6170DC	- 104	B-111	B-127	B-146
				2.32	29500 3010				2.80	29400 3000				6175DC	- 104	B-111	B-127	B-146
				2.99	41300 4210				3.61	38800 3960				6180DB	- 104	B-111	B-127	B-146

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



<b>2.2 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

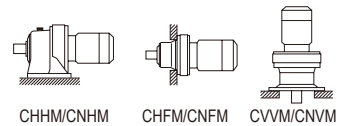
50Hz					60Hz					Nomenclature			Page of Dimension Sheet					
Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>		Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>		Allowable Radial Load Pro		SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
[r/min]	[N·m]	[kgf·m]	[N]	[kgf]		[r/min]	[N·m]	[kgf·m]	[N]	[kgf]					CHHM	CHFM	CVVM	
12.0	940	95.8	14700	1500	*	14.5	940	95.8	14700	1500	*	3	- 6135DC	- 121	B-109	B-125	B-144	
	1230	125	16000	1630	*		1230	125	16000	1630	*	3	- 6140DC	- 121	B-109	B-125	B-144	
	1290	132	16000	1630	*		1290	132	16000	1630	*	3	- 6145DC	- 121	B-109	B-125	B-144	
			15300	1560	0.82					16000	1630	0.98	3	- 6145DC	- 121	B-109	B-125	B-144
			22100	2250	1.11					22100	2250	1.34	3	- 6160DB	- 121	B-110	B-126	B-145
			22100	2250	1.11					22100	2250	1.34	3	- 6160DC	- 121	B-111	B-127	B-146
			22100	2250	1.33					22100	2250	1.45	3	- 6165DB	- 121	B-110	B-126	B-145
	1580	161	22100	2250	1.33		1310	133	22100	2250	1.61	3	- 6165DC	- 121	B-111	B-127	B-146	
			29500	3010	1.45					29500	3010	1.45	3	- 6170DB	- 121	B-110	B-126	B-145
			29500	3010	1.60					29500	3010	1.94	3	- 6170DC	- 121	B-111	B-127	B-146
		29500	3010	2.00				29500	3010	2.41	3	- 6175DC	- 121	B-111	B-127	B-146		
		41700	4250	2.57				41300	4210	3.11	3	- 6180DB	- 121	B-111	B-127	B-146		
10.1	1230	125	16000	1630	*	12.2	1230	125	16000	1630	*	3	- 6140DC	- 143	B-109	B-125	B-144	
	1370	140	15900	1620	*		1370	140	15900	1620	*	3	- 6145DC	- 143	B-109	B-125	B-144	
			22100	2250	1.13					22100	2250	1.36	3	- 6165DB	- 143	B-110	B-126	B-145
			29500	3010	1.35					29500	3010	1.45	3	- 6170DB	- 143	B-110	B-126	B-145
			29500	3010	1.35					29500	3010	1.64	3	- 6170DC	- 143	B-111	B-127	B-146
			29500	3010	1.45					29500	3010	1.45	3	- 6175DB	- 143	B-110	B-126	B-145
	1860	190	29500	3010	1.69		1550	158	29500	3010	2.04	3	- 6175DC	- 143	B-111	B-127	B-146	
			41700	4250	2.18					41700	4250	2.63	3	- 6180DB	- 143	B-111	B-127	B-146
		41700	4250	2.63				41700	4250	3.17	3	- 6185DB	- 143	B-111	B-127	B-146		
		59000	6010	2.69				59000	6010	2.69	3	- 6190DA	- 143	B-111	B-128	B-147		
8.79	1230	125	16000	1630	*	10.6	1230	125	16000	1630	*	3	- 6140DC	- 165	B-109	B-125	B-144	
	1360	138	16000	1630	*		1360	138	16000	1630	*	3	- 6145DC	- 165	B-109	B-125	B-144	
	1760	179	22100	2250	*		1760	179	22100	2250	*	3	- 6160DB	- 165	B-110	B-126	B-145	
			22100	2250	0.98					22100	2250	1.18	3	- 6165DB	- 165	B-110	B-126	B-145
			29500	3010	1.18					29500	3010	1.42	3	- 6170DB	- 165	B-110	B-126	B-145
			29500	3010	1.45					29500	3010	1.45	3	- 6175DB	- 165	B-110	B-126	B-145
			29500	3010	1.46					29500	3010	1.77	3	- 6175DC	- 165	B-111	B-127	B-146
	2150	219	41700	4250	1.45		1780	182	41700	4250	1.45	3	- 6180DA	- 165	B-110	B-126	B-145	
			41700	4250	1.89					41700	4250	2.28	3	- 6180DB	- 165	B-111	B-127	B-146
			41700	4250	2.29					41700	4250	2.76	3	- 6185DB	- 165	B-111	B-127	B-146
		59000	6010	2.69				59000	6010	2.69	3	- 6190DA	- 165	B-111	B-128	B-147		
		59000	6010	2.97				59000	6010	3.58	3	- 6190DB	- 165	B-112	B-128	B-147		
7.44	1760	179	22100	2250	*	8.97	1760	179	22100	2250	*	3	- 6160DB	- 195	B-110	B-126	B-145	
	2100	214	22100	2250	*		2100	214	22100	2250	*	3	- 6165DB	- 195	B-110	B-126	B-145	
			22100	2250	0.83					22100	2250	1.00	3	- 6165DB	- 195	B-110	B-126	B-145
			29500	3010	0.98					29500	3010	1.20	3	- 6170DB	- 195	B-110	B-126	B-145
			29500	3010	1.24					29500	3010	1.45	3	- 6175DB	- 195	B-110	B-126	B-145
			41700	4250	1.45					41700	4250	1.45	3	- 6180DA	- 195	B-110	B-126	B-145
			41700	4250	1.60					41700	4250	1.93	3	- 6180DB	- 195	B-111	B-127	B-146
	2540	259	41700	4250	1.94		2110	215	41700	4250	2.34	3	- 6185DB	- 195	B-111	B-127	B-146	
			59000	6010	2.51					59000	6010	2.69	3	- 6190DA	- 195	B-111	B-128	B-147
			59000	6010	2.51					59000	6010	3.03	3	- 6190DB	- 195	B-112	B-128	B-147
			59000	6010	2.56					59000	6010	2.69	3	- 6195DA	- 195	B-111	B-128	B-147
			84100	8570	2.69					84100	8570	2.69	3	- 6205DA	- 195	B-112	B-129	B-148

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

2.2 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



Selection Tables  
2.2 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
[r/min]	[N·m] [kgf·m]	[N]	[kgf]		[r/min]	[N·m] [kgf·m]	[N]	[kgf]					CHHM	CHFMCNFM	CVVM
6.28	1760	179	22100	2250	*	7.58	1760	179	22100	2250	*	3 - 6160DB - 231	B-110	B-126	B-145
	2100	214	22100	2250	*		2100	214	22100	2250	*	3 - 6165DB - 231	B-110	B-126	B-145
			<b>29500</b>	<b>3010</b>	<b>1.05</b>				<b>29500</b>	<b>3010</b>	<b>1.26</b>	<b>3 - 6175DB - 231</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>
			41700	4250	1.34				41700	4250	1.45	3 - 6180DA - 231	B-110	B-126	B-145
			41700	4250	1.34				41700	4250	1.62	3 - 6180DB - 231	B-111	B-127	B-146
			41700	4250	1.45				41700	4250	1.45	3 - 6185DA - 231	B-110	B-126	B-145
	3010	307	41700	4250	1.66		2500	254	41700	4250	2.00	3 - 6185DB - 231	B-111	B-127	B-146
			59000	6010	2.12				59000	6010	2.56	3 - 6190DA - 231	B-111	B-128	B-147
			59000	6010	2.64				59000	6010	2.69	3 - 6195DA - 231	B-111	B-128	B-147
			59000	6010	2.64				59000	6010	3.19	3 - 6195DB - 231	B-112	B-128	B-147
5.31	2100	214	22100	2250	*	6.41	2100	214	22100	2250	*	3 - 6165DB - 273	B-110	B-126	B-145
	2530	258	29500	3010	*		2530	258	29500	3010	*	3 - 6170DB - 273	B-110	B-126	B-145
			29500	3010	0.88				29500	3010	1.07	3 - 6175DB - 273	B-110	B-126	B-145
			41700	4250	1.14				41700	4250	1.37	3 - 6180DA - 273	B-110	B-126	B-145
			41700	4250	1.40				41700	4250	1.45	3 - 6185DA - 273	B-110	B-126	B-145
	3560	363	41700	4250	1.40		2950	301	41700	4250	1.70	3 - 6185DB - 273	B-111	B-127	B-146
			59000	6010	1.79				59000	6010	2.16	3 - 6190DA - 273	B-111	B-128	B-147
			59000	6010	2.24				59000	6010	2.69	3 - 6195DA - 273	B-111	B-128	B-147
			84100	8570	2.35				84100	8570	2.66	3 - 6205DA - 273	B-112	B-129	B-148
			84100	8570	2.61				84100	8570	3.14	3 - 6205DB - 273	B-112	B-129	B-148
4.55	2530	258	29500	3010	*	5.49	2530	258	29500	3010	*	3 - 6170DB - 319	B-110	B-126	B-145
	3150	321	29500	3010	*		3150	321	29500	3010	*	3 - 6175DB - 319	B-110	B-126	B-145
			41700	4250	1.20				41700	4250	1.45	3 - 6185DA - 319	B-110	B-126	B-145
			59000	6010	1.53				59000	6010	1.85	3 - 6190DA - 319	B-111	B-128	B-147
	4160	424	59000	6010	1.91		3450	351	59000	6010	2.31	3 - 6195DA - 319	B-111	B-128	B-147
			84100	8570	1.94				84100	8570	2.20	3 - 6205DA - 319	B-112	B-129	B-148
			84100	8570	2.22				84100	8570	2.68	3 - 6205DB - 319	B-112	B-129	B-148
3.85	3150	321	29500	3010	*	4.64	3150	321	29500	3010	*	3 - 6175DB - 377	B-110	B-126	B-145
	4050	413	41700	4250	*		4050	413	41700	4250	*	3 - 6180DA - 377	B-110	B-126	B-145
			<b>41700</b>	<b>4250</b>	<b>1.02</b>				<b>41700</b>	<b>4250</b>	<b>1.23</b>	<b>3 - 6185DA - 377</b>	<b>B-110</b>	<b>B-126</b>	<b>B-145</b>
			59000	6010	1.30				59000	6010	1.57	3 - 6190DA - 377	B-111	B-128	B-147
	4920	501	59000	6010	1.62		4070	415	59000	6010	1.95	3 - 6195DA - 377	B-111	B-128	B-147
			84100	8570	1.74				84100	8570	1.97	3 - 6205DA - 377	B-112	B-129	B-148
			84100	8570	1.88				84100	8570	2.27	3 - 6205DB - 377	B-112	B-129	B-148
		104000	10600	2.57			104000	10600	3.11	3 - 6215DA - 377	B-112	B-129	B-148		
3.07	4060	414	41700	4250	*	3.70	4060	414	41700	4250	*	3 - 6180DA - 473	B-110	B-126	B-145
	5000	510	41700	4250	*		5000	510	41700	4250	*	3 - 6185DA - 473	B-110	B-126	B-145
			41700	4250	0.81				41700	4250	0.98	3 - 6185DA - 473	B-110	B-126	B-145
			<b>59000</b>	<b>6010</b>	<b>1.03</b>				<b>59000</b>	<b>6010</b>	<b>1.25</b>	<b>3 - 6190DA - 473</b>	<b>B-111</b>	<b>B-128</b>	<b>B-147</b>
			59000	6010	1.29				59000	6010	1.56	3 - 6195DA - 473	B-111	B-128	B-147
	6170	629	84100	8570	1.34		5110	521	84100	8570	1.52	3 - 6205DA - 473	B-112	B-129	B-148
			84100	8570	1.51				84100	8570	1.82	3 - 6205DB - 473	B-112	B-129	B-148
		104000	10600	2.05			104000	10600	2.48	3 - 6215DA - 473	B-112	B-129	B-148		
		145000	14800	2.59			145000	14800	3.13	3 - 6225DA - 473	B-113	B-130	B-149		
2.59	5000	510	41700	4250	*	3.13	5000	510	41700	4250	*	3 - 6185DA - 559	B-110	B-126	B-145
			59000	6010	1.09				59000	6010	1.32	3 - 6195DA - 559	B-111	B-128	B-147
			84100	8570	1.20				84100	8570	1.36	3 - 6205DA - 559	B-112	B-129	B-148
			84100	8570	1.28				84100	8570	1.54	3 - 6205DB - 559	B-112	B-129	B-148
	7290	743	104000	10600	1.74		6040	616	104000	10600	2.09	3 - 6215DA - 559	B-112	B-129	B-148
			145000	14800	2.19				145000	14800	2.65	3 - 6225DA - 559	B-113	B-130	B-149
			179000	18200	2.81				179000	18200	3.39	3 - 6235DA - 559	B-114	B-131	B-150

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFMCNFM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

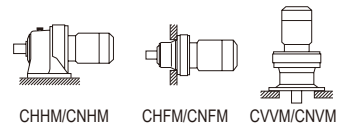


# Selection Tables Gearmotors

GEARMOTORS

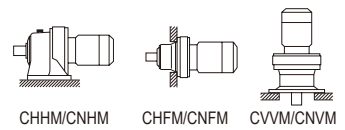
Selection Tables  
2.2 kW, 3.0 kW

<b>2.2 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
[r/min]	[N·m] [kgf·m]	[N]	[kgf]	*	[r/min]	[N·m] [kgf·m]	[N]	[kgf]	*							
0.192	17200 22600	1750 2310	179000 208000	18200 21200	*	0.231	17200 22600	1750 2310	179000 208000	18200 21200	*	3 - 6235DA 3 - 6245DA	- 7569 - 7569	B-114	B-131	B-150

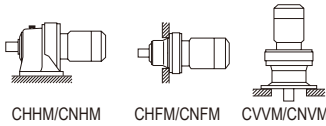
<b>3.0 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



50Hz					60Hz					Nomenclature			Page of Dimension Sheet										
Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM								
[r/min]	[N·m] [kgf·m]	[N]	[kgf]		[r/min]	[N·m] [kgf·m]	[N]	[kgf]															
580	46.9	4.78	<b>1930</b>	<b>197</b>	<b>1.06</b>	700	38.9	3.96	1.72	1.72	4 - 6100SK	- 2.5 (K)	B-99	-	B-134								
			1930	197	1.25											1870	191	1.25	4 - 6105SK	- 2.5 (K)	B-99	-	B-134
			2700	275	1.72											2570	262	1.72	4 - 6110SK	- 2.5 (K)	B-99	-	B-134
			2700	275	2.15											2570	262	2.15	4 - 6115SK	- 2.5 (K)	B-99	-	B-134
483	56.3	5.74	<b>1980</b>	<b>202</b>	<b>1.10</b>	583	46.7	4.76	1.29	1.29	4 - 6100SK	- 3 (K)	B-99	-	B-134								
			1980	202	1.29											1920	196	1.29	4 - 6105SK	- 3 (K)	B-99	-	B-134
			2850	291	1.76											2730	278	1.76	4 - 6110SK	- 3 (K)	B-99	-	B-134
			2850	291	2.20											2730	278	2.20	4 - 6115SK	- 3 (K)	B-99	-	B-134
363	75.1	7.65	<b>2130</b>	<b>217</b>	<b>1.07</b>	583	62.2	6.34	1.26	1.26	4 - 6100SK	- 4 (K)	B-99	-	B-134								
			2130	217	1.26											2080	212	1.26	4 - 6105SK	- 4 (K)	B-99	-	B-134
			3040	310	1.78											2900	296	1.78	4 - 6110SK	- 4 (K)	B-99	-	B-134
			3040	310	2.23											2900	296	2.23	4 - 6115SK	- 4 (K)	B-99	-	B-134
290	93.9	9.57	<b>2210</b>	<b>225</b>	<b>1.23</b>	350	77.8	7.93	1.26	1.26	4 - 6105SK	- 5 (K)	B-99	-	B-134								
			3180	324	1.54											3040	310	1.26	4 - 6110SK	- 5 (K)	B-99	-	B-134
			3180	324	1.92											3040	310	1.78	4 - 6115SK	- 5 (K)	B-99	-	B-134
242	113	11.5	<b>2190</b>	<b>223</b>	<b>1.05</b>	292	93.3	9.51	1.18	1.18	4 - 6105SK	- 6 (K)	B-99	-	B-134								
			3330	339	1.41											3210	327	1.41	4 - 6110SK	- 6 (K)	B-99	-	B-134
			3330	339	1.76											3210	327	1.76	4 - 6115SK	- 6 (K)	B-99	-	B-134
			4610	470	1.18											4340	443	1.18	4 - 6110	- 6	B-101	B-117	B-136
			4610	470	1.31											4340	443	1.31	4 - 6115	- 6	B-101	B-117	B-136
			5230	534	1.69											4930	502	1.69	4 - 6120	- 6	B-101	B-117	B-136
5230	534	2.32	4930	502	1.94	4 - 6125	- 6	B-101	B-117	B-136													
181	150	15.3	2170	221	0.83	219	124	12.7	1.18	1.18	4 - 6105SK	- 8 (K)	B-99	-	B-134								
			<b>3470</b>	<b>354</b>	<b>1.23</b>											<b>3370</b>	<b>344</b>	<b>1.23</b>	4 - 6110SK	- 8 (K)	B-99	-	B-134
			3470	354	1.54											3370	344	1.54	4 - 6115SK	- 8 (K)	B-99	-	B-134
			5130	523	1.18											4830	493	1.18	4 - 6110	- 8	B-101	B-117	B-136
			5130	523	1.31											4830	493	1.31	4 - 6115	- 8	B-101	B-117	B-136
			5830	595	1.69											5490	560	1.69	4 - 6120	- 8	B-101	B-117	B-136
5830	595	2.32	5490	560	2.32	4 - 6125	- 8	B-101	B-117	B-136													
145	188	19.1	<b>3650</b>	<b>372</b>	<b>1.02</b>	175	156	15.9	1.27	1.27	4 - 6110SK	- 10 (K)	B-99	-	B-134								
			3650	372	1.27											3550	362	1.27	4 - 6115SK	- 10 (K)	B-99	-	B-134
132	206	21.0	<b>5840</b>	<b>595</b>	<b>1.18</b>	159	171	17.4	1.31	1.31	4 - 6110	- 11	B-101	B-117	B-136								
			5840	595	1.31											5510	561	1.31	4 - 6115	- 11	B-101	B-117	B-136
			6620	675	1.69											6240	636	1.69	4 - 6120	- 11	B-101	B-117	B-136
			6620	675	1.97											6240	636	1.97	4 - 6125	- 11	B-101	B-117	B-136

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



3.0 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

50Hz					60Hz					Nomenclature			Page of Dimension Sheet						
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM		
112	244	24.9	6020	614	1.18	135	202	20.6	5690	580	1.18	4	-	6110	-	13	B-101	B-117	B-136
			6020	614	1.30				5690	580	1.30			6115	-	13	B-101	B-117	B-136
			6830	696	1.69				6440	657	1.69			6120	-	13	B-101	B-117	B-136
			6830	696	1.97				6440	657	1.97			6125	-	13	B-101	B-117	B-136
96.7	282	28.7	6410	653	1.18	117	233	23.8	6050	617	1.18	4	-	6110	-	15	B-101	B-117	B-136
			6410	653	1.30				6050	617	1.30			6115	-	15	B-101	B-117	B-136
			7320	747	1.69				6910	704	1.69			6120	-	15	B-101	B-117	B-136
			7320	747	1.97				6910	704	1.97			6125	-	15	B-101	B-117	B-136
			8290	845	2.59				7810	796	2.59			6130	-	15	B-102	B-118	B-137
8290	845	2.99	7810	796	2.99	6135	-	15	B-102	B-118	B-137								
85.3	319	32.5	6460	659	1.06	103	264	27.0	6110	622	1.06	4	-	6110	-	17	B-101	B-117	B-136
			6460	659	1.30				6110	622	1.30			6115	-	17	B-101	B-117	B-136
			7390	753	1.63				6970	710	1.69			6120	-	17	B-101	B-117	B-136
			7390	753	1.89				6970	710	1.89			6125	-	17	B-101	B-117	B-136
			8900	907	2.42				8380	854	2.42			6130	-	17	B-102	B-118	B-137
8900	907	2.76	8380	854	2.76	6135	-	17	B-102	B-118	B-137								
69.0	394	40.2	6800	693	1.04	83.3	327	33.3	6440	657	1.04	4	-	6115	-	21	B-101	B-117	B-136
			8090	825	1.32				7640	779	1.32			6120	-	21	B-101	B-117	B-136
			8090	825	1.60				7640	779	1.63			6125	-	21	B-101	B-117	B-136
			9500	969	1.98				8960	913	2.05			6130	-	21	B-102	B-118	B-137
			9500	969	2.24				8960	913	2.51			6135	-	21	B-102	B-118	B-137
14000	1430	2.89	13200	1350	2.89	6140	-	21	B-102	B-118	B-137								
58.0	469	47.8	8450	861	1.03	70.0	389	39.6	7980	814	1.03	4	-	6120	-	25	B-101	B-117	B-136
			8450	861	1.32				7980	814	1.32			6125	-	25	B-101	B-117	B-136
			9860	1010	1.66				9300	948	1.72			6130	-	25	B-102	B-118	B-137
			9860	1010	1.92				9300	948	1.98			6135	-	25	B-102	B-118	B-137
			14700	1490	2.30				13900	1410	2.30			6140	-	25	B-102	B-118	B-137
14700	1490	2.64	13900	1410	2.64	6145	-	25	B-102	B-118	B-137								
50.0	544	55.5	8750	892	1.16	60.3	451	46.0	8280	844	1.26	4	-	6125	-	29	B-101	B-117	B-136
			10400	1060	1.43				9770	996	1.49			6130	-	29	B-102	B-118	B-137
			10400	1060	1.63				9770	996	1.88			6135	-	29	B-102	B-118	B-137
			15000	1530	1.98				14200	1450	1.98			6140	-	29	B-102	B-118	B-137
			15000	1530	2.51				14200	1450	2.51			6145	-	29	B-102	B-118	B-137
41.4	657	67.0	9190	937	0.96	50.0	544	55.5	8700	887	1.06	4	-	6125	-	35	B-101	B-117	B-136
			10900	1110	1.19				10300	1050	1.24			6130	-	35	B-102	B-118	B-137
			10900	1110	1.37				10300	1050	1.42			6135	-	35	B-102	B-118	B-137
			16000	1630	1.74				15200	1550	1.74			6140	-	35	B-102	B-118	B-137
			16000	1630	2.09				15200	1550	2.51			6145	-	35	B-102	B-118	B-137
19100	1950	2.67	18000	1840	3.22	6160	-	35	B-103	B-119	B-138								
33.7	807	82.3	11600	1180	1.12	40.7	669	68.2	11000	1120	1.26	4	-	6135	-	43	B-102	B-118	B-137
			16000	1630	1.31				15800	1610	1.31			6140	-	43	B-102	B-118	B-137
			16000	1630	1.56				15800	1610	1.80			6145	-	43	B-102	B-118	B-137
			20400	2080	2.15				19200	1960	2.48			6160	-	43	B-103	B-119	B-138
			20400	2080	2.60				19200	1960	2.64			6165	-	43	B-103	B-119	B-138
28.4	957	97.6	12000	1220	0.85	34.3	793	80.9	11400	1160	0.98	4	-	6135	-	51	B-102	B-118	B-137
			16000	1630	1.14				16000	1630	1.14			6140	-	51	B-102	B-118	B-137
			16000	1630	1.23				16000	1630	1.41			6145	-	51	B-102	B-118	B-137
			21200	2160	1.83				20000	2040	1.92			6160	-	51	B-103	B-119	B-138
			21200	2160	2.19				20000	2040	2.51			6165	-	51	B-103	B-119	B-138
			24100	2450	2.55				22700	2310	2.80			6170	-	51	B-103	B-119	B-138

GEARMOTORS

Selection Tables  
3.0 kW

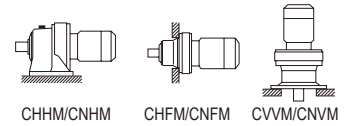
- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.



# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

3.0 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

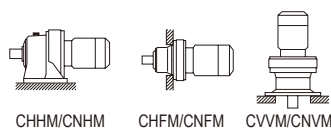


Selection Tables  
3.0 kW  
GEARMOTORS

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM CHHM	CNFM CHFM	CNVM CVVM		
24.6	1110	113	12600	1280	0.81	29.7	918	93.5	11900	1210	0.84	4 - 6135	- 59	B-102	B-118	B-137	
			16000	1630	0.98				16000	1630	0.98	4 - 6140	- 59	B-102	B-118	B-137	
			<b>16000</b>	<b>1630</b>	<b>1.06</b>				<b>16000</b>	<b>1630</b>	<b>1.22</b>	<b>4 - 6145</b>	<b>- 59</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>	
			22100	2250	1.47				22100	2250	1.47	4 - 6160	- 59	B-103	B-119	B-138	
			22100	2250	1.90				22100	2250	1.92	4 - 6165	- 59	B-103	B-119	B-138	
			25200	2570	2.21				23800	2420	2.38	4 - 6170	- 59	B-103	B-119	B-138	
			25200	2570	2.76				23800	2420	2.76	4 - 6175	- 59	B-103	B-119	B-138	
20.4	1330	136	16000	1630	0.87	24.6	1100	113	16000	1630	1.01	4 - 6145	- 71	B-102	B-118	B-137	
			<b>22100</b>	<b>2250</b>	<b>1.16</b>				<b>22100</b>	<b>2250</b>	<b>1.16</b>	<b>4 - 6160</b>	<b>- 71</b>	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>	
			22100	2250	1.58				22100	2250	1.88	4 - 6165	- 71	B-103	B-119	B-138	
			26700	2720	1.83				25100	2560	1.97	4 - 6170	- 71	B-103	B-119	B-138	
			26700	2720	2.33				25100	2560	2.38	4 - 6175	- 71	B-103	B-119	B-138	
			35900	3650	2.93				33700	3440	2.93	4 - 6180	- 71	B-104	B-120	B-139	
16.7	1630	166	<b>22100</b>	<b>2250</b>	<b>1.07</b>	20.1	1350	138	<b>21900</b>	<b>2230</b>	<b>1.16</b>	4 - 6160	- 87	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>	
			22100	2250	1.26				21900	2230	1.30	4 - 6165	- 87	B-103	B-119	B-138	
			28600	2910	1.52				26900	2750	1.60	4 - 6170	- 87	B-103	B-119	B-138	
			28600	2910	1.87				26900	2750	1.87	4 - 6175	- 87	B-103	B-119	B-138	
			38600	3930	2.38				36300	3700	2.38	4 - 6180	- 87	B-104	B-120	B-139	
			38600	3930	2.86				36300	3700	2.86	4 - 6185	- 87	B-104	B-120	B-139	
13.9	1850	189	22100	2250	1.14	16.8	1530	156	22100	2250	1.37	4 - 6165DC	- 104	B-111	B-127	B-146	
			29500	3010	1.37				29200	2970	1.65	4 - 6170DC	- 104	B-111	B-127	B-146	
			29500	3010	1.70				29200	2970	2.06	4 - 6175DC	- 104	B-111	B-127	B-146	
			41100	4190	2.20				38700	3940	2.65	4 - 6180DB	- 104	B-111	B-127	B-146	
			41100	4190	2.65				38700	3940	3.20	4 - 6185DB	- 104	B-111	B-127	B-146	
			57400	5850	2.32				53900	5500	2.32	4 - 6190DA	- 104	B-111	B-128	B-147	
			57400	5850	2.32				53900	5500	2.32	4 - 6195DA	- 104	B-111	B-128	B-147	
12.0	1760	179	22100	2250	*	14.5	1780	182	22100	2250	*	4 - 6160DC	- 121	B-111	B-127	B-146	
			22100	2250	0.98				22100	2250	1.18	4 - 6165DC	- 121	B-111	B-127	B-146	
			29500	3010	1.18				29500	3010	1.42	4 - 6170DC	- 121	B-111	B-127	B-146	
			29500	3010	1.46				29500	3010	1.77	4 - 6175DC	- 121	B-111	B-127	B-146	
			41700	4250	1.89				41200	4200	2.28	4 - 6180DB	- 121	B-111	B-127	B-146	
			41700	4250	2.23				41200	4200	2.70	4 - 6185DB	- 121	B-111	B-127	B-146	
			59000	6010	2.97				57500	5860	3.58	4 - 6190DB	- 121	B-112	B-128	B-147	
10.1	1760	179	22100	2250	*	12.2	2110	215	22100	2250	*	4 - 6160DC	- 143	B-111	B-127	B-146	
			2100	214	*				2100	214	*	4 - 6165DC	- 143	B-111	B-127	B-146	
				22100	2250	0.83				22100	2250	1.00	4 - 6165DC	- 143	B-111	B-127	B-146
				29500	3010	0.98				29500	3010	1.20	4 - 6170DC	- 143	B-111	B-127	B-146
				29500	3010	1.24				29500	3010	1.50	4 - 6175DC	- 143	B-111	B-127	B-146
		2540	259	41700	4250	1.60				41700	4250	1.93	4 - 6180DB	- 143	B-111	B-127	B-146
	41700			4250	1.93				41700	4250	2.33	4 - 6185DB	- 143	B-111	B-127	B-146	
	59000			6010	1.97				59000	6010	1.97	4 - 6190DA	- 143	B-111	B-128	B-147	
	59000			6010	2.51				59000	6010	3.03	4 - 6190DB	- 143	B-112	B-128	B-147	
				59000	6010	3.00				59000	6010	3.62	4 - 6195DB	- 143	B-112	B-128	B-147

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



3.0 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

50Hz					60Hz					Nomenclature			Page of Dimension Sheet													
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM									
8.79	2100	214	22100	2250	*	10.6	2100	214	22100	2250	*	4	-	6165DC	-	165	B-111	B-127	B-146							
			29500	3010	1.07				29500	3010	1.30						6175DC	165	B-111	B-127	B-146					
	2930	299	41700	4250	1.38		2430	248	41700	4250	1.67						4	-	6180DB	-	165	B-111	B-127	B-146		
			41700	4250	1.68				41700	4250	2.02											6185DB	165	B-111	B-127	B-146
			59000	6010	1.97				59000	6010	1.97											6190DA	165	B-111	B-128	B-147
			59000	6010	2.17				59000	6010	2.62											6190DB	165	B-112	B-128	B-147
59000	6010	2.70	59000	6010	3.25	6195DB	165	B-112	B-128	B-147																
7.44	2530	258	29500	3010	*	8.97	2530	258	29500	3010	*	4	-	6170DC	-	195	B-111	B-127	B-146							
			29500	3010	0.91				29500	3010	1.10						6175DC	195	B-111	B-127	B-146					
	3470	353	41700	4250	1.17		2870	293	41700	4250	1.41						4	-	6180DB	-	195	B-111	B-127	B-146		
			41700	4250	1.42				41700	4250	1.71											6185DB	195	B-111	B-127	B-146
			59000	6010	1.84				59000	6010	1.97											6190DA	195	B-111	B-128	B-147
			59000	6010	1.84				59000	6010	2.22											6190DB	195	B-112	B-128	B-147
59000	6010	1.88	59000	6010	1.97	6195DA	195	B-111	B-128	B-147																
59000	6010	2.28	59000	6010	2.75	6195DB	195	B-112	B-128	B-147																
84100	8570	2.67	84100	8570	3.23	6205DB	195	B-112	B-129	B-148																
6.28	2530	258	29500	3010	*	7.58	2530	258	29500	3010	*	4	-	6170DC	-	231	B-111	B-127	B-146							
			3150	321	29500				3010	*	3150						321	29500	3010	*	6175DC	231	B-111	B-127	B-146	
	4110	419	41700	4250	1.22		3400	347	41700	4250	1.47						4	-	6185DB	-	231	B-111	B-127	B-146		
			59000	6010	1.55				59000	6010	1.87											6190DA	231	B-111	B-128	B-147
			59000	6010	1.94				59000	6010	1.97											6195DA	231	B-111	B-128	B-147
			59000	6010	1.94				59000	6010	2.34											6195DB	231	B-112	B-128	B-147
84100	8570	2.26	84100	8570	2.72	6205DB	231	B-112	B-129	B-148																
5.31	3150	321	29500	3010	*	6.41	3150	321	29500	3010	*	4	-	6175DC	-	273	B-111	B-127	B-146							
			<b>41700</b>	<b>4250</b>	<b>1.03</b>				<b>41700</b>	<b>4250</b>	<b>1.24</b>						<b>6185DB</b>	<b>273</b>	<b>B-111</b>	<b>B-127</b>	<b>B-146</b>					
	59000	6010	1.31	59000	6010		1.59	6190DA	273	B-111	B-128						B-147									
	59000	6010	1.64	59000	6010		1.97	6195DA	273	B-111	B-128						B-147									
	84100	8570	1.72	84100	8570		1.95	6205DA	273	B-112	B-129						B-148									
	84100	8570	1.91	84100	8570		2.31	6205DB	273	B-112	B-129						B-148									
104000	10600	2.57	104000	10600	3.11	6215DA	273	B-112	B-129	B-148																
4.55	4050	413	41700	4250	*	5.49	4050	413	41700	4250	*	4	-	6180DB	-	319	B-111	B-127	B-146							
			41700	4250	0.88				41700	4250	1.06						6185DB	319	B-111	B-127	B-146					
	5670	578	59000	6010	1.12		4700	479	59000	6010	1.36						4	-	6190DA	-	319	B-111	B-128	B-147		
			59000	6010	1.40				59000	6010	1.69											6195DA	319	B-111	B-128	B-147
			84100	8570	1.42				84100	8570	1.61											6205DA	319	B-112	B-129	B-148
			84100	8570	1.63				84100	8570	1.96											6205DB	319	B-112	B-129	B-148
104000	10600	2.23	104000	10600	2.69	6215DA	319	B-112	B-129	B-148																
145000	14800	2.65	144000	14700	3.20	6225DA	319	B-113	B-130	B-149																
3.85	5000	510	41700	4250	*	4.64	5000	510	41700	4250	*	4	-	6185DB	-	377	B-111	B-127	B-146							
			59000	6010	1.19				59000	6010	1.43						6195DA	377	B-111	B-128	B-147					
	6700	683	84100	8570	1.28		5550	566	84100	8570	1.45						4	-	6205DA	-	377	B-112	B-129	B-148		
			84100	8570	1.38				84100	8570	1.66											6205DB	377	B-112	B-129	B-148
			104000	10600	1.89				104000	10600	2.28											6215DA	377	B-112	B-129	B-148
			145000	14800	2.24				145000	14800	2.71											6225DA	377	B-113	B-130	B-149
179000	18200	2.82	179000	18200	3.40	6235DA	377	B-114	B-131	B-150																
3.07	6380	650	59000	6010	*	3.70	6380	650	59000	6010	*	4	-	6190DA	-	473	B-111	B-128	B-147							
			58800	6000	0.95				59000	6010	1.14						6195DA	473	B-111	B-128	B-147					
	8410	857	84100	8570	0.98		6970	710	84100	8570	1.12						4	-	6205DA	-	473	B-112	B-129	B-148		
			84100	8570	1.11				84100	8570	1.33											6205DB	473	B-112	B-129	B-148
			104000	10600	1.50				104000	10600	1.82											6215DA	473	B-112	B-129	B-148
			145000	14800	1.90				145000	14800	2.30											6225DA	473	B-113	B-130	B-149
179000	18200	2.44	179000	18200	2.94	6235DA	473	B-114	B-131	B-150																

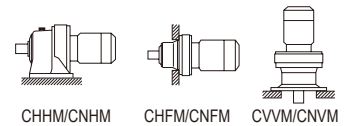
Selection Tables  
3.0 kW  
GEARMOTORS

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

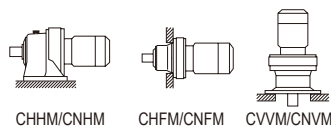
<b>3.0 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Input Capacity	Symbol Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
[r/min]	[N·m] [kgf·m]	[N]	[kgf]		[r/min]	[N·m] [kgf·m]	[N]	[kgf]					CHHM	CHFM	CVVM
2.59	6380	650	59000	6010	*	3.13	6380	650	59000	6010	*	4 - 6190DA - 559	B-111	B-128	B-147
	7960	811	59000	6010	*		7960	811	59000	6010	*	4 - 6195DA - 559	B-111	B-128	B-147
	8760	893	84100	8570	*		8230	839	84100	8570	*	4 - 6205DA - 559	B-112	B-129	B-148
			58400	5950	0.80				58900	6000	0.97	4 - 6195DA - 559	B-111	B-128	B-147
			84100	8570	0.88				84100	8570	1.00	4 - 6205DA - 559	B-112	B-129	B-148
			84100	8570	0.94				84100	8570	1.13	4 - 6205DB - 559	B-112	B-129	B-148
	9940	1010	104000	10600	1.27		8240	840	104000	10600	1.54	4 - 6215DA - 559	B-112	B-129	B-148
			145000	14800	1.61				145000	14800	1.94	4 - 6225DA - 559	B-113	B-130	B-149
			179000	18200	2.06				179000	18200	2.49	4 - 6235DA - 559	B-114	B-131	B-150
			208000	21200	2.60				208000	21200	3.13	4 - 6245DA - 559	B-114	B-131	B-150
2.23	7960	811	58100	5930	*	2.70	7960	811	58100	5930	*	4 - 6195DA - 649	B-111	B-128	B-147
	8300	846	84100	8570	*		7790	794	84100	8570	*	4 - 6205DA - 649	B-112	B-129	B-148
			84100	8570	0.81				84100	8570	0.97	4 - 6205DB - 649	B-112	B-129	B-148
			104000	10600	1.10				104000	10600	1.32	4 - 6215DA - 649	B-112	B-129	B-148
	11500	1180	145000	14800	1.38		9560	975	145000	14800	1.66	4 - 6225DA - 649	B-113	B-130	B-149
			179000	18200	1.78				179000	18200	2.14	4 - 6235DA - 649	B-114	B-131	B-150
		208000	21200	2.24			208000	21200	2.70	4 - 6245DA - 649	B-114	B-131	B-150		
1.98	7960	811	59000	6010	*	2.39	7960	811	59000	6010	*	4 - 6195DA - 731	B-111	B-128	B-147
	9300	948	84100	8570	*		9060	923	84100	8570	*	4 - 6205DA - 731	B-112	B-129	B-148
			104000	10600	0.97				104000	10600	1.17	4 - 6215DA - 731	B-112	B-129	B-148
			145000	14800	1.23				145000	14800	1.49	4 - 6225DA - 731	B-113	B-130	B-149
	13000	1330	179000	18200	1.58		10800	1100	179000	18200	1.90	4 - 6235DA - 731	B-114	B-131	B-150
		208000	21200	1.98			208000	21200	2.40	4 - 6245DA - 731	B-114	B-131	B-150		
1.72	9230	941	84100	8570	*	2.08	9230	941	84100	8570	*	4 - 6205DA - 841	B-112	B-129	B-148
			104000	10600	0.85				104000	10600	1.02	4 - 6215DA - 841	B-112	B-129	B-148
			<b>145000</b>	<b>14800</b>	<b>1.01</b>				<b>145000</b>	<b>14800</b>	<b>1.21</b>	<b>4 - 6225DA - 841</b>	<b>B-113</b>	<b>B-130</b>	<b>B-149</b>
	15000	1520	179000	18200	1.26		12400	1260	179000	18200	1.53	4 - 6235DA - 841	B-114	B-131	B-150
		208000	21200	1.73			208000	21200	2.08	4 - 6245DA - 841	B-114	B-131	B-150		
1.45	12700	1290	104000	10600	*	1.74	12700	1290	104000	10600	*	4 - 6215DA - 1003	B-112	B-129	B-148
			145000	14800	0.89				145000	14800	1.07	4 - 6225DA - 1003	B-113	B-130	B-149
	17800	1820	179000	18200	1.15		14800	1510	179000	18200	1.39	4 - 6235DA - 1003	B-114	B-131	B-150
			208000	21200	1.45				208000	21200	1.75	4 - 6245DA - 1003	B-114	B-131	B-150
1.16	16000	1630	145000	14800	*	1.40	16000	1630	145000	14800	*	4 - 6225DA - 1247	B-113	B-130	B-149
	22200	2260	179000	18200	0.92		18400	1870	179000	18200	1.12	4 - 6235DA - 1247	B-114	B-131	B-150
		208000	21200	1.16			208000	21200	1.40	4 - 6245DA - 1247	B-114	B-131	B-150		
0.980	17200	1750	179000	18200	*	1.18	17200	1750	179000	18200	*	4 - 6235DA - 1479	B-114	B-131	B-150
	26300	2680	208000	21200	0.86		21800	2220	208000	21200	1.04	4 - 6245DA - 1479	B-114	B-131	B-150
0.784	20500	2090	179000	18200	*	0.946	20500	2090	179000	18200	*	4 - 6235DA - 1849	B-114	B-131	B-150
	25800	2630	208000	21200	*		25800	2630	208000	21200	*	4 - 6245DA - 1849	B-114	B-131	B-150
0.702	25800	2630	208000	21200	*	0.847	25800	2630	208000	21200	*	4 - 6245DA - 2065	B-114	B-131	B-150

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



3.7 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

50Hz					60Hz					Nomenclature			Page of Dimension Sheet										
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM						
580	57.9	5.90	1820	186	1.01	700	48.0	4.89	1790	182	1.01	5 - 6105SK	- 2.5	(K)	B-99	-	B-134						
			2620	267	1.39				2500	255	1.39							5 - 6110SK	- 2.5	(K)	B-99	-	B-134
483	69.5	7.08	1850	189	1.05	583	57.5	5.87	1810	185	1.05	5 - 6105SK	- 3	(K)	B-99	-	B-134						
			2770	282	1.43				2650	270	1.43							5 - 6110SK	- 3	(K)	B-99	-	B-134
363	92.6	9.44	1960	200	1.02	438	76.7	7.82	1940	198	1.02	5 - 6105SK	- 4	(K)	B-99	-	B-134						
			2920	298	1.45				2820	287	1.45							5 - 6110SK	- 4	(K)	B-99	-	B-134
290	116	11.8	2010	205	1.00	350	95.9	9.78	2000	204	1.00	5 - 6105SK	- 5	(K)	B-99	-	B-134						
			3040	310	1.25				2930	299	1.25							5 - 6110SK	- 5	(K)	B-99	-	B-134
242	139	14.2	1960	200	0.85	292	115	11.7	1970	201	0.85	5 - 6105SK	- 6	(K)	B-99	-	B-134						
			3160	322	1.14				3060	312	1.14							5 - 6110SK	- 6	(K)	B-99	-	B-134
			3160	322	1.43				3060	312	1.43							5 - 6115SK	- 6	(K)	B-99	-	B-134
			4580	467	1.06				4320	440	1.06							5 - 6115	- 6		B-101	B-117	B-136
			5210	531	1.37				4910	500	1.37							5 - 6120	- 6		B-101	B-117	B-136
181	185	18.9	3260	332	1.00	219	153	15.6	3190	325	1.00	5 - 6110SK	- 8	(K)	B-99	-	B-134						
			3260	332	1.25				3190	325	1.25							5 - 6115SK	- 8	(K)	B-99	-	B-134
			5090	519	1.06				4800	489	1.06							5 - 6115	- 8		B-101	B-117	B-136
			5800	591	1.37				5470	557	1.37							5 - 6120	- 8		B-101	B-117	B-136
			5800	591	1.88				5470	557	1.88							5 - 6125	- 8		B-101	B-117	B-136
145	232	23.6	6820	695	2.54				6420	655	2.54	5 - 6130	- 8		B-102	B-118	B-137						
132	255	26.0	3360	343	1.03	175	192	19.6	3330	339	1.03	5 - 6115SK	- 10	(K)	B-99	-	B-134						
			5780	589	1.06				5460	557	1.06							5 - 6115	- 11		B-101	B-117	B-136
			6580	670	1.37				6200	632	1.37							5 - 6120	- 11		B-101	B-117	B-136
			6580	670	1.60				6200	632	1.60							5 - 6125	- 11		B-101	B-117	B-136
112	301	30.7	7770	792	2.54	159	211	21.5	7320	746	2.54	5 - 6130	- 11		B-102	B-118	B-137						
			5960	608	1.05				5640	574	1.05							5 - 6115	- 13		B-101	B-117	B-136
			6780	691	1.37				6400	652	1.37							5 - 6120	- 13		B-101	B-117	B-136
			6780	691	1.60				6400	652	1.60							5 - 6125	- 13		B-101	B-117	B-136
96.7	347	35.4	8080	824	2.54	135	249	25.4	7620	776	2.54	5 - 6130	- 13		B-102	B-118	B-137						
			8080	824	2.76				7620	776	3.05							5 - 6135	- 13		B-102	B-118	B-137
			6330	646	1.05				5990	611	1.05							5 - 6115	- 15		B-101	B-117	B-136
			7260	741	1.37				6860	699	1.37							5 - 6120	- 15		B-101	B-117	B-136
85.3	394	40.1	8250	841	2.10	117	288	29.3	6860	699	1.60	5 - 6125	- 15		B-101	B-117	B-136						
			8250	841	2.42				7770	792	2.10							5 - 6130	- 15		B-102	B-118	B-137
			8250	841	2.42				7770	792	2.42							5 - 6135	- 15		B-102	B-118	B-137
			6380	650	1.05				6040	616	1.05							5 - 6115	- 17		B-101	B-117	B-136
69.0	486	49.6	7320	747	1.32	103	326	33.2	6920	705	1.32	5 - 6120	- 17		B-101	B-117	B-136						
			7320	747	1.53				6920	705	1.53							5 - 6125	- 17		B-101	B-117	B-136
			8850	902	1.96				8340	850	1.96							5 - 6130	- 17		B-102	B-118	B-137
			8850	902	2.24				8340	850	2.24							5 - 6135	- 17		B-102	B-118	B-137
			13100	1330	2.73				12300	1260	2.73							5 - 6140	- 17		B-102	B-118	B-137
			5010	511	0.84				6350	647	0.84							5 - 6115	- 21		B-101	B-117	B-136
8010	816	1.07	7570	772	1.07	5 - 6120	- 21		B-101	B-117	B-136												
8010	816	1.29	7570	772	1.32	5 - 6125	- 21		B-101	B-117	B-136												
83.3	403	41.1	9440	962	1.61	83.3	403	41.1	8900	908	1.66	5 - 6130	- 21		B-102	B-118	B-137						
			9440	962	1.82				8900	908	2.04							5 - 6135	- 21		B-102	B-118	B-137
			14000	1420	2.34				13200	1350	2.34							5 - 6140	- 21		B-102	B-118	B-137
			14000	1420	2.56				13200	1350	2.97							5 - 6145	- 21		B-102	B-118	B-137

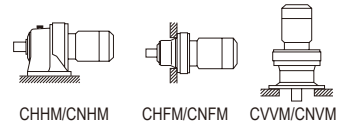
Selection Tables 3.7 kW

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>3.7 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

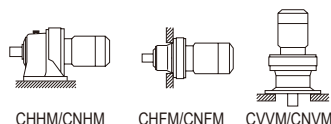


GEARMOTORS  
Selection Tables  
3.7 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
58.0	579	59.0	<b>8350</b>	<b>851</b>	<b>1.07</b>	70.0	480	48.9	<b>7900</b>	<b>806</b>	<b>1.07</b>	5 -	<b>6125</b>	- 25	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			9790	998	1.35				9240	942	1.39	5 -	6130	- 25	B-102	B-118	B-137
			9790	998	1.55				9240	942	1.61	5 -	6135	- 25	B-102	B-118	B-137
			14600	1490	1.86				13800	1410	1.86	5 -	6140	- 25	B-102	B-118	B-137
			14600	1490	2.14				13800	1410	2.14	5 -	6145	- 25	B-102	B-118	B-137
50.0	671	68.4	8640	880	0.94	60.3	556	56.7	8180	834	1.02	5 -	6125	- 29	B-101	B-117	B-136
			<b>10300</b>	<b>1050</b>	<b>1.16</b>				<b>9700</b>	<b>989</b>	<b>1.21</b>	5 -	<b>6130</b>	- 29	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			10300	1050	1.32				9700	989	1.52	5 -	6135	- 29	B-102	B-118	B-137
			14900	1520	1.61				14200	1440	1.61	5 -	6140	- 29	B-102	B-118	B-137
			14900	1520	2.04				14200	1440	2.04	5 -	6145	- 29	B-102	B-118	B-137
41.4	810	82.6	<b>10800</b>	<b>1100</b>	<b>1.11</b>	50.0	671	68.4	<b>10200</b>	<b>1040</b>	<b>1.15</b>	5 -	<b>6135</b>	- 35	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			16000	1630	1.41				15100	1540	1.41	5 -	6140	- 35	B-102	B-118	B-137
			16000	1630	1.69				15100	1540	2.04	5 -	6145	- 35	B-102	B-118	B-137
			19100	1940	2.16				17900	1830	2.61	5 -	6160	- 35	B-103	B-119	B-138
			19100	1940	2.59				17900	1830	3.08	5 -	6165	- 35	B-103	B-119	B-138
33.7	995	101	11500	1170	0.91	40.7	825	84.1	10900	1110	1.02	5 -	6135	- 43	B-102	B-118	B-137
			<b>16000</b>	<b>1630</b>	<b>1.06</b>				<b>15800</b>	<b>1610</b>	<b>1.06</b>	5 -	<b>6140</b>	- 43	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			16000	1630	1.26				15800	1610	1.46	5 -	6145	- 43	B-102	B-118	B-137
			20300	2070	1.74				19200	1950	2.01	5 -	6160	- 43	B-103	B-119	B-138
			20300	2070	2.11				19200	1950	2.14	5 -	6165	- 43	B-103	B-119	B-138
28.4	1180	120	<b>16000</b>	<b>1630</b>	<b>1.00</b>	34.3	978	99.7	<b>16000</b>	<b>1630</b>	<b>1.14</b>	5 -	<b>6145</b>	- 51	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			21100	2150	1.49				19900	2030	1.55	5 -	6160	- 51	B-103	B-119	B-138
			21100	2150	1.78				19900	2030	2.04	5 -	6165	- 51	B-103	B-119	B-138
			24000	2440	2.07				22600	2300	2.27	5 -	6170	- 51	B-103	B-119	B-138
			24000	2440	2.67				22600	2300	3.05	5 -	6175	- 51	B-103	B-119	B-138
24.6	1370	139	16000	1630	0.86	29.7	1130	115	16000	1630	0.98	5 -	6145	- 59	B-102	B-118	B-137
			<b>22100</b>	<b>2250</b>	<b>1.19</b>				<b>22100</b>	<b>2250</b>	<b>1.19</b>	5 -	<b>6160</b>	- 59	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			22100	2250	1.54				22100	2250	1.55	5 -	6165	- 59	B-103	B-119	B-138
			25100	2560	1.79				23700	2410	1.93	5 -	6170	- 59	B-103	B-119	B-138
			25100	2560	2.24				23700	2410	2.24	5 -	6175	- 59	B-103	B-119	B-138
20.4	1640	168	22100	2250	1.28	24.6	1360	139	21900	2240	1.53	5 -	6165	- 71	B-103	B-119	B-138
			26500	2710	1.49				25000	2550	1.60	5 -	6170	- 71	B-103	B-119	B-138
			26500	2710	1.89				25000	2550	1.93	5 -	6175	- 71	B-103	B-119	B-138
			35700	3640	2.38				33600	3430	2.38	5 -	6180	- 71	B-104	B-120	B-139
			35700	3640	2.65				33600	3430	2.65	5 -	6185	- 71	B-104	B-120	B-139
16.7	2010	205	<b>21800</b>	<b>2230</b>	<b>1.02</b>	20.1	1670	170	<b>21800</b>	<b>2220</b>	<b>1.05</b>	5 -	<b>6165</b>	- 87	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			28400	2890	1.24				26800	2730	1.30	5 -	6170	- 87	B-103	B-119	B-138
			28400	2890	1.52				26800	2730	1.52	5 -	6175	- 87	B-103	B-119	B-138
			38400	3920	1.93				36200	3690	1.93	5 -	6180	- 87	B-104	B-120	B-139
			38400	3920	2.32				36200	3690	2.32	5 -	6185	- 87	B-104	B-120	B-139
13.9	1760	179	22100	2250	*	16.8	1890	193	22100	2250	*	5 -	6160DC	- 104	B-111	B-127	B-146
			22100	2250	0.92				22100	2250	1.11	5 -	6165DC	- 104	B-111	B-127	B-146
			29500	3010	1.11				29000	2960	1.34	5 -	6170DC	- 104	B-111	B-127	B-146
	29500	3010	1.38	29000	2960				1.67	5 -	6175DC	- 104	B-111	B-127	B-146		
	40900	4170	1.78	38500	3930				2.15	5 -	6180DB	- 104	B-111	B-127	B-146		
	40900	4170	2.15	38500	3930				2.59	5 -	6185DB	- 104	B-111	B-127	B-146		
	57200	5830	2.80	53800	5490				3.22	5 -	6190DB	- 104	B-112	B-128	B-147		

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



CHHM/CNHM

CHFM/CNFM

CVVM/CNVM

3.7 kW

n: Motor Speed

Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet							
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM					
12.0	2100	214	22100	2250	14.5	2100	214	22100	2250	5	- 6165DC	- 121	B-111	B-127	B-146					
			29500	3010				29500	3010				1.43	5 - 6175DC	- 121	B-111	B-127	B-146		
	2650	271	41700	4250		1.53	41000	4180	1.85				5 - 6180DB	- 121	B-111	B-127	B-146			
			41700	4250		1.81	41000	4180	2.19				5 - 6185DB	- 121	B-111	B-127	B-146			
			59000	6010		2.40	57300	5840	2.90				5 - 6190DB	- 121	B-112	B-128	B-147			
			59000	6010		2.86	57300	5840	3.05				5 - 6195DB	- 121	B-112	B-128	B-147			
10.1	2530	258	29500	3010	12.2	2530	258	29500	3010	5	- 6170DC	- 143	B-111	B-127	B-146					
			<b>29500</b>	<b>3010</b>				<b>1.00</b>	<b>5 - 6175DC</b>				<b>- 143</b>	<b>B-111</b>	<b>B-127</b>	<b>B-146</b>				
	3140	320	41700	4250		1.29	41700	4250	1.56				5 - 6180DB	- 143	B-111	B-127	B-146			
			41700	4250		1.56	41700	4250	1.89				5 - 6185DB	- 143	B-111	B-127	B-146			
			59000	6010		1.60	59000	6010	1.60				5 - 6190DA	- 143	B-111	B-128	B-147			
			59000	6010		2.03	59000	6010	2.46				5 - 6190DB	- 143	B-112	B-128	B-147			
8.79	2530	258	29500	3010	10.6	2530	258	29500	3010	5	- 6170DC	- 165	B-111	B-127	B-146					
			29500	3010				0.87	5 - 6175DC				- 165	B-111	B-127	B-146				
	41700	4250	1.12	41700		4250	1.35	5 - 6180DB	- 165				B-111	B-127	B-146					
	41700	4250	1.36	41700		4250	1.64	5 - 6185DB	- 165				B-111	B-127	B-146					
	3620	369	59000	6010		1.60	59000	6010	1.60				5 - 6190DA	- 165	B-111	B-128	B-147			
			59000	6010		1.76	59000	6010	2.13				5 - 6190DB	- 165	B-112	B-128	B-147			
59000			6010	2.19	59000	6010	2.64	5 - 6195DB	- 165	B-112	B-128	B-147								
84100			8570	2.56	84100	8570	3.09	5 - 6205DB	- 165	B-112	B-129	B-148								
7.44	3150	321	29500	3010	8.97	3150	321	29500	3010	5	- 6175DC	- 195	B-111	B-127	B-146					
			41700	4250				1.15	41700				4250	1.39	5 - 6185DB	- 195	B-111	B-127	B-146	
	59000	6010	1.49	59000		6010	1.60	5 - 6190DA	- 195				B-111	B-128	B-147					
	59000	6010	1.49	59000		6010	1.80	5 - 6190DB	- 195				B-112	B-128	B-147					
	4280	436	59000	6010		1.52	59000	6010	1.60				5 - 6195DA	- 195	B-111	B-128	B-147			
			59000	6010		1.85	59000	6010	2.23				5 - 6195DB	- 195	B-112	B-128	B-147			
			84100	8570		2.17	84100	8570	2.62				5 - 6205DB	- 195	B-112	B-129	B-148			
			104000	10600		2.76	104000	10600	3.05				5 - 6215DA	- 195	B-112	B-129	B-148			
	6.28	4050	413	41700		4250	7.58	4050	413				41700	4250	5	- 6180DB	- 231	B-111	B-127	B-146
				41700		4250							0.98	41700				4250	1.19	5 - 6185DB
59000		6010	1.26	59000	6010	1.52		5 - 6190DA	- 231	B-111	B-128	B-147								
59000		6010	1.57	59000	6010	1.60		5 - 6195DA	- 231	B-111	B-128	B-147								
5070		516	59000	6010	1.57	59000		6010	1.90	5 - 6195DB	- 231	B-112	B-128	B-147						
			84100	8570	1.83	84100		8570	2.21	5 - 6205DB	- 231	B-112	B-129	B-148						
			104000	10600	2.47	104000		10600	2.98	5 - 6215DA	- 231	B-112	B-129	B-148						
			140000	14200	2.92	132000		13500	3.05	5 - 6225DA	- 231	B-113	B-130	B-149						
140000	14200	2.92	132000	13500	3.53	5 - 6225DB	- 231	B-113	B-130	B-149										

GEARMOTORS

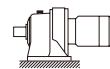
Selection Tables  
3.7 kW

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

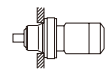
# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

3.7 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



CHHM/CNHM



CHFM/CNFM

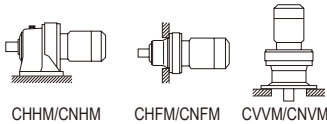


CVVM/CNVVM

50Hz		60Hz				Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF	Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
5.31	4050 413	41700 4250	*	6.41	4960 506	41700 4250	1.01	5 -	6180DB	- 273	B-111	B-127	B-146
		<b>59000 6010</b>	<b>1.07</b>			<b>5 -</b>	<b>6190DA</b>	<b>- 273</b>	<b>B-111</b>	<b>B-128</b>	<b>B-147</b>		
		59000 6010	1.33			5 -	6195DA	- 273	B-111	B-128	B-147		
		84100 8570	1.40			5 -	6205DA	- 273	B-112	B-129	B-148		
		84100 8570	1.55			5 -	6205DB	- 273	B-112	B-129	B-148		
		104000 10600	2.09			5 -	6215DA	- 273	B-112	B-129	B-148		
		145000 14800	2.47			5 -	6225DA	- 273	B-113	B-130	B-149		
4.55	5000 510	41700 4250	*	5.49	5800 591	41700 4250	*	5 -	6185DB	- 319	B-111	B-127	B-146
		59000 6010	1.14			5 -	6195DA	- 319	B-111	B-128	B-147		
		84100 8570	1.15			5 -	6205DA	- 319	B-112	B-129	B-148		
		84100 8570	1.32			5 -	6205DB	- 319	B-112	B-129	B-148		
		104000 10600	1.81			5 -	6215DA	- 319	B-112	B-129	B-148		
		145000 14800	2.15			5 -	6225DA	- 319	B-113	B-130	B-149		
		179000 18200	2.70			5 -	6235DA	- 319	B-114	B-131	B-150		
3.85	6380 650	59000 6010	*	4.64	6850 698	59000 6010	1.16	5 -	6190DA	- 377	B-111	B-128	B-147
		58900 6010	0.96			5 -	6195DA	- 377	B-111	B-128	B-147		
		<b>84100 8570</b>	<b>1.03</b>			<b>5 -</b>	<b>6205DA</b>	<b>- 377</b>	<b>B-112</b>	<b>B-129</b>	<b>B-148</b>		
		84100 8570	1.12			5 -	6205DB	- 377	B-112	B-129	B-148		
		104000 10600	1.53			5 -	6215DA	- 377	B-112	B-129	B-148		
		145000 14800	1.82			5 -	6225DA	- 377	B-113	B-130	B-149		
		179000 18200	2.29			5 -	6235DA	- 377	B-114	B-131	B-150		
3.07	7960 811	59000 6010	*	3.70	8600 876	59000 6010	0.90	5 -	6195DA	- 473	B-111	B-128	B-147
		8280 844	84100 8570			*	5 -	6205DA	- 473	B-112	B-129	B-148	
		84100 8570	0.80			5 -	6205DA	- 473	B-112	B-129	B-148		
		84100 8570	0.90			5 -	6205DB	- 473	B-112	B-129	B-148		
		104000 10600	1.22			5 -	6215DA	- 473	B-112	B-129	B-148		
		145000 14800	1.54			5 -	6225DA	- 473	B-113	B-130	B-149		
		179000 18200	1.98			5 -	6235DA	- 473	B-114	B-131	B-150		
2.59	12300 1250	104000 10600	<b>1.03</b>	3.13	10200 1040	104000 10600	<b>1.25</b>	<b>5 -</b>	<b>6215DA</b>	<b>- 559</b>	<b>B-112</b>	<b>B-129</b>	<b>B-148</b>
		145000 14800	1.31			5 -	6225DA	- 559	B-113	B-130	B-149		
		179000 18200	1.67			5 -	6235DA	- 559	B-114	B-131	B-150		
		208000 21200	2.10			5 -	6245DA	- 559	B-114	B-131	B-150		
		258000 26300	2.81			5 -	6255DA	- 559	B-115	B-132	B-151		
		104000 10600	0.89			5 -	6215DA	- 649	B-112	B-129	B-148		
		145000 14800	1.12			5 -	6225DA	- 649	B-113	B-130	B-149		
2.23	14200 1450	179000 18200	1.44	2.70	11800 1200	179000 18200	1.74	5 -	6235DA	- 649	B-114	B-131	B-150
		208000 21200	1.81			5 -	6245DA	- 649	B-114	B-131	B-150		
		258000 26300	2.42			5 -	6255DA	- 649	B-115	B-132	B-151		
		104000 10600	0.89			5 -	6215DA	- 731	B-112	B-129	B-148		
		145000 14800	1.12			5 -	6225DA	- 731	B-113	B-130	B-149		
1.98	12700 1290	104000 10600	*	2.39	13300 1350	104000 10600	*	5 -	6215DA	- 731	B-112	B-129	B-148
		<b>145000 14800</b>	<b>1.00</b>			<b>5 -</b>	<b>6225DA</b>	<b>- 731</b>	<b>B-113</b>	<b>B-130</b>	<b>B-149</b>		
		179000 18200	1.28			5 -	6235DA	- 731	B-114	B-131	B-150		
		208000 21200	1.61			5 -	6245DA	- 731	B-114	B-131	B-150		
		258000 26300	2.15			5 -	6255DA	- 731	B-115	B-132	B-151		
1.72	12700 1290	104000 10600	*	2.08	15300 1560	104000 10600	*	5 -	6215DA	- 841	B-112	B-129	B-148
		15000 1530	145000 14800			*	5 -	6225DA	- 841	B-113	B-130	B-149	
		145000 14800	0.82			5 -	6225DA	- 841	B-113	B-130	B-149		
		<b>179000 18200</b>	<b>1.02</b>			<b>5 -</b>	<b>6235DA</b>	<b>- 841</b>	<b>B-114</b>	<b>B-131</b>	<b>B-150</b>		
		208000 21200	1.40			5 -	6245DA	- 841	B-114	B-131	B-150		
1.45	15900 1620	145000 14800	*	1.74	18200 1860	145000 14800	*	5 -	6225DA	- 1003	B-113	B-130	B-149
		179000 18200	0.93			5 -	6235DA	- 1003	B-114	B-131	B-150		
		208000 21200	1.17			5 -	6245DA	- 1003	B-114	B-131	B-150		
		258000 26300	1.57			5 -	6255DA	- 1003	B-115	B-132	B-151		
		258000 26300	1.89			5 -	6255DA	- 1003	B-115	B-132	B-151		

- Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
- Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
- CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
- Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
- "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors

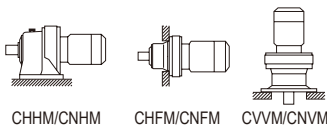


3.7 kW

n: Motor Speed

Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame - Size	Reduction Ratio	CNHM	CNFM	CNVM
[r/min]	[N·m] [kgf·m]	[N]	[kgf]		[r/min]	[N·m] [kgf·m]	[N]	[kgf]					CHHM	CHF	CVVM
1.16	20500	2090	179000	18200	*	1.40	20500	2090	179000	18200	*	5 - 6235DA - 1247	B-114	B-131	B-150
	27300	2790	208000	21200	0.94		22700	2310	208000	21200	1.14	5 - 6245DA - 1247	B-114	B-131	B-150
0.980	22600	2310	208000	21200	*	1.18	22600	2310	208000	21200	*	5 - 6245DA - 1479	B-114	B-131	B-150
	32400	3310	258000	26300	0.96		26900	2740	258000	26300	1.15	5 - 6255DA - 1479	B-115	B-132	B-151
0.784	40600	4130	258000	26300	0.85	0.946	33600	3430	258000	26300	1.03	5 - 6255DA - 1849	B-115	B-132	B-151
0.702	34500	3520	258000	26300	*	0.847	34500	3520	258000	26300	*	5 - 6255DA - 2065	B-115	B-132	B-151
0.572	34500	3520	258000	26300	*	0.690	34500	3520	258000	26300	*	5 - 6255DA - 2537	B-115	B-132	B-151
0.476	31000	3160	258000	26300	*	0.575	31000	3160	258000	26300	*	5 - 6255DA - 3045	B-115	B-132	B-151
0.417	34500	3520	258000	26300	*	0.503	34500	3520	258000	26300	*	5 - 6255DA - 3481	B-115	B-132	B-151
0.327	31000	3160	258000	26300	*	0.394	31000	3160	258000	26300	*	5 - 6255DA - 4437	B-115	B-132	B-151
0.282	34500	3520	258000	26300	*	0.341	34500	3520	258000	26300	*	5 - 6255DA - 5133	B-115	B-132	B-151
0.235	31000	3160	258000	26300	*	0.283	31000	3160	258000	26300	*	5 - 6255DA - 6177	B-115	B-132	B-151
0.192	31000	3160	258000	26300	*	0.231	31000	3160	258000	26300	*	5 - 6255DA - 7569	B-115	B-132	B-151



5.5 kW

n: Motor Speed

Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame - Size	Reduction Ratio	CNHM	CNFM	CNVM
[r/min]	[N·m] [kgf·m]	[N]	[kgf]		[r/min]	[N·m] [kgf·m]	[N]	[kgf]					CHHM	CHF	CVVM
580	86.0	8.77	<b>2410</b>	<b>246</b>	<b>1.17</b>	700	71.3	7.27	<b>2330</b>	<b>238</b>	<b>1.17</b>	8 - <b>6115SK</b> - 2.5 (K)	<b>B-99</b>	-	<b>B-134</b>
483	103	10.5	<b>2530</b>	<b>258</b>	<b>1.20</b>	583	85.5	8.72	<b>2450</b>	<b>250</b>	<b>1.20</b>	8 - <b>6115SK</b> - 3 (K)	<b>B-99</b>	-	<b>B-134</b>
363	138	14.0	<b>2640</b>	<b>269</b>	<b>1.22</b>	438	114	11.6	<b>2580</b>	<b>263</b>	<b>1.22</b>	8 - <b>6115SK</b> - 4 (K)	<b>B-99</b>	-	<b>B-134</b>
290	172	17.5	<b>2690</b>	<b>274</b>	<b>1.05</b>	350	143	14.5	<b>2640</b>	<b>269</b>	<b>1.05</b>	8 - <b>6115SK</b> - 5 (K)	<b>B-99</b>	-	<b>B-134</b>
242	206	21.0	2710	276	0.96	292	171	17.4	2700	275	0.96	8 - 6115SK - 6 (K)	B-99	-	B-134
			<b>5140</b>	<b>524</b>	<b>1.27</b>				<b>4850</b>	<b>494</b>	<b>1.06</b>	8 - <b>6125</b> - 6	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			6060	617	1.71				5710	582	1.71	8 - 6130 - 6	B-102	B-118	B-137
			6060	617	2.05				5710	582	2.05	8 - 6135 - 6	B-102	B-118	B-137
			9370	955	2.36				8860	903	2.36	8 - 6140 - 6	B-102	B-118	B-137
9370	955	2.75	8860	903	2.75	8 - 6145 - 6	B-102	B-118	B-137						
181	275	28.1	2680	273	0.84	219	228	23.3	2710	276	0.84	8 - 6115SK - 8 (K)	B-99	-	B-134
			<b>5710</b>	<b>582</b>	<b>1.26</b>				<b>5400</b>	<b>550</b>	<b>1.26</b>	8 - <b>6125</b> - 8	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			6740	687	1.71				6360	648	1.71	8 - 6130 - 8	B-102	B-118	B-137
			6740	687	2.05				6360	648	2.05	8 - 6135 - 8	B-102	B-118	B-137
			10400	1060	2.36				9820	1000	2.36	8 - 6140 - 8	B-102	B-118	B-137
10400	1060	2.75	9820	1000	2.75	8 - 6145 - 8	B-102	B-118	B-137						
132	379	38.6	<b>6450</b>	<b>658</b>	<b>1.08</b>	159	314	32.0	<b>6100</b>	<b>622</b>	<b>1.08</b>	8 - <b>6125</b> - 11	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>
			7680	783	1.71				7240	739	1.71	8 - 6130 - 11	B-102	B-118	B-137
			7680	783	2.05				7240	739	2.05	8 - 6135 - 11	B-102	B-118	B-137
			11600	1190	2.36				11000	1120	2.36	8 - 6140 - 11	B-102	B-118	B-137
11600	1190	2.75	11000	1120	2.75	8 - 6145 - 11	B-102	B-118	B-137						

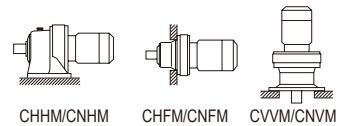
- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.



# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

5.5 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

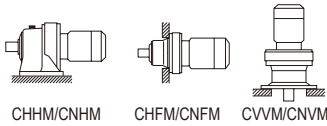


GEARMOTORS  
Selection Tables  
5.5 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet							
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM			
112	447	45.6	<b>6630</b>	<b>676</b>	<b>1.08</b>	135	371	37.8	<b>6280</b>	<b>640</b>	<b>1.08</b>	8 -	6125	- 13	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>			
			7980	814	1.71				7530	768	1.71				8 -	6130	- 13	B-102	B-118	B-137
			7980	814	1.85				7530	768	2.05				8 -	6135	- 13	B-102	B-118	B-137
			11900	1210	2.36				11300	1150	2.36				8 -	6140	- 13	B-102	B-118	B-137
			11900	1210	2.75				11300	1150	2.75				8 -	6145	- 13	B-102	B-118	B-137
96.7	516	52.6	<b>7100</b>	<b>724</b>	<b>1.08</b>	117	428	43.6	<b>6730</b>	<b>686</b>	<b>1.08</b>	8 -	6125	- 15	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>			
			8130	829	1.41				7680	783	1.41				8 -	6130	- 15	B-102	B-118	B-137
			8130	829	1.63				7680	783	1.63				8 -	6135	- 15	B-102	B-118	B-137
			12400	1270	2.18				11800	1200	2.18				8 -	6140	- 15	B-102	B-118	B-137
			12400	1270	2.64				11800	1200	2.75				8 -	6145	- 15	B-102	B-118	B-137
85.3	585	59.6	<b>7150</b>	<b>729</b>	<b>1.03</b>	103	485	49.4	<b>6780</b>	<b>691</b>	<b>1.03</b>	8 -	6125	- 17	<b>B-101</b>	<b>B-117</b>	<b>B-136</b>			
			8710	888	1.32				8230	839	1.32				8 -	6130	- 17	B-102	B-118	B-137
			8710	888	1.51				8230	839	1.51				8 -	6135	- 17	B-102	B-118	B-137
			13000	1320	1.84				12300	1250	1.84				8 -	6140	- 17	B-102	B-118	B-137
			13000	1320	2.18				12300	1250	2.18				8 -	6145	- 17	B-102	B-118	B-137
69.0	723	73.7	<b>9260</b>	<b>944</b>	<b>1.08</b>	83.3	599	61.0	<b>8760</b>	<b>893</b>	<b>1.12</b>	8 -	6130	- 21	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>			
			9260	944	1.22				8760	893	1.37				8 -	6135	- 21	B-102	B-118	B-137
			13900	1410	1.57				13100	1340	1.57				8 -	6140	- 21	B-102	B-118	B-137
			13900	1410	1.73				13100	1340	2.00				8 -	6145	- 21	B-102	B-118	B-137
			16400	1670	2.35				15400	1570	2.35				8 -	6160	- 21	B-103	B-119	B-138
58.0	860	87.7	<b>9580</b>	<b>977</b>	<b>1.05</b>	70.0	713	72.7	<b>9070</b>	<b>925</b>	<b>1.08</b>	8 -	6135	- 25	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>			
			14500	1480	1.25				13800	1400	1.25				8 -	6140	- 25	B-102	B-118	B-137
			14500	1480	1.44				13800	1400	1.44				8 -	6145	- 25	B-102	B-118	B-137
			17100	1740	1.79				16100	1640	1.79				8 -	6160	- 25	B-103	B-119	B-138
			17100	1740	2.44				16100	1640	2.75				8 -	6165	- 25	B-103	B-119	B-138
50.0	998	102	<b>14800</b>	<b>1510</b>	<b>1.08</b>	60.3	827	84.3	<b>14100</b>	<b>1430</b>	<b>1.08</b>	8 -	6140	- 29	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>			
			14800	1510	1.37				14100	1430	1.37				8 -	6145	- 29	B-102	B-118	B-137
			17800	1810	1.74				16800	1710	1.91				8 -	6160	- 29	B-103	B-119	B-138
			17800	1810	2.07				16800	1710	2.07				8 -	6165	- 29	B-103	B-119	B-138
			20200	2060	2.45				19100	1940	2.60				8 -	6170	- 29	B-103	B-119	B-138
41.4	1200	123	<b>18800</b>	<b>1920</b>	<b>1.46</b>	50.0	998	102	<b>17800</b>	<b>1810</b>	<b>1.76</b>	8 -	6160	- 35	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>			
			18800	1920	1.74				17800	1810	2.07				8 -	6165	- 35	B-103	B-119	B-138
			21400	2180	2.04				20200	2060	2.18				8 -	6170	- 35	B-103	B-119	B-138
			21400	2180	2.62				20200	2060	2.75				8 -	6175	- 35	B-103	B-119	B-138
			15100	1540	0.85				15600	1590	0.98				8 -	6145	- 43	B-102	B-118	B-137
33.7	1480	151	<b>20000</b>	<b>2040</b>	<b>1.17</b>	40.7	1230	125	<b>18900</b>	<b>1930</b>	<b>1.44</b>	8 -	6165	- 43	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>			
			20000	2040	1.42				18900	1930	1.44				8 -	6165	- 43	B-103	B-119	B-138
			22800	2320	1.65				21500	2190	1.77				8 -	6170	- 43	B-103	B-119	B-138
			22800	2320	2.05				21500	2190	2.05				8 -	6175	- 43	B-103	B-119	B-138
			30900	3150	2.75				29100	2960	2.75				8 -	6180	- 43	B-104	B-120	B-139
28.4	1760	179	<b>20800</b>	<b>2120</b>	<b>1.00</b>	34.3	1450	148	<b>19600</b>	<b>2000</b>	<b>1.05</b>	8 -	6160	- 51	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>			
			20800	2120	1.20				19600	2000	1.37				8 -	6165	- 51	B-103	B-119	B-138
			23700	2420	1.39				22400	2280	1.53				8 -	6170	- 51	B-103	B-119	B-138
			23700	2420	1.79				22400	2280	2.05				8 -	6175	- 51	B-103	B-119	B-138
			31900	3260	2.18				30100	3070	2.18				8 -	6180	- 51	B-104	B-120	B-139
			31900	3260	2.75				30100	3070	2.75	8 -	6185	- 51	B-104	B-120	B-139			

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



5.5 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

50Hz					60Hz					Nomenclature			Page of Dimension Sheet												
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM										
24.6	2030	207	2.10	29.7	1680	171	21700	1.77	8 -	6165	- 59	-	B-103	B-119	B-138										
			2.18				21700									2220	1.03	8 -	6165	- 71	B-103	B-119	B-138		
			2.26				23400									2390	1.30	8 -	6170	- 59	B-103	B-119	B-138		
			2.34				24800									2530	1.51	8 -	6175	- 59	B-103	B-119	B-138		
			2.42				33400									3400	1.77	8 -	6180	- 59	B-104	B-120	B-139		
			2.50				33400									3400	2.18	8 -	6185	- 59	B-104	B-120	B-139		
20.4	2440	249	0.86	24.6	2020	206	21600	1.60	8 -	6165	- 71	-	B-103	B-119	B-138										
			0.94				21600									2200	1.03	8 -	6165	- 71	B-103	B-119	B-138		
			1.02				26200									2520	1.08	8 -	6170	- 71	B-103	B-119	B-138		
			1.10				26200									2520	1.30	8 -	6175	- 71	B-103	B-119	B-138		
			1.18				35500									3410	1.60	8 -	6180	- 71	B-104	B-120	B-139		
			1.26				35500									3410	1.78	8 -	6185	- 71	B-104	B-120	B-139		
16.7	2990	305	1.02	20.1	2480	253	26400	1.56	8 -	6175	- 87	-	B-103	B-119	B-138										
			1.10				26400									2690	1.02	8 -	6175	- 87	B-103	B-119	B-138		
			1.18				38100									3660	1.30	8 -	6180	- 87	B-104	B-120	B-139		
			1.26				38100									3660	1.56	8 -	6185	- 87	B-104	B-120	B-139		
			1.34				53600									5140	2.15	8 -	6190	- 87	B-104	B-120	B-139		
			1.42				53600									5140	2.47	8 -	6195	- 87	B-104	B-120	B-139		
13.9	2100	214	*	16.8	2100	214	22100	1.12	8 -	6165DC	- 104	-	B-111	B-127	B-146										
			0.93				22100									2250	*	8 -	6170DC	- 104	B-111	B-127	B-146		
			1.01				25300									2580	28600	2900	1.12	8 -	6175DC	- 104	B-111	B-127	B-146
			1.09				29500									3010	0.93	8 -	6175DC	- 104	B-111	B-127	B-146		
			1.17				40500									4130	1.20	8 -	6180DB	- 104	B-111	B-127	B-146		
			1.25				40500									4130	1.45	8 -	6185DB	- 104	B-111	B-127	B-146		
12.0	2530	258	*	14.5	2530	258	29500	1.95	8 -	6170DC	- 121	-	B-111	B-127	B-146										
			0.80				29500									3010	*	8 -	6175DC	- 121	B-111	B-127	B-146		
			0.88				29500									3010	0.96	8 -	6175DC	- 121	B-111	B-127	B-146		
			0.96				41700									4250	1.03	8 -	6180DB	- 121	B-111	B-127	B-146		
			1.04				41700									4250	1.22	8 -	6185DB	- 121	B-111	B-127	B-146		
			1.12				59000									6010	1.62	8 -	6190DB	- 121	B-112	B-128	B-147		
10.1	3150	321	*	12.2	3150	321	29500	1.95	8 -	6175DC	- 143	-	B-111	B-127	B-146										
			0.80				29500									3010	*	8 -	6175DC	- 143	B-111	B-127	B-146		
			0.88				41700									4250	1.03	8 -	6185DB	- 143	B-111	B-127	B-146		
			0.96				41700									4250	1.27	8 -	6185DB	- 143	B-111	B-127	B-146		
			1.04				59000									6010	1.08	8 -	6190DA	- 143	B-111	B-128	B-147		
			1.12				59000									6010	1.37	8 -	6190DB	- 143	B-112	B-128	B-147		
8.79	3150	321	*	10.6	3150	321	29500	1.95	8 -	6175DC	- 165	-	B-111	B-127	B-146										
			0.80				29500									3010	*	8 -	6175DC	- 165	B-111	B-127	B-146		
			0.88				40600									4140	41700	4250	*	8 -	6180DB	- 165	B-111	B-127	B-146
			0.96				41700									4250	1.10	8 -	6185DB	- 165	B-111	B-127	B-146		
			1.04				59000									6010	1.08	8 -	6190DA	- 165	B-111	B-128	B-147		
			1.12				59000									6010	1.43	8 -	6190DB	- 165	B-112	B-128	B-147		

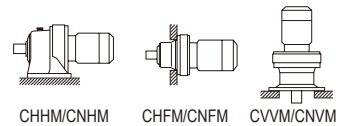
GEARMOTORS  
Selection Tables  
5.5 kW

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>5.5 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

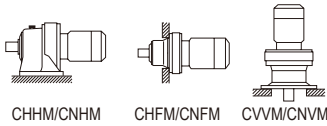


GEARMOTORS  
5.5 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet					
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM			
7.44	4060	414	41700	4250	*	8.97	4060	414	41700	4250	*	8 - 6180DB	- 195	B-111	B-127	B-146		
	4920	502	41700	4250	*		4920	502	41700	4250	*	8 - 6185DB	- 195	B-111	B-127	B-146		
			<b>58900</b>	<b>6000</b>	<b>1.00</b>					<b>59000</b>	<b>6010</b>	<b>1.08</b>	<b>8 - 6190DA</b>	<b>- 195</b>	<b>B-111</b>	<b>B-128</b>	<b>B-147</b>	
			58900	6000	1.00					59000	6010	1.21	8 - 6190DB	- 195	B-112	B-128	B-147	
			58900	6000	1.02					59000	6010	1.08	8 - 6195DA	- 195	B-111	B-128	B-147	
			58900	6000	1.24					59000	6010	1.50	8 - 6195DB	- 195	B-112	B-128	B-147	
	6360	648	84100	8570	1.46		7.58	5270	537	84100	8570	1.76	8 - 6205DB	- 195	B-112	B-129	B-148	
			104000	10600	1.86						104000	10600	2.08	8 - 6215DA	- 195	B-112	B-129	B-148
			104000	10600	1.91						104000	10600	2.31	8 - 6215DB	- 195	B-113	B-130	B-149
			131000	13300	1.86						124000	12600	2.08	8 - 6225DA	- 195	B-113	B-130	B-149
		131000	13300	2.28					124000	12600	2.75	8 - 6225DB	- 195	B-113	B-130	B-149		
												8 - 6225DA	- 195	B-113	B-130	B-149		
6.28	5000	510	41700	4250	*	7.58	5000	510	41700	4250	*	8 - 6185DB	- 231	B-111	B-127	B-146		
			<b>59000</b>	<b>6010</b>	<b>1.06</b>					<b>59000</b>	<b>6010</b>	<b>1.08</b>	<b>8 - 6195DA</b>	<b>- 231</b>	<b>B-111</b>	<b>B-128</b>	<b>B-147</b>	
			59000	6010	1.06					59000	6010	1.28	8 - 6195DB	- 231	B-112	B-128	B-147	
			84100	8570	1.23					84100	8570	1.49	8 - 6205DB	- 231	B-112	B-129	B-148	
	7530	768	104000	10600	1.66		7.58	6240	636	104000	10600	2.00	8 - 6215DA	- 231	B-112	B-129	B-148	
			139000	14200	1.97						132000	13400	2.08	8 - 6225DA	- 231	B-113	B-130	B-149
		139000	14200	1.97					132000	13400	2.37	8 - 6225DB	- 231	B-113	B-130	B-149		
		173000	17700	2.51					164000	16700	3.03	8 - 6235DA	- 231	B-114	B-131	B-150		
5.31	5000	510	41700	4250	*	6.41	5000	510	41700	4250	*	8 - 6185DB	- 273	B-111	B-127	B-146		
	6380	650	59000	6010	*		6380	650	59000	6010	*	8 - 6190DA	- 273	B-111	B-128	B-147		
			59000	6010	0.89					59000	6010	1.08	8 - 6195DA	- 273	B-111	B-128	B-147	
			84100	8570	0.94					84100	8570	1.07	8 - 6205DA	- 273	B-112	B-129	B-148	
			<b>84100</b>	<b>8570</b>	<b>1.04</b>					<b>84100</b>	<b>8570</b>	<b>1.26</b>	<b>8 - 6205DB</b>	<b>- 273</b>	<b>B-112</b>	<b>B-129</b>	<b>B-148</b>	
	8900	907	104000	10600	1.40		6.41	7370	752	104000	10600	1.70	8 - 6215DA	- 273	B-112	B-129	B-148	
		145000	14800	1.66					138000	14100	2.01	8 - 6225DA	- 273	B-113	B-130	B-149		
		179000	18200	2.12					172000	17600	2.56	8 - 6235DA	- 273	B-114	B-131	B-150		
		203000	20600	2.90					192000	19500	3.50	8 - 6245DA	- 273	B-114	B-131	B-150		
4.55	6380	650	59000	6010	*	5.49	6380	650	59000	6010	*	8 - 6190DA	- 319	B-111	B-128	B-147		
	7960	811	59000	6010	*		7960	811	59000	6010	*	8 - 6195DA	- 319	B-111	B-128	B-147		
	8080	823	84100	8570	*		7590	773	84100	8570	*	8 - 6205DA	- 319	B-112	B-129	B-148		
			84100	8570	0.89					84100	8570	1.07	8 - 6205DB	- 319	B-112	B-129	B-148	
			104000	10600	1.22					104000	10600	1.47	8 - 6215DA	- 319	B-112	B-129	B-148	
	10400	1060	145000	14800	1.45		5.49	8620	878	143000	14600	1.75	8 - 6225DA	- 319	B-113	B-130	B-149	
		179000	18200	1.82					179000	18200	2.19	8 - 6235DA	- 319	B-114	B-131	B-150		
		208000	21200	2.48					200000	20400	2.99	8 - 6245DA	- 319	B-114	B-131	B-150		
3.85	7960	811	59000	6010	*	4.64	7960	811	59000	6010	*	8 - 6195DA	- 377	B-111	B-128	B-147		
	8550	872	84100	8570	*		8030	819	84100	8570	*	8 - 6205DA	- 377	B-112	B-129	B-148		
			<b>104000</b>	<b>10600</b>	<b>1.03</b>					<b>104000</b>	<b>10600</b>	<b>1.24</b>	<b>8 - 6215DA</b>	<b>- 377</b>	<b>B-112</b>	<b>B-129</b>	<b>B-148</b>	
			145000	14800	1.22					145000	14800	1.48	8 - 6225DA	- 377	B-113	B-130	B-149	
	12300	1250	179000	18200	1.54		4.64	10200	1040	179000	18200	1.86	8 - 6235DA	- 377	B-114	B-131	B-150	
			208000	21200	2.10						208000	21200	2.53	8 - 6245DA	- 377	B-114	B-131	B-150
		258000	26300	2.64					258000	26300	3.19	8 - 6255DA	- 377	B-115	B-132	B-151		

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



<b>5.5 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
3.07	12700	1290	104000	10600	*	3.70	12700	1290	104000	10600	*	8 - 6215DA - 473	B-112	B-129	B-148
			104000	10600	0.88				8 - 6215DA - 473	B-112	B-129	B-148			
			<b>145000</b>	<b>14800</b>	<b>1.04</b>				<b>8 - 6225DA - 473</b>	<b>B-113</b>	<b>B-130</b>	<b>B-149</b>			
	15400	1570	179000	18200	1.33		12800	1300	179000	18200	1.60	8 - 6235DA - 473	B-114	B-131	B-150
			208000	21200	1.67				208000	21200	2.02	8 - 6245DA - 473	B-114	B-131	B-150
			258000	26300	2.24				258000	26300	2.70	8 - 6255DA - 473	B-115	B-132	B-151
			276000	28100	2.98				276000	28100	3.60	8 - 6265DA - 473	B-115	B-132	B-151
2.59	12700	1290	104000	10600	*	3.13	12700	1290	104000	10600	*	8 - 6215DA - 559	B-112	B-129	B-148
			145000	14800	0.88				145000	14800	1.06	8 - 6225DA - 559	B-113	B-130	B-149
			179000	18200	1.12				179000	18200	1.36	8 - 6235DA - 559	B-114	B-131	B-150
			208000	21200	1.42				208000	21200	1.71	8 - 6245DA - 559	B-114	B-131	B-150
			258000	26300	1.89				258000	26300	2.28	8 - 6255DA - 559	B-115	B-132	B-151
			276000	28100	2.52				276000	28100	3.05	8 - 6265DA - 559	B-115	B-132	B-151
2.23	12700	1290	104000	10600	*	2.70	12700	1290	104000	10600	*	8 - 6215DA - 649	B-112	B-129	B-148
			145000	14800	*				145000	14800	*	8 - 6225DA - 649	B-113	B-130	B-149
	21200	2160	179000	18200	0.97		17500	1790	179000	18200	1.17	8 - 6235DA - 649	B-114	B-131	B-150
			208000	21200	1.22				208000	21200	1.47	8 - 6245DA - 649	B-114	B-131	B-150
			258000	26300	1.63				258000	26300	1.97	8 - 6255DA - 649	B-115	B-132	B-151
			276000	28100	2.17				276000	28100	2.62	8 - 6265DA - 649	B-115	B-132	B-151
1.98	16000	1630	145000	14800	*	2.39	16000	1630	145000	14800	*	8 - 6225DA - 731	B-113	B-130	B-149
			179000	18200	0.86				179000	18200	1.04	8 - 6235DA - 731	B-114	B-131	B-150
			208000	21200	1.08				208000	21200	1.31	8 - 6245DA - 731	B-114	B-131	B-150
			258000	26300	1.45				258000	26300	1.75	8 - 6255DA - 731	B-115	B-132	B-151
			276000	28100	1.93				276000	28100	2.33	8 - 6265DA - 731	B-115	B-132	B-151
1.72	18900	1930	179000	18200	*	2.08	18900	1930	179000	18200	*	8 - 6235DA - 841	B-114	B-131	B-150
			208000	21200	0.94				208000	21200	1.14	8 - 6245DA - 841	B-114	B-131	B-150
			258000	26300	1.18				258000	26300	1.43	8 - 6255DA - 841	B-115	B-132	B-151
			276000	28100	1.68				276000	28100	2.02	8 - 6265DA - 841	B-115	B-132	B-151
1.45	20500	2090	179000	18200	*	1.74	20500	2090	179000	18200	*	8 - 6235DA - 1003	B-114	B-131	B-150
			208000	21200	*				25800	2630	208000	21200	*	8 - 6245DA - 1003	B-114
	32700	3330	<b>258000</b>	<b>26300</b>	<b>1.06</b>		27100	2760	<b>258000</b>	<b>26300</b>	<b>1.27</b>	<b>8 - 6255DA - 1003</b>	<b>B-115</b>	<b>B-132</b>	<b>B-151</b>
			276000	28100	1.41				276000	28100	1.70	8 - 6265DA - 1003	B-115	B-132	B-151
1.16	25800	2630	208000	21200	*	1.40	25800	2630	208000	21200	*	8 - 6245DA - 1247	B-114	B-131	B-150
			258000	26300	0.85				258000	26300	1.02	8 - 6255DA - 1247	B-115	B-132	B-151
			276000	28100	1.13				276000	28100	1.37	8 - 6265DA - 1247	B-115	B-132	B-151
0.980	31000	3160	258000	26300	*	1.18	31000	3160	258000	26300	*	8 - 6255DA - 1479	B-115	B-132	B-151
			48200	4920	0.91				40000	4070	276000	28100	1.10	8 - 6265DA - 1479	B-115
0.784	34500	3520	258000	26300	*	0.946	34500	3520	258000	26300	*	8 - 6255DA - 1849	B-115	B-132	B-151
			46000	4690	*				46000	4690	276000	28100	*	8 - 6265DA - 1849	B-115
0.702	46000	4690	276000	28100	*	0.847	46000	4690	276000	28100	*	8 - 6265DA - 2065	B-115	B-132	B-151
0.572	46000	4690	276000	28100	*	0.690	46000	4690	276000	28100	*	8 - 6265DA - 2537	B-115	B-132	B-151
0.476	44000	4490	276000	28100	*	0.575	44000	4490	276000	28100	*	8 - 6265DA - 3045	B-115	B-132	B-151
0.417	46000	4690	276000	28100	*	0.503	46000	4690	276000	28100	*	8 - 6265DA - 3481	B-115	B-132	B-151
0.327	44000	4490	276000	28100	*	0.394	44000	4490	276000	28100	*	8 - 6265DA - 4437	B-115	B-132	B-151
0.282	46000	4690	276000	28100	*	0.341	46000	4690	276000	28100	*	8 - 6265DA - 5133	B-115	B-132	B-151
0.235	44000	4490	276000	28100	*	0.283	44000	4490	276000	28100	*	8 - 6265DA - 6177	B-115	B-132	B-151
0.192	44000	4490	276000	28100	*	0.231	44000	4490	276000	28100	*	8 - 6265DA - 7569	B-115	B-132	B-151

GEARMOTORS

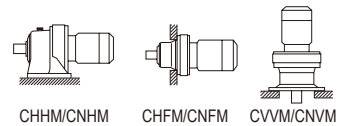
Selection Tables  
5.5 kW

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

7.5 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

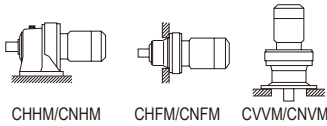


GEARMOTORS  
Selection Tables  
7.5 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
242	282	28.7	<b>5980</b>	<b>610</b>	<b>1.25</b>	292	233	23.8	<b>5650</b>	<b>576</b>	<b>1.25</b>	<b>10 - 6130 - 6</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			5980	610	1.51				5650	576	1.51	10 - 6135 - 6	B-102	B-118	B-137
			9330	951	1.73				8830	901	1.73	10 - 6140 - 6	B-102	B-118	B-137
			9330	951	2.01				8830	901	2.01	10 - 6145 - 6	B-102	B-118	B-137
181	375	38.3	<b>6650</b>	<b>678</b>	<b>1.25</b>	219	311	31.7	<b>6290</b>	<b>641</b>	<b>1.25</b>	<b>10 - 6130 - 8</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			6650	678	1.51				6290	641	1.51	10 - 6135 - 8	B-102	B-118	B-137
			10300	1050	1.73				9790	998	1.73	10 - 6140 - 8	B-102	B-118	B-137
			10300	1050	2.01				9790	998	2.01	10 - 6145 - 8	B-102	B-118	B-137
132	516	52.6	<b>7570</b>	<b>771</b>	<b>1.25</b>	159	428	43.6	<b>7150</b>	<b>729</b>	<b>1.25</b>	<b>10 - 6130 - 11</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			7570	771	1.51				7150	729	1.51	10 - 6135 - 11	B-102	B-118	B-137
			11600	1180	1.73				11000	1120	1.73	10 - 6140 - 11	B-102	B-118	B-137
			11600	1180	2.01				11000	1120	2.01	10 - 6145 - 11	B-102	B-118	B-137
112	610	62.2	<b>7860</b>	<b>801</b>	<b>1.25</b>	135	505	51.5	<b>7430</b>	<b>758</b>	<b>1.25</b>	<b>10 - 6130 - 13</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			7860	801	1.36				7430	758	1.51	10 - 6135 - 13	B-102	B-118	B-137
			11800	1210	1.73				11200	1140	1.73	10 - 6140 - 13	B-102	B-118	B-137
			11800	1210	2.01				11200	1140	2.01	10 - 6145 - 13	B-102	B-118	B-137
96.7	704	71.8	<b>8000</b>	<b>815</b>	<b>1.04</b>	117	583	59.5	<b>7570</b>	<b>771</b>	<b>1.04</b>	<b>10 - 6130 - 15</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			8000	815	1.20				7570	771	1.20	10 - 6135 - 15	B-102	B-118	B-137
			12400	1260	1.60				11700	1200	1.60	10 - 6140 - 15	B-102	B-118	B-137
			12400	1260	1.93				11700	1200	2.01	10 - 6145 - 15	B-102	B-118	B-137
85.3	798	81.3	<b>8550</b>	<b>872</b>	<b>1.11</b>	103	661	67.4	<b>8100</b>	<b>826</b>	<b>1.11</b>	<b>10 - 6135 - 17</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			12900	1320	1.35				12200	1250	1.35	10 - 6140 - 17	B-102	B-118	B-137
			12900	1320	1.60				12200	1250	1.60	10 - 6145 - 17	B-102	B-118	B-137
			15100	1540	1.75				14300	1450	1.75	10 - 6160 - 17	B-103	B-119	B-138
69.0	985	100	<b>9050</b>	<b>923</b>	<b>0.90</b>	83.3	817	83.2	<b>8590</b>	<b>876</b>	<b>1.00</b>	<b>10 - 6135 - 21</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			<b>13800</b>	<b>1410</b>	<b>1.15</b>				<b>13100</b>	<b>1330</b>	<b>1.15</b>	<b>10 - 6140 - 21</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			13800	1410	1.27				13100	1330	1.47	10 - 6145 - 21	B-102	B-118	B-137
			16200	1650	1.72				15300	1560	1.72	10 - 6160 - 21	B-103	B-119	B-138
58.0	1170	120	<b>14400</b>	<b>1470</b>	<b>1.05</b>	70.0	972	99.1	<b>13700</b>	<b>1390</b>	<b>1.05</b>	<b>10 - 6145 - 25</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			16900	1720	1.31				15900	1630	1.31	10 - 6160 - 25	B-103	B-119	B-138
			16900	1720	1.79				15900	1630	2.01	10 - 6165 - 25	B-103	B-119	B-138
			19100	1940	2.08				18000	1830	2.11	10 - 6170 - 25	B-103	B-119	B-138
50.0	1360	139	<b>14700</b>	<b>1500</b>	<b>1.00</b>	60.3	1130	115	<b>14000</b>	<b>1420</b>	<b>1.00</b>	<b>10 - 6145 - 29</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			17600	1790	1.27				16600	1690	1.40	10 - 6160 - 29	B-103	B-119	B-138
			17600	1790	1.52				16600	1690	1.52	10 - 6165 - 29	B-103	B-119	B-138
			20100	2050	1.80				18900	1930	1.91	10 - 6170 - 29	B-103	B-119	B-138
41.4	1640	167	<b>14500</b>	<b>1480</b>	<b>0.83</b>	50.0	1360	139	<b>14900</b>	<b>1520</b>	<b>1.00</b>	<b>10 - 6145 - 35</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			<b>18600</b>	<b>1890</b>	<b>1.07</b>				<b>17500</b>	<b>1790</b>	<b>1.29</b>	<b>10 - 6160 - 35</b>	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			18600	1890	1.28				17500	1790	1.52	10 - 6165 - 35	B-103	B-119	B-138
			21200	2160	1.49				20000	2040	1.60	10 - 6170 - 35	B-103	B-119	B-138

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



7.5 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

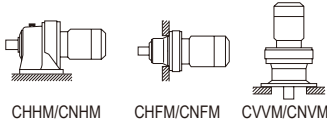
50Hz					60Hz					Nomenclature			Page of Dimension Sheet																				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM																		
33.7	2020	206	1.04		40.7	1670	170	1.05		10 -	6165	- 43	B-103	B-119	B-138																		
			1.21					1.30								10 -	6170	- 43	B-103	B-119	B-138												
			1.51					1.51														10 -	6175	- 43	B-103	B-119	B-138						
			2.01					2.01																				10 -	6180	- 43	B-104	B-120	B-139
			2.48					2.51																									
		2.79		2.79		10 -	6190	- 43	B-104	B-120	B-139																						
28.4	2390	244	0.88		34.3	1980	202	1.00		10 -	6165	- 51	B-103	B-119	B-138																		
			1.02					1.12								10 -	6170	- 51	B-103	B-119	B-138												
			1.32					1.51														10 -	6175	- 51	B-103	B-119	B-138						
			1.60					1.60																				10 -	6180	- 51	B-104	B-120	B-139
			2.01					2.01																									
		2.43		2.43		10 -	6190	- 51	B-104	B-120	B-139																						
		2.79		2.79		10 -	6195	- 51	B-104	B-120	B-139																						
24.6	2770	282	1.11		29.7	2290	234	1.11		10 -	6175	- 59	B-103	B-119	B-138																		
			1.30					1.30								10 -	6180	- 59	B-104	B-120	B-139												
			1.60					1.60														10 -	6185	- 59	B-104	B-120	B-139						
			2.04					2.04																				10 -	6190	- 59	B-104	B-120	B-139
			2.51					2.51																									
		0.93		0.95		10 -	6175	- 71	B-103	B-119	B-138																						
20.4	3330	340	1.17		24.6	2760	281	1.17		10 -	6180	- 71	B-104	B-120	B-139																		
			1.31					1.31								10 -	6185	- 71	B-104	B-120	B-139												
			1.80					1.80														10 -	6190	- 71	B-104	B-120	B-139						
			2.08					2.08																				10 -	6195	- 71	B-104	B-120	B-139
								0.95																									
		1.15		1.15		10 -	6185	- 87	B-104	B-120	B-139																						
16.7	4080	416	1.56		20.1	3380	345	1.57		10 -	6190	- 87	B-104	B-120	B-139																		
			1.81					1.81								10 -	6195	- 87	B-104	B-120	B-139												
			1.06					1.06														10 -	6185DB	- 104	B-111	B-127	B-146						
			1.38					1.38																				10 -	6190DB	- 104	B-112	B-128	B-147
			1.51					1.51																									
		*		*		10 -	6180DB	- 121	B-111	B-127	B-146																						
12.0	4060	414	0.89		14.5	4460	454	1.08		10 -	6185DB	- 121	B-111	B-127	B-146																		
			1.19					1.43								10 -	6190DB	- 121	B-112	B-128	B-147												
			1.41					1.51														10 -	6195DB	- 121	B-112	B-128	B-147						
			1.51					1.51																				10 -	6205DB	- 121	B-112	B-129	B-148
			2.12					2.55																									
		2.50		3.02		10 -	6225DB	- 121	B-113	B-130	B-149																						
10.1	4060	414	1.00		12.2	4900	500	1.00		10 -	6180DB	- 143	B-111	B-127	B-146																		
			1.20					1.21								10 -	6185DB	- 143	B-111	B-127	B-146												
			1.20					1.45														10 -	6190DB	- 143	B-112	B-128	B-147						
			1.20					1.45																				10 -	6195DB	- 143	B-112	B-128	B-147
								*																									
		1.08		1.08		10 -	6185DB	- 165	B-111	B-127	B-146																						
8.79	4920	502	1.26		10.6	4920	502	1.30		10 -	6185DB	- 165	B-111	B-127	B-146																		
			1.51					1.51								10 -	6195DB	- 165	B-112	B-128	B-147												
			1.51					1.51														10 -	6205DB	- 165	B-112	B-129	B-148						
			1.66					2.00																				10 -	6215DA	- 165	B-112	B-129	B-148
			1.97					2.00																									
		2.67		2.38		10 -	6225DB	- 165	B-113	B-130	B-149																						
				3.21		10 -	6235DA	- 165	B-114	B-131	B-150																						

Selection Tables 7.5 kW GEARMOTORS

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.



## Selection Tables Gearmotors

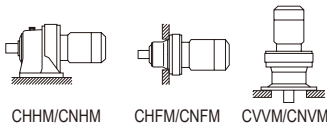


7.5 kW

n: Motor Speed

Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
[r/min]	[N·m] [kgf·m]	[N]	[kgf]		[r/min]	[N·m] [kgf·m]	[N]	[kgf]					CHHM	CHFM	CVVM	
1.72	25800	2630	208000	21200	*	25800	2630	208000	21200	*	10 - 6245DA	- 841	B-114	B-131	B-150	
			258000	26300	0.87			258000	26300	1.05	10 - 6255DA	- 841	B-115	B-132	B-151	
	37400	3810	276000	28100	1.23	31000	3160	276000	28100	1.48	10 - 6265DA	- 841	B-115	B-132	B-151	
			248000	25300	1.82			248000	25300	2.20	10 - 6275DA	- 841	B-115	-	B-151	
1.45	34500	3520	258000	26300	*	34500	3520	258000	26300	*	10 - 6255DA	- 1003	B-115	B-132	B-151	
			<b>276000</b>	<b>28100</b>	<b>1.03</b>			<b>276000</b>	<b>28100</b>	<b>1.25</b>	<b>10 - 6265DA</b>	<b>- 1003</b>	<b>B-115</b>	<b>B-132</b>	<b>B-151</b>	
	44600	4550	248000	25300	1.53	36900	3770	248000	25300	1.85	10 - 6275DA	- 1003	B-115	-	B-151	
			258000	26300	*			258000	26300	*	10 - 6255DA	- 1247	B-115	B-132	B-151	
1.16	46000	4690	276000	28100	*	46000	4690	276000	28100	*	10 - 6265DA	- 1247	B-115	B-132	B-151	
			276000	28100	0.83			276000	28100	1.00	10 - 6265DA	- 1247	B-115	B-132	B-151	
	55400	5650	248000	25300	1.23	45900	4680	276000	28100	1.48	10 - 6275DA	- 1247	B-115	-	B-151	
			248000	25300	1.23			248000	25300	1.48	10 - 6275DA	- 1247	B-115	-	B-151	
0.980	44000	4490	276000	28100	*	44000	4490	276000	28100	*	10 - 6265DA	- 1479	B-115	B-132	B-151	
			<b>247000</b>	<b>25200</b>	<b>1.04</b>			<b>247000</b>	<b>25200</b>	<b>1.25</b>	<b>10 - 6275DA</b>	<b>- 1479</b>	<b>B-115</b>	<b>-</b>	<b>B-151</b>	
0.784	82200	8380	248000	25300	0.83	0.946	68100	6940	248000	25300	1.00	10 - 6275DA	- 1849	B-115	-	B-151
0.702	68200	6950	248000	25300	*	0.847	68200	6950	248000	25300	*	10 - 6275DA	- 2065	B-115	-	B-151
0.572	68200	6950	248000	25300	*	0.690	68200	6950	248000	25300	*	10 - 6275DA	- 2537	B-115	-	B-151
0.476	68200	6950	245000	25000	*	0.575	68200	6950	245000	25000	*	10 - 6275DA	- 3045	B-115	-	B-151
0.417	68200	6950	248000	25300	*	0.503	68200	6950	248000	25300	*	10 - 6275DA	- 3481	B-115	-	B-151
0.327	68200	6950	245000	25000	*	0.394	68200	6950	245000	25000	*	10 - 6275DA	- 4437	B-115	-	B-151
0.282	68200	6950	245000	25000	*	0.341	68200	6950	245000	25000	*	10 - 6275DA	- 5133	B-115	-	B-151
0.235	68200	6950	245000	25000	*	0.283	68200	6950	245000	25000	*	10 - 6275DA	- 6177	B-115	-	B-151
0.192	68200	6950	245000	25000	*	0.231	68200	6950	245000	25000	*	10 - 6275DA	- 7569	B-115	-	B-151



11 kW

n: Motor Speed

Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque T <sub>out</sub>	Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
[r/min]	[N·m] [kgf·m]	[N]	[kgf]		[r/min]	[N·m] [kgf·m]	[N]	[kgf]					CHHM	CHFM	CVVM	
242	413	42.1	<b>5840</b>	<b>595</b>	<b>1.03</b>	292	342	34.9	<b>5540</b>	<b>564</b>	<b>1.03</b>	<b>15 - 6135</b>	<b>- 6</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			9270	945	1.18				8780	895	1.18	15 - 6140	- 6	B-102	B-118	B-137
			9270	945	1.37				8780	895	1.37	15 - 6145	- 6	B-102	B-118	B-137
			10400	1060	1.85				9760	995	1.85	15 - 6160	- 6	B-103	B-119	B-138
			10400	1060	2.19				9760	995	2.19	15 - 6165	- 6	B-103	B-119	B-138
			11700	1190	2.51				11000	1120	2.51	15 - 6170	- 6	B-103	B-119	B-138
181	551	56.1	11700	1190	2.74	11000	1120	2.74	15 - 6175	- 6	B-103	B-119	B-138			
			<b>6480</b>	<b>661</b>	<b>1.03</b>	<b>6150</b>	<b>627</b>	<b>1.03</b>	<b>15 - 6135</b>	<b>- 8</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>			
			10300	1050	1.18	9730	992	1.18	15 - 6140	- 8	B-102	B-118	B-137			
			10300	1050	1.37	9730	992	1.37	15 - 6145	- 8	B-102	B-118	B-137			
			11600	1180	1.79	10900	1110	1.79	15 - 6160	- 8	B-103	B-119	B-138			
			11600	1180	2.19	10900	1110	2.19	15 - 6165	- 8	B-103	B-119	B-138			
12900	1320	2.51	12200	1240	2.51	12200	1240	2.51	15 - 6170	- 8	B-103	B-119	B-138			
			12900	1320	2.74	12200	1240	2.74	15 - 6175	- 8	B-103	B-119	B-138			

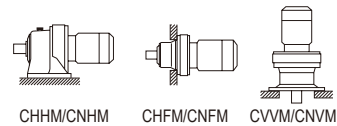
- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.



# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>11 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

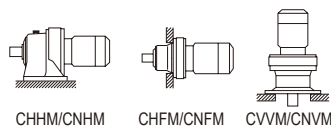


Selection Tables  
11 kW  
GEARMOTORS

50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM CHHM	CNFM CHFM	CNVN CVVM	
132	757	77.2	<b>7360</b>	<b>750</b>	<b>1.03</b>	159	627	63.9	<b>6980</b>	<b>712</b>	<b>1.03</b>	<b>15 - 6135</b>	<b>- 11</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			11500	1170	1.18				10900	1110	1.18	15 - 6140	- 11	B-102	B-118	B-137
			11500	1170	1.37				10900	1110	1.37	15 - 6145	- 11	B-102	B-118	B-137
			13100	1330	1.79				12300	1260	1.79	15 - 6160	- 11	B-103	B-119	B-138
			13100	1330	2.19				12300	1260	2.19	15 - 6165	- 11	B-103	B-119	B-138
			14900	1520	2.51				14000	1430	2.51	15 - 6170	- 11	B-103	B-119	B-138
			14900	1520	2.74				14000	1430	2.74	15 - 6175	- 11	B-103	B-119	B-138
112	895	91.2	<b>11700</b>	<b>1200</b>	<b>1.18</b>	135	741	75.6	<b>11100</b>	<b>1140</b>	<b>1.18</b>	<b>15 - 6140</b>	<b>- 13</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			11700	1200	1.37				11100	1140	1.37	15 - 6145	- 13	B-102	B-118	B-137
			13700	1390	1.79				12900	1320	1.79	15 - 6160	- 13	B-103	B-119	B-138
			13700	1390	2.05				12900	1320	2.05	15 - 6165	- 13	B-103	B-119	B-138
			15500	1580	2.48				14600	1490	2.48	15 - 6170	- 13	B-103	B-119	B-138
15500	1580	2.74	14600	1490	2.74	15 - 6175	- 13	B-103	B-119	B-138						
96.7	1030	105	<b>12300</b>	<b>1250</b>	<b>1.09</b>	117	855	87.2	<b>11600</b>	<b>1190</b>	<b>1.09</b>	<b>15 - 6140</b>	<b>- 15</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			12300	1250	1.32				11600	1190	1.32	15 - 6145	- 15	B-102	B-118	B-137
			14500	1470	1.70				13600	1390	1.70	15 - 6160	- 15	B-103	B-119	B-138
			14500	1470	2.04				13600	1390	2.05	15 - 6165	- 15	B-103	B-119	B-138
			16300	1660	2.32				15400	1570	2.32	15 - 6170	- 15	B-103	B-119	B-138
			16300	1660	2.74				15400	1570	2.74	15 - 6175	- 15	B-103	B-119	B-138
21700	2210	2.95	20400	2080	2.95	15 - 6180	- 15	B-104	B-120	B-139						
85.3	1170	119	<b>12800</b>	<b>1300</b>	<b>1.09</b>	103	969	98.8	<b>12100</b>	<b>1240</b>	<b>1.09</b>	<b>15 - 6145</b>	<b>- 17</b>	<b>B-102</b>	<b>B-118</b>	<b>B-137</b>
			14900	1520	1.19				14100	1430	1.19	15 - 6160	- 17	B-103	B-119	B-138
			14900	1520	1.71				14100	1430	1.71	15 - 6165	- 17	B-103	B-119	B-138
			16900	1720	1.79				16000	1630	1.79	15 - 6170	- 17	B-103	B-119	B-138
			16900	1720	2.19				16000	1630	2.19	15 - 6175	- 17	B-103	B-119	B-138
22900	2340	2.78	21600	2200	2.78	15 - 6180	- 17	B-104	B-120	B-139						
69.0	1450	147	13600	1390	0.86	83.3	1200	122	12900	1320	1.00	15 - 6145	- 21	B-102	B-118	B-137
			<b>15900</b>	<b>1620</b>	<b>1.17</b>				<b>15000</b>	<b>1530</b>	<b>1.17</b>	<b>15 - 6160</b>	<b>- 21</b>	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			15900	1620	1.45				15000	1530	1.46	15 - 6165	- 21	B-103	B-119	B-138
			18200	1860	1.69				17200	1750	1.77	15 - 6170	- 21	B-103	B-119	B-138
			18200	1860	2.15				17200	1750	2.19	15 - 6175	- 21	B-103	B-119	B-138
24500	2500	2.73	23100	2350	2.73	15 - 6180	- 21	B-104	B-120	B-139						
58.0	1720	175	16600	1690	1.22	70.0	1430	145	15700	1600	1.37	15 - 6165	- 25	B-103	B-119	B-138
			18800	1920	1.42				17800	1810	1.44	15 - 6170	- 25	B-103	B-119	B-138
			18800	1920	1.77				17800	1810	1.77	15 - 6175	- 25	B-103	B-119	B-138
			25500	2600	2.19				24000	2450	2.19	15 - 6180	- 25	B-104	B-120	B-139
			25500	2600	2.74				24000	2450	2.74	15 - 6185	- 25	B-104	B-120	B-139
50.0	2000	203	<b>17200</b>	<b>1750</b>	<b>1.04</b>	60.3	1650	169	<b>16300</b>	<b>1660</b>	<b>1.04</b>	<b>15 - 6165</b>	<b>- 29</b>	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			19800	2010	1.23				18700	1900	1.30	15 - 6170	- 29	B-103	B-119	B-138
			19800	2010	1.58				18700	1900	1.71	15 - 6175	- 29	B-103	B-119	B-138
			26600	2710	1.77				25100	2560	1.77	15 - 6180	- 29	B-104	B-120	B-139
			26600	2710	2.19				25100	2560	2.19	15 - 6185	- 29	B-104	B-120	B-139
			37500	3830	2.79				35300	3600	2.79	15 - 6190	- 29	B-104	B-120	B-139
41.4	2410	246	18100	1840	0.87	50.0	2000	203	17100	1750	1.04	15 - 6165	- 35	B-103	B-119	B-138
			<b>20900</b>	<b>2130</b>	<b>1.02</b>				<b>19700</b>	<b>2010</b>	<b>1.09</b>	<b>15 - 6170</b>	<b>- 35</b>	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			20900	2130	1.31				19700	2010	1.37	15 - 6175	- 35	B-103	B-119	B-138
			28400	2890	1.68				26700	2730	1.71	15 - 6180	- 35	B-104	B-120	B-139
			28400	2890	2.05				26700	2730	2.05	15 - 6185	- 35	B-104	B-120	B-139
			39600	4040	2.21				37300	3800	2.21	15 - 6190	- 35	B-104	B-120	B-139
39600	4040	2.74	37300	3800	2.74	15 - 6195	- 35	B-104	B-120	B-139						
33.7	2960	302	<b>22100</b>	<b>2250</b>	<b>1.03</b>	40.7	2450	250	<b>20900</b>	<b>2130</b>	<b>1.03</b>	<b>15 - 6175</b>	<b>- 43</b>	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			30300	3090	1.37				28600	2920	1.37	15 - 6180	- 43	B-104	B-120	B-139
			30300	3090	1.69				28600	2920	1.71	15 - 6185	- 43	B-104	B-120	B-139
			42600	4340	1.90				40100	4090	1.90	15 - 6190	- 43	B-104	B-120	B-139
			42600	4340	2.46				40100	4090	2.74	15 - 6195	- 43	B-104	B-120	B-139
			77700	7920	2.89				73500	7500	2.89	15 - 6205	- 43	B-105	B-121	B-140

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



## 11 kW

n: Motor Speed

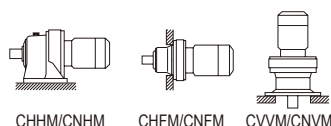
Hz		50Hz		60Hz	
P		4	6	4	6
n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
28.4	3510	358	22900	2330	34.3	2910	296	1.03		15 -	6175	- 51	B-103	B-119	B-138	
			<b>31300</b>	<b>3200</b>				<b>1.09</b>	<b>15 -</b>	<b>6180</b>	<b>- 51</b>	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>		
			31300	3200				1.37	15 -	6185	- 51	B-104	B-120	B-139		
			44400	4530				1.65	15 -	6190	- 51	B-104	B-120	B-139		
			44400	4530				1.90	15 -	6195	- 51	B-104	B-120	B-139		
24.6	4060	414	<b>32700</b>	<b>3330</b>	29.7	3360	343	<b>1.09</b>		<b>15 -</b>	<b>6185</b>	<b>- 59</b>	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>	
			46400	4730				1.39	15 -	6190	- 59	B-104	B-120	B-139		
			46400	4730				1.71	15 -	6195	- 59	B-104	B-120	B-139		
			84100	8570				2.05	15 -	6205	- 59	B-105	B-121	B-140		
			34500	3520				0.89	15 -	6185	- 71	B-104	B-120	B-139		
20.4	4890	498	<b>49100</b>	<b>5010</b>	24.6	4050	413	<b>1.23</b>		<b>15 -</b>	<b>6190</b>	<b>- 71</b>	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>	
			49100	5010				1.42	15 -	6195	- 71	B-104	B-120	B-139		
			49100	5010				1.42	15 -	6195	- 71	B-104	B-120	B-139		
16.7	5990	610	<b>52700</b>	<b>5380</b>	20.1	4960	506	<b>1.07</b>		<b>15 -</b>	<b>6190</b>	<b>- 87</b>	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>	
			52700	5380				1.24	15 -	6195	- 87	B-104	B-120	B-139		
			84100	8570				1.45	15 -	6205	- 87	B-105	B-121	B-140		
			96600	9850				1.79	15 -	6215	- 87	B-106	B-121	B-140		
			32700	3330				0.89	15 -	6185	- 71	B-104	B-120	B-139		
13.9	4060	414	40200	4100	16.8	4060	414	*		15 -	6180DB	- 104	B-111	B-127	B-146	
			4900	500				39900	4060	*	15 -	6185DB	- 104	B-111	B-127	B-146
			<b>56600</b>	<b>5670</b>				<b>1.03</b>	<b>15 -</b>	<b>6195DB</b>	<b>- 104</b>	<b>B-112</b>	<b>B-128</b>	<b>B-147</b>		
12.0	7890	804	4810	490	14.5	6540	666	*		15 -	6185DB	- 121	B-111	B-127	B-146	
			6380	650				59000	6010	*	15 -	6190DB	- 121	B-112	B-128	B-147
			59000	6010				0.96	15 -	6195DB	- 121	B-112	B-128	B-147		
			<b>84100</b>	<b>8570</b>				<b>1.03</b>	<b>15 -</b>	<b>6205DB</b>	<b>- 121</b>	<b>B-112</b>	<b>B-129</b>	<b>B-148</b>		
			104000	10600				1.44	15 -	6215DB	- 121	B-113	B-130	B-149		
			114000	11600				1.71	15 -	6225DB	- 121	B-113	B-130	B-149		
			143000	14600				2.19	15 -	6235DA	- 121	B-114	B-131	B-150		
			143000	14600				2.37	15 -	6235DB	- 121	B-114	B-131	B-150		
			159000	16200				2.60	15 -	6245DB	- 121	B-114	B-131	B-150		
195000	19900	2.89	15 -	6255DA	- 121	B-115	B-132	B-151								
10.1	6380	650	58700	5980	12.2	6380	650	58400	5950	*	15 -	6190DB	- 143	B-112	B-128	B-147
			7630	778				58200	5940	*	15 -	6195DB	- 143	B-112	B-128	B-147
			<b>93200</b>	<b>950</b>				<b>57600</b>	<b>5870</b>	<b>0.82</b>	<b>15 -</b>	<b>6195DB</b>	<b>- 143</b>	<b>B-112</b>	<b>B-128</b>	<b>B-147</b>
8.79	10800	1100	6380	650	10.6	8910	909	58900	6000	*	15 -	6190DB	- 165	B-112	B-128	B-147
			7910	806				58300	5940	*	15 -	6195DB	- 165	B-112	B-128	B-147
			84100	8570				0.86	15 -	6205DB	- 165	B-112	B-129	B-148		
			<b>104000</b>	<b>10600</b>				<b>1.03</b>	<b>15 -</b>	<b>6215DA</b>	<b>- 165</b>	<b>B-112</b>	<b>B-130</b>	<b>B-148</b>		
			104000	10600				1.13	15 -	6215DB	- 165	B-113	B-130	B-149		
			123000	12600				1.35	15 -	6225DB	- 165	B-113	B-130	B-149		
			153000	15600				1.82	15 -	6235DA	- 165	B-114	B-131	B-150		
			171000	17400				2.19	15 -	6245DA	- 165	B-114	B-131	B-150		
			171000	17400				2.44	15 -	6245DB	- 165	B-114	B-131	B-150		
209000	21300	2.46	15 -	6255DA	- 165	B-115	B-132	B-151								
209000	21300	2.90	15 -	6255DB	- 165	B-115	B-132	B-151								
7.44	12700	1300	7910	806	8.97	10500	1070	58300	5940	*	15 -	6195DB	- 195	B-112	B-128	B-147
			9270	945				84100	8570	*	15 -	6205DB	- 195	B-112	B-129	B-148
			104000	10600				0.93	15 -	6215DA	- 195	B-112	B-130	B-148		
			104000	10600				0.96	15 -	6215DB	- 195	B-113	B-130	B-149		
			129000	13200				0.93	15 -	6225DA	- 195	B-113	B-130	B-149		
			129000	13200				1.14	15 -	6225DB	- 195	B-113	B-130	B-149		
			161000	16400				1.54	15 -	6235DA	- 195	B-114	B-131	B-150		
			180000	18300				2.06	15 -	6245DA	- 195	B-114	B-131	B-150		
			180000	18300				2.06	15 -	6245DB	- 195	B-114	B-131	B-150		
			220000	22400				2.45	15 -	6255DA	- 195	B-115	B-132	B-151		
			220000	22400				2.45	15 -	6255DB	- 195	B-115	B-132	B-151		

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.



## Selection Tables Gearmotors



CHHM/CNHM

CHFM/CNFM

CVVM/CNVM

15 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

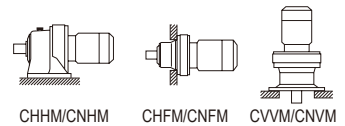
50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
242	563	57.4	9200	938	1.01	292	467	47.6	8730	889	1.01	20 -	6145	- 6	B-102	B-118	B-137
			10200	1040	1.35				9670	986	1.35		6160	- 6	B-103	B-119	B-138
			10200	1040	1.61				9670	986	1.61		6165	- 6	B-103	B-119	B-138
			11600	1180	1.84				10900	1110	1.84		6170	- 6	B-103	B-119	B-138
			11600	1180	2.01				10900	1110	2.01		6175	- 6	B-103	B-119	B-138
181	751	76.5	10200	1040	1.01	219	622	63.4	9660	984	1.01	20 -	6145	- 8	B-102	B-118	B-137
			11400	1170	1.31				10800	1100	1.31		6160	- 8	B-103	B-119	B-138
			11400	1170	1.61				10800	1100	1.61		6165	- 8	B-103	B-119	B-138
			12800	1310	1.84				12100	1230	1.84		6170	- 8	B-103	B-119	B-138
			12800	1310	2.01				12100	1230	2.01		6175	- 8	B-103	B-119	B-138
132	1030	105	11400	1160	1.01	159	855	87.2	10800	1100	1.01	20 -	6145	- 11	B-102	B-118	B-137
			12900	1320	1.31				12200	1240	1.31		6160	- 11	B-103	B-119	B-138
			12900	1320	1.61				12200	1240	1.61		6165	- 11	B-103	B-119	B-138
			14700	1500	1.84				13900	1420	1.84		6170	- 11	B-103	B-119	B-138
			14700	1500	2.01				13900	1420	2.01		6175	- 11	B-103	B-119	B-138
			19600	2000	2.35				18500	1880	2.35		6180	- 11	B-104	B-120	B-139
			19600	2000	2.60				18500	1880	2.60		6185	- 11	B-104	B-120	B-139
			27500	2800	2.73				25800	2630	2.73		6190	- 11	B-104	B-120	B-139
			112	1220	124				11600	1190	1.01		135	1010	103	11000	1130
13500	1370	1.31				12700	1300	1.31	6160	- 13	B-103	B-119				B-138	
13500	1370	1.51				12700	1300	1.51	6165	- 13	B-103	B-119				B-138	
15300	1560	1.82				14500	1470	1.82	6170	- 13	B-103	B-119				B-138	
15300	1560	2.01				14500	1470	2.01	6175	- 13	B-103	B-119				B-138	
20400	2080	2.35				19200	1960	2.35	6180	- 13	B-104	B-120				B-139	
20400	2080	2.60				19200	1960	2.60	6185	- 13	B-104	B-120				B-139	
28600	2910	2.73				26900	2740	2.73	6190	- 13	B-104	B-120				B-139	
96.7	1410	144				12100	1240	0.97	117	1170	119	11500				1170	1.01
			14200	1450	1.25	13500	1370	1.25				6160	- 15	B-103	B-119	B-138	
			14200	1450	1.49	13500	1370	1.49				6165	- 15	B-103	B-119	B-138	
			16100	1640	1.70	15200	1550	1.70				6170	- 15	B-103	B-119	B-138	
			16100	1640	2.01	15200	1550	2.01				6175	- 15	B-103	B-119	B-138	
			21600	2200	2.16	20300	2070	2.16				6180	- 15	B-104	B-120	B-139	
			21600	2200	2.60	20300	2070	2.60				6185	- 15	B-104	B-120	B-139	
30000	3060	2.73	28200	2880	2.73	6190	- 15	B-104	B-120	B-139							
85.3	1600	163	12600	1290	0.80	103	1320	135	12000	1220	0.80	20 -	6145	- 17	B-102	B-118	B-137
			14600	1490	1.25				13900	1410	1.25		6165	- 17	B-103	B-119	B-138
			16700	1700	1.31				15800	1610	1.31		6170	- 17	B-103	B-119	B-138
			16700	1700	1.61				15800	1610	1.61		6175	- 17	B-103	B-119	B-138
			22700	2320	2.04				21400	2180	2.04		6180	- 17	B-104	B-120	B-139
			22700	2320	2.55				21400	2180	2.55		6185	- 17	B-104	B-120	B-139
31600	3220	2.73	29800	3030	2.73	6190	- 17	B-104	B-120	B-139							
69.0	1970	201	15600	1590	1.07	83.3	1630	166	14800	1510	1.07	20 -	6165	- 21	B-103	B-119	B-138
			17900	1830	1.24				17000	1730	1.30		6170	- 21	B-103	B-119	B-138
			17900	1830	1.57				17000	1730	1.57		6175	- 21	B-103	B-119	B-138
			24300	2480	2.00				22900	2340	2.00		6180	- 21	B-104	B-120	B-139
			24300	2480	2.54				22900	2340	2.54		6185	- 21	B-104	B-120	B-139
			34000	3470	2.73				32000	3260	2.73		6190	- 21	B-104	B-120	B-139
			58.0	2350	239				16200	1650	0.89		70.0	1940	198	15400	1570
18500	1890	1.04				17500	1780	1.05	6170	- 25	B-103	B-119				B-138	
18500	1890	1.30				17500	1780	1.30	6175	- 25	B-103	B-119				B-138	
25300	2580	1.61				23800	2430	1.61	6180	- 25	B-104	B-120				B-139	
25300	2580	2.01				23800	2430	2.01	6185	- 25	B-104	B-120				B-139	
35600	3620	2.35				33500	3410	2.35	6190	- 25	B-104	B-120				B-139	
35600	3620	2.70	33500	3410	2.70	6195	- 25	B-104	B-120	B-139							

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>15 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



Selection Tables  
GEARMOTORS  
15 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM		
50.0	2720	277	<b>19400</b>	<b>1980</b>	<b>1.16</b>	60.3	2260	230	<b>18400</b>	<b>1870</b>	<b>1.25</b>	20 - 6175	- 29	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>	
			26400	2690	1.30				24900	2540	1.30	20 - 6180	- 29	B-104	B-120	B-139	
			26400	2690	1.61				24900	2540	1.61	20 - 6185	- 29	B-104	B-120	B-139	
			37400	3810	2.05				35200	3580	2.05	20 - 6190	- 29	B-104	B-120	B-139	
41.4	3280	335	20400	2080	0.96	50.0	2720	277	19400	1970	1.01	20 - 6175	- 35	B-103	B-119	B-138	
			<b>28100</b>	<b>2860</b>	<b>1.23</b>				<b>26500</b>	<b>2700</b>	<b>1.25</b>	20 - 6180	- 35	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>	
			28100	2860	1.51				26500	2700	1.51	20 - 6185	- 35	B-104	B-120	B-139	
			39400	4020	1.62				37100	3780	1.62	20 - 6190	- 35	B-104	B-120	B-139	
33.7	4040	411	29900	3050	1.24	40.7	3340	341	28300	2880	1.25	20 - 6185	- 43	B-104	B-120	B-139	
			29900	3050	1.24				28300	2880	1.25	20 - 6185	- 43	B-104	B-120	B-139	
			42300	4310	1.39				39900	4060	1.39	20 - 6190	- 43	B-104	B-120	B-139	
			42300	4310	1.81				39900	4060	2.01	20 - 6195	- 43	B-104	B-120	B-139	
28.4	4790	488	<b>30900</b>	<b>3150</b>	<b>1.01</b>	34.3	3970	404	<b>29200</b>	<b>2980</b>	<b>1.01</b>	20 - 6185	- 51	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>	
			44100	4490	1.21				41500	4230	1.21	20 - 6190	- 51	B-104	B-120	B-139	
			44100	4490	1.39				41500	4230	1.39	20 - 6195	- 51	B-104	B-120	B-139	
			32100	3270	0.80				30400	3100	0.80	20 - 6185	- 59	B-104	B-120	B-139	
24.6	5540	564	<b>46000</b>	<b>4690</b>	<b>1.02</b>	29.7	4590	468	<b>43400</b>	<b>4430</b>	<b>1.02</b>	20 - 6190	- 59	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>	
			46000	4690	1.25				43400	4430	1.25	20 - 6195	- 59	B-104	B-120	B-139	
			84100	8570	1.51				79700	8120	1.51	20 - 6205	- 59	B-105	B-121	B-140	
			85900	8760	2.26				81300	8290	2.51	20 - 6215	- 59	B-105	B-121	B-140	
20.4	6660	679	<b>48600</b>	<b>4960</b>	<b>1.04</b>	24.6	5520	563	<b>45900</b>	<b>4680</b>	<b>1.04</b>	20 - 6195	- 71	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>	
16.7	8170	832	52100	5310	0.91	20.1	6770	690	49200	5010	0.91	20 - 6195	- 87	B-104	B-120	B-139	
			<b>84100</b>	<b>8570</b>	<b>1.06</b>				<b>84100</b>	<b>8570</b>	<b>1.06</b>	20 - 6205	- 87	<b>B-105</b>	<b>B-121</b>	<b>B-140</b>	
			96100	9790	1.31				91000	9280	1.43	20 - 6215	- 87	B-105	B-121	B-140	
			102000	10400	1.78				96400	9830	1.78	20 - 6225	- 87☆	B-106	B-122	B-141	
16.6	8190	835	84100	8570	1.13	19.7	6890	703	84100	8570	1.30	206 - 6205	- 59	B-105	B-121	B-140	
			96200	9800	1.55				91500	9330	1.83	206 - 6215	- 59	B-105	B-121	B-140	
			102000	10400	1.94				97000	9890	2.22	206 - 6225	- 59	B-106	B-122	B-141	
			6380	650	55800				5690	*	16.8	5770	589	52400	5340	*	20 - 6190DB
6970	711	55400	5650	*	5770	589	52400	5340	*	20 - 6195DB				- 104	B-112	B-128	B-147
7580	773	59000	6010	*	6720	686	55700	5680	*	20 - 6195DB				- 121	B-112	B-128	B-147
8110	828	84100	8570	*	6720	686	84100	8570	*	20 - 6205DB				- 121	B-112	B-129	B-148
12.0	10800	1100	<b>104000</b>	<b>10600</b>	<b>1.06</b>	14.5	8910	909	<b>101000</b>	<b>10300</b>	<b>1.28</b>	20 - 6215DB	- 121	<b>B-113</b>	<b>B-129</b>	<b>B-149</b>	
			113000	11600	1.25				108000	11000	1.51	20 - 6225DB	- 121	B-113	B-130	B-149	
			142000	14500	1.60				135000	13800	1.60	20 - 6235DA	- 121	B-114	B-114	B-150	
			142000	14500	1.74				135000	13800	2.10	20 - 6235DB	- 121	B-114	B-114	B-150	
			159000	16200	1.91				150000	15300	2.30	20 - 6245DB	- 121	B-114	B-114	B-150	
			194000	19800	2.00				184000	18700	2.00	20 - 6255DA	- 121	B-115	B-132	B-151	
			194000	19800	2.56				184000	18700	3.08	20 - 6255DB	- 121	B-115	B-132	B-151	
			237000	24200	2.91				225000	22900	3.21	20 - 6265DA	- 121	B-115	B-132	B-151	
11.3	12100	1230	114000	11600	1.25	13.4	10200	1040	108000	11000	1.48	206 - 6225	- 87	B-106	B-122	B-141	
			142000	14500	1.42				135000	13800	1.60	206 - 6235	- 87	B-106	B-122	B-141	
			159000	16200	1.87				151000	15400	2.14	206 - 6245	- 87	B-107	B-123	B-142	
			196000	19900	2.57				186000	19000	2.86	206 - 6255	- 87	B-107	B-123	B-142	

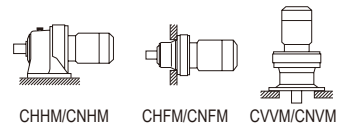
1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFМ, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.



# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

18.5 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

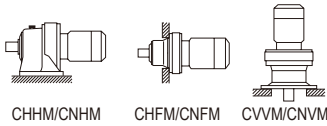


Selection Tables  
18.5 kW  
GEARMOTORS

50Hz					60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame - Size	Reduction - Ratio	CNHM	CNFM	CNVM
242	695	70.8	<b>10200</b>	<b>1030</b>	<b>1.10</b>	292	575	58.7	<b>9590</b>	<b>978</b>	<b>1.10</b>	25 -	<b>6160</b>	- 6	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			10200	1030	1.30				9590	978	1.30	25 -	6165	- 6	B-103	B-119	B-138
			11500	1180	1.49				10900	1110	1.49	25 -	6170	- 6	B-103	B-119	B-138
181	926	94.4	<b>11300</b>	<b>1150</b>	<b>1.06</b>	219	767	78.2	<b>10700</b>	<b>1090</b>	<b>1.06</b>	25 -	<b>6160</b>	- 8	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			11300	1150	1.30				10700	1090	1.30	25 -	6165	- 8	B-103	B-119	B-138
			12700	1300	1.49				12000	1220	1.49	25 -	6170	- 8	B-103	B-119	B-138
132	1270	130	<b>12700</b>	<b>1300</b>	<b>1.06</b>	159	1060	108	<b>12100</b>	<b>1230</b>	<b>1.06</b>	25 -	<b>6160</b>	- 11	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			12700	1300	1.30				12100	1230	1.30	25 -	6165	- 11	B-103	B-119	B-138
			14600	1490	1.49				13800	1410	1.49	25 -	6170	- 11	B-103	B-119	B-138
			14600	1490	1.63				13800	1410	1.63	25 -	6175	- 11	B-103	B-119	B-138
			19500	1990	1.90				18400	1880	1.90	25 -	6180	- 11	B-104	B-120	B-139
			19500	1990	2.11				18400	1880	2.11	25 -	6185	- 11	B-104	B-120	B-139
			27400	2790	2.22				25800	2630	2.22	25 -	6190	- 11	B-104	B-120	B-139
27400	2790	2.60	25800	2630	2.60	25 -	6195	- 11	B-104	B-120	B-139						
112	1500	153	<b>13300</b>	<b>1350</b>	<b>1.06</b>	135	1250	127	<b>12600</b>	<b>1280</b>	<b>1.06</b>	25 -	<b>6160</b>	- 13	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			13300	1350	1.22				12600	1280	1.22	25 -	6165	- 13	B-103	B-119	B-138
			15200	1550	1.48				14300	1460	1.48	25 -	6170	- 13	B-103	B-119	B-138
			15200	1550	1.63				14300	1460	1.63	25 -	6175	- 13	B-103	B-119	B-138
			20300	2070	1.90				19100	1950	1.90	25 -	6180	- 13	B-104	B-120	B-139
			20300	2070	2.11				19100	1950	2.11	25 -	6185	- 13	B-104	B-120	B-139
			28500	2900	2.22				26800	2730	2.22	25 -	6190	- 13	B-104	B-120	B-139
28500	2900	2.60	26800	2730	2.60	25 -	6195	- 13	B-104	B-120	B-139						
96.7	1740	177	<b>14000</b>	<b>1430</b>	<b>1.01</b>	117	1440	147	<b>13300</b>	<b>1350</b>	<b>1.01</b>	25 -	<b>6160</b>	- 15	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			14000	1430	1.21				13300	1350	1.21	25 -	6165	- 15	B-103	B-119	B-138
			15800	1620	1.38				15000	1530	1.38	25 -	6170	- 15	B-103	B-119	B-138
			15800	1620	1.63				15000	1530	1.63	25 -	6175	- 15	B-103	B-119	B-138
			21400	2180	1.75				20200	2060	1.75	25 -	6180	- 15	B-104	B-120	B-139
			21400	2180	2.11				20200	2060	2.11	25 -	6185	- 15	B-104	B-120	B-139
			29900	3050	2.22				28100	2870	2.22	25 -	6190	- 15	B-104	B-120	B-139
29900	3050	2.60	28100	2870	2.60	25 -	6195	- 15	B-104	B-120	B-139						
85.3	1970	201	<b>14400</b>	<b>1460</b>	<b>1.02</b>	103	1630	166	<b>13600</b>	<b>1390</b>	<b>1.02</b>	25 -	<b>6165</b>	- 17	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			14400	1460	1.06				13600	1390	1.06	25 -	6170	- 17	B-103	B-119	B-138
			16500	1680	1.30				15600	1590	1.30	25 -	6175	- 17	B-103	B-119	B-138
			22600	2300	1.65				21300	2170	1.65	25 -	6180	- 17	B-104	B-120	B-139
			22600	2300	2.06				21300	2170	2.11	25 -	6185	- 17	B-104	B-120	B-139
			31500	3210	2.22				29700	3020	2.22	25 -	6190	- 17	B-104	B-120	B-139
31500	3210	2.60	29700	3020	2.60	25 -	6195	- 17	B-104	B-120	B-139						
69.0	2430	248	15300	1550	0.86	83.3	2010	205	14500	1480	0.87	25 -	6165	- 21	B-103	B-119	B-138
			<b>17700</b>	<b>1800</b>	<b>1.01</b>				<b>16800</b>	<b>1710</b>	<b>1.05</b>	25 -	<b>6170</b>	- 21	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			17700	1800	1.28				16800	1710	1.30	25 -	6175	- 21	B-103	B-119	B-138
			24200	2470	1.62				22800	2330	1.62	25 -	6180	- 21	B-104	B-120	B-139
			24200	2470	2.06				22800	2330	2.11	25 -	6185	- 21	B-104	B-120	B-139
			33900	3450	2.22				31900	3250	2.22	25 -	6190	- 21	B-104	B-120	B-139
33900	3450	2.60	31900	3250	2.60	25 -	6195	- 21	B-104	B-120	B-139						
58.0	2890	295	<b>18200</b>	<b>1860</b>	<b>1.05</b>	70.0	2400	244	<b>17300</b>	<b>1760</b>	<b>1.05</b>	25 -	<b>6175</b>	- 25	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			18200	1860	1.30				17300	1760	1.30	25 -	6180	- 25	B-104	B-120	B-139
			25100	2560	1.63				23700	2410	1.63	25 -	6185	- 25	B-104	B-120	B-139
			25100	2560	1.90				23700	2410	1.90	25 -	6190	- 25	B-104	B-120	B-139
			35400	3610	2.19				33300	3400	2.19	25 -	6195	- 25	B-104	B-120	B-139

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



<b>18.5 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

50Hz					60Hz					Nomenclature			Page of Dimension Sheet										
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM								
50.0	3360	342	19000	1940	0.94	60.3	2780	284	1.02	25 -	6175	- 29	B-103	B-119	B-138								
			<b>26100</b>	<b>2660</b>	<b>1.05</b>								<b>B-104</b>	<b>B-120</b>	<b>B-139</b>								
			26100	2660	1.30								B-104	B-120	B-139								
			37200	3790	1.66								B-104	B-120	B-139								
			37200	3790	2.04								B-104	B-120	B-139								
68700	7000	2.47	B-105	B-121	B-140																		
41.4	4050	413	<b>27800</b>	<b>2830</b>	<b>1.00</b>	50.0	3360	342	1.22	25 -	6185	- 35	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>								
			27800	2830	1.22								B-104	B-120	B-139								
			39200	3990	1.31								B-104	B-120	B-139								
			39200	3990	1.63								B-104	B-120	B-139								
33.7	4980	507	<b>29500</b>	<b>3010</b>	<b>1.01</b>	40.7	4120	420	1.13	25 -	6185	- 43	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>								
			42000	4290	1.13								B-104	B-120	B-139								
			42000	4290	1.46								B-104	B-120	B-139								
			77300	7880	1.72								B-105	B-121	B-140								
			78900	8050	2.44								B-105	B-121	B-140								
28.4	5900	602	30400	3100	0.82	34.3	4890	499	0.98	25 -	6185	- 51	B-104	B-120	B-139								
			43700	4460	0.98								B-104	B-120	B-139								
			<b>43700</b>	<b>4460</b>	<b>1.13</b>								<b>B-104</b>	<b>B-120</b>	<b>B-139</b>								
			28900	2940	0.82								B-104	B-120	B-139								
24.6	6830	696	<b>45700</b>	<b>4660</b>	<b>1.02</b>	29.7	5660	577	1.22	25 -	6195	- 59	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>								
			83900	8550	1.22								B-105	B-121	B-140								
			85600	8730	1.83								B-105	B-121	B-140								
			90800	9250	2.12								B-106	B-122	B-141								
22.8	7360	751	<b>47400</b>	<b>4830</b>	<b>1.08</b>	27.1	6190	631	2.04	256 -	6215	- 43	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>								
			88400	9010	1.72								B-105	B-121	B-140								
			93700	9550	2.17								B-106	B-122	B-141								
20.4	8220	838	48100	4910	0.84	24.6	6810	694	0.84	25 -	6195	- 71	B-104	B-120	B-139								
16.7	10100	1030	<b>95600</b>	<b>9740</b>	<b>1.06</b>	20.1	8340	851	1.44	25 -	6215	- 87	<b>B-105</b>	<b>B-121</b>	<b>B-140</b>								
			101000	10300	1.44								B-106	B-122	B-141								
			95700	9760	1.25								B-105	B-121	B-140								
16.6	10100	1030	102000	10300	1.57	19.7	8500	866	1.80	256 -	6225	- 59	B-106	B-122	B-141								
			127000	12900	1.87								B-106	B-122	B-142								
			104000	10600	0.86								101000	10300	1.03	25 -	6215DB	- 121	B-113	B-130	B-149		
			<b>113000</b>	<b>11500</b>	<b>1.01</b>								<b>107000</b>	<b>10900</b>	<b>1.22</b>	<b>25 -</b>	<b>6225DB</b>	<b>- 121</b>	<b>B-113</b>	<b>B-130</b>	<b>B-149</b>		
142000	14500	1.30	134000	13700	1.30	25 -	6235DA	- 121	B-114	B-131	B-150												
12.0	13300	1350	142000	14500	1.41	14.5	11000	1120	1.70	25 -	6235DB	- 121	B-114	B-131	B-150								
			158000	16100	1.55								134000	13700	1.70	25 -	6235DB	- 121	B-114	B-131	B-150		
			194000	19800	1.62								150000	15300	1.87	25 -	6245DB	- 121	B-114	B-131	B-150		
			194000	19800	2.07								184000	18700	1.62	25 -	6255DA	- 121	B-115	B-132	B-151		
			237000	24200	2.36								184000	18700	2.50	25 -	6255DB	- 121	B-115	B-132	B-151		
			237000	24200	2.36								224000	22900	2.60	25 -	6265DA	- 121	B-115	B-132	B-151		
			<b>113000</b>	<b>11500</b>	<b>1.01</b>								<b>108000</b>	<b>11000</b>	<b>1.20</b>	<b>256 -</b>	<b>6225</b>	<b>- 87</b>	<b>B-106</b>	<b>B-122</b>	<b>B-141</b>		
142000	14400	1.15	135000	13700	1.30	256 -	6235	- 87	B-106	B-122	B-142												
159000	16200	1.52	151000	15400	1.74	256 -	6245	- 87	B-107	B-123	B-142												
195000	19900	2.08	186000	18900	2.32	256 -	6255	- 87	B-107	B-123	B-142												
8.79	18100	1840	14500	1480	*	10.6	15000	1530	0.97	25 -	6225DB	- 165	B-113	B-130	B-149								
			121000	12400	0.80								14500	1480	115000	11800	0.97	25 -	6225DB	- 165	B-113	B-130	B-149
			151000	15400	1.08								144000	14600	1.30	25 -	6235DA	- 165	B-114	B-131	B-150		
			170000	17300	1.30								161000	16400	1.30	25 -	6245DA	- 165	B-114	B-131	B-150		
			170000	17300	1.45								161000	16400	1.75	25 -	6245DB	- 165	B-114	B-131	B-150		
			208000	21200	1.62								197000	20100	1.62	25 -	6255DA	- 165	B-115	B-132	B-151		
			208000	21200	1.72								197000	20100	2.08	25 -	6255DB	- 165	B-115	B-132	B-151		
			254000	25900	2.42								240000	24500	2.60	25 -	6265DA	- 165	B-115	B-132	B-151		

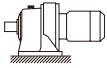
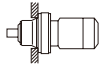

GEARMOTORS  
Selection Tables  
18.5 kW

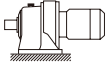
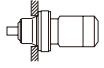

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.



# Selection Tables Gearmotors

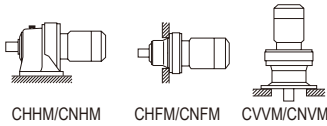
Selection Tables  
18.5 kW, 22 kW

18.5 kW		n <sub>1</sub> : Motor Speed								  						
		Hz		50Hz		60Hz										
		P	r/min	4	6	4	6	CHHM/CNHM	CHFM/CNFM	CVVM/CNVVM						
n <sub>2</sub>	r/min	1450	980	1750	1165											
50Hz		60Hz						Nomenclature			Page of Dimension Sheet					
Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
[r/min]	[N·m] [kgf·m]	[N]	[kgf]		[r/min]	[N·m] [kgf·m]	[N]	[kgf]					CHHM	CHFM	CVVM	
7.44	21400	2180	159000	16200	0.92	8.97	17700	1810	151000	15400	1.11	25 - 6235DA	- 195	B-114	B-131	B-150
			<b>178000</b>	<b>18100</b>	<b>1.22</b>				<b>169000</b>	<b>17200</b>	<b>1.22</b>	25 - <b>6245DA</b>	- <b>195</b>	<b>B-114</b>	<b>B-131</b>	<b>B-150</b>
			178000	18100	1.23				169000	17200	1.48	25 - 6245DB	- 195	B-114	B-131	B-150
			218000	22200	1.46				207000	21100	1.62	25 - 6255DA	- 195	B-115	B-132	B-151
			218000	22200	1.46				207000	21100	1.76	25 - 6255DB	- 195	B-115	B-132	B-151
			267000	27200	2.05				252000	25700	2.47	25 - 6265DA	- 195	B-115	B-132	B-151
6.28	25300	2580	18900	1930	*	7.58	21000	2140	18900	1930	*	25 - 6235DA	- 231	B-114	B-131	B-150
			<b>189000</b>	<b>19300</b>	<b>1.02</b>				<b>180000</b>	<b>18300</b>	<b>1.23</b>	25 - <b>6245DA</b>	- <b>231</b>	<b>B-114</b>	<b>B-131</b>	<b>B-150</b>
			232000	23600	1.22				219000	22400	1.48	25 - 6255DA	- 231	B-115	B-132	B-151
			276000	28100	1.82				269000	27400	2.19	25 - 6265DA	- 231	B-115	B-132	B-151
5.31	29900	3050	198000	20200	0.86	6.41	24800	2530	188000	19200	1.04	25 - 6245DA	- 273	B-114	B-131	B-150
			<b>243000</b>	<b>24800</b>	<b>1.04</b>				<b>230000</b>	<b>23500</b>	<b>1.25</b>	25 - <b>6255DA</b>	- <b>273</b>	<b>B-115</b>	<b>B-132</b>	<b>B-151</b>
			276000	28100	1.54				276000	28100	1.85	25 - 6265DA	- 273	B-115	B-132	B-151
4.55	35000	3570	25800	2630	*	5.49	29000	2950	25800	2630	*	25 - 6245DA	- 319	B-114	B-131	B-150
			208000	21200	0.93				196000	20000	1.12	25 - 6255DA	- 319	B-115	B-132	B-151
			255000	26000	0.93				242000	24600	1.12	25 - 6255DA	- 319	B-115	B-132	B-151
			276000	28100	1.31				276000	28100	1.59	25 - 6265DA	- 319	B-115	B-132	B-151
3.85	41300	4210	32500	3310	*	4.64	34300	3490	32500	3310	*	25 - 6255DA	- 377	B-115	B-132	B-151
			258000	26300	1.11				276000	28100	1.34	25 - 6265DA	- 377	B-115	B-132	B-151
			276000	28100	1.65				248000	25300	1.99	25 - 6275DA	- 377	B-115	-	B-151
3.07	51900	5290	276000	28100	0.89	3.70	43000	4380	276000	28100	1.07	25 - 6265DA	- 473	B-115	B-132	B-151
			248000	25300	1.31				248000	25300	1.59	25 - 6275DA	- 473	B-115	-	B-151
2.59	61300	6250	46000	4690	*	3.13	50800	5180	46000	4690	*	25 - 6265DA	- 559	B-115	B-132	B-151
			248000	25300	1.11				248000	25300	1.34	25 - 6275DA	- 559	B-115	-	B-151
2.23	71200	7250	248000	25300	0.96	2.70	59000	6010	248000	25300	1.16	25 - 6275DA	- 649	B-115	-	B-151
1.98	80200	8170	248000	25300	0.85	2.39	66400	6770	248000	25300	1.03	25 - 6275DA	- 731	B-115	-	B-151
1.72	68200	6950	248000	25300	*	2.08	68200	6950	248000	25300	*	25 - 6275DA	- 841	B-115	-	B-151

22 kW		n <sub>1</sub> : Motor Speed								  						
		Hz		50Hz		60Hz										
		P	r/min	4	6	4	6	CHHM/CNHM	CHFM/CNFM	CVVM/CNVVM						
n <sub>2</sub>	r/min	1450	980	1750	1165											
50Hz		60Hz						Nomenclature			Page of Dimension Sheet					
Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
[r/min]	[N·m] [kgf·m]	[N]	[kgf]		[r/min]	[N·m] [kgf·m]	[N]	[kgf]					CHHM	CHFM	CVVM	
242	826	84.2	<b>10100</b>	<b>1020</b>	<b>1.10</b>	292	684	69.8	<b>9510</b>	<b>969</b>	<b>1.10</b>	30 - <b>6165</b>	- <b>6</b>	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			11500	1170	1.25				10800	1100	1.25	30 - 6170	- 6	B-103	B-119	B-138
			11500	1170	1.37				10800	1100	1.37	30 - 6175	- 6	B-103	B-119	B-138
181	1100	112	<b>11200</b>	<b>1140</b>	<b>1.10</b>	219	912	93.0	<b>10600</b>	<b>1080</b>	<b>1.10</b>	30 - <b>6165</b>	- <b>8</b>	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			12600	1290	1.25				11900	1220	1.25	30 - 6170	- 8	B-103	B-119	B-138
			12600	1290	1.37				11900	1220	1.37	30 - 6175	- 8	B-103	B-119	B-138

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



22 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

50Hz					60Hz					Nomenclature			Page of Dimension Sheet												
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM										
132	1510	154	1.10	1.25	159	1250	128	1.25	1.37	30	- 6165	- 11	B-103	B-119	B-138										
																12600	1280	11900	1220	1100	6170	11	B-103	B-119	B-138
																14500	1470	13700	1390	1250	6175	11	B-103	B-119	B-138
																14500	1470	13700	1390	1.37	6180	11	B-104	B-120	B-139
																19500	1980	18300	1870	1.60	6185	11	B-104	B-120	B-139
																19500	1980	18300	1870	1.77	6190	11	B-104	B-120	B-139
																27300	2780	25700	2620	1.86	6195	11	B-104	B-120	B-139
112	1790	182	1.03	1.24	135	1480	151	1.24	1.37	30	- 6165	- 13	B-103	B-119	B-138										
																13100	1330	12400	1270	1030	6170	13	B-103	B-119	B-138
																15000	1530	14200	1450	1.24	6175	13	B-103	B-119	B-138
																15000	1530	14200	1450	1.37	6180	13	B-104	B-120	B-139
																20200	2060	19100	1940	1.60	6185	13	B-104	B-120	B-139
																20200	2060	19100	1940	1.77	6190	13	B-104	B-120	B-139
																28400	2890	26700	2730	1.86	6195	13	B-104	B-120	B-139
96.7	2060	210	1.02	1.16	117	1710	174	1.16	1.37	30	- 6165	- 15	B-103	B-119	B-138										
																13800	1400	13100	1340	1030	6170	15	B-103	B-119	B-138
																15600	1590	14800	1510	1.16	6175	15	B-103	B-119	B-138
																15600	1590	14800	1510	1.37	6180	15	B-104	B-120	B-139
																21300	2170	20100	2050	1.47	6185	15	B-104	B-120	B-139
																21300	2170	20100	2050	1.77	6190	15	B-104	B-120	B-139
																29800	3040	28100	2860	1.86	6195	15	B-104	B-120	B-139
85.3	2340	239	1.10	1.39	103	1940	198	1.39	1.77	30	- 6165	- 17	B-103	B-119	B-138										
																14100	1440	13400	1370	0.86	6175	17	B-103	B-119	B-138
																16200	1650	15400	1570	1.10	6180	17	B-103	B-119	B-138
																22400	2280	21200	2160	1.39	6185	17	B-104	B-120	B-139
																22400	2280	21200	2160	1.77	6190	17	B-104	B-120	B-139
																31400	3200	29600	3010	1.86	6195	17	B-104	B-120	B-139
																31400	3200	29600	3010	2.19	6195	17	B-104	B-120	B-139
69.0	2890	295	1.07	1.36	83.3	2400	244	1.36	1.77	30	- 6175	- 21	B-103	B-119	B-138										
																17500	1780	16600	1690	1100	6180	21	B-103	B-119	B-138
																24000	2450	22700	2310	1.36	6185	21	B-104	B-120	B-139
																24000	2450	22700	2310	1.77	6190	21	B-104	B-120	B-139
																33700	3440	31800	3240	1.86	6195	21	B-104	B-120	B-139
																33700	3440	31800	3240	2.19	6195	21	B-104	B-120	B-139
																62900	6410	59500	6070	2.69	6205	21	B-105	B-121	B-140
58.0	3440	351	1.10	1.84	70.0	2850	291	1.84	2.66	30	- 6175	- 25	B-103	B-119	B-138										
																17900	1830	17000	1740	0.89	6185	25	B-103	B-119	B-138
																24900	2530	23500	2400	1.10	6190	25	B-104	B-120	B-139
																24900	2530	23500	2400	1.37	6195	25	B-104	B-120	B-139
																35300	3590	33200	3390	1.60	6195	25	B-104	B-120	B-139
50.0	3990	407	1.10	2.66	60.3	3310	337	2.66	2.66	30	- 6185	- 29	B-104	B-120	B-139										
																25900	2640	24500	2500	1100	6190	29	B-104	B-120	B-139
																37000	3770	34900	3560	1.40	6195	29	B-104	B-120	B-139
																37000	3770	34900	3560	1.72	6205	29	B-105	B-121	B-140
																68500	6990	64900	6610	2.08	6215	29	B-105	B-121	B-140
41.4	4820	491	1.03	1.37	50.0	3990	407	1.37	2.66	30	- 6185	- 35	B-104	B-120	B-139										
																27500	2810	26000	2650	1030	6190	35	B-104	B-120	B-139
																39000	3970	36700	3750	1.10	6195	35	B-104	B-120	B-139
33.7	5920	603	0.85	2.05	40.7	4900	500	2.05	2.57	30	- 6185	- 43	B-104	B-120	B-139										
																29100	2970	27600	2820	0.85	6190	43	B-104	B-120	B-139
																41800	4260	39400	4020	0.95	6195	43	B-104	B-120	B-139
																41800	4260	39400	4020	1.37	6205	43	B-104	B-120	B-139
																77100	7860	73000	7440	1.45	6215	43	B-105	B-121	B-140
																78700	8020	74600	7600	2.05	6225	43	B-105	B-121	B-141
28.4	7020	716	0.95	34.3	5820	593	0.95	41000	4180	0.95	30	- 6195	- 51	B-104	B-120	B-139									

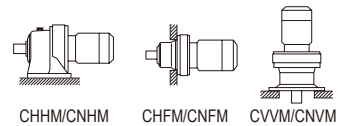
Selection Tables 22 kW GEARMOTORS

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>22 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

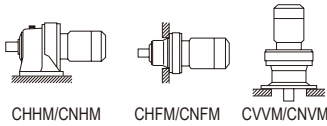


Selection Tables  
GEARMOTORS  
22 kW

50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
24.6	8120	828	0.85	45300	29.7	6730	686	0.85	42800	30 -	6195	- 59	B-104	B-120	B-139	
			<b>1.03</b>	<b>83600</b>				<b>8070</b>	<b>6205</b>				<b>- 59</b>	<b>B-105</b>	<b>B-121</b>	<b>B-140</b>
			1.54	85300				8240	6215				- 59	B-105	B-121	B-140
22.8	8760	893	1.79	90500	27.1	7370	751	1.71	80800	306 -	6215	- 43	B-106	B-122	B-141	
			<b>1.06</b>	<b>84100</b>				<b>8370</b>	<b>6205</b>				<b>- 43</b>	<b>B-105</b>	<b>B-121</b>	<b>B-140</b>
			1.45	88000				8540	6215				- 43	B-105	B-121	B-140
16.7	12000	1220	1.83	93400	20.1	9920	1010	2.17	88900	30 -	6225	- 43	B-106	B-122	B-141	
			<b>1.21</b>	<b>101000</b>				<b>9760</b>	<b>6225</b>				<b>- 87</b>	<b>B-106</b>	<b>B-122</b>	<b>B-141</b>
			1.32	101000				1030	6215				- 59	B-105	B-121	B-140
16.6	12000	1220	2.15	141000	19.7	10100	1030	1.51	96300	306 -	6225	- 59	B-106	B-122	B-141	
			<b>1.05</b>	<b>95200</b>				<b>9250</b>	<b>6215</b>				<b>- 59</b>	<b>B-105</b>	<b>B-121</b>	<b>B-140</b>
			1.32	101000				1030	6225				- 59	B-106	B-122	B-141
12.0	15800	1610	*	104000	14.5	13100	1330	*	101000	30 -	6215DB	- 121	B-107	B-123	B-142	
			0.85	112000				10900	6225DB				- 121	B-113	B-130	B-149
			<b>1.09</b>	<b>141000</b>				<b>13700</b>	<b>6235DA</b>				<b>- 121</b>	<b>B-114</b>	<b>B-131</b>	<b>B-150</b>
11.3	17700	1810	1.19	141000	13.4	14900	1520	1.43	134000	306 -	6235DB	- 121	B-114	B-131	B-150	
			1.30	157000				15200	6245DB				- 121	B-114	B-131	B-150
			1.37	193000				18700	6255DA				- 121	B-115	B-132	B-151
8.79	21500	2190	1.74	193000	10.6	17800	1820	2.10	183000	30 -	6255DB	- 121	B-115	B-132	B-151	
			<b>1.09</b>	<b>169000</b>				<b>16300</b>	<b>6255DA</b>				<b>- 165</b>	<b>B-114</b>	<b>B-131</b>	<b>B-150</b>
			1.22	169000				16300	6245DB				- 165	B-114	B-131	B-150
7.44	25400	2590	1.45	207000	8.97	21100	2150	1.37	196000	30 -	6255DA	- 165	B-115	B-132	B-151	
			<b>1.02</b>	<b>177000</b>				<b>17100</b>	<b>6245DA</b>				<b>- 195</b>	<b>B-114</b>	<b>B-131</b>	<b>B-150</b>
			1.03	177000				17100	6245DB				- 195	B-114	B-131	B-150
6.28	30100	3070	1.23	218000	7.58	25000	2540	1.48	206000	30 -	6255DB	- 195	B-115	B-132	B-151	
			<b>1.03</b>	<b>231000</b>				<b>22300</b>	<b>6255DA</b>				<b>- 231</b>	<b>B-115</b>	<b>B-132</b>	<b>B-151</b>
			1.53	276000				27300	6265DA				- 231	B-115	B-132	B-151
5.31	35600	3630	1.29	266000	6.41	29500	3010	2.08	252000	30 -	6265DA	- 195	B-115	B-132	B-151	
			<b>1.02</b>	<b>177000</b>				<b>17100</b>	<b>6245DA</b>				<b>- 195</b>	<b>B-114</b>	<b>B-131</b>	<b>B-150</b>
			1.03	177000				17100	6245DB				- 195	B-114	B-131	B-150
4.55	41600	4240	1.23	218000	5.49	34500	3510	1.37	206000	30 -	6255DA	- 195	B-115	B-132	B-151	
			<b>1.03</b>	<b>231000</b>				<b>22300</b>	<b>6255DA</b>				<b>- 195</b>	<b>B-115</b>	<b>B-132</b>	<b>B-151</b>
			1.53	276000				27300	6265DA				- 231	B-115	B-132	B-151
3.85	49200	5010	1.29	266000	4.64	40700	4150	2.08	252000	30 -	6265DA	- 273	B-114	B-131	B-150	
			<b>1.02</b>	<b>177000</b>				<b>17100</b>	<b>6245DA</b>				<b>- 195</b>	<b>B-114</b>	<b>B-131</b>	<b>B-150</b>
			1.03	177000				17100	6245DB				- 195	B-114	B-131	B-150
3.07	61700	6290	1.23	218000	3.70	51100	5210	1.48	206000	30 -	6255DB	- 195	B-115	B-132	B-151	
			<b>1.03</b>	<b>231000</b>				<b>22300</b>	<b>6255DA</b>				<b>- 231</b>	<b>B-115</b>	<b>B-132</b>	<b>B-151</b>
			1.53	276000				27300	6265DA				- 231	B-115	B-132	B-151
2.59	72900	7430	1.29	266000	3.13	60400	6160	1.03	179000	30 -	6245DA	- 231	B-114	B-131	B-150	
			<b>1.03</b>	<b>231000</b>				<b>22300</b>	<b>6255DA</b>				<b>- 231</b>	<b>B-115</b>	<b>B-132</b>	<b>B-151</b>
			1.53	276000				27300	6265DA				- 231	B-115	B-132	B-151
2.23	84600	8630	1.29	266000	2.70	70100	7150	1.05	229000	30 -	6255DA	- 273	B-115	B-132	B-151	
			<b>1.02</b>	<b>177000</b>				<b>17100</b>	<b>6245DA</b>				<b>- 195</b>	<b>B-114</b>	<b>B-131</b>	<b>B-150</b>
			1.03	177000				17100	6245DB				- 195	B-114	B-131	B-150
1.98	68200	6950	1.29	266000	2.39	68200	6950	1.56	276000	30 -	6265DA	- 273	B-115	B-132	B-151	
			<b>1.02</b>	<b>177000</b>				<b>17100</b>	<b>6245DA</b>				<b>- 195</b>	<b>B-114</b>	<b>B-131</b>	<b>B-150</b>
			1.03	177000				17100	6245DB				- 195	B-114	B-131	B-150
1.98	68200	6950	1.29	266000	2.39	68200	6950	1.56	276000	30 -	6265DA	- 273	B-115	B-132	B-151	
			<b>1.02</b>	<b>177000</b>				<b>17100</b>	<b>6245DA</b>				<b>- 195</b>	<b>B-114</b>	<b>B-131</b>	<b>B-150</b>
			1.03	177000				17100	6245DB				- 195	B-114	B-131	B-150

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



n: Motor Speed

30 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF		Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
242	1130	115	<b>1.00</b>		292	933	95.1	<b>1.00</b>		40 -	<b>6175</b>	- 6	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
181	1500	153	<b>1.00</b>		219	1240	127	<b>1.00</b>		40 -	<b>6175</b>	- 8	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
132	2060	210	<b>1.00</b>		159	1710	174	<b>1.00</b>		40 -	<b>6175</b>	- 11	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			1.17					40 -	6180	- 11	B-104	B-120	B-139		
			1.30					40 -	6185	- 11	B-104	B-120	B-139		
			1.60					40 -	6190	- 11	B-104	B-120	B-139		
			1.99					40 -	6195	- 11	B-104	B-120	B-139		
112	2440	249	<b>1.00</b>		135	2020	206	<b>1.00</b>		40 -	<b>6175</b>	- 13	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			1.17					40 -	6180	- 13	B-104	B-120	B-139		
			1.30					40 -	6185	- 13	B-104	B-120	B-139		
			1.37					40 -	6190	- 13	B-104	B-120	B-139		
			1.60					40 -	6195	- 13	B-104	B-120	B-139		
96.7	2820	287	<b>1.00</b>		117	2330	238	<b>1.00</b>		40 -	<b>6175</b>	- 15	<b>B-103</b>	<b>B-119</b>	<b>B-138</b>
			1.08					40 -	6180	- 15	B-104	B-120	B-139		
			1.30					40 -	6185	- 15	B-104	B-120	B-139		
			1.37					40 -	6190	- 15	B-104	B-120	B-139		
			1.60					40 -	6195	- 15	B-104	B-120	B-139		
85.3	3190	325	0.80		103	2640	270	0.80		40 -	6175	- 17	B-103	B-119	B-138
			<b>1.02</b>					40 -	<b>6180</b>	- 17	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>		
			1.27					40 -	6185	- 17	B-104	B-120	B-139		
			1.37					40 -	6190	- 17	B-104	B-120	B-139		
			1.60					40 -	6195	- 17	B-104	B-120	B-139		
69.0	3940	402	<b>1.00</b>		83.3	3270	333	<b>1.00</b>		40 -	<b>6180</b>	- 21	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>
			1.27					40 -	6185	- 21	B-104	B-120	B-139		
			1.37					40 -	6190	- 21	B-104	B-120	B-139		
			1.60					40 -	6195	- 21	B-104	B-120	B-139		
			1.97					40 -	6205	- 21	B-105	B-121	B-140		
58.0	4690	478	<b>1.00</b>		70.0	3890	396	<b>1.00</b>		40 -	<b>6185</b>	- 25	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>
			1.17					40 -	6190	- 25	B-104	B-120	B-139		
			1.35					40 -	6195	- 25	B-104	B-120	B-139		
			0.80					40 -	6185	- 29	B-104	B-120	B-139		
			<b>1.02</b>					40 -	<b>6190</b>	- 29	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>		
50.0	5440	555	1.26		60.3	4510	460	1.26		40 -	6195	- 29	B-104	B-120	B-139
			1.52					40 -	6205	- 29	B-105	B-121	B-140		
			1.95					40 -	6215	- 29	B-105	B-121	B-140		
			2.51					40 -	6225	- 29	B-106	B-122	B-141		
			<b>1.09</b>					406 -	<b>6190</b>	- 21	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>		
46.7	5830	595	1.36		55.5	4910	500	1.60		406 -	6195	- 21	B-104	B-120	B-139
			2.14					406 -	6215	- 21	B-105	B-121	B-140		
			<b>1.00</b>					40 -	<b>6195</b>	- 35	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>		
			1.15					406 -	6205	- 29	B-105	B-121	B-140		
			1.57					406 -	6215	- 29	B-105	B-121	B-140		
33.8	8050	821	1.87		40.2	6780	691	2.22		406 -	6225	- 29	B-106	B-122	B-141
			0.90					40 -	6195	- 43	B-104	B-120	B-139		
			<b>1.06</b>					40 -	<b>6205</b>	- 43	<b>B-105</b>	<b>B-121</b>	<b>B-140</b>		
			1.51					40 -	6215	- 43	B-105	B-121	B-140		
			1.88					40 -	6225	- 43	B-106	B-122	B-141		
24.6	11100	1130	<b>1.13</b>		29.7	9180	935	<b>1.26</b>		40 -	<b>6215</b>	- 59	<b>B-105</b>	<b>B-121</b>	<b>B-140</b>
			1.31					40 -	6225	- 59	B-106	B-122	B-141		
			<b>1.06</b>					406 -	<b>6215</b>	- 43	<b>B-105</b>	<b>B-121</b>	<b>B-140</b>		
			1.34					406 -	6225	- 43	B-106	B-122	B-141		
			2.16					406 -	6245	- 43	B-107	B-123	B-142		

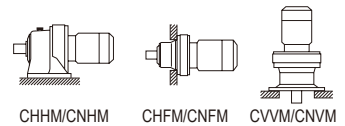
Selection Tables 30 kW

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

30 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

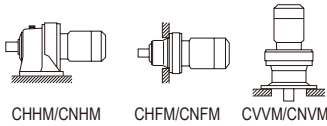


Selection Tables  
GEARMOTORS  
30 kW

50Hz						60Hz						Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]	SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	CHHM	CHFM	CVVM	
16.6	16400 1670	<b>125000</b> 12800	<b>1.15</b>	19.7	13800 1410	<b>119000</b> 12200	<b>1.26</b>	406 -	6235 -	59	<b>B-106</b>	<b>B-122</b>	<b>B-141</b>	B-107	B-123	B-142	
		140000 14300	1.57			134000 13600	1.87				406 - 6245 - 59	B-107	B-123	B-142			
12.0	21500 2190	173000 17600	1.89	14.5	17800 1820	164000 16800	2.16	406 -	6255 -	59	B-107	B-123	B-142	B-113	B-130	B-149	
		135000 1370	*			106000 10800	*				40 - 6225DB - 121	B-114	B-131				B-150
		140000 14300	0.87			133000 13500	1.05				40 - 6235DB - 121	B-114	B-131				B-150
		156000 15900	0.95			148000 15100	1.15				40 - 6245DB - 121	B-114	B-131				B-150
		<b>192000</b> 19600	<b>1.01</b>			<b>182000</b> 18600	<b>1.01</b>				<b>40 - 6255DA - 121</b>	<b>B-115</b>	<b>B-132</b>				<b>B-151</b>
11.3	24200 2460	193000 19700	1.28	13.4	20300 2070	184000 18800	1.43	406 -	6255 -	87	B-107	B-123	B-142	B-107	B-123	B-142	
		236000 24100	1.78			225000 22900	1.78				406 - 6265 - 87	B-107	B-123				B-142
8.79	29300 2990	196000 2000	*	10.6	24300 2480	143000 14500	*	40 -	6235DB -	165	B-114	B-131	B-150	B-114	B-131	B-150	
		167000 17000	0.89			159000 16200	1.08				40 - 6245DB - 165	B-115	B-132				B-151
		<b>206000</b> 21000	<b>1.01</b>			<b>195000</b> 19900	<b>1.01</b>				<b>40 - 6255DA - 165</b>	<b>B-115</b>	<b>B-132</b>				<b>B-151</b>
		206000 21000	1.06			195000 19900	1.28				40 - 6255DB - 165	B-115	B-132				B-151
7.44	34700 3530	252000 25700	1.49	8.97	28700 2930	239000 24300	1.61	40 -	6265DA -	165	B-115	B-132	B-151	B-115	B-132	B-151	
		262000 2680	*			262000 2680	*				40 - 6245DB - 195	B-114	B-131				B-150
		216000 22000	0.90			205000 20900	1.01				40 - 6255DA - 195	B-115	B-132				B-151
		216000 22000	0.90			205000 20900	1.08				40 - 6255DB - 195	B-115	B-132				B-151
6.28	31000 3160	265000 27000	1.26	7.58	34000 3470	251000 25600	1.52	40 -	6265DA -	195	B-115	B-132	B-151	B-115	B-132	B-151	
		258000 2630	*			258000 2630	*				40 - 6245DB - 231	B-114	B-131				B-150
5.31	48500 4950	231000 23500	*	6.41	31000 3160	218000 22200	*	40 -	6255DA -	231	B-115	B-132	B-151	B-115	B-132	B-151	
		276000 28100	0.95			267000 27200	1.35				40 - 6265DA - 231	B-115	B-132				B-151
4.55	56700 5780	243000 24700	*	5.49	47000 4790	31000 3160	*	40 -	6255DA -	273	B-115	B-132	B-151	B-115	B-132	B-151	
		276000 28100	0.81			229000 23400	*				40 - 6255DA - 273	B-115	B-132				B-151
3.85	68200 6950	276000 28100	*	4.64	69700 7100	276000 28100	*	40 -	6265DA -	319	B-115	B-132	B-151	B-115	-	B-151	
		248000 25300	1.20			276000 28100	0.98				40 - 6265DA - 319	B-115	B-132				B-151
3.07	84100 8570	248000 25300	0.81	3.70	68200 6950	248000 25300	*	40 -	6275DA -	319	B-115	-	B-151	B-115	-	B-151	
		248000 25300	*			248000 25300	0.98				40 - 6275DA - 377	B-115	B-132				B-151
2.59	68200 6950	248000 25300	*	3.13	68200 6950	248000 25300	*	40 -	6275DA -	559	B-115	-	B-151	B-115	-	B-151	

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

# Selection Tables Gearmotors



37 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

50Hz					60Hz					Nomenclature			Page of Dimension Sheet								
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM				
132	2550	260	19000	1940	1.05	159	2110	215	18000	1830	1.05	50 -	6185	- 11	B-104	B-120	B-139				
			27000	2750	1.11				25400	2590	1.11	50 -	6190	- 11	B-104	B-120	B-139				
			27000	2750	1.30				25400	2590	1.30	50 -	6195	- 11	B-104	B-120	B-139				
			52000	5310	1.61				49300	5020	1.61	50 -	6205	- 11	B-105	B-121	B-140				
			52700	5380	2.04				49900	5090	2.04	50 -	6215	- 11	B-105	B-121	B-140				
112	3010	307	19700	2010	1.05	135	2490	254	18600	1900	1.05	50 -	6185	- 13	B-104	B-120	B-139				
			28000	2850	1.11				26400	2690	1.11	50 -	6190	- 13	B-104	B-120	B-139				
			28000	2850	1.30				26400	2690	1.30	50 -	6195	- 13	B-104	B-120	B-139				
			20600	2100	1.05				19500	1990	1.05	50 -	6185	- 15	B-104	B-120	B-139				
			29300	2990	1.11				27700	2820	1.11	50 -	6190	- 15	B-104	B-120	B-139				
96.7	3470	354	29300	2990	1.30	117	2880	293	27700	2820	1.30	50 -	6195	- 15	B-104	B-120	B-139				
			55900	5700	1.61				52900	5390	1.61	50 -	6205	- 15	B-105	B-121	B-140				
			56600	5770	2.04				53600	5470	2.04	50 -	6215	- 15	B-105	B-121	B-140				
			60400	6160	2.69				57200	5830	2.69	50 -	6225	- 15	B-106	B-122	B-141				
			21600	2210	1.03				20500	2090	1.05	50 -	6185	- 17	B-104	B-120	B-139				
85.3	3940	401	30900	3150	1.11	103	3260	332	29100	2970	1.11	50 -	6190	- 17	B-104	B-120	B-139				
			30900	3150	1.30				29100	2970	1.30	50 -	6195	- 17	B-104	B-120	B-139				
			23300	2370	1.03				22100	2250	1.05	50 -	6185	- 21	B-104	B-120	B-139				
			33200	3380	1.11				31300	3190	1.11	50 -	6190	- 21	B-104	B-120	B-139				
			33200	3380	1.30				31300	3190	1.30	50 -	6195	- 21	B-104	B-120	B-139				
69.0	4860	496	62500	6370	1.60	83.3	4030	411	59200	6030	1.60	50 -	6205	- 21	B-105	B-121	B-140				
			63800	6510	2.04				60500	6170	2.04	50 -	6215	- 21	B-105	B-121	B-140				
			67500	6880	2.55				63900	6510	2.55	50 -	6225	- 21	B-106	B-122	B-141				
			32900	3360	1.11				31300	3190	1.11	506 -	6190	- 15	B-104	B-120	B-139				
			32900	3360	1.30				31300	3190	1.30	506 -	6195	- 15	B-104	B-120	B-139				
65.3	5140	524	62600	6380	1.61	77.7	4320	441	59500	6070	1.61	506 -	6205	- 15	B-105	B-121	B-140				
			63400	6460	2.04				60300	6150	2.04	506 -	6215	- 15	B-105	B-121	B-140				
			23900	2440	0.81				22700	2320	0.81	50 -	6185	- 25	B-104	B-120	B-139				
			34600	3530	0.95				32700	3330	0.95	50 -	6190	- 25	B-104	B-120	B-139				
			34600	3530	1.09				32700	3330	1.09	50 -	6195	- 25	B-104	B-120	B-139				
50.0	6710	684	36200	3690	1.02	60.3	5560	567	34200	3490	1.02	50 -	6195	- 29	B-104	B-120	B-139				
			67900	6920	1.24				64400	6560	1.24	50 -	6205	- 29	B-105	B-121	B-140				
			69300	7060	1.58				65700	6700	1.58	50 -	6215	- 29	B-105	B-121	B-140				
			73400	7490	2.04				69600	7090	2.04	50 -	6225	- 29	B-106	B-122	B-141				
			37300	3800	1.11				35500	3610	1.30	506 -	6195	- 21	B-104	B-120	B-139				
46.7	7190	733	71400	7280	1.74	55.5	6050	617	68000	6930	2.04	506 -	6215	- 21	B-105	B-121	B-140				
			75500	7690	2.06				71800	7320	2.45	506 -	6225	- 21	B-106	B-122	B-141				
			38000	3870	0.81				35900	3660	0.81	50 -	6195	- 35	B-104	B-120	B-139				
			77300	7880	1.27				73700	7510	1.51	506 -	6215	- 29	B-105	B-121	B-140				
			82000	8360	1.51				78100	7970	1.80	506 -	6225	- 29	B-106	B-122	B-141				
33.8	9930	1010	103000	10500	1.90	40.2	8360	852	97900	9980	2.04	506 -	6235	- 29	B-106	B-122	B-141				
			77700	7920	1.22				73800	7520	1.22	50 -	6215	- 43	B-105	B-121	B-140				
			82500	8410	1.53				78300	7980	1.53	50 -	6225	- 43	B-106	B-122	B-141				
			13700	1390	1.06				89200	9090	1.06	29.7	11300	1150	1.22	50 -	6225	- 59	B-106	B-122	B-141
			14700	1500	1.75				129000	13100	1.75	27.1	12400	1260	2.04	506 -	6245	- 43	B-107	B-123	B-142
22.8	20200	2060	140000	14200	1.28	19.7	17000	1730	133000	13500	1.52	506 -	6245	- 59	B-107	B-123	B-142				
			172000	17600	1.54				164000	16700	1.75	506 -	6255	- 59	B-107	B-123	B-142				
			211000	21500	2.28				201000	20500	2.55	506 -	6265	- 59	B-107	B-123	B-142				

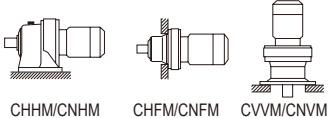
Selection Tables 37 kW GEARMOTORS

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

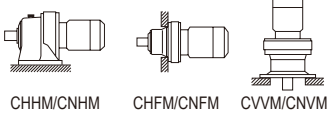
Selection Tables  
37 kW, 45 kW  
GEARMOTORS

37 kW		n <sub>1</sub> : Motor Speed					
		Hz		50Hz		60Hz	
		P	4	6	4	6	
n <sub>1</sub>	r/min	1450	980	1750	1165		



50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
[r/min]	[N·m] [kgf·m]	[N]	[kgf]		[r/min]	[N·m] [kgf·m]	[N]	[kgf]					CHHM	CHFM	CVVM
12.0	18700	1910	141000	14300	*	14.5	18700	1910	133000	13500	*	50 - 6235DB - 121	B-114	B-131	B-150
	20500	2090	156000	15900	*		20500	2090	148000	15000	*	50 - 6245DB - 121	B-114	B-131	B-150
	26500	2710	<b>191000</b>	<b>19500</b>	<b>1.04</b>		22000	2240	<b>181000</b>	<b>18500</b>	<b>1.25</b>	<b>50 - 6255DB - 121</b>	<b>B-115</b>	<b>B-132</b>	<b>B-151</b>
11.3	29800	3040	<b>192000</b>	<b>19600</b>	<b>1.04</b>	13.4	25100	2560	<b>183000</b>	<b>18700</b>	<b>1.16</b>	<b>506 - 6255 - 87</b>	<b>B-107</b>	<b>B-123</b>	<b>B-142</b>
			236000	24000	1.44				224000	22900	1.44	506 - 6265 - 87	B-107	B-123	B-142
8.79	26200	2680	168000	17100	*	10.6	26200	2680	158000	16100	*	50 - 6245DB - 165	B-114	B-131	B-150
			205000	20900	0.86				194000	19800	1.04	50 - 6255DB - 165	B-115	B-132	B-151
7.44	36200	3690	251000	25600	1.21	8.97	31200	3180	204000	20800	*	50 - 6265DA - 165	B-115	B-132	B-151
			<b>263000</b>	<b>26800</b>	<b>1.02</b>				<b>35400</b>	<b>3610</b>	<b>250000</b>	<b>25400</b>	<b>1.23</b>	<b>50 - 6265DA - 195</b>	<b>B-115</b>
6.28	50700	5160	276000	28100	0.91	7.58	42000	4280	266000	27100	1.10	50 - 6265DA - 231	B-115	B-132	B-151
5.31	46000	4690	276000	28100	*	6.41	46000	4690	276000	28100	*	50 - 6265DA - 273	B-115	B-132	B-151
4.55	70000	7130	248000	25300	0.97	5.49	58000	5910	248000	25300	1.18	50 - 6275DA - 319	B-115	-	B-151
3.85	68200	6950	248000	25300	*	4.64	68200	6950	248000	25300	*	50 - 6275DA - 377	B-115	-	B-151
			82700	8430	248000				25300	0.82	68500	6980	248000	25300	1.00

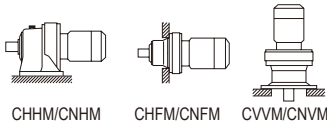
45 kW		n <sub>1</sub> : Motor Speed					
		Hz		50Hz		60Hz	
		P	4	6	4	6	
n <sub>1</sub>	r/min	1450	980	1750	1165		



50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Output Speed n <sub>2</sub>	Output Torque Tout	Allowable Radial Load Pro		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
[r/min]	[N·m] [kgf·m]	[N]	[kgf]		[r/min]	[N·m] [kgf·m]	[N]	[kgf]					CHHM	CHFM	CVVM
132	3100	316	<b>26800</b>	<b>2730</b>	<b>1.07</b>	159	2570	262	<b>25300</b>	<b>2570</b>	<b>1.07</b>	<b>60 - 6195 - 11</b>	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>
			51900	5290	1.33				49200	5010	1.33	60 - 6205 - 11	B-105	B-121	B-140
			52600	5360	1.67				49800	5080	1.67	60 - 6215 - 11	B-105	B-121	B-140
			55800	5690	2.21				52800	5390	2.21	60 - 6225 - 11	B-106	B-122	B-141
112	3660	373	<b>27700</b>	<b>2830</b>	<b>1.07</b>	135	3030	309	<b>26200</b>	<b>2670</b>	<b>1.07</b>	<b>60 - 6195 - 13</b>	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>
96.7	4220	431	<b>29000</b>	<b>2960</b>	<b>1.07</b>	117	3500	357	<b>27400</b>	<b>2800</b>	<b>1.07</b>	<b>60 - 6195 - 15</b>	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>
			55700	5680	1.33				52800	5380	1.33	60 - 6205 - 15	B-105	B-121	B-140
			56500	5750	1.67				53500	5450	1.67	60 - 6215 - 15	B-105	B-121	B-140
			60200	6140	2.21				57000	5820	2.21	60 - 6225 - 15	B-106	B-122	B-141
85.3	4790	488	21200	2160	0.85	103	3970	404	20200	2060	0.87	60 - 6185 - 17	B-104	B-120	B-139
			<b>30600</b>	<b>3120</b>	<b>1.07</b>				<b>28900</b>	<b>2950</b>	<b>1.07</b>	<b>60 - 6195 - 17</b>	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>
			22800	2330	0.85				21700	2210	0.87	60 - 6185 - 21	B-104	B-120	B-139
			32900	3350	0.91				31100	3170	0.91	60 - 6190 - 21	B-104	B-120	B-139
69.0	5910	603	<b>32900</b>	<b>3350</b>	<b>1.07</b>	83.3	4900	499	<b>31100</b>	<b>3170</b>	<b>1.07</b>	<b>60 - 6195 - 21</b>	<b>B-104</b>	<b>B-120</b>	<b>B-139</b>
			62200	6340	1.32				59000	6010	1.32	60 - 6205 - 21	B-105	B-121	B-140
			63600	6480	1.67				60300	6140	1.67	60 - 6215 - 21	B-105	B-121	B-140
			67200	6850	2.09				63700	6490	2.09	60 - 6225 - 21	B-106	B-122	B-141
65.3	6250	637	62300	6350	1.33	77.7	5260	536	59300	6050	1.33	606 - 6205 - 15	B-105	B-121	B-140
			63100	6430	1.67				60100	6130	1.67	606 - 6215 - 15	B-105	B-121	B-140
			67400	6870	2.21				64200	6540	2.21	606 - 6225 - 15	B-106	B-122	B-141
58.0	7040	718	34200	3490	0.90	70.0	5830	595	32400	3300	0.90	60 - 6195 - 25	B-104	B-120	B-139
50.0	8170	832	35700	3640	0.84	60.3	6770	690	33900	3450	0.84	60 - 6195 - 29	B-104	B-120	B-139
			<b>67600</b>	<b>6890</b>	<b>1.02</b>				<b>64100</b>	<b>6530</b>	<b>1.02</b>	<b>60 - 6205 - 29</b>	<b>B-105</b>	<b>B-121</b>	<b>B-140</b>
			68900	7030	1.30				65400	6660	1.30	60 - 6215 - 29	B-105	B-121	B-140
			73100	7450	1.67				69300	7070	1.67	60 - 6225 - 29	B-106	B-122	B-141

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

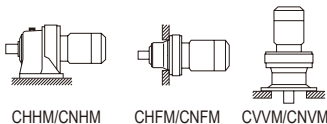
## Selection Tables Gearmotors



n: Motor Speed

45 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

50Hz					60Hz					Nomenclature			Page of Dimension Sheet			
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
46.7	8750	892	<b>69500</b>	<b>7080</b>	<b>1.06</b>	55.5	7360	750					<b>B-105</b>	<b>B-121</b>	<b>B-140</b>	
			71000	7240	1.43								B-105	B-121	B-140	
			75100	7660	1.69								B-106	B-122	B-141	
33.8	12100	1230	94100	9590	2.16	40.2	10200	1040					<b>B-105</b>	<b>B-121</b>	<b>B-140</b>	
			<b>76800</b>	<b>7830</b>	<b>1.05</b>								B-106	B-122	B-141	
			102000	10400	1.56								B-107	B-123	B-142	
33.7	12100	1230	114000	11700	2.09	40.7	10000	1020					<b>B-105</b>	<b>B-121</b>	<b>B-140</b>	
			<b>77200</b>	<b>7870</b>	<b>1.00</b>								B-106	B-122	B-141	
			82000	8360	1.26								B-107	B-123	B-142	
22.8	17900	1830	<b>114000</b>	<b>11600</b>	<b>1.06</b>	27.1	15100	1540					<b>B-106</b>	<b>B-122</b>	<b>B-141</b>	
			128000	13100	1.44								B-107	B-123	B-142	
			157000	16000	1.73								B-107	B-123	B-142	
			193000	19700	2.51								B-107	B-123	B-142	
16.6	24600	2510	<b>139000</b>	<b>14100</b>	<b>1.05</b>	19.7	20700	2110					<b>B-107</b>	<b>B-123</b>	<b>B-142</b>	
			210000	21400	1.87								B-107	B-123	B-142	
12.0	32300	3290	190000	19400	0.85	14.5	26700	2730					B-115	B-132	B-151	
			234000	23800	0.97								B-115	B-132	B-151	
11.3	36200	3690	<b>235000</b>	<b>23900</b>	<b>1.19</b>	13.4	30500	3110	<b>223000</b>	<b>22800</b>	<b>1.19</b>	<b>606 - 6265</b>	<b>- 87</b>	<b>B-107</b>	<b>B-123</b>	<b>B-142</b>
8.79	44000	4490	250000	25500	0.98	10.6	36500	3720	237000	24200	1.13	60 - 6265DA	- 165	B-115	B-132	B-151
7.44	52000	5300	262000	26700	0.84	8.97	43100	4390	248000	25300	1.01	60 - 6265DA	- 195	B-115	B-132	B-151
6.28	46000	4690	276000	28100	*	7.58	46000	4690	265000	27000	*	60 - 6265DA	- 231	B-115	B-132	B-151
4.55	68200	6950	248000	25300	*	5.49	70500	7190	248000	25300	*	60 - 6275DA	- 319	B-115	-	B-151
			248000	25300	0.80				60 - 6275DA	- 319	B-115			-	B-151	

 Selection Tables  
 45 kW, 55 kW  
 GEARMOTORS


n: Motor Speed

55 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

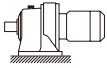
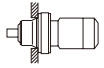

50Hz					60Hz					Nomenclature			Page of Dimension Sheet		
Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque T <sub>out</sub> [N·m] [kgf·m]	Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM
132	3790	386	<b>51700</b>	<b>5270</b>	<b>1.09</b>	159	3140	320					<b>B-105</b>	<b>B-121</b>	<b>B-140</b>
			52400	5340	1.37								B-105	B-121	B-140
			55600	5670	1.81								B-106	B-122	B-141
96.7	5160	526	<b>55500</b>	<b>5660</b>	<b>1.09</b>	117	4280	436					<b>B-105</b>	<b>B-121</b>	<b>B-140</b>
			56200	5730	1.37								B-105	B-121	B-140
			60000	6120	1.81								B-106	B-122	B-141
89.1	5600	571	<b>57800</b>	<b>5900</b>	<b>1.09</b>	106	4710	480					-	-	-
			58600	5970	1.37								-	-	-
			62200	6340	1.81								-	-	-
69.0	7230	737	<b>61900</b>	<b>6310</b>	<b>1.08</b>	83.3	5990	610					<b>B-105</b>	<b>B-121</b>	<b>B-140</b>
			63300	6450	1.37								B-105	B-121	B-140
			66900	6820	1.71								B-106	B-122	B-141
65.3	7640	779	<b>62000</b>	<b>6320</b>	<b>1.09</b>	77.7	6420	655					-	-	-
			62800	6400	1.37								-	-	-
			67100	6840	1.81								-	-	-

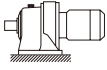
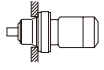

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.



# Selection Tables Gearmotors

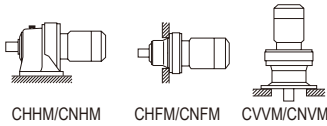
Selection Tables  
55 kW, 75 kW

55 kW		n <sub>1</sub> : Motor Speed								 CHHM/CNHM  CHFM/CNFM  CVVM/CNVM		
		Hz		50Hz		60Hz						
		P	r/min	4	6	4	6					
n <sub>2</sub>	Tout	Pro	SF	n <sub>2</sub>	Tout	Pro	SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	Page of Dimension Sheet	
50.0	9980	1020	1.06	60.3	8270	843	1.06	75 -	6215	- 29	B-105 B-121 B-140	
								75 -	6225	- 29	B-106 B-122 B-141	
								756 -	6215	- 21 ☆	- - -	
								756 -	6225	- 21 ☆	- - -	
								756 -	6235	- 21	B-106 B-122 B-141	
								756 -	6225	- 29 ☆	- - -	
33.8	14800	1510	1.02	40.2	12400	1270	1.21	756 -	6245	- 29	B-107 B-123 B-142	
								756 -	6255	- 29	B-107 B-123 B-142	
								756 -	6265	- 29	B-107 B-123 B-142	
								756 -	6265	- 43	B-106 B-122 B-141	
33.7	14800	1510	1.03	40.7	12300	1250	1.03	756 -	6245	- 43	B-107 B-123 B-142	
								756 -	6255	- 43	B-107 B-123 B-142	
								756 -	6265	- 43	B-107 B-123 B-142	
								756 -	6265	- 43	B-107 B-123 B-142	
22.8	21900	2230	1.42	27.1	18400	1880	1.62	756 -	6245	- 43	B-107 B-123 B-142	
								756 -	6255	- 43	B-107 B-123 B-142	
								756 -	6265	- 43	B-107 B-123 B-142	
								756 -	6265	- 43	B-107 B-123 B-142	
16.6	30000	3060	1.53	19.7	25300	2580	1.71	756 -	6255	- 59	B-107 B-123 B-142	
								756 -	6265	- 59	B-107 B-123 B-142	
								756 -	6275	- 59 ☆	- - -	

75 kW		n <sub>1</sub> : Motor Speed								 CHHM/CNHM  CHFM/CNFM  CVVM/CNVM		
		Hz		50Hz		60Hz						
		P	r/min	4	6	4	6					
n <sub>2</sub>	Tout	Pro	SF	n <sub>2</sub>	Tout	Pro	SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	Page of Dimension Sheet	
132	5160	526	1.33	159	4280	436	1.33	100 -	6225	- 11 ☆	- - -	
								100 -	6225	- 15 ☆	- - -	
								1006 -	6235	- 11 ☆	- - -	
								1006 -	6245	- 11 ☆	- - -	
69.0	9850	1000	1.26	83.3	8170	832	1.26	1006 -	6245	- 11 ☆	- - -	
								100 -	6225	- 21 ☆	- - -	
								1006 -	6235	- 15 ☆	- - -	
								1006 -	6245	- 15 ☆	- - -	
								1006 -	6245	- 15 ☆	- - -	
50.0	13600	1390	1.00	60.3	11300	1150	1.00	1006 -	6235	- 21 ☆	- - -	
								1006 -	6235	- 21 ☆	- - -	
								1006 -	6245	- 21 ☆	- - -	
								1006 -	6255	- 21 ☆	- - -	
								1006 -	6245	- 21 ☆	- - -	
								1006 -	6245	- 21 ☆	- - -	
								1006 -	6255	- 21 ☆	- - -	
33.8	20100	2050	1.57	40.2	16900	1730	1.57	1006 -	6245	- 29 ☆	- - -	
								1006 -	6255	- 29 ☆	- - -	
								1006 -	6265	- 29 ☆	- - -	
								1006 -	6265	- 29 ☆	- - -	
								1006 -	6255	- 29 ☆	- - -	
								1006 -	6255	- 29 ☆	- - -	
								1006 -	6265	- 29 ☆	- - -	
								1006 -	6265	- 29 ☆	- - -	
22.8	29900	3040	1.04	27.1	25100	2560	1.19	1006 -	6245	- 29 ☆	- - -	
								1006 -	6255	- 43 ☆	- - -	
								1006 -	6265	- 43 ☆	- - -	
								1006 -	6275	- 43 ☆	- - -	
								1006 -	6275	- 43 ☆	- - -	
								1006 -	6275	- 43 ☆	- - -	
								1006 -	6275	- 59 ☆	- - -	
								1006 -	6275	- 59 ☆	- - -	

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.

## Selection Tables Gearmotors



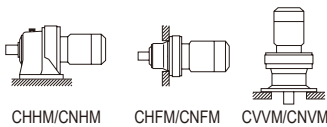
CHHM/CNHM CHFM/CNFM CVVM/CNVM

90 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

50Hz					60Hz					Nomenclature			Page of Dimension Sheet					
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
89.1	9170	934	77300	7880	1.26	106	7710	786	73600	7500	1.26	1256 -	6235	- 11	☆	-	-	-
			86100	8780	1.47				82000	8360	1.47	1256 -	6245	- 11	☆	-	-	-
			106000	10800	1.68				101000	10300	1.68	1256 -	6255	- 11	☆	-	-	-
65.3	12500	1270	130000	13200	1.94	77.7	10500	1070	123000	12600	1.94	1256 -	6265	- 11	☆	-	-	-
			82400	8400	1.26				78500	8010	1.26	1256 -	6235	- 15	☆	-	-	-
			92300	9410	1.47				87900	8960	1.47	1256 -	6245	- 15	☆	-	-	-
46.7	17500	1780	113000	11600	1.68	55.5	14700	1500	108000	11000	1.68	1256 -	6255	- 15	☆	-	-	-
			139000	14100	1.94				132000	13400	1.94	1256 -	6265	- 15	☆	-	-	-
			92200	9400	1.08				88000	8970	1.08	1256 -	6235	- 21	☆	-	-	-
33.8	24200	2460	103000	10500	1.33	40.2	20300	2070	98200	10000	1.33	1256 -	6245	- 21	☆	-	-	-
			126000	12900	1.68				120000	12300	1.68	1256 -	6255	- 21	☆	-	-	-
			155000	15800	1.91				147000	15000	1.91	1256 -	6265	- 21	☆	-	-	-
22.8	35800	3650	112000	11400	1.05	27.1	30100	3070	107000	10900	1.05	1256 -	6245	- 29	☆	-	-	-
			139000	14100	1.31				132000	13500	1.31	1256 -	6255	- 29	☆	-	-	-
			171000	17400	1.77				163000	16600	1.77	1256 -	6265	- 29	☆	-	-	-
16.6	49200	5010	190000	19400	1.26	19.7	41400	4220	181000	18500	1.26	1256 -	6265	- 43	☆	-	-	-
			248000	25300	1.68				248000	25300	1.68	1256 -	6275	- 43	☆	-	-	-
16.6	49200	5010	248000	25300	1.39	19.7	41400	4220	248000	25300	1.47	1256 -	6275	- 59	☆	-	-	-

GEARMOTORS

Selection Tables  
90 kW, 110 kW

CHHM/CNHM CHFM/CNFM CVVM/CNVM

110 kW	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165

n: Motor Speed

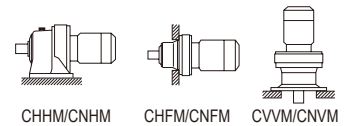
50Hz					60Hz					Nomenclature			Page of Dimension Sheet					
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m]	Output Torque Tout [kgf·m]	Allowable Radial Load Pro [N]	Allowable Radial Load Pro [kgf]	SF	Input Capacity - Symbol	Frame Size	Reduction Ratio	CNHM	CNFM	CNVM	
89.1	11200	1140	85700	8730	1.20	106	9420	961	81600	8320	1.20	1506 -	6245	- 11	☆	-	-	-
			105000	10700	1.37				100000	10200	1.37	1506 -	6255	- 11	☆	-	-	-
65.3	15300	1560	91700	9350	1.20	77.7	12800	1310	87500	8910	1.20	1506 -	6245	- 15	☆	-	-	-
			113000	11500	1.37				108000	11000	1.37	1506 -	6255	- 15	☆	-	-	-
46.7	21400	2180	102000	10400	1.09	55.5	18000	1830	97500	9940	1.09	1506 -	6245	- 21	☆	-	-	-
			126000	12800	1.37				120000	12200	1.37	1506 -	6255	- 21	☆	-	-	-
33.8	29500	3010	138000	14000	1.07	40.2	24800	2530	131000	13400	1.07	1506 -	6255	- 29	☆	-	-	-
			170000	17300	1.45				162000	16500	1.45	1506 -	6265	- 29	☆	-	-	-
22.8	43800	4460	189000	19300	1.03	27.1	36800	3750	180000	18400	1.03	1506 -	6265	- 43	☆	-	-	-

- "☆" indicates models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
- Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
- "(K)" indicates models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
- Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

# Selection Tables Gearmotors

n<sub>1</sub>: Motor Speed

<b>132 kW</b>	Hz		50Hz		60Hz	
	P		4	6	4	6
	n <sub>1</sub>	r/min	1450	980	1750	1165



50Hz						60Hz					Nomenclature			Page of Dimension Sheet				
Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Output Speed n <sub>2</sub> [r/min]	Output Torque Tout [N·m] [kgf·m]		Allowable Radial Load Pro [N] [kgf]		SF	Input Capacity - Symbol	Frame - Size	Reduction - Ratio	CNHM CHHM	CNFM CHFM	CNVM CVVM	
89.1	13400	1370	<b>105000</b>	<b>10700</b>	<b>1.14</b>	106	11300	1150	<b>99900</b>	<b>10200</b>	<b>1.14</b>	1756 -	<b>6255</b>	- <b>11</b>	☆	-	-	-
			129000	13100	1.33				123000	12500	1.33	1756 -	6265	- 11	☆	-	-	-
65.3	18300	1870	<b>112000</b>	<b>11500</b>	<b>1.14</b>	77.7	15400	1570	<b>107000</b>	<b>10900</b>	<b>1.14</b>	<b>1756 -</b>	<b>6255</b>	- <b>15</b>	☆	-	-	-
			138000	14000	1.33				131000	13400	1.33	1756 -	6265	- 15	☆	-	-	-
46.7	25700	2620	<b>125000</b>	<b>12700</b>	<b>1.14</b>	55.5	21600	2200	<b>119000</b>	<b>12100</b>	<b>1.14</b>	<b>1756 -</b>	<b>6255</b>	- <b>21</b>	☆	-	-	-
			154000	15700	1.30				146000	14900	1.30	1756 -	6265	- 21	☆	-	-	-
33.8	35400	3610	<b>169000</b>	<b>17200</b>	<b>1.20</b>	40.2	29800	3040	<b>161000</b>	<b>16400</b>	<b>1.20</b>	<b>1756 -</b>	<b>6265</b>	- <b>29</b>	☆	-	-	-

Selection Tables  
132 kW  
GEARMOTORS

1. Combinations in **bold** are the recommended models for operations for 10 hours/day with uniform load (service factor is about 1.0 for motor rating at 50Hz).
2. Motor slippage may affect n<sub>1</sub> and n<sub>2</sub>. Refer to technical data for details.
3. CNHM, CHHM, CNFM, CHFM, CNVM, and CVVM indicate types. Refer to page B-10 for details.
4. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.
5. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.
6. "☆" indicate models manufactured with reducer and motor separately mounted on a common baseplate (horizontal shaft direction) or on an adaptor (vertical shaft direction). Consult us for details, including dimensions.
7. Allowable radial load (Pro) is the value at the midpoint of the slow speed shaft.
8. "(K)" indicate models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.
9. Maintain torque load during operation within "Output torque" in the table for models with "\*" in the SF column. They cannot be operated with 100% motor rating.

M E M O

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares.

GEARMOTORS

Selection  
Tables

M E M O

GEARMOTORS

Selection  
Tables

# **B** CYCLO® GEARMOTORS

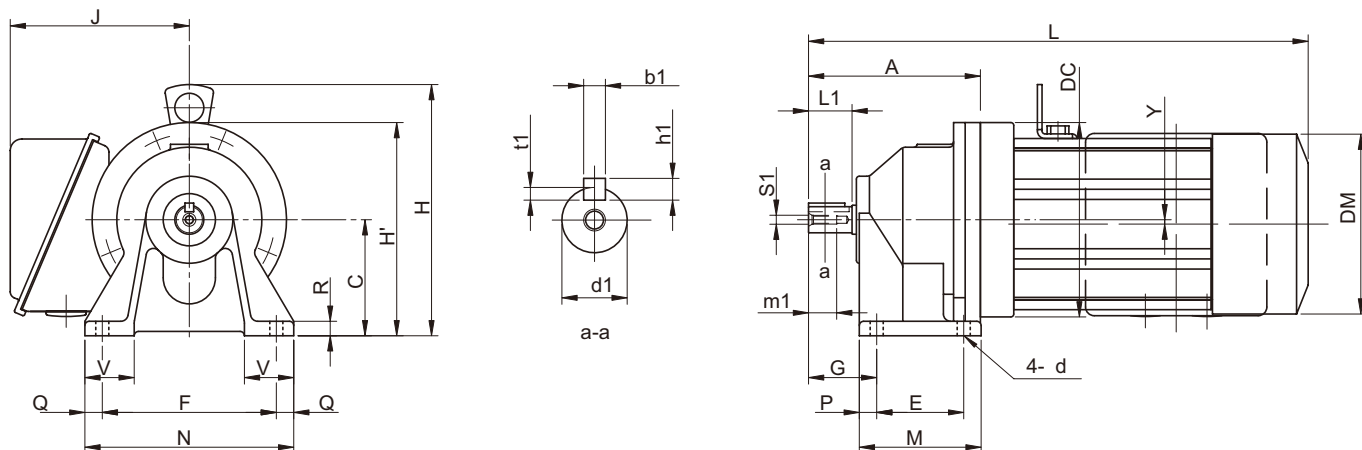
---

## 3. Dimension Tables

# Dimension Tables Gearmotors (Universal direction, Foot-Mount)

## CHHM   - 607 SK to 609 SK

Note: 1



GEARMOTORS

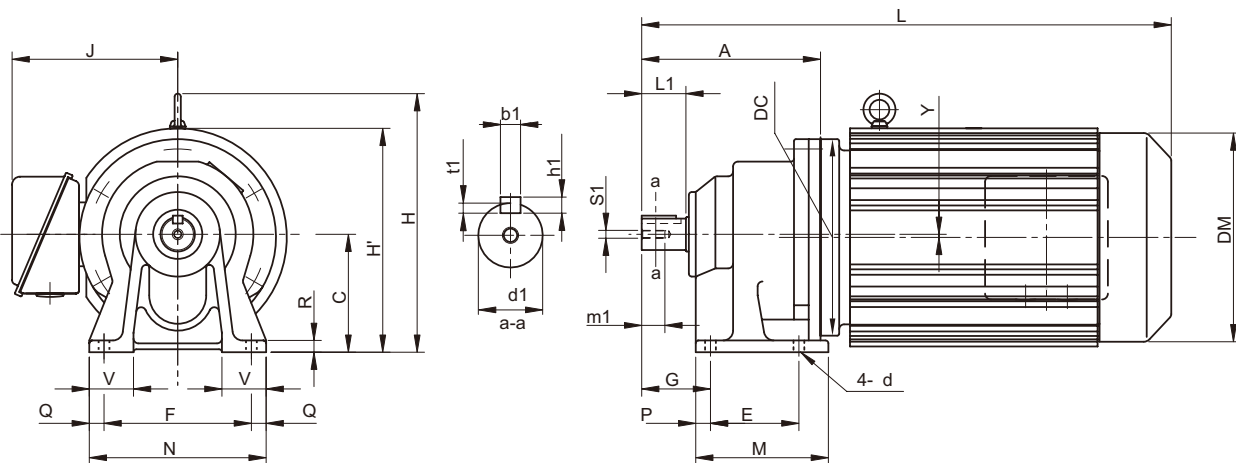
Dimension Tables  
CHHM

Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	Y	d	Output Shaft <small>Note: 2, 3, 6</small>						
															d1	L1	b1	h1	t1	S1	m1
607 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK	119	80	134	60	120	47	84	144	12	12	10	34	0	9	18	30	6	6	3.5	M6	16
608 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK	140	90	150	75	120	52	99	144	12	12	13	37	0	9	22	35	6	6	3.5	M6	16
609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK	166	100	150	90	150	60	135	180	15	15	12	40	0	11	28	35	8	7	4	M8	20

Model <small>Note: 4, 5</small>	Motor		Standard							With Brake					
	[kW]	[P]	L	H	H'	J	DM	W [kg]	L	H	H'	J	DM	W [kg]	
CHHM05 - 607 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	0.4	4	310	-	147	113	124	10	342	-	147	113	124	11	
CHHM08 - 607 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	0.55	4	351	193	-	143	160	13	394	193	-	143	160	15	
CHHM1 - 607 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	0.75	4	351	193	-	143	160	13	394	193	-	143	160	15	
CHHM05 - 608 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	0.4	4	336	-	165	113	124	11	368	-	165	113	124	12	
CHHM08 - 608 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	0.55	4	377	203	-	143	160	14	420	203	-	143	160	16	
CHHM1 - 608 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	0.75	4	377	203	-	143	160	14	420	203	-	143	160	16	
CHHM1H - 608 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	1.1	4	410	210	-	148	169	19	472	210	-	148	169	23	
CHHM2 - 608 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	1.5	4	410	210	-	148	169	19	472	210	-	148	169	23	
CHHM05 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	0.4	4	362	207	-	113	124	13	349	207	-	113	124	14	
CHHM08 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	0.55	4	403	213	-	143	160	16	446	213	-	143	160	18	
CHHM1 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	0.75	4	403	213	-	143	160	16	446	213	-	143	160	18	
CHHM1H - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	1.1	4	436	220	-	148	169	21	498	220	-	148	169	25	
CHHM2 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	1.5	4	436	220	-	148	169	21	498	220	-	148	169	25	
CHHM3 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> SK - (B) - Ratio	2.2	4	456	226	-	155	182	25	519	226	-	155	182	31	

- Note: 1.   indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables Gearmotors (Universal direction, Foot-Mount)

CHHM<sup>Note: 1</sup> - 610□SK to 611□SK

Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	Y	d	Output Shaft <small>Note: 2, 3, 6</small>						
															d1	L1	b1	h1	t1	S1	m1
610□SK	170	100	162	90	150	60	135	180	15	15	12	40	0	11	28	35	8	7	4	M8	20
611□SK	182	120	204	90	150	70	135	180	15	15	12	45	3	11	32	45	10	8	5	M8	20

Model <small>Note: 4, 5</small>	Motor		Standard							With Brake					
	[kW]	[P]	L	H	H'	J	DM	W [kg]	L	H	H'	J	DM	W [kg]	
CHHM05 - 610□SK - (B) - Ratio	0.4	4	362	216	-	113	124	14	393	216	-	113	124	15	
CHHM08 - 610□SK - (B) - Ratio	0.55	4	403	216	-	143	160	17	452	216	-	143	160	19	
CHHM1 - 610□SK - (B) - Ratio	0.75	4	403	216	-	143	160	17	452	216	-	143	160	19	
CHHM1H - 610□SK - (B) - Ratio	1.1	4	436	220	-	148	169	22	493	220	-	148	169	26	
CHHM2 - 610□SK - (B) - Ratio	1.5	4	436	220	-	148	169	22	493	220	-	148	169	26	
CHHM3 - 610□SK - (B) - Ratio	2.2	4	456	226	-	155	182	26	519	226	-	155	182	32	
CHHM4 - 610□SK - (B) - Ratio	3.0	4	491	246	-	166	222	38	563	246	-	166	222	49	
CHHM5 - 610□SK - (B) - Ratio	3.7	4	491	246	-	166	222	38	563	246	-	166	222	49	
CHHM08 - 611□SK - (B) - Ratio	0.55	4	419	230	-	143	160	29	462	230	-	143	160	31	
CHHM1 - 611□SK - (B) - Ratio	0.75	4	419	230	-	143	160	29	462	230	-	143	160	31	
CHHM1H - 611□SK - (B) - Ratio	1.1	4	452	237	-	148	169	34	514	237	-	148	169	38	
CHHM2 - 611□SK - (B) - Ratio	1.5	4	452	237	-	148	169	34	514	237	-	148	169	38	
CHHM3 - 611□SK - (B) - Ratio	2.2	4	472	243	-	155	182	38	535	243	-	155	182	44	
CHHM4 - 611□SK - (B) - Ratio	3.0	4	495	263	-	166	222	50	567	263	-	166	222	61	
CHHM5 - 611□SK - (B) - Ratio	3.7	4	495	263	-	166	222	50	567	263	-	166	222	61	
CHHM8 - 611□SK - (B) - Ratio	5.5	4	539	263	-	166	222	58	611	263	-	166	222	69	

Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

5. "B" after the frame size indicates models equipped with brake.

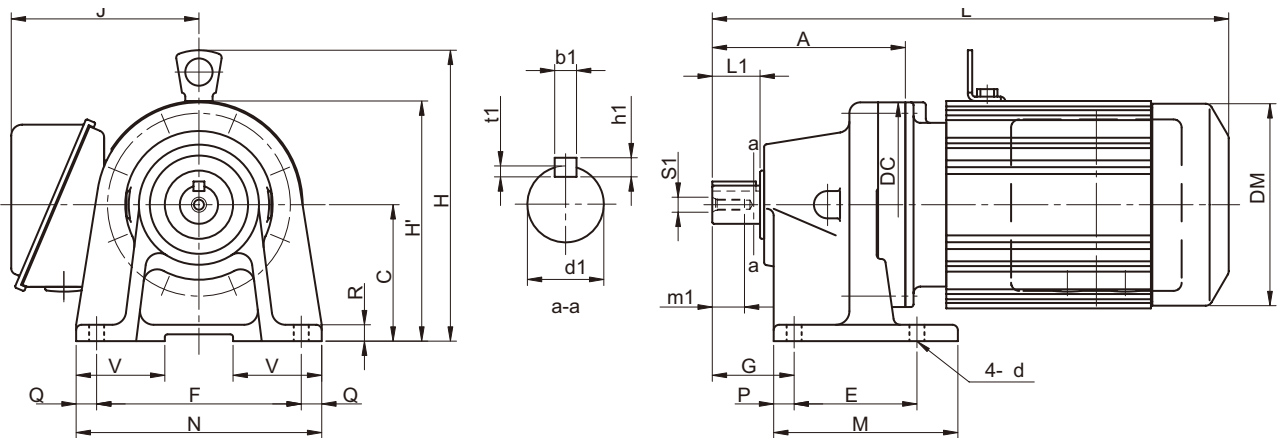
6. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

7. Dimensions in above drawings are subject to change without notice.



# Dimension Tables Gearmotors (Universal Direction, Foot-Mount)

## CNHM<sup>Note: 1</sup> - 606□ to 609□



Dimension Tables  
CNHM

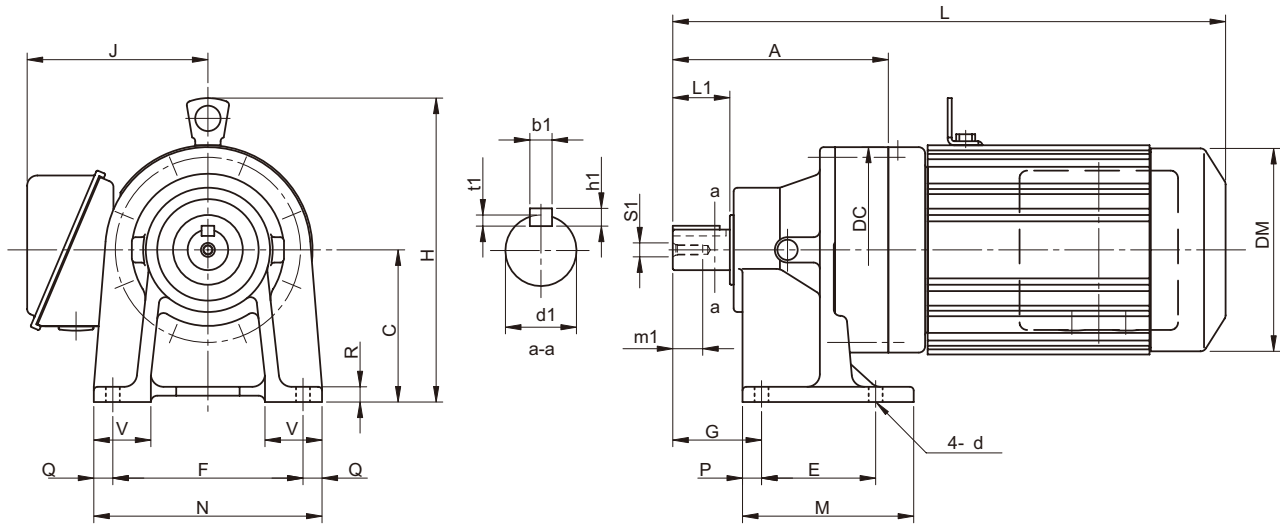
Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
606□	92	80	110	60	120	41	84	144	12	12	10	48	9	14	25	5	5	3	M5	16
607□	98	80	110	60	120	47	84	144	12	12	10	48	9	18	30	6	6	3.5	M6	16
608□	129	90	134	75	120	52	99	144	12	12	13	49	9	22	35	6	6	3.5	M6	16
609□	142	100	150	90	150	60	135	180	15	15	12	65	11	28	35	8	7	4	M8	20

Model <small>Note: 4, 5</small>	Motor		Standard					With Brake						
	[kW]	[P]	L	H	H'	J	DM	W [kg]	L	H	H'	J	DM	W [kg]
CNHM01 - 606□ - (B) - Ratio	0.1	4	254	-	140	113	119	7	261	-	138	113	124	8
CNHM02 - 606□ - (B) - Ratio	0.2	4	272	-	138	113	124	8	300	-	138	113	124	9
CNHM03 - 606□ - (B) - Ratio	0.25	4	272	-	138	113	124	8	300	-	138	113	124	9
CNHM01 - 607□ - (B) - Ratio	0.1	4	260	-	140	113	119	7	267	-	138	113	124	8
CNHM02 - 607□ - (B) - Ratio	0.2	4	278	-	138	113	124	8	306	-	138	113	124	9
CNHM03 - 607□ - (B) - Ratio	0.25	4	278	-	138	113	124	8	306	-	138	113	124	9
CNHM05 - 607□ - (B) - Ratio	0.4	4	294	-	138	113	124	9	326	-	138	113	124	10
CNHM01 - 608□ - (B) - Ratio	0.1	4	286	-	157	113	119	10	293	-	157	113	124	11
CNHM02 - 608□ - (B) - Ratio	0.2	4	304	-	157	113	124	11	332	-	157	113	124	12
CNHM03 - 608□ - (B) - Ratio	0.25	4	304	-	157	113	124	11	332	-	157	113	124	12
CNHM05 - 608□ - (B) - Ratio	0.4	4	320	-	157	113	124	13	352	-	157	113	124	14
CNHM08 - 608□ - (B) - Ratio	0.55	4	361	203	-	143	160	17	404	203	-	143	160	18
CNHM1 - 608□ - (B) - Ratio	0.75	4	361	203	-	143	160	17	404	203	-	143	160	18
CNHM01 - 609□ - (B) - Ratio	0.1	4	304	-	175	113	119	12	311	-	175	113	124	14
CNHM02 - 609□ - (B) - Ratio	0.2	4	322	-	175	113	124	13	350	-	175	113	124	15
CNHM03 - 609□ - (B) - Ratio	0.25	4	322	-	175	113	124	13	350	-	175	113	124	15
CNHM05 - 609□ - (B) - Ratio	0.4	4	338	-	175	113	124	14	370	-	175	113	124	16
CNHM08 - 609□ - (B) - Ratio	0.55	4	379	213	-	143	160	18	422	213	-	143	160	21
CNHM1 - 609□ - (B) - Ratio	0.75	4	379	213	-	143	160	18	422	213	-	143	160	21
CNHM1H - 609□ - (B) - Ratio	1.1	4	412	220	-	148	169	21	474	220	-	148	169	26
CNHM2 - 609□ - (B) - Ratio	1.5	4	412	220	-	148	169	21	474	220	-	148	169	26

Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

# Dimension Tables Gearmotors (Universal Direction, Foot-Mount)

CNHM<sup>Note: 1</sup> - 610□ to 612□



Dimension Tables  
CNHM  
GEARMOTORS

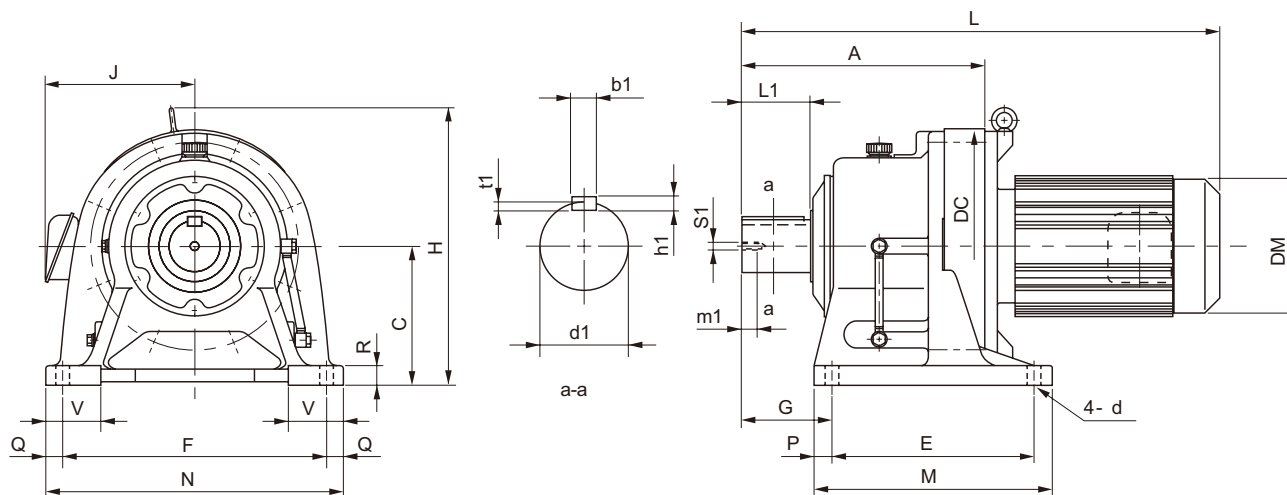
Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
610□	156	100	150	90	150	60	135	180	15	15	12	40	11	28	35	8	7	4	M8	20
611□	170	120	162	90	150	70	135	180	15	15	12	45	11	32	45	10	8	5	M8	20
612□	186	120	204	115	190	82	155	230	20	20	15	55	14	38	55	10	8	5	M8	20

Model <small>Note: 4, 5</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CNHM02 - 610□ - (B) - Ratio	0.2	4	336	207	113	124	18	364	207	113	124	20
CNHM03 - 610□ - (B) - Ratio	0.25	4	336	207	113	124	18	364	207	113	124	20
CNHM05 - 610□ - (B) - Ratio	0.4	4	352	207	113	124	19	384	207	113	124	21
CNHM08 - 610□ - (B) - Ratio	0.55	4	393	213	143	160	23	436	213	143	160	26
CNHM1 - 610□ - (B) - Ratio	0.75	4	393	213	143	160	23	436	213	143	160	26
CNHM1H - 610□ - (B) - Ratio	1.1	4	426	220	148	169	27	488	220	148	169	32
CNHM2 - 610□ - (B) - Ratio	1.5	4	426	220	148	169	27	488	220	148	169	32
CNHM3 - 610□ - (B) - Ratio	2.2	4	446	226	155	182	31	509	226	155	182	37
CNHM05 - 611□ - (B) - Ratio	0.4	4	363	236	113	124	20	394	236	113	124	21
CNHM08 - 611□ - (B) - Ratio	0.55	4	403	236	143	160	23	452	236	143	160	26
CNHM1 - 611□ - (B) - Ratio	0.75	4	403	236	143	160	23	452	236	143	160	26
CNHM1H - 611□ - (B) - Ratio	1.1	4	436	240	148	169	26	493	240	148	169	31
CNHM2 - 611□ - (B) - Ratio	1.5	4	436	240	148	169	26	493	240	148	169	31
CNHM3 - 611□ - (B) - Ratio	2.2	4	456	246	155	182	30	519	246	155	182	36
CNHM4 - 611□ - (B) - Ratio	3.0	4	491	266	166	222	40	563	266	166	222	50
CNHM5 - 611□ - (B) - Ratio	3.7	4	491	266	166	222	40	563	266	166	222	50
CNHM05 - 612□ - (B) - Ratio	0.4	4	387	257	113	124	30	419	257	113	124	32
CNHM08 - 612□ - (B) - Ratio	0.55	4	423	233	143	160	32	466	233	143	160	35
CNHM1 - 612□ - (B) - Ratio	0.75	4	423	233	143	160	32	466	233	143	160	35
CNHM1H - 612□ - (B) - Ratio	1.1	4	456	240	148	169	36	518	240	148	169	41
CNHM2 - 612□ - (B) - Ratio	1.5	4	456	240	148	169	36	518	240	148	169	41
CNHM3 - 612□ - (B) - Ratio	2.2	4	476	246	155	182	40	539	246	155	182	47
CNHM4 - 612□ - (B) - Ratio	3.0	4	499	266	166	222	50	571	266	166	222	60
CNHM5 - 612□ - (B) - Ratio	3.7	4	499	266	166	222	50	571	266	166	222	60
CNHM8 - 612□ - (B) - Ratio	5.5	4	543	266	166	222	57	615	266	166	222	67

Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 5. "B" after the frame size indicates models equipped with brake.  
 6. Dimension of shaft end: Refer to pages F-28 to F-29 for details.  
 7. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

## CHHM<sup>Note: 1</sup> - 613□ to 614□

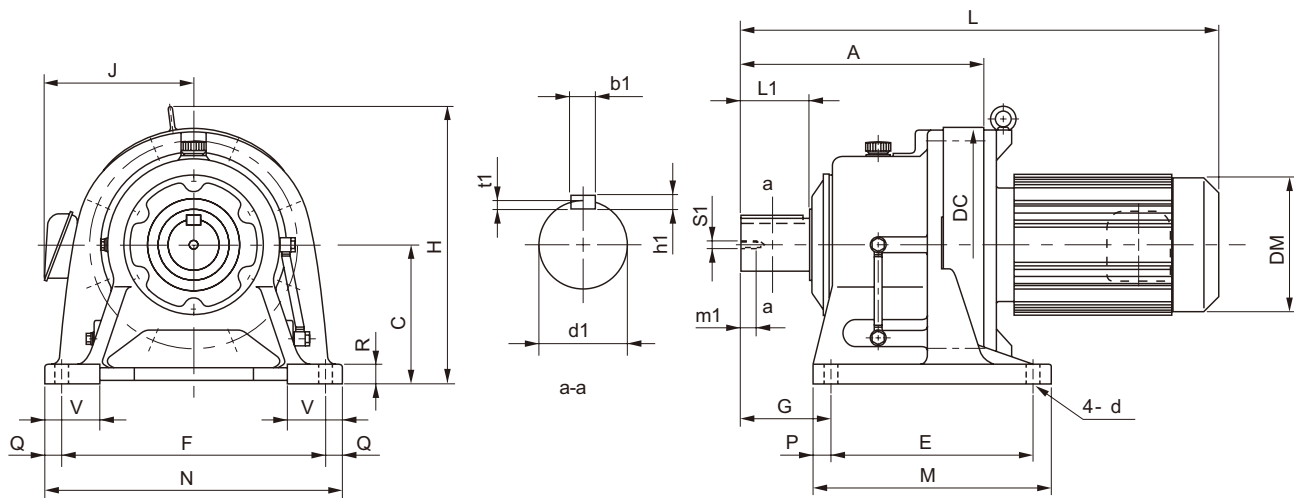


Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
613□	240	150	230	145	290	100	195	330	25	20	22	65	18	50	70	14	9	5.5	M10	18
614□	260	150	230	145	290	120	195	330	25	20	22	65	18	50	90	14	9	5.5	M10	18

Model <small>Note: 4, 5</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM08 - 613□ - (B) - Ratio	0.55	4	477	265	143	160	51	520	265	143	160	54
CHHM1 - 613□ - (B) - Ratio	0.75	4	477	265	143	160	51	520	265	143	160	54
CHHM1H - 613□ - (B) - Ratio	1.1	4	510	268	148	169	55	572	268	148	169	60
CHHM2 - 613□ - (B) - Ratio	1.5	4	510	268	148	169	55	572	268	148	169	60
CHHM3 - 613□ - (B) - Ratio	2.2	4	530	274	155	182	58	593	274	155	182	65
CHHM4 - 613□ - (B) - Ratio	3.0	4	553	296	166	222	68	625	296	166	222	78
CHHM5 - 613□ - (B) - Ratio	3.7	4	553	296	166	222	68	625	296	166	222	78
CHHM8 - 613□ - (B) - Ratio	5.5	4	597	296	166	222	75	669	296	166	222	85
CHHM10 - 613□ - (B) - Ratio	7.5	4	620	323	211	251	90	715	323	211	251	108
CHHM15 - 613□ - (B) - Ratio	11	4	680	323	211	251	104	775	323	211	251	121
CHHM1 - 614□ - (B) - Ratio	0.75	4	497	268	143	160	52	540	268	143	160	55
CHHM1H - 614□ - (B) - Ratio	1.1	4	530	268	148	169	56	592	268	148	169	61
CHHM2 - 614□ - (B) - Ratio	1.5	4	530	268	148	169	56	592	268	148	169	61
CHHM3 - 614□ - (B) - Ratio	2.2	4	550	274	155	182	59	613	274	155	182	66
CHHM4 - 614□ - (B) - Ratio	3.0	4	573	296	166	222	69	645	296	166	222	79
CHHM5 - 614□ - (B) - Ratio	3.7	4	573	296	166	222	69	645	296	166	222	79
CHHM8 - 614□ - (B) - Ratio	5.5	4	617	296	166	222	76	689	296	166	222	86
CHHM10 - 614□ - (B) - Ratio	7.5	4	640	323	211	251	91	735	323	211	251	109
CHHM15 - 614□ - (B) - Ratio	11	4	700	323	211	251	104	795	323	211	251	122
CHHM20 - 614□ - (B) - Ratio	15	4	790	358	261	324	156	895	321	261	324	190

Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

CHHM<sup>Note: 1</sup> - 616□ to 617□

Frame size Note: 4	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft Note: 2, 3, 6						
														d1	L1	b1	h1	t1	S1	m1
616□	308	160	300	150	370	139	238	410	44	20	25	75	18	60	90	18	11	7	M10	18
617□	352	200	340	275	380	125	335	430	30	25	30	80	22	70	90	20	12	7.5	M12	24

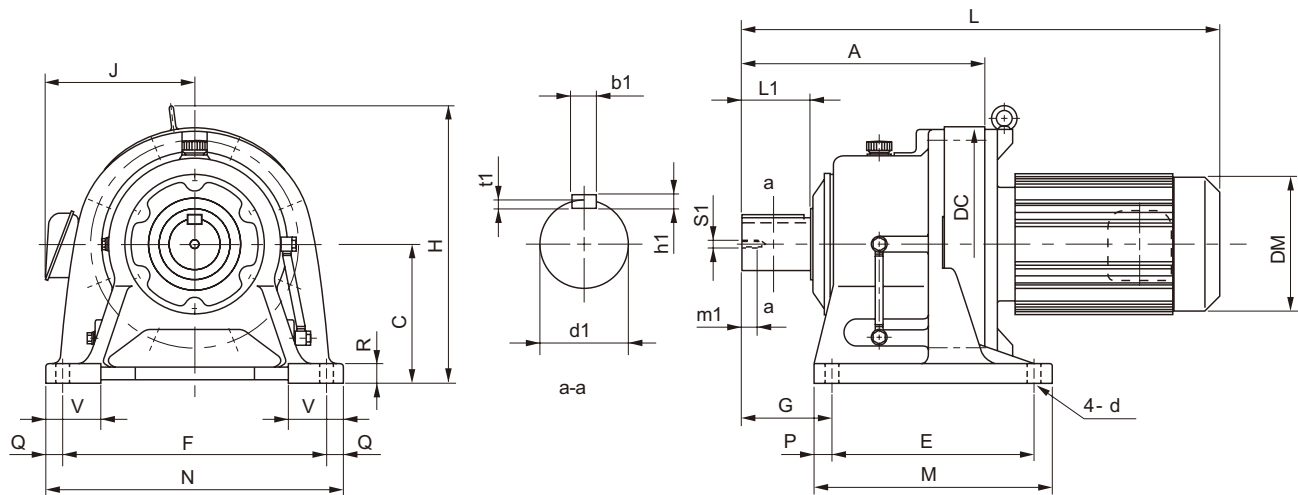
Model Note: 4, 5	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM1H - 616□ - (B) - Ratio	1.1	4	583	310	148	169	93	645	310	148	169	99
CHHM2 - 616□ - (B) - Ratio	1.5	4	583	310	148	169	93	645	310	148	169	99
CHHM3 - 616□ - (B) - Ratio	2.2	4	598	310	155	182	96	661	310	155	182	103
CHHM4 - 616□ - (B) - Ratio	3.0	4	621	310	166	222	105	693	310	166	222	116
CHHM5 - 616□ - (B) - Ratio	3.7	4	621	310	166	222	105	693	310	166	222	116
CHHM8 - 616□ - (B) - Ratio	5.5	4	665	310	166	222	112	737	310	166	222	123
CHHM10 - 616□ - (B) - Ratio	7.5	4	693	333	211	251	128	788	333	211	251	146
CHHM15 - 616□ - (B) - Ratio	11	4	753	333	211	251	142	848	333	211	251	160
*CHHM20 - 616□ - (B) - Ratio	15	4	838	368	261	324	195	943	368	261	324	230
*CHHM25 - 616□ - (B) - Ratio	18.5	4	933	368	340	394	267	1098	368	340	394	323
*CHHM30 - 616□ - (B) - Ratio	22	4	933	368	340	394	267	1098	368	340	394	323
CHHM4 - 617□ - (B) - Ratio	3.0	4	680	403	166	222	146	752	403	166	222	157
CHHM5 - 617□ - (B) - Ratio	3.7	4	680	403	166	222	146	752	403	166	222	157
CHHM8 - 617□ - (B) - Ratio	5.5	4	724	403	166	222	153	796	403	166	222	164
CHHM10 - 617□ - (B) - Ratio	7.5	4	742	403	211	251	168	837	403	211	251	187
CHHM15 - 617□ - (B) - Ratio	11	4	802	403	211	251	182	897	403	211	251	201
CHHM20 - 617□ - (B) - Ratio	15	4	882	413	259	324	236	987	413	259	324	271
CHHM25 - 617□ - (B) - Ratio	18.5	4	977	428	340	394	304	1142	428	340	394	360
CHHM30 - 617□ - (B) - Ratio	22	4	977	428	340	394	304	1142	428	340	394	360
CHHM40 - 617□ - (B) - Ratio	30	4	977	428	340	394	321	1142	428	340	394	369

\*\*\* indicates models with bottom level of the motor lower than the reducer base.  
Refer to pages B-152 and B-153 for center height options.

- Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
5. "B" after the frame size indicates models equipped with brake.  
6. Dimension of shaft end: Refer to pages F-28 to F-29 for details.  
7. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

## CHHM<sup>Note: 1</sup> - 618□ to 619□

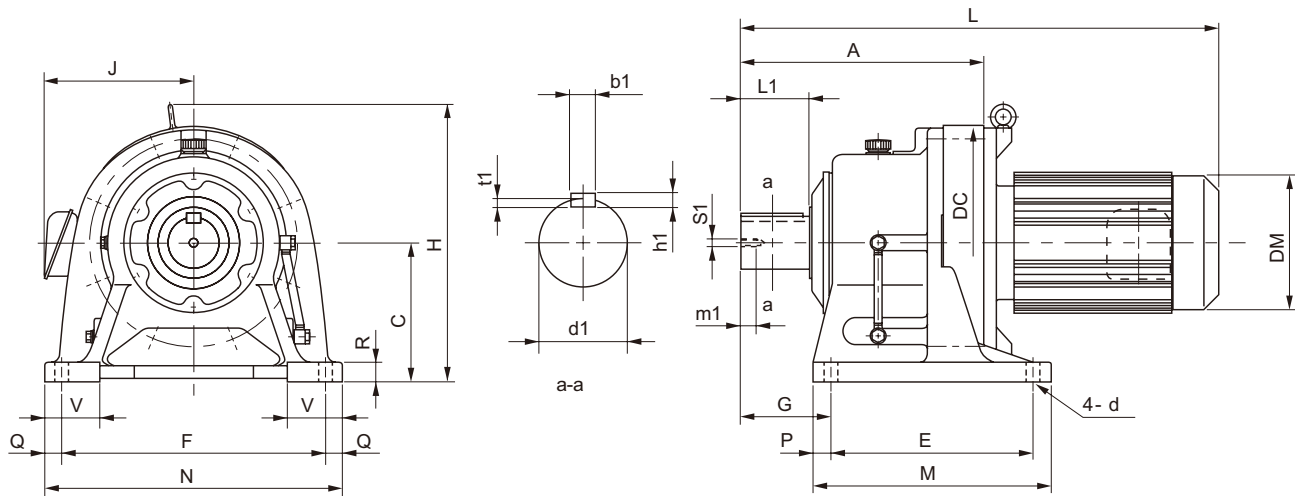


Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
618□	389	220	370	320	420	145	380	470	30	25	30	85	22	80	110	22	14	9	M12	24
619□	465	250	430	380	480	170	440	530	30	25	35	90	26	95	135	25	14	9	M20	34

Model <small>Note: 4, 5</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM4 - 618□ - (B) - Ratio	3.0	4	717	438	166	222	184	789	438	166	222	194
CHHM5 - 618□ - (B) - Ratio	3.7	4	717	438	166	222	184	789	438	166	222	194
CHHM8 - 618□ - (B) - Ratio	5.5	4	761	438	166	222	192	833	438	166	222	202
CHHM10 - 618□ - (B) - Ratio	7.5	4	779	438	211	251	207	874	438	211	251	225
CHHM15 - 618□ - (B) - Ratio	11	4	839	438	211	251	221	934	438	211	251	239
CHHM20 - 618□ - (B) - Ratio	15	4	919	438	261	324	281	1024	438	261	324	310
CHHM25 - 618□ - (B) - Ratio	18.5	4	1014	448	340	394	347	1179	448	340	394	398
CHHM30 - 618□ - (B) - Ratio	22	4	1014	448	340	394	347	1179	448	340	394	398
CHHM40 - 618□ - (B) - Ratio	30	4	1014	448	340	394	364	1179	448	340	394	407
CHHM50 - 618□ - (B) - Ratio	37	4	1129	481	340	394	412	1344	481	340	394	509
CHHM60 - 618□ - (B) - Ratio	45	4	1129	481	340	394	412	1344	481	340	394	509
CHHM8 - 619□ - (B) - Ratio	5.5	4	857	511	166	222	266	929	511	166	222	276
CHHM10 - 619□ - (B) - Ratio	7.5	4	870	511	211	251	279	965	511	211	251	297
CHHM15 - 619□ - (B) - Ratio	11	4	930	511	211	251	293	1025	511	211	251	311
CHHM20 - 619□ - (B) - Ratio	15	4	995	467	261	324	346	1100	467	261	324	381
CHHM25 - 619□ - (B) - Ratio	18.5	4	1090	511	340	394	422	1255	511	340	394	467
CHHM256 - 619□ - (B) - Ratio	18.5	6	1090	511	340	394	437	1255	511	340	394	480
CHHM30 - 619□ - (B) - Ratio	22	4	1090	511	340	394	422	1255	511	340	394	467
CHHM40 - 619□ - (B) - Ratio	30	4	1090	511	340	394	437	1255	511	340	394	480
CHHM406 - 619□ - (B) - Ratio	30	6	1205	511	340	394	475	1420	511	340	394	572
CHHM50 - 619□ - (B) - Ratio	37	4	1205	511	340	394	475	1420	511	340	394	572
CHHM506 - 619□ - (B) - Ratio	37	6	1205	511	340	394	475	1420	511	340	394	572
CHHM60 - 619□ - (B) - Ratio	45	4	1205	511	340	394	475	1420	511	340	394	572

Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

CHHM<sup>Note: 1</sup> - 6205 to 6215

GEARMOTORS

Dimension Tables  
CHHM

Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <sup>Note: 2, 3, 6</sup>						
														d1	L1	b1	h1	t1	S1	m1
6205	502	250	448	360	440	215	440	530	40	45	35	100	26	100	165	28	16	10	M20	34
6215	526	265	485	395	480	210	475	580	40	50	40	110	26	110	165	28	16	10	M20	34

Model	Note: 5	Motor		Standard							With Brake				
		[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]		
CHHM15	- 6205 - (B) - Ratio	11	4	972	530	211	251	313	1067	530	211	251	332		
CHHM20	- 6205 - (B) - Ratio	15	4	1042	530	261	324	367	1147	530	261	324	404		
CHHM206	- 6205 - (B) - Ratio	15	6	1127	530	340	394	438	1292	530	340	394	484		
CHHM25	- 6205 - (B) - Ratio	18.5	4	1127	530	340	394	438	1292	530	340	394	488		
CHHM30	- 6205 - (B) - Ratio	22	4	1127	530	340	394	438	1292	530	340	394	488		
CHHM306	- 6205 - (B) - Ratio	22	6	1127	530	340	394	451	1292	530	340	394	501		
CHHM40	- 6205 - (B) - Ratio	30	4	1127	530	340	394	451	1292	530	340	394	501		
CHHM406	- 6205 - (B) - Ratio	30	6	1242	530	340	394	489	1457	530	340	394	588		
CHHM50	- 6205 - (B) - Ratio	37	4	1242	530	340	394	489	1457	530	340	394	588		
CHHM506	- 6205 - (B) - Ratio	37	6	1242	530	340	394	489	1457	530	340	394	588		
CHHM60	- 6205 - (B) - Ratio	45	4	1242	530	340	394	489	1457	530	340	394	588		
CHHM606	- 6205 - (B) - Ratio	45	6	1297	575	390	484	582	-	-	-	-	-		
CHHM75	- 6205 - (B) - Ratio	55	4	1297	575	390	484	582	-	-	-	-	-		
CHHM15	- 6215 - (B) - Ratio	11	4	996	575	211	251	395	1091	575	211	251	414		
CHHM20	- 6215 - (B) - Ratio	15	4	1066	575	261	324	450	1171	575	261	324	486		
CHHM206	- 6215 - (B) - Ratio	15	6	1151	575	340	394	515	1316	575	340	394	565		
CHHM25	- 6215 - (B) - Ratio	18.5	4	1151	575	340	394	515	1316	575	340	394	565		
CHHM256	- 6215 - (B) - Ratio	18.5	6	1151	575	340	394	528	1316	575	340	394	578		
CHHM30	- 6215 - (B) - Ratio	22	4	1151	575	340	394	515	1316	575	340	394	565		
CHHM306	- 6215 - (B) - Ratio	22	6	1151	575	340	394	528	1316	575	340	394	578		
CHHM40	- 6215 - (B) - Ratio	30	4	1151	575	340	394	528	1316	575	340	394	578		
CHHM406	- 6215 - (B) - Ratio	30	6	1266	575	340	394	566	1481	575	340	394	666		
CHHM50	- 6215 - (B) - Ratio	37	4	1266	575	340	394	566	1481	575	340	394	666		
CHHM506	- 6215 - (B) - Ratio	37	6	1266	575	340	394	566	1481	575	340	394	666		
CHHM60	- 6215 - (B) - Ratio	45	4	1266	575	340	394	566	1481	575	340	394	666		
CHHM606	- 6215 - (B) - Ratio	45	6	1321	575	390	484	676	-	-	-	-	-		
CHHM75	- 6215 - (B) - Ratio	55	4	1321	575	390	484	676	-	-	-	-	-		

Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

5. "B" after the frame size indicates models equipped with brake.

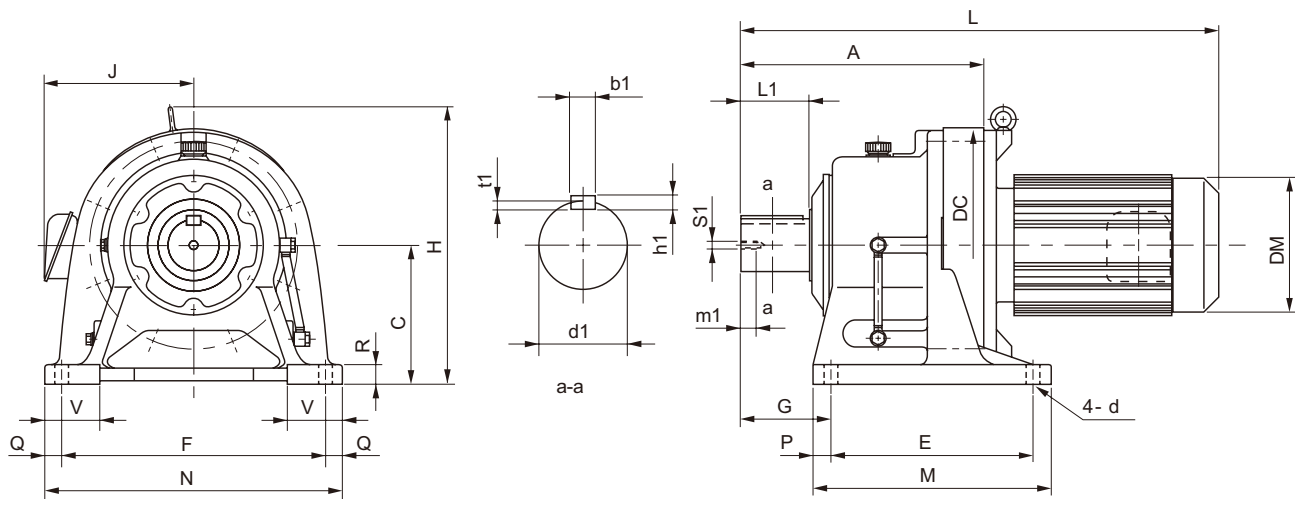
6. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

7. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

## CHHM   - 6225 to 6235

Note: 1



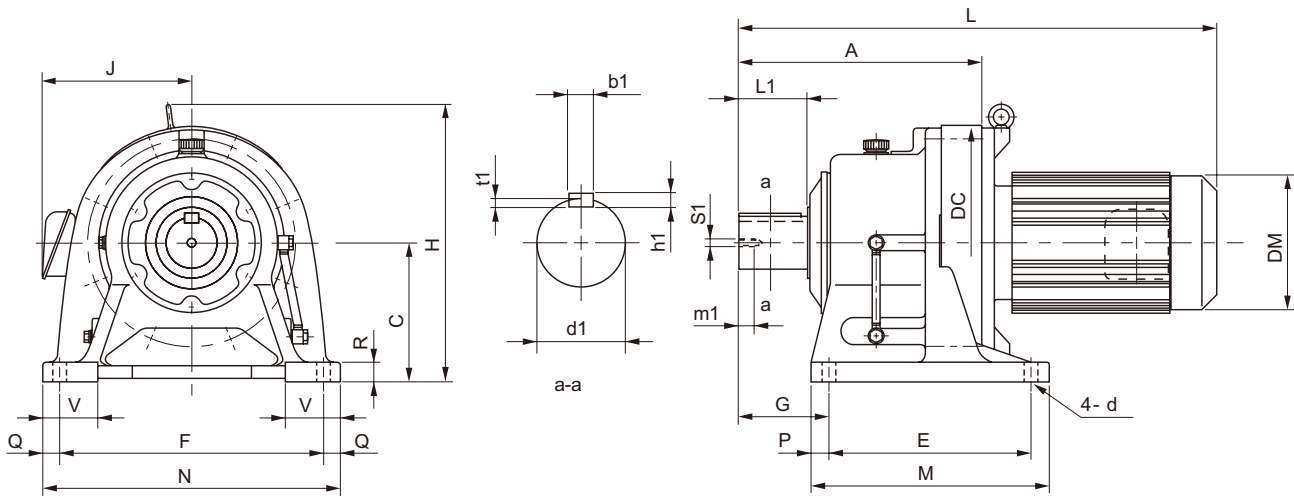
Dimension Tables CHHM

Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <span style="float: right;">Note: 2, 3, 5</span>						
														d1	L1	b1	h1	t1	S1	m1
6225	566	280	526	420	540	230	520	620	50	40	40	115	33	120	165	32	18	11	M20	34
6235	628	300	562	460	580	260	560	670	50	45	45	120	33	130	200	32	18	11	M24	41

Model	Note: 4	Motor		Standard							With Brake				
		[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]		
CHHM206	- 6225 - (B) - Ratio	15	6	1191	610	340	394	600	1356	610	340	394	650		
CHHM25	- 6225 - (B) - Ratio	18.5	4	1191	610	340	394	600	1356	610	340	394	650		
CHHM256	- 6225 - (B) - Ratio	18.5	6	1191	610	340	394	613	1356	610	340	394	663		
CHHM30	- 6225 - (B) - Ratio	22	4	1191	610	340	394	600	1356	610	340	394	650		
CHHM306	- 6225 - (B) - Ratio	22	6	1191	610	340	394	613	1356	610	340	394	663		
CHHM40	- 6225 - (B) - Ratio	30	4	1191	610	340	394	613	1356	610	340	394	663		
CHHM406	- 6225 - (B) - Ratio	30	6	1306	610	340	394	651	1521	610	340	394	751		
CHHM50	- 6225 - (B) - Ratio	37	4	1306	610	340	394	651	1521	610	340	394	751		
CHHM506	- 6225 - (B) - Ratio	37	6	1306	610	340	394	651	1521	610	340	394	751		
CHHM60	- 6225 - (B) - Ratio	45	4	1306	610	340	394	651	1521	610	340	394	751		
CHHM606	- 6225 - (B) - Ratio	45	6	1361	610	390	484	750	-	-	-	-	-		
CHHM75	- 6225 - (B) - Ratio	55	4	1361	610	390	484	750	-	-	-	-	-		
CHHM206	- 6235 - (B) - Ratio	15	6	1253	667	340	394	698	1418	667	340	394	734		
CHHM256	- 6235 - (B) - Ratio	18.5	6	1253	667	340	394	698	1418	667	340	394	748		
CHHM306	- 6235 - (B) - Ratio	22	6	1253	667	340	394	698	1418	667	340	394	748		
CHHM406	- 6235 - (B) - Ratio	30	6	1368	667	340	394	744	1583	667	340	394	837		
CHHM506	- 6235 - (B) - Ratio	37	6	1368	667	340	394	744	1583	667	340	394	837		
CHHM606	- 6235 - (B) - Ratio	45	6	1423	667	390	484	833	-	-	-	-	-		
CHHM756	- 6235 - (B) - Ratio	55	6	1503	667	390	485	887	-	-	-	-	-		

Note: 1.   indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

CHHM<sup>Note: 1</sup> - 6245 to 6265

GEARMOTORS

Dimension Tables  
CHHM

Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft						
														d1	L1	b1	h1	t1	S1	m1
6245	657	335	614	480	630	263	580	720	50	45	45	128	39	140	200	36	20	12	M24	41
6255	775	375	670	520	670	320	630	780	55	55	50	140	39	160	240	40	22	13	M30	49
6265	892	400	736	590	770	390	700	880	55	55	55	160	45	170	300	40	22	13	M30	49

Model	Note: 4	Motor		Standard					With Brake				
		[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM206 - 6245 - (B) - Ratio		15	6	1282	729	340	394	824	1447	729	340	394	857
CHHM256 - 6245 - (B) - Ratio		18.5	6	1282	729	340	394	824	1447	729	340	394	871
CHHM306 - 6245 - (B) - Ratio		22	6	1282	729	340	394	824	1447	729	340	394	871
CHHM406 - 6245 - (B) - Ratio		30	6	1397	729	340	394	870	1612	729	340	394	958
CHHM506 - 6245 - (B) - Ratio		37	6	1397	729	340	394	870	1612	729	340	394	958
CHHM606 - 6245 - (B) - Ratio		45	6	1452	729	390	484	961	-	-	-	-	-
CHHM756 - 6245 - (B) - Ratio		55	6	1532	729	390	485	1010	-	-	-	-	-
CHHM206 - 6255 - (B) - Ratio		15	6	1400	815	340	394	1155	1565	815	340	394	1188
CHHM256 - 6255 - (B) - Ratio		18.5	6	1400	815	340	394	1155	1565	815	340	394	1202
CHHM306 - 6255 - (B) - Ratio		22	6	1400	815	340	394	1155	1565	815	340	394	1202
CHHM406 - 6255 - (B) - Ratio		30	6	1515	815	340	394	1200	1730	815	340	394	1288
CHHM506 - 6255 - (B) - Ratio		37	6	1515	815	340	394	1200	1730	815	340	394	1288
CHHM606 - 6255 - (B) - Ratio		45	6	1570	815	390	484	1280	-	-	-	-	-
CHHM756 - 6255 - (B) - Ratio		55	6	1650	815	390	485	1335	-	-	-	-	-
CHHM306 - 6265 - (B) - Ratio		22	6	1517	874	340	394	1400	1727	874	340	394	1447
CHHM406 - 6265 - (B) - Ratio		30	6	1632	874	340	394	1445	1847	874	340	394	1533
CHHM506 - 6265 - (B) - Ratio		37	6	1632	874	340	394	1445	1847	874	340	394	1533
CHHM606 - 6265 - (B) - Ratio		45	6	1687	874	390	484	1540	-	-	-	-	-

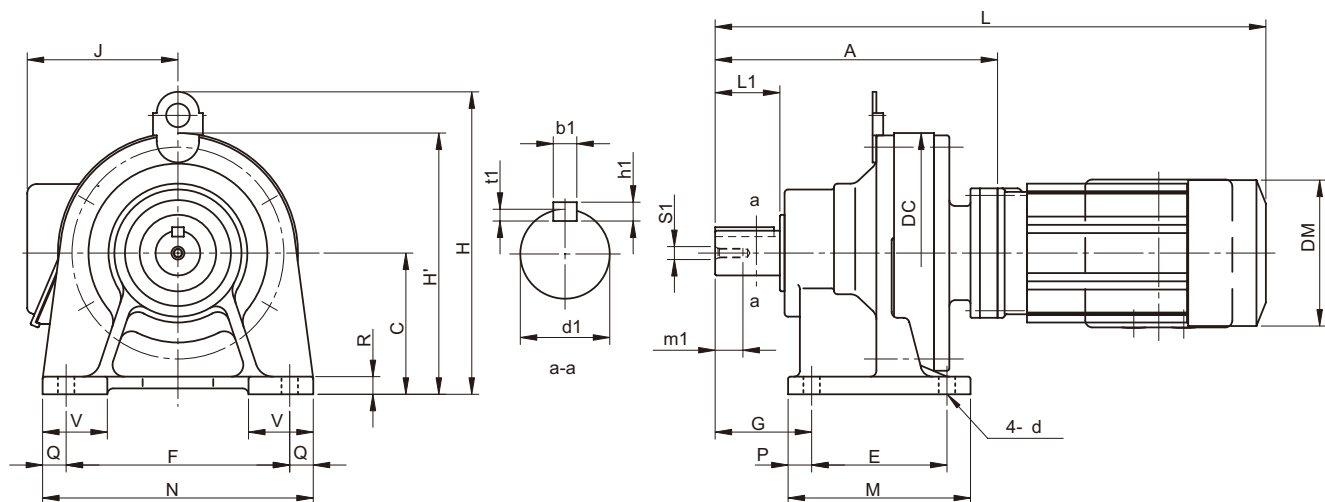
Note: 4. "B" after the frame size indicates models equipped with brake.  
 5. Dimension of shaft end: Refer to pages F-28 to F-29 for details.  
 6. Dimensions in above drawings are subject to change without notice.



# Dimension Tables Gearmotors (Universal Direction, Foot-Mount)

## CNHM   - 606   DA to 612   DB

Note: 1



Dimension Tables  
CNHM

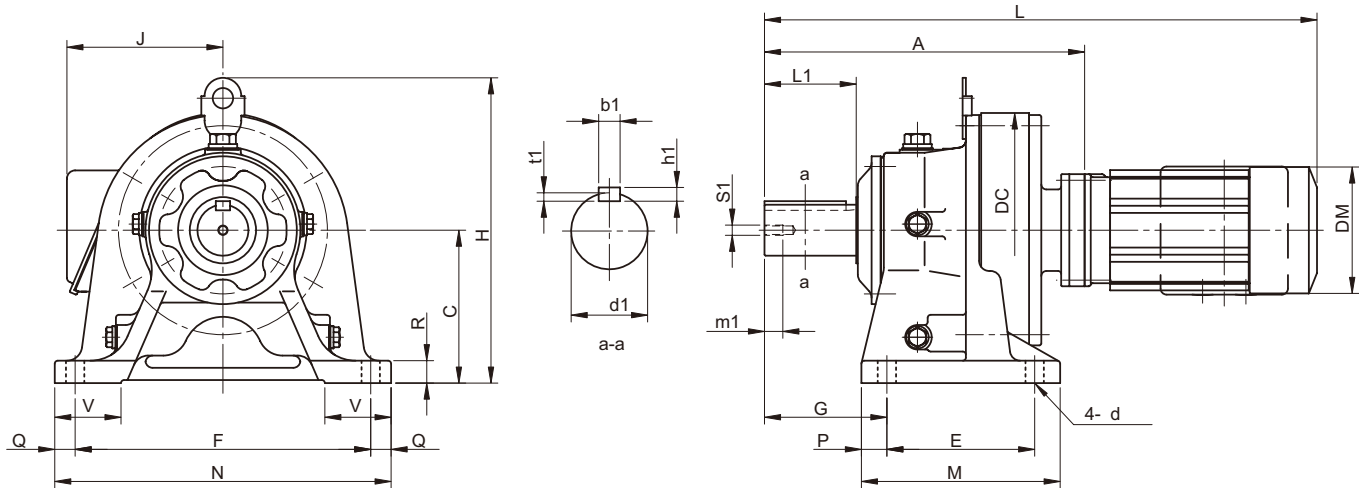
GEARMOTORS

Frame size Note: 4	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft Note: 2, 3, 6						
														d1	L1	b1	h1	t1	S1	m1
606 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA	125	80	110	60	120	41	84	144	12	12	10	48	9	14	25	5	5	3	M5	16
607 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA	131	80	110	60	120	47	84	144	12	12	10	48	9	18	30	6	6	3.5	M6	16
609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA	190	100	150	90	150	60	135	180	15	15	12	49	11	28	35	8	7	4	M8	20
610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA	204	100	150	90	150	60	135	180	15	15	12	65	11	28	35	8	7	4	M8	20
612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA	240	120	204	115	190	82	155	230	20	20	15	55	14	38	55	10	8	5	M8	20
612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB	252	120	204	115	190	82	155	230	20	20	15	55	14	38	55	10	8	5	M8	20

Model Note: 4, 5	Motor		Standard							With Brake					
	[kW]	[P]	L	H	H'	J	DM	W [kg]	L	H	H'	J	DM	W [kg]	
CNHM01 - 606 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.1	4	287	-	140	113	119	9	294	-	138	113	124	10	
CNHM01 - 607 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.1	4	293	-	140	113	119	9	300	-	138	113	124	10	
CNHM02 - 607 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.2	4	311	-	140	113	124	10	339	-	138	113	124	11	
CNHM01 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.1	4	352	207	-	113	119	17	359	207	-	113	124	18	
CNHM02 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.2	4	370	207	-	113	124	18	398	207	-	113	124	19	
CNHM03 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.25	4	370	207	-	113	124	18	398	207	-	113	124	19	
CNHM05 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.4	4	386	207	-	113	124	19	418	207	-	113	124	20	
CNHM01 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.1	4	366	207	-	113	119	19	373	207	-	113	124	20	
CNHM02 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.2	4	384	207	-	113	124	20	412	207	-	113	124	21	
CNHM03 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.25	4	384	207	-	113	124	20	412	207	-	113	124	21	
CNHM05 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.4	4	400	207	-	113	124	21	432	207	-	113	124	22	
CNHM01 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.1	4	402	257	-	113	119	30	409	257	-	113	124	31	
CNHM02 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.2	4	420	257	-	113	124	31	448	257	-	113	124	32	
CNHM03 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.25	4	420	257	-	113	124	31	448	257	-	113	124	32	
CNHM05 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.4	4	436	257	-	113	124	32	468	257	-	113	124	33	
CNHM01 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	0.1	4	414	257	-	113	119	33	421	257	-	113	124	35	
CNHM02 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	0.2	4	432	257	-	113	124	34	473	257	-	113	124	36	
CNHM03 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	0.25	4	432	257	-	113	124	34	473	257	-	113	124	36	
CNHM05 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	0.4	4	448	257	-	113	124	35	473	257	-	113	124	37	
CNHM08 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	0.55	4	489	257	-	143	160	39	532	257	-	143	160	42	
CNHM1 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	0.75	4	489	257	-	143	160	39	532	257	-	143	160	42	
CNHM1H - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	1.1	4	516	257	-	148	169	42	578	257	-	148	169	47	
CNHM2 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	1.5	4	516	257	-	148	169	42	578	257	-	148	169	47	

Note: 1.   indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

CHHM<sup>Note: 1</sup> - 613□DA to 614□DC

GEARMOTORS

Dimension Tables  
CHHM

Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
613□DA	294	150	230	145	290	100	195	330	25	20	22	65	18	50	70	14	9	5.5	M10	18
613□DB	303	150	230	145	290	100	195	330	25	20	22	65	18	50	70	14	9	5.5	M10	18
613□DC	317	150	230	145	290	100	195	330	25	20	22	65	18	50	70	14	9	5.5	M10	18
614□DA	314	150	230	145	290	120	195	330	25	20	22	65	18	50	90	14	9	5.5	M10	18
614□DB	323	150	230	145	290	120	195	330	25	20	22	65	18	50	90	14	9	5.5	M10	18
614□DC	337	150	230	145	290	120	195	330	25	20	22	65	18	50	90	14	9	5.5	M10	18

Model <small>Note: 4, 5</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM02 - 613□DA - (B) - Ratio	0.2	4	474	300	113	124	47	502	300	113	124	47
CHHM03 - 613□DA - (B) - Ratio	0.25	4	474	300	113	124	48	522	300	113	124	49
CHHM05 - 613□DA - (B) - Ratio	0.4	4	490	300	113	124	48	522	300	113	124	49
CHHM02 - 613□DB - (B) - Ratio	0.2	4	483	300	113	124	49	511	300	113	124	51
CHHM03 - 613□DB - (B) - Ratio	0.25	4	483	300	113	124	49	511	300	113	124	51
CHHM05 - 613□DB - (B) - Ratio	0.4	4	499	300	113	124	50	531	300	113	124	52
CHHM08 - 613□DB - (B) - Ratio	0.55	4	540	263	143	160	54	583	263	143	160	57
CHHM1 - 613□DB - (B) - Ratio	0.75	4	540	263	143	160	54	583	263	143	160	57
CHHM1H - 613□DB - (B) - Ratio	1.1	4	573	270	148	169	57	635	270	148	169	62
CHHM2 - 613□DB - (B) - Ratio	1.5	4	573	270	148	169	57	635	270	148	169	62
CHHM08 - 613□DC - (B) - Ratio	0.55	4	554	265	143	160	56	597	265	143	160	59
CHHM1 - 613□DC - (B) - Ratio	0.75	4	554	265	143	160	56	597	265	143	160	59
CHHM2 - 613□DC - (B) - Ratio	1.5	4	587	272	148	169	59	649	272	148	169	64
CHHM3 - 613□DC - (B) - Ratio	2.2	4	607	276	155	182	64	670	276	155	182	70
CHHM02 - 614□DA - (B) - Ratio	0.2	4	494	300	113	124	47	522	300	113	124	48
CHHM03 - 614□DA - (B) - Ratio	0.25	4	494	300	113	124	47	522	300	113	124	48
CHHM05 - 614□DA - (B) - Ratio	0.4	4	510	300	113	124	48	542	300	113	124	49
CHHM02 - 614□DB - (B) - Ratio	0.2	4	503	300	113	124	49	531	300	113	124	51
CHHM03 - 614□DB - (B) - Ratio	0.25	4	503	300	113	124	49	531	300	113	124	51
CHHM05 - 614□DB - (B) - Ratio	0.4	4	519	300	113	124	50	551	300	113	124	52
CHHM08 - 614□DB - (B) - Ratio	0.55	4	560	263	143	160	54	603	263	143	160	57
CHHM1 - 614□DB - (B) - Ratio	0.75	4	560	263	143	160	54	603	263	143	160	57
CHHM1H - 614□DB - (B) - Ratio	1.1	4	593	270	148	169	57	655	270	148	169	62
CHHM2 - 614□DB - (B) - Ratio	1.5	4	593	270	148	169	57	655	270	148	169	62
CHHM08 - 614□DC - (B) - Ratio	0.55	4	574	265	143	160	56	617	265	143	160	59
CHHM1 - 614□DC - (B) - Ratio	0.75	4	574	265	143	160	56	617	265	143	160	59
CHHM1H - 614□DC - (B) - Ratio	1.1	4	607	270	148	169	60	669	270	148	169	65
CHHM2 - 614□DC - (B) - Ratio	1.5	4	607	270	148	169	60	669	270	148	169	65
CHHM3 - 614□DC - (B) - Ratio	2.2	4	627	276	155	182	64	690	276	155	182	70

Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

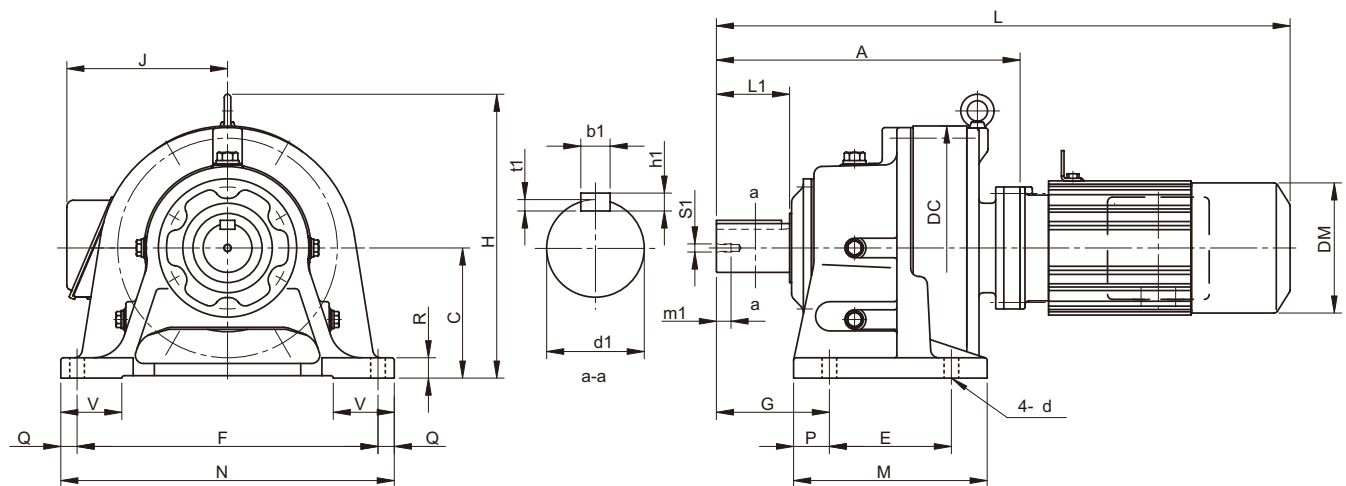
5. "B" after the frame size indicates models equipped with brake.

6. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

7. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

## CHHM<sup>Note: 1</sup> - 616□DA to 618□DA

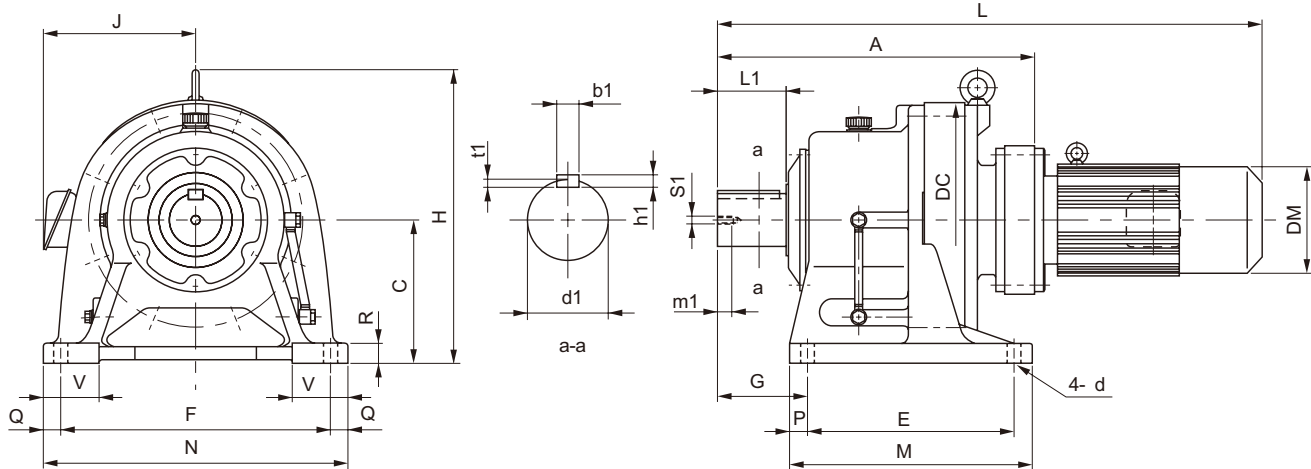


Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
616□DA	373	160	300	150	370	139	238	410	44	20	25	75	18	60	90	18	11	7	M10	18
616□DB	387	160	300	150	370	139	238	410	44	20	25	75	18	60	90	18	11	7	M10	18
617□DA	418	200	340	275	380	125	335	430	30	25	30	80	22	70	90	20	12	7.5	M12	24
617□DB	432	200	340	275	380	125	335	430	30	25	30	80	22	70	90	20	12	7.5	M12	24
618□DA	474	220	370	320	420	145	380	470	30	25	30	85	22	80	110	22	14	9	M12	24

Model <small>Note: 4, 5</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM02 - 616□DA - (B) - Ratio	0.2	4	553	349	113	124	90	581	349	113	124	92
CHHM03 - 616□DA - (B) - Ratio	0.25	4	553	349	113	124	90	581	349	113	124	92
CHHM05 - 616□DA - (B) - Ratio	0.4	4	569	349	113	124	91	601	349	113	124	93
CHHM08 - 616□DA - (B) - Ratio	0.55	4	610	349	143	160	95	653	349	143	160	98
CHHM1 - 616□DA - (B) - Ratio	0.75	4	610	349	143	160	95	653	349	143	160	98
CHHM1H - 616□DA - (B) - Ratio	1.1	4	643	349	148	169	99	705	349	148	169	104
CHHM2 - 616□DA - (B) - Ratio	1.5	4	643	349	148	169	99	705	349	148	169	104
CHHM08 - 616□DB - (B) - Ratio	0.55	4	624	349	143	160	97	667	349	143	160	100
CHHM1 - 616□DB - (B) - Ratio	0.75	4	624	349	143	160	97	667	349	143	160	100
CHHM1H - 616□DB - (B) - Ratio	1.1	4	657	349	148	169	101	719	349	148	169	106
CHHM2 - 616□DB - (B) - Ratio	1.5	4	657	349	148	169	101	719	349	148	169	106
CHHM3 - 616□DB - (B) - Ratio	2.2	4	677	349	155	182	105	740	349	155	182	111
CHHM02 - 617□DA - (B) - Ratio	0.2	4	598	416	113	124	120	626	416	113	124	127
CHHM03 - 617□DA - (B) - Ratio	0.25	4	598	416	113	124	120	626	416	113	124	127
CHHM05 - 617□DA - (B) - Ratio	0.4	4	614	416	113	124	126	646	416	113	124	128
CHHM08 - 617□DA - (B) - Ratio	0.55	4	655	416	143	160	130	698	416	143	160	133
CHHM1 - 617□DA - (B) - Ratio	0.75	4	655	416	143	160	130	698	416	143	160	133
CHHM1H - 617□DA - (B) - Ratio	1.1	4	688	416	148	169	133	750	416	148	169	138
CHHM2 - 617□DA - (B) - Ratio	1.5	4	688	416	148	169	133	750	416	148	169	138
CHHM08 - 617□DB - (B) - Ratio	0.55	4	669	416	143	160	127	712	416	143	160	134
CHHM1 - 617□DB - (B) - Ratio	0.75	4	669	416	143	160	127	712	416	143	160	134
CHHM1H - 617□DB - (B) - Ratio	1.1	4	702	416	148	169	136	764	416	148	169	141
CHHM2 - 617□DB - (B) - Ratio	1.5	4	702	416	148	169	136	764	416	148	169	141
CHHM3 - 617□DB - (B) - Ratio	2.2	4	722	416	155	182	140	785	416	155	182	146
CHHM05 - 618□DA - (B) - Ratio	0.4	4	670	451	113	124	171	702	451	113	124	173
CHHM08 - 618□DA - (B) - Ratio	0.55	4	711	451	143	160	175	754	451	143	160	178
CHHM1 - 618□DA - (B) - Ratio	0.75	4	711	451	143	160	175	754	451	143	160	178
CHHM1H - 618□DA - (B) - Ratio	1.1	4	744	451	148	169	179	806	451	148	169	184
CHHM2 - 618□DA - (B) - Ratio	1.5	4	744	451	148	169	179	806	451	148	169	184
CHHM3 - 618□DA - (B) - Ratio	2.2	4	764	451	155	182	183	827	451	155	182	189

Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

CHHM<sup>Note: 1</sup> - 616□DC to 619□DA

GEARMOTORS

Dimension Tables  
CHHM

Frame size Note: 4	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft Note: 2, 3, 6						
														d1	L1	b1	h1	t1	S1	m1
616□DC	389	160	300	150	370	139	238	410	44	20	25	75	18	60	90	18	11	7	M10	18
617D□C	436	200	340	275	380	125	335	430	30	25	30	80	22	70	90	20	12	7.5	M12	24
618□DB	496	220	370	320	420	145	380	470	30	25	30	85	22	80	110	22	14	9	M12	24
619□DA	556	250	430	380	480	170	440	530	30	25	35	90	26	95	135	25	14	9	M20	34

Model Note: 4, 5	Motor		Standard							With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]		
CHHM1H - 616□DC - (B) - Ratio	1.1	4	659	349	148	169	107	721	349	148	169	112		
CHHM2 - 616□DC - (B) - Ratio	1.5	4	659	349	148	169	107	721	349	148	169	112		
CHHM3 - 616□DC - (B) - Ratio	2.2	4	679	349	155	182	111	742	349	155	182	118		
CHHM4 - 616□DC - (B) - Ratio	3.0	4	702	349	166	222	121	774	349	166	222	131		
CHHM5 - 616□DC - (B) - Ratio	3.7	4	702	349	166	222	121	774	349	166	222	131		
CHHM8 - 616□DC - (B) - Ratio	5.5	4	746	349	166	222	128	818	349	166	222	138		
CHHM1H - 617□DC - (B) - Ratio	1.1	4	706	416	148	169	141	768	416	148	169	146		
CHHM2 - 617□DC - (B) - Ratio	1.5	4	706	416	148	169	141	768	416	148	169	146		
CHHM3 - 617□DC - (B) - Ratio	2.2	4	726	416	155	182	145	789	416	155	182	152		
CHHM4 - 617□DC - (B) - Ratio	3.0	4	749	416	166	222	155	821	416	166	222	165		
CHHM5 - 617□DC - (B) - Ratio	3.7	4	749	416	166	222	155	821	416	166	222	165		
CHHM8 - 617□DC - (B) - Ratio	5.5	4	793	416	166	222	162	865	416	166	222	172		
CHHM1H - 618□DB - (B) - Ratio	1.1	4	766	451	148	169	194	828	451	148	169	199		
CHHM2 - 618□DB - (B) - Ratio	1.5	4	766	451	148	169	194	828	451	148	169	199		
CHHM3 - 618□DB - (B) - Ratio	2.2	4	786	451	155	182	197	849	451	155	182	204		
CHHM4 - 618□DB - (B) - Ratio	3.0	4	809	451	166	222	207	881	451	166	222	217		
CHHM5 - 618□DB - (B) - Ratio	3.7	4	809	451	166	222	207	881	451	166	222	217		
CHHM8 - 618□DB - (B) - Ratio	5.5	4	853	451	166	222	214	925	451	166	222	224		
CHHM10 - 618□DB - (B) - Ratio	7.5	4	876	451	211	251	229	971	451	211	251	247		
CHHM15 - 618□DB - (B) - Ratio	11	4	936	451	211	251	243	1031	451	211	251	261		
CHHM1 - 619□DA - (B) - Ratio	0.75	4	793	531	143	160	250	836	531	143	160	253		
CHHM1H - 619□DA - (B) - Ratio	1.1	4	826	531	148	169	254	888	531	148	169	259		
CHHM2 - 619□DA - (B) - Ratio	1.5	4	826	531	148	169	254	888	531	148	169	259		
CHHM3 - 619□DA - (B) - Ratio	2.2	4	846	531	155	182	258	909	531	155	182	265		
CHHM4 - 619□DA - (B) - Ratio	3.0	4	869	531	166	222	268	941	531	166	222	278		
CHHM5 - 619□DA - (B) - Ratio	3.7	4	869	531	166	222	268	941	531	166	222	278		
CHHM8 - 619□DA - (B) - Ratio	5.5	4	913	531	166	222	275	985	531	166	222	285		

Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

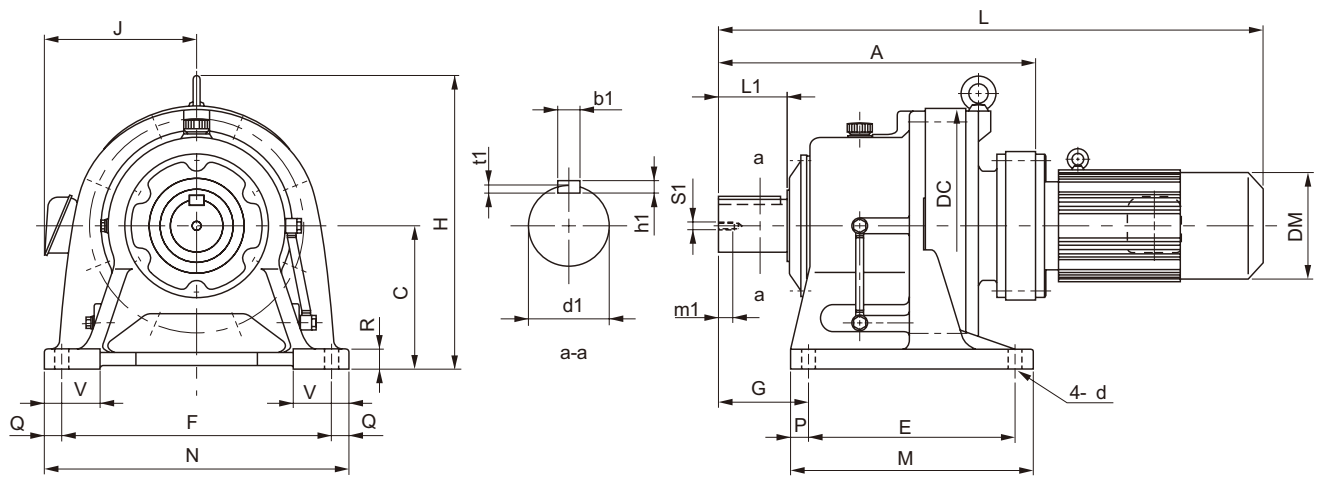
5. "B" after the frame size indicates models equipped with brake.

6. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

7. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

## CHHM<sup>Note: 1</sup> - 619□DB to 6215DA

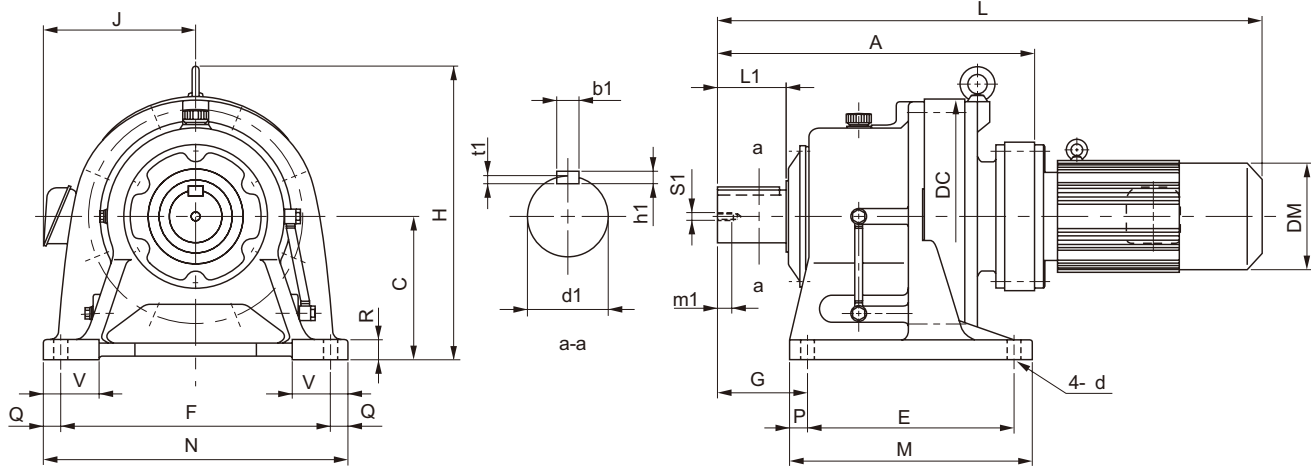


Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
619□DB	572	250	430	380	480	170	440	530	30	25	35	90	26	95	135	25	14	9	M20	34
6205DA	597	250	448	360	440	215	440	530	40	45	35	100	26	100	165	28	16	10	M20	34
6205DB	624	250	448	360	440	215	440	530	40	45	35	100	26	100	165	28	16	10	M20	34
6215DA	650	265	485	395	480	210	475	580	40	50	40	110	26	110	165	28	16	10	M20	34

Model <small>Note: 4, 5</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM2 - 619□DB - (B) - Ratio	1.5	4	842	531	148	169	261	904	531	148	169	266
CHHM3 - 619□DB - (B) - Ratio	2.2	4	862	531	155	182	265	925	531	155	182	272
CHHM4 - 619□DB - (B) - Ratio	3.0	4	885	531	166	222	275	957	531	166	222	285
CHHM5 - 619□DB - (B) - Ratio	3.7	4	885	531	166	222	275	957	531	166	222	285
CHHM8 - 619□DB - (B) - Ratio	5.5	4	929	531	166	222	282	1001	531	166	222	292
CHHM10 - 619□DB - (B) - Ratio	7.5	4	952	531	211	251	297	1047	531	211	251	315
CHHM15 - 619□DB - (B) - Ratio	11	4	1012	531	211	251	311	1107	531	211	251	329
CHHM20 - 619□DB - (B) - Ratio	15	4	1102	531	261	324	363	1207	531	261	324	397
CHHM1 - 6205DA - (B) - Ratio	0.75	4	834	530	143	160	269	877	530	143	160	272
CHHM2 - 6205DA - (B) - Ratio	1.5	4	867	530	148	169	273	929	530	148	169	278
CHHM3 - 6205DA - (B) - Ratio	2.2	4	887	530	155	182	277	949	530	155	182	284
CHHM4 - 6205DA - (B) - Ratio	3.0	4	910	530	166	222	287	982	530	166	222	297
CHHM5 - 6205DA - (B) - Ratio	3.7	4	910	530	166	222	287	982	530	166	222	297
CHHM8 - 6205DA - (B) - Ratio	5.5	4	954	530	166	222	294	1026	530	166	222	304
CHHM3 - 6205DB - (B) - Ratio	2.2	4	914	530	155	182	289	977	530	155	182	296
CHHM4 - 6205DB - (B) - Ratio	3.0	4	937	530	166	222	299	1009	530	166	222	309
CHHM5 - 6205DB - (B) - Ratio	3.7	4	937	530	166	222	299	1009	530	166	222	309
CHHM8 - 6205DB - (B) - Ratio	5.5	4	981	530	166	222	306	1053	530	166	222	316
CHHM10 - 6205DB - (B) - Ratio	7.5	4	1004	530	211	251	321	1099	530	211	251	339
CHHM15 - 6205DB - (B) - Ratio	11	4	1064	530	211	251	334	1159	530	211	251	352
CHHM20 - 6205DB - (B) - Ratio	15	4	1154	530	261	324	386	1259	530	261	324	419
CHHM2 - 6215DA - (B) - Ratio	1.5	4	920	575	148	169	367	982	575	148	169	372
CHHM3 - 6215DA - (B) - Ratio	2.2	4	940	575	155	182	370	1003	575	155	182	377
CHHM4 - 6215DA - (B) - Ratio	3.0	4	963	575	166	222	380	1035	575	166	222	390
CHHM5 - 6215DA - (B) - Ratio	3.7	4	963	575	166	222	380	1035	575	166	222	390
CHHM8 - 6215DA - (B) - Ratio	5.5	4	1007	575	166	222	387	1079	575	166	222	397
CHHM10 - 6215DA - (B) - Ratio	7.5	4	1030	575	211	251	402	1125	575	211	251	420
CHHM15 - 6215DA - (B) - Ratio	11	4	1090	575	211	251	415	1185	575	211	251	433
CHHM20 - 6215DA - (B) - Ratio	15	4	1180	575	261	324	467	1285	575	261	324	501

Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

CHHM<sup>Note: 1</sup> - 6215DB to 6225DB

GEARMOTORS

Dimension Tables  
CHHM

Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
6215DB	675	265	485	395	480	210	475	580	40	50	40	110	26	110	165	28	16	10	M20	34
6225DA	692	280	526	420	540	230	520	620	50	40	40	115	33	120	165	32	18	11	M20	34
6225DB	735	280	526	420	540	230	520	620	50	40	40	115	33	120	165	32	18	11	M20	34

Model	Note: 5	Motor		Standard							With Brake				
		[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]		
CHHM5	- 6215DB - (B) - Ratio	3.7	4	993	575	166	222	399	1065	575	166	222	409		
CHHM8	- 6215DB - (B) - Ratio	5.5	4	1037	575	166	222	406	1109	575	166	222	416		
CHHM10	- 6215DB - (B) - Ratio	7.5	4	1060	575	211	251	422	1155	575	211	251	439		
CHHM15	- 6215DB - (B) - Ratio	11	4	1120	575	211	251	436	1215	575	211	251	453		
CHHM20	- 6215DB - (B) - Ratio	15	4	1205	575	261	324	489	1310	575	261	324	523		
CHHM25	- 6215DB - (B) - Ratio	18.5	4	1300	575	340	394	564	1465	575	340	394	615		
CHHM30	- 6215DB - (B) - Ratio	22	4	1300	575	340	394	564	1465	575	340	394	615		
CHHM2	- 6225DA - (B) - Ratio	1.5	4	962	610	148	169	441	1024	610	148	169	446		
CHHM3	- 6225DA - (B) - Ratio	2.2	4	982	610	155	182	444	1045	610	155	182	451		
CHHM4	- 6225DA - (B) - Ratio	3.0	4	1005	610	166	222	454	1077	610	166	222	464		
CHHM5	- 6225DA - (B) - Ratio	3.7	4	1005	610	166	222	454	1077	610	166	222	464		
CHHM8	- 6225DA - (B) - Ratio	5.5	4	1049	610	166	222	461	1121	610	166	222	471		
CHHM10	- 6225DA - (B) - Ratio	7.5	4	1072	610	211	251	476	1167	610	211	251	494		
CHHM15	- 6225DA - (B) - Ratio	11	4	1132	610	211	251	490	1227	610	211	251	508		
CHHM20	- 6225DA - (B) - Ratio	15	4	1222	610	261	324	542	1327	610	261	324	576		
CHHM5	- 6225DB - (B) - Ratio	3.7	4	1058	610	166	222	499	1130	610	166	222	510		
CHHM8	- 6225DB - (B) - Ratio	5.5	4	1102	610	166	222	506	1174	610	166	222	517		
CHHM10	- 6225DB - (B) - Ratio	7.5	4	1125	610	211	251	521	1220	610	211	251	539		
CHHM15	- 6225DB - (B) - Ratio	11	4	1185	610	211	251	535	1280	610	211	251	553		
CHHM20	- 6225DB - (B) - Ratio	15	4	1265	610	261	324	589	1370	610	261	324	623		
CHHM25	- 6225DB - (B) - Ratio	18.5	4	1360	610	340	394	661	1525	610	340	394	712		
CHHM30	- 6225DB - (B) - Ratio	22	4	1360	610	340	394	661	1525	610	340	394	712		
CHHM40	- 6225DB - (B) - Ratio	30	4	1360	610	340	394	678	1525	610	340	394	729		

Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

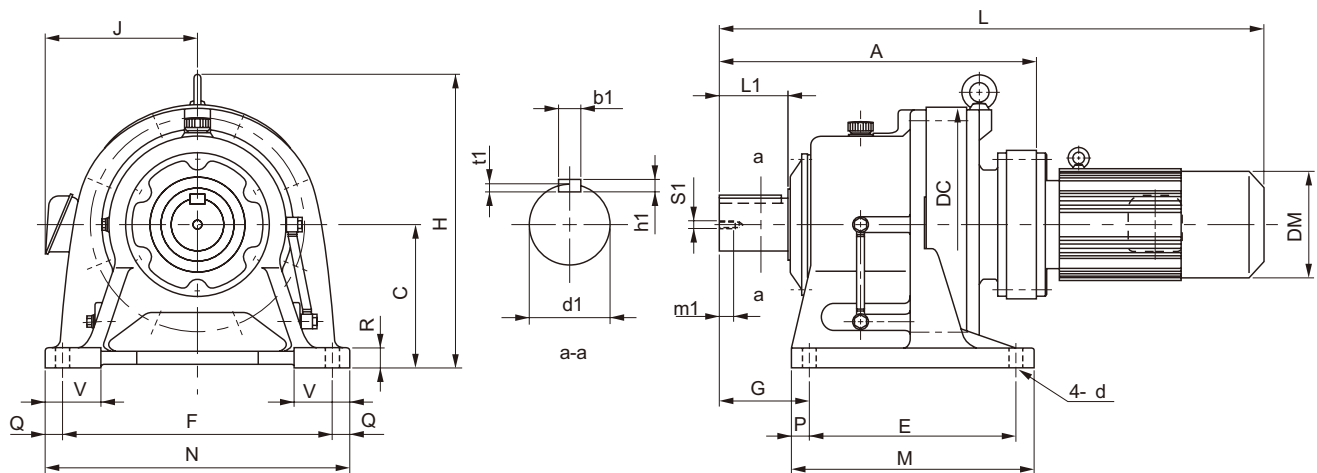
5. "B" after the frame size indicates models equipped with brake.

6. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

7. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

## CHHM<sup>Note: 1</sup> - 6235DA to 6245DB



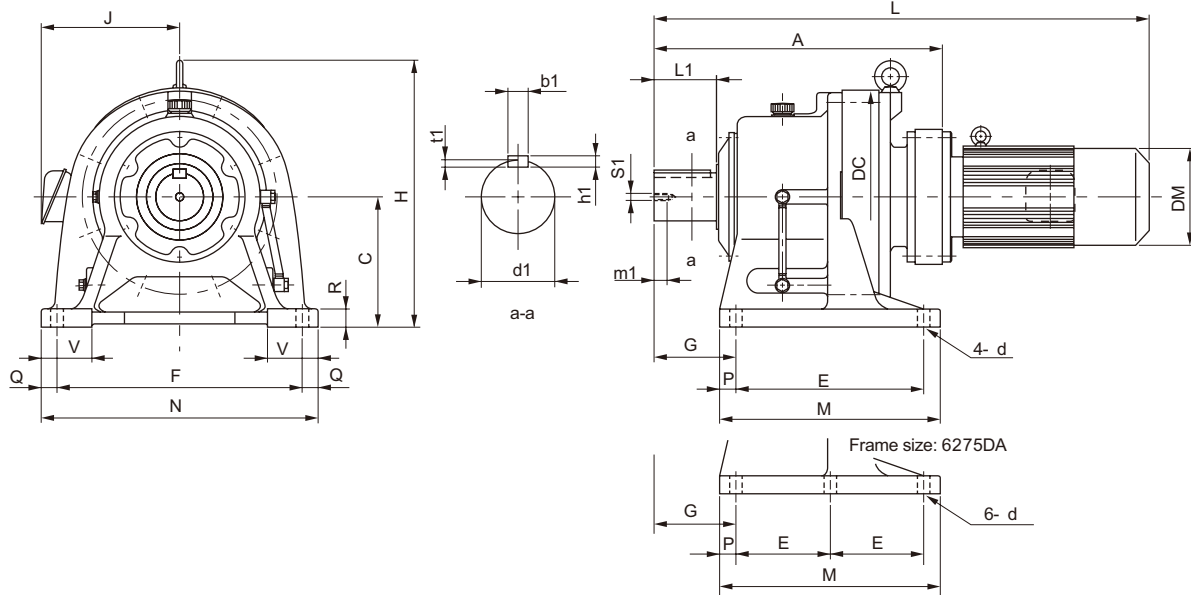
Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 5</small>						
														d1	L1	b1	h1	t1	S1	m1
6235DA	778	300	562	460	580	260	560	670	50	45	45	120	33	130	200	32	18	11	M24	41
6235DB	800	300	562	460	580	260	560	670	50	45	45	120	33	130	200	32	18	11	M24	41
6245DA	816	335	614	480	630	263	580	720	50	45	45	128	39	140	200	36	20	12	M24	41
6245DB	837	335	614	480	630	263	580	720	50	45	45	128	39	140	200	36	20	12	M24	41

Model	Note: 4	Motor		Standard					With Brake				
		[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM3	- 6235DA - (B) - Ratio	2.2	4	1068	667	155	182	561	1131	667	155	182	567
CHHM4	- 6235DA - (B) - Ratio	3.0	4	1091	667	166	222	570	1163	667	166	222	580
CHHM5	- 6235DA - (B) - Ratio	3.7	4	1091	667	166	222	570	1163	667	166	222	580
CHHM8	- 6235DA - (B) - Ratio	5.5	4	1135	667	166	222	577	1207	667	166	222	587
CHHM10	- 6235DA - (B) - Ratio	7.5	4	1163	667	211	251	593	1258	667	211	251	610
CHHM15	- 6235DA - (B) - Ratio	11	4	1223	667	211	251	607	1318	667	211	251	624
CHHM20	- 6235DA - (B) - Ratio	15	4	1308	667	261	324	660	1413	667	261	324	624
CHHM25	- 6235DA - (B) - Ratio	18.5	4	1403	667	340	394	737	1568	667	340	394	788
CHHM30	- 6235DA - (B) - Ratio	22	4	1403	667	340	394	737	1568	667	340	394	788
CHHM15	- 6235DB - (B) - Ratio	11	4	1245	667	211	251	639	1340	667	211	251	657
CHHM20	- 6235DB - (B) - Ratio	15	4	1330	667	261	324	701	1435	667	261	324	735
CHHM25	- 6235DB - (B) - Ratio	18.5	4	1425	667	340	394	768	1590	667	340	394	819
CHHM30	- 6235DB - (B) - Ratio	22	4	1425	667	340	394	768	1590	667	340	394	819
CHHM40	- 6235DB - (B) - Ratio	30	4	1425	667	340	394	782	1590	667	340	394	825
CHHM50	- 6235DB - (B) - Ratio	37	4	1540	667	340	394	820	1755	667	340	394	917
CHHM3	- 6245DA - (B) - Ratio	2.2	4	1106	729	155	182	670	1169	729	155	182	676
CHHM4	- 6245DA - (B) - Ratio	3.0	4	1129	729	166	222	679	1201	729	166	222	689
CHHM5	- 6245DA - (B) - Ratio	3.7	4	1129	729	166	222	679	1201	729	166	222	689
CHHM8	- 6245DA - (B) - Ratio	5.5	4	1173	729	166	222	686	1245	729	166	222	696
CHHM10	- 6245DA - (B) - Ratio	7.5	4	1201	729	211	251	702	1296	729	211	251	719
CHHM15	- 6245DA - (B) - Ratio	11	4	1261	729	211	251	716	1356	729	211	251	733
CHHM20	- 6245DA - (B) - Ratio	15	4	1346	729	261	324	769	1451	729	261	324	803
CHHM25	- 6245DA - (B) - Ratio	18.5	4	1441	729	340	394	840	1606	729	340	394	891
CHHM30	- 6245DA - (B) - Ratio	22	4	1441	729	340	394	840	1606	729	340	394	891
CHHM15	- 6245DB - (B) - Ratio	11	4	1282	729	211	251	740	1377	729	211	251	758
CHHM20	- 6245DB - (B) - Ratio	15	4	1367	729	261	324	800	1472	729	261	324	834
CHHM25	- 6245DB - (B) - Ratio	18.5	4	1462	729	340	394	866	1627	729	340	394	917
CHHM30	- 6245DB - (B) - Ratio	22	4	1462	729	340	394	866	1627	729	340	394	917
CHHM40	- 6245DB - (B) - Ratio	30	4	1462	729	340	394	883	1627	729	340	394	926
CHHM50	- 6245DB - (B) - Ratio	37	4	1577	729	340	394	935	1792	729	340	394	1032

Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

# Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

## CHHM<sup>Note: 1</sup> - 6255DA to 6275DA



GEARMOTORS  
Dimension Tables  
CHHM

Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <span style="float: right;">Note: 2, 3, 5</span>						
														d1	L1	b1	h1	t1	S1	m1
6255DA	956	375	670	520	670	320	630	780	55	55	50	140	39	160	240	40	22	13	M30	49
6255DB	978	375	670	520	670	320	630	780	55	55	50	140	39	160	240	40	22	13	M30	49
6265DA	1088	400	736	590	770	390	700	880	55	55	55	160	45	170	300	40	22	13	M30	49
6275DA	1349	540	950	420	1050	485	1040	1160	100	55	60	200	45	180	330	45	25	15	M30	52

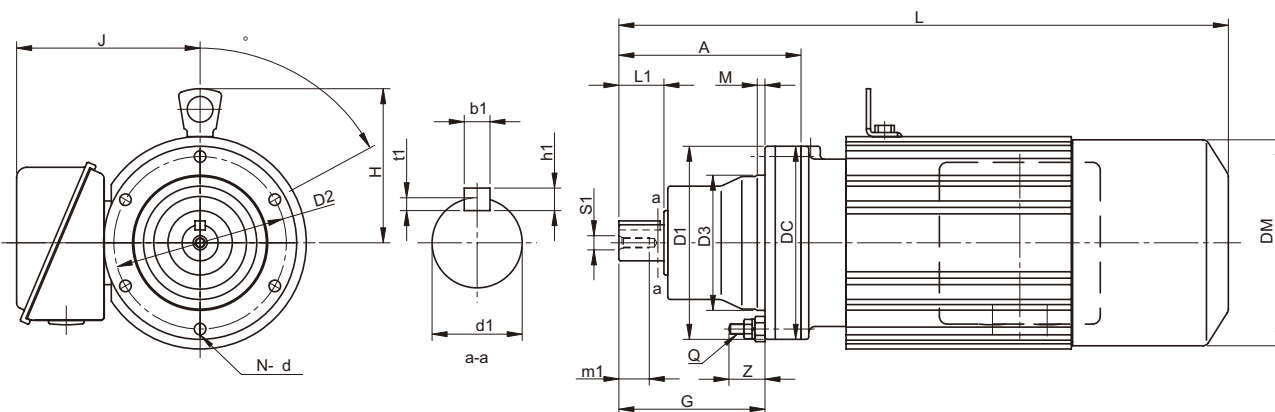
Model	Note: 4	Motor		Standard					With Brake				
		[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM5	- 6255DA - (B) - Ratio	3.7	4	1284	815	166	222	1031	1356	815	166	222	1041
CHHM8	- 6255DA - (B) - Ratio	5.5	4	1328	815	166	222	1041	1400	815	166	222	1051
CHHM10	- 6255DA - (B) - Ratio	7.5	4	1346	815	211	251	1056	1441	815	213	251	1071
CHHM15	- 6255DA - (B) - Ratio	11	4	1406	815	211	251	1071	1501	815	213	251	1086
CHHM20	- 6255DA - (B) - Ratio	15	4	1486	815	261	324	1121	1591	815	261	324	1157
CHHM25	- 6255DA - (B) - Ratio	18.5	4	1581	815	340	394	1195	1746	815	340	394	1246
CHHM30	- 6255DA - (B) - Ratio	22	4	1581	815	340	394	1195	1746	815	340	394	1246
CHHM40	- 6255DA - (B) - Ratio	30	4	1581	815	340	394	1215	1746	815	340	394	1258
CHHM15	- 6255DB - (B) - Ratio	11	4	1443	815	211	251	1144	1538	815	211	251	1159
CHHM20	- 6255DB - (B) - Ratio	15	4	1508	815	261	324	1194	1613	815	261	324	1228
CHHM25	- 6255DB - (B) - Ratio	18.5	4	1603	815	340	394	1270	1768	815	340	394	1321
CHHM30	- 6255DB - (B) - Ratio	22	4	1603	815	340	394	1270	1768	815	340	394	1321
CHHM40	- 6255DB - (B) - Ratio	30	4	1603	815	340	394	1285	1768	815	340	394	1328
CHHM50	- 6255DB - (B) - Ratio	37	4	1718	815	340	394	1323	1928	815	340	394	1420
CHHM60	- 6255DB - (B) - Ratio	45	4	1718	815	340	394	1323	1928	815	340	394	1420
CHHM8	- 6265DA - (B) - Ratio	5.5	4	1480	874	166	222	1366	1552	874	166	222	1376
CHHM10	- 6265DA - (B) - Ratio	7.5	4	1493	874	211	251	1381	1588	874	211	251	1401
CHHM15	- 6265DA - (B) - Ratio	11	4	1553	874	211	251	1396	1648	874	211	251	1411
CHHM20	- 6265DA - (B) - Ratio	15	4	1618	874	261	324	1446	1723	874	261	324	1482
CHHM25	- 6265DA - (B) - Ratio	18.5	4	1713	874	340	394	1525	1878	874	340	394	1570
CHHM30	- 6265DA - (B) - Ratio	22	4	1713	874	340	394	1525	1878	874	340	394	1570
CHHM40	- 6265DA - (B) - Ratio	30	4	1713	874	340	394	1540	1878	874	340	394	1583
CHHM50	- 6265DA - (B) - Ratio	37	4	1828	874	340	394	1575	2043	874	340	394	1672
CHHM60	- 6265DA - (B) - Ratio	45	4	1828	874	340	394	1575	2043	874	340	394	1672
CHHM10	- 6275DA - (B) - Ratio	7.5	4	1754	1161	211	251	2516	1849	1161	211	251	2536
CHHM15	- 6275DA - (B) - Ratio	11	4	1814	1161	211	251	2531	1909	1161	211	251	2546
CHHM20	- 6275DA - (B) - Ratio	15	4	1879	1161	261	324	2581	1984	1161	261	324	2617
CHHM25	- 6275DA - (B) - Ratio	18.5	4	1974	1161	340	394	2660	2139	1161	340	394	2705
CHHM30	- 6275DA - (B) - Ratio	22	4	1974	1161	340	394	2660	2139	1161	340	394	2705
CHHM40	- 6275DA - (B) - Ratio	30	4	1974	1161	340	394	2670	2139	1161	340	394	2718
CHHM50	- 6275DA - (B) - Ratio	37	4	2089	1161	340	394	2715	2304	1161	340	394	2810
CHHM60	- 6275DA - (B) - Ratio	45	4	2089	1161	340	394	2715	2304	1161	340	394	2810

Note: 4. "B" after the frame size indicates models equipped with brake.  
 5. Dimension of shaft end: Refer to pages F-28 to F-29 for details.  
 6. Dimensions in above drawings are subject to change without notice.



# Dimension Tables Gearmotors (Universal Direction, Flange Mount)

CNFM<sup>Note: 1</sup> - 606□ to 609□



GEARMOTORS  
Dimension Tables  
CNFM

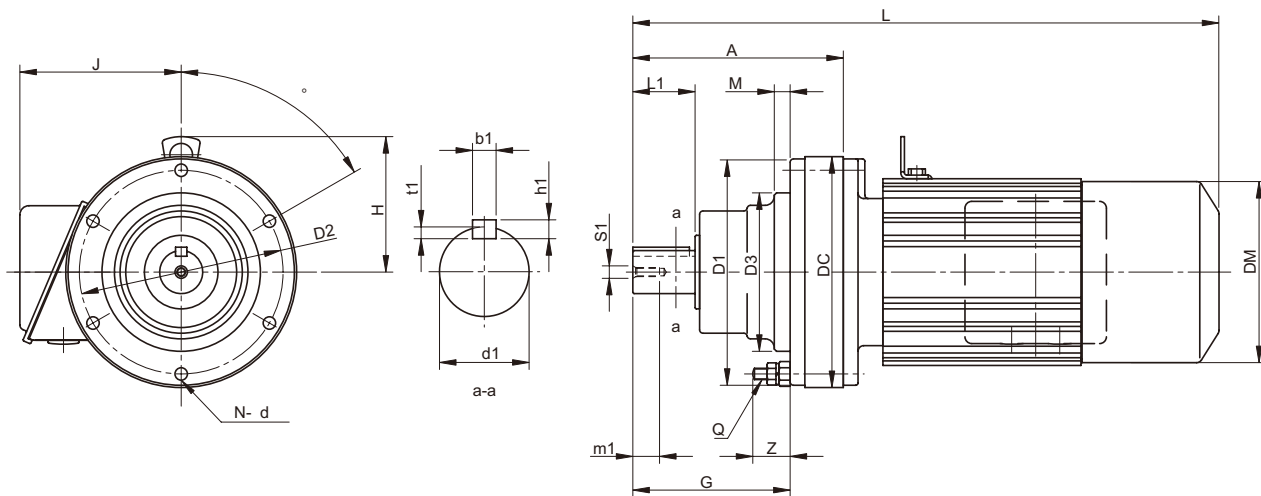
Frame size <small>Note: 5</small>	A	G	D1	D2	D3	DC	Q	Z	M	N	d	$\alpha^\circ$	Output Shaft <small>Note: 2, 3, 7</small>						
													d1	L1	b1	h1	t1	S1	m1
606□	92	68	110	98	80	110	M6	21	4	6	6.6	60	14	25	5	5	3	M5	16
607□	98	74	110	98	80	110	M6	21	4	6	6.6	60	18	30	6	6	3.5	M6	16
608□	129	91	134	118	95	134	M8	27	5	8	9	22.5	22	35	6	6	3.5	M6	16
609□	142	114	150	134	105	150	M8	28	6	8	9	22.5	28	35	8	7	4	M8	20

Model <small>Note: 5, 6</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CNFM01 - 606□ - (B) - Ratio	0.1	4	254	-	113	119	6.5	261	-	113	124	8
CNFM02 - 606□ - (B) - Ratio	0.2	4	272	-	113	124	7.5	300	-	113	124	9
CNFM03 - 606□ - (B) - Ratio	0.25	4	272	-	113	124	7.5	300	-	113	124	9
CNFM01 - 607□ - (B) - Ratio	0.1	4	260	-	113	119	7.5	267	-	113	124	8.5
CNFM02 - 607□ - (B) - Ratio	0.2	4	278	-	113	124	8.5	306	-	113	124	9.5
CNFM03 - 607□ - (B) - Ratio	0.25	4	278	-	113	124	8.5	306	-	113	124	9.5
CNFM05 - 607□ - (B) - Ratio	0.4	4	294	-	113	124	9.5	326	-	113	124	10.5
CNFM01 - 608□ - (B) - Ratio	0.1	4	286	-	113	119	10	293	-	113	124	11
CNFM02 - 608□ - (B) - Ratio	0.2	4	304	-	113	124	11	332	-	113	124	12
CNFM03 - 608□ - (B) - Ratio	0.25	4	304	-	113	124	11	332	-	113	124	12
CNFM05 - 608□ - (B) - Ratio	0.4	4	320	-	113	124	13	352	-	113	124	14
CNFM08 - 608□ - (B) - Ratio	0.55	4	361	113	143	160	17	404	113	143	160	18
CNFM1 - 608□ - (B) - Ratio	0.75	4	361	113	143	160	17	404	113	143	160	18
CNFM01 - 609□ - (B) - Ratio	0.1	4	304	-	113	119	11	311	-	113	124	13
CNFM02 - 609□ - (B) - Ratio	0.2	4	322	-	113	124	12	350	-	113	124	14
CNFM03 - 609□ - (B) - Ratio	0.25	4	322	-	113	124	12	350	-	113	124	14
CNFM05 - 609□ - (B) - Ratio	0.4	4	338	-	113	124	13	370	-	113	124	15
CNFM08 - 609□ - (B) - Ratio	0.55	4	379	113	143	160	17	422	113	143	160	19
CNFM1 - 609□ - (B) - Ratio	0.75	4	379	113	143	160	17	422	113	143	160	19
CNFM1H - 609□ - (B) - Ratio	1.1	4	412	120	148	169	21	474	120	148	169	25
CNFM2 - 609□ - (B) - Ratio	1.5	4	412	120	148	169	21	474	120	148	169	25

- Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter ( $\phi D3$ ): Dimension tolerance conforms to JIS B 0401-1976 "g6."

# Dimension Tables Gearmotors (Universal Direction, Flange Mount)

CNFM<sup>Note: 1</sup> - 610□ to 612□



Dimension Tables  
CNFM  
GEARMOTORS

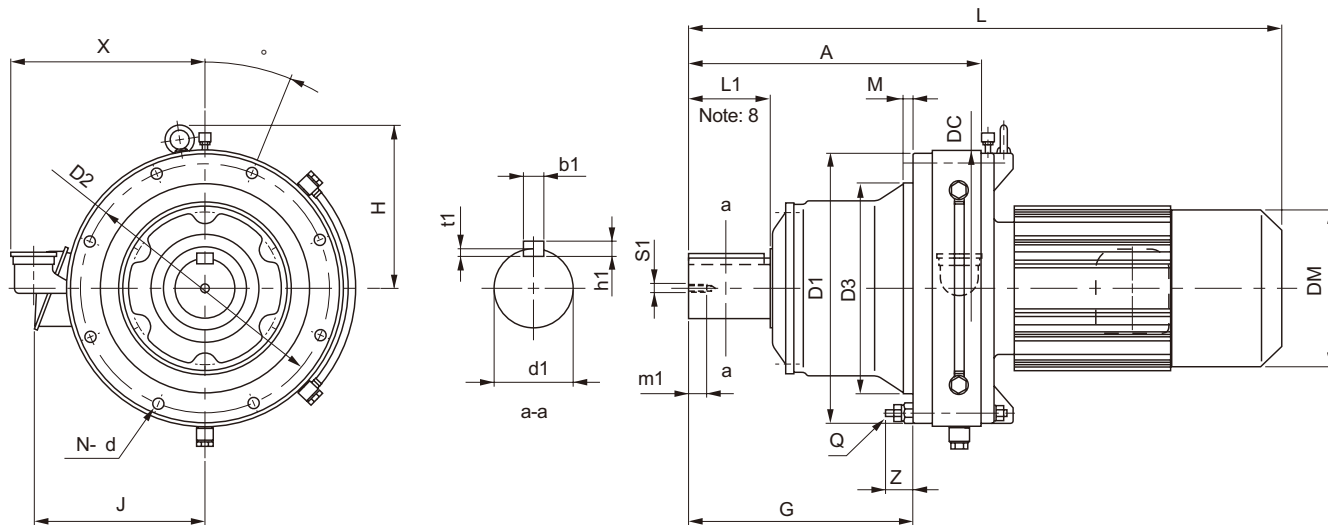
Frame size <small>Note: 5</small>	A	G	D1	D2	D3	DC	Q	Z	M	N	d	$\alpha^\circ$	Output Shaft <small>Note: 2, 3, 7</small>						
													d1	L1	b1	h1	t1	S1	m1
610□	156	114	150	134	105	150	M8	28	6	8	9	22.5	28	35	8	7	4	M8	20
611□	170	118	162	146	115	162	M8	28	6	8	9	22.5	32	45	10	8	5	M8	20
612□	186	139	200	180	140	204	M10	33	14	6	11	60	38	55	10	8	5	M8	20

Model <small>Note: 5, 6</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CNFM02 - 610□ - (B) - Ratio	0.2	4	336	-	113	124	14	364	-	113	124	16
CNFM03 - 610□ - (B) - Ratio	0.25	4	336	-	113	124	14	364	-	113	124	16
CNFM05 - 610□ - (B) - Ratio	0.4	4	352	-	113	124	15	384	-	113	124	17
CNFM08 - 610□ - (B) - Ratio	0.55	4	393	113	143	160	19	436	113	143	160	22
CNFM1 - 610□ - (B) - Ratio	0.75	4	393	113	143	160	19	436	113	143	160	22
CNFM1H - 610□ - (B) - Ratio	1.1	4	426	120	148	169	23	488	120	148	169	28
CNFM2 - 610□ - (B) - Ratio	1.5	4	426	120	148	169	23	488	120	148	169	28
CNFM3 - 610□ - (B) - Ratio	2.2	4	446	126	155	182	27	509	126	155	182	33
CNFM05 - 611□ - (B) - Ratio	0.4	4	363	-	113	124	17	394	-	113	124	18
CNFM08 - 611□ - (B) - Ratio	0.55	4	403	113	143	160	20	452	113	143	160	23
CNFM1 - 611□ - (B) - Ratio	0.75	4	403	113	143	160	20	452	113	143	160	23
CNFM1H - 611□ - (B) - Ratio	1.1	4	436	120	148	169	23	493	120	148	169	28
CNFM2 - 611□ - (B) - Ratio	1.5	4	436	120	148	169	23	493	120	148	169	28
CNFM3 - 611□ - (B) - Ratio	2.2	4	456	126	155	182	27	519	126	155	182	33
CNFM4 - 611□ - (B) - Ratio	3.0	4	491	146	166	222	37	563	146	166	222	47
CNFM5 - 611□ - (B) - Ratio	3.7	4	491	146	166	222	37	563	146	166	222	47
CNFM05 - 612□ - (B) - Ratio	0.4	4	387	113	113	124	26	419	113	113	124	28
CNFM08 - 612□ - (B) - Ratio	0.55	4	423	113	143	160	28	466	113	143	160	31
CNFM1 - 612□ - (B) - Ratio	0.75	4	423	113	143	160	28	466	113	143	160	31
CNFM1H - 612□ - (B) - Ratio	1.1	4	456	120	148	169	32	518	120	148	169	37
CNFM2 - 612□ - (B) - Ratio	1.5	4	456	120	148	169	32	518	120	148	169	37
CNFM3 - 612□ - (B) - Ratio	2.2	4	476	126	155	182	36	539	126	155	182	43
CNFM4 - 612□ - (B) - Ratio	3.0	4	499	146	166	222	46	571	146	166	222	56
CNFM5 - 612□ - (B) - Ratio	3.7	4	499	146	166	222	46	571	146	166	222	56
CNFM8 - 612□ - (B) - Ratio	5.5	4	543	146	166	222	53	615	146	166	222	63

Note: 5. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 6. "B" after the frame size indicates models equipped with brake.  
 7. Dimension of shaft end: Refer to pages F-28 to F-29 for details.  
 8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

## CHFM<sup>Note: 1</sup> - 613□ to 614□



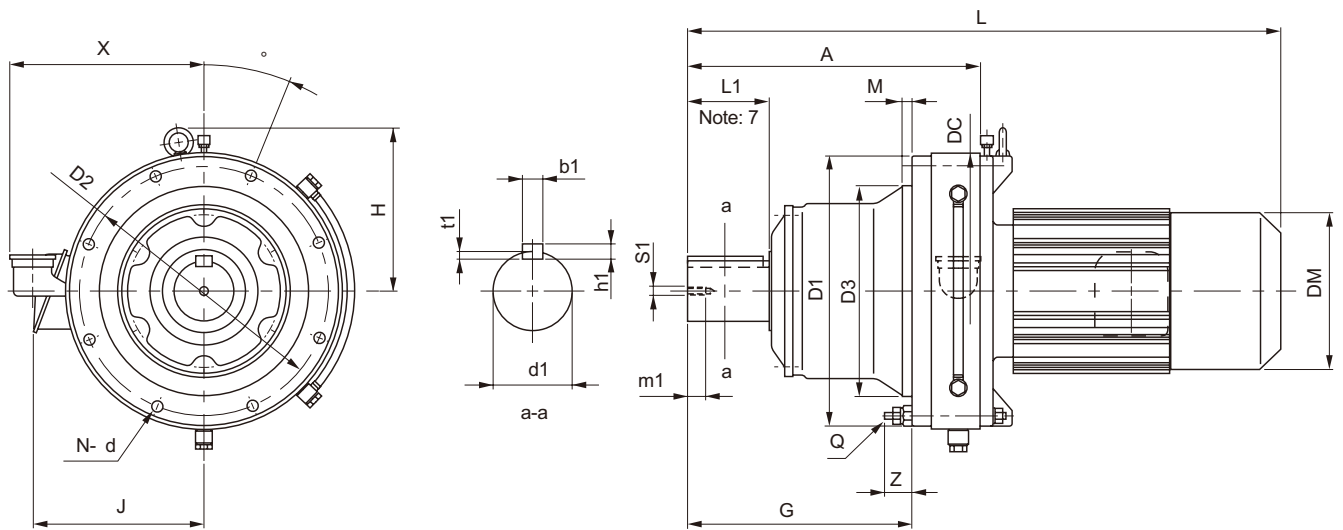
Frame size <small>Note: 5</small>	A	G	D1	D2	D3	DC	Q	Z	M	N	d	α°	X	Output Shaft <small>Note: 2, 3, 7</small>						
														d1	L1	b1	h1	t1	S1	m1
613□	240	178	226	205	165	230	M10	31	16	6	11	60	208	50	70	14	9	5.5	M10	18
614□	260	198	226	205	165	230	M10	31	16	6	11	60	208	50	90	14	9	5.5	M10	18

Model <small>Note: 5, 6</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHFM08 - 613□ - (B) - Ratio	0.55	4	477	111	143	160	44	520	111	143	160	46
CHFM1 - 613□ - (B) - Ratio	0.75	4	477	111	143	160	44	520	111	143	160	47
CHFM1H - 613□ - (B) - Ratio	1.1	4	510	118	148	169	48	572	118	148	169	53
CHFM2 - 613□ - (B) - Ratio	1.5	4	510	118	148	169	48	572	118	148	169	53
CHFM3 - 613□ - (B) - Ratio	2.2	4	530	124	155	182	51	593	124	155	182	58
CHFM4 - 613□ - (B) - Ratio	3.0	4	553	146	166	222	61	625	146	166	222	71
CHFM5 - 613□ - (B) - Ratio	3.7	4	553	146	166	222	61	625	146	166	222	71
CHFM8 - 613□ - (B) - Ratio	5.5	4	597	146	166	222	68	669	146	166	222	78
CHFM10 - 613□ - (B) - Ratio	7.5	4	620	173	211	251	83	715	173	211	251	101
CHFM15 - 613□ - (B) - Ratio	11	4	680	173	211	251	97	775	173	211	251	115
CHFM1 - 614□ - (B) - Ratio	0.75	4	497	118	143	160	45	540	118	143	160	48
CHFM1H - 614□ - (B) - Ratio	1.1	4	530	118	148	169	49	592	118	148	169	54
CHFM2 - 614□ - (B) - Ratio	1.5	4	530	118	148	169	49	592	118	148	169	54
CHFM3 - 614□ - (B) - Ratio	2.2	4	550	124	155	182	52	613	124	155	182	59
CHFM4 - 614□ - (B) - Ratio	3.0	4	573	146	166	222	62	645	146	166	222	72
CHFM5 - 614□ - (B) - Ratio	3.7	4	573	146	166	222	62	645	146	166	222	72
CHFM8 - 614□ - (B) - Ratio	5.5	4	617	146	166	222	69	689	146	166	222	79
CHFM10 - 614□ - (B) - Ratio	7.5	4	640	173	211	251	84	735	173	211	251	102
CHFM15 - 614□ - (B) - Ratio	11	4	700	173	211	251	98	795	173	211	251	116
CHFM20 - 614□ - (B) - Ratio	15	4	790	208	261	324	150	895	208	261	324	184

- Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter (φD3): Dimension tolerance conforms to JIS B 0401-1976 "g6."

# Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

## CHFM<sup>Note: 1</sup> - 616□ to 617□



Dimension Tables  
CHFM  
GEARMOTORS

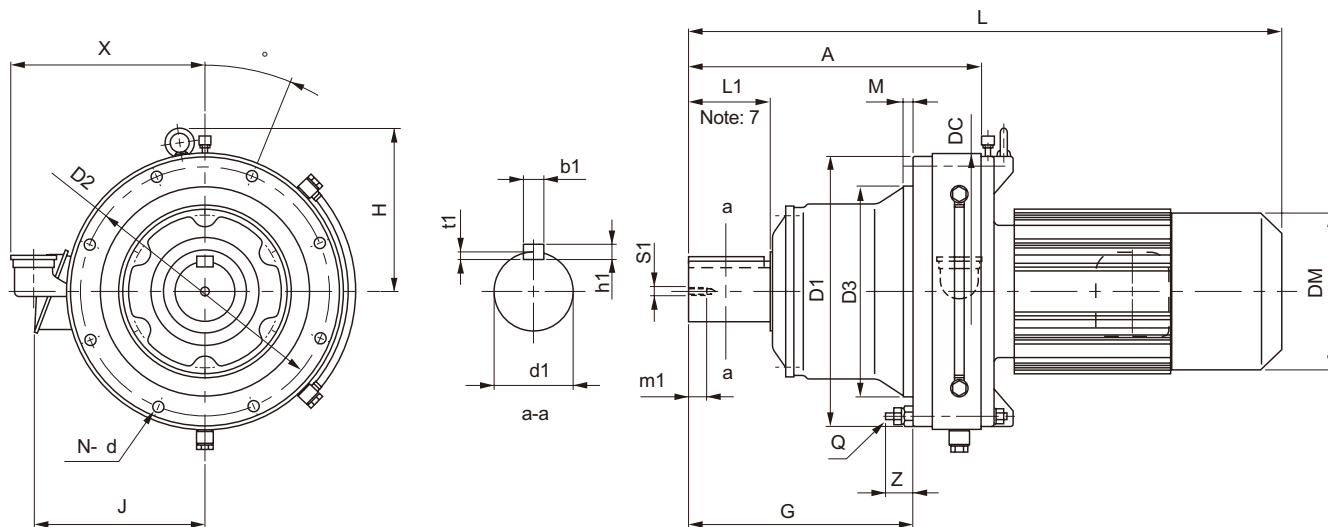
Frame size <small>Note: 5</small>	A	G	D1	D2	D3	DC	Q	Z	M	N	d	α°	X	Output Shaft <small>Note: 2, 3, 7</small>						
														d1	L1	b1	h1	t1	S1	m1
616□	308	222	296	270	200	300	M12	35	10	6	14	30	228	60	90	18	11	7	M10	18
617□	352	262	330	300	250	340	M12	41	12	8	14	22.5	243	70	90	20	12	7.5	M12	24

Model <small>Note: 5, 6</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHFM1H - 616□ - (B) - Ratio	1.1	4	583	118	148	169	76	645	118	148	169	81
CHFM2 - 616□ - (B) - Ratio	1.5	4	583	118	148	169	76	645	118	148	169	81
CHFM3 - 616□ - (B) - Ratio	2.2	4	598	124	155	182	79	661	124	155	182	85
CHFM4 - 616□ - (B) - Ratio	3.0	4	621	146	166	222	88	693	146	166	222	98
CHFM5 - 616□ - (B) - Ratio	3.7	4	621	146	166	222	88	693	146	166	222	98
CHFM8 - 616□ - (B) - Ratio	5.5	4	665	146	166	222	95	737	146	166	222	105
CHFM10 - 616□ - (B) - Ratio	7.5	4	693	173	211	251	111	788	173	211	251	128
CHFM15 - 616□ - (B) - Ratio	11	4	753	173	211	251	125	848	173	211	251	142
CHFM20 - 616□ - (B) - Ratio	15	4	838	208	261	324	178	943	208	261	324	212
CHFM25 - 616□ - (B) - Ratio	18.5	4	933	208	340	394	254	1098	208	340	394	305
CHFM30 - 616□ - (B) - Ratio	22	4	933	208	340	394	254	1098	208	340	394	305
CHFM4 - 617□ - (B) - Ratio	3.0	4	680	203	166	222	119	752	203	166	222	129
CHFM5 - 617□ - (B) - Ratio	3.7	4	680	203	166	222	119	752	203	166	222	129
CHFM8 - 617□ - (B) - Ratio	5.5	4	724	203	166	222	126	796	203	166	222	136
CHFM10 - 617□ - (B) - Ratio	7.5	4	742	203	211	251	141	837	203	211	251	159
CHFM15 - 617□ - (B) - Ratio	11	4	802	203	211	251	155	897	203	211	251	173
CHFM20 - 617□ - (B) - Ratio	15	4	882	213	261	324	209	987	213	261	324	243
CHFM25 - 617□ - (B) - Ratio	18.5	4	977	227	340	394	281	1142	227	340	394	332
CHFM30 - 617□ - (B) - Ratio	22	4	977	227	340	394	281	1142	227	340	394	332
CHFM40 - 617□ - (B) - Ratio	30	4	977	228	340	394	298	1142	228	340	394	341

Note: 5. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 6. "B" after the frame size indicates models equipped with brake.  
 7. Dimension of shaft end: Refer to pages F-28 to F-29 for details.  
 8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

## CHFM<sup>Note: 1</sup> - 618□ to 619□

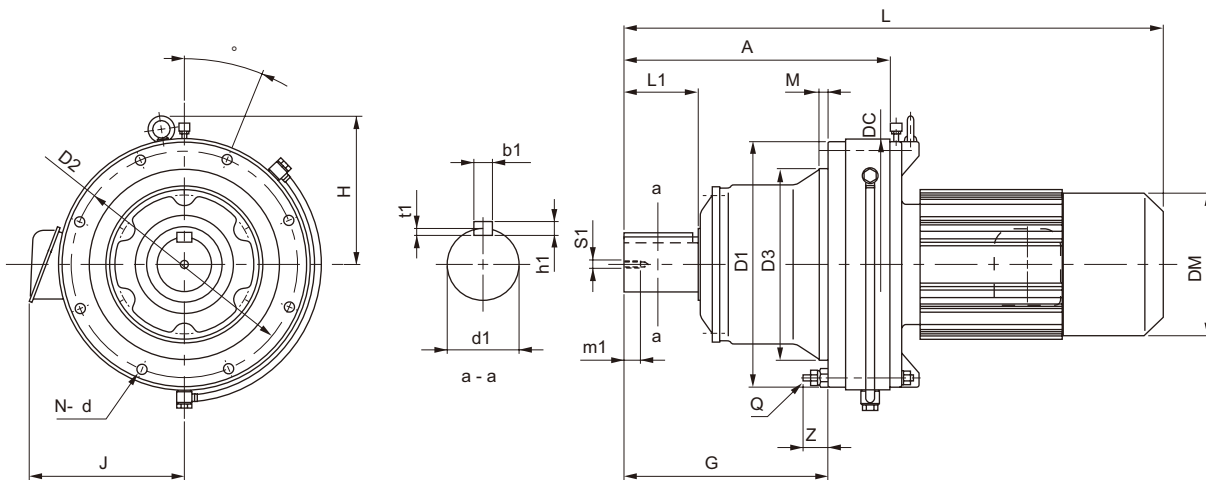


Frame size <small>Note: 5</small>	A	G	D1	D2	D3	DC	Q	Z	M	N	d	$\alpha^\circ$	X	Output Shaft <small>Note: 2, 3, 7</small>						
														d1	L1	b1	h1	t1	S1	m1
618□	389	299	360	330	280	370	M12	38	12	8	14	22.5	258	80	110	22	14	9	M12	24
619□	465	365	420	380	320	430	M12	41	10	12	14	15	285	95	135	25	14	9	M20	34

Model	Ratio	Motor		Standard					With Brake				
		[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHFM4	(B)	3.0	4	717	218	166	222	149	789	218	166	222	159
CHFM5	(B)	3.7	4	717	218	166	222	149	789	218	166	222	159
CHFM8	(B)	5.5	4	761	218	166	222	157	833	218	166	222	167
CHFM10	(B)	7.5	4	779	218	211	251	172	874	218	211	251	190
CHFM15	(B)	11	4	839	218	211	251	186	934	218	211	251	204
CHFM20	(B)	15	4	919	217	261	324	246	1024	217	261	324	275
CHFM25	(B)	18.5	4	1014	227	340	394	312	1179	227	340	394	363
CHFM30	(B)	22	4	1014	227	340	394	312	1179	227	340	394	363
CHFM40	(B)	30	4	1014	228	340	394	329	1179	228	340	394	372
CHFM50	(B)	37	4	1129	228	340	394	377	1344	228	340	394	474
CHFM60	(B)	45	4	1129	228	340	394	377	1344	228	340	394	474
CHFM8	(B)	5.5	4	857	261	166	222	217	929	261	166	222	227
CHFM10	(B)	7.5	4	870	261	211	251	230	965	261	211	251	248
CHFM15	(B)	11	4	930	261	211	251	244	1025	261	211	251	262
CHFM20	(B)	15	4	995	217	261	324	297	1100	217	261	324	332
CHFM25	(B)	18.5	4	1090	227	340	394	373	1255	227	340	394	418
CHFM256	(B)	18.5	6	1090	227	340	394	388	1255	227	340	394	431
CHFM30	(B)	22	4	1090	227	340	394	373	1255	227	340	394	418
CHFM40	(B)	30	4	1090	261	340	394	388	1255	261	340	394	431
CHFM406	(B)	30	6	1205	261	340	394	426	1420	261	340	394	523
CHFM50	(B)	37	4	1205	261	340	394	426	1420	261	340	394	523
CHFM506	(B)	37	6	1205	261	340	394	426	1420	261	340	394	523
CHFM60	(B)	45	4	1205	261	340	394	426	1420	261	340	394	523

- Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter ( $\phi D3$ ): Dimension tolerance conforms to JIS B 0401-1976 "g6."

## Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

CHFM<sup>Note: 1</sup> - 6205 to 6215

GEARMOTORS

Dimension Tables  
CHFM

Frame size <small>Note: 5</small>	A	G	D1	D2	D3	DC	Q	Z	M	N	d	$\alpha^\circ$	Output Shaft <small>Note: 2, 3, 7</small>						
													d1	L1	b1	h1	t1	S1	m1
6205	502	410	443	405	360	448	M16	57	20	12	18	15	100	165	28	16	10	M20	34
6215	526	423	480	440	390	485	M18	57	20	12	20.5	15	110	165	28	16	10	M20	34

Model <small>Note: 5, 6</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHFM15 - 6205 - (B) - Ratio	11	4	972	283	211	251	270	1067	283	211	251	288
CHFM20 - 6205 - (B) - Ratio	15	4	1042	283	261	324	324	1147	283	261	324	360
CHFM206 - 6205 - (B) - Ratio	15	6	1127	283	340	394	399	1292	283	340	394	444
CHFM25 - 6205 - (B) - Ratio	18.5	4	1127	283	340	394	399	1292	283	340	394	444
CHFM30 - 6205 - (B) - Ratio	22	4	1127	283	340	394	399	1292	283	340	394	444
CHFM306 - 6205 - (B) - Ratio	22	6	1127	283	340	394	412	1292	283	340	394	457
CHFM40 - 6205 - (B) - Ratio	30	4	1127	283	340	394	412	1292	283	340	394	457
CHFM406 - 6205 - (B) - Ratio	30	6	1242	283	340	394	450	1457	283	340	394	544
CHFM50 - 6205 - (B) - Ratio	37	4	1242	283	340	394	450	1457	283	340	394	544
CHFM506 - 6205 - (B) - Ratio	37	6	1242	283	340	394	450	1457	283	340	394	544
CHFM60 - 6205 - (B) - Ratio	45	4	1242	283	340	394	450	1457	283	340	394	544
CHFM606 - 6205 - (B) - Ratio	45	6	1297	283	390	484	543	-	283	-	-	-
CHFM75 - 6205 - (B) - Ratio	55	4	1297	283	390	484	543	-	283	-	-	-
CHFM15 - 6215 - (B) - Ratio	11	4	996	312	211	251	350	1091	312	211	251	368
CHFM20 - 6215 - (B) - Ratio	15	4	1066	312	261	324	405	1171	312	261	324	440
CHFM206 - 6215 - (B) - Ratio	15	6	1151	312	340	394	474	1316	312	340	394	519
CHFM25 - 6215 - (B) - Ratio	18.5	4	1151	312	340	394	474	1316	312	340	394	519
CHFM256 - 6215 - (B) - Ratio	18.5	6	1151	312	340	394	487	1316	312	340	394	532
CHFM30 - 6215 - (B) - Ratio	22	4	1151	312	340	394	474	1316	312	340	394	519
CHFM306 - 6215 - (B) - Ratio	22	6	1151	312	340	394	487	1316	312	340	394	532
CHFM40 - 6215 - (B) - Ratio	30	4	1151	312	340	394	487	1316	312	340	394	532
CHFM406 - 6215 - (B) - Ratio	30	6	1266	312	340	394	525	1481	312	340	394	620
CHFM50 - 6215 - (B) - Ratio	37	4	1266	312	340	394	525	1481	312	340	394	620
CHFM506 - 6215 - (B) - Ratio	37	6	1266	312	340	394	525	1481	312	340	394	620
CHFM60 - 6215 - (B) - Ratio	45	4	1266	312	340	394	525	1481	312	340	394	620
CHFM606 - 6215 - (B) - Ratio	45	6	1321	312	390	484	635	-	312	-	-	-
CHFM75 - 6215 - (B) - Ratio	55	4	1321	312	390	484	635	-	312	-	-	-

Note: 5. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

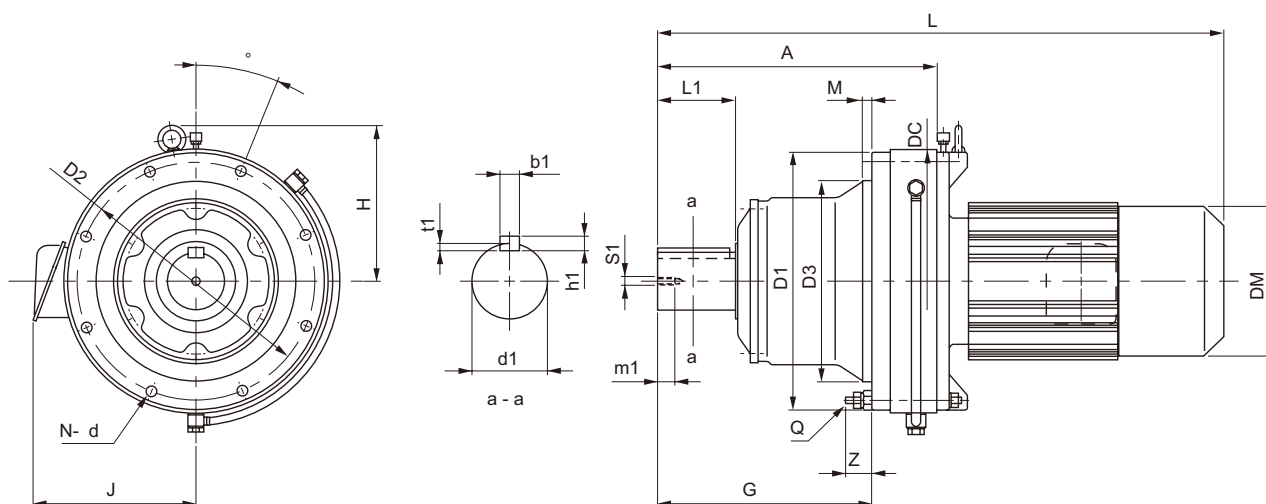
6. "B" after the frame size indicates models equipped with brake.

7. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

## CHFM<sup>Note: 1</sup> - 6225 to 6235

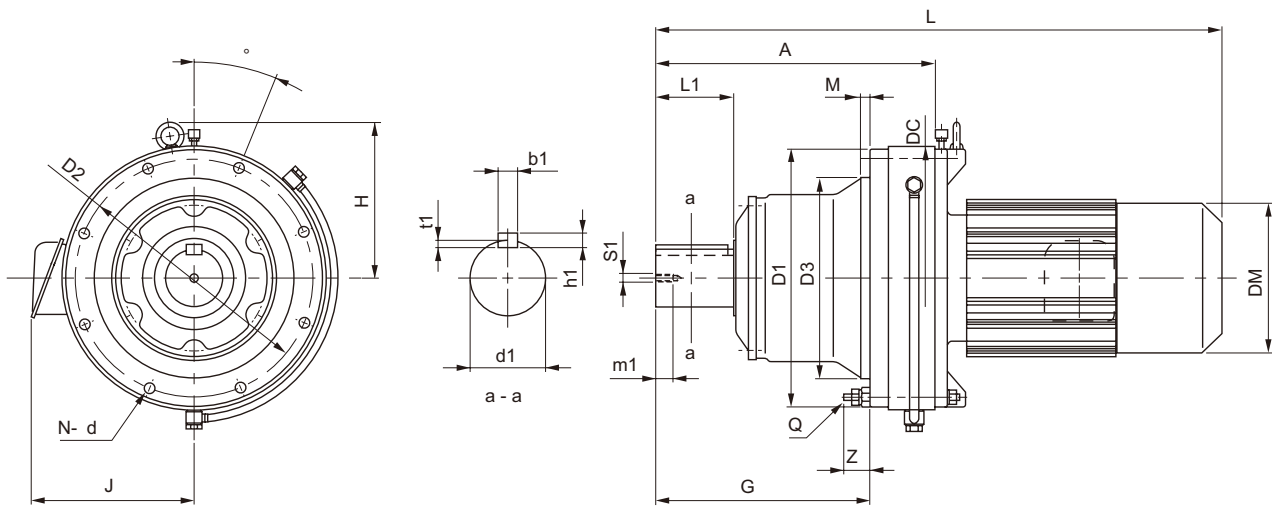


Frame size <small>Note: 5</small>	A	G	D1	D2	D3	DC	Q	Z	M	N	d	$\alpha^\circ$	Output Shaft <small>Note: 2, 3, 7</small>						
													d1	L1	b1	h1	t1	S1	m1
6225	566	454	521	475	420	526	M20	60	20	12	22	15	120	165	32	18	11	M20	34
6235	628	505	557	510	455	562	M20	63	20	12	22	15	130	200	32	18	11	M24	41

Model <small>Note: 5, 6</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHFM206 - 6225 - (B) - Ratio	15	6	1191	333	340	394	542	1356	333	340	394	587
CHFM25 - 6225 - (B) - Ratio	18.5	4	1191	333	340	394	542	1356	333	340	394	587
CHFM256 - 6225 - (B) - Ratio	18.5	6	1191	333	340	394	555	1356	333	340	394	600
CHFM30 - 6225 - (B) - Ratio	22	4	1191	333	340	394	542	1356	333	340	394	587
CHFM306 - 6225 - (B) - Ratio	22	6	1191	333	340	394	555	1356	333	340	394	600
CHFM40 - 6225 - (B) - Ratio	30	4	1191	333	340	394	555	1356	333	340	394	600
CHFM406 - 6225 - (B) - Ratio	30	6	1306	333	340	394	593	1521	333	340	394	688
CHFM50 - 6225 - (B) - Ratio	37	4	1306	333	340	394	593	1521	333	340	394	688
CHFM506 - 6225 - (B) - Ratio	37	6	1306	333	340	394	593	1521	333	340	394	688
CHFM60 - 6225 - (B) - Ratio	45	4	1306	333	340	394	593	1521	333	340	394	688
CHFM606 - 6225 - (B) - Ratio	45	6	1361	333	390	484	692	-	-	-	-	-
CHFM75 - 6225 - (B) - Ratio	55	4	1361	333	390	484	692	-	-	-	-	-
CHFM206 - 6235 - (B) - Ratio	15	6	1253	351	340	394	627	1418	351	340	394	658
CHFM256 - 6235 - (B) - Ratio	18.5	6	1253	351	340	394	627	1418	351	340	394	672
CHFM306 - 6235 - (B) - Ratio	22	6	1253	351	340	394	627	1418	351	340	394	672
CHFM406 - 6235 - (B) - Ratio	30	6	1368	351	340	394	673	1583	351	340	394	761
CHFM506 - 6235 - (B) - Ratio	37	6	1368	351	340	394	673	1583	351	340	394	761
CHFM606 - 6235 - (B) - Ratio	45	6	1423	351	390	484	762	-	-	-	-	-
CHFM756 - 6235 - (B) - Ratio	55	6	1503	351	390	485	816	-	-	-	-	-

- Note: 1. [ ] indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter ( $\phi D_3$ ): Dimension tolerance conforms to JIS B 0401-1976 "g6."

## Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

CHFM<sup>Note: 1</sup> - 6245 to 6265

GEARMOTORS

Dimension Tables  
CHFM

Frame size Note: 5	A	G	D1	D2	D3	DC	Q	Z	M	N	d	$\alpha^\circ$	Output Shaft Note: 2, 3, 7						
													d1	L1	b1	h1	t1	S1	m1
6245	657	529	615	560	500	614	M24	65	25	12	27	15	140	200	36	20	12	M24	41
6255	775	616	666	610	540	670	M24	86	30	12	27	15	160	240	40	22	13	M30	49
6265	892	712	730	660	570	736	M30	82	40	12	34	15	170	300	40	22	13	M30	49

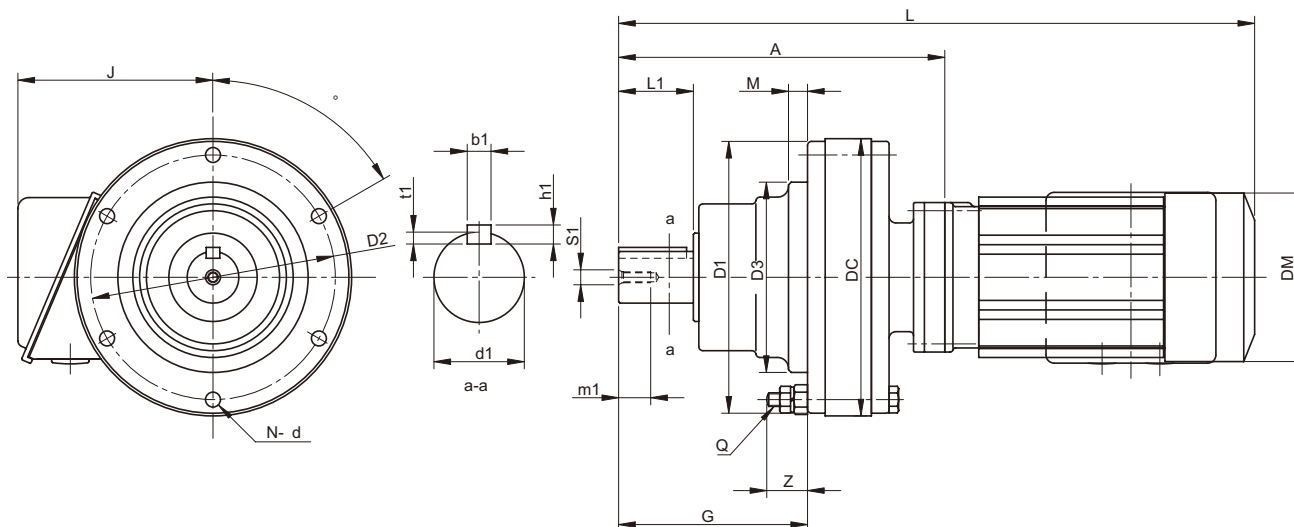
Model Note: 5, 6	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHFM206 - 6245 - (B) - Ratio	15	6	1282	359	340	394	747	1447	359	340	394	780
CHFM256 - 6245 - (B) - Ratio	18.5	6	1282	359	340	394	747	1447	359	340	394	794
CHFM306 - 6245 - (B) - Ratio	22	6	1282	359	340	394	747	1447	359	340	394	794
CHFM406 - 6245 - (B) - Ratio	30	6	1397	359	340	394	793	1612	359	340	394	881
CHFM506 - 6245 - (B) - Ratio	37	6	1397	359	340	394	793	1612	359	340	394	881
CHFM606 - 6245 - (B) - Ratio	45	6	1452	359	390	484	884	-	359	-	-	-
CHFM756 - 6245 - (B) - Ratio	55	6	1532	359	390	485	933	-	359	-	-	-
CHFM256 - 6255 - (B) - Ratio	18.5	6	1400	386	340	394	992	1565	386	340	394	1039
CHFM306 - 6255 - (B) - Ratio	22	6	1400	386	340	394	992	1565	386	340	394	1039
CHFM406 - 6255 - (B) - Ratio	30	6	1515	386	340	394	1037	1730	386	340	394	1125
CHFM506 - 6255 - (B) - Ratio	37	6	1515	386	340	394	1037	1730	386	340	394	1125
CHFM606 - 6255 - (B) - Ratio	45	6	1570	386	390	484	1117	-	-	-	-	-
CHFM756 - 6255 - (B) - Ratio	55	6	1650	386	390	485	1172	-	-	-	-	-
CHFM306 - 6265 - (B) - Ratio	22	6	1517	453	340	394	1230	1727	453	340	394	1277
CHFM406 - 6265 - (B) - Ratio	30	6	1632	453	340	394	1275	1847	453	340	394	1363
CHFM506 - 6265 - (B) - Ratio	37	6	1632	453	340	394	1275	1847	453	340	394	1363
CHFM606 - 6265 - (B) - Ratio	45	6	1687	453	390	484	1370	-	-	-	-	-

Note: 5. "B" after the frame size indicates models equipped with brake.  
 6. Dimension of shaft end: Refer to pages F-28 to F-29 for details.  
 7. Dimensions in above drawings are subject to change without notice.



# Dimension Tables Gearmotors (Universal Direction, Flange Mount)

## CNFM   - 606  DA to 612  DB

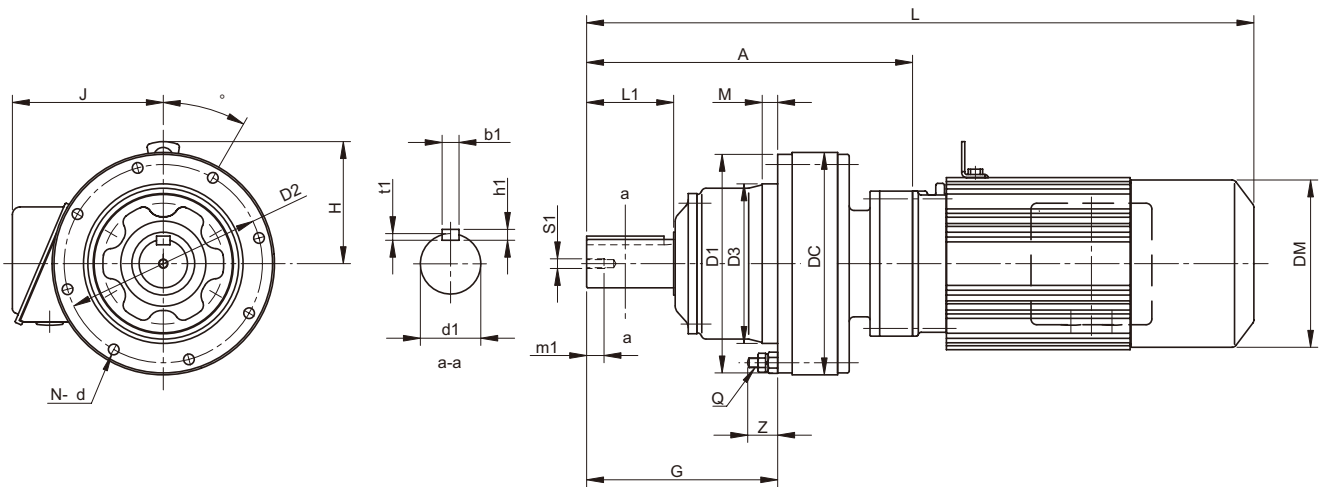


Frame size Note: 5	A	G	D1	D2	D3	DC	Q	Z	M	N	d	$\alpha^\circ$	Output Shaft Note: 2, 3, 7						
													d1	L1	b1	h1	t1	S1	m1
606 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA	125	68	110	98	80	110	M6	23	4	6	6.6	60	14	25	5	5	3	M5	16
607 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA	131	74	110	98	80	110	M6	23	4	6	6.6	60	18	30	6	6	3.5	M6	16
609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA	190	114	150	134	105	150	M8	28	6	8	9	22.5	28	35	8	7	4	M8	20
610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA	204	114	150	134	105	150	M8	28	6	8	9	22.5	28	35	8	7	4	M8	20
612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA	240	139	200	180	140	204	M10	33	14	6	11	60	38	55	10	8	5	M8	20
612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB	252	139	200	180	140	204	M10	33	14	6	11	60	38	55	10	8	5	M8	20

Model Note: 5, 6	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CNFM01 - 606 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.1	4	287	113	119	8	294	113	124	9.5
CNFM01 - 607 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.1	4	293	113	119	9	300	113	124	10.5
CNFM02 - 607 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.2	4	311	113	124	10	339	113	124	12
CNFM01 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.1	4	352	113	119	14	359	113	124	15
CNFM02 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.2	4	370	113	124	15	398	113	124	16
CNFM03 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.25	4	370	113	124	15	398	113	124	16
CNFM05 - 609 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.4	4	386	113	124	16	418	113	124	17
CNFM01 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.1	4	366	113	119	15	373	113	124	16
CNFM02 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.2	4	384	113	124	16	412	113	124	17
CNFM03 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.25	4	384	113	124	16	412	113	124	17
CNFM05 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.4	4	400	113	124	17	432	113	124	18
CNFM01 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.1	4	402	113	119	26	409	113	124	27
CNFM02 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.2	4	420	113	124	27	448	113	124	28
CNFM03 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.25	4	420	113	124	27	448	113	124	28
CNFM05 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DA - (B) - Ratio	0.4	4	436	113	124	28	468	113	124	29
CNFM01 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	0.1	4	414	113	119	29	421	113	124	31
CNFM02 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	0.2	4	432	113	124	30	473	113	124	32
CNFM03 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	0.25	4	432	113	124	30	473	113	124	32
CNFM05 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	0.4	4	448	113	124	31	473	113	124	33
CNFM08 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	0.55	4	489	143	160	35	532	143	160	38
CNFM1 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	0.75	4	489	143	160	35	532	143	160	38
CNFM1H - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	1.1	4	516	148	169	39	578	148	169	44
CNFM2 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> DB - (B) - Ratio	1.5	4	516	148	169	39	578	148	169	44

- Note: 1.   indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter ( $\phi D3$ ): Dimension tolerance conforms to JIS B 0401-1976 "g6."

## Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

CHFM<sup>Note: 1</sup> - 613□DA to 614□DC

GEARMOTORS

Dimension Tables  
CHFM

Frame size <small>Note: 5</small>	A	G	D1	D2	D3	DC	H	Q	Z	M	N	d	$\alpha^\circ$	Output Shaft <small>Note: 2, 3, 7</small>						
														d1	L1	b1	h1	t1	S1	m1
613□DA	294	178	226	205	165	230	150	M10	31	16	6	11	60	50	70	14	9	5.5	M10	18
613□DB	303	178	226	205	165	230	150	M10	31	16	6	11	60	50	70	14	9	5.5	M10	18
613□DC	317	178	226	205	165	230	150	M10	31	16	6	11	60	50	70	14	9	5.5	M10	18
614□DA	314	198	226	205	165	230	150	M10	31	16	6	11	60	50	90	14	9	5.5	M10	18
614□DB	323	198	226	205	165	230	150	M10	31	16	6	11	60	50	90	14	9	5.5	M10	18
614□DC	337	198	226	205	165	230	150	M10	31	16	6	11	60	50	90	14	9	5.5	M10	18

Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CHFM02 - 613□DA - (B) - Ratio	0.2	4	474	113	124	40	502	113	124	41
CHFM03 - 613□DA - (B) - Ratio	0.25	4	474	113	124	40	522	113	124	41
CHFM05 - 613□DA - (B) - Ratio	0.4	4	490	113	124	41	522	113	124	42
CHFM02 - 613□DB - (B) - Ratio	0.2	4	483	113	124	42	511	113	124	44
CHFM03 - 613□DB - (B) - Ratio	0.25	4	483	113	124	42	511	113	124	44
CHFM05 - 613□DB - (B) - Ratio	0.4	4	499	113	124	43	531	113	124	45
CHFM08 - 613□DB - (B) - Ratio	0.55	4	540	143	160	47	583	143	160	50
CHFM1 - 613□DB - (B) - Ratio	0.75	4	540	143	160	47	583	143	160	50
CHFM1H - 613□DB - (B) - Ratio	1.1	4	573	148	169	51	635	148	169	56
CHFM2 - 613□DB - (B) - Ratio	1.5	4	573	148	169	51	635	148	169	56
CHFM08 - 613□DC - (B) - Ratio	0.55	4	554	143	160	49	597	143	160	52
CHFM1 - 613□DC - (B) - Ratio	0.75	4	554	143	160	49	597	143	160	52
CHFM2 - 613□DC - (B) - Ratio	1.5	4	587	148	169	53	649	148	169	58
CHFM3 - 613□DC - (B) - Ratio	2.2	4	607	155	182	57	670	155	182	63
CHFM02 - 614□DA - (B) - Ratio	0.2	4	494	113	124	40	522	113	124	41
CHFM03 - 614□DA - (B) - Ratio	0.25	4	494	113	124	40	522	113	124	41
CHFM05 - 614□DA - (B) - Ratio	0.4	4	510	113	124	41	542	113	124	42
CHFM02 - 614□DB - (B) - Ratio	0.2	4	503	113	124	42	531	113	124	44
CHFM03 - 614□DB - (B) - Ratio	0.25	4	503	113	124	42	531	113	124	44
CHFM05 - 614□DB - (B) - Ratio	0.4	4	519	113	124	43	551	113	124	47
CHFM08 - 614□DB - (B) - Ratio	0.55	4	560	143	160	47	603	143	160	50
CHFM1 - 614□DB - (B) - Ratio	0.75	4	560	143	160	47	603	143	160	50
CHFM1H - 614□DB - (B) - Ratio	1.1	4	593	148	169	51	655	148	169	54
CHFM2 - 614□DB - (B) - Ratio	1.5	4	593	148	169	51	655	148	169	54
CHFM08 - 614□DC - (B) - Ratio	0.55	4	574	143	160	49	617	143	160	52
CHFM1 - 614□DC - (B) - Ratio	0.75	4	574	143	160	49	617	143	160	52
CHFM1H - 614□DC - (B) - Ratio	1.1	4	607	148	169	53	669	148	169	58
CHFM2 - 614□DC - (B) - Ratio	1.5	4	607	148	169	53	669	148	169	58
CHFM3 - 614□DC - (B) - Ratio	2.2	4	627	155	182	57	690	155	182	63

Note: 5. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

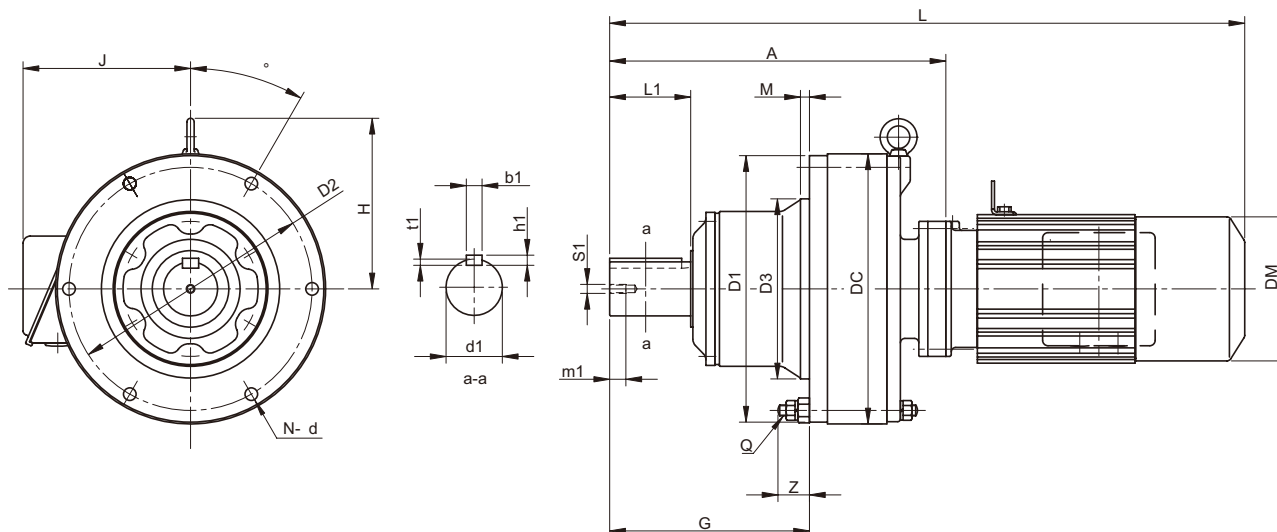
6. "B" after the frame size indicates models equipped with brake.

7. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

## CHFM<sup>Note: 1</sup> - 616□DA to 618□DA

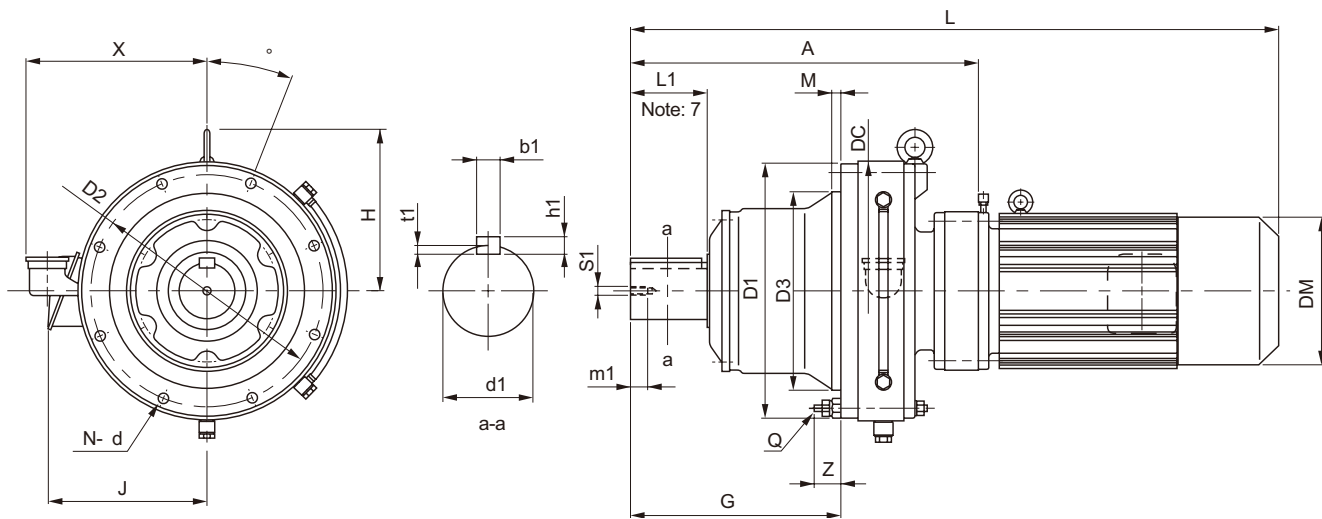


Frame size <small>Note: 5</small>	A	G	D1	D2	D3	DC	H	Q	Z	M	N	d	α°	Output Shaft <small>Note: 2, 3, 7</small>						
														d1	L1	b1	h1	t1	S1	m1
616□DA	373	222	296	270	200	300	189	M12	35	10	6	14	30	60	90	18	11	7	M10	18
616□DB	387	222	296	270	200	300	189	M12	35	10	6	14	30	60	90	18	11	7	M10	18
617□DA	418	262	330	300	250	340	216	M12	41	12	8	14	22.5	70	90	20	12	7.5	M12	24
617□DB	432	262	330	300	250	340	216	M12	41	12	8	14	22.5	70	90	20	12	7.5	M12	24
618□DA	474	299	360	330	280	370	231	M12	38	12	8	14	22.5	80	110	22	14	9	M12	24

Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CHFM02 - 616□DA - (B) - Ratio	0.2	4	553	113	124	72	581	113	124	74
CHFM03 - 616□DA - (B) - Ratio	0.25	4	553	113	124	72	581	113	124	74
CHFM05 - 616□DA - (B) - Ratio	0.4	4	569	113	124	73	601	113	124	75
CHFM08 - 616□DA - (B) - Ratio	0.55	4	610	143	160	77	653	143	160	80
CHFM1 - 616□DA - (B) - Ratio	0.75	4	610	143	160	77	653	143	160	80
CHFM1H - 616□DA - (B) - Ratio	1.1	4	643	148	169	81	705	148	169	86
CHFM2 - 616□DA - (B) - Ratio	1.5	4	643	148	169	81	705	148	169	86
CHFM08 - 616□DB - (B) - Ratio	0.55	4	624	143	160	79	667	143	160	82
CHFM1 - 616□DB - (B) - Ratio	0.75	4	624	143	160	79	667	143	160	82
CHFM1H - 616□DB - (B) - Ratio	1.1	4	657	148	169	83	719	148	169	88
CHFM2 - 616□DB - (B) - Ratio	1.5	4	657	148	169	83	719	148	169	88
CHFM3 - 616□DB - (B) - Ratio	2.2	4	677	155	182	87	740	155	182	93
CHFM02 - 617□DA - (B) - Ratio	0.2	4	598	113	124	92	626	113	124	94
CHFM03 - 617□DA - (B) - Ratio	0.25	4	598	113	124	92	626	113	124	94
CHFM05 - 617□DA - (B) - Ratio	0.4	4	614	113	124	93	646	113	124	95
CHFM08 - 617□DA - (B) - Ratio	0.55	4	655	143	160	97	698	143	160	100
CHFM1 - 617□DA - (B) - Ratio	0.75	4	655	143	160	97	698	143	160	100
CHFM1H - 617□DA - (B) - Ratio	1.1	4	688	148	169	101	750	148	169	106
CHFM2 - 617□DA - (B) - Ratio	1.5	4	688	148	169	101	750	148	169	106
CHFM08 - 617□DB - (B) - Ratio	0.55	4	669	143	160	98	712	143	160	101
CHFM1 - 617□DB - (B) - Ratio	0.75	4	669	143	160	98	712	143	160	101
CHFM1H - 617□DB - (B) - Ratio	1.1	4	702	148	169	102	764	148	169	107
CHFM2 - 617□DB - (B) - Ratio	1.5	4	702	148	169	102	764	148	169	107
CHFM3 - 617□DB - (B) - Ratio	2.2	4	722	155	182	106	785	155	182	112
CHFM05 - 618□DA - (B) - Ratio	0.4	4	670	113	124	136	702	113	124	138
CHFM08 - 618□DA - (B) - Ratio	0.55	4	711	143	160	140	754	143	160	143
CHFM1 - 618□DA - (B) - Ratio	0.75	4	711	143	160	140	754	143	160	143
CHFM1H - 618□DA - (B) - Ratio	1.1	4	744	148	169	144	806	148	169	149
CHFM2 - 618□DA - (B) - Ratio	1.5	4	744	148	169	144	806	148	169	149
CHFM3 - 618□DA - (B) - Ratio	2.2	4	764	155	182	148	827	155	182	154

- Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter (φD3): Dimension tolerance conforms to JIS B 0401-1976 "g6."

## Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

CHFM<sup>Note: 1</sup> - 616□DC to 618□DB

GEARMOTORS

Dimension Tables  
CHFM

Frame size <small>Note: 5</small>	A	G	D1	D2	D3	DC	H	Q	Z	M	N	d	$\alpha^\circ$	X	Output Shaft <small>Note: 2, 3, 7</small>						
															d1	L1	b1	h1	t1	S1	m1
616□DC	389	222	296	270	200	300	189	M12	35	10	6	14	30	228	60	90	18	11	7	M10	18
617□DC	436	262	330	300	250	340	216	M12	41	12	8	14	22.5	243	70	90	20	12	7.5	M12	24
618□DB	496	299	360	330	280	370	231	M12	38	12	8	14	22.5	258	80	110	22	14	9	M12	24

Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CHFM1H - 616□DC - (B) - Ratio	1.1	4	659	148	169	89	721	148	169	94
CHFM2 - 616□DC - (B) - Ratio	1.5	4	659	148	169	89	721	148	169	94
CHFM3 - 616□DC - (B) - Ratio	2.2	4	679	155	182	93	742	155	182	100
CHFM4 - 616□DC - (B) - Ratio	3.0	4	702	166	222	103	774	166	222	113
CHFM5 - 616□DC - (B) - Ratio	3.7	4	702	166	222	103	774	166	222	113
CHFM8 - 616□DC - (B) - Ratio	5.5	4	746	166	222	110	818	166	222	120
CHFM1H - 617□DC - (B) - Ratio	1.1	4	706	148	169	113	768	148	169	118
CHFM2 - 617□DC - (B) - Ratio	1.5	4	706	148	169	113	768	148	169	118
CHFM3 - 617□DC - (B) - Ratio	2.2	4	726	155	182	117	789	155	182	124
CHFM4 - 617□DC - (B) - Ratio	3.0	4	749	166	222	127	821	166	222	137
CHFM5 - 617□DC - (B) - Ratio	3.7	4	749	166	222	127	821	166	222	137
CHFM8 - 617□DC - (B) - Ratio	5.5	4	793	166	222	134	865	166	222	144
CHFM1H - 618□DB - (B) - Ratio	1.1	4	766	148	169	159	828	148	169	164
CHFM2 - 618□DB - (B) - Ratio	1.5	4	766	148	169	159	828	148	169	164
CHFM3 - 618□DB - (B) - Ratio	2.2	4	786	155	182	162	849	155	182	169
CHFM4 - 618□DB - (B) - Ratio	3.0	4	809	166	222	172	881	166	222	182
CHFM5 - 618□DB - (B) - Ratio	3.7	4	809	166	222	172	881	166	222	182
CHFM8 - 618□DB - (B) - Ratio	5.5	4	853	166	222	179	925	166	222	189
CHFM10 - 618□DB - (B) - Ratio	7.5	4	876	211	251	194	971	211	251	212
CHFM15 - 618□DB - (B) - Ratio	11	4	936	211	251	208	1031	211	251	226

Note: 5. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

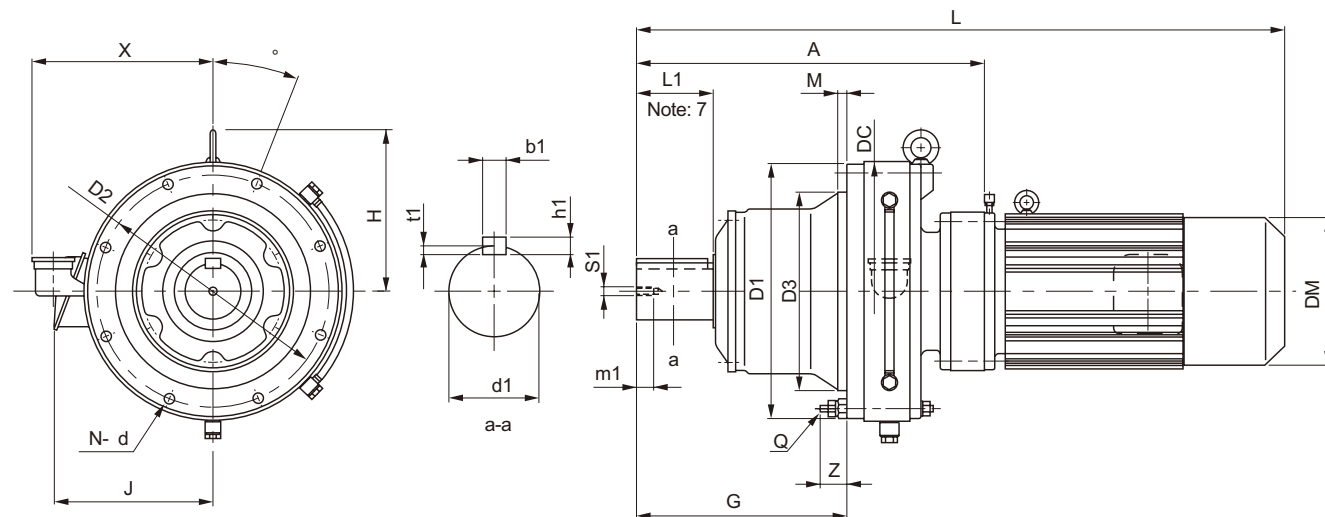
6. "B" after the frame size indicates models equipped with brake.

7. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

## CHFM<sup>Note: 1</sup> - 619□DA to 619□DB

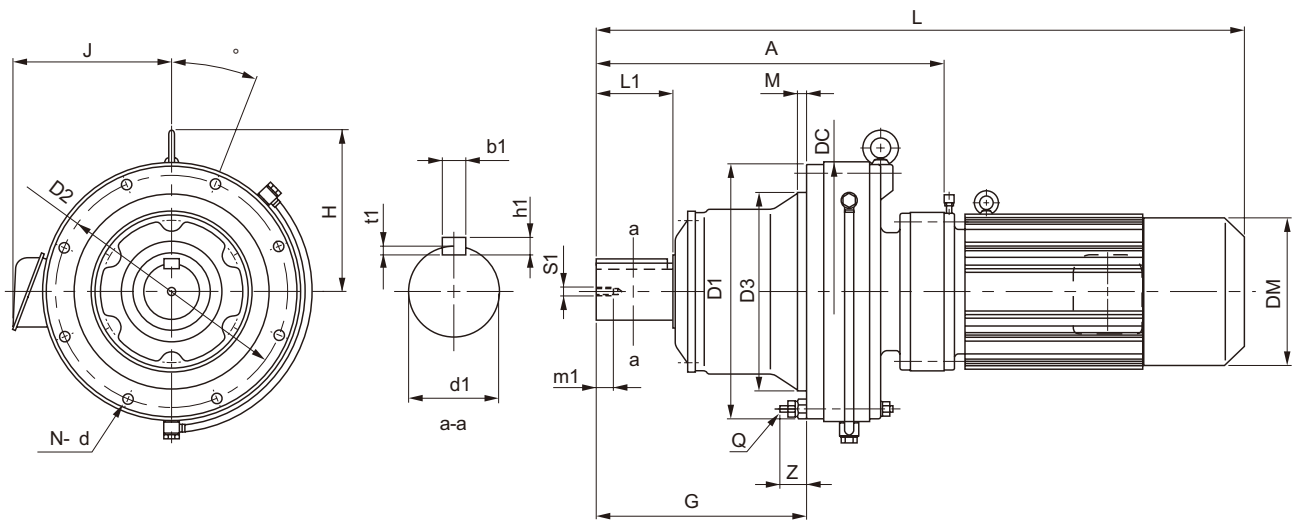


Frame size <small>Note: 5</small>	A	G	D1	D2	D3	DC	H	Q	Z	M	N	d	$\alpha^\circ$	X	Output Shaft <small>Note: 2, 3, 7</small>						
															d1	L1	b1	h1	t1	S1	m1
619□DA	556	365	420	380	320	430	281	M12	43	10	12	14	15	285	95	135	25	14	9	M20	34
619□DB	572	365	420	380	320	430	281	M12	43	10	12	14	15	285	95	135	25	14	9	M20	34

Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CHFM1 - 619□DA - (B) - Ratio	0.75	4	793	143	160	201	836	143	160	204
CHFM1H - 619□DA - (B) - Ratio	1.1	4	826	148	169	205	888	148	169	210
CHFM2 - 619□DA - (B) - Ratio	1.5	4	826	148	169	205	888	148	169	210
CHFM3 - 619□DA - (B) - Ratio	2.2	4	846	155	182	209	909	155	182	216
CHFM4 - 619□DA - (B) - Ratio	3.0	4	869	166	222	219	941	166	222	229
CHFM5 - 619□DA - (B) - Ratio	3.7	4	869	166	222	219	941	166	222	229
CHFM8 - 619□DA - (B) - Ratio	5.5	4	913	166	222	226	985	166	222	236
CHFM2 - 619□DB - (B) - Ratio	1.5	4	842	148	169	212	904	148	169	217
CHFM3 - 619□DB - (B) - Ratio	2.2	4	862	155	182	216	925	155	182	223
CHFM4 - 619□DB - (B) - Ratio	3.0	4	885	166	222	226	957	166	222	236
CHFM5 - 619□DB - (B) - Ratio	3.7	4	885	166	222	226	957	166	222	236
CHFM8 - 619□DB - (B) - Ratio	5.5	4	929	166	222	233	1001	166	222	243
CHFM10 - 619□DB - (B) - Ratio	7.5	4	952	211	251	248	1047	211	251	266
CHFM15 - 619□DB - (B) - Ratio	11	4	1012	211	251	262	1107	211	251	280
CHFM20 - 619□DB - (B) - Ratio	15	4	1102	261	324	314	1207	261	324	348

- Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter ( $\phi D3$ ): Dimension tolerance conforms to JIS B 0401-1976 "g6."

## Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

CHFM<sup>Note: 1</sup> - 6205DA to 6215DA

GEARMOTORS

Dimension Tables  
CHFM

Frame size	A	G	D1	D2	D3	DC	H	Q	Z	M	N	d	$\alpha^\circ$	Output Shaft <small>Note: 2, 3, 7</small>						
														d1	L1	b1	h1	t1	S1	m1
6205DA	597	410	443	405	360	448	283	M16	57	20	12	18	15	100	165	28	16	10	M20	34
6205DB	624	410	443	405	360	448	283	M16	57	20	12	18	15	100	165	28	16	10	M20	34
6215DA	650	423	480	440	390	485	312	M18	57	20	12	20.5	15	110	165	28	16	10	M20	34

Model	Note: 6	Motor		Standard				With Brake			
		[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CHFM1 - 6205DA - (B) - Ratio		0.75	4	834	143	160	225	877	143	160	228
CHFM2 - 6205DA - (B) - Ratio		1.5	4	867	148	169	229	929	148	169	234
CHFM3 - 6205DA - (B) - Ratio		2.2	4	887	155	182	233	949	155	182	240
CHFM4 - 6205DA - (B) - Ratio		3.0	4	910	166	222	243	982	166	222	253
CHFM5 - 6205DA - (B) - Ratio		3.7	4	910	166	222	243	982	166	222	253
CHFM8 - 6205DA - (B) - Ratio		5.5	4	954	166	222	250	1026	166	222	260
CHFM3 - 6205DB - (B) - Ratio		2.2	4	914	155	182	245	977	155	182	252
CHFM4 - 6205DB - (B) - Ratio		3.0	4	937	166	222	255	1009	166	222	265
CHFM5 - 6205DB - (B) - Ratio		3.7	4	937	166	222	255	1009	166	222	265
CHFM8 - 6205DB - (B) - Ratio		5.5	4	981	166	222	262	1053	166	222	272
CHFM10 - 6205DB - (B) - Ratio		7.5	4	1004	211	251	277	1099	211	251	295
CHFM15 - 6205DB - (B) - Ratio		11	4	1064	211	251	290	1159	211	251	308
CHFM20 - 6205DB - (B) - Ratio		15	4	1154	261	324	342	1259	261	324	375
CHFM2 - 6215DA - (B) - Ratio		1.5	4	920	148	169	321	982	148	169	326
CHFM3 - 6215DA - (B) - Ratio		2.2	4	940	155	182	324	1003	155	182	331
CHFM4 - 6215DA - (B) - Ratio		3.0	4	963	166	222	334	1035	166	222	344
CHFM5 - 6215DA - (B) - Ratio		3.7	4	963	166	222	334	1035	166	222	344
CHFM8 - 6215DA - (B) - Ratio		5.5	4	1007	166	222	341	1079	166	222	351
CHFM10 - 6215DA - (B) - Ratio		7.5	4	1030	211	251	356	1125	211	251	374
CHFM15 - 6215DA - (B) - Ratio		11	4	1090	211	251	369	1185	211	251	387
CHFM20 - 6215DA - (B) - Ratio		15	4	1180	261	324	421	1285	261	324	455

Note: 5. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

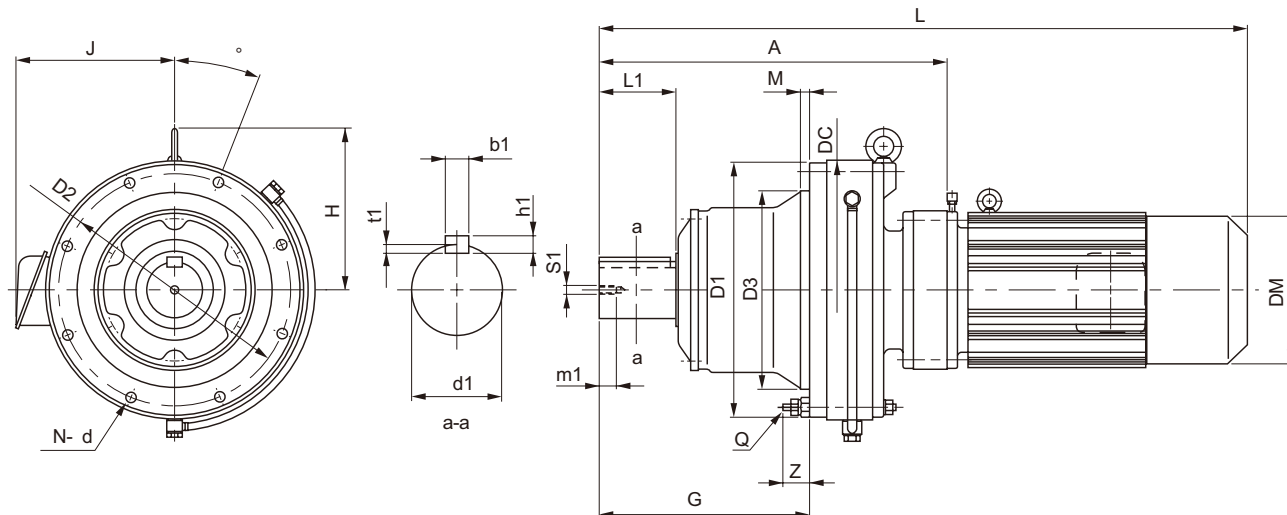
6. "B" after the frame size indicates models equipped with brake.

7. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

## CHFM - 6215DB to 6225DB

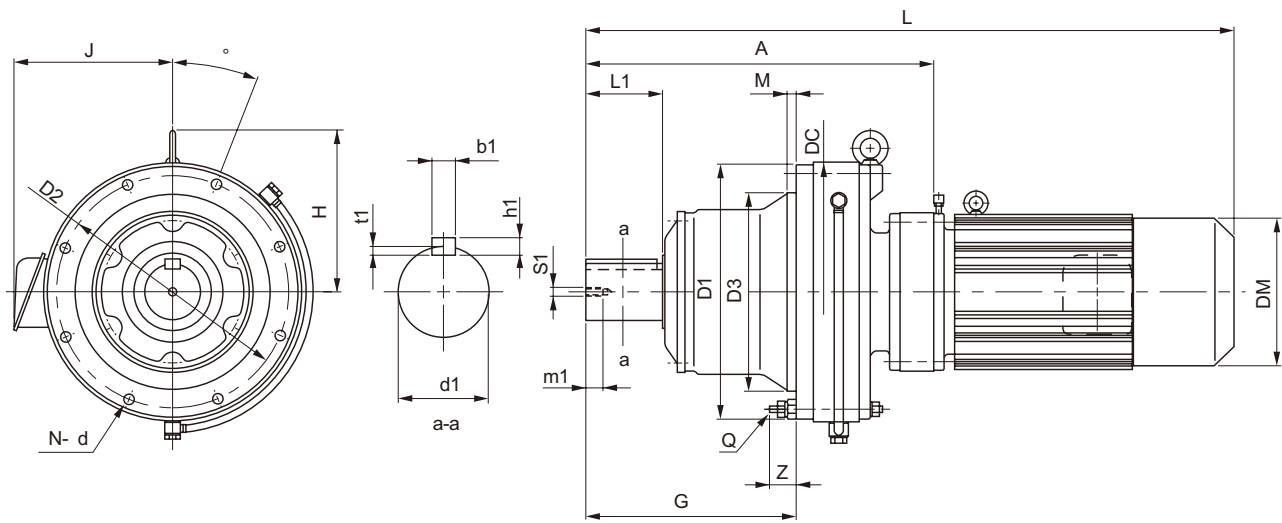


Frame size	A	G	D1	D2	D3	DC	H	Q	Z	M	N	d	$\alpha^\circ$	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
6215DB	675	423	480	440	390	485	312	M18	57	20	12	20.5	15	110	165	28	16	10	M20	34
6225DA	692	454	521	475	420	526	333	M20	65	20	12	22	15	120	165	32	18	11	M20	34
6225DB	735	454	521	475	420	526	333	M20	65	20	12	22	15	120	165	32	18	11	M20	34

Model	Note: 5	Motor		Standard				With Brake			
		[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CHFM5 - 6215DB - (B) - Ratio		3.7	4	993	166	222	353	1065	166	222	363
CHFM8 - 6215DB - (B) - Ratio		5.5	4	1037	166	222	360	1109	166	222	370
CHFM10 - 6215DB - (B) - Ratio		7.5	4	1060	211	251	376	1155	211	251	393
CHFM15 - 6215DB - (B) - Ratio		11	4	1120	211	251	390	1215	211	251	407
CHFM20 - 6215DB - (B) - Ratio		15	4	1205	261	324	443	1310	261	324	477
CHFM25 - 6215DB - (B) - Ratio		18.5	4	1300	340	394	518	1465	340	394	569
CHFM30 - 6215DB - (B) - Ratio		22	4	1300	340	394	518	1465	340	394	569
CHFM2 - 6225DA - (B) - Ratio		1.5	4	962	148	169	378	1024	148	169	383
CHFM3 - 6225DA - (B) - Ratio		2.2	4	982	155	182	381	1045	155	182	388
CHFM4 - 6225DA - (B) - Ratio		3.0	4	1005	166	222	391	1077	166	222	401
CHFM5 - 6225DA - (B) - Ratio		3.7	4	1005	166	222	391	1077	166	222	401
CHFM8 - 6225DA - (B) - Ratio		5.5	4	1049	166	222	398	1121	166	222	408
CHFM10 - 6225DA - (B) - Ratio		7.5	4	1072	211	251	413	1167	211	251	431
CHFM15 - 6225DA - (B) - Ratio		11	4	1132	211	251	427	1227	211	251	445
CHFM20 - 6225DA - (B) - Ratio		15	4	1222	261	324	479	1327	261	324	512
CHFM5 - 6225DB - (B) - Ratio		3.7	4	1058	166	222	436	1130	166	222	447
CHFM8 - 6225DB - (B) - Ratio		5.5	4	1102	166	222	443	1174	166	222	454
CHFM10 - 6225DB - (B) - Ratio		7.5	4	1125	211	251	458	1220	211	251	476
CHFM15 - 6225DB - (B) - Ratio		11	4	1185	211	251	472	1280	211	251	490
CHFM20 - 6225DB - (B) - Ratio		15	4	1265	261	324	526	1370	261	324	560
CHFM25 - 6225DB - (B) - Ratio		18.5	4	1360	340	394	598	1525	340	394	649
CHFM30 - 6225DB - (B) - Ratio		22	4	1360	340	394	598	1525	340	394	649
CHFM40 - 6225DB - (B) - Ratio		30	4	1360	340	394	615	1525	340	394	666

- Note: 1. [ ] indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter ( $\phi D3$ ): Dimension tolerance conforms to JIS B 0401-1976 "g6."

## Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

CHFM<sup>Note: 1</sup> - 6235DA to 6245DB

GEARMOTORS

Dimension Tables  
CHFM

Frame size	A	G	D1	D2	D3	DC	H	Q	Z	M	N	d	$\alpha^\circ$	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
6235DA	778	505	557	510	455	562	351	M20	68	20	12	22	15	130	200	32	18	11	M24	41
6235DB	800	505	557	510	455	562	351	M20	68	20	12	22	15	130	200	32	18	11	M24	41
6245DA	816	529	615	560	500	614	395	M24	65	25	12	27	15	140	200	36	20	12	M24	41
6245DB	837	529	615	560	500	614	395	M24	65	25	12	27	15	140	200	36	20	12	M24	41

Model	Note: 5	Motor		Standard				With Brake			
		[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CHFM3	- 6235DA - (B) - Ratio	2.2	4	1068	155	182	485	1131	155	182	491
CHFM4	- 6235DA - (B) - Ratio	3.0	4	1091	166	222	494	1163	166	222	504
CHFM5	- 6235DA - (B) - Ratio	3.7	4	1091	166	222	494	1163	166	222	504
CHFM8	- 6235DA - (B) - Ratio	5.5	4	1135	166	222	501	1207	166	222	511
CHFM10	- 6235DA - (B) - Ratio	7.5	4	1163	211	251	517	1258	211	251	534
CHFM15	- 6235DA - (B) - Ratio	11	4	1223	211	251	531	1318	211	251	548
CHFM20	- 6235DA - (B) - Ratio	15	4	1308	261	324	584	1413	261	324	618
CHFM25	- 6235DA - (B) - Ratio	18.5	4	1403	340	394	661	1568	340	394	712
CHFM30	- 6235DA - (B) - Ratio	22	4	1403	340	394	661	1568	340	394	712
CHFM15	- 6235DB - (B) - Ratio	11	4	1245	211	251	567	1340	211	251	585
CHFM20	- 6235DB - (B) - Ratio	15	4	1330	261	324	629	1435	261	324	735
CHFM25	- 6235DB - (B) - Ratio	18.5	4	1425	340	394	696	1590	340	394	747
CHFM30	- 6235DB - (B) - Ratio	22	4	1425	340	394	696	1590	340	394	747
CHFM40	- 6235DB - (B) - Ratio	30	4	1425	340	394	710	1590	340	394	753
CHFM50	- 6235DB - (B) - Ratio	37	4	1540	340	394	748	1755	340	394	845
CHFM3	- 6245DA - (B) - Ratio	2.2	4	1106	155	182	593	1169	155	182	599
CHFM4	- 6245DA - (B) - Ratio	3.0	4	1129	166	222	602	1201	166	222	612
CHFM5	- 6245DA - (B) - Ratio	3.7	4	1129	166	222	602	1201	166	222	612
CHFM8	- 6245DA - (B) - Ratio	5.5	4	1173	166	222	609	1245	166	222	619
CHFM10	- 6245DA - (B) - Ratio	7.5	4	1201	211	251	625	1296	211	251	642
CHFM15	- 6245DA - (B) - Ratio	11	4	1261	211	251	639	1356	211	251	656
CHFM20	- 6245DA - (B) - Ratio	15	4	1346	261	324	692	1451	261	324	726
CHFM25	- 6245DA - (B) - Ratio	18.5	4	1441	340	394	763	1606	340	394	814
CHFM30	- 6245DA - (B) - Ratio	22	4	1441	340	394	763	1606	340	394	814
CHFM15	- 6245DB - (B) - Ratio	11	4	1282	211	251	663	1377	211	251	681
CHFM20	- 6245DB - (B) - Ratio	15	4	1367	261	324	723	1472	261	324	752
CHFM25	- 6245DB - (B) - Ratio	18.5	4	1462	340	394	789	1627	340	394	840
CHFM30	- 6245DB - (B) - Ratio	22	4	1462	340	394	789	1627	340	394	840
CHFM40	- 6245DB - (B) - Ratio	30	4	1462	340	394	806	1627	340	394	849
CHFM50	- 6245DB - (B) - Ratio	37	4	1577	340	394	843	1792	340	394	940

Note: 5. "B" after the frame size indicates models equipped with brake.

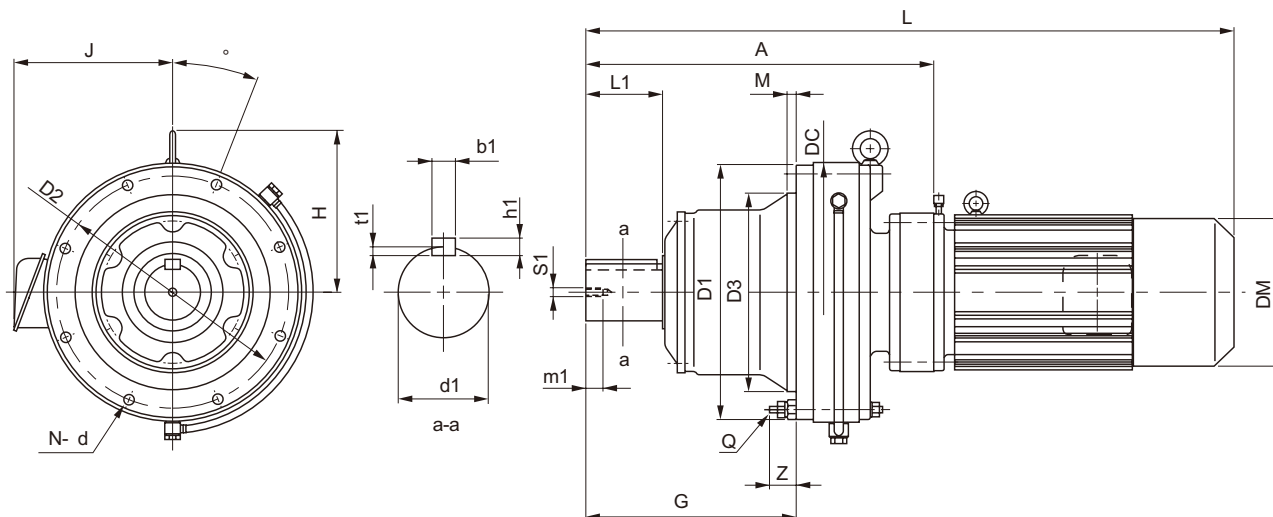
6. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

7. Dimensions in above drawings are subject to change without notice.



# Dimension Tables Gearmotors (Horizontal Direction, Flange Mount)

## CHFM - 6255DA to 6265DA

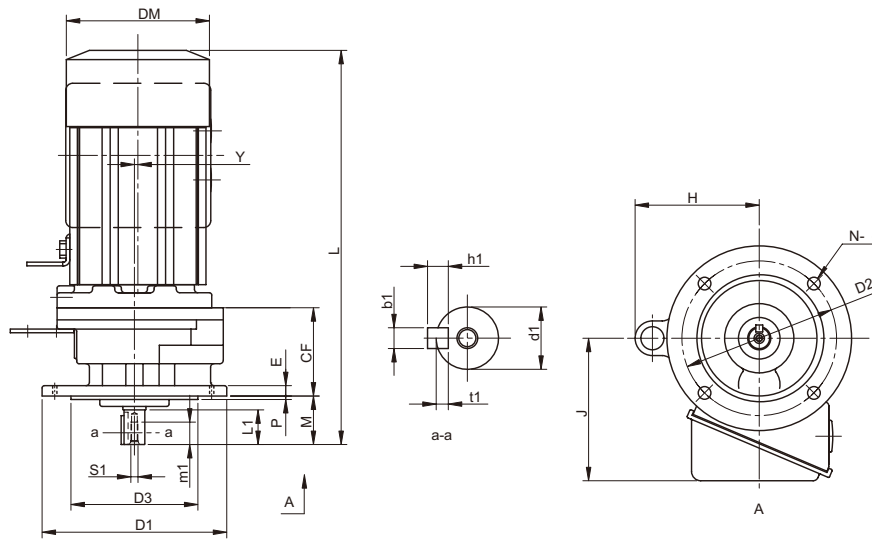


Frame size	A	G	D1	D2	D3	DC	H	Q	Z	M	N	d	α°	Output Shaft						
														d1	L1	b1	h1	t1	S1	m1
6255DA	956	616	666	610	540	670	386	M24	88	30	12	27	15	160	240	40	22	13	M30	49
6255DB	978	616	666	610	540	670	386	M24	88	30	12	27	15	160	240	40	22	13	M30	49
6265DA	1088	712	730	660	570	736	453	M30	82	40	12	34	15	170	300	40	22	13	M30	49

Model	Note: 7	Motor		Standard				With Brake			
		[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CHFM5 - 6255DA - (B) - Ratio		3.7	4	1284	166	222	868	1356	166	222	878
CHFM8 - 6255DA - (B) - Ratio		5.5	4	1328	166	222	878	1400	166	222	888
CHFM10 - 6255DA - (B) - Ratio		7.5	4	1346	211	251	893	1441	211	251	908
CHFM15 - 6255DA - (B) - Ratio		11	4	1406	211	251	908	1501	211	251	923
CHFM20 - 6255DA - (B) - Ratio		15	4	1486	261	324	958	1591	261	324	994
CHFM25 - 6255DA - (B) - Ratio		18.5	4	1581	340	394	1032	1746	340	394	1083
CHFM30 - 6255DA - (B) - Ratio		22	4	1581	340	394	1032	1746	340	394	1083
CHFM40 - 6255DA - (B) - Ratio		30	4	1581	340	394	1052	1746	340	394	1095
CHFM15 - 6255DB - (B) - Ratio		11	4	1443	211	251	981	1538	211	251	996
CHFM20 - 6255DB - (B) - Ratio		15	4	1508	261	324	1031	1613	261	324	1065
CHFM25 - 6255DB - (B) - Ratio		18.5	4	1603	340	394	1107	1768	340	394	1158
CHFM30 - 6255DB - (B) - Ratio		22	4	1603	340	394	1107	1768	340	394	1158
CHFM40 - 6255DB - (B) - Ratio		30	4	1603	340	394	1122	1768	340	394	1165
CHFM50 - 6255DB - (B) - Ratio		37	4	1718	340	394	1159	1928	340	394	1256
CHFM60 - 6255DB - (B) - Ratio		45	4	1718	340	394	1159	1928	340	394	1256
CHFM8 - 6265DA - (B) - Ratio		5.5	4	1480	166	222	1196	1552	166	222	1206
CHFM10 - 6265DA - (B) - Ratio		7.5	4	1493	211	251	1211	1588	211	251	1231
CHFM15 - 6265DA - (B) - Ratio		11	4	1553	211	251	1226	1648	211	251	1241
CHFM20 - 6265DA - (B) - Ratio		15	4	1618	261	324	1276	1723	261	324	1311
CHFM25 - 6265DA - (B) - Ratio		18.5	4	1713	340	394	1355	1878	340	394	1400
CHFM30 - 6265DA - (B) - Ratio		22	4	1713	340	394	1355	1878	340	394	1400
CHFM40 - 6265DA - (B) - Ratio		30	4	1713	340	394	1370	1878	340	394	1413
CHFM50 - 6265DA - (B) - Ratio		37	4	1828	340	394	1405	2043	340	394	1502
CHFM60 - 6265DA - (B) - Ratio		45	4	1828	340	394	1405	2043	340	394	1502

- Note: 1. [ ] indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter (φD3) of CHFM type: Dimension tolerance conforms to JIS B 0401-1976 "g6."  
 5. Pilot diameter (φD3) of CVVM type: Dimension tolerance conforms to JIS B 0401-1976 "f8."

## Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

CVVM<sup>Note: 1</sup> - 607□SK to 609□SK

GEARMOTORS

Dimension Tables  
CVVM

Frame size <small>Note: 6</small>	CF	D1	D2	D3	M	E	P	Y	N	d	H	Output Shaft <small>Note: 2, 3, 8</small>						
												d1	L1	b1	h1	t1	S1	m1
607□SK	77	160	134	110	42	9	3	0	4	11	-	18	30	6	6	3.5	M6	16
608□SK	92	160	134	110	48	9	3	0	4	11	-	22	35	6	6	3.5	M6	16
609□SK	118	160	134	110	48	9	3	0	4	11	107	28	35	8	7	4	M8	20

Model <small>Note: 6, 7</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM05 - 607□SK - (B) - Ratio	0.4	4	310	113	124	12	342	113	124	13
CVVM08 - 607□SK - (B) - Ratio	0.55	4	350	143	160	15	394	143	160	17
CVVM1 - 607□SK - (B) - Ratio	0.75	4	350	143	160	15	394	143	160	17
CVVM05 - 608□SK - (B) - Ratio	0.4	4	336	113	124	13	368	113	124	14
CVVM08 - 608□SK - (B) - Ratio	0.55	4	377	143	160	16	420	143	160	18
CVVM1 - 608□SK - (B) - Ratio	0.75	4	377	143	160	16	420	143	160	18
CVVM1H - 608□SK - (B) - Ratio	1.1	4	410	148	169	21	472	148	169	25
CVVM2 - 608□SK - (B) - Ratio	1.5	4	410	148	169	21	472	148	169	25
CVVM05 - 609□SK - (B) - Ratio	0.4	4	362	113	124	15	394	113	124	16
CVVM08 - 609□SK - (B) - Ratio	0.55	4	403	143	160	18	446	143	160	20
CVVM1 - 609□SK - (B) - Ratio	0.75	4	403	143	160	18	446	143	160	20
CVVM1H - 609□SK - (B) - Ratio	1.1	4	436	148	169	23	498	148	169	27
CVVM2 - 609□SK - (B) - Ratio	1.5	4	436	148	169	23	498	148	169	27
CVVM3 - 609□SK - (B) - Ratio	2.2	4	456	155	182	27	519	155	182	33

Note: 6. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

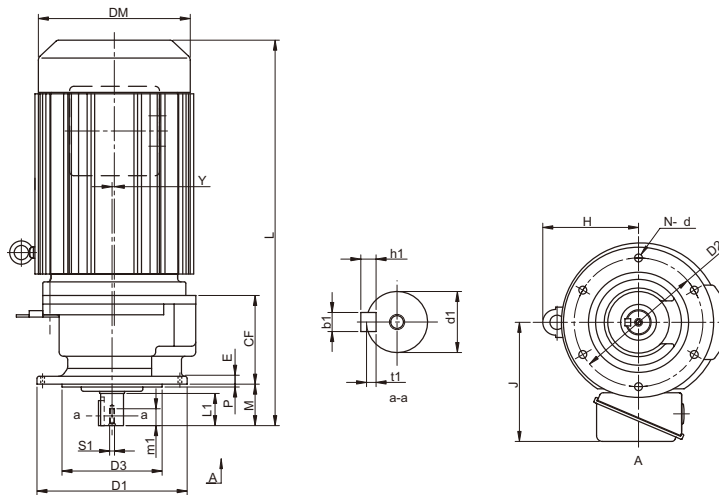
7. "B" after the frame size indicates models equipped with brake.

8. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

9. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVVM<sup>Note: 1</sup> - 610□SK to 611□SK



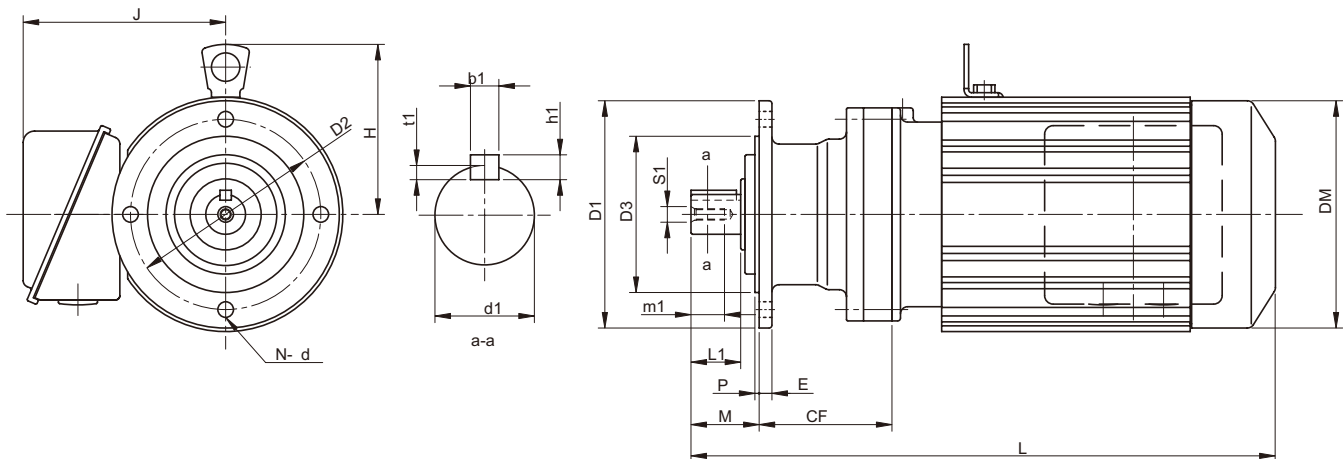
Dimension Tables  
CVVM

Frame size <small>Note: 5</small>	CF	D1	D2	D3	M	E	P	Y	N	d	H	Output Shaft <small>Note: 2, 3, 7</small>						
												d1	L1	b1	h1	t1	S1	m1
610□SK	122	160	134	110	48	9	3	0	4	11	116	28	35	8	7	4	M8	20
611□SK	124	210	180	140	58	11	4	3	6	11	134	32	45	10	8	5	M8	20

Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM05 - 610□SK - (B) - Ratio	0.4	4	362	113	124	16	393	113	124	17
CVVM08 - 610□SK - (B) - Ratio	0.55	4	403	143	160	19	452	143	160	21
CVVM1 - 610□SK - (B) - Ratio	0.75	4	403	143	160	19	452	143	160	21
CVVM1H - 610□SK - (B) - Ratio	1.1	4	436	148	169	24	493	148	169	28
CVVM2 - 610□SK - (B) - Ratio	1.5	4	436	148	169	24	493	148	169	28
CVVM3 - 610□SK - (B) - Ratio	2.2	4	456	155	182	28	519	155	182	34
CVVM4 - 610□SK - (B) - Ratio	3	4	491	166	222	40	563	166	222	51
CVVM5 - 610□SK - (B) - Ratio	3.7	4	491	166	222	40	563	166	222	51
CVVM08 - 611□SK - (B) - Ratio	0.55	4	419	143	160	29	462	143	160	31
CVVM1 - 611□SK - (B) - Ratio	0.75	4	419	143	160	29	462	143	160	31
CVVM1H - 611□SK - (B) - Ratio	1.1	4	452	148	169	34	514	148	169	38
CVVM2 - 611□SK - (B) - Ratio	1.5	4	452	148	169	34	514	148	169	38
CVVM3 - 611□SK - (B) - Ratio	2.2	4	472	155	182	38	535	155	182	44
CVVM4 - 611□SK - (B) - Ratio	3	4	495	166	222	50	567	166	222	61
CVVM5 - 611□SK - (B) - Ratio	3.7	4	495	166	222	50	567	166	222	61
CVVM8 - 611□SK - (B) - Ratio	5.5	4	539	166	222	58	611	166	222	69

- Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter (φD3): Dimension tolerance conforms to JIS B 0401-1976 "f8."

## Dimension Tables Gearmotors (Universal Direction, V-Flange Mount)

CNVM<sup>Note: 1</sup> - 606□ to 609□

GEARMOTORS

Dimension Tables  
CNVM

Frame size Note: 5	CF	D1	D2	D3	M	E	P	N	d	H	Output Shaft Note: 2, 3, 7						
											d1	L1	b1	h1	t1	S1	m1
606□	58	120	102	80	34	8	3	6	9	-	14	25	5	5	3	M5	16
607□	56	160	134	110	42	9	3	4	11	-	18	30	6	6	3.5	M6	16
608□	81	160	134	110	48	9	3	4	11	-	22	35	6	6	3.5	M6	16
609□	94	160	134	110	48	9	3	4	11	107	28	35	8	7	4	M8	20

Model Note: 5, 6	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CNVM01 - 606□ - (B) - Ratio	0.1	4	254	113	119	7	261	113	124	9
CNVM02 - 606□ - (B) - Ratio	0.2	4	272	113	124	8	300	113	124	10
CNVM03 - 606□ - (B) - Ratio	0.25	4	272	113	124	9	300	113	124	10
CNVM01 - 607□ - (B) - Ratio	0.1	4	260	113	119	9	267	113	124	10
CNVM02 - 607□ - (B) - Ratio	0.2	4	278	113	124	10	306	113	124	11
CNVM03 - 607□ - (B) - Ratio	0.25	4	278	113	124	10	306	113	124	11
CNVM05 - 607□ - (B) - Ratio	0.4	4	294	113	124	11	326	113	124	12
CNVM01 - 608□ - (B) - Ratio	0.1	4	286	113	119	12	293	113	124	13
CNVM02 - 608□ - (B) - Ratio	0.2	4	304	113	124	13	332	113	124	14
CNVM03 - 608□ - (B) - Ratio	0.25	4	304	113	124	13	332	113	124	14
CNVM05 - 608□ - (B) - Ratio	0.4	4	320	113	124	15	352	113	124	16
CNVM08 - 608□ - (B) - Ratio	0.55	4	361	143	160	19	404	143	160	20
CNVM1 - 608□ - (B) - Ratio	0.75	4	361	143	160	19	404	143	160	20
CNVM01 - 609□ - (B) - Ratio	0.1	4	304	113	119	13	311	113	124	15
CNVM02 - 609□ - (B) - Ratio	0.2	4	322	113	124	14	350	113	124	16
CNVM03 - 609□ - (B) - Ratio	0.25	4	322	113	124	14	350	113	124	16
CNVM05 - 609□ - (B) - Ratio	0.4	4	338	113	124	15	370	113	124	17
CNVM08 - 609□ - (B) - Ratio	0.55	4	379	143	160	19	422	143	160	22
CNVM1 - 609□ - (B) - Ratio	0.75	4	379	143	160	19	422	143	160	22
CNVM1H - 609□ - (B) - Ratio	1.1	4	412	148	169	22	474	148	169	27
CNVM2 - 609□ - (B) - Ratio	1.5	4	412	148	169	22	474	148	169	27

Note: 5. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

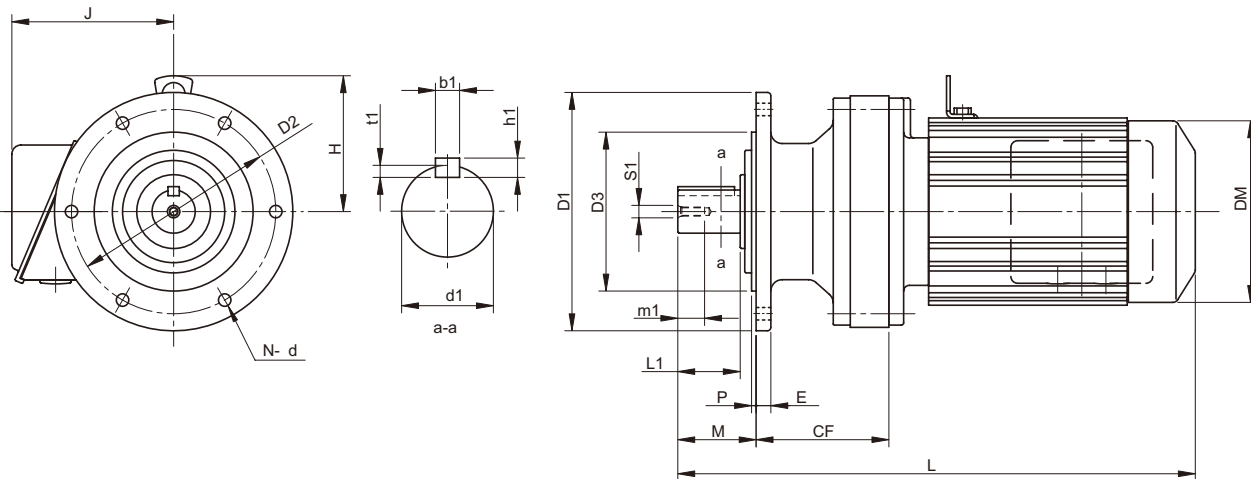
6. "B" after the frame size indicates models equipped with brake.

7. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Universal Direction, V-Flange Mount)

## CNVM   - 610  to 612



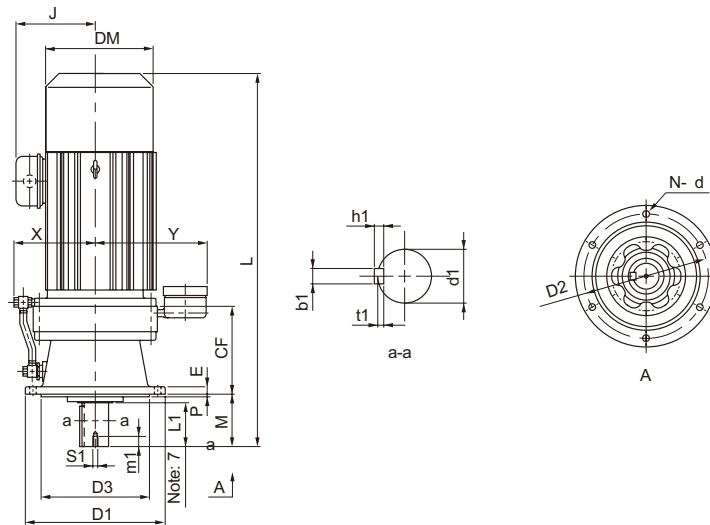
GEARMOTORS  
Dimension Tables  
CNVM

Frame size <small>Note: 5</small>	CF	D1	D2	D3	M	E	P	N	d	H	Output Shaft <small>Note: 2, 3, 7</small>						
											d1	L1	b1	h1	t1	S1	m1
610 <span style="border: 1px dashed black; padding: 0 2px;"> </span>	108	160	134	110	48	9	3	4	11	107	28	35	8	7	4	M8	20
611 <span style="border: 1px dashed black; padding: 0 2px;"> </span>	112	210	180	140	58	11	4	6	11	116	32	45	10	8	5	M8	20
612 <span style="border: 1px dashed black; padding: 0 2px;"> </span>	117	210	180	140	69	13	4	6	11	137	38	55	10	8	5	M8	20

Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CNVM02 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	0.2	4	336	113	124	16	364	113	124	18
CNVM03 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	0.25	4	336	113	124	16	364	113	124	18
CNVM05 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	0.4	4	352	113	124	17	384	113	124	19
CNVM08 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	0.55	4	393	143	160	21	436	143	160	24
CNVM1 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	0.75	4	393	143	160	21	436	143	160	24
CNVM1H - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	1.1	4	426	148	169	25	488	148	169	30
CNVM2 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	1.5	4	426	148	169	25	488	148	169	30
CNVM3 - 610 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	2.2	4	446	155	182	29	509	155	182	35
CNVM05 - 611 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	0.4	4	363	113	124	19	394	113	124	21
CNVM08 - 611 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	0.55	4	403	143	160	22	452	143	160	25
CNVM1 - 611 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	0.75	4	403	143	160	22	452	143	160	25
CNVM1H - 611 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	1.1	4	436	148	169	25	493	148	169	30
CNVM2 - 611 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	1.5	4	436	148	169	25	493	148	169	30
CNVM3 - 611 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	2.2	4	456	155	182	29	519	155	182	35
CNVM4 - 611 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	3.0	4	491	166	222	39	563	166	222	49
CNVM5 - 611 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	3.7	4	491	166	222	39	563	166	222	49
CNVM05 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	0.4	4	387	113	124	30	419	113	124	31
CNVM08 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	0.55	4	423	143	160	31	466	143	160	34
CNVM1 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	0.75	4	423	143	160	31	466	143	160	34
CNVM1H - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	1.1	4	456	148	169	35	518	148	169	40
CNVM2 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	1.5	4	456	148	169	35	518	148	169	40
CNVM3 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	2.2	4	476	155	182	39	539	155	182	46
CNVM4 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	3.0	4	499	166	222	49	571	166	222	59
CNVM5 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	3.7	4	499	166	222	49	571	166	222	59
CNVM8 - 612 <span style="border: 1px dashed black; padding: 0 2px;"> </span> - (B) - Ratio	5.5	4	543	166	222	56	615	166	222	66

- Note: 1.   indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter ( $\phi D3$ ): Dimension tolerance conforms to JIS B 0401-1976 "f8."

## Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

CVVM<sup>Note: 1</sup> - 613□ to 614□

Frame size Note: 5	CF	D1	D2	D3	M	E	P	N	d	X	Y	Output Shaft Note: 2, 3, 7						
												d1	L1	b1	h1	t1	S1	m1
613□	164	260	230	200	76	15	4	6	11	152	233	50	61	14	9	5.5	M10	18
614□	164	260	230	200	96	15	4	6	11	152	233	50	81	14	9	5.5	M10	18

Model Note: 5, 6	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM08 - 613□ - (B) - Ratio	0.55	4	477	143	160	51	520	143	160	54
CVVM1 - 613□ - (B) - Ratio	0.75	4	477	143	160	51	520	143	160	54
CVVM1H - 613□ - (B) - Ratio	1.1	4	510	148	169	55	572	148	169	60
CVVM2 - 613□ - (B) - Ratio	1.5	4	510	148	169	55	572	148	169	60
CVVM3 - 613□ - (B) - Ratio	2.2	4	530	155	182	58	593	155	182	65
CVVM4 - 613□ - (B) - Ratio	3.0	4	553	166	222	68	625	166	222	78
CVVM5 - 613□ - (B) - Ratio	3.7	4	553	166	222	68	625	166	222	78
CVVM8 - 613□ - (B) - Ratio	5.5	4	597	166	222	75	669	166	222	85
CVVM10 - 613□ - (B) - Ratio	7.5	4	620	211	251	90	715	211	251	108
CVVM15 - 613□ - (B) - Ratio	11	4	680	211	251	104	775	211	251	121
CVVM1 - 614□ - (B) - Ratio	0.75	4	497	143	160	52	540	143	160	55
CVVM1H - 614□ - (B) - Ratio	1.1	4	530	148	169	56	592	148	169	61
CVVM2 - 614□ - (B) - Ratio	1.5	4	530	148	169	56	592	148	169	61
CVVM3 - 614□ - (B) - Ratio	2.2	4	550	155	182	59	613	155	182	66
CVVM4 - 614□ - (B) - Ratio	3.0	4	573	166	222	69	645	166	222	79
CVVM5 - 614□ - (B) - Ratio	3.7	4	573	166	222	69	645	166	222	79
CVVM8 - 614□ - (B) - Ratio	5.5	4	617	166	222	76	689	166	222	86
CVVM10 - 614□ - (B) - Ratio	7.5	4	640	211	251	91	735	211	251	109
CVVM15 - 614□ - (B) - Ratio	11	4	700	211	251	104	795	211	251	122
CVVM20 - 614□ - (B) - Ratio	15	4	790	261	324	156	895	261	324	190

Note: 5. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

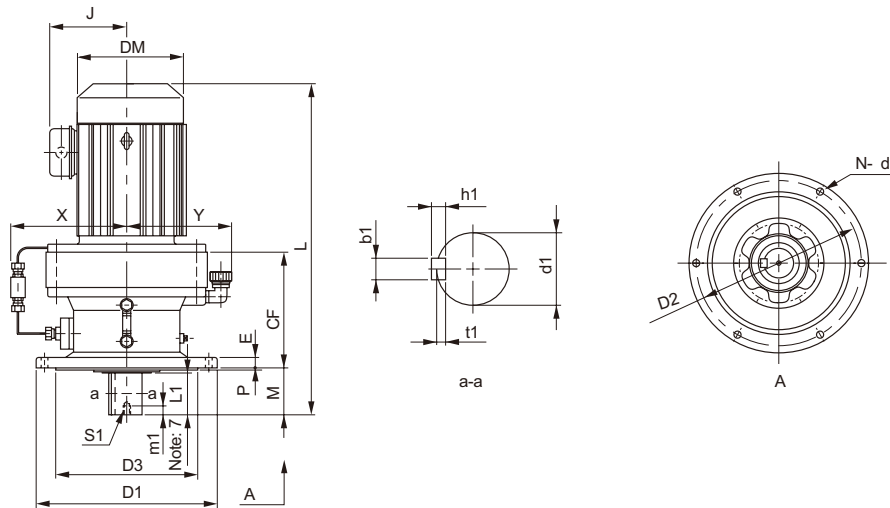
6. "B" after the frame size indicates models equipped with brake.

7. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVVM<sup>Note: 1</sup> - 616□ to 617□



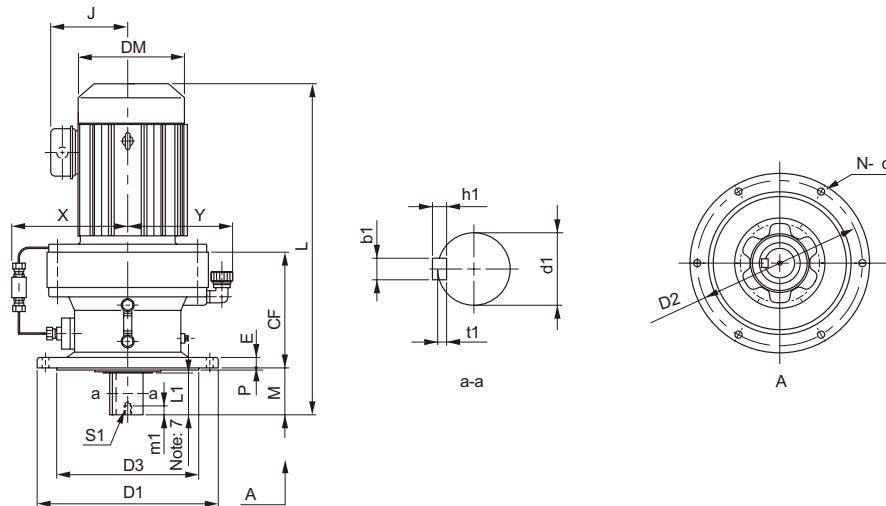
Frame size <small>Note: 5</small>	CF	D1	D2	D3	M	E	P	N	d	X	Y	Output Shaft <small>Note: 2, 3, 7</small>						
												d1	L1	b1	h1	t1	S1	m1
616□	219	340	310	270	89	20	4	6	11	217	200	60	80	18	11	7	M10	18
617□	258	400	360	316	94	22	5	8	14	222	225	70	84	20	12	7.5	M12	24

Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM1H - 616□ - (B) - Ratio	1.1	4	583	148	169	89	645	148	169	94
CVVM2 - 616□ - (B) - Ratio	1.5	4	583	148	169	89	645	148	169	94
CVVM3 - 616□ - (B) - Ratio	2.2	4	598	155	182	92	661	155	182	98
CVVM4 - 616□ - (B) - Ratio	3.0	4	621	166	222	101	693	166	222	111
CVVM5 - 616□ - (B) - Ratio	3.7	4	621	166	222	101	693	166	222	111
CVVM8 - 616□ - (B) - Ratio	5.5	4	665	166	222	108	737	166	222	118
CVVM10 - 616□ - (B) - Ratio	7.5	4	693	211	251	124	788	211	251	141
CVVM15 - 616□ - (B) - Ratio	11	4	753	211	251	138	848	211	251	155
CVVM20 - 616□ - (B) - Ratio	15	4	838	261	324	191	943	261	324	225
CVVM25 - 616□ - (B) - Ratio	18.5	4	933	340	394	267	1098	340	394	318
CVVM30 - 616□ - (B) - Ratio	22	4	933	340	394	267	1098	340	394	318
CVVM4 - 617□ - (B) - Ratio	3.0	4	680	166	222	144	752	166	222	154
CVVM5 - 617□ - (B) - Ratio	3.7	4	680	166	222	144	752	166	222	154
CVVM8 - 617□ - (B) - Ratio	5.5	4	724	166	222	151	796	166	222	161
CVVM10 - 617□ - (B) - Ratio	7.5	4	742	211	251	166	837	211	251	184
CVVM15 - 617□ - (B) - Ratio	11	4	802	211	251	180	897	211	251	198
CVVM20 - 617□ - (B) - Ratio	15	4	882	261	324	234	987	261	324	268
CVVM25 - 617□ - (B) - Ratio	18.5	4	977	340	394	306	1142	340	324	357
CVVM30 - 617□ - (B) - Ratio	22	4	977	340	394	306	1142	340	324	357
CVVM40 - 617□ - (B) - Ratio	30	4	977	340	394	323	1142	340	324	366

- Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter (φD3): Dimension tolerance conforms to JIS B 0401-1976 "f8."

# Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

CVVM<sup>Note: 1</sup> - 618□ to 619□



Dimension Tables  
CVVM  
GEARMOTORS

Frame size <small>Note: 5</small>	CF	D1	D2	D3	M	E	P	N	d	X	Y	Output Shaft <small>Note: 2, 3, 7</small>						
												d1	L1	b1	h1	t1	S1	m1
618□	279	430	390	345	110	22	5	8	18	237	240	80	100	22	14	9	M12	24
619□	320	490	450	400	145	30	6	12	18	265	270	95	125	25	14	9	M20	34

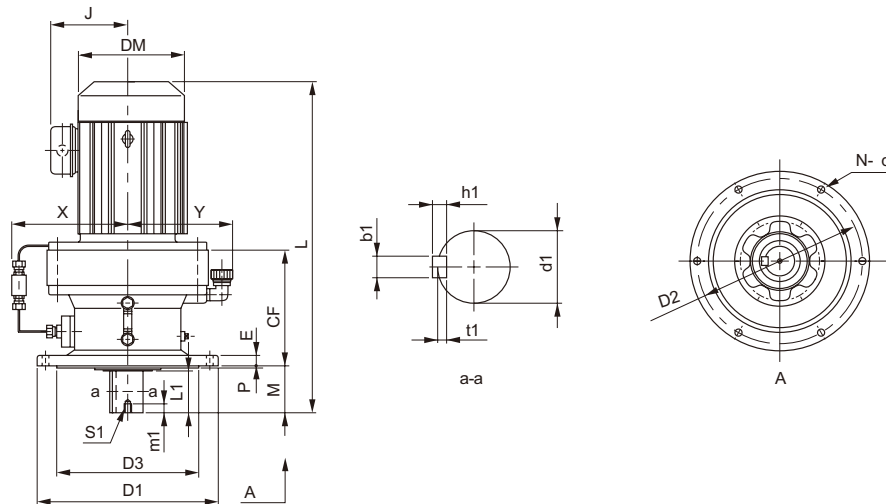
Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM4 - 618□ - (B) - Ratio	3.0	4	717	166	222	170	789	166	222	180
CVVM5 - 618□ - (B) - Ratio	3.7	4	717	166	222	170	789	166	222	180
CVVM8 - 618□ - (B) - Ratio	5.5	4	761	166	222	178	833	166	222	188
CVVM10 - 618□ - (B) - Ratio	7.5	4	779	211	251	193	874	211	251	211
CVVM15 - 618□ - (B) - Ratio	11	4	839	211	251	207	934	211	251	225
CVVM20 - 618□ - (B) - Ratio	15	4	919	261	324	267	1024	261	324	296
CVVM25 - 618□ - (B) - Ratio	18.5	4	1014	340	394	333	1179	340	394	384
CVVM30 - 618□ - (B) - Ratio	22	4	1014	340	394	333	1179	340	394	384
CVVM40 - 618□ - (B) - Ratio	30	4	1014	340	394	350	1179	340	394	393
CVVM50 - 618□ - (B) - Ratio	37	4	1129	340	394	398	1344	340	394	495
CVVM60 - 618□ - (B) - Ratio	45	4	1129	340	394	398	1344	340	394	495
CVVM8 - 619□ - (B) - Ratio	5.5	4	857	166	222	250	929	166	222	260
CVVM10 - 619□ - (B) - Ratio	7.5	4	870	211	251	263	965	211	251	281
CVVM15 - 619□ - (B) - Ratio	11	4	930	211	251	277	1025	211	251	295
CVVM20 - 619□ - (B) - Ratio	15	4	995	261	324	330	1100	261	324	365
CVVM25 - 619□ - (B) - Ratio	18.5	4	1090	340	394	408	1255	340	394	453
CVVM256 - 619□ - (B) - Ratio	18.5	6	1090	340	394	421	1255	340	394	466
CVVM30 - 619□ - (B) - Ratio	22	4	1090	340	394	408	1255	340	394	453
CVVM40 - 619□ - (B) - Ratio	30	4	1090	340	394	421	1255	340	394	466
CVVM406 - 619□ - (B) - Ratio	30	6	1205	340	394	459	1420	340	394	556
CVVM50 - 619□ - (B) - Ratio	37	4	1205	340	394	459	1420	340	394	556
CVVM506 - 619□ - (B) - Ratio	37	6	1205	340	394	459	1420	340	394	556
CVVM60 - 619□ - (B) - Ratio	45	4	1205	340	394	459	1420	340	394	556

Note: 5. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 6. "B" after the frame size indicates models equipped with brake.  
 7. Dimension of shaft end: Refer to pages F-28 to F-29 for details.  
 8. Dimensions in above drawings are subject to change without notice.



# Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVVM<sup>Note: 1</sup> - 6205 to 6215



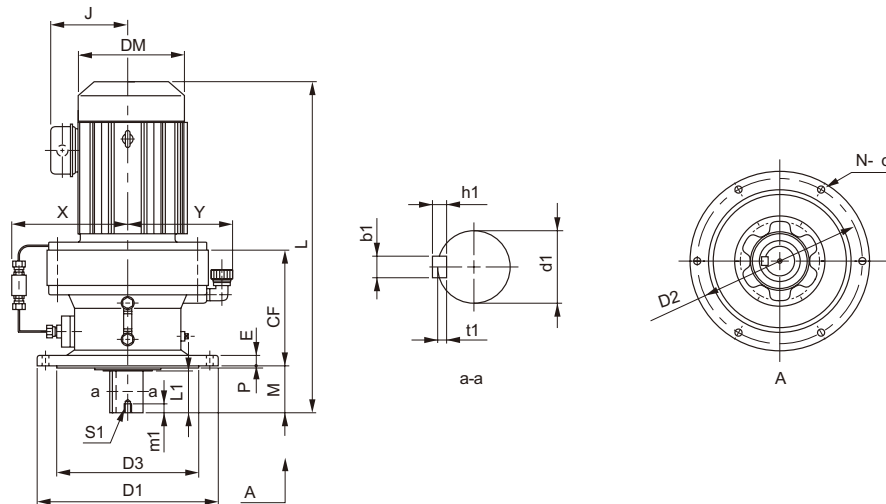
Dimension Tables  
CVVM

Frame size	CF	D1	D2	D3	M	E	P	N	d	X	Y	Output Shaft <span style="float: right;">Note: 2, 3, 6</span>						
												d1	L1	b1	h1	t1	S1	m1
6205	298	455	405	355	204	30	5	8	22	341	287	100	165	28	16	10	M20	34
6215	323	490	440	390	203	35	7	8	24	348	306	110	165	28	16	10	M20	34

Model	Note: 5	Motor		Standard				With Brake			
		[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM15 - 6205 - (B) - Ratio		11	4	972	211	251	299	1067	211	251	317
CVVM20 - 6205 - (B) - Ratio		15	4	1042	261	324	353	1147	261	324	389
CVVM206 - 6205 - (B) - Ratio		15	6	1127	340	394	428	1292	340	394	473
CVVM25 - 6205 - (B) - Ratio		18.5	4	1127	340	394	428	1292	340	394	473
CVVM30 - 6205 - (B) - Ratio		22	4	1127	340	394	428	1292	340	394	473
CVVM306 - 6205 - (B) - Ratio		22	6	1127	340	394	441	1292	340	394	486
CVVM40 - 6205 - (B) - Ratio		30	4	1127	340	394	441	1292	340	394	486
CVVM406 - 6205 - (B) - Ratio		30	6	1242	340	394	479	1457	340	394	573
CVVM50 - 6205 - (B) - Ratio		37	4	1242	340	394	479	1457	340	394	573
CVVM506 - 6205 - (B) - Ratio		37	6	1242	340	394	479	1457	340	394	573
CVVM60 - 6205 - (B) - Ratio		45	4	1242	340	394	479	1457	340	394	573
CVVM606 - 6205 - (B) - Ratio		45	6	1297	390	484	572	-	-	-	-
CVVM75 - 6205 - (B) - Ratio		55	4	1297	390	484	572	-	-	-	-
CVVM15 - 6215 - (B) - Ratio		11	4	996	211	251	377	1091	211	251	395
CVVM20 - 6215 - (B) - Ratio		15	4	1066	261	324	432	1171	261	324	467
CVVM206 - 6215 - (B) - Ratio		15	6	1151	340	394	501	1316	340	394	546
CVVM25 - 6215 - (B) - Ratio		18.5	4	1151	340	394	501	1316	340	394	546
CVVM256 - 6215 - (B) - Ratio		18.5	6	1151	340	394	514	1316	340	394	559
CVVM30 - 6215 - (B) - Ratio		22	4	1151	340	394	501	1316	340	394	546
CVVM306 - 6215 - (B) - Ratio		22	6	1151	340	394	514	1316	340	394	559
CVVM40 - 6215 - (B) - Ratio		30	4	1151	340	394	514	1316	340	394	559
CVVM406 - 6215 - (B) - Ratio		30	6	1266	340	394	569	1481	340	394	664
CVVM50 - 6215 - (B) - Ratio		37	4	1266	340	394	569	1481	340	394	664
CVVM506 - 6215 - (B) - Ratio		37	6	1266	340	394	569	1481	340	394	664
CVVM60 - 6215 - (B) - Ratio		45	4	1266	340	394	569	1481	340	394	664
CVVM606 - 6215 - (B) - Ratio		45	6	1321	390	484	662	-	-	-	-
CVVM75 - 6215 - (B) - Ratio		55	4	1321	390	484	662	-	-	-	-

- Note: 1. [ ] indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter ( $\phi D3$ ): Dimension tolerance conforms to JIS B 0401-1976 "f8."

## Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

CVVM<sup>Note: 1</sup> - 6225 to 6235

GEARMOTORS

Dimension Tables  
CVVM

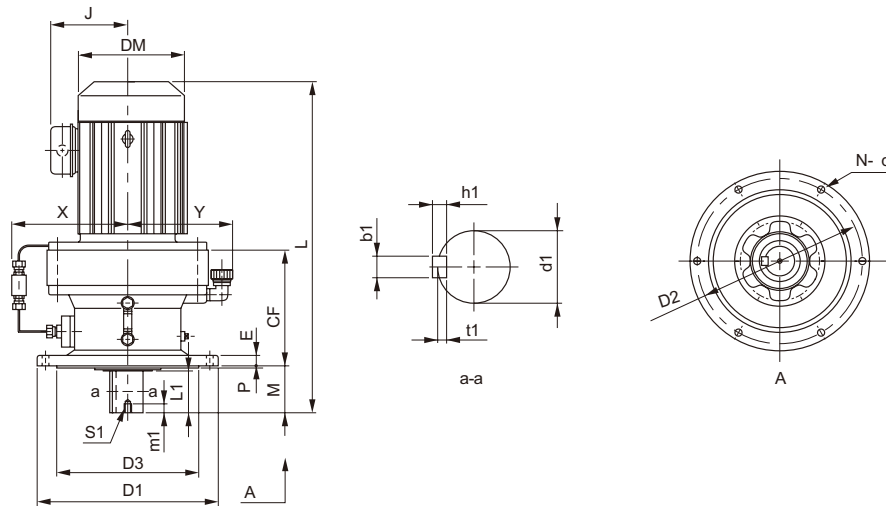
Frame size	CF	D1	D2	D3	M	E	P	N	d	X	Y	Output Shaft <small>Note: 2, 3, 6</small>						
												d1	L1	b1	h1	t1	S1	m1
6225	356	535	475	415	210	35	10	8	27	352	326	120	165	32	18	11	M20	34
6235	378	570	510	450	250	40	10	8	27	359	344	130	200	32	18	11	M24	41

Model	Note: 5	Motor		Standard				With Brake			
		[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM206 - 6225 - (B) - Ratio		15	6	1191	340	394	593	1356	340	394	638
CVVM25 - 6225 - (B) - Ratio		18.5	4	1191	340	394	593	1356	340	394	638
CVVM256 - 6225 - (B) - Ratio		18.5	6	1191	340	394	606	1356	340	394	651
CVVM30 - 6225 - (B) - Ratio		22	4	1191	340	394	593	1356	340	394	638
CVVM306 - 6225 - (B) - Ratio		22	6	1191	340	394	606	1356	340	394	651
CVVM40 - 6225 - (B) - Ratio		30	4	1191	340	394	606	1356	340	394	651
CVVM406 - 6225 - (B) - Ratio		30	6	1306	340	394	660	1521	340	394	755
CVVM50 - 6225 - (B) - Ratio		37	4	1306	340	394	660	1521	340	394	755
CVVM506 - 6225 - (B) - Ratio		37	6	1306	340	394	660	1521	340	394	755
CVVM60 - 6225 - (B) - Ratio		45	4	1306	340	394	660	1521	340	394	755
CVVM606 - 6225 - (B) - Ratio		45	6	1361	390	484	743	-	-	-	-
CVVM75 - 6225 - (B) - Ratio		55	4	1361	390	484	743	-	-	-	-
CVVM206 - 6235 - (B) - Ratio		15	6	1253	340	394	653	1418	340	394	684
CVVM256 - 6235 - (B) - Ratio		18.5	6	1253	340	394	653	1418	340	394	698
CVVM306 - 6235 - (B) - Ratio		22	6	1253	340	394	653	1418	340	394	698
CVVM406 - 6235 - (B) - Ratio		30	6	1368	340	394	699	1583	340	394	787
CVVM506 - 6235 - (B) - Ratio		37	6	1368	340	394	699	1583	340	394	787
CVVM606 - 6235 - (B) - Ratio		45	6	1423	390	484	788	-	-	-	-
CVVM756 - 6235 - (B) - Ratio		55	6	1503	390	485	842	-	-	-	-

Note: 5. "B" after the frame size indicates models equipped with brake.  
6. Dimension of shaft end: Refer to pages F-28 to F-29 for details.  
7. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVVM<sup>Note: 1</sup> - 6245 to 6265



Dimension Tables  
CVVM

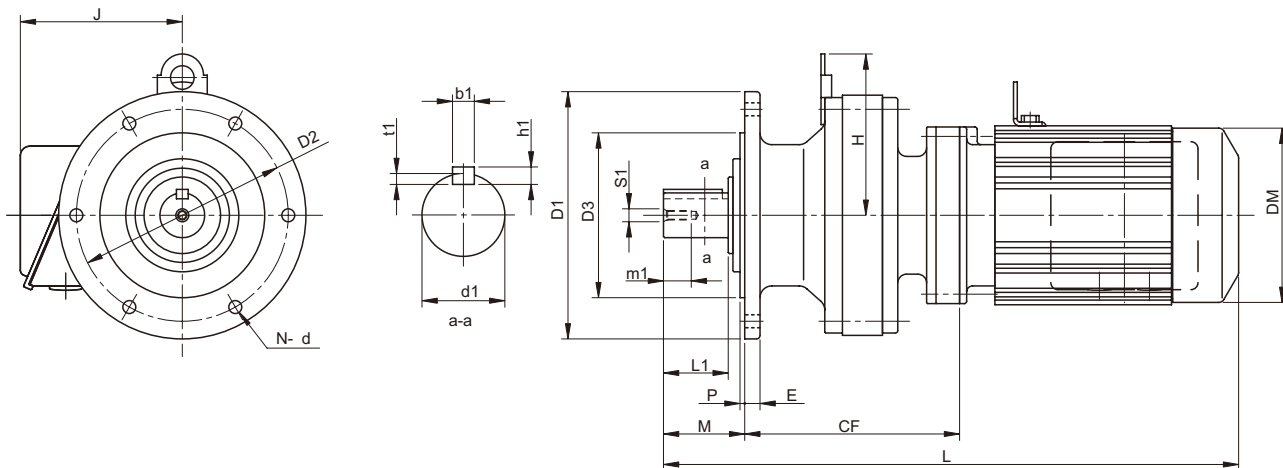
GEARMOTORS

Frame size	CF	D1	D2	D3	M	E	P	N	d	X	Y	Output Shaft <span style="float: right;">Note: 2, 3, 7</span>						
												d1	L1	b1	h1	t1	S1	m1
6245	407	635	560	485	250	40	10	8	33	370	371	140	200	36	20	12	M24	41
6255	480	685	610	535	295	45	10	8	33	426	399	160	240	40	22	13	M30	49
6265	532	750	660	570	360	50	10	8	39	460	431	170	300	40	22	13	M30	49

Model	Note: 6	Motor		Standard				With Brake			
		[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM206 - 6245 - (B) - Ratio		15	6	1282	340	394	759	1447	340	394	792
CVVM256 - 6245 - (B) - Ratio		18.5	6	1282	340	394	759	1447	340	394	806
CVVM306 - 6245 - (B) - Ratio		22	6	1282	340	394	759	1447	340	394	806
CVVM406 - 6245 - (B) - Ratio		30	6	1397	340	394	805	1612	340	394	893
CVVM506 - 6245 - (B) - Ratio		37	6	1397	340	394	805	1612	340	394	893
CVVM606 - 6245 - (B) - Ratio		45	6	1452	390	484	896	-	-	-	-
CVVM756 - 6245 - (B) - Ratio		55	6	1532	390	485	945	-	-	-	-
CVVM206 - 6255 - (B) - Ratio		15	6	1400	340	394	1045	1565	340	394	1123
CVVM256 - 6255 - (B) - Ratio		18.5	6	1400	340	394	1045	1565	340	394	1137
CVVM306 - 6255 - (B) - Ratio		22	6	1400	340	394	1045	1565	340	394	1137
CVVM406 - 6255 - (B) - Ratio		30	6	1515	340	394	1090	1730	340	394	1178
CVVM506 - 6255 - (B) - Ratio		37	6	1515	340	394	1090	1730	340	394	1178
CVVM606 - 6255 - (B) - Ratio		45	6	1570	390	484	1170	-	-	-	-
CVVM756 - 6255 - (B) - Ratio		55	6	1650	390	485	1225	-	-	-	-
CVVM406 - 6265 - (B) - Ratio		22	6	1517	340	394	1350	1727	340	394	1397
CVVM406 - 6265 - (B) - Ratio		30	6	1632	340	394	1395	1847	340	394	1483
CVVM506 - 6265 - (B) - Ratio		37	6	1632	340	394	1395	1847	340	394	1483
CVVM606 - 6265 - (B) - Ratio		45	6	1687	390	484	1490	-	-	-	-

- Note: 1. [ ] indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter ( $\phi D3$ ): Dimension tolerance conforms to JIS B 0401-1976 "f8."

## Dimension Tables Gearmotors (Universal Direction, V-Flange Mount)

CNVM<sup>Note: 1</sup> - 606□DA to 612□DB

GEARMOTORS

Dimension Tables  
CVVM

Frame size <small>Note: 5</small>	CF	D1	D2	D3	M	E	P	N	d	H	Output Shaft <small>Note: 2, 3, 7</small>						
											d1	L1	b1	h1	t1	S1	m1
606□DA	91	120	102	80	34	8	3	6	9	-	14	25	5	5	3	M5	16
607□DA	89	160	134	110	42	9	3	4	11	-	18	30	6	6	3.5	M6	16
609□DA	142	160	134	110	48	9	3	4	11	107	28	35	8	7	4	M8	20
610□DA	156	160	134	110	48	9	3	4	11	107	28	35	8	7	4	M8	20
612□DA	171	210	180	140	69	13	4	6	11	137	38	55	10	8	5	M8	20
612□DB	183	210	180	140	69	13	4	6	11	-	38	55	10	8	5	M8	20

Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CNVM01 - 606□DA - (B) - Ratio	0.1	4	287	113	119	9	294	113	124	12
CNVM01 - 607□DA - (B) - Ratio	0.1	4	293	113	119	9	300	113	124	12
CNVM02 - 607□DA - (B) - Ratio	0.2	4	311	113	124	10	339	113	124	13
CNVM01 - 609□DA - (B) - Ratio	0.1	4	352	113	119	16	359	113	124	17
CNVM02 - 609□DA - (B) - Ratio	0.2	4	370	113	124	17	398	113	124	18
CNVM03 - 609□DA - (B) - Ratio	0.25	4	370	113	124	17	398	113	124	18
CNVM05 - 609□DA - (B) - Ratio	0.4	4	386	113	124	18	418	113	124	19
CNVM01 - 610□DA - (B) - Ratio	0.1	4	366	113	119	17	373	113	124	18
CNVM02 - 610□DA - (B) - Ratio	0.2	4	384	113	124	18	412	113	124	19
CNVM03 - 610□DA - (B) - Ratio	0.25	4	384	113	124	18	412	113	124	19
CNVM05 - 610□DA - (B) - Ratio	0.4	4	400	113	124	19	432	113	124	20
CNVM01 - 612□DA - (B) - Ratio	0.1	4	402	113	119	29	409	113	124	30
CNVM02 - 612□DA - (B) - Ratio	0.2	4	420	113	124	30	448	113	124	31
CNVM03 - 612□DA - (B) - Ratio	0.25	4	420	113	124	30	448	113	124	31
CNVM05 - 612□DA - (B) - Ratio	0.4	4	436	113	124	31	468	113	124	32
CNVM01 - 612□DB - (B) - Ratio	0.1	4	414	113	119	32	421	113	124	34
CNVM02 - 612□DB - (B) - Ratio	0.2	4	432	113	124	33	473	113	124	35
CNVM03 - 612□DB - (B) - Ratio	0.25	4	432	113	124	33	473	113	124	35
CNVM05 - 612□DB - (B) - Ratio	0.4	4	448	113	124	34	473	113	124	36
CNVM08 - 612□DB - (B) - Ratio	0.55	4	489	143	160	38	532	143	160	41
CNVM1 - 612□DB - (B) - Ratio	0.75	4	489	143	160	38	532	143	160	41
CNVM1H - 612□DB - (B) - Ratio	1.1	4	516	148	169	42	578	148	169	47
CNVM2 - 612□DB - (B) - Ratio	1.5	4	516	148	169	42	578	148	169	47

Note: 5. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

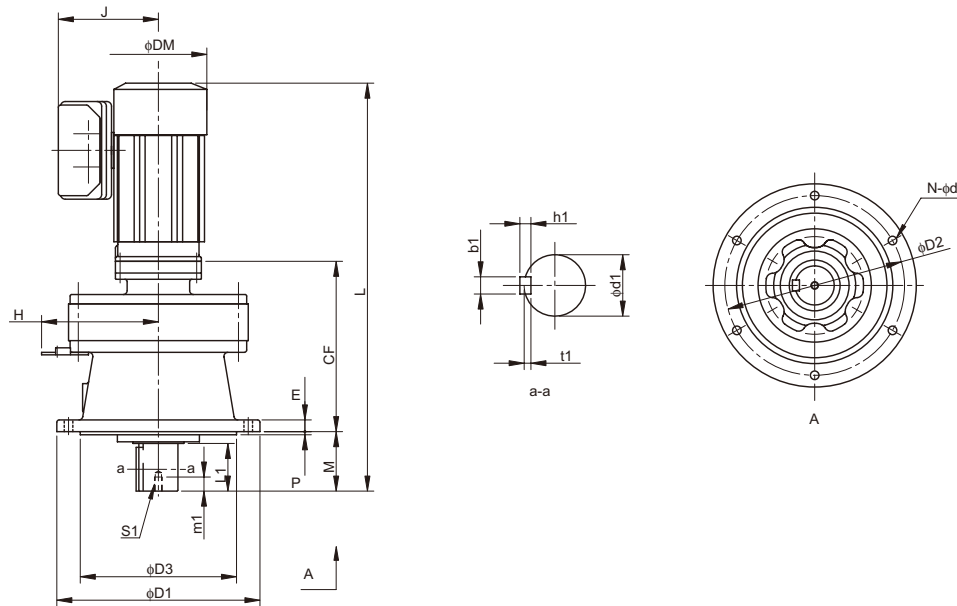
6. "B" after the frame size indicates models equipped with brake.

7. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVVM<sup>Note: 1</sup> - 613□DA to 614□DC



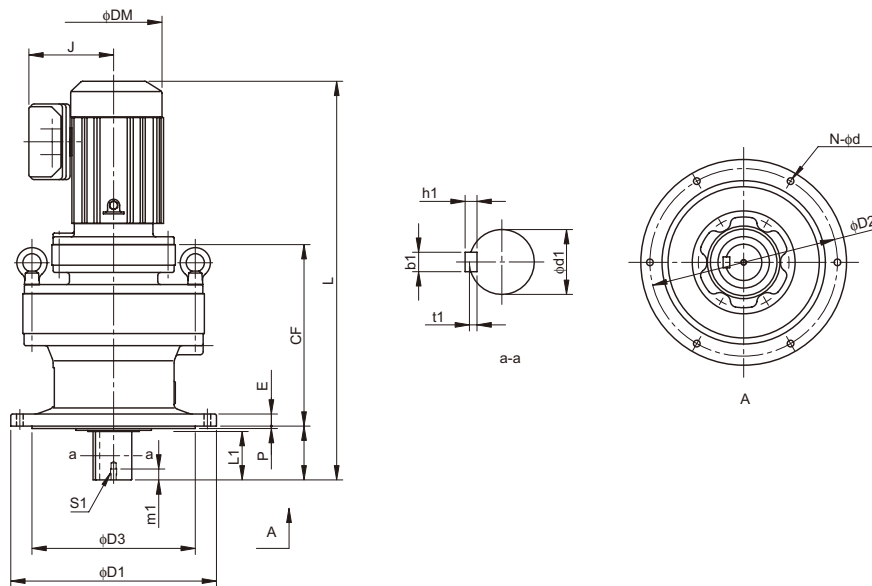
Frame size <small>Note: 5</small>	CF	D1	D2	D3	M	E	P	N	d	H	Output Shaft <small>Note: 2, 3, 7</small>						
											d1	L1	b1	h1	t1	S1	m1
613□DA	218	260	230	200	76	15	4	6	11	150	50	61	14	9	5.5	M10	18
613□DB	227	260	230	200	76	15	4	6	11	150	50	61	14	9	5.5	M10	18
613□DC	241	260	230	200	76	15	4	6	11	-	50	61	14	9	5.5	M10	18
614□DA	218	260	230	200	96	15	4	6	11	150	50	81	14	9	5.5	M10	18
614□DB	227	260	230	200	96	15	4	6	11	150	50	81	14	9	5.5	M10	18
614□DC	241	260	230	200	96	15	4	6	11	-	50	81	14	9	5.5	M10	18

Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM02 - 613□DA - (B) - Ratio	0.2	4	474	113	124	45	502	113	124	45
CVVM03 - 613□DA - (B) - Ratio	0.25	4	494	113	124	45	522	113	124	45
CVVM05 - 613□DA - (B) - Ratio	0.4	4	490	113	124	48	522	113	124	49
CVVM02 - 613□DB - (B) - Ratio	0.2	4	483	113	124	48	511	113	124	50
CVVM03 - 613□DB - (B) - Ratio	0.25	4	483	113	124	48	511	113	124	50
CVVM05 - 613□DB - (B) - Ratio	0.4	4	499	113	124	49	531	113	124	51
CVVM08 - 613□DB - (B) - Ratio	0.55	4	540	143	160	53	583	143	160	56
CVVM1 - 613□DB - (B) - Ratio	0.75	4	540	143	160	53	583	143	160	56
CVVM1H - 613□DB - (B) - Ratio	1.1	4	573	148	169	57	635	148	169	62
CVVM2 - 613□DB - (B) - Ratio	1.5	4	573	148	169	57	635	148	169	62
CVVM08 - 613□DC - (B) - Ratio	0.55	4	554	143	160	56	597	143	160	59
CVVM1 - 613□DC - (B) - Ratio	0.75	4	554	143	160	56	597	143	160	59
CVVM2 - 613□DC - (B) - Ratio	1.5	4	587	148	169	60	649	148	169	65
CVVM3 - 613□DC - (B) - Ratio	2.2	4	607	155	182	64	670	155	182	70
CVVM02 - 614□DA - (B) - Ratio	0.2	4	494	113	124	45	522	113	124	46
CVVM03 - 614□DA - (B) - Ratio	0.25	4	494	113	124	45	522	113	124	46
CVVM05 - 614□DA - (B) - Ratio	0.4	4	510	113	124	48	542	113	124	49
CVVM02 - 614□DB - (B) - Ratio	0.2	4	503	113	124	48	531	113	124	50
CVVM03 - 614□DB - (B) - Ratio	0.25	4	503	113	124	48	531	113	124	50
CVVM05 - 614□DB - (B) - Ratio	0.4	4	519	113	124	49	551	113	124	51
CVVM08 - 614□DB - (B) - Ratio	0.55	4	560	143	160	53	603	143	160	56
CVVM1 - 614□DB - (B) - Ratio	0.75	4	560	143	160	53	603	143	160	56
CVVM1H - 614□DB - (B) - Ratio	1.1	4	593	148	169	57	655	148	169	62
CVVM2 - 614□DB - (B) - Ratio	1.5	4	593	148	169	57	655	148	169	62
CVVM08 - 614□DC - (B) - Ratio	0.55	4	574	143	160	54	617	143	160	57
CVVM1 - 614□DC - (B) - Ratio	0.75	4	574	143	160	54	617	143	160	57
CVVM1H - 614□DC - (B) - Ratio	1.1	4	607	148	169	58	669	148	169	63
CVVM2 - 614□DC - (B) - Ratio	1.5	4	607	148	169	58	669	148	169	63
CVVM3 - 614□DC - (B) - Ratio	2.2	4	627	155	182	62	690	155	182	68

- Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter (φD3): Dimension tolerance conforms to JIS B 0401-1976 "f8."

# Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVVM<sup>Note: 1</sup> - 616□DA to 618□DA



Dimension Tables  
CVVM

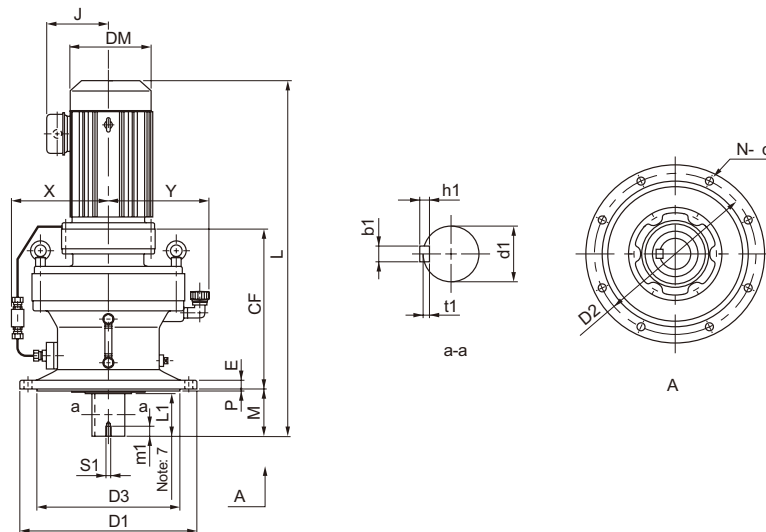
Frame size <small>Note: 5</small>	CF	D1	D2	D3	M	E	P	N	d	H	Output Shaft <small>Note: 2, 3, 7</small>						
											d1	L1	b1	h1	t1	S1	m1
616□DA	285	340	310	270	89	20	4	6	11	-	60	80	18	11	7	M10	18
616□DB	299	340	310	270	89	20	4	6	11	-	60	80	18	11	7	M10	18
617□DA	324	400	360	316	94	22	5	8	14	-	70	84	20	12	7.5	M12	24
617□DB	338	400	360	316	94	22	5	8	14	-	70	84	20	12	7.5	M12	24
618□DA	364	430	390	345	110	22	5	8	18	-	80	100	22	14	9	M12	24

Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM02 - 616□DA - (B) - Ratio	0.2	4	554	113	124	84	581	113	124	86
CVVM03 - 616□DA - (B) - Ratio	0.25	4	554	113	124	84	581	113	124	86
CVVM05 - 616□DA - (B) - Ratio	0.4	4	570	113	124	85	601	113	124	87
CVVM08 - 616□DA - (B) - Ratio	0.55	4	611	143	160	89	653	143	160	92
CVVM1 - 616□DA - (B) - Ratio	0.75	4	611	143	160	89	653	143	160	92
CVVM1H - 616□DA - (B) - Ratio	1.1	4	643	148	169	93	705	148	169	98
CVVM2 - 616□DA - (B) - Ratio	1.5	4	643	148	169	93	705	148	169	98
CVVM08 - 616□DB - (B) - Ratio	0.55	4	625	143	160	91	667	143	160	94
CVVM1 - 616□DB - (B) - Ratio	0.75	4	625	143	160	91	667	143	160	94
CVVM1H - 616□DB - (B) - Ratio	1.1	4	658	148	169	95	719	148	169	100
CVVM2 - 616□DB - (B) - Ratio	1.5	4	658	148	169	95	719	148	169	100
CVVM3 - 616□DB - (B) - Ratio	2.2	4	678	155	182	99	740	155	182	105
CVVM02 - 617□DA - (B) - Ratio	0.2	4	598	113	124	120	626	113	124	122
CVVM03 - 617□DA - (B) - Ratio	0.25	4	598	113	124	120	626	113	124	122
CVVM05 - 617□DA - (B) - Ratio	0.4	4	614	113	124	121	646	113	124	123
CVVM08 - 617□DA - (B) - Ratio	0.55	4	655	143	160	125	698	143	160	128
CVVM1 - 617□DA - (B) - Ratio	0.75	4	655	143	160	125	698	143	160	128
CVVM1H - 617□DA - (B) - Ratio	1.1	4	688	148	169	129	750	148	169	134
CVVM2 - 617□DA - (B) - Ratio	1.5	4	688	148	169	129	750	148	169	134
CVVM08 - 617□DB - (B) - Ratio	0.55	4	669	143	160	122	712	143	160	129
CVVM1 - 617□DB - (B) - Ratio	0.75	4	669	143	160	122	712	143	160	129
CVVM1H - 617□DB - (B) - Ratio	1.1	4	702	148	169	131	764	148	169	136
CVVM2 - 617□DB - (B) - Ratio	1.5	4	702	148	169	131	764	148	169	136
CVVM3 - 617□DB - (B) - Ratio	2.2	4	722	155	182	135	785	155	182	141
CVVM05 - 618□DA - (B) - Ratio	0.4	4	670	113	124	154	702	113	124	156
CVVM08 - 618□DA - (B) - Ratio	0.55	4	711	143	160	158	754	143	160	161
CVVM1 - 618□DA - (B) - Ratio	0.75	4	711	143	160	158	754	143	160	161
CVVM1H - 618□DA - (B) - Ratio	1.1	4	744	148	169	162	806	148	169	167
CVVM2 - 618□DA - (B) - Ratio	1.5	4	744	148	169	162	806	148	169	167
CVVM3 - 618□DA - (B) - Ratio	2.2	4	764	155	182	166	827	155	182	172

Note: 5. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 6. "B" after the frame size indicates models equipped with brake.  
 7. Dimension of shaft end: Refer to pages F-28 to F-29 for details.  
 8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVVM<sup>Note: 1</sup> - 616□DC to 618□DB



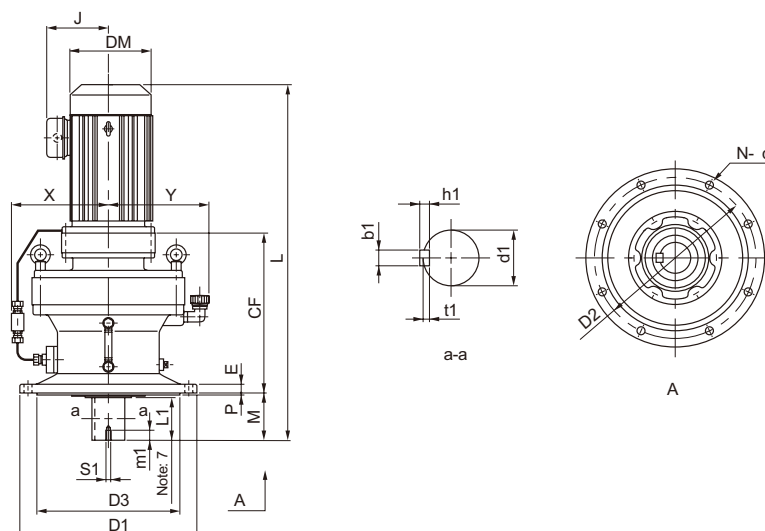
Dimension Tables  
CVVM

Frame size <small>Note: 5</small>	CF	D1	D2	D3	M	E	P	N	d	X	Y	Output Shaft <small>Note: 2, 3, 7</small>						
												d1	L1	b1	h1	t1	S1	m1
616□DC	300	340	310	270	89	20	4	6	11	196	200	60	80	18	11	7	M10	18
617□DC	342	400	360	316	94	22	5	8	14	218	225	70	84	20	12	7.5	M12	24
618□DB	386	430	390	345	110	22	5	8	18	233	240	80	100	22	14	9	M12	24

Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM1H - 616□DC - (B) - Ratio	1.1	4	659	148	169	103	721	148	169	108
CVVM2 - 616□DC - (B) - Ratio	1.5	4	659	148	169	103	721	148	169	108
CVVM3 - 616□DC - (B) - Ratio	2.2	4	679	155	182	107	742	155	182	114
CVVM4 - 616□DC - (B) - Ratio	3.0	4	702	166	222	117	774	166	222	127
CVVM5 - 616□DC - (B) - Ratio	3.7	4	702	166	222	117	774	166	222	127
CVVM8 - 616□DC - (B) - Ratio	5.5	4	746	166	222	127	818	166	222	131
CVVM1H - 617□DC - (B) - Ratio	1.1	4	706	148	169	138	768	148	169	143
CVVM2 - 617□DC - (B) - Ratio	1.5	4	706	148	169	138	768	148	169	143
CVVM3 - 617□DC - (B) - Ratio	2.2	4	726	155	182	142	789	155	182	152
CVVM4 - 617□DC - (B) - Ratio	3.0	4	749	166	222	152	821	166	222	165
CVVM5 - 617□DC - (B) - Ratio	3.7	4	749	166	222	152	821	166	222	165
CVVM8 - 617□DC - (B) - Ratio	5.5	4	793	166	222	162	865	166	222	172
CVVM1H - 618□DB - (B) - Ratio	1.1	4	766	148	169	179	828	148	169	184
CVVM2 - 618□DB - (B) - Ratio	1.5	4	766	148	169	179	828	148	169	184
CVVM3 - 618□DB - (B) - Ratio	2.2	4	786	155	182	183	849	155	182	190
CVVM4 - 618□DB - (B) - Ratio	3.0	4	809	166	222	193	881	166	222	203
CVVM5 - 618□DB - (B) - Ratio	3.7	4	809	166	222	193	881	166	222	203
CVVM8 - 618□DB - (B) - Ratio	5.5	4	853	166	222	200	925	166	222	210
CVVM10 - 618□DB - (B) - Ratio	7.5	4	876	211	251	215	971	211	251	231
CVVM15 - 618□DB - (B) - Ratio	11	4	936	211	251	229	1031	211	251	247

- Note: 1. □ indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter (φD3): Dimension tolerance conforms to JIS B 0401-1976 "f8."

## Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

CVVM<sup>Note: 1</sup> - 619□DA to 619□DB

Frame size <small>Note: 5</small>	CF	D1	D2	D3	M	E	P	N	d	X	Y	Output Shaft <small>Note: 2, 3, 7</small>						
												d1	L1	b1	h1	t1	S1	m1
619□DA	411	490	450	400	145	30	6	12	18	255	270	95	125	25	14	9	M20	34
619□DB	427	490	450	400	145	30	6	12	18	255	270	95	125	25	14	9	M20	34

Model <small>Note: 5, 6</small>	Motor		Standard				With Brake			
	[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM1 - 619□DA - (B) - Ratio	0.75	4	793	143	160	238	836	143	160	241
CVVM1H - 619□DA - (B) - Ratio	1.1	4	826	148	169	242	888	148	169	247
CVVM2 - 619□DA - (B) - Ratio	1.5	4	826	148	169	242	888	148	169	247
CVVM3 - 619□DA - (B) - Ratio	2.2	4	846	155	182	246	909	155	182	253
CVVM4 - 619□DA - (B) - Ratio	3.0	4	869	166	222	256	941	166	222	266
CVVM5 - 619□DA - (B) - Ratio	3.7	4	869	166	222	256	941	166	222	266
CVVM8 - 619□DA - (B) - Ratio	5.5	4	913	166	222	263	985	166	222	273
CVVM2 - 619□DB - (B) - Ratio	1.5	4	842	148	169	249	904	148	169	254
CVVM3 - 619□DB - (B) - Ratio	2.2	4	862	155	182	253	925	155	182	260
CVVM4 - 619□DB - (B) - Ratio	3.0	4	885	166	222	263	957	166	222	273
CVVM5 - 619□DB - (B) - Ratio	3.7	4	885	166	222	263	957	166	222	273
CVVM8 - 619□DB - (B) - Ratio	5.5	4	929	166	222	270	1001	166	222	280
CVVM10 - 619□DB - (B) - Ratio	7.5	4	952	211	251	285	1047	211	251	303
CVVM15 - 619□DB - (B) - Ratio	11	4	1012	211	251	299	1107	211	251	317
CVVM20 - 619□DB - (B) - Ratio	15	4	1102	261	324	351	1207	261	324	385

Note: 5. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

6. "B" after the frame size indicates models equipped with brake.

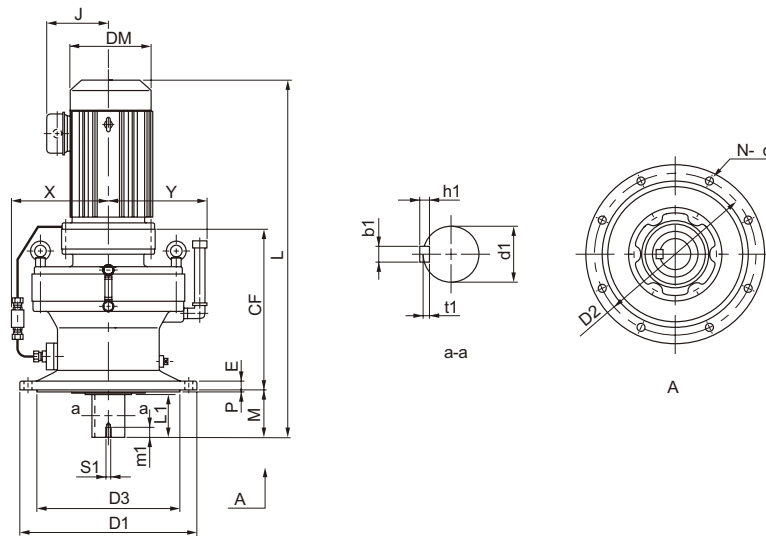
7. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

8. Dimensions in above drawings are subject to change without notice.



# Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVVM<sup>Note: 1</sup> - 6205DA to 6215DA



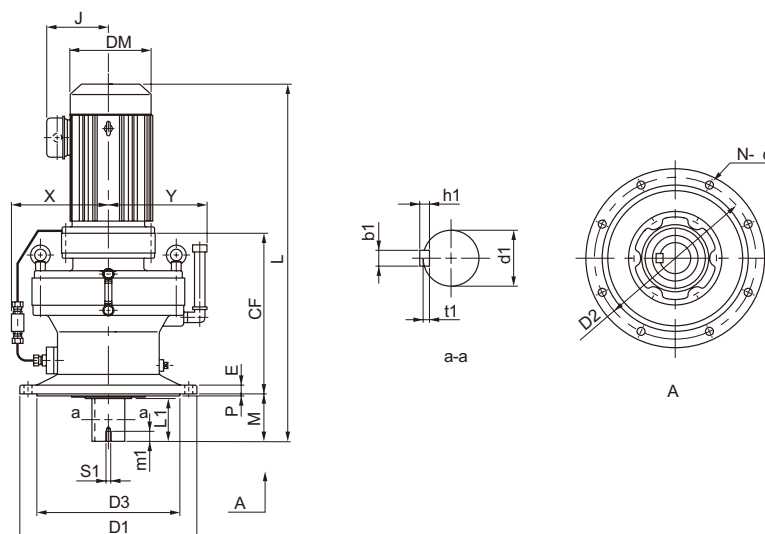
Dimension Tables  
CVVM

Frame size	CF	D1	D2	D3	M	E	P	N	d	X	Y	Output Shaft <span style="float: right;">Note: 2, 3, 6</span>						
												d1	L1	b1	h1	t1	S1	m1
6205DA	393	455	405	355	204	30	5	8	22	341	287	100	165	28	16	10	M20	34
6205DB	420	455	405	355	204	30	5	8	22	341	287	100	165	28	16	10	M20	34
6215DA	447	490	440	390	203	35	7	8	24	348	306	110	165	28	16	10	M20	34

Model	Note: 5	Motor		Standard				With Brake			
		[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM1 - 6205DA - (B) - Ratio		0.75	4	834	143	160	254	877	143	160	257
CVVM2 - 6205DA - (B) - Ratio		1.5	4	867	148	169	257	929	148	169	263
CVVM3 - 6205DA - (B) - Ratio		2.2	4	887	155	182	262	949	155	182	269
CVVM4 - 6205DA - (B) - Ratio		3.0	4	910	166	222	272	982	166	222	282
CVVM5 - 6205DA - (B) - Ratio		3.7	4	910	166	222	272	982	166	222	282
CVVM8 - 6205DA - (B) - Ratio		5.5	4	954	166	222	279	1026	166	222	289
CVVM3 - 6205DB - (B) - Ratio		2.2	4	914	155	182	274	977	155	182	281
CVVM4 - 6205DB - (B) - Ratio		3.0	4	937	166	222	284	1009	166	222	294
CVVM5 - 6205DB - (B) - Ratio		3.7	4	937	166	222	284	1009	166	222	301
CVVM8 - 6205DB - (B) - Ratio		5.5	4	981	166	222	291	1053	166	222	324
CVVM10 - 6205DB - (B) - Ratio		7.5	4	1004	211	251	306	1099	211	251	347
CVVM15 - 6205DB - (B) - Ratio		11	4	1064	211	251	320	1159	211	251	361
CVVM20 - 6205DB - (B) - Ratio		15	4	1154	259	324	372	1259	259	324	429
CVVM2 - 6215DA - (B) - Ratio		1.5	4	920	148	169	331	982	148	169	336
CVVM3 - 6215DA - (B) - Ratio		2.2	4	940	155	182	334	1003	155	182	341
CVVM4 - 6215DA - (B) - Ratio		3.0	4	963	166	222	344	1035	166	222	354
CVVM5 - 6215DA - (B) - Ratio		3.7	4	963	166	222	344	1035	166	222	354
CVVM8 - 6215DA - (B) - Ratio		5.5	4	1007	166	222	351	1079	166	222	361
CVVM10 - 6215DA - (B) - Ratio		7.5	4	1030	211	251	366	1125	211	251	384
CVVM15 - 6215DA - (B) - Ratio		11	4	1090	211	251	380	1185	211	251	398
CVVM20 - 6215DA - (B) - Ratio		15	4	1180	261	324	432	1285	261	324	466

- Note: 1. [ ] indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter ( $\phi D3$ ): Dimension tolerance conforms to JIS B 0401-1976 "f8."

## Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

CVVM<sup>Note: 1</sup> - 6215DB to 6225DB

Frame size	CF	D1	D2	D3	M	E	P	N	d	X	Y	Output Shaft <span style="float: right;">Note: 2, 3, 6</span>						
												d1	L1	b1	h1	t1	S1	m1
6215DB	472	490	440	390	203	35	7	8	24	348	306	110	165	28	16	10	M20	34
6225DA	482	535	475	415	210	35	10	8	27	352	326	120	165	32	18	11	M20	34
6225DB	525	535	475	415	210	35	10	8	27	352	326	120	165	32	18	11	M20	34

Model	Note: 5	Motor		Standard				With Brake			
		[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM5 - 6215DB - (B) - Ratio		3.7	4	993	166	222	377	1065	166	222	387
CVVM8 - 6215DB - (B) - Ratio		5.5	4	1037	166	222	384	1109	166	222	400
CVVM10 - 6215DB - (B) - Ratio		7.5	4	1060	211	251	400	1155	211	251	417
CVVM15 - 6215DB - (B) - Ratio		11	4	1120	211	251	414	1215	211	251	431
CVVM20 - 6215DB - (B) - Ratio		15	4	1205	261	324	467	1310	261	324	500
CVVM25 - 6215DB - (B) - Ratio		18.5	4	1300	340	394	543	1465	340	394	587
CVVM30 - 6215DB - (B) - Ratio		22	4	1300	340	394	543	1465	340	394	587
CVVM2 - 6225DA - (B) - Ratio		1.5	4	962	148	169	420	1024	148	169	425
CVVM3 - 6225DA - (B) - Ratio		2.2	4	982	155	182	423	1045	155	182	430
CVVM4 - 6225DA - (B) - Ratio		3.0	4	1005	166	222	433	1077	166	222	443
CVVM5 - 6225DA - (B) - Ratio		3.7	4	1005	166	222	433	1077	166	222	443
CVVM8 - 6225DA - (B) - Ratio		5.5	4	1049	166	222	440	1121	166	222	450
CVVM10 - 6225DA - (B) - Ratio		7.5	4	1072	211	251	455	1167	211	251	473
CVVM15 - 6225DA - (B) - Ratio		11	4	1132	211	251	469	1227	211	251	486
CVVM20 - 6225DA - (B) - Ratio		15	4	1222	261	324	521	1327	261	324	554
CVVM5 - 6225DB - (B) - Ratio		3.7	4	1058	166	222	479	1130	166	222	490
CVVM8 - 6225DB - (B) - Ratio		5.5	4	1102	166	222	486	1174	166	222	497
CVVM10 - 6225DB - (B) - Ratio		7.5	4	1125	211	251	501	1220	211	251	519
CVVM15 - 6225DB - (B) - Ratio		11	4	1185	211	251	515	1280	211	251	533
CVVM20 - 6225DB - (B) - Ratio		15	4	1265	261	324	569	1370	261	324	603
CVVM25 - 6225DB - (B) - Ratio		18.5	4	1360	340	394	661	1525	340	394	685
CVVM30 - 6225DB - (B) - Ratio		22	4	1360	340	394	661	1525	340	394	685
CVVM40 - 6225DB - (B) - Ratio		30	4	1360	340	394	678	1525	340	394	721

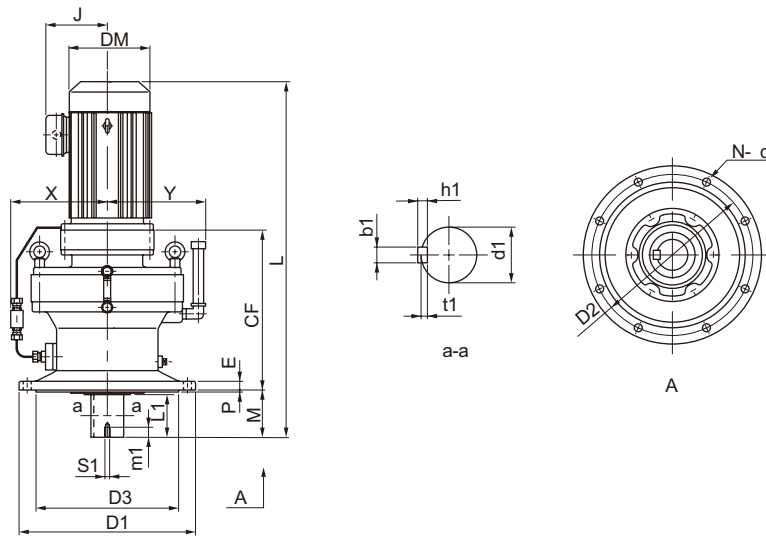
Note: 5. "B" after the frame size indicates models equipped with brake.

6. Dimension of shaft end: Refer to pages F-28 to F-29 for details.

7. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVVM<sup>Note: 1</sup> - 6235DA to 6245DB



GEARMOTORS  
Dimension Tables  
CVVM

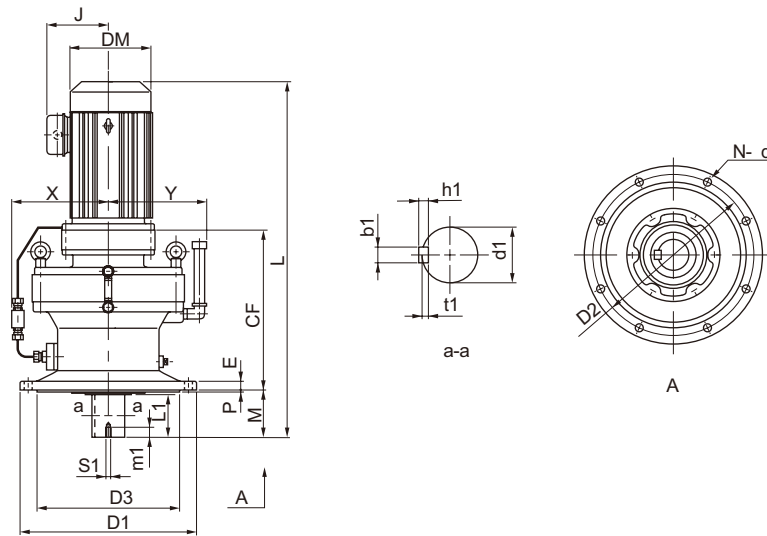
Frame size	CF	D1	D2	D3	M	E	P	N	d	X	Y	Output Shaft <span style="float: right;">Note: 2, 3, 6</span>						
												d1	L1	b1	h1	t1	S1	m1
6235DA	529	570	510	450	250	40	10	8	27	359	344	130	200	32	18	11	M24	41
6235DB	551	570	510	450	250	40	10	8	27	359	344	130	200	32	18	11	M24	41
6245DA	566	635	560	485	250	40	10	8	33	370	371	140	200	36	20	12	M24	41
6245DB	587	635	560	485	250	40	10	8	33	370	371	140	200	36	20	12	M24	41

Model	Note: 5	Motor		Standard				With Brake			
		[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM3 - 6235DA - (B) - Ratio		2.2	4	1069	155	182	523	1131	155	182	529
CVVM4 - 6235DA - (B) - Ratio		3.0	4	1091	166	222	532	1163	166	222	542
CVVM5 - 6235DA - (B) - Ratio		3.7	4	1091	166	222	532	1163	166	222	542
CVVM8 - 6235DA - (B) - Ratio		5.5	4	1135	166	222	539	1207	166	222	549
CVVM10 - 6235DA - (B) - Ratio		7.5	4	1163	211	251	555	1258	211	251	572
CVVM15 - 6235DA - (B) - Ratio		11	4	1223	211	251	569	1318	211	251	586
CVVM20 - 6235DA - (B) - Ratio		15	4	1309	261	324	622	1413	261	324	656
CVVM25 - 6235DA - (B) - Ratio		18.5	4	1403	340	394	698	1568	340	394	742
CVVM30 - 6235DA - (B) - Ratio		22	4	1403	340	394	698	1568	340	394	742
CVVM15 - 6235DB - (B) - Ratio		11	4	1245	211	251	601	1340	211	251	619
CVVM20 - 6235DB - (B) - Ratio		15	4	1330	261	324	663	1435	261	324	697
CVVM25 - 6235DB - (B) - Ratio		18.5	4	1425	340	394	730	1590	340	394	781
CVVM30 - 6235DB - (B) - Ratio		22	4	1425	340	394	730	1590	340	394	781
CVVM40 - 6235DB - (B) - Ratio		30	4	1425	340	394	744	1590	340	394	787
CVVM50 - 6235DB - (B) - Ratio		37	4	1540	340	394	792	1755	340	394	889
CVVM3 - 6245DA - (B) - Ratio		2.2	4	1106	155	182	617	1169	155	182	623
CVVM4 - 6245DA - (B) - Ratio		3.0	4	1129	166	222	626	1201	166	222	636
CVVM5 - 6245DA - (B) - Ratio		3.7	4	1129	166	222	626	1201	166	222	636
CVVM8 - 6245DA - (B) - Ratio		5.5	4	1173	166	222	633	1245	166	222	643
CVVM10 - 6245DA - (B) - Ratio		7.5	4	1201	211	251	649	1296	211	251	666
CVVM15 - 6245DA - (B) - Ratio		11	4	1261	211	251	663	1356	211	251	680
CVVM20 - 6245DA - (B) - Ratio		15	4	1346	261	324	716	1451	261	324	750
CVVM25 - 6245DA - (B) - Ratio		18.5	4	1441	340	394	792	1606	340	394	845
CVVM30 - 6245DA - (B) - Ratio		22	4	1441	340	394	792	1606	340	394	845
CVVM15 - 6245DB - (B) - Ratio		11	4	1282	211	251	690	1377	211	251	708
CVVM20 - 6245DB - (B) - Ratio		15	4	1367	261	324	750	1472	261	324	779
CVVM25 - 6245DB - (B) - Ratio		18.5	4	1462	340	394	816	1627	340	394	867
CVVM30 - 6245DB - (B) - Ratio		22	4	1462	340	394	816	1627	340	394	867
CVVM40 - 6245DB - (B) - Ratio		30	4	1462	340	394	833	1627	340	394	876
CVVM50 - 6245DB - (B) - Ratio		37	4	1577	340	394	881	1792	340	394	978

- Note: 1. [ ] indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter ( $\phi$ D3): Dimension tolerance conforms to JIS B 0401-1976 "f8."

# Dimension Tables Gearmotors (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVVM<sup>Note: 1</sup> - 6255DA to 6275DA



Dimension Tables  
CVVM

Frame size	CF	D1	D2	D3	M	E	P	N	d	X	Y	Output Shaft <span style="float: right;">Note: 2, 3, 6</span>						
												d1	L1	b1	h1	t1	S1	m1
6255DA	661	685	610	535	295	45	10	8	33	395	399	160	240	40	22	13	M30	49
6255DB	684	685	610	535	295	45	10	8	33	395	399	160	240	40	22	13	M30	49
6265DA	728	750	660	570	360	50	10	8	39	427	431	170	300	40	22	13	M30	49
6275DA	994	1160	1020	900	355	60	10	8	39	610	613	180	320	45	25	15	M30	52

Model	Note: 5	Motor		Standard				With Brake			
		[kW]	[P]	L	J	DM	W [kg]	L	J	DM	W [kg]
CVVM5 - 6255DA - (B) - Ratio		3.7	4	1284	166	222	947	1356	166	222	957
CVVM8 - 6255DA - (B) - Ratio		5.5	4	1328	166	222	954	1400	166	222	964
CVVM10 - 6255DA - (B) - Ratio		7.5	4	1346	211	251	969	1441	211	251	984
CVVM15 - 6255DA - (B) - Ratio		11	4	1406	211	251	983	1501	211	251	998
CVVM20 - 6255DA - (B) - Ratio		15	4	1486	261	324	1041	1591	261	324	1077
CVVM25 - 6255DA - (B) - Ratio		18.5	4	1581	340	394	1110	1746	340	394	1161
CVVM30 - 6255DA - (B) - Ratio		22	4	1581	340	394	1110	1746	340	394	1161
CVVM40 - 6255DA - (B) - Ratio		30	4	1581	340	394	1129	1746	340	394	1172
CVVM15 - 6255DB - (B) - Ratio		11	4	1443	211	251	1059	1538	211	251	1074
CVVM20 - 6255DB - (B) - Ratio		15	4	1508	261	324	1109	1613	261	324	1143
CVVM25 - 6255DB - (B) - Ratio		18.5	4	1603	340	394	1185	1768	340	394	1236
CVVM30 - 6255DB - (B) - Ratio		22	4	1603	340	394	1185	1768	340	394	1236
CVVM40 - 6255DB - (B) - Ratio		30	4	1603	340	394	1200	1768	340	394	1243
CVVM50 - 6255DB - (B) - Ratio		37	4	1718	340	394	1238	1928	340	394	1335
CVVM60 - 6255DB - (B) - Ratio		45	4	1718	340	394	1238	1928	340	394	1335
CVVM8 - 6265DA - (B) - Ratio		5.5	4	1480	166	222	1296	1552	166	222	1306
CVVM10 - 6265DA - (B) - Ratio		7.5	4	1493	211	251	1309	1588	211	251	1329
CVVM15 - 6265DA - (B) - Ratio		11	4	1553	211	251	1326	1648	211	251	1341
CVVM20 - 6265DA - (B) - Ratio		15	4	1618	261	324	1376	1723	261	324	1412
CVVM25 - 6265DA - (B) - Ratio		18.5	4	1713	340	394	1455	1878	340	394	1500
CVVM30 - 6265DA - (B) - Ratio		22	4	1713	340	394	1455	1878	340	394	1500
CVVM40 - 6265DA - (B) - Ratio		30	4	1713	340	394	1470	1878	340	394	1513
CVVM50 - 6265DA - (B) - Ratio		37	4	1828	340	394	1505	2043	340	394	1598
CVVM60 - 6265DA - (B) - Ratio		45	4	1828	340	394	1505	2043	340	394	1598
CVVM10 - 6275DA - (B) - Ratio		7.5	4	1754	211	251	2694	1849	211	251	2714
CVVM15 - 6275DA - (B) - Ratio		11	4	1814	211	251	2708	1909	211	251	2723
CVVM20 - 6275DA - (B) - Ratio		15	4	1879	261	324	2761	1984	261	324	2797
CVVM25 - 6275DA - (B) - Ratio		18.5	4	1974	340	394	2840	2139	340	394	2885
CVVM30 - 6275DA - (B) - Ratio		22	4	1974	340	394	2840	2139	340	394	2885
CVVM40 - 6275DA - (B) - Ratio		30	4	1974	340	394	2855	2139	340	394	2898
CVVM50 - 6275DA - (B) - Ratio		37	4	2089	340	394	2890	2304	340	394	2983
CVVM60 - 6275DA - (B) - Ratio		45	4	2089	340	394	2890	2304	340	394	2983

Note: 5. "B" after the frame size indicates models equipped with brake.  
 6. Dimension of shaft end: Refer to pages F-28 to F-29 for details.  
 7. Dimensions in above drawings are subject to change without notice.

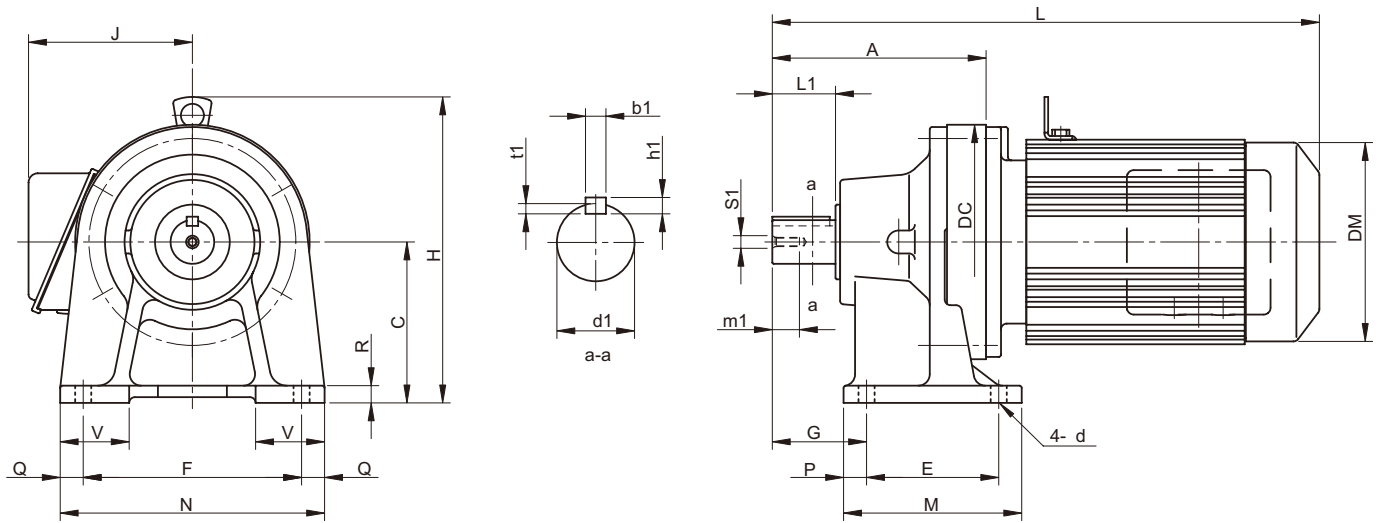
# Dimension Tables Gearmotors (Universal Direction, Foot-Mount)

## CNHM   - 610H, 612H (Center Height Option)

Note: 1

GEARMOTORS

Dimension Tables  
Center Height Option



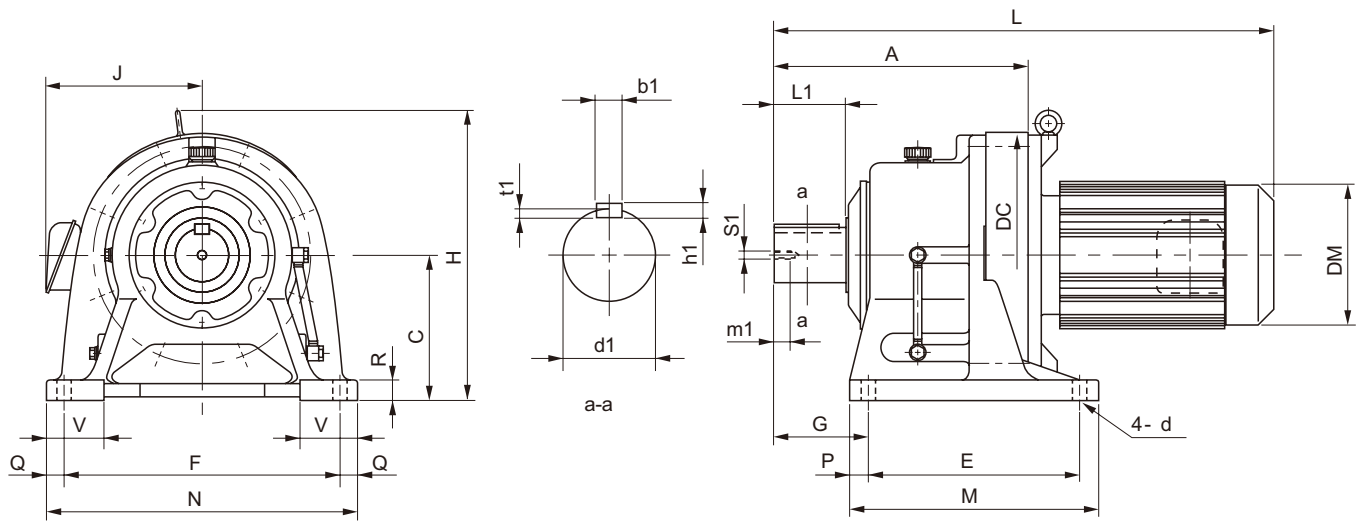
Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <span style="float: right;">Note: 2, 3, 5</span>						
														d1	L1	b1	h1	t1	S1	m1
610H	156	120	150	90	150	60	135	180	15	15	12	40	11	28	35	8	7	4	M8	20
612H	186	140	204	115	190	82	155	230	20	20	15	60	14	38	55	10	8	5	M8	20

Model	Note: 4	Motor		Standard					With Brake				
		[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CNHM02	- 610H - (B) - Ratio	0.2	4	336	207	113	124	19	364	207	113	124	21
CNHM03	- 610H - (B) - Ratio	0.25	4	336	207	113	124	19	364	207	113	124	21
CNHM05	- 610H - (B) - Ratio	0.4	4	352	207	113	124	20	384	207	113	124	22
CNHM08	- 610H - (B) - Ratio	0.55	4	393	213	143	160	24	436	213	143	160	27
CNHM1	- 610H - (B) - Ratio	0.75	4	393	213	143	160	24	436	213	143	160	27
CNHM1H	- 610H - (B) - Ratio	1.1	4	426	220	148	169	28	488	220	148	169	33
CNHM2	- 610H - (B) - Ratio	1.5	4	426	220	148	169	28	488	220	148	169	33
CNHM3	- 610H - (B) - Ratio	2.2	4	446	226	155	182	32	509	226	155	182	38
CNHM05	- 612H - (B) - Ratio	0.4	4	387	257	113	124	31	419	257	113	124	33
CNHM08	- 612H - (B) - Ratio	0.55	4	423	233	143	160	33	466	233	143	160	36
CNHM1	- 612H - (B) - Ratio	0.75	4	423	233	143	160	33	466	233	143	160	36
CNHM1H	- 612H - (B) - Ratio	1.1	4	456	240	148	169	37	518	240	148	169	42
CNHM2	- 612H - (B) - Ratio	1.5	4	456	240	148	169	37	518	240	148	169	42
CNHM3	- 612H - (B) - Ratio	2.2	4	476	246	155	182	51	539	246	155	182	48
CNHM4	- 612H - (B) - Ratio	3.0	4	499	266	166	222	51	571	266	166	222	61
CNHM5	- 612H - (B) - Ratio	3.7	4	499	266	166	222	51	571	266	166	222	61
CNHM8	- 612H - (B) - Ratio	5.5	4	543	266	166	222	58	615	266	166	222	68

Note: 1.   indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

# Dimension Tables Gearmotors (Horizontal Direction, Foot-Mount)

## CHHM<sup>Note: 1</sup> - 614H, 616H (Center Height Option)



GEARMOTORS  
Dimension Tables  
Center Height Option

Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <span style="float: right;">Note: 2, 3, 5</span>						
														d1	L1	b1	h1	t1	S1	m1
614H	260	160	230	145	290	120	195	330	25	20	22	65	18	50	90	14	9	5.5	M10	18
616H	308	200	300	150	370	139	238	410	44	20	25	75	18	60	90	18	11	7	M10	18

Model	Note: 4	Motor		Standard					With Brake				
		[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM1	- 614H - (B) - Ratio	0.75	4	497	268	143	160	52	540	268	143	160	57
CHHM1H	- 614H - (B) - Ratio	1.1	4	530	268	148	169	58	592	268	148	169	63
CHHM2	- 614H - (B) - Ratio	1.5	4	530	268	148	169	58	592	268	148	169	63
CHHM3	- 614H - (B) - Ratio	2.2	4	550	274	155	182	61	613	274	155	182	68
CHHM4	- 614H - (B) - Ratio	3.0	4	573	296	166	222	71	645	296	166	222	81
CHHM5	- 614H - (B) - Ratio	3.7	4	573	296	166	222	71	645	296	166	222	81
CHHM8	- 614H - (B) - Ratio	5.5	4	617	296	166	222	78	689	296	166	222	88
CHHM10	- 614H - (B) - Ratio	7.5	4	640	323	211	251	93	735	323	211	251	111
CHHM15	- 614H - (B) - Ratio	11	4	700	323	211	251	107	795	323	211	251	125
*CHHM20	- 614H - (B) - Ratio	15	4	790	358	261	324	159	895	321	261	324	193
CHHM1H	- 616H - (B) - Ratio	1.1	4	583	310	148	169	99	645	310	148	169	104
CHHM2	- 616H - (B) - Ratio	1.5	4	583	310	148	169	99	645	310	148	169	104
CHHM3	- 616H - (B) - Ratio	2.2	4	598	310	155	182	102	661	310	155	182	108
CHHM4	- 616H - (B) - Ratio	3.0	4	621	310	166	222	111	693	310	166	222	121
CHHM5	- 616H - (B) - Ratio	3.7	4	621	310	166	222	111	693	310	166	222	121
CHHM8	- 616H - (B) - Ratio	5.5	4	665	310	166	222	118	737	310	166	222	128
CHHM10	- 616H - (B) - Ratio	7.5	4	693	333	211	251	134	788	333	211	251	151
CHHM15	- 616H - (B) - Ratio	11	4	753	333	211	251	148	848	333	211	251	165
CHHM20	- 616H - (B) - Ratio	15	4	838	368	261	324	201	943	368	261	324	235
CHHM25	- 616H - (B) - Ratio	18.5	4	933	368	340	394	277	1098	368	340	394	328
CHHM30	- 616H - (B) - Ratio	22	4	933	368	340	394	277	1098	368	340	394	328

\*\*\* indicates models with bottom level of the motor lower than the reducer base.

Note: 4. "B" after the frame size indicates models equipped with brake.  
 5. Dimension of shaft end: Refer to pages F-28 to F-29 for details.  
 6. Dimensions in above drawings are subject to change without notice.

M E M O

GEARMOTORS

Dimension  
Tables

# C

## CYCLO® SPEED REDUCERS

---

	Page
1. How to Select	
Standard Specifications	C-3
Model Selection	C-4
Selection of Load Factor	C-7
Nomenclature	C-9
2. Selection Tables	C-11
3. Dimension Tables	C-69



# C CYCLO® SPEED REDUCER

---

## 1. How to Select

## Standard Specifications of Reducer

		CYCLO® DRIVE 6000 Series	CYCLO® DRIVE 6000SK Series (With "SK" at the end of frame size)
Lubrication		Grease or oil lubricated models	
Speed reduction		Internal planetary gear mechanism with trochoidal curved tooth profile	
Output rotation direction		Single reduction type	Reverse rotation direction
		Duble reduction type	Same rotation direction
		(*Note the difference with single reduction type of CYCLO® DRIVE 6000 Series.)	
		*In contrast to input rotation direction.	
Ambient Conditions	Installation location	Indoors (Minimal)	
	Ambient Temperature	-10°~40°C	
	Ambient Humidity	Under 85%	
	Elevation	Lower than 1,000 meters	
	Atmosphere	Well ventilated location, free of corrosive gases, explosive gases, vapors, and dust.	
Method of Mounting Note: 1		CHH Type: Slow speed shaft in horizontal direction and with foot CHF Type: Slow speed shaft in horizontal direction and with flange (not for 6000SK Series) CVV Type: Slow speed shaft down in vertical direction and with V-flange *Models with "N" for the second nomenclature symbol (such as CNH Type) may be mounted in any direction.	
Method of coupling with driven machine		Coupling, gears, chain sprocket or belt.	
Painting		Type: Acrylic modified phtalic Color: Equivalent to Mancel 6.5PB 3.6/8.2.	

Note: 1. Models for universal mounting (types with N for the second digit of nomenclature) can be manufactured for following frame sizes only. Other frame sizes require indication for mounting direction.

[Frame sizes for universal mounting direction] \*□ of the frame size indicates 0, 5, or H.

606□, 607□, 608□, 609□, 610□, 611□, 612□,

606□DA, 607□DA, 608□DA, 609□DA, 610□DA, 612□DA, 612□DB

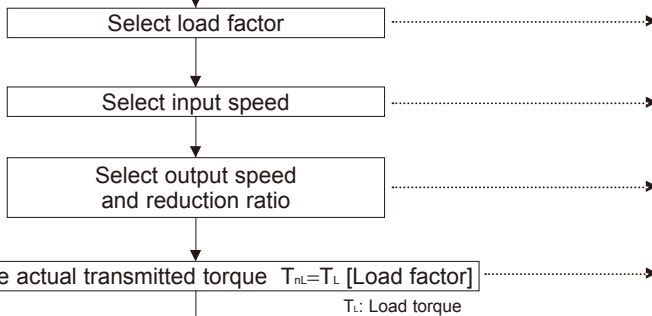
# Model Selection

Select models referring to the following flowchart. Consult us if there is any question.  
 Step 1: Determination of Operating Condition

Determine the following condition before starting selection.

- Application
- Continuous operation, or operation with frequent startup and stop
- Load torque  $T_L$
- Radial load and axial load
- Operation hours per day
- Level of shock load
- Mounting direction (slow speed shaft direction), mounting shape
- Other ambient conditions (temperature, humidity, indoor or outdoor, and other environments)

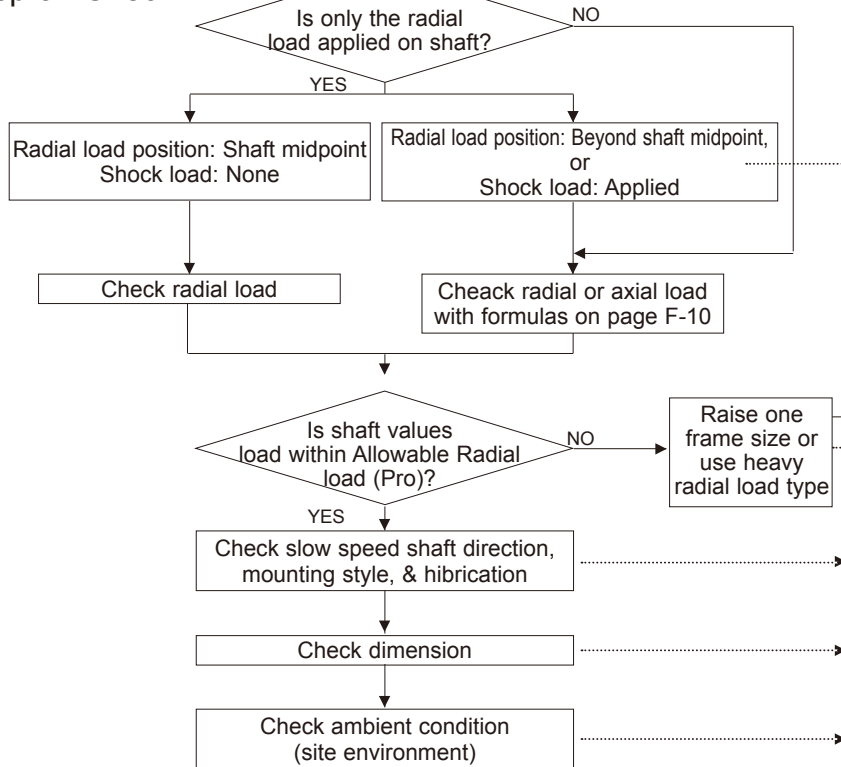
## Step 2: Model Selection



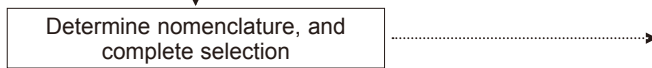
**Procedure**

- Select appropriate load factor from pages C-7~8.
- Open the page with selection table for your input speed, starting from page C-11.
- Select the cell containing close value to your output speed or reduction ratio in the selection table.
- Calculate actual transmitted torque from load torque and load factor.
- Select frame size and reduction ratio, which is larger than the calculated actual transmitted torque, from the selection table.
- Check whether only the radial load applied on slow and high speed shaft. Refer to Technical Data starting at page F-10 and calculate if axial load is also applied.
- Refer to Technical Data starting at page F-10 depending on where the radial load is applied, or if any shock load is applied or not.
  - \*1 Allowable radial load for slow speed shaft in the selection table is when the load position is at the midpoint of the shaft.
  - \*2 Calculate radial load including initial tension if they are applied using chain, V-belt, synchronous belt, etc.
- Check whether the calculated radial load does not exceed allowable radial load of the slow speed shaft.
- Check whether the selected combination is sufficient for your slow speed shaft direction, mounting style, and lubrication method.
- Check whether the dimension is adequate. Consult us if it does not match your operation condition.
- Check whether the selected combination is sufficient for your operation condition, such as surrounding environment. Refer to "Standard Specifications of Reducer" in page C-3 or section "F. Technical Data" for checking.
- Determine nomenclature for selected model referring to "Nomenclature" in page C-9. Now, the selection process is complete.

## Step 3: Check



## Step 4: Nomenclature Determination, Selection Complete



How to Select REDUCERS

# Model Selection

## Description of Our Selection Table


This is a brief description of our tables on page C-11 and after.

Upper row: Output speed [r/min]  
 Lower row: Reduction ratio  
 \* Note that "reduction ratio = nominal ratio" for models with "SK" at the end of frame size (6000 SK Series).  
 (Indicated reduction ratio is the same as actual reduction ratios for other models.)

Input speed [r/min]

### Selection Tables 6000 Series Reducer

Single Reduction Ratio 6 ~ 119 Frame Size: 6060 ~ 6120

Input Speed	$n_1 = 1450$ r/min	$n_1$ : Input Speed [r/min]	$T_{out}$ : Allowable output torque [N·m, kgf·m]	 CNH
		$n_2$ : Output Speed [r/min]	$P_{ro}$ : Allowable output shaft radial load [N, kgf·m]	
		$P_i$ : Allowable input power [kW]	* Consult us Pro for CNF-CHF type.	

Frame Size	$n_2$ [r/min]	242	181	132	112	96.7	85.3	69.0	58.0	50.0	41.4	33.7	28.4	24.6	2
	Ratio[Z]	6	8	11	13	15	17	21	25	29	35	43	51	59	
6060	$P_i$ [kW]	0.200	0.200	0.200	0.200	0.200	0.200	0.183	0.110	0.110	0.110	0.069	-	-	-
	$T_{out}$ [N·m]	7.51	10.0	13.8	16.3	18.8	21.3	24.0	17.2	20.0	24.0	24.0	-	-	-
	$T_{out}$ [kgf·m]	0.766	1.02	1.41	1.66	1.92	2.17	2.45	1.75	2.04	2.45	2.45	-	-	-
	Pro[N]	798	912	1180	1180	1180	1180	1180	1180	1180	1180	1180	-	-	-
	Pro[kgf]	81.3	93	120	120	120	120	120	120	120	120	120	-	-	-
6065	$P_i$ [kW]	0.286	0.286	0.286	0.286	0.286	0.282	0.228	0.166	0.165	0.137	0.112	-	-	-
	$T_{out}$ [N·m]	10.7	14.3	19.7	23.3	26.9	30.0	30.0	25.9	30.0	30.0	30.0	-	-	-
	$T_{out}$ [kgf·m]	1.09	1.46	2.01	2.38	2.74	3.06	3.06	2.64	3.06	3.06	3.06	-	-	-
	Pro[N]	793	904	1180	1180	1180	1180	1180	1180	1180	1180	1180	-	-	-
	Pro[kgf]	80.8	92.2	120	120	120	120	120	120	120	120	120	-	-	-
6070	$P_i$ [kW]	0.347	0.347	0.347	0.347	0.347	0.347	0.347	0.230	0.226	0.205	0.167	0.100	0.100	-
	$T_{out}$ [N·m]	13.0	17.3	23.9	28.2	32.5	36.9	42.1	35.9	41.0	45.0	45.0	31.9	36.9	-
	$T_{out}$ [kgf·m]	1.33	1.76	2.44	2.87	3.31	3.76	4.29	3.66	4.18	4.59	4.59	3.25	3.76	-
	Pro[N]	1380	1520	1690	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	-
	Pro[kgf]	141	155	172	180	180	180	180	180	180	180	180	180	180	-
6075	$P_i$ [kW]	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.294	0.286	0.272	0.223	0.143	0.136	-
	$T_{out}$ [N·m]	15.3	20.4	28.0	33.1	38.2	43.3	53.5	46.0	52.0	59.6	60.0	45.7	50.1	-
	$T_{out}$ [kgf·m]	1.56	2.08	2.85	3.37	3.89	4.41	5.45	4.69	5.30	6.08	6.12	4.66	5.11	-
	Pro[N]	1370	1510	1680	1770	1770	1770	1770	1770	1770	1770	1660	1750	1700	-
	Pro[kgf]	140	154	171	180	180	180	180	180	180	180	169	178	173	-
	$P_i$ [kW]	0.592	0.592	0.592	0.592	0.592	0.592	0.478	0.340	0.340	0.340	0.250	0.192	0.185	0.

Frame size

First row: Allowable input capacity [kW]  
 Second row: Allowable output torque [N·m]  
 Third row: Allowable output torque [kgf·m]  
 Fourth row: Allowable radial load at slow speed shaft [N]  
 Fifth row: Allowable radial load at slow speed shaft [kgf]

REDUCERS  
How to Select

# Selection Example

Below is an example selection process following the model selection procedure in page C-4.

<ul style="list-style-type: none"> <li>• Operation condition                     <ul style="list-style-type: none"> <li>- Application: Chain conveyor</li> <li>- Operation hours per day: 24 hours/day</li> <li>- Operation pattern: Continuous operation</li> <li>- Load torque: 178N·m</li> <li>- Input speed: 1450 r/min</li> <li>- Output speed: 33.7 r/min</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Connection with machine used:                     <ul style="list-style-type: none"> <li>Output side: Chain sprocket</li> <li>Sprocket pitch circle radius: R=61mm</li> <li>Load position: Midpoint of shaft Initial tension=0</li> <li>Input side: Coupling</li> <li>Level of shock load: None</li> </ul> </li> <li>- Mounting direction (slow speed shaft direction), mounting style:</li> </ul>
--	---



The model is selected based on above operation conditions in this example.

Operation condition, selection, and calculation results	Reference pages
<ul style="list-style-type: none"> <li>• <b>Select load factor</b> Load condition for chain conveyor application → Uniform load (U) Load factor = 1.2 (U, 24 hours/day operation)</li> <li>• <b>Select input speed</b> 1450 r/min</li> <li>• <b>Select output speed</b> Power source frequency 50Hz, output speed 33.7r/min → 1450/33.7 = Reduction ratio 43</li> <li>• <b>Calculated actual transmitted torque</b> <math>T_{rL}=178 \text{ [N·m]} \times 1.2=213.6 \text{ [N·m]}</math></li> <li>• <b>Determine reducer frame size</b> <math>T_{rL} \leq T_{OUT} \rightarrow 213.6 \text{ [N·m]} \leq 292 \text{ [N·m]}</math> Reducer frame size : 6105</li> <li>• <b>Check radial load</b> (Output side) <math>Pr = TL/R \leq Pro/Cf</math> <math>Pr = 199 \text{ [N·m]} / 0.061 \text{ [m]} = 3262 \text{ [N]} \leq 5400 \text{ [N]} / 1 = 5400 \text{ [N]} \rightarrow \text{OK}</math> (Input side) No radial load because of coupling connection.</li> <li>• <b>Check slow speed shaft direction, mounting style, lubrication method</b> Slow speed shaft direction: Horizontal, Mounting style: Foot mount → Nomenclature: CNH (Grease lubrication method)</li> <li>• <b>Check dimension</b> Check dimension using Dimension Tables.</li> <li>• <b>Check surrounding condition</b> Ambient temperature: 20°C → OK</li> <li>• <b>Determine nomenclature</b> Determine nomenclature: CNH-6105-43</li> </ul> <p>The selection is complete.</p>	<p>Page C-7,8 Table C-2: Reducer Load Classification Table C-1: Reducer Load Factor</p> <p>Page C-15, 40-42, 48-57: CYCLO® SPEED REDUCERS Selection Tables</p> <p>Page C-40-42: CYCLO® SPEED REDUCERS Selection Tables</p> <p>Page C-40: CYCLO® SPEED REDUCERS Selection Tables</p> <p>Page F-10: Allowable Radial and Axial Load</p> <p>Page C-40: CYCLO® SPEED REDUCERS Selection Tables</p> <p>Page C-9: Nomenclature</p> <p>Page C-71: Dimension Tables</p> <p>Page C-3: Standard Specifications of Gearmotor</p> <p>Page C-9: Nomenclature</p>

# Selection of Load Factor

CYCLO® SPEED REDUCER is designed for operation under uniform load for 10 hours/day.

Load factors below must be considered for operations exceeding 10 hours/day or load condition of your application. Select load factor by method (1) or (2) according to the load characteristics.

## (1) Load Factor Selection by Load Classifications

[Load Factor] U: Uniform load M: Moderate shock H: Heavy shock

**Table C-1 Reducer Load Factor**

Daily duty	~3 hours/day			~10 hours/day			~24 hours/day		
	U	M	H	U	M	H	U	M	H
Load Factor	0.80	1.00	1.35	1.00	1.20	1.50	1.20	1.35	1.60

**Table C-2 Recommended Load Classifications**

Type of APPLICATION	Type of LOAD	Type of APPLICATION	Type of LOAD	Type of APPLICATION	Type of LOAD	Type of APPLICATION	Type of LOAD
*Aerator		Elevators		slab conveyor.....	H	suction roll.....	U
Agitators.		bucket - uniform load.....	U	small waste-conveyor-belt.....	U	washers & thickeners.....	M
pure liquids.....	U	bucket - heavy load.....	M	small waste-conveyor-chain.....	M	winders.....	U
liquids & solids.....	M	bucket - cont.....	U	sorting table.....	M	*Printing Presses	
liquids-variable density.....	M	centrifugal discharge.....	U	tipple hoist conveyor.....	M	Pullers	
Blowers		escalators.....	U	tipple hoist drive.....	M	barge haul.....	H
centrifugal.....	U	freight.....	M	transfer conveyors.....	M	Pumps	
lobe.....	M	gravity discharge.....	U	transfer rolls.....	M	centrifugal.....	U
vane.....	U	*man lifts.....	M	tray drive.....	M	proportioning.....	M
Brewing & Distilling		*passenger.....	M	trimmer feed.....	M	reciprocating single acting, 3 or more cylinders.....	M
bottling machinery.....	U	**Extruders (Plastics)		waste conveyor.....	M	double acting, 2 or more cylinders M	
brew kettles, cont. duty.....	U	blow molders.....	M	Machine Tools		*single acting, 1 or 2 cylinders.....	
cookers-cont. duty.....	U	coating.....	U	bending roll.....	M	*double acting, single cylinder.....	
mash tubs-cont. duty.....	U	film.....	U	punch press-gear driven.....	H	rotary-gear type.....	U
scale hopper, frequent starts.....	M	pipe.....	U	*notching press-belt driven.....		rotary-lobe, vane.....	U
Can Filling Machines.....	U	pre-plasticizers.....	M	plate planers.....	H	Rubber & Plastics Industries	
*Cane Knives.....	M	rods.....	U	tapping machine.....	H	*crackers.....	H
Car Dumpers.....	H	sheet.....	U	other machine tools		laboratory equipment.....	M
Car Pullers.....	M	tubing.....	U	main drives.....	M	*mixing mills.....	H
Clarifiers.....	U	Fans		auxiliary drives.....	U	*refiners.....	M
Classifiers.....	M	centrifugal.....	U	Metal Mills		*rubber calendars.....	M
Clay Working Machinery		*cooling towers.....	U	draw bench carriage & main drive.....	M	*rubber mill (2 on line).....	M
brick press.....	H	induced draft.....	U	forming machines.....	H	*rubber mill (3 on line).....	U
briquette machine.....	H	*forced draft.....	M	*pinch, dryer & scrubber rolls, reversing.....		*sheeter.....	M
clay working machinery.....	M	induced draft.....	M	slitters.....	M	*tire building machines.....	
pug mill.....	M	large (mine, etc.).....	M	table conveyors-non-reversing group drives.....	M	*tire & tube press openers.....	
Compressors		large (industrial).....	M	individual drives.....	H	*tubers & strainers.....	M
centrifugal.....	U	light (small diameter).....	U	*table conveyors-reversing.....		*warming mills.....	M
lobe.....	M	Feeders		wire drawing & flattening machine M		Sand Muller.....	M
reciprocating, multi-cylinder.....	M	apron.....	M	wire winding machine.....	M	Screeners	
reciprocating, single-cylinder.....	H	belt.....	M	Mills, Rotary Type		air washing.....	U
Conveyors-Uniformly Loaded or Fed		disc.....	U	**ball.....	M	rotary-stone or gravel.....	M
apron.....	U	reciprocating.....	H	**cement kilns.....	M	traveling water intake.....	U
assembly.....	U	screw.....	M	**dryers & coolers.....	M	Sewage Disposal Equipment	
belt.....	U	Food industry		kilns.....	M	bar screens.....	U
bucket.....	U	beet slicer.....	M	**pebble.....	M	chemical feeders.....	U
chain.....	U	cereal cooker.....	U	**rod, plain & wedge bar.....	M	collectors, circuline or straightline.....	U
flight.....	U	dough mixer.....	M	tumbling barrels.....	H	dewatering screws.....	M
oven.....	U	meat grinders.....	M	Mixers		grit collectors.....	U
screw.....	U	Generators (not welding).....	U	concrete mixers, cont.....	M	scum breakers.....	M
Conveyors-Heavy Duty Not Uniformly Fed		Hammer mills.....	H	concrete mixers, intermittent.....	M	slow or rapid mixers.....	M
apron.....	M	Hoists		constant density.....	U	sludge collectors.....	U
assembly.....	M	heavy duty.....	H	variable density.....	M	thickeners.....	M
belt.....	M	medium duty.....	M	Oil Industry		vacuum filters.....	M
bucket.....	M	skip hoist.....	M	chillers.....	M	Slab Pushers.....	M
chain.....	M	Laundry Washers		*oil well pumping.....		*Steering Gear	
flight.....	M	reversing.....	M	paraffin filter press.....	M	Stokers.....	U
*live roll.....	U	Laundry Tumblers.....	M	rotary kilns.....	M	Sugar Industry	
oven.....	H	Line Shaft		Paper Mills		*cane knives.....	M
reciprocating.....	M	driving processing equipment.....	M	agitators (mixers).....	M	**crushers.....	M
screw.....	M	light.....	U	barker-auxiliaries-hydraulic.....	M	**mills.....	H
shaker.....	M	other line shafts.....	U	barker-mechanical.....	M	Textile Industry	
Cranes (Except for Dry Dock Cranes)		Lumber Industry		barking drum.....	H	batchers.....	M
main hoists.....	H	barkers-hydraulic.....	H	beater & pulper.....	M	calendars.....	M
*bridge travel.....	H	burner conveyor.....	M	bleacher.....	U	cards.....	M
*trolley travel.....	H	chain saw & drag saw.....	H	calendars.....	M	dry cans.....	M
Crusher		chain transfer.....	H	calendars-super.....	H	dryers.....	M
ore.....	H	craneway transfer.....	H	converting machine, except cutters, platers.....	M	dyeing machinery.....	M
stone.....	H	de-barking drum.....	H	conveyors.....	U	*knitting machines.....	
**sugar.....	M	edger feed.....	M	couch.....	M	looms.....	M
Dredges		gang feed.....	H	cutters-platers.....	H	mangles.....	M
cable reels.....	M	green chain.....	M	cylinders.....	M	nappers.....	M
conveyors.....	M	live rolls.....	H	dryers.....	M	pads.....	M
cutter head drives.....	H	log haul-locline.....	H	Paper Mills		*range drives.....	
jig drives.....	H	log haul-well type.....	H	felt stretcher.....	M	slashers.....	M
maneuvering winches.....	M	log turning device.....	H	felt whipper.....	H	soapers.....	M
pumps.....	M	main log conveyor.....	H	jordans.....	H	spinners.....	M
screen drive.....	H	off bearing rolls.....	M	log haul.....	H	tenter frames.....	M
stackers.....	M	planer feed chains.....	M	presses.....	U	washers.....	M
utility winches.....	M	planer floor chains.....	M	pulp machine reel.....	M	winders.....	M
*Dry Dock Cranes		planer tilting hoist.....	M	stock chests.....	M	*Windlass	
		re-saw merry-go-round conveyor M					
		roll cases.....	H				

Remarks: \* Refer to factory. \*\* To be selected on basis of 24hr. service only.

Note: Table above contains reference value. Names and mechanical characteristics of the actual machine may differ from the table above.

REducers  
How to Select

# Selection of Load Factor

## (2) Load Factor Selection by Start - Stop Frequency

Select load factor according to the frequency of start - stop and operation hours.

Also, check the thermal load of your motor at this time (Refer to your motor manual).

**Table C-3 Start - Stop Frequency and Reducer Load Factor**

Number of starts-stops [times/hour]	~3 hours/day			~10 hours/day			~24 hours/day		
	I	II	III	I	II	III	I	II	III
≤10	0.80	1.00	1.20	1.00	1.10	1.35	1.20	1.25	1.50
≤200	0.85	1.10	1.30	1.10	1.30	1.50	1.25	1.50	1.65
≤500	0.90	1.20	1.40	1.15	1.45	1.60	1.30	1.60	1.75

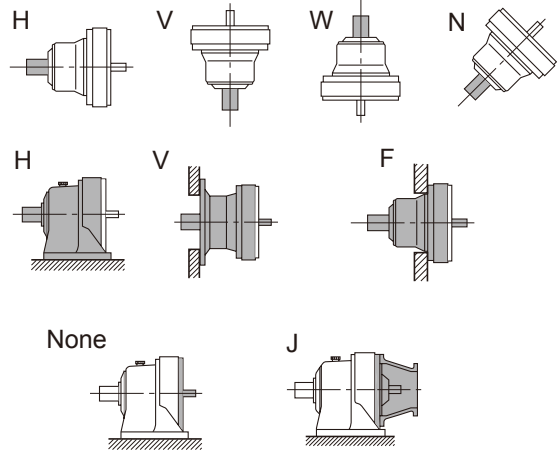
The ratio of Moment of Inertia (The ratio of  $GD^2$ ) =  $\frac{\text{Moment of Inertia (GD}^2\text{) of load as seen from the motor shaft}}{\text{Moment of Inertia (GD}^2\text{) of motor}}$

Load Factor      I : Allowable ratio of Moment of Inertia ( $GD^2$ ) ≤ 0.3  
                          II : Allowable ratio of Moment of Inertia ( $GD^2$ ) ≤ 3  
                          III: Allowable ratio of Moment of Inertia ( $GD^2$ ) ≤ 10

Note: 1. Include operation times by brake, clutch, etc. in the start - stop frequency.  
 2. Consult us for applications with startup with torque or radial load applied. Other solutions may be necessary.

# Nomenclature

Slow Speed Shaft Direction	
Horizontal, slow speed shaft level	H
Vertical, slow speed shaft down	V
Vertical, slow speed shaft up	W
Universal mounting	N



Mounting style	
Foot	H
V flange	V
Flange	F

Type of Input	
Gearmotor	M
With adaptor	JM

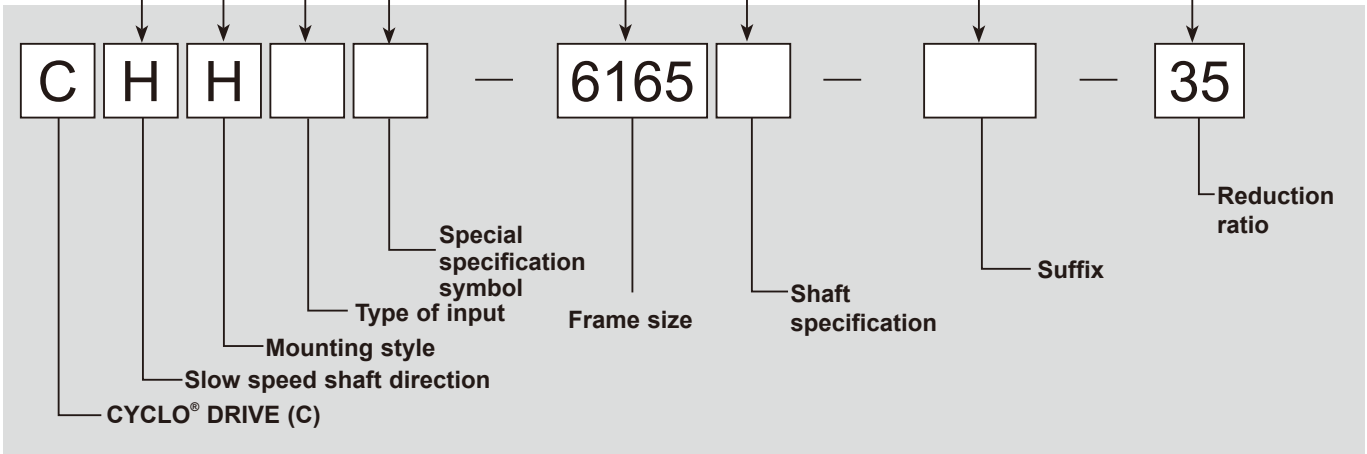
Special Specifications	
Standard specification	blank
Special specification	S

Shaft specification	
Metric JIS (Standard)	-
Inch size	Y
Metric DIN	G

Suffix			
Standard	-	HH Type Ceiling	H1
Light Heavy Radial	R1	Modification Left Wall	H2
High Cap. Brg. Ductile Casing	R2	Modification Right Wall	H3
Baseplate	BP	Torque Limiter	TL
Low Backlash	LB		

Frame size  
(Refer to Selection  
Tables starting from  
page C-11.)

Nominal ratio



REDUCERS  
How to Select



# Nomenclature and Product Examples

## Nomenclature Examples(Speed Reducer)

### Example 1.

CNH - 6115 - 29

C:	Model	- CYCLO® DRIVE
N:	Slow speed shaft direction	- Universal direction
H:	Mounting style	- Foot
6115:	Frame size	- 6115
29:	Reduction ratio	- 29

### Example 2.

CVV - 6195DA - 377

C:	Model	- CYCLO® DRIVE
V:	Slow speed shaft direction	- Vertical mounting
V:	Mounting style	- V flange
6195DA:	Frame size	- 6195DA
377:	Reduction ratio	- 377

REDUCERS

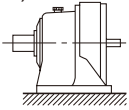
## Product and Nomenclature Symbol Examples (Speed Reducer)

Standard and various application products of CYCLO® SPEED REDUCER are classified by their nomenclature symbol as below. Refer to specific catalogs or consult us for details on our application products.

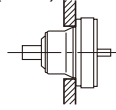
How to Select

### CYCLO® SPEED REDUCERS

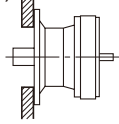
CHH  
(CNH)



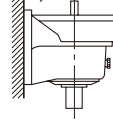
CHF  
(CNF)



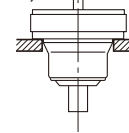
CHV  
(CNV)



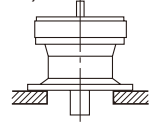
CVH  
(CNH)



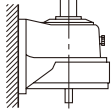
CVF  
(CNF)



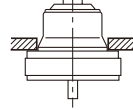
CVV  
(CNV)



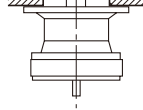
CWH  
(CNH)



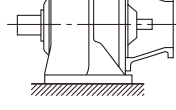
CFW  
(CNF)



CWV  
(CNV)

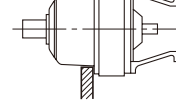


CHHJ



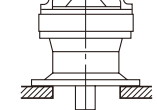
With Adaptor

CHFJ



With Adaptor

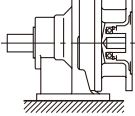
CVVJ



With Adaptor

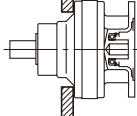
### CYCLO® SPEED REDUCERS Application Products

CHHX  
(CNHX)



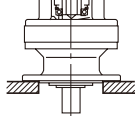
Input Side Hollow Shaft

CHFX  
(CNFX)



Input Side Hollow Shaft

CVVX  
(CNVX)



Input Side Hollow Shaft

# C CYCLO® SPEED REDUCERS

---

## 2. Selection Tables











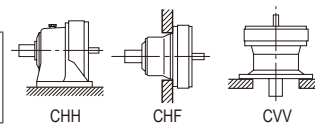




# Selection Tables 6000 Series Reducer

Single Reduction Ratio 6 ~ 119 Frame Size: 6205 ~ 6275

Input Speed	$n_1 = 50$ r/min	$n_1$ : Input Speed [r/min]	$T_{out}$ : Allowable output torque [N·m, kgf·m]
		$n_2$ : Output Speed [r/min]	Pro: Allowable output shaft radial load [N, kgf]
		$P_1$ : Allowable input power [kW]	*Consult us for Pro of CNF and CHF type.

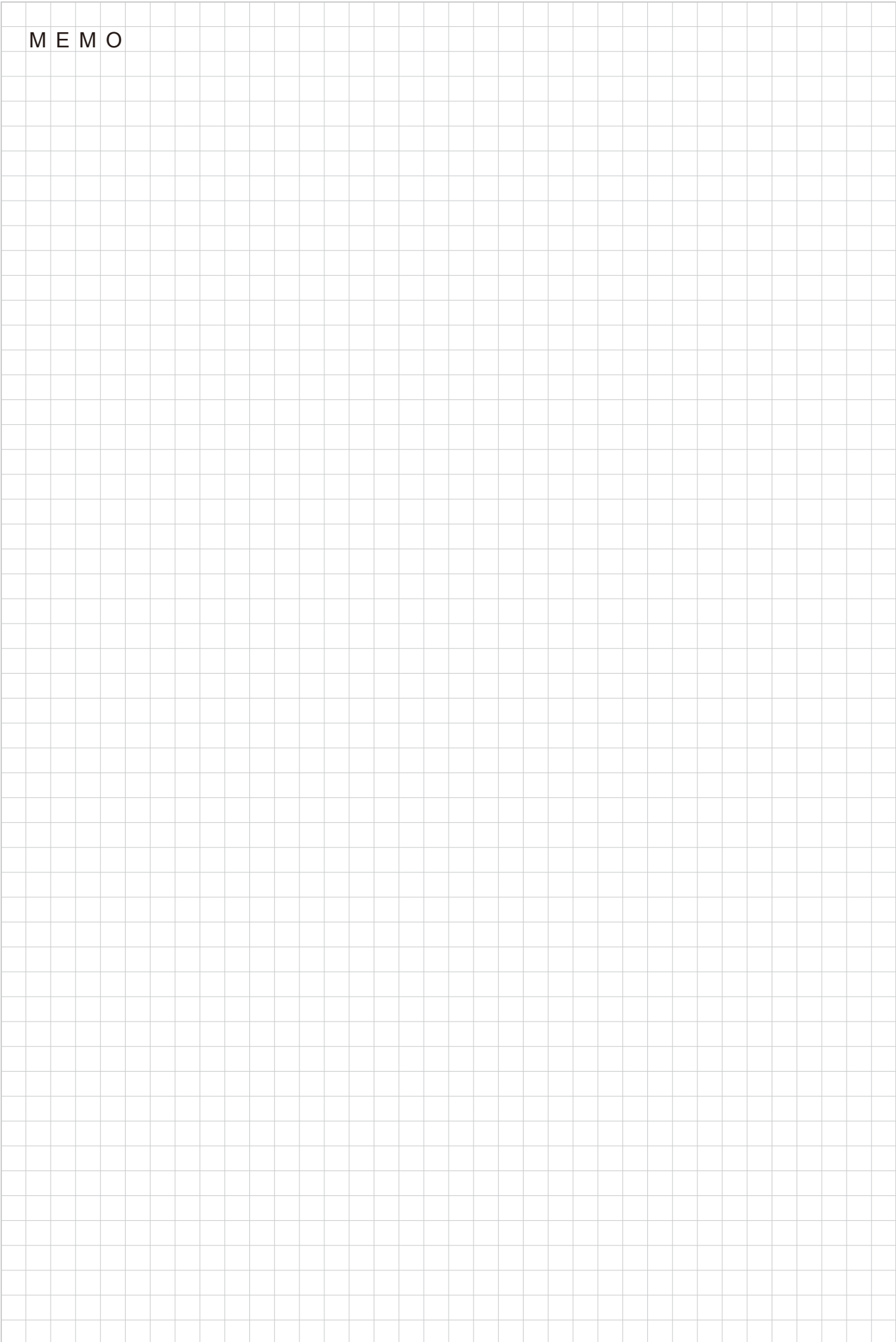


Selection Tables Ratio 6 - 119 REDUCERS

Frame Size	$n_2$ [r/min] Ratio[Z]	8.33	6.25	4.55	3.85	3.33	2.94	2.38	2.00	1.72	1.43	1.16	0.980	0.847	0.704	0.575	0.420	Page of Dim.
		6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	
6205	$P_1$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	8620	-	9270	-	9270	-	9230	-	9300	-	9300	-	8760	-	
	$T_{out}$ [kgf·m]	-	-	879	-	945	-	945	-	941	-	948	-	948	-	893	-	
	Pro[N]	-	-	84100	-	84100	-	84100	-	84100	-	84100	-	84100	-	84100	-	
	Pro[kgf]	-	-	8570	-	8570	-	8570	-	8570	-	8570	-	8570	-	8570	-	
6215	$P_1$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	11400	-	12200	-	12500	-	12700	-	12700	-	12700	-	11300	-	
	$T_{out}$ [kgf·m]	-	-	1160	-	1240	-	1270	-	1290	-	1290	-	1290	-	1150	-	
	Pro[N]	-	-	104000	-	104000	-	104000	-	104000	-	104000	-	104000	-	104000	-	
	Pro[kgf]	-	-	10600	-	10600	-	10600	-	10600	-	10600	-	10600	-	10600	-	
6225	$P_1$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	13500	-	14500	-	14800	-	15000	-	16000	-	15900	-	15100	-	
	$T_{out}$ [kgf·m]	-	-	1380	-	1480	-	1510	-	1530	-	1630	-	1620	-	1540	-	
	Pro[N]	-	-	145000	-	145000	-	145000	-	145000	-	145000	-	145000	-	145000	-	
	Pro[kgf]	-	-	14800	-	14800	-	14800	-	14800	-	14800	-	14800	-	14800	-	
6235	$P_1$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	18700	-	19600	-	18900	-	18900	-	20500	-	20500	-	17200	-	
	$T_{out}$ [kgf·m]	-	-	1910	-	2000	-	1930	-	1930	-	2090	-	2090	-	1750	-	
	Pro[N]	-	-	179000	-	179000	-	179000	-	179000	-	179000	-	179000	-	179000	-	
	Pro[kgf]	-	-	18200	-	18200	-	18200	-	18200	-	18200	-	18200	-	18200	-	
6245	$P_1$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	20500	-	26200	-	25800	-	25800	-	25800	-	25800	-	22600	-	
	$T_{out}$ [kgf·m]	-	-	2090	-	2670	-	2630	-	2630	-	2630	-	2630	-	2300	-	
	Pro[N]	-	-	208000	-	208000	-	208000	-	208000	-	208000	-	208000	-	208000	-	
	Pro[kgf]	-	-	21200	-	21200	-	21200	-	21200	-	21200	-	21200	-	21200	-	
6255	$P_1$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	27500	-	31200	-	31000	-	32500	-	34500	-	34500	-	31000	-	
	$T_{out}$ [kgf·m]	-	-	2800	-	3180	-	3160	-	3310	-	3520	-	3520	-	3160	-	
	Pro[N]	-	-	257000	-	258000	-	258000	-	258000	-	258000	-	258000	-	258000	-	
	Pro[kgf]	-	-	26200	-	26300	-	26300	-	26300	-	26300	-	26300	-	26300	-	
6265	$P_1$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	31300	-	43700	-	46000	-	46000	-	46000	-	46000	-	44000	-	
	$T_{out}$ [kgf·m]	-	-	3190	-	4450	-	4690	-	4690	-	4690	-	4690	-	4490	-	
	Pro[N]	-	-	276000	-	276000	-	276000	-	276000	-	276000	-	276000	-	276000	-	
	Pro[kgf]	-	-	28100	-	28100	-	28100	-	28100	-	28100	-	28100	-	28100	-	
6275	$P_1$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72 CVV C-84
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	68200	-	68200	-	68200	-	68200	-	
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	6950	-	6950	-	6950	-	6950	-	
	Pro[N]	-	-	-	-	-	-	-	-	248000	-	248000	-	248000	-	245000	-	
	Pro[kgf]	-	-	-	-	-	-	-	-	25300	-	25300	-	25300	-	25000	-	

Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft. Refer to pages F-11~12 when radial load is off the midpoint of output shaft and for checking thrust load.  
 2. Refer to pages F-15~16 for allowable radial load for input shaft.

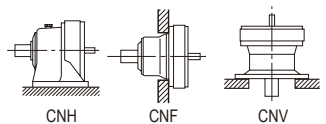
M E M O



REDUCERS  
Selection Tables  
Ratio xxx - xxx

# Selection Tables 6000 Series Reducer

Single Reduction Ratio 6 ~ 119 Frame Size: 6060 ~ 6120



Input Speed		n <sub>1</sub> = 580 r/min	n <sub>2</sub> : Input Speed [r/min]													T <sub>out</sub> : Allowable output torque [N·m, kgf·m]				Page of Dim.				
			96.7	72.5	52.7	44.6	38.7	34.1	27.6	23.2	20.0	16.6	13.5	11.4	9.83	8.17	6.67	4.87	Pro: Allowable output shaft radial load [N, kgf]		*Consult us for Pro of CNF and CHF type.			
Frame Size	n <sub>2</sub> [r/min]	Ratio[Z]	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119						
6060	P <sub>i</sub> [kW]		0.200	0.192	0.139	0.118	0.102	0.090	0.073	0.061	0.053	0.044	0.036	-	-	-	-	-	-	-	-	-	CNH C-71	
	T <sub>out</sub> [N·m]		18.8	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	-	-	-	-	-	-	-	-	-	CNF C-76	
	T <sub>out</sub> [kgf·m]		1.92	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	-	-	-	-	-	-	-	-	-	CNV C-82	
	Pro[N]		1020	1010	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	-	-	-	-	-	-	-	-	-	
	Pro[kgf]		104	103	120	120	120	120	120	120	120	120	120	120	-	-	-	-	-	-	-	-	-	

Selection Tables Ratio 6 ~ 119 REDUCERS

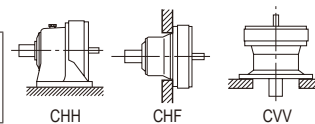
Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft. Refer to pages F-11~12 when radial load is off the midpoint of output shaft and for checking thrust load.  
2. Refer to pages F-15~16 for allowable radial load for input shaft.



# Selection Tables 6000 Series Reducer

Single Reduction Ratio 6 ~ 119 Frame Size: 6205 ~ 6275

Input Speed	$n_1 = 580$ r/min	$n_1$ : Input Speed [r/min]	$T_{out}$ : Allowable output torque [N·m, kgf·m]
		$n_2$ : Output Speed [r/min]	Pro: Allowable output shaft radial load [N, kgf]
		$P_1$ : Allowable input power [kW]	*Consult us for Pro of CNF and CHF type.

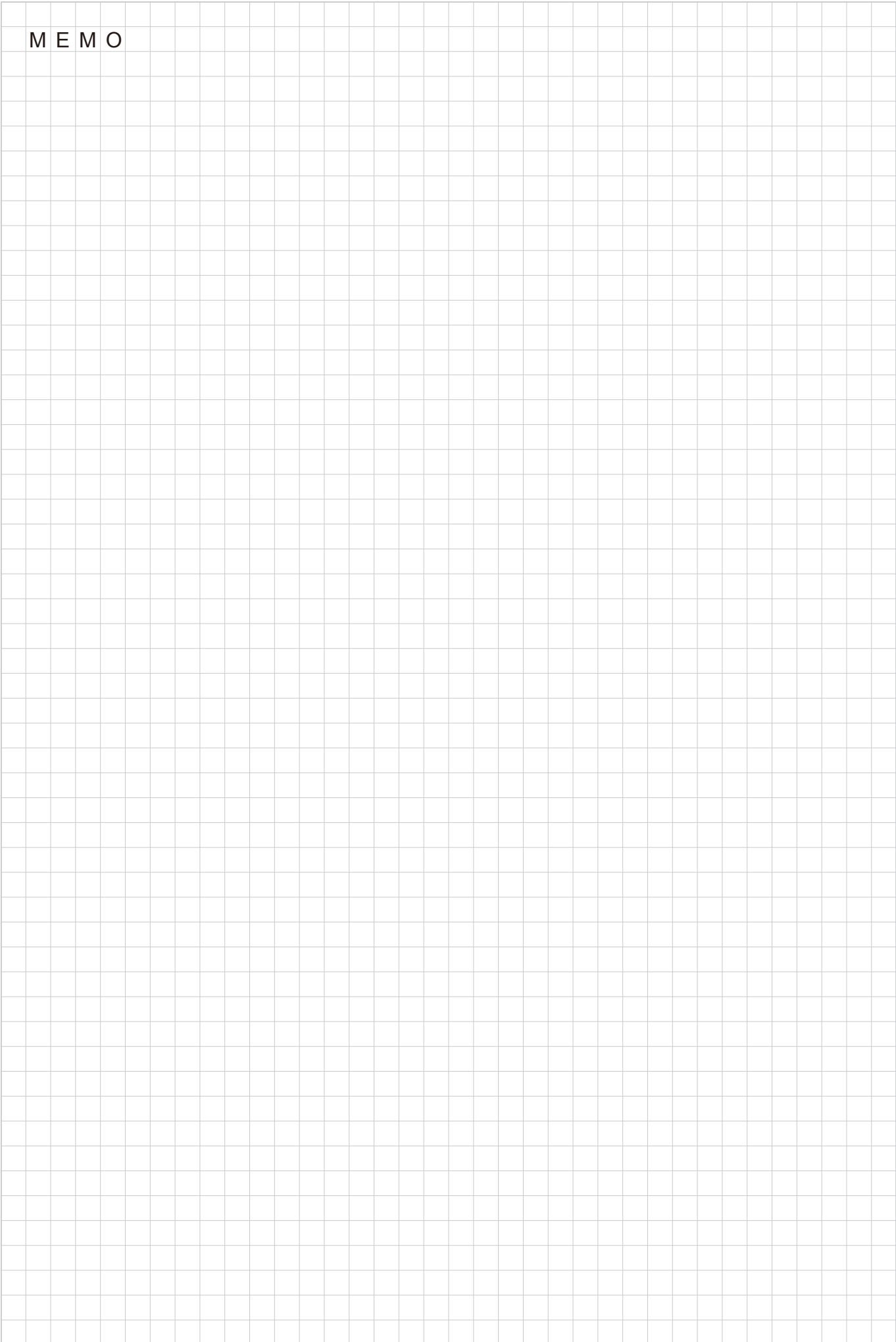


Selection Tables  
Ratio 6 - 119  
REDUCERS

Frame Size	$n_2$ [r/min]	96.7	72.5	52.7	44.6	38.7	34.1	27.6	23.2	20.0	16.6	13.5	11.4	9.83	8.17	6.67	4.87	Page of Dim.
	Ratio[Z]	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	
6205	$P_1$ [kW]	-	-	46.8	-	39.5	-	28.2	-	20.3	-	13.8	-	10.1	-	6.43	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	8050	-	9270	-	9270	-	9230	-	9300	-	9300	-	8760	-	
	$T_{out}$ [kgf·m]	-	-	821	-	945	-	945	-	941	-	948	-	948	-	893	-	
	Pro[N]	-	-	67300	-	72500	-	81600	-	84100	-	84100	-	84100	-	84100	-	
	Pro[kgf]	-	-	6860	-	7390	-	8320	-	8570	-	8570	-	8570	-	8570	-	
6215	$P_1$ [kW]	-	-	64.0	-	51.9	-	38.1	-	27.9	-	18.8	-	13.7	-	8.28	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	11000	-	12200	-	12500	-	12700	-	12700	-	12700	-	11300	-	
	$T_{out}$ [kgf·m]	-	-	1120	-	1240	-	1270	-	1290	-	1290	-	1290	-	1150	-	
	Pro[N]	-	-	67300	-	72600	-	82500	-	90200	-	102000	-	104000	-	104000	-	
	Pro[kgf]	-	-	6860	-	7400	-	8410	-	9190	-	10400	-	10600	-	10600	-	
6225	$P_1$ [kW]	-	-	74.7	-	61.7	-	45.1	-	33.2	-	23.8	-	17.2	-	11.1	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	12900	-	14500	-	14800	-	15000	-	16000	-	15900	-	15100	-	
	$T_{out}$ [kgf·m]	-	-	1310	-	1480	-	1510	-	1530	-	1630	-	1620	-	1540	-	
	Pro[N]	-	-	71100	-	77100	-	86900	-	95200	-	108000	-	118000	-	133000	-	
	Pro[kgf]	-	-	7250	-	7860	-	8860	-	9700	-	11000	-	12000	-	13600	-	
6235	$P_1$ [kW]	-	-	99.9	-	83.6	-	57.5	-	41.7	-	30.5	-	22.2	-	12.6	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	17200	-	19600	-	18900	-	18900	-	20500	-	20500	-	17200	-	
	$T_{out}$ [kgf·m]	-	-	1750	-	2000	-	1930	-	1930	-	2090	-	2090	-	1750	-	
	Pro[N]	-	-	88800	-	95300	-	108000	-	119000	-	133000	-	146000	-	166000	-	
	Pro[kgf]	-	-	9050	-	9710	-	11000	-	12100	-	13600	-	14900	-	16900	-	
6245	$P_1$ [kW]	-	-	117	-	112	-	78.5	-	56.9	-	38.4	-	28.0	-	16.6	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	20200	-	26200	-	25800	-	25800	-	25800	-	25800	-	22600	-	
	$T_{out}$ [kgf·m]	-	-	2060	-	2670	-	2630	-	2630	-	2630	-	2630	-	2300	-	
	Pro[N]	-	-	98600	-	106000	-	119000	-	131000	-	149000	-	163000	-	185000	-	
	Pro[kgf]	-	-	10100	-	10800	-	12100	-	13400	-	15200	-	16600	-	18900	-	
6255	$P_1$ [kW]	-	-	151	-	133	-	94.4	-	71.6	-	51.3	-	37.4	-	22.8	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	25900	-	31200	-	31000	-	32500	-	34500	-	34500	-	31000	-	
	$T_{out}$ [kgf·m]	-	-	2640	-	3180	-	3160	-	3310	-	3520	-	3520	-	3160	-	
	Pro[N]	-	-	121000	-	130000	-	146000	-	161000	-	182000	-	200000	-	226000	-	
	Pro[kgf]	-	-	12300	-	13300	-	14900	-	16400	-	18600	-	20400	-	23000	-	
6265	$P_1$ [kW]	-	-	175	-	175	-	140	-	101	-	68.4	-	49.8	-	32.3	-	CHH C-72 CHF C-77 CVV C-84
	$T_{out}$ [N·m]	-	-	30100	-	41000	-	46000	-	46000	-	46000	-	46000	-	44000	-	
	$T_{out}$ [kgf·m]	-	-	3070	-	4180	-	4690	-	4690	-	4690	-	4690	-	4490	-	
	Pro[N]	-	-	148000	-	158000	-	177000	-	197000	-	222000	-	243000	-	274000	-	
	Pro[kgf]	-	-	15100	-	16100	-	18000	-	20100	-	22600	-	24800	-	27900	-	
6275	$P_1$ [kW]	-	-	-	-	-	-	-	-	150	-	101	-	73.9	-	50.1	-	CHH C-72 CVV C-84
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	68200	-	68200	-	68200	-	68200	-	
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	6950	-	6950	-	6950	-	6950	-	
	Pro[N]	-	-	-	-	-	-	-	-	228000	-	248000	-	248000	-	245000	-	
	Pro[kgf]	-	-	-	-	-	-	-	-	23200	-	25300	-	25300	-	25000	-	
Frame Size	Ratio[Z]	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	Page of Dim.
	$n_2$ [r/min]	96.7	72.5	52.7	44.6	38.7	34.1	27.6	23.2	20.0	16.6	13.5	11.4	9.83	8.17	6.67	4.87	

Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft. Refer to pages F-11~12 when radial load is off the midpoint of output shaft and for checking thrust load.  
2. Refer to pages F-15~16 for allowable radial load for input shaft.

M E M O



REDUCERS  
Selection Tables  
Ratio xxx - xxx



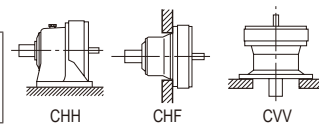




# Selection Tables 6000 Series Reducer

Single Reduction Ratio 6 ~ 119 Frame Size: 6205 ~ 6275

Input Speed	$n_1 = 720$ r/min	$n_1$ : Input Speed [r/min]	$T_{out}$ : Allowable output torque [N·m, kgf·m]
		$n_2$ : Output Speed [r/min]	Pro: Allowable output shaft radial load [N, kgf]
		$P_1$ : Allowable input power [kW]	*Consult us for Pro of CNF and CHF type.

