servo drive
CMMT-AS-C5-11A-P3-EC-S1

Part number: 5340823
Product to be discontinued

Type to be discontinued. Available until 2023. See Support Portal for alternative products.

Data sheet

Feature	Value
Mounting type	Mounting plate, bolted
Assembly position	Free convection Vertical
Product weight	2,200 g
Display	LED green/yellow/red
Control elements	Optional: control unit CDSB
Conforms to standard	EN 61800-3 EN 61800-5-1 EN 61800-5-2 EN ISO 13849-1
Based on the standard	EN 50581 EN 60204-1 EN 61508-1 EN 61508-2 EN 61508-3 EN 61508-4 EN 61508-5 EN 61508-6 EN 61508-7 EN 61800-2 EN 62061
Authorization	RCM Mark TÜV c UL us - Listed (OL)
KC mark	KC-EMV
CE symbol (see declaration of conformity)	according to EU-EMV guideline according to EU machines guideline 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 01/205/5640.00/18 UL E331130 TÜV Rh. UK 01/205U/5640.00/22
Storage temperature	-25 ... 55 °C
Ambient temperature	0 ... 50 °C
Note on ambient temperature	Power must be reduced by 3%/°C at ambient temperatures above 40°C.
UL ambient temperature	0 ... 40 °C
Relative air humidity	5 - 90 % non-condensing
Max. installation height	2,000 m
Note on max. installation height	From 1000 m, power reduction by 1% per 100 m
Protection class	IP20

Feature	Value
Safety class	I
Overvoltage category	III
Degree of contamination	2
Surge strength	6 kV
Materials note	Conforms to RoHS
PWIS conformity	VDMA24364 zone III
Nominal operating voltage, phases	Three-phase
Nominal operating voltage, AC	400 V
Permissible voltage fluctuation	+/- 10 %
Input voltage range AC	200 ... 480 V
Line frequency	48 ... 62 Hz
Nominal current, load supply	6 A
Peak current, load supply	18 A
Active PFC	No
Mains filter	Integrated
System voltage to EN 61800-5-1	300 V
Max. short circuit protection of the mains	10 kA
Mains types	TN IT
Nominal voltage, load supply DC	560 V
Permissible range, load supply	± 10 %
Max. intermediate circuit voltage, DC	800 V
Braking resistor, integrated	130 Ohm
Braking resistance pulse power	5 kW
Pulse energy for braking resistor	850 Ws
Nominal power braking resistor (IEC)	58 W
Braking resistor, external	80 ... 130 Ohm
Max. continuous output of the external braking resistor (IEC)	1,200 W
Nominal DC voltage, logic power supply	24 V
Permissible range, logic voltage	± 20 %
Current consumption, logic power supply without clamping brake	0.5 A
Current consumption for logic supply with locking brake	1.8 A
Max. current consumption for logic supply, holding brake and I/O	2.5 A
Output voltage range AC	3x (0 – Input) V
Effective nominal current per phase	5 A
Effective peak current per phase	15 A
Max. peak current duration	2 s
Nominal controller power	2,500 W
Peak power	7,500 W
Output frequency	0 ... 599 Hz
Max. length of motor cable without external mains filter	50 m
Max. output current of holding brake	1.3 A
Max. voltage drop from logic supply to brake output	1 V
Number of inputs for motor temperature sensor	1
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
Operating mode	Field-oriented closed-loop control Position resolution 24 bit/U Sampling rate 16 kHz PWM at 8 or 16 KHz Vector modulation with 3rd harmonic Real-time data acquisition 2x Input-Capture (x, v, F)

Feature	Value
	2x Output-Trigger (x, v, F) 2x position encoder input 1x SYNC interface for encoder emulation or encoder input
Ethernet interface, function	Parameterisation and commissioning
Ethernet interface, protocol	TCP/IP
Fieldbus interface, protocol	EtherCAT
Fieldbus coupling	EtherCAT
Communications profile	CiA402 CoE (CANopen over EtherCAT) EoE (Ethernet over EtherCAT) FoE (File over EtherCAT)
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	ENDAT 2.1 encoder ENDAT 2.2 encoder Hiperface encoder Incremental encoder Nikon SIN/COS encoder
Encoder interface 2, function	Incremental encoder SIN/COS encoder
Synchronisation interface, function	Encoder emulation A/B/Z Encoder input A/B/Z
Encoder interface output, characteristics	1 MHz maximum output frequency max. 16384 ppr
Encoder interface input, characteristics	1 MHz maximum output frequency max. 16384 ppr
Number of digital logic inputs	12
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
Number of high-speed logic inputs	2
Time resolution of high-speed logic inputs	1 µs
Number of 24 V DC digital logic outputs	6
Switching logic, outputs	PNP (positive-switching)
Digital logic output characteristics	Freely configurable to a given extent Not electrically isolated Diagnostics outputs in some cases
Max. current, digital logic outputs	20 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	50 mA
Number of analog set point inputs	1
Set point input characteristics	Differential inputs Can be configured for speed in RPM Configurable for current/force
Set point input working range	± 10 V
Operating range Analog inputs	± 10 V
Set point input impedance	70 kOhm
Safety function	Safe brake control (SBC) Safe torque off (STO) Safe stop 1 (SS1)

Feature	Value
Safety Integrity Level (SIL)	Safe brake control (SBC) / SIL 3 / SILCL 3 Safe torque off (STO)/SIL 3/SILCL 3
Performance level (PL)	Safe brake control (SBC) / category 3, Performance Level e Safe Torque off (STO)/Category 4, Performance Level e
Diagnostic coverage	97 %
SFF Safe Failure Fraction	99 %
Hardware fault tolerance	1
Number of safe 2-pin inputs	2
Number of diagnostic outputs	2