

PRODUCT DATASHEET

ES-ST-11H2052-100-4BL

Hybrid Stepper Motors

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

Product Overview

Hybrid Stepper Motors with holding Torque 0.14 N·m, continuous Rated Current 1 A and step Angle 1.8 °.

Key Specifications

PARAMETER	VALUE	UNIT
Holding Torque	0.14	N·m
Continuous Rated Current	1	A
Step Angle	1.8	°
Body Length	52	mm
Weight	0.28	kg
Temperature Rise	80	°C
Number of Phases	2	
Phase Resistance	4.7 ±10%	Ω
Insulation Class	B	

Technical Specifications

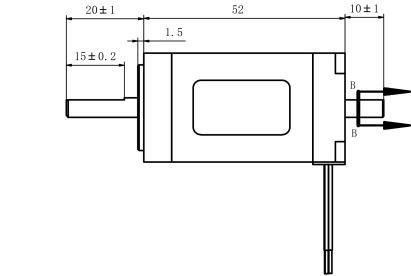
PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Holding Torque	0.14	Nm	
ELECTRICAL			
Continuous Rated Current	1	A	
Step Angle	1.8	°	
Temperature Rise	80	°C	
Number of Phases	2		
Phase Resistance	4.7 ±10%	Ω	Measurement: 20 °C
Phase Inductance	4.6 ±20%	mH	Measurement: 1V, 1kHz
Insulation Class	B		
Insulation Resistance	100 (500 VDC)	MΩ	
MECHANICAL			
Body Length	52	mm	
Weight	0.28	kg	

Dimensional & Integration Overview

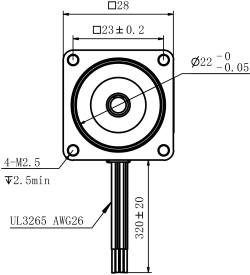
Mechanical Overview

PARAMETER	VALUE	UNIT
Body Length	52	mm
Weight	0.28	kg

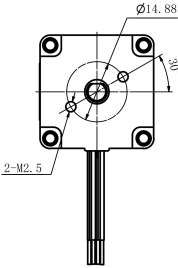
Dimensional Drawings



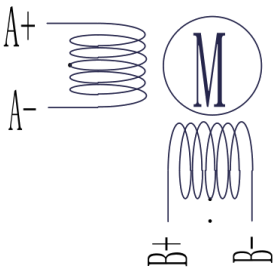
Mechanical View 1



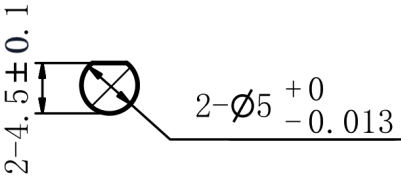
Mechanical View 3



Mechanical View 4



Power Connector Pinout



Mechanical View 5

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Left mounting face length	20±1
	Motor body length	52
	Right mounting face length	10±1
	Left protrusion depth	1.5
	Left mounting platform width	15±0.2
	Datum B (upper)	Datum B
	Datum B (lower)	
Mechanical View 3	Motor housing square dimension	28 mm square
	Mounting face square dimension with tolerance	23±0.2 mm square
	Output shaft diameter with unilateral tolerance	Φ22 0/-0.05 mm
	Mounting screw holes specification and quantity	4× M2.5 threaded holes
	Minimum threaded hole depth	2.5 mm minimum
Mechanical View 4	Center hole diameter	Φ14.88
	Mounting hole specification and quantity	2-M2.5
	Angular dimension	30°
Mechanical View 5	Hole depth or keyway depth	2 holes, depth 4.5 mm, tolerance +0.1/0
	Hole diameter	2 holes, diameter Φ5 mm, tolerance +0/-0.013

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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.