APC™

DIN Rail – Control Panel Mounting Uninterruptible Power Supply

Catalog

2014

Schneider Electric™

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SUA500 Uninterruptible power supply

While everyone expects continuous power from their utilities, the power quality may be less than desirable – especially at peak demand. Issues that may arise during these times may include:

- Sag (undervoltage)
- Swell or surge (overvoltage)
- Transients

Power transmission can also be interrupted by:

- Weather conditions – spikes caused by lightning strikes or power outages caused by downed power lines
- Accidents
- Construction

All of the above conditions can cause issues with industrial processes and manufacturing, as well as with any solid state or microprocessor-controlled equipment.

Uninterruptible power supplies (UPS) can provide relief from many of the above conditions. UPS devices generally provide:

- Voltage regulation
- Noise filters
- Up to 30 minutes of battery backup, depending on power draw

The **SUA500** series of DIN Rail mount devices is a reliable, flexible, and cost effective UPS for control panels. Some of the features which make this desirable for control panels include:

- All of the interfaces are on the front of the device, for easy access.
- Form factor is ideal for DIN Rail mount or direct mount in panels.
- Management cards are available for remote UPS management.
- Several communications options are available.
- Battery can be mounted remotely from the UPS. It can even be mounted externally from the enclosure.
- Network communication cards are available.
- Suitable for either DIN Rail or panel mounting.

APC™ UPS

DIN Rail – Control panel mounting

SUA500

Technical specifications

Type of UPS			SUA500PDR-S (standard battery) SUA500PDR-H (high temperature battery)	SUA500PDRI-S (standard battery) SUA500PDRI-H (high temperature battery
Conformity to standards	Certifications		cUL Recognized UL 1778, CE, VDE	
Input	Nominal Input Voltage	**V**	120	230
	Input Voltage Range	**Vac**	82–144	160–280
	Input Frequency	**Hz**	45 - 65; Auto-Selecting	
	Input Connections		Hardwired Input (3-Wire; H-N-G)	
Output	Nominal Output Capacity		500 VA / 325 W	
	Topology		Line Interactive	
	Waveform		Sine wave	
	Nominal Output Voltage	**V**	120	230 (Default); 220/230/240 (User Configurable)
	Output Frequency	**Hz**	50/60 +/- 3; Sync to mains	
	Efficiency (Full-Load)		>94%	
	Output Voltage Distortion (Full Load)		<2% (100% Linear Load); <8% (100% Non-Linear Load)	
	Output Connections		Hardwired Output (3-Wire; H-N-G)	
Protection	Surge Energy Rating	**Joules**	540	340
	Filtering		Full time multi-pole noise filtering; 0.3% IEEE surge let-through; zero clamping response time; meets UL 1449	
	Thermal Protection		Yes	
Communications and Controls	Serial Port		DB9; UPS Status, and Control of User Configurable Parameters	
	SmartSlot		SmartSlot Accessories; AP9630 and AP9631 Network Cards, AP9613 Relay I/O Card, AP9622 Modbus Card	
	Emergency Power Off (EPO)		Terminal Block	
	Front Display Panel Buttons		On/Off, Self-Test, Alarm Silence, Cold-Start	
Visual and Audible Status Indicators	LEDs		On-Line, On-Battery, Overload, Replace Battery; and Load and Battery Bar-Graphs	
	Audible Alarm		On-Battery, Low-Battery, Overload	
Environment	Operating Temperature / Humidity	**°F (°C)**	+32 to 104 (0 to 40) / 0–95% (Non-Condensing) (with Standard Battery) (-S SKUs) +32 to 122 (0 to 50) / 0–95% (Non-Condensing) (with High-Temp Battery) (-H SKUs)	
	Storage Temperature / Humidity	**°F (°C)**	+23 to 140 (-5 to 60) / 0–95% (Non-Condensing)	
	Mounting		Panel or DIN Rail Mounting	
Battery Cartridge			**APCRBC135**	**APCRBC136**
Battery	Battery Type		Maintenance-Free, Sealed Lead Acid Battery	
	Nominal Battery Voltage	**Vdc**	24	
	Runtime (Full Load)		8.5 Minutes	
	Recharge Time (To 90%)		<3 Hours	
	Expected Battery Life		3 To 5 Years at 68 °F (20 °C)	up to 8 Years at 68 to 77 °F (20 to 25 °C)
Physical	Dimensions (H x W x D)	**in. (mm)**	4.22 x 4.20 x 5.65 (107 x 107 x 144)	
	Net Weight	**lb (kg)**	10.3 (4.68)	7.26 (3.3)
Environment	Operating Temperature / Humidity	**°F (°C)**	+32 to 104 (0 to 40) / 0–95% (Non-Condensing)	+32 to 122 (0 to 50) / 0–95% (Non-Condensing)
	Storage Temperature / Humidity	**°F (°C)**	+5 to 113 (-15 to 45) / 0–95% (Non-Condensing)	

