PRODUCT DATASHEET

ES-ST-08HS2038-4D-050

Hollow Shaft Stepper Motors

Hollow Shaft Stepper Motors | 20 mm Hollow-Shaft Stepper Motor Series - ES-ST-HS02

Product Overview

Hollow Shaft Stepper Motors with holding Torque 0.02 N·m, rated Voltage 4.4 V and continuous Rated Current 0.5 A RMS.

Key Specifications

PARAMETER	VALUE	UNIT
Holding Torque	0.02	N·m
Rated Voltage	4.4	V
Continuous Rated Current	0.5	A RMS
Step Angle	1.8	°
Body Length	38	mm
Phase Resistance	8.8	Ω
Phase Inductance	2.7	mH
Motor Construction Type	Hollow Shaft Stepper Motor	
Frame Size	20	mm

Technical Specifications

PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Holding Torque	0.02	N·m	
Detent Torque	0.004	N·m	
ELECTRICAL			
Rated Voltage	4.4	V	
Continuous Rated Current	0.5	A RMS	Measurement Basis: rms
Step Angle	1.8	°	
Phase Resistance	8.8	Ω	
Phase Inductance	2.7	mH	
Lead Wire Configuration	Bipolar, 4 flying leads		

Technical Specifications

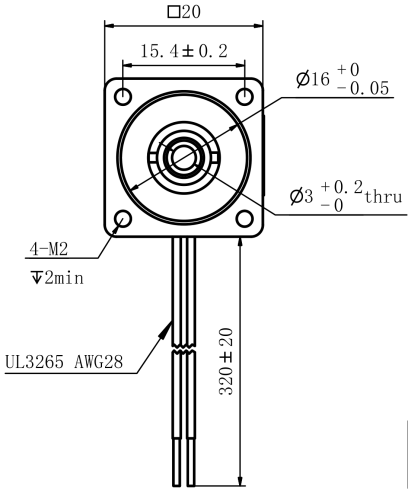
PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
Lead Wire Count	4	
Phase Count	2	
MECHANICAL		
Body Length	38	mm
Frame Size	20	mm
Shaft Configuration	Double shaft	
NEMA Size	8	
CONFIGURATION		
Motor Construction Type	Hollow Shaft Stepper Motor	

Dimensional & Integration Overview

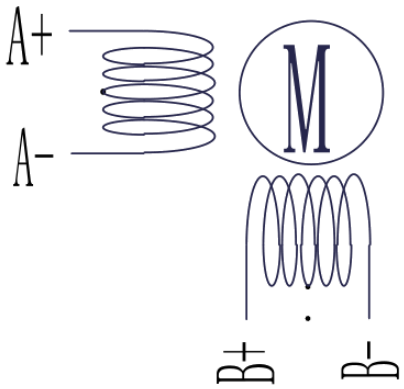
Mechanical Overview

PARAMETER	VALUE	UNIT
Body Length	38	mm
Frame Size	20	mm
Shaft Configuration	Double shaft	
NEMA Size	8	

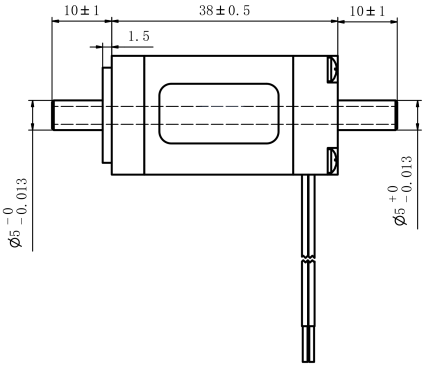
Dimensional Drawings



Mechanical View 1



Power Connector Pinout



Mechanical View 3

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Square flange side length	20×20 mm square
	Mounting hole spacing	15.4±0.2 mm
	Output shaft diameter with tolerance	Ø16 +0/-0.05 mm
	Through hole diameter with tolerance	Ø3 +0.2/-0 mm through hole
	Mounting thread specification and quantity	4× M2 threaded holes
	Surface roughness	Ra ≤ 2 µm minimum
Mechanical View 3	Left mounting flange width	10±1 mm
	Central mounting plate width	38±0.5 mm
	Right mounting flange width	10±1 mm
	Mounting boss depth	1.5 mm
	Right mounting hole diameter	Φ5 +0/-0.013 mm
	Left mounting hole diameter	Φ5 -0/0.013 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.