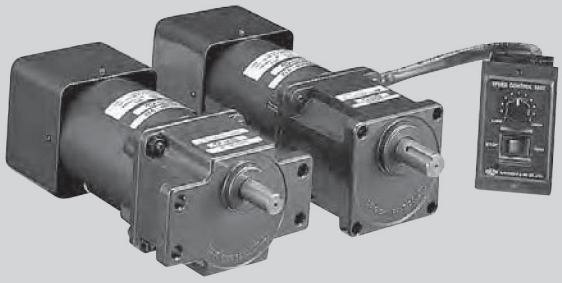


# 90W

## INDUCTION SPEED CONTROL MOTOR
## □90㎜ CONNECTOR TYPE

| SIZE mm sq. | Motor Type | Controller Type | Poles | Output | Voltage | Freq. | Duty | Speed Range | Permissible Torque at 1200rpm | | Permissible Torque at 90rpm | | Starting Torque | | Cap. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (W) | (V) | (Hz) | | (rpm) | (kg-cm) | (N-m) | (kg-cm) | (N-m) | (kg-cm) | (N-m) | (μF) |
| 90 | S9I90GA( )-V12<br>S9I90GA( )-V12(TP)<br>S9I90GA( )-V12CE | SUA90IA-V12 | 4 | 90 | 1ø 110 | 60 | Cont. | 90-1700 | 6.30 | 0.630 | 3.00 | 0.300 | 6.50 | 0.650 | 24.0 |
| | S9I90GB( )-V12<br>S9I90GB( )-V12(TP)<br>S9I90GB( )-V12CE | SUA90IB-V12 | 4 | 90 | 1ø 220 | 60 | Cont. | 90-1700 | 6.30 | 0.630 | 3.00 | 0.300 | 6.50 | 0.650 | 7.0 |
| | S9I90GC( )-V12<br>S9I90GC( )-V12(TP)<br>S9I90GC( )-V12CE | SUA90IC-V12 | 4 | 90 | 1ø 100 | 50 | Cont. | 90-1400 | 5.80 | 0.580 | 2.50 | 0.250 | 5.50 | 0.550 | 24.0 |
| | | | | | | 60 | | 90-1700 | 5.30 | 0.530 | | | | | |
| | S9I90GD( )-V12<br>S9I90GD( )-V12(TP)<br>S9I90GD( )-V12CE | SUA90ID-V12 | 4 | 90 | 1ø 200 | 50 | Cont. | 90-1400 | 5.80 | 0.580 | 2.50 | 0.250 | 5.50 | 0.550 | 7.0 |
| | | | | | | 60 | | 90-1700 | 5.30 | 0.530 | | | | | |
| | S9I90GX( )-V12<br>S9I90GX( )-V12CE | SUA90IX-V12 | 4 | 90 | 1ø 220 | 50 | Cont. | 90-1400 | 5.40 | 0.540 | 2.20 | 0.220 | 4.60 | 0.460 | 5.0 |
| | | | | | 1ø 240 | | | | 6.10 | 0.610 | 2.20 | 0.220 | 5.50 | 0.550 | |

❖ 기종명 맨 끝자리에 CE가 명기된 MOTOR MODEL의 인증 관련 내용은 SPG 규격 인증품 현황을 참고하여 주십시오. (CE marked at the end of motor model name indicates that it is impedance protected type which has received CE.)
❖ 기종명 맨 끝자리에 (TP)가 명기된 MOTOR MODEL은 일반 MOTOR의 TP가 내장된 THERMALLY PROTECTED TYPE입니다. 또한 기종명 S9I90GX( )-V12, S9I90GX( )-V12CE는 TP가 내장된 THERMALLY PROTECTED TYPE입니다. (TP marked at the end of the motor model name indicates that it is standard motor with Thermal Protector mounted. S9I90GX( )-V12, S9I90GX( )-V12CE is thermally protected type with TP mounted.)
❖ ( )는 L, H Type을 표시합니다. L은 GEAR HEAD의 L과, H는 GEAR HEAD의 H와 사용하여 주십시오. (( ) is for marking 'L' type or 'H'. 'L' should be used with gearhead 'L' and 'H' should be used with gearhead 'H'. )

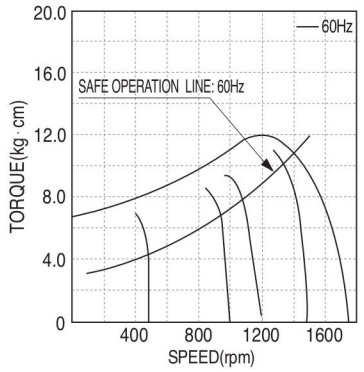
## 50Hz

| GEAR RATIO / MODEL | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 |
| S9KC□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 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| S9KC□B( )-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 |

