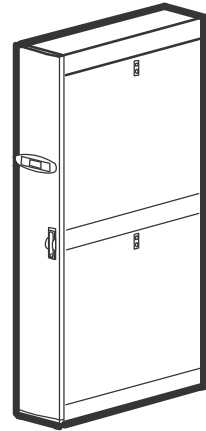




## Installation Modular Power Distribution Unit (PDU)



PDPM277H, PDPM144F

### IMPORTANT SAFETY INSTRUCTIONS

#### ⚠️ DANGER

##### 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.
- OR
- 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. To place the UPS into battery operation, 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.

#### ⚠️ CAUTION

##### 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.

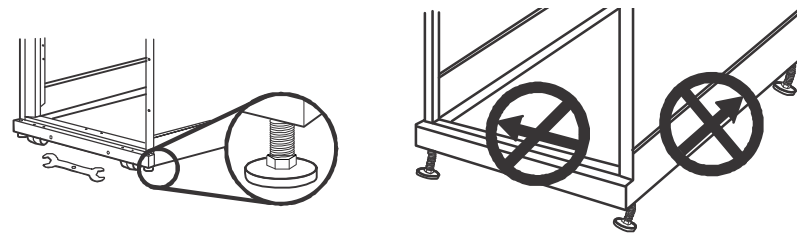
### Worldwide Customer Support

Customer support is available at [www.schneider-electric.com](http://www.schneider-electric.com).

© 2015 Schneider Electric. All rights reserved.

### 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.

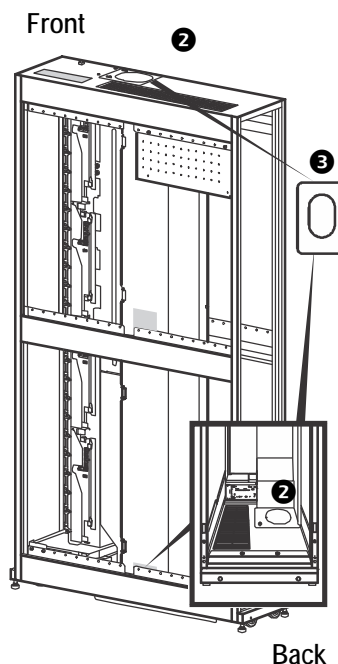
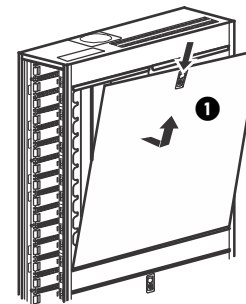


- 1 Use a 13/14 mm wrench to adjust the four leveling feet.
- 2 Ensure that the PDU is level.
- 3 Do not move the PDU after the leveling feet have been lowered.

### Input Cables

#### Prepare for the input cables

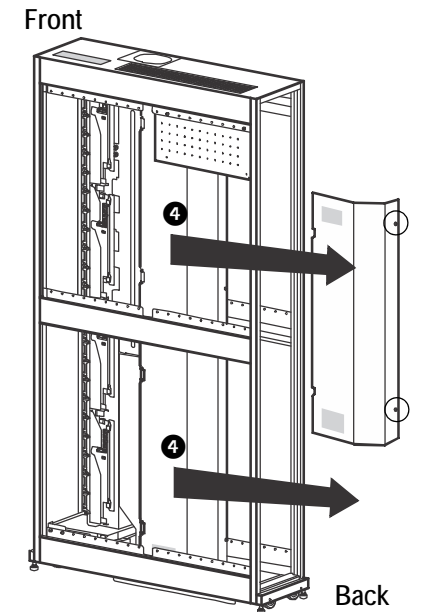
- 1 Unlock the side panel with the key (provided). Press down the lock and pull the panel out and up.



- 2 Remove the top or bottom entry plate.
- 3 Cut holes for conduits following the markings. Reattach the plate.

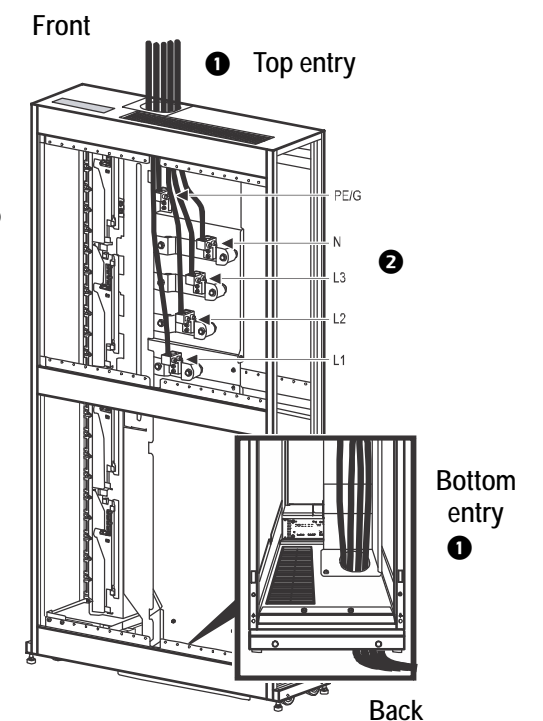
- 4 Loosen the captive screws to remove the covers for the compression terminals.

