

# D

## CYCLO® GEARMOTORS with AF Motor for Inverters

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# **D** CYCLO® GEARMOTORS with AF Motor for Inverters

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## 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

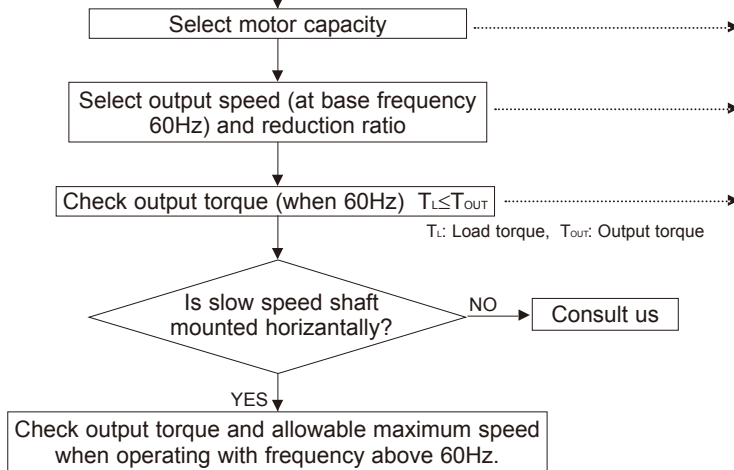
Select models referring to the following flowchart. Consult us if there is any question.  
 Step 1: Determination of Operating Condition

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.

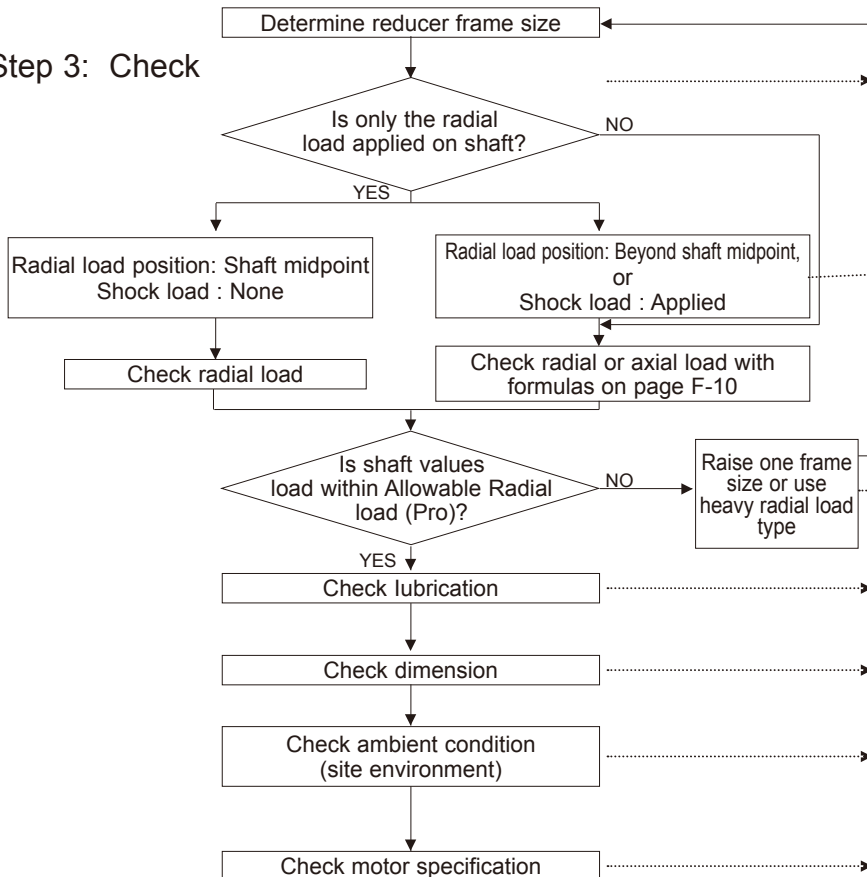
## Step 2: Model Selection



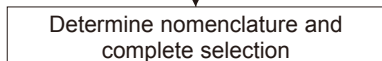
**Procedure**

- 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.
- 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.).
- Determine nomenclature for selected model referring to "Nomenclature" in page D-7. Now, the selection process is complete.

## Step 3: Check



## Step 4: Nomenclature Determination, Selection 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)

Output Speed $n_2$ r/min				Allowable MAX Speed (Horizontal)	Output Torque (60Hz) $T_{out}$		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

**5.5 kW**

AF Motor for Inverter	
P	4
Motor Speed $n_1$	r/min 1750(60Hz)

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

\* 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)		

