



90W

ELECTRO MAGNETIC BRAKE MOTOR 90mm LEAD WIRE TYPE

| SIZE mm sq. | Type | Poles | Output | | Duty | Current (A) | Rated Load | | Starting Torque | | Capacitor (uF) | | | |
|----------------|--|-------|--------|--------------------|-------|----------------|----------------|-------------------------|-----------------|----------------|-------------------|----------------|-------|-------|
| | | | (W) | (V) | | | Speed (rpm) | Torque (kg-cm) (N-m) | (kg-cm) | (N-m) | | | | |
| 90 | S9R90GA()-E S9R90GA()-E(TP) S9R90GA()-ECE | 4 | 90 | 1 ∅ 110 | 60 | 30min. | 2.20 | 1550 | 5.80 | 0.580 | 8.90 | 0.890 | 30.0 | |
| | S9R90GB()-E S9R90GB()-E(TP) S9R90GB()-ECE | 4 | 90 | 1 ∅ 220 | 60 | 30min. | 1.10 | 1550 | 5.80 | 0.580 | 8.90 | 0.890 | 7.5 | |
| | S9R90GC()-E S9R90GC()-E(TP) S9R90GC()-ECE | 4 | 90 | 1 ∅ 100 | 50 | 30min. | 2.00 | 1250 | 7.20 | 0.720 | 7.00 | 0.700 | 30.0 | |
| | | | | 60 | 2.25 | | 1500 | 6.00 | 0.600 | | | | | |
| | S9R90GD()-E S9R90GD()-E(TP) S9R90GD()-ECE | 4 | 90 | 1 ∅ 200 | 50 | 30min. | 0.90 | 1250 | 7.20 | 0.720 | 7.00 | 0.700 | 7.5 | |
| | | | | 60 | 1.10 | | 1500 | 6.00 | 0.600 | | | | | |
| | S9R90GE()-E S9R90GE()-ECE | 4 | 90 | 1 ∅ 100 | 50 | 30min. | 1.80 | 1300 | 7.20 | 0.720 | 6.30 | 0.630 | 30.0 | |
| | | | | 60 | 2.10 | | 1550 | 6.00 | 0.600 | | | | | |
| | | | | 1 ∅ 115 | 60 | | 1.90 | 1600 | 5.80 | 0.580 | | | | 6.90 |
| | S9R90GX()-E S9R90GX()-ECE | 4 | 90 | 1 ∅ 220 1 ∅ 240 | 50 | 30min. | 0.71 0.75 | 1300 | 6.90 7.20 | 0.690 0.720 | 6.80 8.60 | 0.680 0.860 | 6.0 | |
| | S9I90GU()-E S9I90GU()-ECE | 4 | 90 | 3 ∅ 200 | 50 | | Cont. | | 0.63 | 1300 | 6.90 | 0.690 | | 10.60 |
| | S9I90GT()-E S9I90GT()-ECE | 4 | 90 | 3 ∅ 220 | 50 | Cont. | | 0.68 | 1350 | 6.80 | 0.680 | 13.00 | 1.300 | — |
| | | | | 60 | 0.55 | | 1600 | 5.70 | 0.570 | 10.50 | 1.050 | — | | |
| | S9I90GS()-E S9I90GS()-ECE | 4 | 90 | 3 ∅ 380 | 50 | Cont. | 0.32 | 1300 | 6.80 | 0.680 | 10.55 | 1.055 | — | |
| | | | | | 60 | | 0.30 | 1550 | 5.70 | 0.570 | 8.20 | 0.820 | | |
| | | | | | 50 | Cont. | 0.35 | 1300 | 6.90 | 0.690 | 11.70 | 1.170 | | — |
| | | | | | 60 | | 0.32 | 1550 | 5.80 | 0.580 | 8.90 | 0.890 | | |
| | | | | | 50 | Cont. | 0.33 | 1350 | 6.80 | 0.680 | 12.00 | 1.200 | | — |
| 60 | | | | | 0.29 | | 1600 | 5.70 | 0.570 | 9.50 | 0.950 | | | |
| 50 | Cont. | 0.35 | 1350 | 6.90 | 0.690 | 13.30 | 1.330 | — | | | | | | |
| 60 | | 0.31 | 1600 | 5.80 | 0.580 | 10.50 | 1.050 | | | | | | | |

- S9R90GE-E is UL approved(UL FILE NO. E172720) thermally protected type.
- Please use appropriate capacitors according to the using voltage for S9R90GE-E type since the size of the capacitors differ to the different voltages and when not used properly, it may cause malfunction. Please inform required voltage when ordering or capacitor for 115V will be delivered.
- "CE" marked at the end of model name indicates that it is thermally protected type which has received CE (File NO. E9766002E01, Certificate Institute: TÜV Rheinland) with built-in TP S9R90GE()-ECE is available only for 115V specification.
- "TP" marked at the end of the model name indicates that it is standard motor with Thermal Protector mounted. S9R90GE-E, S9R90GX-E is thermally protected type with TP mounted.
- Above data is measured with brake removed from electromagnetic brake motor.
- In case 3 phase 380V motor is controlled with inverter, please be careful to use considerin
- () is for marking 'L' type or 'H'. 'L' should be used with gearhead 'L' and 'H' should be used with gearhead 'H'.

