ATO

PMSM SPECIFICATION

MODEL:180TM-48015I5-C

Basic Parameters			
Rated Output (Kw)	7.5	Number of Poles	10
Rated Voltage (V)	DC96	Vibration Class	F
Rated Speed (rpm)	1500	Max. Speed (rpm)	2000
Rated Current (Arms)	101.5±10%	Instantaneous Max. Current (Arms)	203±10%
Rated Torque (N.m)	48	Instantaneous Peak Torque (N.m)	96
Line Resistance (Ω)	0.014±10% (25℃)	Line Inductance (mH)	0.236±10%
Line Back EMF. (V/krpm)	29.2±10%	Torque Coefficient (N.m/A)	0.48±10%
Rotor Moment of Inertia ($Kg.m^2×10^{-4}$)	150±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)	32
Enclosure	Totally Enclosed, Self-cooled, IP54 (IP65 optional) (except for shaft opening)		
Rotation Direction	Counterclockwise (CCW)		

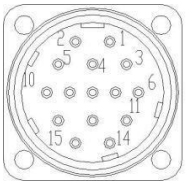
※Rated torque is the continuous allowable torque at 40℃ with an Fe heat sink of 550×550×30.

Connectors

Power line socket

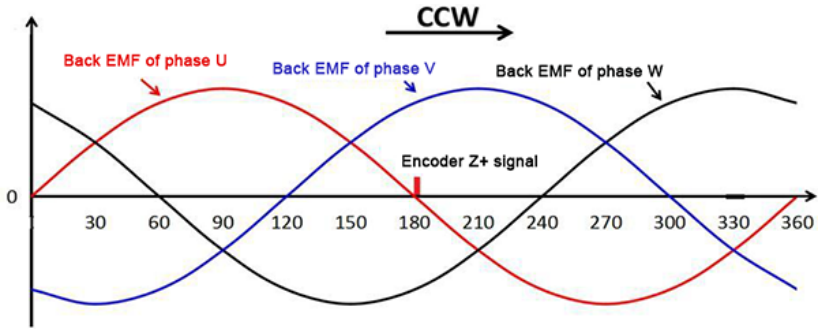
Colour	Yellow-Green	Red	Blue	Black
Signal Leads	PE	U	V	W

Encoder socket (Aviation connector model: YD18-15)

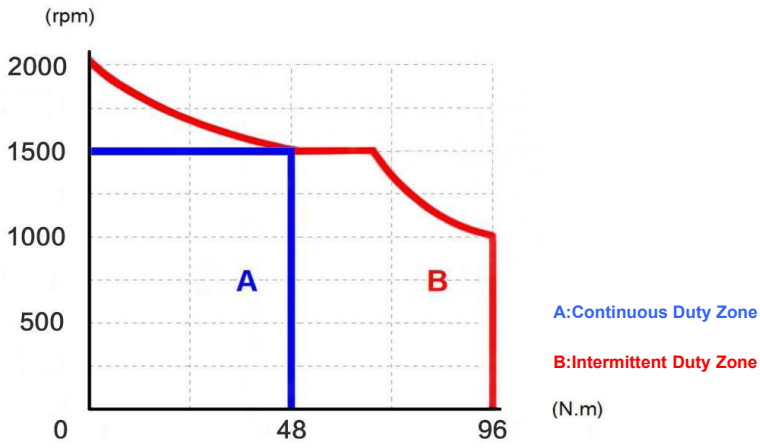


Socket Numbers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Colour		Red	Black	Blue	Green	Yellow	Blue-Black	Green-Black	Yellow-Black	Orange	Grey	White			
Signal Leads	PE	5V	0V	A+	B+	Z+	A-	B-	Z-	U+	V+	W+			

Encoder zero point and phase relationship of the motor

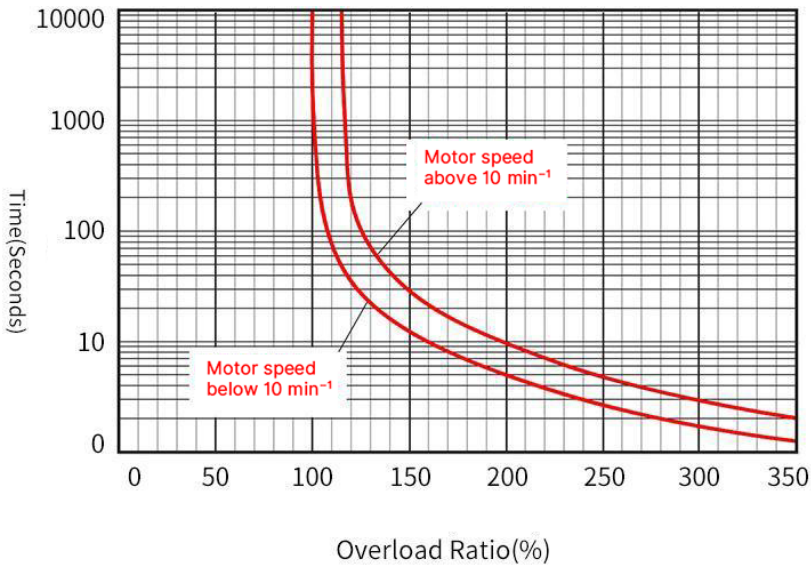


Torque-speed Characteristics



Overload Characteristics

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



※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.

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Motor Outline Reference Drawing