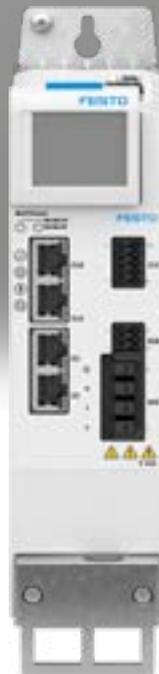


Servo drive CMMT-AS



Festo Core Range
Solves the majority of your automation tasks

With the Festo Core Range, we have selected the most important products and functions from our broad product catalogue, and added the quickest delivery.

Worldwide: Quickest delivery – wherever, whenever
Simply good: Expected high Festo quality
Fast: Easy and fast to select

The Core Range offers you the best value for your automation tasks.



Key features

At a glance

- Universal servo drive for PM-synchronous servo motors with up to 6000 W continuous power
- Supports the motor series EMMT-AS, EMME-AS, EMMB-AS and EMMS-AS as well as third-party motors
- Integrated single-phase/three-phase mains connection 230/400 V AC, mains filter and braking resistor, connection option for external braking resistor
- Precise torque, speed and position control
- Motion from point-to-point to interpolated motion
- Comprehensively integrated protective functions for the servo drive, motor and axis with automatic motor shut-down/quick stop
- Bus protocols
- Configuration:
 - Automatically with the "Festo Automation Suite" as well as auto-tuning
 - Directly via fieldbus and PLC
 - Data backup concept via PLC or operating panel CDSB
- Supports digital absolute encoders (EnDat, Hiperface, Nikon-A) in the motor as well as incremental (A/B, Sin/Cos) displacement encoders on the axis
- Integrated safety functions:
 - Safe torque off (STO) up to SIL3/Cat. 4 PL e
 - Safe stop 1 (SS1) when using a suitable external safety relay unit and suitable circuitry for the servo drive
 - Safe brake control (SBC) up to SIL3/Cat. 3 PL e
 - Diagnostic outputs STA and SBA for feedback of the active safety function

EtherCAT

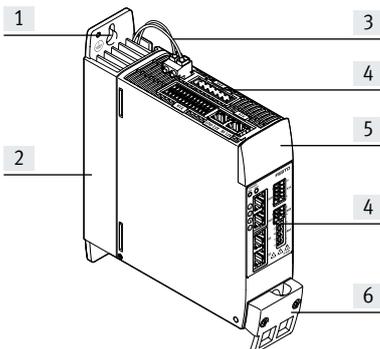
PROFI
NET

EtherNet/IP

Modbus

- Modbus TCP is available as an additional protocol for all EtherNet/IP devices
- Prepared device description files and function blocks for integration in PLC systems

The technology in detail



- [1] Elongated hole for mounting the servo drive on the control cabinet back wall
- [2] Cooling element for dissipating heat. The internal braking resistor is housed in the cooling element
- [3] Connection for braking resistor
- [4] Connections
- [5] Blind plate (optionally with plug-on operating panel CDSB → page 14)
- [6] Shield clamp and strain relief

Electric Motion Sizing

Configuring electromechanical drives



Create the optimum drive package quickly and reliably. Electric Motion Sizing calculates suitable combinations of electric axis, electric motor and servo drive using just a few application details. It provides all the relevant data including the bill of materials and documentation for your selected combination. This avoids design errors and results in significantly improved energy efficiency for the system. A smooth connection to the Festo Automation Suite also makes commissioning easier for you.

To find out more, go to www.festo.com/ems

Key features

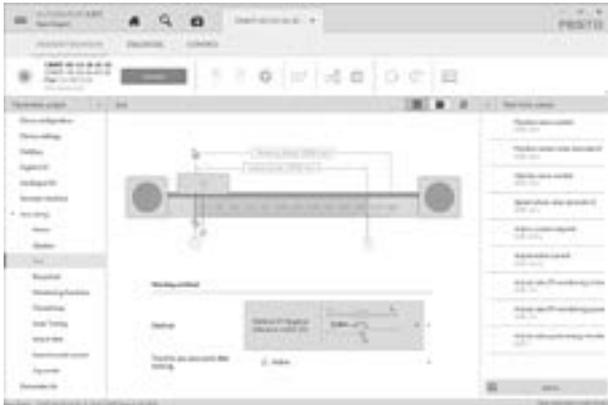
Library for EPLAN

→ www.festo.de/eplan

EPLAN macros for fast and reliable planning of electrical projects in combination with servo drives, motors and cables. This enables a high level of planning reliability, standardised documentation, and there is no need to create symbols, graphics and master data.

