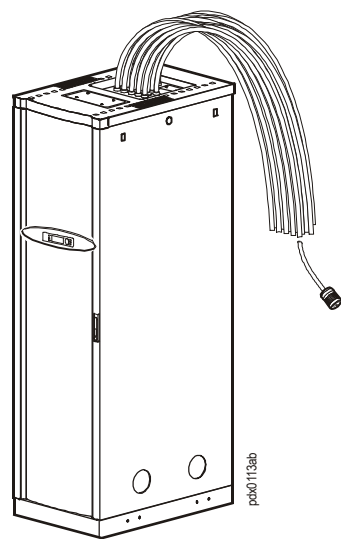


# Certified Electrician's Installation Instructions

InfraStruXure® Power Distribution Unit  
80kW (no transformer)  
PDRPPNX14-M1



## IMPORTANT SAFETY INSTRUCTIONS! SAVE THESE INSTRUCTIONS!

This document contains important instructions that should be followed during installation and maintenance of the InfraStruXure 80kW PDU.

### Symbols used



**Electrical Hazard:** Indicates an electrical hazard, which, if not avoided, could result in injury or death.



**Caution:** Indicates a hazard, which, if not avoided, could result in damage to the product or other property.



**Note:** Indicates important information.



### Electrical safety

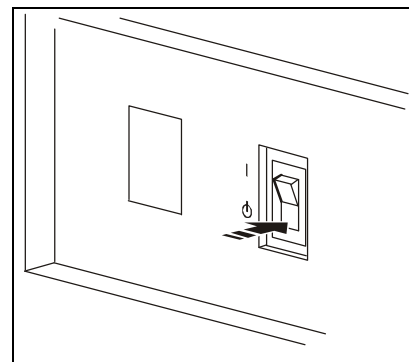


**Electrical Hazard:** Only certified electricians are authorized to connect power to the PDU.

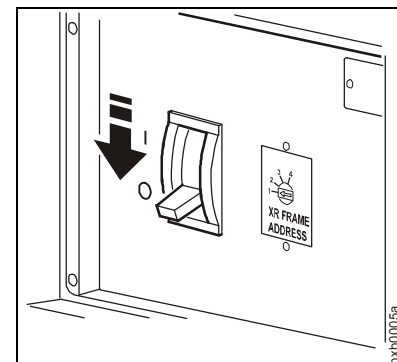


**Electrical Hazard:** The PDU must be installed in accordance with the National Electrical Code or the Canadian Electrical Code and all applicable local codes.

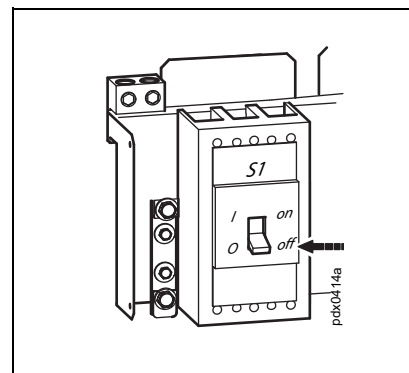
## Install the Power Cables



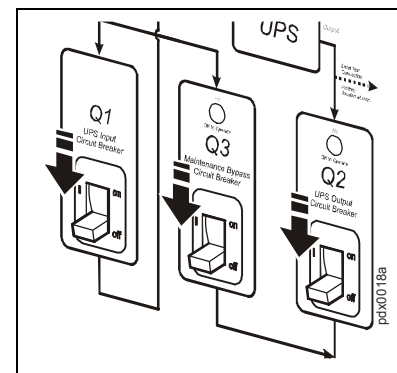
**1** Set the UPS System Enable switch to the OFF position.



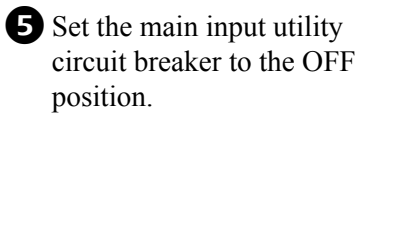
**2** Set the Battery Enclosure DC Disconnect circuit breaker to the OFF position.



