

PRODUCT DATASHEET

ES-DC-SL08-M003

Slotted Series

Slotted Series | ES-DC-SL08 86 mm Slotted Brushless DC Motor Series

Product Overview

Slotted Series with rated Torque 1.5 N·m, rated Speed 3000 rpm and continuous Rated Output Power 471.2 W.

Key Specifications

PARAMETER	VALUE	UNIT
Rated Torque	1.5	N·m
Rated Speed	3000	rpm
Continuous Rated Output Power	471.2	W
Rated Voltage	48	V
Continuous Rated Current	14.1	A
Instantaneous Maximum Current	42.3	A
Body Length	101	mm
Dielectric strength	500VAC/1KHz/1mA/1s	
Duty Cycle	S1	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Rated Torque	1.5	Nm
Rated Speed	3000	rpm
Continuous Rated Output Power	471.2	W
No-Load Rotational Speed	3600	rpm
Motor efficiency	83.7	%
ELECTRICAL		
Rated Voltage	48	V
Continuous Rated Current	14.1	A
Instantaneous Maximum Current	42.3	A
Dielectric strength	500VAC/1KHz/1mA/1s	
Insulation Resistance	100 MOhm 20C	
Duty Cycle	S1	
Rotational Back-EMF Constant	11.1	V/krpm
No-load Current	1.05	A

Technical Specifications

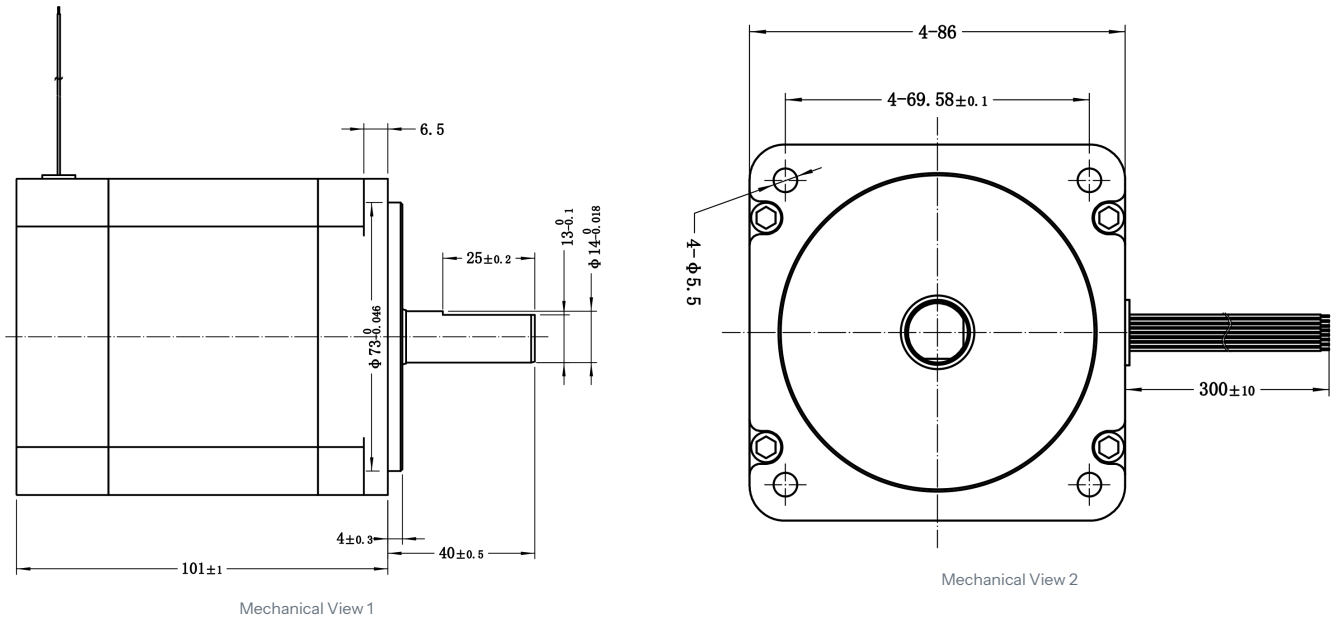
PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
Line resistance	0.13	Ω
Line inductance	0.25	mH
THERMAL		
Housing-to-Ambient Thermal Resistance	0.2	K/W
Maximum Winding Temperature	90	$^{\circ}\text{C}$
MECHANICAL		
Body Length	101	mm
Housing Type	No housing	
Frame size	86	mm
Housing shape	Square	
Commutation angle	120	$^{\circ}$
Motor Weight	3	g
ENVIRONMENTAL		
Noise	≤ 50	dB
Ambient temperature	30	$^{\circ}\text{C}$

Dimensional & Integration Overview

Mechanical Overview

PARAMETER	VALUE	UNIT
Body Length	101	mm
Housing Type	No housing	
Frame size	86	mm
Housing shape	Square	
Commutation angle	120	°
Motor Weight	3	g

Dimensional Drawings



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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.