

PRODUCT PORTFOLIO

MOTOR CONTROLLERS

MTA motor controllers are electronic products with drive-based functionality and are available for both stationary and mobile conveyor technology.

The main focus is the field-oriented control of the MTA synchronous motors.

Moreover, drive-based software functionalities are available (position control, synchronisation, STO).

Depending on the application, these drive controllers are equipped with one motor output (e.g.: conveyor drive) up to a maximum of 12 motor outputs (e.g.: sorting application).

Motor controllers are mechanically decentralised or integrated directly in the motor.

Standardised interfaces, such as CANopen or I/Os ensure simple integration in established industry standards.



Properties:

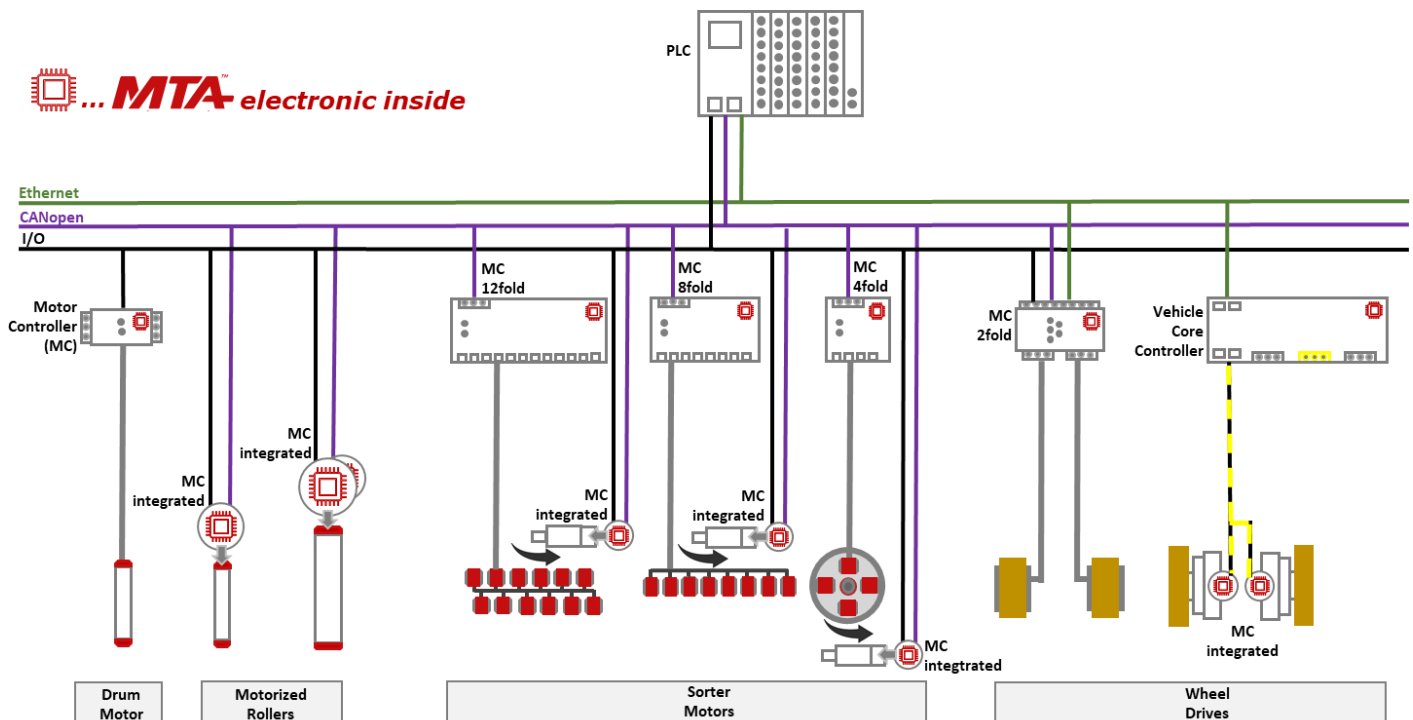
- Decentralised or integrated in the motor
- Motor commutation sensorless or with sensor
- Versions with up to 12 motor outputs per motor controller
- Nominal voltage 24 VDC or 48 VDC
- Standardised I/O interfaces
- Fieldbus communication via CANopen
- ProfiNET or EtherCAT
- Integrated STO functional safety