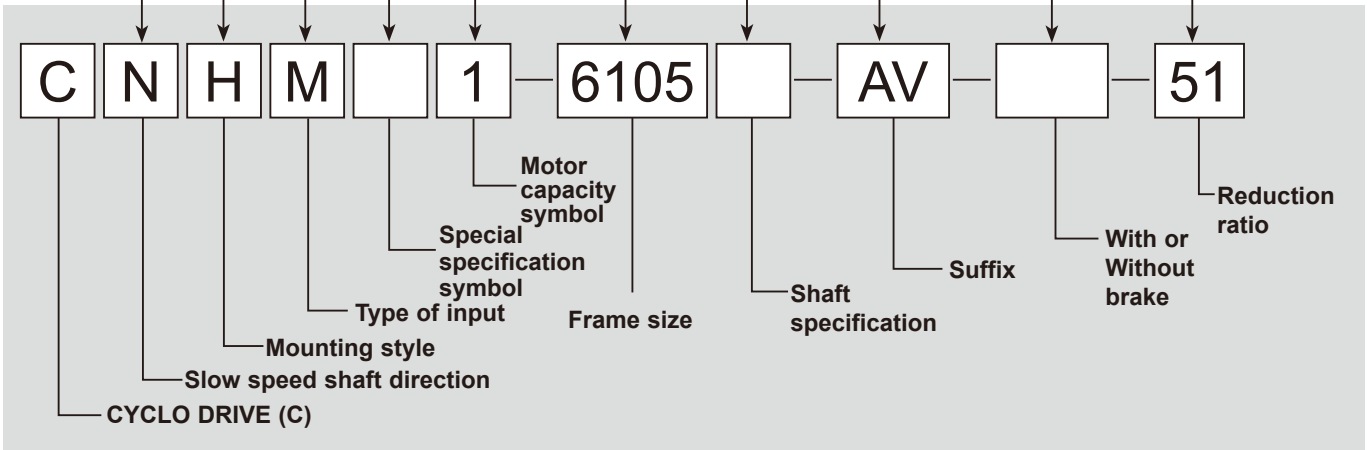
Shaft specification	
Metric JIS (Standard)	-
Inch size	Y
AGMA I	YA
AGMA II	YB
AGMA III	YC
Metric DIN	G

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.

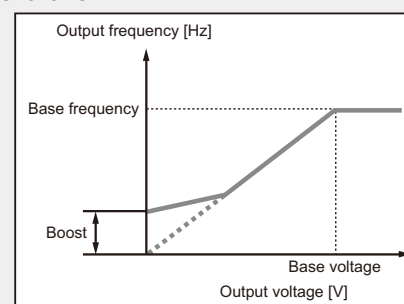
When such adjustment is made, insufficient torque may result at low frequency or during start-up.

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

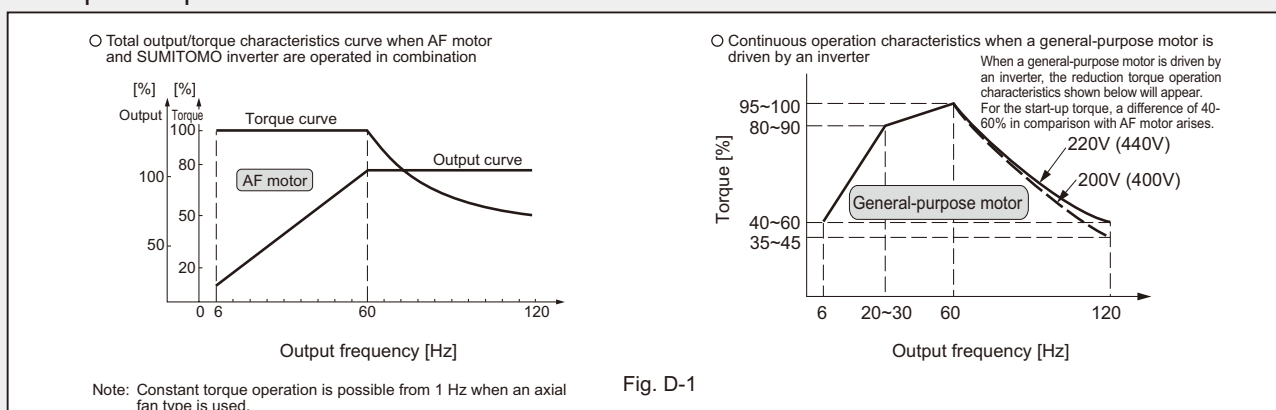


Fig. D-1

## 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

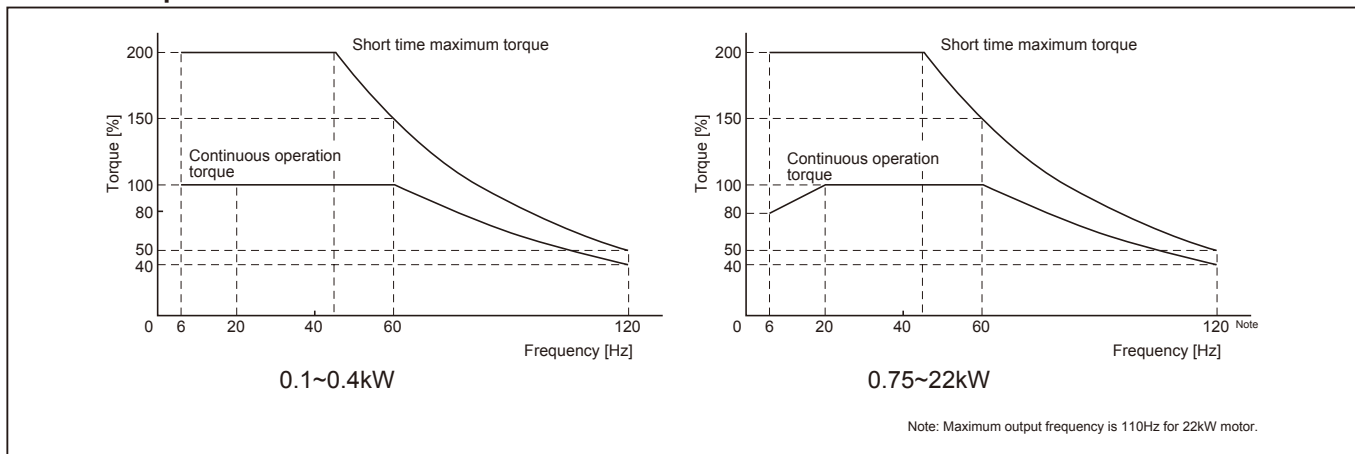
Operation with the following characteristics is possible when our inverters HF-520 and HF-430 $\alpha$  series are used for sensorless control in combination with our general-purpose motors (22 kW or less).

