

C DC Motors

DC Motor 60W(□90mm)

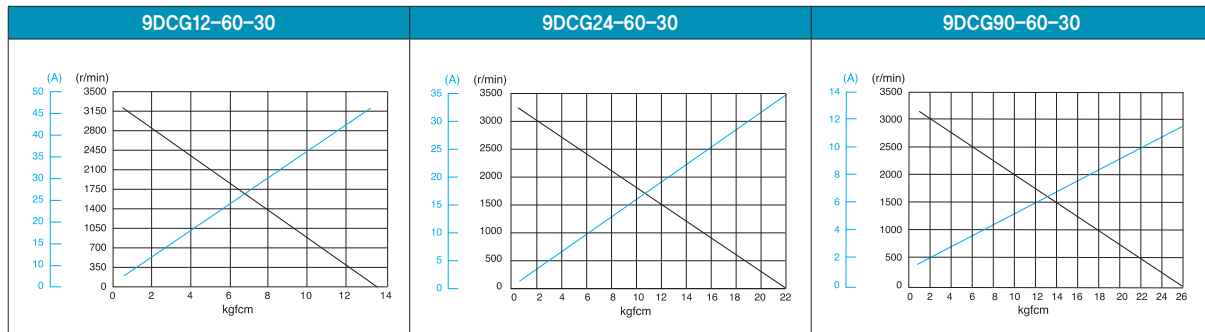
60W DC Motor 60W(□90mm)

Motor Specification

| Model 9DCP(W)□-60-30: Gear Type Shaft 9DCD□-60-30: D-Cut Type Shaft 9DCK□-60-30: Key Type Shaft | Output W | Voltage V | Starting Current A | Starting Torque | | No Load | | Rated Load | | | |
|--|-------------|--------------|-----------------------|-----------------|-------|--------------|----------------|--------------|----------------|---------------------|-------|
| | | | | kgfcm | N.m | Current A | Speed r/min | Current A | Speed r/min | Torque kgfcm N.m | |
| 9DCP(W)12-60-30 | 60 | 12 | 50.00 | 13.00 | 1.300 | 2.00 | 3400 | 8.50 | 2900 | 1.95 | 0.195 |
| 9DCP(W)24-60-30 | 60 | 24 | 36.00 | 19.00 | 1.900 | 1.15 | 3300 | 4.30 | 3000 | 1.95 | 0.195 |
| 9DCP(W)90-60-30 | 60 | 90 | 11.50 | 25.00 | 2.500 | 0.02 | 3250 | 0.80 | 3000 | 1.95 | 0.195 |

- 1) Enter the phase & voltage code in the in the box (□) within the motor model name.
- 2) Gear Type Shaft are for attaching Gearbox and D-Cut & Key Type Shafts are for using motor only.

Performance Curve



Max. Permissible Torque at Output Shaft of Gearbox

| Motor Model | Gearbox Model | Gear Ratio r/min | 2 | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 | | |
|-------------------------|------------------------------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | 1500 | 1000 | 833 | 600 | 500 | 400 | 333 | 240 | 200 | 167 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 40 | 33 | 30 | 25 | 20 | 17 | 17 | | |
| 9DCP □ -60- 30 | 9PBK □ BH 9PFK□ BH | Rated | kgfcm | 3.2 | 4.9 | 5.8 | 8.1 | 9.7 | 12.1 | 14.6 | 18.3 | 21.9 | 26.3 | 26.5 | 33.2 | 39.8 | 47.7 | 53.0 | 66.3 | 79.6 | 89.2 | 107.1 | 119.0 | 142.7 | 178.4 | 200.0 | 200.0 | |
| | | N.m | 0.32 | 0.48 | 0.57 | 0.79 | 0.95 | 1.19 | 1.43 | 1.79 | 2.15 | 2.58 | 2.60 | 3.25 | 3.90 | 4.68 | 5.20 | 6.50 | 7.80 | 8.74 | 10.49 | 11.66 | 13.99 | 17.49 | 19.60 | 19.60 | | |
| | | 12V | kgfcm | 21.6 | 32.4 | 38.8 | 54.0 | 64.7 | 80.9 | 97.1 | 121.9 | 146.3 | 175.5 | 176.8 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 |
| | | N.m | 2.11 | 3.17 | 3.81 | 5.29 | 6.34 | 7.93 | 9.52 | 11.94 | 14.33 | 17.20 | 17.33 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | |
| | | 24V | kgfcm | 31.5 | 47.3 | 56.8 | 78.9 | 94.6 | 118.3 | 141.9 | 178.1 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 |
| | | N.m | 3.09 | 4.64 | 5.56 | 7.73 | 9.27 | 11.59 | 13.91 | 17.46 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 |
| 90V | kgfcm | 41.5 | 62.3 | 74.7 | 103.8 | 124.5 | 155.6 | 186.8 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | 200.0 | | |
| N.m | 4.07 | 6.10 | 7.32 | 10.17 | 12.20 | 15.25 | 18.30 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | 19.60 | | |

| Motor Model | Gearbox Model | Gear Ratio | | 10 | 12 | 15 | 18 | 25 | 30 | 36 | 50 | 60 |
|-------------|---------------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | r/min | r/min | 300 | 250 | 200 | 167 | 120 | 100 | 83 | 60 | 50 |
| 9DCW□-60-30 | 9WD□BL/□BR/ □BRL | Rated | kgfcm | 16.0 | 18.7 | 22.5 | 26.0 | 34.1 | 38.6 | 44.9 | 58.5 | 64.4 |
| | | N.m | 1.57 | 1.83 | 2.21 | 2.55 | 3.34 | 3.78 | 4.40 | 5.73 | 6.31 | |
| | | 12V | kgfcm | 106.6 | 124.8 | 150.2 | 153.1 | 142.9 | 163.3 | 153.1 | 142.9 | 122.4 |
| | | N.m | 10.45 | 12.23 | 14.71 | 15.00 | 14.00 | 16.00 | 15.00 | 14.00 | 12.00 | |
| | | 24V | kgfcm | 155.8 | 153.1 | 163.3 | 153.1 | 142.9 | 163.3 | 153.1 | 142.9 | 122.4 |
| | | N.m | 15.27 | 15.00 | 16.00 | 15.00 | 14.00 | 16.00 | 15.00 | 14.00 | 12.00 | |
| 90V | kgfcm | 163.3 | 153.1 | 163.3 | 153.1 | 142.9 | 163.3 | 153.1 | 142.9 | 122.4 | | |
| N.m | 16.00 | 15.00 | 16.00 | 15.00 | 14.00 | 16.00 | 15.00 | 14.00 | 12.00 | | | |

- 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.

