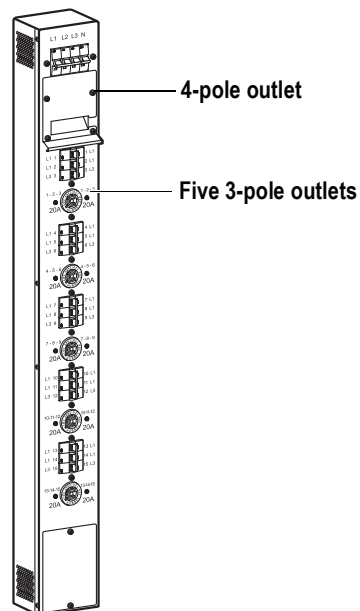




Smart-UPS® VT ISX PDU Installation

IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS



Always read the separate Safety 990-2822 sheet prior to the installation.



All electrical power and power control wiring must be installed by a qualified electrician, and must comply with local and national regulations for maximum power rating.



The UPS is supplied from a: 208Y/120V or 220Y/127V 4W + GND 60Hz source.

1 Installation of a second PDU in the UPS

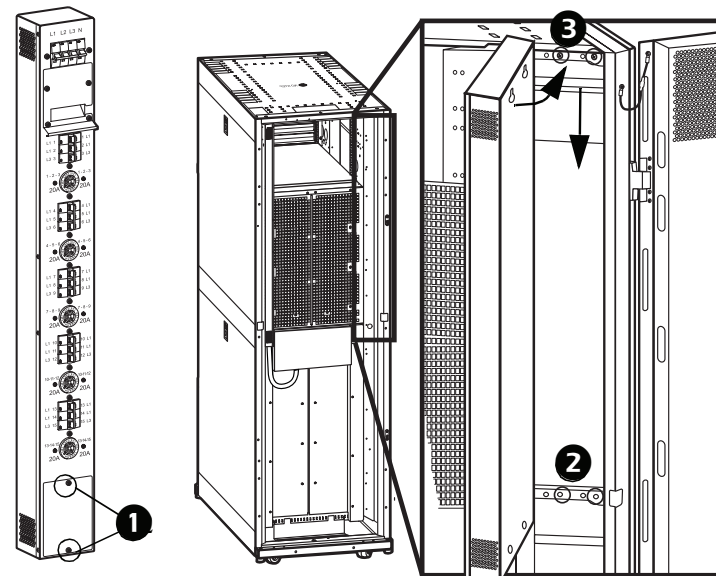
At the rear, the UPS contains a Power Distribution Unit (PDU). In addition, a second PDU may be installed on the opposite side. The PDU has six 3-phased breakers. The top breaker (4-pole) protects any external 3-phase equipment, and the 5 other breakers (3-pole) protect the equipment connected to the actual L21-20 power outlets beneath the actual breaker.

Installing the PDU

To open the rear doors of the UPS, pull out the lower end of the door handle and turn it counterclockwise to a horizontal position

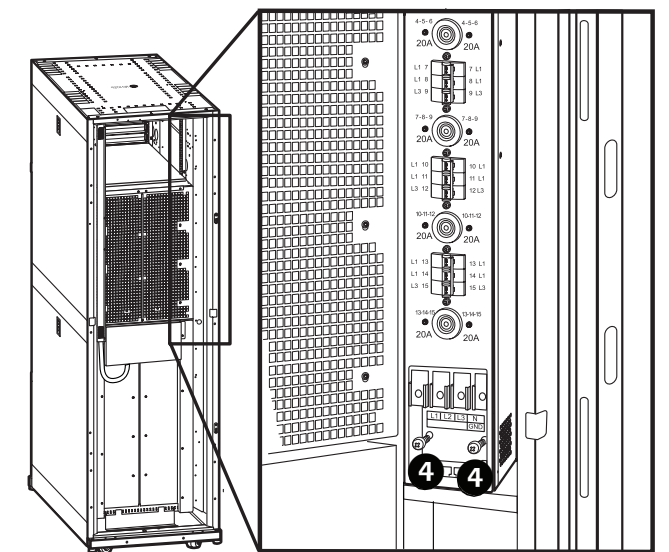


Always carry out the Total-Power-Off procedure prior to the installation. Refer to the separate Safety sheet 990-2822 for instructions.



