



STANDARD CONTROLLER FEATURES

- ◆ High Frequency – silent operation
- ◆ Torque/speed control
- ◆ Regenerative braking
- ◆ Integrated logic unit
- ◆ Flash memory
- ◆ Calibrator interface
- ◆ Soft start pump option
- ◆ Diagnostic LED



Low to High Power SEM Applications

The Millipak and Millipak HP offer the most compact controllers in the PowerpaK range and use new patented power technology and PowerpaK switching principles. The Millipak range offers a cost effective solution for low to high power applications such as pallet trucks, sweepers, scissor lifts, golf carts and other electric vehicles fitted with Separately Excited Motors (SEM).

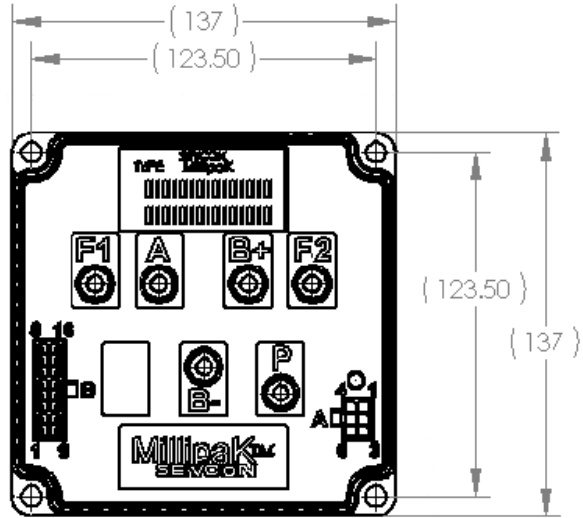
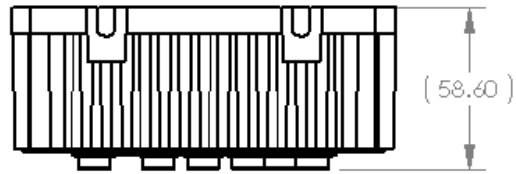
The most striking characteristic of the Millipak range is its physical size. The ultra compact design provides an unrivalled power – dimension ratio which optimises the power /size / cost relationship.

The primary benefits of the Millipak are as follows: -

- ◆ **Contactless Direction Changing** – eliminating delays and the need for contactor maintenance.
- ◆ **Inherent Regen Braking** – this is an intrinsic characteristic of SEM. Regen braking on a conventional series motor typically requires additional electronic circuitry and a solenoid contactor. Exceptionally smooth reversing is achieved with the transition to plug braking at low speeds.
- ◆ **Inherent Field Weakening** – again a characteristic of SEM. Conventional systems require an energy inefficient power resistor and contactor to provide this feature
- ◆ **Built in Speed Control** – separately excited motors have an inherent speed control characteristic, which is difficult to emulate on a series motor without the addition of extra circuitry and costly speed probes, sensors or tacho generators.

Millipak™ SEVCON

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Millipak SEM Electrical Specification

| Voltage | Armature Current 1 Minute | Armature Current 1 Hour | Soft Start | Field Current |
|---------|------------------------------|----------------------------|------------|---------------|
| 24/48V | 180A | 80A | | 30A |
| 24/48V | 300A | 130A | | 30A |
| 24/48V | 300A | 130A | 100A | 30A |
| 24/48V | 500A | 180A | 180A | 30A |
| 24//48V | 600A | 200A | | 30A |

Millipak SEM Outline Specification

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|--|
| Enclosure protected to IP66 |
| Vibration 6G, 40 – 200Hz, 1 hour in x, y, and z planes |
| Operating temperature – 30°C to +40°C |
| Storage temperature – 40°C to +70°C |
| Frequency 16KHz |
| Dimensions 137.35 (L) * 137.35 (W) * 58.6 (H) mm |
| Dimensions 190.35 (L) * 145.35 (W) * 58.6 (H) mm (500A & 600A models) |

This product bulletin is for outline specification only .For specific application data; the full engineering specifications available from Sevcon should be used.
Sevcon is constantly striving to improve its products and reserves the right to alter specifications without notice

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