APC™ UPS

DIN Rail – Control panel mounting

SUA500

SUA500PDRS

UPS

Input voltage	Battery type	Reference	Weight lbs (kg) *(1)*
120	Standard	**SUA500PDRS**	18 (8.18)
120	High temperature	**SUA500PDRH**	18 (8.18)
230	Standard	**SUA500PDRIS**	18 (8.18)
230	High temperature	**SUA500PDRIH**	18 (8.18)

Note: SUA500 devices above are shipped with a battery shipped separately.

(1) Weight indicated is for the UPS unit only and does not include the weight of the battery.

APCRBC135

Replacement batteries

Battery type	Reference	Weight lbs (kg)
Standard	**APCRBC135**	10.30 (4.68)
High temperature	**APCRBC136**	7.26 (3.30)

Note: The batteries above are for replacement only; SUA500 devices are shipped with a battery shipped separately.

AP9630

Smart Slot accessories

Card type and description	Reference	Weight lbs (kg)
Dry Contact I/O Smart Slot Card: Interface expanders and other options for increased UPS monitoring and control functionality. Includes USB cable.	**AP9613**	0.88 (0.40)
Modbus™/Jbus Interface Card: Interface expanders and other options for increased UPS monitoring and control functionality.	**AP9622**	0.99 (0.45)
UPS Network Management Card: For remote monitoring and control of an individual UPS by connecting it directly to the network via Ethernet. Includes software.	**AP9630**	0.75 (0.34)
UPS Network Management Card with Environmental Monitoring: For remote monitoring and control of an individual UPS by connecting it directly to the network via Ethernet. Includes software and temperature sensor.	**AP9631**	0.75 (0.34)

Note: These smart slot accessories will function in all of the SUA500 UPS devices. Only one card may be used per UPS.

AP9335T

Sensors for use with AP9631 Network Management Card

Sensor type	Reference	Weight lbs (kg)
Temperature	**AP9335T**	0.31 (0.14)
Temperature and humidity	**AP9335TH**	0.40 (0.18)

Note: An AP9335T temperature sensor is included with the AP9631 network management card.

