

120V/208V



# Server and Network Power Solutions

## Smart-UPS®

Performance power protection  
for servers and networks



## Reliability

Line-interactive design

Sine wave output = premium, safe power

Network-grade line conditioning

Site-wiring fault indicator

Automatic self-test

Interface communications port

Lightning/surge protection

ASIC's technology

## Availability

AVR Boost brownout protection

AVR Trim over-voltage protection

CellGuard™ intelligent battery management

Battery replacement warning

Quick Swap™ hot-swappable batteries

Automatic Transfer Switch for mirrored UPS power protection

ProtectNet™ for network surge protection

SmartSlot™ Accessories

## Manageability

PowerChute® Business Edition software included

Software configurable features

Built-in SmartSlot for accessory cards

SNMP ready for servers with Power Net SNMP Agent

Load, power and voltage meters

Audible alarms

Multiple OS support available

## Warranty & Approvals

2 year warranty

\$150,000 Lifetime Equipment Protection

UL listed, CSA certified

FCC Class A compliance

Designed for Windows 2003

Novell labs approved

ISO9002 and ISO14001 certified manufacturing facilities

## Global Service Programs

On-Site Service

Extended Warranty

Start-UP Service

Power Audit Service

See specification tables for model details.

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## New Solutions for Servers and Networks

### Designed for Windows Server 2003



APC has made integrating its Smart-UPS® family into the Windows Server 2003 environment easy by obtaining the "Designed for Windows Server 2003" logo. APC has collaborated with Microsoft to develop the native UPS shutdown management built into Microsoft's latest offering, Windows Server 2003. Additionally, APC's PowerChute® Business Edition software is included with APC's Smart-UPS and is fully compatible with Windows Server 2003.

### Smart-UPS 2200 and 3000 VA 2U Rack Mount

Density optimized to occupy only 2U of valuable rack space, these models provide up to 2700 watts of power, making them an ideal solution for rack optimized servers, server blades, and storage devices.

### Smart-UPS 750 and 1000 VA 1U Rack Mount

Power protection for rack-mounted business-critical servers for deployment in a distributed power protection architecture where rack U space is at a premium.

### Smart-UPS 750 and 1000 VA Extended Run Towers

With unlimited runtime scalability, these new models deliver computer grade power to ensure the availability of computing, telecom, voice-over-IP (VoIP), and other business-critical networking equipment during prolonged power disturbances

### Smart-UPS 5000 VA 5U Rack Mount Extended Run

The rack-mountable UPS offers a full 4,000 watts of power and scalable extended runtime. This compact UPS system also offers comprehensive remote monitoring capabilities with APC's Network Management Card EX pre-installed. Provides performance power protection for single or multiple racks of business-critical equipment, such as servers, networking VoIP and other telecom systems.

# Complete Power Protection

**Reliability—Availability—Manageability:** The three essential requirements when choosing power protection for your systems.

## Reliability: Consistent Delivery of Dependable Performance

### Line-interactive design delivers unmatched performance and reliability

Innovative line-interactive design uses the DC to AC power inverter “in reverse”, like a battery charger, during normal operation, providing greater performance and efficiency.

### Sine-wave output

APC Smart-UPS sine-wave output provides assurance of compatibility with all loads. (Does not apply to SU420NET/SU620NET models)

### Network-grade line conditioning prevents glitches

Full time EMI/RFI filters prevent line noise from causing data errors. Smart-UPS meets Novell and Microsoft’s approval for network protection, without the need for additional external conditioners.

### Site wiring fault indicator saves you trouble and expense

Alerts you to potential problems, such as missing ground and reversed polarity, two common wiring mistakes which usually require an electrician to diagnose. (120VAC models only)

### Lightning and surge protection protects hardware

When measured via ANSI/IEEE 587 Category “A” and “B” tests, the suppression performance of the APC Smart-UPS is superior to virtually all separate surge suppressors.

### Pre-failure diagnostics

Smart-UPS continuously monitors its health and proactively informs you of the results via Web, SNMP, e-mail or paging.

### Automatic self-test

All APC Smart-UPS initiate a self-test when power is turned on and every 2 weeks, as well as at the push of a button and at pre-determined times (using software). This ensures that you will be alerted of failing batteries before they wear out.

### Smart-UPS XL offers N+1 batteries for redundancy and fault tolerance

The Smart-UPS XL’s external battery packs run in parallel with the internal batteries providing redundancy and higher fault tolerance.



### Graceful, unattended shutdown

In the event of an extended power outage, an APC Smart-UPS will interface with PowerChute Business Edition via the serial port to perform automatic safe shutdown of the attached system. Power failures can occur at night, on weekends or while the system administrator is out of the building, making automatic, safe shutdown critical. Smart-UPS provides unattended, safe shutdown of many operating systems, including Microsoft Windows Server 2003, NT/2000/XP, Novell Netware, Linux and SCO Unixware (other OSs available separately). By using PowerChute Business Edition software you can manage and diagnose power problems.

#### • Safely shut down a single server via serial cable

The Smart-UPS communications port provides the coordination of a safe shutdown with most popular operating systems by Microsoft, Novell, HP, IBM, Sun, SCO, Linux, and others.

#### • Safely shut down multiple servers via serial cable

APC has several solutions to shut down multiple servers. The 2-Port Interface Expander Card (AP9607) provides two additional ports. The 8-Port Interface Expander (AP9207) provides a total of eight ports and can be daisy-chained to provide 15 ports. Both accessories facilitate graceful system shutdown via dependable hardware connections and allow advanced UPS management. The units are ideal for “server farms” or multiple operating system environments.

#### • Safely shut down multiple servers via network connection

APC PowerChute Network Shutdown software communicates across the network to Smart-UPS equipped with an APC Web/SNMP card, providing reliable, graceful, unattended shutdown of multiple computer systems over the network.

# Availability: Minimize Downtime, Maximizing Performance and Uptime

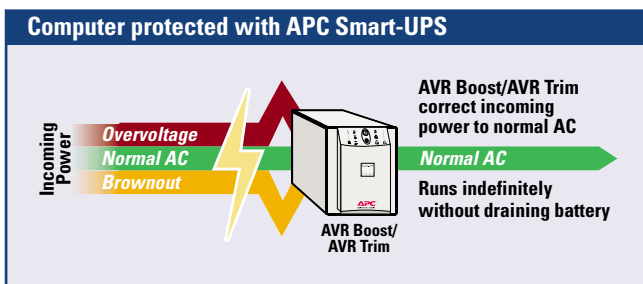
## Automatic Voltage Regulation

### AVR Boost automatically corrects brownout conditions

Allows you to work through brownouts without unnecessary battery drain. AVR boost automatically steps low voltage up to safe output levels.

### AVR Trim automatically corrects overvoltage conditions

Allows you to work through over voltages without unnecessary battery drain. AVR Trim automatically steps high voltage down to safe output levels.



## Intelligent Battery Management

### CellGuard means longer battery life

Improved reliability results from a precision battery charging system and automatic true-load battery tests. Redundant over-charge protection contributes to longer battery life. AVR Boost and AVR Trim regulate under voltages and over-voltages without switching to battery.

### Battery Replacement Warning prevents downtime

APC Smart-UPS automatically performs a self-test every two weeks. This ensures you will be alerted to failing batteries before they wear out. You can perform self-tests anytime, through software or the push of a button.

### Faster Recharge Time

The APC Smart-UPS battery charging system is microprocessor-controlled to precisely charge batteries in less time than legacy UPS systems. This makes your system available more quickly for subsequent power disturbances.

### Extended Runtime

The Smart-UPS XL allows scalable runtimes through the addition of external battery packs, creating customized availability solutions.

## QuickSwap™

### The 60 second, user-friendly, hot-swappable battery replacement system

Saves the time and expense of returning the UPS to the factory for battery service and allows safe and easy replacement of batteries while your system is up and running. Replacement battery kits ship in a reusable box for convenient return of exhausted batteries to a recycling center or to APC.



## Prevent Downtime

### Predict failures

By periodically conducting self-tests and other diagnostics, Smart-UPS can warn you of failures before they happen. For example, Smart-UPS will proactively notify you 6-8 weeks in advance of a needed battery replacement.

### Deliver diagnostic data

Smart-UPS constantly monitors its health and delivers the results via Web, SNMP, e-mail, or paging.

