

PRODUCT DATASHEET

ES-DC-SL07-M001

Slotted Series

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

Product Overview

Slotted Series with rated Torque 0.15 N·m, rated Speed 3500 rpm and continuous Rated Output Power 47.1 W.

Key Specifications

PARAMETER	VALUE	UNIT
Rated Torque	0.15	N·m
Rated Speed	3500	rpm
Continuous Rated Output Power	47.1	W
Rated Voltage	24	V
Continuous Rated Current	2.7	A
Instantaneous Maximum Current	8.1	A
Body Length	50	mm
Dielectric strength	500VAC/1KHz/1mA/1s	
Duty Cycle	S1	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Rated Torque	0.15	Nm
Rated Speed	3500	rpm
Continuous Rated Output Power	47.1	W
No-Load Rotational Speed	3000	rpm
Motor efficiency	81.1	%
ELECTRICAL		
Rated Voltage	24	V
Continuous Rated Current	2.7	A
Instantaneous Maximum Current	8.1	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	0.29	A

Technical Specifications

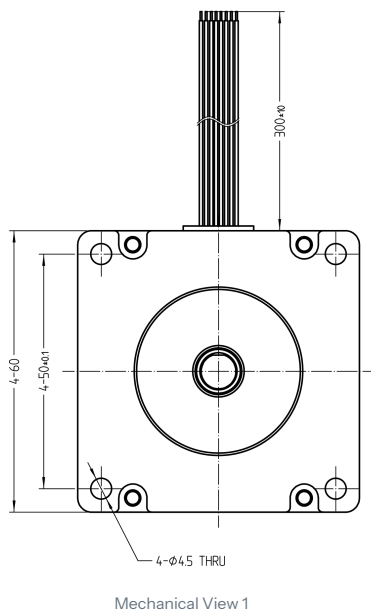
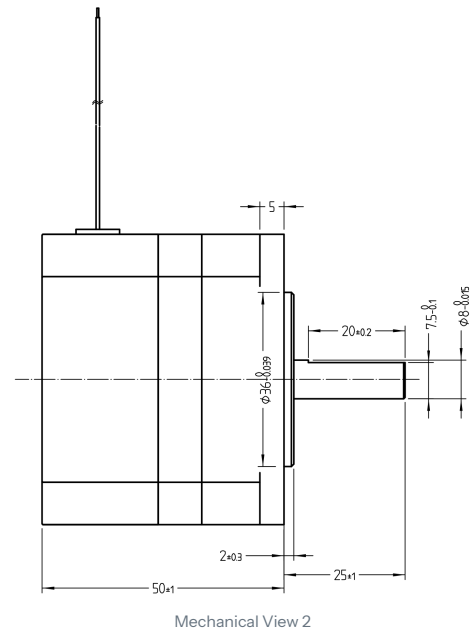
PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
Line resistance	0.886	Ω
Line inductance	0.682	mH
THERMAL		
Housing-to-Ambient Thermal Resistance	0.57	K/W
Maximum Winding Temperature	87	$^{\circ}\text{C}$
MECHANICAL		
Body Length	50	mm
Housing Type	No housing	
Frame size	60	mm
Housing shape	Square	
Commutation angle	120	$^{\circ}$
Motor Weight	0.51	g
ENVIRONMENTAL		
Noise	≤ 50	dB
Ambient temperature	30	$^{\circ}\text{C}$

Dimensional & Integration Overview

Mechanical Overview

PARAMETER	VALUE	UNIT
Body Length	50	mm
Housing Type	No housing	
Frame size	60	mm
Housing shape	Square	
Commutation angle	120	°
Motor Weight	0.51	g

Dimensional Drawings



2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Shaft extension length	300±10
	Mounting hole pitch (horizontal)	4-50±0.1
	Mounting hole pitch (vertical)	4-60
	Mounting through-hole diameter	4-Φ4.5 THRU
Mechanical View 2	Motor housing overall width	50±1
	Housing width at shaft extension end	25±1
	Shaft extension diameter	Φ36 +0/-0.039
	Shaft extension length	20±0.2
	Shaft shoulder or boss width	7.5 -0.1
	Locating hole or mounting hole diameter	Φ8 -0.015
	Mounting hole offset or spacing	2±0.3
	Local feature dimension	5

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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.