

B AC Motors

Induction Motor 40W(□ 90mm)

40W Induction Motor 40W(□ 90mm)

Motor Specification

| Model | | Output W | Voltage V | Frequency Hz | Poles | Duty | Starting Torque | | Rated Load | | | Capacitor μF / VAC | |
|--|-------------------|-------------|--------------|-----------------|-------|-------|-----------------|-------|----------------|--------------|---------------------|-----------------------|------------|
| Lead Wire Type | Terminal Box Type | | | | | | kgfcm | N.m | Speed r/min | Current A | Torque kgfcm N.m | | |
| 9IDG*~40(□~T): Gear Type Shaft 9IDD*~40(□~T): D-Cut Type Shaft 9IDK*~40(□~T): Key Type Shaft | | | | | | | | | | | | | |
| 9IDGA~40□ | 9IDGA~40□~T | 40 | 1∅110 | 60 | 4 | Cont. | 2.60 | 0.260 | 1600 | 0.80 | 2.80 | 0.280 | 10.0 / 250 |
| 9IDGD~40□ | 9IDGD~40□~T | 40 | 1∅220 | 60 | 4 | Cont. | 2.60 | 0.260 | 1600 | 0.39 | 2.80 | 0.280 | 2.5 / 450 |
| 9IDGE~40□ | 9IDGE~40□~T | 40 | 1∅220 | 50 | 4 | Cont. | 1.80 | 0.180 | 1300 | 0.33 | 3.00 | 0.300 | 2.0 / 450 |
| | | | 1∅240 | | | | 2.20 | 0.220 | | 0.36 | 3.60 | 0.360 | |
| 9IDGG~40□ | 9IDGG~40□~T | 40 | 3∅220 | 50 | 4 | Cont. | 9.00 | 0.900 | 1300 | 0.31 | 3.20 | 0.320 | - |
| | | | | 60 | | | 7.40 | 0.740 | 1600 | 0.27 | 2.45 | 0.245 | |
| 9IDGK~40□ | 9IDGK~40□~T | 40 | 3∅380 | 50 | 4 | Cont. | 9.00 | 0.900 | 1300 | 0.20 | 3.20 | 0.320 | - |
| | | | | 60 | | | 7.20 | 0.720 | 1550 | 0.18 | 2.80 | 0.280 | |
| | | | 3∅400 | 50 | 4 | Cont. | 10.00 | 1.000 | 1300 | 0.20 | 3.40 | 0.340 | |
| | | | | 60 | | | 7.80 | 0.780 | 1550 | 0.18 | 3.00 | 0.300 | |
| | | | 3∅415 | 50 | 4 | Cont. | 11.00 | 1.100 | 1350 | 0.20 | 3.00 | 0.300 | |
| | | | | 60 | | | 8.60 | 0.860 | 1600 | 0.18 | 2.80 | 0.280 | |
| | | | 3∅440 | 50 | 4 | Cont. | 12.00 | 1.200 | 1350 | 0.21 | 3.40 | 0.340 | |
| | | | | 60 | | | 9.80 | 0.980 | 1600 | 0.19 | 3.00 | 0.300 | |

- 1) Enter the phase & voltage code in the place * and enter the model type of attaching Gearbox in the box (□) within the motor model name.
 - 2) All models contain a built-in thermal protector.
 - 3) Gear Type Shaft is for attaching Gearbox and D-Cut & Key Type Shafts are for using motor only.
- * It is not possible to use inverter for three phase 380~440V motor. When 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 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|-------------|---------------|---------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | kgfcm | 0.46 | 7.0 | 0.68 | 0.82 | 1.14 | 1.37 | 1.71 | 2.05 | 2.28 | 2.85 | 3.42 | 3.70 | 5.15 | 6.17 | 6.72 | 7.46 | 9.33 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| 9IDG□~40G | 9GBK□ BMH | | 4.6 | 7.0 | 8.4 | 11.6 | 13.9 | 17.4 | 20.9 | 23.2 | 29.1 | 34.9 | 37.8 | 52.5 | 63.0 | 68.5 | 76.2 | 95.2 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| | | | N.m | 0.55 | 0.83 | 1.00 | 1.38 | 1.66 | 2.07 | 2.49 | 2.77 | 3.46 | 4.15 | 4.50 | 6.25 | 7.50 | 8.16 | 9.06 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |

| Motor Model | Gearbox Model | Gear Ratio r/min | 10 | 12 | 15 | 18 | 25 | 30 | 36 | 50 | 60 | |
|-------------|---------------------|---------------------|-------|------|------|------|------|------|------|------|------|------|
| | | | kgfcm | 23.0 | 26.9 | 32.3 | 37.3 | 49.0 | 55.4 | 64.5 | 84.0 | 92.4 |
| 9IDG□~40W | 9WD□BL/□BR/ □BRL | | 180 | 150 | 120 | 100 | 72 | 60 | 50 | 36 | 30 | |
| | | | N.m | 2.25 | 2.63 | 3.17 | 3.66 | 4.80 | 5.43 | 6.32 | 8.23 | 9.06 |

50Hz

| Motor Model | Gearbox Model | Gear Ratio r/min | 2 | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|-------------|---------------|---------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | kgfcm | 5.6 | 8.5 | 10.2 | 14.1 | 16.9 | 21.2 | 25.4 | 28.2 | 35.3 | 42.3 | 45.9 | 63.8 | 76.5 | 83.2 | 92.5 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 9IDG□~40G | 9GBK□ BMH | | 0.55 | 0.83 | 1.00 | 1.38 | 1.66 | 2.07 | 2.49 | 2.77 | 3.46 | 4.15 | 4.50 | 6.25 | 7.50 | 8.16 | 9.06 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | |
| | | | N.m | 0.83 | 1.00 | 1.38 | 1.66 | 2.07 | 2.49 | 2.77 | 3.46 | 4.15 | 4.50 | 6.25 | 7.50 | 8.16 | 9.06 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | |

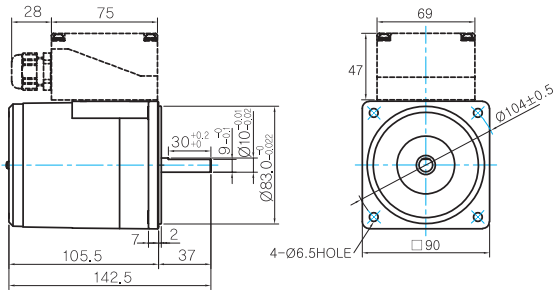
| Motor Model | Gearbox Model | Gear Ratio r/min | 10 | 12 | 15 | 18 | 25 | 30 | 36 | 50 | 60 | |
|-------------|---------------------|---------------------|-------|------|------|------|------|------|------|------|-------|-------|
| | | | kgfcm | 27.9 | 32.6 | 39.3 | 45.3 | 59.5 | 67.3 | 78.3 | 102.0 | 112.2 |
| 9IDG□~40W | 9WD□BL/□BR/ □BRL | | 150 | 125 | 100 | 83 | 60 | 50 | 42 | 30 | 25 | |
| | | | N.m | 2.73 | 3.20 | 3.85 | 4.44 | 5.83 | 6.60 | 7.68 | 10.00 | 11.00 |

- 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.