50Hz

| MODEL | GEAR RATIO | rpm | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 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 |
| S9KC() | kg-cm | 18.2 | 21.9 | 30.4 | 36.5 | 45.6 | 54.7 | 60.8 | 68.4 | 82.1 | 98.6 | 110 | 124 | 149 | 178 | 198 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| S9KC()-S | N·m | 1.784 | 2.146 | 2.979 | 3.577 | 4.469 | 5.361 | 5.958 | 6.703 | 8.046 | 9.663 | 10.78 | 12.15 | 14.60 | 17.44 | 19.40 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 |

60Hz

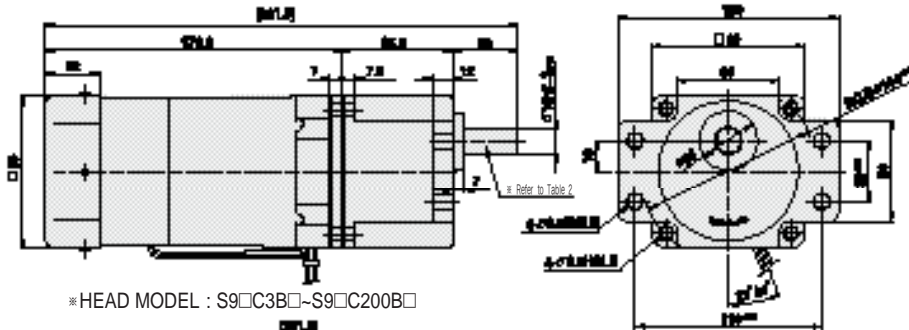
| MODEL | GEAR RATIO | rpm | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 3 | 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 |
| S9KC() | kg-cm | 14.6 | 17.5 | 24.3 | 29.2 | 36.5 | 43.7 | 48.6 | 54.8 | 65.7 | 78.8 | 87.6 | 99.0 | 119 | 143 | 158 | 198 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| S9KC()-S | N·m | 1.431 | 1.715 | 2.381 | 2.862 | 3.577 | 4.675 | 4.763 | 5.370 | 6.439 | 7.722 | 8.585 | 9.702 | 11.66 | 14.01 | 15.48 | 19.40 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 |

- The code in □ of gearhead model is for gear ratio.
- It is the permissible torque of the assembled motor and gearhead.
- The permissible torque of the assembled with motor and inter-decimal gearhead is 200kg · cm.
- ■ color indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.
- Rotational speed based on synchronous speed (50Hz:1500rpm, 60Hz:1800rpm) divided by gear ratio. The actual rotation speed is less 2-20% than the displayed value according to the load.
- () is for marking 'L' type or 'H'. 'L' should be used with motor 'L' and 'H' should be used with motor 'H'.

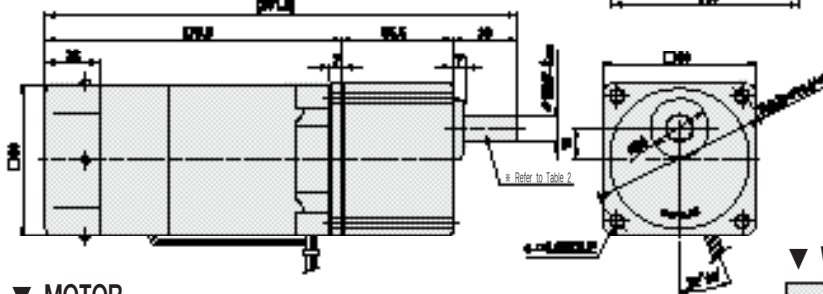
DIMENSIONS

▼ GEARED MOTOR

- ※ MOTOR MODEL : S9R90G□□-E
- ※ HEAD MODEL : S9□C3B□-S~S9□C200B□-S

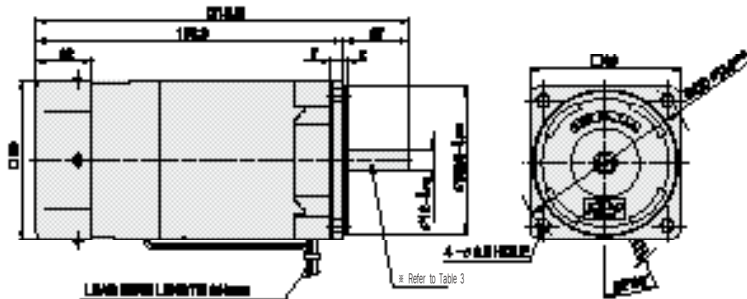


※ HEAD MODEL : S9□C3B□~S9□C200B□



▼ MOTOR

- ※ MOTOR MODEL : S9R90□□□-E

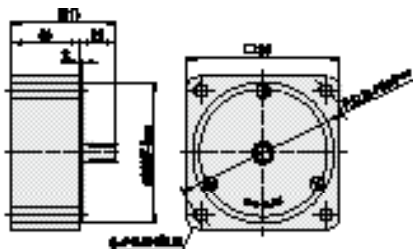


▼ WEIGHT-(Table 2)

