



Installation and Operation Rack Power Distribution Unit

AP9559

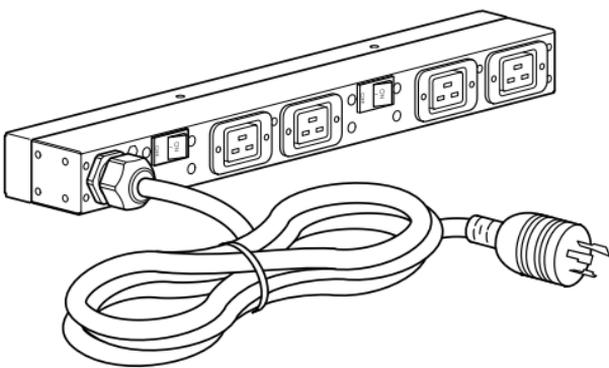
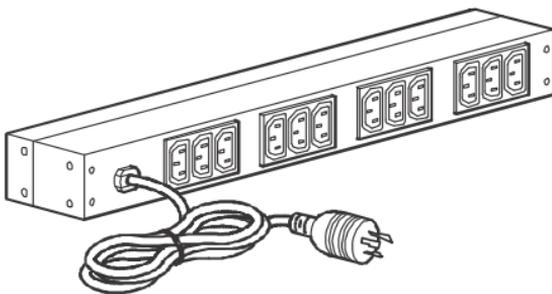
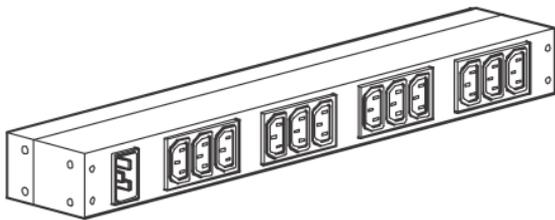
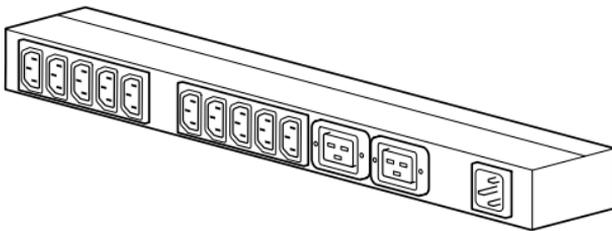
AP9565

AP9566

AP9570

Publication Date: 09/2021

990-7213F-001



Schneider
Electric

Schneider Electric Legal Disclaimer

The information presented in this manual is not warranted by Schneider Electric to be authoritative, error free, or complete. This publication is not meant to be a substitute for a detailed operational and site specific development plan. Therefore, Schneider Electric assumes no liability for damages, violations of codes, improper installation, system failures, or any other problems that could arise based on the use of this Publication.

The information contained in this Publication is provided as is and has been prepared solely for the purpose of evaluating data center design and construction. This Publication has been compiled in good faith by Schneider Electric. However, no representation is made or warranty given, either express or implied, as to the completeness or accuracy of the information this Publication contains.

IN NO EVENT SHALL SCHNEIDER ELECTRIC, OR ANY PARENT, AFFILIATE OR SUBSIDIARY COMPANY OF SCHNEIDER ELECTRIC OR THEIR RESPECTIVE OFFICERS, DIRECTORS, OR EMPLOYEES BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL, OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS, CONTRACT, REVENUE, DATA, INFORMATION, OR BUSINESS INTERRUPTION) RESULTING FROM, ARISING OUT, OR IN CONNECTION WITH THE USE OF, OR INABILITY TO USE THIS PUBLICATION OR THE CONTENT, EVEN IF SCHNEIDER ELECTRIC HAS BEEN EXPRESSLY ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SCHNEIDER ELECTRIC RESERVES THE RIGHT TO MAKE CHANGES OR UPDATES WITH RESPECT TO OR IN THE CONTENT OF THE PUBLICATION OR THE FORMAT THEREOF AT ANY TIME WITHOUT NOTICE.

Copyright, intellectual, and all other proprietary rights in the content (including but not limited to software, audio, video, text, and photographs) rests with Schneider Electric or its licensors. All rights in the content not expressly granted herein are reserved. No rights of any kind are licensed or assigned or shall otherwise pass to persons accessing this information.

This Publication shall not be for resale in whole or in part.