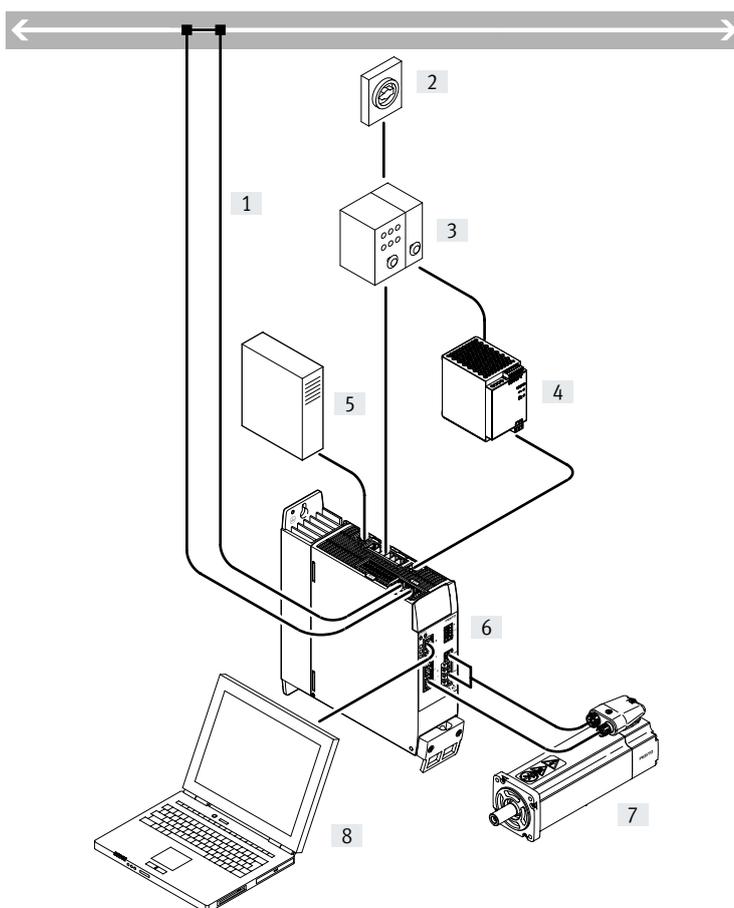
Festo Automation Suite

Parameterisation and programming software for electronic devices from Festo



- Parameterisation, programming and commissioning in a clear and user-friendly interface
- Optimum support for complex processes thanks to guided wizards (e.g. for commissioning, drive configuration, etc.)
- Fast access to the required documents and additional information
- Easy integration of electric drives in the controller programming

System overview



- [1] Bus/network
- [2] Main switch
- [3] Circuit breaker/fuses
- [4] Power supply unit for logic voltage supply 24 V DC (PELV)
- [5] External braking resistor (optional)
- [6] Servo drive CMMT-AS
- [7] Servo motor
- [8] PC with Ethernet connection for parameterisation

Type codes

001	Series
CMMT	Motor controller

002	Motor type
AS	AC synchronous

003	Nominal current
C2	2 A
C3	3 A
C4	4 A
C5	5 A
C7	7 A
C12	12 A

004	Nominal input voltage
3A	230 V AC/50-60Hz
11A	400 V AC/50-60Hz

005	Number of phases
	Single-phase
P3	Three-phase

006	Bus protocol/activation
EC	EtherCAT®
EP	EtherNet/IP
PN	Profinet
MP	Multiprotocol

007	Safety function
S1	Standard safety

Technical data

Bus protocols



EtherNet/IP



General technical data

CMMT-AS-	C2-3A...	C4-3A...	C2-11A...	C3-11A...	C5-11A...	C7-11A...	C12-11A...
Type of mounting	Mounting plate, screwed in						
Indicator	Green/yellow/red LED or operating panel CDSB with plain-text message						
Controller mode of operation	<ul style="list-style-type: none"> • 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 • Homing/setup mode/auto-tuning 						
Mode of operation	<ul style="list-style-type: none"> • Field-oriented control, position resolution 24-bit/rev. • Sampling rate 16 kHz • PWM with 8 or 16 kHz, vector modulation with third harmonic (16 kHz only with CMMT-AS-C2-3A and CMMT-AS-C4-3A) • Real-time data acquisition: <ul style="list-style-type: none"> – 2x input position capture – 2x output position trigger – 2x position encoder input – 1x SYNC interface for encoder emulation or encoder input 						
Mounting position	Vertical						
Product weight [g]	1300	1400	2100	2100	2200	4100	4100

Bus protocols

Multiprotocol	CMMT-AS-...-MP			
Interface	EtherCAT	PROFINET RT/IRT	EtherNet/IP	Modbus TCP
Function	Bus connection incoming/outgoing			
Process interfacing	Interpolated mode CSP	AC1: adjustable-speed drives	Adjustable-speed drives	Adjustable-speed drives
	Interpolated mode CSV	AC3: drives with positioning function	Drives with positioning function	Drives with positioning function
	Interpolated mode CST	AC4: synchronous servo application		
	Point-to-point mode PP			
	Point-to-point mode PV			
	Point-to-point mode PT			
Homing mode HM				
	Record table with 128 entries			
Communication profile	CiA402	PROFIdrive	DriveProfile	DriveProfile
	CoE (CANopen over EtherCAT)			
	EoE (Ethernet over EtherCAT)			
Max. fieldbus transmission rate [Mbps]	100			
Connection type	2x bushing			
Connection technology	RJ45			

