

PRODUCT DATASHEET

ES-SM-L01-080S-V48-TTBDNM-750W-001

Low-Voltage Servo Motors

Low-Voltage Servo Motors | ES-SM-L01-080S 48V 80 mm Low-Voltage Servo Motor Series

Product Overview

Low-Voltage Servo Motors with rated Torque 2.39 Nm, rated Speed 3000 rpm and continuous Rated Output Power 750 W.

Configuration Context

DC link: 48 V

Key Specifications

PARAMETER	VALUE	UNIT
Rated Torque	2.39	N·m
Rated Speed	3000	rpm
Continuous Rated Output Power	750	W
Rated Voltage	48	V DC
Instantaneous Maximum Current	67	A
Flange Size	80	mm
Instantaneous Maximum Torque	7.17	N·m
DC link voltage	48	V
Weight	3	kg

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Rated Torque	2.39	Nm
Instantaneous Maximum Torque	7.17	Nm
Rated Speed	3000	rpm
Continuous Rated Output Power	750	W
Bearing Axial Force	167.5	N
Maximum speed	3900	rpm
Bearing Radial Force	335	N
Stall Torque	2.63	Nm
Torque Constant	0.13	Nm/A
ELECTRICAL		
DC link voltage	48	V

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
Rated Voltage	48	V DC
Instantaneous Maximum Current	67	A
Back EMF Constant	7.8	V/krpm
Electrical Time Constant	3.24	ms
Insulation Class	F	
Number of Poles	10	
Pole Pairs	5	
Rated Current	19.9	A
Stall Current	21.9	A
Line-to-line inductance	0.292	mH

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
Line-to-line resistance	0.086	Ω
Motor Outlet Mode	Dual-encoder connector	
MECHANICAL		
Flange Size	80	mm
Weight	3	kg
Inertia Level	Low inertia	
Mechanical Time Constant	0.71	ms
Rotor Inertia	0.84	kgcm^2
Holding Brake Available	With holding brake	
ENVIRONMENTAL		
Protection Rating	IP54	
CONFIGURATION		
Output Shaft Type	Keyed shaft	

Dimensional & Integration Overview

Mechanical Overview

PARAMETER	VALUE	UNIT
Flange Size	80	mm
Weight	3	kg
Inertia Level	Low inertia	
Mechanical Time Constant	0.71	ms
Rotor Inertia	0.84	kgcm ²
Holding Brake Available	With holding brake	

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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.