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:
- 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).
  - 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.
  - 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

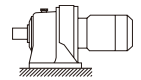
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GEARMOTOR  
FOR INVERTERS

Selection  
Tables

## 2. Selection Tables

## Selection Tables Gearmotors (AF Motor for Inverters)



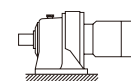
CNHM

<b>0.1 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)	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)

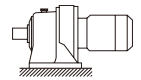
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
29.2	292	584 (120Hz)	6.22	0.634	751	76.6	02	- 6060	- AV	- 6	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)



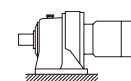
CHHM/CNHM

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.	
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)	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)

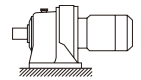
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) T <sub>out</sub>	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
70.0	700	1400 (120Hz)	9.72	0.991	1190	121	1	- 6080SK	- 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

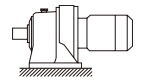
<b>1.5 kW</b>	AF Motor for Inverters	
	P	4
	Motor Speed n <sub>1</sub> r/min	1750 (60Hz)

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)

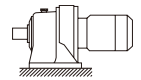
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) T <sub>out</sub>	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
70.0	700	1400 (120Hz)	28.5	2.91	1970	201	3	- 6100SK	- 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)



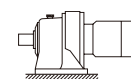
CHHM/CNHM

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.	
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)	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)

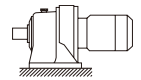
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
						Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio	CHHM	
6Hz	60Hz	Allowable MAX Speed (Horizontal)	[N·m]	[kgf·m]	[N]	[kgf]					
29.2	292	584 (120Hz)	171	17.4	5710	582	8	- 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)



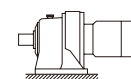
CHHM

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)

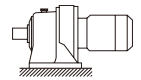
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.				
						Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio	CNHM				
6Hz	60Hz	Allowable MAX Speed (Horizontal)	[N·m]	[kgf·m]	[N]	[kgf]								
29.2	292	584 (120Hz)	342	34.9	5540	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)



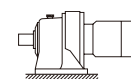
CHHM

<b>15 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	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)

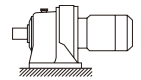
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
29.2	292	292 (60Hz)	575	58.7	10900	1110	25	- 6175	- AV	- 6	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)

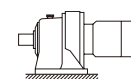
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.		
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio	CNHM
29.2	292	292 (60Hz)	684	69.8	10800	1100	30	- 6175	- AV	- 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

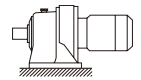
Output Speed n <sub>2</sub> r/min			Output Torque (60Hz) Tout	Allowable Radial Load (60Hz) Pro		Model				Page of Dim.	
6Hz	60Hz	Allowable MAX Speed (Horizontal)		[N·m]	[kgf·m]	[N]	[kgf]	Input Capacity Symbol	Frame Size	Suffix	Reduction Ratio
15.9	159	193 (73Hz)	1710	174	18200	1850	40	- 6185	- AV	- 11	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

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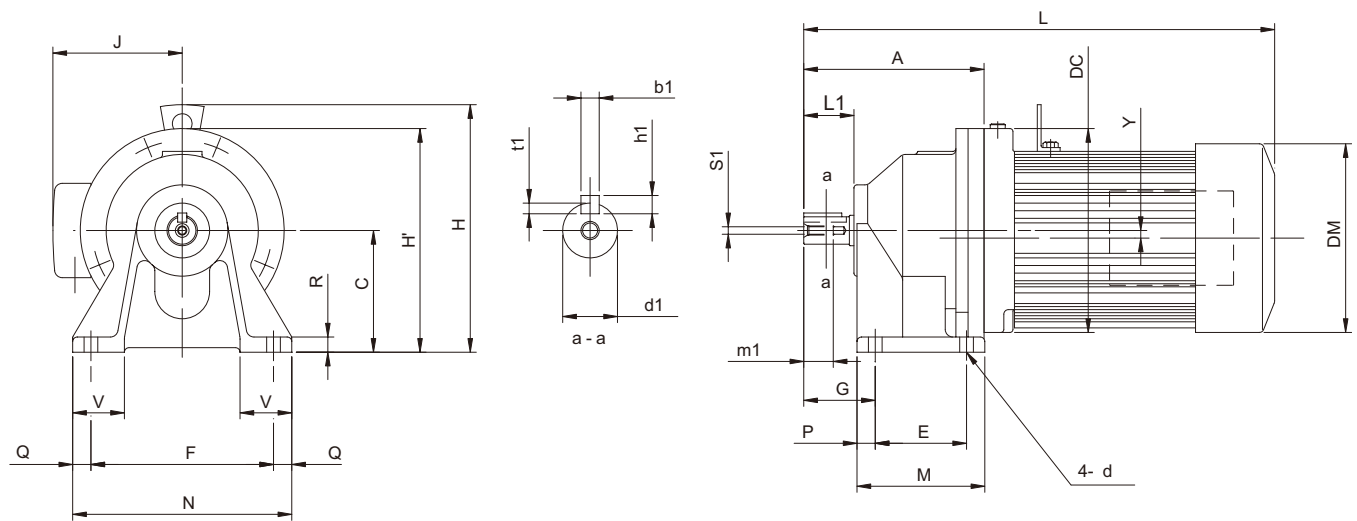
## 3. Dimension Tables

