

44mm Brushless DC Motor



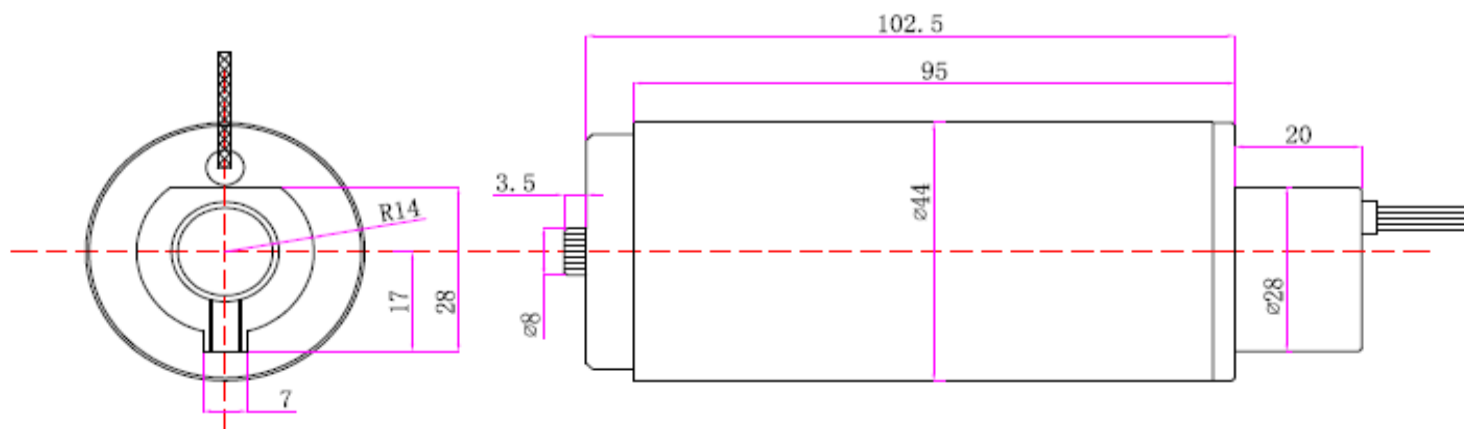
4490

General Specifications

| | |
|-----------------------------|-------------------------|
| Number of phases | 3 |
| Number of poles | 2 |
| Operating temperature range | -30°C ~ 85°C |
| Commutation | Electrically commutated |
| Bearing type | Shielded ball bearings |
| Housing material | Black anodized aluminum |
| Magnet material | Sintered Nd-Fe-B |
| Direction of rotation | Reversible |
| Insulation Class | Class B (130°C max.) |
| Dielectric strength | 500 VDC for one minute |
| Insulation resistance | 100Mohms min., 500VDC |

| Model | | DM4490-24 | | | |
|---------------------------------|------------------------------------|-------------|--|--|--|
| Nominal Voltage | V | 24 | | | |
| Rated Speed | RPM | 4551 | | | |
| Rated Current | A | 5.66 | | | |
| Rated Torque | mNm | 226.94 | | | |
| Rated Efficiency | % | 80 | | | |
| Phase Resistance | W | 0.5 | | | |
| Output Power | P | 281.44 | | | |
| Max. Efficiency | % | 80 | | | |
| No-Load Speed | RPM | 5100 | | | |
| No-Load Current | A | 0.55 | | | |
| Stall Torque | mNm | 2107.87 | | | |
| Friction Torque | mNm | 24.43 | | | |
| Back EMF Constant | mV/RPM | 4.65 | | | |
| Torque Constant | mNm/A | 44.42 | | | |
| Slope of Speed vs. Torque Curve | RPM/mNm | 2.42 | | | |
| Mechanical time Constant | mS | 4.09 | | | |
| Rotor Inertia | g-cm ² | 161.34 | | | |
| Max. Angular Acceleration | 10 ³ rad/s ² | 130.65 | | | |
| Sensor | | Hall Sensor | | | |
| Driver Recommendation | | DR2404 | | | |
| Weight | g | 560 | | | |
| Motor Body Length | "L" | 90 | | | |

Performance Curve



Performance Curve