| PART | | WEIGHT(Kg) |
|------------------|-------------------------|------------|
| MOTOR | | 3.41 |
| DECIMAL GEARHEAD | | 0.65 |
| GEAR HEAD | S9□C3B□ ~S9□C10B□ | 1.21 |
| | S9□C12.5B□ ~S9□C20B□ | 1.30 |
| | S9□C25B□ ~S9□C60B□ | 1.40 |
| | S9□C75B□ ~S9□C200B□ | 1.45 |

▼ INTER-DECIMAL GEARHEAD

- ※ MODEL : S9GX10B(H,L)-S



▼ KEY SPEC

| GEARHEAD | MOTOR |
|----------|-------|
| | |

▼ SPEC for output shaft of gearhead-(Table 3)

| MODEL | TYPE OF OUTPUT SHAFT |
|-----------------------|----------------------|
| STRAIGHT TYPE | |
| S9SC3B□ ~S9SC200B□ | |
| D-CUT TYPE | |
| S9DC3B□ ~S9DC200B□ | |
| KEY TYPE | |
| S9KC3B□ ~S9KC200B□ | |

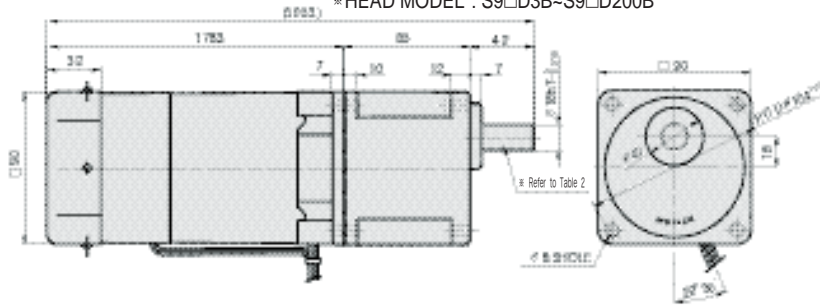
▼ SPEC for output shaft of motor-(Table 4)

| MODEL | TYPE OF OUTPUT SHAFT |
|---------------|----------------------|
| GEAR TYPE | |
| S9R90G□□-E | |
| STRAIGHT TYPE | |
| S9R90S□□-E | |
| D-CUT TYPE | |
| S9R90D□□-E | |
| KEY TYPE | |
| S9R90K□□-E | |

DIMENSIONS

▼ GEARED MOTOR

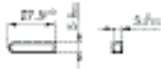
* MOTOR MODEL : S9R90G□H
 * HEAD MODEL : S9□D3B~S9□D200B



▼ WEIGHT-(Table 1)

| PART | WEIGHT(kg) | |
|-----------|-----------------------|------|
| MOTOR | 3.41 | |
| GEAR HEAD | S9□D3B ~S9□D10B | 1.65 |
| | S9□D12.5B ~S9□D20B | 1.80 |
| | S9□D25B ~S9□D60B | 1.90 |
| | S9□D75B ~S9□D200B | 1.95 |

▼ KEY SPEC



▼ SPEC for output shaft of gearhead-(Table 2)

| MODEL | TYPES OF OUTPUT SHAFT | MODEL | TYPES OF OUTPUT SHAFT | MODEL | TYPES OF OUTPUT SHAFT |
|---------------------|-----------------------|---------------------|-----------------------|---------------------|-----------------------|
| STRAIGHT TYPE | | STRAIGHT TYPE | | STRAIGHT TYPE | |
| S9SD3B ~S9SD200B | | S9DD3B ~S9DD200B | | S9KD3B ~S9KD200B | |

■ 50Hz

| GEAR RATIO | MODEL | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | rpm | 500 | 416 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 | 8 | 7.5 |
| S9KD□B | kg-cm | 18.2 | 21.9 | 30.4 | 36.5 | 45.6 | 54.7 | 60.8 | 68.4 | 82.1 | 98.6 | 110 | 124 | 149 | 178 | 198 | 248 | 297 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| | N·m | 1.784 | 2.146 | 2.979 | 3.577 | 4.469 | 5.361 | 5.958 | 6.703 | 8.046 | 9.663 | 10.78 | 12.15 | 14.60 | 17.44 | 19.40 | 24.32 | 29.13 | 29.42 | 29.42 | 29.42 | 29.42 | 29.42 | 29.42 | 29.42 |