Technical data

Electrical data		CMMT-AS-	C2-3A...	C4-3A...	C2-11A...	C3-11A...	C5-11A...	C7-11A...	C12-11A...
Output connection data									
Output voltage range	[V AC]	3x (0 – Input)							
Nominal current per phase	[A _{eff}]	2	4	1.7	2.5	5	7	12	
Peak current per phase	[A _{eff}]	6	12	5.1	7.5	15	21	36	
Max. peak current duration (at f _s ≥ 5 Hz)	[s]	2							
Nominal power	[W]	350	700	800	1200	2500	4000	6000	
Peak power	[W]	1000	2000	2400	3600	7500	12000	18000	
Output frequency	[Hz]	0 ... 599							
Max. motor cable length ¹⁾	[m]	25/25			50/100			25/100	
Load voltage AC									
Nominal operating voltage phases		1-phase			3-phase				
Voltage input range	[V AC]	100 ... 230 (-20%/+15%)			200 ... 480 (-10%/+10%)				
Nominal operating voltage	[V AC]	230			400				
Nominal current	[A _{eff}]	2.8	5.6	2	3	6	9	15	
Peak current		8.4	16.8	6	9	18	27	45	
Mains frequency	[Hz]	48 ... 62							
System voltage in accordance with EN 61800-5-1	[V]	300							
Max. short circuit current rating of the mains	[kA]	100			10				
Mains types of system earthing		TN, TT, IT			TN, IT				
Mains filters		Built in							
Load voltage DC									
Voltage input range	[V DC]	80 ... 360			80 ... 700				
Max. intermediate circuit voltage	[V DC]	395			800				
Nominal current									
at 320 V DC	[A]	1.3	2.6	–	–	–	–	–	–
at 560 V DC	[A]	–	–	1.5	2.3	4.7	7.5	11.2	
Logic supply									
Nominal voltage	[V DC]	24 ±20%							
Max. current consumption	[A]	0.5/2.3 ²⁾				0.5/2.5 ²⁾			

1) Without/with external mains filter

2) Max. current at full expansion, with two position encoders, brake output and all I/Os with max. specified loads connected

Braking resistor		CMMT-AS-	C2-3A...	C4-3A...	C2-11A...	C3-11A...	C5-11A...	C7-11A...	C12-11A...
Integrated									
Resistance	[Ω]	100			130			47	
Pulse power	[kW]	1.6			5			13.6	
Pulse energy	[Ws]	230			850			1200	
Nominal power	[W]	23			48		48		58
External									
Resistance	[Ω]	100 ... 160		67 ... 100		130 ... 250		130 ... 250	
Max. continuous power	[W]	180		350		400		600	

Motor auxiliary connections		CMMT-AS-	C2-3A...	C4-3A...	C2-11A...	C3-11A...	C5-11A...	C7-11A...	C12-11A...
Motor temperature monitoring									
Digital		Connection for temperature switch (PTC, N/C contact or N/O contact)							
Analogue		Connection for analogue temperature sensor (KTY81 ... 84, NTC, Pt1000)							
Output for holding brake									
Version		High-side switch; 24 V; monitored internally							
Output current	[A]	1.0				1.3		1.5	
Output for 2nd brake									
Version		High-side switch; 24 V; monitored internally							
Output current	[A]	0.1							

Technical data

Interfaces	
Ethernet	
Function	Parameterisation and commissioning
Protocol	DHCP
	TCP/IP
Position encoders	
Function of position encoder 1	ENDAT 2.1 encoder
	ENDAT 2.2 encoder
	HIPERFACE encoder
	Incremental encoder
	SIN/COS encoder
	BISS-C
Function of position encoder 2	Nikon-A
	Incremental encoder
	SIN/COS encoder
Synchronisation	
Function	Encoder emulation A/B/Z
	Encoder input A/B/Z
Encoder output, characteristics	1 MHz maximum output frequency
	Resolution up to 16384 ppr
Encoder input, characteristics	1 MHz maximum input frequency
	Resolution up to 16384 ppr
Input/output	
Digital inputs	
Number	10 ... 12 (depending on device design)
Number of high-speed	2
Time resolution of high-speed [μs]	1
Switching logic	PNP
Characteristics	Not galvanically isolated
	Freely configurable in some cases
	Safety inputs in some cases
Specification	Based on IEC 61131-2, type 3
Operating range [V]	0 ... 30
Digital outputs	
Number	4 ... 6 (depending on device design)
Number of high-speed	2
Time resolution of high-speed [μs]	1
Switching logic	PNP
Characteristics	Not galvanically isolated
	Freely configurable in some cases
Max. current [mA]	20
Analogue setpoint inputs	
Number	1
Characteristics	Differential input
	Configurable for current/force, rotational speed and position
Operating range [V]	±10
Impedance [kΩ]	70
Floating switching outputs	
Number	1
Max. current [mA]	50