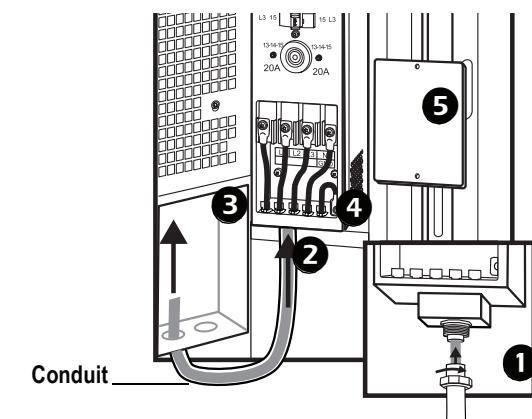
The side panels of the UPS are provided with 2 sets of screws for the attachment of a second PDU.

- 1 Using a torx screwdriver, remove the two M4 torx screws from the lower cable landing cover of the PDU.
- 2 Remove the two screws from the installation area and save for later use.
- 3 Position the two rear sets of top holes of the PDU over the provided screws in the side panel, and push down.



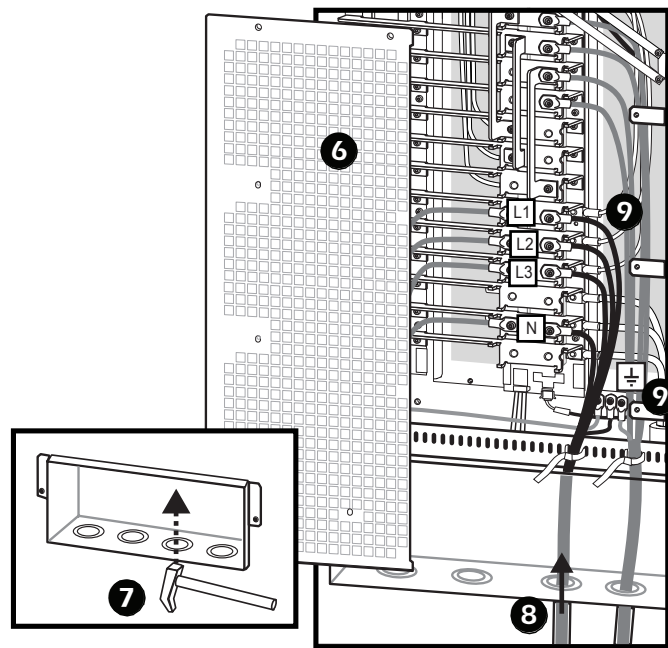
- 4 Attach the bottom end of the PDU to the UPS, using the two screws removed in step 1.

AC and ground cable landings



- 1 Guide cable up through conduit adapter in the bottom of the PDU. Fasten conduit (provided) with adapter nut.
- 2 Feed the L1, L2, L3, N and ground cables through the cable entrance hole.
- 3 Attach the cables to the terminals in the second PDU and fasten with cable ties.
- 4 Attach the ground cable to the stud (earth symbol beneath stud) and fasten with cable tie.
- 5 Using a torx screwdriver, reinstall the cover plate using the removed M4 screws.





- 6 Using a torx screwdriver, remove cable landing cover from the UPS.
- 7 Use a hammer to punch out knockouts in the conduit box. Line with grommets (not provided).
- 8 Feed the L1, L2, L3, N and ground cables through the conduit box.
- 9 Attach L1, L2, L3, N and ground cables from the second PDU to the right attachment area of output busbars L1, L2, L3, and N. Attach the ground cable in the applicable area.

