

# B AC Motors

## Reversible Motor 6W(□60mm)

# 6W

Reversible Motor  
6W(□60mm)

### Motor Specification

| Model  |                   | Output | Voltage | Frequency | Poles | Duty   | Starting Torque |       | Rated Load |         |        |       | Capacitor |
|--|-------------------|--------|---------|-----------|-------|--------|-----------------|-------|------------|---------|--------|-------|-----------|
| Lead Wire Type   | Terminal Box Type |        |         |           |       |        | kgfcm           | N.m   | Speed      | Current | Torque |       |           |
| 6RDG□-6G(-T): Gear Type Shaft<br>6RDD□-6(-T): D-Cut Type Shaft |                   | W      | V       | Hz        |       |        |                 |       | r/min      | A       | kgfcm  | N.m   |           |
| 6RDGA-6G   | 6RDGA-6G-T        | 6      | 1∅110   | 60        | 4     | 30min. | 0.60            | 0.060 | 1550       | 0.25    | 0.38   | 0.038 | 3.0 / 250 |
| 6RDGD-6G   | 6RDGD-6G-T        | 6      | 1∅220   | 60        | 4     | 30min. | 0.62            | 0.062 | 1550       | 0.15    | 0.42   | 0.042 | 1.0 / 450 |
| 6RDGE-6G   | 6RDGE-6G-T        | 6      | 1∅220   | 50        | 4     | 30min. | 0.50            | 0.050 | 1200       | 0.10    | 0.47   | 0.047 | 0.7 / 450 |
|  |                   |        | 1∅240   |           |       |        | 0.55            | 0.055 |            | 0.11    | 0.50   | 0.050 |           |

- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) This model is impedance protected type.
- 3) Gear Type Shaft is for attaching Gearbox and D-Cut Type Shaft is for using motor only.

### Max. Permissible Torque at Output Shaft of Gearbox

#### 60Hz

| Motor Model | Gearbox Model | Gear Ratio | 3     | 3.6  | 5    | 6    | 7.5  | 9    | 10   | 12.5 | 15   | 18   | 20   | 25   | 30   | 36   | 40   | 50   | 60   | 75   | 90   | 100  | 120  | 150  | 180  |
|-------------|---------------|------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|             |               |            | r/min | 600  | 500  | 360  | 300  | 240  | 200  | 180  | 144  | 120  | 100  | 90   | 72   | 60   | 50   | 45   | 36   | 30   | 24   | 20   | 18   | 15   | 12   |
| 6RDG□-6G    | 6GBD□MH       | kgfcm      | 1.0   | 1.3  | 1.7  | 2.1  | 2.6  | 3.1  | 3.5  | 4.4  | 5.2  | 6.3  | 6.3  | 7.9  | 9.5  | 11.3 | 12.6 | 14.3 | 17.1 | 21.4 | 25.7 | 28.6 | 30.0 | 30.0 | 30.0 |
|             |               | N.m        | 0.10  | 0.12 | 0.17 | 0.20 | 0.26 | 0.31 | 0.34 | 0.43 | 0.51 | 0.61 | 0.62 | 0.77 | 0.93 | 1.11 | 1.23 | 1.40 | 1.68 | 2.10 | 2.52 | 2.80 | 2.94 | 2.94 | 2.94 |

| Motor Model | Gearbox Model | Gear Ratio | 200   | 250  |
|-------------|---------------|------------|-------|------|
|             |               |            | r/min | 9    |
| 6RDG□-6G    | 6GBD□MH       | kgfcm      | 30.0  | 30.0 |
|             |               | N.m        | 2.94  | 2.94 |

#### 50Hz

| Motor Model | Gearbox Model | Gear Ratio | 3     | 3.6  | 5    | 6    | 7.5  | 9    | 10   | 12.5 | 15   | 18   | 20   | 25   | 30   | 36   | 40   | 50   | 60   | 75   | 90   | 100  | 120  | 150  | 180  |
|-------------|---------------|------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|             |               |            | r/min | 500  | 417  | 300  | 250  | 200  | 166  | 150  | 120  | 100  | 83   | 75   | 60   | 50   | 41   | 37   | 30   | 25   | 20   | 16   | 15   | 12   | 10   |
| 6RDG□-6G    | 6GBD□MH       | kgfcm      | 1.2   | 1.5  | 2.1  | 2.5  | 3.1  | 3.7  | 4.2  | 5.2  | 6.2  | 7.5  | 7.5  | 9.4  | 11.3 | 13.5 | 15.0 | 17.0 | 20.4 | 25.5 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 |
|             |               | N.m        | 0.12  | 0.15 | 0.20 | 0.24 | 0.31 | 0.37 | 0.41 | 0.51 | 0.61 | 0.73 | 0.74 | 0.92 | 1.10 | 1.32 | 1.47 | 1.67 | 2.00 | 2.50 | 2.94 | 2.94 | 2.94 | 2.94 | 2.94 |

| Motor Model | Gearbox Model | Gear Ratio | 200   | 250  |
|-------------|---------------|------------|-------|------|
|             |               |            | r/min | 7.5  |
| 6RDG□-6G    | 6GBD□MH       | kgfcm      | 30.0  | 30.0 |
|             |               | N.m        | 2.94  | 2.94 |

- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the Gearbox model name.
- 3) A colored background indicates gear shaft rotation in the same direction as the motor shaft; a white background indicates rotation in the opposite direction.
- 4) The rotating speed is calculated by dividing the motor's synchronous speed (50Hz: 1,500r/min, 60Hz: 1,800r/min) by the gear ratio. The actual speed is 2~20% less than the displayed value, depending on the size of the load.

