

Servo drive CMMT-ST-C8-1C-EC-S0

Part number: 8084005

FESTO



Data sheet

| Feature | Value |
|--|--|
| Type of mounting | Mounting plate, screwed on With H-rail |
| Mounting position | Free convection Vertical |
| Product weight | 350 g |
| Display | LED green/yellow/red |
| Certification | RCM compliance mark c UL us - Listed (OL) |
| KC characters | KC EMC |
| CE marking (see declaration of conformity) | As per EU EMC directive as per EU machinery directive As per 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 authority | German Technical Control Board (TÜV) Rheinland 01/205/5696.00/19 German Technical Control Board (TÜV) Rheinland UK Ltd. 01/205U/5696.00/22 UL E331130 |
| Storage temperature | -25 °C ... 55 °C |
| Ambient temperature | 0 °C ... 50 °C |
| Note on ambient temperature | Observe derating with regard to assembly distance and output current. |
| Relative air humidity | 5 - 90 % Non-condensing |
| Max. installation height | 2000 m |
| Degree of protection | IP20 |
| Protection class | III |
| Overvoltage category | I |
| Contamination level | 2 |
| Note on materials | RoHS-compliant |
| LABS (PWIS) conformity | VDMA24364 zone III |
| Nominal voltage, load supply DC | 24 V ... 48 V |
| Load supply permissible range | -15% / +15% |
| Max. DC link voltage | 60 V |
| Nominal voltage, logic supply DC | 24 V |
| Permissible range of logic voltage | ± 15 % |
| Max. current consumption for logic supply without clamping brake | 1 A |
| Max. current consumption for logic supply with parking brake | 2 A |
| Output voltage range AC | 0 V up to input voltage |

| Feature | Value |
|--|--|
| Nominal output current | 8 A |
| Nominal current per phase, effective | 8 A |
| Peak current per phase, effective | 10 A |
| Max. peak current duration | 3 s |
| Controller nominal power | 300 VA |
| Peak power | 400 VA |
| Output frequency | 0 Hz ... 20000 Hz |
| Max. length of motor cable without ext. 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 control P position controller PI speed controller PI current regulator for F or M Profile operation with block mode and direct mode Interpolating mode via fieldbus Synchronous operating modes Reference travel Setup mode Autotuning Open-loop operation |
| Mode of operation | Field-oriented regulation Position resolution 24 bit/rev. Sampling rate 20 kHz Pulse-width modulation with 20 kHz Real-time data acquisition 2x input capture (x, v, F) 2x output trigger (x, v, F) 1x position sensor input |
| Adjustable current reduction | Via software |
| Protective function | I ² t monitoring Temperature monitoring Current monitoring Voltage failure detection Contouring error monitoring Software end position detection |
| Nominal current setting | Via software |
| Ethernet interface, function | Parameterization and commissioning |
| Ethernet interface, protocol | TCP/IP |
| Fieldbus interface, protocol | EtherCAT |
| Fieldbus interface, function | Bus connection, incoming/forwarding EtherCAT® slave |
| Fieldbus coupling | EtherCAT |
| Communication profile | CiA402 CoE (CANopen over EtherCAT) EoE (Ethernet over EtherCAT) FoE (File over EtherCAT) |
| Process interfacing | Interpolated mode CSP Interpolated mode CST Interpolated mode CSV Record table with 128 entries |
| Fieldbus interface, transmission rate | 100 Mbit/s |
| Fieldbus interface, connection type | 2x socket |
| Fieldbus interface, connection technology | RJ45 |
| Encoder interface, function | BiSS-C Incremental encoder |
| Number of digital logic inputs | 6 |
| Input switching logic | NPN (negative switching) PNP (positive switching) |
| Characteristics of logic input | Freely configurable in some cases Safety inputs in some cases Not galvanically isolated |

| Feature | Value |
|---|---|
| Logic input specification | Based on IEC 61131-2, type 3 |
| Work range of logic input | -3 V ... 30 V |
| Number of high-speed logic inputs | 2 |
| Time resolution of high-speed logic inputs | 1 µs |
| Number of digital logic outputs 24 V DC | 2 |
| Switching logic at outputs | NPN (negative switching) PNP (positive switching) |
| Characteristics of digital logic outputs | Configurable Not galvanically isolated |
| Max. current of digital logic outputs | 100 mA |
| Number of high-speed switching outputs | 2 |
| Time resolution of high-speed switching outputs | 1 µs |
| Number of floating switching outputs | 1 |
| Max. current of the floating switching outputs | 100 mA |
| Safety function | Safe torque off (STO) Safe stop 1 with time control (SS1-t) |
| 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: 87% (EC motor without diagnostics) STO / 90% (stepper motor) STO: 92% (EC motor with diagnostics) |
| 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 |