## Take Action

The built-in SmartSlot bay gives Smart-UPS the ability to take necessary actions to reboot “hung” devices, giving you availability when you need it most.

- Reboot hung servers and networking equipment remotely using modem (out-of-band) with the Out-of-Band Management card (AP9608).
- Reboot hung servers via Web, SNMP, or Telnet (in band) using the Web/SNMP Management card (AP9606 or AP9603).
- Reboot hung servers and networking equipment in and out-of-band using the MasterSwitch Plus (AP9255 or AP9225EXP).

## Accessories Increase Availability

By adding APC accessory cards into the built-in SmartSlot™, you can monitor power conditions and take action. The addition of the accessory cards increases overall system availability by proactively notifying you of conditions that could affect uptime. (Accessories sold separately and detailed on p. 11)

## Redundant Power Cord Support

Using the APC Network Management Card with PowerChute Network Shutdown, multiple Smart-UPS units can coordinate shutdown of redundant power corded servers, thus providing a highly available 2N UPS solution.

## ProtectNet™ increases availability

ProtectNet increases the availability of your systems by protecting your wiring and cabling from “back-door” surges and spikes, which cause system downtime and equipment damage. (For more information, visit [www.apc.com/products/protectnet](http://www.apc.com/products/protectnet))

## ProtectNet features a unique Double-Up Supplemental Equipment Policy

Under this unique policy, the total recovery limit of a Smart-UPS product's Lifetime Equipment Protection Policy is doubled. APC will then repair or replace properly connected and protected equipment, in the event that it is damaged by a lightning strike or surge, for up to \$300,000. (US and Canada only). For program details please refer to [www.apc.com](http://www.apc.com).



# Manageability: Customized Control and Status

## Informative LED Display provides status at a glance

Instantly assess the status of your power and APC Smart-UPS without even pushing a button. Bar meters and status indicators are simple to use and easy to understand. Visible and audible alarms alert you of fault conditions.

## Load, Power and Volt Meters keep you in control

The Load Meter\* reports the amount of power being drawn, preventing you from exceeding UPS capacity. The Volt Meter\* reports utility line voltage and battery capacity, allowing you to gauge how much time you have before batteries are depleted. An alarm sounds when batteries are low, allowing you time to save data and shut down the system.

## Alarms

Audible alarms alert you of changes in operating environment and battery conditions. Some alarms are software configurable. Most can also be suppressed or delayed, to eliminate unwanted noise.

## USB Compatible

The new Smart-UPS (SUA Models) are compatible with the native Windows 2000/XP, and Windows Server 2003 USB and serial Power Options out-of-the-box. For advanced level manageability, full PowerChute Business Edition should be installed. As a charter member of the USB Implementers Forum and Microsoft partner, APC has played a significant role in defining USB specifications for power devices.



- a Load Display\***- Shows the power being drawn by the load and prevents you from exceeding capacity.
- b AVR Trim LED\***- LED lights up when the UPS is correcting a high utility voltage condition.
- c On-line LED**- LED lights up when the UPS is supplying utility power to the loads.
- d AVR Boost LED\***- LED lights up when the UPS is correcting a low utility voltage condition.
- e On/Test Button**- Turns on the UPS and activates the UPS self-test and utility line voltage displays.
- f Off Button**- Turns off the UPS and the load. Specifically designed to prevent accidental shutdowns.
- g Overload LED**- LED lights up and alarm sounds when the load connected to the UPS exceeds capacity.
- h On-Battery LED**- LED lights up and alarm sounds when the UPS is supplying battery power to the load.
- i Replace Battery LED**- LED lights up and alarm sounds when the UPS battery is nearly dead and must be replaced (typically within 30 days).
- j Battery Charge/Line Voltage Display\***- Displays both present battery charge as a percentage of battery capacity and utility line voltage. Alarm sounds upon low battery condition.

## PowerChute Business Edition power management software included

PowerChute Business Edition is a department level management software which enables IT administrators to provide safe system shutdown and UPS management for servers and workstations. PCBE meets the demands of high performance networks and enhances the reliability and manageability of network and web servers.

- **Browser Manageable**

The Smart-UPS is easily manageable through standard browsers on local computers, networked computers or remote systems. (Requires PowerChute Web Device Manager running on a Windows NT/2000 web server on your network. See [www.apc.com](http://www.apc.com) for a free download).

- **E-mail and Pager Alerts**

APC Smart-UPS e-mails and/or pages you via PowerChute Business Edition, alerting you of power problems and allowing you to respond, in order to maximize uptime.

- **Integrates with Server and Enterprise Management**

All Smart-UPS are shipped with support for Dell Network/Node Manager, Compaq Insight Manager (Windows NT/2000 and Novell NetWare), HP TopTools and IBM NetFinity. Plug-ins for HP Openview, CA Unicenter and Tivoli Netview are available separately.

## Built-in SmartSlot provides the customizable performance you need

APC Smart-UPS are equipped with a built-in SmartSlot\*, allowing you to employ various UPS Accessory cards to customize and enhance the management of your APC Smart-UPS. APC's series of UPS accessories plug directly into the back of your UPS. When an APC accessory is installed in your UPS, it becomes an integral part of the unit, drawing power from the UPS even when the UPS is in "sleep mode." Optional accessories allow you to remotely reboot individual devices, monitor ambient temperature and humidity and work with Emergency Power-Off (EPO) systems. (Accessories detailed on page 11)

\*Feature not available on SU420NET/SU620NET models

# Smart-UPS® Tower Series

Superior design, high-volume manufacturing and continuous quality enhancement give the APC Smart-UPS® line unsurpassed reliability. Award-winning APC Smart-UPS® towers are an ideal UPS for protecting business-critical file servers (Intel or UNIX based), minicomputers, network switches and hubs, point of sale, retail/bank back office and ATMs.