Advantages/Benefits:

- End-to-end product programme for stationary and mobile conveyor technology
- Reduced wiring effort and space-saving installation through multi-axis controller design (with up to 12 motor outputs per motor controller)
- Compact motor construction form through fully integrated controller designs.
- Optimally adjusted software functions for differential and omnidirectional AGV and AMR motion sequences
- Simple system integration due to compatibility with current industry standards

System integration:

MTA motor controllers can be effortlessly integrated in standardised automation systems. In addition to current I/O interfaces, CANopen and Ethernet versions are available. These versions enable end-to-end digitisation of the automation solution.



Areas of application:

MTA motor controllers are used in both stationary and mobile conveyor technology. Depending on the application, decentralised or integrated drive controllers are used.

- Decentralised motor controllers for two axles for wheel drives and combined driving/steering drives for AGV and AMR
- Multi-axis controller for sorting systems in stationary conveyor technology
- Fully integrated motor controllers for stationary conveyor lines (motor rollers, lifters, belt out-feeds) and wheel drives for driverless transport systems

Portfolio overview:

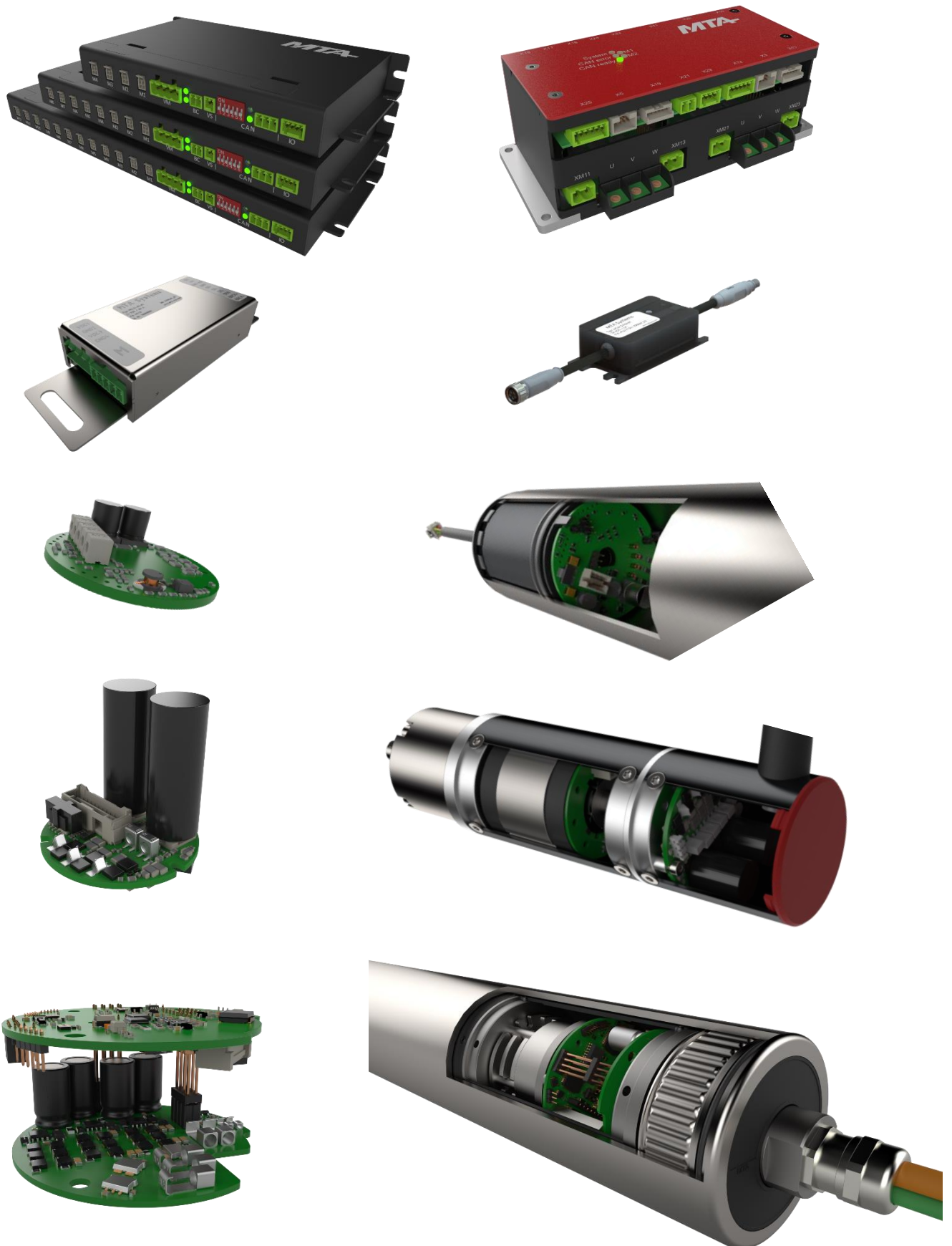
Integrated motor controllers:

