

Series Name

EPS-RH

Motor Simplified Name

RH-25

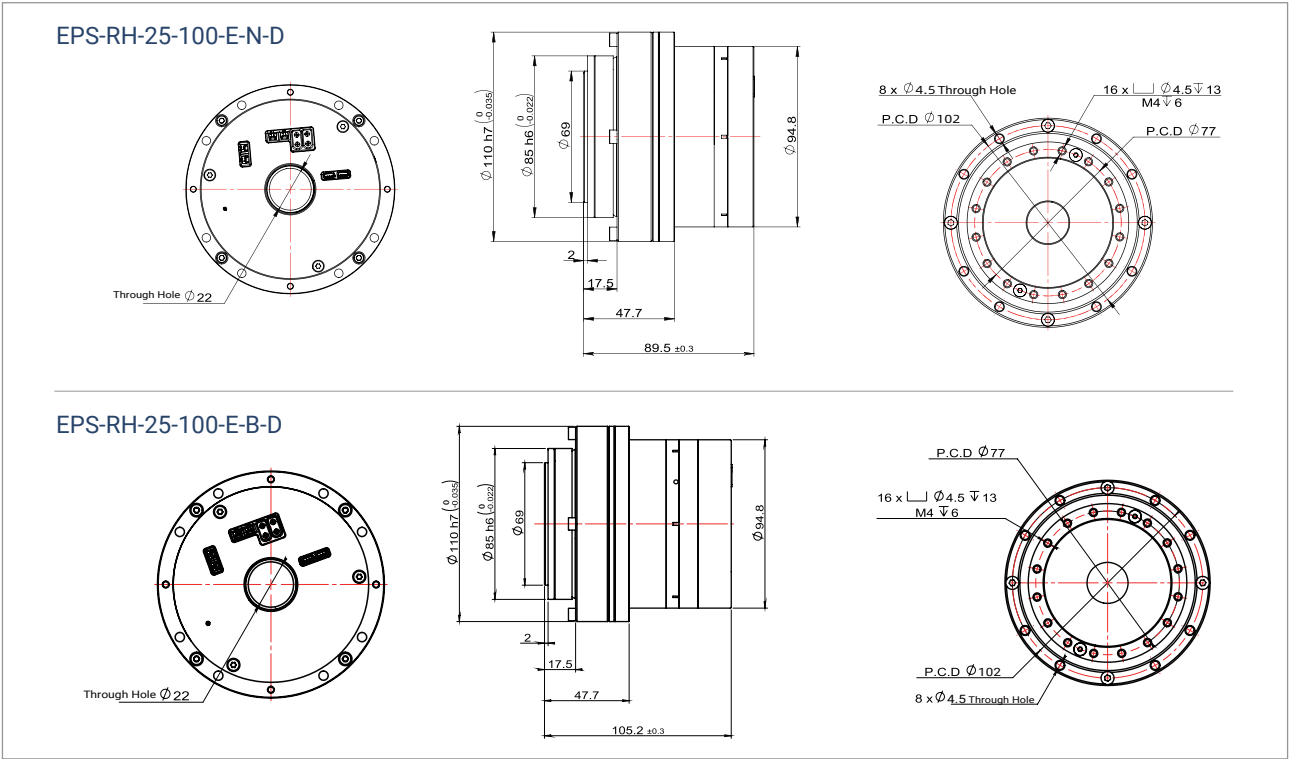


Dual encoder

Actuator Full Name	Communication	With Brake/Without Brake	Gear ratio
EPS-RH-25-100-E-N-D	CAN BUS & EtherCAT	N (without brake)	100
EPS-RH-25-100-E-B-D	CAN BUS & EtherCAT	B (with brake)	100

- * 1. The standard model supports brake or without brake.
* 2. The standard model supports both CAN BUS & EtherCAT.
* 3. The standard model does not have waterproof function. For IP54, please contact sales before ordering.
* 4. 50:1 gear ratio is available, please contact sales to confirm the lead time before ordering.