2 Connecting Load to the PDU

Preparing to connect the load to the PDU(s)



Note

Connect the load equipment evenly between the 3 phases to avoid overloading the PDU. The total output capacity of the PDU is approximately twice the output capability of the UPS. This means that UPS would be over-loaded if all PDU outlets were loaded to their rating. Load status on the individual phases can be found through the UPS display or through the web interface.



Note

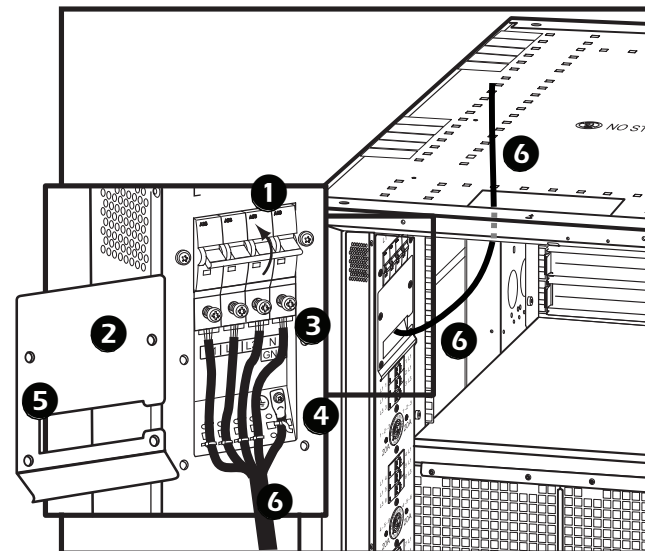
Equipment connected to the 3-phased output may require overcurrent protection with a lower rating than the 3-phased output.



Note

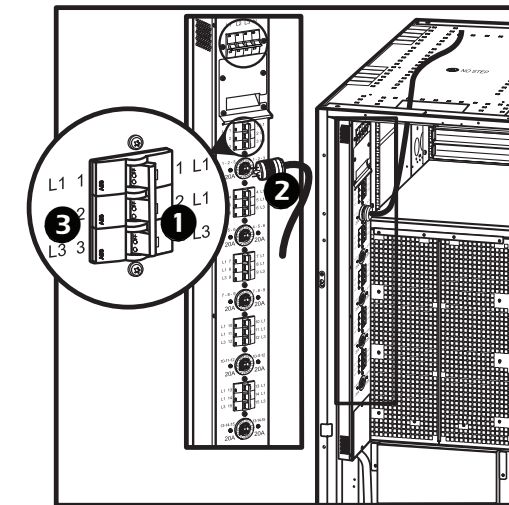
For 3-phased 4-pole output, the highest current may be in the Neutral conductor at non-linear loads (up to 173%).

Connecting load to the 4-pole outlet



- 1 Set the top PDU breaker to the OFF position.
- 2 Using a torx screwdriver, remove the four M4 screws from the top plate of PDU. Remove plate.
- 3 Connect the L1, L2, L3, N and ground cables to the terminals and tighten the M6 screws firmly. Fasten cables with cable ties.
- 4 Attach the ground cable to the ground stud (labeled earth) and fasten with cable tie.
- 5 Use a torx screwdriver to reinstall the top plate removed in step 2.
- 6 Feed the cable through the hole in the top cover.

Connecting load to the 3-pole outlet(s)



- 1 Set the applicable breaker to the OFF position.
- 2 Insert the plug from the load into the receptacle. Secure the plug by turning it clockwise approximately 30°.
- 3 Set the applicable breaker to the ON position to supply the load.

Disconnecting the load from the PDU(s)

To disconnect the load, set the applicable breaker to the OFF position.

PDU output breaker ratings

Rear of unit	Ambient temperature in front of unit °C	Nominal rating of breaker		
		20	50	63
Free exhaust	20	17	42.5	53.55
Free exhaust	30	16	40.0	50.40
Free exhaust	40	15	37.5	47.25
Hot aisle exhaust	25	16	40.0	50.40

3 Contact Information

If a problem occurs, phone Customer Support at (1) (800) 800-4272 (US and Canada). For country-specific centers: go to www.apc.com/support/contact. Web Support: support@apc.