APC™ UPS

DIN Rail – Control panel mounting

SUA500

Dimensions

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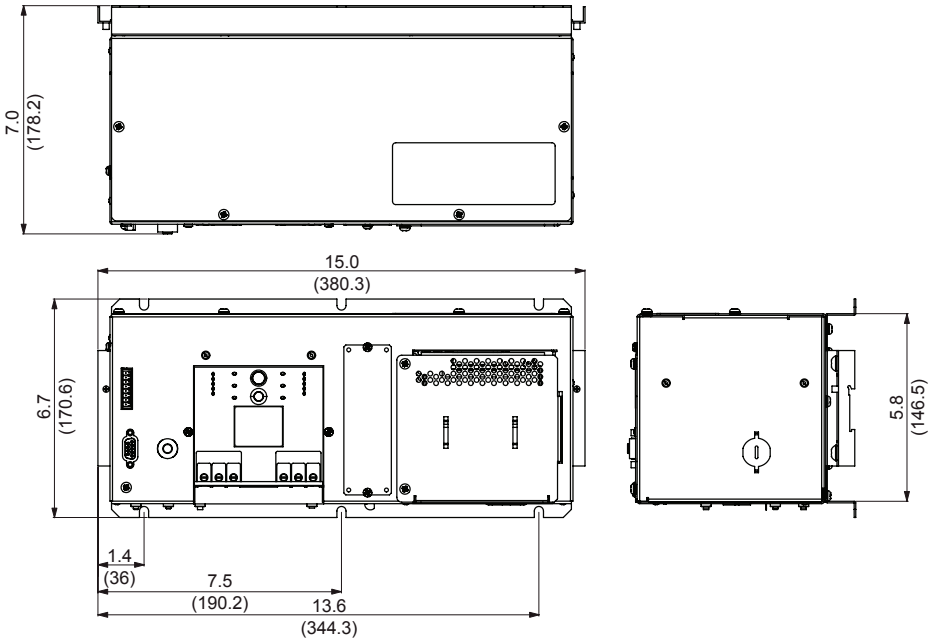
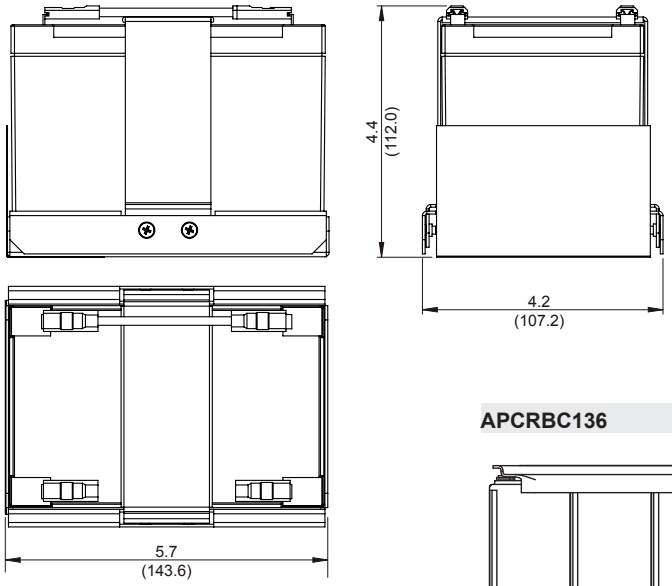
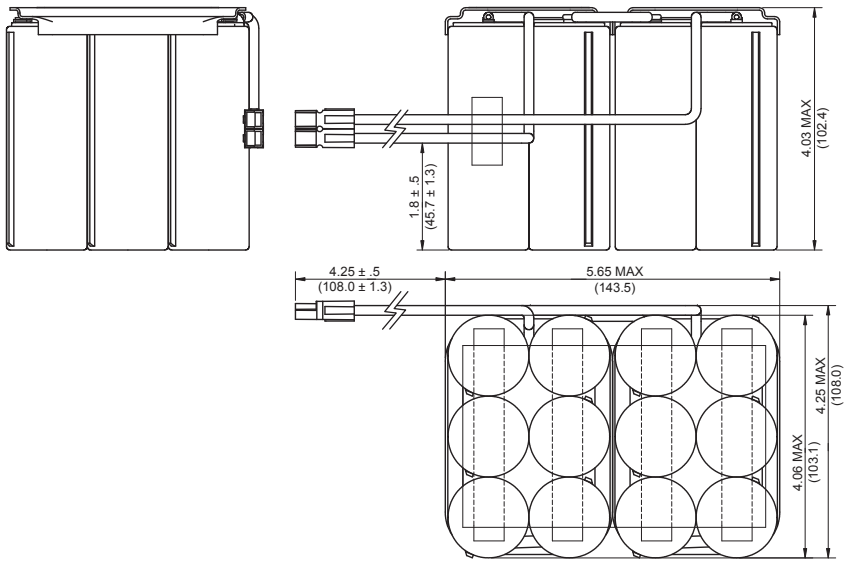


APCRBC135

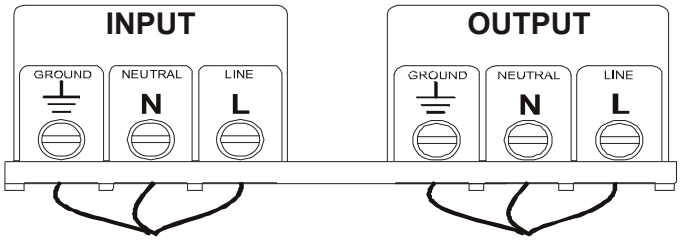


APCRBC136

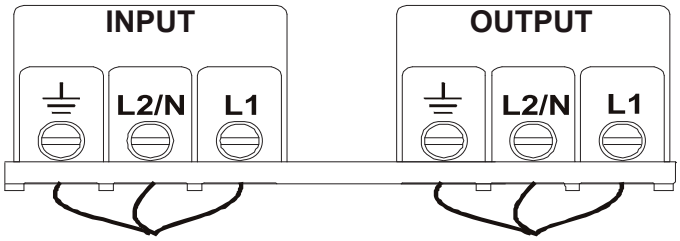


Dual Dimensions: Inches (Millimeters)

Wiring diagrams



120 V models



208/230 V models

Product reference index

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