

# CYCLO DRIVE GEARMOTORS with AF Motor for Inverters

| 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 |                 | 01        | 02        | 05        | 1         |
|-----------------------|-----------------|-----------|-----------|-----------|-----------|
| 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)  |

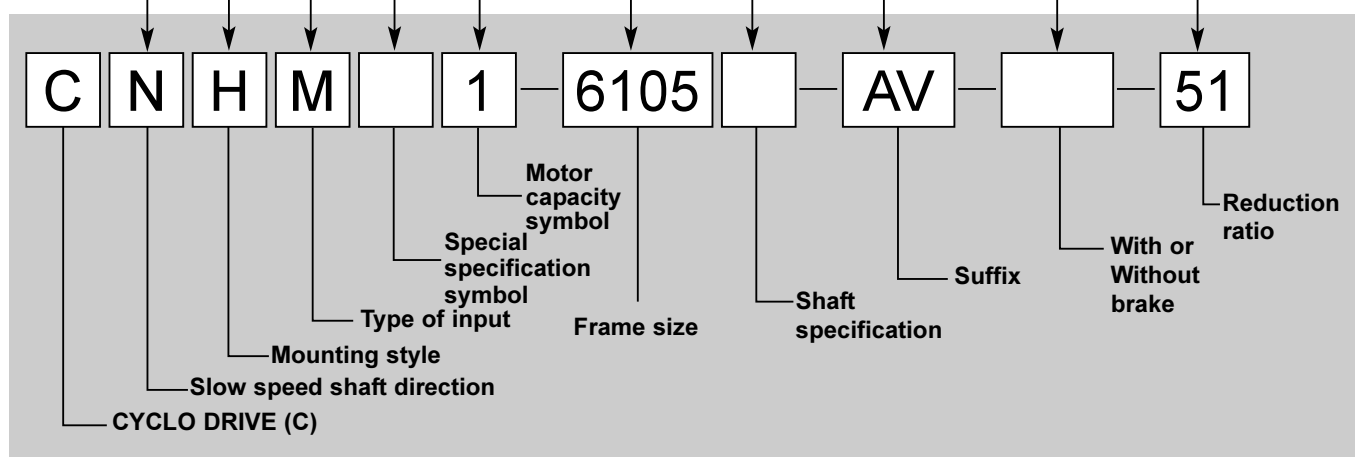
| Shaft specification   |    |
|-----------------------|----|
| Metric JIS (Standard) | -  |
| Inch size             | Y  |
| AGMA I                | YA |
| AGMA II               | YB |
| AGMA III              | YC |
| Metric DIN            | G  |

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  
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# 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               |
| 6115: | 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               |

GEARMOTOR  
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## 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.

# Constant Torque Operation of General-Purpose Motors

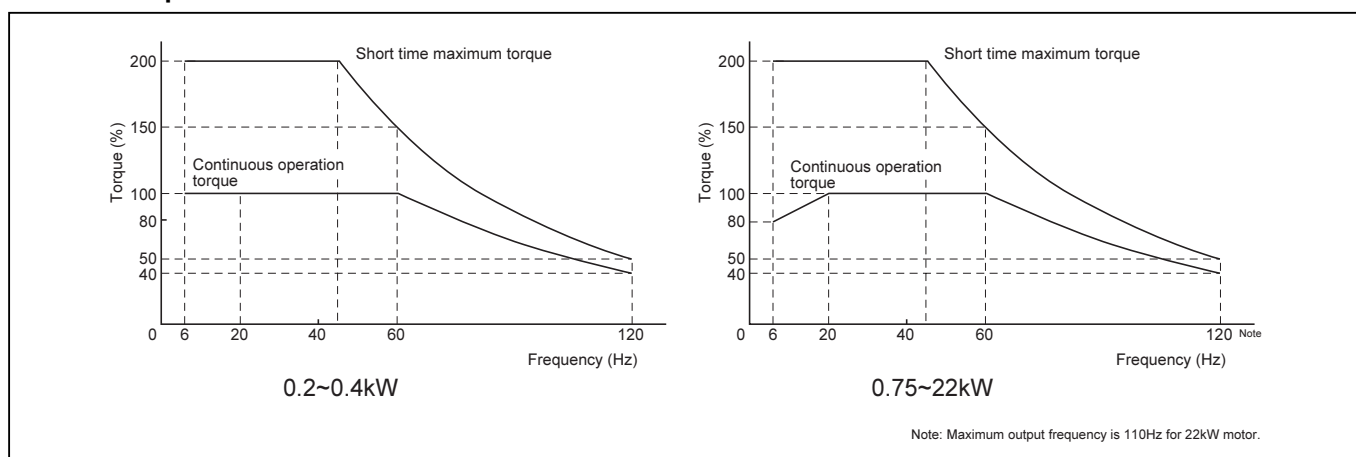
Operation with the following characteristics is possible when our inverters HF-320 $\alpha$  and HF-430 series are used for sensorless control in combination with our general-purpose motors (22 kW or less).

A combination with a motor of standard frame size can be used for constant torque operation where an AF motor with a reducer of a larger frame size has conventionally been used.

- Note:
1. To select the combination with CYCLO, examine the lubrication method and torque during slow speed operation and rated output operation. Specify that inverter operation is desired when placing an order (Refer to page C-6).
  2. Contact us for 400V class model because insulation selection is necessary for inverter operation.
  3. 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.
  4. Contact us for details when a general-purpose motor is to be operated under V/F control. (Contact us also when SF-320 $\alpha$  series is to be used.)

| kW   | Motor<br>frame size | Thermal<br>class | Applicable<br>frequency range | Constant<br>torque range | Constant<br>output range | Applicable<br>inverter               |
|------|---------------------|------------------|-------------------------------|--------------------------|--------------------------|--------------------------------------|
| 0.1  | F63S                | E                | 6~120Hz                       | 6~60Hz<br>(1:10)         | 60~120Hz                 | HF-320 $\alpha$<br>Sensorless contro |
| 0.2  | F63M                |                  |                               |                          |                          |                                      |
| 0.4  | F71M                |                  |                               |                          |                          |                                      |
| 0.75 | F80M                |                  |                               |                          |                          |                                      |
| 1.5  | F90L                | B                |                               | 20~60Hz<br>(1:3)         | 60~120Hz                 | HF-430<br>Sensorless contro          |
| 2.2  | F100L               |                  |                               |                          |                          |                                      |
| 3.7  | F112M               |                  |                               |                          |                          |                                      |
| 5.5  | F132S               |                  |                               |                          |                          |                                      |
| 7.5  | F132M               |                  |                               |                          |                          |                                      |
| 11   | F160M               |                  |                               |                          |                          |                                      |
| 15   | G160L               |                  |                               |                          |                          |                                      |
| 22   | F180MG              | 6~110Hz          | 60~110Hz                      |                          |                          |                                      |

## HF-320 $\alpha$ and HF-430 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.

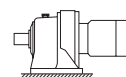
# D CYCLO® GEARMOTORS With AF Motor for Inverters

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## 2. Selection Tables

GEARMOTOR  
FOR INVERTERSSelection  
Tables

## Selection Tables Gearmotors (AF Motor for Inverters)



CNHM

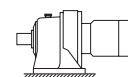
| 0.1 kW | AF Motor for Inverters           |            |
|--------|----------------------------------|------------|
|        | P                                | 4          |
|        | Motor Speed n <sub>1</sub> r/min | 1750(60Hz) |

| Output Speed n <sub>2</sub> r/min |      |                                  | Output Torque (60Hz) Tout |       | Allowable Radial Load (60Hz) Pro |      | Model                 |            |        |                 | Dim. Page |
|-----------------------------------|------|----------------------------------|---------------------------|-------|----------------------------------|------|-----------------------|------------|--------|-----------------|-----------|
| 6Hz                               | 60Hz | Allowable MAX Speed (Horizontal) | N·m                       | kgf·m | N                                | kgf  | Input Capacity Symbol | Frame Size | Suffix | Reduction Ratio | CNHM      |
| 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      |

- 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.

## Selection Tables 600SK Series•Reducer

|        |                                  |            |
|--------|----------------------------------|------------|
| 0.2 kW | AF Motor for Inverters           |            |
|        | P                                | 4          |
|        | Motor Speed n <sub>1</sub> r/min | 1750(60Hz) |

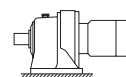


CHHM/CNHM

| Output Speed n <sub>2</sub> r/min |      |                                  | Output Torque (60Hz) Tout |       | Allowable Radial Load (60Hz) Pro |      | Model                 |            |        |                 | Dim. Page |
|-----------------------------------|------|----------------------------------|---------------------------|-------|----------------------------------|------|-----------------------|------------|--------|-----------------|-----------|
| 6Hz                               | 60Hz | Allowable MAX Speed (Horizontal) | N·m                       | kgf·m | N                                | kgf  | Input Capacity Symbol | Frame Size | Suffix | Reduction Ratio | CNHM      |
| 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      |

- "\*1" 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.
- "\*2" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).
- 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                 |            |        |                 | Dim. Page |
|-----------------------------------|------|----------------------------------|---------------------------|-------|----------------------------------|------|-----------------------|------------|--------|-----------------|-----------|
| 6Hz                               | 60Hz | Allowable MAX Speed (Horizontal) | N·m                       | kgf·m | N                                | kgf  | Input Capacity Symbol | Frame Size | Suffix | Reduction Ratio | CNHM CHHM |
| 70.0                              | 700  | 1400 (120Hz)                     | 5.18                      | 0.528 | 1120                             | 114  | 05 -                  | 6070SK     | - AV   | 2.5 *1          | D-28      |
| 58.3                              | 583  | 1167 (120Hz)                     | 6.22                      | 0.634 | 1180                             | 120  | 05 -                  | 6070SK     | - AV   | 3 *1            | D-28      |
| 43.8                              | 438  | 875 (120Hz)                      | 8.29                      | 0.846 | 1290                             | 131  | 05 -                  | 6070SK     | - AV   | 4 *1            | D-28      |
| 35.0                              | 350  | 700 (120Hz)                      | 10.4                      | 1.06  | 1290                             | 132  | 05 -                  | 6070SK     | - AV   | 5 *1            | D-28      |
| 29.2                              | 292  | 584 (120Hz)                      | 12.4                      | 1.27  | 1290                             | 132  | 05 -                  | 6070SK     | - AV   | 6 *1            | 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 *1            | 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 *1           | 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      |

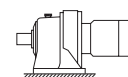
Notes: 1. Allowable radial load Pro is the value at the midpoint of the output shaft.

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

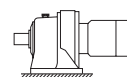
|         |                                  |            |
|---------|----------------------------------|------------|
| 0.75 kW | AF Motor for Inverters           |            |
|         | P                                | 4          |
|         | Motor Speed n <sub>1</sub> r/min | 1750(60Hz) |

| Output Speed n <sub>2</sub> r/min |      |                                  | Output Torque (60Hz) Tout |       | Allowable Radial Load (60Hz) Pro |      | Model                 |            |        |                 | Dim. Page |
|-----------------------------------|------|----------------------------------|---------------------------|-------|----------------------------------|------|-----------------------|------------|--------|-----------------|-----------|
| 6Hz                               | 60Hz | Allowable MAX Speed (Horizontal) | N·m                       | kgf·m | N                                | kgf  | Input Capacity Symbol | Frame Size | Suffix | Reduction Ratio | CNHM CHHM |
| 70.0                              | 700  | 1400 (120Hz)                     | 9.72                      | 0.991 | 1190                             | 121  | 1 -                   | 6080SK     | - AV   | - 2.5 *1        | D-28      |
| 58.3                              | 583  | 1167 (120Hz)                     | 11.7                      | 1.19  | 1250                             | 127  | 1 -                   | 6080SK     | - AV   | - 3 *1          | D-28      |
| 43.8                              | 438  | 875 (120Hz)                      | 15.6                      | 1.59  | 1350                             | 138  | 1 -                   | 6080SK     | - AV   | - 4 *1          | D-28      |
| 35.0                              | 350  | 700 (120Hz)                      | 19.4                      | 1.98  | 1460                             | 149  | 1 -                   | 6080SK     | - AV   | - 5 *1          | D-28      |
| 29.2                              | 292  | 584 (120Hz)                      | 23.3                      | 2.38  | 1520                             | 155  | 1 -                   | 6080SK     | - AV   | - 6 *1          | 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 *1          | 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 *1         | 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 *2       | D-36      |

GEARMOTOR  
FOR INVERTERSSelection Tables  
0.75 kW

- "\*1" 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.
- "\*2" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).
- Consult us for vertical types. Lubrication oil and system requires contemplation.

