Servo motor EMME-AS-80-M-HS-AMB Part number: 2093203

FESTO



General operating condition

Data sheet

Storage temperature 20 °C 70 °C Relative air humidity 0.90 % Conforms to standard IEC 60034 Insulation protection class F Rating class according to EN 60034-1 Degree of protection IP21 Electrical connection technology Plug Note on materials Corrosion resistance class (CRC) 0. No corrosion stress LABS (PWIS) conformity VDMA24364 zone III Certification RCM compliance mark clu us. Recognized (OL) CE marking (see declaration of conformity) As per EU EMC directive As per EU tow voltage directive As per EU tow voltage directive As per EU RHS directive IN 6045 in EU work of the Compliance of the Compli	Feature	Value
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Conforms to standard Insulation protection class Faiting class according to EN 60034-1 Degree of protection Electrical connection technology Plug Note on materials Corrosion resistance class (CRC) O-No corrosion stress LABS (PWIS) conformity VDMA24364 zone III Certification RCM compliance mark c UL us - Recognized (OI) CE marking (see declaration of conformity) As per EU RIVE directive As per EU ROWS directive As per EU ROWS of Ser EU ROWS AS per EU RO	Storage temperature	-20 °C 70 °C
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Rating class according to EN 60034-1 Degree of protection IP21 Electrical connection technology Note on materials Corrosion resistance class (CRC) O - No corrosion stress LABS (PWIS) conformity VDMA24364 zone III Certification CE marking (see declaration of conformity) CE marking (see declaration of conformity) WLCA marking (see declaration of conformity) WLCA marking (see declaration of conformity) UKCA marking (see declaration of conformity) To UK instructions for EMC To UK softs instructions To UK instructions for EMC To UK instructions	Conforms to standard	IEC 60034
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Type of winding switch Number of pole pairs 3 Stall torque 3.5 Nm Nominal torque 3.2 Nm Peak torque 14 Nm Nominal rotary speed 3000 rpm Max. rotational speed 4097 rpm Motor nominal power 1000 W Continuous stall current 2.2 A Motor nominal current 2.1 A Peak current 8.8 A Motor constants Noting constant, phase-to-phase 97.5 mVmin Phase-phase winding resistance Winding inductance phase-phase 22.8 mH	Nominal operating voltage DC	565 V
Number of pole pairs Stall torque 3.5 Nm Nominal torque 3.2 Nm Peak torque 14 Nm Nominal rotary speed 3000 rpm Max. rotational speed 4097 rpm Motor nominal power 1000 W Continuous stall current 2.2 A Motor nominal current 2.1 A Peak current 8.8 A Motor constants 1.524 Nm/A Voltage constant, phase-to-phase Phase-phase winding resistance 9 Ohm Winding inductance phase-phase	DC nominal voltage	565 V
Stall torque 3.5 Nm Nominal torque 3.2 Nm Peak torque 14 Nm Nominal rotary speed 3000 rpm Max. rotational speed 4097 rpm Motor nominal power 1000 W Continuous stall current 2.2 A Motor nominal current 2.1 A Peak current 8.8 A Motor constants 1.524 Nm/A Voltage constant, phase-to-phase 97.5 mVmin Phase-phase winding resistance 9 0 hm Winding inductance phase-phase 22.8 mH	Type of winding switch	Star inside
Nominal torque 3.2 Nm Peak torque 14 Nm Nominal rotary speed 3000 rpm Max. rotational speed 4097 rpm Motor nominal power 1000 W Continuous stall current 2.2 A Motor nominal current 2.1 A Peak current 8.8 A Motor constants 1.524 Nm/A Voltage constant, phase-to-phase 97.5 mVmin Phase-phase winding resistance 9 0 hm Winding inductance phase-phase 22.8 mH	Number of pole pairs	3