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



### 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.

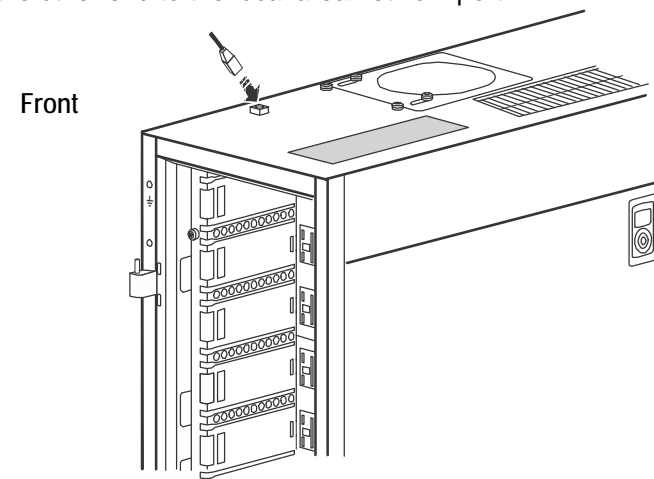


### Power Distribution Modules

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.

AC Input	
Nominal voltage	415/240 V, 3 Ø + N + G 120/208 V, 3 Ø + N + G 3/N/PE ~ 400/230 V
Frequency	47-63 Hz
Upstream circuit breaker	400 A
Maximum continuous current	400 A
Maximum main input conductor size	500 MCM

AC Output	
Nominal voltage	415/240 V, 3 Ø + N + G or 3 x 240 V 1 Ø+N+G 120/208 V, 3 Ø + N + G or 3 x 120 V 1 Ø+N+G 3/N/PE ~ 400 V or 3 x 1/N/PE ~ 230 V
Maximum continuous current	400 A
Voltage configuration	3 W + N + PE or 3 x (1 W + N + PE), based on attached PDMs
Full load rating	288 kW @ 415 V 3 PH 277 kW @ 400 V 3 PH 144 kW @ 208 V 3 PH
Output power cable connections	Various, based on attached PDMs
Output power cable lengths	Various, based on attached PDMs
Maximum PDMs	24
Maximum power distribution poles	72

## 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.

400 A, 75°C Conductors		
Wiring System	Copper	Aluminum
3 CCC, 30°C Ambient	Ø&N = 500 MCM G = 3 AWG	Ø&N = (2) 4/0 AWG G = (2) 3 AWG
4 CCC, 30°C Ambient	Ø&N = (2) 4/0 AWG G = (2) 3 AWG	Ø&N = (2) 350 kcmil G = (2) 1 AWG

### NOTES:

CCC = Current-Carrying Conductors

AWG = American Wire Gauge

(2) = two conductors per terminal

kcmils (MCM) = Thousands of Circular Mils

Ø = Phase conductor

N = Neutral conductor

G = Ground conductor

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.

400 A, Conductors				
Install. Method	Copper, PVC Insulation, 30°C Ambient mm <sup>2</sup>	Copper, XLPE or EPR Insulation, 30°C Ambient mm <sup>2</sup>	Aluminum, PVC Insulation, 30°C Ambient mm <sup>2</sup>	Aluminum, XLPE or ERP Insulation, 30°C Ambient mm <sup>2</sup>
B1	Ø&N = (2) 95 PE = (2) 50	Ø&N = 240 PE = 120	Ø&N = (2) 150 PE = (2) 95	Ø&N = (2) 95 PE = (2) 50
B2	Ø&N = (2) 120 PE = (2) 70	Ø&N = (2) 95 PE = (2) 50	Ø&N = (2) 240 PE = (2) 120	Ø&N = (2) 120 PE = (2) 70
C	Ø&N = 240 PE = 120	Ø&N = 185 PE = 95	Ø&N = (2) 150 PE = (2) 95	Ø&N = (2) 95 PE = (2) 50
E	Ø&N = 240 PE = 120	Ø&N = 185 PE = 95	Ø&N = (2) 120 PE = (2) 70	Ø&N = 240 PE = 120
F (Trefoil)	Ø&N = 185 PE = 95	Ø&N = 150 PE = 95	Ø&N = (2) 95 PE = (2) 50	Ø&N = 240 PE = 120
F (Flat)	Ø&N = 185 PE = 95	Ø&N 120 PE = 70	Ø&N = (2) 95 PE = (2) 50	Ø&N = 185 PE = 95

### NOTES:

Ø = Phase conductor

N = Neutral conductor

PE = Protective Earth conductor

PVC = Polyvinylchloride

XLPE = Cross-linked polyethylene

EPR = Ethylene propylene rubber

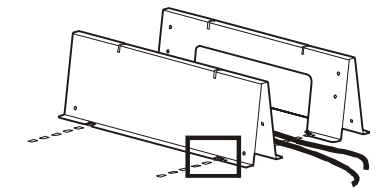
## Environment and Compliance

Environment and Compliance Section	
Operating Environment	Protected from water and conductive contaminants
Temperature	Operating: 0 to 30°C / 32 to 86°F Operating (derated): 0 to 40°C / 32 to 104°F Storage: 0 to 45°C / 32 to 113°F
Humidity	Operating: 0 to 95%, non-condensing Storage: 0 to 95%, non-condensing
Elevation	Storage: 10 000 m / 3,000 ft
Certification	Certified by VDE to IEC 60439-1 Listed (US) and cUL (Canada) by Underwriters Laboratories Inc. to UL 60950
Conditional Short-Circuit Current Rating (I <sub>CC</sub> )	10 kA
Rated Impulse Withstand Voltage (U <sub>CC</sub> )	4 kV
Rated Diversity Factor	0.6

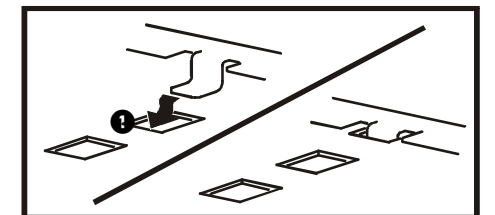
**NOTE:** Circuit breakers and conductor ampacity are derated in accordance with the national electrical code and IEC 60364-5-53.

## 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 will be required to correct the interference at his own expense.

*This Class A digital apparatus complies with Canadian ICES-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.