Explore our Technologies
AC Motor Controller
Gen5-S9 400 V
for Commercial Vehicles

borgwarner.com
AC Motor Controller Gen5-S9 400 V

The Gen5 range of motor controllers utilise a highly-flexible control logic architecture to deliver a unique feature-rich set of functions and is well-matched to satisfy automotive, commercial and construction markets’ electrification needs. The range of High Voltage High Power (HVHP) controllers is specifically aimed at vehicle OEMs and system integrators to offer them a compact, lightweight, robust and cost-effective, class-leading suite of solutions covering traction, hybridisation, power generation and sub-system electrification.

Key Parameters
- Operating voltage range 128 V to 450 V, with derating after 420 V
- Size 9
  - 450 Arms (1 min)
  - 200 Arms (1 hour+)
- Safety
  - Tested to EMC Reg. 10
  - Passive HVIL safety functionality
- Environmental
  - -40°C to +85°C operation, IP6k9k, ISO 16750
  - Coolant flow rate Water/Glycol 10l/minute de-rating starts 55°C
- Motors and Encoders
  - The Gen5-S9 architecture supports the majority of the industry standard motor and sensors types allowing a great deal of application flexibility including resolver input AB, UVW and Sin/Cos encoder input

Intelligent I/O
The Gen5-S9 includes a fully-integrated set of inputs and outputs designed to handle a wide range of vehicle functions. This eliminates 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 allowing for easy configuration of dual throttle and dual brake applications
- 2 PT1000/KTY84 thermocouple input
- 4 digital inputs
- 4 digital outputs PWM 2A (2 high side 2 low side)
- 3 programmable encoder power supplies (1x200 mA 2x100 mA voltage configurable)

Dimensions

Version to support ISO 26262:2011 ASIL C and electrical safety to ISO 6494 and IEC60664 available for OEM projects
For further information, please contact us: motorcontrol@borgwarner.com

Smart Communications
Using ‘Custom code’ functionality allows the communications protocols and data contained within the messages to be modified specifically for your application. For bespoke solutions, please contact us for further information.

Note: Key parameters can vary, depending on controller set-up, environmental conditions and motor conditions.

For Additional BorgWarner Information: borgwarner.com