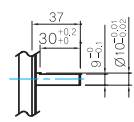
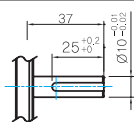
Dimensions

MOTOR ONLY

- MOTOR MODEL: 9IDD□-40(-T) (NO FAN)

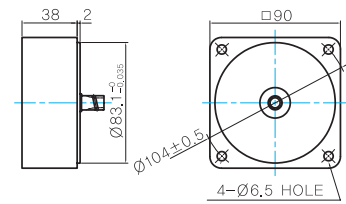


MOTOR OUTPUT SHAFT

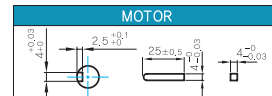
| MODEL | SPEC |
|------------|---|
| D-CUT TYPE |  |
| 9IDD□-40 | 37 $30^{+0.2}$ $\phi 10^{+0.02}$ |
| KEY TYPE |  |
| 9IDK□-40 | 37 $25^{+0.2}$ $\phi 10^{+0.02}$ |

INTER-DECIMAL GEARBOX

- MODEL: 9XD10□□



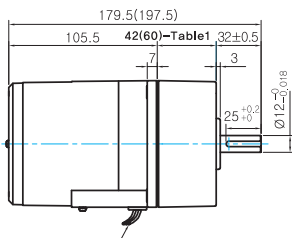
KEY SPEC



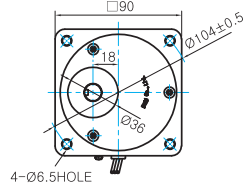
GEARED MOTOR

G TYPE GEARBOX

- MOTOR MODEL: 9IDG□-40G (NO FAN)

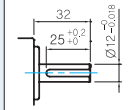


- GEARBOX MODEL: 9GBK□BMH



LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

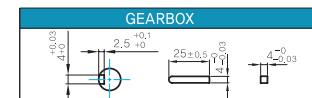
GEARBOX OUTPUT SHAFT

| MODEL | SPEC |
|----------|---|
| KEY TYPE |  |
| | 32 $25^{+0.2}$ $\phi 12^{+0.018}$ |

- 42(60)-Table1

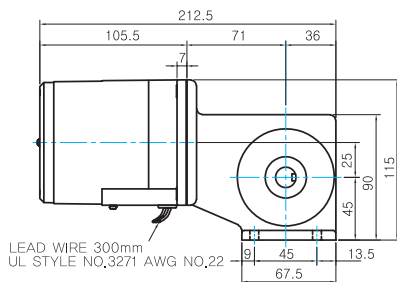
| SIZE(mm) | GEAR RATIO |
|----------|------------------------|
| 42 | 9GBK2BMH ~ 9GBK18BMH |
| 60 | 9GBK25BMH ~ 9GBK200BMH |

- Key Spec



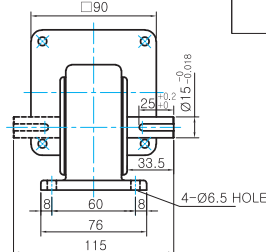
W TYPE GEARBOX

- MOTOR MODEL: 9IDG□-40W (NO FAN)