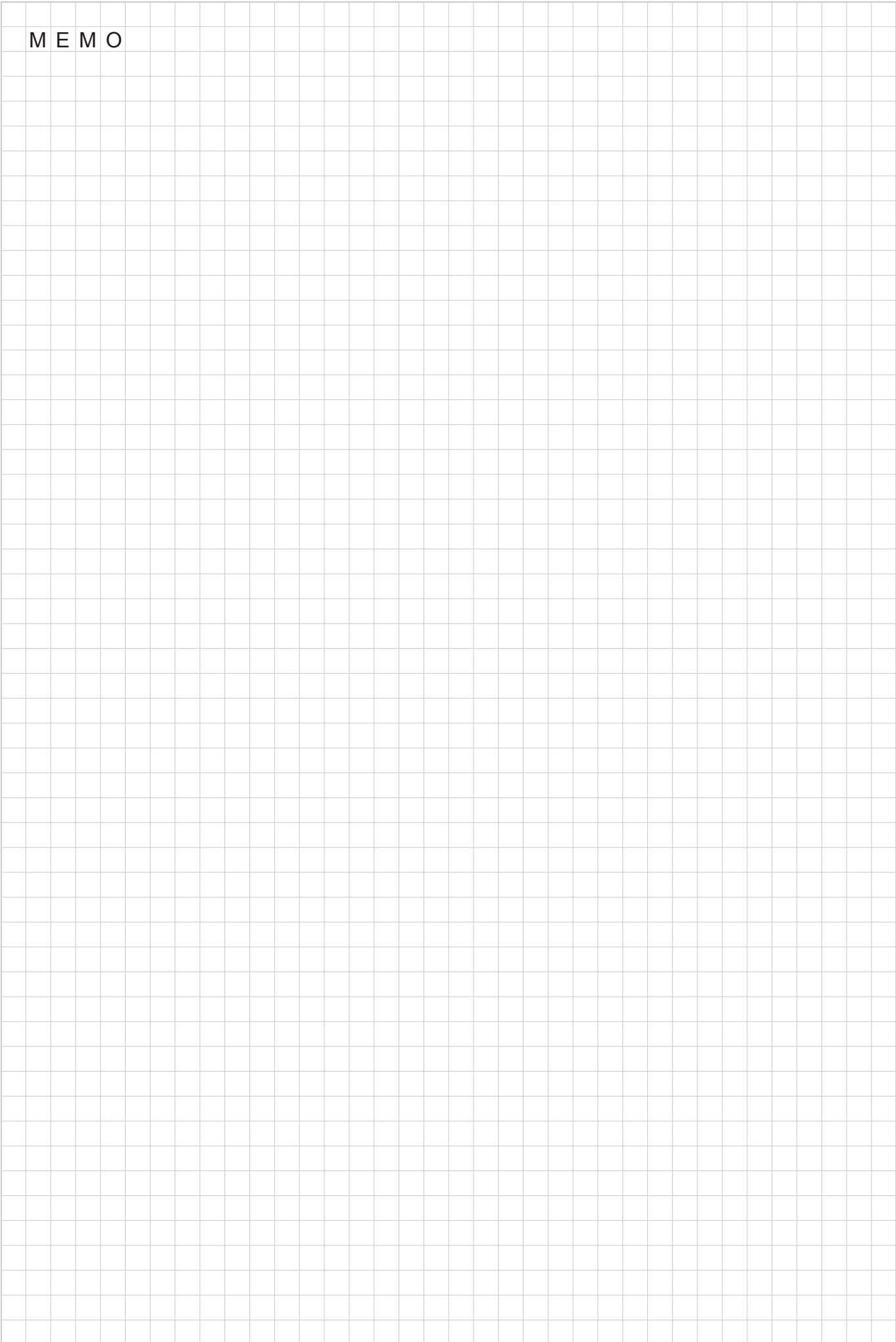


Selection Tables  
Ratio 6 - 119  
REDUCERS

Frame Size	$n_2$ [r/min] Ratio[Z]	120	90.0	65.5	55.4	48.0	42.4	34.3	28.8	24.8	20.6	16.7	14.1	12.2	10.1	8.28	6.05	Page of Dim.
		6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	
6205	$P_1$ [kW]	-	-	55.2	-	49.0	-	35.0	-	25.3	-	17.2	-	12.5	-	7.99	-	CHH C-72
	$T_{out}$ [N·m]	-	-	7650	-	9270	-	9270	-	9230	-	9300	-	9300	-	8760	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	780	-	945	-	945	-	941	-	948	-	948	-	893	-	CVV C-84
	Pro[N]	-	-	63000	-	67800	-	76300	-	83600	-	84100	-	84100	-	84100	-	
	Pro[kgf]	-	-	6420	-	6910	-	7780	-	8520	-	8570	-	8570	-	8570	-	
6215	$P_1$ [kW]	-	-	75.3	-	64.4	-	47.2	-	34.6	-	23.3	-	17.0	-	10.3	-	CHH C-72
	$T_{out}$ [N·m]	-	-	10400	-	12200	-	12500	-	12700	-	12700	-	12700	-	11300	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1060	-	1240	-	1270	-	1290	-	1290	-	1290	-	1150	-	CVV C-84
	Pro[N]	-	-	63000	-	67900	-	77200	-	84400	-	95800	-	104000	-	104000	-	
	Pro[kgf]	-	-	6420	-	6920	-	7870	-	8600	-	9770	-	10600	-	10600	-	
6225	$P_1$ [kW]	-	-	88.1	-	76.6	-	55.9	-	41.2	-	29.5	-	21.4	-	13.7	-	CHH C-72
	$T_{out}$ [N·m]	-	-	12200	-	14500	-	14800	-	15000	-	16000	-	15900	-	15100	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1240	-	1480	-	1510	-	1530	-	1630	-	1620	-	1540	-	CVV C-84
	Pro[N]	-	-	66600	-	72100	-	81200	-	89000	-	101000	-	110000	-	124000	-	
	Pro[kgf]	-	-	6790	-	7350	-	8280	-	9070	-	10300	-	11200	-	12600	-	
6235	$P_1$ [kW]	-	-	113	-	104	-	71.4	-	51.7	-	37.6	-	27.3	-	15.7	-	CHH C-72
	$T_{out}$ [N·m]	-	-	15700	-	19600	-	18900	-	18900	-	20400	-	20300	-	17200	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1600	-	2000	-	1930	-	1930	-	2080	-	2070	-	1750	-	CVV C-84
	Pro[N]	-	-	83400	-	89000	-	101000	-	111000	-	125000	-	137000	-	155000	-	
	Pro[kgf]	-	-	8500	-	9070	-	10300	-	11300	-	12700	-	14000	-	15800	-	
6245	$P_1$ [kW]	-	-	132	-	132	-	97.5	-	70.6	-	47.6	-	34.7	-	20.7	-	CHH C-72
	$T_{out}$ [N·m]	-	-	18300	-	24900	-	25800	-	25800	-	25800	-	25800	-	22600	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1870	-	2540	-	2630	-	2630	-	2630	-	2630	-	2300	-	CVV C-84
	Pro[N]	-	-	92600	-	98800	-	112000	-	123000	-	139000	-	152000	-	173000	-	
	Pro[kgf]	-	-	9440	-	10100	-	11400	-	12500	-	14200	-	15500	-	17600	-	
6255	$P_1$ [kW]	-	-	151	-	151	-	117	-	88.9	-	61.5	-	44.9	-	28.3	-	CHH C-72
	$T_{out}$ [N·m]	-	-	20900	-	28500	-	31000	-	32500	-	33300	-	33400	-	31000	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	2130	-	2910	-	3160	-	3310	-	3390	-	3400	-	3160	-	CVV C-84
	Pro[N]	-	-	114000	-	122000	-	136000	-	151000	-	170000	-	187000	-	211000	-	
	Pro[kgf]	-	-	11600	-	12400	-	13900	-	15400	-	17300	-	19100	-	21500	-	
6265	$P_1$ [kW]	-	-	175	-	175	-	172	-	126	-	84.9	-	61.9	-	40.2	-	CHH C-72
	$T_{out}$ [N·m]	-	-	24200	-	33000	-	45400	-	46000	-	46000	-	46000	-	44000	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	2470	-	3360	-	4630	-	4690	-	4690	-	4690	-	4490	-	CVV C-84
	Pro[N]	-	-	140000	-	149000	-	166000	-	184000	-	208000	-	228000	-	257000	-	
	Pro[kgf]	-	-	14300	-	15200	-	16900	-	18800	-	21200	-	23200	-	26200	-	
6275	$P_1$ [kW]	-	-	-	-	-	-	-	-	159	-	126	-	91.7	-	53.4	-	CHH C-72
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	58100	-	68200	-	68200	-	58600	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	5920	-	6950	-	6950	-	5970	-	CVV C-84
	Pro[N]	-	-	-	-	-	-	-	-	214000	-	248000	-	248000	-	240000	-	
	Pro[kgf]	-	-	-	-	-	-	-	-	21800	-	25300	-	25300	-	24500	-	
Frame Size	Ratio[Z]	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	Page of Dim.
	$n_2$ [r/min]	120	90.0	65.5	55.4	48.0	42.4	34.3	28.8	24.8	20.6	16.7	14.1	12.2	10.1	8.28	6.05	

Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft. Refer to pages F-11~12 when radial load is off the midpoint of output shaft and for checking thrust load.  
 2. Refer to pages F-15~16 for allowable radial load for input shaft.

M E M O



REDUCERS  
Selection Tables  
Ratio xxx - xxx

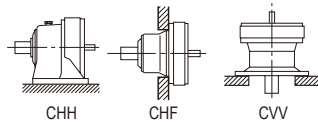




# Selection Tables 6000 Series Reducer

Single Reduction Ratio 6 ~ 119 Frame Size: 6205 ~ 6275

Input Speed	$n_1 = 870$ r/min	$n_1$ : Input Speed [r/min]	$T_{out}$ : Allowable output torque [N·m, kgf·m]
		$n_2$ : Output Speed [r/min]	Pro: Allowable output shaft radial load [N, kgf]
		$P_1$ : Allowable input power [kW]	*Consult us for Pro of CNF and CHF type.

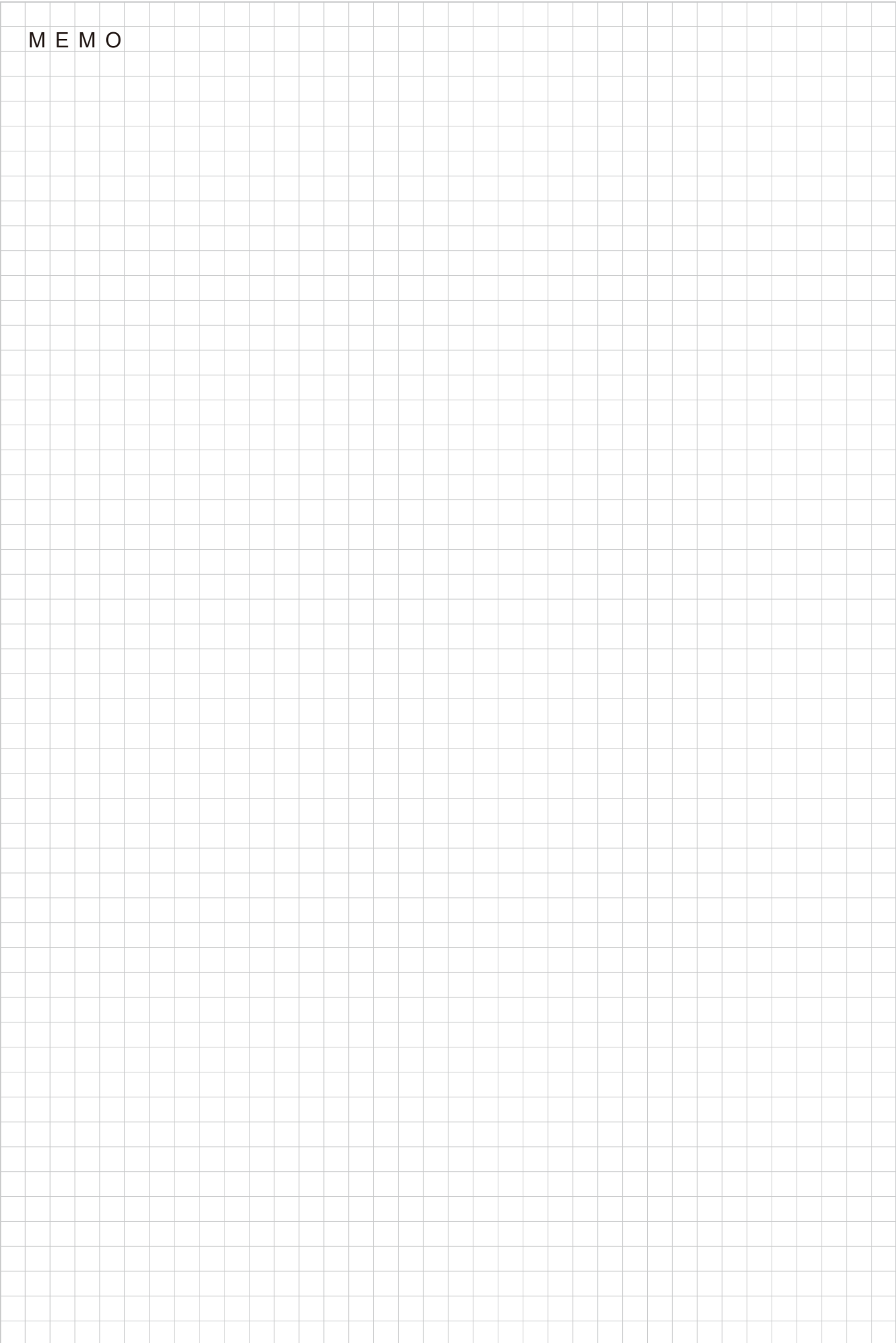


Selection Tables Ratio 6 - 119 REDUCERS

Frame Size	$n_2$ [r/min] Ratio[Z]	145	109	79.1	66.9	58.0	51.2	41.4	34.8	30.0	24.9	20.2	17.1	14.7	12.3	10.0	7.31	Page of Dim.
		6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	
6205	$P_1$ [kW]	-	-	59.7	-	58.3	-	42.4	-	30.5	-	20.7	-	15.1	-	9.65	-	CHH C-72
	$T_{out}$ [N·m]	-	-	6850	-	9130	-	9270	-	9230	-	9300	-	9300	-	8760	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	698	-	931	-	945	-	941	-	948	-	948	-	893	-	CVV C-84
	Pro[N]	-	-	59700	-	63900	-	72000	-	78800	-	84100	-	84100	-	84100	-	
	Pro[kgf]	-	-	6090	-	6510	-	7340	-	8030	-	8570	-	8570	-	8570	-	
6215	$P_1$ [kW]	-	-	75.3	-	75.3	-	57.1	-	41.8	-	28.2	-	20.6	-	12.4	-	CHH C-72
	$T_{out}$ [N·m]	-	-	8640	-	11800	-	12500	-	12700	-	12700	-	12700	-	11300	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	881	-	1200	-	1270	-	1290	-	1290	-	1290	-	1150	-	CVV C-84
	Pro[N]	-	-	59900	-	64000	-	72700	-	79500	-	90300	-	98700	-	104000	-	
	Pro[kgf]	-	-	6110	-	6520	-	7410	-	8100	-	9200	-	10100	-	10600	-	
6225	$P_1$ [kW]	-	-	99.5	-	92.6	-	67.6	-	49.7	-	35.7	-	25.8	-	16.6	-	CHH C-72
	$T_{out}$ [N·m]	-	-	11400	-	14500	-	14800	-	15000	-	16000	-	15900	-	15100	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1160	-	1480	-	1510	-	1530	-	1630	-	1620	-	1540	-	CVV C-84
	Pro[N]	-	-	63000	-	67900	-	76500	-	83900	-	95100	-	104000	-	117000	-	
	Pro[kgf]	-	-	6420	-	6920	-	7800	-	8550	-	9690	-	10600	-	11900	-	
6235	$P_1$ [kW]	-	-	113	-	113	-	86.3	-	62.5	-	43.4	-	31.6	-	18.9	-	CHH C-72
	$T_{out}$ [N·m]	-	-	13000	-	17700	-	18900	-	18900	-	19500	-	19400	-	17200	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1330	-	1800	-	1930	-	1930	-	1990	-	1980	-	1750	-	CVV C-84
	Pro[N]	-	-	79200	-	84300	-	95400	-	105000	-	118000	-	129000	-	146000	-	
	Pro[kgf]	-	-	8070	-	8590	-	9720	-	10700	-	12000	-	13100	-	14900	-	
6245	$P_1$ [kW]	-	-	132	-	132	-	118	-	85.3	-	57.5	-	41.9	-	25.0	-	CHH C-72
	$T_{out}$ [N·m]	-	-	15100	-	20600	-	25800	-	25800	-	25800	-	25800	-	22600	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1540	-	2100	-	2630	-	2630	-	2630	-	2630	-	2300	-	CVV C-84
	Pro[N]	-	-	88000	-	94000	-	105000	-	116000	-	131000	-	144000	-	163000	-	
	Pro[kgf]	-	-	8970	-	9580	-	10700	-	11800	-	13400	-	14700	-	16600	-	
6255	$P_1$ [kW]	-	-	151	-	151	-	142	-	107	-	71.1	-	51.9	-	34.2	-	CHH C-72
	$T_{out}$ [N·m]	-	-	17300	-	23600	-	31000	-	32500	-	31900	-	31900	-	31000	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1760	-	2410	-	3160	-	3310	-	3250	-	3250	-	3160	-	CVV C-84
	Pro[N]	-	-	108000	-	116000	-	128000	-	142000	-	161000	-	176000	-	199000	-	
	Pro[kgf]	-	-	11000	-	11800	-	13000	-	14500	-	16400	-	17900	-	20300	-	
6265	$P_1$ [kW]	-	-	175	-	175	-	172	-	152	-	103	-	74.8	-	48.5	-	CHH C-72
	$T_{out}$ [N·m]	-	-	20100	-	27300	-	37600	-	46000	-	46000	-	46000	-	44000	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	2050	-	2780	-	3830	-	4690	-	4690	-	4690	-	4490	-	CVV C-84
	Pro[N]	-	-	132000	-	141000	-	158000	-	174000	-	196000	-	215000	-	242000	-	
	Pro[kgf]	-	-	13500	-	14400	-	16100	-	17700	-	20000	-	21900	-	24700	-	
6275	$P_1$ [kW]	-	-	-	-	-	-	-	-	159	-	151	-	111	-	53.4	-	CHH C-72
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	48100	-	67600	-	68200	-	48500	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	4900	-	6890	-	6950	-	4940	-	CVV C-84
	Pro[N]	-	-	-	-	-	-	-	-	203000	-	248000	-	248000	-	227000	-	
	Pro[kgf]	-	-	-	-	-	-	-	-	20700	-	25300	-	25300	-	23100	-	
Frame Size	Ratio[Z]	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	Page of Dim.
	$n_2$ [r/min]	145	109	79.1	66.9	58.0	51.2	41.4	34.8	30.0	24.9	20.2	17.1	14.7	12.3	10.0	7.31	

Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft. Refer to pages F-11~12 when radial load is off the midpoint of output shaft and for checking thrust load.  
 2. Refer to pages F-15~16 for allowable radial load for input shaft.

M E M O



REDUCERS  
Selection Tables  
Ratio xxx - xxx



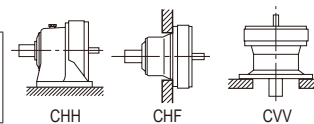




# Selection Tables 6000 Series Reducer

Single Reduction Ratio 6 ~ 119 Frame Size: 6205 ~ 6275

Input Speed	$n_1 = 980$ r/min	$n_1$ : Input Speed [r/min]	$T_{out}$ : Allowable output torque [N·m, kgf·m]
		$n_2$ : Output Speed [r/min]	Pro: Allowable output shaft radial load [N, kgf]
		$P_1$ : Allowable input power [kW]	*Consult us for Pro of CNF and CHF type.

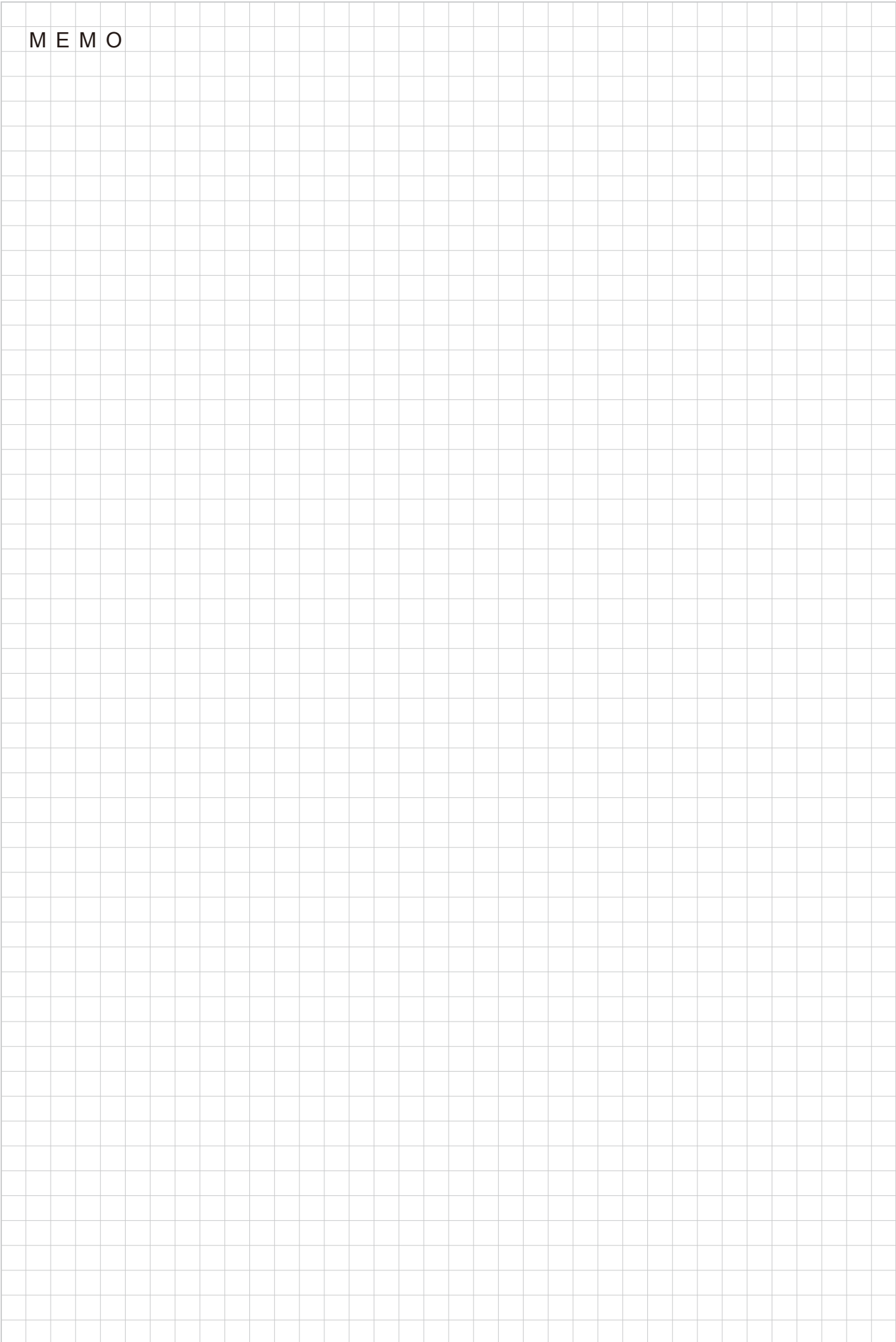


Selection Tables Ratio 6 - 119 REDUCERS

Frame Size	$n_2$ [r/min]	163	123	89.1	75.4	65.3	57.6	46.7	39.2	33.8	28.0	22.8	19.2	16.6	13.8	11.3	8.24	Page of Dim.
	Ratio[Z]	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	
6205	$P_1$ [kW]	-	-	59.7	-	59.7	-	47.7	-	34.4	-	23.4	-	17.0	-	10.9	-	CHH C-72
	$T_{out}$ [N·m]	-	-	6080	-	8290	-	9270	-	9230	-	9300	-	9300	-	8760	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	620	-	845	-	945	-	941	-	948	-	948	-	893	-	CVV C-84
	Pro[N]	-	-	57700	-	61800	-	69400	-	76000	-	84100	-	84100	-	84100	-	
	Pro[kgf]	-	-	5880	-	6300	-	7070	-	7750	-	8570	-	8570	-	8570	-	
6215	$P_1$ [kW]	-	-	75.3	-	75.3	-	64.3	-	47.1	-	31.8	-	23.2	-	14.0	-	CHH C-72
	$T_{out}$ [N·m]	-	-	7670	-	10500	-	12500	-	12700	-	12700	-	12700	-	11300	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	782	-	1070	-	1270	-	1290	-	1290	-	1290	-	1150	-	CVV C-84
	Pro[N]	-	-	58000	-	62000	-	70100	-	76600	-	87100	-	95100	-	104000	-	
	Pro[kgf]	-	-	5910	-	6320	-	7150	-	7810	-	8880	-	9690	-	10600	-	
6225	$P_1$ [kW]	-	-	99.5	-	99.5	-	76.1	-	56.0	-	40.2	-	29.1	-	18.7	-	CHH C-72
	$T_{out}$ [N·m]	-	-	10100	-	13800	-	14800	-	15000	-	16000	-	15900	-	15100	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1030	-	1410	-	1510	-	1530	-	1630	-	1620	-	1540	-	CVV C-84
	Pro[N]	-	-	61000	-	65500	-	73700	-	80800	-	91700	-	100000	-	113000	-	
	Pro[kgf]	-	-	6220	-	6680	-	7510	-	8240	-	9350	-	10200	-	11500	-	
6235	$P_1$ [kW]	-	-	113	-	113	-	97.2	-	70.4	-	47.6	-	34.6	-	21.3	-	CHH C-72
	$T_{out}$ [N·m]	-	-	11500	-	15700	-	18900	-	18900	-	18900	-	18900	-	17200	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1170	-	1600	-	1930	-	1930	-	1930	-	1930	-	1750	-	CVV C-84
	Pro[N]	-	-	76700	-	81700	-	91900	-	101000	-	114000	-	125000	-	141000	-	
	Pro[kgf]	-	-	7820	-	8330	-	9370	-	10300	-	11600	-	12700	-	14400	-	
6245	$P_1$ [kW]	-	-	132	-	132	-	120	-	94.2	-	64.8	-	47.2	-	28.1	-	CHH C-72
	$T_{out}$ [N·m]	-	-	13400	-	18300	-	23300	-	25300	-	25800	-	25800	-	22600	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1370	-	1870	-	2380	-	2580	-	2630	-	2630	-	2300	-	CVV C-84
	Pro[N]	-	-	85200	-	91100	-	102000	-	112000	-	126000	-	138000	-	157000	-	
	Pro[kgf]	-	-	8690	-	9290	-	10400	-	11400	-	12800	-	14100	-	16000	-	
6255	$P_1$ [kW]	-	-	151	-	151	-	151	-	118	-	77.9	-	56.8	-	38.5	-	CHH C-72
	$T_{out}$ [N·m]	-	-	15300	-	20900	-	29300	-	31800	-	31000	-	31000	-	31000	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1560	-	2130	-	2990	-	3240	-	3160	-	3160	-	3160	-	CVV C-84
	Pro[N]	-	-	104000	-	112000	-	124000	-	137000	-	155000	-	170000	-	192000	-	
	Pro[kgf]	-	-	10600	-	11400	-	12600	-	14000	-	15800	-	17300	-	19600	-	
6265	$P_1$ [kW]	-	-	175	-	175	-	172	-	159	-	113	-	84.2	-	53.4	-	CHH C-72
	$T_{out}$ [N·m]	-	-	17800	-	24300	-	33400	-	42700	-	45000	-	46000	-	43000	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1810	-	2480	-	3400	-	4350	-	4590	-	4690	-	4380	-	CVV C-84
	Pro[N]	-	-	128000	-	137000	-	152000	-	168000	-	189000	-	207000	-	234000	-	
	Pro[kgf]	-	-	13000	-	14000	-	15500	-	17100	-	19300	-	21100	-	23900	-	
6275	$P_1$ [kW]	-	-	-	-	-	-	-	-	159	-	151	-	125	-	53.4	-	CHH C-72
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	42700	-	60000	-	68200	-	43000	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	4350	-	6120	-	6950	-	4380	-	CVV C-84
	Pro[N]	-	-	-	-	-	-	-	-	196000	-	248000	-	248000	-	219000	-	
	Pro[kgf]	-	-	-	-	-	-	-	-	20000	-	25300	-	25300	-	22300	-	

Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft. Refer to pages F-11~12 when radial load is off the midpoint of output shaft and for checking thrust load.  
 2. Refer to pages F-15~16 for allowable radial load for input shaft.

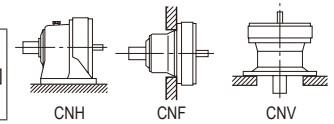
M E M O



REDUCERS  
Selection Tables  
Ratio xxx - xxx

# Selection Tables 6000 Series Reducer

Single Reduction Ratio 6 ~ 119 Frame Size: 6060 ~ 6120



Input Speed		$n_1 = 1165$ r/min															Page			
		$n_1$ : Input Speed [r/min] $n_2$ : Output Speed [r/min] $P_1$ : Allowable input power [kW]															$T_{out}$ : Allowable output torque [N·m, kgf·m] Pro: Allowable output shaft radial load [N, kgf] *Consult us for Pro of CNF and CHF type.		of Dim.	
Frame Size	$n_2$ [r/min] Ratio[Z]	194	146	106	89.6	77.7	68.5	55.5	46.6	40.2	33.3	27.1	22.8	19.7	16.4	13.4	9.79			
6060	$P_1$ [kW]	0.200	0.200	0.200	0.200	0.200	0.181	0.147	0.110	0.106	0.088	0.072	-	-	-	-	-	-	-	CNH C-71
	$T_{out}$ [N·m]	9.35	12.5	17.1	20.2	23.4	24.0	24.0	21.4	24.0	24.0	24.0	-	-	-	-	-	-	-	CNF C-76
	$T_{out}$ [kgf·m]	0.953	1.27	1.74	2.06	2.39	2.45	2.45	2.18	2.45	2.45	2.45	-	-	-	-	-	-	-	CNV C-82
	Pro[N]	857	978	1180	1180	1180	1180	1180	1180	1180	1180	1180	-	-	-	-	-	-	-	-
	Pro[kgf]	87.4	100	120	120	120	120	120	120	120	120	120	-	-	-	-	-	-	-	-

Selection Tables Ratio 6 - 119 REDUCERS

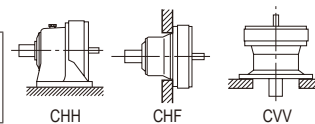
Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft. Refer to pages F-11~12 when radial load is off the midpoint of output shaft and for checking thrust load.  
 2. Refer to pages F-15~16 for allowable radial load for input shaft.



# Selection Tables 6000 Series Reducer

Single Reduction Ratio 6 ~ 119 Frame Size: 6205 ~ 6275

Input Speed	$n_1 = 1165$ r/min	$n_1$ : Input Speed [r/min]	$T_{out}$ : Allowable output torque [N·m, kgf·m]
		$n_2$ : Output Speed [r/min]	Pro: Allowable output shaft radial load [N, kgf]
		$P_1$ : Allowable input power [kW]	*Consult us for Pro of CNF and CHF type.

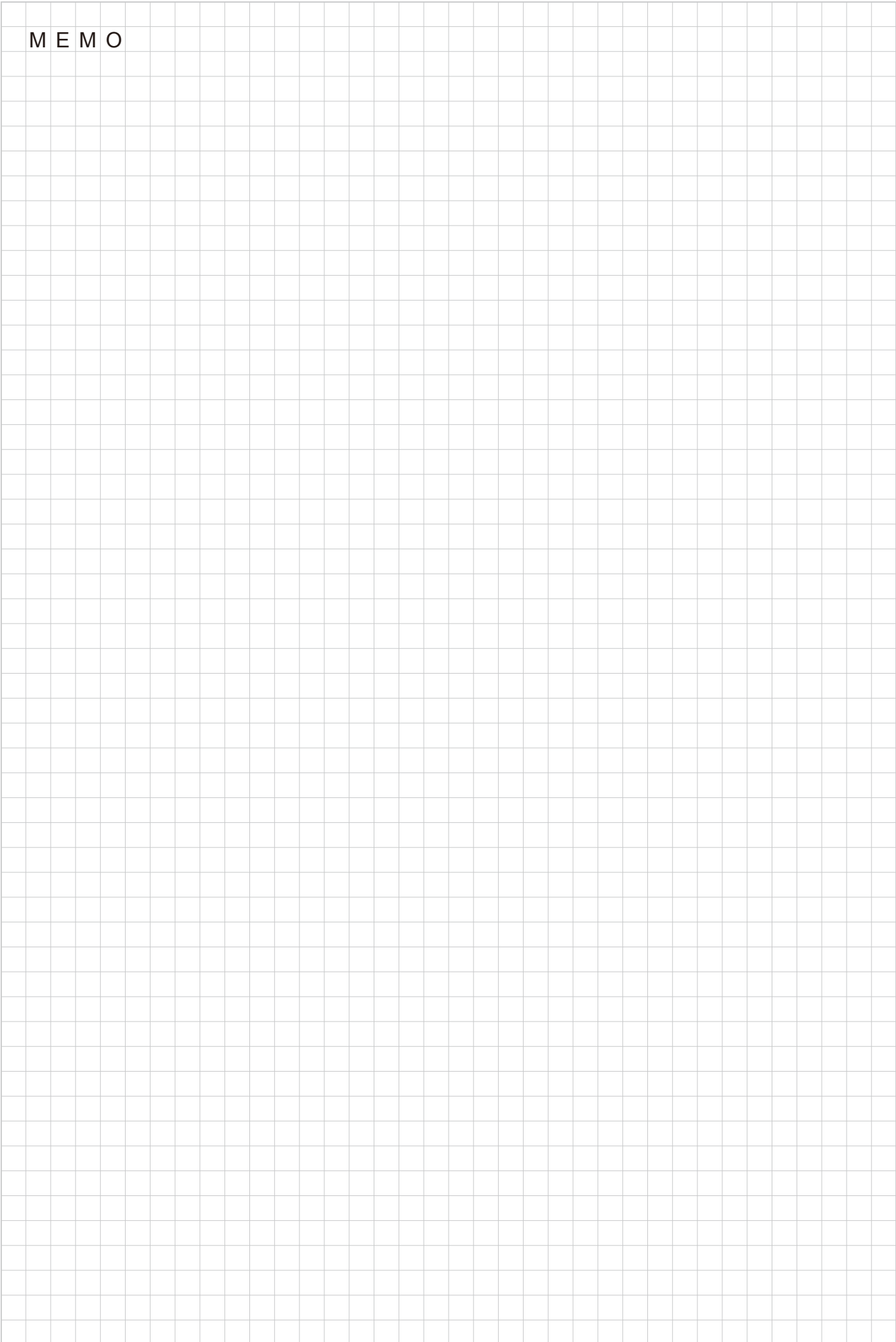


Selection Tables Ratio 6 - 119 REDUCERS

Frame Size	$n_2$ [r/min] Ratio[Z]	194	146	106	89.6	77.7	68.5	55.5	46.6	40.2	33.3	27.1	22.8	19.7	16.4	13.4	9.79	Page of Dim.
		6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	
6205	$P_1$ [kW]	-	-	59.7	-	59.7	-	54.7	-	39.6	-	27.8	-	19.5	-	12.9	-	CHH C-72
	$T_{out}$ [N·m]	-	-	5110	-	6970	-	8950	-	8950	-	9300	-	8950	-	8760	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	521	-	710	-	912	-	912	-	948	-	912	-	893	-	CVV C-84
	Pro[N]	-	-	55000	-	58900	-	65800	-	72100	-	81600	-	84100	-	84100	-	
	Pro[kgf]	-	-	5610	-	6000	-	6710	-	7350	-	8320	-	8570	-	8570	-	
6215	$P_1$ [kW]	-	-	75.3	-	75.3	-	75.3	-	56.0	-	37.8	-	27.5	-	16.6	-	CHH C-72
	$T_{out}$ [N·m]	-	-	6450	-	8800	-	12300	-	12700	-	12700	-	12700	-	11300	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	657	-	897	-	1250	-	1290	-	1290	-	1290	-	1150	-	CVV C-84
	Pro[N]	-	-	55300	-	59200	-	66400	-	72600	-	82500	-	90100	-	102000	-	
	Pro[kgf]	-	-	5640	-	6030	-	6770	-	7400	-	8410	-	9180	-	10400	-	
6225	$P_1$ [kW]	-	-	99.5	-	99.5	-	90.5	-	66.6	-	47.8	-	33.3	-	22.2	-	CHH C-72
	$T_{out}$ [N·m]	-	-	8520	-	11600	-	14800	-	15000	-	16000	-	15300	-	15100	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	869	-	1180	-	1510	-	1530	-	1630	-	1560	-	1540	-	CVV C-84
	Pro[N]	-	-	58200	-	62600	-	69800	-	76500	-	86800	-	95000	-	107000	-	
	Pro[kgf]	-	-	5930	-	6380	-	7120	-	7800	-	8850	-	9680	-	10900	-	
6235	$P_1$ [kW]	-	-	113	-	113	-	97.5	-	75.3	-	54.3	-	37.7	-	24.0	-	CHH C-72
	$T_{out}$ [N·m]	-	-	9680	-	13200	-	15900	-	17000	-	18200	-	17300	-	16200	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	987	-	1350	-	1620	-	1730	-	1860	-	1760	-	1650	-	CVV C-84
	Pro[N]	-	-	73100	-	77900	-	87700	-	96000	-	108000	-	119000	-	134000	-	
	Pro[kgf]	-	-	7450	-	7940	-	8940	-	9790	-	11000	-	12100	-	13700	-	
6245	$P_1$ [kW]	-	-	132	-	132	-	120	-	94.2	-	75.3	-	56.2	-	32.1	-	CHH C-72
	$T_{out}$ [N·m]	-	-	11300	-	15400	-	19600	-	21300	-	25200	-	25800	-	21700	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1150	-	1570	-	2000	-	2170	-	2570	-	2630	-	2210	-	CVV C-84
	Pro[N]	-	-	81200	-	86900	-	97100	-	107000	-	120000	-	131000	-	149000	-	
	Pro[kgf]	-	-	8280	-	8860	-	9900	-	10900	-	12200	-	13400	-	15200	-	
6255	$P_1$ [kW]	-	-	151	-	151	-	151	-	118	-	88.9	-	64.8	-	42.9	-	CHH C-72
	$T_{out}$ [N·m]	-	-	12900	-	17600	-	24600	-	26700	-	29800	-	29800	-	29000	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1310	-	1790	-	2510	-	2720	-	3040	-	3040	-	2960	-	CVV C-84
	Pro[N]	-	-	99600	-	107000	-	118000	-	131000	-	147000	-	161000	-	182000	-	
	Pro[kgf]	-	-	10200	-	10900	-	12000	-	13400	-	15000	-	16400	-	18600	-	
6265	$P_1$ [kW]	-	-	175	-	175	-	172	-	159	-	113	-	94.2	-	53.4	-	CHH C-72
	$T_{out}$ [N·m]	-	-	15000	-	20400	-	28100	-	35900	-	37800	-	43300	-	36200	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	1530	-	2080	-	2860	-	3660	-	3850	-	4410	-	3690	-	CVV C-84
	Pro[N]	-	-	122000	-	130000	-	145000	-	160000	-	180000	-	197000	-	222000	-	
	Pro[kgf]	-	-	12400	-	13300	-	14800	-	16300	-	18300	-	20100	-	22600	-	
6275	$P_1$ [kW]	-	-	-	-	-	-	-	-	159	-	151	-	132	-	53.4	-	CHH C-72
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	35900	-	50500	-	60600	-	36200	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	3660	-	5150	-	6180	-	3690	-	CVV C-84
	Pro[N]	-	-	-	-	-	-	-	-	186000	-	248000	-	247000	-	208000	-	
	Pro[kgf]	-	-	-	-	-	-	-	-	19000	-	25300	-	25200	-	21200	-	
Frame Size	Ratio[Z]	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	Page of Dim.
	$n_2$ [r/min]	194	146	106	89.6	77.7	68.5	55.5	46.6	40.2	33.3	27.1	22.8	19.7	16.4	13.4	9.79	

Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft. Refer to pages F-11~12 when radial load is off the midpoint of output shaft and for checking thrust load.  
 2. Refer to pages F-15~16 for allowable radial load for input shaft.

M E M O



REDUCERS  
Selection Tables  
Ratio xxx - xxx



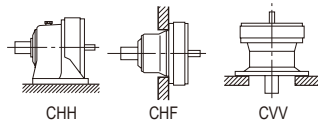




# Selection Tables 6000 Series Reducer

Single Reduction Ratio 6 ~ 119 Frame Size: 6205 ~ 6275

Input Speed	$n_1 = 1450$ r/min	$n_1$ : Input Speed [r/min]	$T_{out}$ : Allowable output torque [N·m, kgf·m]
		$n_2$ : Output Speed [r/min]	Pro: Allowable output shaft radial load [N, kgf]
		$P_1$ : Allowable input power [kW]	*Consult us for Pro of CNF and CHF type.

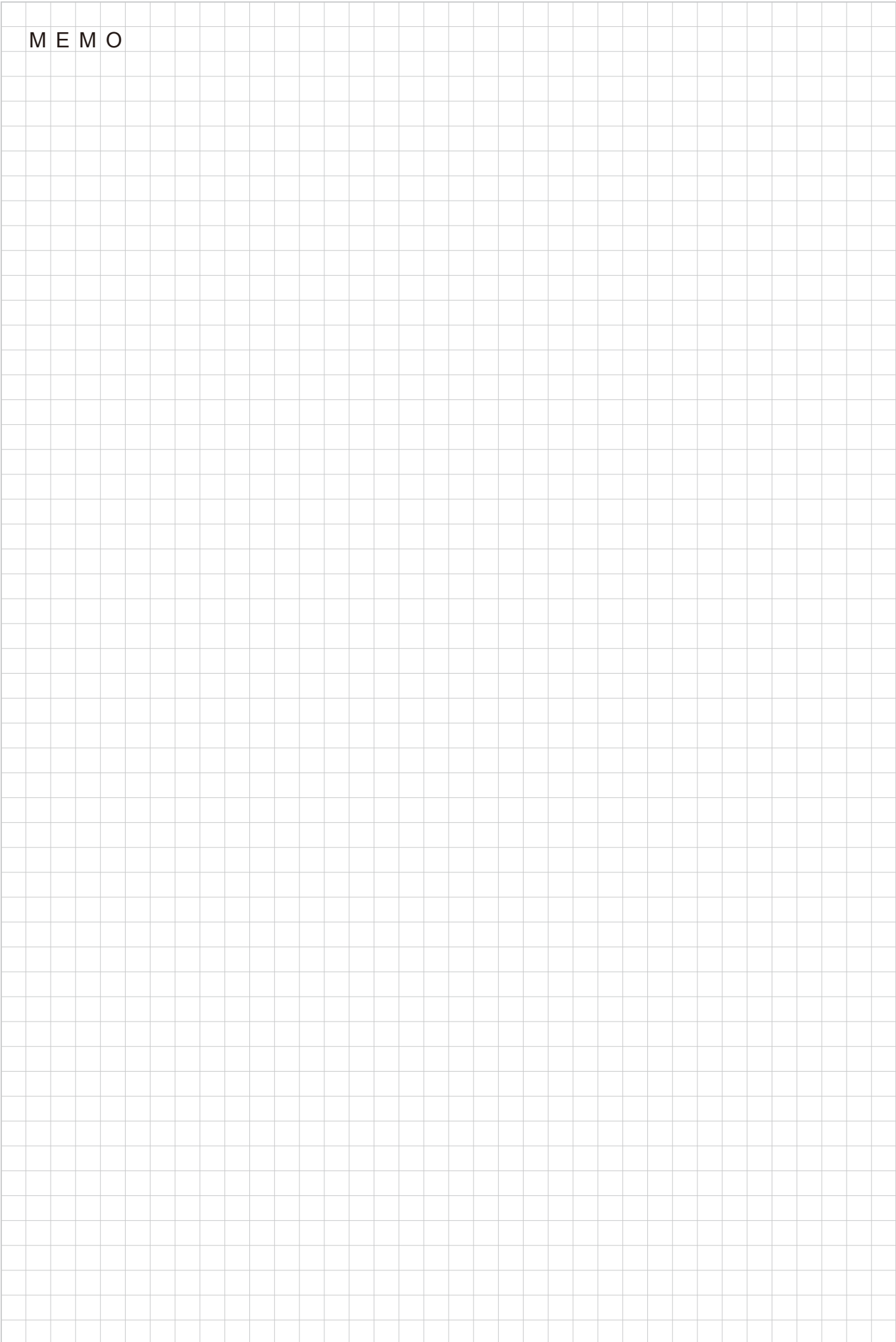


Selection Tables  
Ratio 6 - 119  
REDUCERS

Frame Size	$n_2$ [r/min] Ratio[Z]	242	181	132	112	96.7	85.3	69.0	58.0	50.0	41.4	33.7	28.4	24.6	20.4	16.7	12.2	Page of Dim.
		6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	
6205	$P_i$ [kW]	-	-	59.7	-	59.7	-	59.2	-	45.7	-	31.8	-	22.6	-	15.9	-	CHH C-72
	$T_{out}$ [N·m]	-	-	4110	-	5600	-	7780	-	8280	-	8550	-	8340	-	8650	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	419	-	571	-	793	-	844	-	872	-	850	-	882	-	CVV C-84
	Pro[N]	-	-	51700	-	55400	-	61800	-	67500	-	76500	-	83500	-	84100	-	
	Pro[kgf]	-	-	5270	-	5650	-	6300	-	6880	-	7800	-	8510	-	8570	-	
6215	$P_i$ [kW]	-	-	75.3	-	75.3	-	75.3	-	58.5	-	45.2	-	33.9	-	19.7	-	CHH C-72
	$T_{out}$ [N·m]	-	-	5190	-	7070	-	9900	-	10600	-	12200	-	12500	-	10700	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	529	-	721	-	1010	-	1080	-	1240	-	1270	-	1090	-	CVV C-84
	Pro[N]	-	-	52000	-	55700	-	62600	-	68300	-	77200	-	84200	-	95400	-	
	Pro[kgf]	-	-	5300	-	5680	-	6380	-	6960	-	7870	-	8580	-	9720	-	
6225	$P_i$ [kW]	-	-	99.5	-	99.5	-	94.2	-	75.3	-	56.5	-	39.3	-	26.7	-	CHH C-72
	$T_{out}$ [N·m]	-	-	6850	-	9330	-	12400	-	13700	-	15200	-	14500	-	14600	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	698	-	951	-	1260	-	1400	-	1550	-	1480	-	1490	-	CVV C-84
	Pro[N]	-	-	54800	-	59000	-	65700	-	71800	-	81300	-	89000	-	100000	-	
	Pro[kgf]	-	-	5590	-	6010	-	6700	-	7320	-	8290	-	9070	-	10200	-	
6235	$P_i$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CVV C-84
	Pro[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Pro[kgf]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6245	$P_i$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CVV C-84
	Pro[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Pro[kgf]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6255	$P_i$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CVV C-84
	Pro[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Pro[kgf]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6265	$P_i$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CVV C-84
	Pro[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Pro[kgf]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6275	$P_i$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHH C-72
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CHF C-77
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CVV C-84
	Pro[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Pro[kgf]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Frame Size	Ratio[Z]	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	Page of Dim.
	$n_2$ [r/min]	242	181	132	112	96.7	85.3	69.0	58.0	50.0	41.4	33.7	28.4	24.6	20.4	16.7	12.2	

Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft. Refer to pages F-11~12 when radial load is off the midpoint of output shaft and for checking thrust load.  
 2. Refer to pages F-15~16 for allowable radial load for input shaft.

M E M O



REDUCERS  
Selection Tables  
Ratio xxx - xxx





## Selection Tables 6000 Series Reducer

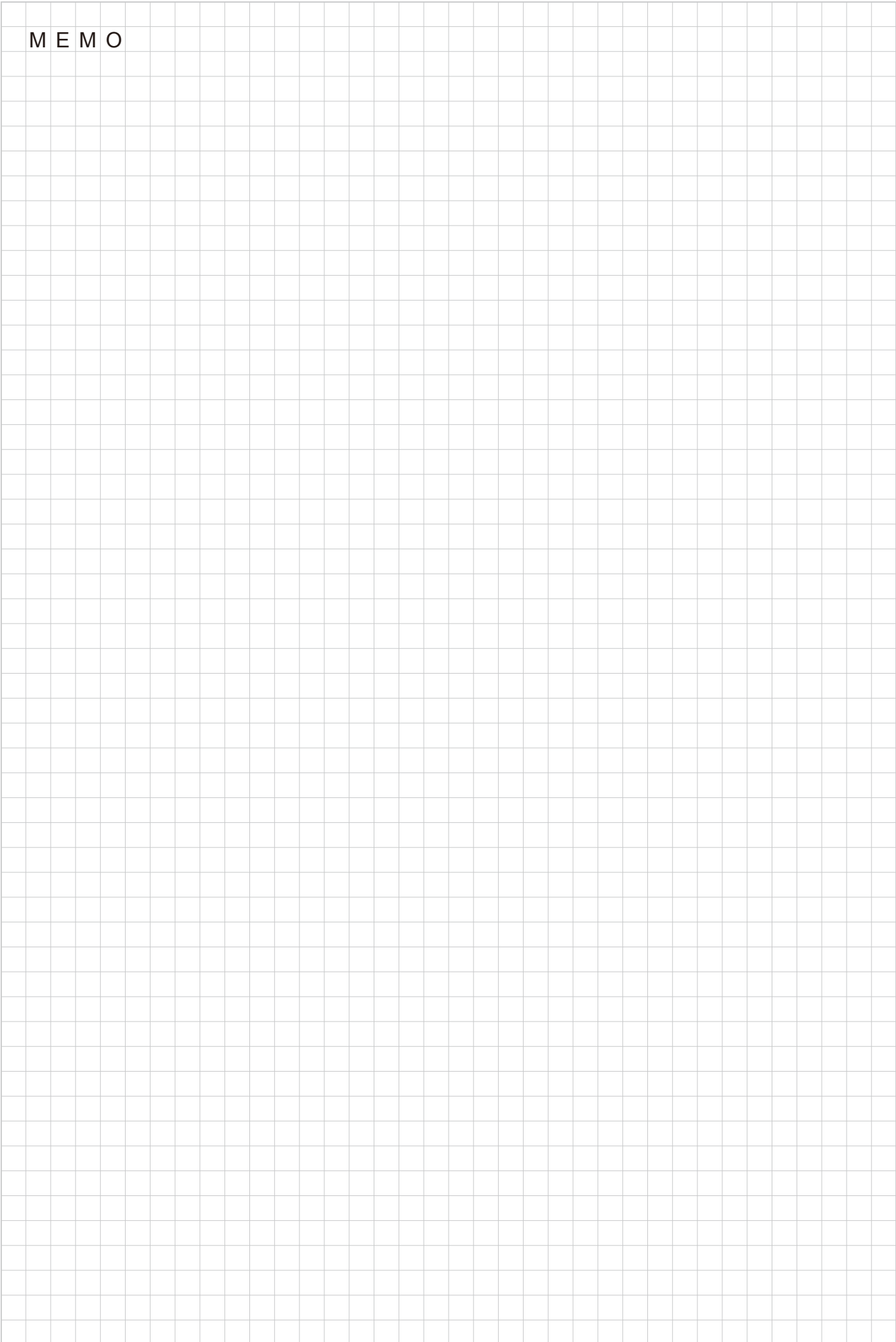
Single Reduction Ratio 6 ~ 119 Frame Size: 6205 ~ 6275

Input Speed		$n_1 = 1750$ r/min												$n_2$ [r/min]				$T_{out}$ : Allowable output torque [N·m, kgf·m]		Pro: Allowable output shaft radial load [N, kgf]	
Frame Size	$n_2$ [r/min]	292	219	159	135	117	103	83.3	70.0	60.3	50.0	40.7	34.3	29.7	24.6	20.1	14.7	CHH	CHF	CVV	
Ratio[Z]	$n_2$ [r/min]	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	*Consult us for Pro of CNF and CHF type.			
6205	$P_i$ [kW]	-	-	59.7	-	59.7	-	59.2	-	45.7	-	31.8	-	22.6	-	15.9	-	CHH C-72			
	$T_{out}$ [N·m]	-	-	3400	-	4640	-	6450	-	6860	-	7090	-	6910	-	7170	-	CHF C-77			
	$T_{out}$ [kgf·m]	-	-	347	-	473	-	657	-	699	-	723	-	704	-	731	-	CVW C-84			
	Pro[N]	-	-	48900	-	52500	-	58600	-	64100	-	72500	-	79200	-	84100	-				
	Pro[kgf]	-	-	4980	-	5350	-	5970	-	6530	-	7390	-	8070	-	8570	-				
6215	$P_i$ [kW]	-	-	75.3	-	75.3	-	75.3	-	58.5	-	45.2	-	37.7	-	21.4	-	CHH C-72			
	$T_{out}$ [N·m]	-	-	4300	-	5860	-	8200	-	8790	-	10100	-	11500	-	9650	-	CHF C-77			
	$T_{out}$ [kgf·m]	-	-	438	-	597	-	836	-	896	-	1030	-	1170	-	984	-	CVW C-84			
	Pro[N]	-	-	49300	-	52900	-	59500	-	64900	-	73300	-	79700	-	90300	-				
	Pro[kgf]	-	-	5030	-	5390	-	6070	-	6620	-	7470	-	8120	-	9200	-				
6225	$P_i$ [kW]	-	-	99.5	-	99.5	-	94.2	-	75.3	-	56.5	-	45.2	-	26.7	-	CHH C-72			
	$T_{out}$ [N·m]	-	-	5670	-	7730	-	10300	-	11300	-	12600	-	13800	-	12100	-	CHF C-77			
	$T_{out}$ [kgf·m]	-	-	578	-	788	-	1050	-	1150	-	1280	-	1410	-	1230	-	CVW C-84			
	Pro[N]	-	-	52100	-	56100	-	62500	-	68200	-	77200	-	84100	-	95200	-				
	Pro[kgf]	-	-	5310	-	5720	-	6370	-	6950	-	7870	-	8570	-	9700	-				
6235	$P_i$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	Pro[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	Pro[kgf]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
6245	$P_i$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	Pro[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	Pro[kgf]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
6255	$P_i$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	Pro[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	Pro[kgf]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
6265	$P_i$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	Pro[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	Pro[kgf]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
6275	$P_i$ [kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	Pro[N]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	Pro[kgf]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Frame Size	Ratio[Z]	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	Page of Dim.			
	$n_2$ [r/min]	292	219	159	135	117	103	83.3	70.0	60.3	50.0	40.7	34.3	29.7	24.6	20.1	14.7				

Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft. Refer to pages F-11~12 when radial load is off the midpoint of output shaft and for checking thrust load.

2. Refer to pages F-15~16 for allowable radial load for input shaft.

M E M O



REDUCERS  
Selection Tables  
Ratio xxx - xxx

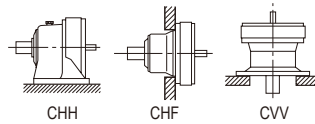








# Selection Tables 6000 Series Reducer



Input Speed	$n_1 = 1450$ r/min
-------------	--------------------

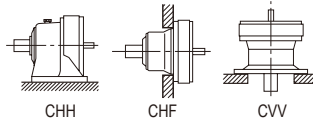
1.45	1.16	0.980	0.784	0.702	0.572	0.476	0.417	0.327	0.282	0.235	0.192	$n_2$ [r/min]	Page of Dim.	Frame Size
1003	1247	1479	1849	2065	2537	3045	3481	4437	5133	6177	7569	Ratio [Z]		
-	-	-	-	-	-	-	-	-	-	<b>0.200</b>	<b>0.200</b>	$P_1$ [kW]	CHH C-74	<b>6130DB</b>
-	-	-	-	-	-	-	-	-	-	848	848	$T_{OUT}$ [N•m]	CHF C-79	
-	-	-	-	-	-	-	-	-	-	86.5	86.5	$T_{OUT}$ [kgf•m]	CW C-86	
-	-	-	-	-	-	-	-	-	-	14700	14700	Pro[N]		
-	-	-	-	-	-	-	-	-	-	1500	1500	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-74	<b>6130DC</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]	CHF C-79	
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]	CW C-86	
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	-	-	$P_1$ [kW]	CHH C-74	<b>6135DA</b>
1050	940	979	940	1050	1050	979	1050	979	979	-	-	$T_{OUT}$ [N•m]	CHF C-79	
107	95.8	99.8	95.8	107	107	99.8	107	99.8	99.8	-	-	$T_{OUT}$ [kgf•m]	CW C-86	
14700	14700	14700	14700	14700	14700	14700	14700	14700	14700	-	-	Pro[N]		
1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	-	-	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	<b>0.200</b>	<b>0.200</b>	$P_1$ [kW]	CHH C-74	<b>6135DB</b>
-	-	-	-	-	-	-	-	-	-	979	979	$T_{OUT}$ [N•m]	CHF C-79	
-	-	-	-	-	-	-	-	-	-	99.8	99.8	$T_{OUT}$ [kgf•m]	CW C-86	
-	-	-	-	-	-	-	-	-	-	14700	14700	Pro[N]		
-	-	-	-	-	-	-	-	-	-	1500	1500	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-74	<b>6135DC</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]	CHF C-79	
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]	CW C-86	
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
0.206	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	-	-	$P_1$ [kW]	CHH C-74	<b>6140DA</b>
1230	1230	1230	1230	1230	1230	1230	1230	1230	1230	-	-	$T_{OUT}$ [N•m]	CHF C-79	
125	125	125	125	125	125	125	125	125	125	-	-	$T_{OUT}$ [kgf•m]	CW C-86	
16000	16000	16000	16000	16000	16000	16000	16000	16000	16000	-	-	Pro[N]		
1630	1630	1630	1630	1630	1630	1630	1630	1630	1630	-	-	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	<b>0.200</b>	<b>0.200</b>	$P_1$ [kW]	CHH C-74	<b>6140DB</b>
-	-	-	-	-	-	-	-	-	-	1230	1230	$T_{OUT}$ [N•m]	CHF C-79	
-	-	-	-	-	-	-	-	-	-	125	125	$T_{OUT}$ [kgf•m]	CW C-86	
-	-	-	-	-	-	-	-	-	-	16000	16000	Pro[N]		
-	-	-	-	-	-	-	-	-	-	1630	1630	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-74	<b>69140DC</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]	CHF C-79	
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]	CW C-86	
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
0.230	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	-	-	$P_1$ [kW]	CHH C-74	<b>6145DA</b>
1370	1370	1250	1370	1370	1370	1250	1370	1250	1250	-	-	$T_{OUT}$ [N•m]	CHF C-79	
140	140	127	140	140	140	127	140	127	127	-	-	$T_{OUT}$ [kgf•m]	CW C-86	
16000	15700	16000	15700	16000	16000	16000	16000	16000	16000	-	-	Pro[N]		
1630	1600	1630	1600	1630	1630	1630	1630	1630	1630	-	-	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	<b>0.200</b>	<b>0.200</b>	$P_1$ [kW]	CHH C-74	<b>6145DB</b>
-	-	-	-	-	-	-	-	-	-	1250	1250	$T_{OUT}$ [N•m]	CHF C-79	
-	-	-	-	-	-	-	-	-	-	127	127	$T_{OUT}$ [kgf•m]	CW C-86	
-	-	-	-	-	-	-	-	-	-	16000	16000	Pro[N]		
-	-	-	-	-	-	-	-	-	-	1630	1630	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-74	<b>6145DC</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]	CHF C-79	
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]	CW C-86	
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
<b>0.400</b>	<b>0.400</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	$P_1$ [kW]	CHH C-74	<b>6160DA</b>
1760	1740	1760	1740	1760	1760	1760	1760	1760	1760	1760	1760	$T_{OUT}$ [N•m]	CHF C-79	
179	177	179	177	179	179	179	179	179	179	179	179	$T_{OUT}$ [kgf•m]	CW C-86	
22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	22100	Pro[N]		
2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-74	<b>6160DB</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]	CHF C-79	
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]	CW C-86	
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
1003	1247	1479	1849	2065	2537	3045	3481	4437	5133	6177	7569	Ratio [Z]	Page of Dim.	Frame Size
1.45	1.16	0.980	0.784	0.702	0.572	0.476	0.417	0.327	0.282	0.235	0.192	$n_2$ [r/min]		

Note: 3. Necessary input power for starting is printed in bold face. Do not exceed allowable output torque after startup.

Selection Tables  
 Ratio 104,121 - 7569  
 REDUCERS



# Selection Tables 6000 Series Reducer



Input Speed	$n_1 = 1450$ r/min
-------------	--------------------

1.45	1.16	0.980	0.784	0.702	0.572	0.476	0.417	0.327	0.282	0.235	0.192	$n_2$ [r/min]	Page of Dim.	Frame Size
1003	1247	1479	1849	2065	2537	3045	3481	4437	5133	6177	7569	Ratio [Z]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-75 CHF C-80 CW C-87	<b>6160DC</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]		
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	$P_1$ [kW]	CHH C-74 CHF C-79 CW C-86	<b>6165DA</b>
2100	2100	2050	2100	2100	2100	2050	2100	2050	2050	2050	2050	$T_{OUT}$ [N•m]		
214	214	209	214	214	214	209	214	209	209	209	209	$T_{OUT}$ [kgf•m]		
22100	22100	21800	22100	22100	22100	21800	22100	21800	21800	21800	21800	Pro[N]		
2250	2250	2220	2250	2250	2250	2220	2250	2220	2220	2220	2220	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-74 CHF C-79 CW C-86	<b>6165DB</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]		
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-75 CHF C-80 CW C-87	<b>6165DC</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]		
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
0.426	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	0.207	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	$P_1$ [kW]	CHH C-74 CHF C-79 CW C-86	<b>6170DA</b>
2530	2530	2530	2530	2530	2530	2530	2530	2530	2530	2530	2530	$T_{OUT}$ [N•m]		
258	258	258	258	258	258	258	258	258	258	258	258	$T_{OUT}$ [kgf•m]		
29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	Pro[N]		
3010	3010	3010	3010	3010	3010	3010	3010	3010	3010	3010	3010	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-74 CHF C-79 CW C-86	<b>6170DB</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]		
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-75 CHF C-80 CW C-87	<b>6170DC</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]		
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
0.530	0.426	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	<b>0.209</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	<b>0.200</b>	$P_1$ [kW]	CHH C-74 CHF C-79 CW C-86	<b>6175DA</b>
3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	$T_{OUT}$ [N•m]		
321	321	321	321	321	321	321	321	321	321	321	321	$T_{OUT}$ [kgf•m]		
29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	29500	Pro[N]		
3010	3010	3010	3010	3010	3010	3010	3010	3010	3010	3010	3010	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-74 CHF C-79 CW C-86	<b>6175DB</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]		
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-75 CHF C-80 CW C-87	<b>6175DC</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]		
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
<b>0.750</b>	<b>0.750</b>	0.463	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	$P_1$ [kW]	CHH C-74 CHF C-79 CW C-86	<b>6180DA</b>
4050	4060	4060	4060	4050	4050	4060	4050	4060	4060	4060	4060	$T_{OUT}$ [N•m]		
413	414	414	414	413	413	414	413	414	414	414	414	$T_{OUT}$ [kgf•m]		
41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	41700	Pro[N]		
4250	4250	4250	4250	4250	4250	4250	4250	4250	4250	4250	4250	Pro[kgff]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-75 CHF C-80 CW C-87	<b>6180DB</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]		
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgff]		
0.841	<b>0.750</b>	<b>0.750</b>	<b>0.750</b>	0.408	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	<b>0.400</b>	$P_1$ [kW]	CHH C-74 CHF C-79 CW C-86	<b>6185DA</b>
5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	$T_{OUT}$ [N•m]		
510	510	510	510	510	510	510	510	510	510	510	510	$T_{OUT}$ [kgf•m]		
41600	41700	41700	41700	41600	41600	41700	41600	41700	41700	41700	41700	Pro[N]		
4240	4250	4250	4250	4240	4240	4250	4240	4250	4250	4250	4250	Pro[kgff]		
1003	1247	1479	1849	2065	2537	3045	3481	4437	5133	6177	7569	Ratio [Z]	Page of Dim.	Frame Size
1.45	1.16	0.980	0.784	0.702	0.572	0.476	0.417	0.327	0.282	0.235	0.192	$n_2$ [r/min]		

Note: 3. Necessary input power for starting is printed in bold face. Do not exceed allowable output torque after startup.

Selection Tables  
 Ratio 104,121 - 7569  
 REDUCERS





# Selection Tables 6000 Series Reducer

Double Reduction Ratio 104,121 ~ 7569 Frame Size: 6245DA ~ 6275DA

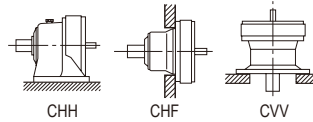
Input Speed	$n_1 = 1450$ r/min	$n_1$ : Input Speed [r/min]	$T_{out}$ : Allowable output torque [N·m, kgf·m]
		$n_2$ : Output Speed [r/min]	Pro: Allowable output shaft radial load [N, kgf]
		$P_1$ : Allowable input power [kW]	*Consult us for Pro of CNF and CHF type.

Frame Size	$n_2$ [r/min] Ratio [Z]	13.9 104	12.0 121	10.1 143	8.79 165	7.44 195	6.28 231	5.31 273	4.55 319	3.85 377	3.07 473	2.59 559	2.23 649	1.98 731	1.72 841
<b>6245DA</b>	$P_1$ [kW]	-	-	-	24.1	22.6	18.8	15.9	13.6	11.5	9.20	7.79	6.71	5.95	5.18
	$T_{out}$ [N·m]	-	-	-	23500	26100	25800	25800	25800	25800	25800	25800	25800	25800	25800
	$T_{out}$ [kgf·m]	-	-	-	2400	2660	2630	2630	2630	2630	2630	2630	2630	2630	2630
	Pro[N]	-	-	-	168000	177000	189000	199000	208000	208000	208000	208000	208000	208000	208000
	Pro[kgf]	-	-	-	17100	18000	19300	20300	21200	21200	21200	21200	21200	21200	21200
<b>6245DB</b>	$P_1$ [kW]	-	28.6	-	26.8	22.7	18.8	-	-	-	-	-	-	-	-
	$T_{out}$ [N·m]	-	20500	-	26200	26200	25800	-	-	-	-	-	-	-	-
	$T_{out}$ [kgf·m]	-	2090	-	2680	2680	2630	-	-	-	-	-	-	-	-
	Pro[N]	-	156000	-	168000	177000	189000	-	-	-	-	-	-	-	-
	Pro[kgf]	-	15900	-	17100	18000	19300	-	-	-	-	-	-	-	-
<b>6255DA</b>	$P_1$ [kW]	-	30.1	-	30.1	27.0	22.6	19.2	17.2	14.5	12.3	10.4	8.97	7.96	6.51
	$T_{out}$ [N·m]	-	21600	-	29500	31200	31000	31000	32500	32500	34500	34500	34500	34500	32500
	$T_{out}$ [kgf·m]	-	2200	-	3010	3180	3160	3160	3310	3310	3520	3520	3520	3520	3310
	Pro[N]	-	192000	-	206000	216000	231000	243000	255000	258000	258000	258000	258000	258000	258000
	Pro[kgf]	-	19600	-	21000	22100	23500	24700	26000	26300	26300	26300	26300	26300	26300
<b>6255DB</b>	$P_1$ [kW]	-	38.3	-	31.9	27.0	-	-	-	-	-	-	-	-	-
	$T_{out}$ [N·m]	-	27500	-	31200	31200	-	-	-	-	-	-	-	-	-
	$T_{out}$ [kgf·m]	-	2800	-	3180	3180	-	-	-	-	-	-	-	-	-
	Pro[N]	-	191000	-	206000	216000	-	-	-	-	-	-	-	-	-
	Pro[kgf]	-	19500	-	21000	22100	-	-	-	-	-	-	-	-	-
<b>6265DA</b>	$P_1$ [kW]	-	43.7	-	44.7	37.8	33.6	28.4	24.3	20.6	16.4	13.9	12.0	10.6	9.23
	$T_{out}$ [N·m]	-	31300	-	43700	43700	46000	46000	46000	46000	46000	46000	46000	46000	46000
	$T_{out}$ [kgf·m]	-	3190	-	4460	4460	4690	4690	4690	4690	4690	4690	4690	4690	4690
	Pro[N]	-	234000	-	250000	263000	276000	276000	276000	276000	276000	276000	276000	276000	276000
	Pro[kgf]	-	23800	-	25500	26800	28100	28100	28100	28100	28100	28100	28100	28100	28100
<b>6275DA</b>	$P_1$ [kW]	-	-	-	-	-	-	-	36.1	30.5	24.3	20.6	17.7	15.7	13.7
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	68200	68200	68200	68200	68200	68200	68200
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	6950	6950	6950	6950	6950	6950	6950
	Pro[N]	-	-	-	-	-	-	-	248000	248000	248000	248000	248000	248000	248000
	Pro[kgf]	-	-	-	-	-	-	-	25300	25300	25300	25300	25300	25300	25300
Frame Size	Ratio [Z]	104	121	143	165	195	231	273	319	377	473	559	649	731	841
	$n_2$ [r/min]	13.9	12.0	10.1	8.79	7.44	6.28	5.31	4.55	3.85	3.07	2.59	2.23	1.98	1.72

Selection Tables  
Ratio 104,121 - 7569  
REDUCERS

Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft. Refer to pages F-11~12 when radial load is off the midpoint of output shaft and for checking thrust load.  
2. Refer to pages F-15~16 for allowable radial load for input shaft.

# Selection Tables 6000 Series Reducer



Input Speed  $n_1 = 1450$  r/min

1.45	1.16	0.980	0.784	0.702	0.572	0.476	0.417	0.327	0.282	0.235	0.192	$n_2$ [r/min]	Page of Dim.	Frame Size
1003	1247	1479	1849	2065	2537	3045	3481	4437	5133	6177	7569	Ratio [Z]		
4.34	3.49	2.58	2.35	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	$P_1$ [kW]	CHH C-75 CHF C-80 CW C-87	<b>6245DA</b>
25800	25800	22600	25800	25800	25800	22600	25800	22600	25800	22600	22600	$T_{OUT}$ [N•m]		
2630	2630	2310	2630	2630	2630	2310	2630	2310	2630	2310	2310	$T_{OUT}$ [kgf•m]		
208000	208000	208000	208000	208000	208000	208000	208000	208000	208000	208000	208000	Pro[N]		
21200	21200	21200	21200	21200	21200	21200	21200	21200	21200	21200	21200	Pro[kgf]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-75 CHF C-80 CW C-87	<b>6245DB</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]		
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgf]		
5.80	4.67	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	$P_1$ [kW]	CHH C-75 CHF C-80 CW C-87	<b>6255DA</b>
34500	34500	31000	34500	34500	34500	31000	34500	31000	34500	31000	31000	$T_{OUT}$ [N•m]		
3520	3520	3160	3520	3520	3520	3160	3520	3160	3520	3160	3160	$T_{OUT}$ [kgf•m]		
258000	258000	258000	258000	258000	258000	258000	258000	258000	258000	258000	258000	Pro[N]		
26300	26300	26300	26300	26300	26300	26300	26300	26300	26300	26300	26300	Pro[kgf]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-75 CHF C-80 CW C-87	<b>6255DB</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]		
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgf]		
7.74	6.22	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	$P_1$ [kW]	CHH C-75 CHF C-80 CW C-87	<b>6265DA</b>
46000	46000	44000	46000	46000	46000	44000	46000	44000	46000	44000	44000	$T_{OUT}$ [N•m]		
4690	4690	4490	4690	4690	4690	4490	4690	4490	4690	4490	4490	$T_{OUT}$ [kgf•m]		
276000	276000	276000	276000	276000	276000	276000	276000	276000	276000	276000	276000	Pro[N]		
28100	28100	28100	28100	28100	28100	28100	28100	28100	28100	28100	28100	Pro[kgf]		
11.5	9.23	7.78	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	$P_1$ [kW]	CHH C-75 CW C-87	<b>6275DA</b>
68200	68200	68200	68200	68200	68200	68200	68200	68200	68200	68200	68200	$T_{OUT}$ [N•m]		
6950	6950	6950	6950	6950	6950	6950	6950	6950	6950	6950	6950	$T_{OUT}$ [kgf•m]		
248000	248000	245000	248000	248000	248000	245000	248000	245000	248000	245000	245000	Pro[N]		
25300	25300	25000	25300	25300	25300	25000	25300	25000	25000	25000	25000	Pro[kgf]		
1003	1247	1479	1849	2065	2537	3045	3481	4437	5133	6177	7569	Ratio [Z]	Page of Dim.	Frame Size
1.45	1.16	0.980	0.784	0.702	0.572	0.476	0.417	0.327	0.282	0.235	0.192	$n_2$ [r/min]		

Selection Tables  
 Ratio 104,121 - 7569  
 REDUCERS

Note: 3. Necessary input power for starting is printed in bold face. Do not exceed allowable output torque after startup.





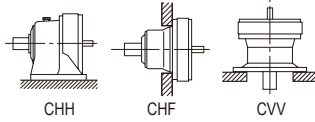








Selection Tables 6000 Series Reducer



Input Speed n<sub>1</sub> = 1750 r/min

Table with 16 columns for torque/ratio and 5 columns for power/temperature, and 3 rows for dimensions. It lists performance metrics for various reducer models (6160DC, 6165DA, 6165DB, 6170DA, 6170DB, 6170DC, 6175DA, 6175DB, 6175DC, 6180DA, 6180DB, 6185DA) across different torque and ratio ranges.

REDUCERS  
Selection Tables  
Ratio 104/121 - 7569

Note: 3. Necessary input power for starting is printed in bold face. Do not exceed allowable output torque after startup.







# Selection Tables 6000 Series Reducer

Double Reduction Ratio 104,121 ~ 7569 Frame Size: 6245DA ~ 6275DA

Input Speed	$n_1 = 1750$ r/min	$n_1$ : Input Speed [r/min]	$T_{out}$ : Allowable output torque [N·m, kgf·m]
		$n_2$ : Output Speed [r/min]	Pro: Allowable output shaft radial load [N, kgf]
		$P_1$ : Allowable input power [kW]	*Consult us for Pro of CNF and CHF type.

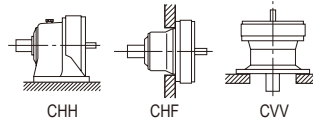
Frame Size	$n_2$ [r/min] Ratio [Z]	16.8 104	14.5 121	12.2 143	10.6 165	8.97 195	7.58 231	6.41 273	5.49 319	4.64 377	3.70 473	3.13 559	2.70 649	2.39 731	2.08 841
<b>6245DA</b>	$P_1$ [kW]	-	-	-	24.1	22.6	22.7	19.2	16.5	13.9	11.1	9.40	8.09	7.19	6.25
	$T_{out}$ [N·m]	-	-	-	19500	21600	25800	25800	25800	25800	25800	25800	25800	25800	25800
	$T_{out}$ [kgf·m]	-	-	-	1990	2200	2630	2630	2630	2630	2630	2630	2630	2630	2630
	Pro[N]	-	-	-	160000	167000	179000	188000	196000	207000	208000	208000	208000	208000	208000
	Pro[kgf]	-	-	-	16300	17100	18200	19200	20000	21100	21200	21200	21200	21200	21200
<b>6245DB</b>	$P_1$ [kW]	-	34.6	-	32.4	27.4	22.7	-	-	-	-	-	-	-	-
	$T_{out}$ [N·m]	-	20500	-	26200	26200	25800	-	-	-	-	-	-	-	-
	$T_{out}$ [kgf·m]	-	2090	-	2680	2680	2630	-	-	-	-	-	-	-	-
	Pro[N]	-	148000	-	158000	167000	179000	-	-	-	-	-	-	-	-
	Pro[kgf]	-	15000	-	16100	17000	18200	-	-	-	-	-	-	-	-
<b>6255DA</b>	$P_1$ [kW]	-	30.1	-	30.1	30.1	27.3	23.1	20.7	17.5	14.9	12.6	10.8	9.61	7.86
	$T_{out}$ [N·m]	-	17900	-	24400	28900	31000	31000	32500	32500	34500	34500	34500	34500	32500
	$T_{out}$ [kgf·m]	-	1830	-	2490	2950	3160	3160	3310	3310	3520	3520	3520	3520	3310
	Pro[N]	-	182000	-	195000	204000	218000	229000	241000	254000	258000	258000	258000	258000	258000
	Pro[kgf]	-	18500	-	19900	20800	22200	23400	24600	25900	26300	26300	26300	26300	26300
<b>6255DB</b>	$P_1$ [kW]	-	46.3	-	38.4	32.5	-	-	-	-	-	-	-	-	-
	$T_{out}$ [N·m]	-	27500	-	31200	31200	-	-	-	-	-	-	-	-	-
	$T_{out}$ [kgf·m]	-	2800	-	3180	3180	-	-	-	-	-	-	-	-	-
	Pro[N]	-	180000	-	194000	204000	-	-	-	-	-	-	-	-	-
	Pro[kgf]	-	18400	-	19800	20800	-	-	-	-	-	-	-	-	-
<b>6265DA</b>	$P_1$ [kW]	-	48.1	-	48.1	45.7	40.5	34.3	29.4	24.8	19.8	16.8	14.4	12.8	11.1
	$T_{out}$ [N·m]	-	28600	-	39000	43700	46000	46000	46000	46000	46000	46000	46000	46000	46000
	$T_{out}$ [kgf·m]	-	2920	-	3980	4460	4690	4690	4690	4690	4690	4690	4690	4690	4690
	Pro[N]	-	221000	-	236000	248000	265000	276000	276000	276000	276000	276000	276000	276000	276000
	Pro[kgf]	-	22500	-	24100	25300	27000	28100	28100	28100	28100	28100	28100	28100	28100
<b>6275DA</b>	$P_1$ [kW]	-	-	-	-	-	-	-	43.5	36.8	29.4	24.8	21.4	19.0	16.5
	$T_{out}$ [N·m]	-	-	-	-	-	-	-	68200	68200	68200	68200	68200	68200	68200
	$T_{out}$ [kgf·m]	-	-	-	-	-	-	-	6950	6950	6950	6950	6950	6950	6950
	Pro[N]	-	-	-	-	-	-	-	248000	248000	248000	248000	248000	248000	248000
	Pro[kgf]	-	-	-	-	-	-	-	25300	25300	25300	25300	25300	25300	25300
Frame Size	Ratio [Z]	104	121	143	165	195	231	273	319	377	473	559	649	731	841
	$n_2$ [r/min]	16.8	14.5	12.2	10.6	8.97	7.58	6.41	5.49	4.64	3.70	3.13	2.70	2.39	2.08

Selection Tables  
Ratio 104,121 ~ 7569  
REDUCERS

Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft. Refer to pages F-11~12 when radial load is off the midpoint of output shaft and for checking thrust load.

2. Refer to pages F-15~16 for allowable radial load for input shaft.

# Selection Tables 6000 Series Reducer



Input Speed  $n_1 = 1750$  r/min

1.74	1.40	1.18	0.946	0.847	0.690	0.575	0.503	0.394	0.341	0.283	0.231	$n_2$ [r/min]	Page of Dim.	Frame Size
1003	1247	1479	1849	2065	2537	3045	3481	4437	5133	6177	7569	Ratio [Z]		
5.24	4.21	3.12	2.84	2.54	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	<b>2.20</b>	$P_1$ [kW]	CHH C-75	<b>6245DA</b>
25800	25800	22600	25800	25800	25800	22600	25800	22600	25800	22600	22600	$T_{OUT}$ [N•m]	CHF C-80	
2630	2630	2310	2630	2630	2630	2310	2630	2310	2630	2310	2310	$T_{OUT}$ [kgf•m]	CW C-87	
208000	208000	208000	208000	208000	208000	208000	208000	208000	208000	208000	208000	Pro[N]		
21200	21200	21200	21200	21200	21200	21200	21200	21200	21200	21200	21200	Pro[kgf]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-75	<b>6245DB</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]	CHF C-80	
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]	CW C-87	
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgf]		
7.00	5.63	4.27	3.80	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	<b>3.70</b>	$P_1$ [kW]	CHH C-75	<b>6255DA</b>
34500	34500	31000	34500	34500	34500	31000	34500	31000	34500	31000	31000	$T_{OUT}$ [N•m]	CHF C-80	
3520	3520	3160	3520	3520	3520	3160	3520	3160	3520	3160	3160	$T_{OUT}$ [kgf•m]	CW C-87	
258000	258000	258000	258000	258000	258000	258000	258000	258000	258000	258000	258000	Pro[N]		
26300	26300	26300	26300	26300	26300	26300	26300	26300	26300	26300	26300	Pro[kgf]		
-	-	-	-	-	-	-	-	-	-	-	-	$P_1$ [kW]	CHH C-75	<b>6255DB</b>
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [N•m]	CHF C-80	
-	-	-	-	-	-	-	-	-	-	-	-	$T_{OUT}$ [kgf•m]	CW C-87	
-	-	-	-	-	-	-	-	-	-	-	-	Pro[N]		
-	-	-	-	-	-	-	-	-	-	-	-	Pro[kgf]		
9.34	7.51	6.06	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	<b>5.50</b>	$P_1$ [kW]	CHH C-75	<b>6265DA</b>
46000	46000	44000	46000	46000	46000	44000	46000	44000	46000	44000	44000	$T_{OUT}$ [N•m]	CHF C-80	
4690	4690	4490	4690	4690	4690	4490	4690	4490	4690	4490	4490	$T_{OUT}$ [kgf•m]	CW C-87	
276000	276000	276000	276000	276000	276000	276000	276000	276000	276000	276000	276000	Pro[N]		
28100	28100	28100	28100	28100	28100	28100	28100	28100	28100	28100	28100	Pro[kgf]		
13.8	11.1	9.39	7.51	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	<b>7.50</b>	$P_1$ [kW]	CHH C-75	<b>6275DA</b>
68200	68200	68200	68200	68200	68200	68200	68200	68200	68200	68200	68200	$T_{OUT}$ [N•m]	CW C-87	
6950	6950	6950	6950	6950	6950	6950	6950	6950	6950	6950	6950	$T_{OUT}$ [kgf•m]		
248000	248000	245000	248000	248000	248000	245000	248000	245000	245000	245000	245000	Pro[N]		
25300	25300	25000	25300	25300	25300	25000	25300	25000	25000	25000	25000	Pro[kgf]		
1003	1247	1479	1849	2065	2537	3045	3481	4437	5133	6177	7569	Ratio [Z]	Page of Dim.	Frame Size
1.74	1.40	1.18	0.946	0.847	0.690	0.575	0.503	0.394	0.341	0.283	0.231	$n_2$ [r/min]		

Selection Tables  
 Ratio 104,121 - 7569  
 REDUCERS

Note: 3. Necessary input power for starting is printed in bold face. Do not exceed allowable output torque after startup.

M E M O

REDUCERS

Selection  
Tables

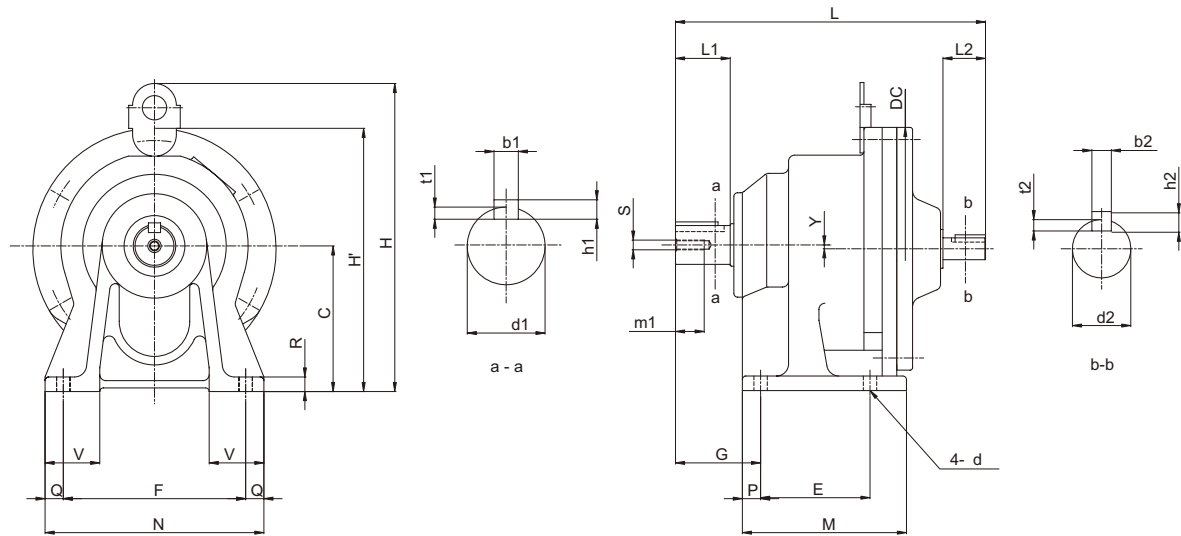
# C CYCLO® SPEED REDUCERS

---

## 3. Dimension Tables

## Dimension Tables Speed Reducer (Horizontal Direction, Foot Mount)

## CHH - 607□SK to 611□SK



Frame size Note: 1	L	C	DC	E	F	G	H	H'	M	N	P	Q	R	V	Y	d	W [kg]
607□SK	168	80	134	60	120	47	-	147	84	144	12	12	10	35	0	9	4
608□SK	200	90	150	75	120	52	-	165	99	144	12	12	13	37	0	9	5
609□SK	218	100	150	90	150	60	-	175	135	180	15	15	12	40	0	11	7
610□SK	218	100	162	90	150	60	216	-	135	180	15	15	12	40	0	11	8
611□SK	255	120	204	90	150	70	254	-	135	180	15	15	12	45	3	11	22

Model Note: 1	Output Shaft Note: 2, 3, 4									Input Shaft Note: 2, 3, 4				
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2		
CHH - 607□SK - Ratio	18	30	6	6	3.5	M6	16	12	25	4	4	2.5		
CHH - 608□SK - Ratio	22	35	6	6	3.5	M6	16	15	25	5	5	3		
CHH - 609□SK - Ratio	28	35	8	7	4	M8	20	15	25	5	5	3		
CHH - 610□SK - Ratio	28	35	8	7	4	M8	20	15	25	5	5	3		
CHH - 611□SK - Ratio	32	45	10	8	5	M8	20	18	35	6	6	3.5		

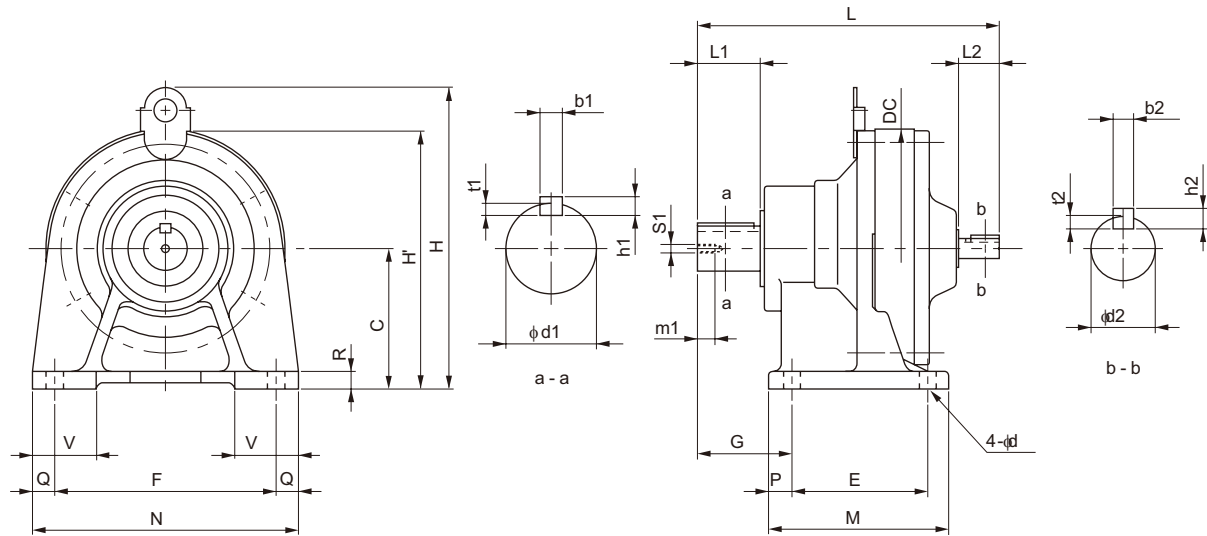
Note: 1. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."

3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

# Dimension Tables Speed Reducer (Universal Direction, Foot Mount)

CNH - 606□ to 612□



Frame size Note: 1	L	C	DC	E	F	G	H	H'	M	N	P	Q	R	V	d	W [kg]
606□	145	80	110	60	120	41	-	135	84	144	12	12	10	48	9	2.5
607□	151	80	110	60	120	47	-	135	84	144	12	12	10	48	9	2.5
608□	179	90	134	75	120	52	-	157	99	144	12	12	13	49	9	8
609□	202	100	150	90	150	60	-	175	135	180	15	15	12	65	11	11
Note: 5 610□	208	100	150	90	150	60	207	-	135	180	15	15	12	40	11	13
611□	218	120	162	90	150	70	236	-	135	180	15	15	12	45	11	15
Note: 5 612□	259	120	204	115	190	82	257	-	155	230	20	20	15	55	14	24

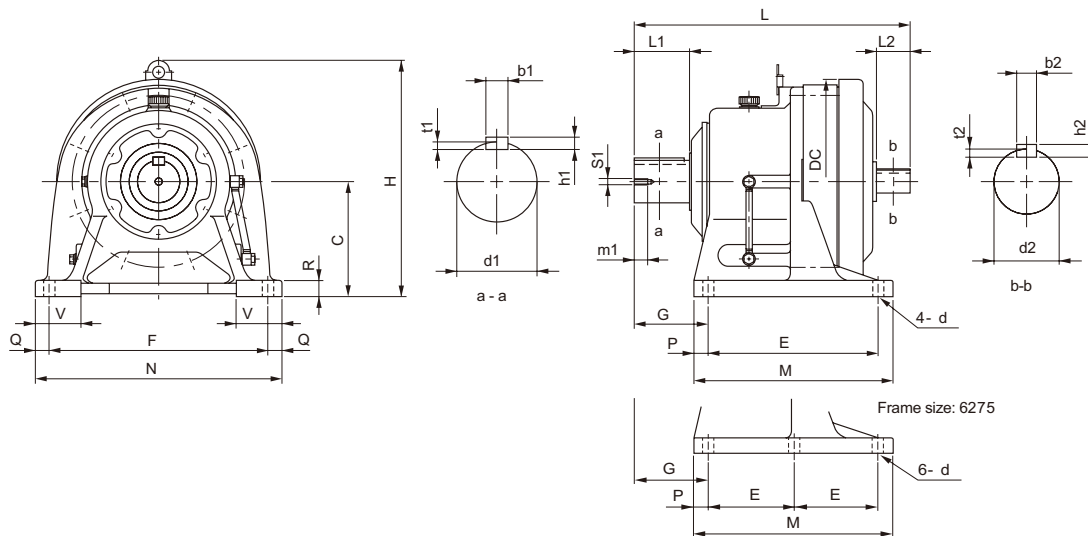
Model Note: 1	Output Shaft Note: 2, 3, 4						Input Shaft Note: 2, 3, 4					
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2
CNH - 606□ - Ratio	14	25	5	5	3	M5	16	12	25	4	4	2.5
CNH - 607□ - Ratio	18	30	6	6	3.5	M6	16	12	25	4	4	2.5
CNH - 608□ - Ratio	22	35	6	6	3.5	M6	16	12	25	4	4	2.5
CNH - 609□ - Ratio	28	35	8	7	4	M8	20	15	25	5	5	3
Note: 5 CNH - 610□ - Ratio	28	35	8	7	4	M8	20	15	25	5	5	3
CNH - 611□ - Ratio	32	45	10	8	5	M8	20	15	25	5	5	3
Note: 5 CNH - 612□ - Ratio	38	55	10	8	5	M8	20	18	35	6	6	3.5

Note: 4. Refer to pages F-28~30 for details on input and output shaft end dimensions.  
 5. Refer to page C-88 for center height options available.  
 6. Dimensions in above drawings are subject to change without notice.

REDUCERS  
Dimension Tables  
CNH

# Dimension Tables Speed Reducer (Horizontal Direction, Foot Mount)

## CHH - 613□ to 6275



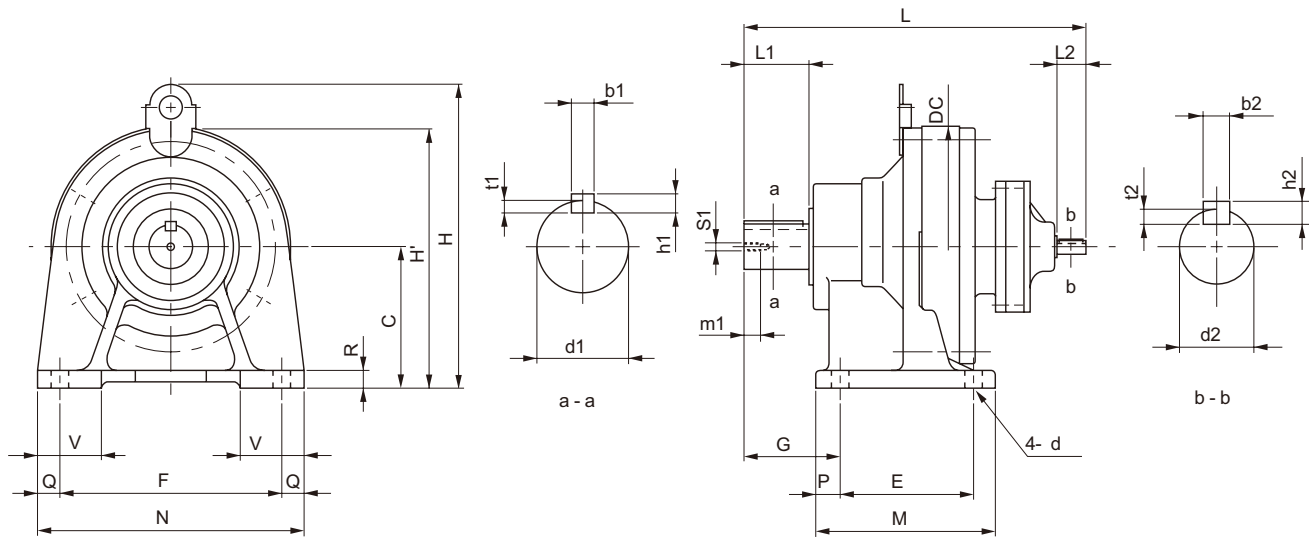
Frame size	L	C	DC	E	F	G	H	M	N	P	Q	R	V	d	W [kg]
613□ <small>Note: 1</small>	321	150	230	145	290	100	300	195	330	25	20	22	65	18	43
<small>Note: 5</small> 614□	341	150	230	145	290	120	300	195	330	25	20	22	65	18	44
<small>Note: 5</small> 616□	413	160	318	150	370	139	367	238	410	44	20	25	75	18	84
617□	477	200	362	275	380	125	429	335	430	30	25	30	80	22	125
618□	527	220	390	320	420	145	467	380	470	30	25	30	85	22	163
619□	620	250	451	380	480	170	539	440	530	30	25	35	90	26	240
6205	678	250	471	360	440	215	530	440	530	40	45	35	100	26	255
6215	708	265	507	395	480	210	575	475	580	40	50	40	110	26	336
6225	752	280	549	420	540	230	610	520	620	50	40	40	115	33	409
6235	839	300	591	460	580	260	667	560	670	50	45	45	120	33	503
6245	877	335	637	480	630	263	729	580	720	50	45	45	128	39	614
6255	1040	375	703	520	670	320	815	630	780	55	55	50	140	39	957
6265	1150	400	772	590	770	390	874	700	880	55	55	55	160	45	1190
6275	1462	540	986	420	1050	485	1161	1040	1160	100	55	60	200	45	2460

Model	<small>Note: 1</small>	Output Shaft								Input Shaft				
		d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2	
CHH - 613□ - Ratio		50	70	14	9	5.5	M10	18	22	40	6	6	3.5	
<small>Note: 5</small> CHH - 614□ - Ratio		50	90	14	9	5.5	M10	18	22	40	6	6	3.5	
<small>Note: 5</small> CHH - 616□ - Ratio		60	90	18	11	7	M10	18	30	45	8	7	4	
CHH - 617□ - Ratio		70	90	20	12	7.5	M12	24	35	55	10	8	5	
CHH - 618□ - Ratio		80	110	22	14	9	M12	24	40	65	12	8	5	
CHH - 619□ - Ratio		95	135	25	14	9	M20	34	45	70	14	9	5.5	
CHH - 6205 - Ratio		100	165	28	16	10	M20	34	45	82	14	9	5.5	
CHH - 6215 - Ratio		110	165	28	16	10	M20	34	50	82	14	9	5.5	
CHH - 6225 - Ratio		120	165	32	18	11	M20	34	55	82	16	10	6	
CHH - 6235 - Ratio		130	200	32	18	11	M24	41	60	105	18	11	7	
CHH - 6245 - Ratio		140	200	36	20	12	M24	41	65	105	18	11	7	
CHH - 6255 - Ratio		160	240	40	22	13	M30	49	80	130	22	14	9	
CHH - 6265 - Ratio		170	300	40	22	13	M30	49	80	130	22	14	9	
CHH - 6275 - Ratio		180	330	45	25	15	M30	52	90	150	25	14	9	

Note: 1. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables Speed Reducer (Universal Direction, Foot Mount)

CNH - 606□DA to 612□DB



Frame size Note: 1	L	C	DC	E	F	G	H	H'	M	N	P	Q	R	V	d	W [kg]
606□DA	178	80	110	60	120	41	-	135	84	144	12	12	10	48	9	4.0
607□DA	184	80	110	60	120	47	-	135	84	144	12	12	10	48	9	4.5
609□DA	243	100	150	90	150	60	-	175	135	180	15	15	12	49	11	12
610□DA	257	100	150	90	150	60	207	-	135	180	15	15	12	65	11	15
612□DA	293	120	204	115	190	82	257	-	155	230	20	20	15	55	14	26
612□DB	312	120	204	115	190	82	257	-	155	230	20	20	15	55	14	29

Model Note: 1	Output Shaft Note: 2, 3, 4								Input Shaft Note: 2, 3, 4				
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2	
CNH - 606□DA - Ratio	14	25	5	5	3	M5	16	12	25	4	4	2.5	
CNH - 607□DA - Ratio	18	30	6	6	3.5	M6	16	12	25	4	4	2.5	
CNH - 609□DA - Ratio	28	35	8	7	4	M8	20	12	25	4	4	2.5	
CNH - 610□DA - Ratio	28	35	8	7	4	M8	20	12	25	4	4	2.5	
CNH - 612□DA - Ratio	38	55	10	8	5	M8	20	12	25	4	4	2.5	
CNH - 612□DB - Ratio	38	55	10	8	5	M8	20	15	25	5	5	3	

Note: 4. Refer to pages F-28~30 for details on input and output shaft end dimensions.

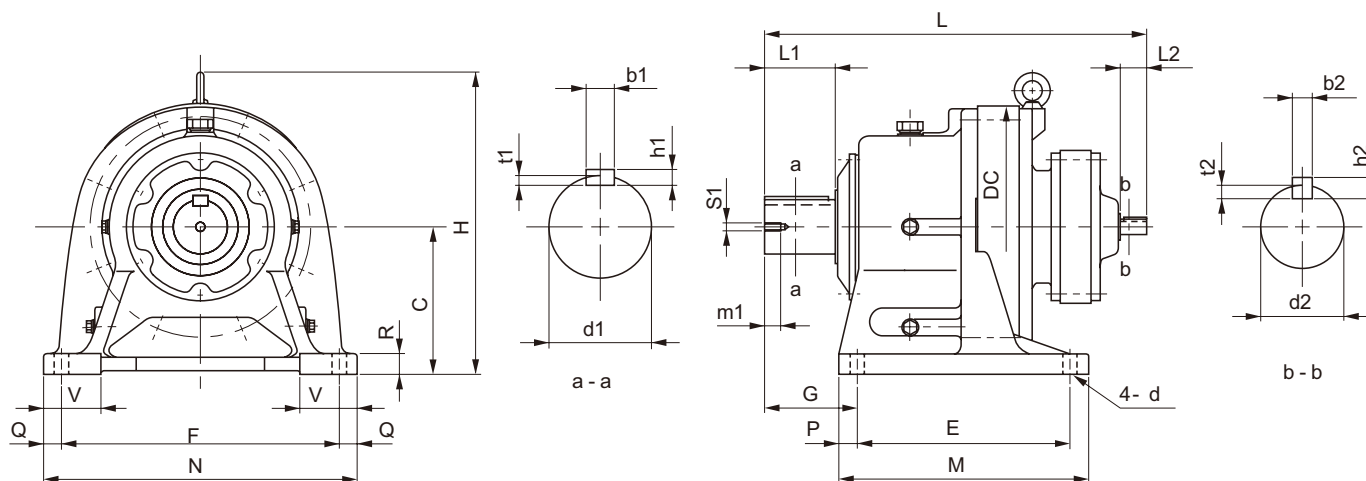
5. Refer to page C-88 for center height options available.

6. Dimensions in above drawings are subject to change without notice.



# Dimension Tables Speed Reducer (Horizontal Direction, Foot Mount)

## CHH - 613□DA to 618□DA



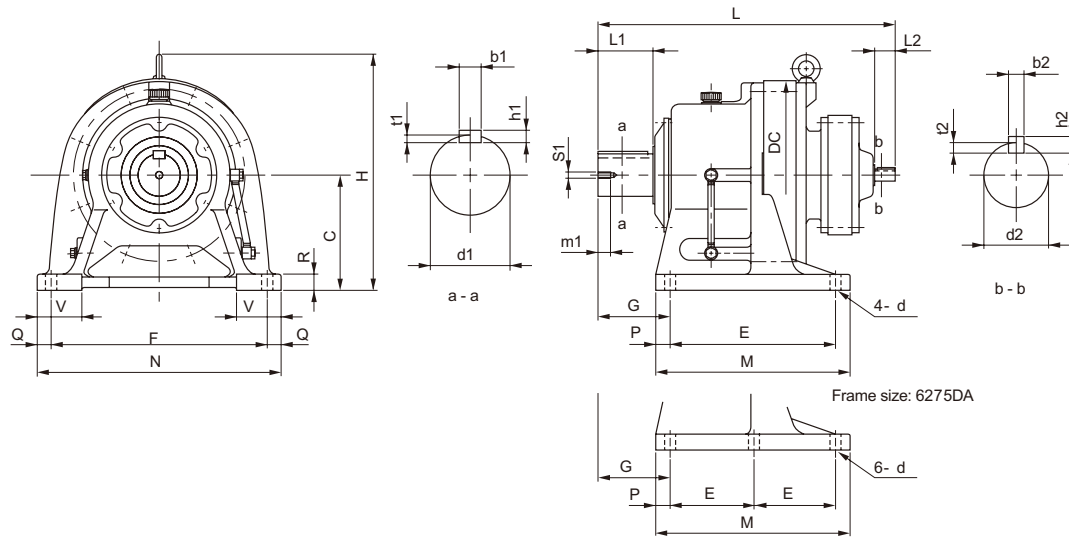
Frame size Note: 1	L	C	DC	E	F	G	H	M	N	P	Q	R	V	d	W [kg]
613□DA	347	150	230	145	290	100	300	195	330	25	20	22	65	18	41
613□DB	363	150	230	145	290	100	300	195	330	25	20	22	65	18	45
613□DC	369	150	230	145	290	100	300	195	330	25	20	22	65	18	46
614□DA	367	150	230	145	290	120	300	195	330	25	20	22	65	18	41
614□DB	383	150	230	145	290	120	300	195	330	25	20	22	65	18	45
614□DC	389	150	230	145	290	120	300	195	330	25	20	22	65	18	46
616□DA	433	160	300	150	370	139	349	238	410	44	20	25	75	18	85
616□DB	439	160	300	150	370	139	349	238	410	44	20	25	75	18	87
617□DA	478	200	340	275	380	125	416	335	430	30	25	30	80	22	121
617□DB	484	200	340	275	380	125	416	335	430	30	25	30	80	22	123
618□DA	526	220	370	320	420	145	451	380	470	30	25	30	85	22	165

Model Note: 1	Output Shaft Note: 2, 3, 4					Input Shaft Note: 2, 3, 4						
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2
CHH - 613□DA - Ratio	50	70	14	9	5.5	M10	18	12	25	4	4	2.5
CHH - 613□DB - Ratio	50	70	14	9	5.5	M10	18	15	25	5	5	3
CHH - 613□DC - Ratio	50	70	14	9	5.5	M10	18	15	25	5	5	3
CHH - 614□DA - Ratio	50	90	14	9	5.5	M10	18	12	25	4	4	2.5
CHH - 614□DB - Ratio	50	90	14	9	5.5	M10	18	15	25	5	5	3
CHH - 614□DC - Ratio	50	90	14	9	5.5	M10	18	15	25	5	5	3
CHH - 616□DA - Ratio	60	90	18	11	7	M10	18	15	25	5	5	3
CHH - 616□DB - Ratio	60	90	18	11	7	M10	18	15	25	5	5	3
CHH - 617□DA - Ratio	70	90	20	12	7.5	M12	24	15	25	5	5	3
CHH - 617□DB - Ratio	70	90	20	12	7.5	M12	24	15	25	5	5	3
CHH - 618□DA - Ratio	80	110	22	14	9	M12	24	15	25	5	5	3

Note: 1. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

# Dimension Tables Speed Reducer (Horizontal Direction, Foot Mount)

## CHH - 616□DC to 6275DA



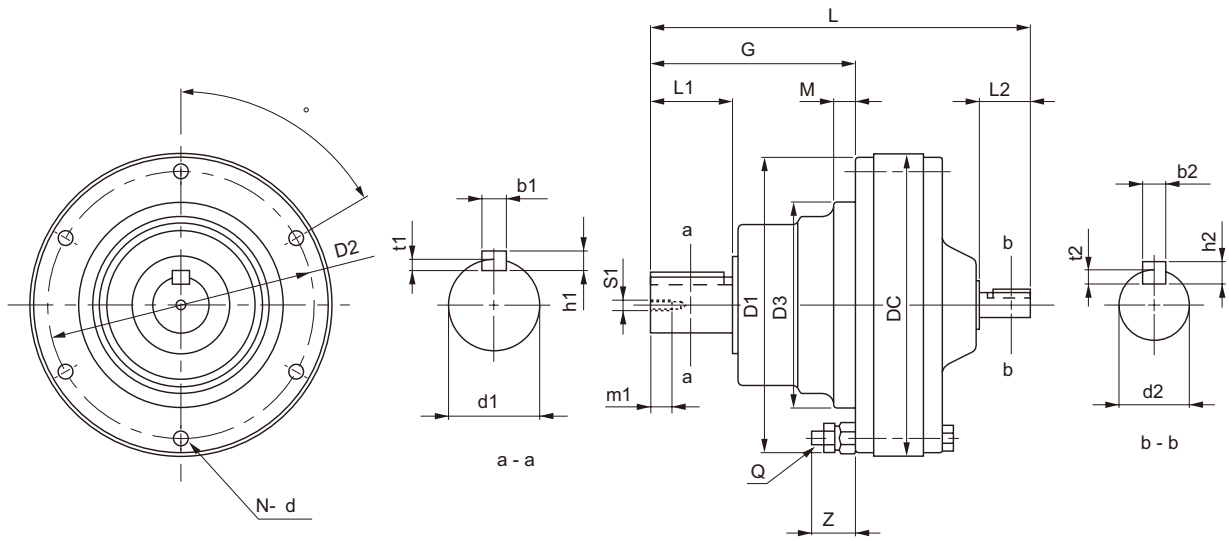
Frame size Note: 1	L	C	DC	E	F	G	H	M	N	P	Q	R	V	d	W [kg]
616□DC	462	160	300	150	370	139	349	238	410	44	20	25	75	18	94
617□DC	509	200	340	275	380	125	416	335	430	30	25	30	80	22	128
618□DB	577	220	370	320	420	145	451	380	470	30	25	30	85	22	183
619□DA	629	250	430	380	480	170	531	440	530	30	25	35	90	26	241
619□DB	653	250	430	380	480	170	531	440	530	30	25	35	90	26	250
6205DA	670	250	448	360	440	215	530	440	530	40	45	35	100	26	260
6205DB	705	250	448	360	440	215	530	440	530	40	45	35	100	26	273
6215DA	731	265	485	395	480	210	575	475	580	40	50	40	110	26	354
6215DB	780	265	485	395	480	210	575	475	580	40	50	40	110	26	376
6225DA	773	280	526	420	540	230	610	520	620	50	40	40	115	33	429
6225DB	860	280	526	420	540	230	610	520	620	50	40	40	115	33	476
6235DA	883	300	562	460	580	260	667	560	670	50	45	45	120	33	548
6235DB	938	300	562	460	580	260	667	560	670	50	45	45	120	33	582
6245DA	921	335	614	480	630	263	729	580	720	50	45	45	128	39	656
6245DB	975	335	614	480	630	263	729	580	720	50	45	45	128	39	686
6255DA	1081	375	670	520	670	320	815	630	780	55	55	50	140	39	1010
6255DB	1133	375	670	520	670	320	815	630	780	55	55	50	140	39	1085
6265DA	1243	400	736	590	770	390	874	700	880	55	55	55	160	45	1340
6275DA	1504	540	950	420	1050	485	1161	1040	1160	100	55	60	200	45	2480

Model Note: 1	Output Shaft Note: 2, 3, 4									Input Shaft Note: 2, 3, 4				
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2		
CHH - 616□DC - Ratio	60	90	18	11	7	M10	18	18	35	6	6	3.5		
CHH - 617□DC - Ratio	70	90	20	12	7.5	M12	24	18	35	6	6	3.5		
CHH - 618□DB - Ratio	80	110	22	14	9	M12	24	22	40	6	6	3.5		
CHH - 619□DA - Ratio	95	135	25	14	9	M20	34	18	35	6	6	3.5		
CHH - 619□DB - Ratio	95	135	25	14	9	M20	34	22	40	6	6	3.5		
CHH - 6205DA - Ratio	100	165	28	16	10	M20	34	18	35	6	6	3.5		
CHH - 6205DB - Ratio	100	165	28	16	10	M20	34	22	40	6	6	3.5		
CHH - 6215DA - Ratio	110	165	28	16	10	M20	34	22	40	6	6	3.5		
CHH - 6215DB - Ratio	110	165	28	16	10	M20	34	30	45	8	7	4		
CHH - 6225DA - Ratio	120	165	32	18	11	M20	34	22	40	6	6	3.5		
CHH - 6225DB - Ratio	120	165	32	18	11	M20	34	35	55	10	8	5		
CHH - 6235DA - Ratio	130	200	32	18	11	M24	41	30	45	8	7	4		
CHH - 6235DB - Ratio	130	200	32	18	11	M24	41	40	65	12	8	5		
CHH - 6245DA - Ratio	140	200	36	20	12	M24	41	30	45	8	7	4		
CHH - 6245DB - Ratio	140	200	36	20	12	M24	41	40	65	12	8	5		
CHH - 6255DA - Ratio	160	240	40	22	13	M30	49	35	55	10	8	5		
CHH - 6255DB - Ratio	160	240	40	22	13	M30	49	45	70	14	9	5.5		
CHH - 6265DA - Ratio	170	300	40	22	13	M30	49	45	70	14	9	5.5		
CHH - 6275DA - Ratio	180	330	45	25	15	M30	52	45	70	14	9	5.5		

Note: 4. Refer to pages F-28~30 for details on input and output shaft end dimensions.  
 5. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Speed Reducer (Universal Direction, Flange Mount)

## CNF - 606□ to 612□



REDUCERS

Dimension Tables  
CNF

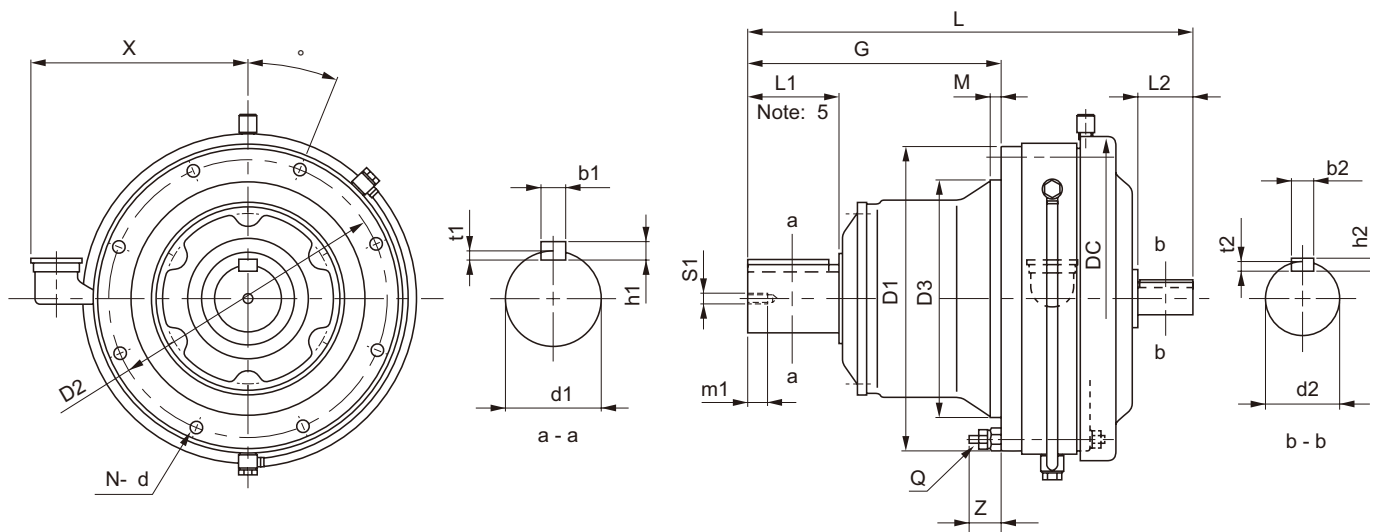
Frame size <small>Note: 1</small>	L	G	D1	D2	D3 <small>Note: 4</small>	DC	Q	Z	M	N	d	$\alpha^\circ$	W [kg]
606□	145	68	110	98	80	110	M6	24	4	6	6.6	60	3
607□	151	74	110	98	80	110	M6	24	4	6	6.6	60	3
608□	178	91	134	118	95	134	M8	27	5	8	9	22.5	8
609□	202	114	150	134	105	150	M8	26	6	8	9	22.5	8.5
610□	208	114	150	134	105	150	M8	27	6	8	9	22.5	9.5
611□	218	118	162	146	115	162	M8	28	6	8	9	22.5	11
612□	259	139	200	180	140	204	M10	30	14	6	11	60	20

Model <small>Note: 1</small>	Output Shaft <small>Note: 2, 3, 5</small>						Input Shaft <small>Note: 2, 3, 5</small>					
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2
CNF - 606□ - Ratio	14	25	5	5	3	M5	16	12	25	4	4	2.5
CNF - 607□ - Ratio	18	30	6	6	3.5	M6	16	12	25	4	4	2.5
CNF - 608□ - Ratio	22	35	6	6	3.5	M6	16	12	25	4	4	2.5
CNF - 609□ - Ratio	28	35	8	7	4	M8	20	15	25	5	5	3
CNF - 610□ - Ratio	28	35	8	7	4	M8	20	15	25	5	5	3
CNF - 611□ - Ratio	32	45	10	8	5	M8	20	15	25	5	5	3
CNF - 612□ - Ratio	38	55	10	8	5	M8	20	18	35	6	6	3.5

Note: 1. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables Speed Reducer (Horizontal Direction, Flange Mount)

CHF - 613□ to 6265

REDUCERS  
Dimension Tables  
CHF

Frame size Note: 1	L	G	D1	D2	D3 Note: 4	DC	Q	Z	M	N	d	$\alpha^\circ$	x	W [kg]
613□	321	178	226	205	165	230	M10	31	16	6	11	60	208	36
614□	341	198	226	205	165	230	M10	31	16	6	11	60	208	37
616□	413	222	296	270	200	318	M12	35	10	6	14	30	228	66
617□	477	262	330	300	250	362	M12	41	12	8	14	22.5	243	96
618□	527	299	360	330	280	390	M12	38	12	8	14	22.5	258	131
619□	620	365	420	380	320	451	M12	43	10	12	14	15	285	195
6205	678	410	443	405	360	471	M16	57	20	12	18	15	-	213
6215	708	423	480	440	390	507	M18	57	20	12	20.5	15	-	292
6225	752	454	521	475	420	549	M20	65	20	12	22	15	-	347
6235	839	505	557	510	455	591	M20	68	20	12	22	15	-	428
6245	877	529	615	560	500	637	M24	65	25	12	27	15	-	538
6255	1040	616	666	610	540	703	M24	88	30	12	27	15	-	794
6265	1150	712	730	660	570	772	M30	82	40	12	34	15	-	1020

Model Note: 1	Output Shaft Note: 2, 3, 5								Input Shaft Note: 2, 3, 5				
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2	
CHF - 613□ - Ratio	50	70	14	9	5.5	M10	18	22	40	6	6	3.5	
CHF - 614□ - Ratio	50	90	14	9	5.5	M10	18	22	40	6	6	3.5	
CHF - 616□ - Ratio	60	90	18	11	7	M10	18	30	45	8	7	4	
CHF - 617□ - Ratio	70	90	20	12	7.5	M12	24	35	55	10	8	5	
CHF - 618□ - Ratio	80	110	22	14	9	M12	24	40	65	12	8	5	
CHF - 619□ - Ratio	95	135	25	14	9	M20	34	45	70	14	9	5.5	
CHF - 6205 - Ratio	100	165	28	16	10	M20	34	45	82	14	9	5.5	
CHF - 6215 - Ratio	110	165	28	16	10	M20	34	50	82	14	9	5.5	
CHF - 6225 - Ratio	120	165	32	18	11	M20	34	55	82	16	10	6	
CHF - 6235 - Ratio	130	200	32	18	11	M24	41	60	105	18	11	7	
CHF - 6245 - Ratio	140	200	36	20	12	M24	41	65	105	18	11	7	
CHF - 6255 - Ratio	160	240	40	22	13	M30	49	80	130	22	14	9	
CHF - 6265 - Ratio	170	300	40	22	13	M30	49	80	130	22	14	9	

Note: 4. Pilot diameter ( $\phi$ D3): Dimension tolerance conforms to JIS B 0401-1976 "g6."

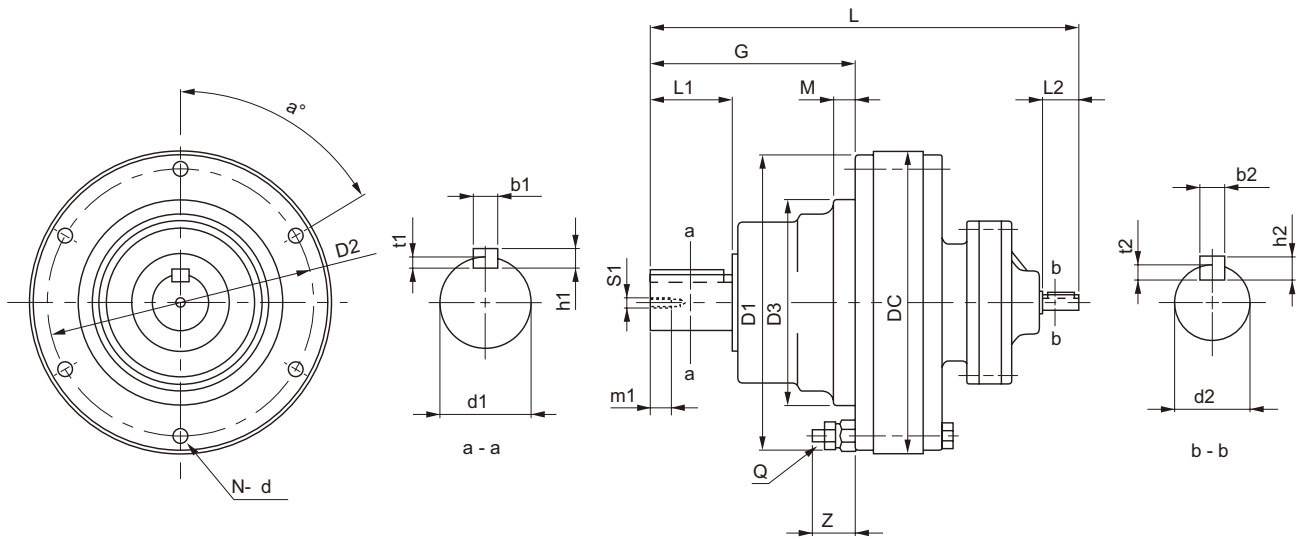
5. Output shaft length differs from the values in the above table for vertical output shaft down (CVF) type. Refer to pages F-28~30 for details on input and output shaft end dimensions.

6. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Speed Reducer (Universal Direction, Flange Mount)

## CNF - 606□DA to 612□DB

REDUCERS  
Dimension Tables  
CNF



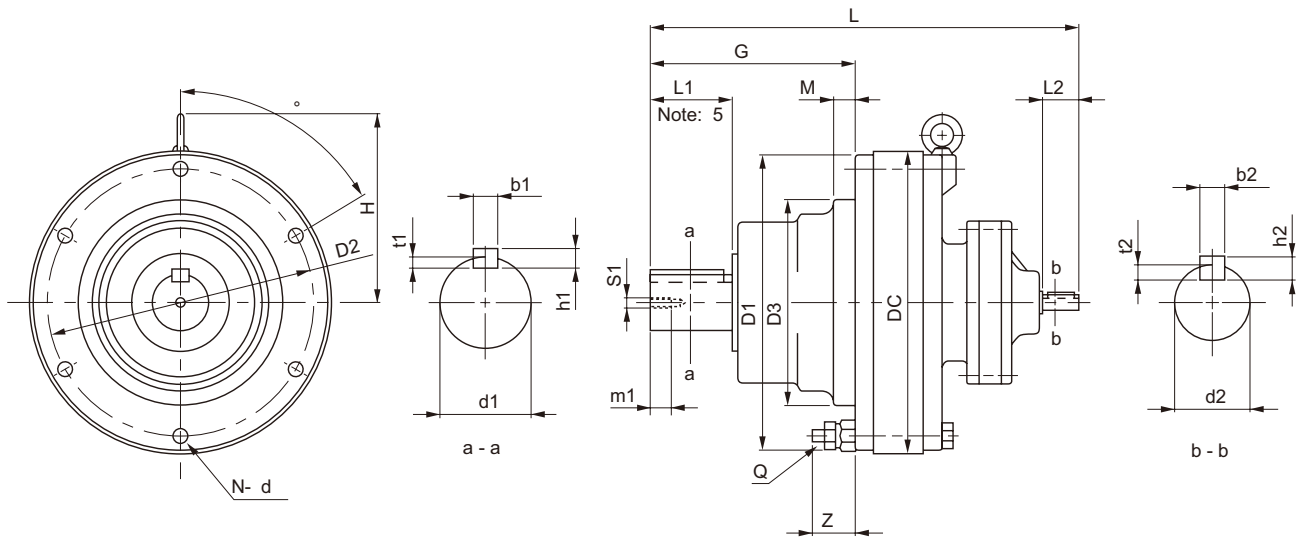
Frame size <small>Note: 1</small>	L	G	D1	D2	D3 <small>Note: 4</small>	DC	Q	Z	M	N	d	$\alpha^\circ$	W [kg]
606□DA	178	68	110	98	80	110	M6	26	4	6	6.6	60	4.5
607□DA	184	74	110	98	80	110	M6	26	4	6	6.6	60	4.5
609□DA	243	114	150	134	105	150	M8	26	6	8	9	22.5	10
610□DA	257	114	150	134	105	150	M8	27	6	8	9	22.5	12
612□DA	293	139	200	180	140	204	M10	30	14	6	11	60	22
612□DB	312	139	200	180	140	204	M10	30	14	6	11	60	25

Model <small>Note: 1</small>	Output Shaft <small>Note: 2, 3, 5</small>								Input Shaft <small>Note: 2, 3, 5</small>				
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2	
CNF - 606□DA - Ratio	14	25	5	5	3	M5	16	12	25	4	4	2.5	
CNF - 607□DA - Ratio	18	30	6	6	3.5	M6	16	12	25	4	4	2.5	
CNF - 609□DA - Ratio	28	35	8	7	4	M8	20	12	25	4	4	2.5	
CNF - 610□DA - Ratio	28	35	8	7	4	M8	20	12	25	4	4	2.5	
CNF - 612□DA - Ratio	38	55	10	8	5	M8	20	12	25	4	4	2.5	
CNF - 612□DB - Ratio	38	55	10	8	5	M8	20	15	25	5	5	3	

Note: 1. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables Speed Reducer (Universal Direction, Flange Mount)

## CHF - 613□DA to 618□DA



Frame size Note: 1	L	G	D1	D2	D3 Note: 4	DC	H	Q	Z	M	N	d	$\alpha^\circ$	W [kg]
613□DA	347	178	226	205	165	230	150	M10	31	16	6	11	60	36
613□DB	363	178	226	205	165	230	150	M10	31	16	6	11	60	39
613□DC	369	178	226	205	165	230	150	M10	31	16	6	11	60	40
614□DA	367	198	226	205	165	230	150	M10	31	16	6	11	60	36
614□DB	383	198	226	205	165	230	150	M10	31	16	6	11	60	39
614□DC	389	198	226	205	165	230	150	M10	31	16	6	11	60	40
616□DA	433	222	296	270	200	300	189	M12	35	10	6	14	30	68
616□DB	439	222	296	270	200	300	189	M12	35	10	6	14	30	70
617□DA	478	262	330	300	250	340	216	M12	41	12	8	14	22.5	93
617□DB	484	262	330	300	250	340	216	M12	41	12	8	14	22.5	95
618□DA	526	299	360	330	280	370	231	M12	38	12	8	14	22.5	129

Model Note: 1	Output Shaft Note: 2, 3, 5									Input Shaft Note: 2, 3, 5				
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2		
CHF - 613□DA - Ratio	50	70	14	9	5.5	M10	18	12	25	4	4	2.5		
CHF - 613□DB - Ratio	50	70	14	9	5.5	M10	18	15	25	5	5	3		
CHF - 613□DC - Ratio	50	70	14	9	5.5	M10	18	15	25	5	5	3		
CHF - 614□DA - Ratio	50	90	14	9	5.5	M10	18	12	25	4	4	2.5		
CHF - 614□DB - Ratio	50	90	14	9	5.5	M10	18	15	25	5	5	3		
CHF - 614□DC - Ratio	50	90	14	9	5.5	M10	18	15	25	5	5	3		
CHF - 616□DA - Ratio	60	90	18	11	7	M10	18	15	25	5	5	3		
CHF - 616□DB - Ratio	60	90	18	11	7	M10	18	15	25	5	5	3		
CHF - 617□DA - Ratio	70	90	20	12	7.5	M12	24	15	25	5	5	3		
CHF - 617□DB - Ratio	70	90	20	12	7.5	M12	24	15	25	5	5	3		
CHF - 618□DA - Ratio	80	110	22	14	9	M12	24	15	25	5	5	3		

Note: 4. Pilot diameter ( $\phi D3$ ): Dimension tolerance conforms to JIS B 0401-1976 "g6."

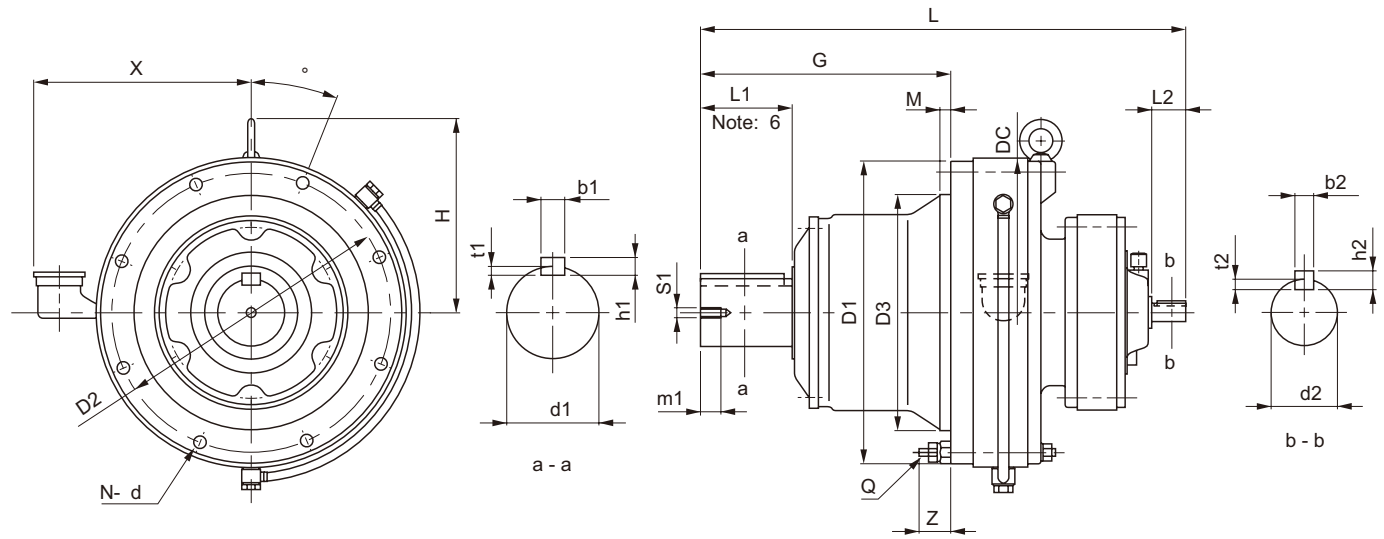
5. Output shaft length differs from the values in the above table for vertical output shaft down (CVF) type. Refer to pages F-28~30 for details on input and output shaft end dimensions.

6. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Speed Reducer (Horizontal Direction, Flange Mount )

## CHF - 616□DC to 6265DA

REDUCERS  
Dimension Tables  
CHF



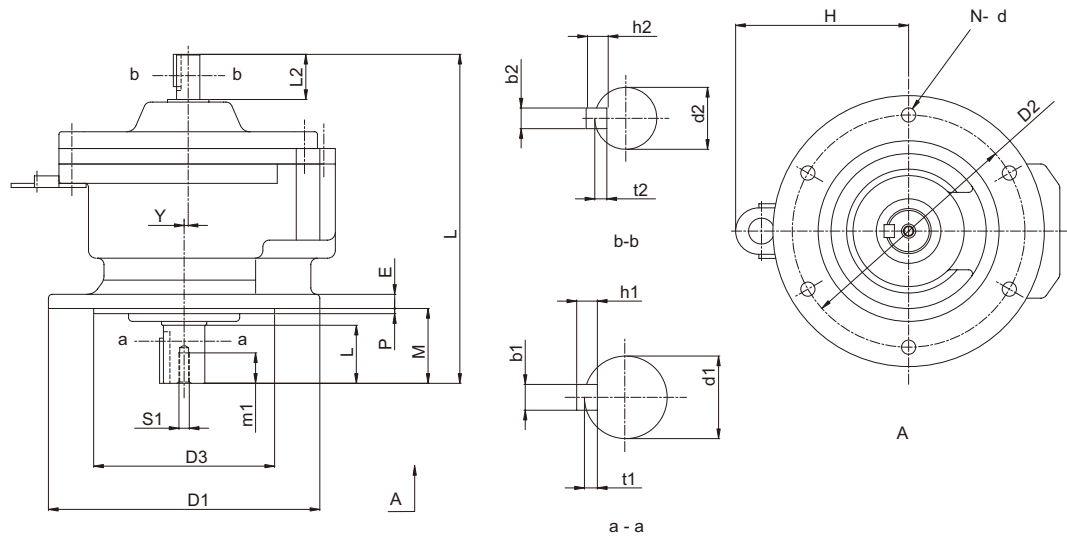
Frame size Note: 1	L	G	D1	D2	D3 Note: 4	DC	H	Q	Z	M	N	d	α°	x	W [kg]
616□DC	462	222	296	270	200	300	189	M12	35	10	6	14	30	228	82
617□DC	509	262	330	300	250	340	216	M12	41	12	8	14	22.5	243	105
618□DB	577	299	360	330	280	370	231	M12	38	12	8	14	22.5	258	146
619□DA	629	365	420	380	320	430	281	M12	43	10	12	14	15	285	201
619□DB	653	365	420	380	320	430	281	M12	43	10	12	14	15	285	205
6205DA	670	410	443	405	360	448	283	M16	57	20	12	18	15	-	217
6205DB	705	410	443	405	360	448	283	M16	57	20	12	18	15	-	227
6215DA	731	423	480	440	390	485	312	M18	57	20	12	20.5	15	-	306
6215DB	780	423	480	440	390	485	312	M18	57	20	12	20.5	15	-	328
6225DA	773	454	521	475	420	526	333	M20	65	20	12	22	15	-	357
6225DB	860	454	521	475	420	526	333	M20	65	20	12	22	15	-	404
6235DA	883	505	557	510	455	562	351	M20	68	20	12	22	15	-	468
6235DB	938	505	557	510	455	562	351	M20	68	20	12	22	15	-	500
6245DA	921	529	615	560	500	614	395	M24	65	25	12	27	15	-	574
6245DB	975	529	615	560	500	614	395	M24	65	25	12	27	15	-	603
6255DA	1081	616	666	610	540	670	386	M24	88	30	12	27	15	-	847
6255DB	1133	616	666	610	540	670	386	M24	88	30	12	27	15	-	926
6265DA	1243	712	730	660	570	736	453	M30	82	40	12	34	15	-	1170

Model Note: 1	Output Shaft Note: 2, 3, 6									Input Shaft Note: 2, 3, 6				
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2		
CHF - 616□DC - Ratio	60	90	18	11	7	M10	18	18	35	6	6	3.5		
CHF - 617□DC - Ratio	70	90	20	12	7.5	M12	24	18	35	6	6	3.5		
CHF - 618□DB - Ratio	80	110	22	14	9	M12	24	22	40	6	6	3.5		
CHF - 619□DA - Ratio	95	135	25	14	9	M20	34	18	35	6	6	3.5		
CHF - 619□DB - Ratio	95	135	25	14	9	M20	34	22	40	6	6	3.5		
CHF - 6205DA - Ratio	100	165	28	16	10	M20	34	18	35	6	6	3.5		
CHF - 6205DB - Ratio	100	165	28	16	10	M20	34	22	40	6	6	3.5		
CHF - 6215DA - Ratio	110	165	28	16	10	M20	34	22	40	6	6	3.5		
CHF - 6215DB - Ratio	110	165	28	16	10	M20	34	30	45	8	7	4		
CHF - 6225DA - Ratio	120	165	32	18	11	M20	34	22	40	6	6	3.5		
CHF - 6225DB - Ratio	120	165	32	18	11	M20	34	35	55	10	8	5		
CHF - 6235DA - Ratio	130	200	32	18	11	M24	41	30	45	8	7	4		
CHF - 6235DB - Ratio	130	200	32	18	11	M24	41	40	65	12	8	5		
CHF - 6245DA - Ratio	140	200	36	20	12	M24	41	30	45	8	7	4		
CHF - 6245DB - Ratio	140	200	36	20	12	M24	41	40	65	12	8	5		
CHF - 6255DA - Ratio	160	240	40	22	13	M30	49	35	55	10	8	5		
CHF - 6255DB - Ratio	160	240	40	22	13	M30	49	45	70	14	9	5.5		
CHF - 6265DA - Ratio	170	300	40	22	13	M30	49	45	70	14	9	5.5		

- Note: 1. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. Pilot diameter (φD3) of CHF type: Dimension tolerance conforms to JIS B 0401-1976 "g6."  
 5. Pilot diameter (φD3) of CVV type: Dimension tolerance conforms to JIS B 0401-1976 "f8."

## Dimension Tables Speed Reducer (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVV - 607□SK to 611□SK



Frame size Note: 1	L	D1	D2	D3 Note: 5	H	M	E	P	Y	N	d	W [kg]
607□SK	168	160	134	110	-	42	9	3	0	4	11	6
608□SK	200	160	134	110	-	48	9	3	0	4	11	7
609□SK	218	160	134	110	-	48	9	3	0	4	11	9
610□SK	218	160	134	110	116	48	9	3	0	4	11	10
611□SK	255	210	180	140	134	58	11	4	3	6	11	22

Model Note: 1	Output Shaft Note: 2, 3									Input Shaft Note: 2, 3				
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2		
CVV - 607□SK - Ratio	18	30	6	6	3.5	M6	16	12	25	4	4	2.5		
CVV - 608□SK - Ratio	22	35	6	6	3.5	M6	16	15	25	5	5	3		
CVV - 609□SK - Ratio	28	35	8	7	4	M8	20	15	25	5	5	3		
CVV - 610□SK - Ratio	28	35	8	7	4	M8	20	15	25	5	5	3		
CVV - 611□SK - Ratio	32	45	10	8	5	M8	20	18	35	6	6	3.5		

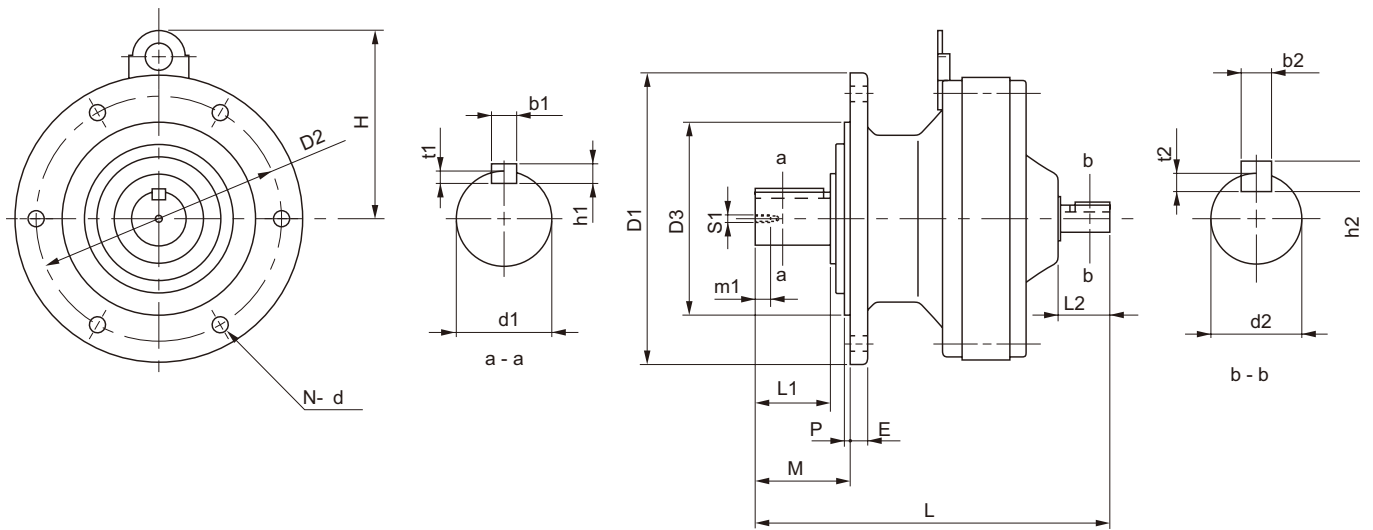
Note: 6. Output shaft length differs from the values in the above table for vertical output shaft down (CVF) type. Refer to pages F-28~30 for details on input and output shaft end dimensions.

