



## *Universal Traction Drive Controller*

The **UMC-450-400** is a low cost, reliable traction controller for 3 phase brushless PM, IPM and switched reluctance motors and generators.

Special features include:

- Universal drive control algorithms with emphasis on traction applications
- Full 4 quadrant control with regenerative braking (no relay)
- CAN SAE 1939 optional interface is available
- Optional integral battery charger
- Compact design with integral heatsink
- Fully user programmable via RS-232 graphic interface
- Setup values can be saved to NV RAM
- Optional “soft switching” for high efficiency
- Optional “bi-directional” currents for improved SR motor
- Drive Efficiency up to 98.0%

## Reliable Technology:

- **High efficiency operation:** using state-of-the-art power semiconductors and switching technology efficiencies of 98% or greater can be achieved over a wide operating range
- **Reliable Design:** the design is based on proven technology and uses components that are suited for use in demanding environments
- **Regenerative Capabilities:** the design allows for full dynamic braking with conditioning that allows the recovered energy to be fed back into the vehicle's main battery. The user can program battery curves and parameters to match the system to a specific application
- **Flexible:** the UMC-xxx-400 series features DSP technology and a flexible hardware structure that allows custom modifications to the UMC-xxx-400 series drives to match the features with the needs of OEMs
- **Cost Effective Solution:** the UMC-400 series is designed with a cost structure suited for OEM volume applications
- **Size:** 16" x 10" x 4"
- **Weight:** 16 lb

## Ratings:

<b>Supply Voltage:</b>	100V – 450V input (nominal)
<b>Output Current:</b>	200A cont, 400A peak (60 sec)
<b>Commutation:</b>	digital input (hall sensors) CRT (RS-232) CAN SAE J1939
<b>Protection:</b>	over voltage, current limit, thermal

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Rev 12/2012

Specification subject to change without notice.