120V/208V

APC
Legendary Reliability™

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

Redundant Switch for mirrored UPS power protection

ProtectNet™ for network surge protection

SmartSlot™ Accessories

Manageability

PowerChute® *plus* 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

Personalized 7 x 24 Web support through APC Interactive Assistant

Warranty & Approvals

2 year warranty

$25,000 Lifetime Equipment Protection

UL listed, CSA certified

FCC Class B compliance

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.

Contents

New for 2001

Smart-UPS 1000 and 1500 Tower Models

New APC Smart-UPS 1000 and 1500 tower models feature full PowerChute compatibility for Windows 2000 via either built-in USB or serial port, out-of-the-box. The new models increase APC's legendary reliability with the latest surface mount technology, wider input voltage window, extended range AVR Boost, and an improved, easy-to-use battery connect/disconnect. The new Smart-UPS 1000 and 1500 are also now featured in black. *Page 8-9*

Smart-UPS 1400 3U Rack or Stack Extended Run

APC Smart-UPS 1400 extended run is a scalable, rack or stack solution that provides more power (1050W) in a smaller 3U (5.25") form factor. Additional runtime may be achieved by adding up to 10 new 2U (SU24RMXLBP) battery packs. *Page 15-16*

Smart-UPS 2200 and 3000 3U Rack-mount Extended Run

The new rack-optimized and scalable 2.2 kVA and 3kVA extended run units put up to 2400W of power into only 3U (5.25") of rack space. Perfect for fully-loaded racks, its black color matches the new higher-powered rack servers. *Page 15-16*

Smart-UPS 2U Rack-mount Solutions

APC Smart-UPS Rack-Mount 700, 1000, and 1400 provide longer runtime on battery, a more convenient replacement battery chassis tray, improved voltage regulation, and enhanced intelligent battery management, all in a smaller 2U (3.5") form factor. *Page 10-11*

Windows® 2000 Ready

Designed for Microsoft® Windows® 2000 Professional Windows NT® Workstation 4.0 Windows® 98

APC Smart-UPS provides the best "out-of-box" integration for "built-in" UPS shutdown in Microsoft Windows 2000. The co-development of Windows native UPS shutdown reinforces APC's and Microsoft's commitment to reliability in today's enterprise computing environments. APC continues to deliver innovative and convenient UPS management solutions to improve customers' productivity.

Sun Solaris™ Ready

SOLARIS READY

APC's Smart-UPS 2200 and PowerChute *plus* were the first to be certified Sun Solaris Ready. The Solaris Ready logo identifies products that have passed rigorous testing, defined and controlled by Sun, for seamless integration with Sun's SPARC or X86 Solaris environments.

Complete Power Protection

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

Reliability—The UPS design consistently delivers dependable performance through a combination of form, function and features. Your hardware is protected and your system life extended through features like full-time multi-stage surge suppression and noise filtering, network-grade line conditioning, proactive notification of problems and automatic shutdown during extended outages.

Availability—The UPS provides reliable power minimizing downtime. Availability increases when: the unit can operate through a greater range of input voltage; the batteries are easily accessible and user-serviceable and the unit provides information concerning problems and automatically takes action to keep systems available. Availability is increased by adding accessories which enhance network performance by rebooting hung devices, initiating shutdowns in the event of abnormal environmental conditions and provides notification of these actions.

Manageability—The UPS's control and status are available both in-band and out-of-band, allowing as much control as desired. The degree of manageability is directly related to users' customized parameters and notifications, through hardware and software features. Manageability is critical to the overall performance of the network and attached equipment.

Requiring **Reliability**, **Availability** and **Manageability** ensures that your power protection solution is dependable, accessible and flexible, minimizing downtime, saving time and money and increasing overall customer satisfaction.

Reliability

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.

Graceful, unattended shutdown

In the event of an extended power outage, an APC Smart-UPS will interface with PowerChute *plus* 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 provide unattended, safe shutdown of many operating systems, including Microsoft Windows 95/98, Windows NT/2000, Novell NetWare, SCO Unix, Red Hat, SuSE, Caldera and TurboLinux (other OSs available separately). By using PowerChute *plus* 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 hardwire 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

Automatic Voltage Regulation

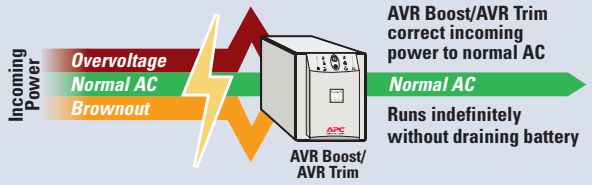
AVR Boost automatically corrects brownout conditions

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.

Computer protected with APC Smart-UPS



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.

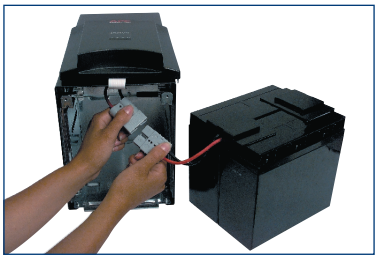
Faster Recharge Time

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.

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. 17).*

Redundant Switch

The Redundant Switch continuously monitors two AC circuits and automatically switches from the primary to the redundant power source, increasing overall system availability. *(See p. 18 for more information).*

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*).*

ProtectNet features a unique Double-Up! Supplemental Equipment Policy

Under this unique policy, the total recovery limits 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 $50,000. (US and Canada only). For program details please refer to *www.apc.com.*

Manageability

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 shutdown the system.

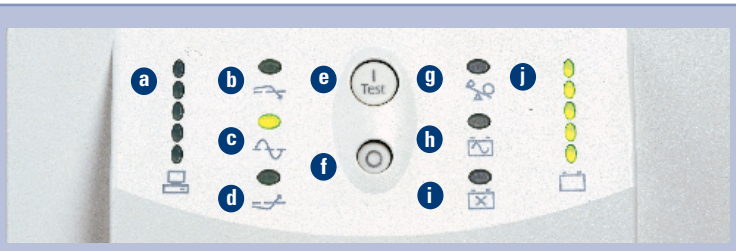
Alarms

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.

APC Interactive Assistant

This Web-empowered technology enables administrators to complete a variety of tasks via APC's Web site, including troubleshooting potential problems and proactively updating their UPS power management features within PowerChute. It gives the user a link back to APC to aid in diagnosing/ordering/replacing a bad battery, provides upgrade information, and assists the user with warranty registration.

APC Interactive Assistant also presents custom-tailored information to the user based upon variables such as UPS model and version of PowerChute running.



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 *plus* power management software included

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* for a free download).

- **E-mail and Pager Alerts**
  APC Smart-UPS E-mails and/or pages you via PowerChute *plus,* 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 17).*

*(*Feature not available on SU420NET/SU620NET models)*

Includes PowerChute® *plus* software for advanced UPS power management and diagnostics

APC Smart-UPS ship with APC's PowerChute® *plus* UPS power management and diagnostic software to provide network administrators with useful UPS information and flexibility in configuring UPS reaction to power events. By tailoring each UPS to the network environment you can significantly enhance network performance and reliability. Use your APC Smart-UPS in conjunction with PowerChute *plus* for optimal, custom protection. In addition to extensive unattended system shutdown, you get UPS testing/status, remote UPS management and environmental/ power monitoring. (PowerChute *plus* support for Novell NetWare, Windows 95/98, Windows NT/2000, SCO Unix, Red Hat, SuSE, Caldera and TurboLinux included. PowerChute *plus* for use with other operating systems sold separately. (Visit our web site at *www.apc.com* for more information).

APC's PowerChute *plus* includes an SNMP Agent (Windows NT and NetWare included with Smart-UPS) and offers integration with Compaq Insight Manager (Windows NT and NetWare only), IBM Netfinity and HP TopTools.

Events Handling allows administrators to plan for and control crisis situations

Users can customize the APC Smart-UPS' reaction to all power events. For each possible power event the user has the option of choosing up to seven items from a list of possible UPS actions. Actions include: Log Event, Notify Administrator, Notify Users, Shut Down Server, Run Command File, Page and Send E-Mail. Customizing UPS actions allows you to plan for and control crisis situations before they cause downtime or threaten data.

Software configurable features

Customize the operation of an APC Smart-UPS to your environment and needs. With PowerChute *plus* software, as well as the Web/SNMP Management Card, you can adjust eleven operating parameters. Settings are stored in the APC Smart-UPS' permanent memory (EEPROM). The following parameters are adjustable:

UPS ID

Users may assign any 8 character settings to assist in UPS identification. For example, UPS ID may be server name or UPS location.

Low transfer

Low transfer voltage may be moved downward to extend brownout range, or upward to protect sensitive equipment.

High transfer

High transfer voltage may be moved lower to protect sensitive equipment, or higher to conserve battery during extended high line voltage conditions.

Sensitivity

Sensitivity to line noise may be adjusted for fuel powered AC generator applications.

Self test

The APC Smart-UPS automatically performs a self-test every two weeks, ensuring proactive detection of a weakening battery. Users can opt for weekly testing, testing at start-up only or no automatic self-test.

Alarm

The audible alarm may be suppressed or delayed to eliminate alarms.

Shutdown delay

The delay between when the shutdown signal is sent from the CPU to UPS and when the UPS shuts down can be adjusted for special applications.

Turn-on delay

Allows multiple APC Smart-UPS on the same power grid or circuit to stagger or sequence their return from shutdown once the utility line returns.

Low battery capacity

The low battery warning may be moved from 2 minutes up to 10 minutes before battery exhaustion. This allows plenty of time for safe shutdown of complex applications.

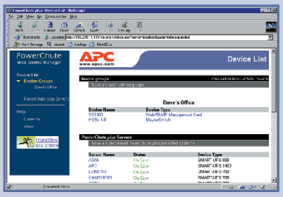
Minimum battery capacity

When utility line returns after a shutdown, Smart-UPS can ensure that the batteries first recharge to allow for subsequent safe shutdown of file servers and CPUs. For telecom or hub applications APC Smart-UPS can be set to reboot immediately.

PowerChute *plus* features

PowerChute Web Device Manager

PowerChute Web Device Manager allows UPS monitoring via a Web Browser. Users have access to their Web server UPS information from anywhere on the Internet or Intranet. It is no longer necessary for the administrator to be logged into the network in order to monitor the UPS/power information.



