Installation
Modular Power Distribution Unit (PDU)

PDPM277H, PDPM144F

IMPORTANT SAFETY INSTRUCTIONS

HAZARD OF ELECTRIC SHOCK
- Electrical equipment must be installed, operated, serviced, and maintained only by qualified personnel.
  - To remove a Power Distribution Module:
    - Turn off all power supplying the equipment and perform appropriate lockout/tagout procedures before installing or removing the Power Distribution Module.
    - If a Symmetra PX UPS is providing power to the Modular PDU, place the UPS into battery operation (to reduce fault current) before removing the Power Distribution Module. See the UPS Operation Manual.
  - The PDU must be installed in accordance with the National Electrical Code or the Canadian Electrical Code and all applicable local codes.

Failure to follow these instructions will result in death or serious injury.

DANGER

HAZARD OF EQUIPMENT DAMAGE
- Remove cover plates from the unit before cutting holes for power cable access. Metal shavings can cause serious equipment damage. A metal punch can be used to make the holes in the plates.

Failure to follow these instructions can result in injury or equipment damage.

CAUTION

Worldwide Customer Support
Customer support is available at www.schneider-electric.com.

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Level the Enclosure
The PDU must be installed on a level floor. The leveling feet will stabilize the PDU, but will not account for a badly sloped floor.

1. Use a 13/14 mm wrench to adjust the four leveling feet.
2. Ensure that the PDU is level.
3. Do not move the PDU after the leveling feet have been lowered.

Input Cables
Prepare for the input cables
1. Unlock the side panel with the key (provided). Press down the lock and pull the panel out and up.
2. Remove the top or bottom entry plate.
3. Cut holes for conduits following the markings. Reattach the plate.

Connect input cables
1. Run the cables through the top or the bottom of the unit.
2. Connect the Protective Earth/Ground (PE/G), Neutral (N), and Line (L1, L2, and L3) conductors to the appropriate compression terminals.
3. Reinstall the covers, side panels, and doors.
4. Loosen the captive screws to remove the covers for the compression terminals.

It is not necessary to remove the bottom cover unless power is brought in through the bottom of the PDU.

Power Distribution Modules
To install the Power Distribution Modules (PDMs), see the installation sheet 990-3079.
Communication Cables

Connect one end of the communication cable to the port on the top of the unit and the other end to the local area network port.

Specifications

Input conductors

This product is rated 400 A. It must be supplied with a circuit breaker with a maximum rating of 400 A.

NOTE: Torque Input conductors to 31.1 Nm (275 lb-in) using an 8 mm (5/16 in) Allen (hexagonal) wrench.

Maximum input conductor size

For North America, if supplied by a 400 A circuit breaker, it is recommended that conductors are sized in accordance with the following table.

<table>
<thead>
<tr>
<th>400 A, 75°C Conductors</th>
<th>Wiring System</th>
<th>Copper</th>
<th>Aluminum</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 CCC, 30°C Ambient</td>
<td>ØN = 500 MCM G = 3 AWG</td>
<td>ØN = (2) 40 AWG G = (2) 3 AWG</td>
<td></td>
</tr>
<tr>
<td>4 CCC, 30°C Ambient</td>
<td>ØN = (2) 40 AWG G = (2) 3 AWG</td>
<td>ØN = (2) 350 kcmil G = (2) 1 AWG</td>
<td></td>
</tr>
</tbody>
</table>

Installation Method

B1 ØN = (2) 95 PE = (2) 50 ØN = (2) 95 PE = (2) 50 ØN = (2) 95 PE = (2) 50 ØN = (2) 95 PE = (2) 50
B2 ØN = (2) 120 PE = (2) 70 ØN = (2) 95 PE = (2) 50 ØN = (2) 120 PE = (2) 70 ØN = (2) 120 PE = (2) 70
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F (Flat) ØN = 185 PE = 95 ØN = 120 PE = 70 ØN = (2) 95 PE = (2) 50 ØN = (2) 95 PE = (2) 50 ØN = 185 PE = 95

NOTES:

CCC = Current-Carrying Conductors
AVG = American Wire Gauge
N = Neutral conductor
G = Ground conductor
kcmil (MCM) = Thousands of Circular Mils

For countries outside of North America, if supplied by a 400 A circuit breaker, it is recommended that conductors are sized in accordance with the following table.

Environmental and Compliance

<table>
<thead>
<tr>
<th>Environment and Compliance Section</th>
<th>Operating Environment</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Protected from water and conductive contaminants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operating: 0 to 30°C / 32 to 86°F</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operating (derated): 0 to 40°C / 32 to 104°F</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Storage: 0 to 45°C / 32 to 113°F</td>
<td></td>
</tr>
<tr>
<td>Humidity</td>
<td>Storage: 0 to 95%, non-condensing</td>
<td></td>
</tr>
<tr>
<td>Elevation</td>
<td>Storage: 0 to 45°C / 32 to 113°F</td>
<td></td>
</tr>
<tr>
<td>Certification</td>
<td>Listed (US) and cUL (Canada) by Underwriters Laboratories Inc. to UL 60950</td>
<td></td>
</tr>
<tr>
<td>EPR Insulation, PVC Insulation, 30°C Ambient</td>
<td>10 kA</td>
<td></td>
</tr>
<tr>
<td>Rated Impulse Withstand Voltage (UCC)</td>
<td>4 kV</td>
<td></td>
</tr>
<tr>
<td>Rated Diversity Factor</td>
<td>0.6</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Circuit breakers and conductor ampacity are derated in accordance with the national electrical code and IEC 60364-5-53.

Shielding Troughs (Optional)

Snap a Schneider Electric shielding trough into slots (1) on the roof of the PDU. The tabs at the base of the trough must fit securely into the slots.

NOTE: Align the PDU trough with troughs installed on top of adjacent enclosures.

Regulatory Agency Approval

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference, when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the Installation Guide, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user may be required to take adequate measures.

This Class A digital apparatus complies with CanadianICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

This is a Class A Product. In a domestic environment this product may cause interference in which case the user may be required to take adequate measures.