

Powerpak™

Compact DC Motor Controllers

For Series Traction, Pump and SEM Applications
24 to 80 V, 4.5 to 8.5 kW

The Powerpak™ series is a comprehensive range of vehicle controllers, combining ultra compact size with an unrivaled power to dimension ratio. With current ratings of up to 600 A these controllers occupy a footprint of only 142 x 142 mm. This makes it up to 75% smaller than similar function units of other makes.

Feature Overview

- Ultra compact size
- Regenerative braking
- High frequency - silent operation
- Flash memory
- CAN communications
- PC Configuration
- Diagnostic LED
- Choice of display options



Partner with Performance™

Powerpak™

General Features and Benefits

Minimum Enclosure Requirements

The ultra compact design optimizes the power / size / cost relationship. The end result is a controller range that is capable of the same power output as conventional designs but utilizes up to 75% less space. This allows up to 80 V 8.5 kW capability from the standard Powerpak™ footprint of 142 x 142 x 103 mm making it ideal for compact installations and retrofit applications.

Silent MOSFET Switching

Powerpak™ controllers use a Sevcon patented MOSFET switching design which increases system performance and reliability. A 16 kHz switching frequency ensure silent operation.

Flash Memory

Application programs are stored in the Flash Memory. The controller can be reprogrammed in situ, increasing flexibility and commonality of system design.

Flexible Inputs and Outputs

All controllers offer various standard configurations of digital and analog inputs and outputs (I/O) suitable for a variety of applications. I/O functions can include throttle inputs, limit switch inputs, contactor drives, hours counters, and instrumentation. This flexibility allows controllers to be configured and function as stand alone systems or alternatively integrated into a vehicle network.

Rugged Endurance

Powerpak™ products are subject to rigorous program of vibration, temperature and humidity testing that recreates the harshest extremes of applications and hence ensures the reliability and robustness of the designs.

CAN Communications

All Powerpak™ controllers use the Sevcon Controller Area Network (CAN) serial communications bus. This allows multiple controllers to effectively communicate within the vehicle system to increase safety and reliability with a minimum of wiring.



Choice of Displays

Using the CAN bus the Powerpak™ controllers can link to displays offering a range of features and information display.

Simple configuration and service

A handheld calibrator or a PC equipped with Sevcon PCpak software can be used to adjust parameters or reprogram Powerpak™ through a dedicated port. A prominent diagnostic LED provides “no tools” fault finding assistance. The flash programmable Logic Unit permits easy field service.

Series Motor Traction Controller

The Powerpak™ series Traction Controller can be used in a single or twin motor systems. In a twin motor system it can be easily configured as master or slave. A range of contactor drive options are available to match the application. These controllers are also available on a variety of standard pre-wired panels complete with contactors, etc.

Separately Excited Motor (SEM) Controller

The SEM Controller offers a contactor free solution to direction change, regenerative braking and field weakening without the need for extra sensors. Controllers can be used in single or twin and be configured either as a master or slave.

Series Motor Pump Controller

Dedicated flexible solution. The Pump Motor Controller comes standard with two variable and five configurable speed inputs as well as speed compensation for use in power steering applications.



Series Motor Traction Controller

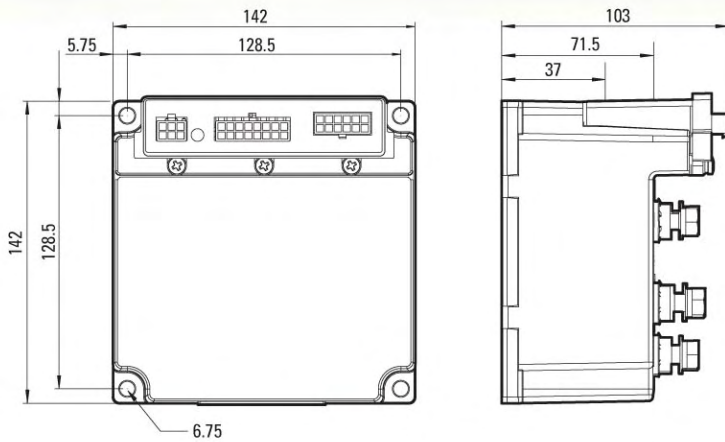


SEM Motor Controller



Series Motor Pump Controller

Dimensions



Technical Specifications

	Battery Voltage (Vdc)	Max Power (kW)	Peak Current 1 Min (A)	Max. Field Current (A)
Series Traction	24-48	4.5	300	-
		5.8	450	-
		8.5	650	-
	80	8.5	450	-
		8.5	600	-
SEM Traction	24-48	4.5	350	50
		6.5	500	50
	80	8.5	420	50
Series Pump	24-48	8.5	300	-
		5.5	450	-
		8.5	650	-
	80	8.5	450	-
		8.5	600	-

- Ingress: Enclosure protected to IP55
- Vibration: NAVMAT P9492 Random Vibration Test Profile
- Operating Temperature: -30°C +40°C (ref. SAE J1211)
- Storage Temperature: -40°C to +70°C (ref. SAE J1211)
- Switching frequency: 16 kHz

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