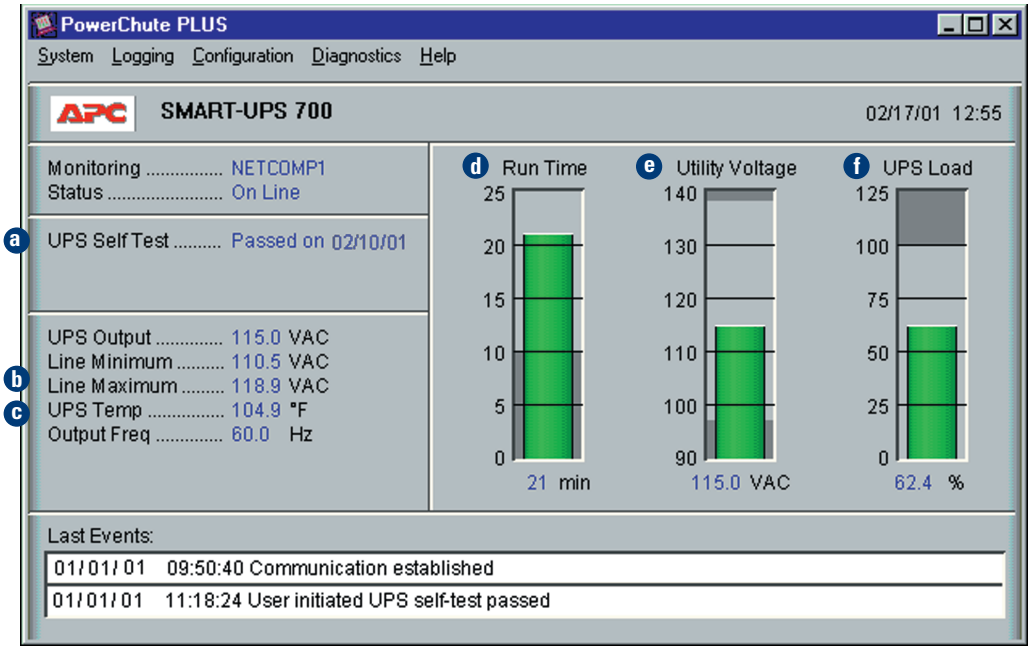
Microsoft BackOffice Compatible

APC's PowerChute® plus earned Microsoft's approval for use with BackOffice. PowerChute plus functions properly in the BackOffice environment and avoids conflicts with Microsoft Windows NT.

Schedule UPS self-tests and shutdowns

Use PowerChute plus to schedule unattended UPS self-

For more information about all APC p



Look across the LAN at any APC Smart-UPS from your workstation and check important data such as UPS operation, power line status and environmental conditions using the real-time graphical display of UPS/power status.

- **a UPS self test**- Unattended scheduled self- tests warns of faulty UPS or weak battery.
- **b Min./Max. power line voltage**- Useful in determining power quality.
- **c UPS temperature*-** Monitoring for proper UPS temperature to extend battery life.
- **d Battery runtime**- Minutes of battery time left for system use and subsequent outages.
- **e Utility line voltage**- Power quality display for fast problem diagnosis.
- **f % UPS load**- Load capacity display to ensure correct UPS load.

*Not available on SU420NET/620NET models

SNMP compatibility for enterprise UPS power management

SNMP Ready for Servers

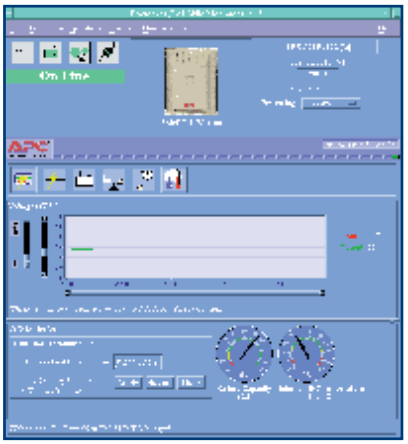
The APC Smart-UPS series supports the Simple Network Management Protocol (SNMP) via APC's PowerNet SNMP family of products. PowerNet SNMP products deliver warnings regarding power events and UPS status to any Network Management Station whether the UPS is located 20 feet or 2000 miles away.

APC's SNMP Agent, included with PowerChute *plus*, allows you to monitor and control the APC UPSs along your entire network data path.

This same worldwide power management capability for Smart-UPS protecting servers or inter-networking equipment is available via the Web/SNMP Management Card (sold separately).

USB Compatible

The new APC Smart-UPS 1000 and 1500 are compatible with Windows 2000's built-in USB and serial UPS support out-of-the-box. Additionally, full PowerChute *plus* compatibility is obtained via either of the built-in ports (USB or serial). As a charter member of the USB Implementers Forum, APC played a significant role in defining USB-specifications for power devices.



PowerNet® SNMP Manager maximizes your management capabilities by presenting all UPS information in an intuitive graphical display. (Sold separately. Visit our web site at www.apc.com *for more information.)*

tests, server shutdowns, and UPS runtime calibrations. SmartScheduling™ (not available for all operating systems) provides a more powerful and easier to use interface for scheduling these actions.

DMI Compliant

PowerChute plus is now manageable via the DMI protocol permitting seamless integration with DMI-based server management packages such as Intel's LANDesk Server Manager.

Application Shutdown

In the event of a power outage, PowerChute plus will save open files and gracefully closes open applications. Applications supported include Microsoft Office, PerfectOffice and Lotus SmartSuite.

Certification by operating system and application vendors

Since APC UPS software is tested and certified for operating systems such as Microsoft Windows NT, Novell Netware, IBM OS/2, Solaris, HP/UX, AIX and SCO Unixware, you are ensured of operating system vendor support, as well as compatible operation with APC software.

Lotus Notes server shutdown is included with PowerChute plus *for each platform Lotus Notes supports.*

Smart-UPS® Tower Series

Superior design, high-volume manufacturing and continuous quality enhancement give the APC Smart-UPS line unsurpassed reliability.

NEW Smart-UPS 1000 and 1500 now USB compatible

XIOtech Partners with APC to Provide High Availability Storage Solutions

"XIOtech manufactures a centralized, intelligent, shared storage subsystem touted by industry experts as 'SAN (storage area networking) in a box'. We call it the Magnitude and it is capable of processing speeds in excess of 90,000 I/Os a second, which is 10 times faster than traditional enterprise RAID systems. Customers who purchase these products require rapid and continuous access to data."

"Data access is critical to our customers. Our customers look to us to solve any challenges that might cause them to lose access to their data; including data path failure, drive failure, corrupt data tables, user error, adding storage, zero-backup window and power problems. We recognize that a corporation's data is its lifeblood. Losing data means losing the competitive advantage."

"Since power problems are one of the leading causes of downtime, we decided to include the APC Smart-UPS® 2200 as part of the standard configuration of our Magnitude product. As an award-winning REDI (Remarkable Efficient Device I/O) Storage Architecture device, the Magnitude allows users to connect their most critical systems to a high-availability, centralized storage sub-system. We have users accessing multiple terabytes of data from NT and NetWare servers."

"Today, as many as eight Intel servers can all share the same storage. In fact, this quarter we will announce connectivity support for hundreds of servers connected to the same storage subsystem, all powered by the APC Smart-UPS. We have installations in large financial organizations, pre-press companies, education, government, and hospitals----and they all rely on APC."

Dan McCormick, Director of Product Management, XIOtech

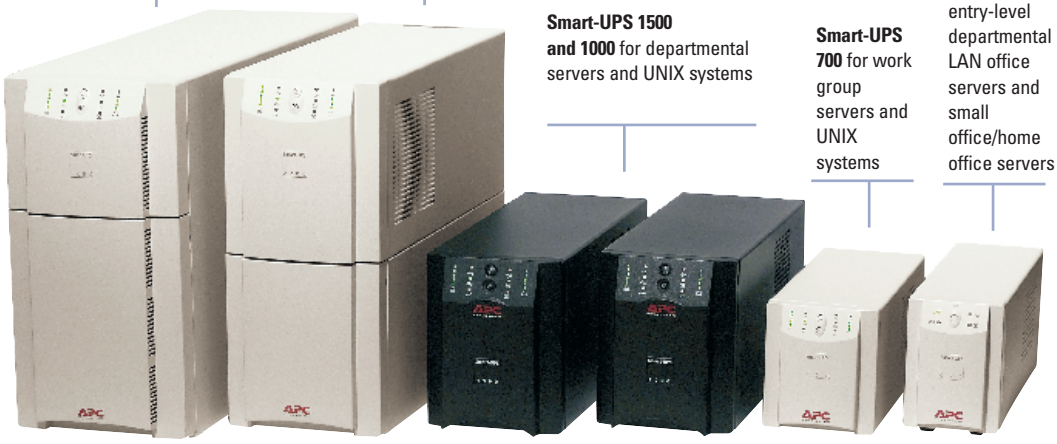
Smart-UPS 5000 for high-powered and multi-server environments

Smart-UPS 3000 and 2200 for minicomputers, multiple servers and telecom equipment (SU3000 has expandable runtime via 1 SU48BP battery pack)

Smart-UPS 1500 and 1000 for departmental servers and UNIX systems

Smart-UPS 700 for work group servers and UNIX systems

Smart-UPS 620 and 420 for entry-level departmental LAN office servers and small office/home office servers



APC Smart-UPS ships with PowerChute plus software for Windows NT/2000, Novell NetWare, Windows 95/98, SCO Unixware, SCO OpenServer, and Linux. Includes PowerNet SNMP Agent Plug-in for Compaq Insight Manager, HP TopTools, and IBM NetFinity Manager (Windows NT and NetWare platforms.)

New! *New!*

Specifications for Smart-UPS Model: Part #	420 SU420NET[1]	620 SU620NET[1]	700 SU700NET	1000 SUA1000	1500 SUA1500	2200 SU2200NET	3000 SU3000NET	5000 SU5000T & AP9621
Ships with PowerChute *plus* software	Support for Windows NT/2000, Novell NetWare, Windows 95/98, SCO UnixWare, SCO OpenServer, and Linux. Includes agent plug-ins for Compaq Insight Manager, HP Top Tools, and IBM NetFinity Manager (NT and NetWare platforms.)							
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		8 NEMA 5-15R		1 NEMA L6-30R 2 NEMA L6-20R 14 NEMA 5-15R
Number of SmartSlot bays	n/a	n/a	1	1	1	1	1	2
Maximum Dimensions (H x W x D)(in.)	6.6 x 4.7 x 14.5		6.2 x 5.4 x 14.1	8.5 x 6.7 x 17.3		17 x 7.7 x 21.5		20.8 x 17.5 x 26.2
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
Pricing Level for Service Options	T1	T1	T2	T2	T3	T4	T4	T5
OPERATION	**SU420NET**	**SU620NET**	**SU700NET**	**SUA1000**	**SUA1500**	**SU2200NET**	**SU3000NET**	**SU5000T & AP9621**
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							
Nominal On-line Output	106-132 VAC		103-132 VAC	106-132 VAC		103-132 VAC		
Default Input Voltage [2]	82-147 VAC		92-147 VAC	82-147 VAC		92-147 VAC		
Max input voltage adjustable range for mains without battery discharge	75-154 VAC		86-154 VAC	75-154 VAC		86-154 VAC		
AVR Boost/AVR Trim	30% / 12%		12% / 12%	30% / 12%		12% / 12%		
Capacity (Volt-Amps, Watts)	420, 260	620, 390	700, 450	1000, 670	1500, 980	2200, 1600	3000, 2250	4500, 3375
Surge energy rating, peak current capability	320 J, 6.5 kA		480 J, 6.5kA					320 J, 6.5 kA
Normal, common mode clamping response time	0 ns, <5ns typical, meets UL 1449							
Normal mode surge voltage let through (IEEE 587 Cat. A 6kV test)	<0.7% of peak typical		<0.3% of peak typical					
Batteries	Sealed, maintenance-free lead acid with 3-6 year typical lifetime.							
Recharge time to 90% capacity	5 hours		3 hours					6 hours
Ambient Operation	10,000 ft. (3,000 meters) max. elevation, 0-95% humidity non-condensing; 32 to 104º F (0 to 40ºC)							
Storage Conditions	50,000 ft. (15,000 meters) max. elevation; 5 to 113ºF (-15-45ºC)							
Audible noise at 3.3 ft. from surface of unit	<45 dBA	<45 dBA	<41 dBA	<41 dBA	<45 dBA	<45 dBA	<53 dBA	< 53 dBA
BTUs (hr.)	50	70	85	100	135	275	375	1708

