

# Servo motor EMMB-AS-80-07-K-S30S

Part number: 8097189

FESTO



 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
Information on max. installation height	with 1,000 m and longer 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
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 Nikon A format
Motor type as per EN 60034-7	IM B5 IM V1 IM V3
Mounting position	Any
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 according to DIN SPEC 42955	N
Balancing quality	G 2.5
Bearing lifetime, under nominal conditions	20000 h
Featherkey shaft design	DIN 6885 A 6 x 6 x 22
Electrical connection 1, connection type	Plug
Electrical connection 1, connection technology	Connection diagram RE
Electrical connection 1, number of pins/wires	6
Electrical connection for input 1, connection pattern	00995792
Contamination level	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 as per FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27
Certification	c UL us - Recognized (OL)

Feature	Value
CE marking (see declaration of conformity)	As per EU EMC directive As per EU low voltage directive As per EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions To UK instructions for electrical equipment
Certificate issuing authority	UL E342973
Nominal operating voltage DC	300 V
DC nominal voltage	300 V
Type of winding switch	Star inside
Number of pole pairs	3
Stall torque	2.63 Nm
Nominal torque	2.39 Nm
Peak torque	7.17 Nm
Nominal rotary speed	3000 rpm
Max. rotational speed	5000 rpm
Max. mechanical speed	10000 rpm
Motor nominal power	750 W
Continuous stall current	4.2 A
Motor nominal current	3.8 A
Peak current	11.4 A
Motor constants	0.662 Nm/A
Voltage constant, phase-to-phase	40 mVmin
Phase-phase winding resistance	2.1 Ohm
Winding inductance phase-phase	10.5 mH
Electric time constant	5 ms
Measuring flange	255 x 255 x 8 mm, aluminum
Total output inertia moment	0.942 kgcm <sup>2</sup>
Product weight	2800 g
Permissible axial shaft load	167.5 N
Permissible radial shaft load	335 N
Rotor position sensor	Absolute encoder, single-turn
Rotor position sensor for manufacturer designation	SAR-ML50AJC00
Rotor position encoder for absolutely detectable revolutions	1
Rotor position sensor interface	Nikon A-format
Rotor position sensor measuring principle	Optical
Rotor position encoder for DC operating voltage	5 V
Rotor position encoder for DC operating voltage range	4.75 V ... 5.25 V
Rotor position encoder for positional values per revolution	1048576
Rotor position sensor resolution	20 bit
Rotor position encoder system accuracy angle measurement	-120 arcsec ... 120 arcsec
Energy efficiency	ENEFF (CN) / Class 2