



Hybrid



Electric

# Explore our Technologies

## DC Motor Controller MicropaK

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Utilizing the same innovative design techniques as the PowerpaK, the MicropaK range offers an ultracompact solution specifically for use on low voltage/low power applications.

The MicropaK has a similar footprint to BorgWarner's PowerpaK, but the reduced profile is ideally suited for smaller applications where space is at a premium.

## Features

- Compact design
- Silent operation
- High 16 kHz switching frequency
- CAN communication bus
- Integrated logic unit
- Built-in speed control
- FLASH memory
- IP66 protection

## Key Parameters

- IP66 Protection
- Weight 1.5 kg

### 24/36 VDC Version:

- Operating voltage range  
14.5 VDC to 50 VDC
- Output motor phase current:
  - 270A (1 min)
  - 100 Arms (1 hour)

### 48 VDC Version:

- Operating voltage range  
30 VDC to 75 VDC
- Output motor phase current:
  - 270A (1 min)
  - 100 Arms (1 hour)

## Inputs & Outputs

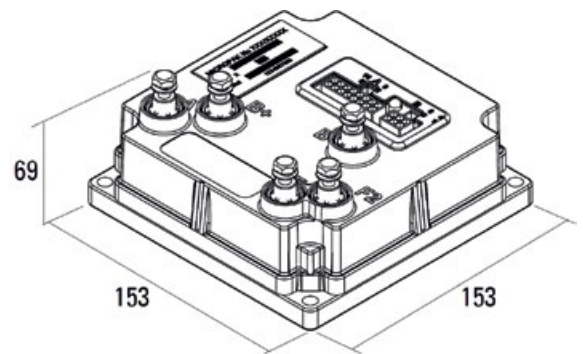
Standard configurations of digital and analog inputs and outputs (I/O) are especially suitable for twin motor applications. Functions include throttle inputs, limit switch inputs, contactor drives, hour counters, and instrumentation. This allows use as a standalone unit or to be integrated into a vehicle system.

- 6 Digital Switch Inputs
- 2 Analogue Inputs
- 2 Contactor Drive Outputs

## Separately Excited Motors (SEM)

SEM offers a contactor-free solution to regenerative braking and field weakening, with improved efficiency. The MicropaK offers improved speed control without added sensors. MicropaK can either be used in single or twin motor systems, where it can be configured as master or slave.

## Mechanical Interface



For Additional BorgWarner Information  
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