

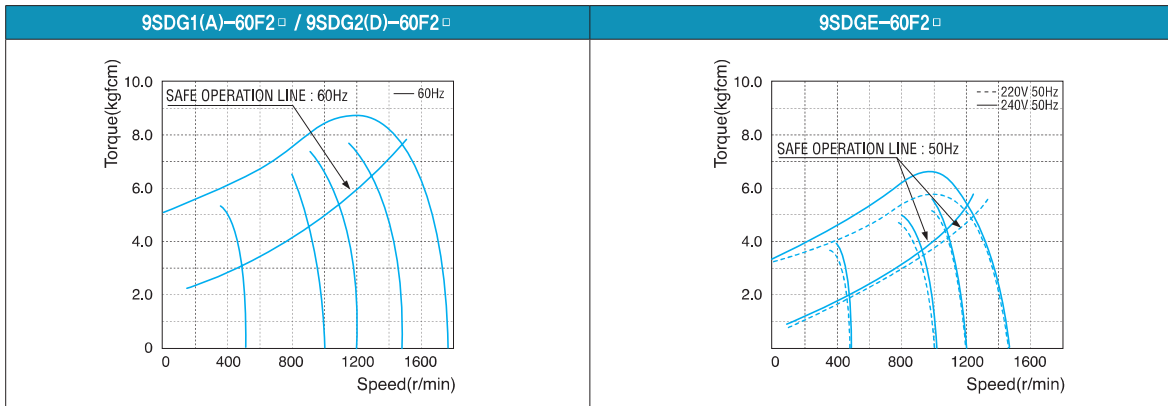
60W Speed Control Induction Motor 60W(□ 90mm)

Motor 사양

| Model 9SDG*-60F2□ : Gear Type Shaft 9SDD*-60F2: D-Cut Type Shaft 9SDK*-60F2: Key Type Shaft Lead Wire Type | Output W | Voltage V | Frequency Hz | Poles | Duty | Speed Range r/min | Starting Torque | | Permissible Torque | | | | Capacitor μF / VAC |
|--|-------------|--------------|-----------------|-------|-------|----------------------|-----------------|-------|--------------------|-------|---------|-------|-----------------------|
| | | | | | | | kgfcm | N.m | 1200r/min | | 90r/min | | |
| | | | | | | | | | kgfcm | N.m | kgfcm | N.m | |
| 9SDG1(A)-60F2□ | 60 | 1φ 110 | 60 | 4 | Cont. | 90-1700 | 4.00 | 0.400 | 5.50 | 0.550 | 1.60 | 0.160 | 16.0 / 250 |
| 9SDG2(D)-60F2□ | 60 | 1φ 220 | 60 | 4 | Cont. | 90-1700 | 4.00 | 0.400 | 5.50 | 0.550 | 1.60 | 0.160 | 5.0 / 400 |
| 9SDGE-60F2□ | 60 | 1φ 220 | 50 | 4 | Cont. | 90-1400 | 4.00 | 0.400 | 5.20 | 0.520 | 1.40 | 0.140 | 5.0 / 450 |
| | | 1φ 240 | | | | | 4.50 | 0.450 | 5.80 | 0.580 | 1.60 | 0.160 | |

- 1) 모터 모델명 * 자리에는 전압코드가, □ 안에는 부착되는 감속기의 모델 타입명이 들어갑니다.
- 2) 전압코드 A, D, E는 TP(Thermal Protector) 부착 사양입니다.
- 3) Gear Type Shaft는 감속기 부착용이며 D-Cut 및 Key Type Shaft는 모터 단독 사용시의 출력축입니다.