GEARMOTOR  
FOR INVERTERS

Dimension  
Tables

# Dimension Tables (Horizontal Direction, Foot Mount)

## CHHM<sup>Note: 1</sup> - 607□SK to 611□SK - AV



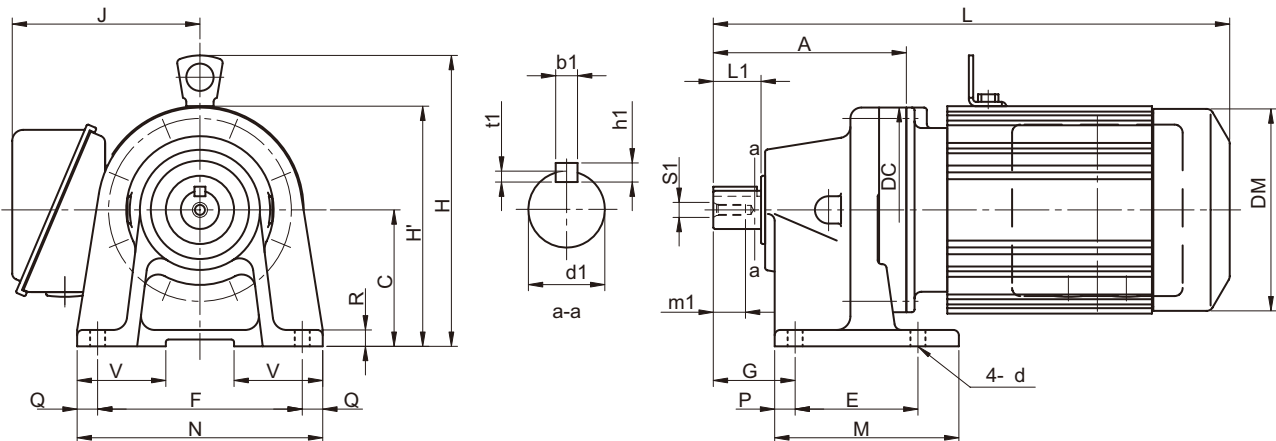
GEARMOTOR FOR INVERTERS  
Dimension Tables  
CHHM

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.

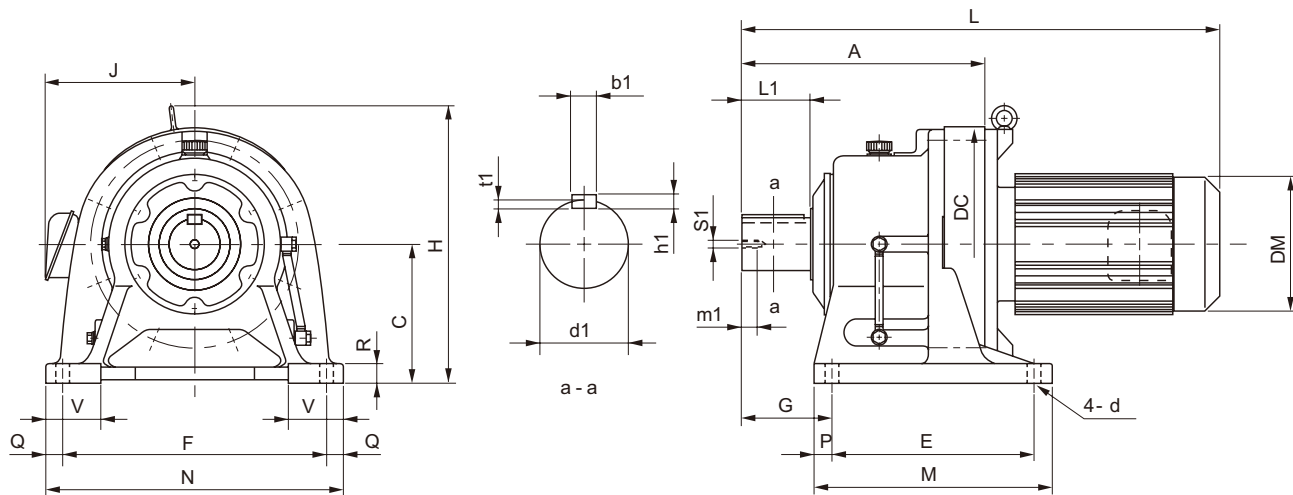
6. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.