TYPICAL RUNTIME									
LOAD Watts[4]	**(VA)**	**SU420NET**	**SU620NET**	**SU700NET**	**SUA1000**	**SUA1500**	**SU2200NET**	**SU3000NET[3] (w/ SU48BP)**	**SU5000T & AP9621**
65	100	40min	1hr 14min	1hr 35min	2hr 25min	3hr 55min	7hr 5min	7h 10m (11h 9m)	9hr 27min
130	200	14min	30min	43min	1hr 14min	2hr 7min	4hr 15min	4h 20m (7h 41m)	6hr 17min
195	300	6min	15min	23min	46min	1hr 22min	2hr 58min	3h 3m (5h 36m)	4hr 39min
260	400	-	9min	14min	30min	58min	2hr 14min	2h 19m (4h 44m)	3hr 38min
325	500	-	6min	9min	21min	43min	1hr 45min	1h 50m (3h 50m)	2hr 58min
390	600	-	-	6min	15min	33min	1hr 25min	1h 29m (3h 18m)	2hr 29min
455	700	-	-	-	11min	26min	1hr 10min	1h 14m (2h 53m)	2hr 7min
520	800	-	-	-	9min	21min	1hr	1h 4m (2h 15m)	1hr 50min
585	900	-	-	-	7min	17min	51min	53m (2h 4m)	1hr 36min
650	1000	-	-	-	6min	14min	44min	46m (1h 47m)	1hr 25min
780	1200	-	-	-	-	9min	34min	37m (1h 31m)	1hr 8min
910	1400	-	-	-	-	7min	26min	28m (1h 15m)	56min
1040	1600	-	-	-	-	-	21min	22m (57m)	47min
1300	2000	-	-	-	-	-	14min	15m (37m)	34min
1430	2200	-	-	-	-	-	11min	12m (27m)	29min
1625	2500	-	-	-	-	-	-	5m (13m)	23min
1950	3000	-	-	-	-	-	-	-	17min
3500	5000	-	-	-	-	-	-	-	6min

[1] SU420 and SU620 also offer built-in data-line protection for RJ-11 and 10BaseT ethernet protection.

[2] Transfer points are user-adjustable using included software.

[3] Additional battery pack (SU48BP) available for extra runtime.

[4]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.*

Smart-UPS® Rack-mount Series

APC's slimline rack-mount Smart-UPS delivers premium uninterruptible power and the most advanced performance features available.

Offered in a broad range of VA ratings, and designed to address a variety of network equipment configurations, Smart-UPS RMs are easy to install and compatible with all popular rack systems, including the Compaq server rack.

With an advanced line-interactive design, PowerChute *plus* power management support for major network OSs (including Windows NT and Novell Netware), and PowerNet SNMP support for Novell NMS, Compaq's Insight Manager and other SNMP-based NMSs, it's not surprising that APC UPSs protect more networks than all other UPS brands combined.

Smart-UPS RMs are equipped with a SmartSlot internal accessory slot to provide Web/SNMP management, and can be controlled via modem or multi-OS shutdown (with the addition of the appropriate card).

New!

APC Smart-UPS RM 700, 1000, and 1400 are for protection of servers, inter-networking equipment and PBX telecom systems. These Smart-UPS rack-mount units use only 2U (3.5") of rack space. With longer runtime on battery, a faster and easier replacement battery chassis tray, improved voltage regulation, enhanced intelligent battery management and a competitive price, the Smart-UPS 2U Rack-mount is an excellent addition to your power protection solution.

For power requirements like inter-networking equipment and thin servers, the PowerStack™ family (PS250/PS450) is ideally suited to meet your growing rack, stack, or wall-mounting requirements. The PowerStack was designed to protect unmanaged hubs, switches, small routers, thin servers and small telephone key systems, all of which are often housed in remote wiring closets. PowerStack is 1U high, comes with four power outlets and has user replaceable, hot-swappable batteries. *(See www.apc.com/ products/smart-ups_rm/index.cfm* for more information and technical specs on the PowerStack family).

APC Smart-UPS RMs protect your data

Your data is protected because Smart-UPS RMs supply network-grade battery backup when power fails. With PowerChute *plus* software or monitoring kits, APC Smart-UPS RMs will safely save your data and shut down your operating system before the battery is fully discharged, whether you're there or not.

APC Smart-UPS RMs protect your hardware

System life is extended through superior full-time multi-stage surge suppression and noise filtering. Novell approves this product for network protection, without additional external conditioners.

APC Smart-UPS RMs increase your overall system availability

AVR Boost and AVR Trim automatically correct low voltage and high voltage conditions, allowing you to work through brownouts and overvoltages without using battery power.

APC Smart-UPS RMs reduce your cost

Smart-UPS RMs reduce your cost by decreasing downtime, and giving users increased control and power management. Users can further reduce costs with Smart-UPS RM user-replaceable, hot-swappable batteries. A user can swap out a factory supplied battery while the load is still up and running, eliminating unnecessary service costs and downtime. (Typical battery life is three to six years).

New! Scalable Runtime Smart-UPS RMXLs (page 14-16)

With the increased deployment of rack-based IT equipment to support e-commerce and converged data-voice networks, the need for system availability has never been greater. The move to rack based equipment has also created a need for an integrated power protection solution that has a common look and occupies less valuable data center space. To support these growing trends APC has expanded its rack mount extended run models with the new Smart-UPS RMXL 1400, 2200, and 3000.

Smart-UPS RMXL 2200 and 3000

Both models offer increased power output and longer runtimes than the standard models at only a slight premium in cost. In addition they offer the ability to add up to ten (10) matching battery packs allowing you to increase your system runtime, as you need it.

Smart-UPS RMXL 1400

Specifications for Smart-UPS Model: Part #:	700 SU700RM2U	1000 SU1000RM2U	1400 SU1400RM2U	2200 SU2200RM3U	3000 SU3000RM3U	3000 (5U) SU3000RMNET	50000 SU5000RMT & AP9621
Ships with PowerChute *plus* softwareSupport for Windows NT/2000, Novell NetWare, Windows 95/98, SCO UnixWare, SCO OpenServer, and Linux. Includes agent plug-ins for Compaq Insight Manager, HP Top Tools, and IBM NetFinity Manager (NT and NetWare platforms.)							
Input Line, 8 ft. line cord	NEMA 5-15P			NEMA 5-20P	NEMA L5-30P	NEMA L5-30P	NEMA L6-30P
Output Receptacles	6 NEMA 5-15R			8 NEMA 5-15R			1 NEMA L6-30R 2 NEMA L6-20R 14 NEMA 5-15R
Number of SmartSlot bays	1	1	1	1	1	1	2
Unit Height ("U" Height)	2U	2U	2U	3U	3U	5U	7U
Maximum Dimensions (H x W x D) (in.)	3.5 x 19 x 18			5.2 x 19 x 25		8.8 x 19 x 17.8	12.3 x 19 x 25
Net Weight (lbs.)	48	62	63	103	114	129	320
Shipping Weight (lbs.)	55	69	70	123	132	145	355
Replacement Battery Cartridge	RBC 22	RBC 23	RBC 24	RBC 12	RBC 12	RBC 11	Two RBC 12
Pricing Level for Service Options	T2	T3	T3	T4	T4	T4	T5
OPERATION	**SU700RM2U**	**SU1000RM2U**	**SU1400RM2U**	**SU2200RM3U**	**SU3000RM3U**	**SU3000RMNET(5U)**	**SU5000RMT & AP9621**
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						
Nominal On-line Output	106-132 VAC			103-132 VAC			
Default Input Voltage [1]	82-147 VAC			92-147 VAC			
Max input voltage adjustable range for mains without battery discharge	75-154 VAC			86-154 VAC			
AVR Boost/AVR Trim	30% / 12%			12% / 12%			
Capacity (Volt-Amps, Watts)	700, 450	1000, 670	1400, 950	2200, 1600	3000, 2250	3000, 2250	4500, 3375
Surge energy rating, peak current capability	480 J, 6.5kA			320 J, 6.5 kVA	480 J, 6.5 kVA		480J, 6.5 kVA
Normal, common mode clamping response time	0 ns, <5ns typical, meets UL 1449						
Normal mode surge voltage let through	<0.3% of peak typical (IEEE 587 Cat. A 6kV test)						
Batteries	Sealed, maintenance-free lead acid with a 3-6 year typical lifetime.						
Recharge time to 90% capacity	3 hours						6 hours
Ambient Operation	10,000 ft. (3,000 meters) max. elevation, 0-95% humidity non-condensing; 32 to 104ºF (0-40ºC)						
Storage Conditions	50,000 ft. (15,000 meters) max elevation; 5 to 113ºF (-15-45ºC)						
Audible noise at 1 meter from surface of unit	<42 dBA	<45 dBA	<45 dBA	<47 dBA	<47 dBA	<53 dBA	<53 dBA
BTUs/hr.	68	89	171	275	375	375	1708

TYPICAL RUNTIME								
LOAD Watts[2]	**VA**	**SU700RM2U**	**SU1000RM2U**	**SU1400RM2U**	**SU2200RM3U**	**SU3000RM3U**	**SU3000RMNET(5U)**	**SU5000RMT**
65	100	1hr 35min	3hr 10min	4hr 10min	5hr 47min	5hr 52min	7hr 10min	9hr 27min
130	200	43min	1hr 41min	2hr 16min	3hr 26min	3hr 31min	4hr 20min	6hr 17min
195	300	23min	1hr 4min	1hr 28min	2hr 22 min	2hr 27min	3hr 3min	4hr 39min
260	400	14min	44min	1hr 3min	1hr 46min	1hr 50min	2hr 19min	3hr 38min
325	500	9min	32min	47min	1hr 22min	1hr 26min	1hr 50min	2hr 58min
390	600	6min	24min	36min	1hr 6min	1hr 10min	1hr 29min	2hr 29min
455	700	-	18min	28min	54min	58min	1hr 14min	2hr 7min
520	800	-	14min	23min	45min	44min	1hr 4min	1hr 50min
585	900	-	11min	18min	38min	41min	53min	1hr 36min
650	1000	-	9min	15min	33min	36min	46min	1hr 25min
780	1200	-	-	11min	24min	26min	37min	1hr 8min
910	1400	-	-	8min	19min	21min	28min	56min
1040	1600	-	-	-	14min	16min	22min	47min
1300	2000	-	-	-	9min	10min	15min	34min
1430	2200	-	-	-	8min	9min	12min	29min
1625	2500	-	-	-	-	5min	5min	23min
1950	3000	-	-	-	-	-	-	17min
3500	5000	-	-	-	-	-	-	6min

[1] Transfer points are user-adjustable using included software.