7. Dimensions in above drawings are subject to change without notice.



# Dimension Tables Speed Reducer (Universal Direction, V-Flange Mount)

## CNV - 606□ to 612□



REDUCERS

Dimension Tables  
CNV

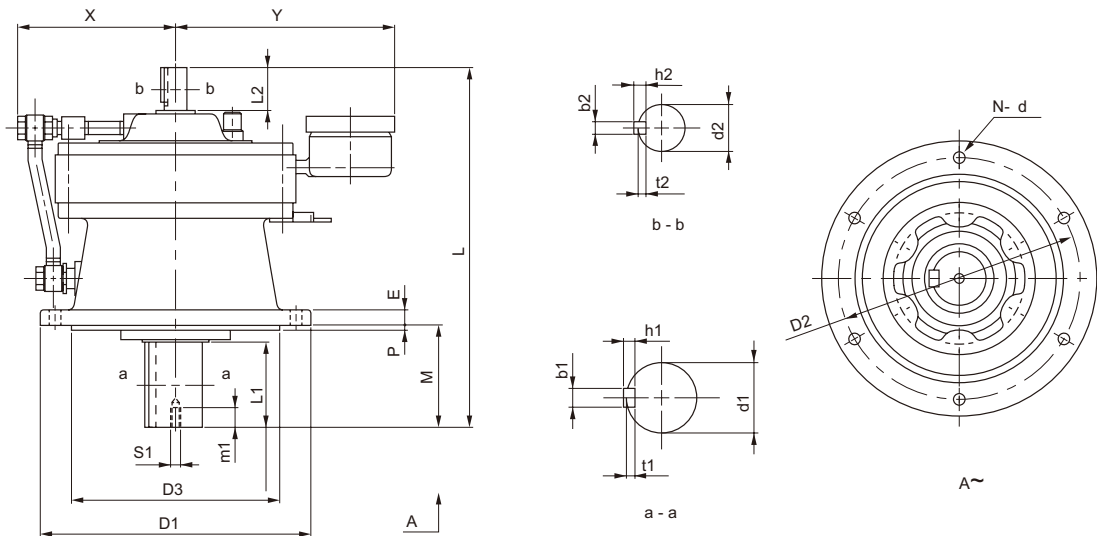
Frame size <small>Note: 1</small>	L	D1	D2	D3 <small>Note: 4</small>	H	M	E	P	N	d	W [kg]
606□	145	120	102	80	-	34	8	3	6	9	3.5
607□	151	160	134	110	-	42	9	3	4	11	4.5
608□	179	160	134	110	-	48	9	3	4	11	8
609□	202	160	134	110	107	48	9	3	4	11	9
610□	208	160	134	110	107	48	9	3	4	11	11
611□	218	210	180	140	116	58	11	4	6	11	13
612□	259	210	180	140	137	69	13	4	6	11	23

Model <small>Note: 1</small>	Output Shaft <small>Note: 2, 3</small>						Input Shaft <small>Note: 2, 3</small>					
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2
CNV - 606□ - Ratio	14	25	5	5	3	M5	16	12	25	4	4	2.5
CNV - 607□ - Ratio	18	30	6	6	3.5	M6	16	12	25	4	4	2.5
CNV - 608□ - Ratio	22	35	6	6	3.5	M6	16	12	25	4	4	2.5
CNV - 609□ - Ratio	28	35	8	7	4	M8	20	15	25	5	5	3
CNV - 610□ - Ratio	28	35	8	7	4	M8	20	15	25	5	5	3
CNV - 611□ - Ratio	32	45	10	8	5	M8	20	15	25	5	5	3
CNV - 612□ - Ratio	38	55	10	8	5	M8	20	18	35	6	6	3.5

Note: 1. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

# Dimension Tables Speed Reducer (Vertical, Slow Speed Shaft Down, V-Flange Mount)

CVV - 613□ to 614□



Frame size Note: 1	L	D1	D2	D3 Note: 4	M	E	P	N	d	X	Y	W [kg]
613□	321	260	230	200	76	15	4	6	11	152	233	42
614□	341	260	230	200	96	15	4	6	11	152	233	43

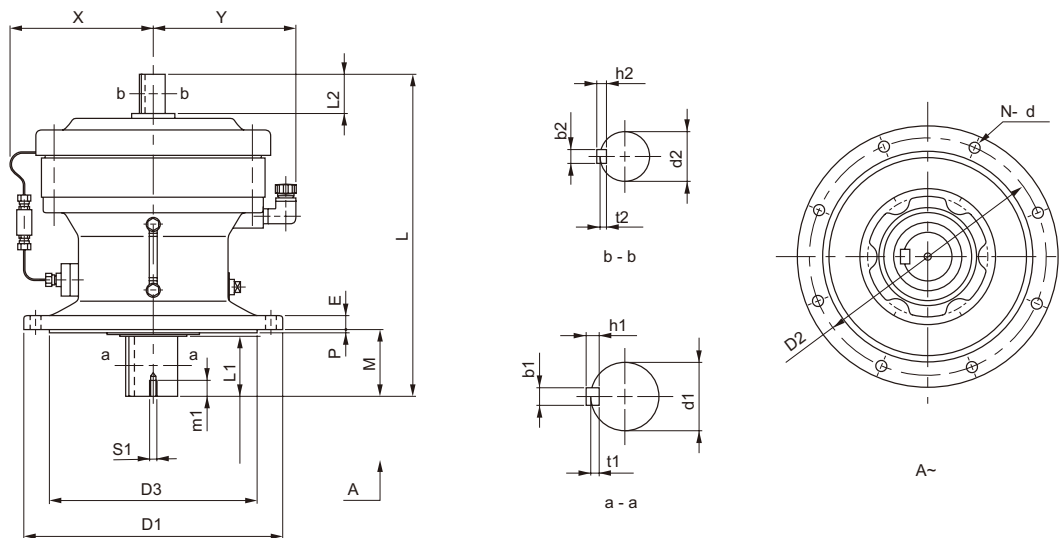
Model Note: 1	Output Shaft Note: 2, 3									Input Shaft Note: 2, 3				
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2		
CVV - 613□ - Ratio	50	61	14	9	5.5	M10	18	22	40	6	6	3.5		
CVV - 614□ - Ratio	50	81	14	9	5.5	M10	18	22	40	6	6	3.5		

Note: 4. Pilot diameter ( $\phi$ D3): Dimension tolerance conforms to JIS B 0401-1976 "f8."  
 5. Dimensions in above drawings are subject to change without notice.

REDUCERS  
Dimension Tables  
CVV

# Dimension Tables Speed Reducer (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVV - 616□ to 6275



REDUCERS

Dimension Tables  
CVV

Frame size <small>Note: 1</small>	L	D1	D2	D3 <small>Note: 4</small>	M	E	P	N	d	X	Y	W [kg]
616□	413	340	310	270	89	20	4	6	11	217	200	79
617□	477	400	360	316	94	22	5	8	14	222	225	125
618□	527	430	390	345	110	22	5	8	18	237	240	150
619	620	490	450	400	145	30	6	12	18	265	270	225
6205	678	455	405	355	204	30	5	8	22	341	287	243
6215	708	490	440	390	203	35	7	8	24	348	306	314
6225	752	535	475	415	210	35	10	8	27	352	326	396
6235	839	570	510	450	250	40	10	8	27	359	344	474
6245	877	635	560	485	250	40	10	8	33	370	371	568
6255	1040	685	610	535	295	45	10	8	33	426	399	865
6265	1150	750	660	570	360	50	10	8	39	460	431	1125
6275	1462	1160	1020	900	355	60	10	8	39	610	613	2610

Model <small>Note: 1</small>	Output Shaft <small>Note: 2, 3</small>							Input Shaft <small>Note: 2, 3</small>				
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2
CVV - 616□ - Ratio	60	80	18	11	7	M10	18	30	45	8	7	4
CVV - 617□ - Ratio	70	84	20	12	7.5	M12	24	35	55	10	8	5
CVV - 618□ - Ratio	80	100	22	14	9	M12	24	40	65	12	8	5
CVV - 619 - Ratio	95	125	25	14	9	M20	34	45	70	14	9	5.5
CVV - 6205 - Ratio	100	165	28	16	10	M20	34	45	82	14	9	5.5
CVV - 6215 - Ratio	110	165	28	16	10	M20	34	50	82	14	9	5.5
CVV - 6225 - Ratio	120	165	32	18	11	M20	34	55	82	16	10	6
CVV - 6235 - Ratio	130	200	32	18	11	M24	41	60	105	18	11	7
CVV - 6245 - Ratio	140	200	36	20	12	M24	41	65	105	18	11	7
CVV - 6255 - Ratio	160	240	40	22	13	M30	49	80	130	22	14	9
CVV - 6265 - Ratio	170	300	40	22	13	M30	49	80	130	22	14	9
CVV - 6275 - Ratio	180	320	45	25	15	M30	52	90	150	25	14	9

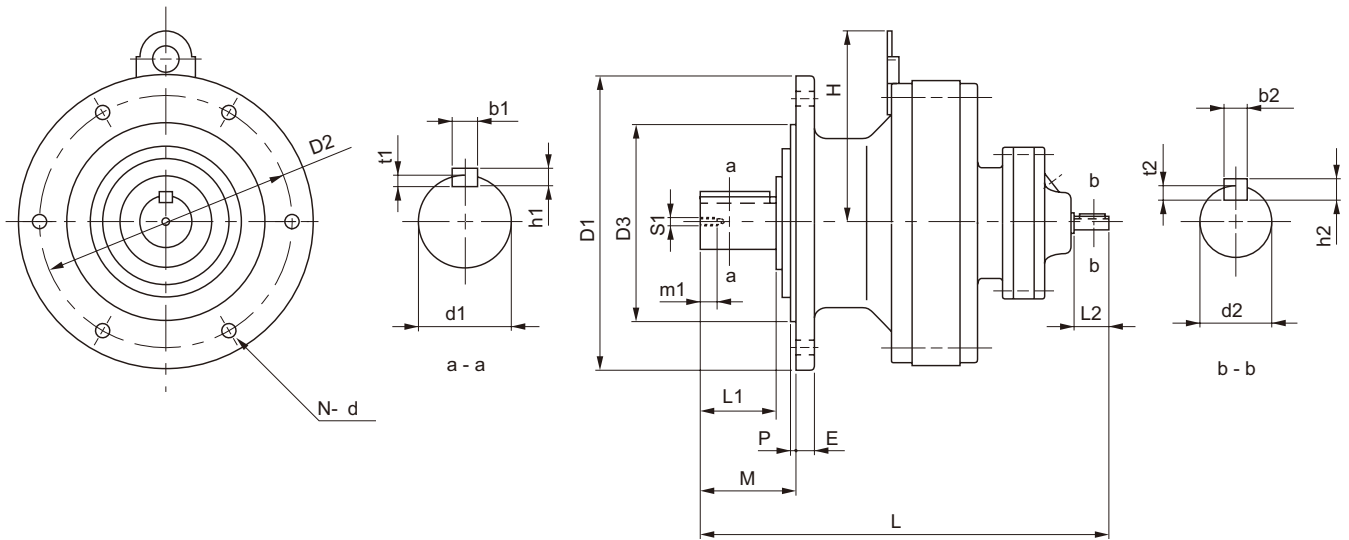
Note: 1. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."

3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables Speed Reducer (Vertical, Slow Speed Shaft Down, V-Flange Mount)

CNV - 606□DA to 612□DB



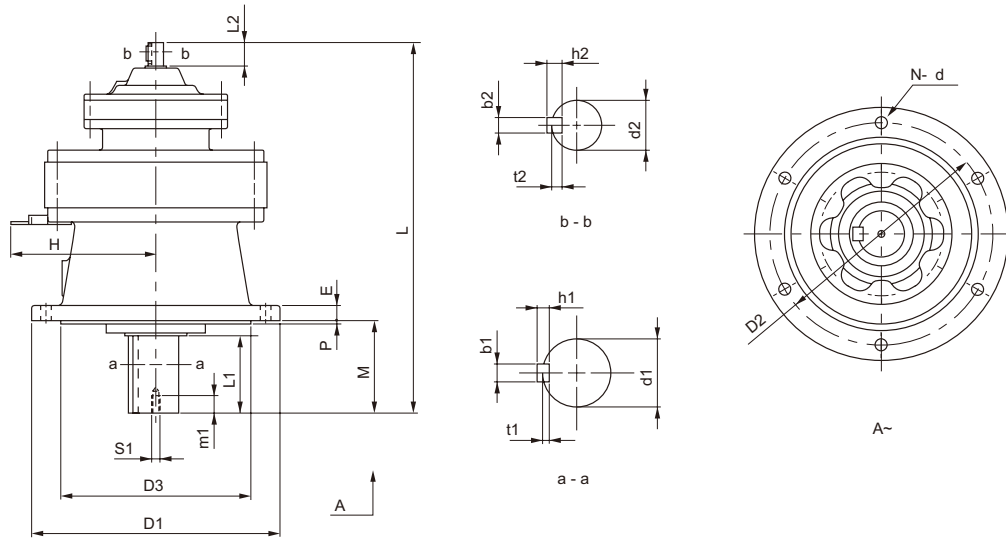
Frame size Note: 1	L	D1	D2	D3 Note: 4	H	M	E	P	N	d	W [kg]
606□DA	178	120	102	80	-	34	8	3	6	9	5.0
607□DA	184	160	134	110	-	42	9	3	4	11	6.7
609□DA	243	160	134	110	107	48	9	3	4	11	11
610□DA	257	160	134	110	107	48	9	3	4	11	13
612□DA	293	210	180	140	137	69	13	4	6	11	25
612□DB	312	210	180	140	137	69	13	4	6	11	29

Model Note: 1	Output Shaft Note: 2, 3								Input Shaft Note: 2, 3				
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2	
CNV - 606□DA - Ratio	14	25	5	5	3	M5	16	12	25	4	4	2.5	
CNV - 607□DA - Ratio	18	30	6	6	3.5	M6	16	12	25	4	4	2.5	
CNV - 609□DA - Ratio	28	35	8	7	4	M8	20	12	25	4	4	2.5	
CNV - 610□DA - Ratio	28	35	8	7	4	M8	20	12	25	4	4	2.5	
CNV - 612□DA - Ratio	38	55	10	8	5	M8	20	12	25	4	4	2.5	
CNV - 612□DB - Ratio	38	55	10	8	5	M8	20	15	25	5	5	3	

Note: 4. Pilot diameter ( $\phi$ D3): Dimension tolerance conforms to JIS B 0401-1976 "f8."  
 5. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Speed Reducer (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVV - 613□DA to 618□DA



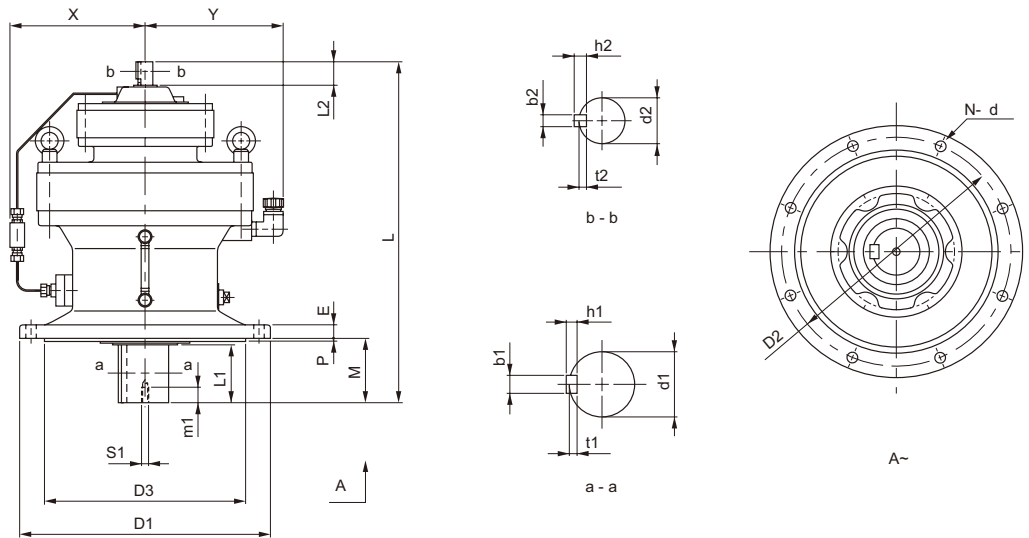
Frame size Note: 1	L	D1	D2	D3 Note: 4	M	E	P	N	d	H	W [kg]
613□DA	347	260	230	200	76	15	4	6	11	150	40
613□DB	363	260	230	200	76	15	4	6	11	150	43
613□DC	369	260	230	200	76	15	4	6	11	-	44
614□DA	367	260	230	200	96	15	4	6	11	150	40
614□DB	383	260	230	200	96	15	4	6	11	150	43
614□DC	389	260	230	200	96	15	4	6	11	-	44
616□DA	433	340	310	270	89	20	4	6	11	-	80
616□DB	439	340	310	270	89	20	4	6	11	-	82
617□DA	478	400	360	316	94	22	5	8	14	-	115
617□DB	484	400	360	316	94	22	5	8	14	-	117
618□DA	526	430	390	345	110	22	5	8	18	-	149

Model Note: 1	Output Shaft Note: 2, 3					Input Shaft Note: 2, 3						
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2
CVV - 613□DA - Ratio	50	61	14	9	5.5	M10	18	12	25	4	4	2.5
CVV - 613□DB - Ratio	50	61	14	9	5.5	M10	18	15	25	5	5	3
CVV - 613□DC - Ratio	50	61	14	9	5.5	M10	18	15	25	5	5	3
CVV - 614□DA - Ratio	50	81	14	9	5.5	M10	18	12	25	4	4	2.5
CVV - 614□DB - Ratio	50	81	14	9	5.5	M10	18	15	25	5	5	3
CVV - 614□DC - Ratio	50	81	14	9	5.5	M10	18	15	25	5	5	3
CVV - 616□DA - Ratio	60	80	18	11	7	M10	18	15	25	5	5	3
CVV - 616□DB - Ratio	60	80	18	11	7	M10	18	15	25	5	5	3
CVV - 617□DA - Ratio	70	84	20	12	7.5	M12	24	15	25	5	5	3
CVV - 617□DB - Ratio	70	84	20	12	7.5	M12	24	15	25	5	5	3
CVV - 618□DA - Ratio	80	100	22	14	9	M12	24	15	25	5	5	3

Note: 1. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

# Dimension Tables Speed Reducer (Vertical, Slow Speed Shaft Down, V-Flange Mount)

## CVV - 616□DC to 6275DA



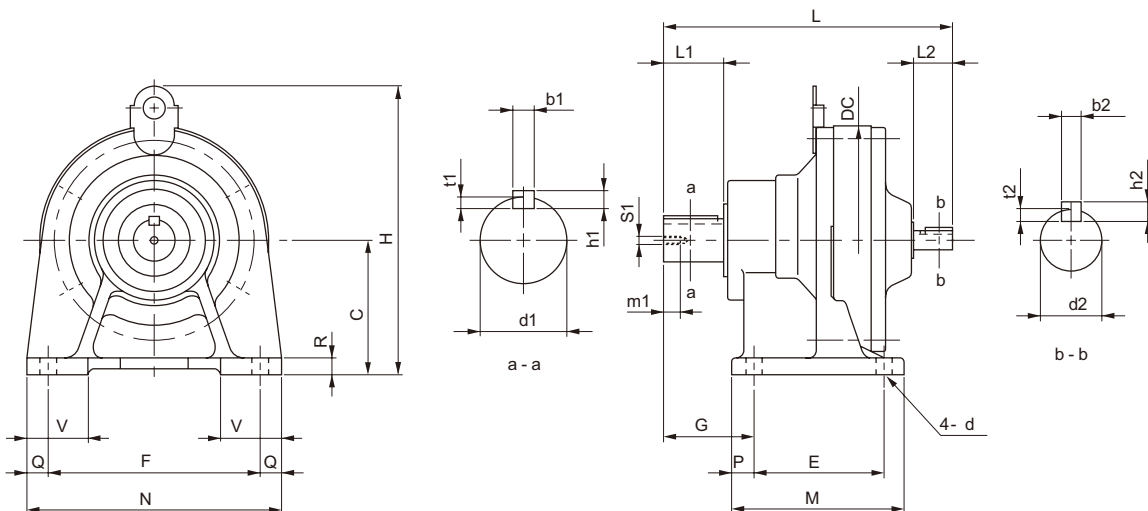
Frame size <small>Note: 1</small>	L	D1	D2	D3 <small>Note: 4</small>	M	E	P	N	d	X	Y	W [kg]
616□DC	462	340	310	270	89	20	4	6	11	196	200	90
617□DC	509	400	360	316	94	22	5	8	14	218	225	125
618□DB	577	430	390	345	110	22	5	8	18	233	240	171
619□DA	629	490	450	400	145	30	6	12	18	255	270	229
619□DB	653	490	450	400	145	30	6	12	18	255	270	240
6205DA	670	455	405	355	204	30	5	8	22	341	287	246
6205DB	705	455	405	355	204	30	5	8	22	341	287	258
6215DA	731	490	440	390	203	35	7	8	24	348	306	333
6215DB	780	490	440	390	203	35	7	8	24	348	306	355
6225DA	773	535	475	415	210	35	10	8	27	352	326	408
6225DB	860	535	475	415	210	35	10	8	27	352	326	455
6235DA	883	570	510	450	250	40	10	8	27	359	344	510
6235DB	938	570	510	450	250	40	10	8	27	359	344	544
6245DA	921	635	560	485	250	40	10	8	33	370	371	604
6245DB	975	635	560	485	250	40	10	8	33	370	371	633
6255DA	1081	685	610	535	295	45	10	8	33	395	399	925
6255DB	1133	685	610	535	295	45	10	8	33	395	399	993
6265DA	1243	750	660	570	360	50	10	8	39	427	431	1265
6275DA	1504	1160	1020	900	355	60	10	8	39	610	613	2660

Model <small>Note: 1</small>	Output Shaft <small>Note: 2, 3</small>									Input Shaft <small>Note: 2, 3</small>				
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2		
CVV - 616□DC - Ratio	60	80	18	11	7	M10	18	18	35	6	6	3.5		
CVV - 617□DC - Ratio	70	84	20	12	7.5	M12	24	18	35	6	6	3.5		
CVV - 618□DB - Ratio	80	100	22	14	9	M12	24	22	40	6	6	3.5		
CVV - 619□DA - Ratio	95	125	25	14	9	M20	34	18	35	6	6	3.5		
CVV - 619□DB - Ratio	95	125	25	14	9	M20	34	22	40	6	6	3.5		
CVV - 6205DA - Ratio	100	165	28	16	10	M20	34	18	35	6	6	3.5		
CVV - 6205DB - Ratio	100	165	28	16	10	M20	34	22	40	6	6	3.5		
CVV - 6215DA - Ratio	110	165	28	16	10	M20	34	22	40	6	6	3.5		
CVV - 6215DB - Ratio	110	165	28	16	10	M20	34	30	45	8	7	4		
CVV - 6225DA - Ratio	120	165	32	18	11	M20	34	22	40	6	6	3.5		
CVV - 6225DB - Ratio	120	165	32	18	11	M20	34	35	55	10	8	5		
CVV - 6235DA - Ratio	130	200	32	18	11	M24	41	30	45	8	7	4		
CVV - 6235DB - Ratio	130	200	32	18	11	M24	41	40	65	12	8	5		
CVV - 6245DA - Ratio	140	200	36	20	12	M24	41	30	45	8	7	4		
CVV - 6245DB - Ratio	140	200	36	20	12	M24	41	40	65	12	8	5		
CVV - 6255DA - Ratio	160	240	40	22	13	M30	49	35	55	10	8	5		
CVV - 6255DB - Ratio	160	240	40	22	13	M30	49	45	70	14	9	5.5		
CVV - 6265DA - Ratio	170	300	40	22	13	M30	49	45	70	14	9	5.5		
CVV - 6275DA - Ratio	180	320	45	25	15	M30	52	45	70	14	9	5.5		

Note: 4. Pilot diameter (φD3): Dimension tolerance conforms to JIS B 0401-1976 "f8."  
 5. Dimensions in above drawings are subject to change without notice.

# Dimension Tables Speed Reducer (Foot Mount, Center Height Option)

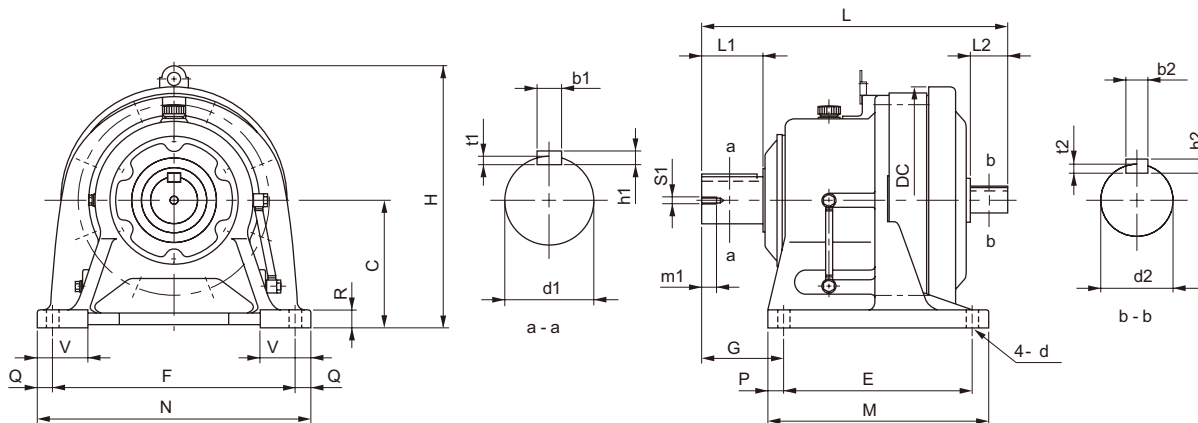
## CNH - 610H, 612H



Frame size	L	C	DC	E	F	G	H	M	N	P	Q	R	V	d	W [kg]
610H	208	120	150	90	150	60	227	135	180	15	15	12	45	11	14
612H	259	140	204	115	190	82	277	155	230	20	20	15	60	14	25

Model	Output Shaft						Input Shaft					
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2
CHH - 610H - Ratio	28	35	8	7	4	M8	20	15	25	5	5	3
CHH - 612H - Ratio	38	55	10	8	5	M8	20	18	35	6	6	3.5

## CNH - 614H, 616H



Frame size	L	C	DC	E	F	G	H	M	N	P	Q	R	V	d	W [kg]
614H	341	160	230	145	290	120	310	195	330	25	20	22	70	18	46
616H	413	200	318	150	370	139	407	238	410	44	20	25	80	18	89

Model	Output Shaft						Input Shaft					
	d1	L1	b1	h1	t1	S1	m1	d2	L2	b2	h2	t2
CHH - 614H - Ratio	50	90	14	9	5.5	M10	18	22	40	6	6	3.5
CHH - 616H - Ratio	60	90	18	11	7	M10	18	30	45	8	7	4

- Note: 1. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 2. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 3. Refer to pages F-28~30 for details on input and output shaft end dimensions.  
 4. Dimensions in above drawings are subject to change without notice.

# D

## CYCLO® GEARMOTORS with AF Motor for Inverters

---

	Page
1. How to Select	
Standard Specifications	D-3
Model Selection	D-4
Reminders for Selection	D-6
Nomenclature	D-7
Precautions for Inverter Driving	D-9
2. Selection Tables	D-11
3. Dimension Tables	D-23



# **D** CYCLO® GEARMOTORS with AF Motor for Inverters

---

## 1. How to Select

# Standard Specifications of Gearmotor for Inverters

## Motor

Items	Standard Specification <small>Note: 1</small>	Standard Specification with Built-in Brake
Capacity Range	0.1 ~ 55kW × 4P	0.1 ~ 7.5kW × 4P FB Brake (Non-Asbestors) 11kW × 4P CMB Brake 15 ~ 22kW × 4P ESB Brake
Enclosure	Totally enclosed fan cooled type (30kW and over: Totally enclosed air over)	Totally enclosed fan cooled type
Power Source	380V 60Hz, 400V 60Hz, 415V 60Hz	380V 60Hz, 400V 60Hz, 415V 60Hz
Insulation	F	F
Time Rating	Continuous rating (6 ~ 60Hz Torque constant)	Continuous rating (6 ~ 60Hz Torque constant)
Terminal Box Position & Lead Wire Direction	On the left side viewed from the load side. Regarding the draw out hole direction, refer to table below.	On the left side viewed from the load side. Regarding the draw out hole direction, refer to table below.
Lead wiring (Lug type)		
Standards	Conforms to IEC.	

## Reducer

Items	Specifications	
Model	CYCLO 6000 Series	CYCLO 6000SK Series
Lubrication Method	Grease lubricated and oil lubricated models available	Grease lubricated models available
Speed Reduction Method	Internal planetary gear mechanism with trochoidal curved tooth profile	Involute gear type
Direction of output shaft rotation	Single reduction	Clockwise rotation
	Double reduction	Counter-clockwise rotation
	*Note that it is different from CYCLO 6000 series single reduction type As observed from the load side when connected to R-U, S-V, T-W motors.	

## Common to Motor and Reducer

Items	Specifications	
Ambient Conditions	Installation location	Indoor or outdoor (Minimal dust and humidity)
	Ambient temperature	-10°C ~ 40°C
	Ambient humidity	Under 85%
	Elevation	Lower than 1,000 meters
	Atmosphere	Well ventilated location, free of corrosive gases, explosive gases, vapors, and dust.
Method of Mounting <small>Note: 3</small>	CHHM type-with slow speed shaft in horizontal direction and with legs. CVVM type-with slow speed shaft down in vertical direction and with mount. (No restrictions in mounting position of maintenance-free grease lubricated models, and the 2nd digit of type symbol provides "N")	
Method of coupling with driven machine	Coupling, gears, chain sprocket or belt.	
Painting	Type: Acrylic modified phthalic Colour: Equivalent to Muncell 6.5PB 3.6/8.2.	

- Note: 1. Refer to the technical section (Page F-31~57) for motor specification other than standard one.  
2.  $\lambda$  - $\Delta$  start is also available. Please consult us.  
3. Models for universal mounting (types with N for the second digit of nomenclature) can be manufactured for following frame sizes only. Other frame sizes require indication for mounting direction.

[Frame sizes for universal mounting direction] \*□ of the frame size indicates 0, 5, or H.  
606□, 607□, 608□, 609□, 610□, 611□, 612□,  
606□DA, 607□DA, 608□DA, 609□DA, 610□DA, 612□DA, 612□DB

## Direction of Withdrawing Lead Wire

Main frame mounting direction	Standard
Horizontal Type (Slow speed shaft in horizontal direction)	
Vertical Type (Slow speed shaft in vertical direction)	

Note: Whenever not specified, the above direction shall be used. When the direction of withdrawal from the terminal box is other than specified above, refer to Page F-34.

# Model Selection

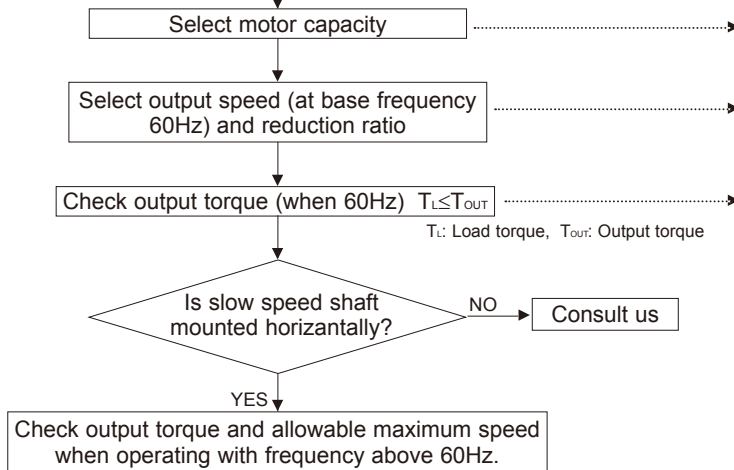
Select models referring to the following flowchart. Consult us if there is any question.  
 Step 1: Determination of Operating Condition

Determine the following condition before starting selection.

- Application
- Motor capacity (kW) and output speed or reduction ratio
- Speed control range
- Radial load and axial load
- Mounting direction (slow speed shaft direction), mounting shape
- Motor specification (with or without brake etc.)
- Other ambient conditions (temperature, humidity, indoor or outdoor, and other environments)

\* Refer to Reminders for Selection in page D-6 for selections using catalogs.

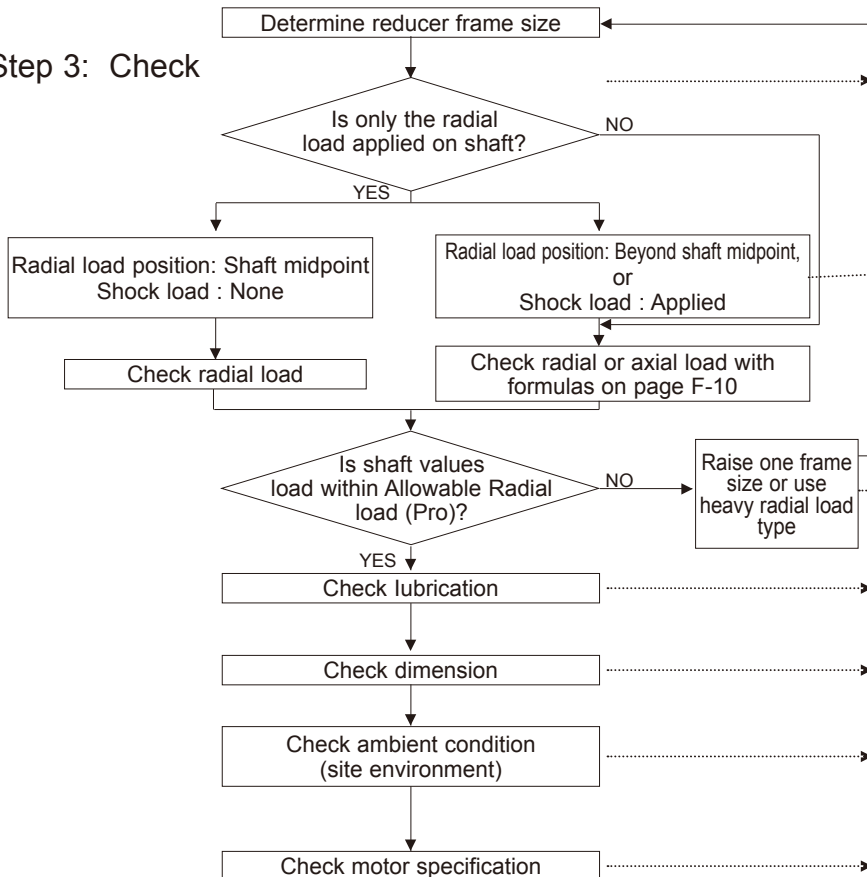
## Step 2: Model Selection



**Procedure**

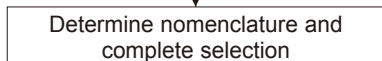
- Open the page with selection table for your motor capacity, starting from page D-11.
- Select the cell containing close value to your output speed at 60 Hz or reduction ratio in the selection table.
- Check whether the output torque is sufficient for your usage at 60 Hz. Raise motor capacity by one frame size if the output torque is not sufficient.
- When slow speed shaft is not horizontal, contemplation is necessary on circulation system of lubrication oil. Consult us with the information of operation speed.

## Step 3: Check



- Check whether only the radial load is applied on slow speed shaft. Refer to Technical Data starting at page F-10 and calculate if axial load is also applied.
- Refer to Technical Data starting at page F-10 depending on where the radial load is applied, or if any shock load is applied or not.
  - \*1 Allowable radial load for slow speed shaft in the selection table is when the load position is at the midpoint of the shaft.
  - \*2 Calculate radial load including initial tension if they are applied using chain, V-belt, synchronous belt, etc.
- Check whether the calculated radial load does not exceed allowable radial load of the slow speed shaft.
- Check whether the selected combination is sufficient for your lubrication method.
- Check whether the dimension is adequate. Consult us if it does not match your operation condition.
- Check whether the selected combination is sufficient for your operation condition, such as surrounding environment. Refer to "Standard Specifications of Gearmotor" in page D-3 or section "F. Technical Data" for checking.
- Check whether the selected motor is sufficient for your operation condition (power source, environment, thermal class, etc.).

## Step 4: Nomenclature Determination, Selection Complete



- Determine nomenclature for selected model referring to "Nomenclature" in page D-7. Now, the selection process is complete.

GEARMOTOR FOR INVERTERS  
How to Select

# Model Selection

## Description of Our Selection Table

This is a brief description of our tables on page D-11 and after.

Motor capacity [kW]      Input speed [r/min] (Indicated for each number of poles at 60Hz.)

**Selection Tables Gearmotors (AF Motor for Inverters)**

AF Motor for Inverter	
P	4
Motor Speed n <sub>1</sub>	r/min 1750(60Hz)

Output Speed n <sub>2</sub> r/min		Allowable MAX Speed (Horizontal)	Output Torque (60Hz) Tout		Allowable Radial Load (60Hz) Pro		Model			
6Hz	60Hz		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity - Symbol	Frame Size	Suffix	Reduction Ratio
29.2	292	584 (120Hz)	171	17.4	5710	582	8 -	6130	- AV -	6
21.9	219	438 (120Hz)	228	23.3	6360	648	8 -	6130	- AV -	8
15.9	159	318 (120Hz)	314	32.0	7240	739	8 -	6130	- AV -	11
13.5	135	270 (120Hz)	371	37.8	7530	768	8 -	6130	- AV -	13
11.7	117	234 (120Hz)	428	43.6	7680	783	8 -	6130	- AV -	15
10.3	103	206 (120Hz)	485	49.4	8230	839	8 -	6135	- AV -	17
8.33	83.3	167 (120Hz)	599	61.0	8760	893	8 -	6135	- AV -	21
7.00	70.0	140 (120Hz)	713	72.7	9070	925	8 -	6135	- AV -	25
6.03	60.3	121 (120Hz)	827	84.3	14100	1430	8 -	6140	- AV -	29
5.00	50.0	100 (120Hz)	998	102	15000	1530	8 -	6145	- AV -	35
4.07	40.7	56.3 (83Hz)	1230	125	18900	1930	8 -	6160	- AV -	43
3.43	34.3	47.4 (83Hz)	1450	148	19600	2000	8 -	6165	- AV -	51
2.97	29.7	41.1 (83Hz)	1680	171	21700	2220	8 -	6165	- AV -	59
2.46	24.6	34.0 (83Hz)	2020	206	24700	2520	8 -	6175	- AV -	71
2.01	20.1	27.8 (83Hz)	2480	253	26400	2690	8 -	6175	- AV -	87
1.68	16.8	33.7 (120Hz)	2810	286	37700	3840	8 -	6180DB	- AV -	104

Output speed [r/min]      Allowable maximum output speed [r/min] and motor frequency [Hz] at that time      Input capacity symbol - Frame size - Suffix (AV) - Reduction ratio

GEARMOTOR FOR INVERTERS

How to Select

\* Note that "reduction ratio = normal ratio" for models with "SK" at the end of frame size (6000 SK Series with "\*\*1" on the side of reduction ratio). (Indicated reduction ratio is the same as actual reduction ratios for other models.)

## Reminders for Selection (CYCLO® GEARMOTORS with AF Motor for Inverters)

Note the following when selecting CYCLO® GEARMOTORS with AF motor for inverters.

- (1) Selection Table on pages D-11~21 is based on the conditions below.
  1. Operation of gearmotor with constant torque and load for 10 hours/day (Load factor 1.0).
  2. Maximum speed of the motor for less than 1800 r/min (1200 r/min for 6P motors) for speed control range 1:10
  3. Also refer to "Precautions for Inverter Driving" on page D-9.
- (2) Consult us when the operation condition is other than the above.
  1. When the combination of motor and CYCLO® SPEED REDUCER differs with the Selection Table, such as when larger load factor is selected.
  2. When using motor or inverter by other company.
  3. When using standard motor by Sumitomo (any model other than AF motor for inverters).
  4. When the input speed of the CYCLO® SPEED REDUCER exceeds 1800 r/min (1200 r/min for 6P motors). (Allowable maximum speed (for horizontal type) is indicated in the Selection Table for reference.)
  5. When the ambient temperature exceeds the range for standard type or when the used lubricant is different from our recommendation (Refer to page F-6 in Technical Data section).
- (3) Contact us with following information for inverter drive for inquiry or consultation.
  1. Environment (ambient temperature and such)
  2. Name of the application machine
  3. Operation hours and cycle
  4. Load characteristics and load percentage
  5. Speed control range (Minimum Hz ~ Maximum Hz)
  6. Manufacturer and model of the motor or inverter driver if using the product from other companies
  7. Manufacturer and brand of the lubricant if our recommended lubricant cannot be used.

# Nomenclature

Slow Speed Shaft Direction	
Horizontal, slow speed shaft level	H
Vertical, slow speed shaft down	V
Vertical, slow speed shaft up	W
Universal mounting	N

Mounting style	
Foot	H
Vflange	V
Flange	F

Type of Input	
Gearmotor	M
With adaptor	JM

Special Specifications	
Standard specification	-
Special specification	S

		Motor Capacity Symbol			
4P	Capacity symbol	01	02	05	1
	kW (HP)	0.1 (1/8)	0.2 (1/4)	0.4 (1/2)	0.75 (1)
	Capacity symbol	2	3	5	8
	kW (HP)	1.5 (2)	2.2 (3)	3.7 (5)	5.5 (7.5)
6P	Capacity symbol	10	15	20	25
	kW (HP)	7.5 (10)	11 (15)	15 (20)	18.5 (25)
	Capacity symbol	30	40	50	100
	kW (HP)	22 (30)	30 (40)	37 (50)	75 (100)
6P	Capacity symbol	406	506		
	kW (HP)	30 (40)	37 (50)		

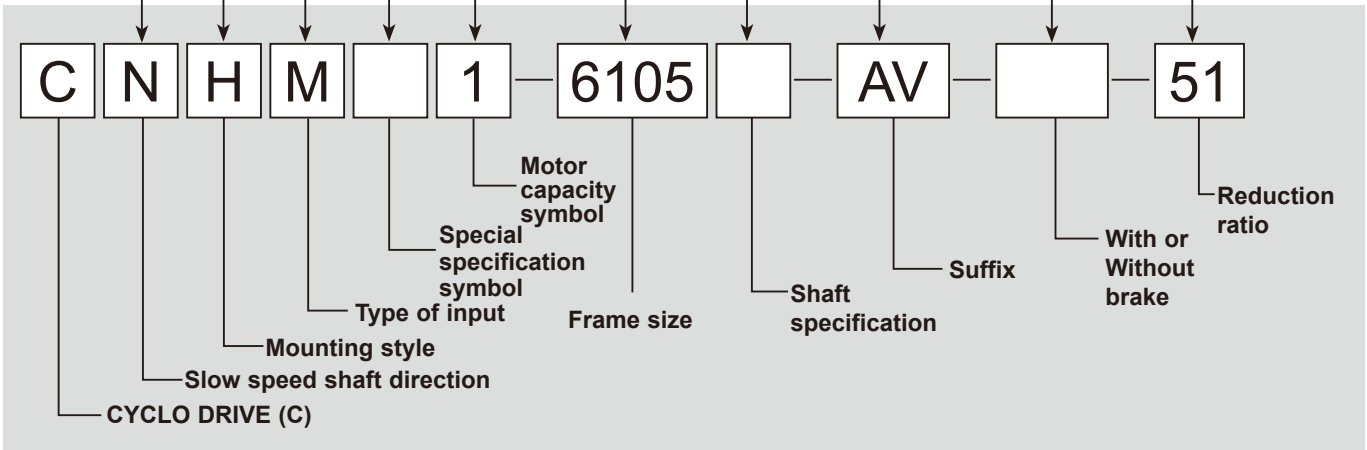
Shaft specification	
Metric JIS (Standard)	-
Inch size	Y
AGMA I	YA
AGMA II	YB
AGMA III	YC
Metric DIN	G

Frame size  
(Refer to Selection Tables starting from page D-11.)

Suffix	
With AF (inverter) motor	AV

With or Without Brake	
Without brake	-
With brake	B

Nominal ratio



GEARMOTOR FOR INVERTERS  
How to Select

# Nomenclature and Product Examples

## Nomenclature Examples (Gearmotor)

### Example 1.

CNHM2 - 6105 - AV - 29

C:	Model	- CYCLO® DRIVE
N:	Slow speed shaft direction	- Universal direction
H:	Mounting style	- Foot
M:	Type of input	- Gearmotor type
2:	Motor capacity	- 1.5kW
6105:	Frame size	- 6105
AV:	With motor for inverter	- AV
29:	Reduction ratio	- 29

### Example 2.

CHHM5 - 6175DC - AV - B - 143

C:	Model	- CYCLO® DRIVE
H:	Slow speed shaft direction	- Horizontal, level
H:	Mounting style	- Foot mount
M:	Type of input	- Gearmotor type
5:	Motor capacity	- 3.7kW
6175DC:	Frame size	- 6175DC
AV:	With motor for inverter	
B:	Brake	- With brake
143:	Reduction ratio	- 143

## Application Products

Consult us for application products for CYCLO® GEARMOTORS with inverter motors. Application products are available, which are comparable to gearmotors with general motors.

# Precautions for Inverter Driving

## 1. Constant Torque Operation

Constant torque operation needs a special motor for the inverter. Contact us especially when operation is in the frequency range less than 6 Hz.

The sensorless operation mode of our inverter HF-520 permits constant torque operation of general-purpose motors at 22 kW or less. (See page D-10 for details.)

## 2. Operation in Frequency Range Exceeding the Base Frequency (60 Hz)

Rated output operation will be carried out in the frequency range exceeding the base frequency. Therefore, the torque will decrease as the speed increases. Select an appropriate motor capacity according to the machine load characteristics. (See Fig. D-1)

The frequency at 60 Hz is regarded as the base frequency. The output torque is lower at speed above 60 Hz, which is the standard base frequency, also when V/f is set for constant torque operation.

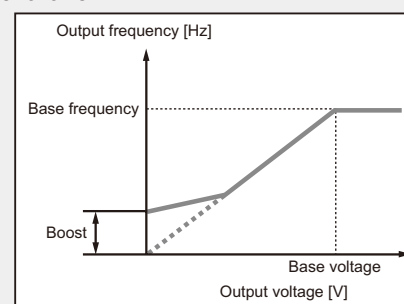
When such adjustment is made, insufficient torque may result at low frequency or during start-up.

Do not change the base frequency figure for cases other than reduction load characteristics.

## 3. V/f Mode Operation of General-Purpose Inverter

In the case of multiple operation of motors or V/f operation with an inverter that has no sensorless function, it is necessary to adjust the boost value in compensation for the start-up torque and slow-speed torque. Standard values are usually set before shipment from manufacturer's factory but overcurrent may result depending on the load condition and acceleration/ deceleration. In such cases, change the values as follows :

- For small capacity motor and a small load, a large boost setting may cause overexcitation of a motor, leading to overcurrent. In that case, lower the boost to return to a normal value.
- For large load when overcurrent during start-up and slow-speed operation easily causes tripping, increase the boost to lower the current value. If no improvement is observed after boost adjustment, it is necessary to examine the motor capacity.



## 4. Operation by Sensorless Vector Inverter

Some of latest series high-performance inverters are equipped with a sensorless vector operation function. This function is basically valid only when a motor and an inverter are operated in one-to-one correspondence. The function does not apply to multiple operation or pole-change operation. Products to which the auto-tuning method is applied do not need adjustment as in the case of V/f operation due to automatic control of the motor characteristics. Vector operation is carried out on the basis of the motor data read by the inverter, and operation is controlled instantaneously in accordance with the load condition to continue optimal operation.

When the wiring distance between the motor and inverter is long (20 m or more), there will be a drop in the line impedance, so compensation is required. Select sufficiently thick cables for long distance wiring. Consult us for long distance wiring.

## 5. Output Torque Characteristics of Motor

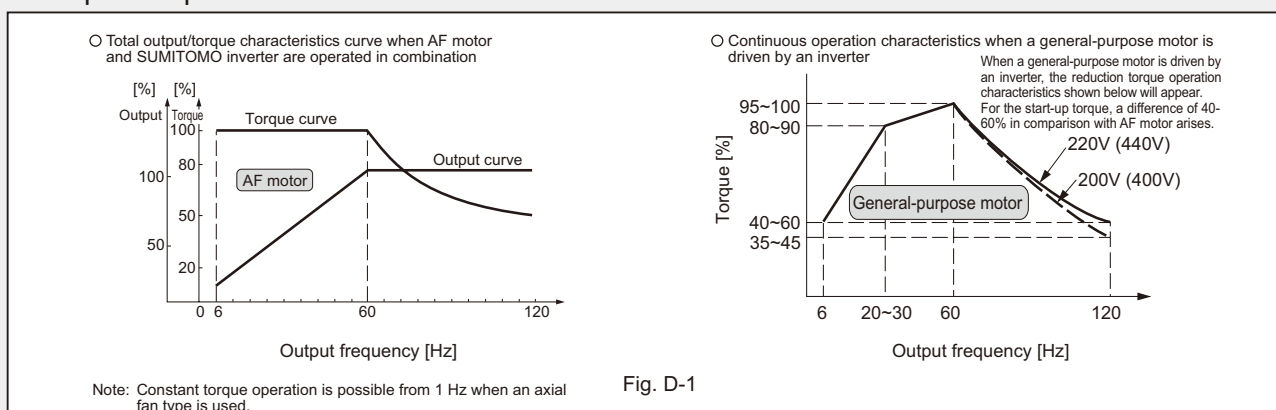


Fig. D-1

## 6. Motor Temperature Rise

When a general-purpose motor is combined with an inverter for variable-speed operation, the motor temperature rise may be slightly greater than if the motor is operated via direct on-line.

Possible causes are shown below:

**Influence of output waveform:** Unlike a commercial power supply, the output waveform of an inverter is not a complete sine wave but includes harmonics; therefore, motor damage will increase, raising the temperature slightly higher.

**Decrease in motor cooling effect during slow-speed operation:**

A motor is cooled by its own fan. Therefore, when the motor speed is decreased by an inverter, the quantity of cooling air decreases, reducing the cooling effect.

When operating the motor at frequencies lower than commercial power supply, reduce the load torque to decrease the temperature rise or use a special motor designed for inverter operation.



# Constant Torque Operation of General-Purpose Motors

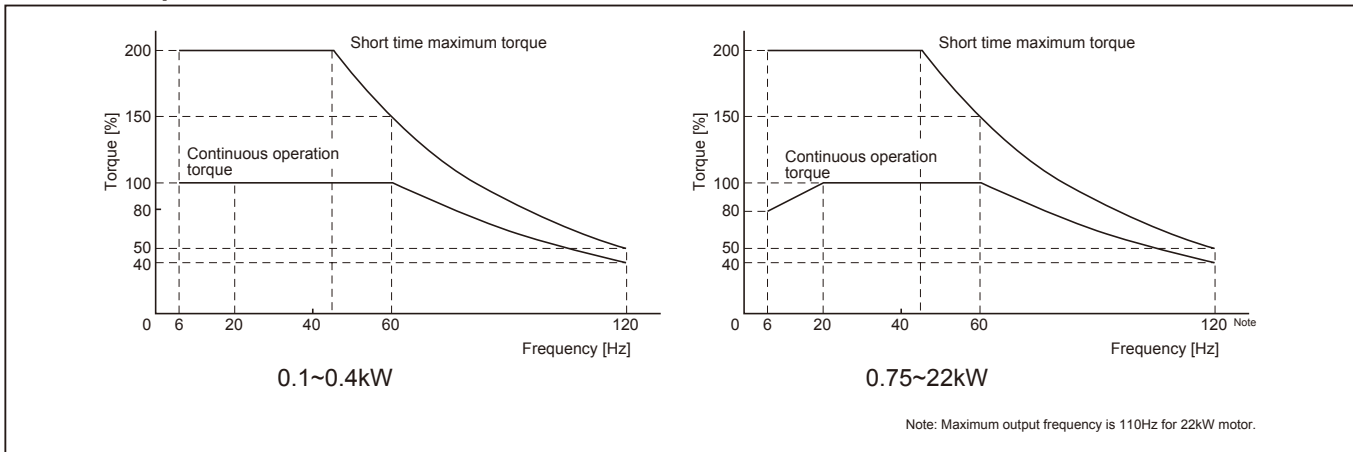
Operation with the following characteristics is possible when our inverters HF-520 and HF-430 $\alpha$  series are used for sensorless control in combination with our general-purpose motors (22 kW or less).

A combination with a motor of standard frame size can be used for constant torque operation at a higher variable speed range in place of an inverter duty motor.

- Note:
1. To select the combination with CYCLO, examine the lubrication method and torque during slow speed operation and rated output operation. Specify that inverter operation is desired when placing an order (Refer to page C-6).
  2. When a motor with brakes is to be operated for a long time at slow speed, the cooling effect of the fan will decrease and the brake temperature will rise substantially. Contact us for details.
  3. Contact us for details when a general-purpose motor is to be operated under V/F control. (Contact us also when SF-520 series is to be used.)

kW	Motor frame size	Thermal class	Applicable frequency range	Constant torque range	Constant output range	Applicable inverter
0.1	V-63S	F	6~120Hz	6~60Hz (1:10)	60~120Hz	HF-520 Sensorless control
0.2	V-63M					
0.4	V-71M					
0.75	V-80M					
1.5	V-90L	F	6~120Hz	20~60Hz (1:3)	60~120Hz	HF-430 $\alpha$ Sensorless control
2.2	V-100L					
3.7	V-112M					
5.5	V-132S					
7.5	V-132M					
11	V-160M					
15	G-160L					
22	F-180MG					
			6~110Hz		60~110Hz	

## HF-520 and HF-430 $\alpha$ Output Torque Characteristics During Sensorless Mode Operation



Output torque 100% is the motor rating at 60Hz.

Continuous operation torque: Allowable torque value enabling continuous operation with motor temperature rise, fulfilling standards.

Short-time operation torque: Maximum torque emitted by motor when driven with inverter. Motor can be operated for 1 minute at this torque value.

Use AF motor when constant torque is required for capacity 30kW and above.

# D CYCLO® GEARMOTORS With AF Motor for Inverters

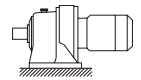
---

GEARMOTOR  
FOR INVERTERS

Selection  
Tables

## 2. Selection Tables

## Selection Tables Gearmotors (AF Motor for Inverters)



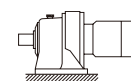
CNHM

0.1 kW	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
29.2	292	584 (120Hz)	3.11	0.317	756	77.1	01	- 6060	- AV	- 6	D-29
21.9	219	438 (120Hz)	4.15	0.423	866	88.3	01	- 6060	- AV	- 8	D-29
15.9	159	318 (120Hz)	5.70	0.581	1180	120	01	- 6060	- AV	- 11	D-29
13.5	135	270 (120Hz)	6.74	0.687	1180	120	01	- 6060	- AV	- 13	D-29
11.7	117	234 (120Hz)	7.78	0.793	1180	120	01	- 6060	- AV	- 15	D-29
10.3	103	206 (120Hz)	8.81	0.898	1180	120	01	- 6060	- AV	- 17	D-29
8.33	83.3	167 (120Hz)	10.9	1.11	1180	120	01	- 6060	- AV	- 21	D-29
7.00	70.0	140 (120Hz)	13.0	1.32	1180	120	01	- 6060	- AV	- 25	D-29
6.03	60.3	121 (120Hz)	15.0	1.53	1180	120	01	- 6060	- AV	- 29	D-29
5.00	50.0	100 (120Hz)	18.1	1.85	1180	120	01	- 6060	- AV	- 35	D-29
4.07	40.7	81.4 (120Hz)	22.3	2.27	1180	120	01	- 6065	- AV	- 43	D-29
3.43	34.3	68.6 (120Hz)	26.4	2.70	1770	180	01	- 6070	- AV	- 51	D-29
2.97	29.7	59.4 (120Hz)	30.6	3.12	1770	180	01	- 6070	- AV	- 59	D-29
2.46	24.6	49.2 (120Hz)	36.8	3.75	2560	261	01	- 6080	- AV	- 71	D-29
2.01	20.1	40.2 (120Hz)	45.1	4.60	2560	261	01	- 6085	- AV	- 87	D-29
1.68	16.8	33.7 (120Hz)	51.1	5.21	1770	180	01	- 6075DA	- AV	- 104	D-33
1.45	14.5	28.9 (120Hz)	59.4	6.06	3340	340	01	- 6090DA	- AV	- 121	D-33
1.22	12.2	24.5 (120Hz)	70.2	7.16	3340	340	01	- 6090DA	- AV	- 143	D-33
1.06	10.6	21.2 (120Hz)	81.0	8.26	3340	340	01	- 6090DA	- AV	- 165	D-33
0.897	8.97	17.9 (120Hz)	95.8	9.76	3340	340	01	- 6090DA	- AV	- 195	D-33
0.758	7.58	15.2 (120Hz)	113	11.6	3340	340	01	- 6090DA	- AV	- 231	D-33
0.641	6.41	12.8 (120Hz)	134	13.7	3340	340	01	- 6095DA	- AV	- 273	D-33
0.549	5.49	11.0 (120Hz)	157	16.0	3280	334	01	- 6095DA	- AV	- 319	D-33
0.464	4.64	9.3 (120Hz)	185	18.9	3230	329	01	- 6095DA	- AV	- 377	D-33
0.370	3.70	7.4 (120Hz)	232	23.7	5400	550	01	- 6105DA	- AV	- 473	D-33
0.313	3.13	6.3 (120Hz)	275	28.0	5400	550	01	- 6105DA	- AV	- 559	D-33
0.270	2.70	5.4 (120Hz)	319	32.5	9810	1000	01	- 6120DA	- AV	- 649	D-33
0.239	2.39	4.8 (120Hz)	359	36.6	9810	1000	01	- 6120DA	- AV	- 731	D-33
0.208	2.08	4.2 (120Hz)	413	42.1	9810	1000	01	- 6125DA	- AV	- 841	D-33
0.174	1.74	3.5 (120Hz)	493	50.2	9810	1000	01	- 6125DA	- AV	- 1003	D-33
0.140	1.40	2.8 (120Hz)	612	62.4	9810	1000	01	- 6125DA	- AV	- 1247	D-33

- Notes: 1. Allowable radial load Pro is the value at the midpoint of the output shaft.  
 2. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.  
 3. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.  
 4. Refer to page D-9 "Precautions for Inverter Driving" when operating beyond 6~60 Hz.

## Selection Tables 600SK Series•Reducer



CHHM/CNHM

<b>0.2 kW</b>	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

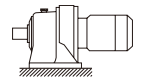
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
						Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio	CNHM	
6Hz	60Hz	Allowable MAX Speed (Horizontal)	[N·m]	[kgf·m]	[N]	[kgf]					
29.2	292	584 (120Hz)	6.22	0.634	751	76.6	02	- 6060	- AV	- 6	D-29
21.9	219	438 (120Hz)	8.29	0.846	859	87.5	02	- 6060	- AV	- 8	D-29
15.9	159	318 (120Hz)	11.4	1.16	1170	119	02	- 6060	- AV	- 11	D-29
13.5	135	270 (120Hz)	13.5	1.37	1180	120	02	- 6060	- AV	- 13	D-29
11.7	117	234 (120Hz)	15.6	1.59	1180	120	02	- 6060	- AV	- 15	D-29
10.3	103	206 (120Hz)	17.6	1.80	1180	120	02	- 6060	- AV	- 17	D-29
8.33	83.3	167 (120Hz)	21.8	2.22	1180	120	02	- 6065	- AV	- 21	D-29
7.00	70.0	140 (120Hz)	25.9	2.64	1770	180	02	- 6070	- AV	- 25	D-29
6.03	60.3	121 (120Hz)	30.1	3.07	1770	180	02	- 6070	- AV	- 29	D-29
5.00	50.0	100 (120Hz)	36.3	3.70	1770	180	02	- 6070	- AV	- 35	D-29
4.07	40.7	81.4 (120Hz)	44.6	4.54	1770	180	02	- 6075	- AV	- 43	D-29
3.43	34.3	68.6 (120Hz)	52.9	5.39	2560	261	02	- 6085	- AV	- 51	D-29
2.97	29.7	59.4 (120Hz)	61.2	6.24	2560	261	02	- 6085	- AV	- 59	D-29
2.46	24.6	49.2 (120Hz)	73.6	7.50	3290	335	02	- 6090	- AV	- 71	D-29
2.01	20.1	40.2 (120Hz)	90.2	9.20	3340	340	02	- 6090	- AV	- 87	D-29
1.68	16.8	33.7 (120Hz)	102	10.4	3340	340	02	- 6090DA	- AV	- 104	D-33
1.47	14.7	29.4 (120Hz)	123	12.6	5400	550	02	- 6100	- AV	- 119	D-29
1.45	14.5	28.9 (120Hz)	119	12.1	3340	340	02	- 6095DA	- AV	- 121	D-33
1.22	12.2	24.5 (120Hz)	140	14.3	3340	340	02	- 6095DA	- AV	- 143	D-33
1.06	10.6	21.2 (120Hz)	162	16.5	3340	340	02	- 6095DA	- AV	- 165	D-33
0.897	8.97	17.9 (120Hz)	192	19.5	3340	340	02	- 6095DA	- AV	- 195	D-33
0.758	7.58	15.2 (120Hz)	227	23.1	5400	550	02	- 6105DA	- AV	- 231	D-33
0.641	6.41	12.8 (120Hz)	268	27.3	5400	550	02	- 6105DA	- AV	- 273	D-33
0.549	5.49	11.0 (120Hz)	313	31.9	9810	1000	02	- 6120DA	- AV	- 319	D-33
0.464	4.64	9.3 (120Hz)	370	37.7	9810	1000	02	- 6120DA	- AV	- 377	D-33
0.370	3.70	7.4 (120Hz)	465	47.4	9810	1000	02	- 6125DA	- AV	- 473	D-33
0.313	3.13	6.3 (120Hz)	549	56.0	9810	1000	02	- 6125DA	- AV	- 559	D-33
0.270	2.70	5.4 (120Hz)	638	65.0	14700	1500	02	- 6130DA	- AV	- 649	D-34
0.239	2.39	4.8 (120Hz)	718	73.2	14700	1500	02	- 6135DA	- AV	- 731	D-34
0.208	2.08	4.2 (120Hz)	826	84.2	14700	1500	02	- 6135DA	- AV	- 841	D-34
0.174	1.74	3.5 (120Hz)	985	100	14700	1500	02	- 6135DA	- AV	- 1003	D-34
0.140	1.40	2.8 (120Hz)	1220	125	16000	1630	02	- 6145DA	- AV	- 1247	D-34
0.085	0.85	1.7 (120Hz)	2030	207	22100	2250	02	- 6165DA	- AV	- 2065	D-34
0.058	0.58	1.2 (120Hz)	2990	305	29500	3010	02	- 6175DA	- AV	- 3045	D-34

5. "(K)" indicate models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000 SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.

6. "▲" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).

7. Consult us for vertical types. Lubrication oil and system requires contemplation.

## Selection Tables Gearmotors (AF Motor for Inverters)



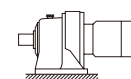
CHHM/CNHM

0.4 kW	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.				
						Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio	CNHM CHHM				
6Hz	60Hz	Allowable MAX Speed (Horizontal)	[N·m]	[kgf·m]	[N]	[kgf]								
70.0	700	1400 (120Hz)	5.18	0.528	1120	114	05	-	6070SK	-	AV	-	2.5 (K)	D-28
58.3	583	1167 (120Hz)	6.22	0.634	1180	120	05	-	6070SK	-	AV	-	3 (K)	D-28
43.8	438	875 (120Hz)	8.29	0.846	1290	131	05	-	6070SK	-	AV	-	4 (K)	D-28
35.0	350	700 (120Hz)	10.4	1.06	1290	132	05	-	6070SK	-	AV	-	5 (K)	D-28
29.2	292	584 (120Hz)	12.4	1.27	1290	132	05	-	6070SK	-	AV	-	6 (K)	D-28
29.2	292	584 (120Hz)	12.4	1.27	1810	184	05	-	6080	-	AV	-	6	D-29
21.9	219	438 (120Hz)	16.6	1.69	1430	145	05	-	6070SK	-	AV	-	8 (K)	D-28
21.9	219	438 (120Hz)	16.6	1.69	1960	200	05	-	6080	-	AV	-	8	D-29
17.5	175	350 (120Hz)	20.7	2.11	1590	162	05	-	6070SK	-	AV	-	10 (K)	D-28
15.9	159	318 (120Hz)	22.8	2.33	2160	220	05	-	6080	-	AV	-	11	D-29
13.5	135	270 (120Hz)	27.0	2.75	2320	237	05	-	6080	-	AV	-	13	D-29
11.7	117	234 (120Hz)	31.1	3.17	2400	245	05	-	6080	-	AV	-	15	D-29
10.3	103	206 (120Hz)	35.3	3.59	2510	256	05	-	6080	-	AV	-	17	D-29
8.33	83.3	167 (120Hz)	43.5	4.44	2450	250	05	-	6085	-	AV	-	21	D-29
7.00	70.0	140 (120Hz)	51.8	5.28	2520	256	05	-	6085	-	AV	-	25	D-29
6.03	60.3	121 (120Hz)	60.1	6.13	2560	261	05	-	6085	-	AV	-	29	D-29
5.00	50.0	100 (120Hz)	72.6	7.40	3340	340	05	-	6090	-	AV	-	35	D-29
4.07	40.7	81.4 (120Hz)	89.2	9.09	3340	340	05	-	6090	-	AV	-	43	D-29
3.43	34.3	68.6 (120Hz)	106	10.8	3340	340	05	-	6095	-	AV	-	51	D-29
2.97	29.7	59.4 (120Hz)	122	12.5	5400	550	05	-	6100	-	AV	-	59	D-29
2.46	24.6	49.2 (120Hz)	147	15.0	5400	550	05	-	6105	-	AV	-	71	D-29
2.01	20.1	40.2 (120Hz)	180	18.4	5400	550	05	-	6105	-	AV	-	87	D-29
1.68	16.8	33.7 (120Hz)	204	20.8	9810	1000	05	-	6120DB	-	AV	-	104	D-33
1.45	14.5	28.9 (120Hz)	238	24.2	9810	1000	05	-	6120DB	-	AV	-	121	D-33
1.22	12.2	24.5 (120Hz)	281	28.6	9810	1000	05	-	6120DB	-	AV	-	143	D-33
1.06	10.6	21.2 (120Hz)	324	33.0	9810	1000	05	-	6120DB	-	AV	-	165	D-33
0.897	8.97	17.9 (120Hz)	383	39.1	9810	1000	05	-	6120DB	-	AV	-	195	D-33
0.758	7.58	15.2 (120Hz)	454	46.3	9810	1000	05	-	6125DB	-	AV	-	231	D-33
0.641	6.41	12.8 (120Hz)	536	54.7	9810	1000	05	-	6125DB	-	AV	-	273	D-33
0.549	5.49	11.0 (120Hz)	627	63.9	9810	1000	05	-	6125DB	-	AV	-	319	D-33
0.464	4.64	9.3 (120Hz)	741	75.5	14700	1500	05	-	6135DB	-	AV	-	377	D-34
0.370	3.70	7.4 (120Hz)	929	94.7	14700	1500	05	-	6135DB	-	AV	-	473	D-34
0.313	3.13	6.3 (120Hz)	1100	112	16000	1630	05	-	6145DB	-	AV	-	559	D-34
0.270	2.70	5.4 (120Hz)	1280	130	16000	1630	05	-	6145DB	-	AV	-	649	D-34
0.239	2.39	4.8 (120Hz)	1440	146	22100	2250	05	-	6165DA	-	AV	-	731	D-34
0.208	2.08	4.2 (120Hz)	1650	168	22100	2250	05	-	6165DA	-	AV	-	841	D-34
0.174	1.74	3.5 (120Hz)	1970	201	22100	2250	05	-	6165DA	-	AV	-	1003	D-34
0.140	1.40	2.8 (120Hz)	2450	250	29500	3010	05	-	6175DA	-	AV	-	1247	D-34
0.118	1.18	2.4 (120Hz)	2910	296	29500	3010	05	-	6175DA	-	AV	-	1479	D-34
0.069	0.69	1.4 (120Hz)	4980	508	41600	4240	05	-	6185DA	-	AV	-	2537	D-34

- Notes: 1. Allowable radial load Pro is the value at the midpoint of the output shaft.  
 2. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.  
 3. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.  
 4. Refer to page D-9 "Precautions for Inverter Driving" when operating beyond 6~60 Hz.

## Selection Tables Gearmotors (AF Motor for Inverters)



CHHM/CNHM

0.75 kW	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

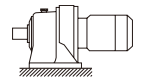
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) T <sub>out</sub>	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
70.0	700	1400 (120Hz)	9.72	0.991	1190	121	1	- 6080SK	- AV	- 2.5 (K)	D-28
58.3	583	1167 (120Hz)	11.7	1.19	1250	127	1	- 6080SK	- AV	- 3 (K)	D-28
43.8	438	875 (120Hz)	15.6	1.59	1350	138	1	- 6080SK	- AV	- 4 (K)	D-28
35.0	350	700 (120Hz)	19.4	1.98	1460	149	1	- 6080SK	- AV	- 5 (K)	D-28
29.2	292	584 (120Hz)	23.3	2.38	1520	155	1	- 6080SK	- AV	- 6 (K)	D-28
29.2	292	584 (120Hz)	23.3	2.38	2670	273	1	- 6090	- AV	- 6	D-29
21.9	219	438 (120Hz)	31.1	3.17	1590	162	1	- 6080SK	- AV	- 8 (K)	D-28
21.9	219	438 (120Hz)	31.1	3.17	2980	304	1	- 6090	- AV	- 8	D-29
17.5	175	350 (120Hz)	38.9	3.96	1680	171	1	- 6080SK	- AV	- 10 (K)	D-28
15.9	159	318 (120Hz)	42.8	4.36	3340	340	1	- 6090	- AV	- 11	D-29
13.5	135	270 (120Hz)	50.5	5.15	3340	340	1	- 6090	- AV	- 13	D-29
11.7	117	234 (120Hz)	58.3	5.95	3340	340	1	- 6090	- AV	- 15	D-29
10.3	103	206 (120Hz)	66.1	6.74	3340	340	1	- 6090	- AV	- 17	D-29
8.33	83.3	167 (120Hz)	81.7	8.32	3340	340	1	- 6090	- AV	- 21	D-29
7.00	70.0	140 (120Hz)	97.2	9.91	3340	340	1	- 6095	- AV	- 25	D-29
6.03	60.3	121 (120Hz)	113	11.5	3340	340	1	- 6095	- AV	- 29	D-29
5.00	50.0	100 (120Hz)	136	13.9	3330	339	1	- 6095	- AV	- 35	D-29
4.07	40.7	81.4 (120Hz)	167	17.0	5400	550	1	- 6100	- AV	- 43	D-29
3.43	34.3	68.6 (120Hz)	198	20.2	5390	549	1	- 6105	- AV	- 51	D-29
2.97	29.7	59.4 (120Hz)	229	23.4	7610	776	1	- 6110	- AV	- 59	D-29
2.46	24.6	49.2 (120Hz)	276	28.1	7610	776	1	- 6115	- AV	- 71	D-29
2.01	20.1	40.2 (120Hz)	338	34.5	7610	776	1	- 6115	- AV	- 87	D-29
1.68	16.8	33.7 (120Hz)	383	39.1	9810	1000	1	- 6120DB	- AV	- 104	D-33
1.45	14.5	28.9 (120Hz)	446	45.4	9810	1000	1	- 6125DB	- AV	- 121	D-33
1.22	12.2	24.5 (120Hz)	527	53.7	9810	1000	1	- 6125DB	- AV	- 143	D-33
1.06	10.6	21.2 (120Hz)	608	62.0	9810	1000	1	- 6125DB	- AV	- 165	D-33
0.897	8.97	17.9 (120Hz)	718	73.2	14700	1500	1	- 6135DB	- AV	- 195	D-34
0.758	7.58	15.2 (120Hz)	851	86.7	14700	1500	1	- 6135DB	- AV	- 231	D-34
0.641	6.41	12.8 (120Hz)	1010	103	16000	1630	1	- 6145DB	- AV	- 273	D-34
0.549	5.49	11.0 (120Hz)	1180	120	16000	1630	1	- 6145DB	- AV	- 319	D-34
0.464	4.64	9.3 (120Hz)	1390	142	22100	2250	1	- 6165DA	- AV	- 377	D-34
0.370	3.70	7.4 (120Hz)	1740	178	22100	2250	1	- 6165DA	- AV	- 473	D-34
0.313	3.13	6.3 (120Hz)	2060	210	22100	2250	1	- 6165DA	- AV	- 559	D-34
0.270	2.70	5.4 (120Hz)	2390	244	29500	3010	1	- 6175DA	- AV	- 649	D-34
0.239	2.39	4.8 (120Hz)	2690	274	29500	3010	1	- 6175DA	- AV	- 731	D-34
0.208	2.08	4.2 (120Hz)	3100	316	29500	3010	1	- 6175DA	- AV	- 841	D-34
0.174	1.74	3.5 (120Hz)	3690	377	41700	4250	1	- 6185DA	- AV	- 1003	D-34
0.140	1.40	2.8 (120Hz)	4590	468	41700	4250	1	- 6185DA	- AV	- 1247	D-34
0.118	1.18	2.4 (120Hz)	5450	555	59000	6010	1	- 6195DA	- AV	- 1479	D-35
0.095	0.95	1.9 (120Hz)	6810	694	59000	6010	1	- 6195DA	- AV	- 1849	D-35
0.085	0.85	1.7 (120Hz)	7610	775	58200	5940	1	- 6195DA	- AV	- 2065	D-35
0.069	0.69	1.4 (120Hz)	9350	953	84100	8570	1	- 6205DA	- AV	- 2537 ▲	D-36

5. "(K)" indicate models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000 SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.

6. "▲" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).

7. Consult us for vertical types. Lubrication oil and system requires contemplation.

## Selection Tables Gearmotors (AF Motor for Inverters)



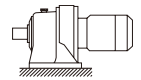
CHHM/CNHM

<b>1.5 kW</b>	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
70.0	700	1400 (120Hz)	19.4	1.98	2050	209	2	- 6090SK	- AV	- 2.5 (K)	D-28
58.3	583	1167 (120Hz)	23.3	2.38	2120	216	2	- 6090SK	- AV	- 3 (K)	D-28
43.8	438	875 (120Hz)	31.1	3.17	2370	242	2	- 6090SK	- AV	- 4 (K)	D-28
35.0	350	700 (120Hz)	38.9	3.96	2490	254	2	- 6090SK	- AV	- 5 (K)	D-28
29.2	292	584 (120Hz)	46.7	4.76	2530	258	2	- 6090SK	- AV	- 6 (K)	D-28
29.2	292	584 (120Hz)	46.7	4.76	3880	396	2	- 6100	- AV	- 6	D-29
21.9	219	438 (120Hz)	62.2	6.34	2780	283	2	- 6090SK	- AV	- 8 (K)	D-28
21.9	219	438 (120Hz)	62.2	6.34	4330	441	2	- 6100	- AV	- 8	D-29
17.5	175	350 (120Hz)	77.8	7.93	2900	296	2	- 6095SK	- AV	- 10 (K)	D-28
15.9	159	318 (120Hz)	85.5	8.72	4920	501	2	- 6100	- AV	- 11	D-29
13.5	135	270 (120Hz)	101	10.3	5110	521	2	- 6100	- AV	- 13	D-29
11.7	117	234 (120Hz)	117	11.9	5400	550	2	- 6100	- AV	- 15	D-29
10.3	103	206 (120Hz)	132	13.5	5400	550	2	- 6100	- AV	- 17	D-29
8.33	83.3	167 (120Hz)	163	16.6	5400	550	2	- 6105	- AV	- 21	D-29
7.00	70.0	140 (120Hz)	194	19.8	5400	550	2	- 6105	- AV	- 25	D-29
6.03	60.3	121 (120Hz)	226	23.0	5400	550	2	- 6105	- AV	- 29	D-29
5.00	50.0	100 (120Hz)	272	27.7	7360	751	2	- 6115	- AV	- 35	D-29
4.07	40.7	81.4 (120Hz)	334	34.1	7610	776	2	- 6115	- AV	- 43	D-29
3.43	34.3	68.6 (120Hz)	397	40.4	9810	1000	2	- 6120	- AV	- 51	D-29
2.97	29.7	59.4 (120Hz)	459	46.8	9810	1000	2	- 6125	- AV	- 59	D-29
2.46	24.6	49.2 (120Hz)	552	56.3	12900	1320	2	- 6130	- AV	- 71	D-30
2.01	20.1	40.2 (120Hz)	677	69.0	13900	1420	2	- 6135	- AV	- 87	D-30
1.68	16.8	33.7 (120Hz)	766	78.1	14700	1500	2	- 6135DC	- AV	- 104	D-34
1.45	14.5	28.9 (120Hz)	891	90.9	14700	1500	2	- 6135DC	- AV	- 121	D-34
1.22	12.2	24.5 (120Hz)	1050	107	15900	1620	2	- 6145DC	- AV	- 143	D-34
1.06	10.6	21.2 (120Hz)	1220	124	16000	1630	2	- 6145DC	- AV	- 165	D-34
0.897	8.97	17.9 (120Hz)	1440	146	22100	2250	2	- 6165DB	- AV	- 195	D-34
0.758	7.58	15.2 (120Hz)	1700	173	22100	2250	2	- 6165DB	- AV	- 231	D-34
0.641	6.41	12.8 (120Hz)	2010	205	22100	2250	2	- 6165DB	- AV	- 273	D-34
0.549	5.49	11.0 (120Hz)	2350	240	29500	3010	2	- 6175DB	- AV	- 319	D-34
0.464	4.64	9.3 (120Hz)	2780	283	29500	3010	2	- 6175DB	- AV	- 377	D-34
0.370	3.70	7.4 (120Hz)	3480	355	41700	4250	2	- 6185DA	- AV	- 473	D-34
0.313	3.13	6.3 (120Hz)	4120	420	41700	4250	2	- 6185DA	- AV	- 559	D-34
0.270	2.70	5.4 (120Hz)	4780	487	41700	4250	2	- 6185DA	- AV	- 649	D-34
0.239	2.39	4.8 (120Hz)	5390	549	59000	6010	2	- 6195DA	- AV	- 731	D-35
0.208	2.08	4.2 (120Hz)	6200	632	59000	6010	2	- 6195DA	- AV	- 841	D-35
0.174	1.74	3.5 (120Hz)	7390	753	58300	5940	2	- 6195DA	- AV	- 1003	D-35
0.118	1.18	2.4 (120Hz)	10900	1110	104000	10600	2	- 6215DA	- AV	- 1479	D-36
0.095	0.95	1.9 (120Hz)	13600	1390	145000	14800	2	- 6225DA	- AV	- 1849	D-36
0.085	0.85	1.7 (120Hz)	15200	1550	145000	14800	2	- 6225DA	- AV	- 2065	D-36

- Notes: 1. Allowable radial load Pro is the value at the midpoint of the output shaft.  
2. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.  
3. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.  
4. Refer to page D-9 "Precautions for Inverter Driving" when operating beyond 6~60 Hz.

## Selection Tables Gearmotors (AF Motor for Inverters)



CHHM/CNHM

<b>2.2 kW</b>	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) T <sub>out</sub>	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
70.0	700	1400 (120Hz)	28.5	2.91	1970	201	3	- 6100SK	- AV	- 2.5 (K)	D-28
58.3	583	1167 (120Hz)	34.2	3.49	2040	208	3	- 6100SK	- AV	- 3 (K)	D-28
43.8	438	875 (120Hz)	45.6	4.65	2240	228	3	- 6100SK	- AV	- 4 (K)	D-28
35.0	350	700 (120Hz)	57.0	5.81	2330	238	3	- 6100SK	- AV	- 5 (K)	D-28
29.2	292	584 (120Hz)	68.4	6.98	2370	242	3	- 6100SK	- AV	- 6 (K)	D-28
29.2	292	584 (120Hz)	68.4	6.98	4370	445	3	- 6110	- AV	- 6	D-29
21.9	219	438 (120Hz)	91.2	9.30	2500	255	3	- 6105SK	- AV	- 8 (K)	D-28
21.9	219	438 (120Hz)	91.2	9.30	4870	496	3	- 6110	- AV	- 8	D-29
17.5	175	350 (120Hz)	114	11.6	2500	263	3	- 6105SK	- AV	- 10 (K)	D-28
15.9	159	318 (120Hz)	125	12.8	5560	567	3	- 6110	- AV	- 11	D-29
13.5	135	270 (120Hz)	148	15.1	5740	586	3	- 6110	- AV	- 13	D-29
11.7	117	234 (120Hz)	171	17.4	6120	624	3	- 6110	- AV	- 15	D-29
10.3	103	206 (120Hz)	194	19.8	6180	630	3	- 6110	- AV	- 17	D-29
8.33	83.3	167 (120Hz)	240	24.4	6540	667	3	- 6115	- AV	- 21	D-29
7.00	70.0	140 (120Hz)	285	29.1	6620	675	3	- 6115	- AV	- 25	D-29
6.03	60.3	121 (120Hz)	331	33.7	6800	693	3	- 6115	- AV	- 29	D-29
5.00	50.0	100 (120Hz)	399	40.7	8830	900	3	- 6120	- AV	- 35	D-29
4.07	40.7	81.4 (120Hz)	490	50.0	9380	956	3	- 6125	- AV	- 43	D-29
3.43	34.3	68.6 (120Hz)	582	59.3	11500	1180	3	- 6135	- AV	- 51	D-30
2.97	29.7	59.4 (120Hz)	673	68.6	12100	1230	3	- 6135	- AV	- 59	D-30
2.46	24.6	49.2 (120Hz)	810	82.5	16000	1630	3	- 6145	- AV	- 71	D-30
2.01	20.1	40.2 (120Hz)	992	101	22100	2250	3	- 6160	- AV	- 87	D-30
1.68	16.8	33.7 (120Hz)	1120	115	22100	2250	3	- 6160DC	- AV	- 104	D-35
1.45	14.5	28.9 (120Hz)	1310	133	22100	2250	3	- 6160DC	- AV	- 121	D-35
1.22	12.2	24.5 (120Hz)	1550	158	22100	2250	3	- 6165DC	- AV	- 143	D-35
1.06	10.6	21.2 (120Hz)	1780	182	22100	2250	3	- 6165DC	- AV	- 165	D-35
0.897	8.97	17.9 (120Hz)	2100	214	22100	2250	3	- 6165DC	- AV	- 195	D-35
0.758	7.58	15.2 (120Hz)	2500	254	29500	3010	3	- 6175DC	- AV	- 231	D-35
0.641	6.41	12.8 (120Hz)	2950	301	29500	3010	3	- 6175DC	- AV	- 273	D-35
0.549	5.49	11.0 (120Hz)	3450	351	41700	4250	3	- 6185DB	- AV	- 319	D-35
0.464	4.64	9.3 (120Hz)	4070	415	41700	4250	3	- 6185DB	- AV	- 377	D-35
0.370	3.70	7.4 (120Hz)	5110	521	59000	6010	3	- 6195DA	- AV	- 473	D-35
0.313	3.13	6.3 (120Hz)	6040	616	59000	6010	3	- 6195DA	- AV	- 559	D-35
0.270	2.70	5.4 (120Hz)	7010	715	58400	5950	3	- 6195DA	- AV	- 649	D-35
0.239	2.39	4.8 (120Hz)	7900	805	59000	6010	3	- 6195DA	- AV	- 731	D-35
0.208	2.08	4.2 (120Hz)	9090	926	84100	8570	3	- 6205DA	- AV	- 841	D-36
0.174	1.74	3.5 (120Hz)	10800	1100	104000	10600	3	- 6215DA	- AV	- 1003	D-36
0.140	1.40	2.8 (120Hz)	13500	1370	145000	14800	3	- 6225DA	- AV	- 1247	D-36
0.118	1.18	2.4 (120Hz)	16000	1630	179000	18200	3	- 6235DA	- AV	- 1479	D-37
0.095	0.95	1.9 (120Hz)	20000	2040	179000	18200	3	- 6235DA	- AV	- 1849	D-37
0.085	0.85	1.7 (120Hz)	22300	2270	208000	21200	3	- 6245DA	- AV	- 2065	D-37

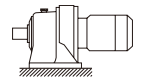
5. "(K)" indicate models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000 SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.

6. "▲" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).

7. Consult us for vertical types. Lubrication oil and system requires contemplation.



## Selection Tables Gearmotors (AF Motor for Inverters)



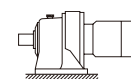
CHHM/CNHM

3.7 kW	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
						Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio	CNHM CHHM	
6Hz	60Hz	Allowable MAX Speed (Horizontal)	[N·m]	[kgf·m]	[N]	[kgf]					
70.0	700	1400 (120Hz)	48.0	4.89	2500	255	5	- 6110SK	- AV	- 2.5 (K)	D-28
58.3	583	1167 (120Hz)	57.5	5.87	2650	275	5	- 6110SK	- AV	- 3 (K)	D-28
43.8	438	875 (120Hz)	76.7	7.82	2820	287	5	- 6110SK	- AV	- 4 (K)	D-28
35.0	350	700 (120Hz)	95.9	9.78	2930	299	5	- 6110SK	- AV	- 5 (K)	D-28
29.2	292	584 (120Hz)	115	11.7	3060	312	5	- 6110SK	- AV	- 6 (K)	D-28
29.2	292	389 (80Hz)	115	11.7	4910	500	5	- 6120	- AV	- 6	D-29
21.9	219	438 (120Hz)	153	15.6	3190	325	5	- 6110SK	- AV	- 8 (K)	D-28
21.9	219	438 (120Hz)	153	15.6	5470	557	5	- 6120	- AV	- 8	D-29
17.5	175	350 (120Hz)	192	19.6	3330	339	5	- 6115SK	- AV	- 10 (K)	D-28
15.9	159	318 (120Hz)	211	21.5	6200	632	5	- 6120	- AV	- 11	D-29
13.5	135	270 (120Hz)	249	25.4	6400	652	5	- 6120	- AV	- 13	D-29
11.7	117	234 (120Hz)	288	29.3	6860	699	5	- 6120	- AV	- 15	D-29
10.3	103	206 (120Hz)	326	33.2	6920	705	5	- 6125	- AV	- 17	D-29
8.33	83.3	167 (120Hz)	403	41.1	7570	772	5	- 6125	- AV	- 21	D-29
7.00	70.0	140 (120Hz)	480	48.9	7900	806	5	- 6125	- AV	- 25	D-29
6.03	60.3	121 (120Hz)	556	56.7	9700	989	5	- 6130	- AV	- 29	D-30
5.00	50.0	100 (120Hz)	671	68.4	10200	1040	5	- 6135	- AV	- 35	D-30
4.07	40.7	81.4 (120Hz)	825	84.1	15800	1610	5	- 6145	- AV	- 43	D-30
3.43	34.3	68.6 (120Hz)	978	99.7	16000	1630	5	- 6145	- AV	- 51	D-30
2.97	29.7	59.4 (120Hz)	1130	115	22100	2250	5	- 6160	- AV	- 59	D-30
2.46	24.6	34.0 (83Hz)	1360	139	21900	2240	5	- 6165	- AV	- 71	D-30
2.01	20.1	27.8 (83Hz)	1670	170	21800	2220	5	- 6165	- AV	- 87	D-30
1.68	16.8	33.7 (120Hz)	1890	193	22100	2250	5	- 6165DC	- AV	- 104	D-35
1.45	14.5	28.9 (120Hz)	2200	224	29500	3010	5	- 6175DC	- AV	- 121	D-35
1.22	12.2	24.5 (120Hz)	2600	265	29500	3010	5	- 6175DC	- AV	- 143	D-35
1.06	10.6	21.2 (120Hz)	3000	306	29500	3010	5	- 6175DC	- AV	- 165	D-35
0.897	8.97	17.9 (120Hz)	3540	361	41700	4250	5	- 6185DB	- AV	- 195	D-35
0.758	7.58	15.2 (120Hz)	4200	428	41700	4250	5	- 6185DB	- AV	- 231	D-35
0.641	6.41	12.8 (120Hz)	4960	506	41700	4250	5	- 6185DB	- AV	- 273	D-35
0.549	5.49	11.0 (120Hz)	5800	591	59000	6010	5	- 6195DA	- AV	- 319	D-35
0.464	4.64	9.3 (120Hz)	6850	698	59000	6010	5	- 6195DA	- AV	- 377	D-35
0.370	3.70	7.4 (120Hz)	8600	876	104000	10600	5	- 6215DA	- AV	- 473	D-36
0.313	3.13	6.3 (120Hz)	10200	1040	104000	10600	5	- 6215DA	- AV	- 559	D-36
0.270	2.70	5.4 (120Hz)	11800	1200	104000	10600	5	- 6215DA	- AV	- 649	D-36
0.239	2.39	4.8 (120Hz)	13300	1350	145000	14800	5	- 6225DA	- AV	- 731	D-36
0.208	2.08	4.2 (120Hz)	15300	1560	179000	18200	5	- 6235DA	- AV	- 841	D-37
0.174	1.74	3.5 (120Hz)	18200	1860	179000	18200	5	- 6235DA	- AV	- 1003	D-37
0.140	1.40	2.8 (120Hz)	22700	2310	208000	21200	5	- 6245DA	- AV	- 1247	D-37
0.118	1.18	1.6 (83Hz)	26900	2740	258000	26300	5	- 6255DA	- AV	- 1479 ▲	D-37
0.095	0.95	1.3 (83Hz)	33600	3430	258000	26300	5	- 6255DA	- AV	- 1849 ▲	D-37

- Notes: 1. Allowable radial load Pro is the value at the midpoint of the output shaft.  
 2. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.  
 3. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.  
 4. Refer to page D-9 "Precautions for Inverter Driving" when operating beyond 6~60 Hz.

## Selection Tables Gearmotors (AF Motor for Inverters)



CHHM

5.5 kW	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

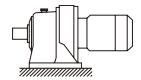
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.				
						Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio	CHHM				
6Hz	60Hz	Allowable MAX Speed (Horizontal)	[N·m]	[kgf·m]	[N]	[kgf]								
29.2	292	584 (120Hz)	171	17.4	5710	582	8	-	6130	-	AV	-	6	D-30
21.9	219	438 (120Hz)	228	23.3	6360	648	8	-	6130	-	AV	-	8	D-30
15.9	159	318 (120Hz)	314	32.0	7240	739	8	-	6130	-	AV	-	11	D-30
13.5	135	270 (120Hz)	371	37.8	7530	768	8	-	6130	-	AV	-	13	D-30
11.7	117	234 (120Hz)	428	43.6	7680	783	8	-	6130	-	AV	-	15	D-30
10.3	103	206 (120Hz)	485	49.4	8230	839	8	-	6135	-	AV	-	17	D-30
8.33	83.3	167 (120Hz)	599	61.0	8760	893	8	-	6135	-	AV	-	21	D-30
7.00	70.0	140 (120Hz)	713	72.7	9070	925	8	-	6135	-	AV	-	25	D-30
6.03	60.3	121 (120Hz)	827	84.3	14100	1430	8	-	6140	-	AV	-	29	D-30
5.00	50.0	100 (120Hz)	998	102	15000	1530	8	-	6145	-	AV	-	35	D-30
4.07	40.7	56.3 (83Hz)	1230	125	18900	1930	8	-	6160	-	AV	-	43	D-30
3.43	34.3	47.4 (83Hz)	1450	148	19600	2000	8	-	6165	-	AV	-	51	D-30
2.97	29.7	41.1 (83Hz)	1680	171	21700	2220	8	-	6165	-	AV	-	59	D-30
2.46	24.6	34.0 (83Hz)	2020	206	24700	2520	8	-	6175	-	AV	-	71	D-31
2.01	20.1	27.8 (83Hz)	2480	253	26400	2690	8	-	6175	-	AV	-	87	D-31
1.68	16.8	33.7 (120Hz)	2810	286	37700	3840	8	-	6180DB	-	AV	-	104	D-35
1.45	14.5	28.9 (120Hz)	3270	333	40000	4070	8	-	6185DB	-	AV	-	121	D-35
1.22	12.2	24.5 (120Hz)	3860	394	41700	4250	8	-	6185DB	-	AV	-	143	D-35
1.06	10.6	21.2 (120Hz)	4460	454	41700	4250	8	-	6185DB	-	AV	-	165	D-35
0.897	8.97	17.9 (120Hz)	5270	537	58300	5940	8	-	6195DB	-	AV	-	195	D-35
0.758	7.58	15.2 (120Hz)	6240	636	59000	6010	8	-	6195DB	-	AV	-	231	D-35
0.641	6.41	12.8 (120Hz)	7370	752	59000	6010	8	-	6195DB	-	AV	-	273	D-35
0.549	5.49	11.0 (120Hz)	8620	878	84100	8570	8	-	6205DB	-	AV	-	319	D-36
0.464	4.64	9.3 (120Hz)	10200	1040	104000	10600	8	-	6215DA	-	AV	-	377	D-36
0.370	3.70	7.4 (120Hz)	12800	1300	145000	14800	8	-	6225DA	-	AV	-	473	D-36
0.313	3.13	6.3 (120Hz)	15100	1540	145000	14800	8	-	6225DA	-	AV	-	559	D-36
0.270	2.70	5.4 (120Hz)	17500	1790	179000	18200	8	-	6235DA	-	AV	-	649	D-37
0.239	2.39	4.8 (120Hz)	19700	2010	179000	18200	8	-	6235DA	-	AV	-	731	D-37
0.208	2.08	4.2 (120Hz)	22700	2320	208000	21200	8	-	6245DA	-	AV	-	841	D-37
0.174	1.74	2.4 (83Hz)	27100	2760	258000	26300	8	-	6255DA	-	AV	-	1003 ▲	D-37
0.140	1.40	1.9 (83Hz)	33700	3430	258000	26300	8	-	6255DA	-	AV	-	1247	D-37
0.118	1.18	1.4 (73Hz)	40000	4070	276000	28100	8	-	6265DA	-	AV	-	1479 ▲	D-37

5. "(K)" indicate models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000 SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.

6. "▲" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).

7. Consult us for vertical types. Lubrication oil and system requires contemplation.

## Selection Tables Gearmotors (AF Motor for Inverters)



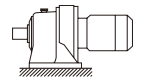
CHHM

7.5 kW	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
29.2	292	584 (120Hz)	233	23.8	5650	576	10	- 6130	- AV	- 6	D-30
21.9	219	438 (120Hz)	311	31.7	6290	641	10	- 6130	- AV	- 8	D-30
15.9	159	318 (120Hz)	428	43.6	7150	729	10	- 6130	- AV	- 11	D-30
13.5	135	270 (120Hz)	505	51.5	7430	758	10	- 6130	- AV	- 13	D-30
11.7	117	234 (120Hz)	583	59.5	7570	771	10	- 6135	- AV	- 15	D-30
10.3	103	206 (120Hz)	661	67.4	8100	826	10	- 6135	- AV	- 17	D-30
8.33	83.3	167 (120Hz)	817	83.2	13100	1330	10	- 6145	- AV	- 21	D-30
7.00	70.0	140 (120Hz)	972	99.1	13700	1390	10	- 6145	- AV	- 25	D-30
6.03	60.3	121 (120Hz)	1130	115	14000	1420	10	- 6145	- AV	- 29	D-30
5.00	50.0	100 (120Hz)	1360	139	17500	1790	10	- 6165	- AV	- 35	D-30
4.07	40.7	56.3 (83Hz)	1670	170	18600	1900	10	- 6165	- AV	- 43	D-30
3.43	34.3	47.4 (83Hz)	1980	202	22100	2250	10	- 6170	- AV	- 51	D-31
2.97	29.7	41.1 (83Hz)	2290	234	23100	2360	10	- 6175	- AV	- 59	D-31
2.46	24.6	34.0 (83Hz)	2760	281	33100	3380	10	- 6180	- AV	- 71	D-31
2.01	20.1	27.8 (83Hz)	3380	345	35600	3620	10	- 6185	- AV	- 87	D-31
1.68	16.8	33.7 (120Hz)	3830	391	37300	3800	10	- 6185DB	- AV	- 104	D-35
1.45	14.5	28.9 (120Hz)	4460	454	40000	4070	10	- 6185DB	- AV	- 121	D-35
1.22	12.2	24.5 (120Hz)	5270	537	57900	5900	10	- 6195DB	- AV	- 143	D-35
1.06	10.6	21.2 (120Hz)	6080	620	58300	5940	10	- 6195DB	- AV	- 165	D-35
0.897	8.97	17.9 (120Hz)	7180	732	58300	5940	10	- 6195DB	- AV	- 195	D-35
0.758	7.58	15.2 (120Hz)	8510	867	84100	8570	10	- 6205DB	- AV	- 231	D-36
0.641	6.41	12.8 (120Hz)	10100	1030	104000	10600	10	- 6215DA	- AV	- 273	D-36
0.549	5.49	11.0 (120Hz)	11800	1200	104000	10600	10	- 6215DA	- AV	- 319	D-36
0.464	4.64	9.3 (120Hz)	13900	1420	145000	14800	10	- 6225DA	- AV	- 377	D-36
0.370	3.70	7.4 (120Hz)	17400	1780	179000	18200	10	- 6235DA	- AV	- 473	D-37
0.313	3.13	6.3 (120Hz)	20600	2100	179000	18200	10	- 6235DA	- AV	- 559	D-37
0.270	2.70	5.4 (120Hz)	23900	2440	208000	21200	10	- 6245DA	- AV	- 649	D-37
0.239	2.39	3.3 (83Hz)	26900	2740	258000	26300	10	- 6255DA	- AV	- 731 ▲	D-37
0.208	2.08	2.9 (83Hz)	31000	3160	258000	26300	10	- 6255DA	- AV	- 841	D-37
0.174	1.74	2.1 (73Hz)	36900	3770	276000	28100	10	- 6265DA	- AV	- 1003	D-37
0.140	1.40	1.7 (73Hz)	45900	4680	276000	28100	10	- 6265DA	- AV	- 1247 ▲	D-37
0.118	1.18	1.4 (73Hz)	54500	5550	248000	25300	10	- 6275DA	- AV	- 1479	D-37
0.095	0.95	1.2 (73Hz)	68100	6940	248000	25300	10	- 6275DA	- AV	- 1849	D-37

- Notes: 1. Allowable radial load Pro is the value at the midpoint of the output shaft.  
 2. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.  
 3. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.  
 4. Refer to page D-9 "Precautions for Inverter Driving" when operating beyond 6~60 Hz.

## Selection Tables Gearmotors (AF Motor for Inverters)



CHHM

<b>11 kW</b>	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

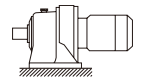
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
29.2	292	584 (120Hz)	342	34.9	5540	564	15	- 6135	- AV	- 6	D-30
21.9	219	438 (120Hz)	456	46.5	6150	627	15	- 6135	- AV	- 8	D-30
15.9	159	318 (120Hz)	627	63.9	6980	712	15	- 6135	- AV	- 11	D-30
13.5	135	270 (120Hz)	741	75.6	11100	1140	15	- 6140	- AV	- 13	D-30
11.7	117	234 (120Hz)	855	87.2	11600	1190	15	- 6140	- AV	- 15	D-30
10.3	103	206 (120Hz)	969	98.8	12100	1240	15	- 6145	- AV	- 17	D-30
8.33	83.3	115 (83Hz)	1200	122	15000	1530	15	- 6160	- AV	- 21	D-30
7.00	70.0	96.8 (83Hz)	1430	145	15700	1600	15	- 6165	- AV	- 25	D-30
6.03	60.3	83.4 (83Hz)	1650	169	16300	1660	15	- 6165	- AV	- 29	D-30
5.00	50.0	69.2 (83Hz)	2000	203	19700	2010	15	- 6170	- AV	- 35	D-31
4.07	40.7	56.3 (83Hz)	2450	250	20900	2130	15	- 6175	- AV	- 43	D-31
3.43	34.3	47.4 (83Hz)	2910	296	29600	3010	15	- 6180	- AV	- 51	D-31
2.97	29.7	41.1 (83Hz)	3360	343	30900	3150	15	- 6185	- AV	- 59	D-31
2.46	24.6	29.9 (73Hz)	4050	413	46300	4720	15	- 6190	- AV	- 71	D-31
2.01	20.1	24.5 (73Hz)	4960	506	49700	5070	15	- 6195	- AV	- 87	D-31
1.68	16.8	33.7 (120Hz)	5620	573	51800	5280	15	- 6195DB	- AV	- 104	D-35
1.45	14.5	28.9 (120Hz)	6540	666	55500	5660	15	- 6195DB	- AV	- 121	D-35
1.06	10.6	21.2 (120Hz)	8910	909	84100	8570	15	- 6205DB	- AV	- 165	D-36
0.897	8.97	17.9 (120Hz)	10500	1070	104000	10600	15	- 6215DA	- AV	- 195	D-36
0.758	7.58	15.2 (120Hz)	12500	1270	104000	10600	15	- 6215DA	- AV	- 231	D-36
0.641	6.41	12.8 (120Hz)	14800	1510	137000	13900	15	- 6225DA	- AV	- 273	D-36
0.549	5.49	11.0 (120Hz)	17200	1760	177000	18100	15	- 6235DA	- AV	- 319	D-37
0.464	4.64	9.3 (120Hz)	20400	2080	208000	21200	15	- 6245DA	- AV	- 377 ▲	D-37
0.370	3.70	7.4 (120Hz)	25600	2600	208000	21200	15	- 6245DA	- AV	- 473	D-37
0.313	3.13	3.8 (73Hz)	30200	3080	258000	26300	15	- 6255DA	- AV	- 559 ▲	D-37
0.270	2.70	3.3 (73Hz)	35100	3570	276000	28100	15	- 6265DA	- AV	- 649 ▲	D-37
0.239	2.39	2.9 (73Hz)	39500	4030	276000	28100	15	- 6265DA	- AV	- 731 ▲	D-37
0.208	2.08	2.5 (73Hz)	45400	4630	276000	28100	15	- 6265DA	- AV	- 841 ▲	D-37
0.174	1.74	2.1 (73Hz)	54200	5520	248000	25300	15	- 6275DA	- AV	- 1003 ▲	D-37
0.140	1.40	1.7 (73Hz)	67400	6870	248000	25300	15	- 6275DA	- AV	- 1247 ▲	D-37

5. "(K)" indicate models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000 SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.

6. "▲" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).

7. Consult us for vertical types. Lubrication oil and system requires contemplation.

## Selection Tables Gearmotors (AF Motor for Inverters)



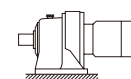
CHHM

15 kW	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
29.2	292	355 (73Hz)	467	47.6	9670	986	20	- 6160	- AV	- 6	D-30
21.9	219	518 (120Hz)	622	63.4	10800	1100	20	- 6160	- AV	- 8	D-30
15.9	159	318 (120Hz)	855	87.2	12200	1240	20	- 6160	- AV	- 11	D-30
13.5	135	270 (120Hz)	1010	103	12700	1300	20	- 6165	- AV	- 13	D-30
11.7	117	142 (73Hz)	1170	119	13500	1370	20	- 6165	- AV	- 15	D-30
10.3	103	142 (83Hz)	1320	135	13900	1410	20	- 6165	- AV	- 17	D-30
8.33	83.3	115 (83Hz)	1630	166	14800	1510	20	- 6165	- AV	- 21	D-30
7.00	70.0	85.2 (73Hz)	1940	198	17500	1780	20	- 6170	- AV	- 25	D-31
6.03	60.3	73.4 (73Hz)	2260	230	18400	1870	20	- 6175	- AV	- 29	D-31
5.00	50.0	69.2 (83Hz)	2720	277	26500	2700	20	- 6180	- AV	- 35	D-31
4.07	40.7	56.3 (83Hz)	3340	341	28300	2880	20	- 6185	- AV	- 43	D-31
3.43	34.3	41.7 (73Hz)	3970	404	29200	2980	20	- 6185	- AV	- 51	D-31
2.97	29.7	36.1 (73Hz)	4590	468	43400	4430	20	- 6195	- AV	- 59	D-31
2.46	24.6	29.9 (73Hz)	5520	563	45900	4680	20	- 6195	- AV	- 71	D-31
2.01	20.1	24.5 (73Hz)	6770	690	84100	8570	20	- 6205	- AV	- 87 ▲	D-32
1.45	14.5	28.9 (120Hz)	8910	909	101000	10300	20	- 6215DB	- AV	- 121	D-36
1.06	10.6	21.2 (120Hz)	12200	1240	104000	10600	20	- 6215DB	- AV	- 165	D-36
0.897	8.97	17.9 (120Hz)	14400	1460	122000	12400	20	- 6225DB	- AV	- 195	D-36
0.758	7.58	15.2 (120Hz)	17000	1730	162000	16500	20	- 6235DA	- AV	- 231	D-37
0.641	6.41	12.8 (120Hz)	20100	2050	188000	19200	20	- 6245DA	- AV	- 273	D-37
0.549	5.49	10.1 (110Hz)	23500	2400	197000	20100	20	- 6245DA	- AV	- 319	D-37
0.464	4.64	5.7 (73Hz)	27800	2830	255000	26000	20	- 6255DA	- AV	- 377	D-37
0.370	3.70	4.5 (73Hz)	34800	3550	276000	28100	20	- 6265DA	- AV	- 473 ▲	D-37
0.313	3.13	3.8 (73Hz)	41200	4200	276000	28100	20	- 6265DA	- AV	- 559 ▲	D-37
0.270	2.70	3.3 (73Hz)	47800	4870	248000	25300	20	- 6275DA	- AV	- 649 ▲	D-37
0.239	2.39	2.9 (73Hz)	53900	5490	248000	25300	20	- 6275DA	- AV	- 731 ▲	D-37
0.208	2.08	2.5 (73Hz)	62000	6320	248000	25300	20	- 6275DA	- AV	- 841	D-37

- Notes: 1. Allowable radial load Pro is the value at the midpoint of the output shaft.  
 2. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.  
 3. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.  
 4. Refer to page D-9 "Precautions for Inverter Driving" when operating beyond 6~60 Hz.

## Selection Tables Gearmotors (AF Motor for Inverters)



CHHM

18.5 kW	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

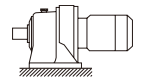
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
29.2	292	292 (60Hz)	575	58.7	10900	1110	25	- 6175	- AV	- 6	D-31
21.9	219	219 (60Hz)	767	78.2	12000	1220	25	- 6175	- AV	- 8	D-31
15.9	159	193 (73Hz)	1060	108	13800	1410	25	- 6175	- AV	- 11	D-31
13.5	135	164 (73Hz)	1250	127	14300	1460	25	- 6175	- AV	- 13	D-31
11.7	117	142 (73Hz)	1440	147	15000	1530	25	- 6175	- AV	- 15	D-31
10.3	103	125 (73Hz)	1630	166	15600	1590	25	- 6175	- AV	- 17	D-31
8.33	83.3	101 (73Hz)	2010	205	16800	1710	25	- 6175	- AV	- 21	D-31
7.00	70.0	85.1 (73Hz)	2400	244	17300	1760	25	- 6175	- AV	- 25	D-31
6.03	60.3	73.4 (73Hz)	2780	284	24700	2520	25	- 6180	- AV	- 29	D-31
5.00	50.0	60.8 (73Hz)	3360	342	26300	2680	25	- 6185	- AV	- 35	D-31
4.07	40.7	40.7 (60Hz)	4120	420	28000	2850	25	- 6185	- AV	- 43	D-31
3.43	34.3	41.7 (73Hz)	4890	499	41300	4210	25	- 6195	- AV	- 51	D-31
2.97	29.7	36.1 (73Hz)	5660	577	43100	4400	25	- 6195	- AV	- 59	D-31
2.01	20.1	20.1 (60Hz)	8340	851	90600	9240	25	- 6215	- AV	- 87 ▲	D-32
1.45	14.5	17.6 (73Hz)	11000	1120	106000	10800	25	- 6225DB	- AV	- 121	D-36
1.06	10.6	12.9 (73Hz)	15000	1530	143000	14500	25	- 6235DB	- AV	- 165 ▲	D-37
0.897	8.97	10.9 (73Hz)	17700	1810	150000	15300	25	- 6235DB	- AV	- 195 ▲	D-37
0.758	7.58	9.22 (73Hz)	21000	2140	179000	18200	25	- 6245DB	- AV	- 231 ▲	D-37
0.641	6.41	7.80 (73Hz)	24800	2530	188000	19200	25	- 6245DB	- AV	- 273	D-37
0.549	5.49	6.7 (73Hz)	29000	2950	242000	24600	25	- 6255DA	- AV	- 319	D-37
0.464	4.64	5.7 (73Hz)	34300	3490	276000	28100	25	- 6265DA	- AV	- 377 ▲	D-37
0.370	3.70	4.5 (73Hz)	43000	4380	276000	28100	25	- 6265DA	- AV	- 473 ▲	D-37
0.313	3.13	3.8 (73Hz)	50800	5180	248000	25300	25	- 6275DA	- AV	- 559 ▲	D-37
0.270	2.70	3.3 (73Hz)	59000	6010	248000	25300	25	- 6275DA	- AV	- 649 ▲	D-37
0.239	2.39	2.9 (73Hz)	66400	6770	248000	25300	25	- 6275DA	- AV	- 731 ▲	D-37

5. "(K)" indicate models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000 SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.

6. "▲" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).

7. Consult us for vertical types. Lubrication oil and system requires contemplation.

## Selection Tables Gearmotors (AF Motor for Inverters)



CHHM

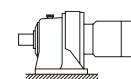
22 kW	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
29.2	292	292 (60Hz)	684	69.8	10800	1100	30	- 6175	- AV	- 6	D-31
21.9	219	219 (60Hz)	912	93.0	11900	1220	30	- 6175	- AV	- 8	D-31
15.9	159	193 (73Hz)	1250	128	13700	1390	30	- 6175	- AV	- 11	D-31
13.5	135	164 (73Hz)	1480	151	14200	1450	30	- 6175	- AV	- 13	D-31
11.7	117	142 (73Hz)	1710	174	14800	1510	30	- 6175	- AV	- 15	D-31
10.3	103	125 (73Hz)	1940	198	15400	1570	30	- 6175	- AV	- 17	D-31
8.33	83.3	101 (73Hz)	2400	244	16600	1690	30	- 6175	- AV	- 21	D-31
7.00	70.0	85.2 (73Hz)	2850	291	23500	2400	30	- 6180	- AV	- 25	D-31
6.03	60.3	73.4 (73Hz)	3310	337	24500	2500	30	- 6185	- AV	- 29	D-31
5.00	50.0	60.8 (73Hz)	3990	407	26000	2650	30	- 6185	- AV	- 35	D-31
4.07	40.7	40.7 (60Hz)	4900	500	39400	4020	30	- 6195	- AV	- 43	D-31
2.97	29.7	29.7 (60Hz)	6730	686	79200	8070	30	- 6205	- AV	- 59 ▲	D-32
2.01	20.1	20.1 (60Hz)	9920	1010	95700	9760	30	- 6225	- AV	- 87 ▲	D-32
1.45	14.5	17.6 (73Hz)	13100	1330	106000	10800	30	- 6225DB	- AV	- 121	D-36
1.06	10.6	12.9 (73Hz)	17800	1820	143000	14500	30	- 6235DB	- AV	- 165 ▲	D-37
0.897	8.97	10.9 (73Hz)	21100	2150	167000	17000	30	- 6245DB	- AV	- 195 ▲	D-37
0.758	7.58	9.22 (73Hz)	25000	2540	179000	18200	30	- 6245DB	- AV	- 231 ▲	D-37
0.641	6.41	7.80 (73Hz)	29500	3010	229000	23400	30	- 6255DA	- AV	- 273	D-37
0.549	5.49	6.7 (73Hz)	34500	3510	276000	28100	30	- 6265DA	- AV	- 319 ▲	D-37
0.464	4.64	5.7 (73Hz)	40700	4150	276000	28100	30	- 6265DA	- AV	- 377 ▲	D-37
0.370	3.70	4.5 (73Hz)	51100	5210	248000	25300	30	- 6275DA	- AV	- 473 ▲	D-37
0.313	3.13	3.8 (73Hz)	60400	6160	248000	25300	30	- 6275DA	- AV	- 559 ▲	D-37

- Notes: 1. Allowable radial load Pro is the value at the midpoint of the output shaft.  
 2. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.  
 3. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.  
 4. Refer to page D-9 "Precautions for Inverter Driving" when operating beyond 6~60 Hz.

## Selection Tables Gearmotors (AF Motor for Inverters)

30 kW	AF Motor for Inverters		
	P	4	6
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)	1165 (60Hz)



CHHM

Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
15.9	159	193 (73Hz)	1710	174	18200	1850	40	- 6185	- AV	- 11	D-31
13.5	135	164 (73Hz)	2020	206	18800	1920	40	- 6185	- AV	- 13	D-31
11.7	117	142 (73Hz)	2330	238	19800	2020	40	- 6185	- AV	- 15	D-31
10.3	103	125 (73Hz)	2640	270	20800	2120	40	- 6185	- AV	- 17	D-31
8.33	83.3	83.3 (60Hz)	3270	333	22400	2280	40	- 6185	- AV	- 21	D-31
7.00	70.0	70.0 (60Hz)	3890	396	23100	2360	40	- 6185	- AV	- 25	D-31
6.03	60.3	60.3 (60Hz)	4510	460	34500	3520	40	- 6195	- AV	- 29	D-31
5.55	55.5	55.5 (60Hz)	4910	500	35800	3650	406	- 6190	- AV	- 21	D-31
5.00	50.0	50.0 (60Hz)	5440	555	36300	3700	40	- 6195	- AV	- 35	D-31
4.07	40.7	40.7 (60Hz)	6690	682	72600	7400	40	- 6205	- AV	- 43 ▲	D-32
2.97	29.7	29.7 (60Hz)	9180	935	80300	8180	40	- 6215	- AV	- 59 ▲	D-32
2.71	27.1	27.1 (60Hz)	10000	1020	83100	8480	406	- 6215	- AV	- 43 ▲	D-32
1.97	19.7	19.7 (60Hz)	13800	1410	119000	12200	406	- 6235	- AV	- 59 ▲	D-32
1.45	14.5	17.6 (73Hz)	17800	1820	133000	13500	40	- 6235DB	- AV	- 121	D-37
1.06	10.6	12.9 (73Hz)	24300	2480	158000	16100	40	- 6245DB	- AV	- 165	D-37
0.897	8.97	10.9 (73Hz)	28700	2930	204000	20800	40	- 6255DB	- AV	- 195 ▲	D-37
0.758	7.58	9.22 (73Hz)	34000	3470	265000	27000	40	- 6265DA	- AV	- 231	D-37
0.641	6.41	7.80 (73Hz)	40200	4100	276000	28100	40	- 6265DA	- AV	- 273	D-37
0.549	5.49	6.7 (73Hz)	47000	4790	248000	25300	40	- 6275DA	- AV	- 319	D-37
0.464	4.64	5.7 (73Hz)	55500	5660	248000	25300	40	- 6275DA	- AV	- 377 ▲	D-37

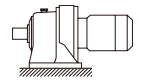
5. "(K)" indicate models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000 SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.

6. "▲" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).

7. Consult us for vertical types. Lubrication oil and system requires contemplation.



## Selection Tables Gearmotors (AF Motor for Inverters)



CHHM

37 kW	AF Motor for Inverters		
	P	4	6
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)	1165 (60Hz)

Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
15.9	159	193 (73Hz)	2110	215	25400	2590	50	- 6195	- AV	- 11	D-31
13.5	135	164 (73Hz)	2490	254	26400	2690	50	- 6195	- AV	- 13	D-31
11.7	117	142 (73Hz)	2880	293	27700	2820	50	- 6195	- AV	- 15	D-31
10.3	103	125 (73Hz)	3260	332	29100	2970	50	- 6195	- AV	- 17	D-31
8.33	83.3	83.3 (60Hz)	4030	411	31300	3190	50	- 6195	- AV	- 21	D-31
7.77	77.7	77.7 (60Hz)	4320	441	31300	3190	506	- 6190	- AV	- 15	D-31
7.00	70.0	70.0 (60Hz)	4800	489	32700	3330	50	- 6195	- AV	- 25	D-31
6.03	60.3	60.3 (60Hz)	5560	567	34200	3490	50	- 6195	- AV	- 29	D-31
5.55	55.5	55.5 (60Hz)	6050	617	35500	3610	506	- 6195	- AV	- 21	D-31
4.07	40.7	40.7 (60Hz)	8250	841	73800	7520	50	- 6215	- AV	- 43	D-32
2.97	29.7	29.7 (60Hz)	11300	1150	84700	8630	50	- 6225	- AV	- 59	D-32
2.71	27.1	27.1 (60Hz)	12400	1260	87700	8940	506	- 6225	- AV	- 43 ▲	D-32
1.97	19.7	19.7 (60Hz)	17000	1730	133000	13500	506	- 6245	- AV	- 59 ▲	D-32
1.45	14.5	17.6 (73Hz)	22000	2240	180000	18400	50	- 6255DB	- AV	- 121	D-37
1.06	10.6	12.9 (73Hz)	30000	3060	194000	19800	50	- 6255DB	- AV	- 165	D-37
0.897	8.97	10.9 (73Hz)	35400	3610	248000	25300	50	- 6265DA	- AV	- 195	D-37
0.758	7.58	9.22 (73Hz)	42000	4280	265000	27000	50	- 6265DA	- AV	- 231	D-37
0.549	5.49	6.7 (73Hz)	58000	5910	248000	25300	50	- 6275DA	- AV	- 319	D-37
0.464	4.64	5.7 (73Hz)	68500	6980	248000	25300	50	- 6275DA	- AV	- 377 ▲	D-37

- Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft.  
 2. Lubrication method is different for each model. Refer to "Lubrication" section in page F-4~F-5 for details.  
 3. "6" at the end of "input capacity symbol" indicates models with 6P motor. Other models come with 4P motor.  
 4. Refer to page D-9 "Precautions for Inverter Driving" when operating beyond 6~60 Hz.  
 5. "(K)" indicate models with reduction ratios equal to nominal ratio. Refer to Table A-3 "6000 SK Series (Actual Reduction Ratio)" on page A-4 for actual reduction ratio. Indicated reduction ratio is the same as actual reduction ratio for other models.  
 6. "▲" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).  
 7. Consult us for vertical types. Lubrication oil and system requires contemplation.

# D CYCLO® GEARMOTORS With AF Motor for Inverters

---

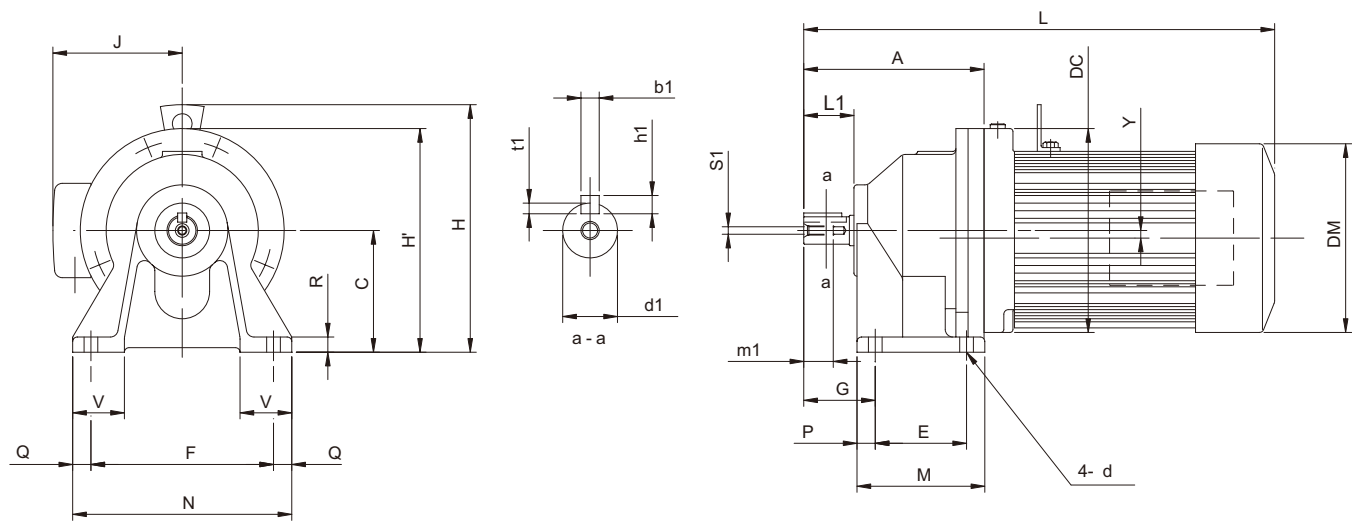
## 3. Dimension Tables

GEARMOTOR  
FOR INVERTERS

Dimension  
Tables

# Dimension Tables (Horizontal Direction, Foot Mount)

## CHHM<sup>Note: 1</sup> - 607□SK to 611□SK - AV



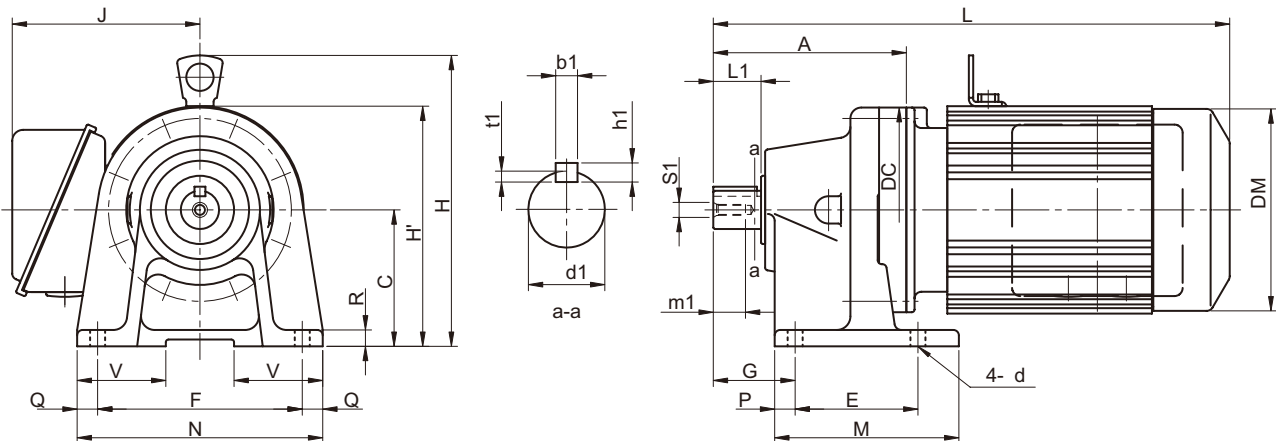
GEARMOTOR FOR INVERTERS  
Dimension Tables CHHM

Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	Y	d	Output Shaft <small>Note: 2, 3, 6</small>						
															d1	L1	b1	h1	t1	S1	m1
607□SK	119	80	134	60	120	47	84	144	12	12	10	34	0	9	18	30	6	6	3.5	M6	16
608□SK	140	90	150	75	120	52	99	144	12	12	13	37	0	9	22	35	6	6	3.5	M6	16
609□SK	166	100	150	90	150	60	135	180	15	15	12	40	0	11	28	35	8	7	4	M8	20
610□SK	170	100	162	90	150	60	135	180	15	15	12	40	0	11	28	35	8	7	4	M8	20
611□SK	182	120	204	90	150	70	135	180	15	15	12	45	3	11	32	45	10	8	5	M8	20

Model <small>Note: 4, 5</small>	Motor		Standard							With Brake					
	[kW]	[P]	L	H	H'	J	DM	W [kg]	L	H	H'	J	DM	W [kg]	
CHHM05 - 607□SK - AV - (B) - Ratio	0.4	4	351	193	-	143	160	13	394	193	-	143	160	15	
CHHM1 - 608□SK - AV - (B) - Ratio	0.75	4	410	210	-	148	169	19	472	210	-	148	169	23	
CHHM2 - 609□SK - AV - (B) - Ratio	1.5	4	456	226	-	155	182	25	519	226	-	155	182	31	
CHHM3 - 610□SK - AV - (B) - Ratio	2.2	4	491	246	-	166	222	38	563	246	-	166	222	49	
CHHM5 - 611□SK - AV - (B) - Ratio	3.7	4	539	263	-	166	222	58	611	263	-	166	222	69	

Notes: 1 □ indicates motor capacity.  
 2 Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3 Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 " Parallel Key ".

## Dimension Tables (Universal Direction, Foot Mount)

CNHM<sup>Note: 1</sup> - 606□ to 612□ - AV

Frame size Note: 3	A	C	DC	E	F	G	M	N	O	P	R	V	d	Output Shaft Note: 2, 3, 6						
														d1	L1	b1	h1	t1	S1	m1
606□	92	80	110	60	120	41	84	144	12	12	10	48	9	14	25	5	5	3	M5	16
607□	98	80	110	60	120	47	84	144	12	12	10	48	9	18	30	6	6	3.5	M6	16
608□	129	90	134	75	120	52	99	144	12	12	13	49	9	22	35	6	6	3.5	M6	16
609□	142	100	150	90	150	60	135	180	15	15	12	65	11	28	35	8	7	4	M8	20
610□	156	100	150	90	150	60	135	180	15	15	12	40	11	28	35	8	7	4	M8	20
611□	170	120	162	90	150	70	135	180	15	15	12	45	11	32	45	10	8	5	M8	20
612□	186	120	204	115	190	82	155	230	20	20	15	55	14	38	55	10	8	5	M8	20

Model Note: 4, 5	Motor		Standard							With Brake					
	[kW]	[P]	L	H	H'	J	DM	W [kg]	L	H	H'	J	DM	W [kg]	
CNHM01 - 606□ - AV - (B) - Ratio	0.1	4	272	-	138	113	124	8	300	-	138	113	124	9	
CNHM02 - 606□ - AV - (B) - Ratio	0.2	4	288	-	138	113	124	9	320	-	138	113	124	10	
CNHM01 - 607□ - AV - (B) - Ratio	0.1	4	278	-	138	113	124	8	306	-	138	113	124	9	
CNHM02 - 607□ - AV - (B) - Ratio	0.2	4	294	-	138	113	124	9	326	-	138	113	124	10	
CNHM01 - 608□ - AV - (B) - Ratio	0.1	4	304	-	157	113	124	11	332	-	157	113	124	12	
CNHM02 - 608□ - AV - (B) - Ratio	0.2	4	320	-	157	113	124	13	352	-	157	113	124	14	
CNHM05 - 608□ - AV - (B) - Ratio	0.4	4	361	203	-	143	160	17	404	203	-	143	160	18	
CNHM02 - 609□ - AV - (B) - Ratio	0.2	4	338	-	175	113	124	14	370	-	175	113	124	16	
CNHM05 - 609□ - AV - (B) - Ratio	0.4	4	379	213	-	143	160	18	422	213	-	143	160	21	
CNHM1 - 609□ - AV - (B) - Ratio	0.75	4	412	220	-	148	169	21	474	220	-	148	169	26	
CNHM02 - 610□ - AV - (B) - Ratio	0.2	4	352	207	-	113	124	19	384	207	-	113	124	21	
CNHM05 - 610□ - AV - (B) - Ratio	0.4	4	393	213	-	143	160	23	436	213	-	143	160	26	
CNHM1 - 610□ - AV - (B) - Ratio	0.75	4	426	220	-	148	169	27	488	220	-	148	169	32	
CNHM2 - 610□ - AV - (B) - Ratio	1.5	4	446	226	-	155	182	31	509	226	-	155	182	37	
CNHM1 - 611□ - AV - (B) - Ratio	0.75	4	436	240	-	148	169	26	493	240	-	148	169	31	
CNHM2 - 611□ - AV - (B) - Ratio	1.5	4	456	246	-	155	182	30	519	246	-	155	182	36	
CNHM3 - 611□ - AV - (B) - Ratio	2.2	4	491	266	-	166	222	40	563	266	-	166	222	50	
CNHM2 - 612□ - AV - (B) - Ratio	1.5	4	476	246	-	155	182	40	539	246	-	155	182	47	
CNHM3 - 612□ - AV - (B) - Ratio	2.2	4	499	266	-	166	222	50	571	266	-	166	222	60	
CNHM5 - 612□ - AV - (B) - Ratio	3.7	4	543	266	-	166	222	57	615	266	-	166	222	67	

Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

5. "B" after the suffix "AV" indicates models equipped with brake.

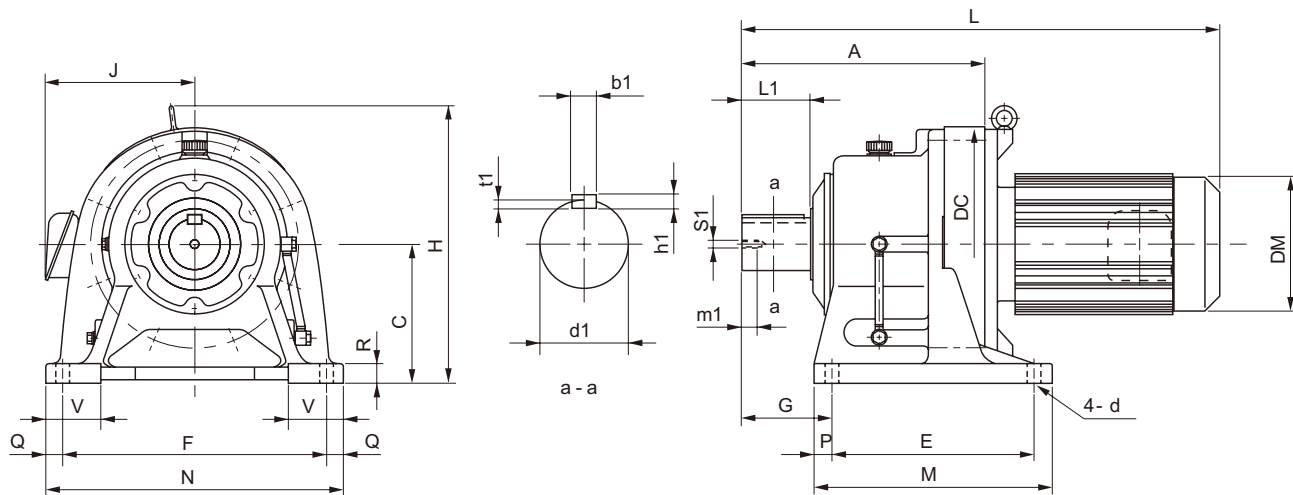
6. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.

7. 30kW or over motors are air over type.

8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables (Horizontal Direction, Foot Mount)

## CHHM<sup>Note: 1</sup> - 613□ to 616□ - AV



GEARMOTOR FOR INVERTERS  
Dimension Tables CHHM

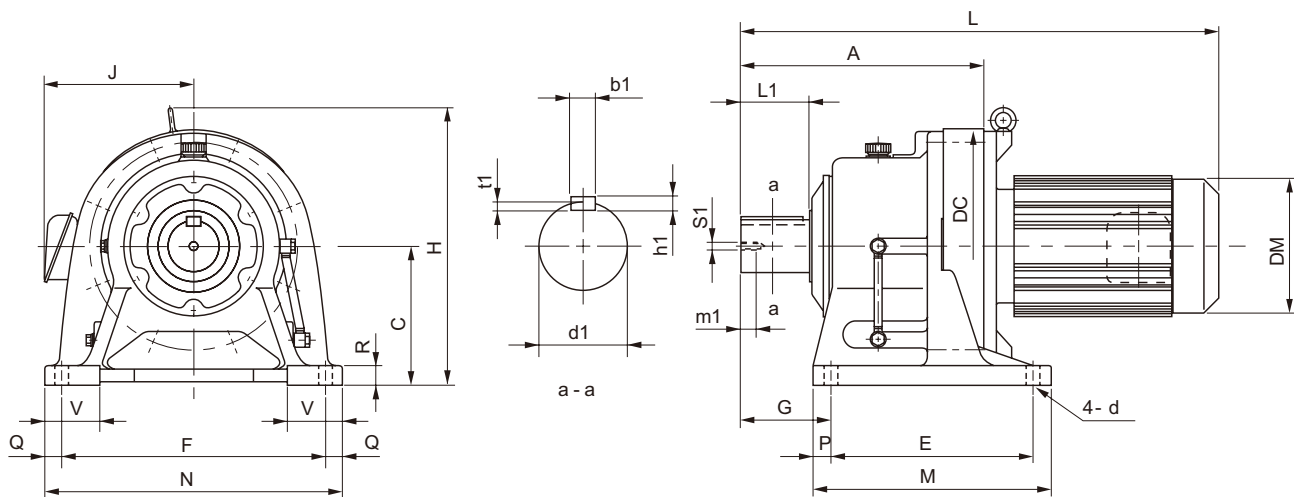
Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
613□	240	150	230	145	290	100	195	330	25	20	22	65	18	50	70	14	9	5.5	M10	18
<small>Note: 8</small> 614□	260	150	230	145	290	120	195	330	25	20	22	65	18	50	90	14	9	5.5	M10	18
<small>Note: 8</small> 616□	308	160	300	150	370	139	238	410	44	20	25	75	18	60	90	18	11	7	M10	18

Model <small>Note: 4, 5</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM2 - 613□ - AV - (B) - Ratio	1.5	4	530	274	155	182	58	593	274	155	182	65
CHHM3 - 613□ - AV - (B) - Ratio	2.2	4	553	296	166	222	68	625	296	166	222	78
CHHM5 - 613□ - AV - (B) - Ratio	3.7	4	597	296	166	222	75	669	296	166	222	85
CHHM8 - 613□ - AV - (B) - Ratio	5.5	4	620	323	211	251	90	715	323	211	251	108
CHHM10 - 613□ - AV - (B) - Ratio	7.5	4	680	323	211	251	103	775	323	211	251	121
*CHHM15 - 613□ - AV - (B) - Ratio	11	4	770	358	261	324	155	875	321	261	324	189
CHHM3 - 614□ - AV - (B) - Ratio	2.2	4	573	296	166	222	69	645	296	166	222	79
CHHM5 - 614□ - AV - (B) - Ratio	3.7	4	617	296	166	222	76	689	296	166	222	86
CHHM8 - 614□ - AV - (B) - Ratio	5.5	4	640	323	211	251	91	735	323	211	251	109
CHHM10 - 614□ - AV - (B) - Ratio	7.5	4	700	323	211	251	104	795	323	211	251	122
*CHHM15 - 614□ - AV - (B) - Ratio	11	4	790	358	261	324	156	895	321	261	324	190
CHHM3 - 616□ - AV - (B) - Ratio	2.2	4	621	310	166	222	106	693	310	166	222	116
CHHM5 - 616□ - AV - (B) - Ratio	3.7	4	665	310	166	222	113	737	310	166	222	123
CHHM8 - 616□ - AV - (B) - Ratio	5.5	4	693	333	211	251	129	788	333	211	251	146
CHHM10 - 616□ - AV - (B) - Ratio	7.5	4	753	333	211	251	143	848	333	211	251	160
*CHHM15 - 616□ - AV - (B) - Ratio	11	4	838	368	261	324	196	943	368	261	324	230
*CHHM20 - 616□ - AV - (B) - Ratio	15	4	933	368	340	394	272	1098	368	340	394	323

"\*" indicates models with bottom level of the motor lower than the reducer base.  
Refer to pages D-33 and D-34 for center height options.

Notes: 1 □ indicates motor capacity.  
2 Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
3 Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key".

## Dimension Tables (Horizontal Direction, Foot-Mount)

CHHM<sup>Note: 1</sup> - 617□ to 619□ - AV

Frame size Note: 4	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft Note: 2, 3, 6						
														d1	L1	b1	h1	t1	S1	m1
617□	352	200	340	275	380	125	335	430	30	25	30	80	22	70	90	20	12	7.5	M12	24
618□	389	220	370	320	420	145	380	470	30	25	30	85	22	80	110	22	14	9	M12	24
619□	465	250	430	380	480	170	440	530	30	25	35	90	26	95	135	25	14	9	M20	34

Model Note: 4, 5	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM8 - 617□ - AV - (B) - Ratio	5.5	4	742	403	211	251	169	837	403	211	251	187
CHHM10 - 617□ - AV - (B) - Ratio	7.5	4	802	403	211	251	183	897	403	211	251	201
CHHM15 - 617□ - AV - (B) - Ratio	11	4	882	413	261	324	237	987	413	261	324	271
CHHM20 - 617□ - AV - (B) - Ratio	15	4	977	428	340	394	309	1142	428	340	394	360
CHHM25 - 617□ - AV - (B) - Ratio	18.5	4	977	428	340	394	309	1142	428	340	394	360
CHHM30 - 617□ - AV - (B) - Ratio	22	4	977	428	340	394	326	1142	428	340	394	369
CHHM10 - 618□ - AV - (B) - Ratio	7.5	4	839	438	211	251	221	934	438	211	251	239
CHHM15 - 618□ - AV - (B) - Ratio	11	4	919	438	261	324	281	1024	438	261	324	310
CHHM20 - 618□ - AV - (B) - Ratio	15	4	1014	448	340	394	347	1179	448	340	394	398
CHHM25 - 618□ - AV - (B) - Ratio	18.5	4	1014	448	340	394	347	1179	448	340	394	398
CHHM30 - 618□ - AV - (B) - Ratio	22	4	1014	448	340	394	364	1179	448	340	394	407
CHHM40 - 618□ - AV - (B) - Ratio	30 Note: 7, 4	4	1159	481	340	394	314	1411	481	340	394	510
CHHM15 - 619□ - AV - (B) - Ratio	11	4	995	467	261	324	346	1100	467	261	324	381
CHHM20 - 619□ - AV - (B) - Ratio	15	4	1090	511	340	394	422	1255	511	340	394	467
CHHM25 - 619□ - AV - (B) - Ratio	18.5	4	1090	511	340	394	422	1255	511	340	394	467
CHHM30 - 619□ - AV - (B) - Ratio	22	4	1090	511	340	394	437	1255	511	340	394	480
CHHM40 - 619□ - AV - (B) - Ratio	30 Note: 7, 4	4	1235	511	340	394	477	1487	511	340	394	573
CHHM406 - 619□ - AV - (B) - Ratio	30 Note: 7, 6	4	1235	511	340	394	477	1487	511	340	394	573
CHHM50 - 619□ - AV - (B) - Ratio	37 Note: 7, 4	4	1235	511	340	394	478	1487	511	340	394	573
CHHM506 - 619□ - AV - (B) - Ratio	37 Note: 7, 6	4	1290	511	390	484	569	-	-	-	-	-

Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

5. "B" after the suffix "AV" indicates models equipped with brake.