Technical data

Safety data		
Safety function to EN 61800-5-2		Safe torque off (STO)
		Safe stop 1 (SS1)
		Safe brake control (SBC)
Performance Level (PL) to EN ISO 13849-1		
	Safe torque off (STO)	Category 4, Performance Level e
	Safe brake control (SBC)	Category 3, Performance Level e
Safety integrity level (SIL) to EN 62061 and EN 61508		
	Safe torque off (STO)	SIL 3/SILCL 3
	Safe brake control (SBC)	SIL 3/SILCL 3
Certificate issuing authority and no.		German Technical Control Board (TÜV) Rheinland 01/205/5640.00/18
Proof test interval		
	Safe torque off (STO)	Up to 20a
	Safe brake control (SBC)	24 h
Diagnostic coverage	[%]	Up to 97
Safe failure fraction (SFF)	[%]	Up to 99
Hardware fault tolerance		1
Operating and environmental conditions		
Degree of protection		IP20
Ambient temperature ¹⁾	[°C]	0 ... +50
Storage temperature	[°C]	-25 ... +55
Relative humidity	[%]	5 ... 90 (non-condensing)
Protection class		I
Overvoltage category		III
Pollution degree		2
Surge resistance	[kV]	6
Max. setup altitude ²⁾	[m]	2000
Shock and vibration resistance		To EN 61800-2 and EN 61800-5-1
CE marking (see declaration of conformity)		To EU EMC Directive ³⁾ To EU Machinery Directive To EU Low Voltage Directive To EU RoHS Directive
UKCA marking (see declaration of conformity)		To UK instructions for EMC To UK RoHS regulations To UK instructions for machines
KC mark		KC EMC
Certification		c UL us - Listed (OL) RCM
Note on materials		Contains paint-wetting impairment substances RoHS-compliant

1) Above 40°C power is reduced by 3% per K.

2) Above 1000 m power is reduced by 1% per 100 m.

3) For information about the area of use, see the EC declaration of conformity at: www.festo.com/sp → Certificates.

If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

Technical data

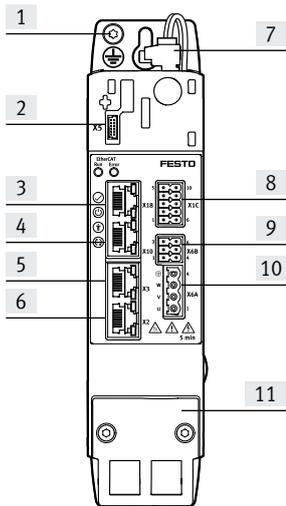
View of servo drives

Front view

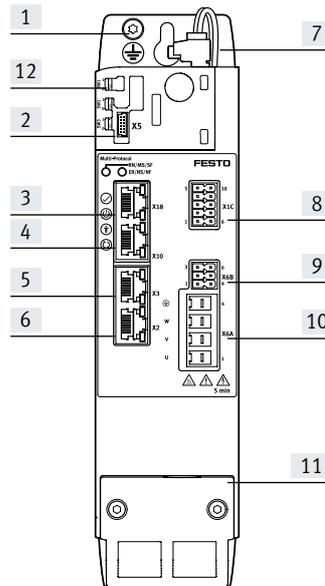
- [1] PE connection, housing
- [2] [X5] Connection for operating panel (behind blind plate)
- [3] [X18] Standard Ethernet
- [4] [X10] Device synchronisation
- [5] [X3] Position sensor 2
- [6] [X2] Position sensor 1

- [7] [X9B] Connection for braking resistor
- [8] [X1C] Inputs/outputs for the axis
- [9] [X6B] Motor auxiliary connection
- [10] [X6A] Motor phase connection
- [11] Shield clamp and strain relief
- [12] DIL switch for manual conversion of the fieldbus

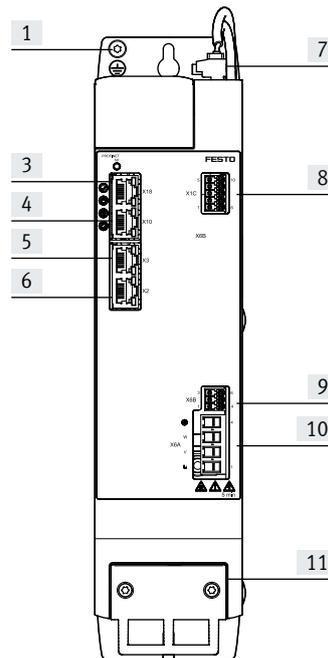
CMMT-AS-...-3A



CMMT-AS-C2/C3/C5-...-11A



CMMT-AS-C7/C12-...-11A

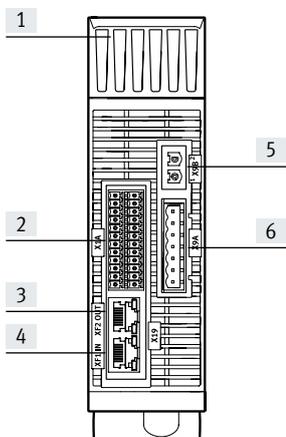


Top view

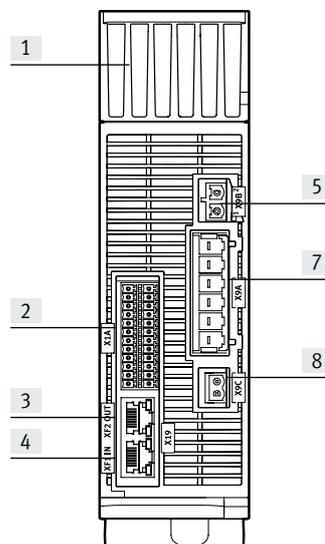
- [1] Cooling element
- [2] [X1A] I/O interface
- [3] [XF2 OUT] RTE interface port 2
- [4] [XF1 IN] RTE interface port 1