회전속도-토크 특성



감속기 부착 시 최대허용토크

| Motor Model | Gear box Model | 회전 속도 r/min | 전압 V | 주파수 Hz | 감속비 | 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 | | |
|-------------|------------------------|-------------|------|--------|-------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9SDG*-60F2P | 9PBK □ BH 9PFK □ BH | 1200 | 110 | 60 | kgfcm | 8.9 | 13.4 | 16.0 | 22.3 | 26.7 | 33.4 | 40.1 | 44.6 | 50.2 | 60.2 | 72.3 | 80.3 | 90.8 | 108.9 | 130.7 | 145.2 | 181.5 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | | |
| | | | | | N.m | 0.87 | 1.31 | 1.57 | 2.18 | 2.62 | 3.27 | 3.93 | 4.37 | 4.92 | 5.90 | 7.08 | 7.87 | 8.89 | 10.67 | 12.81 | 14.23 | 17.79 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 |
| | | | | | kgfcm | 8.9 | 13.4 | 16.0 | 22.3 | 26.7 | 33.4 | 40.1 | 44.6 | 50.2 | 60.2 | 72.3 | 80.3 | 90.8 | 108.9 | 130.7 | 145.2 | 181.5 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 |
| | | N.m | | | 0.87 | 1.31 | 1.57 | 2.18 | 2.62 | 3.27 | 3.93 | 4.37 | 4.92 | 5.90 | 7.08 | 7.87 | 8.89 | 10.67 | 12.81 | 14.23 | 17.79 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 |
| | | kgfcm | | | 8.4 | 12.6 | 15.2 | 21.1 | 25.3 | 31.6 | 37.9 | 42.1 | 47.5 | 56.9 | 68.3 | 75.9 | 85.8 | 103.0 | 123.6 | 137.3 | 171.6 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 |
| | | N.m | | | 0.83 | 1.24 | 1.49 | 2.06 | 2.48 | 3.10 | 3.71 | 4.13 | 4.65 | 5.58 | 6.70 | 7.44 | 8.41 | 10.09 | 12.11 | 13.45 | 16.82 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 |
| | kgfcm | 2.6 | 3.9 | 4.7 | 6.5 | 7.8 | 9.7 | 11.7 | 13.0 | 14.6 | 17.5 | 21.0 | 23.4 | 26.4 | 31.7 | 38.0 | 42.2 | 52.8 | 63.4 | 70.8 | 85.0 | 94.4 | 113.3 | 141.6 | 169.9 | 188.8 | | | | | | |
| | N.m | 0.25 | 0.38 | 0.46 | 0.64 | 0.76 | 0.95 | 1.14 | 1.27 | 1.43 | 1.72 | 2.06 | 2.29 | 2.59 | 3.10 | 3.73 | 4.14 | 5.17 | 6.21 | 6.94 | 8.33 | 9.25 | 11.10 | 13.88 | 16.65 | 18.50 | | | | | | |
| | kgfcm | 2.6 | 3.9 | 4.7 | 6.5 | 7.8 | 9.7 | 11.7 | 13.0 | 14.6 | 17.5 | 21.0 | 23.4 | 26.4 | 31.7 | 38.0 | 42.2 | 52.8 | 63.4 | 70.8 | 85.0 | 94.4 | 113.3 | 141.6 | 169.9 | 188.8 | | | | | | |
| | N.m | 0.25 | 0.38 | 0.46 | 0.64 | 0.76 | 0.95 | 1.14 | 1.27 | 1.43 | 1.72 | 2.06 | 2.29 | 2.59 | 3.10 | 3.73 | 4.14 | 5.17 | 6.21 | 6.94 | 8.33 | 9.25 | 11.10 | 13.88 | 16.65 | 18.50 | | | | | | |
| | kgfcm | 2.3 | 3.4 | 4.1 | 5.7 | 6.8 | 8.5 | 10.2 | 11.3 | 12.8 | 15.3 | 18.4 | 20.4 | 23.1 | 27.7 | 33.3 | 37.0 | 46.2 | 55.4 | 62.0 | 74.3 | 82.6 | 99.1 | 123.9 | 148.7 | 165.2 | | | | | | |
| | N.m | 0.22 | 0.33 | 0.40 | 0.56 | 0.67 | 0.83 | 1.00 | 1.11 | 1.25 | 1.50 | 1.80 | 2.00 | 2.26 | 2.72 | 3.26 | 3.62 | 4.53 | 5.43 | 6.07 | 7.29 | 8.09 | 9.71 | 12.14 | 14.57 | 16.19 | | | | | | |