*New! New!*

| Specifications for Smart-UPS Model:<br>Part #                            | 420<br>SU420NET   | 620<br>SU620NET | 700<br>SU700NET   | 1000<br>SUA1000       | 1500<br>SUA1500 | 2200<br>SU2200NET | 3000<br>SU3000NET | 5000<br>SU5000TXFMR            |             |
|--|---|-----------------|-------------------|-----------------------|-----------------|-------------------|-------------------|--------------------------------|-------------|
| Ships with PowerChute software   | Support for Windows NT/2000/XP, Windows Server 2003, Novell NetWare, SCO UnixWare, Solaris and Linux. Additional management platform integration plug-ins and application shutdown utilities available for download at <a href="http://www.apc.com/tools/download/">www.apc.com/tools/download/</a> . |                 |                   |                       |                 |                   |                   |                                |             |
| Input Line, 6 ft. line cord  | NEMA 5-15P  |                 |                   |                       |                 | NEMA 5-20P        | NEMA L5-30P       | NEMA L6-30P                    |             |
| Output Receptacles   | 4 NEMA 5-15R  |                 |                   | 8 NEMA 5-15R          |                 |                   |                   | 2 NEMA L6-20R<br>14 NEMA 5-15R |             |
| Communication Ports  | Serial  |                 |                   | Serial & USB          |                 | Serial            |                   |                                |             |
| Number of SmartSlot bays   | n/a   |                 | 1                 |                       |                 |                   |                   | 2, ind. mgmt. card             |             |
| Maximum Dimensions (H x W x D)(in.)                                      | 6.6x4.7x14.5  |                 | 6.2x5.4x14.1      | 8.5x6.7x17.3          |                 | 17 x 7.7 x 21.5   |                   | 20.8x17.5x26.2                 |             |
| Net Weight (lbs.)  | 22  | 27              | 29                | 42                    | 53              | 112               | 123               | 325                            |             |
| Shipping Weight (lbs.)   | 24  | 29              | 32                | 46                    | 58              | 134               | 142               | 360                            |             |
| Replacement Battery Cartridge  | RBC 2   | RBC 4           | RBC 5             | RBC 6                 | RBC 7           | RBC 11            | RBC 11            | Two RBC 12                     |             |
| Service Level  | SB-11   |                 |                   | SB-12                 |                 | SB-13             |                   | SB-14                          |             |
| OPERATION  | SU420NET  | SU620NET        | SU700NET          | SUA1000               | SUA1500         | SU2200NET         | SU3000NET         | SU5000TXFMR                    |             |
| Nominal Input Voltage  | 120 Vac, single phase, 50 or 60 Hz (auto-selectable)  |                 |                   |                       |                 |                   |                   | 208VAC (50-60 Hz)              |             |
| Transfer Time (typical)  | 2 milliseconds, includes detection time   |                 |                   |                       |                 |                   |                   |                                |             |
| AVR Boost/AVR Trim   | 30% / 12%   |                 | 12% / 12%         | 30% / 12%             |                 |                   |                   | 12% / 12%                      |             |
| Default Input Voltage <sup>2</sup>                                       | 82-144 VAC  |                 | 92-147 VAC        | 82-144 VAC            |                 |                   |                   | 157-255 VAC                    |             |
| Max input voltage range (adjustable for mains without battery discharge) | 75-154 VAC  |                 | 86-154 VAC        | 75-154 VAC            |                 |                   |                   | 151-268 VAC                    |             |
| Output Voltage Range   | 106-127 VAC   |                 | 103-132 VAC       | 106-127 VAC           |                 |                   |                   | 120-208 VAC                    |             |
| Capacity (Volt-Amps, Watts)  | 420, 260  | 620, 390        | 700, 450          | 1000, 670             | 1500, 980       | 2200, 1980        | 3000, 2700        | 4500, 3375                     |             |
| Surge energy rating, peak current capability                             | 412 Joules, 6.5kA   |                 | 480 Joules, 6.5kA | 459 Joules, 6.5kA     |                 | 880 Joules, 6.5kA |                   | 1020 Joules, 6.5kA             |             |
| Normal, common mode clamping response time                               | 0 ns, <5ns typical  |                 |                   |                       |                 |                   |                   |                                |             |
| Normal mode surge voltage let through (IEEE 587 Cat. A 6kV test)         | <0.7% of peak typical   |                 |                   | <0.3% of peak typical |                 |                   |                   |                                |             |
| Batteries  | Maintenance-free sealed Lead-Acid battery with 3-6 year typical lifetime: leakproof   |                 |                   |                       |                 |                   |                   |                                |             |
| Recharge time to 90% capacity  | 5 hours   |                 |                   | 3 hours               |                 |                   |                   | 6 hours                        |             |
| Ambient Operation  | 3,000 m max elevation, 0-95% humidity, non-condensing, 32-104 degF  |                 |                   |                       |                 |                   |                   |                                |             |
| Storage Conditions   | 15, 000 m max elevation, 5-113 deg F  |                 |                   |                       |                 |                   |                   |                                |             |
| Audible noise at 3.3 ft. (1 m)   | <45 dBA   |                 | <41 dBA           |                       | <45 dBA         |                   | <53 dBA           | < 47 dBA                       |             |
| Thermal Dissipation (BTU/Hr)   | 50  | 70              | 85                | 100                   | 135             | 275               | 375               | 1708                           |             |
| TYPICAL RUNTIME IN MINUTES   |   |                 |                   |                       |                 |                   |                   |                                |             |
| LOAD<br>Watts <sup>4</sup>   | (VA)  | SU420NET        | SU620NET          | SU700NET              | SUA1000         | SUA1500           | SU2200NET         | SU3000NET <sup>3</sup>         | SU5000TXFMR |
| 100  | 140   | 21min           | 45min             | 60hr                  | 100min          | 172min            | 336min            | 336min                         | 471min      |
| 300  | 420   | n/a             | 7min              | 11min                 | 25min           | 51min             | 122min            | 122min                         | 322min      |
| 600  | 840   | n/a             | n/a               | n/a                   | 7min            | 17min             | 52min             | 52min                          | 98min       |
| 900  | 1260  | n/a             | n/a               | n/a                   | n/a             | 8min              | 28min             | 28min                          | 59min       |
| 1400   | 1960  | n/a             | n/a               | n/a                   | n/a             | n/a               | 13min             | 13min                          | 31min       |
| 2000   | 2080  | n/a             | n/a               | n/a                   | n/a             | n/a               | n/a               | 7min                           | 17min       |

<sup>1</sup> SU420 and SU620 also offer built-in data-line protection for RJ-11 and 10BaseT ethernet protection.

<sup>2</sup> Transfer points are user-adjustable using included software.

<sup>3</sup> Additional battery pack (SU48BP) available for extra runtime.

<sup>4</sup> Servers and other IT equipment are moving to Power Factor Corrected (PFC) power supplies of 1.0, where the power drawn in Volt-Amps (VA) is equal to Watts(W). For accurate sizing, use the watt rating of the equipment to determine the correct UPS and runtime. If the watt rating is unavailable use the Amp (A) rating and multiply by the voltage to obtain VA. For the most recent sizing information, please consult the Size-UPS section of APC's website at [www.apc.com/sizing](http://www.apc.com/sizing).

# Smart-UPS® Rack-mount Series

Available in a broad range of sizes, Smart-UPS rack-mounts are easy to install and compatible with all popular rack systems. They offer an ideal solution for rack-optimized servers, server appliances, blade servers and other rack mounted network switches, hubs and gateways.