# Selection Tables Gearmotors (AF Motor for Inverters)



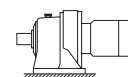
CHHM/CNHM

| 1.5 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                 |            |        |                 | Dim. Page |
|-----------------------------------|------|----------------------------------|---------------------------|-------|----------------------------------|-------|-----------------------|------------|--------|-----------------|-----------|
| 6Hz                               | 60Hz | Allowable MAX Speed (Horizontal) | N·m                       | kgf·m | N                                | kgf   | Input Capacity Symbol | Frame Size | Suffix | Reduction Ratio | CNHM CHHM |
| 70.0                              | 700  | 1400 (120Hz)                     | 19.4                      | 1.98  | 2050                             | 209   | 2 -                   | 6090SK     | - AV   | 2.5 *1          | D-28      |
| 58.3                              | 583  | 1167 (120Hz)                     | 23.3                      | 2.38  | 2120                             | 216   | 2 -                   | 6090SK     | - AV   | 3 *1            | D-28      |
| 43.8                              | 438  | 875 (120Hz)                      | 31.1                      | 3.17  | 2370                             | 242   | 2 -                   | 6090SK     | - AV   | 4 *1            | D-28      |
| 35.0                              | 350  | 700 (120Hz)                      | 38.9                      | 3.96  | 2490                             | 254   | 2 -                   | 6090SK     | - AV   | 5 *1            | D-28      |
| 29.2                              | 292  | 584 (120Hz)                      | 46.7                      | 4.76  | 2530                             | 258   | 2 -                   | 6090SK     | - AV   | 6 *1            | 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 *1            | 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 *1           | 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      |

- 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.

# Selection Tables Gearmotors (AF Motor for Inverters)



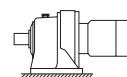
CHHM/CNHM

| 2.2 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                 |            |        |                 | Dim. Page |
|-----------------------------------|------|----------------------------------|---------------------------|-------|----------------------------------|-------|-----------------------|------------|--------|-----------------|-----------|
| 6Hz                               | 60Hz | Allowable MAX Speed (Horizontal) | N·m                       | kgf·m | N                                | kgf   | Input Capacity Symbol | Frame Size | Suffix | Reduction Ratio | CNHM CHHM |
| 70.0                              | 700  | 1400 (120Hz)                     | 28.5                      | 2.91  | 1970                             | 201   | 3 -                   | 6100SK     | - AV   | - 2.5 *1        | D-28      |
| 58.3                              | 583  | 1167 (120Hz)                     | 34.2                      | 3.49  | 2040                             | 208   | 3 -                   | 6100SK     | - AV   | - 3 *1          | D-28      |
| 43.8                              | 438  | 875 (120Hz)                      | 45.6                      | 4.65  | 2240                             | 228   | 3 -                   | 6100SK     | - AV   | - 4 *1          | D-28      |
| 35.0                              | 350  | 700 (120Hz)                      | 57.0                      | 5.81  | 2330                             | 238   | 3 -                   | 6100SK     | - AV   | - 5 *1          | D-28      |
| 29.2                              | 292  | 584 (120Hz)                      | 68.4                      | 6.98  | 2370                             | 242   | 3 -                   | 6100SK     | - AV   | - 6 *1          | 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 *1          | 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 *1         | 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      |

- "\*1" 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.
- "\*2" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).
- 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                 |            |        |                 | Dim. Page |
|-----------------------------------|------|----------------------------------|---------------------------|-------|----------------------------------|-------|-----------------------|------------|--------|-----------------|-----------|
| 6Hz                               | 60Hz | Allowable MAX Speed (Horizontal) |                           |       |                                  |       | Input Capacity Symbol | Frame Size | Suffix | Reduction Ratio |           |
|                                   |      |                                  | N·m                       | kgf·m | N                                | kgf   |                       |            |        |                 | CNHM CHHM |
| 70.0                              | 700  | 1400 (120Hz)                     | 48.0                      | 4.89  | 2500                             | 255   | 5                     | -          | 6110SK | - AV - 2.5 *1   | D-28      |
| 58.3                              | 583  | 1167 (120Hz)                     | 57.5                      | 5.87  | 2650                             | 275   | 5                     | -          | 6110SK | - AV - 3 *1     | D-28      |
| 43.8                              | 438  | 875 (120Hz)                      | 76.7                      | 7.82  | 2820                             | 287   | 5                     | -          | 6110SK | - AV - 4 *1     | D-28      |
| 35.0                              | 350  | 700 (120Hz)                      | 95.9                      | 9.78  | 2930                             | 299   | 5                     | -          | 6110SK | - AV - 5 *1     | D-28      |
| 29.2                              | 292  | 584 (120Hz)                      | 115                       | 11.7  | 3060                             | 312   | 5                     | -          | 6110SK | - AV - 6 *1     | 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 *1     | 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 *1    | 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 *2  | D-37      |
| 0.095                             | 0.95 | 1.3 (83Hz)                       | 33600                     | 3430  | 258000                           | 26300 | 5                     | -          | 6255DA | - AV - 1849 *2  | D-37      |

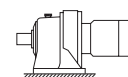
Note: 1. Allowable radial load Pro is the value at the midpoint of the output shaft.

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.

# Selection Tables Gearmotors (AF Motor for Inverters)



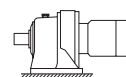
CHHM

|        |                                  |            |
|--------|----------------------------------|------------|
| 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                 |            |        |                 | Dim. Page |
|-----------------------------------|------|----------------------------------|---------------------------|-------|----------------------------------|-------|-----------------------|------------|--------|-----------------|-----------|
| 6Hz                               | 60Hz | Allowable MAX Speed (Horizontal) | N·m                       | kgf·m | N                                | kgf   | Input Capacity Symbol | Frame Size | Suffix | Reduction Ratio | CHHM      |
| 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 *2       | 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 *2       | D-37      |

- "\*1" 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.
- "\*2" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).
- Consult us for vertical types. Lubrication oil and system requires contemplation.

# Selection Tables Gearmotors (AF Motor for Inverters)



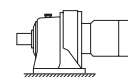
CHHM

| 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                 |            |        |                 | Dim. Page |
|-----------------------------------|------|----------------------------------|---------------------------|-------|----------------------------------|-------|-----------------------|------------|--------|-----------------|-----------|
| 6Hz                               | 60Hz | Allowable MAX Speed (Horizontal) | N·m                       | kgf·m | N                                | kgf   | Input Capacity Symbol | Frame Size | Suffix | Reduction Ratio | CHHM      |
| 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 *2          | 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 *2         | 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      |

- 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.

# Selection Tables Gearmotors (AF Motor for Inverters)



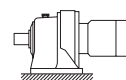
CHHM

|       |                            |                  |
|-------|----------------------------|------------------|
| 11 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                 |            |        |                 | Dim. Page |
|-----------------------------------|------|----------------------------------|---------------------------|-------|----------------------------------|-------|-----------------------|------------|--------|-----------------|-----------|
| 6Hz                               | 60Hz | Allowable MAX Speed (Horizontal) | N·m                       | kgf·m | N                                | kgf   | Input Capacity Symbol | Frame Size | Suffix | Reduction Ratio | CNHM      |
| 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 *2          | 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 *2          | D-37      |
| 0.270                             | 2.70 | 3.3 (73Hz)                       | 35100                     | 3570  | 276000                           | 28100 | 15 -                  | 6265DA     | - AV   | 649 *2          | D-37      |
| 0.239                             | 2.39 | 2.9 (73Hz)                       | 39500                     | 4030  | 276000                           | 28100 | 15 -                  | 6265DA     | - AV   | 731 *2          | D-37      |
| 0.208                             | 2.08 | 2.5 (73Hz)                       | 45400                     | 4630  | 276000                           | 28100 | 15 -                  | 6265DA     | - AV   | 841 *2          | D-37      |
| 0.174                             | 1.74 | 2.1 (73Hz)                       | 54200                     | 5520  | 248000                           | 25300 | 15 -                  | 6275DA     | - AV   | 1003 *2         | D-37      |
| 0.140                             | 1.40 | 1.7 (73Hz)                       | 67400                     | 6870  | 248000                           | 25300 | 15 -                  | 6275DA     | - AV   | 1247 *2         | D-37      |

- "\*1" 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.
- "\*2" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).
- Consult us for vertical types. Lubrication oil and system requires contemplation.

# Selection Tables Gearmotors (AF Motor for Inverters)



CHHM

| 15 kW | AF Motor for Inverters              |            |
|-------|-------------------------------------|------------|
|       | P                                   | 4          |
|       | Motor Speed n <sub>1</sub><br>r/min | 1750(60Hz) |

| Output Speed n <sub>2</sub> /min |      |                                  | Output Torque (60Hz) Tout |       | Allowable Radial Load (60Hz) Pro |       | Model                 |            |        |                 | Dim. Page |
|----------------------------------|------|----------------------------------|---------------------------|-------|----------------------------------|-------|-----------------------|------------|--------|-----------------|-----------|
| 6Hz                              | 60Hz | Allowable MAX Speed (Horizontal) | N·m                       | kgf·m | N                                | kgf   | Input Capacity Symbol | Frame Size | Suffix | Reduction Ratio | CNHM      |
| 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 *2         | 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 *2        | D-37      |
| 0.313                            | 3.13 | 3.8 (73Hz)                       | 41200                     | 4200  | 276000                           | 28100 | 20 -                  | 6265DA     | - AV   | - 559 *2        | D-37      |
| 0.270                            | 2.70 | 3.3 (73Hz)                       | 47800                     | 4870  | 248000                           | 25300 | 20 -                  | 6275DA     | - AV   | - 649 *2        | D-37      |
| 0.239                            | 2.39 | 2.9 (73Hz)                       | 53900                     | 5490  | 248000                           | 25300 | 20 -                  | 6275DA     | - AV   | - 731 *2        | D-37      |
| 0.208                            | 2.08 | 2.5 (73Hz)                       | 62000                     | 6320  | 248000                           | 25300 | 20 -                  | 6275DA     | - AV   | - 841           | D-37      |

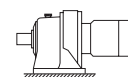
Notes: 1. Allowable radial load Pro is the value at the midpoint of the output shaft.

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 600SK Series•Reducer



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                 |            |        |                 | Dim. Page |
|-----------------------------------|------|----------------------------------|---------------------------|-------|----------------------------------|-------|-----------------------|------------|--------|-----------------|-----------|
| 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)                       | 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 *2         | 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 *2        | D-37      |
| 0.897                             | 8.97 | 10.9 (73Hz)                      | 17700                     | 1810  | 150000                           | 15300 | 25 -                  | 6235DB     | - AV   | - 195 *2        | D-37      |
| 0.758                             | 7.58 | 9.22 (73Hz)                      | 21000                     | 2140  | 179000                           | 18200 | 25 -                  | 6245DB     | - AV   | - 231 *2        | 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 *2        | D-37      |
| 0.370                             | 3.70 | 4.5 (73Hz)                       | 43000                     | 4380  | 276000                           | 28100 | 25 -                  | 6265DA     | - AV   | - 473 *2        | D-37      |
| 0.313                             | 3.13 | 3.8 (73Hz)                       | 50800                     | 5180  | 248000                           | 25300 | 25 -                  | 6275DA     | - AV   | - 559 *2        | D-37      |
| 0.270                             | 2.70 | 3.3 (73Hz)                       | 59000                     | 6010  | 248000                           | 25300 | 25 -                  | 6275DA     | - AV   | - 649 *2        | D-37      |
| 0.239                             | 2.39 | 2.9 (73Hz)                       | 66400                     | 6770  | 248000                           | 25300 | 25 -                  | 6275DA     | - AV   | - 731 *2        | D-37      |

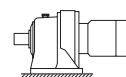
GEARMOTOR  
FOR INVERTERSSelection Tables  
18.5 kW

5. "\*"1" 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. "\*"2" 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

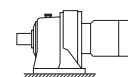
|       |                            |                  |
|-------|----------------------------|------------------|
| 22 kW | AF Motor for Inverters     |                  |
|       | P                          | 4                |
|       | Motor Speed n <sub>1</sub> | r/min 1750(60Hz) |

| Output Speed n <sub>2</sub> r/min |      |                                        | Output Torque<br>(60Hz)<br>Tout |      | Allowable<br>Radial Load<br>(60Hz) Pro |       | Model                       |               |        |                    |      |   | Dim. Page |      |
|-----------------------------------|------|----------------------------------------|---------------------------------|------|----------------------------------------|-------|-----------------------------|---------------|--------|--------------------|------|---|-----------|------|
| 6Hz                               | 60Hz | Allowable MAX<br>Speed<br>(Horizontal) |                                 |      |                                        |       | Input<br>Capacity<br>Symbol | Frame<br>Size | Suffix | Reduction<br>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 *2     | D-32 |
| 2.01                              | 20.1 | 20.1 (60Hz)                            | 9920                            | 1010 | 95700                                  | 9760  | 30                          | -             | 6225   | -                  | AV   | - | 87 *2     | 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 *2    | D-37 |
| 0.897                             | 8.97 | 10.9 (73Hz)                            | 21100                           | 2150 | 167000                                 | 17000 | 30                          | -             | 6245DB | -                  | AV   | - | 195 *2    | D-37 |
| 0.758                             | 7.58 | 9.22 (73Hz)                            | 25000                           | 2540 | 179000                                 | 18200 | 30                          | -             | 6245DB | -                  | AV   | - | 231 *2    | 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 *2    | D-37 |
| 0.464                             | 4.64 | 5.7 (73Hz)                             | 40700                           | 4150 | 276000                                 | 28100 | 30                          | -             | 6265DA | -                  | AV   | - | 377 *2    | D-37 |
| 0.370                             | 3.70 | 4.5 (73Hz)                             | 51100                           | 5210 | 248000                                 | 25300 | 30                          | -             | 6275DA | -                  | AV   | - | 473 *2    | D-37 |
| 0.313                             | 3.13 | 3.8 (73Hz)                             | 60400                           | 6160 | 248000                                 | 25300 | 30                          | -             | 6275DA | -                  | AV   | - | 559 *2    | 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.

