

PMSM SPECIFICATION

MODEL:180TM-32015I5-C

| Basic Parameters | | | |
|--|---|-----------------------------------|------------------------------|
| Rated Output (Kw) | 5.0 | Number of Poles | 10 |
| Rated Voltage (V) | DC96 | Vibration Class | F |
| Rated Speed (rpm) | 1500 | Max. Speed (rpm) | 2000 |
| Rated Current (Arms) | 64±10% | Instantaneous Max. Current (Arms) | 128±10% |
| Rated Torque (N.m) | 32 | Instantaneous Peak Torque (N.m) | 64 |
| Line Resistance (Ω) | ±10% (25℃) | Line Inductance (mH) | ±10% |
| Line Back EMF. (V/krpm) | 30±10% | Torque Coefficient (N.m/A) | 0.49±10% |
| Rotor Moment of Inertia (Kg.m ² ×10 ⁻⁴) | 122±10% | Feedback Component | Incremental Encoder, 2500PPR |
| Static Torque (N.m) | - | Rated Voltage (V) | - |
| Insulation Resistance (MΩ) | DC500V, >20MΩ | Noise (dB) | ≤60dB, None Special Noise |
| Time Rating | Continuous | Vibration Class | V 15 |
| Ambient Temperature | -20~+40℃ | Ambient Humidity | 20~80% No Condensation |
| Excitation | Permanent Magnet | Mounting | Flange Method |
| Drive Method | Direct Drive | Weight (Kg) | 22.7 |
| Enclosure | Totally Enclosed, Self-cooled, IP54 (IP65 optional) (except for shaft opening) | | |
| Rotation Direction | Counterclockwise (CCW) | | |

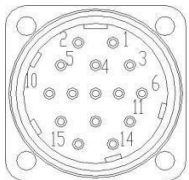
※Rated torque is the continuous allowable torque at 40℃ with an Fe heat sink of 550×550×30.

Connectors

Power line socket

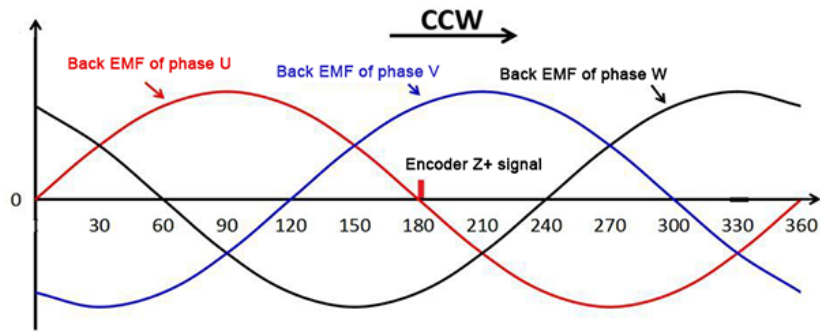
| | | | | |
|--------------|--------------|-----|------|-------|
| Signal Leads | PE | U | V | W |
| Colour | Yellow-Green | Red | Blue | Black |

Encoder socket (Aviation connector model: YD18-15)

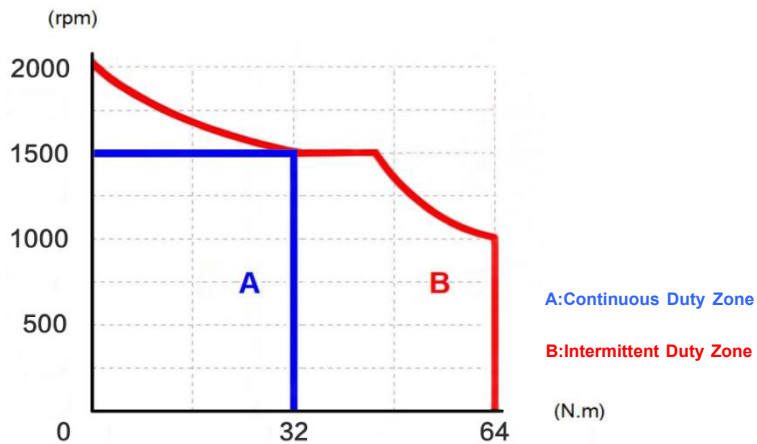


| | | | | | | | | | | | | | | | |
|----------------|----|-----|-------|------|-------|--------|------------|-------------|--------------|--------|------|-------|----|----|----|
| Socket Numbers | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Colour | | Red | Black | Blue | Green | Yellow | Blue-Black | Green-Black | Yellow-Black | Orange | Grey | White | | | |
| Signal Leads | PE | 5V | 0V | A+ | B+ | Z+ | A- | B- | Z- | U+ | V+ | W+ | | | |

Encoder zero point and phase relationship of the motor

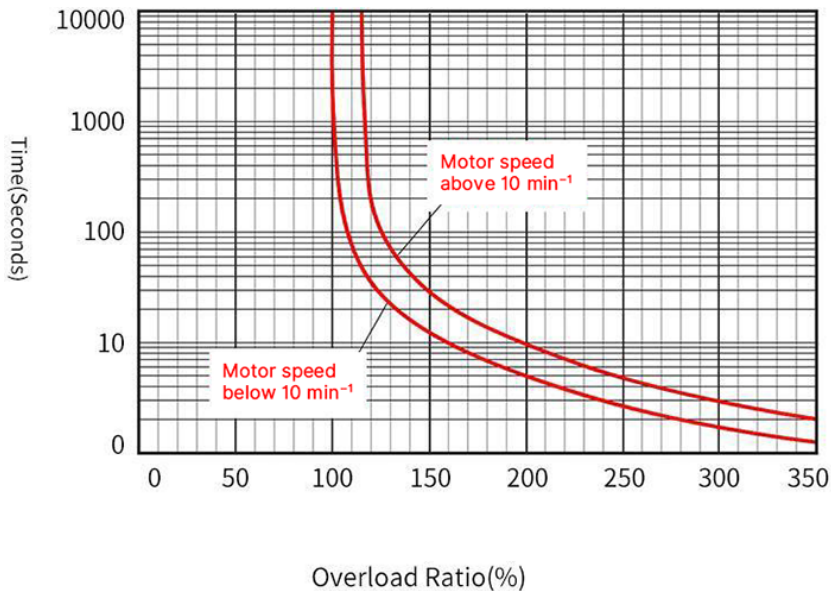


Torque-speed Characteristics



Overload Characteristics

The characteristics is measured in the warm-boot conditions at 40°C :



※1:The above characteristics do not supply 100% output for continuous running.

※2:Please make sure that the effective torque is in the range of T-N characteristics' continuous duty zone.

※3:Specification are subject to change without notice for ongoing product modification and improvement, please pay more attentions to the related information.

Motor Outline Reference Drawing

