PRODUCT DATASHEET

ES-ST-08H2038-050-4BL

Hybrid Stepper Motors

Hybrid Stepper Motors | 20 mm Hybrid Stepper Motor Series - ES-ST-HY02

Product Overview

Hybrid Stepper Motors with holding Torque 0.02 N·m, continuous Rated Current 0.5 A and step Angle 1.8 °.

Key Specifications

PARAMETER	VALUE	UNIT
Holding Torque	0.02	N·m
Continuous Rated Current	0.5	A
Step Angle	1.8	°
Body Length	38	mm
Weight	0.08	kg
Temperature Rise	80	°C
Number of Phases	2	
Phase Resistance	8.8 ±10%	Ω
Insulation Class	B	

Technical Specifications

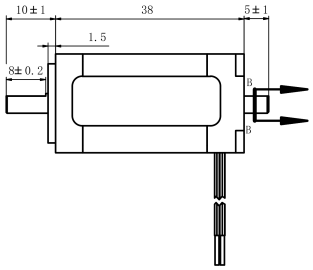
PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Holding Torque	0.02	N·m	
ELECTRICAL			
Continuous Rated Current	0.5	A	
Step Angle	1.8	°	
Temperature Rise	80	°C	
Number of Phases	2		
Phase Resistance	8.8 ±10%	Ω	Measurement: 20 °C
Phase Inductance	2.7 ±20%	mH	Measurement: 1 V, 1 kHz
Insulation Class	B		
Insulation Resistance	100 (500 VDC)	MΩ	
MECHANICAL			
Body Length	38	mm	
Weight	0.08	kg	

Dimensional & Integration Overview

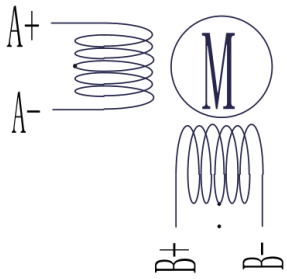
Mechanical Overview

PARAMETER	VALUE	UNIT
Body Length	38	mm
Weight	0.08	kg

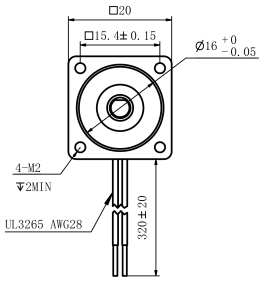
Dimensional Drawings



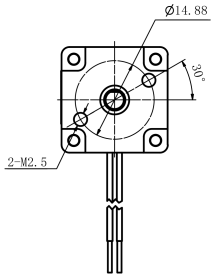
Mechanical View 1



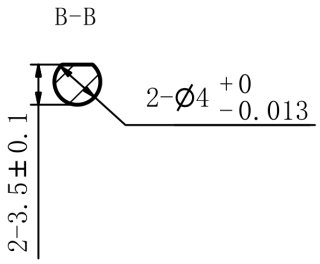
Power Connector Pinout



Mechanical View 3



Mechanical View 4



Mechanical View 5

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	dimension tolerance	10 ± 1 mm
	dimension value	38 mm
	dimension tolerance	5 ± 1 mm
	dimension value	1.5 mm
	dimension tolerance	8 ± 0.2 mm
	datum identifier	Datum B
Mechanical View 3	Square body outside dimension	Square 20
	Mounting hole center spacing	Square mounting pitch 15.4 ±0.15
	Central bore diameter tolerance	Diameter 16 +0/-0.05
	Mounting threaded holes	4 × M2 threaded holes
	Minimum thread depth	Minimum depth 2
Mechanical View 4	diameter	Ø14.88 mm
	angle	30 degree
	mounting hole specification	2 × M2.5
Mechanical View 5	Section view identifier	Section B-B
	Hole diameter and quantity tolerance	2 holes, diameter 4 mm, tolerance +0/-0.013 mm
	Two-place 3.5 dimension tolerance	2 places, 3.5 mm ±0.1 mm

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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.