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

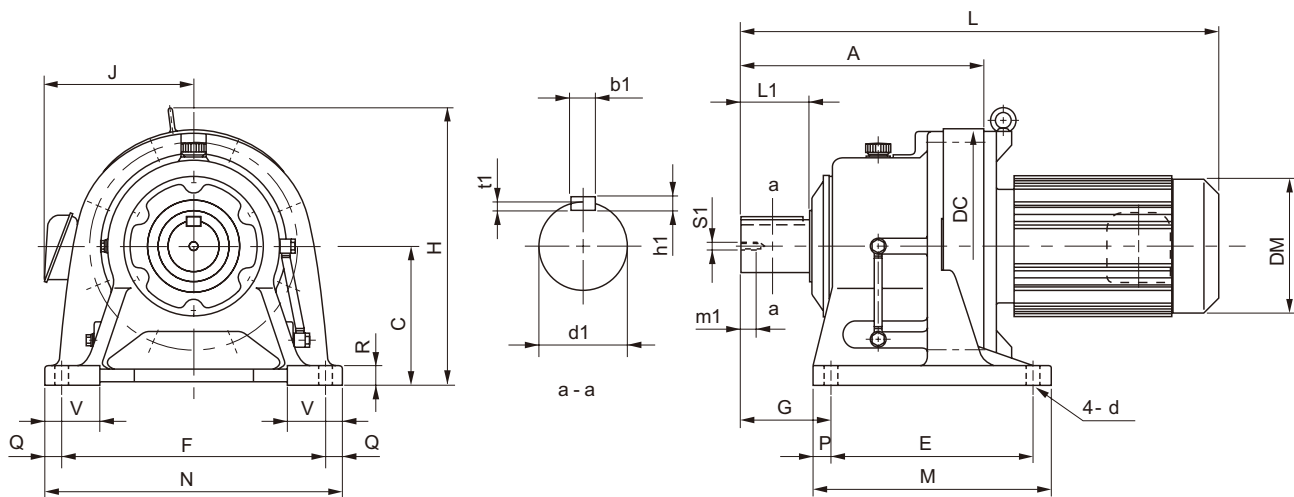
Frame size <small>Note: 4</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
613□	240	150	230	145	290	100	195	330	25	20	22	65	18	50	70	14	9	5.5	M10	18
<small>Note: 8</small> 614□	260	150	230	145	290	120	195	330	25	20	22	65	18	50	90	14	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.

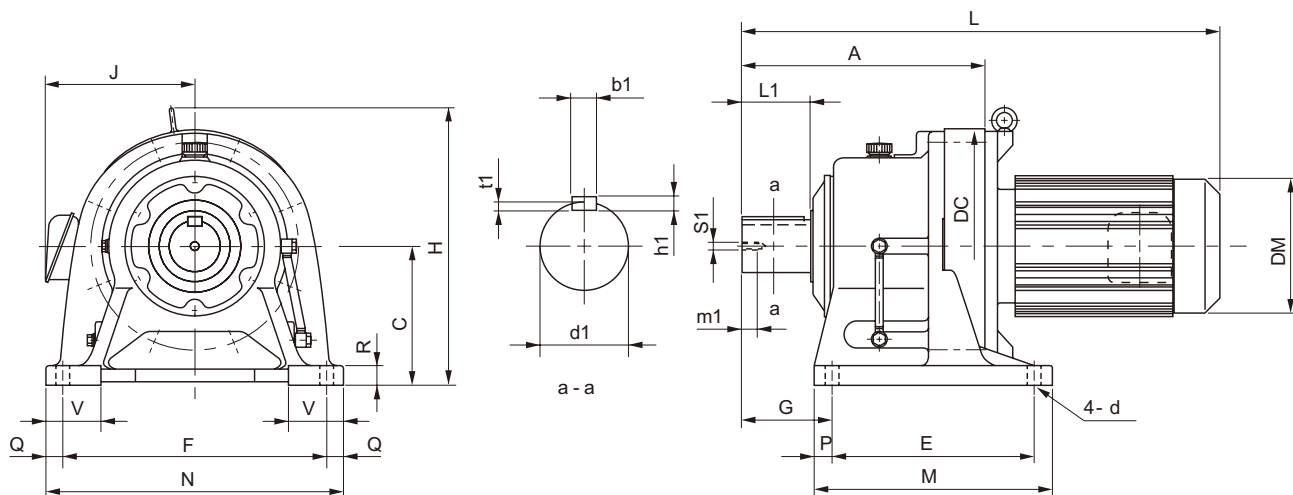
6. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.

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

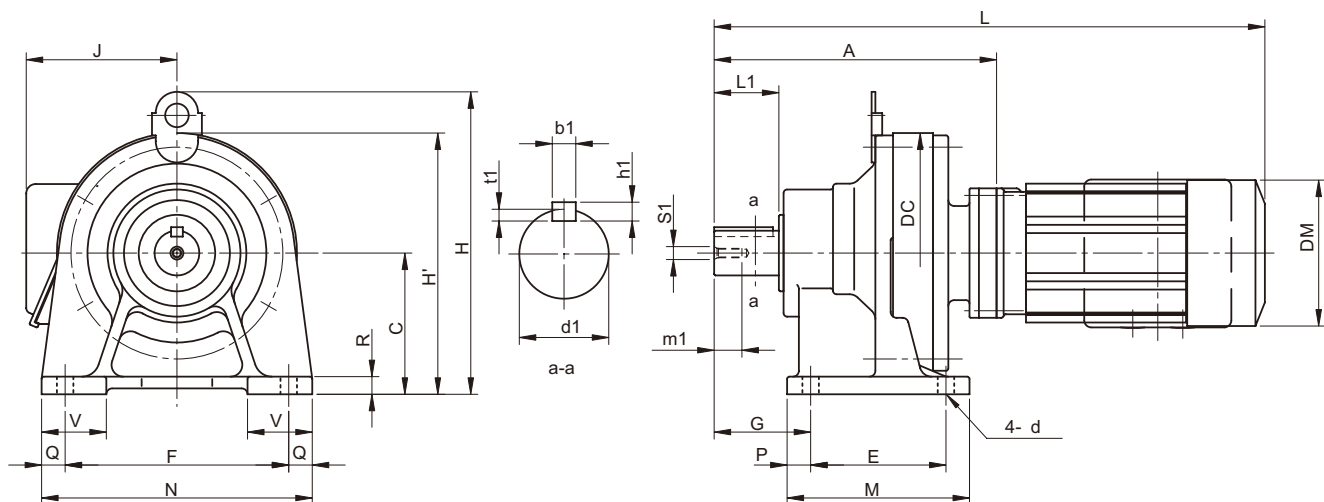
Model	Motor <span style="float: right;">Note: 5</span>		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM20 - 6205 - AV - (B) - Ratio	15	4	1127	530	340	394	443	1292	530	340	394	488
CHHM30 - 6205 - AV - (B) - Ratio	22	4	1127	530	340	394	456	1292	530	340	394	501
CHHM40 - 6205 - 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.