Contents

| | |
|---|-----------|
| General Information | 1 |
| Safety | 1 |
| Safety and grounding information | 1 |
| Overview | 2 |
| Receiving | 2 |
| Inventory | 2 |
| Material recycling | 2 |
| Installation | 3 |
| Install the Rack PDU | 3 |
| Mounting options | 3 |
| Attaching brackets to the PDU | 4 |
| Mounting the PDU (using screws) | 5 |
| Mounting the AP9559 Rack PDU (toolless mounting) | 6 |
| Operation | 7 |
| AP9559 | 7 |
| AP9565 | 7 |
| AP9566 | 8 |
| AP9570 | 8 |
| Specifications | 9 |
| Life Support Policy | 11 |
| General policy | 11 |
| Examples of life-support devices | 11 |
| Factory Warranty | 12 |
| Terms of warranty | 12 |
| Non-transferable warranty | 12 |
| Exclusions | 12 |
| Warranty claims | 14 |

General Information

Safety

Safety and grounding information

Read the following information before installing or operating your APC Rack Power Distribution Unit (PDU).

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- The PDU is intended to be installed and operated by a skilled person in a controlled location with restricted access.
- This PDU is intended for indoor use only.
- Do not install this PDU where excessive moisture or heat is present.
- Never install any wiring, equipment, or PDUs during a lightning storm.
- Plug this PDU into a three-wire, grounded power outlet only. The power outlet must be connected to appropriate branch circuit/mains protection (fuse or circuit breaker). Connection to any other type of power outlet may result in a shock hazard.
- Use only the supplied brackets for mounting, and use only the supplied hardware to attach the mounting brackets.
- Do not use extension cords or adapters with this PDU.
- If a socket-outlet is not accessible to the equipment, a socket-outlet shall be installed.
- Do not work alone under hazardous conditions.
- Check that the power cord, plug, and socket are in good condition.
- Disconnect the PDU from the power outlet before you install or connect equipment to reduce the risk of electric shock when you cannot verify grounding. Reconnect the PDU to the power outlet only after you make all connections.
- Use a protective earth connector with equipment. This type of connector carries the leakage current from the load devices (computer equipment). Do not exceed a total leakage current of 3.5 mA.
- Do not handle any kind of metallic connector before the power has been removed.
- Use one hand, whenever possible, to connect or disconnect signal cables to avoid a possible shock from touching two surfaces with different grounds.
- This unit does not have any user-serviceable parts. Repairs are to be performed only by factory-trained service personnel.

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

NOTICE

EQUIPMENT DAMAGE HAZARD

The ambient operating temperature of a closed or multi-unit rack environment may be greater than the ambient temperature of the room. Ensure the ambient operating temperature of your rack environment does not exceed the rated ambient operating temperature for the device.

Failure to follow these instructions can result in equipment damage.

Always install the equipment as shown in the Installation Manual.

Overview

Receiving

Inspect the package and contents for shipping damage. Make sure all parts were sent. Immediately report any shipping damage to the shipping agent. Report missing contents, product damage, or other problems with the product to APC or your Schneider Electric reseller.

Inventory

| Item | Quantity |
|--------------------------------|-----------------|
| Basic Rack PDU | 1 |
| Horizontal mounting brackets | 2 |
| Vertical mounting brackets | 2 |
| 8-32 flat-head Phillips screws | 8 |

Material recycling



The shipping materials are recyclable. Please save them for later use, or dispose of them appropriately.

Installation

Install the Rack PDU

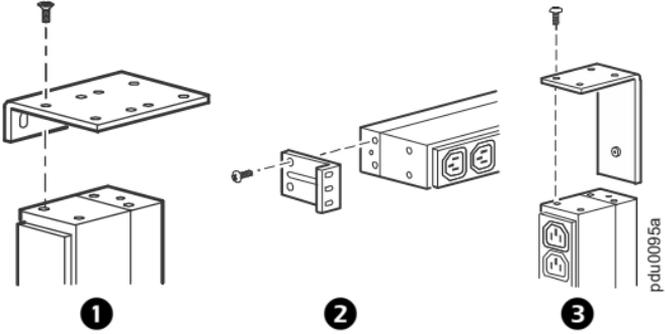
Mounting options

Choose the mounting option for your PDU, depending on your preferences and the type of enclosure.

