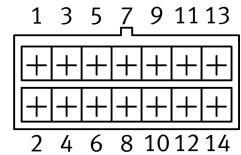
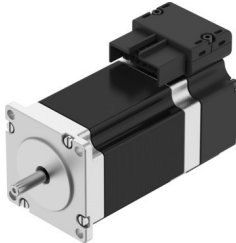


Stepper motor EMMB-ST-57-L-S

Part number: 8156143

FESTO



Data sheet

Feature	Value
Ambient temperature	-15 °C...40 °C
Note on ambient temperature	Up to 80°C with derating -2%/°C
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% Non-condensing
Conforms to standard	IEC 60034
Temperature class as per EN 60034-1	B
Max. winding temperature	130 °C
Rating class as per EN 60034-1	S1
Motor type to EN 60034-7	IM B5 IM V1 IM V3
Mounting position	optional
Degree of protection	IP20
Note on degree of protection	IP40 for motor shaft without rotary shaft seal
Interface code, motor out	57A
Electrical connection 1, connection type	Hybrid plug
Electrical connection 1, connector system	Plug pattern L10
Electrical connection 1, number of connections/cores	14
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	RCM trademark
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
Nominal operating voltage DC	48 V

Feature	Value
Number of pole pairs	50
Motor holding torque	1800 Nm
Peak torque	2100 Nm
Max. rotational speed	1500 rpm
Max. mechanical speed	8000 rpm
Stepper angle for complete step	1.8 deg
Stepping angle tolerance	±5%
Continuous stall current	5800 A
Nominal motor current	5 A
Peak current	8 A
Motor constant	320 Nm/A
Voltage constant, phase	22600 mVmin
Phase winding resistance	260 Ohm
Phase winding inductance	950 mH
Winding longitudinal inductivity Ld (phase)	1750 mH
Winding cross inductivity Lq (phase)	950 mH
Electric time constant	3700 ms
Thermal time constant	32 min
Thermal resistance	1500 K/W
Measuring flange	200 x 200 x 15 mm, steel
Total mass moment of inertia of output	0.48 kgcm ²
Product weight	1170 g
Permissible axial shaft load	15 N
Permissible radial shaft load	75 N