# 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) |

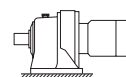


CHHM

| Output Speed n <sub>2</sub> r/min |      |                                        | Output Torque<br>(60Hz)<br>Tout |      | Allowable<br>Radial Load<br>(60Hz) Pro |       | Model                       |               |        |                    | Dim. Page |
|-----------------------------------|------|----------------------------------------|---------------------------------|------|----------------------------------------|-------|-----------------------------|---------------|--------|--------------------|-----------|
| 6Hz                               | 60Hz | Allowable MAX<br>Speed<br>(Horizontal) |                                 |      |                                        |       | Input<br>Capacity<br>Symbol | Frame<br>Size | Suffix | Reduction<br>Ratio | CHHM      |
| 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 *2       | D-32      |
| 2.97                              | 29.7 | 29.7 (60Hz)                            | 9180                            | 935  | 80300                                  | 8180  | 40                          | -             | 6215   | - AV - 59 *2       | D-32      |
| 2.71                              | 27.1 | 27.1 (60Hz)                            | 10000                           | 1020 | 83100                                  | 8480  | 406                         | -             | 6215   | - AV - 43 *2       | D-32      |
| 1.97                              | 19.7 | 19.7 (60Hz)                            | 13800                           | 1410 | 119000                                 | 12200 | 406                         | -             | 6235   | - AV - 59 *2       | 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 *2      | 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 *2      | D-37      |

- "\*1" 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.
- "\*2" indicate models requiring increased capacity for inverters, for certain operation conditions (ambient temperature, load condition, etc.).
- 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><br>r/min | 1750(60Hz) | 1165(60Hz) |

| Output Speed n <sub>2</sub> r/min |      |                                        | Output Torque<br>(60Hz)<br>Tout |      | Allowable<br>Radial Load<br>(60Hz) Pro |       | Model                       |               |        |                    | Dim. Page |
|-----------------------------------|------|----------------------------------------|---------------------------------|------|----------------------------------------|-------|-----------------------------|---------------|--------|--------------------|-----------|
| 6Hz                               | 60Hz | Allowable MAX<br>Speed<br>(Horizontal) |                                 |      |                                        |       | Input<br>Capacity<br>Symbol | Frame<br>Size | Suffix | Reduction<br>Ratio | CHHM      |
| 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 *2       | D-32      |
| 1.97                              | 19.7 | 19.7 (60Hz)                            | 17000                           | 1730 | 133000                                 | 13500 | 506                         | -             | 6245   | - AV - 59 *2       | 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 *2      | 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.

5. "\*\*1" 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. "\*\*2" 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.

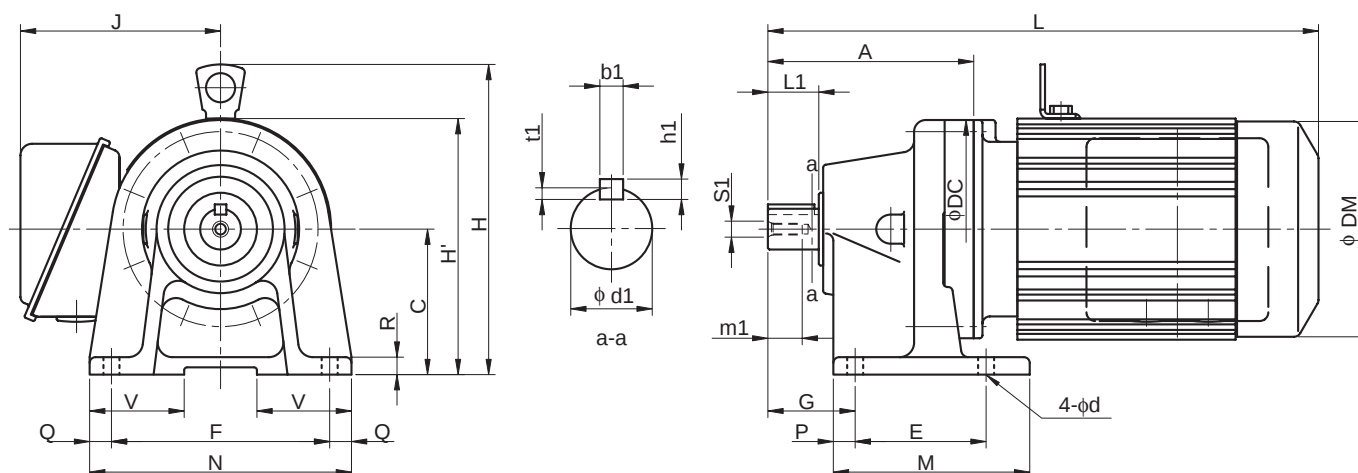
# D CYCLO® GEARMOTORS With AF Motor for Inverters

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## 3. Dimension Tables

GEARMOTOR  
FOR INVERTERSDimension  
Tables

## Dimension Tables (Universal Direction, Foot Mount)

CNHM<sup>Note 1</sup> - 606□ to 612□ - AV

| Frame size<br><small>Note 3</small> | A   | C   | DC  | E   | F   | G  | M   | N   | O  | P  | R  | V  | d  | Output Shaft <small>Note 2, 3, 6</small> |    |    |    |     |    |    |
|-------------------------------------|-----|-----|-----|-----|-----|----|-----|-----|----|----|----|----|----|------------------------------------------|----|----|----|-----|----|----|
|                                     |     |     |     |     |     |    |     |     |    |    |    |    |    | d1                                       | L1 | b1 | h1 | t1  | S1 | m1 |
| 606□                                | 92  | 80  | 110 | 60  | 120 | 41 | 84  | 144 | 12 | 12 | 10 | 35 | 9  | 14                                       | 25 | 5  | 5  | 3   | M5 | 16 |
| 607□                                | 98  | 80  | 110 | 60  | 120 | 47 | 84  | 144 | 12 | 12 | 10 | 35 | 9  | 18                                       | 30 | 6  | 6  | 3.5 | M6 | 16 |
| 608□                                | 129 | 90  | 134 | 75  | 120 | 52 | 99  | 144 | 12 | 12 | 13 | 37 | 9  | 22                                       | 35 | 6  | 6  | 3.5 | M6 | 16 |
| 609□                                | 142 | 100 | 150 | 90  | 150 | 60 | 135 | 180 | 15 | 15 | 12 | 40 | 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<br><small>Note 4, 5</small> | Motor |   | Standard |     |     |     |     |       |  | With Brake |     |     |     |     |       |  |
|-----------------------------------|-------|---|----------|-----|-----|-----|-----|-------|--|------------|-----|-----|-----|-----|-------|--|
|                                   | kW    | P | L        | H   | H'  | J   | DM  | W(kg) |  | L          | H   | H'  | J   | DM  | W(kg) |  |
| CNHM01 - 606□ - AV - (B) - Ratio  | 0.1   | 4 | 272      | -   | 138 | 130 | 124 | 8     |  | 300        | -   | 138 | 130 | 124 | 9     |  |
| CNHM02 - 606□ - AV - (B) - Ratio  | 0.2   | 4 | 288      | -   | 138 | 130 | 124 | 9     |  | 320        | -   | 138 | 130 | 124 | 10    |  |
| CNHM01 - 607□ - AV - (B) - Ratio  | 0.1   | 4 | 278      | -   | 138 | 130 | 124 | 8     |  | 306        | -   | 138 | 130 | 124 | 9     |  |
| CNHM02 - 607□ - AV - (B) - Ratio  | 0.2   | 4 | 294      | -   | 138 | 130 | 124 | 9     |  | 326        | -   | 138 | 130 | 124 | 10    |  |
| CNHM01 - 608□ - AV - (B) - Ratio  | 0.1   | 4 | 304      | -   | 157 | 130 | 124 | 11    |  | 332        | -   | 157 | 130 | 124 | 12    |  |
| CNHM02 - 608□ - AV - (B) - Ratio  | 0.2   | 4 | 320      | -   | 157 | 130 | 124 | 13    |  | 352        | -   | 157 | 130 | 124 | 14    |  |
| CNHM05 - 608□ - AV - (B) - Ratio  | 0.4   | 4 | 361      | 203 | -   | 140 | 148 | 17    |  | 404        | 203 | -   | 140 | 148 | 18    |  |
| CNHM02 - 609□ - AV - (B) - Ratio  | 0.2   | 4 | 338      | -   | 175 | 130 | 124 | 14    |  | 370        | -   | 175 | 130 | 124 | 16    |  |
| CNHM05 - 609□ - AV - (B) - Ratio  | 0.4   | 4 | 379      | 213 | -   | 140 | 148 | 18    |  | 422        | 213 | -   | 140 | 148 | 21    |  |
| CNHM1 - 609□ - AV - (B) - Ratio   | 0.75  | 4 | 412      | 220 | -   | 145 | 160 | 21    |  | 474        | 220 | -   | 145 | 160 | 26    |  |
| CNHM02 - 610□ - AV - (B) - Ratio  | 0.2   | 4 | 352      | 207 | -   | 130 | 124 | 19    |  | 384        | 207 | -   | 130 | 124 | 21    |  |
| CNHM05 - 610□ - AV - (B) - Ratio  | 0.4   | 4 | 393      | 213 | -   | 140 | 148 | 23    |  | 436        | 213 | -   | 140 | 148 | 26    |  |
| CNHM1 - 610□ - AV - (B) - Ratio   | 0.75  | 4 | 426      | 220 | -   | 145 | 160 | 27    |  | 488        | 220 | -   | 145 | 160 | 32    |  |
| CNHM2 - 610□ - AV - (B) - Ratio   | 1.5   | 4 | 446      | 226 | -   | 152 | 173 | 31    |  | 509        | 226 | -   | 152 | 173 | 37    |  |
| CNHM1 - 611□ - AV - (B) - Ratio   | 0.75  | 4 | 436      | 240 | -   | 145 | 160 | 26    |  | 493        | 240 | -   | 145 | 160 | 31    |  |
| CNHM2 - 611□ - AV - (B) - Ratio   | 1.5   | 4 | 456      | 246 | -   | 152 | 173 | 30    |  | 519        | 246 | -   | 152 | 173 | 36    |  |
| CNHM3 - 611□ - AV - (B) - Ratio   | 2.2   | 4 | 491      | 266 | -   | 168 | 212 | 40    |  | 563        | 266 | -   | 168 | 212 | 50    |  |
| CNHM2 - 612□ - AV - (B) - Ratio   | 1.5   | 4 | 476      | 246 | -   | 152 | 173 | 40    |  | 539        | 246 | -   | 152 | 173 | 47    |  |
| CNHM3 - 612□ - AV - (B) - Ratio   | 2.2   | 4 | 499      | 266 | -   | 168 | 212 | 50    |  | 571        | 266 | -   | 168 | 212 | 60    |  |
| CNHM5 - 612□ - AV - (B) - Ratio   | 3.7   | 4 | 543      | 266 | -   | 168 | 212 | 57    |  | 615        | 266 | -   | 168 | 212 | 67    |  |

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

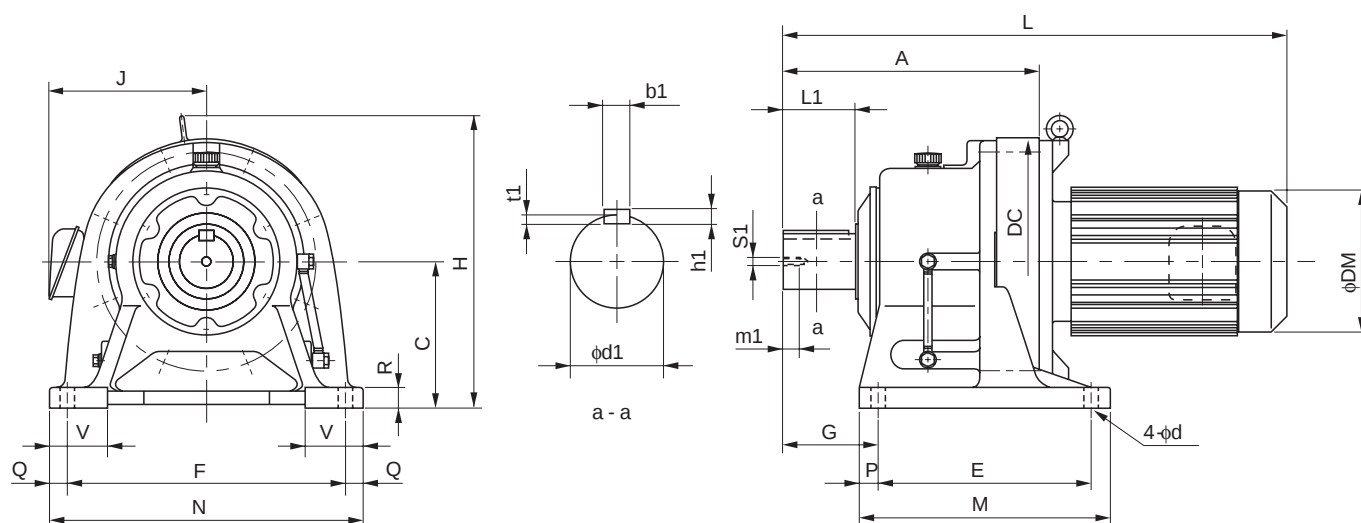
5. "B" after the suffix "AV" indicates models equipped with brake.

