



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 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: Minimize Downtime, Maximizing Performance and Uptime

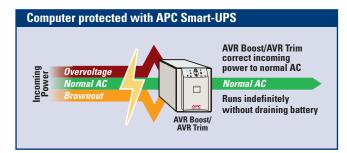
Automatic Voltage Regulation

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)

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).



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.
- © 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.
- On/Test Button- Turns on the UPS and activates the UPS self-test and utility line voltage displays.
- Off Button- Turns off the UPS and the load. Specifically designed to prevent accidental shutdowns.

- 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.
- Replace Battery LED- LED lights up and alarm sounds when the UPS battery is nearly dead and must be replaced (typically within 30 days).
- 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 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 fileservers (Intel or UNIX based), minicomputers, network switches and hubs, point of sale, retail/bank back office and ATMs.



New! New!	N	lew!		V	e	W.	-
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Specifications for S	mart-UPS Model: Part#	420 SU420NET	620 SU620NET	700 SU700NET	1000 SUA1000	1500 SUA1500	2200 SU2200NET	3000 SU3000NET	5000 SU5000TXFMR
Ships with PowerCh	ute software			XP, Windows Serve ns and application s					
Input Line, 6 ft. line	cord		NEMA 5-15P				NEMA 5-20P	NEMA L5-30P	NEMA L6-30P
Output Receptacles	3		4 NEMA 5-15R			8 NEMA	5-15R	2 NEMA L6-20R 14 NEMA 5-15R	
Communication Por	ts		Serial		Serial 8	& USB		Serial	<u>'</u>
Number of SmartSlo	ot bays	n/	'a			1			2, ind. mgmt. card
Maximum Dimensio	ons (H x W x D)(in.)	6.6x4.	7x14.5	6.2x5.4x14.1	8.5x6.	7x17.3	17 x 7.7	7 x 21.5	20.8x17.5x26.2
Net Weight (lbs.)		22	27	29	42	53	112	123	325
Shipping Weight (Ib	s.)	24	29	32	46	58	134	142	360
Replacement Batter	ry 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 Volta	ige		120 Vac,	single phase, 50 o	r 60 Hz (auto-sele	ectable)			208VAC (50-60 Hz)
Transfer Time (typic	al)			2 milliseconds, i	ncludes detection	n time			
AVR Boost/AVR Trim		30% / 1	2%	12% / 12%	30% / 12%				12% / 12%
Default Input Voltag	je ²	82-144	VAC	92-147 VAC	82-144 VAC				157-255 VAC
Max input voltage r for mains without ba		75-154 VAC		86-154 VAC	75-154 VAC				151-268 VAC
Output Voltage Range		106-127	VAC	103-132 VAC		106-12	7 VAC		120-208 VAC
Capacity (Volt-Amp	s, Watts)	420, 260	620, 390	700, 450	1000, 670	1500, 980	2200, 1980	3000, 2700	4500, 3375
Surge energy rating peak current capab		412 Joule	s, 6.5kA	480 Joules, 6.5kA	459 Joule	es, 6.5kA	880 Joul	es, 6.5kA	1020 Joules, 6.5kA
Normal, common m response time	ode clamping				0 ns, <5ns typical				'
Normal mode surge through (IEEE 587 Ca		<0	.7% of peak typic	al		<0	.3% of peak typic	al	
Batteries			Mainten	ance-free sealed Le	ead-Acid battery v	with 3-6 year typica	al lifetime: leakpro	oof	
Recharge time to 90	% capacity		5 hours				3 hours		6 hours
Ambient Operation			3,000 m	max elevation, 0-9	95% humidity, nor	n-condensing, 32-	I04 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 Dissapatio	n (BTU/Hr)	50	70	85	100	135	275	375	1708
TYPICAL RUNTIME	IN MINUTES								
LOAD Watts ⁴	(VA)	SU420NET	SU620NET	SU700NET	SUA1000	SUA1500	SU2200NET	SU3000NET ³	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
1 CHARD and CHCOD also effect built in data line									

 $^{^{\}scriptscriptstyle 1}$ SU420 and SU620 also offer built-in data-line protection for RJ-11 and 10BaseT ethernet protection.

 $^{^{\}rm 2}\,\mbox{Transfer}$ points are user-adjustable using included software.

 $[\]ensuremath{^{\text{3}}}$ Additional battery pack (SU48BP) available for extra runtime.

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.

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.



