12V - 48V

**MX110**

**Chassis Mount**

**Contactor 1000A**

**Key Features**

- **EPIC® Seal**: Ceramic to metal braze. Gas filled hermetic chamber protects key components. Exceeds IP69K standard.
- **Contacts / Form**: Silver / SPST / NO
- **Coil**: Efficient two coil design with no PWM or EMI emissions. Coil suppression built in.
- **High Shock and Vibration**: For rugged environments, off-road and tracked vehicles.
- **Installation**: Not direction sensitive
- **Made in USA**: Designed and manufactured in the USA
- **Reference**: MIL-R-6106, RoHS

**Current Carry vs Time**

with 85°C terminal temperature rise

**Part Number**

- **PART NUMBER**
  - DT06-085A: CONNECTOR HOUSING
  - 0462-201-16141: SOCKET
  - 114017: SEALING PLUG
  - HDT-48-00: RECOMMENDED CRIMPER
  - WBS: WEDGE

* AVAILABLE AS AN ASSEMBLY (0697-1/2)
Technical Specification

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Current</td>
<td>1000A w/ 400MCM (see graph on reverse)</td>
</tr>
<tr>
<td>Max Current—1 sec</td>
<td>6000A</td>
</tr>
<tr>
<td>Max Current—10 sec</td>
<td>5000A</td>
</tr>
<tr>
<td>Max Current—90 sec</td>
<td>3000A</td>
</tr>
<tr>
<td>Contact Voltage Drop (max)</td>
<td>150mV at 1000A</td>
</tr>
<tr>
<td>Contact Res. @ 1000A</td>
<td>0.15mΩ</td>
</tr>
<tr>
<td>Insulation Resistance (min)</td>
<td>100MΩ (50MΩ after life)</td>
</tr>
<tr>
<td>Dielectric Withstanding</td>
<td>1500VRMS (1050 VRMS after life)</td>
</tr>
<tr>
<td>Operate Time (max)</td>
<td>20 msec (include bounce)</td>
</tr>
<tr>
<td>Release Time (max)</td>
<td>20 msec</td>
</tr>
<tr>
<td>Weight</td>
<td>3.6 lb (1.6 kg) with nuts and washers</td>
</tr>
</tbody>
</table>

Max Current

- 1 sec: 6000A
- 10 sec: 5000A
- 90 sec: 3000A

Contact Voltage Drop (max)

- 150mV at 1000A

Contact Resistance

- 0.15mΩ at 1000A

Insulation Resistance (min)

- 100MΩ (50MΩ after life)

Dielectric Withstanding

- 1500VRMS (1050 VRMS after life)

Operate Time (max)

- 20 msec (include bounce)

Release Time (max)

- 20 msec

Weight

- 3.6 lb (1.6 kg) with nuts and washers

Resistive Load Switching

- 1000A at 24 VDC: 40,000 cycles
- Mechanical Life: 300,000 cycles
- Fault Interrupt @ 28VDC: 4000A

Environmental Specifications

- Seal: Hermetic, 10 E-9 atm cc/sec
- Temperature Range: -55°C to +100°C
- Shock: Sawtooth @ 20G, 11ms, ½ Sine @ 25G, 11ms
- Vibration: 10-2000 Hz, 20G
- Water / Steam: 2750 psi waterjet, 105 psi steam, boiling water
- Salt Spray Corrosion: MIL-STD-810G

- Resistant to corrosion, chemicals, and fungal growth

Auxiliary contacts (optional) - Form A, SPST Normally Open

- Switching Current (max): 1A at 28VDC
- Switching Current (min): 0.1mA at 5V

Coil Ratings at 25°C

*Contact factory for additional coil voltages

<table>
<thead>
<tr>
<th>Coil P/N Designation</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coil Voltage, Nominal</td>
<td>12 VDC</td>
<td>24 VDC</td>
</tr>
<tr>
<td>Coil Voltage, Max</td>
<td>16 VDC</td>
<td>32 VDC</td>
</tr>
<tr>
<td>Pick-Up Voltage, Max</td>
<td>8.5 VDC</td>
<td>16.5 VDC</td>
</tr>
<tr>
<td>Drop-Out Voltage</td>
<td>0.5 to 5.5 VDC</td>
<td>0.5 to 10 VDC</td>
</tr>
<tr>
<td>Pick-Up Current, Max (250ms)</td>
<td>5.1 A</td>
<td>2.6 A</td>
</tr>
<tr>
<td>Coil Current</td>
<td>1.28 A</td>
<td>0.64 A</td>
</tr>
<tr>
<td>Coil Power</td>
<td>14.5 W</td>
<td>14.5 W</td>
</tr>
<tr>
<td>Coil Back EMF</td>
<td>0V</td>
<td></td>
</tr>
</tbody>
</table>

1 Coils are switched internally with a FET, so no fly-back/suppression voltage is seen at the coil inputs.

Ordering Key

- MX110_{ E }_{ - }

**Coil Voltage:**

B = 12V  
C = 24V/28V

**Auxiliary Contacts:**

Blank = none  
B = SPST, Normally Open  
C = SPST, Normally Closed

Power Circuit and Installation

- [Diagram of power circuit and installation]

Options and Accessories

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0696</td>
<td>Mating Deutsch Connector (not assembled)</td>
</tr>
<tr>
<td>0697</td>
<td>Mating Deutsch Connector Assembly</td>
</tr>
</tbody>
</table>

See Terms of Use for additional information

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