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

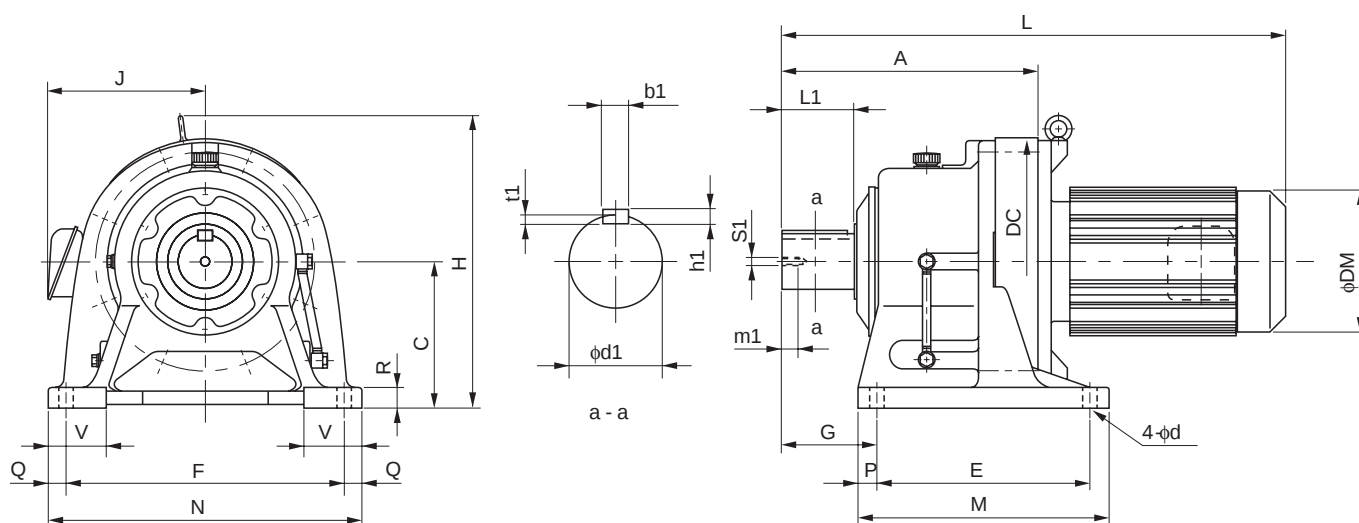
| Frame size<br><small>Note 4</small> | A   | C   | DC  | E   | F   | G   | M   | N   | P  | Q  | R  | V  | d  | Output Shaft <small>Note 2, 3, 6</small> |    |    |    |     |     |    |
|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|------------------------------------------|----|----|----|-----|-----|----|
|                                     |     |     |     |     |     |     |     |     |    |    |    |    |    | 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<br><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 | 152 | 173 | 58    | 593        | 274 | 152 | 173 | 65    |
| CHHM3 - 613□ - AV - (B) - Ratio   | 2.2   | 4 | 553      | 296 | 168 | 212 | 68    | 625        | 296 | 168 | 212 | 78    |
| CHHM5 - 613□ - AV - (B) - Ratio   | 3.7   | 4 | 597      | 296 | 168 | 212 | 75    | 669        | 296 | 168 | 212 | 85    |
| CHHM8 - 613□ - AV - (B) - Ratio   | 5.5   | 4 | 620      | 323 | 213 | 251 | 90    | 715        | 323 | 213 | 251 | 108   |
| CHHM10 - 613□ - AV - (B) - Ratio  | 7.5   | 4 | 680      | 323 | 213 | 251 | 103   | 775        | 323 | 213 | 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 | 168 | 212 | 69    | 645        | 296 | 168 | 212 | 79    |
| CHHM5 - 614□ - AV - (B) - Ratio   | 3.7   | 4 | 617      | 296 | 168 | 212 | 76    | 689        | 296 | 168 | 212 | 86    |
| CHHM8 - 614□ - AV - (B) - Ratio   | 5.5   | 4 | 640      | 323 | 213 | 251 | 91    | 735        | 323 | 213 | 251 | 109   |
| CHHM10 - 614□ - AV - (B) - Ratio  | 7.5   | 4 | 700      | 323 | 213 | 251 | 104   | 795        | 323 | 213 | 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 | 168 | 212 | 106   | 693        | 310 | 168 | 212 | 116   |
| CHHM5 - 616□ - AV - (B) - Ratio   | 3.7   | 4 | 665      | 310 | 168 | 212 | 113   | 737        | 310 | 168 | 212 | 123   |
| CHHM8 - 616□ - AV - (B) - Ratio   | 5.5   | 4 | 693      | 333 | 213 | 251 | 129   | 788        | 333 | 213 | 251 | 146   |
| CHHM10 - 616□ - AV - (B) - Ratio  | 7.5   | 4 | 753      | 333 | 213 | 251 | 143   | 848        | 333 | 213 | 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 | 328 | 394 | 272   | 1098       | 368 | 328 | 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.

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

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

CHHM<sup>Note 1</sup> - 617□ to 619□ - AV

| Frame size<br><small>Note 4</small> | A   | C   | DC  | E   | F   | G   | M   | N   | P  | Q  | R  | V  | d  | Output Shaft<br><small>Note 2, 3, 6</small> |     |    |    |     |     |    |
|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|---------------------------------------------|-----|----|----|-----|-----|----|
|                                     |     |     |     |     |     |     |     |     |    |    |    |    |    | 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<br><small>Note 4, 5</small> | 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 | 213 | 251 | 169   | 837        | 403 | 213 | 251 | 187   |
| CHHM10 - 617□ - AV - (B) - Ratio  | 7.5                      | 4 | 802      | 403 | 213 | 251 | 183   | 897        | 403 | 213 | 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 | 328 | 394 | 309   | 1142       | 428 | 328 | 394 | 360   |
| CHHM25 - 617□ - AV - (B) - Ratio  | 18.5                     | 4 | 977      | 428 | 328 | 394 | 309   | 1142       | 428 | 328 | 394 | 360   |
| CHHM30 - 617□ - AV - (B) - Ratio  | 22                       | 4 | 977      | 428 | 328 | 394 | 326   | 1142       | 428 | 328 | 394 | 369   |
| CHHM10 - 618□ - AV - (B) - Ratio  | 7.5                      | 4 | 839      | 438 | 213 | 251 | 221   | 934        | 438 | 213 | 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 | 328 | 394 | 347   | 1179       | 448 | 328 | 394 | 398   |
| CHHM25 - 618□ - AV - (B) - Ratio  | 18.5                     | 4 | 1014     | 448 | 328 | 394 | 347   | 1179       | 448 | 328 | 394 | 398   |
| CHHM30 - 618□ - AV - (B) - Ratio  | 22                       | 4 | 1014     | 448 | 328 | 394 | 364   | 1179       | 448 | 328 | 394 | 407   |
| CHHM40 - 618□ - AV - (B) - Ratio  | 30 <small>Note 7</small> | 4 | 1159     | 481 | 328 | 394 | 314   | 1411       | 481 | 328 | 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 | 328 | 394 | 422   | 1255       | 511 | 328 | 394 | 467   |
| CHHM25 - 619□ - AV - (B) - Ratio  | 18.5                     | 4 | 1090     | 511 | 328 | 394 | 422   | 1255       | 511 | 328 | 394 | 467   |
| CHHM30 - 619□ - AV - (B) - Ratio  | 22                       | 4 | 1090     | 511 | 328 | 394 | 437   | 1255       | 511 | 328 | 394 | 480   |
| CHHM40 - 619□ - AV - (B) - Ratio  | 30 <small>Note 7</small> | 4 | 1235     | 511 | 328 | 394 | 477   | 1487       | 511 | 328 | 394 | 573   |
| CHHM406 - 619□ - AV - (B) - Ratio | 30 <small>Note 7</small> | 6 | 1235     | 511 | 328 | 394 | 477   | 1487       | 511 | 328 | 394 | 573   |
| CHHM50 - 619□ - AV - (B) - Ratio  | 37 <small>Note 7</small> | 4 | 1235     | 511 | 328 | 394 | 478   | 1487       | 511 | 328 | 394 | 573   |
| CHHM506 - 619□ - AV - (B) - Ratio | 37 <small>Note 7</small> | 6 | 1290     | 511 | 378 | 484 | 569   | -          | -   | -   | -   | -     |

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

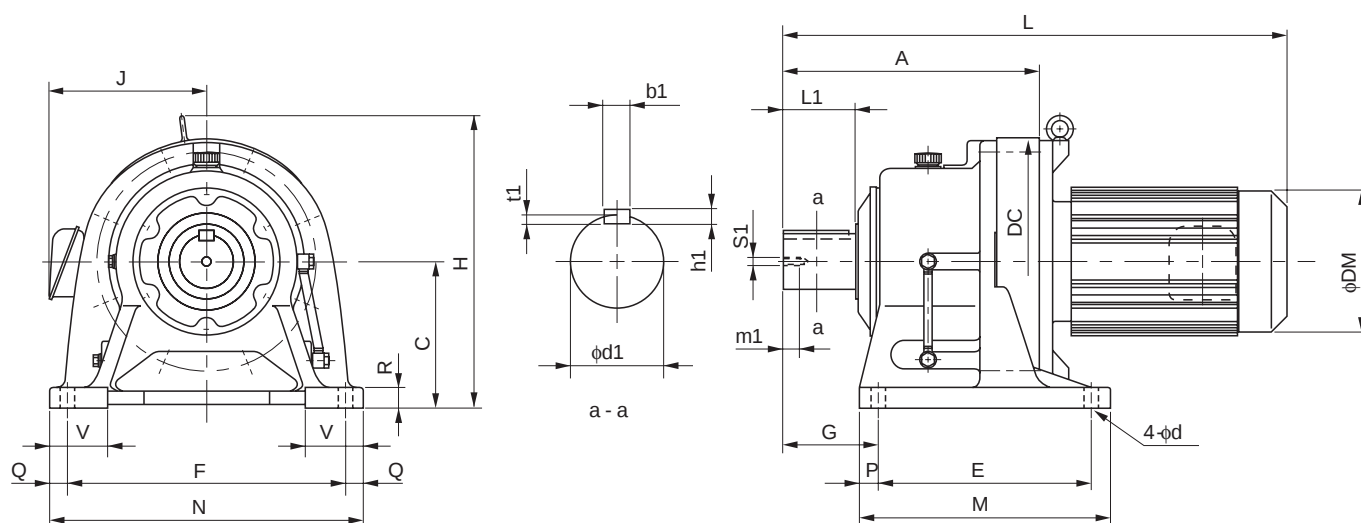
5. "B" after the suffix "AV" indicates models equipped with brake.