|  |   |                     |                    |                     |                     |                            |                     |                     |   |                    |
|--|---|---------------------|--------------------|---------------------|---------------------|----------------------------|---------------------|---------------------|---|--------------------|
|  | <i>New!</i>   |                     | <i>New!</i>        |                     | <i>New!</i>         |                            | <i>New!</i>         |                     | <i>New!</i>                                   |                    |
| Specifications for Smart-UPS Model: Part #:                              | 750<br>SUA750RM1U   | 1000<br>SUA1000RM1U | 750<br>SUA750RM2U  | 1000<br>SUA1000RM2U | 1500<br>SUA1500RM2U | 2200<br>SUA2200RM2U        | 3000<br>SUA3000RM2U | 3000<br>SU3000RMNET | 5000<br>SU5000RMT5UXFMR                       |                    |
| Ships with PowerChute software   | Support for Windows NT/2000/XP, Windows Server 2003, Novell NetWare, SCO UnixWare, Solaris and Linux. Additional management platform integration plug-ins and application shutdown utilities available for download at <a href="http://www.apc.com/tools/download/">www.apc.com/tools/download/</a> . |                     |                    |                     |                     |                            |                     |                     |   |                    |
| Input Line, 8 ft. line cord  | NEMA 5-15P  |                     |                    |                     |                     | NEMA 5-20P                 | NEMA L5-30P         |                     | NEMA L6-30P                                   |                    |
| Output Receptacles   | 4 NEMA 5-15R  |                     | 6 NEMA 5-15R       |                     |                     | 6 NEMA 5-15R, 2 NEMA 5-20R |                     | 8 NEMA 5-15R        | 2 NEMA L6-20R<br>2 NEMA 5-15R<br>12 NEMA2-50R |                    |
| Communication Ports  | Serial & USB  |                     |                    |                     |                     |                            |                     | Serial              |   |                    |
| Number of SmartSlot bays   | 1 Smart Slot Bay Included   |                     |                    |                     |                     |                            |                     |                     |   | 2, ind. mgmt. card |
| Maximum Dimensions (H x W x D) (in.)                                     | 1.75x17x26  |                     | 3.5x19x18          |                     |                     | 3.5x19x26                  |                     | 8.8x19x7.8          | 12.3x19x25                                    |                    |
| Net Weight (lbs.)  | 48  |                     | 48                 | 62                  | 63                  | 96                         |                     | 196                 | 320   |                    |
| Shipping Weight (lbs.)   | 56  |                     | 55.3               | 69                  | 70.2                | 125                        |                     | 145                 | 355   |                    |
| Replacement Battery Cartridge  | RBC 34  |                     | RBC 22             | RBC 23              | RBC 24              | RBC 43                     |                     | RBC 11              | Two RBC 12                                    |                    |
| Service Level  | SBC 12  |                     |                    |                     |                     |                            |                     | SBC 13              | SBC 14  |                    |
| OPERATION  | SUA750RM1U  | SUA1000RM1U         | SUA750RM2U         | SUA1000RM2U         | SUA1500RM2U         | SUA2200RM2U                | SUA3000RM2U         | SU3000RMNET         | SU5000RMT5UXFMR                               |                    |
| Nominal Input Voltage  | 120 Vac, single phase, 50 or 60 Hz (auto-selectable)  |                     |                    |                     |                     |                            |                     |                     |   | 208 Vac, 50-60 Hz. |
| Transfer Time (typical)  | 2 milliseconds, includes detection time   |                     |                    |                     |                     |                            |                     |                     |   |                    |
| AVR Boost/AVR Trim   | 30% / 12%   |                     |                    |                     |                     |                            |                     | 12% / 12%           |   |                    |
| Default Input Voltage Range  | 82-144 VAC  |                     |                    |                     |                     |                            |                     | 92-147 VAC          | 157-253 VAC                                   |                    |
| Max input voltage range (adjustable for mains without battery discharge) | 75-154 VAC  |                     |                    |                     |                     |                            |                     | 86-154 VAC          | 151-268 VAC                                   |                    |
| Capacity (Volt-Amps, Watts)  | 750, 480  | 1000, 640           | 750, 480           | 1000, 670           | 1500, 980           | 2200, 1980                 | 3000, 2700          | 3000, 2250          | 4500, 3375                                    |                    |
| Output Voltage Range   | 106-127 VAC   |                     |                    |                     |                     |                            |                     | 103-132 VAC         | 120, 208 VAC                                  |                    |
| Surge energy rating, peak current  | 480 Joules, 6.5 kA  |                     | 459 Joules, 6.5 kA |                     |                     | 480 Joules, 6.5 kA         |                     | 880 Joules, 6.5kA   | 1020 Joules, 6.5 kA                           |                    |
| Normal, common mode clamping response time                               | 0 ns, <5ns typical  |                     |                    |                     |                     |                            |                     |                     |   |                    |
| Normal mode surge voltage let through (IEEE587 Cat A 6kV test)           | <0.3% of peak typical   |                     |                    |                     |                     |                            |                     |                     |   |                    |
| Batteries  | Maintenance-free sealed Lead-Acid battery with 3-6 year typical lifetime: leakproof   |                     |                    |                     |                     |                            |                     |                     |   |                    |
| Recharge time to 90% capacity  | 2 hours   |                     |                    | 3 hours             |                     |                            |                     |                     | 6 hours                                       |                    |
| Ambient Operation  | 3,000 m max elevation, 0-95% humidity, non-condensing, 32-104 degF  |                     |                    |                     |                     |                            |                     |                     |   |                    |
| Storage Conditions   | 15, 000 m max elevation, 5-113 deg F  |                     |                    |                     |                     |                            |                     |                     |   |                    |
| Audible noise at 3.3 ft (1 m)  | <45 dBA   |                     | <36 dBA            |                     | <46 dBA             | <47 dBA                    |                     | <53 dBA             |   |                    |
| Thermal Dissipation (BTUs/Hr)  | 130   |                     | 68                 | 89                  | 171                 | 300                        | 400                 | 430                 |   |                    |
| TYPICAL RUNTIME IN MINUTES   |   |                     |                    |                     |                     |                            |                     |                     |   |                    |
| LOAD Watts <sup>2</sup>  | VA  | SUA750RM1U          | SUA1000RM1U        | SUA750RM2U          | SUA1000RM2U         | SUA1500RM2U                | SUA2200RM2U         | SUA3000RM2U         | SU3000RMNET                                   | SU5000RMT5UXFMR    |
| 300  | 420   | 202min              | 122min             | 70min               | 64min               | 55min                      | 35min               | 11min               | 16min   | 16min              |
| 600  | 840   | 98min               | 52min              | 33min               | 30min               | 19min                      | 11min               | -                   | 6min  | -                  |
| 900  | 1260  | 59min               | 28min              | 20min               | 18min               | 9min                       | -                   | -                   | -   | -                  |
| 1400   | 1960  | 131min              | 13min              | 11min               | 10min               | -                          | -                   | -                   | -   | -                  |
| 2000   | 2800  | 17min               | 7min               | 6min                | -                   | -                          | -                   | -                   | -   | -                  |
| 3000   | 4200  | 8min                | -                  | -                   | -                   | -                          | -                   | -                   | -   | -                  |

<sup>1</sup> Transfer points are user-adjustable using included software.

<sup>2</sup> Servers and other IT equipment are moving to Power Factor Corrected (PFC) power supplies of 1.0, where the power drawn in Volt-Amps (VA) is equal to Watts(W). For accurate sizing, use the watt rating of the equipment to determine the correct UPS and runtime. If the watt rating is unavailable use the Amp (A) rating and multiply by the voltage to obtain VA. For the most recent sizing information, please consult the Size-UPS section of APC's website at [www.apc.com/sizing](http://www.apc.com/sizing).

# Smart-UPS® 208V Series

APC Smart-UPS 208V models support high-powered servers, networking equipment and telecom equipment. Many of today's IT manufacturers are requiring 208V because it uses less current and requires smaller wiring circuit protection. Additionally, it delivers greater power than 120V systems. Telecom equipment has traditionally used 208V and continues to broaden its base in this power range.



*New!*

*New!*

|  |      | Tower Units   |                    |  | Rack-mount Units                               |                                |  |                                |
|--|------|---|--------------------|--|--|--------------------------------|--|--------------------------------|
| Specifications for Smart-UPS Model: Part#:   |      | 2000<br>SU2200XLTNET  | 3000<br>SU3000TNET | 5000<br>SU5000T                                | 22000<br>SU2200RMXLTNET                        | 3000<br>SUA3000RMT2U           | 5000<br>SU5000RMT5U                            | 5000<br>SU5000RMXLT5U          |
| Ships with PowerChute software   |      | Support for Windows NT/2000/XP, Windows Server 2003, Novell NetWare, SCO UnixWare, Solaris and Linux. Additional management platform integration plug-ins and application shutdown utilities available for download at <a href="http://www.apc.com/tools/download/">www.apc.com/tools/download/</a> . |                    |  |  |                                |  |                                |
| Input Line Cord  |      | NEMA L6-20P   |                    | NEMA L6-30P                                    | NEMA L6-20P                                    |                                | NEMA L6-30P                                    | NEMA L6-30P                    |
| Input Cord Length  |      |   | 6 foot             |  |  | 8 foot                         |  | 10 foot                        |
| Output receptacles (5-15R receptacles provide up to 400VA of 120V power <sup>1</sup> ) |      | 2 NEMA L6-30R<br>1 NEMA L6-20R<br>2 NEMA 5-15R  |                    | 1 NEMA L6-30R<br>2 NEMA L6-20R<br>2 NEMA 5-15R | 2 NEMA L6-30R<br>1 NEMA L6-20R<br>2 NEMA 5-15R | 1 NEMA L6-20R<br>1 NEMA L6-30R | 1 NEMA L6-30R<br>2 NEMA L6-20R<br>2 NEMA 5-15R | 2 NEMA L6-20R<br>1 NEMA L6-30R |
| Communication Ports  |      | Serial  |                    |  | Serial & USB                                   |                                | Serial   |                                |
| Number of SmartSlot Bays   |      | 1   | 1                  | 2  | 1  | 1                              | 2, inc. mgt card                               | 1, inc. mgmt card              |
| Maximum Dimensions (inches)  |      | 17 x 7.7 x 21.5   |                    | 17.3 x 9 x 26.2                                | 8.8 x 19 x 17.8                                | 3.5x19x26                      | 8.8 x 19 x 25                                  | 8.75x19x25                     |
| Net Weight (lbs)   |      | 137   | 137                | 230  | 132  | 96                             | 225  | 225                            |
| Shipping Weight (lbs)  |      | 167   | 156                | 250  | 151  | 125                            | 245  | 245                            |
| Replacement Battery Cartridge  |      | RBC 11  |                    | Two RBC 12                                     | RBC 11   | RBC 43                         | Two RBC 12                                     | Two RBC 12                     |
| Pricing Level for Service Options  |      | SB-13   |                    | SB-14  | SB-13  | SB-12                          | SB-14  |                                |
| OPERATION  |      | SU2200XLTNET  | SU3000TNET         | SU5000T  | SU2200RMXLTNET                                 | SUA3000RMT2U                   | SU5000RMT5U                                    | SU5000RMXLT5U                  |
| Nominal Input Voltage  |      | 208 Vac, single phase, 50 or 60 Hz (auto-selectable)  |                    |  |  |                                |  |                                |
| Transfer Time (typical)  |      | 2 milliseconds, includes detection time   |                    |  |  |                                |  |                                |
| AVR Boost/AVR Trim   |      | 12% / 12%   |                    |  |  | 30%/12%                        | 12%/12%  |                                |
| Default Input Voltage <sup>2</sup>   |      | 157-255 VAC   |                    |  |  | 141-255 VAC                    | 157-255 VAC                                    |                                |
| Max input voltage adjustable range for mains without battery discharge                 |      | 151-268 VAC   |                    |  |  | 131-268 VAC                    | 151-268 VAC                                    |                                |
| Output Voltage Range   |      | 178-230 VAC   |                    |  |  | 185-225 VAC                    | 178-230 VAC                                    |                                |
| Capacity (Volt-Amps, Watts)  |      | 750, 600  | 1000, 800          | 2200, 1600                                     | 1400, 1050                                     | 3000, 2700                     | 2200, 1750                                     |                                |
| Surge energy rating, peak current capability   |      | 960 Joules 6.5 kA   |                    | 1020 Joules, 6.5kA                             | 960 Joules 6.5 kA                              | 480 Joules 6.5 kA              | 1020 Joules 6.5 kA                             |                                |
| Normal, common mode clamping response time   |      | 0 ns, <5ns typical  |                    |  |  |                                |  |                                |
| Normal mode surge voltage let through (IEEE 587 Cat. A 6kV test)                       |      | <0.3% of peak typical   |                    |  |  |                                |  |                                |
| Batteries  |      | Maintenance-free sealed Lead-Acid battery with 3-6 year typical lifetime: leakproof   |                    |  |  |                                |  |                                |
| Recharge time to 90% capacity  |      | 3 hours   |                    |  |  |                                |  |                                |
| Ambient Operation  |      | 3,000 m max elevation, 0-95% humidity, non-condensing, 32-104 degF  |                    |  |  |                                |  |                                |
| Storage Conditions   |      | 15, 000 m max elevation, 5-113 deg F  |                    |  |  |                                |  |                                |
| Audible noise at 3.3 feet (1 m)  |      | <53 dBA   |                    |  |  |                                |  |                                |
| Thermal Dissapation (BTUs/Hr)  |      | 275   | 375                | 430  | 305  | 400                            | 430  |                                |
|  |      |   |                    |  |  |                                |  |                                |
| Load Watts <sup>3</sup>  | VA   | SU2200XLTNET  | SU3000TNET         | SU5000T  | SU2200RMXLTNET                                 | SUA3000RMT2U                   | SU5000RMT5U                                    | SU5000RMXLT5U                  |
| 800  | 1120 | 34min   | 34min              | 69min  | 34min  | 23min                          | 69min  | 69min                          |
| 1400   | 1960 | 13min   | 13min              | 31min  | 13min  | 11min                          | 31min  | 31min                          |
| 2000   | 2800 | n/a   | 7min               | 17min  | n/a  | 6min                           | 17min  | 17min                          |
| 3000   | 4200 | n/a   | n/a                | 8min   | n/a  | n/a                            | 8min   | 8min                           |
| Uses Additional Battery Pack(s)  |      | SU48XLBP or UXBP48  | SU48BP             | n/a  | SU48RMXLBP or UXBP48                           | n/a                            | n/a  | SU48R3XLBP                     |
| For extended runtimes refer to the table on page 10.                                   |      |   |                    |  |  |                                |  |                                |

