DeviceNet Power Supply

Catalog Number 1787-DNPS

Use this document as a guide when you install a DeviceNet™ Power Supply (model number CP680).

About the Power Supply

We designed the DeviceNet power supply specifically for DeviceNet networks. It conforms to all applicable national electric codes.

The power supply provides the following features:

- standard IEC 3-pin connector
- main power switch with a dual-voltage selection switch
- standard DeviceNet 5-pin open style connector
- stud for earth to ground connection
- green LED power indicator
- stud for earth-to-ground connection

European Union Directive Compliance

If this product bears the marking, it is approved for installation within the European Union and EEA regions. It has been designed and tested to meet the following directives.

EMC Directive

This product is tested to meet Council Directive 89/336/EEC Electromagnetic Compatibility (EMC) and the following standards, in whole or in part, documented in a technical construction file:

- EN 50081-2EMC - Generic Emission Standard, Part 2 - Industrial Environment
- EN 50082-2EMC - Generic Immunity Standard, Part 2 - Industrial Environment

This product is intended for use in an industrial environment.

Low Voltage Directive

For specific information on the power supply requirements, see the appropriate sections in this manual as well as the following Allen-Bradley publications:

- Industrial Automation Wiring and Ground Guidelines, publication 1770-4.1
- Automation Systems Catalog, publication B111

This equipment is classified as open equipment and must be installed (mounted) in an enclosure during operation as a means of providing safety protection.

Installing Your Power Supply

You can install your power supply on a vertical wall mount or a shelf by using the integral mounting brackets. For more information about where to mount your power supply, refer to the DeviceNet Cable System Planning and Installation Manual, publication DN-6.7.2.

1. Place the power supply where you would like to mount it (either on a shelf or vertically on a wall).

ATTENTION: Be certain that the power supply is protected from liquids and condensation that might occur through ventilation. Liquids or condensation could cause damage to the product.

2. Attach the power supply to the selected mounting position by attaching screws through the appropriate mounting flange.
3. Secure all necessary cords from the DeviceNet network in their appropriate ports once the power supply is securely mounted.

ATTENTION: For alternate usage at an input of 230V ac operation, the cord must be “SVT” type or equivalent with an IEC320-C13 connector and appropriate grounded plug. Cord must be 1.8m to 3.0m in length and rated for 2500W (250V/10A).

Be certain that the voltage selection switch is set for proper input voltage before application of main power.

4. Switch the main power switch to the on position to supply power to the DeviceNet network.

Mounting Dimensions

This figure illustrates the correct mounting dimensions:

![Mounting Dimensions Diagram]

Specifications

Table lists specifications for the DeviceNet power supply.

ATTENTION: This product may, under certain circumstances, develop hot surfaces during operation. Make sure that proper precautions are taken to avoid damage to either equipment or human operators.
<table>
<thead>
<tr>
<th>Power Connector</th>
<th>3-pin IEC</th>
<th>Line Frequency</th>
<th>48-62 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuse</td>
<td>Class 2 type accepted</td>
<td>Turn-on Time (with full load)</td>
<td>250msec max 95% of final value</td>
</tr>
<tr>
<td>Size</td>
<td>5&quot; x 6.5&quot; x 11&quot;</td>
<td>Isolation</td>
<td>output isolated from AC and chassis ground</td>
</tr>
<tr>
<td>DC Connector</td>
<td>Phoenix Combicon style 5-pin 5.08mm pitch female and mating connector</td>
<td>Operating Temperature</td>
<td>0 - 60°C min 0 - 75°C with 30% derating at 75°C 32 - 140°F min 32 - 167°F with 30% derating at 167°F</td>
</tr>
<tr>
<td>DC Connector Pins</td>
<td>Pin 1, 24V+; Pin 3, Chassis ground; Pin 5, 24V-</td>
<td>Storage Temperature</td>
<td>-40 - 85°C -40 - 185°F</td>
</tr>
<tr>
<td>Indicators</td>
<td>LED power good indicator</td>
<td>Humidity</td>
<td>95% non-condensing</td>
</tr>
<tr>
<td>Mounting</td>
<td>Flange</td>
<td>Electrostatic Discharge</td>
<td>4KV contact 8KV air</td>
</tr>
<tr>
<td>Enclosure</td>
<td>Vented enclosure (indoor use)</td>
<td>Vibration</td>
<td>2g, 10-500hz</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>115V±10% 230V±10% selectable</td>
<td>Shock</td>
<td>30g, 11ms half cycle</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>24V dc ± 1%</td>
<td>Surge</td>
<td>4KV common mode, 2KV differential mode</td>
</tr>
<tr>
<td>Output Current</td>
<td>Nameplate rating of 100VA to be consistent with NEC Class 2 Peak output currents 5.25 A</td>
<td>Electrical Fast Transient</td>
<td>2KV</td>
</tr>
<tr>
<td>Ripple</td>
<td>250mV</td>
<td>Radiated Immunity</td>
<td>10V/M 80 MHZ- 1GHZ</td>
</tr>
<tr>
<td>Load Capacitance Capability</td>
<td>7000uF load</td>
<td>Agency Certification (when product or packaging is marked)</td>
<td>223 - M91 with T.I.L. No. CA 2A. 1310 class 2 power limited circuits marked for all applicable directives</td>
</tr>
</tbody>
</table>

1 Contact the manufacturer for information on replacing fuses for your power supply.

DeviceNet is a trademark of Open Device Vendor Association (ODVA).

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