- Vertical mounting
 - For any standard 19-in rack, you can attach the brackets to the enclosure using the screws provided.
 - AP9559 only: For a NetShelter VX enclosure (AR2100 series), you can mount the brackets to the enclosure by snapping them into place (toolless mounting).
- Horizontal mounting: For any NetShelter enclosure, you can mount the brackets to the enclosure using the screws provided. Horizontal mounting uses 1 U-space.

Attaching brackets to the PDU

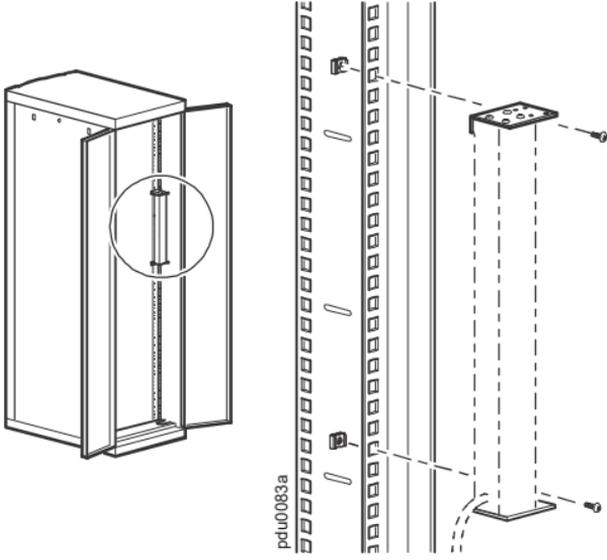
1. Decide where and how you will mount the PDU in the enclosure. (See the figures on the following pages.)
2. Choose the appropriate mounting brackets, as shown below, for the option you chose:



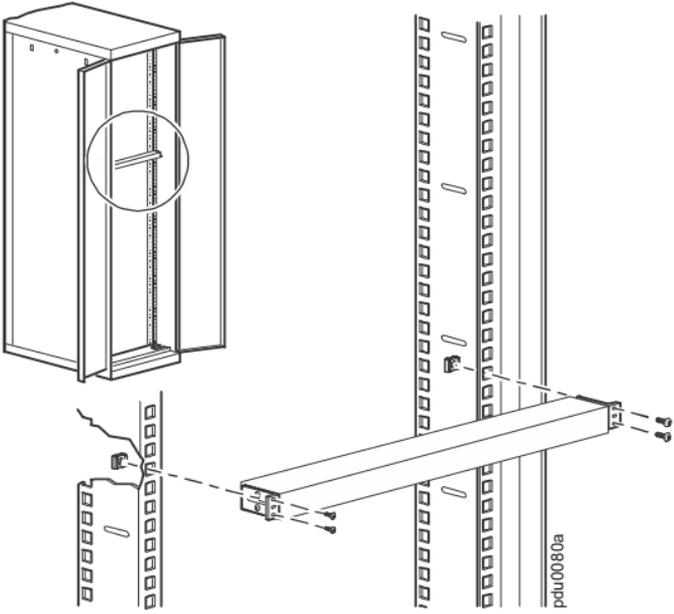
- for 19-in vertical mounting **1**
 - for horizontal mounting **2**
 - AP9559 only: for toolless mounting **3**
3. Attach the brackets to the unit using four flat-head Phillips screws (provided) for each bracket.

Mounting the PDU (using screws)

Vertical-mount (19-in)

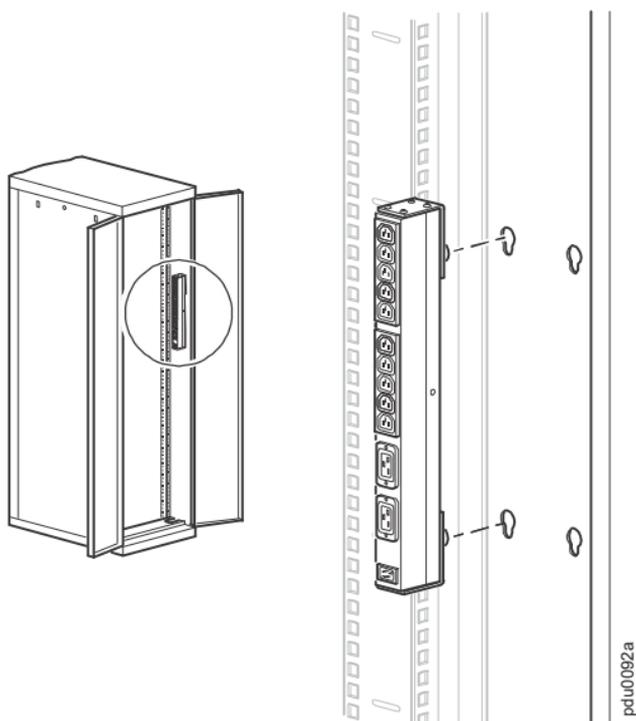


Horizontal-mount (1 U space)