- 1) 모터 모델명 * 자리에는 전압코드가 들어갑니다.
- 2) 감속기 모델명 □ 안에는 감속비가 들어갑니다.
- 3) 위의 표에서 색칠된 범위의 감속비를 선택했을 때 감속기의 출력축은 모터의 출력축과 같은 방향으로 회전합니다. 흰색 바탕 범위의 감속비에서는 감속기 출력축은 모터 출력축의 회전방향과 반대방향으로 회전합니다.
- 4) 회전속도(r/min)는 모터의 동기회전속도(50Hz:1500r/min, 60Hz:1800r/min)를 감속비로 나누어 계산합니다. 실제 회전속도는 부하의 크기에 따라 표시보다 2~20% 정도 느립니다.

B AC Motors

S.C. Induction Motor 60W (□ 90mm)

| Motor Model | Gear box Model | 회전 속도 r/min | 전압 V | 주파수 Hz | 감속비 | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 |
|-------------|----------------|-------------|---------|--------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 9SDG*-60F2H | 9HBK □ BH | 1200 | 110 | 60 | kgfcm N.m | 13.4 1.31 | 16.0 1.57 | 22.3 2.18 | 26.7 2.62 | 33.4 3.27 | 40.1 3.93 | 44.6 4.37 | 50.2 4.92 | 60.2 5.90 | 72.3 7.08 | 80.3 7.87 | 90.8 8.89 |
| | | | 220 | 60 | kgfcm N.m | 13.4 1.31 | 16.0 1.57 | 22.3 2.18 | 26.7 2.62 | 33.4 3.27 | 40.1 3.93 | 44.6 4.37 | 50.2 4.92 | 60.2 5.90 | 72.3 7.08 | 80.3 7.87 | 90.8 8.89 |
| | | | 220/240 | 50 | kgfcm N.m | 12.6 1.24 | 15.2 1.49 | 21.1 2.06 | 25.3 2.48 | 31.6 3.10 | 37.9 3.71 | 42.1 4.13 | 47.5 4.65 | 56.9 5.58 | 68.3 6.70 | 75.9 7.44 | 85.8 8.41 |
| | 9HFK □ BH | 90 | 110 | 60 | kgfcm N.m | 3.9 0.38 | 4.7 0.46 | 6.5 0.64 | 7.8 0.76 | 9.7 0.95 | 11.7 1.14 | 13.0 1.27 | 14.6 1.43 | 17.5 1.72 | 21.0 2.06 | 23.4 2.29 | 26.4 2.59 |
| | | | 220 | 60 | kgfcm N.m | 3.9 0.38 | 4.7 0.46 | 6.5 0.64 | 7.8 0.76 | 9.7 0.95 | 11.7 1.14 | 13.0 1.27 | 14.6 1.43 | 17.5 1.72 | 21.0 2.06 | 23.4 2.29 | 26.4 2.59 |
| | | | 220/240 | 50 | kgfcm N.m | 3.4 0.33 | 4.1 0.40 | 5.7 0.56 | 6.8 0.67 | 8.5 0.83 | 10.2 1.00 | 11.3 1.11 | 12.8 1.25 | 15.3 1.50 | 18.4 1.80 | 20.4 2.00 | 23.1 2.26 |