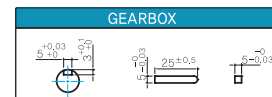


LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

- GEARBOX MODEL: 9WD□BL/BR/BRL



KEY SPEC



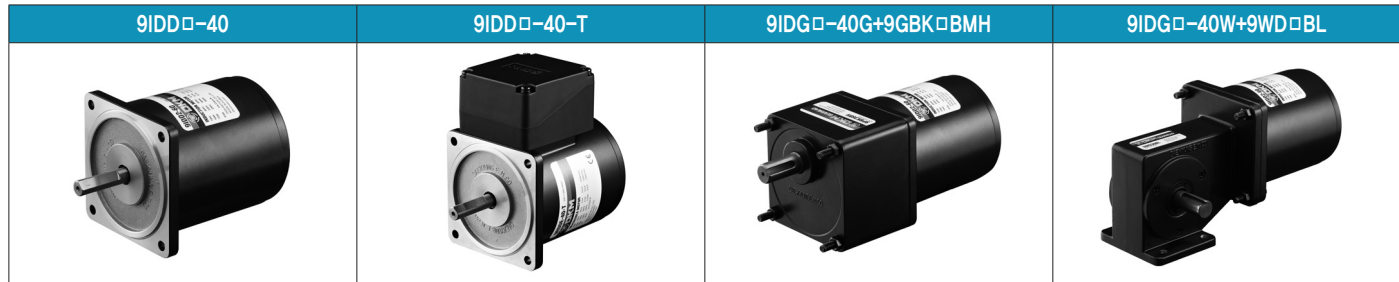
WEIGHT

| PART | WEIGHT(Kg) | |
|----------|------------------------|------|
| MOTOR | 2.4 | |
| GEAR BOX | 9GBK2BMH ~ 9GBK15BMH | 0.67 |
| | 9GBK18BMH ~ 9GBK30BMH | 0.96 |
| | 9GBK36BMH ~ 9GBK200BMH | 1.07 |
| | 9WD□BL/BR/BRL | 1.0 |
| | 9XD10□□ | 0.5 |

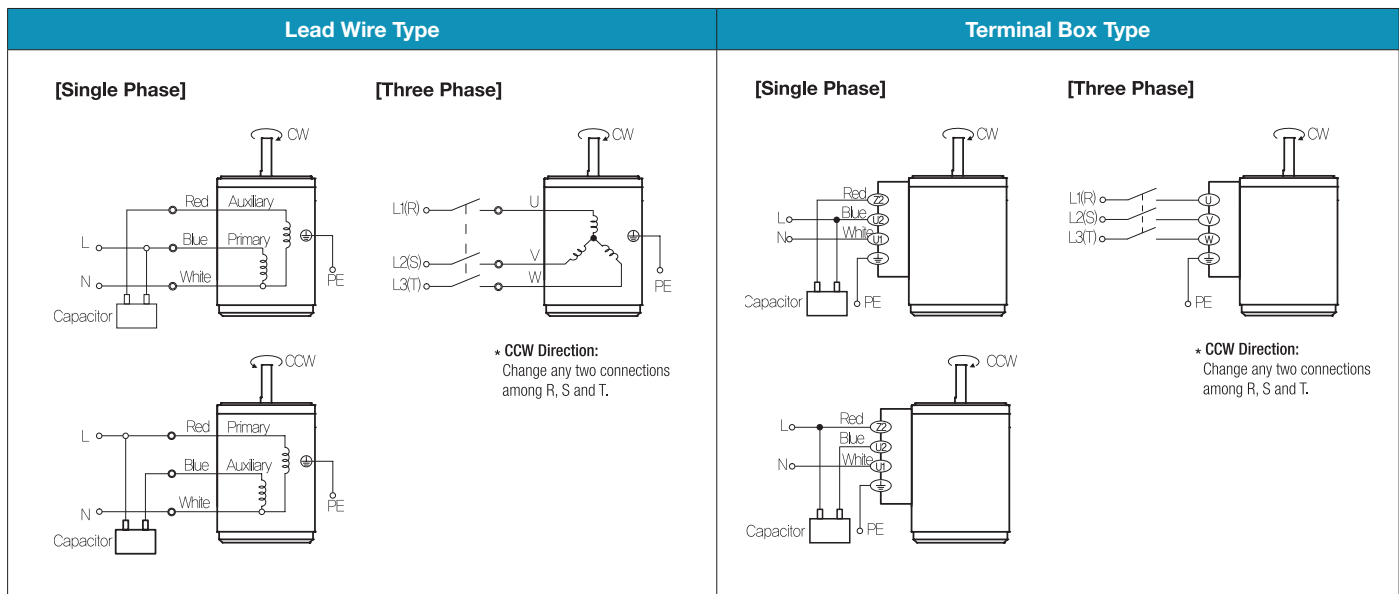
B AC Motors

Induction Motor 40W(□90mm)

Motor Images



Connection Diagrams



- 1) The direction of motor rotation is as viewed from the shaft end of the motor.
- 2) CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- 3) 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.