Peak torque 14 Nm Nominal rotary speed 3000 rpm Max. rotational speed 4097 rpm Motor nominal power 1000 W Continuous stall current 2.2 A Motor nominal current 2.1 A Peak current 8.8 A Motor constants 1.524 Nm/A Voltage constant, phase-to-phase 97.5 mVmin Phase-phase winding resistance 9 Ohm Winding inductance phase-phase 22.8 mH	Stall torque	3.5 Nm
Nominal rotary speed 3000 rpm Max. rotational speed 4097 rpm Motor nominal power 1000 W Continuous stall current 2.2 A Motor nominal current 2.1 A Peak current 8.8 A Motor constants 1.524 Nm/A Voltage constant, phase-to-phase 97.5 mVmin Phase-phase winding resistance 9 0hm Winding inductance phase-phase 22.8 mH	Nominal torque	3.2 Nm
Max. rotational speed 4097 rpm Motor nominal power 1000 W Continuous stall current 2.2 A Motor nominal current 2.1 A Peak current 8.8 A Motor constants 1.524 Nm/A Voltage constant, phase-to-phase 97.5 mVmin Phase-phase winding resistance 9 0hm Winding inductance phase-phase 22.8 mH	Peak torque	14 Nm
Motor nominal power 1000 W Continuous stall current 2.2 A Motor nominal current 2.1 A Peak current 8.8 A Motor constants 1.524 Nm/A Voltage constant, phase-to-phase 97.5 mVmin Phase-phase winding resistance 9 Ohm Winding inductance phase-phase 22.8 mH	Nominal rotary speed	3000 rpm
Continuous stall current 2.2 A Motor nominal current 2.1 A Peak current 8.8 A Motor constants 1.524 Nm/A Voltage constant, phase-to-phase Phase-phase winding resistance 9 Ohm Winding inductance phase-phase 22.8 mH	Max. rotational speed	4097 rpm
Motor nominal current Peak current 8.8 A Motor constants 1.524 Nm/A Voltage constant, phase-to-phase Phase-phase winding resistance 9 Ohm Winding inductance phase-phase 22.8 mH	Motor nominal power	1000 W
Peak current 8.8 A Motor constants 1.524 Nm/A Voltage constant, phase-to-phase 97.5 mVmin Phase-phase winding resistance 9 Ohm Winding inductance phase-phase 22.8 mH	Continuous stall current	2.2 A
Motor constants 1.524 Nm/A Voltage constant, phase-to-phase 97.5 mVmin Phase-phase winding resistance 9 Ohm Winding inductance phase-phase 22.8 mH	Motor nominal current	2.1 A
Voltage constant, phase-to-phase 97.5 mVmin Phase-phase winding resistance 9 0hm Winding inductance phase-phase 22.8 mH	Peak current	8.8 A
Phase-phase winding resistance 9 0 hm Winding inductance phase-phase 22.8 mH	Motor constants	1.524 Nm/A
Winding inductance phase-phase 22.8 mH	Voltage constant, phase-to-phase	97.5 mVmin
	Phase-phase winding resistance	9 Ohm
Total output inertia moment 2.2 kgcm ²	Winding inductance phase-phase	22.8 mH
	Total output inertia moment	2.2 kgcm ²

Feature	Value
Product weight	4350 g
Permissible axial shaft load	72 N
Permissible radial shaft load	360 N
Rotor position sensor	Absolute encoder, multi-turn
Rotor position sensor interface	HIPERFACE®
Rotor position sensor measuring principle	Capacitive
Rotor position encoder, sinusoidal/cosinusoidal periods per revolution	16
Typical rotor position sensor resolution	12 bit
Rotor position encoder, typical angular accuracy	20 arcmin
Brake holding torque	4.5 Nm
Brake DC operating voltage	24 V
Brake power consumption	12 W
Brake mass moment of inertia	0.222 kgcm²
Switching cycles, holding brake	5 million idle actuations (without friction work!)
MTTF, subcomponent	797 years, holding brake
MTTFd, subcomponent	271 years, rotor position sensor
Energy efficiency	ENEFF (CN) / Class 2