[2] 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*.

Smart-UPS® 208V Tower and Rack-mount Series

APC Smart-UPS 208V provides high voltage power for 208V IT and telecom applications. The 208V Smart-UPS is optimized to provide power protection for today's higher powered servers and IP telephony equipment. Each unit also conveniently provides 400VA of 120V power for peripherals which do not have auto-switching power supplies and cannot accept 208 volts. Many of the models also feature expandable runtime to maximize uptime.

208V High Voltage UPS for today's changing data processing and telecom equipment

A trend in the data processing and telecommunications hardware is to use "high voltage" 208V power supplies. The higher voltage actually uses less current, requires smaller wiring and circuit protection, and can deliver much more power through plugs and receptacles. The Smart-UPS 208 Series is specifically designed to accommodate the requirements of this fast growing trend.

High voltage (208V) is available everywhere you have 120V, and can easily be tapped into by an electrician. Computer and telecommunications manufacturers have always used 208V for their high powered equipment, but now are using the same technology in their smaller equipment. Many systems have auto sensing power supplies that can run on either 208V or 120V. Contact your equipment vendor to convert your 120V power supply plug into a 208V plug (see p. 20 for plug types).

The Smart-UPS 208V Series uses a 208 Volt input to supply high quality 208 Volt and 120 Volt output. Designed to support a large 208 Volt PBX or computer load, the Smart-UPS 208V Series also provides up to 400VA of 120V output through two additional outlets. By supporting 120 peripheral equipment such as monitors, modems, or inter-networking equipment, the innovative design of the Smart-UPS 208V Series saves administrators the expense of a separate, 120V UPS.

Expandable runtime power protection for telecom and other 208V equipment

When a power problem corrupts data or causes a computer-based telecom system to freeze or "hard crash," the cost of downtime and recovery can start at several thousand dollars per hour and go upwards of $120,000 (for a telecom-intensive catalog sales company). APC's Smart-UPS 208V Series keeps your company and its communications moving forward. The loss of phone systems can mean the loss of customers and thousands of dollars in product orders along with reduced customer satisfaction. The Smart-UPS 208V Series combines product performance, ease-of-use, and reliability to offer the ultimate UPS solution; specifically designed for Northern Telecom Meridian products, PBX equipment, high voltage servers and other 208Vac equipment.

The Smart-UPS XLT and RMXLT can help a business to survive a prolonged power outage. The Smart-UPS XLT and RMXLT products increase runtime or maintain existing runtime on a growing system by simply plugging in up to ten additional battery packs (5 RMXLBPs on the SU2200RMXLT). The Smart-UPS XLT and RMXLT also lower operating and maintenance costs by reducing the number of hard failures and by eliminating a large portion of "No Trouble Found" service calls.

Smart-UPS 5000 (SU5000T and SU5000RMT) - 5kVA UPS

A typical rack installation or high powered server will require more power than a typical 120V service can supply (over 900W). A 42U rack can easily require 5 kVA of power. A rack system would then need 2 or more separate 120V circuits, which typically must be brought in from different rooms or locations. The solution is to power the rack with 208V and have just one circuit supported by APC's new Smart-UPS 5000. With the addition of the Step-down transformer (AP9621), you get up to 4500 VA of 120 VAC power.

The Smart-UPS 5000 is the first UPS offered with APC's Web/SNMP management card (AP9606) pre-installed. This product allows you to easily monitor and control your UPS over your intranet or network. In addition, the Smart-UPS 5000 has the most compact form factor of any 5kVA rack-mount system.

	Tower Units			Rack-mount Units		
Specifications for Smart-UPS Model: Part#:	**2000 SU2200XLTNET**	**3000 SU3000TNET**	**5000 SU5000T**	**22000 SU2200RMXLTNET**	**3000 SU3000RMT3U**	**5000 SU5000RMT5U**
Ships with PowerChute *plus* software	Support for Windows NT/2000, Novell NetWare, Windows 95/98, SCO UnixWare, SCO OpenServer, and Linux. Includes agent plug-ins for Compaq Insight Manager, HP Top Tools, and IBM NetFinity Manager (NT and NetWare platforms.)					
Uses Additional Battery Pack #	SU48XLBP	SU48BP	N/A	SU48RMXLBP	N/A	N/A
Input Line Cord (6 ft. tower, 8ft. RM)	NEMA L6-20P		NEMA L6-30P	NEMA L6-20P	NEMA L6-20P	NEMA L6-30P
Output Receptacles (all T models provide 400VA of 120V power)[1]	2 NEMA L6-30R 1 NEMA L6-20R , 2 NEMA 5-15R		1 NEMA L6-30R, 2 NEMA L6-20R, 2 NEMA 5-15R	2 NEMA L6-30R, 1 NEMA L6-20R, 2 NEMA 5-15R	1 NEMA L6-30R, 2 NEMA L6-20R, 2 NEMA 5-15R	
Number of SmartSlot Bays	1	1	2	1	1	2
Maximum Dimensions (inches)	17 x 7.7 x 21.5		17.3 x 9 x 26.2	8.8 x 19 x 17.8	5.2 x 19 x 26	8.8 x 19 x 25
Net Weight (lbs)	137	137	230	132	129	225
Shipping Weight (lbs)	167	156	250	151	147	245
Replacement Battery Cartridge	RBC 11	RBC 11	Two RBC 12	RBC 11	RBC 12	Two RBC 12
Pricing Level for Service Options	T4	T4	T5	T4	T4	T5
OPERATION	**SU2200XLTNET**	**SU3000TNET**	**SU5000T**	**SU2200RMXLTNET**	**SU3000RMT3U**	**SU5000RMT5U**
Nominal Input Voltage	208 Vac, single phase, 50 or 60 Hz (auto-selectable)					
Transfer Time (typical)	2 milliseconds, includes detection time					
Nominal On-line Output	178-230 VAC					
Default Input Voltage [2]	157-255 VAC					
Max input voltage adjustable range for mains without battery discharge	151-268 VAC					
AVR Boost/AVR Trim	12% / 12%					
Capacity (Volt-Amps, Watts)	2200/1600	3000/2250	5000/3750	2200/1600	3000/2250	5000/3750
Surge energy rating, peak current capability	480 J, 6.5kA					
Normal, common mode clamping response time	0 ns, <5ns typical					
Normal mode surge voltage let through (IEEE 587 Cat. A 6kV test)	<0.3% of peak typical, meets UL 1449					
Batteries	Sealed, maintenance-free lead acid with a 3-6 year typical lifetime.					
Recharge time to 90% capacity	3 hours					
Ambient Operation	10,000 ft. (3,000 meters) max. elevation, 0-95% humidity non-condensing; 32 to 104ºF (0-40ºC)					
Storage Conditions	50,000 ft. (15,000 meters) max elevation; 5 to 113ºF (-15-45ºC)					
Audible noise at 3.3 feet from surface of unit	<53 dBA					
BTUs/hr.	275	375	430	305	375	430

TYPICAL RUNTIME (IN MINUTES)
SU2200XLT uses the SU48XLBP. SU2200RMXLT uses the SU48RMXLBP. SU3000TNET uses the SU48BP. See page 16 for specifications and information regarding the UXBP48.

LOAD[4] (WATTS)	LOAD[4] (VA)	2200XLT, & 2200RMLXT	1 SU48XLBP	2 SU48XLBP or 1 SU48RMXLBP	3 SU48XLBP	4 SU48XLBP or 2 SU48RMXLBP or 1 UXBP48	2 UXBP48	SU3000TNET[3] (w/SU48BP)	SU3000RMT3U	SU5000T & SU5000RMT5U
70	100	6h 47m	13h 52m	20h 58m	28h 4m	35h 10m	65h 13m	7h 10m(11h 9m)	5h 32m.	9h 27m
140	200	4h 8m.	8h 40m	13h 12m	17h 44m	32h 16m	41h 28m	4h 20m (7h 41m)	3h 21m	6h 17min
210	300	2h 54m	6h 13m	9h 33m	12h 53m	16h 13m	30h 19m	3h 3m (5h 36m)	2h 19m	4h 39m
280	400	2h 11m	4h 48m	7h 26m	10h 4m	12h 42m	23h 51m	2h 19m (4h 44m)	1h 44m	3h 38m
350	500	1h 44m	3h 53m	6h 3m	8h 14m	10h 24m	19h 37m	1h 50m (3h 50m)	1h 21m	2h 58m
420	600	1h 24m	3h 14m	5h 5m	6h 56m	8h 47m	16h 33m	1h 29m (3h 18m)	1h 5m	2h 29m
490	700	1h 10m	2h 45m	4h 22m	5h 58m	7h 35m	14h 25m	1h 14m (2h 53m)	54m	2h 7m
560	800	59m	2h 23m	3h 43m	5h 14m	6h 40m	12h 43m	1h 4m (2h 15m)	45m	1h 50m
630	900	51m	2h 5m	3h 22m	4h 38m	5h 55m	11h 22m	53m (2h 4m)	38m	1h 36m
700	1000	44m	1h 51m	3h	4h 10m	5h 19m	10h 15m	46m (1h 47m)	32m	1h 25m
840	1200	33m	1h 29m	2h 27m	3h 26m	4h 25m	8h 34m	37m (1h 31m)	24m	1h 8m
980	1400	26m	1h 13m	2h 3m	2h 54m	3h 44m	5h 20m	28m (1h 15m)	18m	56m
1120	1600	21m	1h 1m	1h 45m	2h 30m	3h 14m	6h 24m	22m (57m)	14m	47m
1400	2000	14m	45m	1h 20m	1h 55m	2h 31m	5h 4m	15m (37m)	9m	34m
1540	2200	11m	39m	1h 10m	1h 42m	2h 15m	4h 34m	12m (27m)	8m	29m
1750	2500	-	-	-	-	-	-	5m (13m)	6m	23m
2100	3000	-	-	-	-	-	-	-	5m	17m
2800	4000	-	-	-	-	-	-	-	-	11m
3500	5000	-	-	-	-	-	-	-	-	8m

[1]All "T" models provide 400VA of 120V power. The 120 VAC output is a fixed ratio from the 208 VAC output.

[2]Transfer points are user-adjustable using included software.

[3] Additional battery pack (SU48BP) available for extra runtime.

[4]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*.

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.**

Additional information about availability can be found on APC's Web site (*www.apc.com*). Once you have entered APC's home page, please locate the "Search Web Site" section, and then type "white papers" into the search block area. Your search will present a new page where you will be able to click on "white papers". At this point, click on title T19 to obtain more information about availability.

