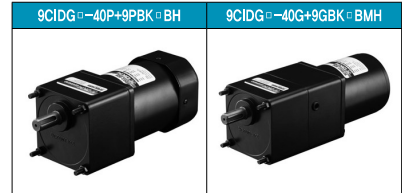


# B AC Motors

Clutch & Brake Motor 40W (□ 90mm)

## 40W Clutch & Brake Motor 40W(□ 90mm)

### Motor Image



### Motor Specification

| Model<br>9CIDG*-40G: Gear Type Shaft | Output<br>W | Voltage<br>V  | Frequency<br>Hz | Poles | Duty  | Starting Torque<br>kgfcm N.m |       | Rated Load     |              |                     | Capacitor<br>μF / VAC |            |       |       |   |
|--------------------------------------|-------------|---------------|-----------------|-------|-------|------------------------------|-------|----------------|--------------|---------------------|-----------------------|------------|-------|-------|---|
|                                      |             |               |                 |       |       |                              |       | Speed<br>r/min | Current<br>A | Torque<br>kgfcm N.m |                       |            |       |       |   |
| <b>Lead Wire Type</b>                |             |               |                 |       |       |                              |       |                |              |                     |                       |            |       |       |   |
| 9CIDG1(A)-40□                        | 40          | 1φ110         | 60              | 4     | Cont. | 2.60                         | 0.260 | 1600           | 0.80         | 2.50                | 0.244                 | 10.0 / 250 |       |       |   |
| 9CIDG2(D)-40□                        | 40          | 1φ220         | 60              | 4     | Cont. | 2.60                         | 0.260 | 1600           | 0.45         | 2.50                | 0.244                 | 2.5 / 450  |       |       |   |
| 9CIDGE-40□                           | 40          | 1φ220         | 50              | 4     | Cont. | 2.10                         | 0.210 | 1300           | 0.33         | 3.00                | 0.300                 | 2.0 / 450  |       |       |   |
|                                      |             | 2.60          |                 |       |       | 0.260                        | 0.36  |                | 3.00         | 0.300               |                       |            |       |       |   |
|                                      |             | 9.90          |                 |       |       | 0.990                        | 1350  |                | 0.33         | 2.90                | 0.289                 |            |       |       |   |
| 9CIDG3(G)-40□                        | 40          | 3φ220         | 50              | 4     | Cont. | 7.90                         | 0.790 | 1600           | 0.31         | 2.50                | 0.244                 | -          |       |       |   |
|                                      |             |               | 60              |       |       | 10.80                        | 1.080 |                | 1350         | 0.35                | 2.90                  |            | 0.289 |       |   |
|                                      |             | 3φ230         | 50              | 4     | Cont. | 8.50                         | 0.850 | 1600           | 0.33         | 2.50                | 0.244                 |            |       |       |   |
|                                      |             |               | 60              |       |       | 10.20                        | 1.020 |                | 1350         | 0.19                | 2.90                  |            | 0.289 |       |   |
|                                      |             | 9CIDG4(K)-40□ | 40              | 3φ380 | 50    | 4                            | Cont. | 8.00           | 0.800        | 1600                | 0.18                  |            | 2.50  | 0.244 | - |
|                                      |             |               |                 |       | 60    |                              |       | 11.10          | 1.110        |                     | 1350                  |            | 0.20  | 2.90  |   |
| 3φ400                                | 50          |               |                 | 4     | Cont. | 8.80                         | 0.880 | 1600           | 0.19         | 2.50                | 0.244                 |            |       |       |   |
|                                      | 60          |               |                 |       |       | 10.00                        | 1.000 |                | 1350         | 0.17                | 2.90                  | 0.289      |       |       |   |
| 9CIDG5(L)-40□                        | 40          | 3φ415         | 50              | 4     | Cont. | 8.00                         | 0.800 | 1600           | 0.16         | 2.50                | 0.244                 | -          |       |       |   |
|                                      |             |               | 60              |       |       | 11.10                        | 1.110 |                | 1350         | 0.18                | 2.90                  |            | 0.289 |       |   |
|                                      |             | 3φ440         | 50              | 4     | Cont. | 8.90                         | 0.890 | 1600           | 0.17         | 2.50                | 0.244                 |            |       |       |   |
|                                      |             |               | 60              |       |       |                              |       |                |              |                     |                       |            |       |       |   |

- 1) Enter the phase & voltage code in the place \* within the motor model name.
  - 2) The phase & voltage code A, D, E, G, K, L contain a built-in thermal protector.
  - 3) For using clutch & brake motor, the gearbox has to be attached. (Output shaft of motor: Gear Type Shaft)
- \* It is not possible to use an inverter for three phase 380~440V motor. When the inverter is used, the insulation of winding coil becomes hot and may cause damage to the motor.

