

PRODUCT DATASHEET

ES-SM-A02-150D-T11P1NM-2300W-001

AC Servo Motors

AC Servo Motors | ES-SM-A02-150D High-Response 150 mm AC Servo Motor Series

Product Overview

AC Servo Motors with rated Torque 11.1 N·m, instantaneous Maximum Torque 27.5 N·m and rated Speed 2000 rpm.

Key Specifications

PARAMETER	VALUE	UNIT
Rated Torque	11.1	N·m
Instantaneous Maximum Torque	27.5	N·m
Rated Speed	2000	rpm
Continuous Rated Output Power	2300	W
Instantaneous Maximum Current	17.75	A
Flange Size	150	mm
Torque Constant	1.65	N·m/A
Rated Voltage	380	V AC
Rated Line Voltage	380	V

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Rated Torque	11.1	Nm
Instantaneous Maximum Torque	27.5	Nm
Rated Speed	2000	rpm
Continuous Rated Output Power	2300	W
Torque Constant	1.65	Nm/A
Rated Power	2300	W
ELECTRICAL		
Rated Voltage	380	V AC
Rated Line Voltage	380	V
Instantaneous Maximum Current	17.75	A
Back EMF Constant	100	V/krpm

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
Position Feedback Device	2500 PPR incremental encoder	
Insulation Class	F	
Maximum Allowed Voltage Slew Rate	8	KV/ μ s
Motor Outlet Mode	YL-series aviation connector	
Pole Pairs	4	
Rated Current	7.1	A
Rotational Back-EMF Constant	100	V/krpm
Electrical Time Constant	6.9	ms
MECHANICAL		
Flange Size	150	mm
Inertia Level	Medium inertia	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT	NOTES
MECHANICAL			
Holding Brake Available	Without holding brake		
Mechanical Time Constant	4.32	ms	
Rotor Inertia	33.5 kg·cm ² / 33.5 Kg·cm2		Brake Configuration: without_brake
Bearing Radial Force Capacity	1200	N	
Bearing Axial Force Capacity	600	N	
ENVIRONMENTAL			
Altitude and Derating Rule	Maximum altitude 4000 m; above 1000 m, power derates 1.5% per 100 m		
Operating Environment	Keep away from corrosive or flammable gases, oil droplets and dust		
Operating Humidity	≤90% RH, non-condensing		
Operating Temperature	-20 to 40°C (no freezing)		
Protection Rating	IP65, shaft end IP54		

Dimensional & Integration Overview

Mechanical Overview

PARAMETER	VALUE	UNIT
Flange Size	150	mm
Inertia Level	Medium inertia	
Holding Brake Available	Without holding brake	
Mechanical Time Constant	4.32	ms
Rotor Inertia	33.5 kgcm ² / 33.5 Kg·cm ²	
Bearing Radial Force Capacity	1200	N

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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.