

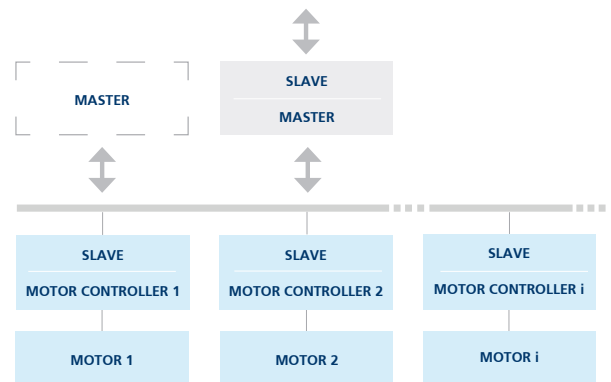


Brushless Traction Motor Controllers for Battery Powered Vehicles

Applications

Designed and optimized for control of brushless traction motors for battery powered vehicles.

Depending on application's and designer's requirements, it could play the role of an integrated slave controller or a stand alone controller for driving single, twin and multi motor electric vehicles communicating with other devices.



Customer Approach

We provide a modular concept based on the existing product together with our technical support for optimization of design and process of system integration. This is the technically and economically optimal approach for EV designers.

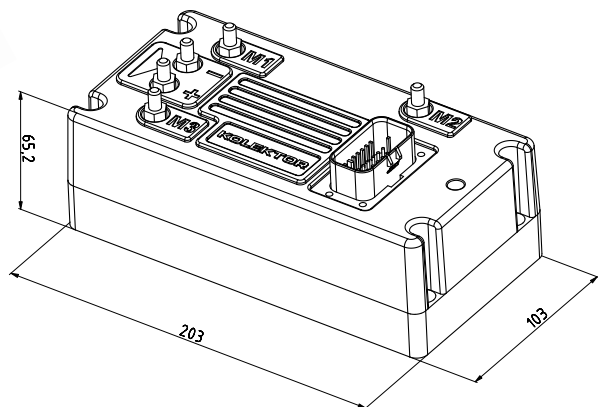
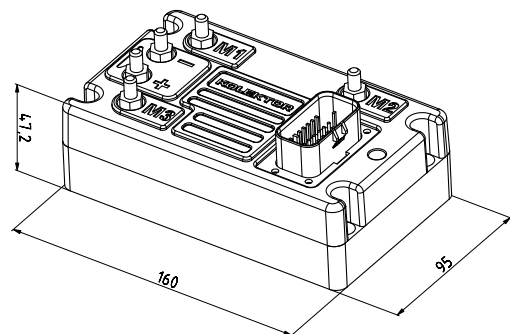
Features

- External watchdog for microcontroller observation
- Detection of system malfunction before starting the operation and preventing of switching on the main contactor
- Measurement of supply voltage and limiting the battery current depending on battery condition
- Option of additional module, which works as an electronic differential unit in case of multi motor application
- Software supported:
 - Flux vector control (speed/position based)
 - Sensor /sensorless control (sensorless for limited set of operations)
- Dynamic addressing
- Observation of drive and motor temperatures
- Inputs and outputs can be configurated for:
 - Steering wheel sensor
 - Throttle sensor
 - Brake sensor
 - Etc

Specifications

	EV-MC 100/48	EV-MC 150/48	EV-MC 270/48	EV-MC 170/72
Nominal battery voltage	24VDC-48VDC	24VDC-48VDC	24VDC-48VDC	72VDC-80VDC
Min. operating voltage	15VDC	15VDC	15VDC	50VDC
Max. operating voltage	60VDC	60VDC	60VDC	110VDC
Boost current (10 sec)	150A	170A	320A	200A
Peak current (2 min)	100A	150A	270A	170A
Cont. current (60 min)*	60A	90A	120A	110A
Digital inputs/outputs	12 (same configurable for encoder inputs)			
Analog inputs	8 (can be configured as digital inputs)			
Motor temperature sensor input	Yes (thermistor)			
Contactor/solenoid outputs	1x (2A) PWM (1-16kHz) current or voltage controlled by two semiconductors in series 1x (2A) PWM (1-16kHz) voltage controlled			
Motor UVW inputs	YES			
Motor encoder (AB) inputs	YES			
Sin/Cos feedback inputs	YES			
Encoder supply output	5V alt. 10V (max. 100mA)			
Communication interfaces	CAN-CAN OPEN RS485-MODBUS RS232			
Protection class	IP66			
Ambient operating temperature	-40°C to +85°C			

*Depending on cooling conditions



KOLEKTOR GROUP d.o.o.

Vojkova ulica 10 • SI-5280 Idrija • Slovenia
tel.: +386 5 3750 100 • fax.: +386 5 3750 150

Sales: matjaz.potocnik@kolektor.com • Technical advice: franci.lahajnar@kolektor.com
kolektor@kolektor.com • www.kolektor.com