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AC Motor Controller Dragon 8

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The Dragon8 sets a new standard in AC motor controller performance and reliability. It is compatible with a wide range of motors – Asynchronous AC Induction and Synchronous Permanent Magnet AC (PMAC) or Brushless DC (BLDC).

Dragon8 has electrical isolation between high power battery/motor wiring and the lower voltage control signals and CANBus. This allows the IO to reference the 12 V (or 24 V) battery and vehicle chassis return path.

**Features**
- Integrated & isolated IO and logic circuit
- Supports AC Induction and PMAC/BLDC
- Isolated CAN communications bus allows for easy interconnection of controllers and devices such as Battery Management Systems, displays and VCU's
- CANopen and J1939 protocols
- Configurable as a vehicle control master or as a motor control slave
- Power up auto-check system fault diagnostics
- Programmable battery current limit
- IP66 protection
- Integrated power fuse holder

**Integrated I/O**
Dragon8 includes a fully integrated set of inputs and outputs (I/O) with vehicle control functionality, designed to handle a wide range of system requirements and functions. This frequently eliminates the need for additional external I/O modules, vehicle control units and connectors.
- Up to 6 digital inputs (3 inputs dual use as UVW encoder input)
- Up to 4 analogue input (2 analogue inputs dual use as Sin/Cos encoder input)
- Up to 2 contactor drivers
- Dedicated 5 V, 200 mA output
- Dedicated 10 V, 200 mA output
- Motor temperature sensor input
- Motor encoders supported include Resolver (programmable gain), UVW hall effect sensors, Sin/Cos sensors and incremental AB encoders

**Key Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>96 V Version</th>
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<tbody>
<tr>
<td>Nominal Battery Voltage</td>
<td>48 V – 96 V</td>
</tr>
<tr>
<td>Maximum Operating Voltage</td>
<td>139 V</td>
</tr>
<tr>
<td>Minimum Operating Voltage</td>
<td>20 V</td>
</tr>
<tr>
<td>Boost Phase Current (10 seconds)</td>
<td>400 A rms</td>
</tr>
<tr>
<td>Peak Phase Current (2 minutes)</td>
<td>300 A rms</td>
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<tr>
<td>Continuous Phase Current (1 hour)</td>
<td>110 A rms</td>
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**Dimensions**
227 mm (L) x 138 mm (W) x 73 mm (H), Weight 2 kg

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