



Combustion



Hybrid



Electric

Explore our Technologies

AC Motor Controller Gen4

for Commercial Vehicles

AC Motor Controller Gen4

An AC motor controller designed to meet the high performance requirements of on-road and off-road Electric (EV) and Hybrid Electric Vehicles (HEV).

Key Parameters

- Operating voltage range at full current 50 V to 800 V
- Output motor phase current:
 - 400 A rms (2 min)
 - 200 A rms (Continuous)
- Water/Glycol coolant
 - Oil cooling available
- Safety
 - Electrical safety to IEC 60664 and UL840
 - Custom versions support Functional Safety to ISO26262:2011 ASIL C
 - Pulsed safety enable input
 - Pulsed status output
- Environmental
 - -40°C to +85°C operation
 - IP6k9k and IP67 protection
 - ISO 16750
- 12 V or 24 V nominal supply
- Weight: 10.9 kg

Multiple Motor Sensor Feedback Options

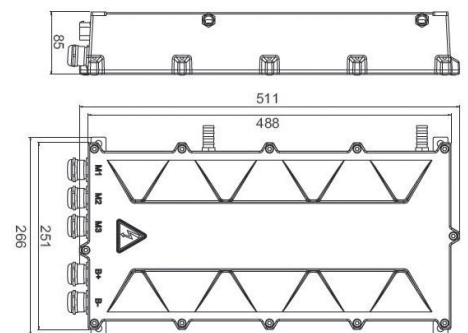
Gen4 Size 10 provides a number of motor feedback possibilities from a range of hardware inputs and software control, allowing a great deal of flexibility.

- Absolute UVW encoder input
- Absolute Sin/Cos encoder input
- Incremental AB encoder input
- Resolver input
- Programmable 5 V to 10 V encoder power supply

Integrated I/O

Gen4 Size 10 includes a fully-integrated set of inputs and outputs (I/O) designed to handle a wide range of vehicle requirements. This eliminated the need for additional external I/O modules or vehicle controllers and connectors.

- All I/O protected to 40 V
- 4 analogue inputs 0 - 10 V
- 4 digital inputs
- 3 power supplies 0 - 10 V 100 mA
- 3 digital outputs PWM max 2 A



Other Features

- A CANopen bus allows easy interconnection of controllers and devices such as displays and driver controls
- The CANbus allows the user to wire the vehicle to best suit vehicle layout since inputs and outputs can be connected to any of the controllers on the vehicle and the desired status is passed over the CAN network to the relevant motor controller
- The Gen4 Size 10 controller can dynamically change the allowed battery current by exchanging CAN messages with a compatible Battery Management System
- Configurable as vehicle control master or motor slave



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