<sup>1</sup> All "T" models provide 400VA of 120V power. The 120 VAC output is a fixed ratio from the 208 VAC output.

<sup>2</sup> Transfer points are user-adjustable using included software.

<sup>3</sup> Servers and other IT equipment are moving to Power Factor Corrected (PFC) power supplies of 1.0, where the power drawn in Volt-Amps (VA) is equal to Watts(W). For accurate sizing, use the watt rating of the equipment to determine the correct UPS and runtime. If the watt rating is unavailable use the Amp (A) rating and multiply by the voltage to obtain VA. For the most recent sizing information, please consult the Size-UPS section of APC's website at [www.apc.com/sizing](http://www.apc.com/sizing).

# Smart-UPS® XL Series

Available in tower and rack-optimized form factors. APC's Smart-UPS XL is ideal for mission-critical applications where long term runtimes are essential. Voice-over-IP (VoIP) gateways, telephone PBXs, critical application servers and data communications links will benefit from the added availability of the XL models with additional battery packs.

## Smart-UPS Availability

- Achieving 99.999% uptime requires a UPS with a runtime of greater than one hour, or a generator.
- Up time levels can be dramatically enhanced by increasing the run time of your UPS from five minutes to one hour.

|  |   |                   |                     |                      |                       |                      |                      |                      |                                 |  |
|--|---|-------------------|---------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|---------------------------------|--|
|  | New!  |                   |                     | New!                 |                       |                      | New!                 |                      | New!                            |  |
|  | Tower Units   |                   |                     |                      | Rack-mount Units      |                      |                      |                      |                                 |  |
| Specifications for Smart-UPS model:<br>Part #:                           | 750<br>SUA750XL   | 1000<br>SUA1000XL | 2200<br>SU2200XLNET | 1400<br>SU1400RMXL3U | 2200<br>SU2200RMXLNET | 2200<br>SU2200RMXL3U | 3000<br>SU3000RMXL3U | 5000<br>SU5000RMXL5U |                                 |  |
| Ships with PowerChute software   | Support for Windows NT/2000/XP, Windows Server 2003, Novell NetWare, SCO UnixWare, Solaris and Linux. Additional management platform integration plug-ins and application shutdown utilities available for download at <a href="http://www.apc.com/tools/download/">www.apc.com/tools/download/</a> . |                   |                     |                      |                       |                      |                      |                      |                                 |  |
| Input Line Cord  | NEMA 5-15R  |                   | NEMA L5-30P         | NEMA 5-15P           | NEMA L5-30P           |                      |                      |                      | NEMA L6-30P                     |  |
| Input Cord Length  | 6 foot  |                   |                     |                      | 8 foot                |                      |                      |                      | 10 foot                         |  |
| Output receptacles (IEC320)  | 8 NEMA 5-15R  |                   |                     | 6 NEMA 5-15R         | 8 NEMA 5-15R          | 8 NEMA 5-20R         |                      |                      | 2 NEMA L6-20R,<br>1 NEMA L6-30R |  |
| Communication Ports  | Serial & USB  |                   | Serial              |                      |                       |                      |                      |                      |                                 |  |
| Number of SmartSlot bays   | 1 SmartSlot bay included  |                   |                     |                      |                       |                      |                      |                      | 1, Incl. Mgmt. Card             |  |
| Maximum Dimensions (H x W x D) (in)                                      | 8.5x6.7x17.3  |                   | 17x7.7x21.5         | 5.25x19x15.5         | 8.8x19x17.8           | 5.25x19x26           |                      |                      | 8.75x19x25                      |  |
| Net Weight (lb)  | 53  |                   | 121                 | 70                   | 124                   | 124                  |                      |                      | 225                             |  |
| Shipping Weight (lb)   | 58  |                   | 140                 | 82                   | 143                   | 139                  |                      |                      | 245                             |  |
| Replacement Battery Cartridge  | RBC7  |                   | RBC11               | RBC25                | RBC11                 | RBC27                |                      |                      | (2) RBC12                       |  |
| Service Level  | SB12  |                   | SB13                | SB12                 | SB12                  | SB13                 |                      |                      | SB14                            |  |
| OPERATION  | SUA750XL  | SUA1000XL         | SU2200XLNET         | SU1400RMXL3U         | SU2200RMXLNET         | SU2200RMXL3U         | SU3000RMXL3U         | SU5000RMXL5U         |                                 |  |
| Nominal Input Voltage  | 120 Vac, single phase, 50 or 60 Hz (auto-selectable)  |                   |                     |                      |                       |                      |                      |                      |                                 |  |
| Transfer Time (typical)  | 2 milliseconds, includes detection time   |                   |                     |                      |                       |                      |                      |                      |                                 |  |
| AVR Boost/AVR Trim   | 30%/12%   |                   | 12% / 12%           |                      |                       |                      |                      |                      |                                 |  |
| Default Input Voltage <sup>1</sup>                                       | 82-144 VAC  |                   | 92-147 VAC          |                      |                       |                      |                      |                      | 157-255 VAC                     |  |
| Max input voltage (adjustable range for mains without battery discharge) | 75-154 VAC  |                   | 86-154VAC           |                      |                       |                      |                      |                      | 151-268 VAC                     |  |
| Output Voltage Range   | 106-127 VAC   |                   | 103-132 VAC         |                      |                       |                      |                      |                      | 178-230 VAC                     |  |
| Capacity (Volt-Amps, Watts)  | 750, 600  | 1000, 800         | 2200, 1600          | 1400, 1050           | 2200, 1600            | 2200, 1750           | 3000, 2400           | 5000, 4000           |                                 |  |
| Surge energy rating, peak current capability                             | 420 Joules, 6.5 kA  |                   | 480 Joules, 6.5kA   | 800 Joules, 6.5kA    | 880 Joules, 6.5kA     |                      |                      |                      | 1020 Joules, 6.5kA              |  |
| Normal, common mode clamping response time                               | 0ns, <5ns typical   |                   |                     |                      |                       |                      |                      |                      |                                 |  |
| Normal mode surge voltage let through (IEEE 587 Cat. A 6kV test)         | <0.3 % of peak, typical   |                   |                     |                      |                       |                      |                      |                      |                                 |  |
| Batteries  | Maintenance-free sealed Lead-Acid battery with 3-6 year typical lifetime: leakproof   |                   |                     |                      |                       |                      |                      |                      |                                 |  |
| Recharge time to 90%   | 3 Hours   |                   |                     |                      |                       |                      |                      |                      |                                 |  |
| Ambient Operation  | 3,000 m max elevation, 0-95% humidity, non-condensing, 32-104 degF  |                   |                     |                      |                       |                      |                      |                      |                                 |  |
| Storage Conditions   | 15, 000 m max elevation, 5-113 deg F  |                   |                     |                      |                       |                      |                      |                      |                                 |  |
| Audible noise at 3.3 ft (1 m)  | <42dBA  |                   | < 53 dBA            | <46 dBA              |                       | < 53dBA              |                      |                      |                                 |  |
| Thermal Dissapation (BTUs/Hr)  | 100   | 120               | 305                 | 155                  | 275                   | 375                  | 375                  | 430                  |                                 |  |
| TYPICAL RUNTIME IN MINUTES   |   |                   |                     |                      |                       |                      |                      |                      |                                 |  |
| Load<br>Watts <sup>2</sup>   | VA  | SUA750XL          | SUA1000XL           | SU2200XLNET          | SU1400RMXL3U          | SU2200RMXLNET        | SU2200RMXL3U         | SU3000RMXL3U         | SU5000RMXL5U                    |  |
| 300  | 420   | 51                | 51                  | 122                  | 55                    | 122                  | 127                  | 127                  | 382                             |  |
| 800  | 840   | 17                | 17                  | 52                   | 19                    | 52                   | 56                   | 56                   | 98                              |  |
| 600  | 1120  | n/a               | 10                  | 34                   | 11                    | 34                   | 37                   | 37                   | 69                              |  |
| 1400   | 1960  | n/a               | n/a                 | 13                   | n/a                   | 13                   | 14                   | 14                   | 31                              |  |
| 2000   | 2800  | n/a               | n/a                 | n/a                  | n/a                   | n/a                  | n/a                  | 7                    | 17                              |  |
| 3000   | 4200  | n/a               | n/a                 | n/a                  | n/a                   | n/a                  | n/a                  | n/a                  | 8                               |  |
| Uses Additional Battery Pack(s)  | SUA24XLBP   | SUA24XLBP         | SU48XLBP            | SU24RMXLBP2U         | SU48RMXLBP            | SU48R3XLBP           | SU48R3XLBP           | SU48R3XLBP           | SU48R3XLBP                      |  |
| Ultra Extended Runtime Battery Pack                                      | UXBP24  | UXBP24            | UXBP48              | n/a                  | UXBP48                | n/a                  | n/a                  | n/a                  | n/a                             |  |
| For extended runtimes refer to the table on page 10.                     |   |                   |                     |                      |                       |                      |                      |                      |                                 |  |