- [5] [X9B] Connection for braking resistor
- [6] [X9A] Supply: mains, DC link and logic voltage
- [7] [X9A] Supply: mains and DC link voltage
- [8] [X9C] Supply: logic voltage

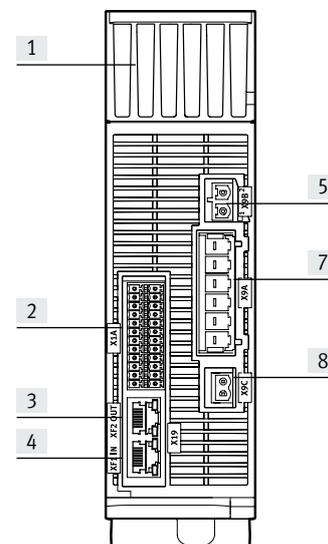
CMMT-AS-...-3A



CMMT-AS-C2/C3/C5-...-11A

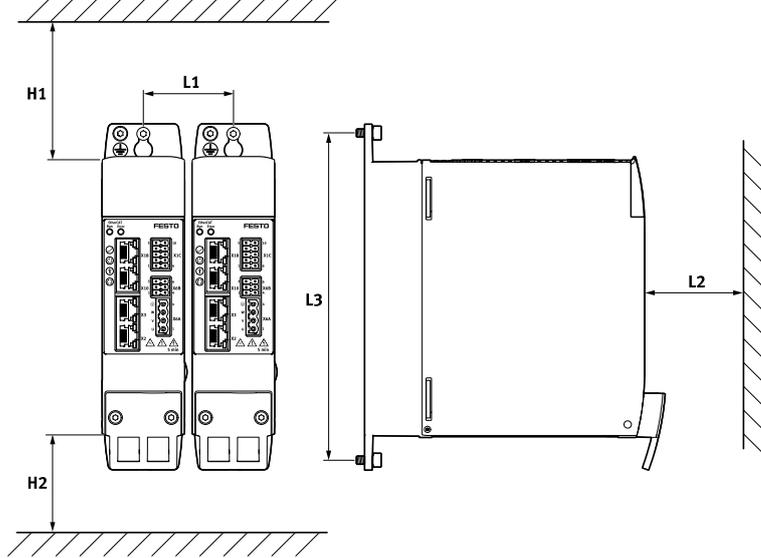


CMMT-AS-C7/C12-...-11A



Technical data

Installation clearance for servo drives



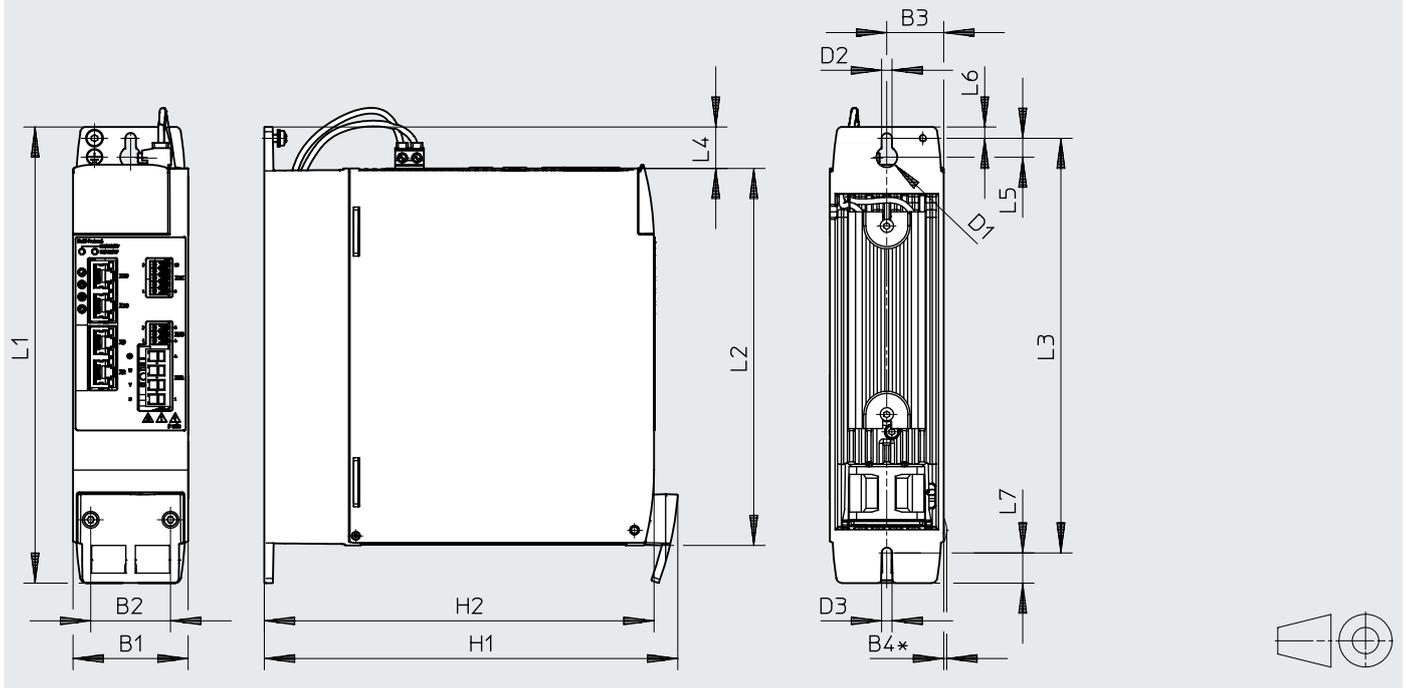
Type	H1	H2 ¹⁾	L1	L2	L3
CMMT-AS-C2-...-3A	70	70	52	70	200
CMMT-AS-C4-...-3A					
CMMT-AS-C2-...-11A	100	70	62	70	230
CMMT-AS-C3-...-11A					
CMMT-AS-C5-...-11A					
CMMT-AS-C7-...-11A	100	70	78	70	300
CMMT-AS-C12-...-11A					