Smart-UPS® XL and RMXL

Expandable, extended run power

APC's Smart-UPS XL is ideal for mission critical applications where long runtimes are essential. Examples of these applications include telephone PBXs, order entry data base servers, computers supporting manufacturing or service operations and critical data communications links. The XL enables a business to survive a prolonged power outage. With the Smart-UPS XL, runtime can be added by simply plugging in additional battery packs. 208V extended-run units are also available (see pages 12 and 13).

Cost-effective solution

In many cases, extended-run capability is achieved by over-sizing the UPS itself. For example, in applications where the load capacity must be at least 900VA, this would usually mean a much more expensive UPS, rated for 3000VA. An oversized UPS solution requires the installation of special building wiring which can cost well over $1000 (often as much as the UPS itself).

Low cost shipping and installation

Some extended run UPS systems must be shipped via special truck and unloaded on a special dock, to accommodate the size and weight of the UPS. In contrast, the modular design of the Smart-UPS XL and its batteries allow it to be delivered by common carrier.

APC Smart-UPS 2200 and 3000 RMXL

Acceptable Availability	99.99%	99.999%
Required Run-time	>5 minutes	>1 hour
Suggested UPS	Smart-UPS	Smart-UPS XL or RMXL

Smart-UPS XL, RMXL 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. Novell approves this product for network protection, without additional external conditioners.

Fault tolerance

Redundant batteries increase Smart-UPS XL's fault tolerance. This feature eliminates unit shutdown due to a single battery's failure.

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 and RMXL. The modular Smart-UPS XL allows the user to easily replace battery packs in minutes, while the protected equipment remains up and running.

UXBP24 and UXBP48 Battery packs

The UXBP24 and UXBP48 are Ultra-extended run Battery Packs designed to be used with Smart-UPS products. The combination provides expandable and extended-run power protection for maximum up-time at an economical price. They are ideal for mission critical applications where ultra-long runtimes are essential. The UXBP24 and UXBP48 are 24V and 48V offerings, respectively.

UXBP24 and UXBP48 offer:

- **Low installation & service costs-** Polarized connectors ensure a safe and fast installation or replacement, eliminating the need for an electrician and expensive service contracts.
- **Space efficient-** Battery packs are designed to be stacked 4 high.
- **Flexible-** Battery packs can be used with either the Smart-UPS XL or Smart-UPS RMXL products.

	Tower Units			New! Rack-mount Units		New!	New!
Specifications for Smart-UPS model: Part #:	**700 SU700XLNET**	**1000 SU1000XLNET**	**2200 SU2200XLNET**	**1400 SU1400RMXL3U**	**2200 SU2200RMXLNET**	**2200 SU2200RMXL3U**	**3000 SU3000RMXL3U**
Ships with PowerChute *plus* software	Support for Windows NT/2000, Novell NetWare, Windows 95/98, SCO UnixWare, SCO OpenServer, and Linux. Includes agent plug-ins for Compaq Insight Manager, HP Top Tools, and IBM NetFinity Manager (NT and NetWare platforms.)						
Input Line Cord (6 ft. tower, 8ft. RM)	NEMA 5-15P		NEMA L5-30P	NEMA 5-15P	NEMA L5-30P	NEMA L5-30P	
Output Receptacles	6 NEMA 5-15R		8 NEMA 5-15R	6 NEMA 5-15R	8 NEMA 5-15R	8 NEMA 5-20R	
Number of SmartSlot bays	1 Smart Slot Bay included						
Maximum Dimensions (H x W x D) (in)	8.5 x 6.7 x 17.3		17 x 7.7 x 21.5	5.25 x 19 x 15.5	8.8 x 19 x 17.8	5.25 x 19 x 26	
Net Weight (lb)	53	60	121	70	124	124	
Shipping Weight (lb)	58	65	140	82	143	139	
Replacement Battery Cartridge	RBC 7	RBC 7	RBC 11	RBC 25	RBC 11	RBC 17	RBC 27
Pricing Level for Service Options	T3	T3	T4	T3	T4	T4	T4
OPERATION	**SU700XLNET**	**SU1000XLNET**	**SU2200XLNET**	**SU1400RMXL3U**	**SU2200RMXLNET**	**SU2200RMXL3U**	**SU3000RMXL3U**
Nominal Input Voltage	120 Vac, single phase, 50 or 60 Hz (auto-selectable)						
Transfer Time (typical)	2 milliseconds, includes detection time						
Nominal On-line Output	103-132 VAC						
Default Input Voltage [1]	92-147 VAC						
Max input voltage adjustable range for mains without battery discharge	86-154 VAC						
AVR Boost/AVR Trim	12% / 12%						
Capacity (Volt-Amps, Watts)	700, 450	1000, 670	2200, 1600	1400, 1050	2200, 1600	2200, 1750	3000, 2400
Surge energy rating, peak current capability	320 Joules, 6.5kA		480 Joules, 6.5kA				
Normal, common mode clamping response time	0 ns, <5ns typical, meets UL 1449						
Normal mode surge voltage let through (IEEE 587 Cat. A 6kV test)	<0.3% of peak typical						
Batteries	Sealed, maintenance-free lead acid batteries with a 3-6 year typical lifetime. 3 hour typical recharge time to 90%.						
Ambient Operation	10,000 ft. (3,000 meters) max. elevation, 0-95% humidity non-condensing; 32 to 104°F (0-40°C)						
Storage Conditions	50,000 ft. (15,000) meters max.elevation; 5 to 113°F (-15 to 45°C)						
Audible noise at 1 meter from surface of unit	<42 dBA	<42 dBA	<53 dBA	<45 dBA	<53 dBA		
BTUs/hr.	100	120	305	155	275		375
BATTERY PACK OPTIONS	**SU700XLNET**	**SU1000XLNET**	**SU2200XLNET**	**SU1400RMXL3U**	**SU2200RMXLNET**	**SU2200RMXL3U**	**SU3000RMXL3U**
Extended runtime	SU24XLBP	SU24XLBP	SU48XLBP	SU24RMXLBP2U	SU48RMXLBP	SU48RMXLBP3U	SU48RMXLBP3U
Ultra-extended runtime	UXBP24	UXBP24	UXBP48	N/A	UXBP48	N/A	N/A

[1] Transfer points are user-adjustable using included software.

APC Smart-UPS XL families (pictured left) include units ranging from 700VA to 3000VA. Additional battery packs (pictured right) are available to increase system availability.

Smart-UPS® XL, RMXL and UX Battery Packs

	Battery Packs	New!		New!	
SPECIFICATION	**SU24XLBP/SU48XLBP/SU48BP**	**SU24RMXLBP2U**	**SU48RMXLBP**	**SU48RMXLBP3U**	**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	T3	T4	T4	T4	T4
OPERATION	**SU24XLBP/SU48XLBP/SU48BP**	**SU24RMXLBP2U**	**SU48RMXLBP**	**SU48RMXLBP3U**	**UXBP24/UXBP48**
Batteries	Sealed, maintenance-free lead acid batteries with a 3-6 year typical lifetime.				
Ambient Operation	10,000 ft. (3,000 meters) max. elevation, 0-95% humidity non-condensing; 32 to 104 deg.F (0-40 deg. C)				
Storage Conditions	50,000 ft. (15,000) meters max.elevation; 5 to 113 deg. F (-15 to 45 deg. C)				

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

Smart-UPS XL 700 and 1000 Runtimes

TYPICAL RUNTIME FOR SU700XLNET & SU1000XLNET (SU700XLNET & SU1000XLNET USE THE SU24XLBP)

LOAD VA	LOAD WATTS	SU700XLNET & SU1000XLNET	(1) SU24XLBP	(2) SU24XLBP	(3) SU24XLBP	(4) SU24XLBP	(1) UXBP24	(2) UXBP24	(3) UXBP24	(4) UXBP24
100	65	3hr 55min	12hr 30min	21hr 5min	29hr 41min	38hr 16min	39hr 17min	78hr 57min	14hr 19min	149hr 41min
300	195	1hr 22min	4hr 58min	8hr 35min	12hr 13min	15hr 50min	16hr 16min	33hr 1min	47hr 57min	62hr 53min
500	325	43min	2hr 58min	5hr 15min	7hr 33min	9hr 50min	10hr 7min	20hr 43min	30hr 11min	39hr 39min
600	390	33min	2hr 25min	4hr 21min	6hr 18min	8hr 14min	8hr 28min	17hr 26min	25hr 26min	33hr 26min
700	455	26min	2hr 2min	3hr 42min	5hr 23min	7hr 4min	7hr 15min	15hr 1min	21hr 57min	28hr 52min
800[1]	520	21min	1hr 44min	3hr 12min	4hr 41min	6hr 10min	6hr 20min	13hr 11min	19hr 17min	25hr 24min
900[1]	585	17min	1hr 30min	2hr 49min	4hr 8min	5hr 27min	5hr 37min	11hr 44min	17hr 11min	22hr 39min
1000[1]	650	14min	1hr 19min	2hr 30min	3hr 41min	4hr 53min	5hr 1min	10hr 33min	15hr 30min	20hr 26min

[1] *Runtimes at these load levels are applicable to the SU1000XLNET only.*

Smart-UPS RM XL 1400 Runtimes

New!

TYPICAL RUNTIME FOR SU1400RMXL3U (SU1400RMXL3U USES THE SU24RMXLBP2U)

LOAD VA	LOAD WATTS	SU1400RMXL3U	(1) SU24RMXLBP2U	(2) SU24RMXLBP2U	(3) SU24RMXLBP2U	(4) SU24RMXLBP2U	(6) SU24RMXLBP2U	(8) SU24RMXLBP2U	(10) SU24RMXLBP2U
400	250	1hr 6min	3hr 7min	5hr 30min	7hr 54min	10hr 17min	14hr 42min	19hr 51min	24hr 38min
700	455	29min	1hr 31min	3hr	4hr 23min	5hr 47min	8hr 21min	11hr 21min	14hr 8min
900	585	18min	1hr	1hr 50min	2hr 54min	3hr 48min	6hr 02min	8hr 06min	10hr 10min
1200	809	10min	45min	1hr 31min	2hr 18min	3hr 6min	4hr 34min	6hr 17min	7hr 52min
1400	1050	6min	30min	1hr 5min	1hr 41min	2hr 18min	3hr 26min	4hr 46min	6hr

Smart-UPS XL 2200 and RM XL 2200 Runtimes

TYPICAL RUNTIME FOR SU2200XLNET, SU2200RMXLNET. SU2200XLNET USES THE SU48XLBP; SU2200RMXLNET USES SU48RMXLBP;

LOAD VA	LOAD WATTS	SU2200XLNET SU2200RMXNET	(1) SU48XLBP	(2) SU48XLBP (1) SU48RMXLBP	(3) SU48XLBP	(4) SU48XLBP (2) SU48RMXLBP (1) UXBP48	(3) SU48RMXLBP (3) SU48RMXLBP	(8) SU48XLBP (4) SU48RMXLBP (2) UXBP48	(3) UXBP48
600	390	1hr 25min	3hr 16min	5hr 8min	7hr 1min	8hr 53min	12hr 38min	16hr 50min	24hr 33min
800	520	60min	2hr 24min	3hr 50min	5hr 17min	6hr 43min	9hr 36min	12hr 50min	18hr 46min
1000	650	44min	1hr 42min	3hr 1min	4hr 12min	5hr 22min	7hr 42min	10hr 20min	15hr 10min
1200	780	34min	1hr 30min	2hr 28min	3hr 27min	4hr 26min	6hr 24min	8hr 37min	12hr 41min
1400	910	26min	1hr 14min	2hr 4min	2hr 55min	3hr 46min	5hr 28min	7hr 22min	10hr 53min
1600	1040	21min	1hr 2min	1hr 46min	2hr 30min	3hr 15min	4hr 45min	6hr 25min	9hr 31min
2000	1300	14min	46min	1hr 20min	1hr 56min	2hr 31min	3hr 44min	5hr 5min	7hr
2200	1430	11min	39min	1hr 10min	1hr 43min	2hr 16min	3hr 21min	4hr 35min	34min

Smart-UPS RM XL (3U) 2200 and 3000 Runtimes

New!

