

Integrated motor EMCA-EC-67-S-1TE-EP

Part number: 8061201

FESTO



Data sheet

Feature	Value
KC characters	KC EMC
Type code	EMCA EMCA
Controller operating mode	P position controller PI speed controller Cascade controller with PI current regulator PWM MOSFET power output stage Cascade controller with P position controller PI speed controller PI current regulator
Rotor position sensor	Absolute encoder, single-turn Absolute encoder, single-turn
Rotor position sensor measuring principle	Magnetic
Protective function	Software end position detection Temperature monitoring Current monitoring Contouring error monitoring Voltage failure detection I ² t monitoring Temperature monitoring Current monitoring Voltage failure detection Contouring error monitoring Software end position detection
Safety function	Safe torque off (STO) Safe torque off (STO)
Safety integrity level (SIL)	Safe torque off (STO)/SIL 2 Safe torque off (STO)/SIL 2
Performance Level (PL)	Safe torque off (STO)/category 3, performance level d Safe torque off (STO)/category 3, performance level d
Display	LED LED
Max. rotational speed	3500 1/min
Nominal rotary speed	3100 1/min
Braking resistor, external	6 Ohm
Diagnostic coverage	90 %
Characteristics of digital logic outputs	Freely configurable in some cases Not galvanically isolated Freely configurable in some cases Not galvanically isolated
Hardware fault tolerance	1 1

Feature	Value
Max. current of digital logic outputs	100 mA
Max. positive test pulse with 0 signal	10000 µs
Max. negative test pulse on 1 signal	600 µs
Motor nominal power	120 W
DC nominal voltage	24 V
Nominal current	6.9 A
Parameterization interface	Ethernet Ethernet
Protocol	EtherNet/IP EtherNet/IP
SFF safe failure fraction	>90 %
Max. number of positioning sets	64
Rotor position sensor resolution	12 bit
Motor peak power	158 W
Peak current	10.2 A
Permissible voltage fluctuations	+/- 20 % +/- 20 %
Certificate issuing authority	UL E331130 German Technical Control Board (TÜV) 01/205/5514.00/16 German Technical Control Board (TÜV) 01/205/5514.00/16 UL E331130
CE marking (see declaration of conformity)	As per EU EMC directive as per EU machinery directive As per EU EMC directive as per EU machinery directive
Vibration resistance	Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6 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 Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27
Storage temperature	-25 °C ... 70 °C
Relative air humidity	0 - 95 % Non-condensing 0 - 95 % Non-condensing
Degree of protection	IP54 IP54
Ambient temperature	0 °C ... 50 °C
Note on ambient temperature	Above an ambient temperature of 20 °C, the power must be reduced by 1.75% per °C. Above an ambient temperature of 20 °C, the power must be reduced by 1.75% per °C.
Certification	c UL us - Recognized (OL) RCM compliance mark RCM compliance mark c UL us - Recognized (OL)
Rotor mass moment of inertia	0.175 kgcm ²
Nominal torque	0.37 Nm
Peak torque	0.85 Nm
Permissible axial shaft load	60 N
Permissible radial shaft load	100 N
PFH	1.0E-9
PFD	1.86E-5
Proof test interval	20 y
Product weight	1900 g
Number of digital logic outputs 24 V DC	2
Number of digital logic inputs	2
Communication profile	FHPP FHPP

Feature	Value
Logic input specification	Based on IEC 61131-2 Based on IEC 61131-2
Work range of logic input	24 V
Characteristics of logic input	Galvanically connected to logic potential Galvanically connected to logic potential
Ethernet, supported protocols	TCP/IP TCP/IP
Input switching logic	PNP (positive switching) PNP (positive switching)
Switching logic at outputs	PNP (positive switching) PNP (positive switching)
Type of mounting	With through-hole Screwed tightly Screwed tightly With through-hole
Note on materials	Contains paint-wetting impairment substances RoHS-compliant Contains paint-wetting impairment substances RoHS-compliant