Series Name
RMD-X

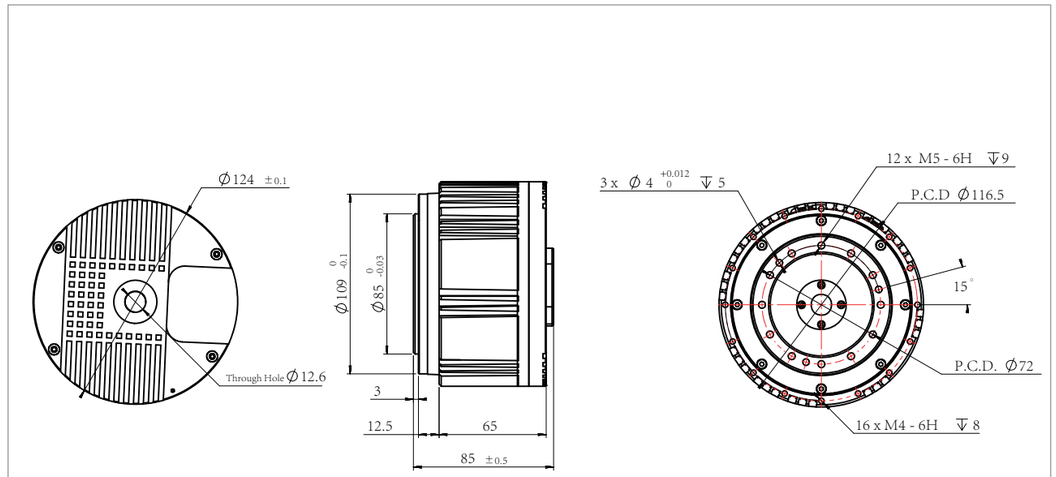
Motor Simplified Name
X12-320



Dual encoder

Actuator Full Name	With Brake/Without Brake	Communication
RMD-X12-P20-320-E	N (without Brake)	EtherCAT / CAN BUS

Installation Drawing



Product Parameters

Parameters		Unit	X12-320
Reduction Ratio		—	20
Input Voltage		V	48
Voltage Range		V	20-70
No-Load Speed		RPM	125
No-Load Input Current		A	2.7
Rated Speed		RPM	100
Rated Torque		N.m	85
Rated Output Power		W	900
Rated Phase Current		A(rms)	30
Peak Torque		N.m	320
Peak Phase Current		A(rms)	100
Efficiency		%	75
Motor Back EMF Constant		Vdc/Krpm	17.9
Module Torque Constant		N.m/A	3.3
Line Resistance		Ω	0.12
Line Inductance		mH	0.05
Pole Pairs		—	20
Wiring Mode		—	Y
Backdrive Torque		N.m	3.8
Backlash		Arcmin	≤15
Output Bearing Type		—	Crossed Roller Bearings
Axial Load	Tensile load	KN	4.5
	Compressive load	KN	4.5
Radial Load		KN	5
Moment of Inertia		Kg.cm²	12.9
Encoder Type		—	Dual Encoder ABS-17BIT (Input) /17BIT (Output)
Control Accuracy		Degree	<0.01
Communication Interface		—	EtherCAT & CAN BUS
Weight		Kg	2.37
Insulation Class		—	F

Note:
1.The maximum operating voltage of the motor is 70V. It is recommended that customers add an external capacitor to regulate voltage, so as to ensure stable battery power supply and protect the PCB from damage caused by voltage fluctuations.
2. If voltage exceeds the rated value, the operating speed must not exceed the motor's rated speed.

Stall Torque Data

	Torque (N.m)	Temperature Rise (℃)	Stall Time (s)	Phase Current (Arms)
X12-320	150	13	10	37.5
	200	5	8	49.5
	250	7	7	61.5
	300	43	3	75.3