Mounting the AP9559 Rack PDU (toolless mounting)

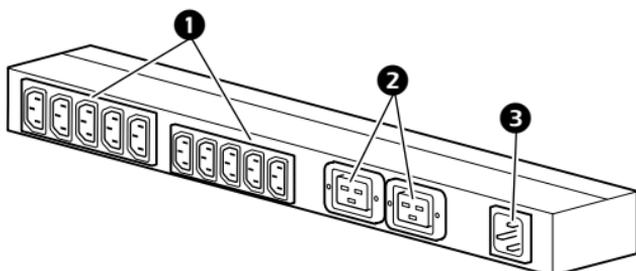
This option for mounting the PDU is available for NetShelter VX enclosures only.



1. Holding the PDU in the direction shown below, slide the mounting pegs into the holes provided in the channel in the rear panel of the enclosure.
2. Snap the PDU into place by pushing it downward until it locks into position.

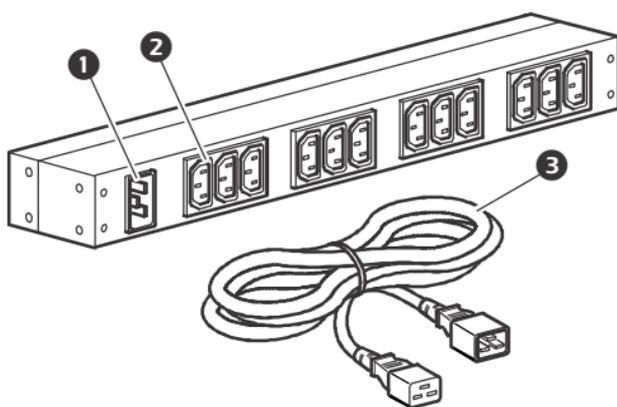
Operation

AP9559



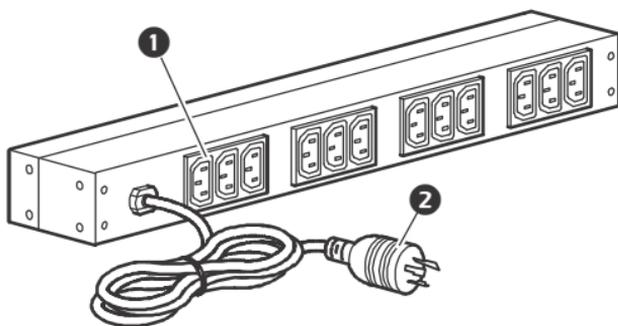
- ❶ 10 IEC-320-C13 outlets
- ❷ 2 IEC-320-C19 outlets
- ❸ IEC-320-C20 input connector (16A @ 240 V; 20A @ 120 V) used with detached power cord (supplied).

AP9565



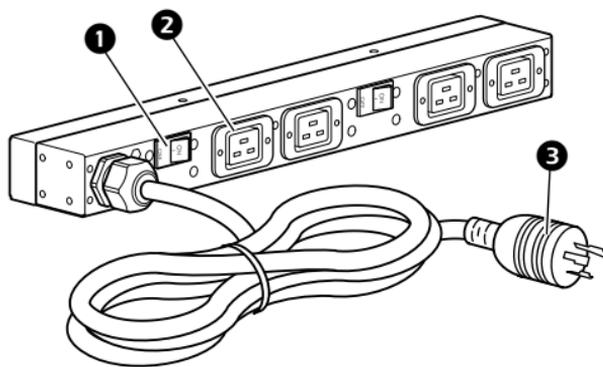
- ❶ IEC 320 C20 power inlet
- ❷ 12 IEC 320 C13 outlets
- ❸ IEC 320 C19 to IEC 320 C20 power cord

AP9566



- ❶ 12 IEC-320-C13 outlets
- ❷ 12-foot NEMA L6-20 power cord

AP9570



- ❶ 2 20-amp circuit breakers
- ❷ 4 IEC-320-C19 outlets
- ❸ 12-foot NEMA L6-30 power cord

