Servomotor
EMMT-AS-100-S-HS-RSB
Part number: 5255528

FESTO

Data sheet

Feature	Value
Ambient temperature	-15 ... 40 °C
Note on ambient temperature	up to 80°C with derating -1.5%/°C
Max. installation height	4,000 m
Note on max. installation height	As of 1,000 m, only with derating of -1.0% per 100 m
Storage temperature	-20 ... 70 °C
Relative air humidity	0 - 90 %
Conforms to standard	IEC 60034
Thermal class according to EN 60034-1	F
Max. winding temperature	155 °C
Rating class according to EN 60034-1	S1
Temperature monitoring	Digital motor temperature transmission via EnDat® 2.2
Motor type acc. to EN 60034-7	IM B5 IM V1 IM V3
Assembly position	Any
Protection class	IP40
Note on degree of protection	IP40 motor shaft without RWDR IP65 motor shaft with RWDR IP67 for motor housing with connection technology
Concentricity, coaxiality, axial runout according to DIN SPEC 42955	N
Balance quality	G 2,5
Detent torque	‹1.0% of peak torque
Storage lifetime under nominal conditions	20,000 h
Interface code, motor out	100A
Electrical connection 1, connection type	Hybrid plugs
Electrical connection 1, connection technology	M23x1
Electrical connection 1, number of pins/wires	15
Degree of contamination	2
Materials note	Conforms to RoHS
Corrosion resistance classification CRC	0 - No corrosion stress
PWIS conformity	VDMA24364 zone III
Vibration resistance	Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27
Authorization	RCM Mark c UL us - Recognized (OL)
CE symbol (see declaration of conformity)	according to EU-EMV guideline according to EU low voltage guideline in accordance with EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for electrical equipment To UK instructions for EMC To UK RoHS instructions
Certificate issuing department	UL E342973
Nominal operating voltage DC	680 V
Type of winding switch	Star inside

Feature	Value
Number of pole pairs	5
Standstill torque	6.3 Nm
Nominal torque	5.1 Nm
Peak torque	13.7 Nm
Nominal rotary speed	2,700 1/min
Max. speed	4,770 1/min
Max. mechanical speed	13,000 1/min
Nominal motor power	1,450 W
Continuous open-circuit current	4.4 A
Nominal motor current	3.5 A
Peak current	13.7 A
Motor constant	1.45 Nm/A
Standstill torque constant	1.67 Nm/A
Voltage constant, phase-to-phase	101 mVmin
Phase-phase winding resistance	3.35 Ohm
Phase-phase winding inductance	32.4 mH
Winding longitudinal inductivity Ld (phase)	17.8 mH
Winding cross inductivity Lq (phase)	24.3 mH
Electric time constant	14.5 ms
Thermal time constant	74 min
Thermal resistance	0.6 K/W
Measuring flange	300 x 300 x 20, steel
Overall mass moment of inertia at power take-off	4.04 kgcm2
Product weight	6,700 g
Permissible axial shaft load	200 N
Permissible radial shaft load	1,110 N
Rotor position sensor	Absolute single turn encoder
Rotor position sensor, manufacturer designation	ECI 1319
Rotor position sensor, absolute detectable revolutions	1
Rotary position encoder interface	EnDat 22
Rotary position encoder measuring principle	Inductive
Rotor position sensor, DC operating voltage	5 V
Rotor position sensor, DC operating voltage range	3.6 ... 14 V
Rotor position sensor, position values per revolution	524,288
Rotor position encoder resolution	19 Bit
Rotor position sensor, system accuracy of angle measurement	-65 ... 65 arcsec
Brake holding torque	11 Nm
Operating voltage DC for brake	24 V
Brake current consumption	0.75 A
Power consumption, brake	18 W
Brake coil resistance	32 Ohm
Brake coil inductivity	900 mH
Brake separation time	<= 80 ms
Brake closing time	<= 20 ms
DC brake response delay	<= 4 ms
Max. brake no-load speed	10,000 1/min
Brake max. friction work	12,000 J
Mass moment of inertia of brake	0.74 kgcm2
Switching cycles, holding brake	10 million idle actuations (without friction work)
MTTF, subcomponent	190 years, rotor position sensor
Energy efficiency	ENEFF (CN) / Class 2