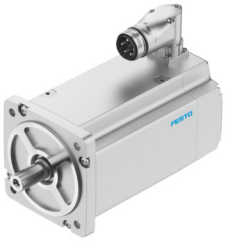
Servo motor
EMMT-AS-150-MKR-HV-R3M

Part number: 8148313



General operating condition

Data sheet

Feature	Value
Ambient temperature	-15 °C ... 40 °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 °C ... 70 °C
Relative air humidity	0 - 90%
Conforms to standard	IEC 60034
Temperature class as per EN 60034-1	F
Max. winding temperature	155 °C
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 V1 IM V3
Mounting position	Any
Degree of protection	IP21
Note on degree of protection	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
Featherkey shaft type	DIN 6885 A 8 x 7 x 36
Interface code, motor out	150A
Electrical connection 1, connection type	Hybrid plug
Electrical connection 1, connector system	M40x1
Electrical connection 1, number of connections/cores	15
Electrical connection 1, connection pattern	00997380
Pollution degree	2
Note on materials	RoHS compliant
Corrosion resistance class CRC	0 - No corrosion stress
LABS (PWIS) conformity	VDMA24364 zone III
Vibration resistance	As per EN 60068-2-6
Shock resistance	As per EN 60068-2-29 15 g/11 ms to EN 60068-2-27
Approval	RCM c UL us - Recognised (Oil)

Feature	Value
CE mark (see declaration of conformity)	To EU EMC Directive To EU Low Voltage Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK RoHS instructions To UK regulations for electrical equipment
Certificate issuing authority	UL E342973
Nominal operating voltage DC	680 V
Type of winding switch	Star inside
Number of pole pairs	5
Standstill torque	33 Nm
Nominal torque	13.5 Nm
Peak torque	60 Nm
Nominal rotary speed	3500 rpm
Max. rotational speed	5051 rpm
Max. mechanical speed	10000 rpm
Angular acceleration	≤100000 rad/s²
Nominal power rating of motor	4948 W
Continuous stall current	24 A
Nominal motor current	10.2 A
Peak current	50 A
Motor constant	1.32 Nm/A
Standstill torque constant	1.54 Nm/A
Voltage constant, phase-to-phase	92.9 mVmin
Phase-phase winding resistance	0.211 Ohm
Phase-phase winding inductance	3.3 mH
Winding longitudinal inductivity Ld (phase)	1.65 mH
Winding cross inductivity Lq (phase)	1.65 mH
Electric time constant	15.6 ms
Thermal time constant	45 min
Thermal resistance	0.46 K/W
Measuring flange	450 x 450 x 30 mm, steel
Total mass moment of inertia of output	38.7 kgcm²
Product weight	18700 g
Permissible axial shaft load	217 N
Permissible radial shaft load	1085 N
Rotor position sensor	Absolute encoder, multi-turn
rotor position sensor, manufacturer designation	EQI 1331
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 V ... 14 V
rotor position sensor, position values per revolution	524288
Rotor position transducer resolution	19 bit
rotor position sensor, system accuracy of angle measurement	-65 arcsec ... 65 arcsec
Mean time to failure (MTTF), subcomponent	190 years, rotor position encoder