<sup>1</sup> Transfer points are user-adjustable using included software.

<sup>2</sup> Servers and other IT equipment are moving to Power Factor Corrected (PFC) power supplies of 1.0, where the power drawn in Volt-Amps (VA) is equal to Watts(W). For accurate sizing, use the watt rating of the equipment to determine the correct UPS and runtime. If the watt rating is unavailable use the Amp (A) rating and multiply by the voltage to obtain VA. For the most recent sizing information, please consult the Size-UPS section of APC's website at [www.apc.com/sizing](http://www.apc.com/sizing).

## Smart-UPS® XL and UX Battery Packs

### Long battery life

By packaging the batteries in an enclosure separate from the UPS electronics, the batteries operate at reduced temperatures. Battery life is further enhanced through CellGuard intelligent battery management with high precision FastCharge™, and automatic true-load battery tests.

### APC Smart-UPS XL increases your availability with N+1 batteries

Extended battery packs running in parallel with internal batteries provide extended runtime and redundancy, if a battery should fail. Smart-

UPS XL battery packs are hot-swappable so you never have to take down your mission-critical loads to service the unit.

### Simple maintenance

A battery change usually requires trained service personnel or the expense of hiring an electrician. This is not the case with APC's Smart-UPS XL. The modular Smart-UPS XL allows the user to easily replace battery packs in minutes, while the protected equipment remains up and running.

|                                   | Battery Packs           |                 | New!           |                 |                     |
|-----------------------------------|-------------------------|-----------------|----------------|-----------------|---------------------|
| SPECIFICATION                     | SUA24XLB/SU48XLB/SU48BP | SU24RMLBP2U     | SU48RMLBP      | SU48R3XLB       | UXBP24/UXBP48       |
| Maximum Dimensions (H x W x D)    | 8.5 x 6.7 x 17.3"       | 3.37 x 17 x 19" | 7 x 19 x 17.8" | 5.25 x 19 x 26" | 12.2 x 17.6 x 29.7" |
| Net Weight (lbs.)                 | 69 lb.                  | 67 lb.          | 136 lb.        | 140 lb.         | 280 lb.             |
| Shipping Weight (lbs.)            | 73 lb.                  | 80 lb.          | 153 lb.        | 155 lb.         | 314 lb.             |
| Replacement Battery Cartridge     | RBC11                   | (2) RBC 26      | (2) RBC11      | (2) RBC 27      | RBC13               |
| Pricing Level for Service Options | SB-11                   | SB-12           | SB-12          | SB-12           | SB-12               |

APC Smart-UPS with UX battery packs provide ultra-extended runtime for maximum uptime



APC Smart-UPS® 750XL and 1000XL

### Extended Run Tower Models

Note: Runtimes are expressed in hours and are a function of the total load in watts. The actual VA may be determined by using the appropriate power factor of the attached load. The SUA750XL and SUA1000XL can accept an unlimited number of external battery packs. For the most accurate and comprehensive sizing information consult the Size-UPS section of APC's website at [www.apc.com](http://www.apc.com).

| SUA750XL/SUA1000XL with:                 | 1 SUA24XLB | 2 SUA24XLB | 3 SUA24XLB | 1 UXBP24 | 2 UXBP24 |
|--|------------|------------|------------|----------|----------|
| 200W                                     | 5.3        | 9.2        | 13.0       | 17.4     | 35.4     |
| 400W                                     | 2.5        | 4.6        | 6.7        | 9.0      | 18.7     |
| 600W                                     | 1.5        | 3.0        | 4.4        | 6.0      | 12.6     |
| 800W <sup>1</sup>                        | 1.0        | 2.1        | 3.2        | 4.4      | 9.4      |
| <sup>1</sup> Does not apply to SUA750XL. |            |            |            |          |          |
| SU2200XLNET, SU2200XLNET with:           | 1 SU48XLB  | 2 SU48XLB  | 3 SU48XLB  | 1 UXBP48 | 2 UXBP48 |
| 600W                                     | 2.2        | 3.6        | 5.0        | 6.5      | 12.2     |
| 800W                                     | 1.5        | 2.6        | 3.6        | 4.8      | 9.2      |
| 1400W                                    | 0.7        | 1.3        | 1.9        | 2.6      | 5.1      |



### Extended Run Rack-mount Models

Note: Runtimes are expressed in hours and are a function of the total load in watts. The actual VA may be determined by using the appropriate power factor of the attached load. The UXBP48 is not rack mountable. For the most accurate and comprehensive sizing information consult the Size-UPS section of APC's website at [www.apc.com](http://www.apc.com).