TYPICAL RUNTIME FOR SU2200RMXL3U AND SU3000RMXL3U (SU2200RMXL3U AND SU3000RMXLU USE UP TO 10 SU48RMXLBP3U)

LOAD VA	WATTS	SU2200RMXL3U & SU3000RMXL3U	(1) SU48RMXLBP3U	(2) SU48RMXLBP3U	(3) SU48RMXLBP3U	(4) SU48RMXLBP3U	(6) SU48RMXLBP3U	(8) SU48RMXLBP3U	(10) SU48RMXLBP3U
750	600	40m	2hr 37min	4hr 41min	6hr 44min	8hr 49min	12hr 56min	17hr 4min	21hr 12min
1125	900	25m	1hr 39min	3hr 3min	4hr 27min	5hr 52min	8hr 41min	11hr 31min	14hr 20min
1500	1200	16m	1hr 9min	2hr 12min	3hr 16min	4hr 20min	6hr 28min	8hr 37min	10hr 46min
2200	1750	11m	40min	1hr 23min	2hr 7min	2hr 51min	4hr 20min	5hr 50min	7hr 19min
2500[1]	2000[1]	9m	33min	1hr 10min	1hr 48min	2hr 27min	3hr 45min	5hr 3min	6hr 22min
3000[1]	2400[1]	7m	27min	54min	1hr 26min	1hr 58min	3hr 3min	4hr 9min	5hr 14min

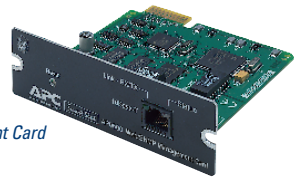
[1] *Runtimes at these load levels are applicable to the SU3000RMXL3U only.*

Note: 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.*

Management Peripherals for Smart-UPS

Customize your power protection solution with Management Peripherals from APC

The SmartSlot in Smart-UPS* allows the use of a variety of management peripherals, to provide custom solutions for your monitoring requirements.



Web/SNMP Management Card

Reboot hung servers via Web, SNMP, or Telnet

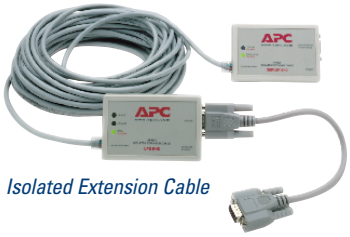
From your Network Management Station you may use the 10Base-T Ethernet Web/SNMP Management Card (AP9606) and/or Token Ring (AP9603) SNMP Card. Perform remote UPS shutdown, reboot and other management and diagnostic functions.

Integrate smoke or halon alarms, telephone switches and other dry contact closures

Relay I/O (AP9610) allows you to control and monitor devices through a simple dry contact interface. This is a common interface for PBX, telecom and alarm systems.

Monitor temperature, humidity and rack security

Smoke alarms and halon alarms can also be monitored with the Environmental Monitoring Card (AP9612TH) through the PowerChute plus, PowerNet SNMP, Web/SNMP Management Card, or Out-of-Band Management Card interface. The alarm switch kit (AP9513) is designed to notify users when a monitored access point has been breached (when used in conjunction with AP9612TH). This is easily integrated within the NetShelter rack enclosure.



Isolated Extension Cable

Extended UPS monitoring

The Isolated Extension Cable (IEC) is designed to provide bulletproof serial monitoring of an APC UPS, for extended distances up to 100 yards (AP9825).

Reboot hung servers and networking equipment remotely via modem

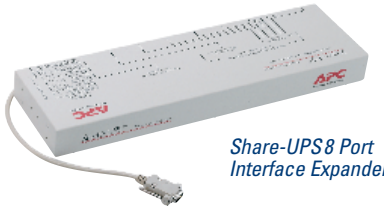
The Out-of-band Management Card (AP9608) provides complete UPS information, paging to alert you of power problems, and remote rebooting of servers via user-supplied modem.

Safely shutdown up to three servers

The 2-port Interface Expander Card (AP9607) provides two additional ports to facilitate graceful system shutdown (via dependable hardwire connections) and allows advanced UPS management. The unit is ideal for "server farms" or multiple operating system environments, since all three servers can run different OSs.

Shutdown multiple servers from one UPS

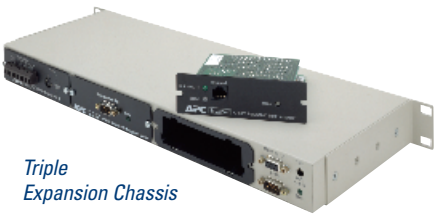
Connect up to 8 completely OS-independent servers to a single UPS with Share-UPS™ (AP9207) 8-Port interface expander (15 servers with 2 Share-UPS). Share-UPS integrates with PowerChute plus software. Each server runs its own copy of PowerChute plus software, for graceful shutdown in the event of an extended power outage.



Share-UPS 8 Port Interface Expander

Integrate multiple accessories

The Triple Expansion Chassis (AP9604) is an external, 1U, 19" rack-mountable device that allows integration of additional UPS slot accessories with a Smart-UPS. The Triple Expansion Chassis can be used in a rack environment or as a stand-alone device that allows you to add up to three (3) slot cards to UPSs that have an existing slot already in use.



Triple Expansion Chassis

MasterSwitch™ family of remote reboot device

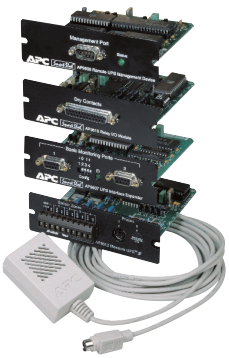
The MasterSwitch family has expanded its offering (for MasterSwitch AP9211) for 120V remote reboot and on/off control of attached equipment to include the following additions: MasterSwitch (AP9212) for 208V remote reboot and on/off control of attached equipment, and MasterSwitch Plus (AP9255 and AP9225EXP), which combines MasterSwitch and the 8-Port Interface Expander, for unattended loadshedding based on UPS events. All of these products have a standard web interface with the ability to be controlled over the World Wide Web via a secure MD5 connection. (For more information on these products visit *www.apc.com/products/ pdu.cfm*).

APC MasterSwitch

Remote Power-Off Device

The APC Remote Power-off Device (RPO) allows data center managers to turn off APC UPS output with a remote switch. When used in conjunction with an Emergency Power-Off (EPO) system, the RPO can turn off equipment in the event of an emergency. (AP9830)

APC Remote Power-off Device



Out-of-band Management Card (AP9608)

Relay I/O Card (AP9610)

2-port Interface Expander Card (AP9607)

Environmental Monitoring Card (AP9612TH)

Temperature Humidity Probe (AP9512TH)

*(*Note: APC accessory cards are designed to work with APC UPS products that have a SmartSlot bay. The SU420NET and SU620NET products do not have a SmartSlot bay.)*

Redundant Switch for Smart-UPS

APC's Redundant Switch accessory products offer network managers a cost effective method for increasing availability of AC power to network equipment

Mirrored UPS Protection

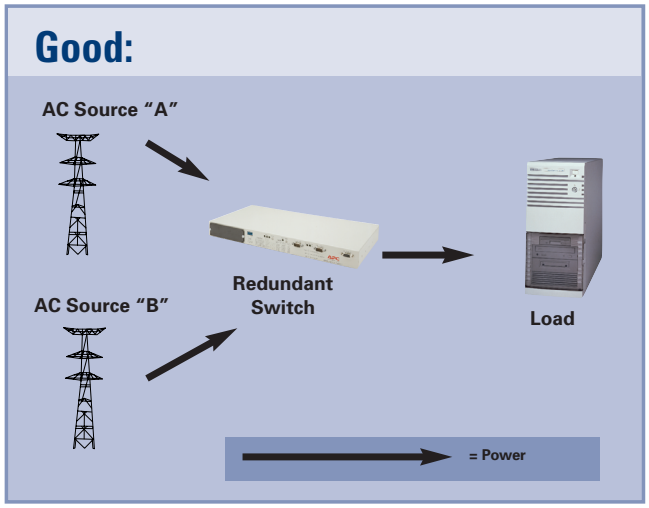
With dual input power cords, the Redundant Switch has the ability to source power from one of two separate AC circuits. The Redundant Switch continuously monitors both AC circuits and will switch automatically from the primary to the redundant AC source. The seamless transfer to the attached loads ensures the availability of continuous AC power as well as safe server shutdown. The Redundant Switch also provides user-configurable settings for low voltage and AC line distortion, in order to meet the power requirements of your site.

The Redundant Switch can be easily installed in any 19" equipment rack, occupying just one U (1.75") of rack space. It can also be mounted in the rear or side of the rack, requiring zero U of rack space. It ships with all appropriate rack-mount hardware for two and four post racks.

Implementing Your Solution

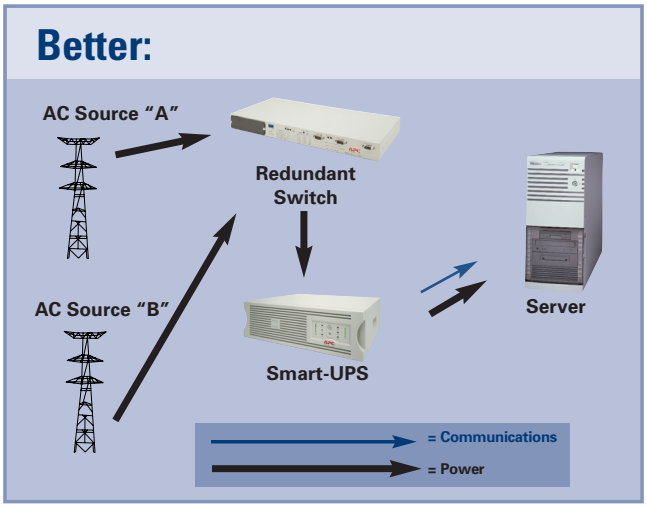
Because its design is so flexible, there are numerous configurations for the Redundant Switch, providing different levels of availability. Three are outlined below: Good, Better, and Best.