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

#### 60Hz

| Motor Model | Gearbox Model      | Gear Ratio r/min | 2    | 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   | 200   |       |
|-------------|--------------------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9CIDG*-40G  | 9GBK□BMH           | kgfcm            | 3.9  | 5.9  | 7.1  | 9.9  | 11.8 | 14.8 | 17.8 | 19.7 | 24.7 | 29.6 | 35.5 | 35.6 | 44.4 | 53.3 | 64.0 | 71.1 | 80.4 | 96.4 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
|             |                    | N.m              | 0.39 | 0.58 | 0.70 | 0.97 | 1.16 | 1.45 | 1.74 | 1.93 | 2.42 | 2.90 | 3.48 | 3.48 | 4.35 | 5.23 | 6.27 | 6.97 | 7.87 | 9.45 | 9.80  | 9.80  | 9.80  | 9.80  | 9.80  | 9.80  | 9.80  | 9.80  |
| 9CIDG*-40P  | 9PBK□BH<br>9PFK□BH | kgfcm            | 3.9  | 5.9  | 7.1  | 9.9  | 11.8 | 14.8 | 17.8 | 19.7 | 22.2 | 26.7 | 32.0 | 35.6 | 40.2 | 48.2 | 57.9 | 64.3 | 80.4 | 96.4 | 107.7 | 129.3 | 143.7 | 172.4 | 200.0 | 200.0 | 200.0 | 200.0 |
|             |                    | N.m              | 0.39 | 0.58 | 0.70 | 0.97 | 1.16 | 1.45 | 1.74 | 1.93 | 2.18 | 2.61 | 3.14 | 3.48 | 3.94 | 4.72 | 5.67 | 6.30 | 7.87 | 9.45 | 10.56 | 12.67 | 14.08 | 16.90 | 19.60 | 19.60 | 19.60 | 19.60 |

#### 50Hz

| Motor Model | Gearbox Model      | Gear Ratio r/min | 2    | 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   | 200   |       |
|-------------|--------------------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9CIDG*-40G  | 9GBK□BMH           | kgfcm            | 4.7  | 7.0  | 8.4  | 11.7 | 14.0 | 17.5 | 21.0 | 23.4 | 29.2 | 35.1 | 42.1 | 42.1 | 52.7 | 63.2 | 75.8 | 84.3 | 95.2 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
|             |                    | N.m              | 0.46 | 0.69 | 0.82 | 1.15 | 1.37 | 1.72 | 2.06 | 2.29 | 2.86 | 3.44 | 4.12 | 4.13 | 5.16 | 6.19 | 7.43 | 8.26 | 9.33 | 9.80  | 9.80  | 9.80  | 9.80  | 9.80  | 9.80  | 9.80  | 9.80  | 9.80  |
| 9CIDG*-40P  | 9PBK□BH<br>9PFK□BH | kgfcm            | 4.7  | 7.0  | 8.4  | 11.7 | 14.0 | 17.5 | 21.0 | 23.4 | 26.3 | 31.6 | 37.9 | 42.1 | 47.6 | 57.1 | 68.6 | 76.2 | 95.2 | 114.3 | 127.7 | 153.2 | 170.3 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 |
|             |                    | N.m              | 0.46 | 0.69 | 0.82 | 1.15 | 1.37 | 1.72 | 2.06 | 2.29 | 2.58 | 3.10 | 3.72 | 4.13 | 4.67 | 5.60 | 6.72 | 7.47 | 9.33 | 11.20 | 12.51 | 15.02 | 16.69 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 |

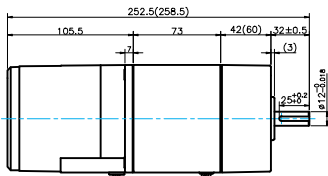
- 1) Enter the phase & voltage code in the place \* within the motor model name.
- 2) Enter the gear ratio in the box (□) within the gearbox model name.
- 3) A colored background indicates the gear shaft rotation in the same direction as the motor shaft; a white background indicates the rotation in the 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.