Motor controllers		MC121-1B11-AAA	MC123-1B11-AAA	MC143-1B11-AAA	MC123-1B31-AAA	MC143-1B31-AAA	MC146-1B31-AAA	MC146-1B31-AAA	MC123-1A11-AAA
Design		Integrated in the motor	Integrated in the motor	Integrated in the motor	Integrated in the motor	Integrated in the motor	Integrated in the motor	Integrated in the motor	Integrated in the motor
Number of motor outputs		1	1	1	1	1	1	1	1
Nominal voltage	VDC	24	24	48	24	48	24	48	24
Nominal motor current	A _{rms}	2	5	5	5	5	15	15	5
Nominal power/Motor	W	40	100	200	105	210	320	640	130
Maximum motor current (1s)	A _{rms}	5	10	10	12	10	50	50	10
Interface		CANopen	CANopen	CANopen	CANopen/ Analogue/ Digital I/Os	CANopen/ Analogue/ Digital I/Os	Digital I/Os CANopen	Digital I/Os CANopen	Analogue/Digital I/Os
Feedback system		sensorless	sensorless	sensorless	magnetic encoder	magnetic encoder	magnetic encoder	magnetic encoder	sensorless

External motor controllers:

Motor controllers		MC224-1x11-xBA	MC224-1A11-xBB	MC221-3B11-ACA MC221-5B11-ACA MC221-6B11-ACA	MC247-2Cxx-DBA
Design		External	External	External	External
Number of motor outputs		1	1	4/8/12	2
Nominal voltage	VDC	24	24	24/48	48
Nominal motor current	A _{rms}	6	6	2	20
Nominal power/Motor	W	130	130	40	860
Maximum motor current (1s)	A _{rms}	10	10	5	95
Interface		Analogue/Digital I/Os, CANopen	Analogue/Digital I/Os	CANopen/ Analogue/ Digital I/Os	Analogue/Digital I/Os, CANopen ProfiNET EtherCAT
Feedback system		sensorless	sensorless	sensorless	Hall, magnetic encoder

Product images:



Type code:

Motor controllers		MC	2	2	4	-	1	A	1	1	-	B	B	A	-	C111
Motor controller		MC														
Execution	External		2													
	Internal		1													
Nominal voltage	48 VDC			4												
	24 VDC			2												
Nominal current	20 A				7											
	15 A				6											
	10 A				5											
	6 A				4											
	5 A				3											
	2 A				1											
Motor outputs	21						9									
	20						8									
	12						6									
	8						5									
	4						3									
Interface	2						2									
	1						1									
	ProfiNET & EtherCAT							D								
	I/O's & CANopen							C								
Feedback system	CANopen							B								
	I/O's							A								
Safety	Resolver								4							
	magnetic encoder								3							
	Hall sensor								2							
	Sensor-less								1							
Motor connector	STO									2						
	None									1						
	Screw terminal											D				
Protection class	M8 snap-in connector											C				
	M8 screwable connector											B				
	Terminal											A				
Additional functions	IP54												C			
	IP20												B			
	IP00												A			
Customer-specific version	Logistic function													B		
	Without													A		