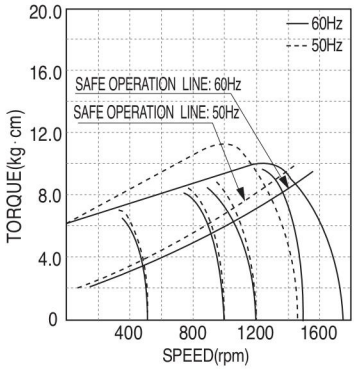
## 60Hz

| GEAR RATIO / MODEL | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 |
| S9KC□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 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| S9KC□B( )-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 |

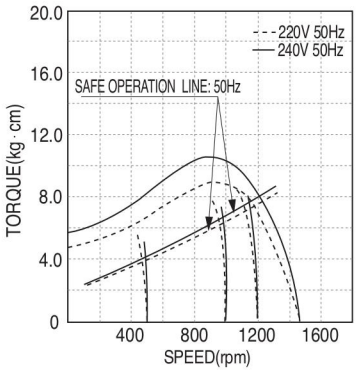
❖ GEAR HEAD 품명 중 □은 감속비를 표시합니다. (The code in □ of gearhead model is for gear ratio.)
❖ GEAR HEAD와 조합한 경우의 허용 TORQUE입니다. (It is the permissible torque of the assembled motor and gearhead.)
❖ 감속비 1/10의 중간 GEAR HEAD를 접속한 경우의 허용 TORQUE는 200kg-㎝입니다. (The permissible torque of the motor and inter-decimal gearhead is 200 kg-cm.)
❖ 회전방향은 ■색이 MOTOR의 회전방향과 동일방향이고, 기타는 MOTOR 회전방향과 반대방향입니다. (■ 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. )
❖ 회전수는 MOTOR의 동기 회전수(50Hz : 1500rpm, 60Hz : 1800rpm)를 기준으로 하여 감속비로 나누어서 계산하였습니다. 실제의 회전수는 부하의 크기에 따라서 표시된 수치보다 2~20% 적습니다. (Rpm is based on synchronous speed (50Hz: 1500rpm, 60Hz: 1800rpm) divided by gear ratio. The actual rotation speed can be 2~20% less than displayed value depending on the load.)
❖ ( )는 L, H Type을 표시합니다. L은 MOTOR의 L과, H는 MOTOR의 H와 사용하여 주십시오. (( ) is for marking 'L' type or 'H'. 'L' should be used with motor 'L' and 'H' should be used with motor 'H'. )




