PRODUCT DATASHEET

ES-ST-17H2041-100-4BL

Hybrid Stepper Motors

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

Product Overview

Hybrid Stepper Motors with holding Torque 0.4 N·m, continuous Rated Current 1 A and step Angle 1.8 °.

Key Specifications

PARAMETER	VALUE	UNIT
Holding Torque	0.4	N·m
Continuous Rated Current	1	A
Step Angle	1.8	°
Body Length	41	mm
Weight	0.3	kg
Temperature Rise	80	°C
Number of Phases	2	
Phase Resistance	4.3 ±10%	Ω
Insulation Class	B	

Technical Specifications

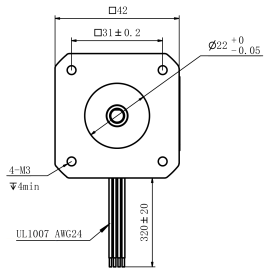
PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Holding Torque	0.4	N·m	
ELECTRICAL			
Continuous Rated Current	1	A	
Step Angle	1.8	°	
Temperature Rise	80	°C	
Number of Phases	2		
Phase Resistance	4.3 ±10%	Ω	Measurement: 20 °C
Phase Inductance	8 ±20%	mH	Measurement: 1 V, 1 kHz
Insulation Class	B		
Insulation Resistance	100 (500 VDC)	MΩ	
MECHANICAL			
Body Length	41	mm	
Weight	0.3	kg	

Dimensional & Integration Overview

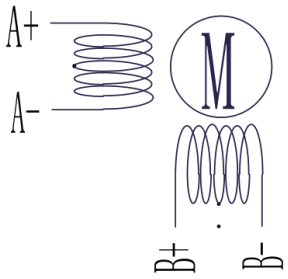
Mechanical Overview

PARAMETER	VALUE	UNIT
Body Length	41	mm
Weight	0.3	kg

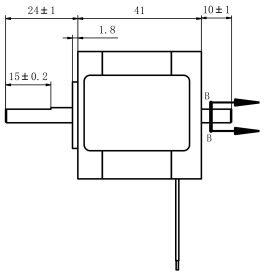
Dimensional Drawings



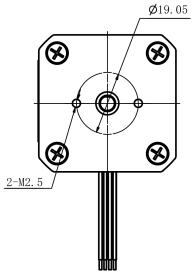
Mechanical View 1



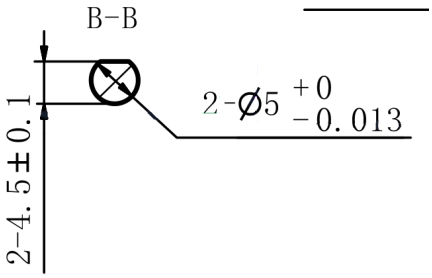
Power Connector Pinout



Mechanical View 3



Mechanical View 4



Mechanical View 5

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Motor faceplate overall dimension	42 mm square
	Motor faceplate center boss dimension	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
Mechanical View 3	Overall length (left section)	24±1
	Overall length (middle section)	41
	Overall length (right section)	10±1
	Mounting bracket vertical offset	1.8
	Mounting bracket horizontal width	15±0.2
	Section datum (upper)	B
	Section datum (lower)	
Mechanical View 4	Output shaft diameter	Φ19.05 mm
	Mounting threaded hole specification and quantity	2× M2.5 threaded holes
Mechanical View 5	Section identifier	B-B
	Two holes diameter with tolerance	2-φ5 +0/-0.013
	Two mounting holes center distance with tolerance	2-4.5±0.1

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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.