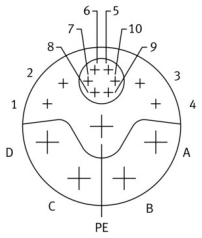
Servo motor
EMMT-AS-60-S-HS-RMB

Part number: 5242203





Data sheet

Feature	Value
Electrical connection 1, connection technology	M23x1
Electrical connection 1, connection type	Hybrid plug
Electrical connection for input 1, connection pattern	00995913
Concentricity, coaxiality, axial runout according to DIN SPEC 42955	N
Detent torque	‹ 1.0% of peak torque
Mounting position	Any
Rotor position sensor for manufacturer designation	EQI 1131
Shock resistance	Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27
Information on max. installation height	with 1,000 m and longer only with derating of -1.0% per 100 m
Contamination level	2
Note on degree of protection	IP40 for motor shaft without rotary shaft seal IP65 for motor shaft with rotary shaft seal IP67 for motor housing, incl. connection technology
Note on ambient temperature	Up to 80 °C with derating of -1.5% per degree Celsius
Vibration resistance	Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6
Measuring flange	250 x 250 x 15 mm, steel
Balancing quality	G 2.5
Motor type as per EN 60034-7	IM B5 IM V1 IM V3
Certificate issuing authority	UL E342973
Electrical connection 1, number of pins/wires	15
Max. winding temperature	155 °C
Brake airflow	0.33 A
Max. brake no-load speed	10000 1/min
Max. installation height	4000 m
Rotor position encoder for DC operating voltage	5 V
Brake coil inductivity	700 mH
Brake current consumption	0.46 A
Brake coil resistance	52.4 Ohm
Max. mechanical speed	16000 1/min
Brake stopping current	0.33 A
Number of pole pairs	5
Storage lifetime, under nominal conditions	20000 h

Feature	Value
Brake closing time	10 ms
Max. brake friction work	5600 J
Brake separation time	≤35 ms
Electric time constant	2.1 ms
DC brake response delay	≤2 ms
Cross inductivity Lq (phase)	15.5 mH
Winding longitudinal inductivity Ld (phase)	13 mH
Rotor position encoder for DC operating voltage range	3.6 V ... 14 V
Standstill torque constant	0.49 Nm/A
Rotor position encoder for absolutely detectable revolutions	4096
Rotor position encoder system accuracy angle measurement	-120 arcsec ... 120 arcsec
Thermal resistance	1.5 K/W
Rotor position encoder for positional values per revolution	524288
Thermal time constant	41 min
Type code	EMMT-AS
Rotor position sensor	Absolute encoder, multi-turn
Rotor position sensor interface	EnDat® 22
Rotor position sensor measuring principle	Inductive
Temperature monitoring	Digital motor temperature transmission via EnDat® 2.2
Max. rotational speed	12500 1/min
Nominal rotary speed	3000 1/min
Brake DC operating voltage	24 V
Continuous stall current	1.6 A
Brake power consumption	11 W
Motor constants	0.41 Nm/A
Nominal operating voltage DC	565 V
Motor nominal power	190 W
Motor nominal current	1.4 A
Rotor position sensor resolution	19 bit
Phase-phase winding resistance	11.7 Ohm
Winding inductance phase-phase	21 mH
Type of winding switch	Star inside
Peak current	5.4 A
Voltage constant, phase-to-phase	29.9 mVmin
Rating class according to EN 60034-1	S1
CE marking (see declaration of conformity)	As per EU EMC directive As per EU low voltage directive As per EU RoHS directive
Corrosion resistance class (CRC)	0 - No corrosion stress
Storage temperature	-20 °C ... 70 °C
Relative air humidity	0 - 90 %
Degree of protection	IP40
Ambient temperature	-15 °C ... 40 °C
Thermal class according to EN 60034-1	F
Certification	RCM compliance mark c UL us - Recognized (OL)
Total output inertia moment	0.257 kgcm²
Brake holding torque	2.5 Nm
Brake mass moment of inertia	0.074 kgcm²
Nominal torque	0.6 Nm
Peak torque	1.6 Nm
Stall torque	0.66 Nm
Permissible axial shaft load	70 N
Permissible radial shaft load	350 N

Feature	Value
MTTF, subcomponent	190 years, rotor position sensor
MTTFd, subcomponent	380 years, rotor position sensor
Switching cycles, holding brake	10 million idle actuations (without friction work!)
Product weight	1500 g
Interface code, motor out	60P
Note on materials	Contains paint-wetting impairment substances RoHS-compliant
Conforms to standard	IEC 60034