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

| 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 |

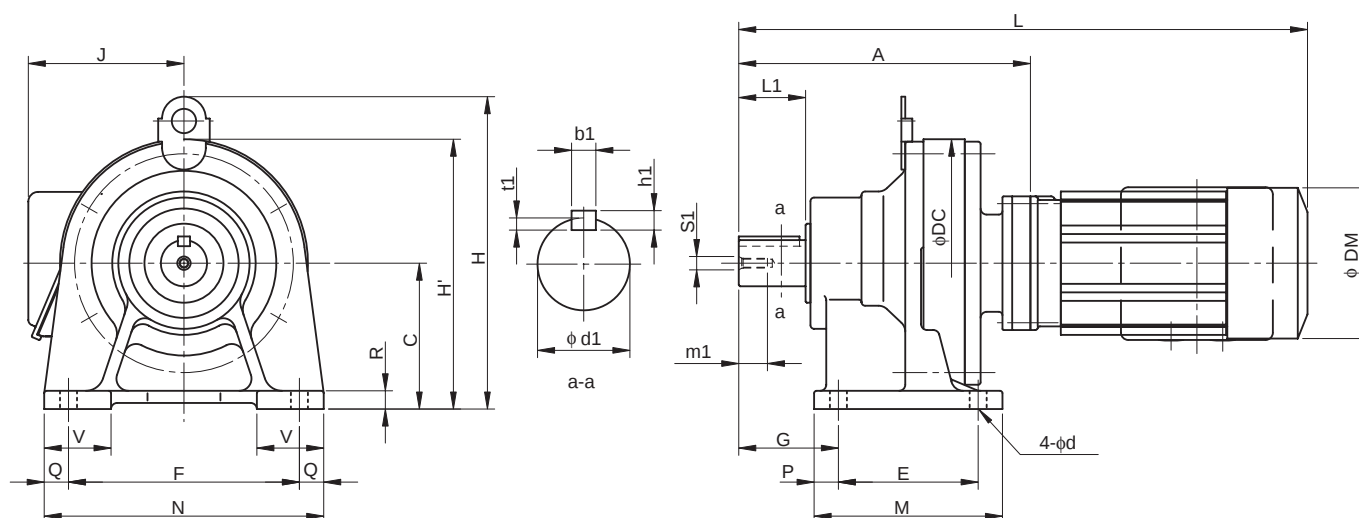
| Model                             | Motor |          | Standard |     |     |     |       | With Brake |     |     |     |       |
|-----------------------------------|-------|----------|----------|-----|-----|-----|-------|------------|-----|-----|-----|-------|
|                                   | kW    | P        | L        | H   | J   | DM  | W(kg) | L          | H   | J   | DM  | W(kg) |
| CHHM20 - 6205 - AV - (B) - Ratio  | 15    | 4        | 1127     | 530 | 328 | 394 | 443   | 1292       | 530 | 328 | 394 | 488   |
| CHHM30 - 6205 - AV - (B) - Ratio  | 22    | 4        | 1127     | 530 | 328 | 394 | 456   | 1292       | 530 | 328 | 394 | 501   |
| CHHM40 - 6205 - AV - (B) - Ratio  | 30    | Note 7 4 | 1272     | 530 | 328 | 394 | 496   | 1524       | 530 | 328 | 394 | 589   |
| CHHM25 - 6215 - AV - (B) - Ratio  | 18.5  | 4        | 1151     | 575 | 328 | 394 | 520   | 1316       | 575 | 328 | 394 | 565   |
| CHHM40 - 6215 - AV - (B) - Ratio  | 30    | Note 7 4 | 1296     | 575 | 328 | 394 | 573   | 1548       | 575 | 328 | 394 | 667   |
| CHHM406 - 6215 - AV - (B) - Ratio | 30    | Note 7 6 | 1296     | 575 | 328 | 394 | 573   | 1548       | 575 | 328 | 394 | 667   |
| CHHM50 - 6215 - AV - (B) - Ratio  | 37    | Note 7 4 | 1296     | 575 | 328 | 394 | 573   | 1548       | 575 | 328 | 394 | 667   |
| CHHM30 - 6225 - AV - (B) - Ratio  | 22    | 4        | 1191     | 610 | 328 | 394 | 618   | 1401       | 610 | 328 | 394 | 663   |
| CHHM50 - 6225 - AV - (B) - Ratio  | 37    | Note 7 4 | 1336     | 610 | 328 | 394 | 658   | 1588       | 610 | 328 | 394 | 752   |
| CHHM406 - 6235 - AV - (B) - Ratio | 30    | Note 7 6 | 1398     | 667 | 328 | 394 | 751   | 1650       | 667 | 297 | 394 | 838   |
| CHHM506 - 6245 - AV - (B) - Ratio | 37    | Note 7 6 | 1482     | 729 | 378 | 484 | 967   | -          | -   | -   | -   | -     |
| CHHM506 - 6255 - AV - (B) - Ratio | 37    | Note 7 6 | 1600     | 815 | 378 | 484 | 1286  | -          | -   | -   | -   | -     |

Note: 1. □ indicates motor capacity.

2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."

3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables (Universal Direction, Foot Mount)

CNHM<sup>Note 1</sup> - 607□DA to 612□DB - AV

| Frame size<br><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 |
| 607□DA                              | 131 | 80  | 110 | 60  | 120 | 47 | 84  | 144 | 12 | 12 | 10 | 35 | 9  | 18                                       | 30 | 6  | 6  | 3.5 | M6 | 16 |
| 609□DA                              | 190 | 100 | 150 | 90  | 150 | 60 | 135 | 180 | 15 | 15 | 12 | 40 | 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<br><small>Note 4, 5</small>  | Motor |   | Standard |     |     |     |     |       |  | With Brake |     |     |     |     |       |
|------------------------------------|-------|---|----------|-----|-----|-----|-----|-------|--|------------|-----|-----|-----|-----|-------|
|                                    | kW    | P | L        | H   | H'  | J   | DM  | W(kg) |  | L          | H   | H'  | J   | DM  | W(kg) |
| CNHM01 - 607□DA - AV - (B) - Ratio | 0.1   | 4 | 311      | -   | 140 | 130 | 124 | 10    |  | 339        | -   | 138 | 130 | 124 | 11    |
| CNHM01 - 609□DA - AV - (B) - Ratio | 0.1   | 4 | 370      | 207 | -   | 130 | 124 | 18    |  | 398        | 207 | -   | 130 | 124 | 19    |
| CNHM02 - 609□DA - AV - (B) - Ratio | 0.2   | 4 | 386      | 207 | -   | 130 | 124 | 19    |  | 418        | 207 | -   | 130 | 124 | 20    |
| CNHM01 - 610□DA - AV - (B) - Ratio | 0.1   | 4 | 384      | 207 | -   | 130 | 124 | 20    |  | 412        | 207 | -   | 130 | 124 | 21    |
| CNHM02 - 610□DA - AV - (B) - Ratio | 0.2   | 4 | 400      | 207 | -   | 130 | 124 | 21    |  | 432        | 207 | -   | 130 | 124 | 22    |
| CNHM01 - 612□DA - AV - (B) - Ratio | 0.1   | 4 | 420      | 257 | -   | 130 | 124 | 31    |  | 448        | 257 | -   | 130 | 124 | 32    |
| CNHM02 - 612□DA - AV - (B) - Ratio | 0.2   | 4 | 436      | 257 | -   | 130 | 124 | 32    |  | 468        | 257 | -   | 130 | 124 | 33    |
| CNHM05 - 612□DB - AV - (B) - Ratio | 0.4   | 4 | 489      | 257 | -   | 140 | 148 | 39    |  | 532        | 257 | -   | 140 | 148 | 42    |
| CNHM1 - 612□DB - AV - (B) - Ratio  | 0.75  | 4 | 516      | 257 | -   | 145 | 160 | 42    |  | 578        | 257 | -   | 145 | 160 | 47    |

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

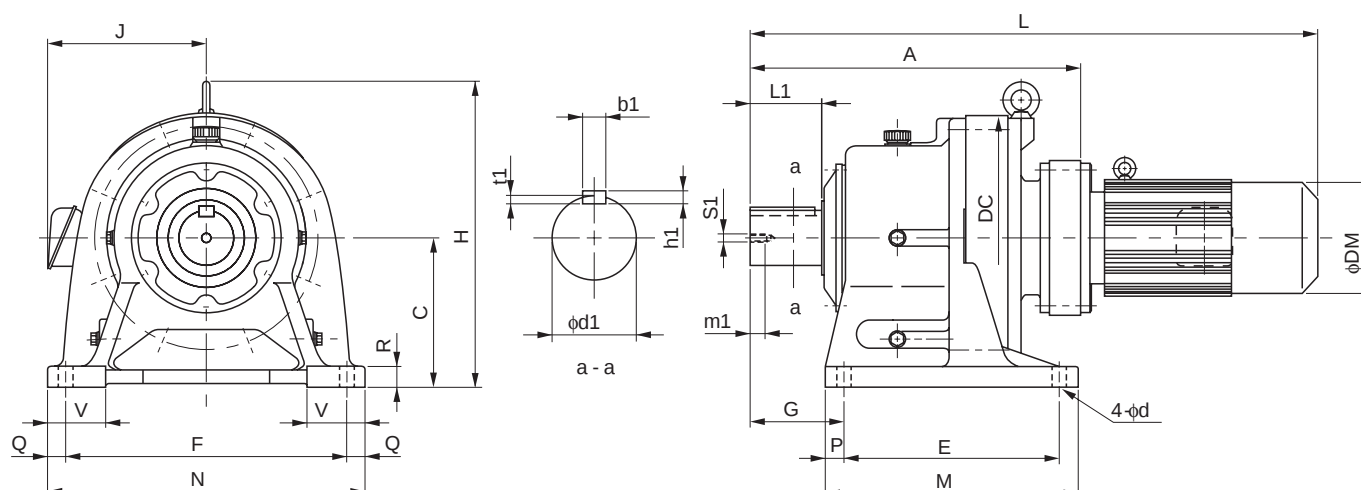
5. "B" after the suffix "AV" indicates models equipped with brake.

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

| Frame size<br><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 |

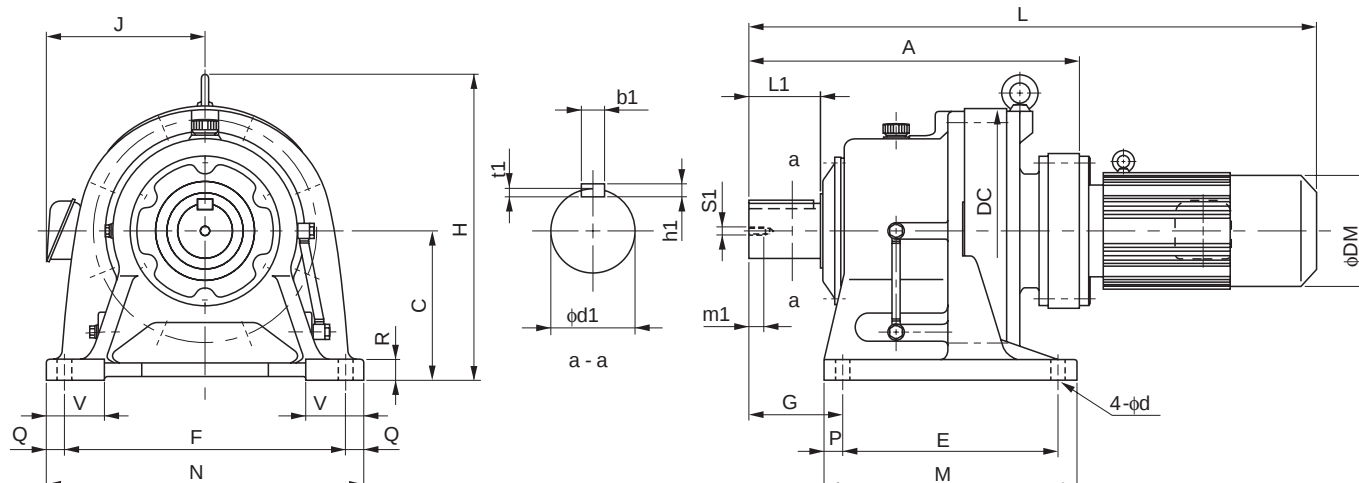
| Model<br><small>Note 4, 5</small>  | Motor |   | Standard |     |     |     |       | With Brake |     |     |     |       |
|------------------------------------|-------|---|----------|-----|-----|-----|-------|------------|-----|-----|-----|-------|
|                                    | kW    | P | L        | H   | J   | DM  | W(kg) | L          | H   | J   | DM  | W(kg) |
| CHHM02 - 613□DA - AV - (B) - Ratio | 0.2   | 4 | 490      | 300 | 130 | 124 | 47    | 522        | 300 | 130 | 124 | 48    |
| CHHM05 - 613□DB - AV - (B) - Ratio | 0.4   | 4 | 540      | 265 | 140 | 148 | 54    | 583        | 265 | 140 | 148 | 57    |
| CHHM1 - 613□DB - AV - (B) - Ratio  | 0.75  | 4 | 573      | 270 | 145 | 160 | 57    | 635        | 270 | 145 | 160 | 62    |
| CHHM2 - 613□DC - AV - (B) - Ratio  | 1.5   | 4 | 607      | 276 | 152 | 173 | 64    | 670        | 276 | 152 | 173 | 70    |
| CHHM02 - 614□DA - AV - (B) - Ratio | 0.2   | 4 | 510      | 300 | 130 | 124 | 48    | 542        | 300 | 130 | 124 | 49    |
| CHHM05 - 614□DB - AV - (B) - Ratio | 0.4   | 4 | 560      | 265 | 140 | 148 | 54    | 603        | 265 | 140 | 148 | 57    |
| CHHM1 - 614□DB - AV - (B) - Ratio  | 0.75  | 4 | 593      | 270 | 145 | 160 | 57    | 655        | 270 | 145 | 160 | 62    |
| CHHM2 - 614□DC - AV - (B) - Ratio  | 1.5   | 4 | 627      | 276 | 152 | 173 | 61    | 690        | 276 | 152 | 173 | 70    |
| CHHM02 - 616□DA - AV - (B) - Ratio | 0.2   | 4 | 569      | 349 | 130 | 124 | 91    | 601        | 349 | 130 | 124 | 93    |
| CHHM05 - 616□DA - AV - (B) - Ratio | 0.4   | 4 | 610      | 349 | 140 | 148 | 95    | 653        | 349 | 140 | 148 | 98    |
| CHHM1 - 616□DA - AV - (B) - Ratio  | 0.75  | 4 | 643      | 349 | 145 | 160 | 99    | 705        | 349 | 145 | 160 | 104   |
| CHHM2 - 616□DB - AV - (B) - Ratio  | 1.5   | 4 | 677      | 349 | 152 | 173 | 105   | 740        | 349 | 152 | 173 | 111   |
| CHHM02 - 617□DA - AV - (B) - Ratio | 0.2   | 4 | 614      | 416 | 130 | 124 | 126   | 646        | 416 | 130 | 124 | 128   |
| CHHM05 - 617□DA - AV - (B) - Ratio | 0.4   | 4 | 655      | 416 | 140 | 148 | 130   | 698        | 416 | 140 | 148 | 133   |
| CHHM1 - 617□DA - AV - (B) - Ratio  | 0.75  | 4 | 688      | 416 | 145 | 160 | 134   | 750        | 416 | 145 | 160 | 139   |
| CHHM2 - 617□DB - AV - (B) - Ratio  | 1.5   | 4 | 722      | 416 | 152 | 173 | 140   | 785        | 416 | 152 | 173 | 146   |
| CHHM05 - 618□DA - AV - (B) - Ratio | 0.4   | 4 | 711      | 451 | 140 | 148 | 176   | 754        | 451 | 140 | 148 | 178   |
| CHHM1 - 618□DA - AV - (B) - Ratio  | 0.75  | 4 | 744      | 451 | 145 | 160 | 179   | 806        | 451 | 145 | 160 | 184   |
| CHHM2 - 618□DA - AV - (B) - Ratio  | 1.5   | 4 | 764      | 451 | 152 | 173 | 183   | 827        | 451 | 152 | 173 | 189   |

Note: 1. □ indicates motor capacity.