		New!	New!	New!	New!	New!	New!	New!		New!	
Specifications for Smart-U	IPS Model: Part #:	750 SUA750RM1U	1000 SUA1000RM1U	750 SUA750RM2U	1000 SUA1000RM2U	1500 SUA1500RM2U	2200 SUA2200RM2U	3000 SUA3000RM2U	3000 SU3000RMNET	5000 SU5000RMT5UXFMR	
Ships with PowerChute soft	tware		or Windows NT/200 platform integration	plug-ins and applica	ation shutdown utili						
Input Line, 8 ft. line cord				NEM	A 5-15P		NEMA 5-20P	NEMA	L5-30P	NEMA L6-30P	
Output Receptacles		4 NEM	MA 5-15R	6 NEMA 5-15R			6 NEMA 5-15R,	2 NEMA 5-20R	8 NEMA 5-15R	2 NEMA L6-20R 2 NEMA 5-15R 12 NEMA2-50R	
Communication Ports					Serial & USI	В			Serial		
Number of SmartSlot bays		1 Smart Slot Bay Included						2, ind. mgmt. card			
Maximum Dimensions (H x	W x D) (in.)	1.75x1	17x26		3.5x19x18		3.5x1	9x26	8.8x19x7.8	12.3x19x25	
Net Weight (lbs.)		4	В	48	62	63	9	6	196	320	
Shipping Weight (lbs.)		5	6	55.3	69	70.2	12	25	145	355	
Replacement Battery Cartr	idge	RBC	34	RBC 22	RBC 23	RBC 24	RBO	C 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 pha	nse, 50 or 60 Hz (au	to-selectable)				208 Vac, 50-60 Hz.	
Transfer Time (typical)				2 milliseco	onds, includes dete	ection time					
AVR Boost/AVR Trim					30% / 12%				12%	/ 12%	
Default Input Voltage Rang	е				82-144 VAC				92-147 VAC	157-253 VAC	
Max input voltage range (a for mains without battery d					75-154 VAC				86-154 VAC	151-268 VAC	
Capacity (Volt-Amps, Watts	s)	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 Jou	ıles, 6.5 kA		459 Joules, 6.5 kA		480 Joule	es, 6.5 kA	880 Joules, 6.5kA	1020 Joules, 6.5 kA	
Normal, common mode cla response time	ımping				0 ns, <5ns typical						
Normal mode surge voltag through (IEEE587 Cat A 6kV					<0.3% of peak typ	ical					
Batteries			Maintena	nce-free sealed Lea	ad-Acid battery wi	th 3-6 year typical	lifetime: leakproo	f			
Recharge time to 90% capa	acity	2 ho	urs			3 hours				6 hours	
Ambient Operation				3,000 m max eleva	tion, 0-95% humidi	ty, non-condensing	g, 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 Dissapation (BTUs	s/Hr)	13	30	68	89	171	300	400	4	30	
TYPICAL RUNTIME IN MIN	IUTES										
LOAD		SUA750RM1U	SUA1000RM1U	SUA750RM2U	SUA1000RM2U	SUA1500RM2U	SUA2200RM2U	SUA3000RM2U	SU3000RMNET	SU5000RMT5UXFMR	
Watts ²	VA										
300	420	16min	16min	11min	35min	55min	64min	70min	122min	202min	
600	840	-	6min	-	11min	30min	19min	33min	52min	98min	
900	1260	-	-	-	-	18min	9min	20min	28min	59min	
1400	1960	-	-	-	-	10min	-	11min	13min	131min	
2000	2800	-	-	-	-	-	-	6min	7min	17min	
3000	4200	-	-	-	-	-	-	-	-	8min	

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.

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-mo	unt Units				
Specifications for Smart-UPS Mod Pa		3000 SU3000TNET	5000 SU5000T	22000 SU2200RMXLTNET	3000 SUA3000RMT2U	5000 SU5000RMT5U	5000 SU5000RMXLT5U			
Ships with PowerChute software				ver 2003, Novell NetWa cation shutdown utilitie						
Input Line Cord	NEN	1A L6-20P	NEMA L6-30P	NEM	A L6-20P	NEMA L6-30P	NEMA L6-30P			
Input Cord Length		6 foot			8 foot		10 foot			
Output receptacles (5-15R recepta provide up to 400VA of 120V power	⁻¹) 1 NE	MA L6-30R MA L6-20R MA 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 L6-20R 1 NEMA L6-30R	1 NEMA L6-30R 2 NEMA L6-20R 2 NEMA 5-15R	2 NEMA L6-20R 1 NEMA L6-30R			
Communication Ports			Serial		Serial & USB	Se	rial			
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	F	RBC 11	Two RBC 12	RBC 11	RBC 43	Two RBC 12	Two RBC 12			
Pricing Level for Service Options	SB-13	S	B-14	SB-13	SB-12	SB	-14			
OPERATION	SU2200XLTNET	SU3000TNET	SU5000T	SU2200RMXLTNET	SUA3000RMT2U	SU5000RMT5U	SU5000RMXLT5U			
Nominal Input Voltage		20	8 Vac, single pha	se, 50 or 60 Hz (auto-s	electable)					
Transfer Time (typical)		2 milliseconds, includes detection time								
AVR Boost/AVR Trim		12%	6 / 12%		30%/12%	12%	/12%			
Default Input Voltage ²		157-	255 VAC		141-255 VAC	157-25	55 VAC			
Max input voltage adjustable rang for mains without battery discharg		151-	268 VAC		131-268 VAC	151-26	151-268 VAC			
Output Voltage Range		178-	230 VAC		185-225 VAC	178-23	30 VAC			
Capacity (Volt-Amps, Watts)	750, 600	1000, 800	2200, 1600	1400, 1050	3000, 2700	2200	, 1750			
Surge energy rating, peak current capability	960 Jo	oules 6.5 kA	1020 Joules, 6.5kA	960 Joules 6.5 kA	480 Joules 6.5 kA	1020 Jou	les 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	I-Acid battery with 3-6	year typical lifetime	leakproof				
Recharge time to 90% capacity				3 hours						
Ambient Operation		3	3,000 m max eleva	ation, 0-95% humidity, r	non-condensing, 32-	104 degF				
Storage Conditions			15, 000 r	n 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	4	30			
Load Watts³ 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.									