Installation Drawing



Product Parameters

Parameters	Unit	RH-25
Gear ratio	—	50 100
Input Voltage	V	48
Voltage Range	V	20-55
No Load Speed	RPM	60 30
No Load Current	A	1.8 2
Rated Speed	RPM	50 25
Rated Torque	N.m	54 108
Rated Power	W	282
Rated Current	A(rms)	10.6
Peak Torque	N.m	78.5 157
Peak Current	A(rms)	14.1
Motor Back-EMF Constant	Vdc/Krpm	19.2
Module Torque Constant	N.m/A	5.05 10.1
Line Resistance	Ω	0.16
Line Inductance	mH	0.33
Pole Pairs	—	10
3 Phase Connection	—	Y
Backlash	Arcsec	≤ 40
Radial Load	Static Load	KN
	Dynamic Load	KN
Axial Load	Static Load	KN
	Dynamic Load	KN
Inertia	N	kg.cm ²
	B	kg.cm ²
Encoder Type	—	Dual Encoder ABS-17BIT (Input) ABS-17BIT (Output)
Repeat Position Accuracy	Degree	< 0.01
Communication	—	CAN BUS & EtherCAT
Weight	N	Kg
	B	Kg
Insulation Grade	—	F

Note:

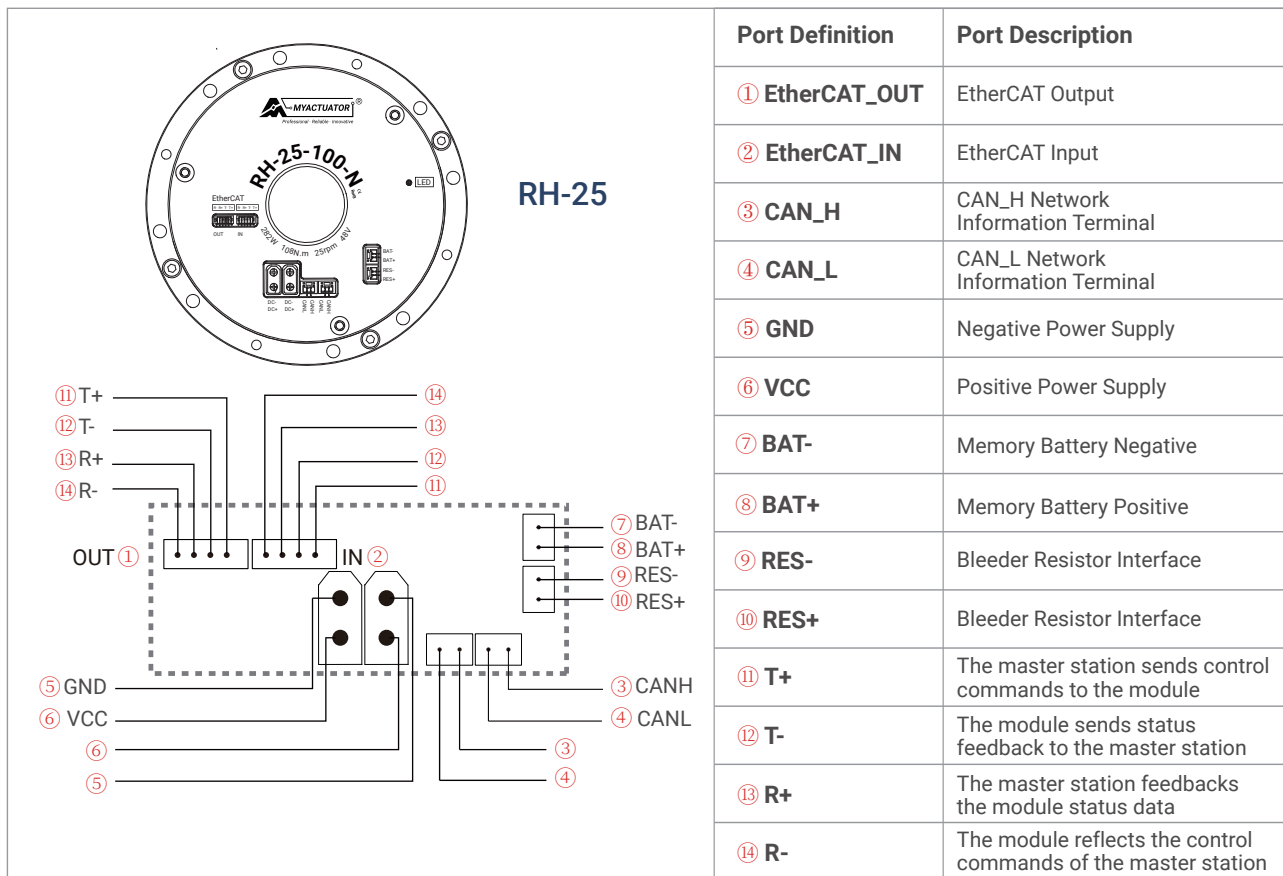
1. The maximum operating voltage of the motor is 55V. It is recommended that customers add an external capacitor to regulate voltage, so as to ensure stable battery power supply and protect the PCB from damage caused by voltage fluctuations.
2. If voltage exceeds the rated value, the operating speed must not exceed the motor's rated speed.