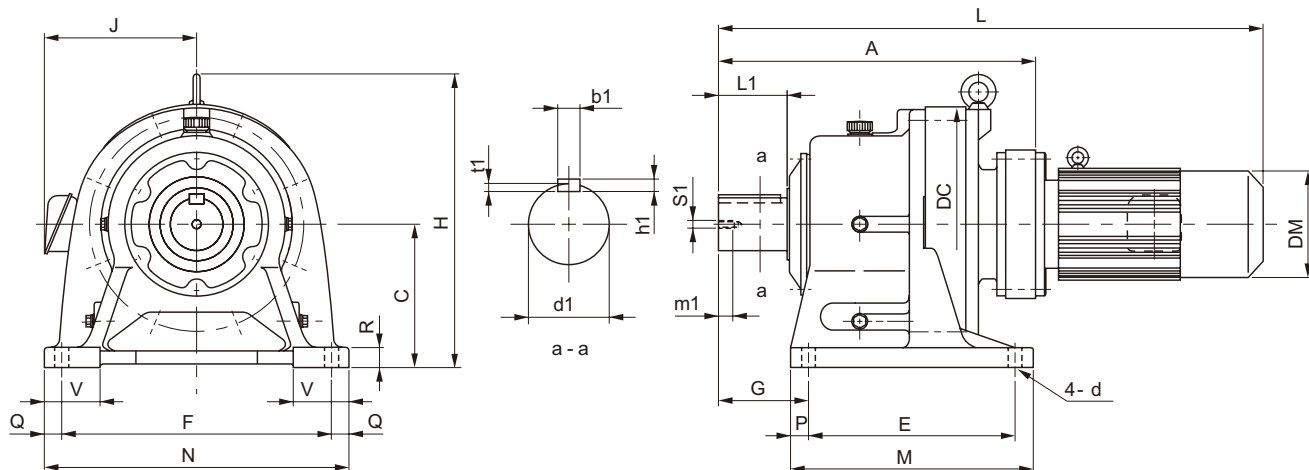
6. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.

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



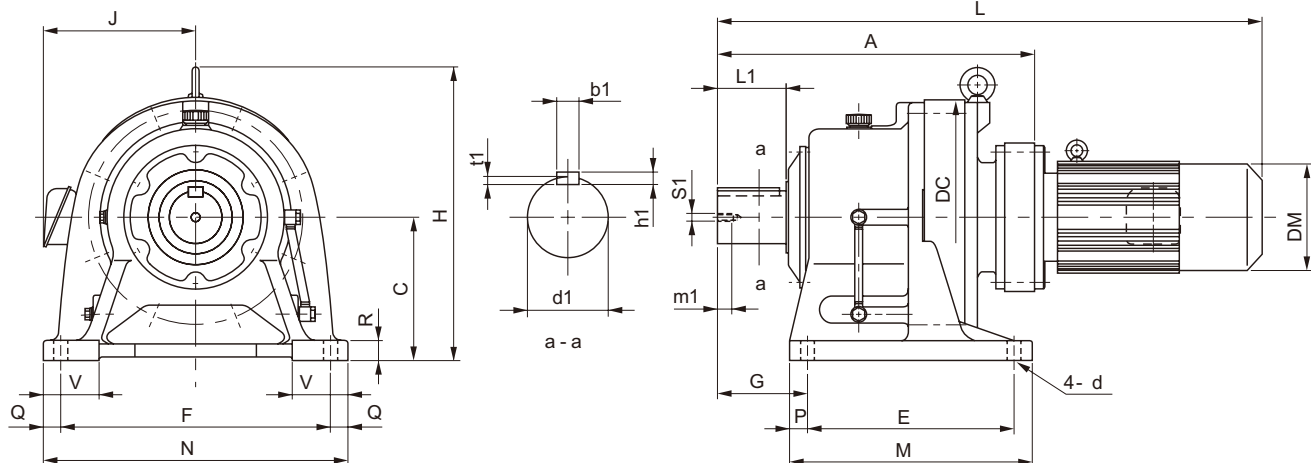
GEARMOTOR FOR INVERTERS  
Dimension Tables CHHM

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.