| SU1400RML3U with:  | 1 SU24RMLBP2U | 2 SU24RMLBP2U | 3 SU24RMLBP2U | 8 SU24RMLBP2U | 10 SU24RMLBP2U |
|--|---------------|---------------|---------------|---------------|----------------|
| 300W   | 2.5           | 5.0           | 7.2           | 18.4          | 22.8           |
| 500W   | 1.5           | 2.9           | 4.3           | 11.2          | 14.0           |
| 800W   | 0.8           | 1.6           | 2.5           | 7.0           | 8.7            |
| 1000W  | 0.5           | 1.2           | 2.0           | 5.5           | 7.0            |
| SU2200RML3U, SU3000RML3U, (SU5000RMLT5U, SU5000R5LTXFMR) with: | 1 SU48R3XLB   | 2 SU48R3XLB   | 3 SU48R3XLB   | 8 SU48R3XLB   | 10 SU48R3XLB   |
| 800W   | 2.0 (2.8)     | 3.8 (4.4)     | 5.5 (6.1)     | 14.0 (14.5)   | 17.5 (18.0)    |
| 1400W  | 1.0 (1.5)     | 2.0 (2.5)     | 3.0 (3.5)     | 8.0 (8.5)     | 10.0 (10.5)    |
| 2000W <sup>1</sup>   | 0.5 (0.9)     | 1.3 (1.6)     | 2.0 (2.3)     | 5.5 (5.8)     | 7.0 (7.3)      |
| 3000W <sup>2</sup>   | (0.5)         | (1.0)         | (1.4)         | (3.8)         | (4.7)          |

<sup>1</sup> Does not apply to SU2200RML3U

<sup>2</sup> Does not apply to SU2200RML3U or SU3000RML3U

# Management Peripherals for Smart-UPS

## PowerChute Business Edition

Department-level management software, enabling IT administrators to provide safe system shutdown and UPS management for servers and workstations.

- Centrally manage up to 25 UPSs simultaneously over a network
- Recommended Actions speed troubleshooting
- Mass configuration makes UPS configuration fast and easy
- Power Analysis alerts users to unusual power situations



## APC Network Management Card with PowerChute Network Shutdown

Provides network interface and standards based management for APC UPSs.

- 10/100 BaseT card with upgradeable memory
- Configure and control the UPS securely via Web, Telnet, and SNMP
- Scheduling, Data, and Event logs provide advanced tools to control and diagnose UPS events
- Configurable event handling and e-mail notification
- Multi-UPS coordination for dual-corded servers



## InfraStruXure™ Manager

Server appliance designed to manage a zone of InfraStruXure™ devices.

- Single IP address provides access to multiple InfraStruXure™ devices
- User configurable actions allow immediate notification of critical power and environmental events
- Provides remote management capabilities
- Provides historical data for each device, such as voltages, load, and temperature



## UPS Management Peripherals

### Relay I/O Card

UPS card for network administrators to control and monitor power through a dry-contact interface in rack, computer room, and data center environments.



### Out-of-Band Management Card

UPS card for network administrators to manage UPSs remotely via modem throughout the network.



### 2-Port/8-Port Interface Expander

UPS card/peripheral for network administrators that provides safe system shutdown for multiple operating systems in rack, computer room, and data center environments.



### PowerView

Hand-held control panel for network administrators that configures and controls UPSs in rack, computer room, and data center environments.



### MasterSwitch Plus

Remotely control power to individual outlets and monitor the aggregate power consumption via local and remote displays.



### Remote Power Off

Immediately turn off APC UPS output via remote switch. It may also be used with an EPO to remotely control power during emergencies.



## Environmental Management

### Environmental Monitoring Card

UPS enhancement card enabling monitoring of basic environmental conditions

- Temperature and humidity monitoring
- Four user-definable contact closure inputs for use with water, smoke, physical security, or other sensors



### Environmental Monitoring Unit

Network manageable device enabling monitoring of basic environmental conditions

- Temperature and humidity monitoring
- Four user-definable contact closure inputs for use with water, smoke, physical security, or other sensors



### Environmental Management System

Network manageable device enabling comprehensive environmental management

- Temperature and humidity monitoring
- 9 user definable contact closure inputs
- Water, smoke, motion, physical security, and vibration sensors available
- Alarm beacon capable
- 2 controllable power outlets
- 8 port 10/100 Ethernet switch



# Smart-UPS® Wiring Devices and Hardware Accessories

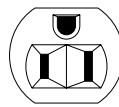
## Input Plugs and Options (actual max power out is model dependent)

| MODEL  | VOLTS | PLUG TYPE | AMPS | MAX POWER OUT                                |
|--------|-------|-----------|------|--|
| 2200   | 120V  | 5-15P     | 15   | 1200VA/870W                                  |
|        |       | 5-20P*    | 20   | 1600VA/1160W<br>1920VA/1920W                 |
|        |       | L5-30P    | 30   | 2200VA/1600W                                 |
| 2200   | 208V  | L6-20P*   | 20   | 2200VA/1600W                                 |
| 2200XL | 120V  | 5-20P     | 20   | 1300VA/950W                                  |
|        |       | L5-30P*   | 30   | 2200VA/1600W                                 |
| 2200XL | 208V  | L6-20P*   | 20   | 2200VA/1600W                                 |
| 3000   | 120V  | 5-20P     | 20   | 1600VA/1160W                                 |
|        |       | L5-30P*   | 30   | 2550VA/1900W<br>2200VA/2200W<br>2880VA/2700W |
|        |       | 5-50P     | 50   | 3000VA/2250W<br>3000VA/2400W<br>3000VA/2700W |
| 3000   | 208V  | L6-20P*   | 20   | 3000VA/2250W                                 |
|        |       | L6-20P    | 20   | 3000VA/2700W                                 |
| 5000   | 208V  | L6-30P*   | 30   | 5000VA/3750W                                 |

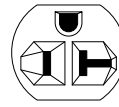
\* Standard plug shipped on Smart-UPS

### Choose your Input Plug carefully:

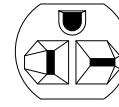
Selecting an input plug rated for fewer amps than the supplied plug will **restrict the input and output** of the UPS. The table to the left specifies the allowable choices and UPS load ratings for each input plug. If your ideal plug or receptacle configuration is not listed, please contact APC's customer service team for special options.



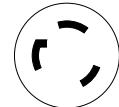
NEMA 5-15  
120 VAC  
15 Amps



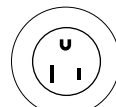
NEMA 5-20\*  
120 VAC  
20 Amps



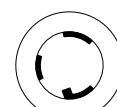
NEMA 5ALT-20  
120 VAC  
20 Amps



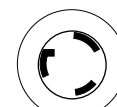
NEMA L5-30  
120 VAC  
Locking  
30 Amps



NEMA 5-50  
120 VAC  
50 Amps



NEMA L6-20  
208 Vac  
Locking  
20 Amps



NEMA L6-30  
208 Vac  
Locking  
30 Amps

\* also referred to as 5-20RA (Canada) or T-Slot

## Hardware Accessories

### 4-Post Rail kit **Part# SU032A**

(pictured) All Smart-UPS Rack-mount models ship with rail kits, however, additional kits are available.

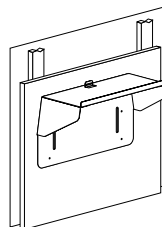


### 2-Post Rail kit **Part# AP9625**

This optional kit provides the ability to mount larger Smart-UPS models in traditional 2-post racks.

### Shelf Assembly **Part# SU046**

This optional shelf is capable of supporting a 70lb load and may be used to wall-mount a Smart-UPS Tower model.

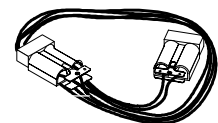


### Extension Cables

**SU039:** Cable, 4' Extension for SU48XLBP, SU48RMXLBP, UXBP48

**SU039-1:** Cable, 4' Extension for SU48BP

**SU039-2:** Cable, 4' Extension for SU24XLBP, UXBP24



The SU039, SU039-1 and SU039-2 are four-foot battery extension cables for use with APC's 24 and 48 volt battery packs. The extension cables provide the flexibility of placing the connected batteries a maximum of five feet away from the Smart-UPS unit.

## External Power Distribution Units

### Vertically Mounted Basic PDU **Part# AP9567**

Uses 0 U of rack space. Input plug 5-15P, output, 14x5-15R.

### **Part# AP7530**

Uses 0 U of rack space. Input plug L5-20P, output, 24x5-20R



### Vertically Mounted Metered PDU **Part# AP7620**

Monitors the aggregate power consumption via a digital display. It uses 0 U of rack space and provides (24) 5-20R outlets.