| Motor Model | Gear box Model | 회전 속도 r/min | 전압 V | 주파수 Hz | 감속비 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 | |
|-------------|----------------|-------------|---------|--------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 9SDG*-60F2H | 9HBK □ BH | 1200 | 110 | 60 | kgfcm N.m | 108.9 10.67 | 130.7 12.81 | 145.2 14.23 | 181.5 17.79 | 217.8 21.34 | 243.4 23.85 | 292.1 28.62 | 300.0 29.40 | 300.0 29.40 | 300.0 29.40 | 300.0 29.40 | 300.0 29.40 | 300.0 29.40 |
| | | | 220 | 60 | kgfcm N.m | 108.9 10.67 | 130.7 12.81 | 145.2 14.23 | 181.5 17.79 | 217.8 21.34 | 243.4 23.85 | 292.1 28.62 | 300.0 29.40 | 300.0 29.40 | 300.0 29.40 | 300.0 29.40 | 300.0 29.40 | 300.0 29.40 |
| | | | 220/240 | 50 | kgfcm N.m | 103.0 10.09 | 123.6 12.11 | 137.3 13.45 | 171.6 16.82 | 205.9 20.18 | 230.1 22.55 | 276.1 27.06 | 300.0 29.40 | 300.0 29.40 | 300.0 29.40 | 300.0 29.40 | 300.0 29.40 | 300.0 29.40 |
| | 9HFK □ BH | 90 | 110 | 60 | kgfcm N.m | 31.7 3.10 | 38.0 3.73 | 42.2 4.14 | 52.8 5.17 | 63.4 6.21 | 70.8 6.94 | 85.0 8.33 | 94.4 9.25 | 113.3 11.10 | 141.6 13.88 | 169.9 16.65 | 188.8 18.50 | |
| | | | 220 | 60 | kgfcm N.m | 31.7 3.10 | 38.0 3.73 | 42.2 4.14 | 52.8 5.17 | 63.4 6.21 | 70.8 6.94 | 85.0 8.33 | 94.4 9.25 | 113.3 11.10 | 141.6 13.88 | 169.9 16.65 | 188.8 18.50 | |
| | | | 220/240 | 50 | kgfcm N.m | 27.7 2.72 | 33.3 3.26 | 37.0 3.62 | 46.2 4.53 | 55.4 5.43 | 62.0 6.07 | 74.3 7.29 | 82.6 8.09 | 99.1 9.71 | 123.9 12.14 | 148.7 14.57 | 165.2 16.19 | |

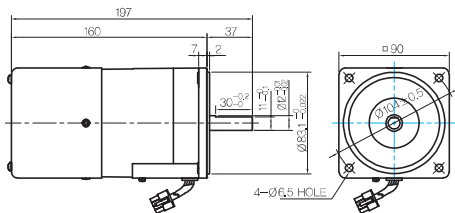
| Motor Model | Gearbox Model | 회전 속도 r/min | 전압 V | 주파수 Hz | 감속비 | 10 | 12 | 15 | 18 | 25 | 30 | 36 | 50 | 60 |
|-------------|-----------------------|-------------|---------|--------|--------------|--------------|--------------|--------------|--------------|---------------|----------------|----------------|----------------|----------------|
| 9SDG*-60F2W | 9WD □ BL/ □ BR/ □ BRL | 1200 | 110 | 60 | kgfcm N.m | 45.1 4.42 | 52.8 5.17 | 63.5 6.23 | 73.3 7.18 | 96.3 9.43 | 108.9 10.67 | 126.7 12.42 | 142.9 14.00 | 122.4 12.00 |
| | | | 220 | 60 | kgfcm N.m | 45.1 4.42 | 52.8 5.17 | 63.5 6.23 | 73.3 7.18 | 96.3 9.43 | 108.9 10.67 | 126.7 12.42 | 142.9 14.00 | 122.4 12.00 |
| | | | 220/240 | 50 | kgfcm N.m | 47.6 4.66 | 55.7 5.46 | 67.0 6.57 | 77.3 7.57 | 101.5 9.95 | 114.8 11.25 | 133.6 13.10 | 142.9 14.00 | 122.4 12.00 |
| | | 90 | 110 | 60 | kgfcm N.m | 13.1 1.29 | 15.4 1.51 | 18.5 1.81 | 21.3 2.09 | 28.0 2.74 | 31.7 3.10 | 36.9 3.61 | 48.0 4.70 | 52.8 5.17 |
| | | | 220 | 60 | kgfcm N.m | 13.1 1.29 | 15.4 1.51 | 18.5 1.81 | 21.3 2.09 | 28.0 2.74 | 31.7 3.10 | 36.9 3.61 | 48.0 4.70 | 52.8 5.17 |
| | | | 220/240 | 50 | kgfcm N.m | 13.1 1.29 | 15.4 1.51 | 18.5 1.81 | 21.3 2.09 | 28.0 2.74 | 31.7 3.10 | 36.9 3.61 | 48.0 4.70 | 52.8 5.17 |

