

PMSM SPECIFICATION

MODEL:180TM-23015C5-C

Basic Parameters			
Rated Output (KW)	3.5	Number of Poles	10
Rated Voltage (V)	DC48	Vibration Class	F
Rated Speed (rpm)	1500	Max. Speed (rpm)	2000
Rated Current (Arms)	87.1±10%	Instantaneous Max.Current (Arms)	174.2±10%
Rated Torque (N.m)	23	Instantaneous Peak Torque (N.m)	46
Line Resistance (Ω)	±10%(25℃)	Line Inductance (mH)	±10%
Line Back EMF.(V/krpm)	15.95±10%	Torque Coefficient (N.m/A)	0.26±10%
Rotor Moment of Inertia (Kg.m ² ×10 ⁻⁴)	60±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	V15
Ambient Temperature	-20~+40℃	Ambient Humidity	20~80% No Condensation
Excitation	Permanent Magnet	Mounting	Flange Method
Drive Method	Direct Drive	Weight (Kg)	14.5
Enclosure	Totally Enclosed, Self-cooled, IP54(IP65 optional)(except for shaft opening).		
Rotation Direction	Counterclockwise (CCW)		

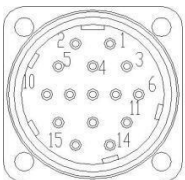
※ Rated torque is the continuous allowable torque at 40℃ with an Fe heat sink of 550×550×30.

Connectors

Power line socket

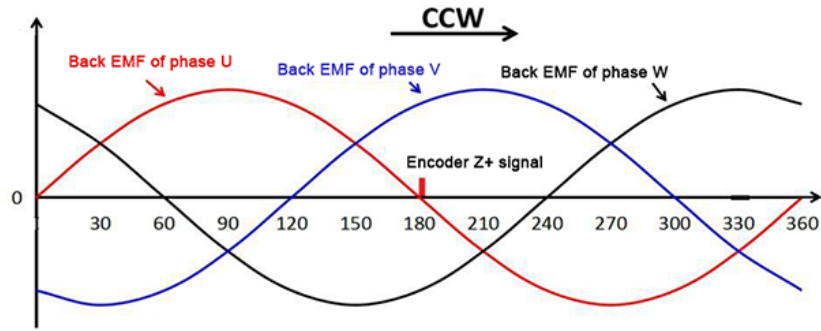
Signal leads	PE	U	V	W
Colour	Yellow-green	Red	Blue	Black

Encoder socket((Aviation connector model: YD18-15)

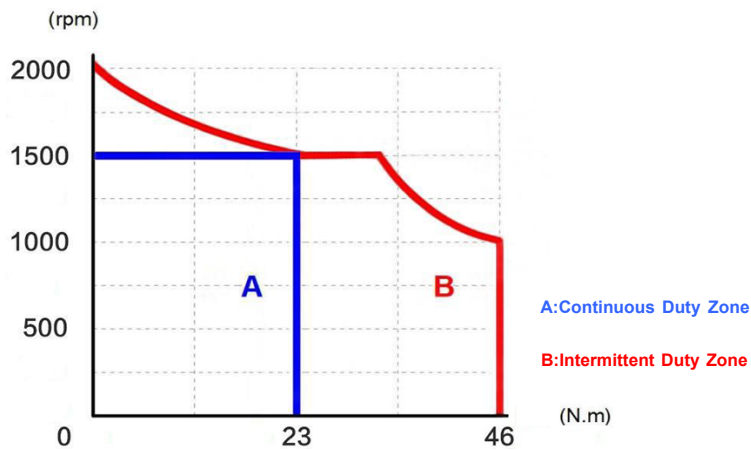


Socket Numbers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Colour		Red	Black	Blue	Green	Yellow	Blue and Black	Green and Black	Yellow and Black	Brown	Grey	White			
Signal leads	PE	5V	0V	A+	B+	Z+	A-	B-	Z-	U+	V+	W+			

Encoder zero point and phase relationship of the motor

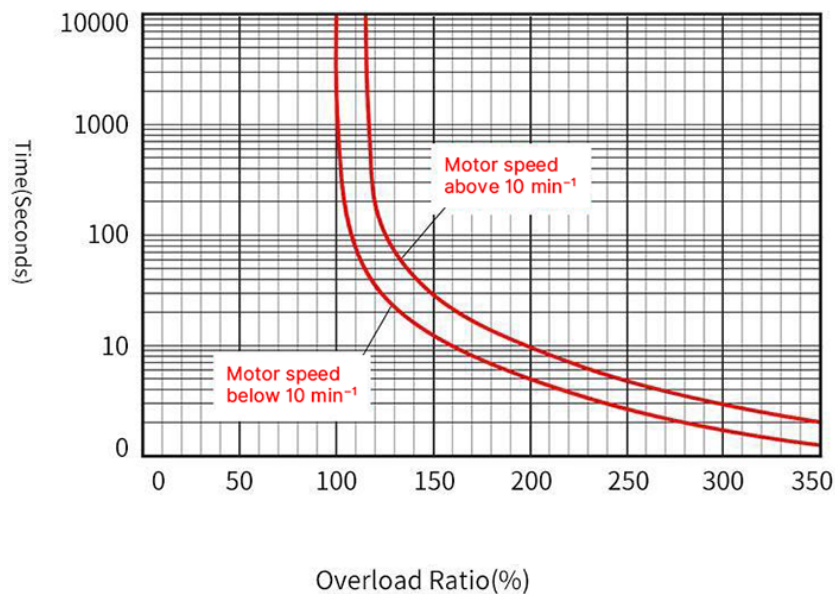


Torque-speed Characteristics



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

