



by Schneider Electric

# Smart-UPS™ On-Line Step-Down Transformer SRT5KRMTF

## Safety Messages

Read the instructions carefully to become familiar with the equipment before attempting to install, operate, service or maintain the transformer. The following special messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a Danger or Warning safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



The addition of this symbol to a Warning or Caution product safety label indicates that a hazard exists that can result in injury and product damage if the instructions are not followed.

### CAUTION

**CAUTION** indicates a potentially hazardous situation which, if not avoided, **can result in** minor or moderate injury.

### **NOTICE**

**NOTICE** used to address practices not related to physical injury. The safety alert symbol is not used with this signal word.

## Safety Information

- Adhere to all national and local electrical codes.
- All wiring must be performed by a qualified electrician.
- Changes and modifications to this unit not expressly approved by APC could void the warranty.
- This transformer is intended for indoor use only.
- Do not operate this transformer in direct sunlight, in contact with fluids, or where there is excessive dust or humidity.
- Be sure the air vents on the transformer are not blocked. Allow adequate space for proper ventilation.
- For a transformer with a factory installed power cord, connect the transformer power cable directly to an output receptacle of the UPS. Do not use surge protectors or extension cords.
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.
- Always install the transformer directly above the UPS in the rack-mount configurations. The UPS must be installed below the transformer.
- Always install peripheral equipment above the UPS in rack-mount configurations.
- Additional safety information can be found in the Safety Guide supplied with this unit.

## Electrical safety

- 230 V models only: In order to maintain compliance with the EMC directive for products sold in Europe, output cords attached to the transformer must not exceed 10 meters in length.
- The protective earth conductor for the transformer carries the leakage current from the load devices (computer equipment). An insulated ground conductor is to be installed as part of the branch circuit that supplies the transformer. The conductor must have the same size and insulation material as the grounded and ungrounded branch circuit supply conductors. The conductor will typically be green and with or without a yellow stripe.
- The UPS input ground conductor must be properly bonded to protective earth at the service panel.
- If the UPS input power is supplied by a separately derived system, the ground conductor must be properly bonded at the supply transformer or motor generator set.

## General information

- The model and serial numbers are located on a small, rear panel label. For some models, an additional label is located on the chassis under the front bezel.
- Recycle the package materials or save them for reuse.

## FCC Class A radio frequency warning

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 intended 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 instruction manual, 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.

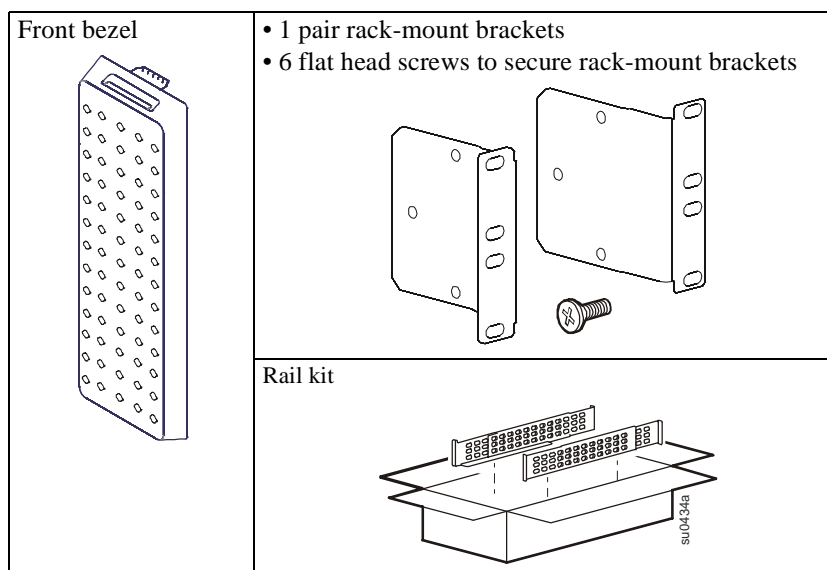
# Product Information

The Smart-UPS™ SRT transformer is intended for use as an isolation transformer. This transformer can also function as a step down transformer.

The transformer can be installed in a standard 19-inch rack with the supplied rail kit.

# Package Contents

Inspect the contents upon receipt. Notify the carrier and dealer if the unit is damaged.




# Specifications

For additional specifications refer to the APC by Schneider Electric web site, [www.apc.com](http://www.apc.com).