▲ S9I90GA()-V12 S9I90GB()-V12
S9I90GA()-V12(TP) S9I90GB()-V12(TP)
S9I90GA()-V12CE S9I90GB()-V12CE




▲ S9I90GC()-V12 S9I90GD()-V12
S9I90GC()-V12(TP) S9I90GD()-V12(TP)
S9I90GC()-V12CE S9I90GD()-V12CE

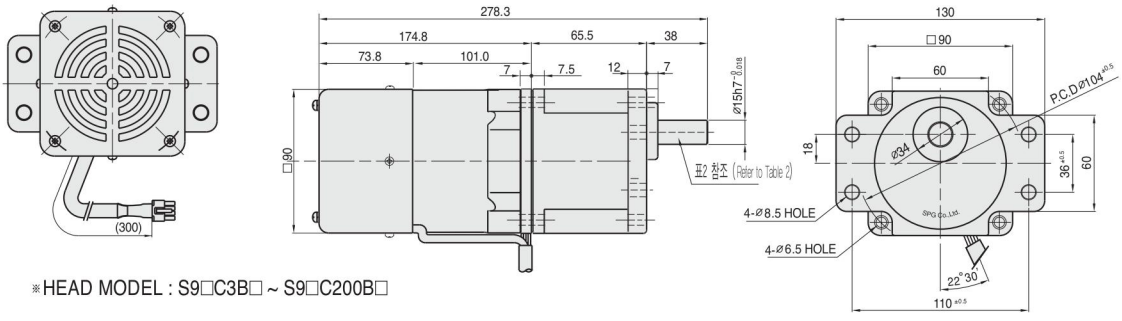



▲ S9I90GX()-V12
S9I90GX()-V12CE

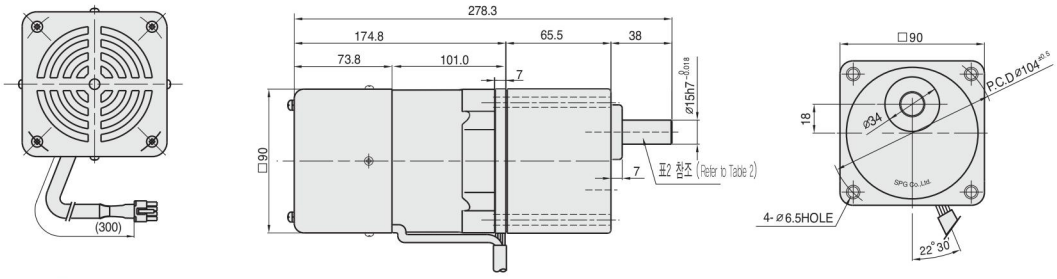
# DIMENSIONS

## ✚ GEARED MOTOR

※MOTOR MODEL : S9I90G□H-V12
※HEAD MODEL : S9□C3B□-S ~ S9□C200B□-S

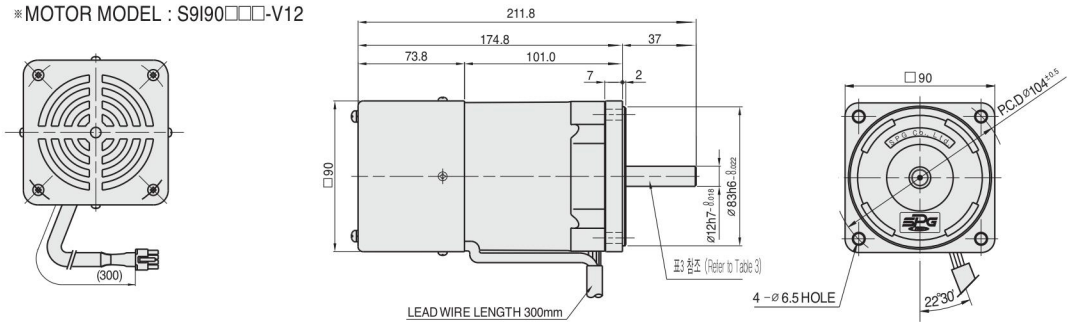



※HEAD MODEL : S9□C3B□ ~ S9□C200B□



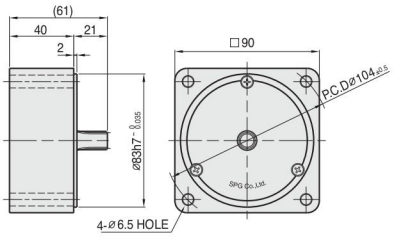

## ✚ MOTOR

※MOTOR MODEL : S9I90□□□-V12




## ✚ INTER-DECIMAL GEAR HEAD

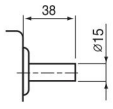
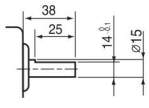
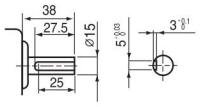
※MODEL : S9GX10B(H,L)-S



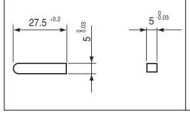
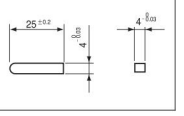

## ✚ WEIGHT - (표1 (Table1))

| PART | | WEIGHT(kg) |
|---|---|---|
| MOTOR | | 3.53 |
| DECIMAL GEAR HEAD | | 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 |

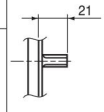
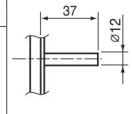
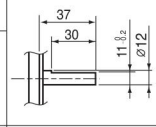
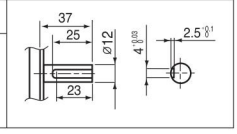
## ✚ GEAR HEAD 출력축 사양 (SPEC for output shaft of gearhead) - (표2 (Table2))

| MODEL | 출력축 구분 (TYPES OF OUTPUT SHAFT) |
|---|---|
| STRAIGHT TYPE<br>S9SC3B□ ~S9SC200B□ |  |
| D-CUT TYPE<br>S9DC3B□ ~S9DC200B□ |  |
| KEY TYPE<br>S9KC3B□ ~S9KC200B□ |  |