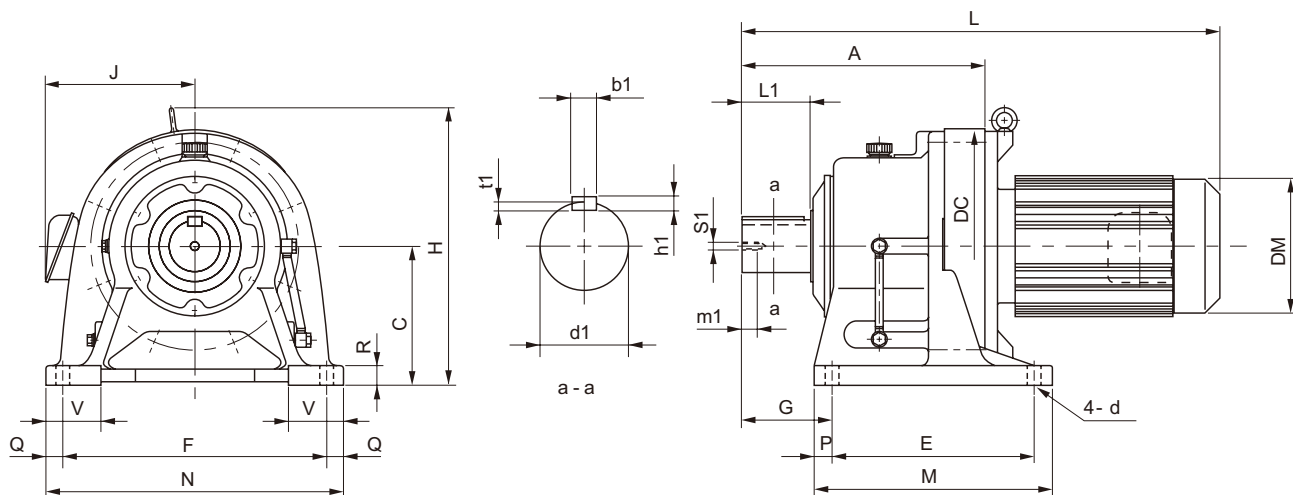
6. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.

7. 30kW or over motors are air over type.

8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables (Horizontal Direction, Foot Mount)

## CHHM<sup>Note: 1</sup> - 6205 to 6255 - AV



GEARMOTOR FOR INVERTERS  
Dimension Tables CHHM

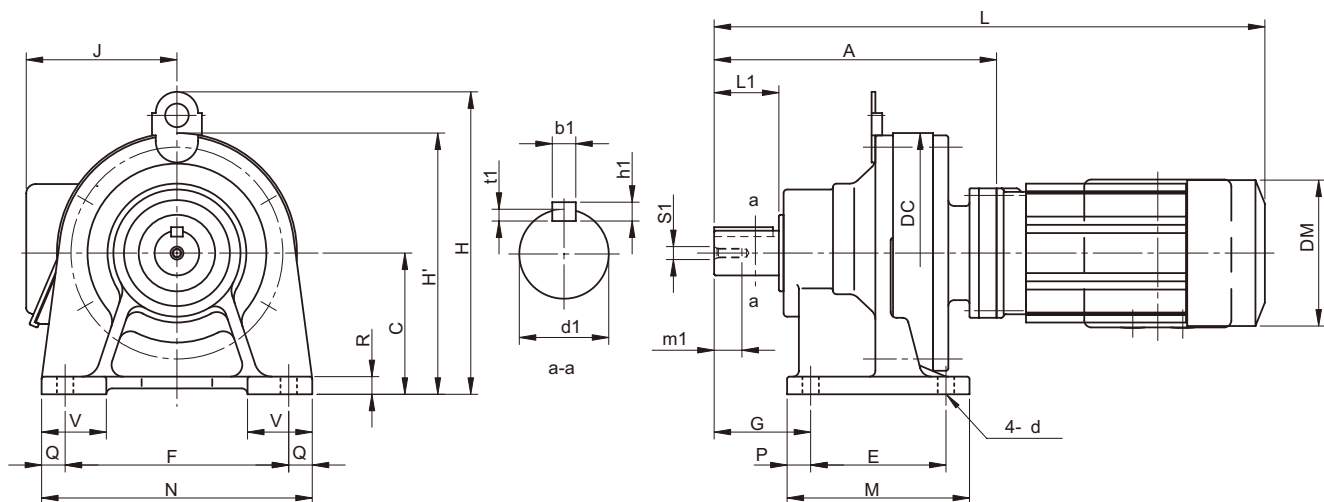
Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <span style="float: right;">Note: 2, 3, 6</span>						
														d1	L1	b1	h1	t1	S1	m1
6205	502	250	448	360	440	215	440	530	40	45	35	100	26	100	165	28	16	10	M20	34
6215	526	265	485	395	480	210	475	580	40	50	40	110	26	110	165	28	16	10	M20	34
6225	566	280	526	420	540	230	520	620	50	40	40	115	33	120	165	32	18	11	M20	34
6235	628	300	562	460	580	260	560	670	50	45	45	120	33	130	200	32	18	11	M24	41
6245	657	335	614	480	630	263	580	720	50	45	45	128	39	140	200	36	20	12	M24	41
6255	775	375	670	520	670	320	630	780	55	55	50	140	39	160	240	40	22	13	M30	49

Model	Motor <span style="float: right;">Note: 5</span>		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM20 - 6205 - AV - (B) - Ratio	15	4	1127	530	340	394	443	1292	530	340	394	488
CHHM30 - 6205 - AV - (B) - Ratio	22	4	1127	530	340	394	456	1292	530	340	394	501
CHHM40 - 6205 - AV - (B) - Ratio	30 <span style="float: right;">Note: 7 4</span>	4	1272	530	340	394	496	1524	530	340	394	589
CHHM25 - 6215 - AV - (B) - Ratio	18.5	4	1151	575	340	394	520	1316	575	340	394	565
CHHM40 - 6215 - AV - (B) - Ratio	30 <span style="float: right;">Note: 7 4</span>	4	1296	575	340	394	573	1548	575	340	394	667
CHHM406 - 6215 - AV - (B) - Ratio	30 <span style="float: right;">Note: 7 6</span>	4	1296	575	340	394	573	1548	575	340	394	667
CHHM50 - 6215 - AV - (B) - Ratio	37 <span style="float: right;">Note: 7 4</span>	4	1296	575	340	394	573	1548	575	340	394	667
CHHM30 - 6225 - AV - (B) - Ratio	22	4	1191	610	340	394	618	1356	610	340	394	663
CHHM50 - 6225 - AV - (B) - Ratio	37 <span style="float: right;">Note: 7 4</span>	4	1336	610	340	394	658	1588	610	340	394	752
CHHM406 - 6235 - AV - (B) - Ratio	30 <span style="float: right;">Note: 7 6</span>	4	1398	667	340	394	751	1650	667	340	394	838
CHHM506 - 6245 - AV - (B) - Ratio	37 <span style="float: right;">Note: 7 6</span>	4	1482	729	390	484	967	-	-	-	-	-
CHHM506 - 6255 - AV - (B) - Ratio	37 <span style="float: right;">Note: 7 6</span>	4	1600	815	390	484	1286	-	-	-	-	-

Notes: 1 □ indicates motor capacity.  
 2 Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3 Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key".

## Dimension Tables (Universal Direction, Foot Mount)

## CNHM: - 607□DA to 612□DB - AV



Frame size Note: 4	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft Note: 2, 3, 6						
														d1	L1	b1	h1	t1	S1	m1
607□DA	131	80	110	60	120	47	84	144	12	12	10	48	9	18	30	6	6	3.5	M6	16
609□DA	190	100	150	90	150	60	135	180	15	15	12	65	11	28	35	8	7	4	M8	20
610□DA	204	100	150	90	150	60	135	180	15	15	12	40	11	28	35	8	7	4	M8	20
612□DA	240	120	204	115	190	82	155	230	20	20	15	55	14	38	55	10	8	5	M8	20
612□DB	252	120	204	115	190	82	155	230	20	20	15	55	14	38	55	10	8	5	M8	20

Model Note: 4, 5	Motor		Standard							With Brake					
	[kW]	[P]	L	H	H'	J	DM	W [kg]	L	H	H'	J	DM	W [kg]	
CNHM01 - 607□DA - AV - (B) - Ratio	0.1	4	311	-	140	113	124	10	339	-	138	113	124	11	
CNHM01 - 609□DA - AV - (B) - Ratio	0.1	4	370	207	-	113	124	18	398	207	-	113	124	19	
CNHM02 - 609□DA - AV - (B) - Ratio	0.2	4	386	207	-	113	124	19	418	207	-	113	124	20	
CNHM01 - 610□DA - AV - (B) - Ratio	0.1	4	384	207	-	113	124	20	412	207	-	113	124	21	
CNHM02 - 610□DA - AV - (B) - Ratio	0.2	4	400	207	-	113	124	21	432	207	-	113	124	22	
CNHM01 - 612□DA - AV - (B) - Ratio	0.1	4	420	257	-	113	124	31	448	257	-	113	124	32	
CNHM02 - 612□DA - AV - (B) - Ratio	0.2	4	436	257	-	113	124	32	468	257	-	113	124	33	
CNHM05 - 612□DB - AV - (B) - Ratio	0.4	4	489	257	-	143	160	39	532	257	-	143	160	42	
CNHM1 - 612□DB - AV - (B) - Ratio	0.75	4	516	257	-	148	169	42	578	257	-	148	169	47	

Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

5. "B" after the suffix "AV" indicates models equipped with brake.

6. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.

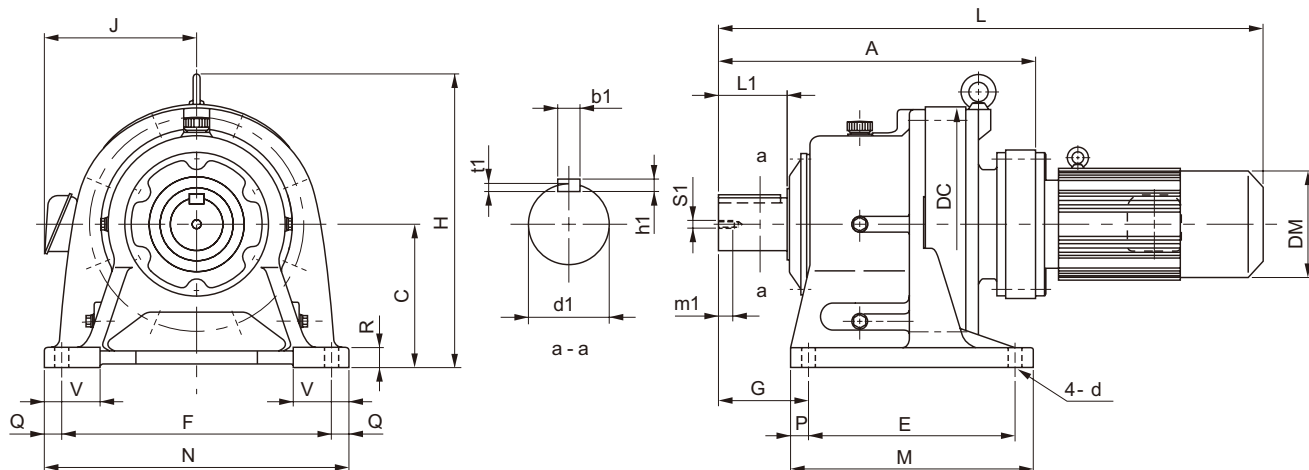
7. 30kW or over motors are air over type.

8. Dimensions in above drawings are subject to change without notice.



# Dimension Tables (Horizontal Direction, Foot Mount)

## CHHM<sup>Note: 1</sup> - 613□DA to 618□DA - AV



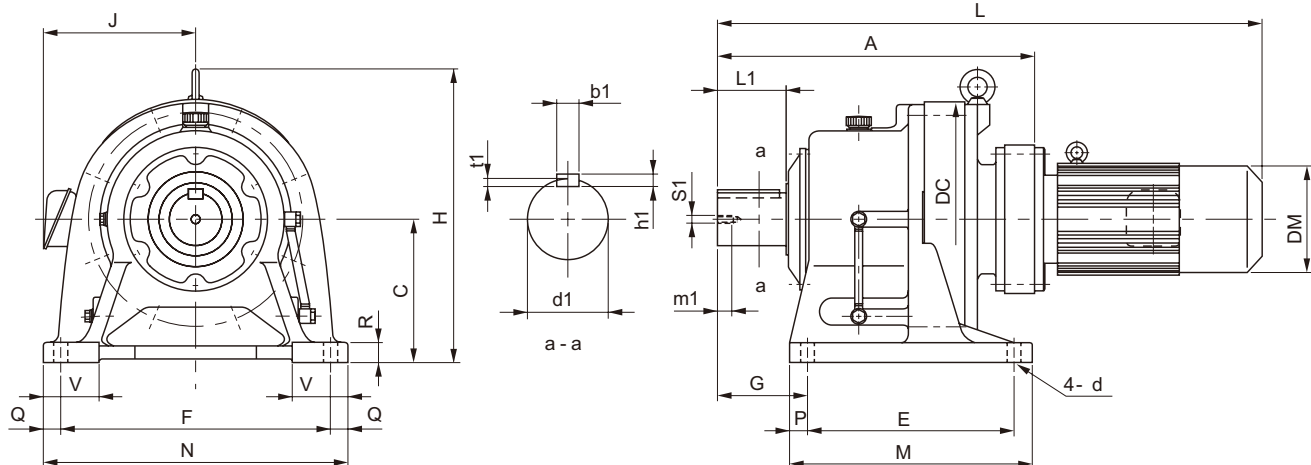
GEARMOTOR FOR INVERTERS  
Dimension Tables CHHM

Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
613□DA	294	150	230	145	290	100	195	330	25	20	22	65	18	50	70	14	9	5.5	M10	18
613□DB	303	150	230	145	290	100	195	330	25	20	22	65	18	50	70	14	9	5.5	M10	18
613□DC	317	150	230	145	290	100	195	330	25	20	22	65	18	50	70	14	9	5.5	M10	18
614□DA	314	150	230	145	290	120	195	330	25	20	22	65	18	50	90	14	9	5.5	M10	18
614□DB	323	150	230	145	290	120	195	330	25	20	22	65	18	50	90	14	9	5.5	M10	18
614□DC	337	150	230	145	290	120	195	330	25	20	22	65	18	50	90	14	9	5.5	M10	18
616□DA	373	160	300	150	370	139	238	410	44	20	25	75	18	60	90	18	11	7	M10	18
616□DB	387	160	300	150	370	139	238	410	44	20	25	75	18	60	90	18	11	7	M10	18
617□DA	418	200	340	275	380	125	335	430	30	25	30	80	22	70	90	20	12	7.5	M12	24
617□DB	432	200	340	275	380	125	335	430	30	25	30	80	22	70	90	20	12	7.5	M12	24
618□DA	474	220	370	320	420	145	380	470	30	25	30	85	22	80	110	22	14	9	M12	24

Model <small>Note: 4, 5</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM02 - 613□DA - AV - (B) - Ratio	0.2	4	490	300	113	124	47	522	300	113	124	48
CHHM05 - 613□DB - AV - (B) - Ratio	0.4	4	540	265	143	160	54	583	265	143	160	57
CHHM1 - 613□DB - AV - (B) - Ratio	0.75	4	573	270	148	169	57	635	270	148	169	62
CHHM2 - 613□DC - AV - (B) - Ratio	1.5	4	607	276	155	182	64	670	276	155	182	70
CHHM02 - 614□DA - AV - (B) - Ratio	0.2	4	510	300	113	124	48	542	300	113	124	49
CHHM05 - 614□DB - AV - (B) - Ratio	0.4	4	560	265	143	160	54	603	265	143	160	57
CHHM1 - 614□DB - AV - (B) - Ratio	0.75	4	593	270	148	169	57	655	270	148	169	62
CHHM2 - 614□DC - AV - (B) - Ratio	1.5	4	627	276	155	182	61	690	276	155	182	70
CHHM02 - 616□DA - AV - (B) - Ratio	0.2	4	569	349	113	124	91	601	349	113	124	93
CHHM05 - 616□DA - AV - (B) - Ratio	0.4	4	610	349	143	160	95	653	349	143	160	98
CHHM1 - 616□DA - AV - (B) - Ratio	0.75	4	643	349	148	169	99	705	349	148	169	104
CHHM2 - 616□DB - AV - (B) - Ratio	1.5	4	677	349	155	182	105	740	349	155	182	111
CHHM02 - 617□DA - AV - (B) - Ratio	0.2	4	614	416	113	124	126	646	416	113	124	128
CHHM05 - 617□DA - AV - (B) - Ratio	0.4	4	655	416	143	160	130	698	416	143	160	133
CHHM1 - 617□DA - AV - (B) - Ratio	0.75	4	688	416	148	169	134	750	416	148	169	139
CHHM2 - 617□DB - AV - (B) - Ratio	1.5	4	722	416	155	182	140	785	416	155	182	146
CHHM05 - 618□DA - AV - (B) - Ratio	0.4	4	711	451	143	160	176	754	451	143	160	178
CHHM1 - 618□DA - AV - (B) - Ratio	0.75	4	744	451	148	169	179	806	451	148	169	184
CHHM2 - 618□DA - AV - (B) - Ratio	1.5	4	764	451	155	182	183	827	451	155	182	189

Notes: 1 □ indicates motor capacity.  
 2 Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3 Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key".

## Dimension Tables (Horizontal Direction, Foot-Mount)

CHHM<sup>Note: 1</sup> - 616□DC to 619□DB - AV

Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
616□DC	389	160	300	150	370	139	238	410	44	20	25	75	18	60	90	18	11	7	M10	18
617□DC	436	200	340	275	380	125	335	430	30	25	30	80	22	70	90	20	12	7.5	M12	24
618□DB	496	220	370	320	420	145	380	470	30	25	30	85	22	80	110	22	14	9	M12	24
619□DA	556	250	430	380	480	170	440	530	30	25	35	90	26	95	135	25	14	9	M20	34
619□DB	572	250	430	380	480	170	440	530	30	25	35	90	26	95	135	25	14	9	M20	34

Model <small>Note: 4, 5</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM3 - 616□DC - AV - (B) - Ratio	2.2	4	702	349	166	222	121	774	349	166	222	131
CHHM5 - 616□DC - AV - (B) - Ratio	3.7	4	746	349	166	222	128	818	349	166	222	138
CHHM3 - 617□DC - AV - (B) - Ratio	2.2	4	749	416	166	222	155	821	416	166	222	165
CHHM5 - 617□DC - AV - (B) - Ratio	3.7	4	793	416	166	222	162	865	416	166	222	172
CHHM3 - 618□DB - AV - (B) - Ratio	2.2	4	809	451	166	222	207	881	451	166	222	217
CHHM5 - 618□DB - AV - (B) - Ratio	3.7	4	853	451	166	222	214	925	451	166	222	224
CHHM8 - 618□DB - AV - (B) - Ratio	5.5	4	876	451	211	251	229	971	451	211	251	247
CHHM10 - 618□DB - AV - (B) - Ratio	7.5	4	936	451	211	251	243	1031	451	211	251	261
CHHM1 - 619□DA - AV - (B) - Ratio	0.75	4	826	531	143	169	254	888	531	143	169	259
CHHM2 - 619□DA - AV - (B) - Ratio	1.5	4	846	531	150	182	258	909	531	150	182	265
CHHM3 - 619□DA - AV - (B) - Ratio	2.2	4	869	531	166	222	268	941	531	166	222	278
CHHM5 - 619□DA - AV - (B) - Ratio	3.7	4	913	531	166	222	275	985	531	166	222	285
CHHM8 - 619□DB - AV - (B) - Ratio	5.5	4	952	531	211	251	297	1047	531	211	251	315
CHHM10 - 619□DB - AV - (B) - Ratio	7.5	4	1012	531	211	251	311	1107	531	211	251	329
CHHM15 - 619□DB - AV - (B) - Ratio	11	4	1102	531	261	324	363	1207	531	261	324	397

Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

5. "B" after the suffix "AV" indicates models equipped with brake.

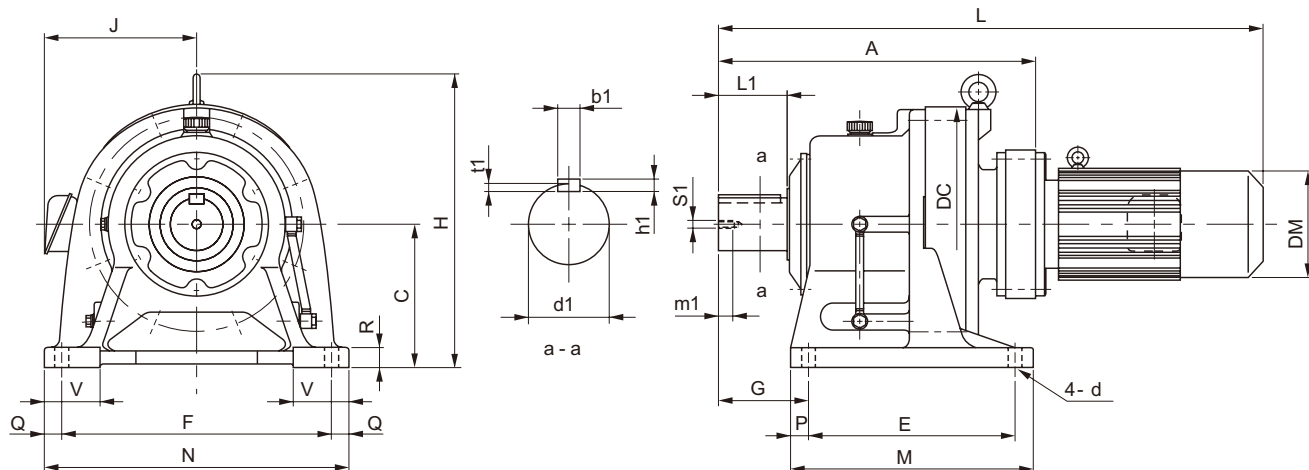
6. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.

7. 30kW or over motors are air over type.

8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables (Horizontal Direction, Foot Mount)

## CHHM<sup>Note: 1</sup> - 6205DA to 6225DB - AV



GEARMOTOR FOR INVERTERS  
Dimension Tables CHHM

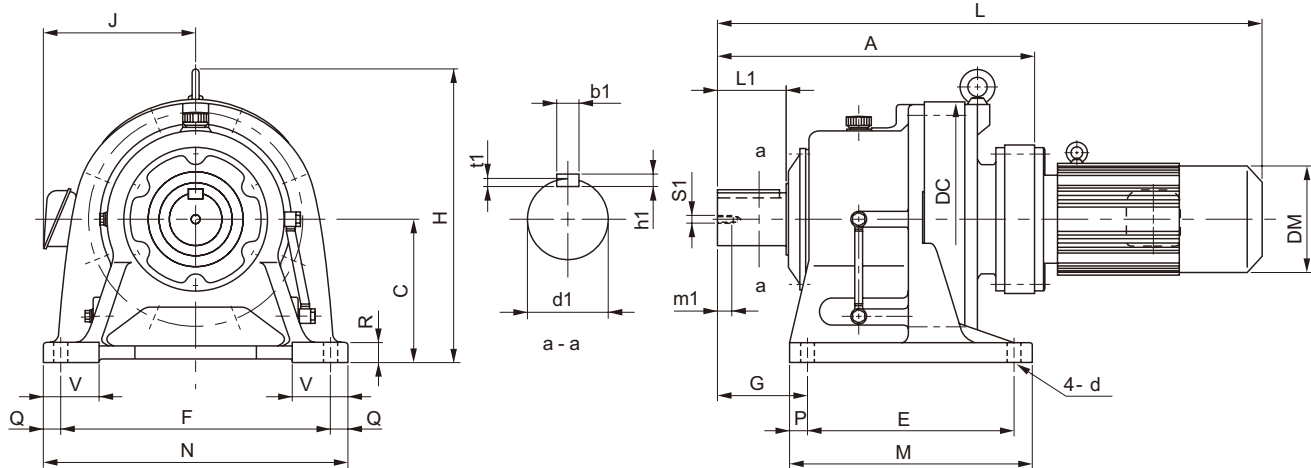
Frame size <small>Note: 5</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
6205DA	597	250	448	360	440	215	440	530	40	45	35	100	26	100	165	28	16	10	M20	34
6205DB	624	250	448	360	440	215	440	530	40	45	35	100	26	100	165	28	16	10	M20	34
6215DA	650	265	485	395	480	210	475	580	40	50	40	110	26	110	165	28	16	10	M20	34
6215DB	675	265	485	395	480	210	475	580	40	50	40	110	26	110	165	28	16	10	M20	34
6225DA	692	280	526	420	540	230	520	620	50	40	40	115	33	120	165	32	18	11	M20	34
6225DB	735	280	526	420	540	230	520	620	50	40	40	115	33	120	165	32	18	11	M20	34

Model <small>Note: 4, 5</small>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM1 - 6205DA - AV - (B) - Ratio	0.75	4	867	530	148	169	273	929	530	148	169	278
CHHM3 - 6205DA - AV - (B) - Ratio	2.2	4	910	530	166	222	287	982	530	166	222	297
CHHM8 - 6205DB - AV - (B) - Ratio	5.5	4	1004	530	211	251	321	1099	530	211	251	339
CHHM10 - 6205DB - AV - (B) - Ratio	7.5	4	1064	530	211	251	334	1159	530	211	251	352
CHHM15 - 6205DB - AV - (B) - Ratio	11	4	1154	530	261	324	386	1249	530	261	324	419
CHHM2 - 6215DA - AV - (B) - Ratio	1.5	4	940	575	155	182	370	1003	575	155	182	377
CHHM3 - 6215DA - AV - (B) - Ratio	2.2	4	963	575	166	222	380	1035	575	166	222	390
CHHM5 - 6215DA - AV - (B) - Ratio	3.7	4	1007	575	166	222	387	1079	575	166	222	397
CHHM8 - 6215DA - AV - (B) - Ratio	5.5	4	1030	575	211	251	402	1125	575	211	251	420
CHHM10 - 6215DA - AV - (B) - Ratio	7.5	4	1090	575	211	251	415	1185	575	211	251	433
CHHM15 - 6215DA - AV - (B) - Ratio	11	4	1180	575	261	324	467	1285	575	261	324	501
CHHM20 - 6215DB - AV - (B) - Ratio	15	4	1300	575	297	394	564	1465	575	297	394	615
CHHM2 - 6225DA - AV - (B) - Ratio	1.5	4	982	610	155	182	444	1045	640	155	182	451
CHHM3 - 6225DA - AV - (B) - Ratio	2.2	4	1005	610	166	222	454	1077	610	166	222	464
CHHM5 - 6225DA - AV - (B) - Ratio	3.7	4	1049	610	166	222	461	1121	610	166	222	471
CHHM8 - 6225DA - AV - (B) - Ratio	5.5	4	1072	610	211	251	476	1167	610	211	251	494
CHHM10 - 6225DA - AV - (B) - Ratio	7.5	4	1132	610	211	251	490	1227	610	211	251	508
CHHM15 - 6225DA - AV - (B) - Ratio	11	4	1222	610	261	324	542	1327	610	261	324	576
CHHM20 - 6225DB - AV - (B) - Ratio	15	4	1360	610	340	394	661	1525	610	340	394	712
CHHM25 - 6225DB - AV - (B) - Ratio	18.5	4	1360	610	340	394	661	1525	610	340	394	712
CHHM30 - 6225DB - AV - (B) - Ratio	22	4	1360	610	340	394	678	1525	610	340	394	729

Notes: 1 □ indicates motor capacity.  
 2 Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3 Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key".

# Dimension Tables (Horizontal Direction, Foot Mount)

## CHHM<sup>Note: 1</sup> - 6235DA to 6255DB - AV



Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <span style="float: right;">Note: 2, 3, 6</span>						
														d1	L1	b1	h1	t1	S1	m1
6235DA	778	300	562	460	580	260	560	670	50	45	45	120	33	130	200	32	18	11	M24	41
6235DB	800	300	562	460	580	260	560	670	50	45	45	120	33	130	200	32	18	11	M24	41
6245DA	816	335	614	480	630	263	580	720	50	45	45	128	39	140	200	36	20	12	M24	41
6245DB	837	335	614	480	630	263	580	720	50	45	45	128	39	140	200	36	20	12	M24	41
6255DA	956	375	670	520	670	320	630	780	55	55	50	140	39	160	240	40	22	13	M30	49
6255DB	978	375	670	520	670	320	630	780	55	55	50	140	39	160	240	40	22	13	M30	49

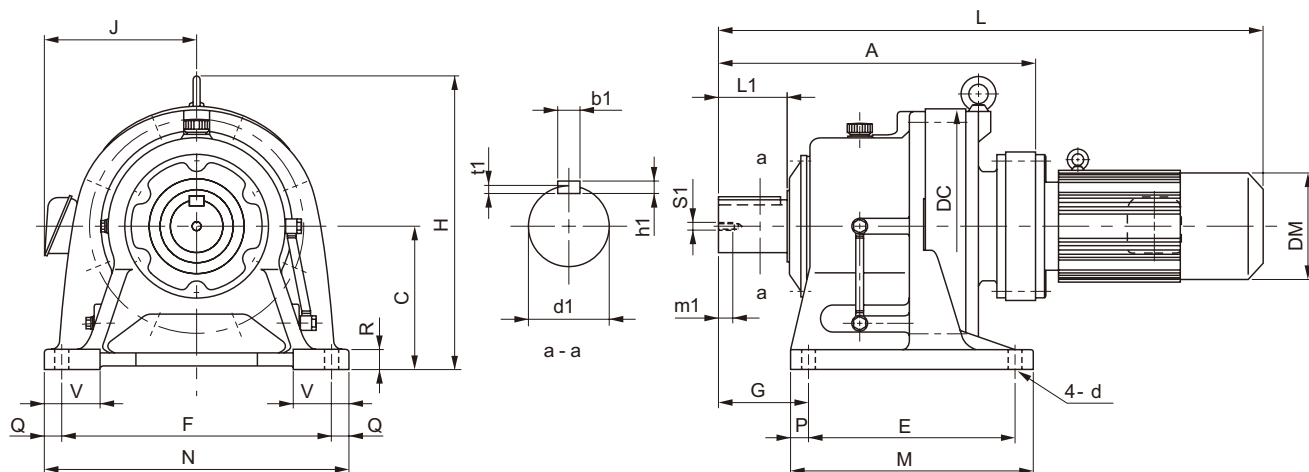
Model <span style="float: right;">Note: 5</span>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM3 - 6235DA - AV - (B) - Ratio	2.2	4	1091	667	166	222	570	1163	667	166	222	580
CHHM5 - 6235DA - AV - (B) - Ratio	3.7	4	1135	667	166	222	577	1207	667	166	222	587
CHHM8 - 6235DA - AV - (B) - Ratio	5.5	4	1163	667	211	251	593	1258	667	211	251	610
CHHM10 - 6235DA - AV - (B) - Ratio	7.5	4	1223	667	211	251	607	1318	667	211	251	624
CHHM15 - 6235DA - AV - (B) - Ratio	11	4	1308	667	261	324	660	1413	667	261	324	694
CHHM20 - 6235DA - AV - (B) - Ratio	15	4	1403	667	340	394	737	1568	667	340	394	788
CHHM25 - 6235DB - AV - (B) - Ratio	18.5	4	1425	667	340	394	782	1590	667	340	394	825
CHHM30 - 6235DB - AV - (B) - Ratio	22	4	1425	667	340	394	782	1590	667	340	394	825
CHHM40 - 6235DB - AV - (B) - Ratio	30 <span style="float: right;">Note: 7, 4</span>		1570	667	340	394	822	1859	667	340	394	918
CHHM3 - 6245DA - AV - (B) - Ratio	2.2	4	1129	729	166	222	679	1201	729	166	222	689
CHHM5 - 6245DA - AV - (B) - Ratio	3.7	4	1173	729	166	222	686	1245	729	166	222	696
CHHM8 - 6245DA - AV - (B) - Ratio	5.5	4	1201	729	211	251	702	1296	729	211	251	719
CHHM10 - 6245DA - AV - (B) - Ratio	7.5	4	1261	729	211	251	716	1356	729	211	251	733
CHHM15 - 6245DA - AV - (B) - Ratio	11	4	1346	729	261	324	769	1451	729	261	324	803
CHHM20 - 6245DA - AV - (B) - Ratio	15	4	1441	729	340	394	840	1606	729	340	394	891
CHHM25 - 6245DB - AV - (B) - Ratio	18.5	4	1462	729	340	394	866	1627	729	340	394	917
CHHM30 - 6245DB - AV - (B) - Ratio	22	4	1462	729	340	394	883	1627	729	340	394	926
CHHM40 - 6245DB - AV - (B) - Ratio	30 <span style="float: right;">Note: 7, 4</span>		1607	729	340	394	937	1859	729	340	394	1033
CHHM5 - 6255DA - AV - (B) - Ratio	3.7	4	1328	815	166	222	1041	1400	815	166	222	1049
CHHM8 - 6255DA - AV - (B) - Ratio	5.5	4	1346	815	211	251	1056	1441	815	211	251	1071
CHHM10 - 6255DA - AV - (B) - Ratio	7.5	4	1406	815	211	251	1071	1501	815	211	251	1086
CHHM15 - 6255DA - AV - (B) - Ratio	11	4	1486	815	261	324	1103	1591	815	261	324	1157
CHHM20 - 6255DA - AV - (B) - Ratio	15	4	1581	815	340	394	1195	1746	815	340	394	1246
CHHM25 - 6255DA - AV - (B) - Ratio	18.5	4	1581	815	340	394	1195	1746	815	340	394	1246
CHHM30 - 6255DA - AV - (B) - Ratio	22	4	1581	815	340	394	1215	1746	815	340	394	1258
CHHM40 - 6255DB - AV - (B) - Ratio	30 <span style="float: right;">Note: 7, 4</span>		1748	815	340	394	1325	2000	815	340	394	1421
CHHM50 - 6255DB - AV - (B) - Ratio	37 <span style="float: right;">Note: 7, 4</span>		1748	815	340	394	1325	2000	815	340	394	1421

Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.  
 5. "B" after the suffix "AV" indicates models equipped with brake.  
 6. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.  
 7. 30kW or over motors are air over type.  
 8. Dimensions in above drawings are subject to change without notice.

Dimension Tables  
CHHM  
GEARMOTOR  
FOR INVERTERS

# Dimension Tables (Horizontal Direction, Foot Mount)

## CHHM<sup>Note: 1</sup> - 6265DA to 6275DA - AV



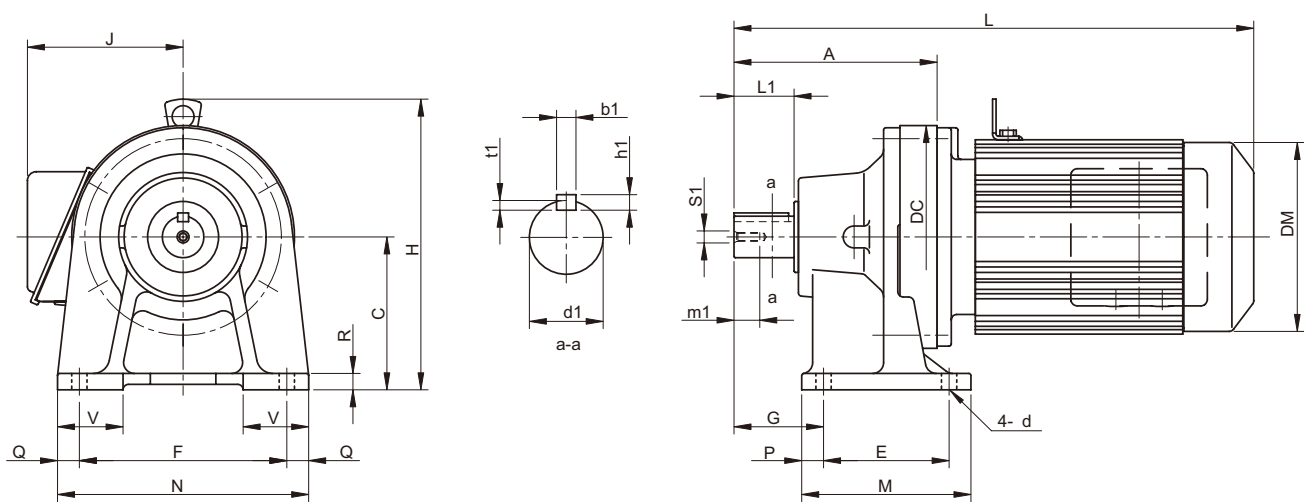
GEARMOTOR FOR INVERTERS  
Dimension Tables  
CHHM

Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <span style="float: right;">Note: 2, 3, 6</span>						
														d1	L1	b1	h1	t1	S1	m1
6265DA	1088	400	736	590	770	390	700	880	55	55	55	160	45	170	300	40	22	13	M30	49
6275DA	1349	540	950	420	1050	485	1040	1160	100	55	60	200	45	180	330	45	25	15	M30	52

Model <span style="float: right;">Note: 5</span>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM8 - 6265DA - AV - (B) - Ratio	5.5	4	1493	874	211	251	1381	1588	874	211	251	1401
CHHM10 - 6265DA - AV - (B) - Ratio	7.5	4	1553	874	211	251	1396	1648	874	211	251	1411
CHHM15 - 6265DA - AV - (B) - Ratio	11	4	1618	874	261	324	1446	1723	874	261	324	1482
CHHM20 - 6265DA - AV - (B) - Ratio	15	4	1713	874	340	394	1525	1878	874	340	394	1570
CHHM25 - 6265DA - AV - (B) - Ratio	18.5	4	1713	874	340	394	1525	1878	874	340	394	1570
CHHM30 - 6265DA - AV - (B) - Ratio	22	4	1713	874	340	394	1540	1878	874	340	394	1583
CHHM40 - 6265DA - AV - (B) - Ratio	30 <span style="float: right;">Note: 7, 4</span>		1858	874	340	394	1577	2110	874	340	394	1673
CHHM50 - 6265DA - AV - (B) - Ratio	37 <span style="float: right;">Note: 7, 4</span>		1858	874	340	394	1577	2110	874	340	394	1673
CHHM10 - 6275DA - AV - (B) - Ratio	7.5	4	1814	1161	211	251	2531	1909	1161	211	251	2546
CHHM15 - 6275DA - AV - (B) - Ratio	11	4	1879	1161	261	324	2581	1984	1161	261	324	2617
CHHM20 - 6275DA - AV - (B) - Ratio	15	4	1974	1161	340	394	2660	2139	1161	340	394	2705
CHHM25 - 6275DA - AV - (B) - Ratio	18.5	4	1974	1161	340	394	2660	2139	1161	340	394	2705
CHHM30 - 6275DA - AV - (B) - Ratio	22	4	1974	1161	340	394	2675	2139	1161	340	394	2718
CHHM40 - 6275DA - AV - (B) - Ratio	30 <span style="float: right;">Note: 7, 4</span>		2089	1161	340	394	2713	2371	1161	340	394	2810
CHHM50 - 6275DA - AV - (B) - Ratio	37 <span style="float: right;">Note: 7, 4</span>		2089	1161	340	394	2713	2371	1161	340	394	2810

Notes: 1   indicates motor capacity.  
 2 Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3 Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key".

## Dimension Tables (Universal Direction, Foot Mount)

CNHM<sup>Note: 2</sup> - 610H, 612H - AV (Center Height Option)

Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
610H	156	120	150	90	150	60	135	180	15	15	12	40	11	28	35	8	7	4	M8	20
612H	186	140	204	115	190	82	155	230	20	20	15	60	14	38	55	10	8	5	M8	20

Model <small>Note: 4</small>	Motor		Standard						With Brake					
	[kW]	[P]	L	H	H'	J	DM	W [kg]	L	H	H'	J	DM	W [kg]
CNHM02 - 610H - AV - (B) - Ratio	0.2	4	352	227	-	113	124	20	384	227	-	113	124	22
CNHM05 - 610H - AV - (B) - Ratio	0.4	4	393	233	-	143	160	24	436	233	-	143	160	27
CNHM1 - 610H - AV - (B) - Ratio	0.75	4	426	240	-	148	169	28	488	240	-	148	169	33
CNHM2 - 610H - AV - (B) - Ratio	1.5	4	446	246	-	155	182	32	509	246	-	155	182	38
CNHM2 - 612H - AV - (B) - Ratio	1.5	4	476	266	-	155	182	41	539	266	-	155	182	48
CNHM3 - 612H - AV - (B) - Ratio	2.2	4	499	286	-	166	222	51	571	286	-	166	222	61
CNHM5 - 612H - AV - (B) - Ratio	3.7	4	543	286	-	166	222	58	615	286	-	166	222	68

Note: 4. □ indicates 0 or 5, expressing combination with reduction ratio. Refer to the Selection Table for details.

5. "B" after the suffix "AV" indicates models equipped with brake.

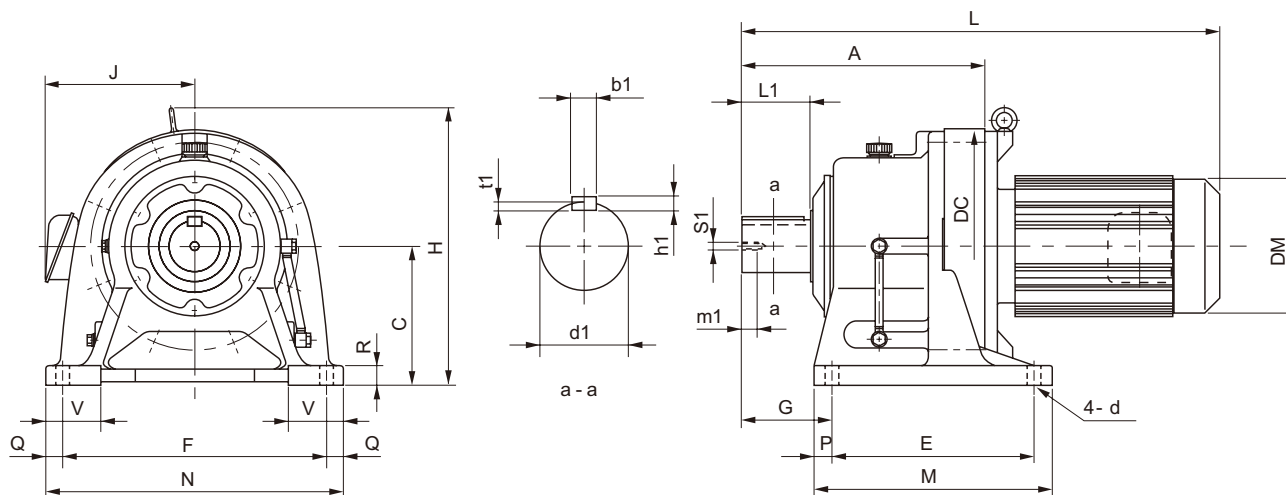
6. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.

7. 30kW or over motors are air over type.

8. Dimensions in above drawings are subject to change without notice.

# Dimension Tables (Horizontal Direction, Foot-Mount)

## CHHM<sup>Note: 2</sup> - 614H, 616H - AV (Center Height Option)



GEARMOTOR FOR INVERTERS  
Dimension Tables CHHM

Frame size	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <span style="float: right;">Note: 2, 3, 6</span>						
														d1	L1	b1	h1	t1	S1	m1
614H	260	160	230	145	290	120	195	330	25	20	22	70	18	50	90	14	9	5.5	M10	18
616H	308	200	300	150	370	139	238	410	44	20	25	80	18	60	90	18	11	7	M10	18

Model <span style="float: right;">Note: 5</span>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM3 - 614H - AV - (B) - Ratio	2.2	4	573	306	166	222	71	645	306	166	222	81
CHHM5 - 614H - AV - (B) - Ratio	3.7	4	617	306	166	222	78	689	306	166	222	88
CHHM8 - 614H - AV - (B) - Ratio	5.5	4	640	333	211	251	93	735	333	211	251	111
CHHM10 - 614H - AV - (B) - Ratio	7.5	4	700	333	211	251	107	795	333	211	251	125
*CHHM15 - 614H - AV - (B) - Ratio	11	4	790	368	261	324	159	895	368	261	324	193
CHHM3 - 616H - AV - (B) - Ratio	2.2	4	621	350	166	222	111	693	350	166	222	121
CHHM5 - 616H - AV - (B) - Ratio	3.7	4	665	350	166	222	118	737	350	166	222	128
CHHM8 - 616H - AV - (B) - Ratio	5.5	4	693	373	211	251	134	788	373	211	251	151
CHHM10 - 616H - AV - (B) - Ratio	7.5	4	753	373	211	251	148	848	373	211	251	165
CHHM15 - 616H - AV - (B) - Ratio	11	4	838	408	261	324	201	943	408	261	324	235
CHHM20 - 616H - AV - (B) - Ratio	15	4	933	408	340	394	273	1098	408	340	394	324

\*\*\* indicates models with bottom level of the motor lower than the reducer base.

- Note:
1. [ ] indicates motor capacity.
  2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."
  3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."
  4. "B" after the suffix "AV" indicates models equipped with brake.
  5. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.
  6. Dimensions in above drawings are subject to change without notice.

# E

## TECHNICAL DATA

	Page
<b>1. Reducer</b>	
Mechanism	E-3
Lubrication	E-4
Nameplate	E-8
Allowable Radial and Axial Load	E-10
Moment of Inertia (GD <sup>2</sup> )	E-17
Construction Drawing	E-25
Detailed Dimension of Slow Speed Shaft	E-28
<b>2. Motor</b>	
Terminal Box Specifications	E-32
Characteristics for Global Motor	E-36
Characteristics for Japan Standard Motor	E-38
Specification and Constructions of Built-in Brake	E-40
Connection	E-44
Example of Connection	E-45
Protection and Cooling	E-54
International Standards and Compliance of Sumitomo Products	E-55
International Power Source Voltage and Conditions	E-59
<b>3. Common</b>	
Paint and Rustproof Coating	E-62
Reference: Drive System Calculation Formulas	E-64



# E TECHNICAL DATA

---

## 1. Reducer

TECHNICAL  
DATA

Reducer

## Mechanism

The reducer portion of the CYCLO® GEARMOTOR is fundamentally different in principle and mechanism from the involute gearing mechanism of competitor's gearmotors. Our unique speed reducer part is an ingenious combination of the following two mechanisms:

- A combination of a planet gear and a fixed internal sun gear. In the CYCLO® GEARMOTOR, the planet gear has cycloidal-shaped teeth and the sun gear has circular pin teeth. The number of teeth in the planet gear is one or two less than the sun gear.
- A constant speed internal gearing mechanism.

**See Fig.E-1**

In equation 1 below, P identifies the number of the planet gear teeth, S that of the sun gear, and  $\omega_2$  the angular velocity of the planet gear around its own axis. The velocity ratio of  $\omega_2$  to  $\omega_1$  is shown as follows:

$$\frac{\omega_2}{\omega_1} = 1 - \frac{S}{P} = - \frac{S-P}{P} \dots \text{Equation 1}$$

With S greater by one or two than P in this equation, the highest velocity ratio is obtainable.

That is, if S-P=1 is applied to Equation 1, the velocity ratio may be calculated from the following equation:

$$\frac{\omega_2}{\omega_1} = \frac{1}{P} \dots \text{Equation 2}$$

Or if S-P=2 is applied to Equation 1, the velocity ratio may be calculated from the following equation:

$$\frac{\omega_2}{\omega_1} = \frac{2}{P} \dots \text{Equation 3}$$

As the crankshaft rotates at the angular velocity  $\omega_1$  around the axis of the sun gear, the planet gear rotates at the angular velocity:

$$- \frac{1\omega_1}{P} \text{ or } - \frac{2\omega_1}{P}$$

When P indicates the number of the teeth of the planet gear and the symbol '-' indicates that the rotation of the planet gear is in a reverse direction to that of the crankshaft.

In the CYCLO® GEARMOTOR, illustrated in Fig. E-2, circular teeth (pins) are adapted for the sun gear and epitrochoid curved teeth for the planet gear, thereby avoiding tooth top interference. The rotation of the planet gear around its own axis is taken out through a constant speed internal gearing mechanism as shown in Fig. E-3.

In this mechanism shown in Fig. E-4, the pins of the slow speed shaft are evenly spaced on a circle that is concentric to the axis of the sun gear. The pins transmit the rotation of the planet gear by rolling internally on the circumference of the bores of each planet gear or cycloid disc. The diameter of the bores minus the diameter of the slow speed shaft pins is equal to twice the eccentricity value of the crank shaft (eccentric). This mechanism smoothly transmits only the rotation of the planet gear around its own axis to the slow speed shaft.

Fig.E-1 Principle of Internal Planetary Gearing

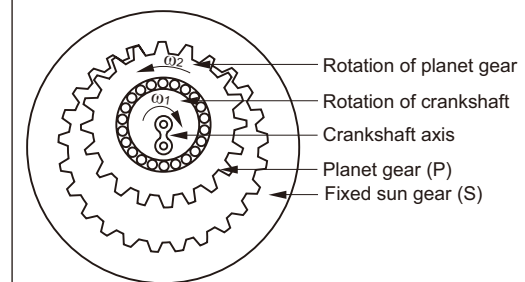


Fig.E-2 Epitrochoid Planet Gear-Circular (PIN) Tooth Sun Gear Combination

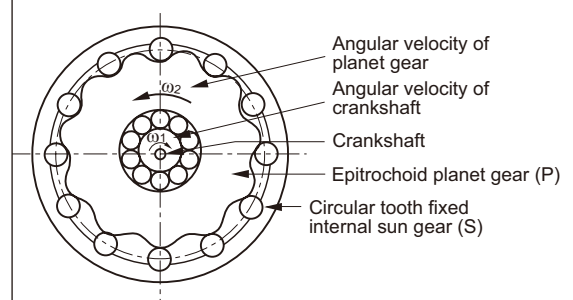


Fig.E-3 Constant Speed Internal Gearing

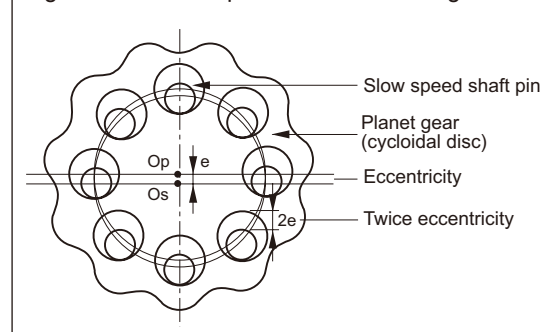
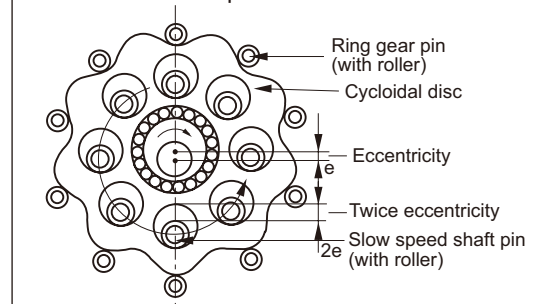


Fig.E-4 Combination of Planet-Sun Gears and Constant Speed Internal Gear



# Lubrication

## Lubrication Method

1. □ indicates 0, 5, or H (for certain frame size)

(1) Standard Type

Table E-1 Horizontal

### a) 6000SK Series Horizontal

Nominal Reduction Ratio		2.5	3	4	5	6	8	10	
		Long-Life Type Grease (MF)							
Frame Size									
607□SK, 608□SK	609□SK, 610□SK	Long-Life Type Grease (MF)							
609□SK, 610□SK	611□SK								
611□SK									

\*Indication necessary for mounting direction.

### b) 6000 Series Single Reduction Horizontal

Ratio	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119	
Frame Size																	
606□	Long-Life Type Grease (MF)											43					
607□	Long-Life Type Grease (MF)												59				
608□	Long-Life Type Grease (MF)													87			
609□, 610□	Long-Life Type Grease (MF)																
611□, 612□	Long-Life Type Grease (MF)																
613□, 614□	Oil Bath (PB)																
616□, 617□	Oil Bath (PB)																
618□, 619□	Oil Bath (PB)																
6205, 6215	Oil Bath (PB)																
6225, 6235	Oil Bath (PB)																
6245, 6255	Oil Bath (PB)																
6265	Oil Bath (PB)																
6275	Oil Bath (PB)																

### c) 6000 Series Double Reduction Horizontal

Ratio	104	121	143	165	195	231	273	319	377	473	599	649	731	841	1003	1015	1247	1479	1849	2065	2537	3045	3481	4437	5133	6177	7569	
Frame Size																												
606□DA	Long-Life Type Grease (MF)																											
607□DA	Long-Life Type Grease (MF)																	2537										
609□DA, 610□DA	Long-Life Type Grease (MF)																											
612□DA, 612□DB	Long-Life Type Grease (MF)																											
613□DA, 613□DB	Grease (G)																											
613□DC	Grease (G)																											
614□DA, 614□DB	Grease (G)																											
614□DC	Grease (G)																											
616□DA, 616□DB	Grease (G)																											
617□DA, 617□DB	Grease (G)																											
618□DA	Grease (G)																											
616□DC	Grease (G)																											
617□DC	Grease (G)																											
618□DB	Grease (G)																											
619□DA, 619□DB	Oil Bath (PB)																											
6205DA, 6205DB	Oil Bath (PB)																											
6215DA, 6215DB	121	Oil Bath (PB)																										
6225DA, 6225DB	Oil Bath (PB)																											
6235DA, 6235DB	Oil Bath (PB)																											
6245DA, 6245DB	Oil Bath (PB)																											
6255DA, 6255DB	Oil Bath (PB)																											
6265DA	Oil Bath (PB)																											
6275DA	Oil Bath (PB)																											319

Note: 1. This table shows the standard lubrication method when the CYCLO® DRIVE is driven at the standard input speed.  
 2. Grease lubrication is possible for some models with oil lubrication as standards. Consult us in those cases, for performance may vary.  
 3. □ indicates 0 or 5, expressing the combination with reduction ratio.

Table E-2 Vertical

a) 6000SK Series Vertical

Nominal Reduction Ratio		2.5	3	4	5	6	8	10
<b>Frame Size</b>		Long-Life Type Grease (MF) *Indication necessary for mounting direction.						
607□SK, 608□SK								
609□SK, 610□SK								
611□SK								

b) 6000 Series Single Reduction Vertical

Ratio	6	8	11	13	15	17	21	25	29	35	43	51	59	71	87	119
<b>Frame Size</b>	Long-Life Type Grease (MF)															
606□																
607□																
608□																
609□, 610□	Oil Bath (PB)															
611□, 612□																
613□, 614□	Forced Oil Lubrication (P)															
616□, 617□																
618□, 619□																
6205, 6215																
6225, 6235	TP															
6245, 6255																
6265																
6275	TP															

TP: Positive Displacement Pump Lubrication (See Table F-3)

c) 6000 Series Double Reduction Vertical

Ratio	104	121	143	165	195	231	273	319	377	473	599	649	731	841	1003	1015	1247	1479	1849	2065	2537	3045	3481	4437	5133	6177	7569	
<b>Frame Size</b>	Long-Life Type Grease (MF)																											
606□DA																												
607□DA																												
609□DA, 610□DA																												
612□DA, 612□DB	Grease (G)																											
613□DA, 613□DB																												
613□DC	Forced Oil Lubrication (P)																											
614□DA, 614□DB																												
614□DC																												
616□DA, 616□DB																												
617□DA, 617□DB	TP																											
618□DA																												
616□DC																												
617□DC	TP																											
618□DB																												
619□DA, 619□DB	TP																											
6205DA, 6205DB																												
6215DA, 6215DB	TP																											
6225DA, 6225DB																												
6235DA, 6235DB	TP																											
6245DA, 6245DB																												
6255DA, 6255DB	TP																											
6265DA																												
6275DA	TP																											

TECHNICAL DATA

Reducer

Note: 1. This table shows the standard lubrication method when the CYCLO® DRIVE is driven at the standard input speed.  
 2. Grease lubrication is possible for some models with oil lubrication as standards. Consult us in those cases, for performance may vary.  
 3. □ indicates 0 or 5, expressing the combination with reduction ratio.

# Lubrication

## (2) Electric Pump (Electric Pump Type Forced Oil Lubrication Specification)

Table E-3 Electric Pump Specification

Trochoid pump type	TOP216HA-VB3 with release valve (3-phase induction motor: 0.75kW × 4P Type E)	TOP204HB-VB3 with release valve (3-phase induction motor: 0.4kW × 4P Type E)
Frame size/ reduction ratio	6275/29, 43, 59, 87	6275DA

Note: Although the CYCLO® SPEED REDUCER is capable for most uses with lubrication method in Table E-1 and 2, consult us when using in severe conditions, such as with harsh ambient temperature, input speed, or load condition.

## 2. Lubricant

### (1) Grease Lubrication Models

Grease lubrication models in Table E-4 are packed with grease prior to shipment. They may be used without replenishment.

#### (i) Maintenance-Free Series

##### · 6000SK Series

Models in Table E-1 (a) and E-2 (a) are sealed with long-life grease (ALVANIA GREASE EPR000). Although replenishment is hardly necessary, replacement every 20,000 hours or 4~5 years will provide longer lifetime.

\*Only designated mounting direction possible.

##### · 6000 Series

Models in section (MF) in Table E-1 (b) & (c) and E-2 (b) & (c) are sealed with long-life grease (BEN-10 No.2). Although replenishment is hardly necessary, replacement every 20,000 hours or 4~5 years will provide longer lifetime.

\*Any mounting direction possible.

#### (ii) Grease Lubrication Models Other than Indicated in Section (i)

Replenish or replace grease following the Instruction Manual.

Table E-4 Standard Grease

Model	Ambient Temperature [°C]	Model/Part	Company	Brand	
CYCLO® 6000SK Series	-10 ~ 40	(i) Maintenance-Free Type Grease Lubrication	Showa Shell	Alvania Grease EPR000	
CYCLO® 6000 Series	-10 ~ 50	(i) Maintenance-Free Type Grease Lubrication	Nippeco	BEN-10 No.2	
		(ii) Models other than (i)	Cosmo Oil	COSMO GREASE DYNAMAX SH No.2	
Sumitomo Motor	-10 ~ 50	Sealed Bearings	Kyodo Yushi	MULTEMP SRL	
		Open Bearings	Thermal Class: B	Exxon Mobil	UNIREX N2
			Thermal Class: F	Shell Oil	Stamina RL2

(iii) Consult us when the unit is stored for more than three years. Grease replacement may be necessary.

Note: 1. Do not use grease other than the ones indicated above.  
2. Models (ii) in the Table E-4 are packed with COSMO GREASE DYNAMAX SH No.2 prior to shipment.  
3. Grease for models (ii) in Table E-4 may be combined with no problem.  
4. Consult us when the unit will be operated in temperatures exceeding 0~40°C.

## (2) Oil Lubrication Models

Oil lubrication models are shipped without oil. Always fill with lubrication oil to the top red line on the oil gauge before operation.

**Table E-5 Recommended Lubrication Oil (SP Type Industrial Extreme-Pressure Gear Oil) Equivalent to Type 2 Industrial Oil in JIS K2219.**

Ambient temperature °C	Gulf Oil	Exxon Mobil		Shell Oil	Caltex Oil	BP Oil
-10~5	EP Lubricant HD 68	Spartan EP 68	Mobil gear 600XP 68	Shell Omala S2 G 68	-	Energol GR-XP 68
0 ~ 35	EP Lubricant HD 100 HD 150	Spartan EP 100 EP 150	Mobil gear 600XP 100, 150	Shell Omala S2 G 100, 150	Meropa 100, 150	Energol GR-XP 100 GR-XP 150
30 ~ 50	EP Lubricant HD 220 HD 320 HD 460	Spartan EP 220 EP 320 EP 460	Mobil gear 600XP 220, 320, 460	Shell Omala S2 G 220, 320 460	Meropa 220, 320 460	Energol GR-XP 220 GR-XP 320 GR-XP 460

Note: 1. Use oil with lower viscosity for operation in winter or relatively low ambient temperature, specified in the parenthesis.  
2. Consult us for operation in ambient temperatures exceeding 0~40°C.

## 2. Volume of Oil

**Table E-6 Volume of Lubrication Oil, Litres [L] (Approximate)**

### Single Reduction

Frame Size	613□	614□	616□	617□	618□	619□	6205	6215	6225	6235	6245	6255	6265	6275
Horizontal	0.7	0.7	1.4	1.9	2.5	4.0	5.5	8.5	10	15	16	21	29	56
Vertical	1.1	1.1	1.0	1.9	2.0	2.7	5.7	7.5	10	12	15	35	51	(60)

### Double Reduction

Frame Size	616□	617□	618□	619□	619□	6205	6205	6215	6215	6225	6225	6235	6235	6245	6245	6255	6255	6265	6275
	DC	DC	DB	DA	DB	DA	DB	DA	DB	DA	DB	DA	DB	DA	DB	DA	DB	DA	DA
Horizontal	1.5	2.4	3.5	5.8	6.0	6.0	6.0	10	10	11	11	17	17	18	18	23	23	32	60
Vertical	1.0	1.9	2.0	2.7	2.7	11	11	14	14	18	18	23	23	29	29	42	42	51	(60)

Note: 1. □ indicates 0, 5, or H (for certain frame size).  
2. ( ) with trochoid pump.

## 3. Cautions on Oil Seals

Oil seal has limited lifetime. Sealing effect may lower by natural degradation or abrasion by prolonged use. Seal life may vary depending on operation condition and ambient condition of the reducer. Oil seal change every 1~3 years is recommended for normal operation (uniform load, 10 hours/day, at normal temperature).

# Nameplate

There are two types of nameplates, Type I and Type II. Refer to the relevant example of the typical plates shown below.

## 1. For Gearmotor

### (1) Nameplate Type I: Gearmotor

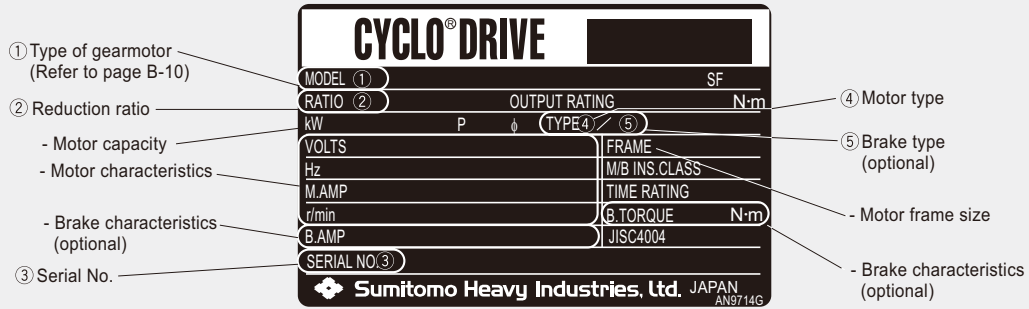


Fig. E-5 Nameplate of Gearmotor (Type I)

### (2) Nameplate Type II: Reducer with Motor

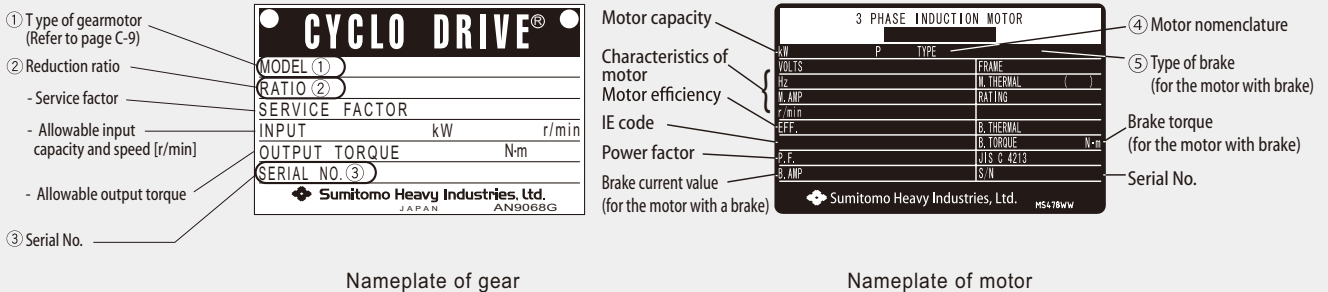


Fig. E-6 Nameplates of Reducer with Motor (Type II)

2. For Reducer

(1) Nameplate Type I

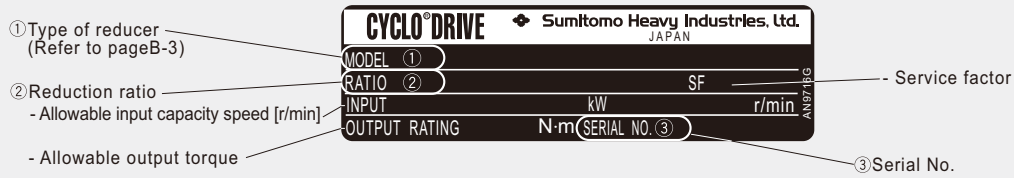


Fig. E-7 Nameplate of Reducer (Type I)

(2) Nameplate Type II

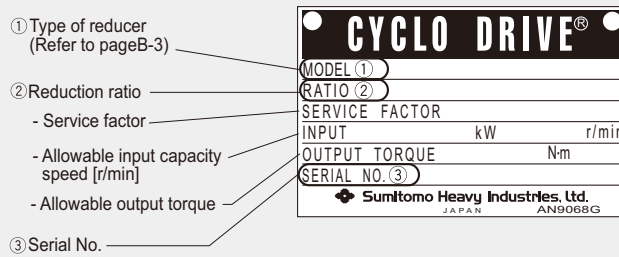


Fig. E-8 Nameplate of Reducer (Type II)



# Allowable Radial and Axial Load

Use within the allowable range for the radial and axial load when a gear or a pulley is coupled with CYCLO® reducer.

## 1. Radial and Axial Load on the Slow Speed Shaft

Confirm the radial axial load on the slow speed shaft using the following formula:

1) Radial load  $P_r$

$$P_r = \frac{T\ell}{R} \leq \frac{P_{ro}}{L_f \cdot C_f \cdot F_s} \quad [\text{N, kgf}]$$

2) Axial load  $P_a$

$$P_a \leq \frac{P_{ao}}{C_f \cdot F_s} \quad [\text{N, kgf}]$$

3) When radial and axial load co-exist.

$$\left( \frac{P_r \cdot L_f}{P_{ro}} + \frac{P_a}{P_{ao}} \right) \cdot C_f \cdot F_s \leq 1$$

$P_r$ : Actual radial load [N, kgf]

$T\ell$ : Actual transmitted torque [N·m, kgf·m] on slow speed shaft of the reducer.

$R$ : Pitch circle radius [m] of sprocket, gear, pulley, etc.

$P_{ro}$ : Allowable radial load [N, kgf] (Refer to Selection Table)

$P_a$ : Actual axial load [N, kgf]

$P_{ao}$ : Allowable axial load [N, kgf] (Table E-10)

$L_f$ : Load location factor (Table E-9)

$C_f$ : Coupling factor (Table E-7)

$F_s$ : Shock factor (Table E-8)

- When the radial load exceeds the allowable values, a larger frame size may be selected, but depending upon the extent of the load, this may be avoided by using the heavy radial load type; please refer to Page E-13, 14.
- Consult us when using for application with extremely high startup frequency.

Table E-7 Coupling Factor  $C_f$

Coupling Method	$C_f$
Chain	1
Gears	1.25
V-Belt	1.5

Table E-8 Shock Factor  $F_s$

Degree of Shock	$F_s$
Practically no shock	1
Light shock	1~1.2
Severe shock	1.4~1.6

Calculate detailed intermediate values in Tables E-9, 10 according to the interpolation method.

## Calculation Example by Interpolation Method

### Load Location Factor

Frame size 6075 Load Location Factor for  $L=18\text{mm}$  is calculated below.

$$1.00 + \frac{1.29-1.00}{20-15} \times (18-15) = 1.17$$

### Thrust Load Capacity

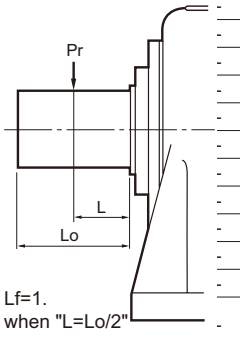
Frame size 6180 Thrust Load Capacity for output speed 130r/min is calculated bellow.

$$12500 + \frac{13100-12500}{150-125} \times (150-130) = 12980 \text{ [N]}$$

# Allowable Radial and Axial Load

Table E-9 Load Location Factor (Slow Speed Shaft) Lf

Frame Size		Load Location L [mm]																											
Single Reduction	Double Reduction	~5	10	15	20	25	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300				
607□SK	-	0.83	0.92	1.00	1.08	1.17	1.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
608□SK	-	0.83	0.90	0.97	1.03	1.10	1.17	1.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
609□SK	-	0.87	0.92	0.97	1.03	1.08	1.13	1.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
610□SK	-	0.87	0.92	0.97	1.03	1.08	1.13	1.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
611□SK	-	0.83	0.88	0.93	0.98	1.02	1.07	1.12	1.17	1.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
606□	606□DA	0.83	0.94	1.19	1.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
607□	607□DA	0.82	0.91	1.00	1.29	1.59	1.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
608□	-	0.81	0.87	0.94	1.03	1.28	1.54	1.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
609□	609□DA	0.86	0.92	0.97	1.13	1.38	1.64	1.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
610□	610□DA	0.86	0.92	0.97	1.13	1.38	1.64	1.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
611□	-	0.78	0.84	0.90	0.96	1.02	1.08	1.19	1.36	1.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
612□	612□DA 612□DB	-	0.82	0.87	0.92	0.97	1.08	1.25	1.42	1.59	1.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
613□	613□DA 613□DB 613□DC	-	-	0.83	0.87	0.92	0.96	1.00	1.13	1.25	1.38	1.63	1.88	-	-	-	-	-	-	-	-	-	-	-	-	-			
614□	614□DA 614□DB 614□DC	-	-	-	0.66	0.73	0.80	0.87	0.93	1.00	1.10	1.30	1.50	1.70	1.90	-	-	-	-	-	-	-	-	-	-	-			
616□	616□DA 616□DB 616□DC	-	-	-	0.83	0.87	0.90	0.93	0.97	1.00	1.11	1.32	1.53	1.75	1.96	-	-	-	-	-	-	-	-	-	-	-			
617□	617□DA 617□DB 617□DC	-	-	-	0.86	0.89	0.92	0.94	0.97	1.00	1.11	1.32	1.53	1.75	1.96	-	-	-	-	-	-	-	-	-	-	-			
618□	618□DA 618□DB	-	-	-	-	0.85	0.87	0.90	0.93	0.95	0.98	1.09	1.26	1.43	1.60	1.78	-	-	-	-	-	-	-	-	-	-			
619□	619□DA 619□DB	-	-	-	-	-	0.85	0.87	0.89	0.91	0.93	0.97	1.04	1.18	1.32	1.46	1.75	-	-	-	-	-	-	-	-	-			
6205	6205DA 6205DB	-	-	-	-	-	-	-	0.70	0.74	0.77	0.84	0.91	0.98	1.05	1.12	1.26	1.40	1.54	-	-	-	-	-	-	-			
6215	6215DA 6215DB	-	-	-	-	-	-	-	0.70	0.73	0.77	0.84	0.91	0.98	1.05	1.13	1.27	1.41	1.56	-	-	-	-	-	-	-			
6225	6225DA 6225DB	-	-	-	-	-	-	-	0.86	0.88	0.90	0.93	0.96	0.99	1.02	1.06	1.12	1.19	1.25	-	-	-	-	-	-	-			
6235	6235DA 6235DB	-	-	-	-	-	-	-	0.82	0.84	0.85	0.88	0.91	0.94	0.97	1.00	1.06	1.12	1.18	1.24	1.30	-	-	-	-	-			
6245	6245DA 6245DB	-	-	-	-	-	-	-	0.83	0.84	0.86	0.89	0.92	0.94	0.97	1.00	1.06	1.11	1.17	1.23	1.29	-	-	-	-	-			
6255	6255DA 6255DB	-	-	-	-	-	-	-	-	0.83	0.85	0.88	0.90	0.93	0.95	1.00	1.05	1.10	1.22	1.36	1.52	1.69	-	-	-	-			
6265	6265DA	-	-	-	-	-	-	-	-	-	-	-	0.83	0.85	0.88	0.90	0.94	0.98	1.04	1.17	1.29	1.45	1.61	1.77	1.93				
6275	6275DA	-	-	-	-	-	-	-	-	-	-	-	-	0.67	0.71	0.75	0.82	0.90	0.98	1.09	1.21	1.35	1.50	1.65	1.79				
Single Reduction	Double Reduction	~5	10	15	20	25	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200	225	250	275	300				
Frame Size		Load Location L [mm]																											



Note: □ indicates 0 or 5, expressing combination with reduction ratio.

TECHNICAL DATA

Reducer



# Allowable Radial and Axial Load

## 2. High Capacity Bearing Type (Iron/Ductile Iron) (Optional Items)

When the radial load of the slow speed shaft exceeds the allowable value of the standard CYCLO® reducer, a larger frame size may be selected, but depending upon the degree of the load, this may be avoided by using the heavy radial load type. Refer to Table E-11, 12 for allowable radial load on the slow speed shaft of the heavy radial load type.

### Precautions for Selection and Use

- High capacity bearing is indicated with the suffix "R1" or "R2" after the frame size.  
Example: CHHM5-6135-R2-B-29
- indicates 0, 5, or H.
- Consult us for the following conditions, which require special considerations:
  - When the shaft direction is vertical (Vertical type).
  - When thrust load is simultaneously exerted on the slow speed shaft.
- Use JIS B1051 erection bolts, with strength in exceeding 8.8.

Table E-11 Allowable Radial Load Pro (Upper: N, Lower: kgf, Max) on the Slow Speed Shaft of the High Capacity Bearing (R1)

(When Cf, Lf, Fs=1)

Frame Size		Output Speed [r/min]											
Single Reduction	Double Reduction	~1	2	3	4	5	6	8	10	15	20	25	30
613□	613□DA	-	-	-	-	-	-	-	-	-	14700	14700	14700
	613□DB	-	-	-	-	-	-	-	-	-	1500	1500	1500
	613□DC	-	-	-	-	-	-	-	-	-	-	-	-
616□	616□DA	-	-	-	-	-	-	-	-	-	-	22100	22100
	616□DB	-	-	-	-	-	-	-	-	-	-	2250	2250
	616□DC	-	-	-	-	-	-	-	-	-	-	-	-
617□	617□DA	-	-	-	-	-	-	-	-	29500	29500	29500	29500
	617□DB	-	-	-	-	-	-	-	-	3010	3010	3010	3010
	617□DC	-	-	-	-	-	-	-	-	-	-	-	-
618□	618□DA	-	-	-	-	-	-	-	-	41700	41700	41700	41700
	618□DB	-	-	-	-	-	-	-	-	4250	4250	4250	4250
619□	619□DA	-	-	-	-	-	-	-	-	59000	59000	59000	59000
	619□DB	-	-	-	-	-	-	-	-	6010	6010	6010	6010

Frame Size		Output Speed [r/min]										
Single Reduction	Double Reduction	35	40	50	60	80	100	125	150	200	250	300
613□	613□DA	14700	14700	14700	14700	14100	13500	12600	11900	10900	10200	9660
	613□DB	1500	1500	1500	1500	1440	1380	1280	1210	1110	1040	985
	613□DC	-	-	-	-	-	-	-	-	-	-	-
616□	616□DA	22100	22100	22100	22100	22100	21600	20100	19000	17500	16300	15400
	616□DB	2250	2250	2250	2250	2250	2200	2050	1940	1780	1660	1570
	616□DC	-	-	-	-	-	-	-	-	-	-	-
617□	617□DA	29500	29500	29500	29500	29500	29300	27400	25900	23800	22200	21100
	617□DB	3010	3010	3010	3010	3010	2990	2790	2640	2430	2260	2150
	617□DC	-	-	-	-	-	-	-	-	-	-	-
618□	618□DA	41700	41700	41700	41700	41300	38600	36200	34200	31400	-	-
	618□DB	4250	4250	4250	4250	4210	3930	3690	3490	3200	-	-
619□	619□DA	59000	59000	55200	53000	47200	44000	41000	38300	34700	-	-
	619□DB	6010	6010	5630	5400	4810	4490	4180	3900	3540	-	-

Note: □ indicates 0 or 5, expressing combination with reduction ratio.

TECHNICAL  
DATA

Reducer



# Allowable Radial and Axial Load

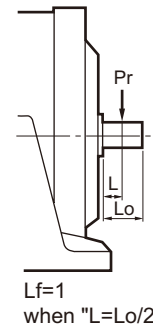
Confirm the radial load on the high speed shaft, following the formula below:

$$Pr \leq \frac{Pro}{Lf \cdot Cf \cdot Fs} \text{ [N, kgf]}$$

Pr: Actual radial load [N, kgf ]  
 Pro: Allowable radial load [N, kgf ]  
 Lf: Load location factor (Table E-11)  
 Cf: Coupling factor (Table E-5)  
 Fs: Shock factor (Table E-6)

Table E-13 Radial Load Location Factor (High Speed Shaft) Lf

Frame Size		Output Speed [r/min]																			
Single Reduction	Double Reduction	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200
607□SK	-	0.72	0.91	1.09	1.28	1.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
608□SK	-	0.90	0.97	1.03	1.10	1.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
609□SK	-	0.90	0.97	1.03	1.10	1.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
610□SK	-	0.75	0.92	1.08	1.25	1.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
611□SK	-	0.87	0.92	0.97	1.03	1.08	1.13	1.18	-	-	-	-	-	-	-	-	-	-	-	-	-
606□	606□DA, 607□DA	0.73	0.91	1.20	1.60	2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
607□	609□DA, 610□DA, 612□DA 613□DA, 614□DA	0.73	0.91	1.20	1.60	2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
608□	-	0.73	0.91	1.20	1.60	2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
609□	612□DB, 613□DB, 614□DB 616□DA, 617□DA	0.88	0.96	1.20	1.59	2.00	2.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-
610□	613□DC, 614□DC, 616□DB 617□DB, 618□DA	0.91	0.97	1.20	1.59	2.00	2.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-
611□	-	0.91	0.97	1.20	1.59	2.00	2.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-
612□	616□DC, 617□DC 619□DA, 6205DA	-	0.81	0.93	1.14	1.41	1.67	1.96	2.22	-	-	-	-	-	-	-	-	-	-	-	-
613□	618□DB, 619□DB, 6205DB 6215DA, 6225DA	-	0.78	0.89	1.00	1.23	1.45	1.69	1.92	2.13	-	-	-	-	-	-	-	-	-	-	-
614□	-	-	0.78	0.89	1.00	1.23	1.45	1.69	1.92	2.13	-	-	-	-	-	-	-	-	-	-	-
616□	6215DB, 6235DA, 6245DA	-	0.92	0.95	0.98	1.05	1.18	1.28	1.41	1.52	1.64	1.85	-	-	-	-	-	-	-	-	-
617□	6225DA, 6255DB	-	-	0.93	0.96	0.99	1.05	1.16	1.28	1.39	1.49	1.72	1.92	2.17	-	-	-	-	-	-	-
618□	6235DB, 6245DB	-	-	-	0.93	0.96	0.99	1.05	1.15	1.25	1.35	1.56	1.75	1.96	2.17	-	-	-	-	-	-
619□	6255DB, 6265DA, 6275DA	-	-	-	0.93	0.95	0.98	1.00	1.09	1.16	1.25	1.41	1.59	1.75	1.92	2.08	-	-	-	-	-
6205	-	-	-	-	0.93	0.95	0.97	1.00	1.04	1.10	1.22	1.33	1.45	1.56	1.68	1.91	-	-	-	-	-
6215	-	-	-	-	0.93	0.95	0.98	1.00	1.03	1.08	1.19	1.29	1.40	1.51	1.61	1.82	-	-	-	-	-
6225	-	-	-	-	0.94	0.96	0.98	1.00	1.02	1.04	1.08	1.14	1.24	1.33	1.42	1.60	-	-	-	-	-
6235	-	-	-	-	0.84	0.86	0.87	0.89	0.93	0.98	1.07	1.16	1.25	1.34	1.44	1.62	-	-	-	-	-
6245	-	-	-	-	0.91	0.92	0.94	0.96	0.98	0.99	1.07	1.15	1.24	1.33	1.42	1.59	-	-	-	-	-
6255	-	-	-	-	-	-	0.92	0.93	0.94	0.96	0.99	1.03	1.09	1.16	1.22	1.34	1.47	1.60	1.72	-	-
6265	-	-	-	-	-	-	0.92	0.93	0.94	0.96	0.99	1.03	1.09	1.16	1.22	1.34	1.47	1.60	1.72	-	-
6275	-	-	-	-	-	-	-	-	0.93	0.94	0.97	0.99	1.04	1.14	1.22	1.39	1.56	1.72	1.92	2.08	-
Single Reduction	Double Reduction	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200
Frame Size		Output Speed [r/min]																			



Note: □ indicates 0 or 5, expressing combination with reduction ratio.

# Allowable Radial and Axial Load

Table E-14 Radial Load Capacity (High Speed Shaft) Pro (Upper row: N, Lower row: kgf)

(When Cf, Lf, Fs=1)

Frame Size		Reduction Ratio (Double Reduction: Input side)	Input Speed [r/min]						
Single Reduction	Double Reduction		1750	1450	1165	980	870	720	580
607□SK	-	2.5 - 10	196 20	147 15	147 15	196 20	196 20	196 20	196 20
608□SK	-	2.5 - 10	196 20	147 15	147 15	196 20	196 20	196 20	196 20
609□SK	-	2.5 - 10	294 30	294 30	294 30	294 30	294 30	294 30	294 30
610□SK	-	2.5 - 10	441 45	441 45	491 50	540 55	589 60	589 60	589 60
611□SK	-	2.5 - 10	441 45	343 35	441 45	491 50	491 50	540 55	589 60
606□	606□DA, 607□DA	6 - 17, 25 - 35	196 20	147 15	147 15	196 20	196 20	196 20	196 20
		21, 43	49.1 5	49.1 5	49.1 5	49.1 5	49.1 5	147 15	196 20
607□	609□DA, 610□DA, 612□DA 613□DA, 614□DA	6 - 17, 25 - 35, 51, 59	196 20	147 15	147 15	196 20	196 20	196 20	196 20
		21, 43	49.1 5	49.1 5	49.1 5	49.1 5	49.1 5	147 15	196 20
608□	-	6 - 15, 21 - 29, 43 - 59, 87	196 20	147 15	147 15	196 20	196 20	196 20	196 20
		17, 35, 71	49.1 5	49.1 5	49.1 5	49.1 5	49.1 5	147 15	196 20
609□	612□DB, 613□DB, 614□DB 616□DA, 617□DA	6 - 17, 25 - 71, 119	294 30	294 30	294 30	294 30	294 30	294 30	294 30
		21, 87	196 20	196 20	196 20	196 20	245 25	245 25	294 30
610□	613□DC, 614□DC, 616□DB 617□DB, 618VDA	6 - 11, 17 - 119	441 45	441 45	491 50	540 55	589 60	589 60	589 60
		13, 15	441 45	343 35	441 45	491 50	491 50	540 55	589 60
611□	-	6, 8, 21 - 87	441 45	343 35	441 45	491 50	491 50	540 55	589 60
		11 - 17	196 20	196 20	196 20	196 20	245 25	245 25	294 30
612□	616□DC, 617□DC 619□DA, 6205DA	6 - 17	590 60	690 70	740 75	780 80	880 90	880 90	880 90
		21 - 87	540 55	440 45	490 50	540 55	590 60	880 90	880 90
613□	618□DB, 619□DB, 6205DB 6215DA, 6225DA	6 - 17, 21	1370 140	1370 140	1370 140	1520 155	1620 165	1720 175	1860 190
		25 - 87	1280 130	1280 130	1280 130	1370 140	1470 150	1570 160	1770 180
614□	-	6, 8	1370 140	1370 140	1370 140	1520 155	1620 165	1720 175	1860 190
		11 - 21	1230 125	980 100	1080 110	1180 120	1230 125	1320 135	1470 150
		25	1080 110	1130 115	1180 120	1280 130	1320 135	1370 140	1470 150
		29 - 87	540 55	590 60	590 60	690 70	690 70	690 70	1080 110
616□	6215DB, 6235DA, 6245DA	8 - 25, 51, 59	1770 180	1770 180	1960 200	2060 210	2160 220	2160 220	2160 220
		29 - 43, 71, 87	1080 110	1180 120	1280 130	1370 140	1370 140	1570 160	1770 180
617□	6225DA, 6255DB	11 - 87	2060 210	2060 210	2260 230	2260 230	2350 240	2450 250	2650 270
618□	6235DB, 6245DB	11 - 87	2750 280	2550 260	2750 280	2940 300	3040 310	3340 340	3430 350
619□	6255DB, 6265DA, 6275DA	11 - 25	3040 310	3040 310	3240 330	3530 360	3630 370	3920 400	3920 400
		29 - 87	2650 270	2550 260	2840 290	2940 300	3140 320	3340 340	3630 370
6205	-	11 - 87	5400 550	4910 500	5400 550	5890 600	6080 620	6230 635	6180 630
6215	-	11 - 87	5740 585	5100 520	5440 555	6130 625	6330 645	6820 695	7260 740
6225	-	11 - 87	6620 675	5790 590	5980 610	6130 655	6620 675	6970 710	7500 765
6235	-	11 - 87	-	-	10000 1020	9520 970	9170 935	8980 915	8730 890
6245	-	11 - 87	-	-	11100 1130	10100 1030	10100 1030	10600 1080	11200 1140
6255	-	11 - 87	-	-	11800 1200	10800 1100	11300 1150	12300 1250	13100 1340
6265	-	11 - 87	-	-	11800 1200	10800 1100	11300 1150	12300 1250	13100 1340
6275	-	29 - 87	-	-	14700 1500	14700 1500	14700 1500	14700 1500	14700 1500
Single Reduction	Double Reduction	Reduction Ratio (Double Reduction: Input side)	1750	1450	1165	980	870	720	580
Frame Size			Input Speed [r/min]						

Note: □ indicates 0 or 5, expressing combination with reduction ratio.

# Introduction to Moment of Inertia · GD<sup>2</sup>

## 1. Starting Time Moment of Inertia

For successful starting of a driven machine, the starting torque must be adequately larger than the load torque and even after start operation, the motor torque must consistently be greater than the load torque, until reaching full load speed.

The difference between the motor torque and the load torque-during the starting period is referred to as the accelerating torque. If the average accelerating torque is taken as  $\bar{T}_a$  [N·m, kgf·m], the starting time  $t_s$  [s] up to the rotating speed  $n$  [r/min], is calculated according to the following formula:

$$t_s = \frac{(J_M + J_C + J_L) \cdot n}{9.55 \cdot \bar{T}_a} \quad [\text{S}]$$

$$t_s = \frac{(GD_M^2 + GD_C^2 + GD_L^2) \cdot n}{375 \cdot \bar{T}_a} \quad [\text{S}]$$

- $J_M$ : Motor moment of inertia (Including brake drum)  
 $J_C$ : CYCLO® reducer moment of Inertia  
 $J_L$ : Driven machine moment of Inertia (Including coupling and pulley) when converted to the motor shaft.  
 $GD_M^2$ : GD<sup>2</sup> of motor (Including brake drum)  
 $GD_C^2$ : GD<sup>2</sup> of CYCLO® reducer  
 $GD_L^2$ : GD<sup>2</sup> of driven machine (Including coupling and pulley) when converted to the motor shaft.

## Average Accelerating Torque $\bar{T}_a$

Average accelerating torque refers to the average value of the difference between the motor torque and the load torque or the actual torque for accelerating the load, as shown in the right graph. For determining the starting time, the motor torque curve and load torque curve are necessary. However, since it is extremely difficult to determine the average accelerating torque by this method, the average accelerating torque at the actual load time is calculated according to the following formula:

When starting at full voltage, the rough average accelerating torque  $T_a$  [N·m, kgf·m] may be calculated by the following formula:

$$\bar{T}_a \div 0.8 \left( \frac{T_s + T_m}{2} \right) - \bar{T}_L \quad [\text{N} \cdot \text{m}, \text{kgf} \cdot \text{m}]$$

Furthermore, if the average load torque  $\bar{T}_L$  [N·m, kgf·m] during the starting period is equivalent to the full load torque, rough  $\bar{T}_L$  [N·m, kgf·m] of the motor may be close to the following:

$$\begin{aligned} \text{In case of constant torque load} & \quad \bar{T}_L \div T_L \quad [\text{N} \cdot \text{m}, \text{kgf} \cdot \text{m}] \\ \text{In case of square of reduced torque load} & \quad \bar{T}_L \div 0.34 T_L \quad [\text{N} \cdot \text{m}, \text{kgf} \cdot \text{m}] \end{aligned}$$

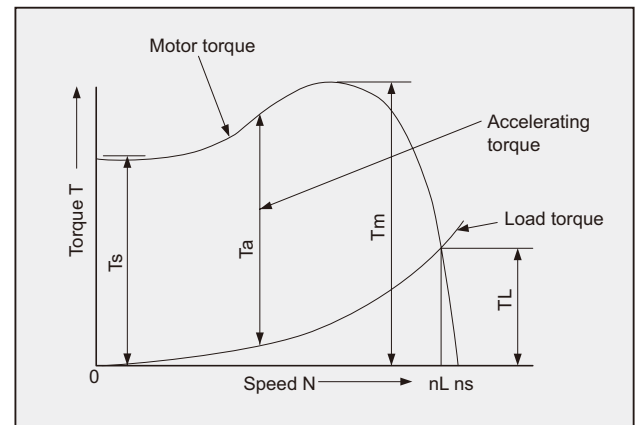


Fig E-9 Torque Curve

- $T_s$ : Starting torque  
 $T_m$ : Maximum torque (Stalling torque)  
 $T_a$ : Accelerating torque  
 $T_L$ : Full load torque  
 $n_s$ : Synchronous rotating speed  
 $n_L$ : Full load rotating speed



# Introduction to Moment of Inertia · GD<sup>2</sup>

## 2. Calculation of Moment of Inertia

### (1) Moment of Inertia of Rotating Motion

Rotating motion on the center of gravity		Rotating motion off the center of gravity	
	$J = \frac{1}{8} MD^2 \text{ [kg}\cdot\text{m}^2]$		$J = \frac{M}{4} \left( \frac{1}{2} D^2 + 4R^2 \right) \text{ [kg}\cdot\text{m}^2]$
	$J = \frac{1}{8} M (D^2 + d^2) \text{ [kg}\cdot\text{m}^2]$		$J = \frac{M}{4} \left( \frac{a^2 + b^2}{3} + 4R^2 \right) \text{ [kg}\cdot\text{m}^2]$
	$J = \frac{1}{12} M (a^2 + b^2) \text{ [kg}\cdot\text{m}^2]$		$J = \frac{1}{12} M (4L^2 + C^2) \text{ [kg}\cdot\text{m}^2]$

### (2) Moment of Inertia of Rectilinear Motion (Loaded Shaft Side)

General application		$J = \frac{M}{4} \left( \frac{V}{\pi N_s} \right)^2 = \frac{M}{4} D^2 \text{ [kg}\cdot\text{m}^2]$
Horizontal motion by conveyor		$J = \frac{M}{4} \left( \frac{M_1 + M_2}{2} + M_3 + M_4 \right) \times D^2 \text{ [kg}\cdot\text{m}^2]$
Horizontal motion by lead screw		$J = \frac{M}{4} \left( \frac{V}{\pi N_s} \right)^2 = \frac{M}{4} \left( \frac{P}{\pi} \right)^2 \text{ [kg}\cdot\text{m}^2]$
Vertical motion by hoist		$J = \frac{M_1 D^2}{4} + \frac{1}{8} M_2 D^2 \text{ [kg}\cdot\text{m}^2]$

### (3) Calculation of Moment of Inertia at Different Rotating Speeds

	$J_L = \left( \frac{N_{s2}}{N_{s1}} \right)^2 J_R = \left( \frac{1}{Z} \right)^2 J_R$
	Z: Total ratio

TECHNICAL DATA

Reducer

Introduction to Moment of Inertia · GD<sup>2</sup>3. Calculation of GD<sup>2</sup>(1) GD<sup>2</sup> of Rotating Motion

Rotating motion on the center of gravity		Rotating motion off the center of gravity	
	$GD^2 = \frac{1}{2} WD^2$ [kgf·m <sup>2</sup> ]		$GD^2 = W \left( \frac{1}{2} D^2 + 4R^2 \right)$ [kgf·m <sup>2</sup> ]
	$GD^2 = \frac{1}{2} W (D^2 + d^2)$ [kgf·m <sup>2</sup> ]		$GD^2 = W \left( \frac{a^2 + b^2}{3} + 4R^2 \right)$ [kgf·m <sup>2</sup> ]
	$GD^2 = \frac{1}{3} W (a^2 + b^2)$ [kgf·m <sup>2</sup> ]		$GD^2 = \frac{1}{3} W (4L^2 + C^2)$ [kgf·m <sup>2</sup> ]

(2) GD<sup>2</sup> of Rectilinear Motion (Loaded Shaft Side GD<sup>2</sup>)

General application		$GD^2 = W \left( \frac{V}{\pi \cdot N} \right)^2 = WD^2$ [kgf·m <sup>2</sup> ]
Horizontal motion by conveyor		$GD^2 = \left( \frac{W_1 + W_2}{2} + W_3 + W_4 \right) \times D^2$ [kgf·m <sup>2</sup> ]
Horizontal motion by lead screw		$GD^2 = W \left( \frac{V}{\pi \cdot N} \right)^2 = W \left( \frac{P}{\pi} \right)^2$ [kgf·m <sup>2</sup> ]
Vertical motion by hoist		$GD^2 = W_1 D^2 + \frac{1}{2} W_2 D^2$ [kgf·m <sup>2</sup> ]

## (3) Calculation of Moment of Inertia at Different Rotating Speeds

	$GD_1^2 = \left( \frac{N_2}{N_1} \right)^2 GD^2 = \left( \frac{1}{Z} \right)^2 GD^2$
	Z: Total ratio

# Introduction to Moment of Inertia · GD<sup>2</sup>

## Moment of Inertia · GD<sup>2</sup>

Table E-15 Moment of Inertia, GD<sup>2</sup> on Motor Shaft of CYCLO® Gearmotor (Single Stage Reduction, CYCLO Part Only)

Unit: GD<sub>c</sub><sup>2</sup> (× 10<sup>-4</sup>kgf·m<sup>2</sup>)      J<sub>c</sub> (Moment of inertia) (× 10<sup>-4</sup>kg·m<sup>2</sup>)

Frame Size	Reduction Ratio															
	6		8		11		13		15		17		21		25	
	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>
6060 6065	0.666	0.167	0.532	0.133	0.449	0.112	0.423	0.106	0.407	0.102	0.396	0.099	0.378	0.095	0.366	0.092
6070 6075	0.682	0.171	0.541	0.135	0.454	0.114	0.426	0.107	0.409	0.102	0.398	0.100	0.379	0.095	0.367	0.092
6080 6085	1.61	0.403	1.32	0.330	1.12	0.280	1.07	0.268	1.02	0.255	0.997	0.249	0.688	0.172	0.665	0.166
6090 6095	3.82	0.955	2.96	0.740	2.37	0.593	2.49	0.623	2.42	0.605	2.12	0.530	1.61	0.403	1.56	0.390
6100 6105	3.07	0.768	2.22	0.555	1.36	0.340	1.40	0.350	1.28	0.320	0.897	0.224	1.03	0.258	0.942	0.236
6110 6115	5.99	1.50	4.44	1.11	3.38	0.845	3.07	0.768	2.88	0.720	2.75	0.688	2.44	0.610	2.38	0.595
6120 6125	12.4	3.10	10.1	2.53	6.24	1.56	6.82	1.71	6.46	1.62	4.82	1.21	5.56	1.39	5.17	1.29
6130 6135	34.3	8.58	23.5	5.88	17.3	4.33	14.7	3.68	13.2	3.30	12.1	3.03	10.0	2.51	9.39	2.35
6140 6145	37.7	9.43	25.6	6.40	18.2	4.55	14.7	3.68	13.3	3.33	11.8	2.95	10.1	2.52	9.41	2.35
6160 6165	98.7	24.7	68.9	17.2	45.4	12.4	41.5	11.0	37.7	9.90	32.2	8.35	29.9	7.65	28.2	71.5
6170 6175	264	66.0	197	49.3	153	37.5	140	35.3	124	31.3	119	30.0	111	28.0	107	27.0
6180 6185	-	-	-	-	231	58.5	209	52.8	186	46.8	177	44.5	167	42.3	156	39.3
6190 6195	-	-	-	-	545	136	503	126	478	120	460	115	428	107	415	104
6205	-	-	-	-	646	162	-	-	565	141	-	-	517	129	-	-
6215	-	-	-	-	990	248	-	-	864	216	-	-	789	197	-	-
6225	-	-	-	-	1220	305	-	-	1030	258	-	-	927	232	-	-
6235	-	-	-	-	1990	498	-	-	1710	428	-	-	1530	383	-	-
6245	-	-	-	-	3610	903	-	-	3170	793	-	-	2890	723	-	-
6255	-	-	-	-	5870	1470	-	-	5120	1280	-	-	4630	1160	-	-
6265	-	-	-	-	8590	2150	-	-	7460	1870	-	-	6800	1700	-	-
6275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Frame Size	Reduction Ratio															
	29		35		43		51		59		71		87		119	
	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>
6060 6065	0.361	0.090	0.356	0.089	0.351	0.088	-	-	-	-	-	-	-	-	-	-
6070 6075	0.362	0.091	0.356	0.089	0.351	0.088	0.348	0.087	0.346	0.087	-	-	-	-	-	-
6080 6085	0.650	0.163	0.633	0.158	0.380	0.095	0.373	0.093	0.370	0.093	0.365	0.091	0.363	0.091	-	-
6090 6095	1.30	0.325	1.01	0.253	0.993	0.248	0.968	0.242	0.723	0.181	0.954	0.239	0.712	0.178	0.944	0.236
6100 6105	0.651	0.163	0.607	0.152	0.573	0.143	0.790	0.198	0.528	0.132	0.767	0.192	0.511	0.128	0.750	0.188
6110 6115	2.32	0.580	2.23	0.558	2.19	0.548	2.13	0.533	2.12	0.530	2.10	0.525	2.09	0.523	-	-
6120 6125	3.63	0.908	3.46	0.865	3.30	0.825	4.58	1.15	3.15	0.788	4.48	1.12	3.04	0.760	-	-
6130 6135	8.63	2.16	8.33	2.08	7.84	1.96	7.71	1.93	7.64	1.91	7.45	1.86	7.40	1.85	-	-
6140 6145	8.63	2.16	8.34	2.09	7.84	1.96	7.65	1.91	7.64	1.91	7.45	1.86	7.40	1.85	-	-
6160 6165	25.2	6.35	24.3	6.10	23.3	5.85	23.0	5.75	23.1	5.78	22.1	5.53	21.8	5.45	-	-
6170 6175	102	25.5	100	25.3	97.7	24.5	96.7	24.2	95.6	23.9	95.2	23.8	94.7	23.7	-	-
6180 6185	149	37.5	147	37.0	144	36.0	140	35.0	139	34.8	138	34.5	137	34.3	-	-
6190 6195	402	101	393	98.3	387	96.8	383	95.8	380	95.0	378	94.5	376	94.0	-	-
6205	482	121	-	-	460	115	-	-	451	113	-	-	446	117	-	-
6215	735	184	-	-	700	175	-	-	686	172	-	-	678	170	-	-
6225	840	210	-	-	788	197	-	-	766	192	-	-	753	188	-	-
6235	1410	353	-	-	1340	335	-	-	1300	325	-	-	1290	323	-	-
6245	2720	680	-	-	2600	650	-	-	2550	638	-	-	2530	633	-	-
6255	4320	1080	-	-	4140	1040	-	-	4060	1020	-	-	4010	1000	-	-
6265	6330	1580	-	-	6030	1510	-	-	5900	1480	-	-	5820	1460	-	-
6275	19600	4900	-	-	18900	4730	-	-	18600	4650	-	-	18400	4600	-	-

Note: 1. Table E-15 does not include GD<sup>2</sup> of motor.  
 Obtain the GD<sup>2</sup> of the single stage reduction gearmotor by adding the GD<sup>2</sup> of the motor Tables E-19, 20.  
 2. Calculate the GD<sup>2</sup> of the 2-Stage reduction model from the following formula:  

$$GD^2 \text{ of the 2-stage reduction model} = GD^2 \text{ of 1st stage} + \frac{GD^2 \text{ (2nd stage)}}{(\text{Reduction ratio of 1st stage})^2}$$
 Calculate the GD<sup>2</sup> of the 1st stage (input side) in the same manner as calculating the GD<sup>2</sup> of single stage reduction model.  
 For the GD<sup>2</sup> of the 2nd stage (output side), the values shown in Table E-15 may be used.

\*The values in Table E-15 are subject to change without notice.

TECHNICAL DATA  
Reducer

Introduction to Moment of Inertia · GD<sup>2</sup>Table E-16 Moment of Inertia · GD<sup>2</sup> on High Speed Shaft of CYCLO® Reducer  
(Single Stage Reducer)Unit: GD<sub>c</sub><sup>2</sup> J<sub>c</sub> (Moment of inertia)  
(× 10<sup>-4</sup>kgf·m<sup>2</sup>) (× 10<sup>-4</sup>kg·m<sup>2</sup>)

Frame Size	Reduction Ratio															
	6		8		11		13		15		17		21		25	
	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>
6060 6065	0.764	0.191	0.630	0.158	0.547	0.137	0.521	0.130	0.505	0.126	0.494	0.124	0.476	0.119	0.464	0.116
6070 6075	0.780	0.195	0.639	0.160	0.552	0.138	0.524	0.131	0.507	0.127	0.496	0.124	0.477	0.119	0.465	0.116
6080 6085	1.70	0.425	1.41	0.353	1.22	0.305	1.16	0.290	1.11	0.278	1.09	0.273	0.782	0.196	0.759	0.190
6090 6095	4.06	1.015	2.73	0.683	2.60	0.650	2.25	0.563	2.18	0.545	2.36	0.590	1.380	0.345	1.330	0.333
6100 6105	3.32	0.830	1.98	0.495	1.60	0.400	1.15	0.288	1.03	0.259	1.18	0.295	0.783	0.196	0.695	0.174
6110 6115	6.23	1.56	4.68	1.17	3.62	0.905	3.31	0.828	3.12	0.780	2.99	0.748	2.68	0.670	2.62	0.655
6120 6125	13.8	3.45	8.68	2.17	7.64	1.91	5.42	1.36	5.06	1.27	6.22	1.56	4.17	1.04	3.77	0.943
6130 6135	36.8	9.20	26.0	6.50	19.8	4.95	17.2	4.30	15.8	3.95	14.6	3.65	12.6	3.15	18.9	4.73
6140 6145	41.7	10.4	28.9	7.23	21.2	5.30	17.3	4.33	15.8	3.95	14.5	3.63	12.6	3.15	12.0	3.00
6160 6165	146	36.5	116	29.0	92.6	23.2	88.7	22.2	84.9	21.2	79.4	19.9	77.1	19.3	75.4	18.9
6170 6175	315	78.8	248	62.0	204	51.0	191	47.8	175	43.8	170	42.5	161	40.3	158	39.5
6180 6185	-	-	-	-	292	73.0	271	67.8	247	61.8	239	59.8	228	57.0	217	54.3
6190 6195	-	-	-	-	678	169	636	159	611	152	594	148	561	140	548	137
6205	-	-	-	-	946	237	-	-	864	216	-	-	817	204	-	-
6215	-	-	-	-	1490	373	-	-	1360	340	-	-	1290	323	-	-
6225	-	-	-	-	1930	483	-	-	1750	438	-	-	1640	410	-	-
6235	-	-	-	-	3240	810	-	-	2960	740	-	-	2780	695	-	-
6245	-	-	-	-	4940	1240	-	-	4500	1130	-	-	4220	1060	-	-
6255	-	-	-	-	8910	2230	-	-	8160	2040	-	-	7670	1920	-	-
6265	-	-	-	-	11700	2930	-	-	10600	2650	-	-	9960	2490	-	-
6275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Frame Size	Reduction Ratio																GD <sup>2</sup> of fan Moment of Inertia	
	29		35		43		51		59		71		87		119		GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>
	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>		
6060 6065	0.460	0.115	0.454	0.114	0.449	0.112	-	-	-	-	-	-	-	-	-	-	-	-
6070 6075	0.460	0.115	0.454	0.114	0.450	0.113	0.446	0.112	0.445	0.111	-	-	-	-	-	-	-	-
6080 6085	0.744	0.186	0.727	0.182	0.474	0.119	0.467	0.117	0.463	0.116	0.459	0.115	0.456	0.114	-	-	-	-
6090 6095	1.54	0.385	1.25	0.313	1.23	0.308	0.731	0.183	0.960	0.240	0.717	0.179	0.949	0.237	0.707	0.177	-	-
6100 6105	0.899	0.225	0.854	0.214	0.820	0.205	0.543	0.136	0.776	0.194	0.520	0.130	0.758	0.190	0.503	0.126	-	-
6110 6115	2.56	0.64	2.47	0.618	2.43	0.608	2.37	0.593	2.36	0.590	2.34	0.585	2.33	0.583	-	-	-	-
6120 6125	5.03	1.26	4.86	1.22	4.70	1.18	3.19	0.798	4.55	1.14	3.08	0.770	4.44	1.11	-	-	-	-
6130 6135	11.2	2.80	10.9	2.73	10.3	2.58	10.2	2.55	10.2	2.55	9.97	2.49	9.93	2.48	-	-	-	-
6140 6145	11.2	2.80	10.9	2.73	10.3	2.58	10.2	2.55	10.2	2.55	9.99	2.50	9.93	2.48	-	-	-	-
6160 6165	72.4	18.1	71.5	17.9	70.5	17.6	70.2	17.6	70.3	17.6	69.3	17.3	69.0	17.3	-	-	35.4	8.85
6170 6175	153	38.3	151	37.8	148	37.0	147	36.8	146	36.5	146	36.5	145	36.3	-	-	33.3	8.33
6180 6185	211	52.8	209	52.3	206	51.5	202	50.5	200	50.0	199	49.8	198	49.5	-	-	32.7	8.18
6190 6195	535	133	527	131	520	130	516	129	513	128	511	127	509	127	-	-	83.6	20.9
6205	782	196	-	-	760	190	-	-	750	188	-	-	745	186	-	-	248	62.0
6215	1240	310	-	-	1200	300	-	-	1190	298	-	-	1180	295	-	-	419	105
6225	1550	388	-	-	1500	375	-	-	1480	370	-	-	1470	368	-	-	599	150
6235	2660	665	-	-	2580	645	-	-	2550	638	-	-	2530	633	-	-	1040	260
6245	4040	1010	-	-	3930	983	-	-	3880	970	-	-	3850	963	-	-	1040	260
6255	7360	1840	-	-	7180	1800	-	-	7100	1780	-	-	7060	1770	-	-	2370	593
6265	9480	2370	-	-	9180	2300	-	-	9050	2260	-	-	8980	2250	-	-	2370	593
6275	-	-	-	-	29900	7480	-	-	29600	7400	-	-	29400	7350	-	-	9540	2390

Note: 1. The value of the fan has been to the GD<sup>2</sup> of the Frame sizes of 6160~6275.2. The GD<sup>2</sup> of the 2-stage reduction model is calculated by the following formula:

$$GD^2 \text{ of the 2-stage reduction model} = GD^2 \text{ of 1st stage} + \frac{GD^2 \text{ (2nd stage)}}{(\text{Reduction ratio of 1st stage})^2}$$

Use value in Table E-16 for GD<sup>2</sup> of 1st stage.For the GD<sup>2</sup> of the 2nd stage, deduct the GD<sup>2</sup> of the fan from the value in Table E-16.

\*The values in Table E-16 are subject to change without notice.

TECHNICAL  
DATA

Reducer

Moment of Inertia · GD<sup>2</sup>

Table E-17 (6000SK Series, Gearmotor)

Unit: GD<sub>c</sub><sup>2</sup> (× 10<sup>-4</sup>kgf·m<sup>2</sup>) J<sub>c</sub> (Moment of inertia) (× 10<sup>-4</sup>kgf·m<sup>2</sup>)

Frame Size	Nominal Reduction Ratio													
	2.5		3		4		5		6		8		10	
	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>
6070SK 6075SK	1.71	0.428	1.36	0.340	0.865	0.216	1.47	0.368	1.18	0.295	0.769	0.192	0.750	0.187
6080SK 6085SK	4.47	1.12	4.15	1.04	1.04	0.261	0.767	0.192	2.05	0.512	1.67	0.419	1.62	0.406
6090SK 6095SK	10.3	2.57	8.06	2.01	7.05	1.76	6.61	1.65	4.69	1.17	2.76	0.691	2.65	0.663
6100SK 6105SK	10.3	2.57	8.05	2.01	7.04	1.76	6.60	1.65	4.68	1.17	2.75	0.688	2.64	0.661
6110SK 6115SK	23.9	5.98	21.9	5.48	20.0	4.99	15.7	3.93	11.4	2.84	8.24	2.06	7.82	1.96

Note: 1. Table E-17 does not include GD<sup>2</sup> of motor.Obtain the GD<sup>2</sup> of the single stage reduction gearmotor by adding the GD<sup>2</sup> of the motor Tables E-19, 20.

\*Values in the table are subject to change without notice.

Table E-18 (6000SK Series, Reducer)

Unit: GD<sub>c</sub><sup>2</sup> (× 10<sup>-4</sup>kgf·m<sup>2</sup>) J<sub>c</sub> (Moment of inertia) (× 10<sup>-4</sup>kgf·m<sup>2</sup>)

Frame Size	Nominal Reduction Ratio													
	2.5		3		4		5		6		8		10	
	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>	GD <sub>c</sub> <sup>2</sup>	J <sub>c</sub>
6070SK 6075SK	1.71	0.428	1.36	0.340	0.865	0.216	1.47	0.368	1.18	0.295	0.769	0.192	0.750	0.187
6080SK 6085SK	4.47	1.12	4.15	1.04	1.04	0.261	0.767	0.192	2.05	0.512	1.67	0.419	1.62	0.406
6090SK 6095SK	10.3	2.57	8.06	2.01	7.05	1.76	6.61	1.65	4.69	1.17	2.76	0.691	2.65	0.663
6100SK 6105SK	10.3	2.57	8.05	2.01	7.04	1.76	6.60	1.65	4.68	1.17	2.75	0.688	2.64	0.661
6110SK 6115SK	23.9	5.98	21.9	5.48	20.0	4.99	15.7	3.93	11.4	2.84	8.24	2.06	7.82	1.96

\*Values in the table are subject to change without notice.

Moment of Inertia·GD<sup>2</sup>Table E-19 Moment of Inertia · GD<sup>2</sup> of Three Phase Motor

## 4P Motor

Unit: GD<sub>M</sub><sup>2</sup> [kgf·m<sup>2</sup>] J<sub>M</sub> (Moment of inertia) [kg·m<sup>2</sup>]

kW × P	0.1kW × 4P		0.2kW × 4P		0.25kW × 4P		0.4kW × 4P		0.55kW × 4P		0.75kW × 4P	
	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>
Standard	0.0013	0.000325	0.0020	0.000500	0.0020	0.000500	0.0026	0.000650	0.0041	0.00101	0.0048	0.00120
With Brake	0.0014	0.000350	0.0022	0.000550	0.0022	0.000550	0.0027	0.000675	0.0045	0.00111	0.0052	0.00130

kW × P	1.1kW × 4P		1.5kW × 4P		2.2kW × 4P		3.0kW × 4P		3.7kW × 4P		5.5kW × 4P	
	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>
Standard	0.0074	0.00185	0.0085	0.00213	0.0133	0.00333	0.0281	0.00700	0.0339	0.00848	0.0457	0.0114
With Brake	0.0083	0.00208	0.0094	0.00235	0.0149	0.00373	0.0325	0.00810	0.0383	0.00958	0.0501	0.0125

kW × P	7.5kW × 4P		11kW × 4P		15kW × 4P		18.5kW × 4P		22kW × 4P		30W × 4P	
	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>
Standard	0.107	0.0268	0.150	0.0375	0.359	0.0898	0.900	0.225	0.900	0.225	1.00	0.250
With Brake	0.121	0.0303	0.164	0.0410	0.428	0.107	0.972	0.243	0.972	0.243	1.05	0.262

kW × P	37kW × 4P		45kW × 4P		55kW × 4P	
	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>
Standard	1.23	0.308	1.37	0.343	2.70	0.675
With Brake	1.28	0.321	-	-	-	-

## 6P Motor

kW × P	0.1kW × 6P		0.2kW × 6P		0.25kW × 6P		0.4kW × 6P		0.55kW × 6P		0.75kW × 6P	
	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>
Standard	0.0023	0.000575	0.0031	0.000775	0.0031	0.000775	0.0067	0.00168	0.0077	0.00193	0.0120	0.00300
With Brake	0.0025	0.000625	0.0032	0.000800	0.0032	0.000800	0.0071	0.00178	0.0081	0.00203	0.0129	0.00323

kW × P	1.1kW × 6P		1.5kW × 6P		2.2kW × 6P		3.0kW × 6P		3.7kW × 6P		5.5kW × 6P	
	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>
Standard	0.0145	0.00363	0.0212	0.00530	0.0527	0.0132	0.0657	0.0164	0.0740	0.0185	0.140	0.0350
With Brake	0.0154	0.00385	0.0228	0.00570	0.0571	0.0143	0.0701	0.0175	0.0784	0.0196	0.154	0.0385

kW × P	7.5kW × 6P		11kW × 6P		15kW × 6P		18.5kW × 6P		22kW × 6P		30W × 6P	
	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>
Standard	0.286	0.0715	0.359	0.0898	1.27	0.318	1.45	0.363	1.45	0.363	1.90	0.475
With Brake	0.355	0.0888	0.428	0.1070	-	-	-	-	-	-	-	-

kW × P	37kW × 6P		45kW × 6P		55kW × 6P	
	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>
Standard	2.40	0.600	4.00	1.00	4.70	1.18
With Brake	-	-	-	-	-	-

Table E-20 Moment of Inertia · GD<sup>2</sup> of Motor for InverterUnit: GD<sub>M</sub><sup>2</sup> [kgf·m<sup>2</sup>] J<sub>M</sub> (Moment of inertia) [kg·m<sup>2</sup>]

kW × P	0.1kW × 4P		0.2kW × 4P		0.4kW × 4P		0.75kW × 4P		1.5kW × 4P		2.2kW × 4P	
	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>
Standard	0.0020	0.000500	0.0026	0.000650	0.0048	0.00120	0.0085	0.00213	0.0133	0.00333	0.0339	0.00848
With Brake	0.0022	0.000550	0.0027	0.000675	0.0052	0.00130	0.0094	0.00235	0.0149	0.00373	0.0383	0.00958

kW × P	3.7kW × 4P		5.5kW × 4P		7.5kW × 4P		11kW × 4P		15kW × 4P		18.5W × 4P	
	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>
Standard	0.0457	0.0114	0.107	0.0268	0.150	0.0375	0.359	0.0898	0.900	0.225	1.00	0.250
With Brake	0.0501	0.0125	0.121	0.0303	0.164	0.0410	0.428	0.1070	0.972	0.243	1.05	0.262

kW × P	22kW × 4P		30kW × 4P		37kW × 4P	
	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>	GD <sub>M</sub> <sup>2</sup>	J <sub>M</sub>
Standard	1.00	0.250	1.23	0.308	1.37	0.343
With Brake	1.05	0.262	1.28	0.321	-	-

# Moment of Inertia · GD<sup>2</sup>

## Example 1: CNHM2-6115-29

- (1)  $J_M = 0.00213 \text{kg}\cdot\text{m}^2$   
(Standard 1.5kW × 4-Pole motor in Table F-19)
- (2) Frame size 6115 of CYCLO® reducer.  
 $J_c$ : Reduction ratio of 29 =  $0.580 \times 10^{-4} \text{kg}\cdot\text{m}^2$  (From the Table E-15)
- (3)  $\Sigma J_c$  of CNHM2-6115-29  

$$\begin{aligned} \Sigma J &= \text{Motor } J_M + \text{CYCLO}^\circledast \text{ reducer } J_c \\ &= 0.00213 + 0.000058 \\ &= 0.002188 \text{kg}\cdot\text{m}^2 \end{aligned}$$

## Example 2: CVVM20-6215DA-165 (15 × 11)

- (1)  $J_M = 0.0898 \text{kg}\cdot\text{m}^2$  (Standard 15kW × 4-Pole motor in Table E-19)
- (2) Combination of CYCLO® reducer, Frame size 6215 with ratio 15 + Frame size 6135 with ratio 11 (Refer to Page A-6)
- (3) 1st stage of 6135 Ratio 11,  $J_c = 4.33 \times 10^{-4} \text{kg}\cdot\text{m}^2$
- (4) 2nd stage of 6215 Ratio 15,  $J_c = 216 \times 10^{-4} \text{kg}\cdot\text{m}^2$   
(Both (3) & (4) from Table F-15)
- (5) CYCLO® reducer  $J_c = 4.33 \times 10^{-4} + \frac{216 \times 10^{-4}}{11^2} = 0.0006 \text{kg}\cdot\text{m}^2$
- (6)  $\Sigma J$  of CVVM20-6215DA-165  

$$\begin{aligned} \Sigma J &= \text{Motor } J_M + \text{CYCLO}^\circledast \text{ reducer } J_c \\ &= 0.0898 + 0.0006 \\ &= 0.0904 \text{kg}\cdot\text{m}^2 \end{aligned}$$

# Construction Drawing

## 1. Construction of 6000 Series

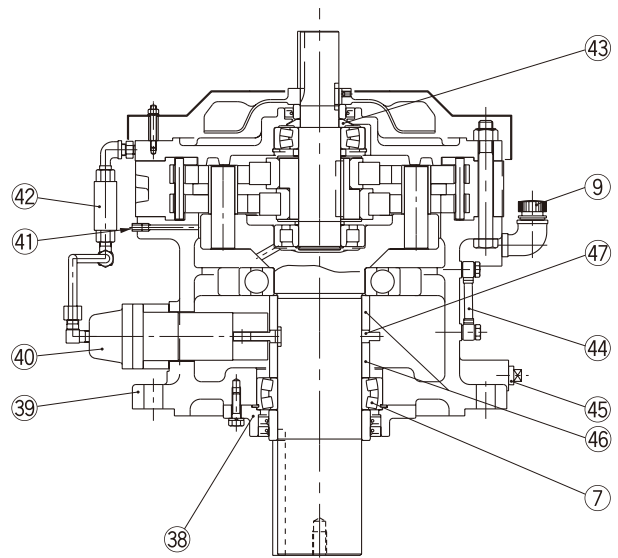
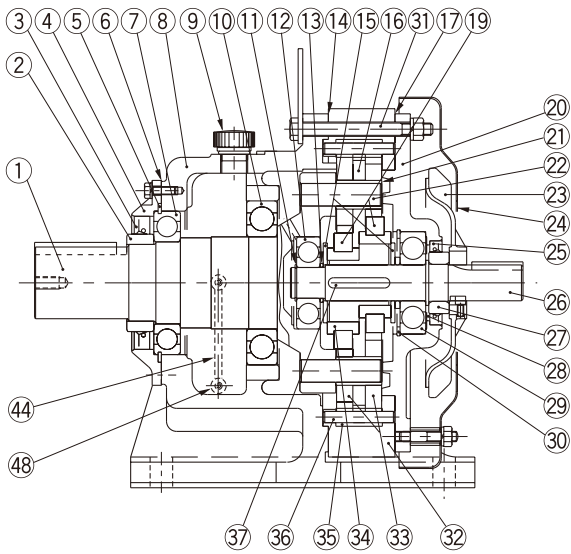


Fig E-10 Type CHH (Horizontal, Reducer) Single reduction  
(Example: Frame size 6175)

Fig E-11 Type CVV (Vertical, Reducer) Single reduction  
(Example: Frame size 6225)

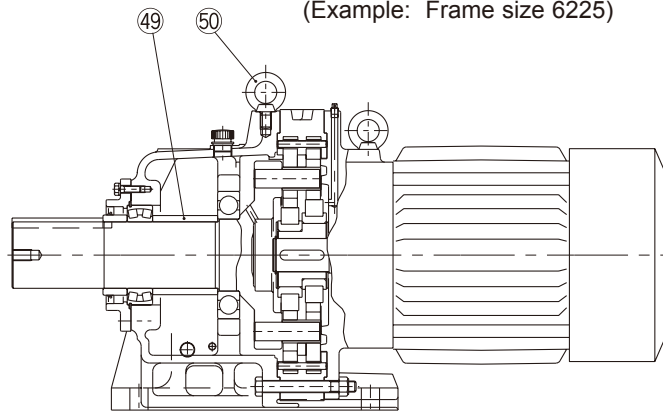
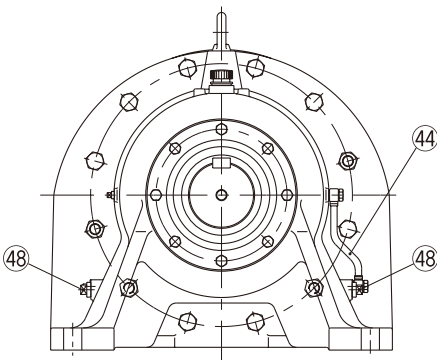


Fig E-12 Type CHHM (Horizontal, Gearmotor) Single reduction  
(Example: Frame size 6225)

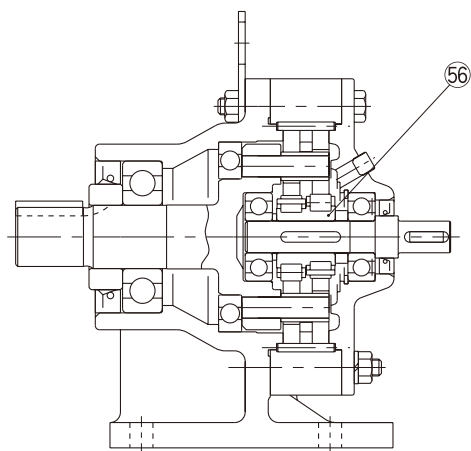
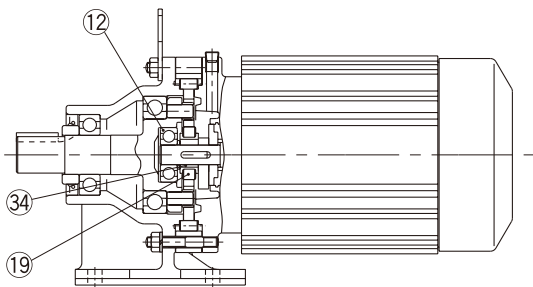


Fig E-13 Type CNHM (Horizontal, Gearmotor) Single reduction  
(Example: Frame size 6095)

Fig E-14 Type CNH (Horizontal, Reducer) Single reduction  
(Example: Frame size 6105)



# Construction Drawing

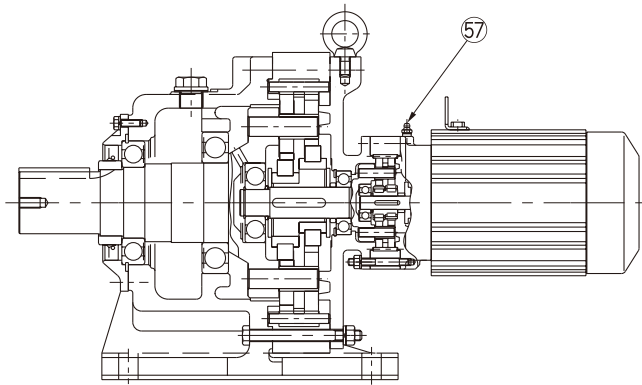


Fig E-15 Type CHHM (Horizontal, Gearmotor)  
Double reduction  
(Example: Frame size grease lubricated 6185DB)

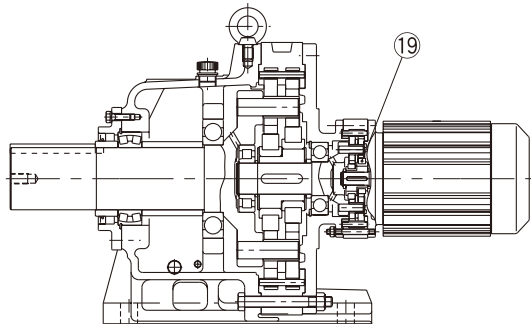


Fig E-17 Type CHHM (Horizontal, Gearmotor)  
Double reduction  
(Example: Frame size 6225DB)

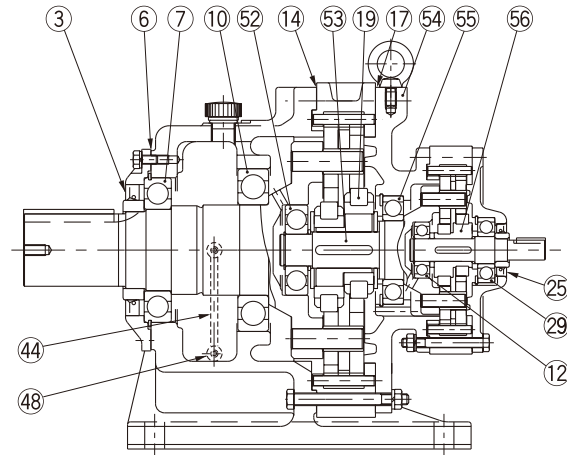


Fig E-16 Type CHH (Horizontal, Reducer)  
Double reduction  
(Example: Frame size 6185DB)

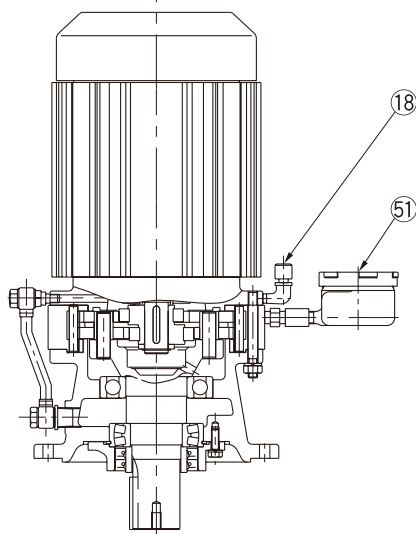


Fig E-18 Type CVVM  
(Vertical, Gearmotor)  
Single reduction  
(Example: Frame size 6145)

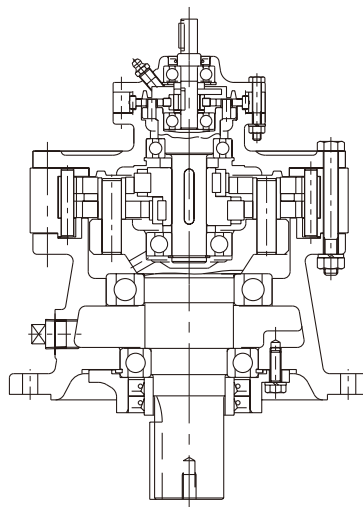


Fig E-19 Type CVV  
(Vertical, Reducer)  
Double reduction  
(Example: Frame size 6135DA)

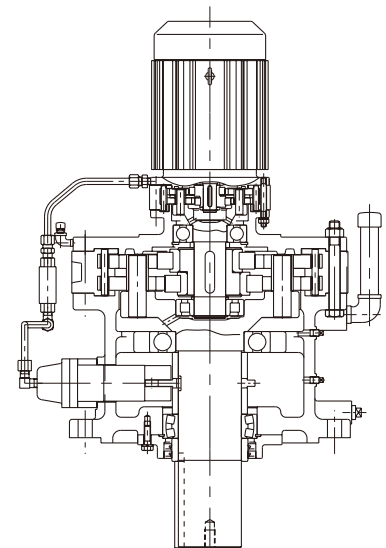


Fig E-20 Type CVVM  
(Vertical, Gearmotor)  
Double reduction  
(Example: Frame size 6225DA)

TECHNICAL  
DATA

Reducer

**Principal parts**

No.	Part Name	No.	Part Name	No.	Part Name	No.	Part Name	No.	Part Name
1	Slow speed shaft	13	Spacer	25	Oil seal	37	Key	49	Spacer
2	Collar (Slow speed shaft)	14	Gasket B	26	High speed shaft	38	Gland	50	Eye bolt
3	Oil seal	15	End plate	27	Collar (High Speed Shaft)	39	Flanged casing	51	Oil filler
4	Slow speed end cap	16	Spacer ring	28	Spacer	40	Plunger pump	52	Intermediate shaft, bearing A
5	Retaining ring	17	Gasket C	29	High speed shaft, bearing B	41	Air vent plug	53	Intermediate shaft
6	Gasket A	18	Air vent plug	30	Retaining ring	42	Oil signal	54	Intermediate cover
7	Slow speed shaft, bearing A	19	Bearing for eccentric (High speed shaft section)	31	Bolt for ring gear housing	43	Oil slinger	55	Intermediate shaft, bearing B
8	Horizontal casing	20	High speed end shield	32	Ring gear housing	44	Oil level gauge	56	Eccentric bearing (Double)
9	Oil filler plug	21	Slow speed shaft roller	33	Cycloid disc	45	Plug (Oil drain)	57	Grease nipple
10	Slow speed shaft, bearing B	22	Slow speed shaft pin	34	Eccentric	46	Spacer		
11	Retaining ring	23	Cooling fan	35	Ring gear roller	47	Cam		
12	High speed shaft, bearing A	24	Fan cover	36	Ring gear pin	48	Plug (Oil drain)		

## Construction Drawing

## 2. Construction of 6000SK Series

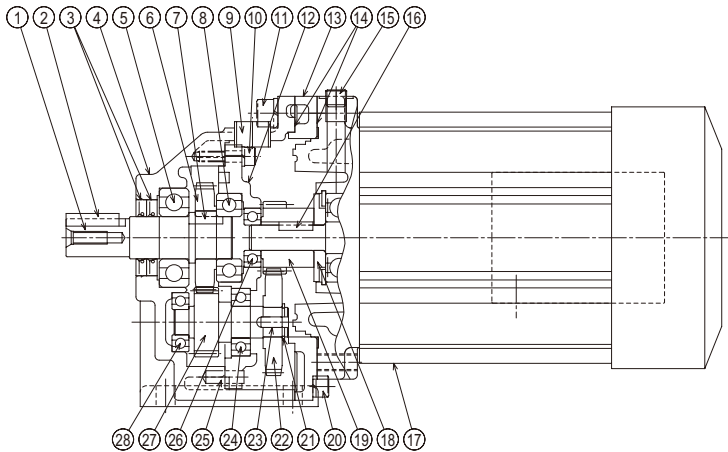


Fig E-21 Type CHHM  
(6000SK Series Horizontal, Gearmotor)  
(Example: Frame size 6075SK)

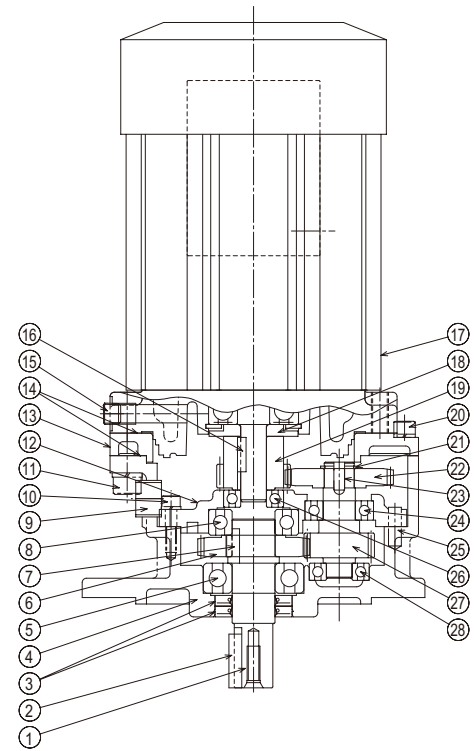


Fig E-22 Type CVVM  
(6000SK Series Vertical, Gearmotor)  
(Example: Frame size 6075SK)

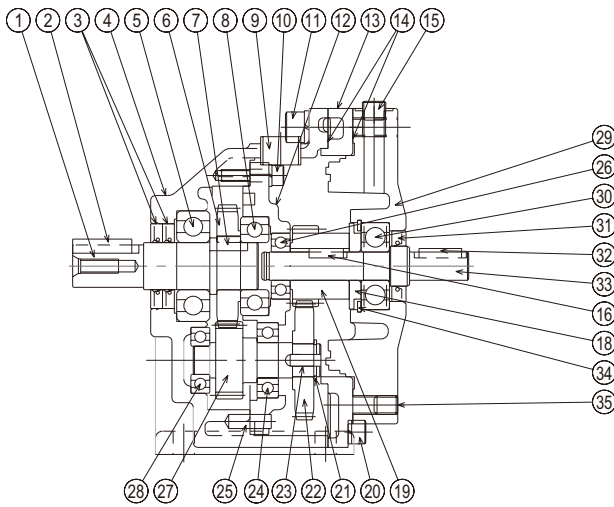
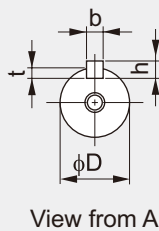


Fig E-23 Type CHH  
(6000SK Series Horizontal, Reducer)  
(Example: Frame size 6075SK)

## Principal parts

No.	Part Name	No.	Part Name	No.	Part Name	No.	Part Name
1	Slow speed shaft (Output shaft)	11	Hexagon socket head cap screw	21	Snap ring	31	Oil seal
2	Key	12	Bearing plate	22	First gear	32	Key
3	Oil seal	13	Adapter plate	23	Key	33	High speed shaft
4	Horizontal casing	14	Liquid gasket	24	Bearing (B) for mid speed shaft	34	Snap ring
5	Bearing (A) for slow speed shaft	15	Plug	25	Pin	35	Hexagon socket head cap screw
6	Second gear	16	Key	26	Bearing (A) for high speed shaft		
7	Key	17	Motor	27	Second pinion (middle speed shaft)		
8	Bearing (B) for slow speed shaft	18	Oil slinger	28	Bearing (A) for middle speed shaft		
9	Plug	19	First pinion	29	High speed end shield		
10	Hexagon socket head cap screw	20	Hexagon socket head cap screw	30	Bearing (B) for high speed shaft		

# Detailed Dimension of Slow Speed Shaft



View from A

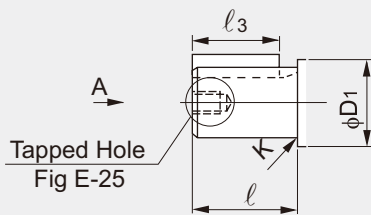


Fig E-24a

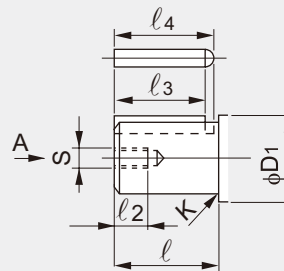


Fig E-24b

- Dimension of slow speed shaft end; Dimension tolerance in accordance with JIS B 0401-1976 "h6."
- Dimension of shaft end key; Parallel key in accordance with JIS B 1301-1996.