Specifications

| | AP9559 | AP9565 |
|----------------------------|--|--|
| Item | Specification | Specification |
| Power | | |
| Input voltage range | 100–240 V | 100–240 V |
| Input frequency | 50/60 Hz | 50/60 Hz |
| Maximum current draw | 16 A | 16 A |
| Input connector | IEC-320-C20 input connector (16A @ 240 V; 20A @ 120 V) used with detached power cord (supplied). | IEC 320 C20 inlet |
| Output connectors | 2 IEC-320-C19 outlets 10 IEC-320-C13 outlets | 12 IEC 320 C13 outlets |
| Physical | | |
| Dimensions (L × W × D) | 44.70 × 4.45 × 5.72 cm (17.60 × 1.75 × 2.25 in) | 4.45 × 44.70 × 5.72 cm (1.75 × 17.60 × 2.25 in) |
| Weight | 0.98 kg (2.15 lb) | 2.0 kg (4.5 lb) |
| Shipping weight | 2.36 kg (5.20 lb) | 3.6 kg (8.0 lb) |
| Environmental | | |
| Elevation (above MSL) | Operating: 0 to 3 000 m (0–10,000 ft) Storage: 0 to 15 000 m (0–50,000 ft) | |
| Temperature | Operating: 0 to 45°C (32 to 113°F) Storage: –25 to 65°C (–13 to 149°F) | |
| Relative humidity | Operating: 0 to 95% RH, non-condensing Storage: 0 to 95% RH, non-condensing | |
| Approvals/Standards | | |
| | cULus-EU, CE, EAC, RCM, UKCA | cULus-EU, CE, EAC, RCM, CMIM KC, UKCA |

| AP9566 | | AP9570 |
|----------------------------|--|--|
| Item | Specification | Specification |
| Power | | |
| Input voltage range | 200–240 VAC | 200–240/208 VAC (cULus) 200 VAC (PSE) |
| Input frequency | 50/60 Hz | 50/60 Hz |
| Maximum current draw | 16 A | 24 A (cULus) 30 A (PSE) |
| Input connector | NEMA L6-20 plug | NEMA L6-30 plug |
| Output connectors | 12 IEC-320-C13 outlets | 4 IEC-320-C19 outlets |
| Physical | | |
| Dimensions (L × W × D) | 1.75 × 17.60 × 2.25 in (4.45 × 44.70 × 5.72 cm) | 1.75 × 17.60 × 2.50 in (4.45 × 44.70 × 6.35 cm) |
| Weight | 5.5 lb (2.5 kg) | 6.0 lb (2.72 kg) |
| Shipping weight | 8.0 lb (3.6 kg) | 8.5 lb (3.86 kg) |
| Environmental | | |
| Elevation (above MSL) | Operating: 0 to 3 000 m (0–10,000 ft) Storage: 0 to 15 000 m (0–50,000 ft) | |
| Temperature | Operating: 0 to 45°C (32 to 113°F) Storage: –25 to 65°C (–13 to 149°F) | |
| Relative humidity | Operating: 0 to 95% RH, non-condensing Storage: 0 to 95% RH, non-condensing | |
| Approvals/Standards | | |
| | cULus | cULus, PSE |

Life Support Policy

General policy

Schneider Electric does not recommend the use of any of its products in the following situations:

- In life-support applications where failure or malfunction of the Schneider Electric product can be reasonably expected to cause failure of the life-support device or to affect significantly its safety or effectiveness.
- In direct patient care.

Schneider Electric will not knowingly sell its products for use in such applications unless it receives in writing assurances satisfactory to Schneider Electric that (a) the risks of injury or damage have been minimized, (b) the customer assumes all such risks, and (c) the liability of Schneider Electric is adequately protected under the circumstances.

Examples of life-support devices

The term *life-support device* includes but is not limited to neonatal oxygen analyzers, nerve stimulators (whether used for anesthesia, pain relief, or other purposes), autotransfusion devices, blood pumps, defibrillators, arrhythmia detectors and alarms, pacemakers, hemodialysis systems, peritoneal dialysis systems, neonatal ventilator incubators, ventilators (for adults and infants), anesthesia ventilators, infusion pumps, and any other devices designated as “critical” by the U.S. FDA.

Hospital-grade wiring devices and leakage current protection may be ordered as options on many Schneider Electric UPS systems.