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

 $^{^{\}rm 2}\textsc{Transfer}$ points are user-adjustable using included software.

³ 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.

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!	New!
	Г	TVGVV:	Tower Units				Rack-mount Units		TVCVV:
Specifications for S	Cmort IIDS models	750	1000	2200	1400	2200	2200	3000	5000
Specifications for a	Part #:	SUA750XL	SUA1000XL	SU2200XLNET		SU2200RMXLNET	SU2200RMXL3U	SU3000RMXL3U	SU5000RMXLT5U
Ships with PowerCl	hute software	S	upport for Windo platform integ	ws NT/2000/XP, Wi ration plug-ins and	ndows Server 2003 application shutd	, Novell NetWare, S own utilities availabl	CO UnixWare, Solaris e for download at ww	and Linux. Additional w.apc.com/tools/dow	management nload/.
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 NEM	A 5-20R	2 NEMA L6-20R, 1 NEMA L6-30R
Communication Por	ts	Serial 8	USB			Se	rial		
Number of SmartSlo	ot bays				1 SmartSlot bay in	cluded			1, Incl. Mgmt. Car
Maximum Dimensio	ons (H x W x D) (in)	8.5x6.7	x17.3	17x7.7.21.5	5.25x19x15.5	8.8x19x17.8	5.25x	(19x26	8.75x19x25
Net Weight (lb)		53		121	70	124	1:	24	225
Shipping Weight (Ib	n)	58		140	82	143		39	245
Replacement Batter	ry Cartridge	RBO		RBC11	RBC25	RBC11		C27	(2) RBC12
Service Level		SB1		SB13	SB12	SB12		313	SB14
OPERATION		SUA750XL	SUA1000XL	SU2200XLNET		SU2200RMXLNET	SU2200RMXL3U	SU3000RMXL3U	SU5000RMXLT5
Nominal Input Volta	0				ase, 50 or 60 Hz (a				
Transfer Time (typic				2 millise	conds, includes de				
AVR Boost/AVR Trin		· ·	30%/12% 12% / 12%			457.055.1/4.0			
Default Input Voltag		82-144 VAC 92-147 VAC				157-255 VAC			
Max input voltage (for mains without b		75-154	VAC			151-268 VAC			
Output Voltage Ran	ge	106-127	VAC			103-132 VAC			178-230 VAC
Capacity (Volt-Amp	s, Watts)	750, 600	1000, 800	2200, 1600	1400, 1050	2200, 1600	2200, 1750	3000, 2400	5000, 4000
Surge energy rating peak current capab		420 Joule	s, 6.5 kA	480 Joules, 6.5kA	800 Joules, 6.5kA		880 Joules, 6.5kA		1020 Joules, 6.5k
Normal, common m response time						Ons, <5ns typical			
Normal mode surge through (IEEE 587 C						<0.3 % of peak, typic			
Batteries				Maintenance-free	sealed Lead-Acid		r typical lifetime: leak	proof	
Recharge time to 90	0%					3 Hours			
Ambient Operation				3,000 m		•	ndensing, 32-104 degl	F	
Storage Conditions	6.44			50 ID4		max elevation, 5-11		· · · · · · · · · · · · · · · · · · ·	
Audible noise at 3.3		<42d		< 53 dBA	<46 dBA	075		dBA	400
Thermal Dissapatio		100	120	305	155	275	375	375	430
TYPICAL RUNTIME Load	IN MINUTES	SUA750XL	SUA1000XL	SU2200XLNET	CIII 400 DAAYI 211	SU2200RMXLNET	SU2200RMXL3U	SU3000RMXL3U	SU5000RMXLT5U
Watts ²	VA	SUA/5UXL	SUATUUUXL	SUZZUUXLNET	SU 1400KIVIAL3U	5UZZUUKIVIXLINE I	SUZZUURIMIALSU	SUSUUUKIVIALSU	200000KINIYTI20
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 Bat	ttery Pack(s)	SUA24XLBP	SUA24XLBP	SU48XLBP	SU24RMXLBP2U	SU48RMXLBP	SU48R3XLBP	SU48R3XLBP	SU48R3XLBP
Ultra Extended Run	time Battery Pack	UXBP24	UXBP24	UXBP48	n/a	UXBP48	n/a	n/a	n/a
For extended runtin	nes refer to the table	on page 10.		1	1	1	1	1	1

¹ Transfer points are user-adjustable using included software.
²Servers 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.

