

PRODUCT DATASHEET

ES-DC-SL04-M001

Slotted Series

Slotted Series | ES-DC-SL04 36 mm Slotted Brushless DC Motor Series

Product Overview

Slotted Series with rated Torque 0.125 Nm, rated Speed 10000 rpm and continuous Rated Output Power 130.9 W.

Key Specifications

PARAMETER	VALUE	UNIT
Rated Torque	0.125	N·m
Rated Speed	10000	rpm
Continuous Rated Output Power	130.9	W
Rated Voltage	48	V
Continuous Rated Current	3.6	A
Instantaneous Maximum Current	10.8	A
Body Length	72	mm
Dielectric strength	500VAC/1KHz/1mA/1s	
Duty Cycle	S2	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Rated Torque	0.125	Nm
Rated Speed	10000	rpm
Continuous Rated Output Power	130.9	W
No-Load Rotational Speed	12000	rpm
Cogging Torque	35.5	Nm
Motor efficiency	80	%
ELECTRICAL		
Rated Voltage	48	V
Continuous Rated Current	3.6	A
Instantaneous Maximum Current	10.8	A
Dielectric strength	500VAC/1KHz/1mA/1s	
Insulation Resistance	100 MOhm 20C	
Duty Cycle	S2	
Rotational Back-EMF Constant	3.67	V/krpm

Technical Specifications

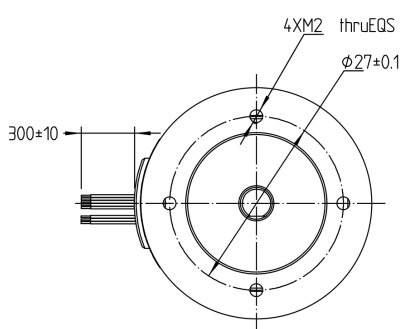
PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
No-load Current	0.5	A
Line resistance	0.67	Ω
Line inductance	0.37	mH
THERMAL		
Housing-to-Ambient Thermal Resistance	0.24	K/W
Maximum Winding Temperature	75	$^{\circ}\text{C}$
MECHANICAL		
Body Length	72	mm
Housing Type	Aluminum housing	
Frame size	36	mm
Housing shape	Round	
Commutation angle	120	$^{\circ}$
Motor Weight	305.6	g
ENVIRONMENTAL		
Noise	≤ 50	dB
Ambient temperature	25	$^{\circ}\text{C}$

Dimensional & Integration Overview

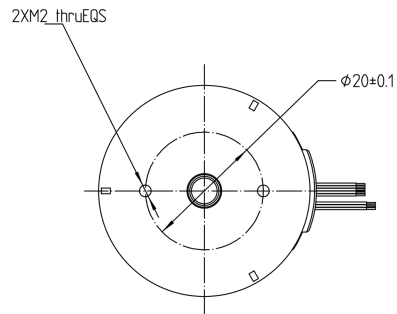
Mechanical Overview

PARAMETER	VALUE	UNIT
Body Length	72	mm
Housing Type	Aluminum housing	
Frame size	36	mm
Housing shape	Round	
Commutation angle	120	°
Motor Weight	305.6	g

Dimensional Drawings



Mechanical View 1



Mechanical View 2



Mechanical View 3

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Mounting threaded holes specification	4 x M2 through holes, equally spaced
	Mounting bolt circle diameter	$\Phi 27 \pm 0.1$ mm
	Flange distance or axial dimension	300 ± 10 mm
Mechanical View 2	M2 threaded holes (2 places equally spaced)	2× M2 threaded through holes, equally spaced
	Outer diameter	$\Phi 20 \pm 0.1$
Mechanical View 3	Left shaft diameter	Diameter 5 mm, lower deviation -0.013 mm
	Main body outside diameter	Diameter 36 mm
	Left shaft extension length	11 ± 0.1 mm
	Right step outside diameter	Diameter 22 mm, upper deviation 0 mm, lower deviation -0.03 mm
	Right shaft step length	10 ± 0.1 mm
	Right shoulder thickness	1.5 ± 0.1 mm
	Main body length	71.5 mm
	Right shaft extension length	15.5 ± 1 mm
	Right shaft diameter	Diameter 5 mm, lower deviation -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.