PRODUCT DATASHEET

ES-DC-SL07-M002

Slotted Series

Slotted Series | ES-DC-SL07 60 mm Slotted Brushless DC Motor Series

Product Overview

Slotted Series with rated Torque 0.31 N·m, rated Speed 3500 rpm and continuous Rated Output Power 97.4 W.

Key Specifications

PARAMETER	VALUE	UNIT
Rated Torque	0.31	N·m
Rated Speed	3500	rpm
Continuous Rated Output Power	97.4	W
Rated Voltage	24	V
Continuous Rated Current	5.5	A
Instantaneous Maximum Current	16.5	A
Body Length	63	mm
Dielectric strength	500VAC/1KHz/1mA/1s	
Duty Cycle	S1	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Rated Torque	0.31	N·m
Rated Speed	3500	rpm
Continuous Rated Output Power	97.4	W
No-Load Rotational Speed	3000	rpm
Motor efficiency	82.6	%
ELECTRICAL		
Rated Voltage	24	V
Continuous Rated Current	5.5	A
Instantaneous Maximum Current	16.5	A
Dielectric strength	500VAC/1KHz/1mA/1s	
Insulation Resistance	100 MOhm 20C	
Duty Cycle	S1	
Rotational Back-EMF Constant	5.87	V/krpm
No-load Current	0.58	A

Technical Specifications

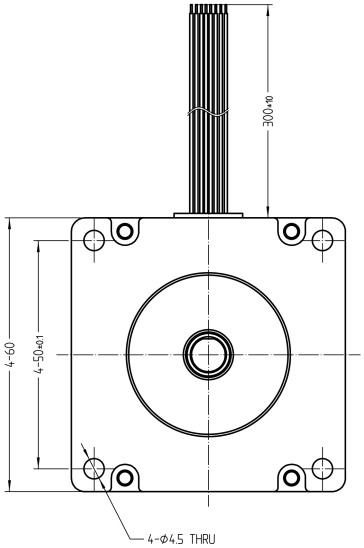
PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
Line resistance	0.334	Ω
Line inductance	0.305	mH
THERMAL		
Housing-to-Ambient Thermal Resistance	0.28	K/W
Maximum Winding Temperature	87	°C
MECHANICAL		
Body Length	63	mm
Housing Type	No housing	
Frame size	60	mm
Housing shape	Square	
Commutation angle	120	°
Motor Weight	0.77	g
ENVIRONMENTAL		
Noise	≤50	dB
Ambient temperature	30	°C

Dimensional & Integration Overview

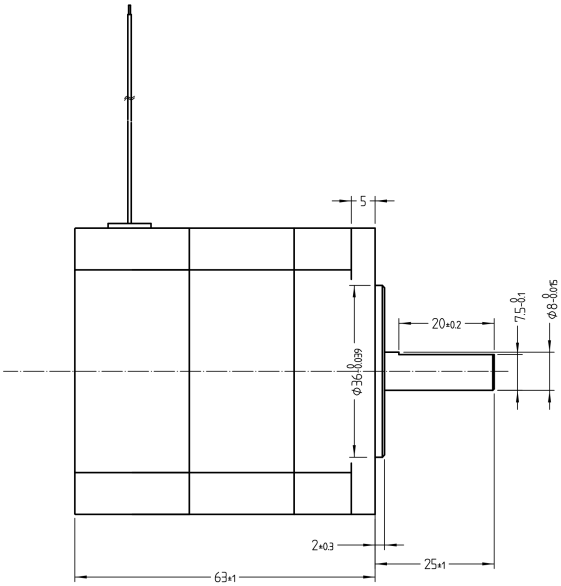
Mechanical Overview

PARAMETER	VALUE	UNIT
Body Length	63	mm
Housing Type	No housing	
Frame size	60	mm
Housing shape	Square	
Commutation angle	120	°
Motor Weight	0.77	g

Dimensional Drawings



Mechanical View 1



Mechanical View 2

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Mounting Hole Position Dimension	4 holes at 50±0.1 mm
		4 holes at 60 mm
	Mounting Through-Hole Diameter	4 × Φ4.5 mm through holes
Mechanical View 2	Shaft shoulder width	5
	Shaft extension length	20±0.2
	Shaft shoulder thickness	7.5 0/-0.1
	Output shaft diameter	Φ8 -0.005/-0.015
	Motor flange mounting face diameter	Φ36 0/-0.039
	Mounting boss height	2±0.3
	Mounting boss width	25±1
	Motor end face total width	63±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.