* **Rated torque test method:** When the ambient temperature is 24 degrees Celsius (no other heat dissipation methods), the test is performed at the rated speed. The motor torque reaches temperature balance under the condition of a temperature rise of 60 degrees Celsius, and the long-term working point is the rated torque value of the motor.

Stall Torque Data

	Torque (N.m)	Temperature Rise (°C)	Stall Time (s)	Phase Current (Arms)
RH-25	162	3	15	18
	216	9	10	22.1
	256	39	5	24.6

RH-25 Interface Description



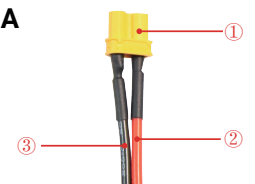
RH-25 Packaging Information



List:

- A. Power Supply Cable *2
- B. CAN BUS Communication Cable *2 / Bleeder Resistor Cable *1 / Multi-turn battery Cable *1
- C. 120Ω Terminal Resistance *1
- D. EtherCAT Communication Cable *2
- E. CAN BUS Communication Module *1
- F. RJ45 Adapter Plate V1.0 *1 (For Ethercat version)

RH-25 Accessories Marking Instructions

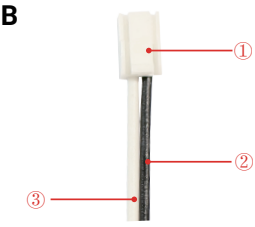


A

Power Supply Cable

① XT30U-F 14AWG Connector

② Red Line	VCC Positive Power Supply	14AWG 20cm
③ Black Line	GND Negative Power Supply	14AWG 20cm

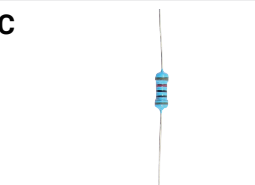


B

CAN BUS Communication Cable / Bleeder Resistor Cable / Multi-turn battery Cable

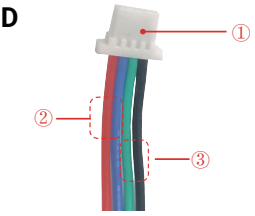
① GH1.25-2P Connector

② Black Line	CAN_H Network Information Terminal / Negative Power Supply / Negative Power Supply	300mm
③ White Line	CAN_L Network Information Terminal / Positive Power Supply / Positive Power Supply	300mm



C

120Ω Terminal Resistance

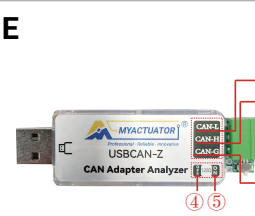


D

EtherCAT Communication Cable

① SH1.0mm(4pin) Connector

② T	EtherCAT Transmission Wire	480mm
③ R	EtherCAT Receiving Wire	480mm

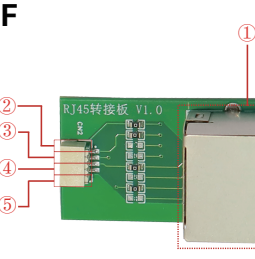


E

CAN BUS Communication Module

① CAN-L	CAN_L NetworkInformation Terminal
② CAN-H	CAN_H Network Information Terminal
③ CAN-G	GND Ground
④ OFF	120Ω Terminal Resistance
⑤ ON	120Ω Terminal Resistance

Notes: Each order includes one USB-CAN adapter. For additional adapters, please contact our sales team to place an order.



F

RJ45 Adapter Plate V1.0

① RJ45 Connector	Wired Network Interface
② T+	The master station sends control commands to the module
③ T-	The module sends status feedback to the master station
④ R+	The master station feedbacks the module status data
⑤ R-	The module reflects the control commands of the master station

Notes: Ethercat version - Each order includes one RJ45 adapter. For additional adapters, please contact our sales team to place an order.