

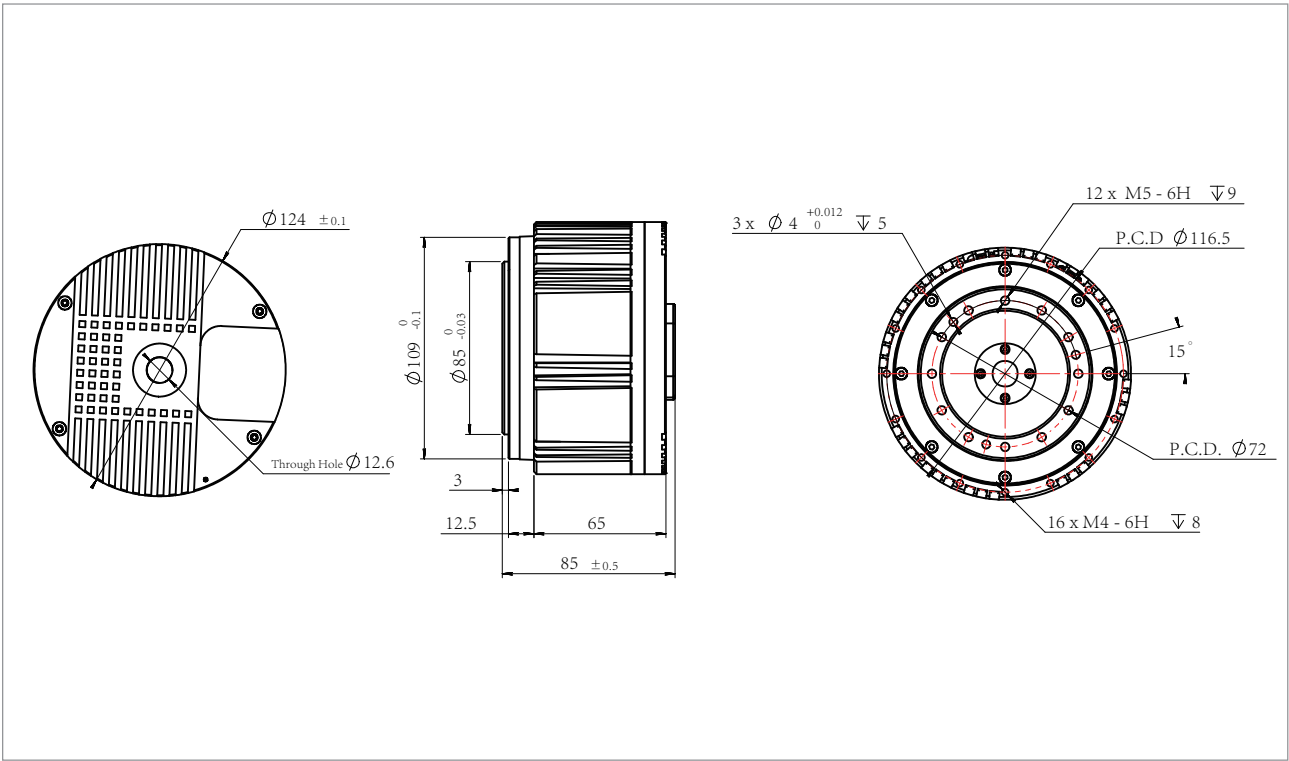
Series Name
RMD-X
Motor Simplified Name
X12-320



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
	Compressive load	KN
Radial Load	KN	5
Moment of Inertia	Kg.cm ²	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:

- The maximum operating voltage of the motor is 55V. 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.
- 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 (°C)	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