## Environmental

<b>Temperature</b>	<b>Operating</b>	0° to 40° C (32° to 104° F)
	<b>Storage</b>	-15° to 45° C (5° to 113° F)
<b>Maximum Elevation</b>	<b>Operating</b>	0 - 3,000 m (0 - 10,000 ft)
	<b>Storage</b>	0 - 15,000 m (50,000 ft)
<b>Humidity</b>	0% to 95% relative humidity, non-condensing	
<b>Protection Class</b>	IP 20 rating	

## Physical

<b>Lifting guidelines</b>	32 - 55 kg (70 - 120lb) 
<b>Unit weight, without packaging</b>	54.6 kg (120 lb)
<b>Unit weight, with packaging</b>	63.6 kg (140 lb)
<b>Unit dimensions without packaging Height x Width x Depth</b>	130 mm x 432 mm x 719.4 mm 5 in x 17 in x 28.3 in
<b>Unit dimensions with packaging Height x Width x Depth</b>	330 mm x 610 mm x 960 mm 13 in x 24 in x 37.8 in
The model and serial numbers are on a small label located on the rear panel.	

## Electrical

Operation above the input voltage range may cause equipment damage.

Operation below the input voltage range may cause overload or automatic shutdown. When connecting directly to a branch circuit, check that the line voltage is within specifications. When connecting to the UPS, check that the line voltage into the UPS is within specifications before transferring to bypass mode.

<b>Installation</b>	<b>With Line Cord</b>
<b>Nominal Input Voltage (Vac)</b>	208 Vac
<b>Nominal Output Voltage (Vac)</b>	120 Vac
<b>Input Voltage Range (Vac)</b>	185 - 230 Vac *
<b>Input Current Rating</b>	24 A
<b>Line Frequency (Hz)</b>	50/60 Hz
<b>Efficiency</b>	90-95%
<b>Maximum Input Power</b>	5000 VA
<b>Maximum Output Power (VA)</b>	4500 VA
*For continuous operation below $V_{in} = 205$ Vac, the output load must be reduced to limit the maximum input current to the amount specified above. Continuous operation above the maximum specified input current may cause the unit to overheat and shut down. Contact APC by Schneider Electric for additional information.	

<b>Input Power Distribution</b>	3 ft cord with L6-30P
<b>Output Power Distribution</b>	(2) 15 A circuits with (4) 5-20R and (2) 15 A circuits with (2) 5-20R

# Rack Installation

## Install rails

For details on support rail installation, refer to the instructions in the rail kit.

## Install transformer

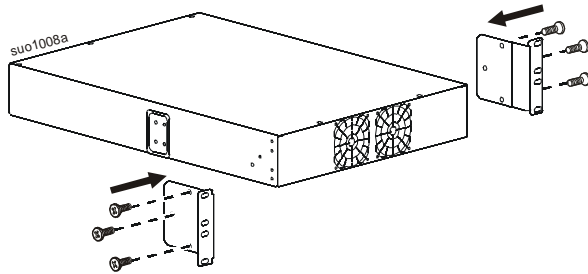
### **⚠ CAUTION**

#### **DAMAGE TO EQUIPMENT OR PERSONNEL**

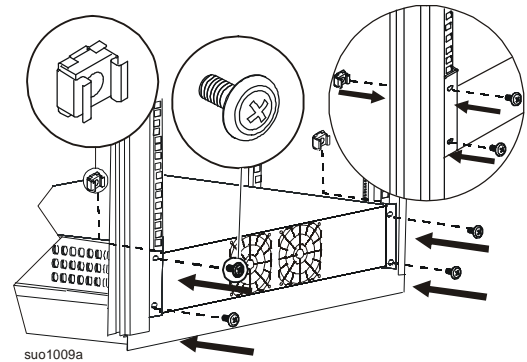
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.
- Always use the recommended number of screws to secure brackets to the UPS and transformer.
- Always install the transformer above the UPS in the rack.
- Always install the optional bypass panel above the transformer in the rack.

**Failure to follow these instructions can result in equipment damage and minor or moderate injury**

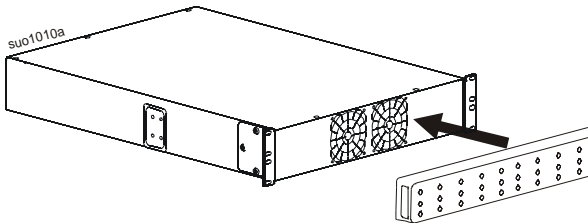
**1**



**2**

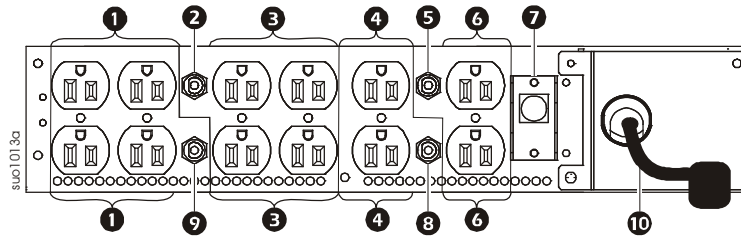


**3**



# Connecting Equipment and Power to the Transformer

## Rear panel



- |                            |                      |
|----------------------------|----------------------|
| ❶ Output 15 A Max.         | ❷ Overload protector |
| ❸ Output 15 A Max.         | ❹ Output 15 A Max.   |
| ❺ Overload protector       | ❻ Output 15 A Max.   |
| ❼ Input Overload protector | ❽ Overload protector |
| ❾ Overload protector       | ❿ Input power cord   |