Good:

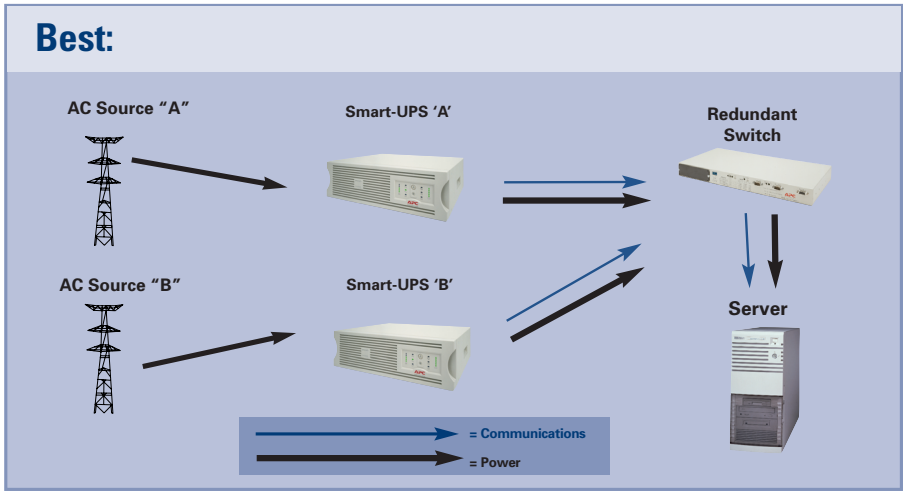


In this application, the Redundant Switch is connected to two separate AC sources. Loads with single or multiple power cords can now have N+1 power paths, to deal with a single AC source failure. The AC sources can originate from a centralized UPS, a generator set, or even separate utilities. *Protection:* This application protects against failure of one of the two AC sources. These problems can range from a tripped circuit breaker, to a utility blackout, to a centralized UPS failure.

Better:



In this application, the Redundant Switch is connected to two separate AC sources. A single Smart-UPS is then connected to the Redundant Switch, providing the Smart-UPS with dual AC input feeds. *Protection*: A Smart-UPS in the power path will provide full-time surge suppression and provide battery backup if both of the AC sources fail. The Smart-UPS protects against brownouts, blackouts and overvoltages. The Smart-UPS also provides graceful server shutdown, power monitoring and power management.



In this application, a Redundant Switch is used with two identical Smart-UPS and utilizes PowerChute *plus software*. In networking environments where redundant drives, processors, and power supplies are commonplace, mirrored power protection should be a major consideration. *Protection:* Both Smart-UPS will provide continuous EMI/RFI filtering and surge suppression. Battery backup is available in case of a primary or redundant AC source failure. In case of a severe power event, the redundant Smart-UPS will continue to support the load and will provide graceful shutdown for Windows NT, Novell and Solaris-based operating systems. PowerChute *plus* software and APC accessories provide power monitoring and management for Windows NT, NetWare and Solaris-based operating systems . In this configuration, the Redundant Switch also has an Emergency Power Off (EPO) connector which allows the Smart-UPS to be switched off by a remotely operated EPO control. Such a configuration is common in computer rooms and laboratories where power to the loads may need to be disconnected.

Redundant Switch Configuration Table (for best application)

Redundant Switch Model	Voltage Rating	Max VA Rating	Recommended Smart-UPS[1]
SU041	120V	1400VA	(2) SU700, (2) SU1000, (2) SU1400
SU042-1[2]	120V	3000VA	(2) SU2200, (2) SU3000
SU042-2[3]	120V	3000VA	(2) SU2200, (2) SU3000
SU045-1	208V	3000VA	T models only (2) SU2200, (2) SU3000

[1] Smart-UPS should be identical tower, rack-mount, extended run or rack-mount extended models where applicable
[2]Has (2) NEMA 5-15 receptacles for load(s).
[3]Has (1) NEMA L5-30 receptacle for load(s)

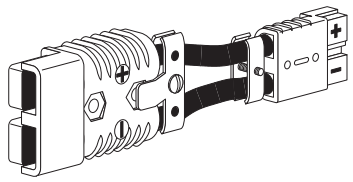
Note: Smart-UPS 2200 VA and 3000 VA units used with Redundant Switch models SU042-1 and SU042-2 require an additional backplate. For each UPS, order the appropriate backplate, as listed below:
Tower units: **SU027**
5U Rack Mount units: **SU027RM**
3U Rack Mount units: **SU027RM3U**
Because its design is so flexible, Redundant Switch has many uses. View or download the Redundant Switch Applications Guide from the Products section of APC's Web page.

Specifications	SU041	SU042-1	SU042-2	SU045-1
Acceptable input voltage	120 VAC: 0 - 165 VAC			208 VAC: 0 - 275 VAC
Output voltage (by default when used with Smart-UPS)	120 VAC: 108 - 132 VAC			208 VAC: 187 - 229 VAC
Frequency limits (on-line operation)	47 - 63 HZ			
Transfer time at normal sensitivity	6 milliseconds (typical)			
Maximum load	1400 VA; 12 A	3000 VA; 14 A		3000 VA; 24 A
Operating temperature	0 to +50 °C (+32 to +122 °F)			
Storage temperature	-15 to +50 °C (+5 to +122 °F)			
Operating and storage relative humidity	0 to 95%, non-condensing			
Operating elevation	0 to +3,000 m (0 to +10,000 ft)			
Storage elevation	0 to +15,000 m (0 to +50,000 ft)			
Electromagnetic immunity	IEC 801-2, 801-3, 801-4			
Audible noise in dBA @ 1 m (3 ft)	<45			
Size (H x W x D)	1.75 x 17.0 x 9 in.			
Weight - net (shipping)	10 (15) lb.			
Outlet configuration	(2) 5-15R	(2) 5-15R	(1) L5-30 R	(1) L6-20 R
Input Configuration	(2) 5-15P	(2) L5-30P	(2) L5-30P	(2)L6-20P
Safety approvals	Listed to UL 1778, certified to CSA 107.1			
EMC verification	120 VAC: FCC Class A certified			

Smart-UPS® Wiring Devices and Hardware Accessories

Hardware Accessories

Cable Adapter **Part# SU037**



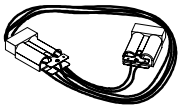
Connects SU48XLBP to AP2000XL. Also connects AP2000XLBP to SU2200XL

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. In certain applications, customers require the ability to place their batteries outside of a rack, or further away from the main unit than our standard cables allow. The extension cables provide the flexibility of placing the connected batteries a maximum of five feet away from the Smart-UPS unit.

Input Plugs and Options

MODEL	VOLTS	PLUG TYPE	AMPS	MAX POWER OUT
2200	120V	5-15P	15	1200VA/870W
		5-20P*	20	1600VA/1160W
		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 2200VA/2200W**
		5-50P	50	3000VA/2250W 3000VA/2400W**
3000	208V	L6-20P*	20	3000VA/2250W
5000	208V	L6-30P*	30	5000VA/3750W

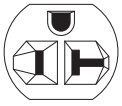
** Standard plug shipped on Smart-UPS*

***Applies to SU3000RMXL3U model only.*

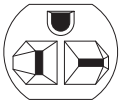
Choose your Input Plug carefully:

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



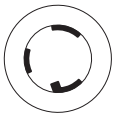
NEMA 5-20*
120 VAC
20 Amps



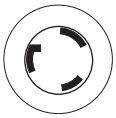
NEMA 5ALT-20
120 VAC
20 Amps

NEMA L5-30
120 VAC
Locking
30 Amps

NEMA 5-50
120 VAC
50 Amps



NEMA L6-20
208 Vac
Locking
20 Amps

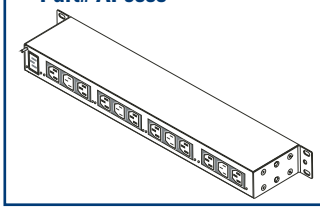


NEMA L6-30
208 Vac
Locking
30 Amps

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

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

Part# AP9558

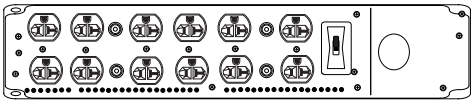


Horizontal Single Phase Power Distribution Unit

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

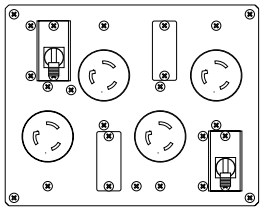


Input plug - L6-30P
Output 12x5-20R

Voltage In: 208 Vac.
Voltage Out: 120 Vac

MXA102

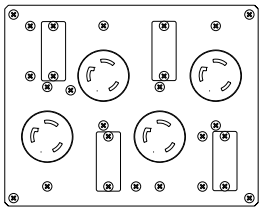
Input Plug:
L6-30P
Output:
4xL6-20R



Voltage In: 208 Vac
Voltage Out: 208 Vac

MXA104

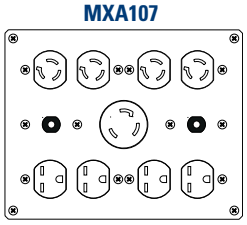
Input Plug:
L6-30P
Output:
4xL6-30R



MXA107

Input Plug
L6-30P

Output:
4xL6-15R, 4x6-15R, 1xL6-30R



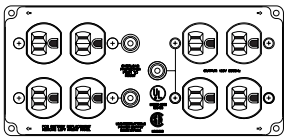
Voltage In: 208 Vac
Voltage Out: 208 Vac

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

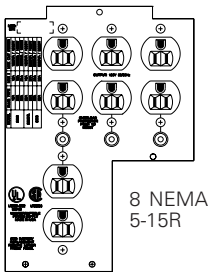
The following accessories are available separately, and can adapt the standard output configuration to your specific needs. (Product specification tables show standard input and output configurations).

