

PRODUCT DATASHEET

ES-FM-H01-OD085-T1P2NM-001

Frameless Torque Motor

Hollow Shaft Frameless Torque Motors | ES-FM-H01-OD085 Hollow-Shaft 85 mm Frameless Torque Motor Series

Product Overview

Frameless Torque Motor with rated Speed 2950 rpm, continuous Rated Output Power 370 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	2950	rpm
Continuous Rated Output Power	370	W
Lead Wire Length	100 mm, no connector	
Line-to-Line Inductance	0.4 ± 20% / 0.4	mH
Line-to-Line Resistance	0.22 ± 10% / 0.22	Ω
Maximum Rotational Speed	3700	rpm
Maximum Speed	3700	rpm
Motor Outer Diameter	85	mm
Motor Version	Version P	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Rated Speed	2950	rpm
Continuous Rated Output Power	370	W
Rated Power	370	W
Maximum Rotational Speed	3700	rpm
ELECTRICAL		
Line-to-Line Inductance	$0.4 \pm 20\%$ / 0.4	mH
Line-to-Line Resistance	$0.22 \pm 10\%$ / 0.22	Ω
Operating Supply Voltage	48	V DC
Rated Current	9	A

Technical Specifications

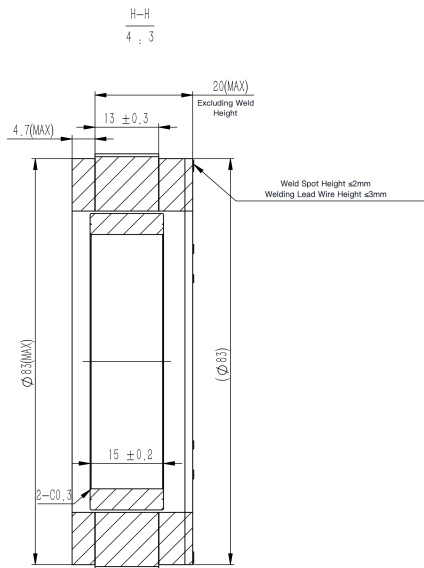
PARAMETER	SPECIFICATION	UNIT
THERMAL		
Temperature Sensor	NTC	
MECHANICAL		
Motor Outer Diameter	85	mm
Stator Core Height	13	mm
Rotor Diameter	52	mm
INTEGRATION		
Lead Wire Length	100 mm, no connector	
CONFIGURATION		
Motor Version	Version P	
ADDITIONAL SPECIFICATIONS		
Maximum Speed	3700	rpm

Dimensional & Integration Overview

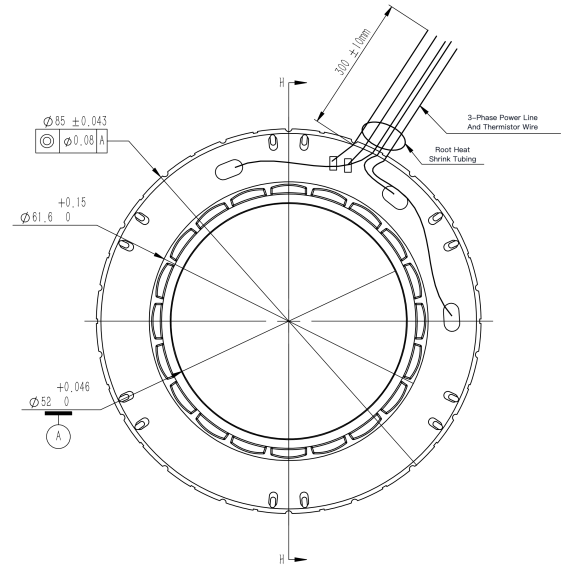
Mechanical Overview

PARAMETER	VALUE	UNIT
Motor Outer Diameter	85	mm
Stator Core Height	13	mm
Rotor Diameter	52	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	Section view identifier	Section H-H
	Maximum width excluding weld height	20 max, excluding weld height
	Local dimension tolerance fragment	± 0.3 tolerance fragment; nominal value not OCR-sourced
	Weld spot and welding lead wire height limits	Weld spot height ≤ 2 mm; welding lead wire height ≤ 3 mm
	Maximum outside diameter	Diameter 83 max
	Reference outside diameter	Reference diameter 83
	Internal width	15 ± 0.2
	Chamfer	2 places C0.3 chamfer
Mechanical View 2	Outer diameter	Diameter 85 ± 0.043
	Geometric tolerance relative to datum A	Geometric tolerance diameter zone 0.08 relative to datum A
	Mounting feature pitch diameter	Diameter $61.6 +0.15/0$
	Inner mounting feature diameter	Diameter $52 +0.046/0$
	Datum A	
	Section or direction marker H	Marker H

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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.