

PRODUCT DATASHEET

ES-FM-H01-OD038-TOP135NM-001

Frameless Torque Motor

Hollow Shaft Frameless Torque Motors | ES-FM-H01-OD038 Hollow-Shaft 38 mm Frameless Torque Motor Series

Product Overview

Frameless Torque Motor with rated Speed 3500 rpm, continuous Rated Output Power 50 W and lead Wire Length 100 mm, no connector.

Typical Applications

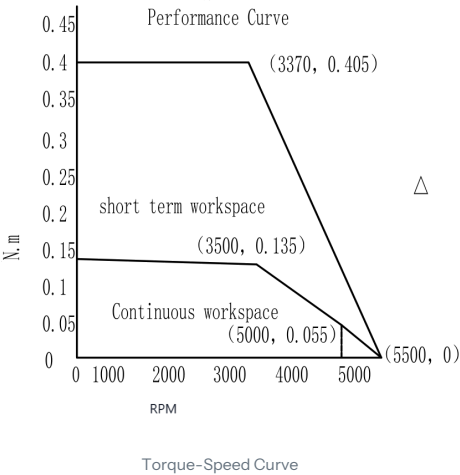
Robot joints | Direct-drive rotary axes | Integrated actuator modules

Configuration Context

Temperature sensor: NTC

Key Specifications

PARAMETER	VALUE	UNIT
Rated Speed	3500	rpm
Continuous Rated Output Power	50	W
Lead Wire Length	100 mm, no connector	
Line-to-Line Inductance	2.49 ±20% (ref) / 2.49	mH
Line-to-Line Resistance	3.52 ±10% (ref) / 3.52	Ω
Maximum Rotational Speed	5500 ± 10%	rpm
Maximum Speed	5500	rpm
Motor Outer Diameter	38	mm
Motor Version	Version P	



Technical Specifications

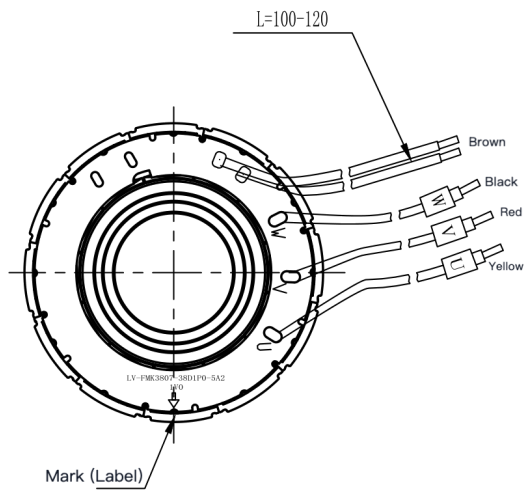
PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Rated Speed	3500	rpm
Continuous Rated Output Power	50	W
Maximum Rotational Speed	5500 $\pm$ 10%	rpm
ELECTRICAL		
Line-to-Line Inductance	2.49 $\pm$ 20% (ref) / 2.49	mH
Line-to-Line Resistance	3.52 $\pm$ 10% (ref) / 3.52	Ω
Operating Supply Voltage	48	V DC
Rated Current	1.7	A
THERMAL		
Temperature Sensor	NTC	
MECHANICAL		
Motor Outer Diameter	38	mm
Rotor Diameter	18	mm
Stator Core Height	7	mm
INTEGRATION		
Lead Wire Length	100 mm, no connector	
CONFIGURATION		
Motor Version	Version P	
ADDITIONAL SPECIFICATIONS		
Maximum Speed	5500	rpm

Dimensional & Integration Overview

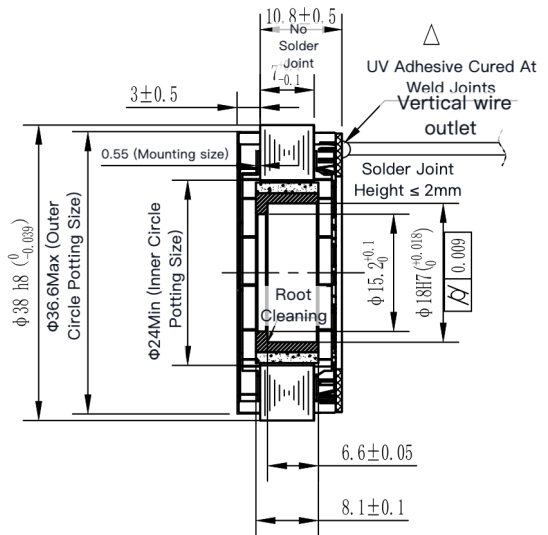
Mechanical Overview

PARAMETER	VALUE	UNIT
Motor Outer Diameter	38	mm
Rotor Diameter	18	mm
Stator Core Height	7	mm
Lead Wire Length	100 mm, no connector	

Dimensional Drawings



Mechanical View 1



Mechanical View 2

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Lead length range	L = 100-120 mm
	Material or rating marking	1V0
	Label position note	Mark (Label)
Mechanical View 2	Axial end height excluding solder joint	10.8 ±0.5, excluding solder joint
	UV adhesive curing requirement at weld joints	UV adhesive cured at weld joints
	Local axial dimension	7 +0.4/-0.1
		3 ±0.5
	Mounting size	0.55 mounting size
	Solder joint height limit	Solder joint height ≤2
	Outer circle potting diameter	Diameter 36.6 max
	Inner circle potting diameter	Diameter 24 min
	Outer fit diameter	Diameter 38 h8, +0/-0.039
	Inner bore or step diameter	Diameter 15.2 +0.1/0
	Bore fit diameter	Diameter 18 H7, +0.018/0
	Geometric tolerance value	Geometric tolerance diameter 0.009

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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.