PRODUCT DATASHEET

ES-DC-IC03-M001

Iron Core Brushed Series

Product Overview

Iron Core Brushed Series with rated Torque 0.27 N·m, rated Speed 3200 RPM and continuous Rated Output Power 90 W.

Key Specifications

PARAMETER	VALUE	UNIT
Rated Torque	0.27	N·m
Rated Speed	3200	RPM
Continuous Rated Output Power	90	W
Rated Voltage	24	VDC
Continuous Rated Current	6	A
Body Length	125	mm
Insulation Class	B/130°C	
Insulation Resistance	100MΩ/250V	MΩ
Frame Size	63	mm

Technical Specifications

PARAMETER	SPECIFICATION	UNIT	NOTES
PERFORMANCE			
Rated Torque	0.27	N·m	
Rated Speed	3200	RPM	
Continuous Rated Output Power	90	W	
Torque Constant	62	mN·m/A	
No-Load Rotational Speed	3650	RPM	
Loaded Torque	0.27	N·m	
Loaded Speed	3200±10%	RPM	
Starting Torque	0.042	N·m	
Stall Torque	1.6	N·m	
ELECTRICAL			
Rated Voltage	24	VDC	
Continuous Rated Current	6	A	
Insulation Class	B/130°C		
Insulation Resistance	100MΩ/250V	MΩ	Test Voltage: 250 V
Rotational Back-EMF Constant	6.01	V/Krpm	
Phase Inductance	1.6	mH	

Technical Specifications

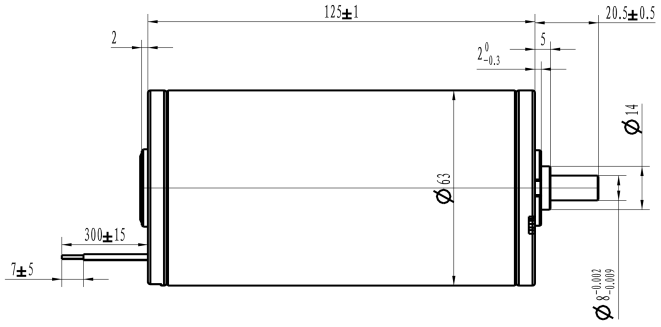
PARAMETER	SPECIFICATION	UNIT	NOTES
ELECTRICAL			
No-load Current	1	A	
Loaded Current	<6	A	
Loaded Power	90	W	
Line-to-line resistance	0.82	Ω	
Withstand Voltage	600V AC/50HZ/5mA/1S		Test Temperature: 25 °C
Duty Cycle	S1		
Stall Current	29	A	
MECHANICAL			
Body Length	125	mm	
Frame Size	63	mm	
Rotor Inertia	0.8	kg·cm²	
Housing shape	Round		
Output Shaft Extension Length	20.5 ±0.5	mm	Drawing Parameter: Output shaft extension length; Drawing Region: R001
Motor Body Length	125 ±1	mm	Drawing Parameter: Motor body length; Drawing Region: R001
Motor Body Diameter	Diameter 63	mm	Drawing Parameter: Motor outside diameter; Drawing Region: R001
Shaft Outer Diameter	Ø25 0/-0.04	mm	Drawing Parameter: Shaft diameter with tolerance; Drawing Region: R002

Dimensional & Integration Overview

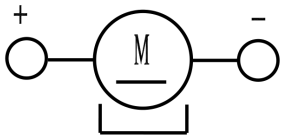
Mechanical Overview

PARAMETER	VALUE	UNIT
Body Length	125	mm
Frame Size	63	mm
Rotor Inertia	0.8	kg·cm²
Housing shape	Round	
Output Shaft Extension Length	20.5 ±0.5	mm
Motor Body Length	125 ±1	mm

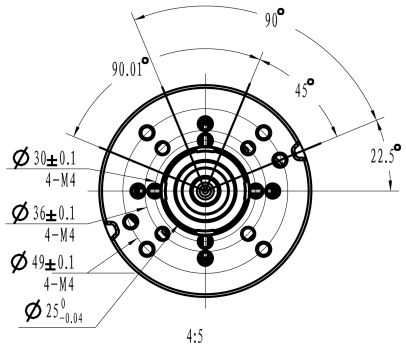
Dimensional Drawings



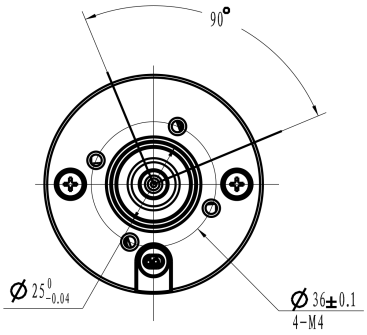
Mechanical View 1



Power Connector Pinout



Mechanical View 3



Mechanical View 4

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Motor body length	125 ±1
	Output shaft extension length	20.5 ±0.5
	Left end step length	2
	Right end step length	5
	Shaft shoulder diameter	Diameter 14
	Motor outside diameter	Diameter 63
	Output shaft diameter with tolerance	Diameter 8, upper deviation -0.002, lower deviation -0.009
Mechanical View 3	Bolt hole angular spacing	90°
	Bolt hole angular spacing (precise)	90.01°
	Bolt hole angular spacing	45°
		22.5°
	Mounting hole pitch circle diameter (smallest)	Φ30±0.1
	Number and specification of threaded holes (smallest circle)	4×M4
	Mounting hole pitch circle diameter (middle)	Φ36±0.1
	Number and specification of threaded holes (middle circle)	4×M4
	Mounting hole pitch circle diameter (largest)	Φ49±0.1
	Number and specification of threaded holes (largest circle)	4×M4
	Shaft diameter with tolerance	Φ25 0/-0.04

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 4	Angular dimension	90°
	Output shaft diameter	Φ25 0/-0.04
	Mounting flange diameter	Φ36±0.1
	Mounting holes specification	4× M4 threaded holes

View Product Online Request Engineering Data Request a Quote

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.