

PRODUCT DATASHEET

ES-ST-17H2049-150-4BL

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

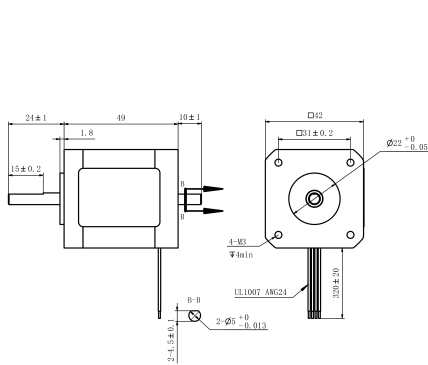
PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Holding Torque	0.48	Nm	
ELECTRICAL			
Continuous Rated Current	2	A	
Step Angle	1.8	°	
Temperature Rise	80	°C	
Number of Phases	2		
Phase Resistance	2 ±10%	Ω	Measurement: 20 °C
Phase Inductance	5.4 ±20%	mH	Measurement: 1V, 1kHz
Insulation Class	B		
Insulation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

Dimensional & Integration Overview

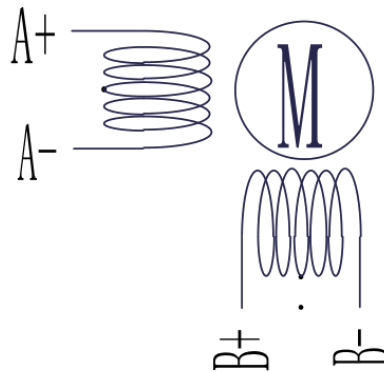
Mechanical Overview

PARAMETER	VALUE	UNIT
Body Length	49	mm
Weight	0.36	kg

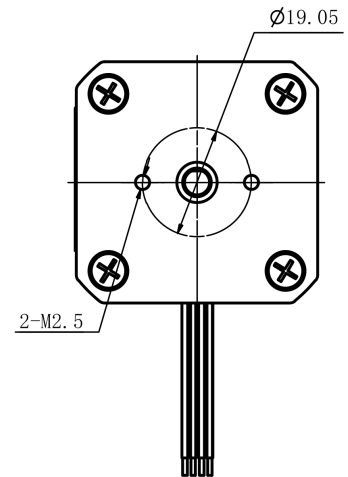
Dimensional Drawings



Mechanical View 1



Power Connector Pinout



Mechanical View 3

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Mounting flange square side	42×42 mm square
	Mounting flange center square side with tolerance	31±0.2 mm square
	Output shaft diameter with tolerance	φ22 +0/-0.05 mm
	Mounting hole specification	4 × M3 threaded holes
	Surface roughness	Ra 4 μm minimum
	Shaft end holes with tolerance	2 × φ5 +0/-0.013 mm holes
	Motor body front section length with tolerance	24±1 mm
	Motor body middle section length	49 mm
	Mounting flange thickness with tolerance	10±1 mm
	Shaft extension length with tolerance	15±0.2 mm
	Keyway depth	1.8 mm
	Datum B	
Mechanical View 3	Output shaft diameter	φ19.05
	Front face mounting screw holes specification and quantity	2×M2.5 threaded holes

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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.