| Motor Model | Gearbox Model | 회전 속도 r/min | 전압 V | 주파수 Hz | 감속비 | 5 | 7.5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 80 |
|----------------|---------------|-------------|---------|--------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|----------------|----------------|----------------|
| 9SDG □ -60F2WH | 9WHD □ -030 | 1200 | 110 | 60 | kgfcm N.m | 19.1 1.88 | 27.7 2.72 | 35.6 3.49 | 50.2 4.92 | 63.4 6.21 | 72.6 7.11 | 84.5 8.28 | 103.8 10.18 | 118.8 11.64 | 132.0 12.94 | 132.7 13.00 |
| | | | 220 | 60 | kgfcm N.m | 19.1 1.88 | 27.7 2.72 | 35.6 3.49 | 50.2 4.92 | 63.4 6.21 | 72.6 7.11 | 84.5 8.28 | 103.8 10.18 | 118.8 11.64 | 132.0 12.94 | 132.7 13.00 |
| | | | 220/240 | 50 | kgfcm N.m | 20.2 1.98 | 29.2 2.86 | 37.6 3.68 | 52.9 5.18 | 66.8 6.55 | 76.6 7.50 | 89.1 8.73 | 109.5 10.73 | 125.3 12.28 | 139.2 13.64 | 132.7 13.00 |
| | | 90 | 110 | 60 | kgfcm N.m | 7.0 0.68 | 10.1 0.99 | 13.0 1.27 | 18.2 1.79 | 23.0 2.26 | 26.4 2.59 | 30.7 3.01 | 37.8 3.70 | 43.2 4.23 | 48.0 4.70 | 56.3 5.52 |
| | | | 220 | 60 | kgfcm N.m | 7.0 0.68 | 10.1 0.99 | 13.0 1.27 | 18.2 1.79 | 23.0 2.26 | 26.4 2.59 | 30.7 3.01 | 37.8 3.70 | 43.2 4.23 | 48.0 4.70 | 56.3 5.52 |
| | | | 220/240 | 50 | kgfcm N.m | 7.0 0.68 | 10.1 0.99 | 13.0 1.27 | 18.2 1.79 | 23.0 2.26 | 26.4 2.59 | 30.7 3.01 | 37.8 3.70 | 43.2 4.23 | 48.0 4.70 | 56.3 5.52 |

Dimensions

MOTOR ONLY

- MOTOR MODEL:
9SDD□-60F2 (POWERFUL FAN)

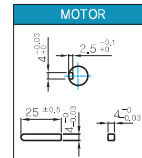


LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO.3271 AWG NO.20
T,G UL STYLE NO.1007 AWG No.22

MOTOR OUTPUT SHAFT

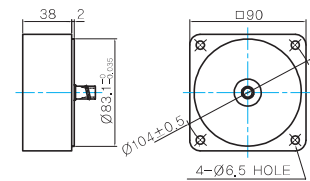
| MODEL | SPEC |
|------------|---|
| D-CUT TYPE | 37 30 ^{+0.03} 1.1 ^{+0.03} Ø12.5 ^{+0.03} |
| KEY TYPE | 37 25 ^{+0.03} 1.1 ^{+0.03} Ø12.5 ^{+0.03} |
| 9SDD□-60F2 | |
| 9SDK□-60F2 | |

