

PRODUCT DATASHEET

ES-ST-11H2045-100-4AL

Hybrid Stepper Motors

Hybrid Stepper Motors | 28 mm Hybrid Stepper Motor Series - ES-ST-HY03

Product Overview

Hybrid Stepper Motors with holding Torque 0.1 Nm, continuous Rated Current 1 A and step Angle 1.8 °.

Key Specifications

PARAMETER	VALUE	UNIT
Holding Torque	0.1	Nm
Continuous Rated Current	1	A
Step Angle	1.8	°
Body Length	45	mm
Weight	0.2	kg
Temperature Rise	80	°C
Number of Phases	2	
Phase Resistance	4.1 ±10%	Ω
Insulation Class	B	

Technical Specifications

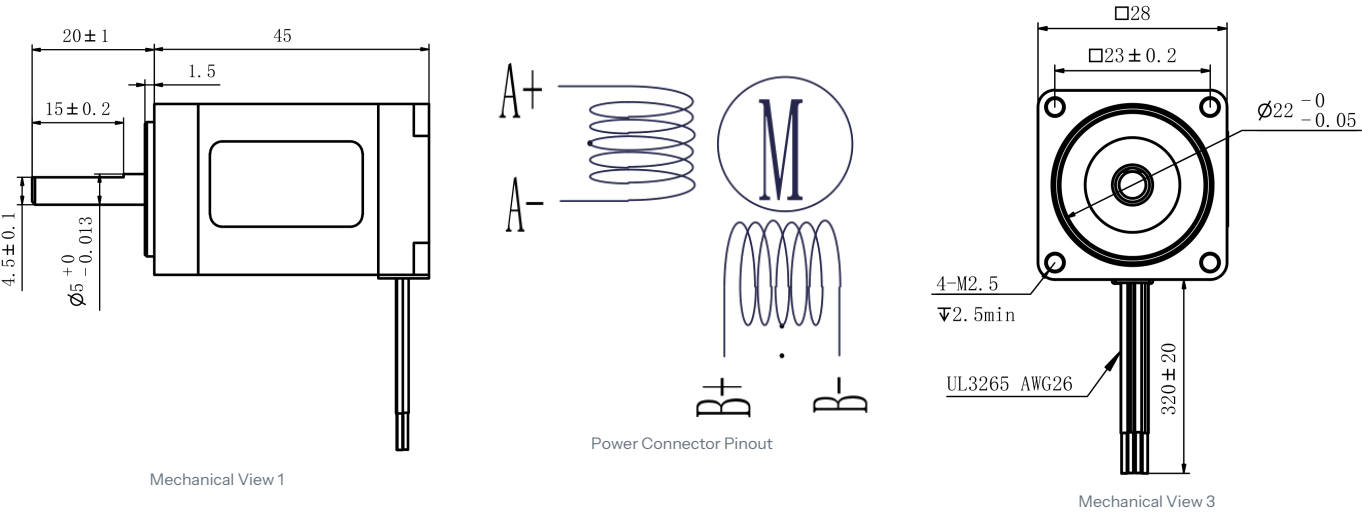
PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Holding Torque	0.1	Nm	
ELECTRICAL			
Continuous Rated Current	1	A	
Step Angle	1.8	°	
Temperature Rise	80	°C	
Number of Phases	2		
Phase Resistance	4.1 ±10%	Ω	Measurement: 20 °C
Phase Inductance	4 ±20%	mH	Measurement: 1V, 1kHz
Insulation Class	B		
Insulation Resistance	100 (500 VDC)	MΩ	
MECHANICAL			
Body Length	45	mm	
Weight	0.2	kg	

Dimensional & Integration Overview

Mechanical Overview

PARAMETER	VALUE	UNIT
Body Length	45	mm
Weight	0.2	kg

Dimensional Drawings



2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Motor body length	45 mm
	Shaft extension length	20 ±1 mm
	Shoulder or clearance length	1.5 mm
	Shaft step length	15 ±0.2 mm
	Shaft flat or cut height	4.5 ±0.1 mm
	Shaft diameter with tolerance	Diameter 5 mm, +0/-0.013 mm
Mechanical View 3	Square housing outside size	Square 28
	Mounting hole center distance	Square bolt pattern 23 ±0.2
	Central shaft/boss diameter tolerance	Diameter 22, upper deviation -0, lower deviation -0.05
	Mounting threaded hole quantity and thread size	4 × M2.5 threaded holes
	Minimum threaded hole depth	Depth 2.5 minimum

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01 Specifications are subject to change without notice. Verify the current product configuration before final design release.

02 2D drawings, CAD files and integration documentation are controlled documents and are supplied separately on request.