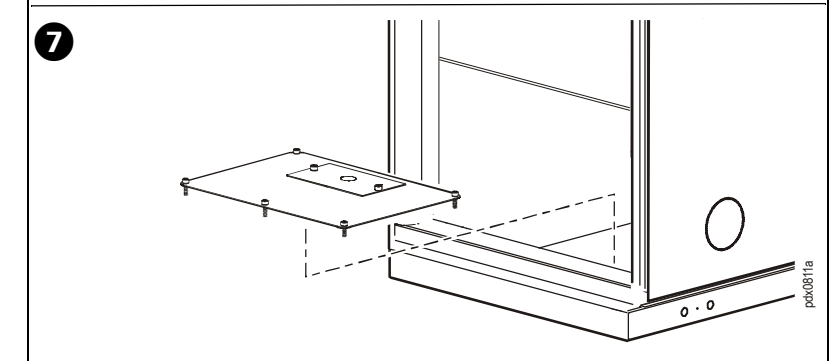
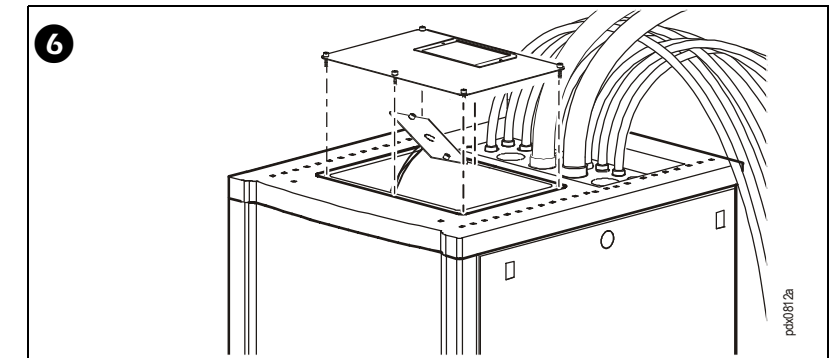
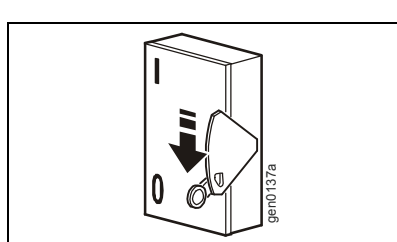
**3** Make sure the Main Input switch on the PDU is set to the OFF position.



**4** Make sure that the Q1, Q2, and Q3 circuit breakers on the PDU are set to the OFF position.



**5** Set the main input utility circuit breaker to the OFF position.

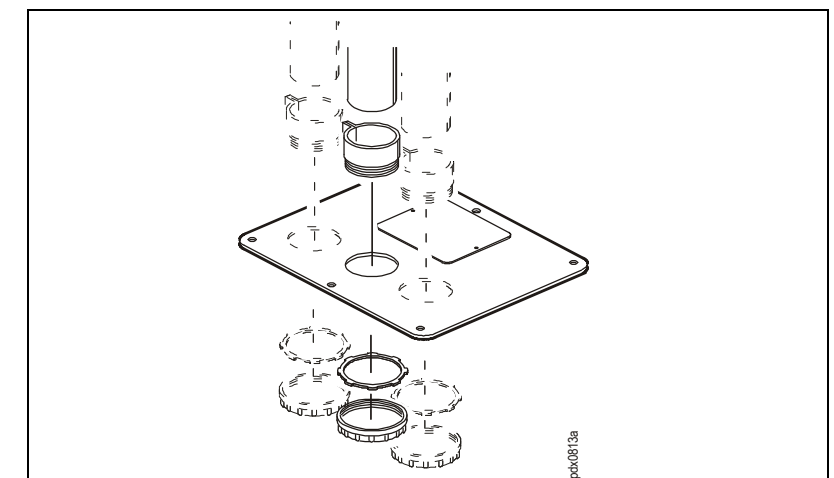


**6** Overhead wiring: Detach the connection plate from the larger gland plate and set aside. Do not disturb the connected wires. Remove the gland plate in the top of the PDU.