## Start-Up

### ⚠ CAUTION

#### DAMAGE TO EQUIPMENT OR PERSONNEL

- Disconnect the mains input circuit breaker before installing or servicing the UPS or transformer or connected equipment.
- Disconnect internal and external batteries before installing or servicing the UPS or connected equipment.
- The UPS contains internal and external batteries that may present a shock hazard even when disconnected from the mains.
- UPS and transformer pluggable outlets may be energized by remote or automatic control at any time.
- Disconnect equipment from the UPS and transformer before servicing any equipment.
- Do not use the UPS as a safety disconnect.
- Only one of the cooling fans operate when the transformer temperature is less than 100°F. The redundant fan operates above 100°F or when the main fan fails.

#### Failure to follow these instructions can result in equipment damage and minor or moderate injury

1. Check that all power is turned OFF.
2. Connect all load equipment to the transformer receptacles.  
**Note:** Each receptacle group is protected by a circuit breaker. A colored label identifies each circuit and the corresponding breaker.
3. Switch the transformer input circuit breaker ON.
4. Turn on output circuit breakers as needed.
5. Turn on all connected equipment.

# Service

If the unit requires service, do not return it to the dealer. Follow these steps:

1. Review the *Troubleshooting* section of the manual to eliminate common problems.
2. If the problem persists, contact APC Customer Support through the APC web site, **www.apc.com**.
  - a. Note the model number and serial number and the date of purchase. The model and serial numbers are located on the rear panel of the unit and are available through the LCD display on select models.
  - b. Call APC Support and a technician will attempt to solve the problem over the phone. If this is not possible, the technician will issue a Returned Material Authorization Number (RMA#).
  - c. If the unit is under warranty, the repairs are free.
  - d. Service procedures and returns may vary internationally. Refer to the APC web site for country specific instructions.
3. Pack the unit properly to avoid damage in transit. Never use foam beads for packaging. Damage sustained in transit is not covered under warranty.
  - a. **Note: When shipping within the United States, or to the United States always DISCONNECT ONE UPS BATTERY before shipping in compliance with U.S. Department of Transportation (DOT) and IATA regulations.** The internal batteries may remain in the UPS.
  - b. Batteries may remain connected in the XBP during shipment. Not all units utilize XLBPs.
4. Write the RMA# provided by Customer Support on the outside of the package.
5. Return the unit by insured, prepaid carrier to the address provided by Customer Support.

# Limited Factory Warranty

Schneider Electric IT Corporation (SEIT), warrants its products to be free from defects in materials and workmanship for a period of two (2) years from the date of purchase. The SEIT obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. Repair or replacement of a defective product or part thereof does not extend the original warranty period.

This warranty applies only to the original purchaser who must have properly registered the product within 10 days of purchase. Products may be registered online at [warranty.apc.com](http://warranty.apc.com).

SEIT 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 or any third person misuse, negligence, improper installation, testing, operation or use of the product contrary to SEIT recommendations of specifications. Further, SEIT shall not be liable for defects resulting from: 1) unauthorized attempts to repair or modify the product, 2) incorrect or inadequate electrical voltage or connection, 3) inappropriate on site operation conditions, 4) Acts of God, 5) exposure to the elements, or 6) theft. In no event shall SEIT have any liability under this warranty for any product where the serial number has been altered, defaced, or removed.

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To obtain service under warranty you must obtain a Returned Material Authorization (RMA) number from customer support. Customers with warranty claims issues may access the SEIT worldwide customer support network through the APC web site: [www.apc.com](http://www.apc.com). Select your country from the country selection drop down menu. Open the Support tab at the top of the web page to obtain information for customer support in your region. Products must be returned with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase.

# APC by Schneider Electric Worldwide Customer Support

Customer support for this or any other APC by Schneider Electric product is available at no charge in any of the following ways:

- Visit the APC by Schneider Electric web site, [www.apc.com](http://www.apc.com) to access documents in the APC Knowledge Base and to submit customer support requests.
  - **www.apc.com** (Corporate Headquarters)  
Connect to localized APC by Schneider Electric web site for specific countries, each of which provides customer support information.
  - **www.apc.com/support/**  
Global support searching APC Knowledge Base and using e-support.
- Contact the APC by Schneider Electric Customer Support Center by telephone or e-mail.
  - Local, country specific centers: go to **www.apc.com/support/contact** for contact information.
  - For information on how to obtain local customer support, contact the APC by Schneider Electric representative or other distributor from whom you purchased your APC by Schneider Electric product.