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!		New!	
SPECIFICATION	SUA24XLBP/SU48XLBP/SU48BP	SU24RMXLBP2U	SU48RMXLBP	SU48R3XLBP	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



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.

SUA750XL/SUA1000XL with:	1 SUA24XLBP	2 SUA24XLBP	3 SUA24XLBP	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
800W1	1.0	2.1	3.2	4.4	9.4
¹ Does not apply to SUA750XL.					
SU2200XLNET, SU2200XLTNET with:	1 SU48XLBP	2 SU48XLBP	3 SU48XLBP	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.

SU1400RMXL3U with:	1 SU24RMXLBP2U	2 SU24RMXLBP2U	3 SU24RMXLBP2U	8 SU24RMXLBP2U	10 SU24RMXLBP2U
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
SU2200RMXL3U, SU3000RMXL3U, (SU5000RMXLT5U, SU5000R5XLTXFMR) with:	1 SU48R3XLBP	2 SU48R3XLBP	3 SU48R3XLBP	8 SU48R3XLBP	10 SU48R3XLBP
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 ¹	0.5 (0.9)	1.3 (1.6)	2.0 (2.3)	5.5 (5.8)	7.0 (7.3)
3000W ²	(0.5)	(1.0)	(1.4)	(3.8)	(4.7)

¹ Does not apply to SU2200RMXL3U

² Does not apply to SU2200RMXL3U or SU3000RMXL3U

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.

- 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

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

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



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 1920VA/1920W
			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
	1251		30	2550VA/1900W 2200VA/2200W 2880VA/2700W
		5-50P	50	3000VA/2250W 3000VA/2400W 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.



120 VAC 15 Amps



NEMA 5-20³ 120 VAC



NEMA 5ALT-20 120 VAC



NEMA L5-30 120 VAC Lockina 30 Amps



NEMA 5-50 120 VAC 50 Amps



NEMA L6-20 208 Vac Locking 20 Amps



NEMA L6-30 208 Vac Lockina 30 Amps

Hardware Accessories

4-Post Rail kit Part# SU032A

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

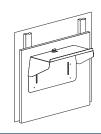


2-Post Rail kit Part# AP9625

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



Remotely control power to individual outlets



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

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

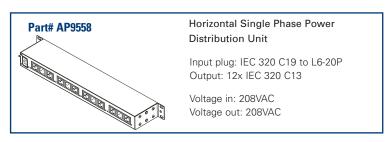
The following accessories are available separately, and can adapt the standard output configuration to your specific needs. (Product specification tables show standard input and output configurations).

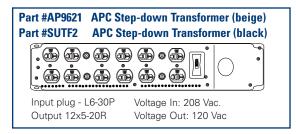
0	Backplate Part #	For Use With	5-15R	5-20R	L5-15R	L5-20R	L5-30R
	SU027RM	5U models	6	n/a	n/a	n/a	1
	SU028RM	(SU2200RMXLNET	4	n/a	4	n/a	n/a
	SU029RM	and SU3000RMNET)	4	2	n/a	1	n/a
els	SU027RM3U	3U models	6	n/a	n/a	n/a	1
Mod	SU028RM3U	(SU2200RMXL3U and	4	n/a	4	n/a	n/a
Rack-mount Models	SU029RM3U	SU3000RMXL3U)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

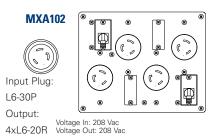
Hard Wire Kit Part #SU031

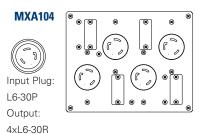
The Hard Wire Kit for 2200/3000VA provides all the necessary panels and mounting hardware and can be used to replace the outlets and/or input power cord that is originally furnished with the UPS. The input and output panels are designed with knockouts for use with standard-sized cable or conduit clamps.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

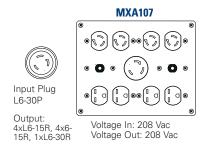
Output Options - External Power Distribution Units (PDUs) for use with all 208V models











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

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)



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

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[™]

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
- ullet Power density > 1.5 kVA 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.

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





