

Gen5 Size7 & Size9

The Gen5 range of motor controllers utilise a highly flexibility control logic architecture to deliver unique feature rich set of functions 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 OEM's and system integrators to offer them a compact, lightweight, rugged and cost effective class leading suite of solutions covering traction, hybridisation, power generation and sub-system electrification.

Benefits

Safety

Designed to satisfy the unique needs of 'On-Road' and Industrial applications the range of Gen5 controllers deliver the safety and security needed for even the most difficult of applications. All high voltage products further benefit from an integrated High Voltage safety Interlock circuit (HVIL).

Efficiency

Sevcon have over 50 years of experience in providing the most efficient algorithms used in a variety of on and off road applications. These algorithms have been enhanced further, but also with added flexibility of 'User code' allows for real-time switching of multiple parameters to allow users to change between maximum efficiency and maximum performance settings during operation.



Easy to use

Patented algorithms deep inside the controller monitor and seamlessly adapt to the motors needs, so longwinded configuration is a thing of the past. Advanced wizards allow easy system configuration for all key parameters needed in typical applications.

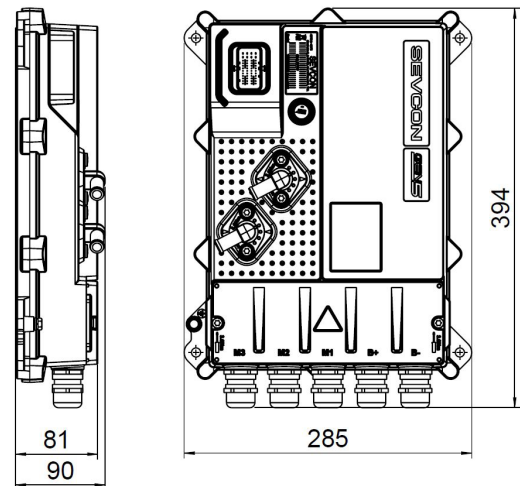
Flexibility for every application

The controller can operate in CAN Slave mode. User specific code is integrated into the motor controller with direct access to various parameters to allow you to develop a solution as unique as you need.

Quality and reliability

Sevcon products are used by some of the worlds leading automotive and industrial companies in several innovative and demanding applications. The same quality and reliability is designed into each and every Sevcon product.

Dimensions



Weight 6.8 kg

Key Parameters

Operating voltage range 128V to 450VDC Output motor phase current.

Size9

400 Arms (1 min)
200 Arms (1 hour+)

Size7

200 Arms (1 min)
100 Arms (1 hour+)

Safety

Functional safety to ISO26262 ASILC, EN1175 and EN13849/3.
Electrical safety to ISO 6494, IEC 60664 and UL840.
HVIL safety functionality.

Environmental

-40°C to +85°C operation, IP6k9k, ISO 16750.

Coolant flow rate Water/Glycol 10l/minute derating starts 55C.

Motors and Encoders

The Gen5 architecture supports all of the industry standard motor and sensors types allowing a great deal of application flexibility.

Resolver input (adjustable gain)
Absolute Sin/Cos encoder input

Intelligent I/O

The Gen5 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 40V.

4 analogue inputs 0-10V allowing for easy configuration of dual throttle and dual brake applications.
2 PT100 / PT1000 / KTY84 thermocouple input.
4 digital inputs.
4 digital outputs PWM 2A (2 high side 2 low side).
3 Programmable encoder power supplies.
(1x200mA 2x100mA voltage configurable).

Smart Communications

Using Sevcon 'Customer code' functionality allows the communications protocols and data contained within the messages to be modified specifically for your application. This high degree of flexibility allows easy interconnection of controllers with devices such as displays and other integrated devices on the vehicle.

Configurable as CAN torque slave. I/O and CAN communications I/O are electrically isolated. Supports CANOpen and J1939 protocols.

For more
information visit
sevcon.com