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

Part number: 8163946



General operating condition

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	TÜV Rheinland UK 01/205U/5696.01/24 TÜV Rheinland 01/205/5696.01/24 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
Braking resistor, external	6 Ohm
Max. continuous output of the external braking resistor (IEC)	490 W
Nominal voltage, logic supply DC	24 V
Permissible range of logic voltage	± 15 %
Max. current consumption for logic supply without clamping brake	1 A

Feature	Value
Max. current consumption for logic supply with parking brake	2 A
Output voltage range AC	0 V up to input voltage
Nominal output current	8 A
Nominal current per phase, effective	8 A
Peak current per phase, effective	20 A
Max. peak current duration	3 s
Controller nominal power	300 VA
Peak power	800 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. 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	Via software
Protective function	I²t 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 EtherNet/IP PROFINET IRT
Fieldbus interface, function	Bus connection, incoming/forwarding EtherCAT® slave PROFINET slave Fieldbus
Fieldbus coupling	EtherCAT EtherNet/IP Modbus®/TCP PROFINET
Communication profile	CiA402 CoE (CANopen over EtherCAT) EoE (Ethernet over EtherCAT) FoE (File over EtherCAT) PROFIdrive
Process interfacing	I/O mode for 256 positioning blocks Interpolated mode CSP Interpolated mode CST Interpolated mode CSV
Fieldbus interface, transmission rate	100 Mbit/s
Fieldbus interface, connection type	2x socket

Feature	Value
Fieldbus interface, connection technology	RJ45
Encoder interface, function	BiSS-C Incremental encoder
Number of digital logic inputs	6
Input switching logic	PNP (positive switching)
Characteristics of logic input	Freely configurable in some cases Safety inputs in some cases Not galvanically isolated
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	PNP (positive switching)
Characteristics of digital logic outputs	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 / medium (EC motor without 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