

servo drive CMMT-ST-C8-1C-MP-S0

Part number: 8163946

★ Core product range

FESTO



Data sheet

Feature	Value
Mounting type	Mounting plate, bolted with top-hat rail
Assembly position	Free convection Vertical
Product weight	350 g
Display	LED green/yellow/red
Authorisation	RCM Mark c UL us - Listed (OL)
KC mark	KC-EMV
CE mark (see declaration of conformity)	to EU directive for EMC to EU directive for machinery in accordance with EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK instructions for machines To UK RoHS instructions
Certificate issuing department	TÜV Rheinland 01/205/5696.00/19 TÜV Rh. UK 01/205U/5696.00/22 UL E331130
Storage temperature	-25 ... 55 °C
Ambient temperature	0 ... 50 °C
Note on ambient temperature	Observe derating with regard to mounting clearance and output current
Relative air humidity	5 - 90 % non-condensing
Max. installation height	2,000 m
Protection class	IP20
Safety class	III
Overvoltage category	I
Degree of contamination	2
Materials note	Conforms to RoHS
PWIS conformity	VDMA24364 zone III
Nominal voltage, load supply DC	24 ... 48 V
Permissible range, load supply	-15 % / +15 %
Max. intermediate circuit voltage, DC	60 V
Braking resistor, external	6 Ohm
Max. continuous output of the external braking resistor (IEC)	490 W
Nominal DC voltage, logic power supply	24 V
Permissible range, logic voltage	± 15 %
Current consumption, logic power supply without clamping brake	1 A
Current consumption for logic supply with locking brake	2 A
Output voltage range AC	0 V up to input voltage
Nominal output current	8 A
Effective nominal current per phase	8 A
Effective peak current per phase	20 A
Max. peak current duration	3 s
Nominal controller power	300 W
Peak power	800 W

Feature	Value
Output frequency	> 600 Hz
Max. length of motor cable without external mains filter	25 m
Max. output current of holding brake	1 A
Max. voltage drop from logic supply to brake output	1 V
Controller operating mode	Cascade controller P position controller PI speed controller PI current regulator for F or M Profile operation with record and direct mode Interpolated mode via fieldbus Synchronised operating modes Homing Setting-up Autotuning Open-loop operation
Operating mode	Field-oriented closed-loop control Position resolution 24 bit/U Real-time data acquisition 2x Input-Capture (x, v, F) 2x Output-Trigger (x, v, F) 1x position sensor input Sampling rate 16 or 20 kHz PWM with 16 or 20 KHz
Adjustable current reduction	Using software
Protective function	I ² t monitoring Temperature monitoring Current monitoring Voltage failure detection Drag error monitoring Software end-position detection
Nominal current adjustment	Using software
Ethernet interface, function	Parameterisation and commissioning
Ethernet interface, protocol	TCP/IP
Fieldbus interface, protocol	EtherCAT EtherNet/IP PROFINET IRT
Fieldbus coupling	EtherCAT EtherNet/IP Modbus/TCP PROFINET
Communications profile	CiA402 CoE (CANopen over EtherCAT) EoE (Ethernet over EtherCAT) FoE (File over EtherCAT) PROFIdrive
Process interface	I/O mode for 256 position sets Interpolated Mode CSP Interpolated Mode CST Interpolated Mode CSV
Fieldbus interface, transmission rate	100 Mbit/s
Fieldbus interface, type of connection	2x socket
Fieldbus interface, connection technology	RJ45
Encoder interface, function	BiSS-C Incremental encoder
Number of digital logic inputs	6
Input circuit logic	PNP (positive-switching)
Logic input characteristics	Freely configurable to a given extent Safety inputs in some cases Not electrically isolated
Specification, logic input	Based on IEC 61131-2, type 3
Logic input working range	-3 ... 30 V

Feature	Value
Number of high-speed logic inputs	2
Time resolution of high-speed logic inputs	1 μ s
Number of 24 V DC digital logic outputs	2
Switching logic, outputs	PNP (positive-switching)
Digital logic output characteristics	Not electrically isolated
Max. current, digital logic outputs	100 mA
Number of high-speed switching outputs	2
Time resolution of high-speed switching outputs	1 μ s
Number of floating switching outputs	1
Max. current of the floating switching outputs	100 mA
Safety function	Safe torque off (STO) Safe stop 1 (SS1-time controlled)
Safety Integrity Level (SIL)	STO / SIL 2 / SILCL 2 (EC motor without diagnostics) STO / SIL 3 / SILCL 3 (stepper motor/EC motor with diagnostics)
Performance level (PL)	STO / cat. 3 PLd (EC motor without diagnostics) STO / cat. 3, PLe (stepper motor/EC motor with diagnostics)
Diagnostic coverage	STO / medium (EC motor with diagnostics) STO / medium (stepper motor) STO / low (EC motor without diagnostics)
SFF Safe Failure Fraction	99 %
Hardware fault tolerance	1
Proof test interval	STO / 20 a (stepper motor/EC motor without diagnostics) STO / 0.25 a (EC motor with diagnostics)
Number of safe 2-pin inputs	1
Number of diagnostic outputs	1