E-MCC Series Datasheet

- 1-3 Axis options
- Plug and play compatibility with Zaber stages and actuators
- CiA 402 drive profile ensures wide-ranging compatibility with EtherCAT masters
- High performance control of stepper and linear servo motors up to 6 A (10 A peak)
- Intuitive, free software simplifies setup and tuning
- Hardware E-Stop provides STO functionality
- Digital and analog I/O

E-MCC Series Overview

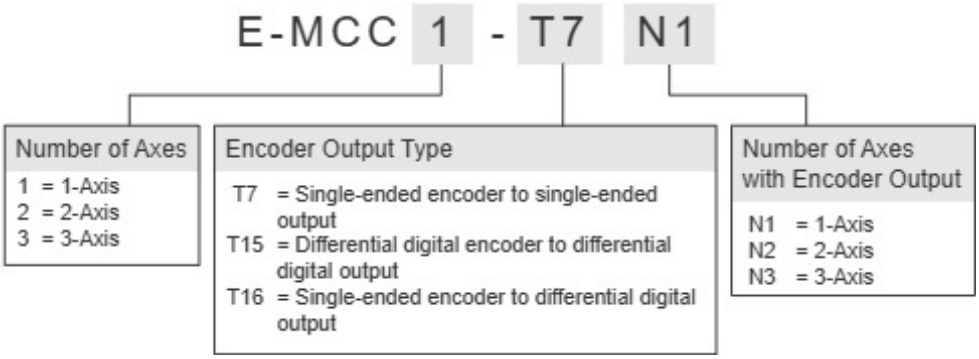
Zaber's E-MCC motor controllers bring Zaber's stages into the EtherCAT ecosystem. These 1-3 axis controllers have plug-and-play functionality with Zaber's peripheral stages, including hundreds of linear stages, rotary stages, and many more. Thanks to autodetect functionality, no configuration is required to get Zaber actuators up and running with the E-MCC.

The CANopen CiA 402 drive profile allows seamless communication with almost any EtherCAT master at cycle rates up to 1 kHz. Distributed clocks functionality provides precise synchronization with the entire EtherCAT network, enabling complex multi-axis applications and synchronization with other third-party devices. Setup is a breeze: plug in your stage, plug in your favorite EtherCATmaster, and start moving!

The E-MCC can also control a wide variety of third-party axes. Thanks to advanced 10 kHz control algorithms, the E-MCC can smoothly control stepper motors with currents up to 6 amps. Our free advanced hardware setup tool makes configuring third-party devices straightforward.

For more information visit: https://www.zaber.com/products/controllers-joysticks/E-MCC

E-MCC Series Part Numbering & Options



E-MCC Series Drawings

- E-MCC1.pdf (Drawing for the E-MCC1)
- E-MCC2.pdf (Drawing for the E-MCC2)
- E-MCC3.pdf (Drawing for the E-MCC3)

E-MCC Series Specifications

AutoDetect	
Communication Interface	Dual EtherCAT (100BASE-TX), USB 2.0
Communication Protocol	CANopen over EtherCAT (CoE), Zaber ASCII
Data Cable Connection	Dual RJ-45, USB-B
Power Supply	24-48 VDC
Power Plug	2-pin 5.0 mm screw terminal
Maximum Current Draw	Motor and supply voltage dependent
Controller Maximum Current Per Phase	6 Arms (10 A peak)
Motor Connection	D-Sub 26 female
EtherCAT Cycle Rates	1 kHz max, 100 Hz min
EtherCAT Synchronization Modes	Distributed Clocks (DC)
Device Profile	CiA 402 Drive Profile (IEC 61800-7)
CiA 402 Modes of Operation	Cyclic Synchronous Position (CSP), Homing (HM)
EtherCAT Process Data	User-configurable mapping, up to 64 bytes/cycle
Manual Control	Indexed knobs with push switches
Limit Sensors per Axis	3
Isolated Digital Input	4
Isolated Digital Output	4
Analog Input	4
Analog Input Range	0-10 V
Analog Input Resolution	1 mV
Analog Output	1
Analog Output Range	0-10 V
Analog Output Resolution	2.5 mV
Analog Output Impedance	1 0 0 !&
External Regen Resistor	5 !& , 3 0 0 W
E-Stop Input Range	12-48 V
Operating Temperature Range	0 to 50 °C
CE Compliant	Yes
Vacuum Compatible	No

Part Number	Axes of Motion	Encoder Output Axes	Encoder Output Type	Weight
E-MCC1	1	0	No	0.5 kg (1.102 lb)
E-MCC2	2	0	No	0.7 kg (1.543 lb)
E-MCC3	3	0	No	0.9 kg (1.984 lb)
E-MCC1-T7N1	1	1	T7	0.5 kg (1.102 lb)
E-MCC2-T7N1	2	1	T7	0.7 kg (1.543 lb)
E-MCC2-T7N2	2	2	T7	0.7 kg (1.543 lb)
E-MCC3-T7N1	3	1	T7	0.9 kg (1.984 lb)
E-MCC3-T7N2	3	2	T7	0.9 kg (1.984 lb)
E-MCC3-T7N3	3	3	T7	0.9 kg (1.984 lb)
E-MCC1-T15N1	1	1	T15	0.5 kg (1.102 lb)
E-MCC2-T15N1	2	1	T15	0.7 kg (1.543 lb)
E-MCC2-T15N2	2	2	T15	0.7 kg (1.543 lb)
E-MCC3-T15N1	3	1	T15	0.9 kg (1.984 lb)
E-MCC3-T15N2	3	2	T15	0.9 kg (1.984 lb)
E-MCC3-T15N3	3	3	T15	0.9 kg (1.984 lb)
E-MCC1-T16N1	1	1	T16	0.5 kg (1.102 lb)
E-MCC2-T16N1	2	1	T16	0.7 kg (1.543 lb)
E-MCC2-T16N2	2	2	T16	0.7 kg (1.543 lb)
E-MCC3-T16N1	3	1	T16	0.9 kg (1.984 lb)
E-MCC3-T16N2	3	2	T16	0.9 kg (1.984 lb)
E-MCC3-T16N3	3	3	T16	0.9 kg (1.984 lb)

Contact

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