2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."

3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

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

CHHM<sup>Note 1</sup> - 616□DC to 619□DB - AV

| Frame size<br><small>Note 4</small> | A   | C   | DC  | E   | F   | G   | M   | N   | P  | Q  | R  | V  | d  | Output Shaft<br><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<br><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 | 168 | 212 | 121   |  | 774        | 349 | 147 | 212 | 131   |  |
| CHHM5 - 616□DC - AV - (B) - Ratio  | 3.7   | 4 | 746      | 349 | 168 | 212 | 128   |  | 818        | 349 | 147 | 212 | 138   |  |
| CHHM3 - 617□DC - AV - (B) - Ratio  | 2.2   | 4 | 749      | 416 | 168 | 212 | 155   |  | 821        | 416 | 147 | 212 | 165   |  |
| CHHM5 - 617□DC - AV - (B) - Ratio  | 3.7   | 4 | 793      | 416 | 168 | 212 | 162   |  | 865        | 416 | 147 | 212 | 172   |  |
| CHHM3 - 618□DB - AV - (B) - Ratio  | 2.2   | 4 | 809      | 451 | 168 | 212 | 207   |  | 881        | 451 | 147 | 212 | 217   |  |
| CHHM5 - 618□DB - AV - (B) - Ratio  | 3.7   | 4 | 853      | 451 | 168 | 212 | 214   |  | 925        | 451 | 147 | 212 | 224   |  |
| CHHM8 - 618□DB - AV - (B) - Ratio  | 5.5   | 4 | 876      | 451 | 213 | 251 | 229   |  | 971        | 451 | 188 | 251 | 247   |  |
| CHHM10 - 618□DB - AV - (B) - Ratio | 7.5   | 4 | 936      | 451 | 213 | 251 | 243   |  | 1031       | 451 | 188 | 251 | 261   |  |
| CHHM1 - 619□DA - AV - (B) - Ratio  | 0.75  | 4 | 826      | 531 | 145 | 160 | 254   |  | 888        | 531 | 119 | 160 | 259   |  |
| CHHM2 - 619□DA - AV - (B) - Ratio  | 1.5   | 4 | 846      | 531 | 152 | 173 | 258   |  | 909        | 531 | 126 | 173 | 265   |  |
| CHHM3 - 619□DA - AV - (B) - Ratio  | 2.2   | 4 | 869      | 531 | 168 | 212 | 268   |  | 941        | 531 | 147 | 212 | 278   |  |
| CHHM5 - 619□DA - AV - (B) - Ratio  | 3.7   | 4 | 913      | 531 | 168 | 212 | 275   |  | 985        | 531 | 147 | 212 | 285   |  |
| CHHM8 - 619□DB - AV - (B) - Ratio  | 5.5   | 4 | 952      | 531 | 213 | 251 | 297   |  | 1047       | 531 | 188 | 251 | 315   |  |
| CHHM10 - 619□DB - AV - (B) - Ratio | 7.5   | 4 | 1012     | 531 | 213 | 251 | 311   |  | 1107       | 531 | 188 | 251 | 329   |  |
| CHHM15 - 619□DB - AV - (B) - Ratio | 11    | 4 | 1102     | 531 | 232 | 324 | 363   |  | 1207       | 531 | 259 | 324 | 397   |  |

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

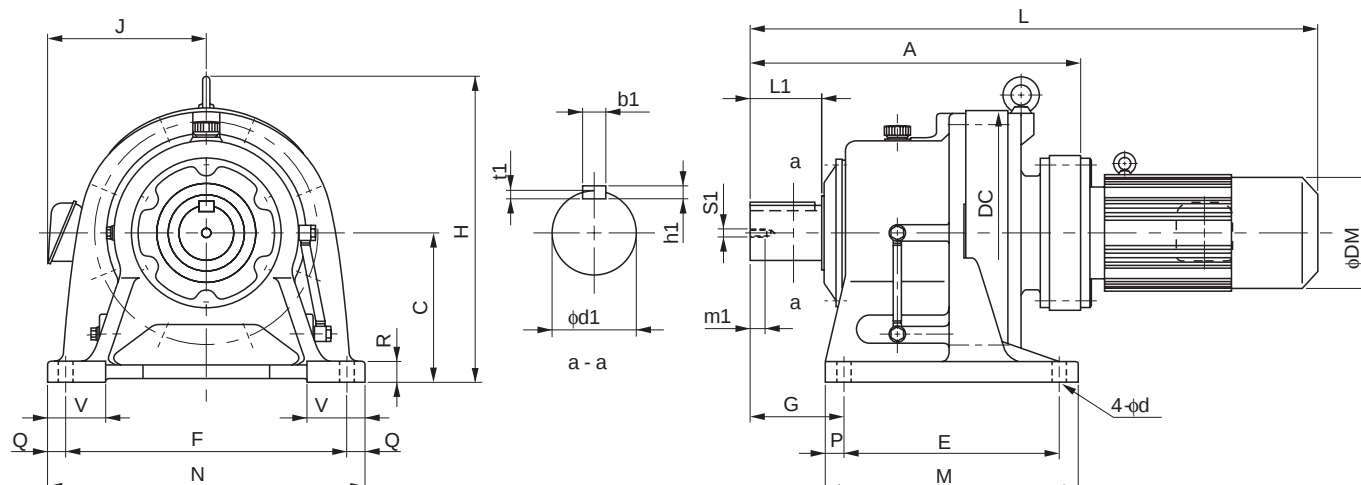
5. "B" after the suffix "AV" indicates models equipped with brake.

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

| Frame size<br><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 |
| 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 |

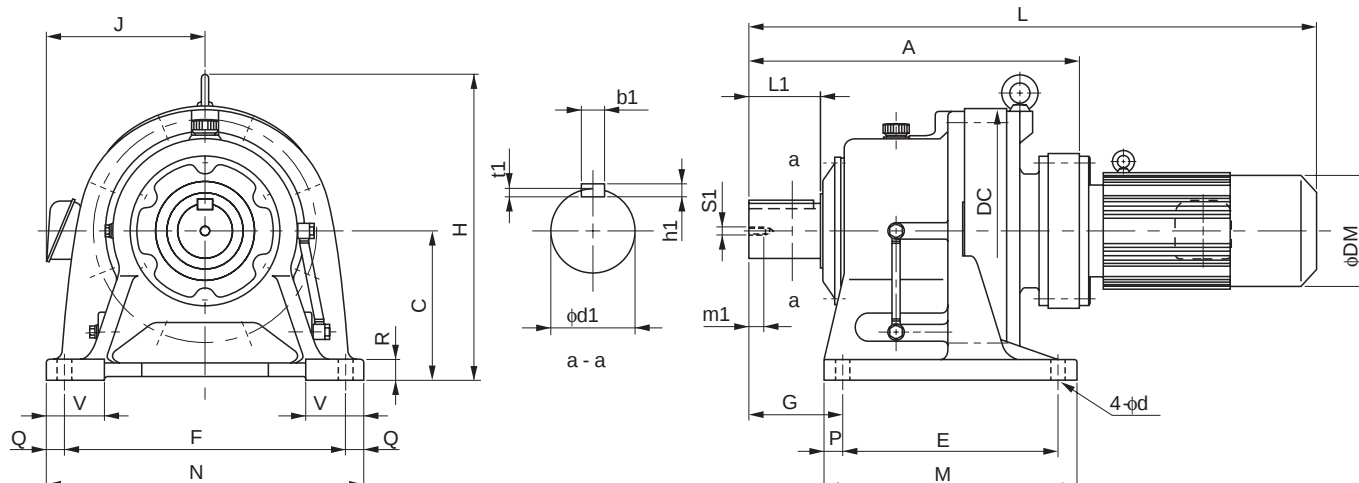
| Model<br><small>Note 4, 5</small>  | Motor |   | Standard |     |     |     |       |  | With Brake |     |     |     |       |  |
|------------------------------------|-------|---|----------|-----|-----|-----|-------|--|------------|-----|-----|-----|-------|--|
|                                    | kW    | P | L        | H   | J   | DM  | W(kg) |  | L          | H   | J   | DM  | W(kg) |  |
| CHHM1 - 6205DA - AV - (B) - Ratio  | 0.75  | 4 | 867      | 530 | 145 | 160 | 273   |  | 929        | 530 | 145 | 160 | 278   |  |
| CHHM3 - 6205DA - AV - (B) - Ratio  | 2.2   | 4 | 910      | 530 | 168 | 212 | 287   |  | 982        | 530 | 168 | 212 | 297   |  |
| CHHM8 - 6205DB - AV - (B) - Ratio  | 5.5   | 4 | 1004     | 530 | 213 | 251 | 321   |  | 1099       | 530 | 213 | 251 | 339   |  |
| CHHM10 - 6205DB - AV - (B) - Ratio | 7.5   | 4 | 1064     | 530 | 188 | 251 | 334   |  | 1159       | 530 | 188 | 251 | 352   |  |
| CHHM15 - 6205DB - AV - (B) - Ratio | 11    | 4 | 1154     | 530 | 232 | 324 | 386   |  | 1249       | 530 | 259 | 324 | 419   |  |
| CHHM2 - 6215DA - AV - (B) - Ratio  | 1.5   | 4 | 940      | 575 | 152 | 173 | 370   |  | 1003       | 575 | 152 | 173 | 377   |  |
| CHHM3 - 6215DA - AV - (B) - Ratio  | 2.2   | 4 | 963      | 575 | 168 | 212 | 380   |  | 1035       | 575 | 168 | 212 | 390   |  |
| CHHM5 - 6215DA - AV - (B) - Ratio  | 3.7   | 4 | 1007     | 575 | 168 | 212 | 387   |  | 1079       | 575 | 168 | 212 | 397   |  |
| CHHM8 - 6215DA - AV - (B) - Ratio  | 5.5   | 4 | 1030     | 575 | 213 | 251 | 402   |  | 1125       | 575 | 213 | 251 | 420   |  |
| CHHM10 - 6215DA - AV - (B) - Ratio | 7.5   | 4 | 1090     | 575 | 188 | 251 | 415   |  | 1185       | 575 | 188 | 251 | 433   |  |
| CHHM15 - 6215DA - AV - (B) - Ratio | 11    | 4 | 1180     | 575 | 232 | 324 | 467   |  | 1285       | 575 | 259 | 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 | 152 | 173 | 444   |  | 1045       | 640 | 152 | 173 | 451   |  |
| CHHM3 - 6225DA - AV - (B) - Ratio  | 2.2   | 4 | 1005     | 610 | 168 | 212 | 454   |  | 1077       | 610 | 168 | 212 | 464   |  |
| CHHM5 - 6225DA - AV - (B) - Ratio  | 3.7   | 4 | 1049     | 610 | 168 | 212 | 461   |  | 1121       | 610 | 168 | 212 | 471   |  |
| CHHM8 - 6225DA - AV - (B) - Ratio  | 5.5   | 4 | 1072     | 610 | 213 | 251 | 476   |  | 1167       | 610 | 213 | 251 | 494   |  |
| CHHM10 - 6225DA - AV - (B) - Ratio | 7.5   | 4 | 1132     | 610 | 213 | 251 | 490   |  | 1227       | 610 | 213 | 251 | 508   |  |
| CHHM15 - 6225DA - AV - (B) - Ratio | 11    | 4 | 1222     | 610 | 232 | 324 | 542   |  | 1327       | 610 | 259 | 324 | 576   |  |
| CHHM20 - 6225DB - AV - (B) - Ratio | 15    | 4 | 1360     | 610 | 297 | 394 | 661   |  | 1525       | 610 | 297 | 394 | 712   |  |
| CHHM25 - 6225DB - AV - (B) - Ratio | 18.5  | 4 | 1360     | 610 | 297 | 394 | 661   |  | 1525       | 610 | 297 | 394 | 712   |  |
| CHHM30 - 6225DB - AV - (B) - Ratio | 22    | 4 | 1360     | 610 | 297 | 394 | 678   |  | 1525       | 610 | 297 | 394 | 729   |  |

Note: 1. □ indicates motor capacity.

2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."

3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."