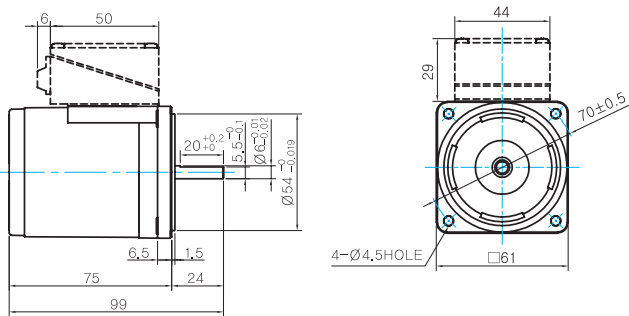
### Motor Images



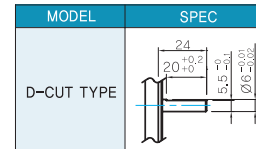
## Dimensions

### MOTOR ONLY

- MOTOR MODEL: 6RDD□-6(-T) (NO FAN)



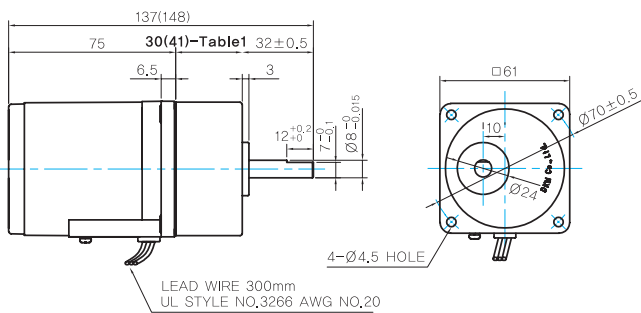
### MOTOR OUTPUT SHAFT



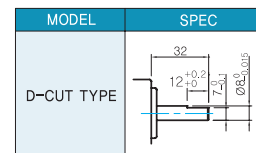
### GEARED MOTOR

### G TYPE GEARBOX

- MOTOR MODEL: 6RDG□-6G (NO FAN)
- GEARBOX MODEL: 6GBD□MH



### GEARBOX OUTPUT SHAFT



### WEIGHT

| PART     |                         | WEIGHT(Kg) |
|----------|-------------------------|------------|
| MOTOR    |                         | 0,7        |
| GEAR BOX | 6GBD3MH<br>~ 6GBD18MH   | 0,3        |
|          | 6GBD20MH<br>~ 6GBD40MH  | 0,32       |
|          | 6GBD50MH<br>~ 6GBD250MH | 0,34       |

### 30(41)-Table1

| SIZE(mm) | GEAR RATIO           |
|----------|----------------------|
| 30       | 6GBD3MH - 6GBD18MH   |
| 41       | 6GBD20MH - 6GBD250MH |

## Connection Diagrams

| Lead Wire Type | Terminal Box Type   |      |                  |    |  |        |  |
|----------------|---|------|------------------|----|--|--------|--|
|                |   |      |                  |    |  |        |  |
|                | <table border="1" style="width: 100%;"> <thead> <tr> <th>Code</th> <th>Contact Capacity</th> </tr> </thead> <tbody> <tr> <td>SW</td> <td>AC125V 5A min. or<br/>AC250V 5A min. (Inductive load)</td> </tr> <tr> <td>Ro, Co</td> <td>Ro=5~200Ω<br/>Co=0.1~0.2μF, 200WV (400WV)</td> </tr> </tbody> </table> <p>* Connect a CR circuit for surge suppression to protect the contact.</p> | Code | Contact Capacity | SW | AC125V 5A min. or<br>AC250V 5A min. (Inductive load) | Ro, Co | Ro=5~200Ω<br>Co=0.1~0.2μF, 200WV (400WV) |
| Code           | Contact Capacity  |      |                  |    |  |        |  |
| SW             | AC125V 5A min. or<br>AC250V 5A min. (Inductive load)  |      |                  |    |  |        |  |
| Ro, Co         | Ro=5~200Ω<br>Co=0.1~0.2μF, 200WV (400WV)  |      |                  |    |  |        |  |

- The direction of motor rotation is as viewed from the shaft end of the motor.
- CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- During operation it is available to change the rotating direction by turning the switch to CW or CCW.