PRODUCT DATASHEET

ES-ST-17H2049-150-4AL

Hybrid Stepper Motors

Hybrid Stepper Motors | 42 mm Hybrid Stepper Motor Series - ES-ST-HY05

Product Overview

Hybrid Stepper Motors with holding Torque 0.48 N·m, continuous Rated Current 2 A and step Angle 1.8 °.

Key Specifications

PARAMETER	VALUE	UNIT
Holding Torque	0.48	N·m
Continuous Rated Current	2	A
Step Angle	1.8	°
Body Length	49	mm
Weight	0.36	kg
Temperature Rise	80	°C
Number of Phases	2	
Phase Resistance	2 ±10%	Ω
Insulation Class	B	

Technical Specifications

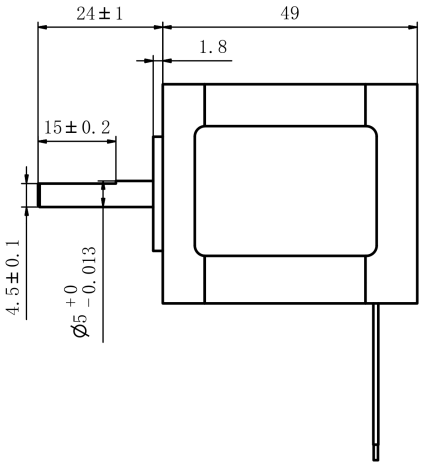
PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Holding Torque	0.48	N·m	
ELECTRICAL			
Continuous Rated Current	2	A	
Step Angle	1.8	°	
Temperature Rise	80	°C	
Number of Phases	2		
Phase Resistance	2 ±10%	Ω	Measurement: 20 °C
Phase Inductance	5.4 ±20%	mH	Measurement: 1 V, 1 kHz
Insulation Class	B		
Insulation Resistance	100 (500 VDC)	MΩ	
MECHANICAL			
Body Length	49	mm	
Weight	0.36	kg	

Dimensional & Integration Overview

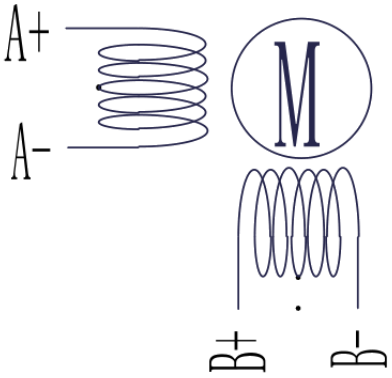
Mechanical Overview

PARAMETER	VALUE	UNIT
Body Length	49	mm
Weight	0.36	kg

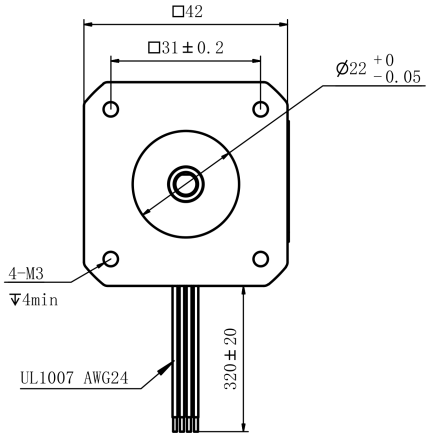
Dimensional Drawings



Mechanical View 1



Power Connector Pinout



Mechanical View 3

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Overall length	49 mm
	Front section length	24±1 mm
	Mounting flange width	1.8 mm
	Left mounting section length	15±0.2 mm
	Left shaft section height	4.5±0.1 mm
	Shaft diameter with tolerance	Φ5 +0/-0.013 mm
Mechanical View 3	Overall square envelope dimension	42mm square
	Mounting face square dimension	31±0.2mm square
	Output shaft diameter	Φ22 +0/-0.05mm
	Mounting hole specification	4×M3 threaded holes
	Surface finish minimum depth	Ra 4μm min or depth 4mm min

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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.