Servo motor
EMMB-AS-60-02-S30SB

Part number: 8097172

General operating condition

Data sheet

Feature	Value
Ambient temperature	-15 °C ... 40 °C
Note on ambient temperature	Up to 60°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 ... 55 °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 Nikon A format
Motor type to EN 60034-7	IM V1 IM V3
Mounting position	optional
Degree of protection	IP65
Note on degree of protection	IP40 for motor shaft without rotary shaft seal IP54 for motor shaft with rotary shaft seal IP65 for motor housing without connection technology
Concentricity, coaxiality, axial runout to DIN SPEC 42955	N
Balance quality	G 2.5
Bearing lifetime under nominal conditions	20000 h
Electrical connection 1, connection type	Plugs
Electrical connection 1, connector system	Connection pattern RE
Electrical connection 1, number of connections/cores	6
Electrical connection 1, connection pattern	00995792
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 and EN 60068-2-6
Shock resistance	Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27
Approval	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
UKCA marking (see declaration of conformity)	To UK RoHS instructions To UK regulations for electrical equipment

Feature	Value
Certificate issuing authority	UL E342973
Nominal operating voltage DC	300 V
Nominal voltage DC	300 V
Type of winding switch	Star inside
Number of pole pairs	3
Standstill torque	0.7 Nm
Nominal torque	0.64 Nm
Peak torque	1.92 Nm
Nominal rotary speed	3000 rpm
Max. rotational speed	6000 rpm
Max. mechanical speed	10000 rpm
Nominal power rating of motor	200 W
Continuous stall current	1.5 A
Nominal motor current	1.4 A
Peak current	4.2 A
Motor constant	0.48 Nm/A
Voltage constant, phase-to-phase	29 mVmin
Phase-phase winding resistance	11.2 Ohm
Phase-phase winding inductance	20.9 mH
Electric time constant	1.87 ms
Measuring flange	255 x 255 x 8 mm, aluminium
Total mass moment of inertia of output	0.234 kgcm²
Product weight	1400 g
Permissible axial shaft load	90 N
Permissible radial shaft load	180 N
Rotor position sensor	Absolute single-turn encoder
rotor position sensor, manufacturer designation	SAR-ML50AJC00
rotor position sensor, absolute detectable revolutions	1
Rotor position encoder interface	Nikon A-format
Rotor position sensor, encoder measuring principle	Optical
rotor position sensor, DC operating voltage	5 V
rotor position sensor, DC operating voltage range	4.75 V ... 5.25 V
rotor position sensor, position values per revolution	1048576
Rotor position transducer resolution	20 bit
rotor position sensor, system accuracy of angle measurement	-120 arcsec ... 120 arcsec
Brake holding torque	1.3 Nm
Operating voltage DC for brake	24 V
Power consumption, brake	7.2 W