1) An installation clearance of 150 mm underneath the servo drive is recommended for optimum wiring of the motor or encoder cable

Technical data

Dimensions

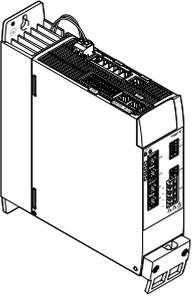
Download CAD data → www.festo.com



Type	B1	B2	B3	B4	D1 ∅	D2	D3	H1
CMMT-AS-2-...-3A	50	34	25	-	11	5.5	5.5	183
CMMT-AS-4-...-3A								
CMMT-AS-2-...-11A	60	42	29.7	1.6	11	5.5	5.5	218
CMMT-AS-3-...-11A								
CMMT-AS-5-...-11A								
CMMT-AS-7-...-11A	75	44	37.5	1.6	11	5.5	5.5	224
CMMT-AS-12-...-11A								

Type	H2	L1	L2	L3	L4	L5	L6	L7
CMMT-AS-2-...-3A	170	212	170	200	22	10	6	9
CMMT-AS-4-...-3A								
CMMT-AS-2-...-11A	205	242	198	220	22	10	6	16
CMMT-AS-3-...-11A								
CMMT-AS-5-...-11A								
CMMT-AS-7-...-11A	205	319	276	300	22	10	6	13
CMMT-AS-12-...-11A								

Technical data

Ordering data	Description	Number of phases	Nominal current	Part no.	Type
	<p>The assortment of plugs NEKM (→ page 14) is not included in the scope of delivery of the servo drive.</p>	Bus protocol: EtherCAT			
	1-phase	2	★ 5340819	CMMT-AS-C2-3A-EC-S1	
		4	★ 5340820	CMMT-AS-C4-3A-EC-S1	
	3-phase	2	★ 5340821	CMMT-AS-C2-11A-P3-EC-S1	
		3	★ 5340822	CMMT-AS-C3-11A-P3-EC-S1	
		5	★ 5340823	CMMT-AS-C5-11A-P3-EC-S1	
		7	8133354	CMMT-AS-C7-11A-P3-EC-S1	
		12	8133355	CMMT-AS-C12-11A-P3-EC-S1	
	Bus protocol: PROFINET RT/IRT				
	1-phase	2	★ 5340814	CMMT-AS-C2-3A-PN-S1	
		4	★ 5340815	CMMT-AS-C4-3A-PN-S1	
	3-phase	2	★ 5340816	CMMT-AS-C2-11A-P3-PN-S1	
		3	★ 5340817	CMMT-AS-C3-11A-P3-PN-S1	
		5	★ 5340818	CMMT-AS-C5-11A-P3-PN-S1	
		7	8133352	CMMT-AS-C7-11A-P3-PN-S1	
		12	★ 8133353	CMMT-AS-C12-11A-P3-PN-S1	
	Bus protocol: EtherNet/IP and Modbus TCP				
	1-phase	2	★ 5340824	CMMT-AS-C2-3A-EP-S1	
		4	★ 5340825	CMMT-AS-C4-3A-EP-S1	
	3-phase	2	★ 5340826	CMMT-AS-C2-11A-P3-EP-S1	
		3	★ 5340827	CMMT-AS-C3-11A-P3-EP-S1	
		5	★ 5340828	CMMT-AS-C5-11A-P3-EP-S1	
		7	8133356	CMMT-AS-C7-11A-P3-EP-S1	
		12	8133357	CMMT-AS-C12-11A-P3-EP-S1	
	Multiprotocol				
	1-phase	2	★ 8143163	CMMT-AS-C2-3A-MP-S1	
		4	★ 8143164	CMMT-AS-C4-3A-MP-S1	
	3-phase	2	★ 8143165	CMMT-AS-C2-11A-P3-MP-S1	
		3	★ 8143166	CMMT-AS-C3-11A-P3-MP-S1	
		5	★ 8143167	CMMT-AS-C5-11A-P3-MP-S1	
	7	★ 8143168	CMMT-AS-C7-11A-P3-MP-S1		
	12	★ 8143169	CMMT-AS-C12-11A-P3-MP-S1		
<p>The assortment of plugs NEKM (→ page 14) is included in the scope of delivery of the servo drive.</p>	Multiprotocol				
1-phase	2	★ 8143163	CMMT-AS-C2-3A-MP-S1		
	4	★ 8143164	CMMT-AS-C4-3A-MP-S1		
3-phase	2	★ 8143165	CMMT-AS-C2-11A-P3-MP-S1		
	3	★ 8143166	CMMT-AS-C3-11A-P3-MP-S1		
	5	★ 8143167	CMMT-AS-C5-11A-P3-MP-S1		
	7	★ 8143168	CMMT-AS-C7-11A-P3-MP-S1		
	12	★ 8143169	CMMT-AS-C12-11A-P3-MP-S1		