Input plug, L5-20P



### MasterSwitch **Part# AP9229**

Remotely control power to individual outlets and monitor the aggregate power consumption via local and remote displays. Uses 0 U of rack space.

Input plug: IEC320 C20 (120, 208, 230VAC)

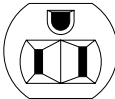

Output: 8xIEC320 C13



APC offers a full range of rack mounted PDUs, for more information go to [www.apc.com](http://www.apc.com).

## Output Options - Integrated Power Distribution Units (PDUs) for use with 120V models only

The following accessories are available separately, and can adapt the standard output configuration to your specific needs.  
(Product specification tables show standard input and output configurations).

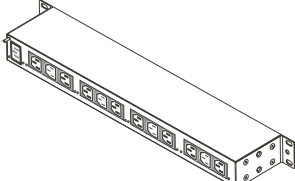
| Backplate Part #  |           | For Use With                    |  5-15R |  5-20R |  L5-15R |  L5-20R |  L5-30R |
|-------------------|-----------|---------------------------------|---|--|--|--|--|
| Rack-mount Models | SU027RM   | 5U models                       | 6   | n/a  | n/a  | n/a  | 1  |
|                   | SU028RM   | (SU2200RMXLNET and SU3000RMNET) | 4   | n/a  | 4  | n/a  | n/a  |
|                   | SU029RM   |                                 | 4   | 2  | n/a  | 1  | n/a  |
|                   | SU027RM3U | 3U models                       | 6   | n/a  | n/a  | n/a  | 1  |
|                   | SU028RM3U | (SU2200RMXL3U and SU3000RMXL3U) | 4   | n/a  | 4  | n/a  | n/a  |
|                   | SU029RM3U |                                 | 4   | 2  | n/a  | 1  | n/a  |
|                   | SU027RM2U | 2U models                       | 2   | 2  | n/a  | n/a  | 1  |
|                   | SU028RM2U | (SUA2200RM2U and SUA3000RM2U)   | 3   | n/a  | 4  | n/a  | n/a  |
|                   | SU029RM2U |                                 | 2   | 2  | n/a  | 1  | n/a  |
| Tower Models      | SU027     | SU2200NET,                      | 6   | n/a  | n/a  | n/a  | 1  |
|                   | SU028     | SU2200XLNET,                    | 4   | n/a  | 4  | n/a  | n/a  |
|                   | SU029     | SU3000NET                       | 4   | 2  | n/a  | 1  | n/a  |

### Hard Wire Kit Part #SU031

The Hard Wire Kit for 2200/3000VA provides all the necessary panels and mounting hardware and can be used to replace the outlets and/or input power cord that is originally furnished with the UPS. The input and output panels are designed with knockouts for use with standard- sized cable or conduit clamps. Cable or conduit clamps are not included in this kit.

## Output Options - External Power Distribution Units (PDUs) for use with all 208V models

**Part# AP9558**

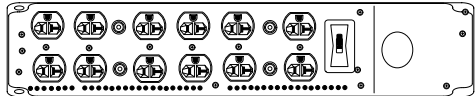


Horizontal Single Phase Power Distribution Unit

Input plug: IEC 320 C19 to L6-20P  
Output: 12x IEC 320 C13

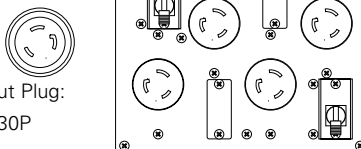
Voltage in: 208VAC  
Voltage out: 208VAC

**Part #AP9621 APC Step-down Transformer (beige)**  
**Part #SUTF2 APC Step-down Transformer (black)**



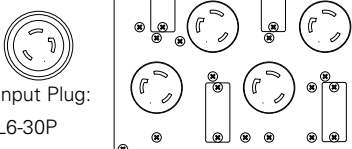
Input plug - L6-30P      Voltage In: 208 Vac.  
Output 12x5-20R      Voltage Out: 120 Vac

**MXA102**



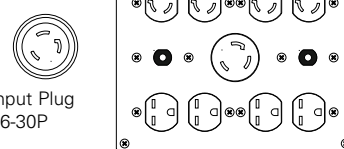
Input Plug: L6-30P  
Output: 4xL6-20R  
Voltage In: 208 Vac  
Voltage Out: 208 Vac

**MXA104**



Input Plug: L6-30P  
Output: 4xL6-30R

**MXA107**



Input Plug L6-30P  
Output: 4xL6-15R, 4x6-15R, 1xL6-30R  
Voltage In: 208 Vac  
Voltage Out: 208 Vac

# Global Service Programs

## Smart-UPS Service Recommendations

APC Smart-UPS are easy to install and maintain, but for customers who desire hands off service, APC can provide start-up and on-site services. Additionally, extended warranties are recommended for those customers who prefer to keep their UPS for extended periods of time.

## Warranty Services

### PowerPlan Extended Warranties

- Next business day replacement of unit / parts
- 24x7 Telephone Technical Support

### On-Site Support Service

- Next business day on-site replacement of unit / parts
- 24x7 Telephone Technical Support



## Replacement Battery Cartridges

- Genuine APC replacement batteries
- Use of non-APC batteries voids APC's Equipment Protection Plan
- Free freight return of old batteries, ensures proper disposal and protection of the environment (available in the U.S.A. only)

## Other Installation and Consulting Services

- Start-up Service
- Network Integration
- Power Audit Consulting Service

# Awards

## APC Smart-UPS Awards

- 2003 Recommendation of the Editor, *PC Professional Magazine* (Germany)
- 2003 PC Plus Gold (9 of 10 stars), *PC Plus Magazine* (Spain)
- 2002 Editor's Choice, *Computer Reseller News*
- 2002 Reader's Choice, *ComputerWorld Magazine* (Hong Kong)
- 2002 Best Buy, *PC World* (China)
- 2002 Star Performer, *Asia Computer Weekly's* Reader's Choice
- 2002 Best UPS, *Technology and Business* magazine (Australia)
- 2002 Best Line Interactive UPS, *PC Direct* (Germany)
- 2002 Editor's Choice and Highest Efficiency, *PC Magazine* (Greece)
- 2002 Editor's Choice, *01 Reseaux* (France)
- 2002 Recommended, *PC Open Magazine* (Italy)
- 2001 Best in Show Finalist, *Networld and Interop*
- 2001 Best product, *ComputerWorld* (China)

## APC Corporate Awards

- 2003 *Fortune Magazine*, Fortune 1000
- 2003 *Forbes Magazine*, Forbes 500
- 2003 *Network World* 200, No. 52 (Network World's annual ranking of the 200 largest North American network companies)
- 2003 *BusinessWeek*, S&P 500
- 2002 *InformationWeek* 500, No. 117



# InfraStruXure™

InfraStruXure™

POWER RACK AIR

Open, adaptable and integrated architecture for on-demand network-critical physical infrastructure

**Type A: Scalable rack systems optimized for server room environments with 1-10 racks. Each InfraStruXure™ Type A includes these integrated components:**

## Network Management Card EX with Environmental Monitoring

For built-in Web manageability, network shutdown, and environmental monitoring inside and outside of the racks.



## NetShelter® VX

Optimal enclosure for the entire IT environment including servers, networking and storage devices.

## Rack-mount PDU

With digital metering to avoid overloading circuits. (Metered PDU not available on Smart UPS less than 5kVA)



## Cable Management

Brackets create ample space for running network cables safely out of the way.



## Your Choice of UPS:

### Symmetra® N+1 redundant

Modular, N+1 redundant 6 or 12kVA UPS with hot swap electronics and batteries and automatic system bypass.

### Ideal for environments with:

- Mission critical applications
- Mixed 120/208V loads
- Power density > 1.5kVA per rack
- Power density < 1.5 kVA per rack



### Smart-UPS® Rack-mount

1.4, 3, or 5kVA UPS with hot swap batteries.

### Ideal for environments with:

- Power density < 1.5 kVA per rack
- Less critical applications
- 120V loads



With InfraStruXure™ Type A, one part number gives you a complete, pre-engineered solution that includes these integrated components, plus a three year warranty: NetShelter® VX, UPS, APC Network Management Card, Environmental Monitoring, Rack-mount PDU, and Cable Management. InfraStruXure is available from 1kW - 5MW. For more information on InfraStruXure visit [www.apc.com](http://www.apc.com).

APC's Manufacturing System is certified by ISO 9001 and ISO 14001 Standards



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