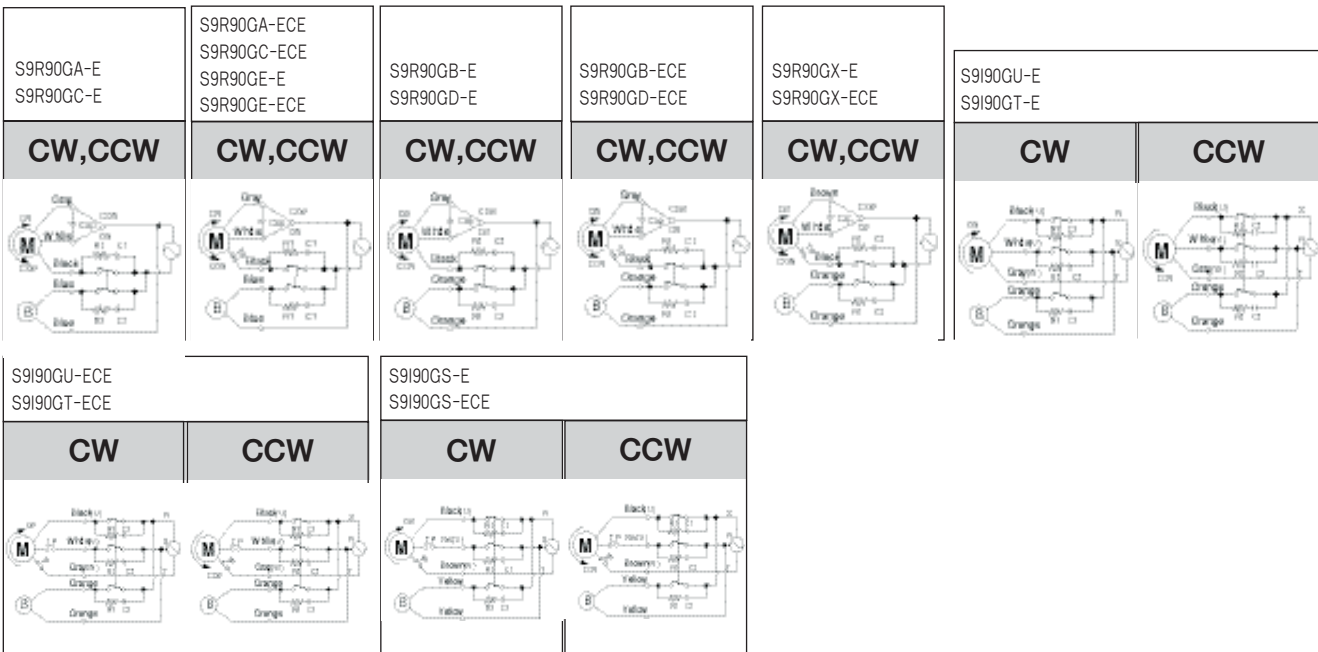
■ 60Hz

| GEAR RATIO | MODEL | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | rpm | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 | 10 | 9 |
| S9KD□B | kg-cm | 14.6 | 17.5 | 24.3 | 29.2 | 36.5 | 43.7 | 48.6 | 54.8 | 65.7 | 78.8 | 87.6 | 99.0 | 119 | 143 | 158 | 198 | 238 | 266 | 300 | 300 | 300 | 300 | 300 | 300 |
| | N·m | 1.431 | 1.715 | 2.381 | 2.862 | 3.577 | 4.675 | 4.763 | 5.370 | 6.439 | 7.722 | 8.585 | 9.702 | 11.66 | 14.01 | 15.48 | 19.40 | 23.34 | 26.09 | 29.42 | 29.42 | 29.42 | 29.42 | 29.42 | 29.42 |

- The code in □ of gearhead model is for gear ratio.
- It is the permissible torque of the assembled motor and gearhead.
- The permissible torque of the assembled with motor and inter-decimal gearhead is 300kg·cm.
- color indicates that the geared motor shaft of the geared motor rotates in the same direction as the output shaft of the motor. Others indicate rotation in the opposite direction.
- Rotational speed based on synchronous speed (50Hz:1500rpm, 60Hz:1800rpm) divided by gear ratio. The actual rotation speed is less 2-20% than the displayed value according to the load.
- There is not made the 'H' type caused by exclusive use. Please use 'H' type motor.

SCHEMATIC DIAGRAMS

The direction of motor rotation is as viewed from the front shaft end of the motor.



R₁ = 10~200 Ω (Min.1/4 W)

C₁ = 0.1~0.33μF(AC125VV or AC250VV)