Standard output configurations

8 NEMA 5-15R



SU2200/3000 RM Units



8 NEMA 5-15R

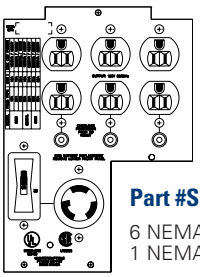
SU2200/3000 Tower Units

Hard Wire Kit Part #SU031

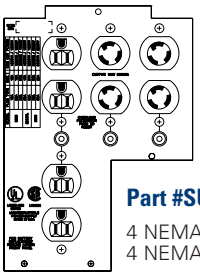
The Hard Wire Kit for 2200/3000VA provides all the necessary panels and mounting hardware and can be used to replace the outlets and/or input power cord that is originally furnished with the UPS. The input and output panels are designed with knockouts for use with standard-sized cable or conduit clamps.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

*Not for use with the SU2200RM3U or SU3000RM3U

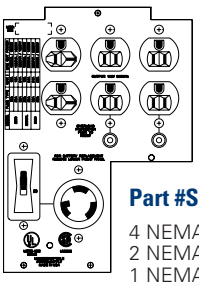
Optional Receptacle Backplates for use with Smart-UPS Tower Units (SU2200NET, SU2200XLNET, and SU3000NET)



Part #SU027
6 NEMA 5-15R
1 NEMA L5-30R



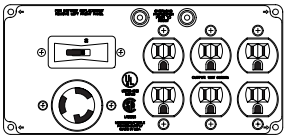
Part #SU028
4 NEMA 5-15R
4 NEMA L5-15R



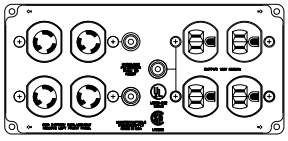
Part #SU029
4 NEMA 5-15R
2 NEMA 5ALT-20R
1 NEMA L5-20R

Optional Receptacle Backplates for use with Smart-UPS 5U Rack-mount Units (SU2200RMXLNET and SU3000RMNET)

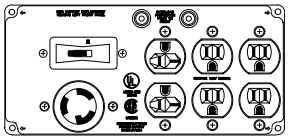
Part #SU027RM 6 NEMA 5-15R, 1 NEMA L5-30R



Part #SU028RM 4 NEMA 5-15R, 4 NEMA L5-15R

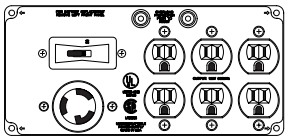


Part #SU029RM 4 NEMA 5-15R, 2 NEMA 5ALT-20R, 1 NEMA L5-20R

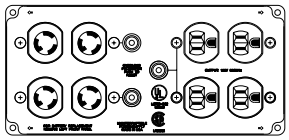


Optional Receptacle Backplates for use with Smart-UPS 3U Rack-mount Units (SU2200RM3U and SU3000RM3U)

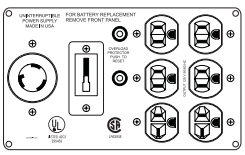
Part #SU027RM3U 6 NEMA 5-15R, 1 NEMA L5-30R



Part #SU028RM3U 4 NEMA 5-15R, 4 NEMA L5-15R



Part #SU029RM3U 4 NEMA 5-15R, 2 NEMA 5ALT-20R, 1 NEMA L5-20R



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
- Part# WXTDX1-T_ for 1 year extension or part# WXTDX3-T_ for 3 year extension of hardware factory warranty to provide for a total of 3 or 5 years of coverage, respectively, from the date of UPS purchase.

On-Site Support Service

- Next business day on-site replacement of unit / parts
- 24x7 Telephone Technical Support
- Part# WSVNDX1-T_ for 1 year on-site extension or part# WSVNDX3-T_ for 3 year on-site extension of hardware factory warranty to provide for a total of 3 or 5 years, respectively, from the date of UPS purchase.

Installation and Consulting Services

Start-up service

- APC qualified service engineer verifies the proper operation and wiring of APC hardware
- Provides training at the time of start-up to support your staff on the proper operation of UPS
- Part# WISTL-T_ for the on-site start-up of a Smart-UPS

Network Integration Service

- APC certified network integration engineer provides one day of on-site installation and integration support of APC software and software accessories.
- Part # WITG.

PowerAudit consulting service

- APC certified engineer analyzes the electrical infrastructure and existing network configuration, and then provides a recommendation for the implementation of a power protection solution.
- Contact APC for ordering details.

Please contact APC or visit www.apc.com for further information (including geographic availability) on these and other service products.

Service Program Ordering Number	1 Year Extended Warranty WXTDX1-T_*	3 Year Extended Warranty WXTDX3-T_*	1 Yr. On-Site Support Service WSVND-X1-T_*	3 Yr. On-Site Support Service WSVND-X3-T_*	Start-Up Service WISTL-T_*
Smart-UPS Model Number	Price Level	Price Level	Price Level	Price Level	Price Level
SU420NET, SU620NET	T1	T1	T1	T1	T1
SU700NET, SU700RM2U, SUA1000	T2	T2	T2	T2	T2
SU700XLNET, SU1000XLNET, SU1000RM2U, SU1400RM2U, SUA1500, SU1400 RMXL3U	T3	T3	T3	T3	T3
SU2200NET, SU2200XLNET, SU2200XLTNET, SU2200RMXLTNET, SU2200RMXLNET, SU2200RMXLTNET, SU2200RMXL3U, SU3000NET, SU3000TNET, SU3000RM3U, SU3000RMT3U, SU3000RMXL3U, SU3000RMNET(5U)	T4	T4	T4	T4	T4
SU5000T & AP9621, SU5000RMT & AP9621, SU5000RMT5U	T5	T5	T5	T5	T5
SU24XLBP, SU48XLBP, SU48BP	T3	T3	T3	T3	N/A
SU24RMXLBP2U, SU48RMBP, SU48RMXLBP3U, UXBP24, UXBP48	T4	T4	T4	T4	N/A

Awards

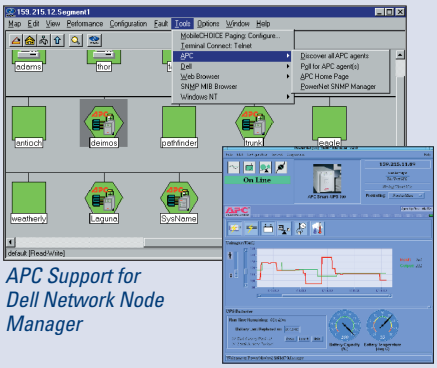
Award	Publication	Year
Editor's Choice	Computer Reseller News	2000
Channel Champion	Computer Reseller News	2000
Best Buy	PC World (China)	1999
Best Buy	Computer Shopper	1999
Best Buy	PC World (Brazil)	1999
Best Buy	Network Solutions (UK and Korea)	1999
Editor's Choice	Windows NT Magazine (Australia)	1999
Promising Product in 1999	Computer World (Korea)	1999
Recommended Storage Area Networks Server Applications	Decision Micro (France)	1999
Best product of 1998	PC World	1998
Best Security Hardware	SC Info Security Magazine	1998
Editor's Choice	LAN Times	1998
Editor's Choice	Computerworld (Korea)	1998
Editor's Choice	Decision Micro et Reseaux (France)	1998
Editor's Choice Award	Computer and Network	1998
Editor's Choice	Computer Network (Korea)	1998
Editor's Choice	Computer Reseller News	1998
Products of the Year - Power Protection Category	Networking Solutions	1998
Recommended	Reseaux France	1999
Top 100 products	VAR Business	1998

Bring power management to your server management console

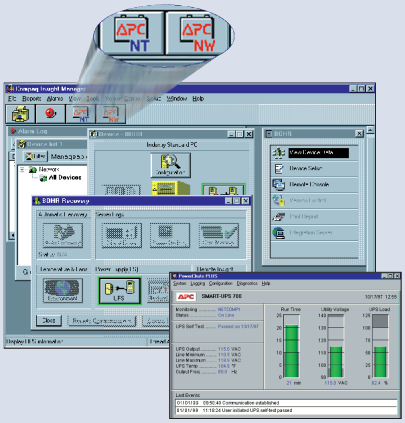
Reliable power management is critical to server availability. Today UPS protection is more than just an insurance policy, it is an integral component of any network. Keeping this in mind, APC developed PowerChute *plus* to enhance the management of server UPSs from four major server management consoles.

Plug-ins are additional pieces of software that enhance the functionality of PowerChute plus. Advanced software allow you to customize PowerChute plus to meet the needs of, and integrate with, several powerful programs.

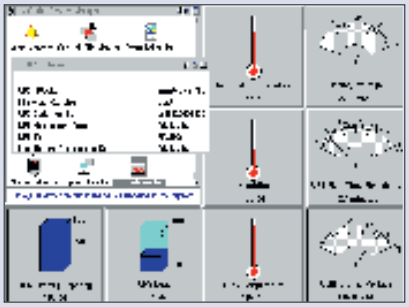
Network administrators simply don't have time to use four or five different tools to perform a single task. For this reason APC PowerChute plus ensures complete integration of key UPS/power information with many server management packages. Users can quickly and easily determine UPS status, configure parameters and perform shutdown and rebooting – all from within their server management consoles.(Features vary by server management package).



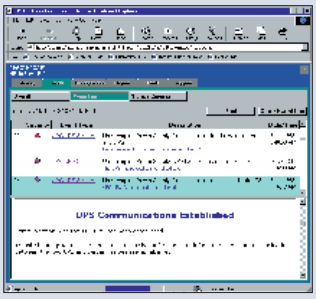
APC Support for Dell Network Node Manager



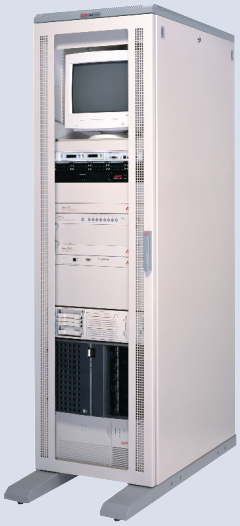
APC Support for Compaq Insight Manager



APC Support for IBM Netfinity Manager



APC Support for HP TopTools



AR1200A — SU1400RMNET pre-installed in 42U NetShelter
AR1205A — SU2200RM3U pre-installed 42U NetShelter
AR1210A — SU3000RM3U pre-installed in 42U NetShelter
AR1215A — SU5000RMT5U pre-installed in 42U NetShelter

NetShelter® and Smart-UPS offer Power-Protected Enclosure Bundles for pre-installed power protection

Protecting today's network environment from power and environmental problems is essential to ensuring high system availability. APC's NetShelter and Smart-UPS pre-assembled and pre-configured Power-Protected Enclosure Bundles will help simplify installation while bundling the ultimate in high availability protection for the network. This turnkey solution, designed with APC's channel partners and MIS managers in mind, is a simple, yet flexible, bundle that enhances rack servers and inter-networking equipment—at a significantly lower price than similar industry solutions.

The NetShelter enclosure is a high-quality, free-standing cabinet that saves floor space, organizes your equipment, eliminates cabling "rat's nests" and physically protects your investment. NetShelter 42U (AR1000A) provides 73.5\'94 of vertical space for industry-standard 19-inch rack-mounted equipment.

The APC rack-mount Bundles combine rack-mount Smart-UPS (1400VA, 2200VA, 3000VA and 5000VA) units within the NetShelter 42U enclosure, completely pre-configured and pre-installed. This saves significant amounts of configuration time), resources and money. APC customers have the convenience of ordering any one of the four bundles with one part number. Inside delivery of the bundle, at no extra charge, is included if an APC recommended carrier is requested at order entry.

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

ISO9001 REGISTERED COMPANY ISO14001 REGISTERED COMPANY

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Tel: 401 789 0204 - World wide

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Web Support: *http://www.apc.com/support*
PowerFax™: 800-347-FAXX

APC® Legendary Reliability™