## Dimension Tables (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                              | Note 5 | 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 | 168 | 212 | 570   | 1163       | 667 | 168 | 212 | 580   |
| CHHM5 - 6235DA - AV - (B) - Ratio  |        | 3.7   | 4      | 1135     | 667 | 168 | 212 | 577   | 1207       | 667 | 168 | 212 | 587   |
| CHHM8 - 6235DA - AV - (B) - Ratio  |        | 5.5   | 4      | 1163     | 667 | 213 | 251 | 593   | 1258       | 667 | 213 | 251 | 610   |
| CHHM10 - 6235DA - AV - (B) - Ratio |        | 7.5   | 4      | 1223     | 667 | 213 | 251 | 607   | 1318       | 667 | 213 | 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 | 297 | 394 | 737   | 1568       | 667 | 297 | 394 | 788   |
| CHHM25 - 6235DB - AV - (B) - Ratio |        | 18.5  | 4      | 1425     | 667 | 297 | 394 | 782   | 1590       | 667 | 297 | 394 | 825   |
| CHHM30 - 6235DB - AV - (B) - Ratio |        | 22    | 4      | 1425     | 667 | 297 | 394 | 782   | 1590       | 667 | 297 | 394 | 825   |
| CHHM40 - 6235DB - AV - (B) - Ratio |        | 30    | Note 7 | 1570     | 667 | 297 | 394 | 822   | 1822       | 667 | 297 | 394 | 918   |
| CHHM3 - 6245DA - AV - (B) - Ratio  |        | 2.2   | 4      | 1129     | 729 | 168 | 212 | 679   | 1201       | 729 | 168 | 212 | 689   |
| CHHM5 - 6245DA - AV - (B) - Ratio  |        | 3.7   | 4      | 1173     | 729 | 168 | 212 | 686   | 1245       | 729 | 168 | 212 | 696   |
| CHHM8 - 6245DA - AV - (B) - Ratio  |        | 5.5   | 4      | 1201     | 729 | 213 | 251 | 702   | 1296       | 729 | 213 | 251 | 719   |
| CHHM10 - 6245DA - AV - (B) - Ratio |        | 7.5   | 4      | 1261     | 729 | 213 | 251 | 716   | 1356       | 729 | 213 | 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 | 328 | 394 | 840   | 1606       | 729 | 328 | 394 | 891   |
| CHHM25 - 6245DB - AV - (B) - Ratio |        | 18.5  | 4      | 1462     | 729 | 297 | 394 | 866   | 1627       | 729 | 297 | 394 | 917   |
| CHHM30 - 6245DB - AV - (B) - Ratio |        | 22    | 4      | 1462     | 729 | 297 | 394 | 883   | 1627       | 729 | 297 | 394 | 926   |
| CHHM40 - 6245DB - AV - (B) - Ratio |        | 30    | Note 7 | 1607     | 729 | 297 | 394 | 937   | 1859       | 729 | 297 | 394 | 1033  |
| CHHM5 - 6255DA - AV - (B) - Ratio  |        | 3.7   | 4      | 1328     | 815 | 168 | 212 | 1041  | 1400       | 815 | 168 | 212 | 1049  |
| CHHM8 - 6255DA - AV - (B) - Ratio  |        | 5.5   | 4      | 1346     | 815 | 213 | 251 | 1056  | 1441       | 815 | 213 | 251 | 1071  |
| CHHM10 - 6255DA - AV - (B) - Ratio |        | 7.5   | 4      | 1406     | 815 | 213 | 251 | 1071  | 1501       | 815 | 213 | 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 | 328 | 394 | 1195  | 1746       | 815 | 328 | 394 | 1246  |
| CHHM25 - 6255DA - AV - (B) - Ratio |        | 18.5  | 4      | 1581     | 815 | 328 | 394 | 1195  | 1746       | 815 | 328 | 394 | 1246  |
| CHHM30 - 6255DA - AV - (B) - Ratio |        | 22    | 4      | 1581     | 815 | 297 | 394 | 1215  | 1746       | 815 | 297 | 394 | 1258  |
| CHHM40 - 6255DB - AV - (B) - Ratio |        | 30    | Note 7 | 1748     | 815 | 297 | 394 | 1325  | 2000       | 815 | 297 | 394 | 1421  |
| CHHM50 - 6255DB - AV - (B) - Ratio |        | 37    | Note 7 | 1748     | 815 | 297 | 394 | 1325  | 2000       | 815 | 297 | 394 | 1421  |

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

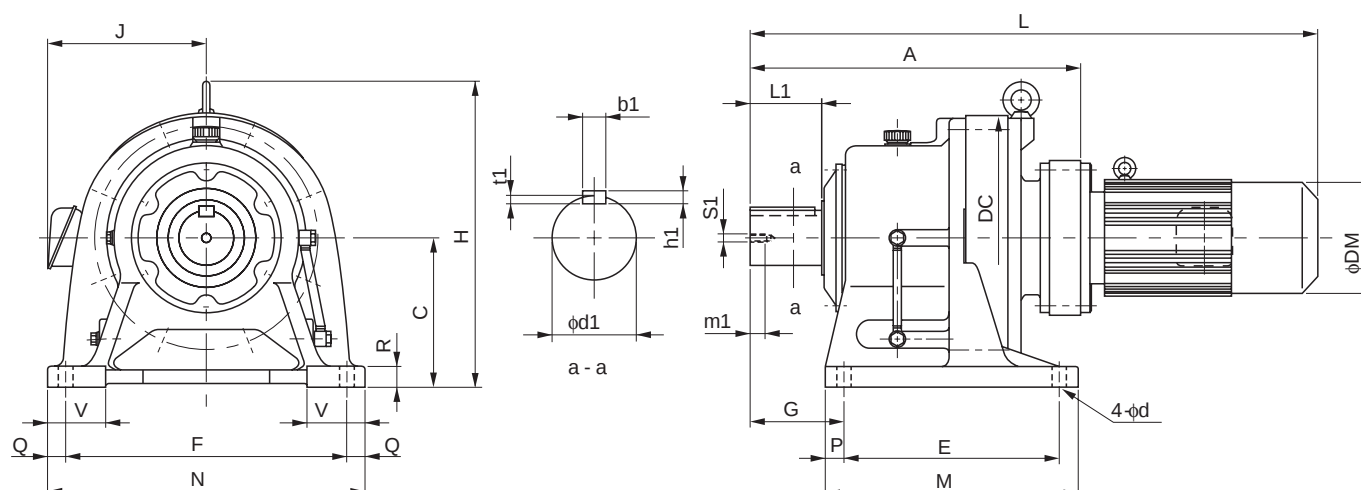
5. "B" after the suffix "AV" indicates models equipped with brake.

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 (Horizontal Direction, Foot Mount)

CHHM<sup>Note 1</sup> - 6265DA to 6275DA - 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 |
| 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 |

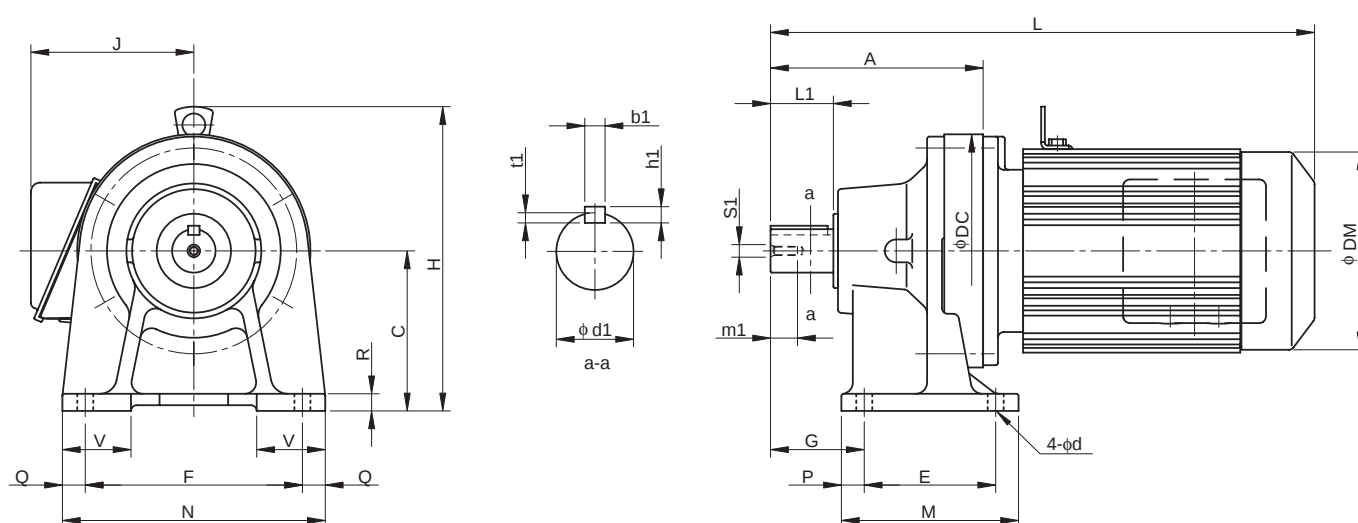
| Model <span style="float: right;">Note 5</span> | Motor                                        |   | Standard |      |     |     |       | With Brake |      |     |     |       |
|-------------------------------------------------|----------------------------------------------|---|----------|------|-----|-----|-------|------------|------|-----|-----|-------|
|                                                 | kW                                           | P | L        | H    | J   | DM  | W(kg) | L          | H    | J   | DM  | W(kg) |
| CHHM8 - 6265DA - AV - (B) - Ratio               | 5.5                                          | 4 | 1493     | 874  | 213 | 251 | 1381  | 1588       | 874  | 213 | 251 | 1401  |
| CHHM10 - 6265DA - AV - (B) - Ratio              | 7.5                                          | 4 | 1553     | 874  | 213 | 251 | 1396  | 1648       | 874  | 213 | 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  | 328 | 394 | 1525  | 1878       | 874  | 328 | 394 | 1570  |
| CHHM25 - 6265DA - AV - (B) - Ratio              | 18.5                                         | 4 | 1713     | 874  | 328 | 394 | 1525  | 1878       | 874  | 328 | 394 | 1570  |
| CHHM30 - 6265DA - AV - (B) - Ratio              | 22                                           | 4 | 1713     | 874  | 328 | 394 | 1540  | 1878       | 874  | 328 | 394 | 1583  |
| CHHM40 - 6265DA - AV - (B) - Ratio              | 30 <span style="float: right;">Note 7</span> | 4 | 1858     | 874  | 328 | 394 | 1577  | 2110       | 874  | 328 | 394 | 1673  |
| CHHM50 - 6265DA - AV - (B) - Ratio              | 37 <span style="float: right;">Note 7</span> | 4 | 1858     | 874  | 328 | 394 | 1577  | 2110       | 874  | 328 | 394 | 1673  |
| CHHM10 - 6275DA - AV - (B) - Ratio              | 7.5                                          | 4 | 1814     | 1161 | 213 | 251 | 2531  | 1909       | 1161 | 213 | 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 | 328 | 394 | 2660  | 2139       | 1161 | 328 | 394 | 2705  |
| CHHM25 - 6275DA - AV - (B) - Ratio              | 18.5                                         | 4 | 1974     | 1161 | 328 | 394 | 2660  | 2139       | 1161 | 328 | 394 | 2705  |
| CHHM30 - 6275DA - AV - (B) - Ratio              | 22                                           | 4 | 1974     | 1161 | 328 | 394 | 2675  | 2139       | 1161 | 328 | 394 | 2718  |
| CHHM40 - 6275DA - AV - (B) - Ratio              | 30 <span style="float: right;">Note 7</span> | 4 | 2089     | 1161 | 328 | 394 | 2713  | 2304       | 1161 | 328 | 394 | 2810  |
| CHHM50 - 6275DA - AV - (B) - Ratio              | 37 <span style="float: right;">Note 7</span> | 4 | 2089     | 1161 | 328 | 394 | 2713  | 2304       | 1161 | 328 | 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 <span style="float: right;">Note 2, 3, 6</span> |    |    |    |    |    |    |
|------------|-----|-----|-----|-----|-----|----|-----|-----|----|----|----|----|----|--------------------------------------------------------------|----|----|----|----|----|----|
|            |     |     |     |     |     |    |     |     |    |    |    |    |    | d1                                                           | L1 | b1 | h1 | t1 | S1 | m1 |
| 610H       | 156 | 120 | 150 | 90  | 150 | 60 | 135 | 180 | 15 | 15 | 12 | 40 | 11 | 28                                                           | 35 | 8  | 7  | 4  | M8 | 20 |
| 612H       | 186 | 140 | 204 | 115 | 190 | 82 | 155 | 230 | 20 | 20 | 15 | 60 | 14 | 38                                                           | 55 | 10 | 8  | 5  | M8 | 20 |

| Model <span style="float: right;">Note 4</span> | 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 | -  | 130 | 124 | 20    |  | 384        | 227 | -  | 130 | 124 | 22    |
| CNHM05 - 610H - AV - (B) - Ratio                | 0.4   | 4 | 393      | 233 | -  | 140 | 148 | 24    |  | 436        | 233 | -  | 140 | 148 | 27    |
| CNHM1 - 610H - AV - (B) - Ratio                 | 0.75  | 4 | 426      | 240 | -  | 145 | 160 | 28    |  | 488        | 240 | -  | 145 | 160 | 33    |
| CNHM2 - 610H - AV - (B) - Ratio                 | 1.5   | 4 | 446      | 246 | -  | 152 | 173 | 32    |  | 509        | 246 | -  | 152 | 173 | 38    |
| CNHM2 - 612H - AV - (B) - Ratio                 | 1.5   | 4 | 476      | 266 | -  | 152 | 173 | 41    |  | 539        | 266 | -  | 152 | 173 | 48    |
| CNHM3 - 612H - AV - (B) - Ratio                 | 2.2   | 4 | 499      | 286 | -  | 168 | 212 | 51    |  | 571        | 286 | -  | 168 | 212 | 61    |
| CNHM5 - 612H - AV - (B) - Ratio                 | 3.7   | 4 | 543      | 286 | -  | 168 | 212 | 58    |  | 615        | 286 | -  | 168 | 212 | 68    |