## ✚ KEY SPEC

| GEAR HEAD | MOTOR |
|---|---|
|  |  |

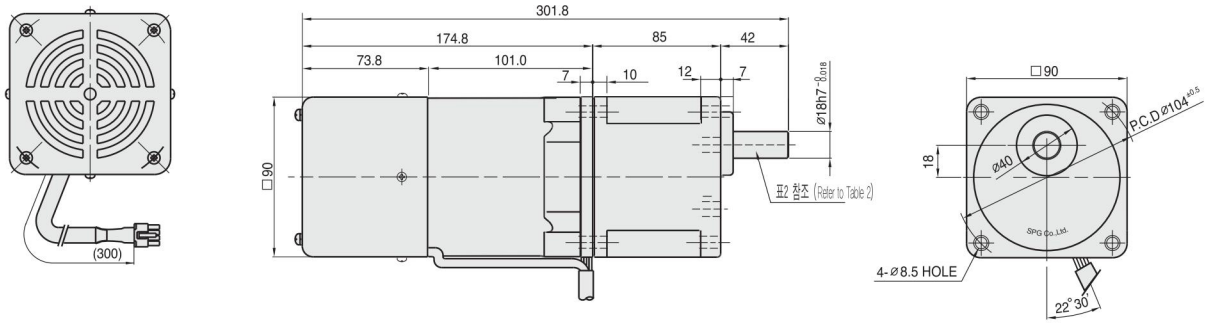
## ✚ MOTOR 출력축 사양 (SPEC for output shaft of motor) - (표3 (Table3))

| MODEL | 출력축 구분 (TYPES OF OUTPUT SHAFT) |
|---|---|
| GEAR TYPE<br>S9I90G□□-V12 |  |
| STRAIGHT TYPE<br>S9I90S□-V12 |  |
| D-CUT TYPE<br>S9I90D□-V12 |  |
| KEY TYPE<br>S9I90K□-V12 |  |

# DIMENSIONS

## ✚ GEARED MOTOR

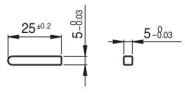
※MOTOR MODEL : S9I90G□H-V12
※HEAD MODEL : S9□D3B~S9□D200B




## ✚ WEIGHT – (표1 (Table1))

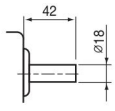
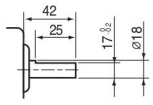
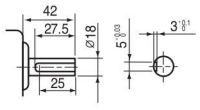
| PART | | WEIGHT(kg) |
|---|---|---|
| MOTOR | | 3.53 |
| GEAR HEAD | S9□D3B ~S9□D10B | 1.65 |
| | S9□D12.5B ~S9□D20B | 1.80 |
| | S9□D25B ~S9□D60B | 1.90 |
| | S9□D75B ~S9□D200B | 1.95 |

## ✚ KEY SPEC

| GEAR HEAD |
|---|
|  |



## ✚ GEAR HEAD 출력축 사양 (SPEC for output shaft of gearhead) – (표2 (Table2))

| MODEL | 출력축 구분 (TYPES OF OUTPUT SHAFT) |
|---|---|
| STRAIGHT TYPE<br>S9SD3B ~S9SD200B |  |
| D-CUT TYPE<br>S9DD3B ~S9DD200B |  |
| KEY TYPE<br>S9KD3B ~S9KD200B |  |



## 50Hz

| 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 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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

| 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 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 |

❖ GEAR HEAD 품명 중 □은 감속비를 표시합니다. (The code in □ of gearhead model is for gear ratio.)
❖ GEAR HEAD와 조합한 경우의 허용 TORQUE입니다. (It is the permissible torque of the assembled motor and gearhead.)
❖ 감속비 1/10의 중간 GEAR HEAD를 접속한 경우의 허용 TORQUE는 300kg-cm입니다. (The permissible torque of the motor and inter-decimal gearhead is 300 kg-cm.)
❖ 회전방향은 ■색이 MOTOR의 회전방향과 동일방향이고, 기타는 MOTOR 회전방향과 반대방향입니다. (■ 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. )
❖ 회전수는 MOTOR의 동기 회전수(50Hz : 1500rpm, 60Hz : 1800rpm)를 기준으로 하여 감속비로 나누어서 계산하였습니다. 실제의 회전수는 부하의 크기에 따라서 표시된 수치보다 2~20% 적습니다. (Rpm is based on synchronous speed (50Hz: 1500rpm, 60Hz: 1800rpm) divided by gear ratio. The actual rotation speed can be 2~20% less than displayed value depending on the load.)
❖ 'H' Type 전용으로 기종명에 표시하지 않습니다. MOTOR의 H와 사용하여 주십시오. (Only "H" type is applicable. Please use "H" type motor.)