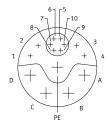
Servo motor EMMT-AS-80-M-HS-RMYB Part number: 8160649

FESTO





Data sheet

Feature	Value
Ambient temperature	-15 °C40 °C
Note on ambient temperature	Up to 80°C with derating of -1.5% per degree Celsius
Max. installation height	4000 m
Note on max. installation height	As of 1,000 m: only with derating of -1.0% per 100 m
Storage temperature	-20 °C70 °C
Relative air humidity	0 - 90%
Conforms to standard	IEC 60034
Temperature class as per EN 60034-1	F
Max. winding temperature	155 ℃
Rating class as per EN 60034-1	S1
Temperature monitoring	Digital motor temperature transmission via EnDat® 2.2
Motor type to EN 60034-7	IM B5 IM V1 IM V3
Mounting position	optional
Degree of protection	IP40
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 including connection components
Concentricity, coaxiality, axial runout to DIN SPEC 42955	N
Balance quality	G 2.5
Detent torque	<1.0% of peak torque
Bearing lifetime under nominal conditions	20000 h
Interface code, motor out	80P
Electrical connection 1, connection type	Hybrid plug
Electrical connection 1, connector system	M23x1
Electrical connection 1, number of connections/cores	15
Pollution degree	2
Note on materials	RoHS-compliant
Corrosion resistance class CRC	0 - No corrosion stress

LABS (PWIS) conformity VDMA24364 zone III Vibration resistance Transport application test with severity level 2 to FN 942017-4 an 60068-2-6 Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-3 Approval RCM trademark German Technical Control Board (TÜV) c UL us - Recognized (OL) CE mark (see declaration of conformity) To EU EMC Directive To EU Low Voltage Directive In accordance with EU RoHS Directive TO UK ROHS instructions for electrical equipment Certificate issuing authority TÜV 968/INS 464.00/24 UL E342973 Nominal operating voltage DC Type of winding switch Number of pole pairs Standstill torque 2.6 Nm Nominal torque 2.2 Nm Peak torque 6.4 Nm Nominal rotary speed Max. rotational speed	
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Angular acceleration 100000 rad/s²	
Nominal power rating of motor 690 W	
Continuous stall current 2.6 A	
Nominal motor current 2.2 A	
Peak current 9 A	
Motor constant 1 Nm/A	
Standstill torque constant 1.17 Nm/A	
Voltage constant, phase-to-phase 70.7 mVmin	
Phase-phase winding resistance 7.43 Ohm	
Phase-phase winding inductance 31.8 mH	
Winding longitudinal inductivity Ld (phase) 19.4 mH	
Winding cross inductivity Lq (phase) 23.8 mH	
Electric time constant 6.4 ms	
Thermal time constant 45 min	
Thermal resistance 0.78 K/W	
Measuring flange 250 x 250 x 15 mm, steel	
Total mass moment of inertia of output 1.285 kgcm ²	
Product weight 3360 g	
Permissible axial shaft load 120 N	
Permissible radial shaft load 620 N	
Rotor position sensor Absolute multi-turn safety encoder	
rotor position sensor, manufacturer designation EQI 1131	
rotor position sensor, absolute detectable revolutions 4096	
Rotor position encoder interface EnDat® 22	
Rotor position sensor, encoder measuring principle Inductive	
rotor position sensor, DC operating voltage 5 V	
rotor position sensor, DC operating voltage range 3.6 V14 V	
rotor position sensor, position values per revolution 524288	
Rotor position transducer resolution 19 bit	
Brake holding torque 4.5 Nm	
Operating voltage DC for brake 24 V	
Power consumption, brake 12 W	

Feature	Value
Number of emergency stops per hour	1
Mass moment of inertia of brake	0.249 kgcm²
Switching cycles holding brake	10 million idle actuations (without friction work!)
Safety device	Safety device
Maximum SIL	Safety integrity level 3 See user documentation
Safety sub-functions up to SIL2	Reliable recording and transmission of single-turn position data
Safety sub-functions up to SIL3	Reliable recording and transmission of single-turn position data, only with additional software function in the servo drive
Maximum PL and category	Performance Level e, Category 3 See user documentation
Safety sub-function up to PL d, Cat. 3	Reliable recording and transmission of single-turn position data
Safety sub-function up to PL e, Cat. 3	Reliable recording and transmission of single-turn position data, only with additional software function in the servo drive
PFHd, subcomponent	15 x 10E-9, encoder
Duration of use Tm, subcomponent	20 years, rotor position sensor
Energy efficiency	ENEFF (CN) / Class 2