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

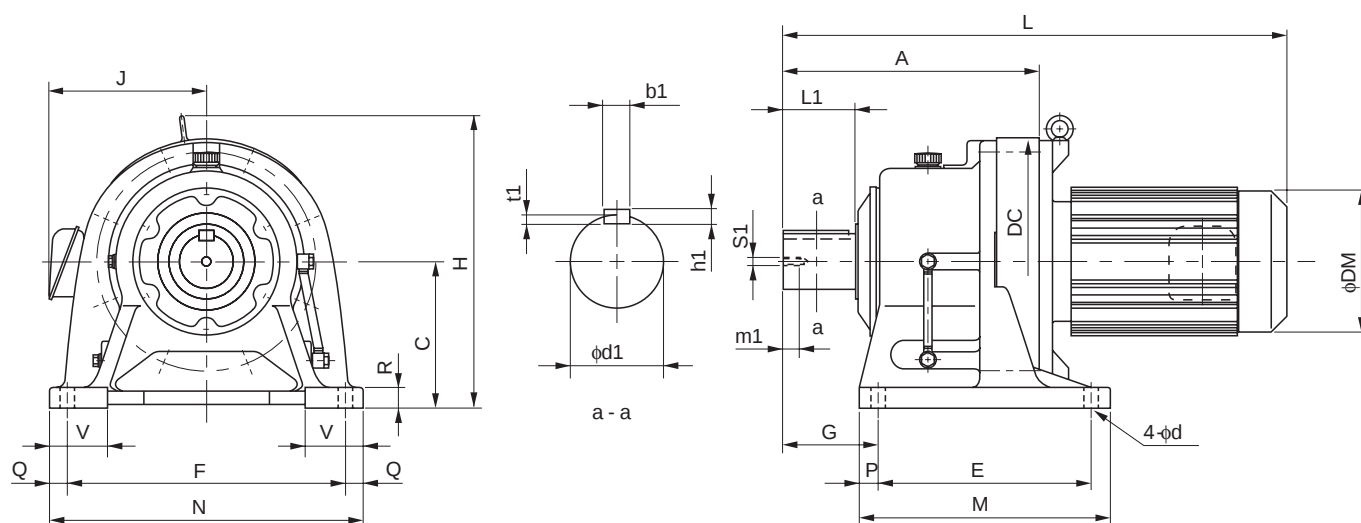
5. "B" after the suffix "AV" indicates models equipped with brake.

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)

| 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 4</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 | 168 | 212 | 71    | 645        | 306 | 168 | 212 | 81    |
| CHHM5 - 614H - AV - (B) - Ratio               | 3.7   | 4 | 617      | 306 | 168 | 212 | 78    | 689        | 306 | 168 | 212 | 88    |
| CHHM8 - 614H - AV - (B) - Ratio               | 5.5   | 4 | 640      | 333 | 213 | 251 | 93    | 735        | 333 | 213 | 251 | 111   |
| CHHM10 - 614H - AV - (B) - Ratio              | 7.5   | 4 | 700      | 333 | 213 | 251 | 107   | 795        | 333 | 213 | 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 | 168 | 212 | 111   | 693        | 350 | 168 | 212 | 121   |
| CHHM5 - 616H - AV - (B) - Ratio               | 3.7   | 4 | 665      | 350 | 168 | 212 | 118   | 737        | 350 | 168 | 212 | 128   |
| CHHM8 - 616H - AV - (B) - Ratio               | 5.5   | 4 | 693      | 373 | 213 | 251 | 134   | 788        | 373 | 213 | 251 | 151   |
| CHHM10 - 616H - AV - (B) - Ratio              | 7.5   | 4 | 753      | 373 | 213 | 251 | 148   | 848        | 373 | 213 | 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 | 328 | 394 | 273   | 1098       | 408 | 328 | 394 | 324   |

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

- Note: 1.  $\square$  indicates motor capacity.  
 2. Dimension of shaft end diameter: Dimension tolerance conforms to JIS B 0401-1976 "h6."  
 3. Dimension of shaft end key: Dimension tolerance conforms to JIS B 1301-1996 "Parallel Key."  
 4. "B" after the suffix "AV" indicates models equipped with brake.  
 5. Dimensions of shaft end: Refer to pages F-28 to F-29 for details.  
 6. Dimensions in above drawings are subject to change without notice.

# E

## CYCLO® GEARMOTORS with High Efficiency Motor

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| Product Introduction                    | E-2  |
| High Efficiency Regulation and Standard | E-4  |
| Basic Gearmotor with High Efficiency    |      |
| Motor Specification                     | E-5  |

\* This section contains a brief description on  
CYCLO® GEARMOTORS with high efficiency  
motor.

GEARMOTORS WITH HIGH  
EFFICIENCY MOTORS

# CYCLO® GEARMOTORS with High Efficiency Motor

## High-Efficiency Regulations and Standards

### 1. High Efficiency Regulations

- US:** According to the Energy Policy Act of 1992 (EPA), motors and other products with built-in motors sold in the US later than October 24, 1997 are subject to this energy-efficiency regulation. Motors which fail to conform to the standards are penalized. (Subject capacity: 1-200HP; voltage: 230 & 460V; for commercial power supply). Although gearmotors are not included at this point, they may also become subject, observing the movement in Canada, Natural Resources Canada (NRCAN) enacted the Energy Efficiency Act (EEA) in 1992 and the Energy Efficiency Regulation (EER) in 1995. These regulations are applied to standard motors imported to Canada starting February 3, 1995. Additional regulations were applied to gearmotors and explosion-proof motors imported after November 27, 1999. Motors and gearmotors which do not conform to the efficiency standard are prohibited for import. This requires all gearmotors to be high efficiency. (Subject capacity: 1-200HP; frame: IEC 90 or larger; voltage: 600V or less; for constant-speed motors).
- Canada:** Law concerning the Rational Use of Energy (comprehensive law promoting efficient energy use and energy waste elimination) was enacted in 1997 and "Reduction of annual energy consumption at factories by 1% on average" was announced. Furthermore, "Promotion on systematic energy-saving investment" and "Expansion of object factories and offices" were revised in April 1999. Use of high efficiency motor is recommended for the factory owners.
- Japan:**

### 2. Standards

- UL Standards: (US)** Safety standards required primarily in the US. In the US, this standard is most generally applied to motored machines and is frequently quoted during negotiations for import. UL standards assure safety of equipment, appliances, and materials in order to protect human life and assets from fire and other accidents. UL conformity products are recommended also for observing the Product Liability (PL) Law.
- CSA Standards: (Canada)** Safety standards required in Canada. This is an arbitrary standards developed voluntarily by the members of association. However, most of the standards have been adopted officially as Canadian national standards and are quoted in laws and ordinances by the federal and state government and other local authorities. The CSA standards adopted as the Canadian national standards prefix with "CAN," followed with the number, for differentiation (Ex. CAN/CSA C22.1).
- JIS: (Japan)** Technical reference organized by Japan Electrical Manufacturers' Association (JEMA) has been applied previously. In July 2000, standard for high efficiency motors, "Low-voltage three-phase squirrel-cage high efficiency induction motors, JIS C 4212" was added in Japanese Industrial Standards (JIS).

## Table of Models

Combinations with 4P Motor **Reduction Ratio 6~273**

| Reduction Ratio       |          | 6   | 8   | 11  | 13  | 15   | 17   | 21   | 25   | 29   | 35   | 43   | 51   | 59   | 71   | 87   | 119  | 104<br>(13 × 8) | 121<br>(11 × 11) | 143<br>(13 × 11) | 165<br>(15 × 11) | 195<br>(15 × 13) | 231<br>(21 × 11) | 273<br>(21 × 13) |
|-----------------------|----------|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Output Speed<br>r/min | 50Hz     | 242 | 181 | 132 | 112 | 96.7 | 85.3 | 69.0 | 58.0 | 50.0 | 41.4 | 33.7 | 28.4 | 24.6 | 20.4 | 16.7 | 12.2 | 13.9            | 12.0             | 10.1             | 8.79             | 7.44             | 6.28             | 5.31             |
|                       | 60Hz     | 292 | 219 | 159 | 135 | 117  | 103  | 83.3 | 70.0 | 60.3 | 50.0 | 40.7 | 34.3 | 29.7 | 24.6 | 20.1 | 14.7 | 16.8            | 14.5             | 12.2             | 10.6             | 8.97             | 7.58             | 6.41             |
| Motor (kW × P)        | 0.2 × 4  | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |
|                       | 0.4 × 4  | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |
|                       | 0.75 × 4 | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |
|                       | 1.5 × 4  | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |
|                       | 2.2 × 4  | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |
|                       | 3.7 × 4  | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |
|                       | 5.5 × 4  | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |
|                       | 7.5 × 4  | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |
|                       | 11 × 4   | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |
|                       | 15 × 4   | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |
|                       | 18.5 × 4 | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |
|                       | 22 × 4   | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |
|                       | 30 × 4   | ●   | ●   | ●   | ●   | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●    | ●               | ●                | ●                | ●                | ●                | ●                | ●                |

\*Consult us for 6000SK Series (Reduction Ratio 2.5~10).

# CYCLO® GEARMOTORS with High Efficiency Motor

## High Efficiency Motor

Table E-1 3-Phase Induction Motor without Built-in Brakes

◎: Standard Type ○: Produced on order

| Specification |       | Indoor type<br>(IP44)                                                                              | Outdoor type<br>(IP44) | Insulation class |   |   |
|---------------|-------|----------------------------------------------------------------------------------------------------|------------------------|------------------|---|---|
| Output (kW)   | Poles |                                                                                                    |                        | E                | B | F |
|               |       | 4                                                                                                  | 4                      | 4                | 4 | 4 |
| 0.2           |       | ◎                                                                                                  | ○                      | ◎                | ○ | ○ |
| 0.4           |       | ◎                                                                                                  | ○                      | ◎                | ○ | ○ |
| 0.75          |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 1.5           |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 2.2           |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 3.7           |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 5.5           |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 7.5           |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 11            |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 15            |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 18.5          |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 22            |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 30            |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| Remarks       |       | Continuous rating, power source specification 200V 50/60Hz, 220V 60Hz<br>(400V 50/60Hz, 440V 60Hz) |                        |                  |   |   |

Table E-2 3-Phase Induction Motor with Built-in Brakes

◎: Standard Type ○: Produced on order

| Specification |       | Indoor type<br>(IP44)                                                                              | Outdoor type<br>(IP44) | Insulation class |   |   |
|---------------|-------|----------------------------------------------------------------------------------------------------|------------------------|------------------|---|---|
| Output (kW)   | Poles |                                                                                                    |                        | E                | B | F |
|               |       | 4                                                                                                  | 4                      | 4                | 4 | 4 |
| 0.2           |       | ◎                                                                                                  | ○                      | ◎                | ○ | ○ |
| 0.4           |       | ◎                                                                                                  | ○                      | ◎                | ○ | ○ |
| 0.75          |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 1.5           |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 2.2           |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 3.7           |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 5.5           |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 7.5           |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 11            |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 15            |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 18.5          |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 22            |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| 30            |       | ◎                                                                                                  | ○                      |                  | ◎ | ○ |
| Remarks       |       | Continuous rating, power source specification 200V 50/60Hz, 220V 60Hz<br>(400V 50/60Hz, 440V 60Hz) |                        |                  |   |   |

- Note:
1. Consult us for specifications not indicated in above tables. They may be produced on order. Characteristics, dimension, and CYCLO® DRIVE combinations may be changed depending on the specification. Example: 6P, special voltage, dust-proof type, humidity-proof, tropical treatment, high-temperature use, double shaft extension (round or square shaft), EPAct conformity, NRCan conformity, etc.
  2. Consult us with information on operation condition (ambient temperature, input speed, mounting style, load condition, etc.) when driving our high-efficiency motor with inverter. CYCLO® DRIVE combination selection requires contemplation on startup, lubrication, thermal rating, etc.
  3. Consult us when driving our high-efficiency motor with high carrier frequency type (IGBT, etc.) at high input voltage (400V and above) or with long wiring distance. Motor insulation may be necessary.
  4. Protection nomenclature for outdoor type is IP44. Consult us for operation in locations with exposure to elements or with frequent water splash.