

PRODUCT DATASHEET

ES-FM-U01-OD127-TTBDNM-001

127 mm Frameless Torque Motor

Ultra Thin Frameless Torque Motors | ES-FM-U01-OD127 Ultra-Thin 127 mm Frameless Torque Motor Series

Product Overview

127 mm outer diameter, 65 mm rotor bore, 18 mm axial stack ultra thin frameless torque motor.

Typical Applications

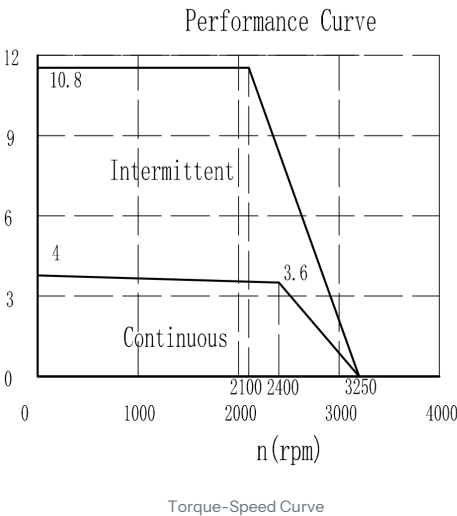
Robot joints | Direct-drive rotary axes | Integrated actuator modules

Configuration Context

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

Key Specifications

PARAMETER	VALUE	UNIT
Rated Speed	2400	rpm
Continuous Rated Output Power	900	W
DC link voltage	48	V DC
Body Outer Diameter	127	mm
Rotor Inner Diameter	65	mm
Axial Stack Length	18	mm
Lead Wire Configuration	100 mm lead, no connector	
Motor Version	S version	
Number of Poles	16	



Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Rated Speed	2400	rpm
Continuous Rated Output Power	900	W
ELECTRICAL		
DC link voltage	48	V DC
Rated Current	24	A
THERMAL		
Temperature Sensor	None	
MECHANICAL		
Body Outer Diameter	127	mm
Rotor Inner Diameter	65	mm
Axial Stack Length	18	mm
INTEGRATION		
Lead Wire Configuration	100 mm lead, no connector	
Number of Pole Pairs	8 pole pairs / 8	
CONFIGURATION		
Motor Version	S version	
ADDITIONAL SPECIFICATIONS		
Number of Poles	16	

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Outer Diameter Maximum	Φ123 mm (Max)
	Inner Diameter Minimum	Φ87 mm (Min)
	Shaft Diameter	Φ65 +0.028/0 mm
	Shaft Extension Length	20 mm
	Mounting Face Thickness	18 +0.2/-0.3 mm
	End Face Maximum Height	27 mm (Max)
	Chamfer	0.5 mm X 45°
	Stator/Rotor Positioning Dimension	1±0.2 mm
	End Face Flush Requirement	Magnet and rotor core end faces must be flush
	Local Maximum Dimension	9 mm (Max)
	Overall Length	86 +0.03/-0.02 mm
	Flange Outer Diameter	Φ127 0/-0.07 mm
	Parallelism Tolerance	Parallelism 0.6 mm relative to datum A
Mechanical View 2	Torque unit label	Torque in Newton-meters

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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.