Ordering data – Modular product system

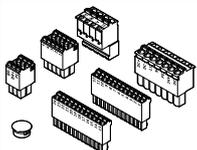
Ordering table					
Series			Condi- tions	Code	Enter code
CMMT-AS-...	-3A	-11A			
Module no.	5111184	5111189			
Series	CMMT			CMMT	CMMT
Motor type	AC synchronous			-AS	-AS
Nominal current					
2 A				-C2	
3 A	–		[1]	-C3	
4 A		–	[2]	-C4	
5 A	–		[1]	-C5	
7 A	–		[1]	-C7	
12 A	–		[1]	-C12	
Nominal input voltage					
230 VAC/50-60 Hz		–		-3A	
400 VAC	–			-11A	
Number of phases					
Single-phase		–			
Three-phase	–			-P3	
Bus protocol/activation					
	EtherCAT			-EC	
	PROFINET RT/IRT			-PN	
	EtherNet/IP and Modbus TCP			-EP	
	Multiprotocol			-MP	
Safety function	Standard safety			-S1	-S1

[1] C3, C5, C7, C12 Only with nominal input voltage 11A

[2] C4) Only with nominal input voltage 3A

Accessories

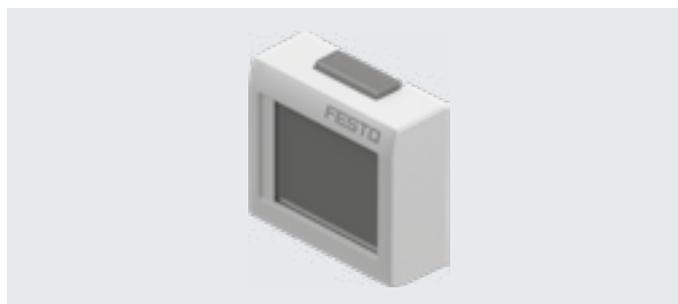
Ordering data – Required accessories

	Description	For CMMT-AS...		Part no.	Type
		-3A	-11A		
Assortment of plugs					
	For single wiring connection	■	–	★ 4325822	NEKM-C6-C16-S
	For double wiring connection	■	–	★ 5054513	NEKM-C6-C16-D
	For single wiring connection	–	■	★ 5119205	NEKM-C6-C45-P3-S
	For double wiring connection	–	■	★ 5118001	NEKM-C6-C45-P3-D
	CMMT-AS-...: Not included in the scope of delivery of the servo drive. CMMT-AS-...-MP-... (multiprotocol): Included in the scope of delivery of the servo drive. The assortment of plugs for double wiring connection is included.				

Ordering data – Optional accessories

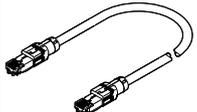
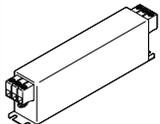
Operating panel CDSB-A1

- Display of full-text messages. This means that errors, warnings and selected data can be read at a glance
 - Easy data backup of parameters and firmware in the unit for e.g. serial commissioning or device replacement
 - One operating panel can be used for several servo drives
- Control element: Touchscreen
 - Display: colour TFT
 - Display size: 1.77"
 - User memory: 3 GB
 - USB interface: USB 2.0 type mini
- Additional technical data:
 → Internet: cdsb

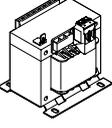
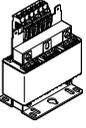


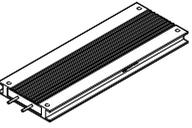
Ambient temperature [°C]	Storage temperature [°C]	Degree of protection	Weight [g]	Part no.	Type
0 ... 60	-20 ... +70	IP20	40	★ 8070984	CDSB-A1
Not included in the scope of delivery of the servo drive					