**7** Wiring under a raised floor: Remove the gland plate in the floor of the PDU.



**Note:** Do not drill or cut the plates while installed in the PDU.



**8** Cut a hole in the gland plate for each conduit line.

**9** Re-attach the gland plate.

**10** Thread the conduit through the hole in the gland plate.

**11** Install a locknut and bushing to the conduit.

# Tools and Torque Specifications

## Top feed wiring

Terminal	Torque	Tools
L1, L2, L3	26 Nm (230 in lb)	11-ton crimping tool for securing the lug onto the wire, 8 mm Allen wrench for securing the compression lug to the circuit breaker
N	26 Nm (230 in lb)	17 mm socket
G	5 Nm (44 in lb)	Flathead screwdriver

## Bottom feed wiring

Terminal	Torque	Tools
L1, L2, L3	56.5 Nm (500 in lb)	1/2 in Allen wrench
N	56.5 Nm (500 in lb)	1/2 in Allen wrench
G	5 Nm (44 in lb)	Flathead screwdriver

## Sub feed wiring

Terminal	Torque	Tools
L1, L2, L3	19 - 20 Nm (170-180 in lb)	6 mm Allen wrench
N	26 Nm (230 in lb)	17 mm socket
G	5 Nm (44 in lb)	Flathead screwdriver

# Utility/Branch Circuit Breaker



**Warning:** When you connect the PDU to utility power, you must install a circuit breaker to protect the PDU from over-current.

**Input Voltage: 208V**

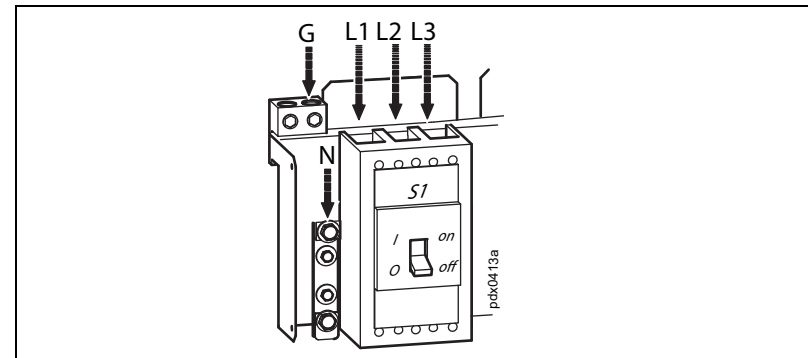
**Circuit Breaker Amperage: 350 A**

## Connect Input Conductors



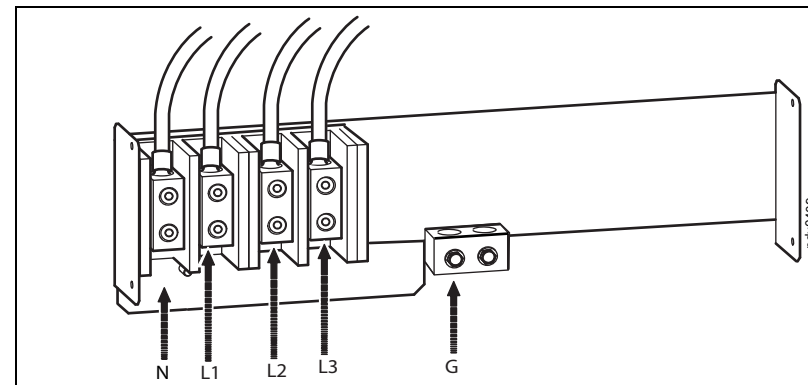
**Warning:** Connect the input conductors to the terminals according to the labels on the terminals. Use copper conductors rated 75°C (167°F) minimum only.

### Top feed wiring



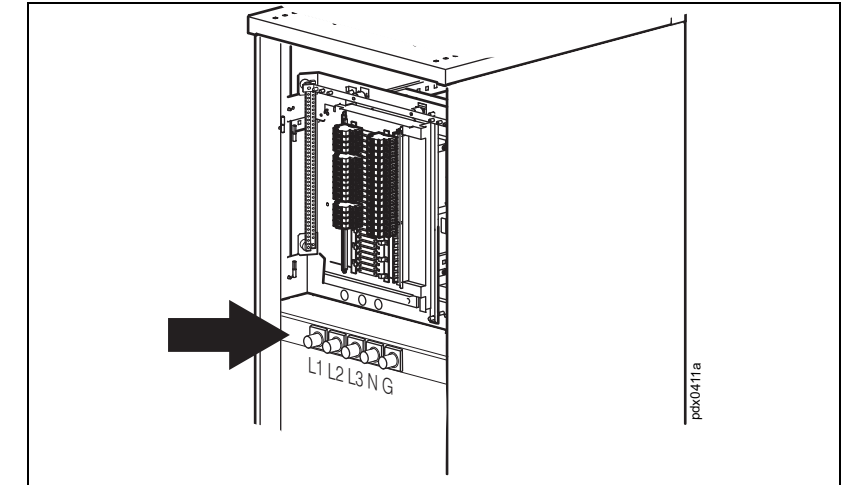
Connect the incoming wiring to the L1, L2, L3, N, and G connections. Compression lugs are used for L1, L2, L3, and N.

