

PRODUCT DATASHEET

ES-FM-U01-OD123-T4P78NM-002

123 mm Frameless Torque Motor

Ultra Thin Frameless Torque Motors | ES-FM-U01-OD123 Ultra-Thin 123 mm Frameless Torque Motor Series

Product Overview

123 mm outer diameter, 60 mm rotor bore, 30 mm axial stack ultra thin frameless torque motor.

Typical Applications

Robot joints | Direct-drive rotary axes | Integrated actuator modules

Configuration Context

DC link: 48 V DC | Temperature sensor: None | Lead wire: 100 mm lead, no connector

Key Specifications

PARAMETER	VALUE	UNIT
Rated Speed	2000	rpm
Continuous Rated Output Power	1000	W
DC link voltage	48	V DC
Body Outer Diameter	123	mm
Rotor Inner Diameter	60	mm
Axial Stack Length	30	mm
Lead Wire Configuration	100 mm lead, no connector	
Motor Version	K version	
Number of Poles	10	

Technical Specifications

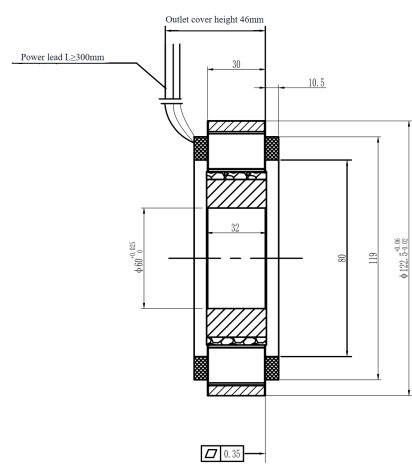
PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Rated Speed	2000	rpm
Continuous Rated Output Power	1000	W
ELECTRICAL		
DC link voltage	48	V DC
Rated Current	22	A
THERMAL		
Temperature Sensor	None	
MECHANICAL		
Body Outer Diameter	123	mm
Rotor Inner Diameter	60	mm
Axial Stack Length	30	mm
INTEGRATION		
Lead Wire Configuration	100 mm lead, no connector	
Number of Pole Pairs	5 pole pairs / 5	
CONFIGURATION		
Motor Version	K version	
ADDITIONAL SPECIFICATIONS		
Number of Poles	10	
Line-to-Line Resistance	0.059	Ω

Dimensional & Integration Overview

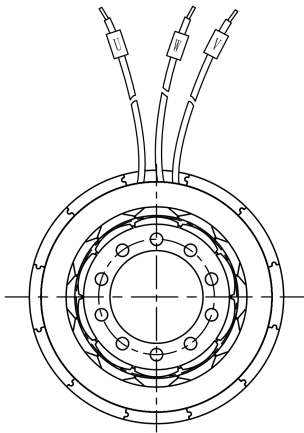
Mechanical Overview

PARAMETER	VALUE	UNIT
Body Outer Diameter	123	mm
Rotor Inner Diameter	60	mm
Axial Stack Length	30	mm

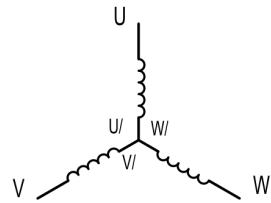
Dimensional Drawings



Mechanical View 1



Power Connector Pinout



Wiring diagram (shaft end CCW)

Power Connector Pinout

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Mounting width	30 mm
	Mounting offset	10.5 mm
	Internal structure width	32 mm
	Shaft diameter (lower)	$\Phi 60 +0.025/0$ mm
	Shaft diameter (upper)	$\Phi 122.5 +0.06/-0.02$ mm
	Axial dimension	80 mm
	Total height	119 mm
	Parallelism tolerance	$\vartriangle 0.35$ 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.