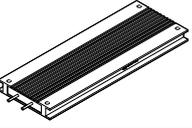
Ordering data – Optional accessories

	Description	Part no.	Type
Connecting cable			
	<ul style="list-style-type: none"> • Patch cable for the daisy-chain connection of the bus interfaces X19A/B • Patch cable for master/slave functionality (X10-X10) • Ethernet category Cat 5e • Not included in the scope of delivery of the servo drive 	★ 8082383	NEBC-R3G8-KS-0.2-N-S-R3G8-ET
Mains filters			
	Single-phase, 8 A, sufficient for: 2x CMMT-AS-C2-3A or 1x CMMT-AS-C4-3A	★ 8088928	CAMF-C6-F-C8-3A
	Single-phase, 20 A, sufficient for: 6x CMMT-AS-C2-3A or 3x CMMT-AS-C4-3A	★ 8088929	CAMF-C6-F-C20-3A
	Three-phase, 16 A, sufficient for: 8x CMMT-AS-C2-11A or 5x CMMT-AS-C3-11A or 2x CMMT-AS-C5-11A or 2x CMMT-AS-C7-11A or 1x CMMT-AS-C12-11A	8096868	CAMF-C6-F-C16-11A
	Three-phase, 42 A, sufficient for: 21x CMMT-AS-C2-11A or 14x CMMT-AS-C3-11A or 7x CMMT-AS-C5-11A or 5x CMMT-AS-C7-11A or 3x CMMT-AS-C12-11A	8096894	CAMF-C6-F-C42-11A
Not included in the scope of delivery of the servo drive			

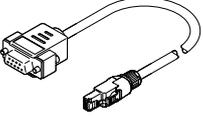
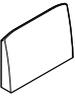
Accessories

Ordering data – Optional accessories		Part no.	Type
	Description		
Line choke			
	Single-phase, 6 A, sufficient for: 2x CMMT-AS-C2-3A or 1x CMMT-AS-C4-3A	★ 8088930	CAMF-C6-FD-C6-3A
	Three-phase, 6 A, sufficient for: 3x CMMT-AS-C2-11A or 2x CMMT-AS-C3-11A or 1x CMMT-AS-C5-11A	8096867	CAMF-C6-FD-C6-11A
Not included in the scope of delivery of the servo drive			

Ordering data – Optional accessories		Resistance value	Nominal power at 380 V	Pulse energy at 380 V	Part no.	Type	Technical data → Internet: cacr
		[Ω]	[W]	[Ws]			
Braking resistor							
							
For type CMMT-AS-							
C2-3A	C4-3A						
–	■	72	150	2000	1336611	CACR-LE2-72-W500	
■	■	100	150	2000	1336615	CACR-LE2-100-W500	
–	■	67	720	10800	1336617	CACR-KL2-67-W1800	
■	■	100	720	10800	8091545	CACR-KL2-100-W1800	
Not included in the scope of delivery of the servo drive							

Ordering data – Optional accessories		Resistance value	Nominal power at 780 V	Pulse energy at 780 V	Part no.	Type	Technical data → Internet: cacr		
		[Ω]	[W]	[Ws]					
Braking resistor									
									
For type CMMT-AS-									
C2-11A	C3-11A	C5-11A	C7-11A	C12-11A					
–	–	–	–	■	50	120	1800	2882342	CACR-LE2-50-W500
–	–	–	■	–	72	120	1800	1336611	CACR-LE2-72-W500
–	–	■	–	–	100	120	1800	1336615	CACR-LE2-100-W500
■	■	–	–	–	240	120	1800	8091543	CACR-LE2-240-W500
–	–	–	–	■	40	480	7200	2882343	CACR-KL2-40-W2000
–	–	–	■	–	67	720	10800	1336617	CACR-KL2-67-W1800
■	■	–	–	–	240	720	10800	8091544	CACR-KL2-240-W1800
–	–	■	–	–	100	720	10800	8091545	CACR-KL2-100-W1800
Not included in the scope of delivery of the servo drive									

Accessories

Ordering data – Optional accessories						
Adapter	Description	For CMMT-AS-			Part no.	Type
		C2/C4 ...-3A	C2/C3/C5 ...-11A	C7/C12 ...-11A		
	Required in combination with the linear axes EGC-...-M1/M2 or ELGA-...-M1/M2 (external displacement encoder) as adapter between encoder cable NEBM-M12G8-...-V3 and interface X3 (position encoder 2)				8106112	NEFM-S1G9-K-0.5-R3G8
	Not included in the scope of delivery of the servo drive					
Ordering data – Optional accessories						
Blind plate	Description	For CMMT-AS-			Part no.	Type
		C2/C4 ...-3A	C2/C3/C5 ...-11A	C7/C12 ...-11A		
	<ul style="list-style-type: none"> Used to cover the connections if no operating panel is used Included in the scope of delivery of the servo drive 	■	■	■	★ 5395254	CAFC-06-C
Shield clamp	<ul style="list-style-type: none"> For clamping the shield and strain relief for the motor cable Included in the scope of delivery of the servo drive <td>■</td> <td>–</td> <td>–</td> <td>5326867</td> <td>CAMA-C6-SK-S2</td>	■	–	–	5326867	CAMA-C6-SK-S2
		–	■	–	5335956	CAMA-C6-SK-S3
		–	–	■	★ 8114689	CAMA-C6-SK-S4