### Bottom feed (option)



The PDU is supplied with terminal blocks for all bottom feed connections.

## Load test port (option)

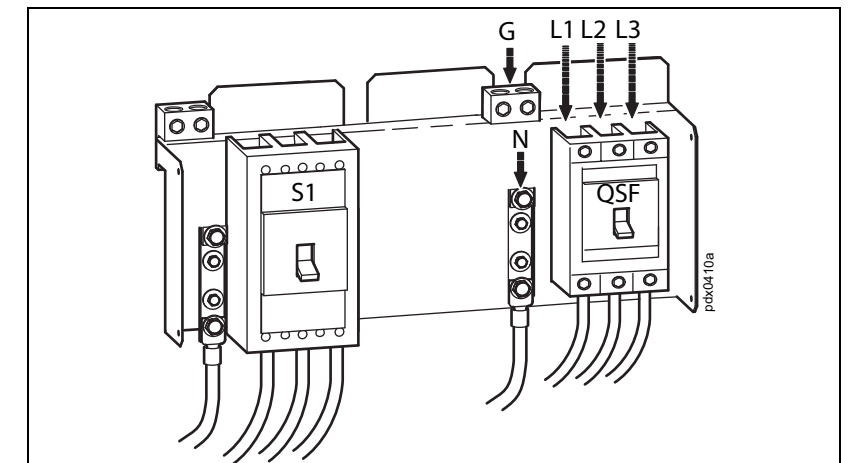


**Load Test Label**

Load Test Ports - for use only to test attached UPS (if provided). 120/208V~  
L1 L2 L3 NEUT GND  
pdk0412a

**The Load Test Port option allows a load to be connected to the PDU in order to test the UPS.**

## Subfeed (options)



**225A**

Recommended wire size: \*  
L1, L2, L3, N: 4/0 AWG (Cu)  
Gnd - 4 AWG (Cu)

**150A**

Recommended wire size: \*  
L1, L2, L3, N: 1/0 AWG (Cu)  
Gnd - 6 AWG (Cu)

\* Customer provided.



**Note:** Consult local and national codes for wire sizing requirements.

# Specifications

## Recommended input and output wire sizes



**Caution:** All wiring must comply with all applicable national and/or local electrical codes.

Conductor sizing in this manual is based on Table 310-16 of the National Electrical Code (NEC) with the following assertions:

- Conductors and circuit breaker terminals are rated 75°C
- 3 Current carrying conductors
- An ambient temperature of 30°C

If the ambient room temperature is greater than 30°C, larger conductors are to be selected in accordance with the correction factors of the NEC.

Upstream Circuit breaker *	350A
Conductors to main input switch (S1) *	3W + N + G
Max input conductor size (top entry)	500 kcmil (Cu)
Lugs for input conductors (top entry)	Compression lug (3/8 in)
Max input conductor size (bottom entry)	600 kcmil
Lugs for input conductors (bottom entry)	Terminal blocks
Recommended input wire sizing *	
L1, L2, L3	500 kcmil (Cu)
N	500 kcmil (Cu)
G	3 AWG (Cu)

\* Provided by customer.

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## Environment and Compliance

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Operating Environment	Protected from water and conductive contaminants
Temperature	Operating: 0 to 30°C (32 to 86°F) Storage: 0 to 45°C (32 to 113°F)
Humidity	Operating: 0 to 95%, non-condensing Storage: 0 to 95%, non-condensing
Elevation	10 000 m (3,000 ft)
Certification	Listed and cUL by Underwriters Laboratories Inc.

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# APC Worldwide Customer Support

For regional or country-specific contact information, go to [www.apc.com/support/contact](http://www.apc.com/support/contact).