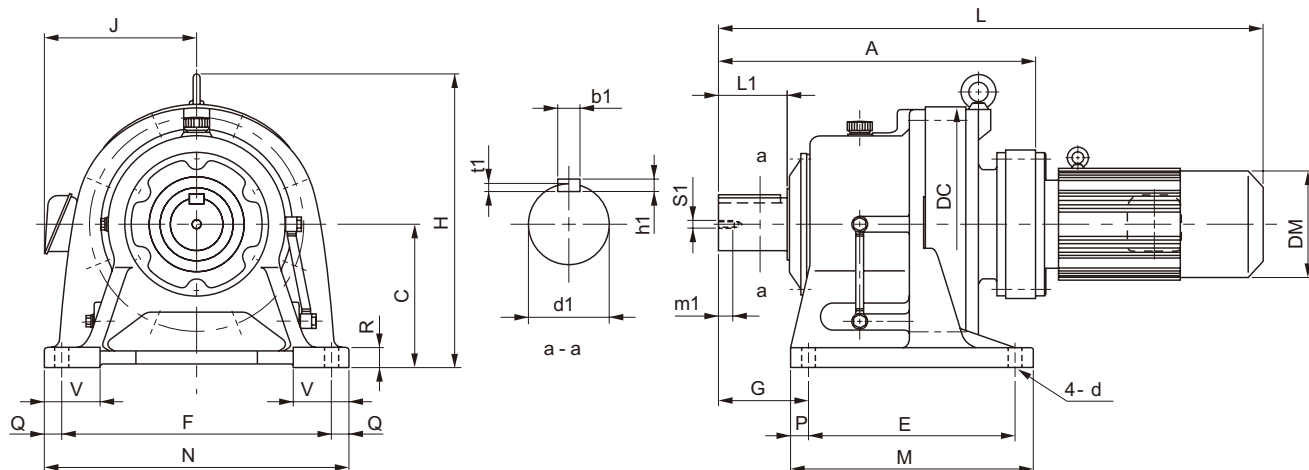
6. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.

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

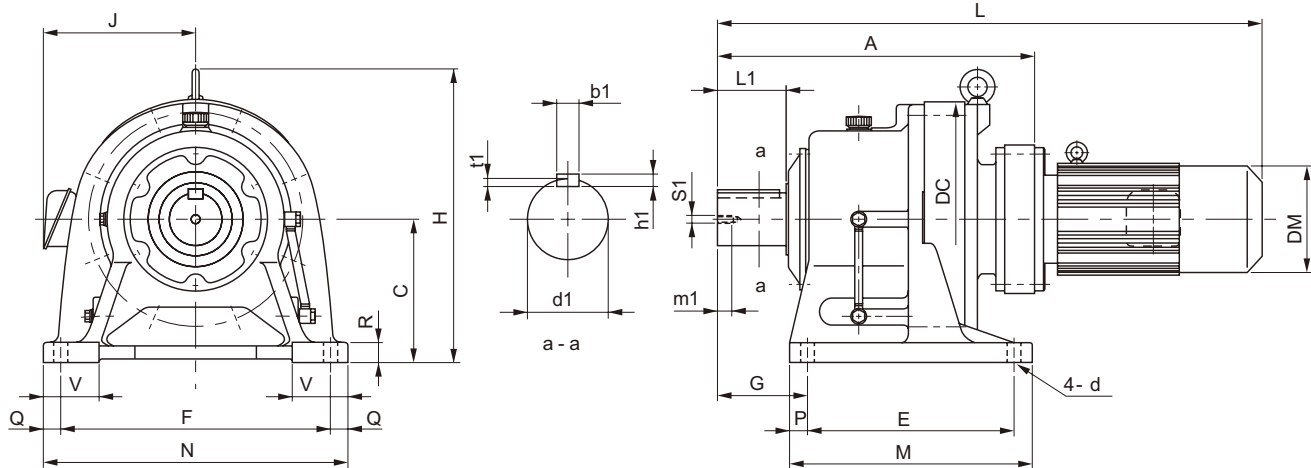
Frame size <small>Note: 5</small>	A	C	DC	E	F	G	M	N	P	Q	R	V	d	Output Shaft <small>Note: 2, 3, 6</small>						
														d1	L1	b1	h1	t1	S1	m1
6205DA	597	250	448	360	440	215	440	530	40	45	35	100	26	100	165	28	16	10	M20	34
6205DB	624	250	448	360	440	215	440	530	40	45	35	100	26	100	165	28	16	10	M20	34
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

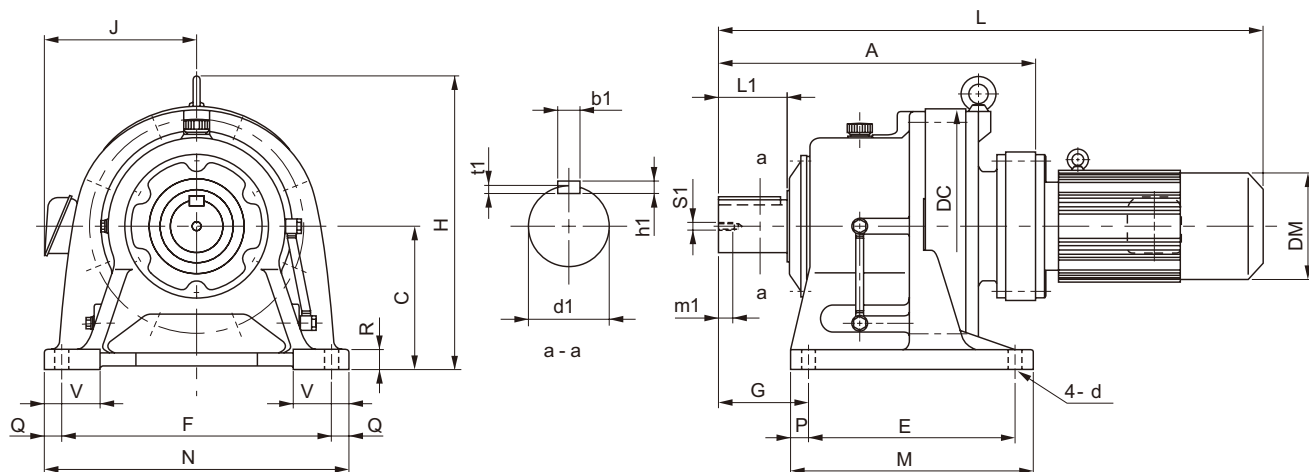
Model <span style="float: right;">Note: 5</span>	Motor		Standard					With Brake				
	[kW]	[P]	L	H	J	DM	W [kg]	L	H	J	DM	W [kg]
CHHM3 - 6235DA - AV - (B) - Ratio	2.2	4	1091	667	166	222	570	1163	667	166	222	580
CHHM5 - 6235DA - AV - (B) - Ratio	3.7	4	1135	667	166	222	577	1207	667	166	222	587
CHHM8 - 6235DA - 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