Table E-23 Dimension of Slow Speed Shaft

6000SK Series	Frame Size		Fig	D (h6)	Slow Speed Shaft									
	Single	Double			D <sub>1</sub>	ℓ	K (Roundness)	t	b(key) (h9)	h(key)	ℓ <sub>3</sub> (key)	ℓ <sub>4</sub>		
-	6060	6060DA	E-24b	14	30	25	-	3	5	5	20	22.5		
-	6065	6065DA	E-24b	14	30	25	-	3	5	5	20	22.5		
-	6070	6070DA	E-24b	18	30	30	-	3.5	6	6	25	-		
-	6075	6075DA	E-24b	18	20	30	0.6	3.5	6	6	25	28		
6070SK	-	-	E-24b	18	20	30	0.6	3.5	6	6	25	28		
6075SK	-	-	E-24b	18	20	30	0.6	3.5	6	6	25	28		
-	6080	-	E-24b	22	45	35	-	3.5	6	6	30	33		
-	6085	-	E-24b	22	25	35	0.6	3.5	6	6	30	33		
6080SK	-	-	E-24b	22	25	35	0.6	3.5	6	6	30	33		
6085SK	-	-	E-24b	22	25	35	0.6	3.5	6	6	30	33		
-	6090	6090DA	E-24a	28	45	35	-	4	8	7	32	-		
-	6095	6095DA	E-24a	28	45	35	-	4	8	7	32	-		
6090SK	-	-	E-24b	28	30	35	0.5	4	8	7	27	32		
6095SK	-	-	E-24b	28	30	35	0.5	4	8	7	27	32		
-	6100	6100DA	E-24a	28	50	35	-	4	8	7	32	-		
-	6105	6105DA	E-24a	28	50	35	-	4	8	7	32	-		
-	610H	-	E-24a	28	50	35	-	4	8	7	32	-		
6100SK	-	-	E-24b	28	30	35	0.5	4	8	7	27	32		
6105SK	-	-	E-24b	28	30	35	0.5	4	8	7	27	32		
-	6110	-	E-24b	32	55	45	-	5	10	8	37	42		
-	6115	-	E-24b	32	55	45	-	5	10	8	37	42		
6110SK	-	-	E-24b	32	35	45	1	5	10	8	37	40		
6115SK	-	-	E-24b	32	35	45	1	5	10	8	37	40		
-	6120	6120DA 6120DB	E-24a	38	65	55	-	5	10	8	50	-		
-	6125	6125DA 6125DB	E-24a	38	65	55	-	5	10	8	50	-		
-	612H	-	E-24a	38	65	55	-	5	10	8	50	-		

TECHNICAL DATA

Reducer

Table E-24 Dimension of Tapped Hole

6000SK Series	Frame Size		Tap	Depth	Center hole		
	Single	Double			φD1	φD2	B
-	6060	6060DA	M5	16	7	5.2	2.6
-	6065	6065DA	M5	16	7	5.2	2.6
6070SK	6070	6070DA	M6	16	9	6.2	3.4
6075SK	6075	6075DA	M6	16	9	6.2	3.4
6080SK	6080	-	M6	16	9	6.2	3.4
6085SK	6085	-	M6	16	9	6.2	3.4
6090SK	6090	6090DA	M8	20	11	8.2	3.6
6095SK	6095	6095DA	M8	20	11	8.2	3.6
6100SK	6100	6100DA	M8	20	11	8.2	3.6
6105SK	6105	6105DA	M8	20	11	8.2	3.6
-	610H	-	M8	20	11	8.2	3.6
6110SK	6110	-	M8	20	11	8.2	3.6
6115SK	6115	-	M8	20	11	8.2	3.6
-	6120	6120DA 6120DB	M8	20	11	8.2	3.6
-	6125	6125DA 6125DB	M8	20	11	8.2	3.6
-	612H	-	M8	20	11	8.2	3.6

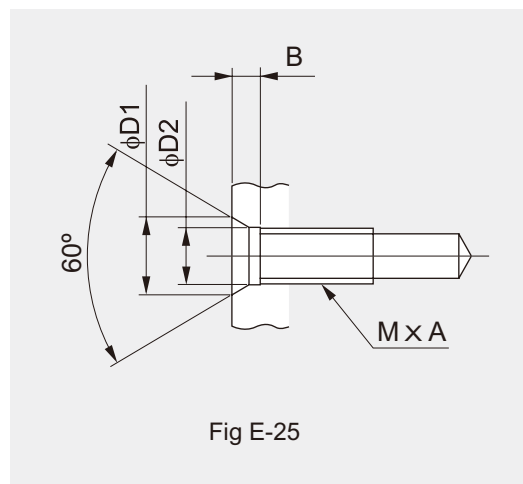


Fig E-25

## Detailed Dimension of Slow Speed Shaft

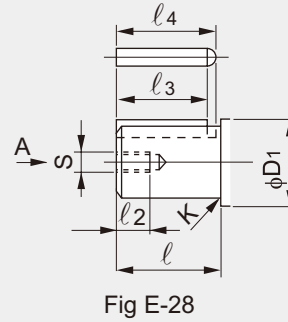
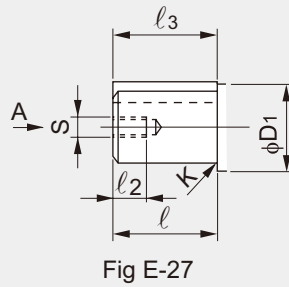
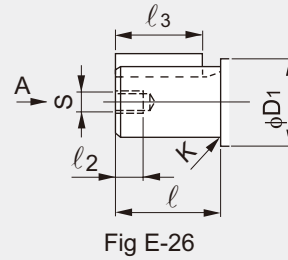
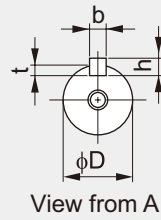


Table E-25 Dimension of Slow Speed Shaft

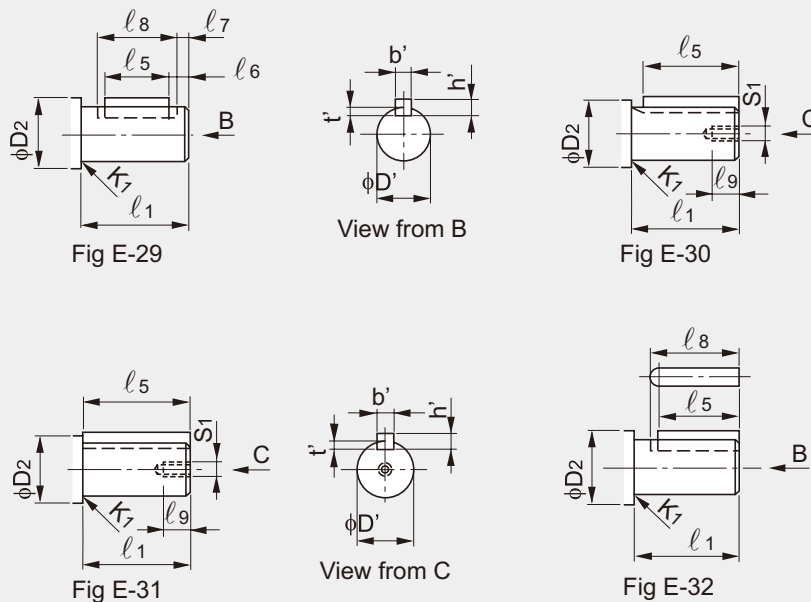
Frame Size			Slow Speed Shaft															
Single	Double		Fig	D (h6)	Tolerance	D <sub>1</sub>	ℓ	K (Roundness)	s	ℓ <sub>2</sub>	t	Tolerance	b(key)		h(key)		ℓ <sub>3</sub> (key)	ℓ <sub>4</sub>
													(h9)	Tolerance	Tolerance	Tolerance		
6130	6130DA	6130DB	6130DC	E-26	50	65	70 (61)	-	M10	18	5.5	+0.2 0	14	0 -0.043	9	0 -0.090	56	
6135	6135DA	6135DB	6135DC	E-26									14		9		80	
6140	6140DA	6140DB	6140DC	E-26									14		9		80	
6145	6145DA	6145DB	6145DC	E-26	50	65	90 (81)	-	M10	18	5.5	+0.2 0	14	0 -0.043	9	0 -0.090	80	
614H	-	-	E-26	14									9		80			
6160	6160DA	6160DB	6160DC	E-26									14		9		80	
6165	6165DA	6165DB	6165DC	E-26	60	85	90 (80)	-	M10	18	7	+0.2 0	18	0 -0.052	11	0 -0.110	80	
616H	-	-	E-26	18									11		80			
6170	6170DA	6170DB	6170DC	E-26									18		11		80	
6175	6175DA	6175DB	6175DC	E-26	70	95	90 (84)	-	M12	24	7.5	+0.2 0	20	0 -0.052	12	0 -0.110	80	
6180	6180DA	6180DB	E-26	20									12		80			
6185	6185DA	6185DB	E-26	20									12		80			
6190	6190DA	6190DB	E-28	80	110	110 (100)	-	M12	24	9	+0.3 0	0 -0.063	22	0 -0.063	14	0 -0.110	100	
6185	6185DA	6185DB	E-26										22		14		100	
6195	6195DA	6195DB	E-28										22		14		100	
6195	6195DA	6195DB	E-28	95	120	135 (125)	-	M20	34	9	+0.3 0	0 -0.063	25	0 -0.063	14	0 -0.110	125	137.5
6205	6205DA	6205DB	E-27										25		14		125	137.5
6215	6215DA	6215DB	E-27										25		14		125	137.5
6225	6225DA	6225DB	E-27	100	120	145	165	-	M20	34	11	+0.3 0	0 -0.063	18	0 -0.130	165		
6215	6215DA	6215DB	E-27											18		165	165	
6225	6225DA	6225DB	E-27											18		165	165	
6235	6235DA	6235DB	E-27	110	130	160	200	-	M24	41	11	+0.3 0	0 -0.063	18	0 -0.130	200		
6225	6225DA	6225DB	E-27											18		200	200	
6235	6235DA	6235DB	E-27											18		200	200	
6245	6245DA	6245DB	E-27	140	170	200	-	M24	41	12	+0.3 0	0 -0.063	20	0 -0.130	200			
6245	6245DA	6245DB	E-27										20		200	200		
6255	6255DA	6255DB	E-27										20		200	200		
6255	6255DA	6255DB	E-27	160	190	240	-	M30	49	13	+0.3 0	0 -0.063	22	0 -0.130	240			
6265	6265DA	-	E-27										22		240	240		
6275	6275DA	-	E-27										22		240	240		
6265	6265DA	-	E-27	170	200	300	-	M30	49	13	+0.3 0	0 -0.063	22	0 -0.130	300			
6275	6275DA	-	E-27										22		300	300		
6275	6275DA	-	E-27										22		300	300		
6275	6275DA	-	E-27	180	230	330 (320)	-	M30	52	15	+0.3 0	0 -0.063	25	0 -0.130	330 (320)			
6275	6275DA	-	E-27										25		330 (320)	330 (320)		
6275	6275DA	-	E-27										25		330 (320)	330 (320)		

Note: Dimensions in parentheses for ℓ and ℓ<sub>3</sub> are for models with vertical output shaft.

TECHNICAL  
DATA

Reducer

# Detailed Dimension of High Speed Shaft



- Dimension of high speed shaft end; Dimension tolerance in accordance with JIS B 0401-1976 "h6".
- Dimension of shaft end key; Parallel key in accordance with JIS B 1301-1996.
- \*S1 & 9 Dimension Tap Hole is only for vertical (Type CVV, CVF) Single stage only

Table E-26 Dimension of High Speed Shaft

Frame Size			Slow Speed Shaft																	
6000SK Series	6000Series		Fig	D' (h6)	Tolerance	D <sub>2</sub>	ℓ <sub>1</sub>	K <sub>1</sub> (Roundness)	t'	Tolerance	b' (key) (h9)	Tolerance	h' (key) Tolerance	ℓ <sub>5</sub> (key)	ℓ <sub>6</sub>	ℓ <sub>7</sub>	ℓ <sub>8</sub>	*S <sub>1</sub>	*ℓ <sub>9</sub>	
-	6060	6060DA 6070DA	E-29	12		17	25	0.5	2.5		4		4	18					-	-
-	6065	6065DA 6075DA	E-29	12		17	25	0.5	2.5		4		4	18	3		22		-	-
-	6070	6090DA 6100DA 6120DA 6130DA 6140DA	E-29	12		17	25	0.5	2.5		4		4	18					-	-
-	6075	6095DA 6105DA 6125DA 6135DA 6145DA	E-29	12		17	25	0.5	2.5		4		4	18		1			-	-
6070SK	6080	-	E-29	12		17	25	0.5	2.5		4		4	18					-	-
6075SK	6085	-	E-29	12		17	25	0.5	2.5		4		4	18					-	-
6080SK	6090	6120DB 6130DB 6140DB 6160DA 6170DA	E-29	15	0	20	25	1	3		5		5	16					-	-
6085SK	6095	6125DB 6135DB 6145DB 6165DA 6175DA	E-29	15	-0.011	20	25	1	3		5		5	16	3.5				-	-
6090SK	6100	6130DC 6140DC 6160DB 6170DB 6180DA	E-29	15	-0.011	20	25	1	3	+0.1	5	0	5	16			21		-	-
6095SK	6105	6135DC 6145DC 6165DB 6175DB 6185DA	E-29	15	-0.011	20	25	1	3	0	5	-0.030	5	16					-	-
-	610H	-	E-29	15	-0.011	20	25	1	3	0	5	-0.030	5	16	3.5	1			-	-
6100SK	6110	-	E-29	15		20	25	1	3		5		5	16	3.5				-	-
6105SK	6115	-	E-29	15		20	25	1	3		5		5	16	3.5				-	-
6110SK	6120	6160DC 6170DC 6190DA	E-32	18		32	35	-	3.5		6		6	25			28		-	-
6115SK	6125	6165DC 6175DC 6195DA 6205DA	E-32	18		32	35	-	3.5		6		6	25					-	-
-	612H	-	E-32	18		32	35	-	3.5		6		6	25					-	-
-	6130	6180DC 6190DB	E-32	22		38	40	-	3.5		6		6	32					-	-
-	6135	6185DB 6195DB 6205DB 6215DA 6255DA	E-32	22		38	40	-	3.5		6		6	32					-	-
-	6140	-	E-32	22		38	40	-	3.5		6		6	32			35		-	-
-	6145	-	E-32	22	0	38	40	-	3.5		6		6	32					-	-
-	614H	-	E-32	22	-0.013	38	40	-	3.5		6		6	32					-	-
-	6160	6215DB	E-31	30		70	45	-	4		8	0	7	45				M10	20	
-	6165	6215DB 6235DA 6245DA	E-31	30		70	45	-	4		8	-0.036	7	45					-	-
-	616H	-	E-31	30		70	45	-	4		8	-0.036	7	45					-	-
-	6170	-	E-32	35		70	55	-	5		10		8	50				M12	25	
-	6175	6255DB 6255DA	E-32	35		70	55	-	5		10		8	50					-	-
-	6180	-	E-32	40	0	70	65	-	5		12		8	63				M16	30	
-	6185	6235DB 6245DB	E-32	40	-0.016	70	65	-	5		12		8	63					-	-
-	6190	-	E-31	45		82	70	-	5.5	+0.2	14	0	9	70				M16	30	
-	6195	6255DB 6265DA 6275DA	E-31	45		82	70	-	5.5	0	14	0	9	70					-	-
-	6205	-	E-31	45		82	82	-	5.5		14	-0.043	9	82					-	-
-	6215	-	E-31	50		82	82	-	5.5		14		9	82					-	-
-	6225	-	E-31	55		90	82	-	6		16		10	82					-	-
-	6235	-	E-31	60	0	110	105	-	7		18		11	105					-	-
-	6245	-	E-31	65	-0.019	110	105	-	7		18		11	105					-	-
-	6255	-	E-31	80		130	130	-	9		22		14	130					-	-
-	6265	-	E-31	80		130	130	-	9		22	0	14	140					-	-
-	6275	-	E-32	90	0	140	150	-	9	-0.022	25	-0.052	14	140			152.5		-	-

# E TECHNICAL DATA

---

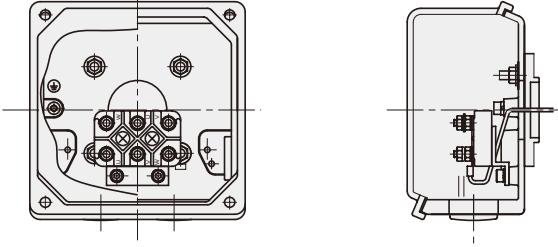
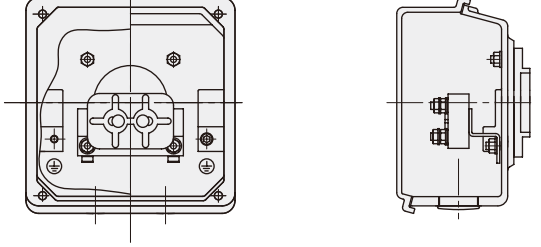
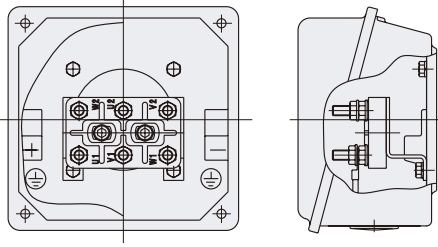
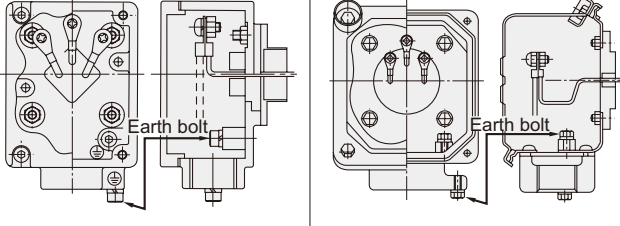
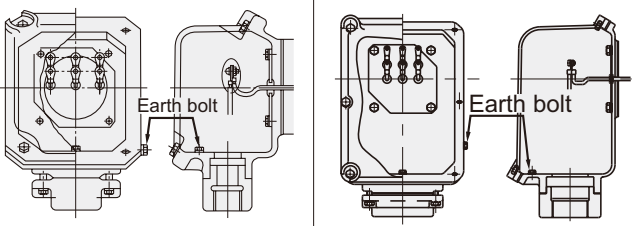
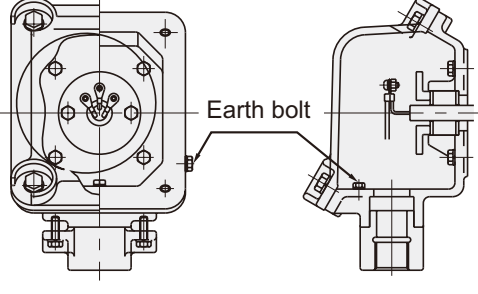
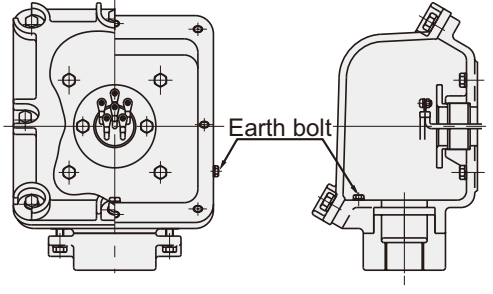
## 2. Motor

TECHNICAL  
DATA

Motor

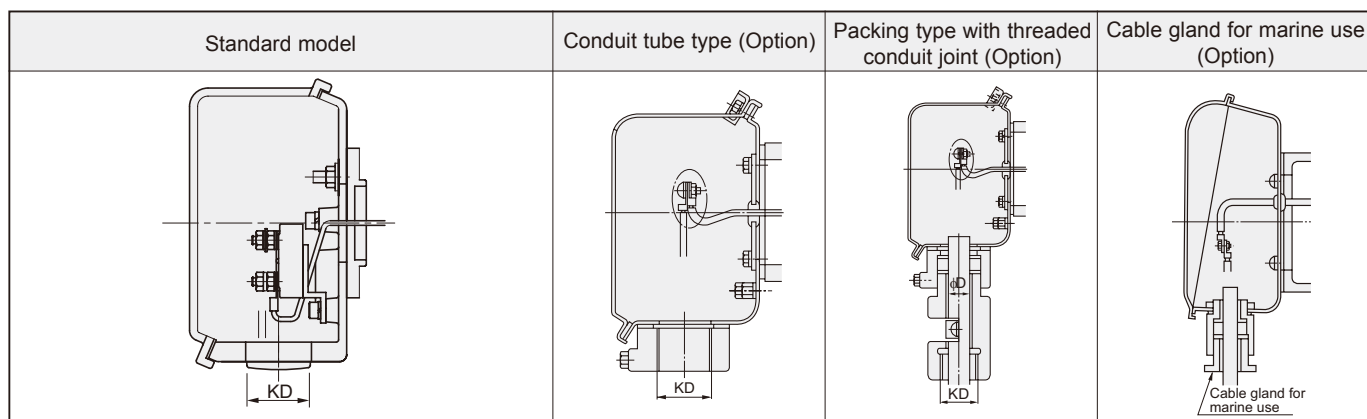
# Terminal Box Specifications

## 1. Construction of Terminal Box

TECHNICAL DATA	Standard Motors	3-Phase Motor AF Motor 0.1 ~ 5.5kW × 4P 0.1 ~ 3.7kW × 4P		3-Phase Motor AF Motor 7.5 ~ 15kW × 4P 5.5 ~ 11kW × 4P	
					
	Increased Safety Motors	3-Phase Motor AF Motor 18.5 ~ 55kW × 4P 15 ~ 55kW × 4P			
					
Flame Proof Motors	0.1 ~ 0.4kW × 4P	0.75 ~ 15kW × 4P	18.5 ~ 37kW × 4P 15 ~ 37kW × 6P	45 ~ 55kW × 4P 45 ~ 55kW × 6P	
					
	0.1 ~ 3.7kW × 4P		5.5 ~ 37kW × 4P 15 ~ 37kW × 6P		
					

## Terminal Box Specifications

## 2. Methods for Drawing Lead Wire Outside of Terminal Box.



Motor			Standard Model KD	Option															
Capacity [kW]				Conduit Tube Type		Packing Type with Thread Conduit Joint				Cable Gland for Marine Use									
3-Phase Motor	AF Motor	P		Standard Size KD	Available Size KD	Standard Size		Available Size		Standard Size									
						Thread KD	Cable Dia. φD	Thread KD	Cable Dia. φD	Thread KD	Cable Dia. φD								
0.1	-	4	M25	16 (PF1/2)	16 (PF1/2) 22 (PF3/4) 28 (PF1) 36 (PF1 1/4) Note:1)	22 (PF3/4)	12.5	22 (PF3/4)	10.0~16.5	20c	15a~c								
0.2	0.1	4	M25																
0.25	-	4	M25																
0.4	0.2	4	M25																
0.55	-	4	M25																
0.75	0.4	4	M25																
1.1	-	4	M25																
1.5	0.75	4	M25																
2.2	1.5	4	M25																
3.0	-	4	M25																
3.7	2.2	4	M25	22 (PF3/4)	22 (PF3/4) 28 (PF1) 36 (PF1 1/4) Note:1)	28 (PF1)	14.5	28 (PF1)	12.0~19.5	20c	20a~c								
5.5	3.7	4	M32																
7.5	5.5	4	M32																
11	7.5	4	M32																
15	11	4	M32																
15	-	6	M40																
18.5	-	4	M40																
18.5	-	6	M40																
22	15	4	M40																
22	15	6	M40																
30	22	4	M40	36 (PF1 1/4)	22 (PF3/4) 28 (PF1) 36 (PF1 1/4) 42 (PF1 1/2) Note:2)	42 (PF1 1/2)	24	28 (PF1) 36 (PF1 1/4) 42 (PF1 1/2) 54 (PF2) 70 (PF2 1/2) Note:2)	12.0~18.7 15.5~22.7 17.5~27.0 13.5~19.0 16.0~23.0 19.5~28.0 23.0~35.7 29.0~45.0	25c	20a~c 25a~c 30a~c								
30	22	6	M50																
37	30	4	M50																
37	30	6	M50																
45	37	4	M50																
45	37	6	M50																
55	45	4	M50																
55	-	6	M63																
45	37	6	M50									54 (PF2)	28 (PF1) 36 (PF1 1/4) 42 (PF1 1/2) 54 (PF2) 70 (PF2 1/2) Note:2)	54 (PF2)	29 34	36 (PF1 1/4) 42 (PF1 1/2) 54 (PF2) 70 (PF2 1/2) 82 (PF3) 92 (PF3 1/2)	20.0~22.7 22.5~29.7 26.8~38.0 38.1~47.0 47.1~53.7 52.5~57.0	35a	25a~c 30a~c 35a~c
45	37	6	M50																
55	45	4	M50																
55	-	6	M63																
45	37	6	M50	70 (PF2 1/2)	36 (PF1 1/4) 42 (PF1 1/2) 54 (PF2) 70 (PF2 1/2) 82 (PF3) 92 (PF3 1/2)	70 (PF2 1/2)	44	20.0~22.7 22.5~29.7 26.8~38.0 38.1~47.0 47.1~53.7 52.5~57.0	55a	35a~c 45a~c 55a~c									
45	37	6	M50																
55	45	4	M50																
55	-	6	M63																

The size of the external lead wire opening of the standard Sumitomo motor has been listed.

- Note: 1. In case of 0.4kW × 4Pole below (0.2kW × 4Pole below when AF motor for Inverter), Except for STD KD(PF1/2), dimensions of a terminal box become special.  
 2. For the increased safety explosion-proof 45kwx4pole motor, the KD dimensions become PF11/4 (36) - PF31/2(92).  
 3. Unless otherwise specifically requested, the outdoor type, increased safety explosion-proof motor and for maritime use will be manufactured to the standard dimensions specified above.  
 4. Terminal Box below 0.4kW × 4P is plastic. Steel is also available. Please consult us.

TECHNICAL DATA

Motor



# Terminal Box Specifications

## 3. Mounting Direction of Terminal Box

- The terminal box mounting direction can be changed in units of 90°, but specify the direction according to the following table when placing an order.

Cable port direction	Terminal box mounting position (As viewed from output shaft with motor being horizontal)	
	Left side (N33)	Right side (N34)
Type A (N3A)		
Type B (N3B)		
Type C (N3C)		
Type D (N3D)		

Cable port direction	Terminal box mounting position (As viewed from output shaft with motor being horizontal)	
	Top (N35)	Down (N36)
Type A (N3A)		
Type B (N3B)		
Type C (N3C)		
Type D (N3D)		

Note: Arrow indicates direction of lead wires out of terminal box.

## 4. Standard Position of Terminal Box and Direction of Lead Wires.

	Horizontal type (Horizontal Slow Speed Shaft)				Vertical type (Vertical Slow Speed Shaft Down)	
	Standard Motor		Brake Motor		Standard Motor	Brake Motor
	3-Phase	AF Motor	3-Phase	AF Motor	3-Phase	AF Motor
Terminal Box Mounting Position	Left side	Left side	Left side	Left side	Left side	Left side
Cable port direction	A	A	A	A	A	A

# Terminal Box Specifications

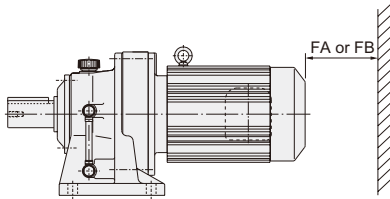
## 5. Details of Motor Fan Cover Mounting

Refer to the dimensions FA or FB shown below when designing a gearmotor mounting space.

(1) Dimensions FA:.....Dimensions necessary to remove the fan cover or brake cover without removing the motor from the equipment.

(2) Dimensions FB:.....Minimum space required for adequate ventilation

Note: 1. It is necessary to remove the gearmotor from the equipment when removing the fan or brake cover.  
2. The minimum space when the wall at the back of the motor fan is closed tightly.  
3. AF(Inverter) of 30kw or above are a differently ventilated type.

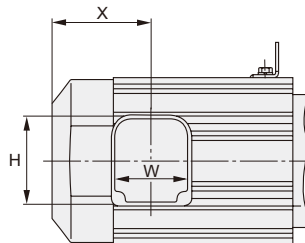


Dimension of FA and FB

[mm]

Specification	Without Brake				With Brake			
	3-Phase Motor		AF Motor		3-Phase Motor		AF Motor	
Capacity	FA	FB	FA	FB	FA	FB	FA	FB
0.1kW × 4P	-	-	48	20	49	-	61	20
0.2kW × 4P	48	20	48	20	61	20	61	20
0.25kW × 4P	48	20	-	-	61	20	-	-
0.4kW × 4P	48	20	49	20	61	20	93	20
0.55kW × 4P	49	20	-	-	93	20	-	-
0.75kW × 4P	49	20	52	20	93	20	115	20
1.1kW × 4P	52	20	-	-	115	20	-	-
1.5kW × 4P	52	20	56	20	115	20	121	20
2.2kW × 4P	56	20	60	20	121	20	132	20
3.0kW × 4P	60	20	-	-	132	20	-	-
3.7kW × 4P	60	20	60	20	132	20	132	20
5.5kW × 4P	60	20	75	25	132	20	170	25
7.5kW × 4P	75	25	75	25	170	25	170	25
11kW × 4P	75	25	130	30	170	25	220	30
15kW × 4P	130	30	155	30	220	30	367	30
18.5kW × 4P	155	30	170	30	367	30	370	30
22kW × 4P	155	30	170	30	367	30	370	30
30kW × 4P	170	30	140	30	370	30	295	30
37kW × 4P	230	30	140	30	445	30	295	30

## 6. Dimensions of Terminal Box Mounting Centers



[mm]

Specification	Without Brake						With Brake					
	3-Phase Motor			AF Motor			3-Phase Motor			AF Motor		
Capacity	X	W	H	X	W	H	X	W	H	X	W	H
0.1kW × 4P	35	125	126	59	125	126	70	125	126	91	125	126
0.2kW × 4P	59	125	126	59	125	126	91	125	126	91	125	126
0.25kW × 4P	59	125	126	-	-	-	91	125	126	-	-	-
0.4kW × 4P	59	125	126	97	125	126	91	125	126	140	125	126
0.55kW × 4P	97	125	126	-	-	-	140	125	126	-	-	-
0.75kW × 4P	97	125	126	100	125	126	140	125	126	162	125	126
1.1kW × 4P	100	125	126	-	-	-	162	125	126	-	-	-
1.5kW × 4P	100	125	126	105	125	126	162	125	126	168	125	126
2.2kW × 4P	105	125	126	127	125	126	168	125	126	199	125	126
3.0kW × 4P	127	125	126	-	-	-	199	125	126	-	-	-
3.7kW × 4P	127	125	126	127	125	126	199	125	126	199	125	126
5.5kW × 4P	127	125	126	143	170	175	199	125	126	238	170	175
7.5kW × 4P	143	170	175	143	170	175	238	170	175	238	170	175
11kW × 4P	143	170	175	295	170	175	238	170	175	385	170	175
15kW × 4P	295	170	175	340	229	223	385	170	175	550	229	223
18.5kW × 4P	340	229	223	340	229	223	550	229	223	550	229	223
22kW × 4P	340	229	223	340	229	223	550	229	223	550	229	223
30kW × 4P	340	229	223	460	229	223	550	229	223	712	229	223
37kW × 4P	430	229	223	460	229	223	645	229	223	712	229	223
45kW × 4P	430	229	223	-	-	-	-	-	-	-	-	-
55kW × 4P	465	229	223	-	-	-	-	-	-	-	-	-

# Characteristics for Global Motor

Table E-27 Characteristics of Non-Explosion Proof Motors

## (1) 200V Class

Motor Frame Size	Pole Power Output power [kW]	4P														
		220V-50Hz					230V-50Hz					220V-60Hz				
		Rated Current	Torque max.[%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]	Rated Current	Torque max.[%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]	Rated Current	Torque max.[%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]
V-63S	0.10	0.60	235	230	2.3	1420	0.62	261	261	2.3	1430	0.53	220	202	2.1	1700
V-63M	0.20	1.0	210	206	3.8	1410	1.0	231	236	4.0	1420	0.95	186	191	3.5	1690
V-63M	0.25	1.2	182	195	4.2	1380	1.2	202	222	4.4	1400	1.2	153	161	3.7	1640
V-71M	0.40	2.0	200	201	7.3	1410	2.1	221	229	7.8	1400	1.8	188	185	6.6	1680
V-80S	0.55	2.4	182	206	9.2	1410	2.4	200	225	9.6	1420	2.3	164	166	8.6	1680
V-80M	0.75	3.3	211	193	13.1	1420	3.3	217	212	13.8	1430	3.1	189	180	12.3	1720
V-90S	1.1	4.7	215	200	21.7	1420	4.6	236	223	22.8	1420	4.4	189	170	19.9	1690
V-90L	1.5	6.1	204	192	27.9	1420	6.0	226	212	28.9	1430	5.7	196	175	25.5	1700
V-100L	2.2	8.7	203	213	42.1	1420	8.3	231	255	45.0	1430	8.1	207	185	38.0	1690
V-112S	3.0	11.2	205	213	61	1420	11.1	224	237	64	1420	10.8	175	155	54	1720
V-112M	3.7	13.4	219	218	80	1410	17.8	308	340	114	1440	12.9	207	178	70	1700

## (2) 400V Class

Motor Frame Size	Pole Power Output power [kW]	4P														
		380V-50Hz					400V-50Hz					415V-50Hz				
		Rated Current	Torque max.[%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]	Rated Current	Torque max.[%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]	Rated Current	Torque max.[%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]
V-63S	0.10	0.34	235	230	1.3	1420	0.36	261	261	1.3	1430	0.37	281	286	1.4	1430
V-63M	0.20	0.61	210	206	2.2	1410	0.62	233	236	2.3	1420	0.63	251	260	2.4	1420
V-63M	0.25	0.70	182	195	2.4	1380	0.70	202	222	2.5	1380	0.70	220	242	2.3	1400
V-71M	0.40	1.2	200	201	4.2	1410	1.2	221	229	4.5	1420	1.3	236	250	4.7	1420
V-80S	0.55	1.4	182	206	5.3	1410	1.4	200	225	5.5	1420	1.4	218	248	5.8	1420
V-80M	0.75	1.9	211	193	7.6	1420	1.9	219	215	8.0	1430	2.0	237	232	8.4	1440
V-90S	1.1	2.7	215	200	12.5	1420	2.7	236	223	13.2	1420	2.7	256	243	14.3	1430
V-90L	1.5	3.5	204	192	16.1	1420	3.5	228	224	17.1	1430	3.6	242	236	17.8	1430
V-100L	2.2	5.0	203	213	24.3	1420	4.8	231	255	26.0	1430	5.0	240	263	26.8	1430
V-112S	3.0	6.5	205	213	35.1	1420	6.4	224	237	37.0	1420	6.2	241	255	35.7	1420
V-112M	3.7	7.8	219	218	45.9	1410	7.5	231	236	46.9	1420	7.7	259	269	51	1430
V-132S	5.5	11.3	215	227	69	1410	11.1	237	256	73	1420	11.0	256	281	76	1430
V-132M	7.5	15.0	228	232	93	1450	14.8	252	261	99	1450	14.8	270	284	103	1450
V-160M	11.0	21.5	231	250	139	1450	21.0	256	282	147	1450	20.8	274	308	154	1450
G-160L	15.0	27.7	241	235	170	1460	26.6	271	265	180	1470	26.0	294	289	188	1470
F-180MG	18.5	34.5	262	277	245	1450	33.1	293	312	261	1450	32.3	319	340	272	1460
F-180MG	22.0	40.8	252	269	280	1450	39.3	281	302	297	1450	38.9	304	328	310	1450
F-180L	30.0	56	218	236	325	1450	54	244	265	345	1450	54	264	286	361	1450
F-200L	37.0	70	256	285	479	1450	66	256	287	446	1460	65	277	311	467	1460
F-200L	45.0	84	251	286	564	1440	81	252	288	538	1450	80	271	310	559	1450

Motor Frame Size	Pole Power Output power [kW]	4P 440V-60Hz				
		Rated Current	Torque max.[%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]
		V-63S	0.10	0.32	300	289
V-63M	0.20	0.54	268	266	2.4	1720
V-63M	0.25	0.60	232	251	2.6	1700
V-71M	0.40	1.0	256	262	4.6	1730
V-80S	0.55	1.2	224	240	5.9	1720
V-80M	0.75	1.7	247	242	8.4	1740
V-90S	1.1	2.3	257	260	13.6	1720
V-90L	1.5	3.0	250	243	17.5	1740
V-100L	2.2	4.2	248	260	26.2	1720
V-112S	3.0	5.5	238	225	37.0	1720
V-112M	3.7	6.6	246	238	46.4	1720
V-132S	5.5	9.6	254	263	73	1720
V-132M	7.5	12.8	267	271	98	1750
V-160M	11.0	18.4	270	296	145	1750
G-160L	15.0	23.8	275	280	175	1770
F-180MG	18.5	29.6	295	324	252	1750
F-180MG	22.0	38.8	199	216	225	1720
F-180L	30.0	47.8	249	280	334	1740
F-200L	37.0	59	259	306	429	1730
F-200L	45.0	72	255	311	516	1730

Note: 1. The characteristics of the 4-pole motor with built-in brake is the same as shown in Table E-27 (1) and (2).  
 2. For the electrical current of the brakes, refer to Table E-31 on Page E-40.  
 3. Consult us for confirmed values. Values in the above table are subject to change without notice.

## Characteristics for Global Motor

Table E-28 Characteristics of AF Motor for Inverters

Motor Frame Size	Pole Power	4P							
		220V-60Hz				380V-60Hz			
	Output [kW]	Frequency [Hz]	Voltage [V]	Rated Current	Speed [r/min]	Frequency [Hz]	Voltage [V]	Rated Current	Speed [r/min]
VA-63S	0.10	60	220	0.85	1765	60	380	0.38	1755
		6.0	34.0	0.75	120	6.0	68	0.37	125
VA-63M	0.20	60	220	1.6	1760	60	380	0.69	1750
		6.0	34.0	1.5	130	6.0	68	0.75	130
VA-71M	0.40	60	220	2.4	1745	60	380	1.1	1725
		6.0	35.0	2.2	115	6.0	70	1.1	115
VA-80M	0.75	60	220	4.0	1755	60	380	1.9	1735
		6.0	31.0	3.9	120	6.0	62	1.9	120
VA-90L	1.5	60	220	6.4	1735	60	380	3.3	1705
		6.0	33.0	6.5	105	6.0	66	3.2	110
VA-100L	2.2	60	220	9.1	1755	60	380	4.7	1740
		6.0	31.0	9.3	140	6.0	62	4.6	135
VA-112M	3.7	60	220	14.0	1750	60	380	7.7	1730
		6.0	30.0	14.8	125	6.0	60	7.4	120
VA-132S	5.5	60	220	20.2	1760	60	380	11.2	1745
		6.0	30.0	21.3	135	6.0	60	10.7	130
VA-132M	7.5	60	220	27.4	1765	60	380	15.2	1750
		6.0	30.0	28.2	145	6.0	60	14.1	145
G-160L	11.0	60	220	38.5	1770	60	380	21.7	1755
		6.0	32.0	39.6	155	6.0	64	19.7	155
F-180MG	15.0	60	220	53	1780	60	380	30.3	1770
		6.0	32.0	53	165	6.0	64	26.3	165
F-180L	22.0	60	220	77	1775	60	380	44.5	1765
		6.0	32.0	79	160	6.0	64	39.4	160
BF-200L	30.0	60	220	100	1780	60	380	58	1770
		6.0	32.0	101	165	6.0	64	51	165
BF-200L	37.0	60	220	123	1775	60	380	72	1765
		6.0	30.0	123	165	6.0	64	62	165

Motor Frame Size	Pole Power	4P			
		415V-60Hz			
	Output [kW]	Frequency [Hz]	Voltage [V]	Rated Current	Speed [r/min]
VA-63S	0.10	60	415	0.40	1760
		6.0	68	0.37	125
VA-63M	0.20	60	415	0.75	1760
		6.0	68	0.75	130
VA-71M	0.40	60	415	1.1	1740
		6.0	70	1.1	115
VA-80M	0.75	60	415	1.9	1745
		6.0	62	1.9	120
VA-90L	1.5	60	415	3.1	1725
		6.0	66	3.2	110
VA-100L	2.2	60	415	4.4	1750
		6.0	62	4.6	135
VA-112M	3.7	60	415	7.2	1745
		6.0	60	7.4	120
VA-132S	5.5	60	415	10.5	1755
		6.0	60	10.7	130
VA-132M	7.5	60	415	14.2	1760
		6.0	60	14.1	145
G-160L	11.0	60	415	20.1	1765
		6.0	64	19.7	155
F-180MG	15.0	60	415	27.8	1775
		6.0	64	26.3	165
F-180L	22.0	60	415	40.7	1770
		6.0	64	39.4	160
BF-200L	30.0	60	415	53	1775
		6.0	64	51	165
BF-200L	37.0	60	415	65	1775
		6.0	64	62	165

Note: Consult us for confirmed values. Values in the above table are subject to change without notice.

# Characteristics for Japan Standard Motor

Table E-29 Characteristics of 6P Motors

## (1) 200V Class

Motor Frame Size	Pole	6P														
	Power	200V-50Hz					200V-60Hz					220V-60Hz				
	Output power [kW]	Rated Current	Torque max. [%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]	Rated Current	Torque max. [%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]	Rated Current	Torque max. [%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]
F-180MG	15.0	55	271	232	358	980	55	222	195	308	1180	49.9	276	246	344	1180
F-180L	18.5	71	311	274	500	990	66	258	234	430	1180	62	321	293	480	1190
F-180L	22.0	83	261	230	500	990	79	216	196	430	1180	73	269	246	480	1180
F-200L	30.0	111	269	267	694	960	106	221	228	598	1180	98	275	287	668	1180
F-200L	37.0	137	289	293	912	980	130	237	251	784	1170	120	296	314	878	1170
F-225S	45.0	163	238	244	962	980	158	195	209	818	1170	144	242	262	914	1180
F-250S	55	198	231	242	1146	980	194	188	208	970	1170	176	234	260	1084	1180
F-250M	75	269	271	296	1830	980	261	221	255	1536	1170	239	274	320	1718	1180

## (2) 400V Class

Motor Frame Size	Pole	6P														
	Power	400V-50Hz					400V-60Hz					440V-60Hz				
	Output power [kW]	Rated Current	Torque max. [%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]	Rated Current	Torque max. [%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]	Rated Current	Torque max. [%]	Starting Torque [%]	Starting Current [A]	Speed [r/min]
F-180MG	15.0	27.7	271	232	179	980	27.3	222	195	154	1180	25.0	276	246	172	1180
F-180L	18.5	35.6	311	274	250	990	33.2	258	234	215	1180	31.1	321	293	240	1190
F-180L	22.0	41.4	261	230	250	990	39.5	216	196	215	1180	36.3	269	246	240	1180
F-200L	30.0	56	269	267	347	960	53	221	228	299	1180	48.8	275	287	334	1180
F-200L	37.0	68	289	293	456	980	65	237	251	392	1170	60	296	314	439	1170
F-225S	45.0	82	238	244	481	980	79	195	209	409	1170	72	242	262	457	1180
F-250S	55	99	231	242	573	980	97	188	208	485	1170	88	234	260	542	1180
F-250M	75	135	271	296	915	980	131	221	255	768	1170	119	274	266	859	1180

Note: 1. Values in parenthesis in the above table is designed value. Consult us for detailed values.  
 2. Consult us for confirmed values. Values in the above table are subject to change without notice.



# Specification and Constructions of Built-in Brake

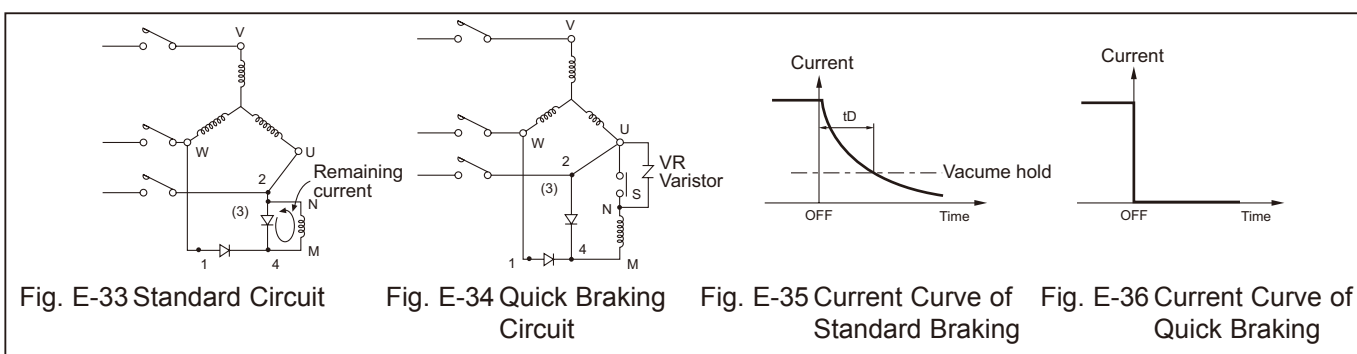
Table E-31 Standard Brake Motor Specification

Brake Type	Motor Capacity				Brake Torque (Kinetic Friction) (N·m)	Motion Delay Time [sec]			Allowable Work E <sup>o</sup> (J/min)	Work up to Gap Adjustment (×10 <sup>7</sup> J)	Total Work E <sup>1</sup> (×10 <sup>7</sup> J)	Gap		Construction			
	Three Phase Motor 4-Pole (kW)	Three Phase Motor 6-Pole (kW)	Inverter AF Motor 4-Pole (kW)	High-Efficiency Motor 4-Pole (kW)		Normal Brake Action (Simultaneous Shutoff Circuit) Three Phase Motor High-Efficiency Motor	Normal Brake Action (Separate Shutoff Circuit) AF Motor	Fast Brake Action				Default (Initial Value) (mm)	Limit Value (mm)				
	FB-01A	0.1	-	-		-	1.0	0.15~0.2				-	0.015~0.02		1080	2.6	6.7
FB-02A	0.2 0.25	-	0.1	-	2.0	0.08~0.12	0.015~0.02										
FB-05A	0.4	-	0.2	0.2	4.0	0.1~0.15	0.03~0.07	0.01~0.015									
FB-1D	0.55 0.75	0.4	0.4	0.4	7.5	0.2~0.3	0.1~0.15	0.01~0.02	1620	7.0	33.1	0.3~0.4	0.6	Fig.E-38			
FB-2D	1.1 1.5	-	0.75	0.75	15				2580	6.8	29.5						
FB-3D	2.2	0.75	1.5	1.1 1.5	22				3360	16.4	53.7						
FB-5B	3.0 3.7	1.5	2.2	2.2	37	0.4~0.5	0.2~0.25	0.01~0.02	6900	23.3	178.6	0.4~0.5	1.0	Fig.E-39			
FB-8B	5.5	2.2	3.7	3.0 3.7	55	0.3~0.4	0.1~0.15										
FB-10B1	7.5	3.7	5.5	5.5	75	1.0~1.1	0.4~0.5										
FB-15B1	11	5.5	7.5	7.5	110	0.7~0.8	0.2~0.3	0.025~0.04	10800	94.3	356.3	0.4~0.5	1.2	Fig.E-40			
FB-20	15	7.5 11	11	11 15	150	-	-	0.06~0.14	22440	191.6	1150				0.6~0.7	1.5	Fig.E-41
FB-30	18.5	-	-	-	190			-									
	22	15 18.5 22	15	-	220												
	30	-	18.5 22	18.5 22	200												
ESB-250	37	-	30	30	250	-	-	0.065	30672	52.0	267	0.7	2.0	Fig.E-43			
	45	30	37	37	300												
	-	37	-	-	370												

- This table summarizes the specifications for the standard brakes. The specifications for the special brakes may differ from those in this table.
- When the motor begins to be used, the predetermined brake torque may be unable to be reached due to the friction surface. In this case, perform lapping of the friction surface by turning on and off repeatedly with the possible lightest load.
- To improve the stopping accuracy or for the lifter, use a fast brake action.
- The lining friction sound may be generated because of the brake construction while the motor is in operation; however, the brake performance is all right.
- When the motor operates with inverter, the noise level from the brake section may increase for the reason of the brake construction; however, the brake performance is all right.
- When a motor with brake operates at a low speed for a long time, the temperature rise of the brake is larger because the cooling effect of the fan decreases. If you desire to use a motor in this manner, use an inverter motor.
- If the motor is used beyond the allowable work E<sup>o</sup>, the brake may be failed (braking failure). By referring to Table B8 on page B14, make sure that the braking work is not larger than the allowable work E<sup>o</sup>. (check this also when the motor needs emergency stop.)
- For ESB type brakes, the rectifier is mounted separately from the motor body. Use an HD-110M3. The rectifier is designed for indoor use, and must be installed in a place where it cannot be splashed with water.
- Any ESB type brake cannot be used in continuous operation when it is mounted in a vertical or inverse vertical position.

## Why fast braking circuit shortens braking time.

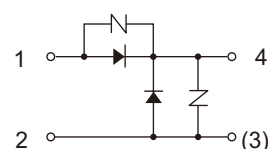
See Fig.E-33 and Fig.E-34 for differences between standard braking circuit and fast braking circuit.  
See Fig.E-35 and Fig.E-36 for current curves of standard braking and fast braking.



In the standard circuit shown in Fig.E-33, some current remains after the power is turned off due to the saved energy in the inductance L of brake coil. The current curve is shown in the Fig.E-35. When it is connected to fast braking circuit as shown in Fig.E-34 and S is released at the same time, no current remains as there

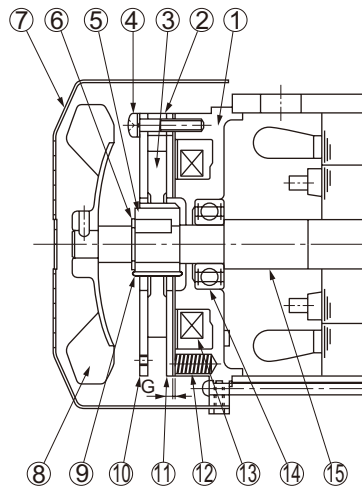
is no closed circuit with the brake coil. (See the Fig.E-36) Therefore, it shortens the braking time by  $t_b$  in the Fig.E-35. Fast braking circuit is to release all current by ON/OFF of brake coil at the same time with power ON/OFF. (VR varistor must be used to protect the rectifier and connection S.)

Circuit in the rectifier



# Specification and Constructions of Built-in Brake

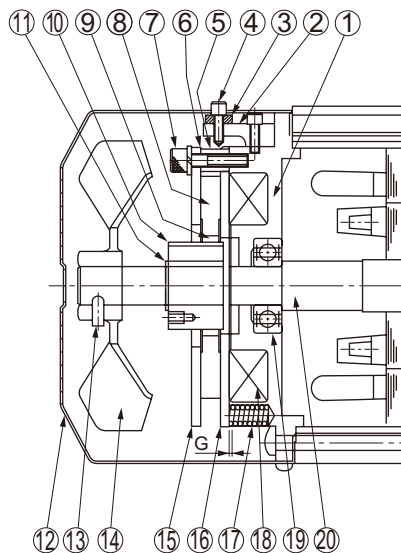
Fig. E-37 FB-01A, 02A, 05A  
(FB-01A without Fan)



No.	Pats Name
1	Stationary core
2	Spacer
3	Brake lining
4	Assembling bolt
5	Boss
6	Shaft retaining C-ring
7	Cove
8	Fan (except for 0.1kW x 4 Poles)
9	Leaf spring
10	Fixed plate
11	Armature plate
12	Spring
13	Electromagnetic coil
14	Ball bearing
15	Motor shaft

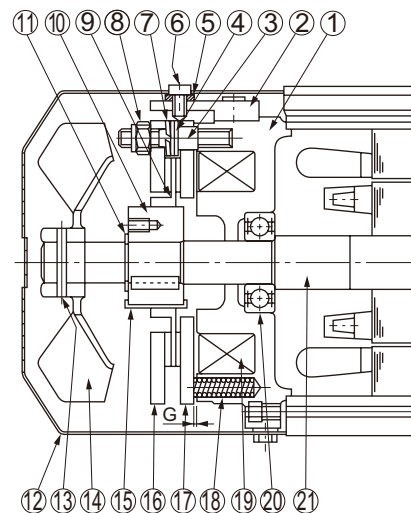
\*Brake release unit is available by option.

Fig. E-38 FB-1D, 2D, 3D



No.	Pats Name
1	Stationary core
2	Release fitting
3	Manual release protection spacer
4	Brake release bolt
5	Spacer
6	Gap adjusting shim
7	Assembling bolt
8	Brake lining
9	Leaf spring
10	Boss
11	Shaft retaining C-ring
12	Cover
13	Fan set bolt
14	Fan
15	Fixed plate
16	Armature plate
17	Spring
18	Electromagnetic coil
19	Ball bearing
20	Motor shaft

Fig. E-39 FB-5B, 8B



No.	Pats Name
1	Stationary core
2	Release fitting
3	Stud bolt
4	Adjusting washer
5	Manual release protection spacer
6	Brake release bolt
7	Spring washer
8	Gap adjusting nut
9	Brake lining
10	Boss
11	Shaft retaining C-ring
12	Cover
13	Spring pin
14	Fan
15	Leaf spring
16	Fixed plate
17	Armature plate
18	Spring
19	Electromagnetic coil
20	Ball bearing
21	Motor shaft

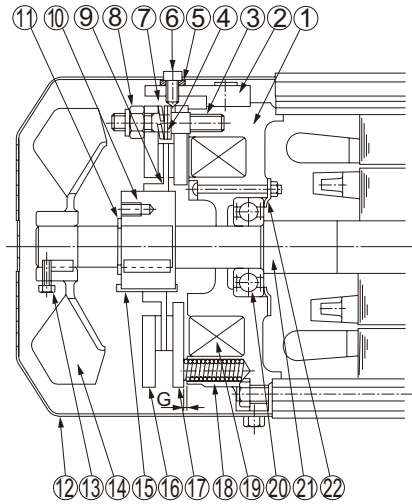
TECHNICAL  
DATA

Motor



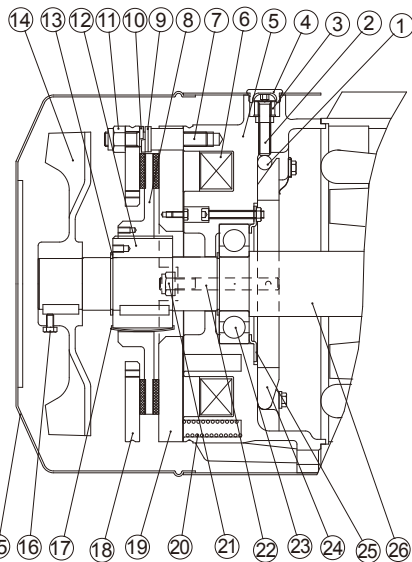
# Specification and Constructions of Built-in Brake

Fig. E-40 FB-10B1, 15B1



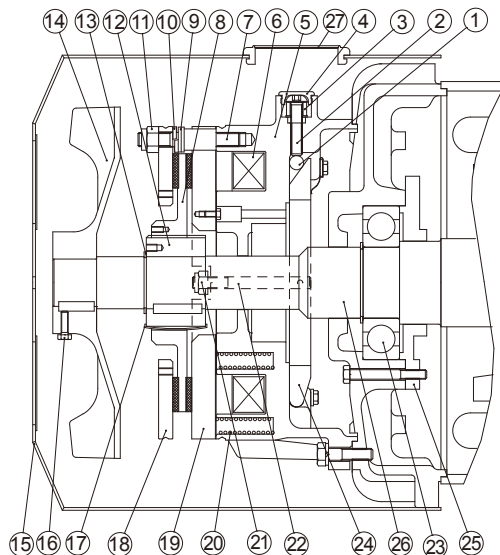
No.	Parts Name
1	Stationary core
2	Release fitting
3	Stud bolt
4	Adjusting washer
5	Manual release protection spacer
6	Brake release bolt
7	Spring washer
8	Gap adjusting nut
9	Brake lining
10	Boss
11	Shaft retaining C-ring
12	Cover
13	Fan set bolt
14	Fan
15	Leaf spring
16	Fixed plate
17	Armature plate
18	Spring
19	Electromagnetic coil
20	Ball bearing
21	Motor shaft
22	Bearing cover

Fig. E-41 FB-20 (Indoor Type)



No.	Part Name	No.	Part Name
1	Roller	14	Fan
2	Brake release bolt	15	Cover
3	Manual release protection spacer	16	Fan setting bolt
4	Plug	17	Leaf spring
5	Stationary core	18	Brake shoe
6	Solenoid coil	19	Armature plate
7	Stud bolt	20	Spring
8	Brake lining	21	Nut
9	Adjusting washer	22	Tap-end stud
10	Spring washer	23	Bearing
11	Gap adjusting nut	24	Release lever
12	Boss	25	Bearing cover
13	C type retaining ring	26	Motor shaft

Fig. E-42 FB-30 (Indoor Type)



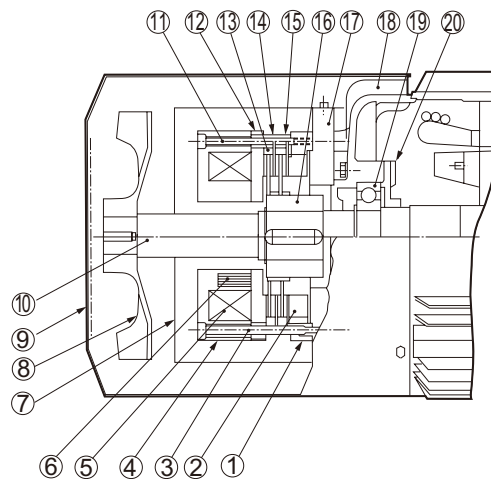
No.	Part Name	No.	Part Name
1	Roller	15	Cover
2	Brake release bolt	16	Fan setting bolt
3	Manual release protection spacer	17	Leaf spring
4	Plug	18	Brake shoe
5	Stationary core	19	Armature plate
6	Solenoid coil	20	Spring
7	Stud bolt	21	Nut
8	Brake lining	22	Tap-end stud
9	Adjusting washer	23	Bearing
10	Spring washer	24	Release lever
11	Gap adjusting nut	25	Bearing cover
12	Boss	26	Motor shaft
13	C type retaining ring	27	Grommet
14	Fan		

TECHNICAL DATA

Motor

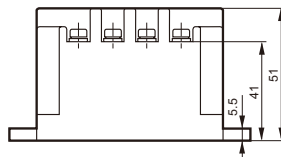
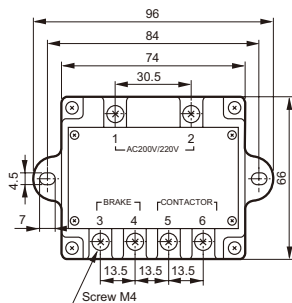
## Specification and Constructions of Built-in Brake

Fig. E-43. ESB250

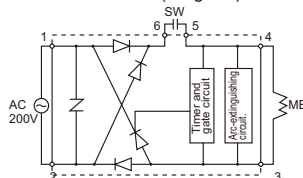


No.	Pats Name
1	Center ring
2	Gap adjusting screw
3	Assembling bolt
4	Field
5	Brake coil
6	Actuating spring
7	Brake cover (not provided for indoor type)
8	Fan
9	Fan cover
10	Shaft
11	Lock bolt
12	Armature
13	Inner disc
14	Outer disc
15	Spacer bushing
16	Hub
17	Brake adapter plate
18	Opposite drive end bracket
19	Opposite drive end bearing
20	Opposite drive end bearing cover

Power Module  
Model HD-110M3



Circuit (Diagram)



Rated input voltage: AC200/220V 50/60Hz

Maximum input voltage: AC240V 50/60Hz

Minimum input voltage: AC170V 50/60Hz

Standard output voltage

Instantaneous voltage: DC180V with AC200V input

Steady voltage: DC90V

Maximum output current: DC1.8A (Steady output)

Overexcitation time: 0.4 to 1.2 s

Insulation resistance: At 100MΩ or larger  
(When measured with 1000V megohmmeter)

Insulation with stand voltage: Application of AC2000V for over 1 time

Maximum frequency

Inching (On-time 1.2 sec or less), 8 cycle/min

Constant (On-time over 1.2sec), 30 cycle/min

Ambient temperature: -20°C ~ +60°C

- Note:
1. Take care to avoid dust and water.
  2. Transformer is necessary for operation with 400V class power source.  
The transformer should have 250 ~ 300VA rating and 200 ~ 220V secondary voltage.

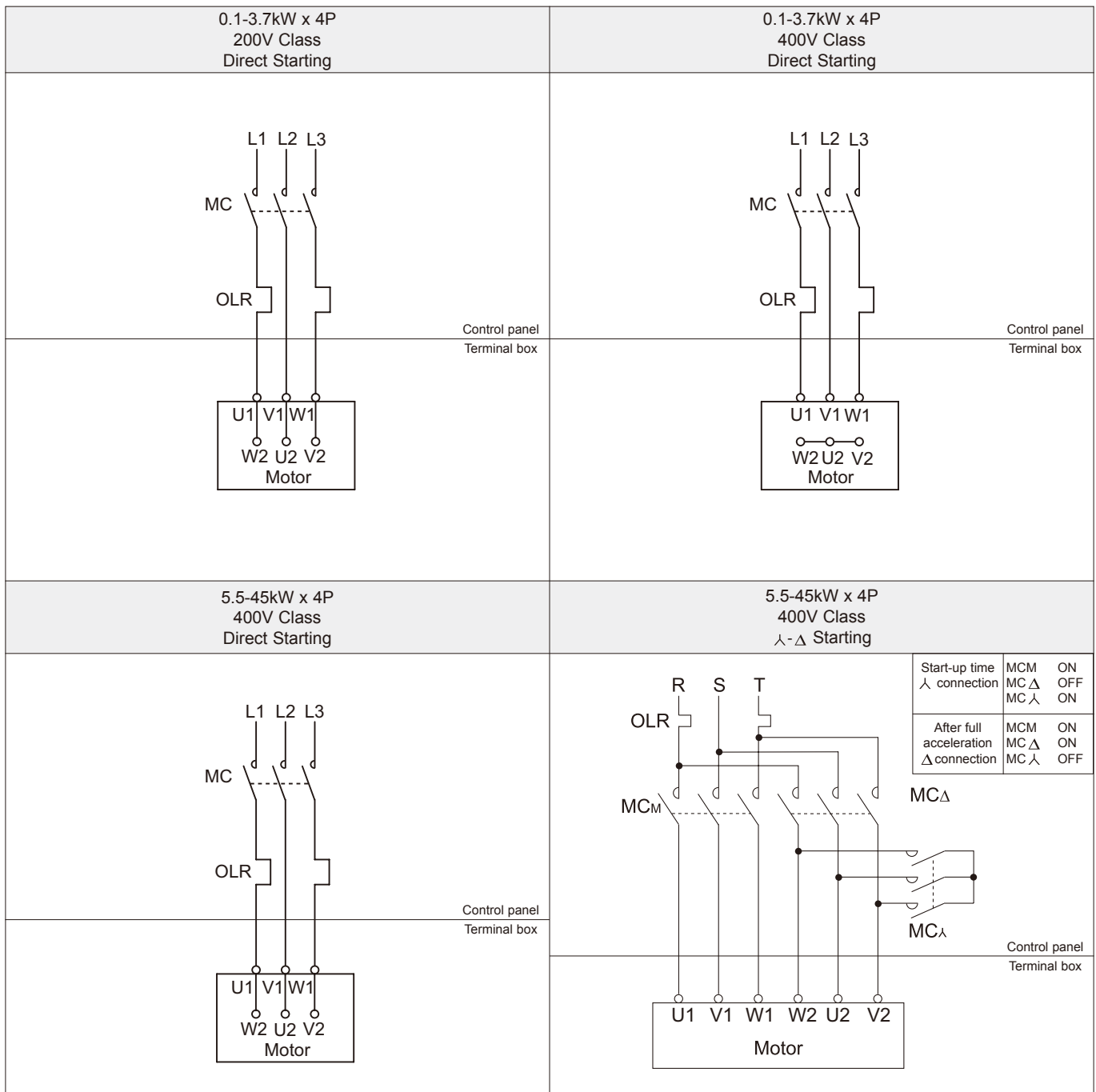
# Connection

## 3-Phase Induction Motor

		Wiring	Connection & Terminal code	Remarks
TECHNICAL DATA	Direct Start-up			Standard motor under 0.1 - 3.7kW 200V Class    220 - 240V    50Hz 220V                    60Hz
	Motor	λ - Start-up		Start-up time ^ Connection  After full acceleration Connection 

# Example of Connection

## a. 3-Phase Motor



TECHNICAL DATA

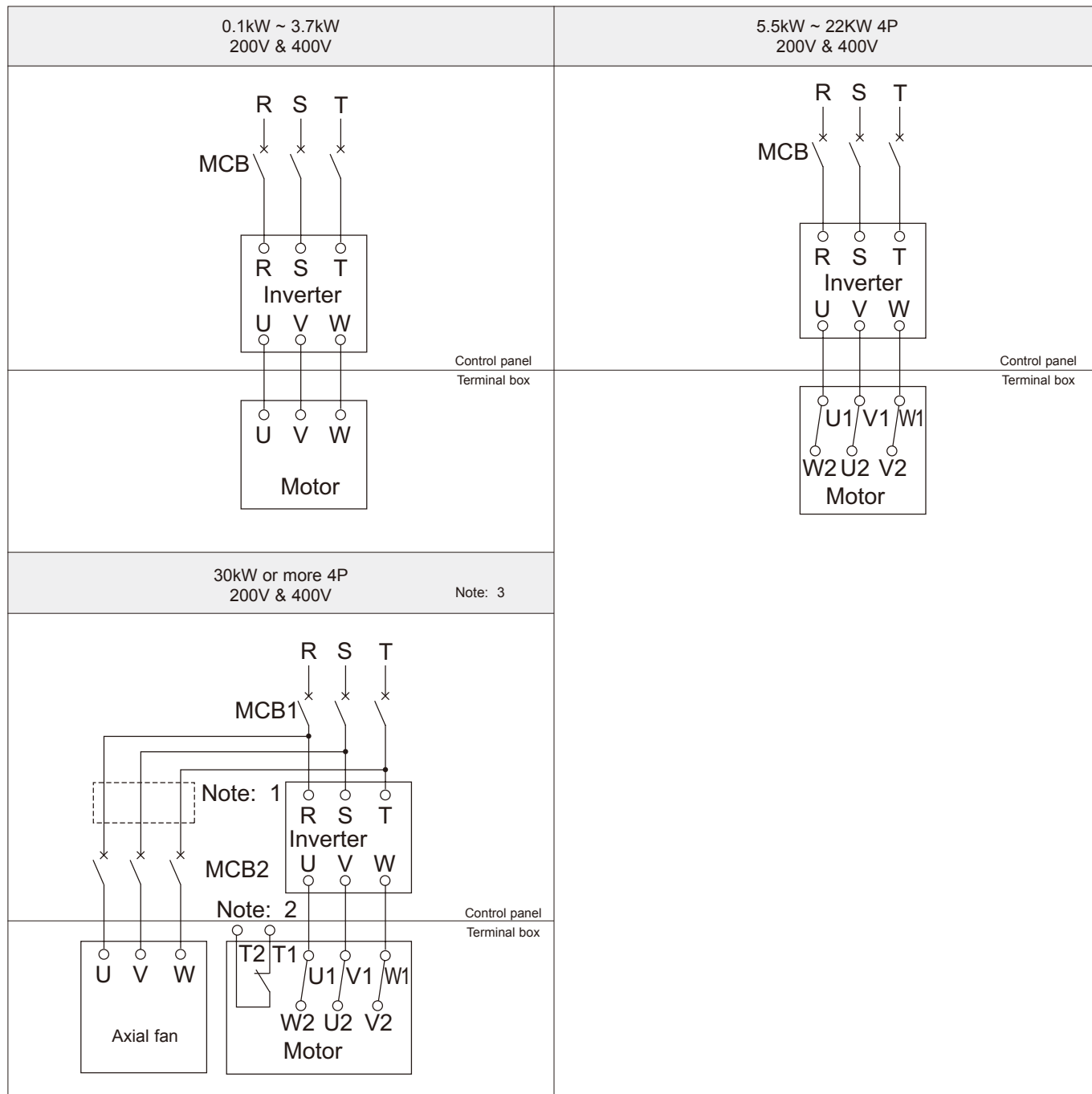
Motor

MC: Electromagnetic contactor  
 OLR: Overcurrent protection device  To be prepared by customer.

# Example of Connection

## b. 3-Phase Motor

### Example of connection for inverter-driving



TECHNICAL DATA

Motor

The AF motor is designed for inverter-driving. When the capacity is small, the  $\lambda$  connection is adopted, and when it is intermediate or larger, the  $\Delta$  connection is adopted.

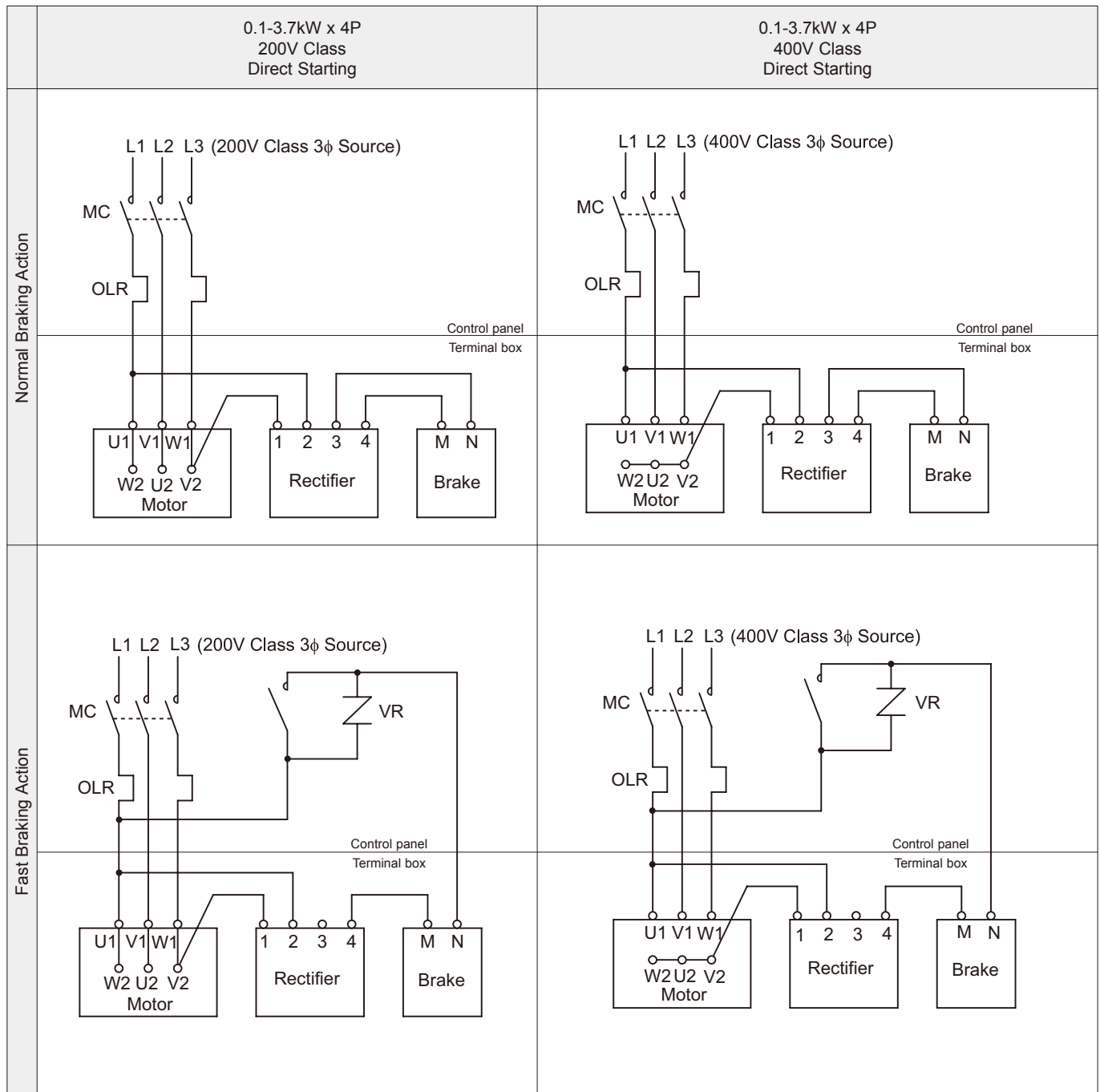
-  $\lambda$  - change-over operation by commercial power will also be possible.

• MCB: Circuit breaker – To be prepared by customer.

- Note: 1. The standard voltage of the axial fan is 3 ,200V. Provide a 400/200V transformer for the 400V power supply. Contact us for inquiries about a 400V fan.
2. Thermostat specifications (For totally enclosed separate ventilation type)  
Terminal code: T1 and T2 or P1 and P2  
Operating temperature: 135°C (Type F insulation)  
Operation: Normally closed (b contact point)  
Max. current: 24VDC; 18A; 230VAC; 13A
3. General motor of standard specification type does not include axial fan or thermostat.

# Example of Connection

## c. 3-Phase Motor with FB Brake for One Way Rotation (0.1-3.7kW)



MC : Electromagnetic contactor

OLR : Overcurrent protection device

VR : Varistor (for protection of contact, rectifier, etc.)

To be prepared by customer.

### Varistor (VR) Capacity

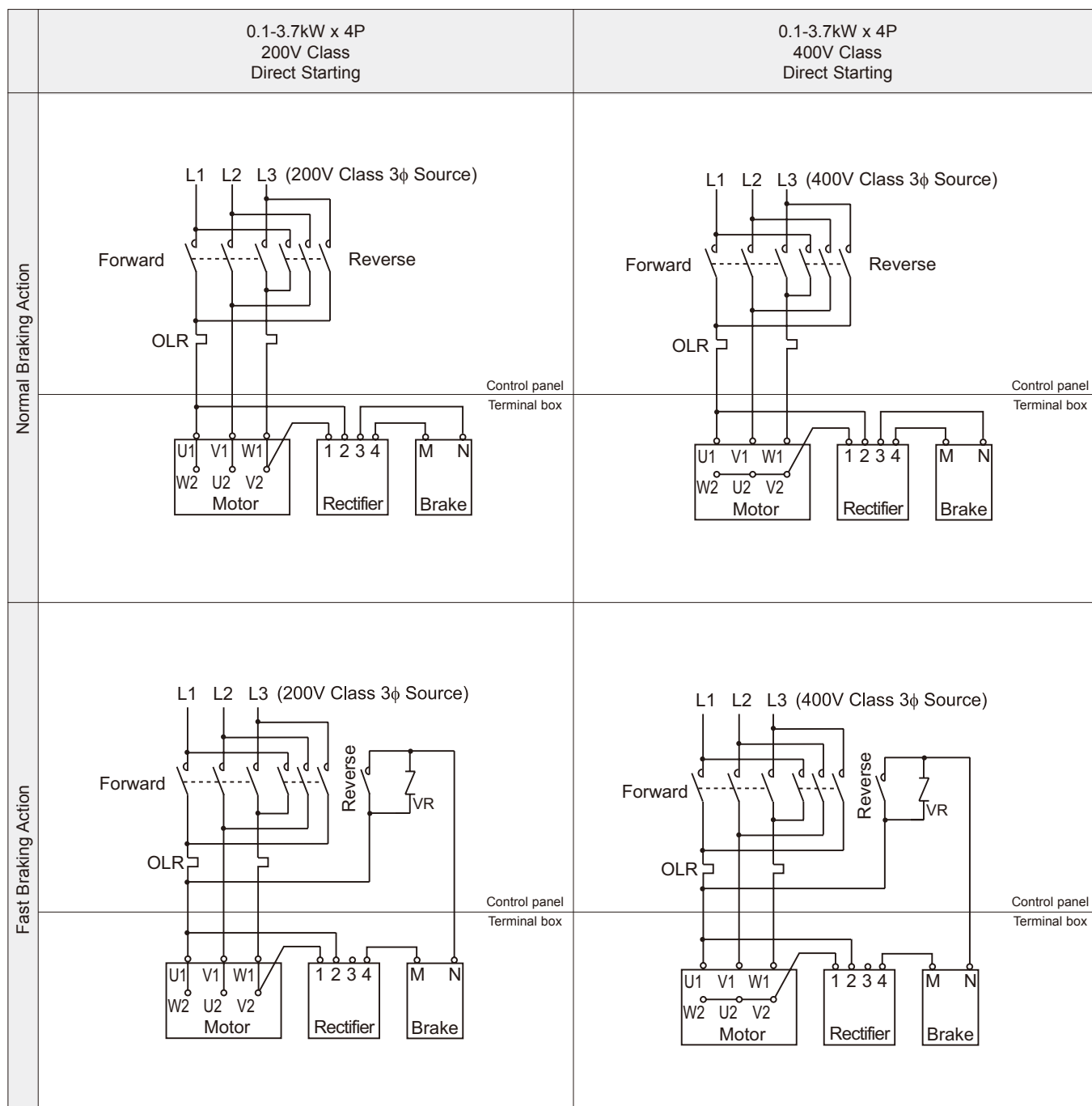
Input power	AC200V-230V	AC380V-460V
Rated voltage of varistor	AC260V-300V	AC510V
Voltage of varistor	430V-470V	820V
Rated power of varistor	FB-01A1, 02A1, 05A1	0.25Watt or more
	FB-1D	0.4Watt or more
	FB-2D, 3D, 5B, 8B	0.6Watt or more
	FB-10B1, 15B1	1.0Watt or more

• Use fast braking action for lifting devices or for better stopping accuracy.

• DC braking capacity (for DC coil loading) exceeding 5 times the braking current shown on the name plate is recommended for the fast braking action.

# Example of Connection

## d. 3-Phase Motor with FB Brake for Operating in Both Directions (0.1-3.7kW)



Forward/reverse rotation electromagnetic contactor  
 OLR : Overcurrent protection device  
 VR : Varistor (for protection of contact, rectifier, etc.)

} To be prepared by customer.

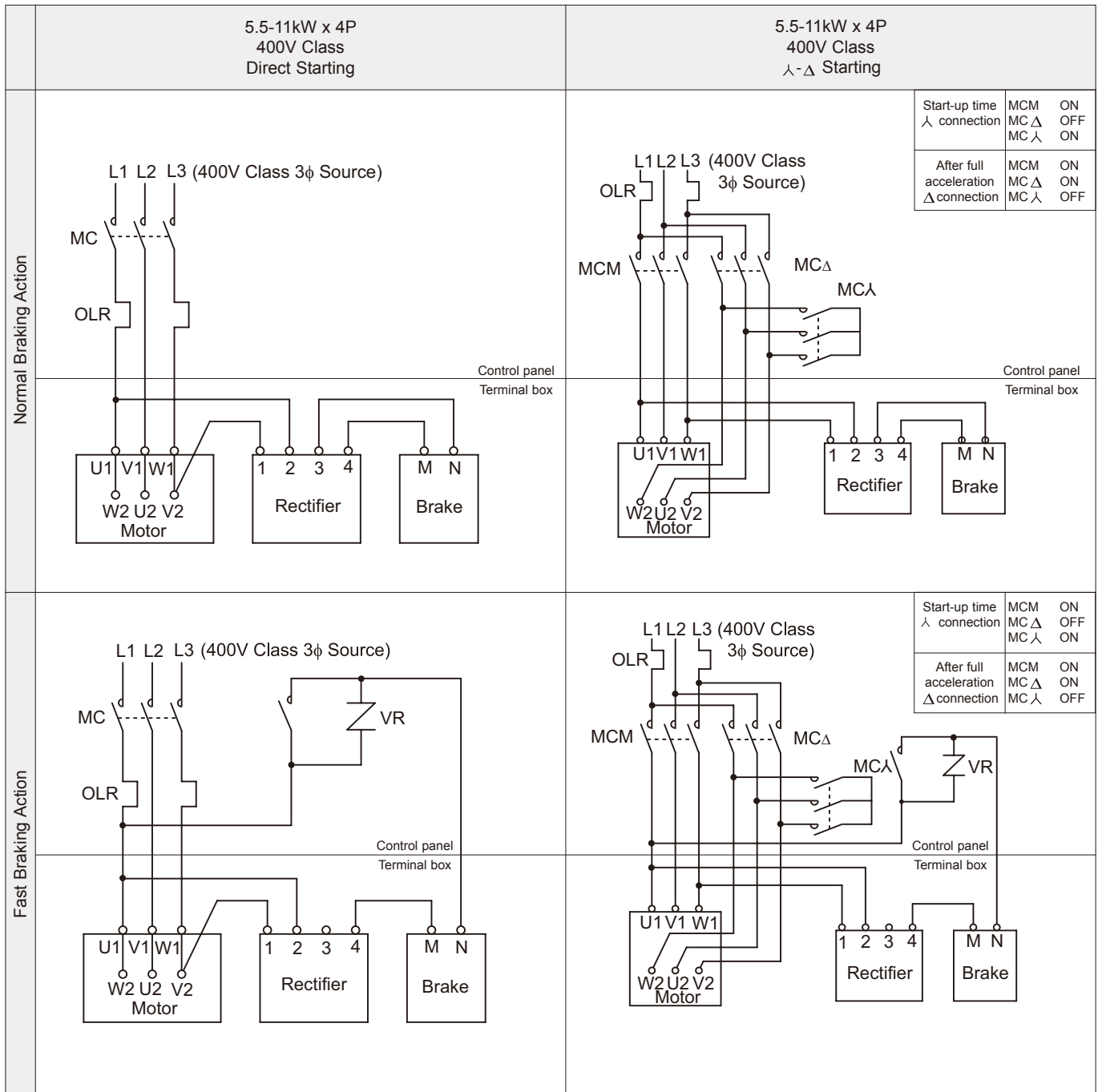
### Varistor (VR) Capacity

Input power	AC200V-230V	AC380V-460V	
Rated voltage of varistor	AC260V-300V	AC510V	
Voltage of varistor	430V-470V	820V	
Rated power of varistor	FB-01A1, 02A1, 05A1	0.25Watt or more	0.4Watt or more
	FB-1D	0.4Watt or more	0.6Watt or more
	FB-2D, 3D, 5B, 8B	0.6Watt or more	1.5Watt or more
	FB-10B1, 15B1	1.0Watt or more	1.5Watt or more

- Use fast braking action for lifting devices or for better stopping accuracy.
- DC braking capacity (for DC coil loading) exceeding 5 times the braking current shown on the name plate is recommended for the fast braking action.

# Example of Connection

## e. 3-Phase Motor with FB Brake for One Way Rotation (5.5-11kW)



MC : Electromagnetic contactor  
 OLR : Overcurrent protection device  
 VR : Varistor (for protection of contact, rectifier, etc.)

} To be prepared by customer.

### Varistor (VR) Capacity

Input power	AC200V-230V	AC380V-460V
Rated voltage of varistor	AC260V-300V	AC510V
Voltage of varistor	430V-470V	820V
Rated power of varistor	FB-01A1, 02A1, 05A1	0.25Watt or more
	FB-1D	0.4Watt or more
	FB-2D, 3D, 5B, 8B	0.6Watt or more
	FB-10B1, 15B1	1.0Watt or more

- Use fast braking action for lifting devices or for better stopping accuracy.
- DC braking capacity (for DC coil loading) exceeding 5 times the braking current shown on the name plate is recommended for the fast braking action.

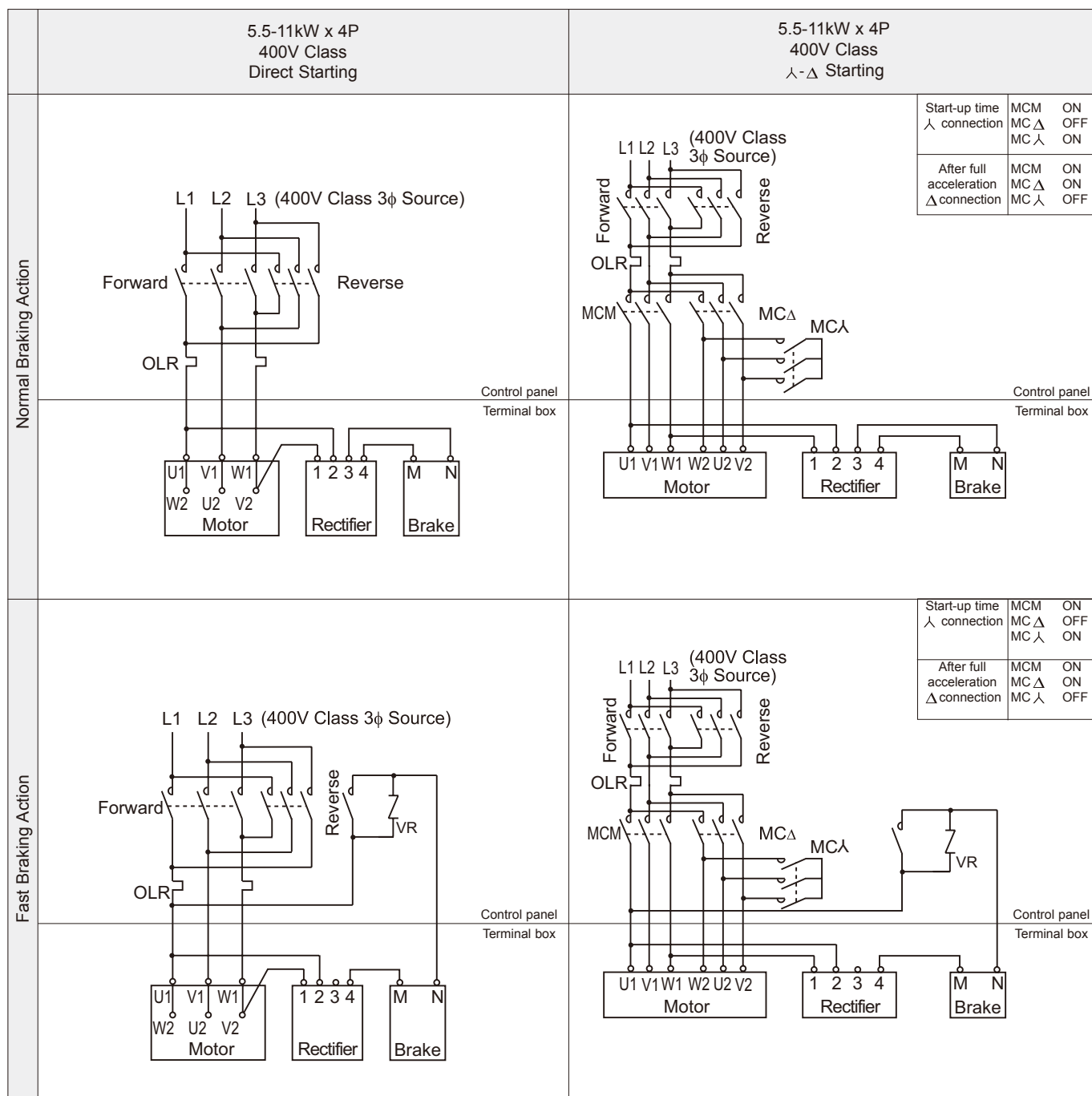
TECHNICAL DATA

Motor



# Example of Connection

## f. 3-Phase Motor with FB Brake for Operating in Both Directions (5.5-11kW)



Forward/reverse operation electromagnetic contactor

MC : Electromagnetic contactor

OLR : Overcurrent protection device

VR : Varistor (for protection of contact, rectifier, etc.)

To be prepared by customer.

### Varistor (VR) Capacity

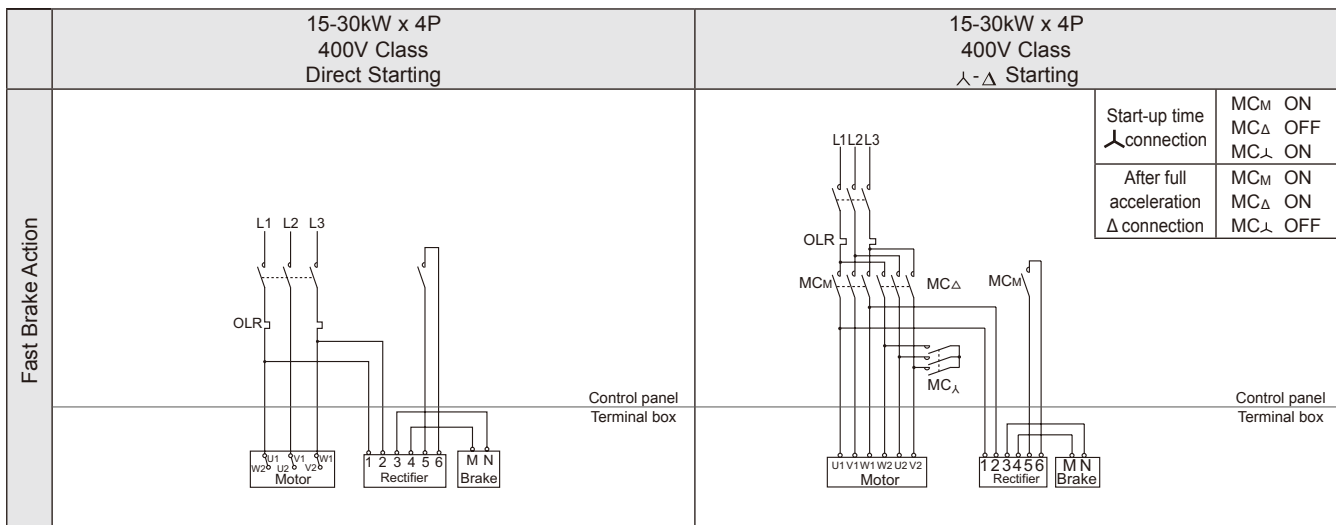
Input power	AC200V-230V	AC380V-460V	
Rated voltage of varistor	AC260V-300V	AC510V	
Voltage of varistor	430V-470V	820V	
Rated power of varistor	FB-01A1, 02A1, 05A1	0.25Watt or more	0.4Watt or more
	FB-1D	0.4Watt or more	0.6Watt or more
	FB-2D, 3D, 5B, 8B	0.6Watt or more	1.5Watt or more
	FB-10B1, 15B1	1.0Watt or more	1.5Watt or more

• Use fast braking action for lifting devices or for better stopping accuracy.

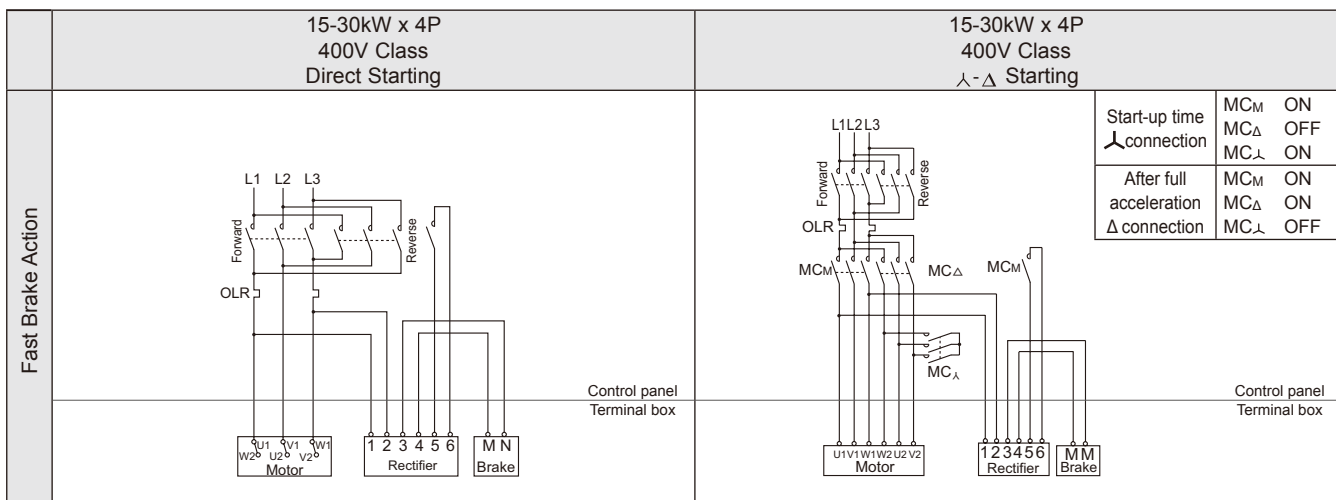
• DC braking capacity (for DC coil loading) exceeding 5 times the braking current shown on the name plate is recommended for the fast braking action.

# Example of Connection

## g. 3-Phase Motor with FB Brake for One Way Rotation (15-30kW)



## h. 3-Phase Motor with FB Brake for Operating in Both Directions (15-30kW)



Forward/reverse operation electromagnetic contactor

MC : Electromagnetic contactor

OLR : Overcurrent protection device

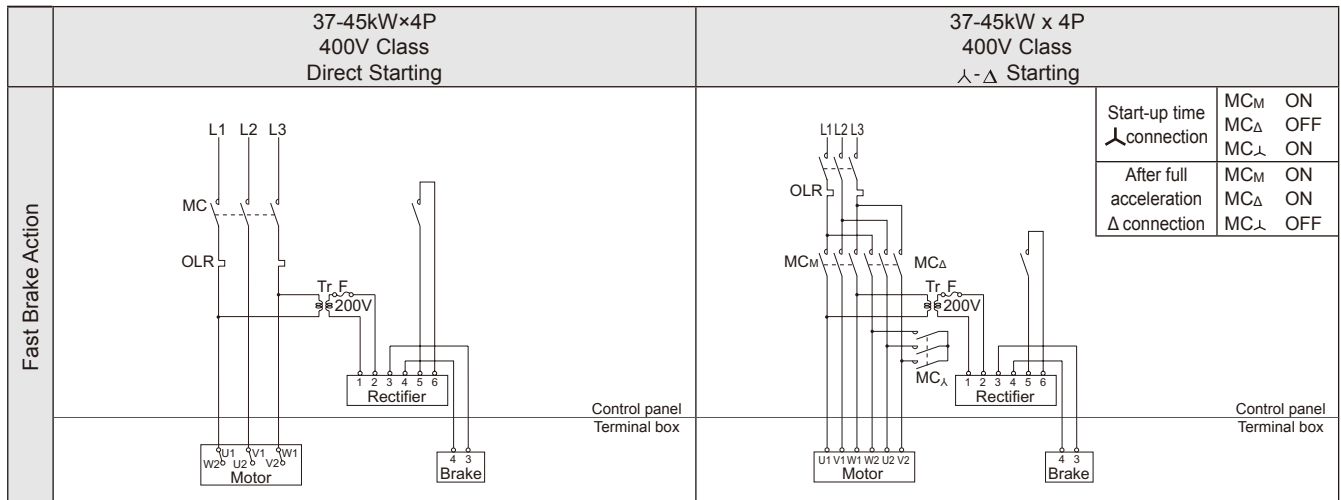
To be prepared by customer.

TECHNICAL  
DATA

Motor

# Example of Connection

## i. 3-Phase Motor with ESB Brake for One Way Rotation (37-45kW)



Start-up time connection	MC <sub>M</sub> ON
	MC <sub>Δ</sub> OFF
After full acceleration Δ connection	MC <sub>M</sub> ON
	MC <sub>Δ</sub> OFF

MC : Electromagnetic contactor

OLR : Overcurrent protection device

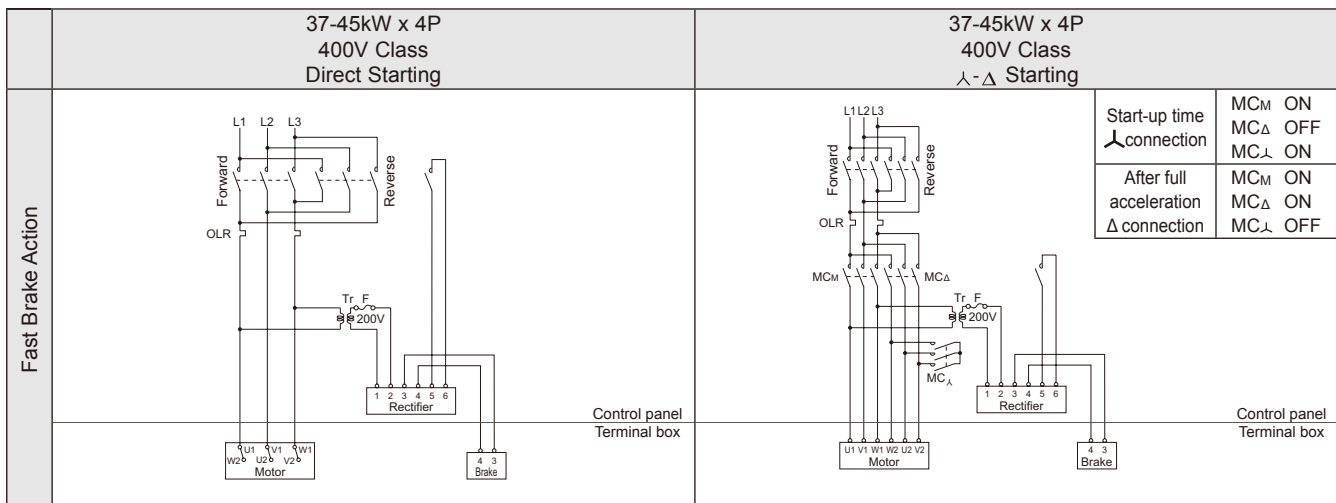
Tr : Transformer capacity 250~600VA, secondary voltage 200~220V

F : Fuse 3~5A

To be prepared by customer.

# Example of Connection

## j. 3-Phase Motor with ESB Brake for Operating in Both Directions (37-45kW)



Forward/reverse operation electromagnetic contactor

MC : Electromagnetic contactor

OLR : Overcurrent protection device

Tr : Transformer capacity 250~600VA, secondary voltage 200~220V

F : Fuse 3~5A

To be prepared by customer.

# Protection and Cooling

No.1 Symbol: Type of protection of humans and solid foreign substances } Classified according to combination (IEC34-1)  
 No.2 Symbol: Type of protection against water permeation

## Protection Method of Motors

No.1 Symbol No.1 type	No.2 Symbol No.2 type	0 Non-protected type	2 Drip-proof type	3 Spray-proof type	4 Splash-proof type	5 Water-jet-proof type	6 Sea-wave-proof type	7 Immersion-proof type	8 Submersible type
0 (Non-protected type)		IP00			×	×	×	×	
1 (Semi-protected type)		IP10	IP12S			×	×	×	
2 (Protected type)		IP20	IP22S	IP23S	IP24	×	×	×	
4 (Totally enclosed type)		×			IP44	IP45			
5 (Dust-proof type)		×			IP54	IP55	IP56		

Note: 1. × denotes difficulty in forming the combination.  
 2. Outlined columns  shows the range of standard models.  
 3. Please consult us if operating conditions include splashed water, or rain.

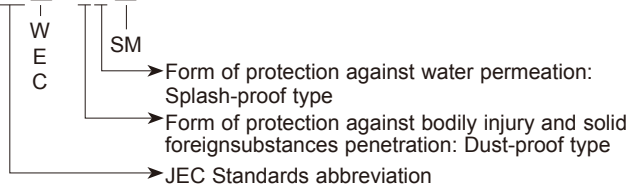
## Class of No.1 Symbol

Type	Symbol	Description
Non-protected	0	Constructed without special protection against human contact and penetration of solid foreign substances.
Semi-protected	1	Constructed to prevent inadvertent contact with rotating and conductive parts inside the machine, by hand or other critical parts of human body. Constructed to prevent penetration of solid foreign substances over 50 mm in diameter.
Protected	2	Constructed to prevent contact with rotating and conductive parts inside the machine, by hand or other critical parts of the human body. Constructed to prevent penetration by solid substances over 12mm in diameter.
Totally enclosed	4	Constructed to prevent contact with the rotating and conductive parts inside the machine, by tools, electric wires, etc., with minimum width and thickness over 1mm. Constructed to prevent penetration of solid foreign substances over 1mm diameter. However, water drainage outlet and exhaust outlet may be of Symbol 2 construction.
Dust-proof type	5	Constructed to prevent contact with rotating and conductive parts inside the machine by any foreign object. Constructed for maximum protection against dust particles penetration, but such penetration will not interfere with normal operation.

## Class of No.2 Symbol

Type	Symbol	Description
Non-protected	0	Constructed without special protection against water permeation.
Drip-proof	2	Constructed to prevent harmful effect from dripping water falling from within 15° direction from vertical.
Spray-proof	3	Constructed to prevent harmful effect from dripping water falling from within 60° direction from vertical.
Splash-proof	4	Constructed to prevent harmful effect from dripping water falling from any direction.
Water-jet-proof	5	Constructed to prevent harmful effect from spray from any direction.
Sea-wave-proof	6	Constructed to prevent harmful effect from strong spray from any direction.
Immersion-proof	7	Constructed for submersion into water of prescribed depth and time, without any harm even when water enter the unit.
Submersible	8	Constructed to assure normal operations under water.

Example: IP   - 54  



S: Test of form of protection against water permeation conducted when motor is stopped.  
 M: Test of form of protection against water permeation, conducted while motor is operating.  
 When S or M is not indicated:  
 Conduct test when motor is at stop and during operation.  
 W: Outdoor type (Only Non-protected)  
 E: Explosion-proof type  
 C: Form of protection against other harmful atmosphere.

## Cooling

Enclosure Construction	IEC Standards
Totally enclosed, non-ventilated (TENV)	IC410
Totally enclosed, fan-cooled (TEFC)	IC411
Totally enclosed, Air over (TEAO)	IC416

# International Standards and Compliance of Sumitomo Products

## CCC Standards (China Compulsory Certification)

China had implemented the China Compulsory Certification (CCC) system since May 1, 2002 as becoming the full member of World Trade Organization (WTO). They have moved on to compulsory licensing on August 1, 2003. Motor capacity 1.1kW and below are subject to this certification, and requires CCC Mark for sales in China. Below table is our motor with CCC.

Motor	Three Phase Motor	AF Motor	AF Motor (Foot Mount)
Capacity	0.1~1.1kW	0.1~0.75kW	0.4~0.75kW
Voltage	220 or 380V		
Frequency	50Hz		
Thermal class	F		
Usage	Indoor (IP44), Outdoor (IP55)		

AF motor: 3 Phase Motor for inverter

Difference with standard items

- CCC Mark as in the right is applied on the nameplate.
- Aluminum terminal box is the standard for three phase motor.
- Terminal block type (6 terminals, European system) is the standard for three phase motor.
- Rotational direction is the opposite from Japanese domestic specification (in CCW direction looking from the anti-load side).
- CCC correspondence motor coil is used.



China Compulsory Certificate

### Remarks

- CCC Mark is necessary when exporting small size motor (or gear motor) units of 1.1kW or below to China.
- Subject service products and spare parts without certification may be permitted for import to China by applying for exemption. Consult us for any clarification.

## GOST-R Standard (Russian Gosstandard)

GOST-R Standard is a national certification system determined by State Committee of Russian Federation for Standardization and Metrology.

Any product distributed in the Russian Federation requires certification. Especially products subject to compulsory certification are not allowed to export to Russian Federation without this certification.

Sumitomo offers motors conforming to GOST-R specification for export to Russia, because motors are subject to compulsory certification.

Our Certified Motor Specification (Range other than the below is the same as CE Marking of Europe.)

Motor	General motor				Inverter motor (AF motor)			
	Without brake	With brake	Without brake	With brake	Without brake	With brake	Without brake	With brake
Capacity x 4P	0.1~3.7kW	5.5kW	0.1~3.7kW	5.5kW~30kW	0.1~2.2kW	3.7kW	0.1~2.2kW	3.7kW~30kW
Motor voltage	220/380V	380V	220/380V	380V	220/380V	380V	220/380V	380V
Brake voltage	-	-	220V	380V	-	-	220V	380V
Frequency	50Hz				60Hz			
Thermal class	F				F			
Rating	S1 (continuous)				S1 (continuous)			
Construction	Indoor (IP44), Outdoor (IP55)				Indoor (IP44), Outdoor (IP55)			
Starting	Dual voltage inline	λ - Δ	Dual voltage inline	λ - Δ	-			

AF motor: 3-Phase Motor for inverter

Difference Compared to Standard Japanese Product

- Nameplate is marked with GOST-R Mark (as shown in the right).
- Standard terminal box is made of Aluminum
- The motor has terminal block (European type with 6 terminals).
- Rotation direction is counterclockwise viewed from fan cover side (opposite from Japanese specification).
- Motor coil is certified for GOST-R.



GOST-R Mark

### Cautions

- Uncertified products cannot pass through customs when exported to Russia. (No specific certification is necessary when the unit is exported to Russia as a part of the machine.)
- A verified copy of the certification is necessary when exporting the individual unit for each case (each ship). Let us know when ordering the units which are not included in an apparatus or not built into the exported apparatus.

## International Standards and Compliance of Sumitomo Products

**CE MARKING**

The CE mark is to be affixed to products that conform to EC directives, in order to certify the quality and safety of products and ensure free distribution of products across borders within the region of the EU (European Union).

**EC directives applicable to machine products and implementation period**

The following three directives apply to ordinary machine products.

EC directives	Details	Objects	Details of directive
Machinery directive		Aggregates of parts, which are movable (Industrial machines, primarily)	Essential matters related to safety of machines are stipulated. Machines that are electrically dangerous shall fulfill the requirements for low voltage.
Low Voltage Directive		Products driven by power of 50-1,000 VAC or 75-15,000 VDC	Products not conforming to standards cannot be put on the market.
EMC Directives Electromagnetic Compatibility Directive		All types of products that may cause jamming (electromagnetic radiation) or have their functions impeded by nearby radio waves	EMI : Not to cause external electromagnetic interference EMS : To withstand external electromagnetic interference

**Standard Specifications of CE Marking Motors**

Input power	: 0.1kW~4kW 230/400V 50Hz Dual voltage direct starting 5.5kW or more 400V 50Hz $\lambda$ - $\Delta$ Start
Thermal class	: F
Rated time	: Continuous
Characteristics	: IEC34-1
Protection	: IP55 (without brake), IP55 (with brake)
Terminal box	: (Material) 5.5kW or less : Aluminum (PG16 bolts×2pcs or M25 bolts (P1.5)×2pcs) 7.5kW or more : cast iron (PG21 bolts×2pcs or M32 bolts (P1.5)×2pcs) (specification) Terminal plate (six terminals European style) with grounding terminal Conduit tube of M thread
Shaft rotating direction	: Rotating direction is reverse to Japanese standard direction.
Insulation	: Distances between insulated surfaces and spaces in accordance with IEC standards.
External dimensions	: Same as standard except for the terminal box Length might vary in some cases for models 90W or less.
TUV test report	: Acquired for a representative model 0.75kW×4p, 230V/400V (Oct 1996) CE marking motors are manufactured in accordance with the model.
Declaration of Conformity	: Declaration of Conformity is available when necessary for CE marking

**Manufacturing range of CE Marking motors****3-phase induction motor**

	230/400V dual voltage									
Input power symbol	01	012	018	02	03	04	05	08	1	
kW×4P	(0.1)	0.12	0.18	(0.2)	0.25	0.37	(0.4)	0.55	0.75	
Frame	V63S		V63M			V71M		V80S	V80M	

	230/400V dual voltage							400V	
Input power symbol	1H	2	3	4	5	6	8	10	15
kW×4P	1.1	1.5	2.2	3	(3.7)	4	5.5	7.5	11
Frame	V90S	V90L	V100L	V112S	V112M		V132S	V132M	V160M

- Motors of kW without brackets ( ) in the above table are standard in Europe while motors of kW with brackets ( ) are used only in Japan and other countries.
- European standard kW motors are recommended. Motors of kW with brackets ( ) are also available.
- 3-phase 200V/50Hz, 200V/60Hz, 220V/60Hz 3-phase 400V/50Hz, 400V/60Hz, 440V/60Hz 3-phase 380V/50Hz, 3P 415V/50Hz
- Contact us when motors of kW and voltage not shown in the above table are required.
- Consult us when M bolt (Metric bolt) is needed for conduit tube.

**Measures to take for EC directives and CE marking related to gear motors**

Among EC directives, the machinery directive (issued in January 1995) concerning induction motors and low voltage directive (issued in January 1997) are applicable.  
The EMC directive (issued in January 1996) does not apply to induction motors.

CE marking logo shown on nameplates



# International Standards and Compliance of Sumitomo Products

## UL Standards (Underwriters Laboratories)

UL Standards are established by Underwriters Laboratories Inc. (UL), an independent, not-for-profit product-safety testing and certification organization in the USA. It conducts series of scientific study, research, and testing to prevent harmful effect to human life, fire, and disaster. Although there is no regulation by the Federal Government for manufacturers' compliance, some state and cities mandate them. Using Sumitomo product with UL Standard Certification will represent your reliability, which is highly appreciated in the USA.

Motor	Non-explosion proof 3-phase induction motor	3-phase induction motor with brake
Power	1/8~60HP × P	1/8~8HP × 4P
Voltage	208V, 230V, 460V, 575V	
Frequency	60Hz	
Thermal class	F	
Ambient conditions	Outdoor type	

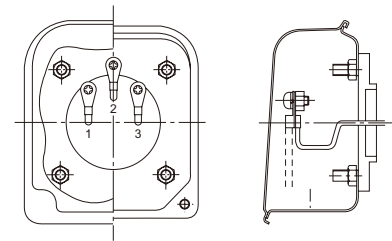
\*1 Contact us for manufacturing single-phase motor or motor with brake.

### Differences from Sumitomo standard models

- Terminal symbol: 1, 2, 3
- Name plate with UL mark and measurement expressed by units HP
- Opposite rotating direction from the Japanese domestic products
- Copper terminal box
- UL standard motor coil and brake coil

### Remarks

- Motors must be manufactured, modified, and repaired at certified factories.
- Certified motor for inverter (AF Motor) may be manufactured for range 1/8~11HP.



3-Phase indoor terminal box



UL Mark

SM-CYCLO® 3 PHASE INDUCTION MOTOR		
HP	P	TYPE
VOLTS		FRAME
Hz		INS. CLASS
AMP		TIME RATING
RPM		SERVICE FACTOR
CODE		MAX. AMB °C
SER. NO.		
SUMITOMO MACHINERY CORP. OF AMERICA CHESAPEAKE, VIRGINIA		

UL Nameplate

## CSA Standards (Canadian Standards Association)

CSA Standards are established by the semiprivate Canadian Standards Association, a not-for-profit membership-based association. Most of the Canadian states requires this CSA certification for its domestically sold electric related products. Some American states evaluate CSA Standards comparable to UL Standards.

Motor	1-phase induction motor *1	3-phase induction motor	3-phase induction motor with brake	High efficiency 3-phase induction motor *1	High efficiency 3-phase induction motor with brake *1
Power	1/8~1HP × 4P	1/8~60HP × 4P	1/8~30HP × 4P	1.5~50HP × 4P	1.5~30HP × 4P
Voltage	115V, 230V	208V, 230V, 460V, 575V		230V, 460V, 575V	
Frequency	60Hz				
Thermal class	F				
Ambient conditions	Indoor type *2				

\*1 Contact us for manufacturing of single-phase or high-efficiency motor with brake.

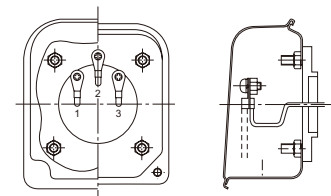
\*2 Outdoor types are not available.

### Differences from Sumitomo standard models

- Terminal symbol: 1, 2, 3 (with Brake type, T1, T2, T3)
- The frame size of a high-efficiency motors are different from standard types.
- Name plate with CSA mark and measurement in HP
- Opposite rotating direction
- Copper terminal box
- CSA standard motor coil

### Remarks

- CSA certified motor is necessary for export to Canada. In addition, high-efficiency motor is necessary for 1 HP and above.
  - Motors must be manufactured, modified, and repaired at certified factories.
  - Because CSA does not certify motors for inverters, our AF Motors is not CSA certified and does not come with the CSA
  - Mark although it complies with the CSA standard.
- NRCan established the energy efficiency act (EEACT) in 1992 and the energy efficiency regulations (EER) in 1995. Additional regulations were applied to gearmotors imported on November 27, 1999 and later. Gearmotor import which do not meet the efficiency standards are now banned under this law. (Subject capacity: 1~200HP, Subject frame: IEC frame size 90 and above, Subject voltage: 600V and below, constant speed motor)



3-Phase indoor terminal box



CSA Mark

SM-CYCLO™ 3 PHASE INDUCTION MOTOR		
HP	P	TYPE
VOLTS		FRAME
Hz		M / B INS. CLASS /
M.AMP		TIME RATING
RPM		SERVICE FACTOR
B.AMP		MAX.AMB °C
B.TORQUE	FT-LB	ENCLOSURE TE
MANUF. No.		
SM CYCLO OF CANADA, LTD TORONTO, MONTREAL, VANCOUVER		

CSA Nameplate

TECHNICAL DATA

Motor



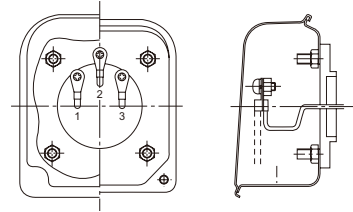
# International Standards and Compliance of Sumitomo Products

## NEMA Standards (National Electrical Manufacturers Association)

NEMA Standards include numerous standards for electric products established by the National Electrical Manufacturers Association (NEMA) to eliminate misunderstandings between manufacturer and purchaser.

Differences from Sumitomo standard models

- Terminal symbol: 1, 2, 3
- Name plate marked with NEMA DESIGN and measurement in HP
- Opposite rotating direction from the Japanese domestic products
- Copper terminal box
- NEMA standard motor coil



3-Phase indoor terminal box

### Remarks

- No approval is required to state NEMA compliance
- NEMA is also applicable for inverter motor (AF motor), but limited to terminal symbols, measurement in HP, rotating direction and terminal box.

3 PHASE INDUCTION MOTOR	
HP	P TYPE
VOLTS	FRAME / -
Hz	M/B INS. CLASS /
M. AMP	TIME RATING
RPM	SERVICE FACTOR
CODE	MAX. AMBI. °C
B. AMP	B. TORQUE FT-LB
SERIAL NO.	NEMA DESIGN

Sumitomo Heavy Industries, Ltd.  
J.A.P.A.N.

NEMA Nameplate

## Other Standards

- : Sumitomo standards
- △: Manufactured specially on customer's request

### Application of International Standards (Example)

Country/Standards	Japan · JIS JEM JEC	International · IEC	UK · BS
Standard output	○	○	△: 4kW and below ○: 5.5kW and above
Applicable output frame size	○	-	△
Motor mounting dimension of each frame size	○ Note	○ Note	○ Note
Shaft end dimension	○ Note	○ Note	△ Note
Dimension tolerance of shaft end key and keyway	○ Note	○ Note	△ Note
Thermal class	○	○	○
Lead wire code	○	○	○
Standard rotation direction	○	△	△
Description on nameplate	○	△	△
Characteristic testing method	○	○	△
Standard voltage	200V, 220V 400V, 440V	△	415V
Standard frequency	50Hz, 60Hz	50Hz, 60Hz	50Hz

IEC- International Electrotechnical Commission.  
BS- British Standards.

Note: CYCLO flange dimension is the standard. Consult us for flange dimension for your required compliance standards.

## Major Japanese Standards

- |  |  |
|--|--|
| <p>(1) General rotating electrical machines<br/>JIS C 4004 (1992): General rules for rotating electrical machines<br/>JEC-200 (1993): Rotating machinery in general<br/>JEM 1188 (1969): Rated output values of electric motors</p> <p>(2) General 3-phase induction motors<br/>JIS C 4210 (1983): Low-voltage 3-phase squirrel cage induction motors for general purpose<br/>JIS C4212 (2000): High efficiency low-voltage 3-phase squirrel cage induction motors.<br/>JEC-37 (1979): Induction machines</p> <p>(3) Methods of testing and calculating characteristics<br/>JEC-37 (1979): Induction machines<br/>JIS C 4207 (1995): Calculating method of 3-phase induction motors characteristics</p> <p>(4) Dimensions<br/>JEM 1400 (1991): Dimension of low-voltage 3-phase squirrel cage induction motors for general purpose<br/>JEM 1401 (1991): Dimensions of flange-mounted low-voltage 3-phase squirrel cage induction motors for general purposes</p> <p>(5) Explosion-proof construction<br/>JIS C 0903 (1983): Electrical apparatus for explosive atmospheres in general industries</p> | <p>JIS C 0904 (1983): Test methods on electrical apparatus for explosive gas atmospheres in general industries<br/>JIS C 0905 (1983): Supplementary requirements for construction of electrical apparatus for explosive atmosphere in general industries<br/>Recommended practices for explosion-protected electrical installations in general industries (1979)<br/>Rules for authorization of explosion-proof construction of electrical machine tools (1981)</p> <p>(6) Others<br/>JIS C 4003 (1977): Classification of materials for insulation of electrical machinery and apparatus<br/>JEC-147 (1960): Classification of materials for insulation of electrical machinery and apparatus<br/>JEM 1313 (1983): Noise levels for low-voltage 3-phase squirrel-cage induction motors for general purpose</p> <p>Abbreviations: JEC Japanese Electrotechnical Committee Standards<br/>JIS Japanese Industrial Standard<br/>JEM Japan Electrical Manufacturers' Association</p> |
|--|--|

# International Power Source Voltage and Conditions

Country / Area		Frequency	Voltage
North America	Japan	50Hz / 60Hz	Single phase 100V / 200V, 3-phase 200V / 400V
	America	60Hz	Single phase 115V / 230V, 3-phase 230V
	Canada	60Hz	Single phase 120V / 347V, 3-phase 230V, 460V, 575V
South America	Brazil	60Hz	Single phase 110V / 220V, 3-phase 220V/380V
Asia	Bangladesh	50Hz	Single phase 230V, 3-phase 400V
	China	50Hz	Single phase 220V, 3-phase 220V / 380V
	China (Hong Kong)	50Hz	Single phase 200V / 220V, 3-phase 346V / 380V
	India	50Hz	Single phase 240V, 3-phase 240V / 415V
	Indonesia	50Hz	Single phase 220V, 3-phase 380V
	Korea	60Hz	Single phase 110V / 220V, 3-phase 220V / 380V
	Malaysia	50Hz	Single phase 240V, 3-phase 415V
	Philippines	60Hz	Single phase 220V, 3-phase 220V / 440V
	Singapore	50Hz	Single phase 230V, 3-phase 415V
	Taiwan	60Hz	Single phase 110V / 220V, 3-phase 200V / 220V / 380V
	Thailand	50Hz	Single phase 220V, 3-phase 220V / 380V
	Vietnam	50Hz	Single Phase 120V/220V, 3-phase 380V
	Oceania	Australia	50Hz
Guam		60Hz	Single phase 120V, 3-phase 240V / 480V
New Zealand		50Hz	Single phase 230V, 3-phase 230V / 415V
Europe	Austria	50Hz	Single phase 230V, 3-phase 400V
	Belgium	50Hz	Single phase 230V, 3-phase 400V
	Bulgaria	50Hz	Single phase 220V, 3-phase 380V
	Denmark	50Hz	Single phase 230V, 3-phase 400V
	Finland	50Hz	Single phase 230V, 3-phase 400V
	France	50Hz	Single phase 230V, 3-phase 400V
	Germany	50Hz	Single phase 230V, 3-phase 400V
	Greece	50Hz	Single phase 230V, 3-phase 400V
	Hungary	50Hz	Single phase 220V, 3-phase 380V
	Italy	50Hz	Single phase 220V, 3-phase 380V
	Luxembourg	50Hz	Single phase 230V, 3-phase 400V
	Netherlands	50Hz	Single phase 230V, 3-phase 400V
	Norway	50Hz	Single phase 220V / 230V, 3-phase 380V
	Poland	50Hz	Single phase 220V, 3-phase 380V
	Portugal	50Hz	Single phase 230V, 3-phase 400V / 480V
	Romania	50Hz	Single phase 220V, 3-phase 380V
	Russia	50Hz	Single phase 220V, 3-phase 380V
	Spain	50Hz	Single phase 127V / 220V, 3-phase 220V / 380V
	Sweden	50Hz	Single phase 230V / 400V, 3-phase 400V / 690V
Switzerland	50Hz	Single phase 230V, 3-phase 400V	
United Kingdom	50Hz	Single phase 230V, 3-phase 400V	

\*Voltage may differ from above in certain region or city, even in the same country.

\*Single phase 120V indication is typical for USA and Canada, although their standard voltage is 115V.

TECHNICAL  
DATA

Motor

M E M O

TECHNICAL  
DATA

Motor

# E TECHNICAL DATA

---

## 3. Common

TECHNICAL  
DATA

Common

# Paint and Rustproof Coating

## 1. Coating Specifications

Treatment	Kind of painting		Additional leadtime [days]	Painting specifications			Applied paint	Weather resistance	Submersible	Oil-proof	Acid resistance	Alkal resistance	Heat resistance [°C]	Application	
	Classification	Paint of finish coat		Type	Layers [µm]	Quality	Brand								
Cast Iron: Near White blast cleaning	Standard	-	0	Under coating	1	Modified alkyd resin	UNIGROUND PTC PRIMER						100	Standard under coat	
		Acrylic modified phthalic	0	Finish coating	1 (15~30)	Acrylic modified alkyd resin	NEORON #2000	○	×	△	⊗	⊗	100	Standard under coat	
	Standard export painting	Acrylic modified phthalic	2	Under coating	2 (30~60)	Modified alkyd resin	UNIGROUND PTC PRIMER	○	×	△	⊗	×	100	Models for export	
				Finish coating	1 (15~30)	Acrylic modified alkyd resin	NEORON #2000								
	Special painting (including rust-proof and heat resisting painting) one layer of Uniground PTC Primer as the first primer	Modified epoxy	3	Under coating	1 (20~40)	Vinyl modified alkyd resin	NEO-GOSE #500 Red lead primer	○	△	○	⊗	⊗	100	Moderate corrosive atmosphere, sea side, outdoor humid atmosphere, chemical plant area, etc.	
				Finish coating	2 (30~60)	Acrylic modified alkyd resin	Acron #300								
		Phenol	7	Under coating	2 (40~70)	Lead rust preventive paint	SD MARINE PRIMER (rust)	○	×	△	○	⊗	100		
				Finish coating	2 (30~60)	Phenol resin enamel	NEW AKNON								
	Steel plate: Power tool cleaning	Extra rust-proof painting	Epoxy	10	Under coating	1 (50~60)	Special permeability epoxy aluminum paint	CARBOMASTIC #15	⊙	○	○	○	○	150	Chemical contact area, chemical plant, anticorrosion plant, etc.
					Finish coating	3 (30~90)	Polyamide epoxy	NEO-GOSE #200							
		Polyurethane	10	Under coating	1 (50~60)	Special permeability epoxy aluminum paint	CARBOMASTIC #15	⊙	○	○	○	○	150	Nuclear power plant, etc.	
				Finish coating	3 (45~90)	Polyisocyanate urethane resin paint	NY POLIN K finish coat								
Extra rustpreventive painting (sand blast undercoating)		Thick film epoxy	12		5 (250~350)	Thick film type modified epoxy resin paint	NEO-GOSE #2300 NTHB	⊙	⊙	○	○	○	100	Submersible equipment, marine structure, etc.	

- Note:
- "Additional leadtime" refers to the number of days required for special coating in addition to standard painting.
  - Standard coating is 6.5PB 3.6/8.2. Coating specification may differ for special coating color.
  - Paint specified above is subject to replacement by comparable product.
  - \*\*\* indicates coating which may fade with sunlight.
  - Consult us when ambient temperature exceeds heat resistance temperature indicated above.  
(Heat resistance temperature above is only for the paint, not for the CYCLO® DRIVE.)
  - Consult us when ambient temperature fluctuates between low and room temperature in short time period.
  - Thick film epoxy coating has limited color selections. Consult us for coating other than N1.0 or 10GY6/2.  
(Our standard coating 6.5PB3.6/8.2 may not be applied.)

- ⊗: Appropriate  
 △: Caution necessary for selection  
 ×: Inappropriate

# Paint and Rustproof Coating

## 2. Surface Conditioning

Treatment	Surface condition after treatment	Methods	Standards	
			SSPC	SIS
Class 1 Near white blast cleaning	Surface completely free of mill scales, rust, corrosives, dirt, and other foreign substances. Embedded residues (mill scales, rust, slight smears, or discoloration of oxide substances) are acceptable. However, minimum 95% of the surface area should be visibly clean of any residues. Remaining surface may contain slight discolorations, such as stains.	<input type="checkbox"/> Near white <input type="checkbox"/> Blast cleaning <input type="checkbox"/> Shot blast <input type="checkbox"/> Sand blast, etc.	SP-10	Sa-2 1/2
Class 2 Power tool cleaning	Surface free of loose mill scales, rust, corrosives, dirt, and other foreign substances. Embedded residues (mill scales, rust, slight smears or discoloration of oxide substances) are acceptable. However, minimum 2/3 of the surface area should be visibly clean of any residues. Remaining surface may contain slight discolorations, such as stains, and residual rust, and coating peelings in pores, for surface with porous corrosion.	<input type="checkbox"/> Commercial Blast cleaning <input type="checkbox"/> Power Tool Cleaning <input type="checkbox"/> Disk sander <input type="checkbox"/> Wire wheel <input type="checkbox"/> Grinder, etc.	SP-6 (SP-3)	Sa-2 (St-3)
Class 3 Hand tool cleaning	Surface free of loose scales, rust, coating, oil & grease, dirt, and other foreign substances, with slight metallic luster. The surface should be cleaned with wire brush, scraper, etc.	<input type="checkbox"/> Hard Tool Cleaning <input type="checkbox"/> Wire brush <input type="checkbox"/> Scraper, etc.	SP-2	St-2

(U.S.A. Steel Structural Painting Councils) (SWEEDEN, SVENSK Standard, S.I.S. 055900)

## Rustproof Treatment Standards

Our complete products are shipped with following rust proofing treatment.

### 1. Standard Rustproof Specification

#### (1) External Rustproof

Our assembled products are shipped with rust proofing oil applied. Check rustproof condition six months after shipment. Reapply rustproof treatment if necessary.

#### (2) Internal Rustproof

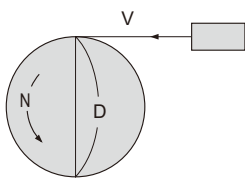
Lubrication	Grease lubricated models	Oil lubrication models
Rustproof period	1 year	6 months
Storage condition	Storage inside general shop or warehouse, with relatively low humidity, dust, extreme temperature fluctuation, corrosive gas, or such.	

### 2. Rustproof Specification for Export

Consult us when the item is exported or when more treatment is necessary than standard rustproof treatment. Export rustproof treatment is available.

# Reference: Drive System Calculation Formulas

## 1. Speed N [r/min] and Velocity [m/s]

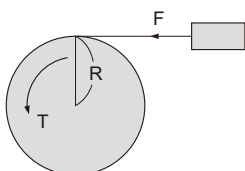


$$V = \pi \cdot D \cdot \frac{N}{60} \text{ [m/s]}$$

$\pi$ : Circular constant ( $\approx 3.14$ )

D: Wheel diameter

## 2. Torque T [N·m, kgf·m]



SI Units  
 $T = F \cdot R \text{ [N·m]}$

Gravitational Units  
 $T = F \cdot R \text{ [kgf·m]}$

F: Load [N]

R: Wheel radius [m]

F: Load [kgf]

R: Wheel radius [m]

## 3. Power P [kW]



SI Units

$$P = \frac{F \cdot V}{1000}$$

F: Load [N]

V: Velocity [m/s]

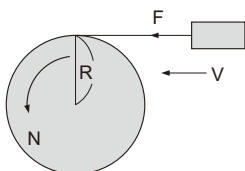
Gravitational Units

$$T = \frac{F \cdot V}{102}$$

F: Load [kgf]

V: Velocity [m/s]

## 4. Power P [kW], Torque T [N·m, kgf·m], Speed N [r/min]



SI Units

$$P = \frac{N \cdot T}{9550} \text{ [kW]}$$

$$T = \frac{9550 \cdot P}{N} \text{ [N·m]}$$

$$P = \frac{F \cdot V}{1000} \text{ [kW]}$$

$$V = \pi \cdot 2 \cdot R \cdot \frac{N}{60} \text{ [m/s]}$$

F: Load [N]

$$\therefore P = \frac{F \cdot \pi \cdot 2 \cdot R \cdot \frac{N}{60}}{1000} = \frac{2 \cdot \pi}{1000 \cdot 60} \cdot N \cdot F \cdot R \text{ [kW]}$$

$T = F \cdot R$

$$\therefore P = \frac{2 \cdot \pi}{1000 \cdot 60} \cdot N \cdot T = \frac{N \cdot T}{9550} \text{ [kW]}$$

Gravitational Units

$$P = \frac{N \cdot T}{975} \text{ [kW]}$$

$$T = \frac{975 \cdot P}{N} \text{ [kgf·m]}$$

$$P = \frac{F \cdot V}{102} \text{ [kW]}$$

$$V = \pi \cdot 2 \cdot R \cdot \frac{N}{60} \text{ [m/s]}$$

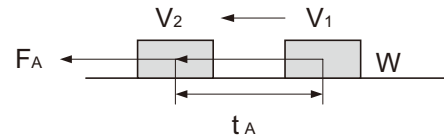
F: Load [kgf]

$$\therefore P = \frac{F \cdot \pi \cdot 2 \cdot R \cdot \frac{N}{60}}{102} = \frac{2 \cdot \pi}{102 \cdot 60} \cdot N \cdot F \cdot R \text{ [kW]}$$

$T = F \cdot R$

$$\therefore P = \frac{2 \cdot \pi}{102 \cdot 60} \cdot N \cdot T = \frac{N \cdot T}{975} \text{ [kW]}$$

## Reference: Drive System Calculation Formulas

5. Acceleration Force  $F_A$  [N, kgf]

SI Units

$$F_A = m \cdot \alpha = m \cdot \frac{V_2 - V_1 \text{ [N]}}{t_A}$$

$$\alpha = \frac{V_2 - V_1}{t_A}$$

m: Mass [kg]

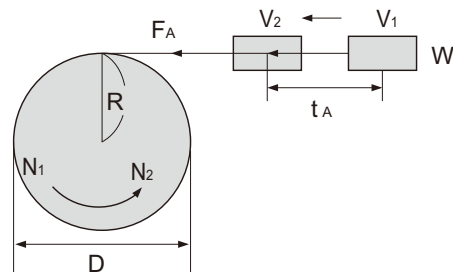
 $\alpha$ : Acceleration [ $\text{m/s}^2$ ] $t_A$ : Acceleration Time [s]

Gravitational Units

$$F_A = m \cdot \alpha = \frac{W}{g} \cdot \frac{V_2 - V_1 \text{ [N]}}{t_A}$$

$$\alpha = \frac{V_2 - V_1}{t_A}$$

W: Weight [kgf]

g: Acceleration of gravity  $\approx 9.8 \text{ [m/s}^2\text{]}$ m: Mass [ $\text{kgf}\cdot\text{s}^2/\text{m}$ ] $\alpha$ : Acceleration [ $\text{m/s}^2$ ] $t_A$ : Acceleration Time [s]6. Acceleration Torque  $T_A$  [ $\text{N}\cdot\text{m}$ ,  $\text{kgf}\cdot\text{m}$ ]

SI Units

$$T_A = F_A \cdot R \qquad F_A = m \cdot \frac{V_2 - V_1}{t_A}$$

$$V_2 = \pi \cdot D \cdot \frac{N_2}{60} \qquad V_1 = \pi \cdot D \cdot \frac{N_1}{60}$$

$$D = 2 \cdot R$$

$$\therefore T_A = m \cdot \frac{\pi \cdot 2 \cdot R}{60} \cdot (N_2 - N_1) \cdot R$$

$$= \frac{2 \cdot \pi \cdot m \cdot R}{60} \cdot \frac{N_2 - N_1}{t_A} \cdot R$$

$$= \frac{m \cdot R^2}{9.55} \cdot \frac{N_2 - N_1}{t_A} \text{ [N}\cdot\text{m]}$$

$m \cdot R^2 = J$  (moment of inertia [ $\text{kgm}^2$ ])

$$\therefore T_A = \frac{J}{9.55} \cdot \frac{N_2 - N_1}{t_A} \text{ [N}\cdot\text{m]}$$

Gravitational Units

$$T_A = F_A \cdot R \qquad F_A = \frac{W}{g} \cdot \frac{V_2 - V_1}{t_A}$$

$$V_2 = \pi \cdot D \cdot \frac{N_2}{60} \qquad V_1 = \pi \cdot D \cdot \frac{N_1}{60} \cdot R = \frac{D}{2}$$

$$\therefore T_A = \frac{W}{g} \cdot \frac{\pi \cdot D}{60} \cdot (N_2 - N_1) \cdot \frac{D}{2}$$

$$= \frac{\pi \cdot W \cdot D}{60 \cdot g} \cdot \frac{N_2 - N_1}{t_A} \cdot \frac{D}{2}$$

$$= \frac{W \cdot D^2}{375} \cdot \frac{N_2 - N_1}{t_A} \text{ [kgf}\cdot\text{m]}$$

$W \cdot D^2 = GD^2$  (Flywheel effect [ $\text{kgm}^2$ ])

$$\therefore T_A = \frac{GD^2}{375} \cdot \frac{N_2 - N_1}{t_A} \text{ [kgf}\cdot\text{m]}$$

7. Synchronized Speed of AC Motor  $N_0$  [r/min]

$$N_0 = \frac{120 \cdot f}{P} \text{ [r/min]}$$

f: Power supply frequency [Hz]  
P: Number of motor poles

## 8. Rated Speed of AC Motor N [r/min]

$$N = N_0 (1 - s) \text{ [r/min]}$$

$N_0$ : Synchronized speed [r/min]  
s: Slippage

TECHNICAL  
DATA

Common



# Lubrication

---

TECHNICAL  
DATA

Common

# Warranty Standard

## Warranty Standard

Warranty period	The warranty period shall be 24 months from the date of shipment, limited to new units.
Warranty Condition	In the event that the Product fails during the Warranty Period when it is properly installed and combined with other equipment, maintained as specified in the maintenance manual, and properly operated as specified in the catalog or as otherwise agreed upon, the Seller will provide, at its sole discretion, appropriate repair or replacement of the Product free of charge, except as stipulated in the "Warranty Exclusions" as described below. However, if the Product is combined with other equipment, the Seller shall not indemnify the Buyer from any costs of removal or reinstallation of the Product from or to the appropriate equipment, or other incidental costs (such as construction cost and cost of transportation) related thereto, any lost opportunity, any profit loss or other consequential damages incurred by the Buyer.
Warranty Exclusions	<p>Notwithstanding the above warranty, the following shall be warranty exclusions:</p> <ol style="list-style-type: none"> <li>1. Any failure attributable to improper installation of the Product or improper combination with other equipment</li> <li>2. Any failure that may occur due to the cause that the Product is maintained in an insufficient manner and handled in an incorrect manner (for example, if it is not stored as specified in the storage procedure manual established by the Seller)</li> <li>3. Any failure attributable to any operation not conforming to the specification, or any other operation conditions or state unknowable to the Seller, or any failure attributable to use of a lubricant other than the Seller-recommended ones</li> <li>4. Any failure attributable to a problem or special specification of the equipment with which the Buyer combined the Product</li> <li>5. Any failure attributable to a modification or restructuring made, by the Buyer, to the Product</li> <li>6. Any failure attributable to a problem of a component or part supplied from or designated by the Buyer</li> <li>7. Any failure attributable to an earthquake, fire, flood, salt damage, gaseous damage, lightning strike, or any other reasons beyond the control of the Seller</li> <li>8. Warranty concerning a naturally worn and torn , abraded, or degraded consumable part (such as a bearing or oil seal) that may result after normal use of the Product</li> <li>9. Any failure that is caused for any of the other reasons not attributable to the responsibilities of the Seller</li> </ol>

# Warning

## SAFETY PRECAUTIONS

- Observe safety rules for installation site and equipment strictly (Industrial Safety and Health Law, Technical Standard for Electric Facilities, Extension Rules, Plant Explosion guidelines, Building Standards Law, etc.)
- Read the maintenance manual carefully before use. Request one from the distributor you purchased from or our sales department if it is not handy. The maintenance manual must reach the actual user.
- Select an appropriate product to match the operating environment and application.
- Install protective equipment on the machine side when the machine is used for passenger transportation and elevators, escalators, and dumb waiters.
- Use a flameproof type motor for use in explosive environment. Select a flameproof type motor with appropriate specifications sufficient for hazardous locations.
- Either mount a control filter or a reactor on the inverter side or use a sufficiently insulated motor when a 400V class inverter is used to drive motor. Install an oil pan or other devices to prevent oil or grease leakage, just in case of failure or termination of service life, for oil-sensitive applications such as food processing and clean rooms.