Schneider Electric does not claim that units with these modifications are certified or listed as hospital-grade Schneider Electric or any other organization. Therefore these units do not meet the requirements for use in direct patient care

Factory Warranty

This warranty applies only to the products you purchase for your use in accordance with this manual.

Terms of warranty

Schneider Electric warrants its products to be free from defects in materials and workmanship for a period of two years from the date of purchase. Schneider Electric will repair or replace defective products covered by this warranty. This warranty does not apply to equipment that has been damaged by accident, negligence or misapplication or has been altered or modified in any way. Repair or replacement of a defective product or part thereof does not extend the original warranty period. Any parts furnished under this warranty may be new or factory-remanufactured.

Non-transferable warranty

This warranty extends only to the original purchaser who must have properly registered the product. The product may be registered at the Schneider Electric website, www.apc.com.

Exclusions

Schneider Electric shall not be liable under the warranty if its testing and examination disclose that the alleged defect in the product does not exist or was caused by end user's or any third person's misuse, negligence, improper installation or testing. Further, Schneider Electric shall not be liable under the warranty for unauthorized attempts to repair or modify wrong or inadequate electrical voltage or connection, inappropriate on-site operation conditions, corrosive atmosphere, repair, installation, exposure to the elements, Acts of God, fire, theft, or installation contrary to Schneider Electric recommendations or specifications or in any event if the Schneider Electric serial number has been altered, defaced, or removed, or any other cause beyond the range of the intended use.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, OF PRODUCTS SOLD, SERVICED OR FURNISHED UNDER THIS AGREEMENT OR IN CONNECTION HERewith. SCHNEIDER ELECTRIC DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, SATISFACTION AND FITNESS FOR A PARTICULAR PURPOSE. SCHNEIDER ELECTRIC EXPRESS WARRANTIES WILL NOT BE ENLARGED, DIMINISHED, OR AFFECTED BY AND NO OBLIGATION OR LIABILITY WILL ARISE OUT OF, SCHNEIDER ELECTRIC RENDERING OF TECHNICAL OR OTHER ADVICE OR SERVICE IN CONNECTION WITH THE PRODUCTS. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES. THE WARRANTIES SET FORTH ABOVE CONSTITUTE SCHNEIDER ELECTRIC'S SOLE LIABILITY AND PURCHASER'S EXCLUSIVE REMEDY FOR ANY BREACH OF SUCH WARRANTIES. WARRANTIES EXTEND ONLY TO PURCHASER AND ARE NOT EXTENDED TO ANY THIRD PARTIES.

IN NO EVENT SHALL SCHNEIDER ELECTRIC, ITS OFFICERS, DIRECTORS, AFFILIATES OR EMPLOYEES BE LIABLE FOR ANY FORM OF INDIRECT, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, ARISING OUT OF THE USE, SERVICE OR INSTALLATION, OF THE PRODUCTS, WHETHER SUCH DAMAGES ARISE IN CONTRACT OR TORT, IRRESPECTIVE OF FAULT, NEGLIGENCE OR STRICT LIABILITY OR WHETHER SCHNEIDER ELECTRIC HAS BEEN ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH DAMAGES. SPECIFICALLY, SCHNEIDER ELECTRIC IS NOT LIABLE FOR ANY COSTS, SUCH AS LOST PROFITS OR REVENUE, LOSS OF EQUIPMENT, LOSS OF USE OF EQUIPMENT, LOSS OF SOFTWARE, LOSS OF DATA, COSTS OF SUBSTITUENTS, CLAIMS BY THIRD PARTIES, OR OTHERWISE.

NO SALESMAN, EMPLOYEE OR AGENT OF SCHNEIDER ELECTRIC IS AUTHORIZED TO ADD TO OR VARY THE TERMS OF THIS WARRANTY. WARRANTY TERMS MAY BE MODIFIED, IF AT ALL, ONLY IN WRITING SIGNED BY AN SCHNEIDER ELECTRIC OFFICER AND LEGAL DEPARTMENT.

Warranty claims

Customers with warranty claims issues may access the Schneider Electric customer support network through the Support page of the Schneider Electric website, **www.apc.com/support**. Select your country from the country selection pull-down menu at the top of the Web page. Select the Support tab to obtain contact information for customer support in your region.

Worldwide Customer Support

Customer support for this product is available at
www.apc.com

© 2021 Schneider Electric. APC and NetShelter are
owned by Schneider Electric SE. All other
trademarks may be property of their respective
owners.