KEY SPEC



중간감속기

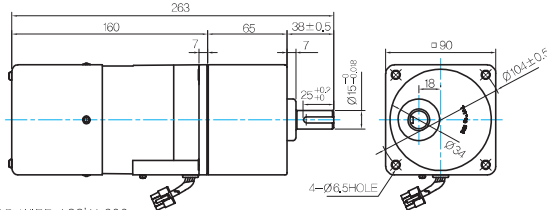
- MODEL: 9XD10□□



GEARED MOTOR

P TYPE GEARBOX

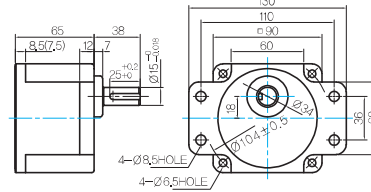
- MOTOR MODEL:
9SDG□-60F2P (POWERFUL FAN)



LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO.3271 AWG NO.20
T,G UL STYLE NO.1007 AWG No.22

- GEARBOX MODEL:
9PBK□BH

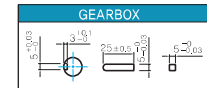
- GEARBOX MODEL:
9PFK□BH



GEARBOX OUTPUT SHAFT

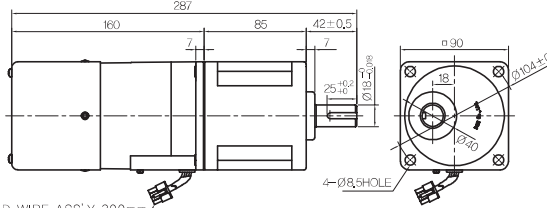
| MODEL | SPEC |
|----------|---|
| KEY TYPE | 38 25 ^{+0.03} 1.1 ^{+0.03} Ø12.5 ^{+0.03} |
| 9PBK□BH | |
| 9PFK□BH | |

KEY SPEC



H TYPE GEARBOX

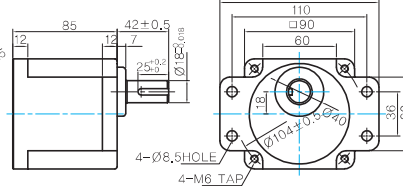
- MOTOR MODEL:
9SDG□-60F2H (POWERFUL FAN)



LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO.3271 AWG NO.20
T,G UL STYLE NO.1007 AWG No.22

- GEARBOX MODEL:
9HBK□BH

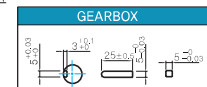
- GEARBOX MODEL:
9HFK□BH



GEARBOX OUTPUT SHAFT

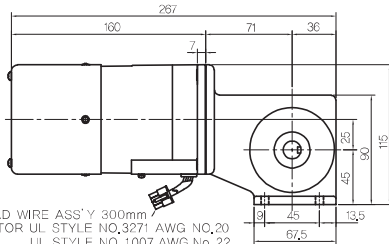
| MODEL | SPEC |
|----------|---|
| KEY TYPE | 42 25 ^{+0.03} 1.1 ^{+0.03} Ø12.5 ^{+0.03} |
| 9HBK□BH | |
| 9HFK□BH | |

KEY SPEC



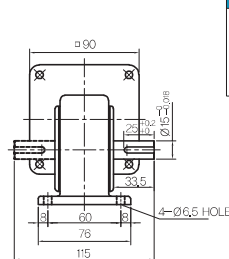
W TYPE GEARBOX

- MOTOR MODEL:
9SDG□-60F2W (POWERFUL FAN)



LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO.3271 AWG NO.20
T,G UL STYLE NO.1007 AWG No.22

- GEARBOX MODEL:
9WD□BL/BR/BRL



KEY SPEC