## Dimensions

### GEARED MOTOR

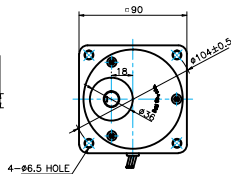
#### G TYPE GEARBOX

- MOTOR MODEL:  
9CIDG□-40G



LEAD WIRE 300mm C&B LEADWIRE 300mm  
UL STYLE NO.3271 AWG NO.22

- GEARBOX MODEL:  
9GBK□BMH



#### GEARBOX OUTPUT SHAFT

| MODEL    | SPEC |
|----------|------|
| KEY TYPE |      |

#### 42(60)-Table1

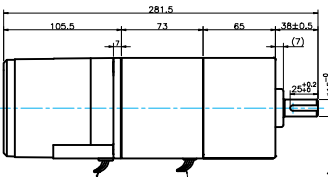
| SIZE(mm) | GEAR RATIO             |
|----------|------------------------|
| 42       | 9GBK2BMH ~ 9GBK18BMH   |
| 60       | 9GBK20BMH ~ 9GBK200BMH |

#### KEY SPEC

| GEARBOX |  |
|---------|--|
|         |  |

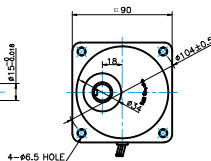
#### P TYPE GEARBOX

- MOTOR MODEL:  
9CIDG□-40P

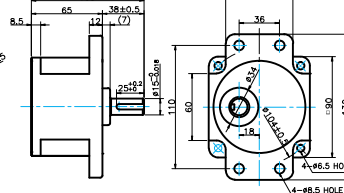


LEAD WIRE 300mm C&B LEAD WIRE 300mm  
UL STYLE NO.3271 AWG NO.22

- GEARBOX MODEL:  
9PBK□BH



- GEARBOX MODEL:  
9PFK□BH



#### GEARBOX OUTPUT SHAFT

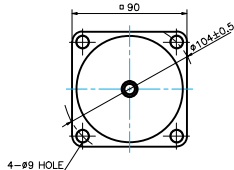
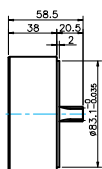
| MODEL              | SPEC |
|--------------------|------|
| KEY TYPE           |      |
| 9PBK□BH<br>9PFK□BH |      |

#### KEY SPEC

| GEARBOX |  |
|---------|--|
|         |  |

#### INTER-DECIMAL GEARBOX

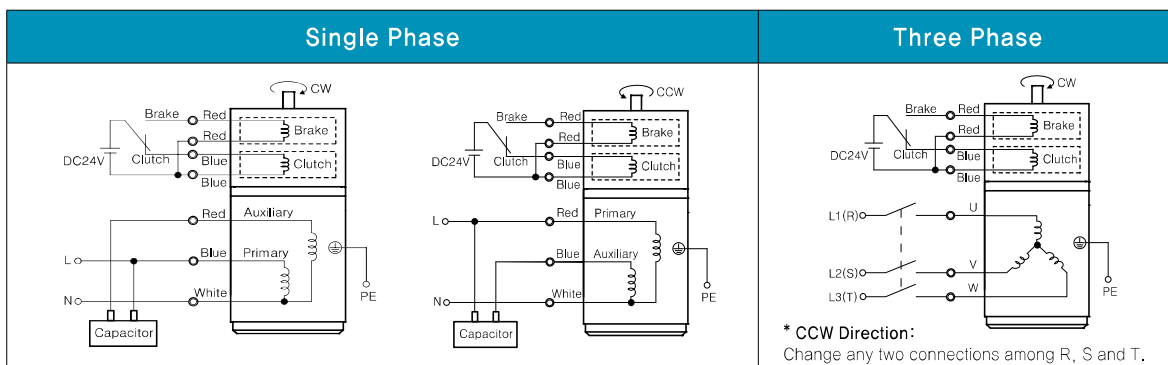
- MODEL:  
9XD10□□



#### WEIGHT

| PART     | WEIGHT(Kg)                  | PART  | WEIGHT(Kg) |                                |      |
|----------|-----------------------------|-------|------------|--------------------------------|------|
| MOTOR    | 3,8                         | MOTOR | 3,8        |                                |      |
| GEAR BOX | 9GBK2BMH<br>~ 9GBK18BMH     | 0,78  | GEAR BOX   | 9PB(F)K12,5BH<br>~ 9PB(F)K20BH | 1,3  |
|          | 9GBK20BMH<br>~ 9GBK40BMH    | 1,1   |            | 9PB(F)K25BH<br>~ 9PB(F)K60BH   | 1,45 |
|          | 9GBK50BMH<br>~ 9GBK200BMH   | 1,2   |            | 9PB(F)K75BH<br>~ 9PB(F)K200BH  | 1,47 |
|          | 9PB(F)K2BH<br>~ 9PB(F)K10BH | 1,28  |            | 9XD10□□                        | 0,6  |

## Connection Diagrams



- 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.
- Change the direction of single phase motor rotation **only** after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.