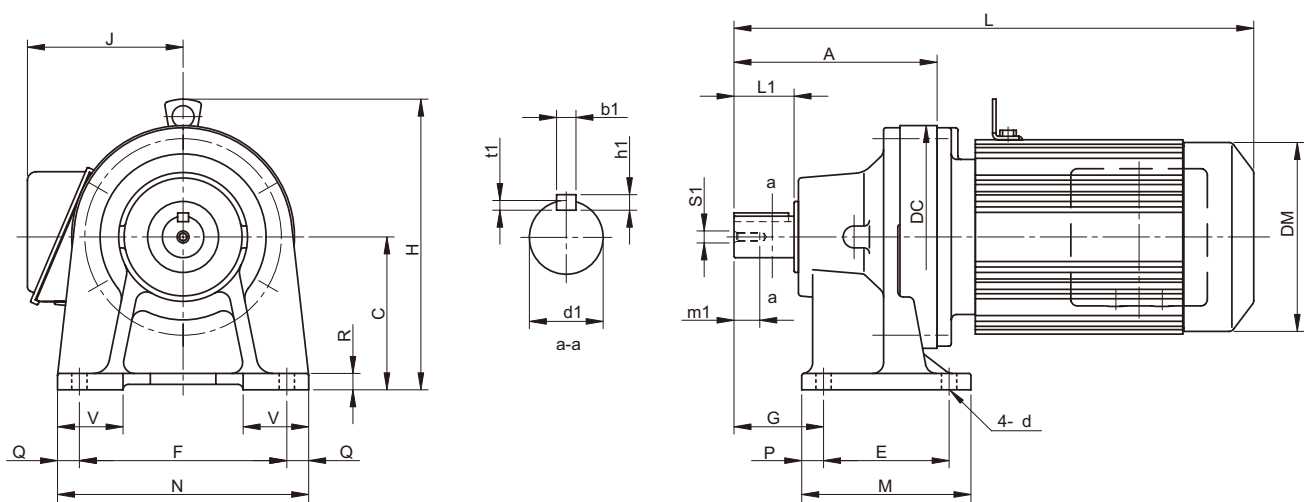
GEARMOTOR FOR INVERTERS  
Dimension Tables  
CHHM

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.

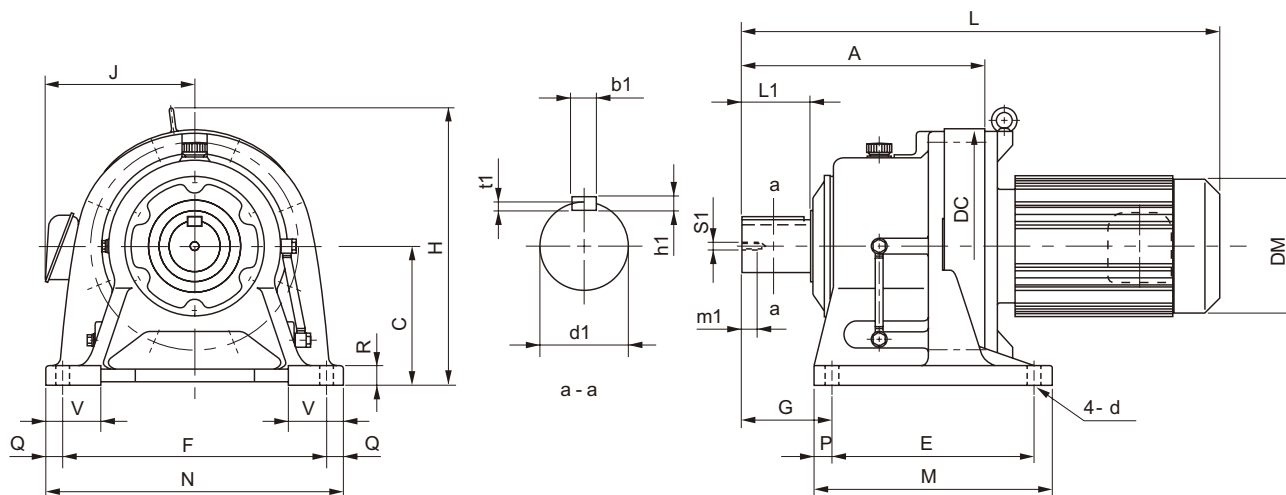
6. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.

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.