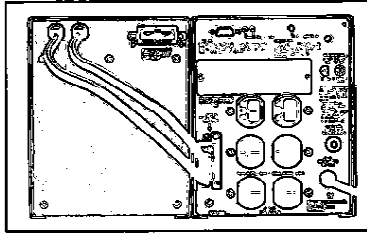


Smart-UPS[®] XL

Expandable, extended-run power

APC's Smart-UPS XL is ideal for mission critical applications where long runtimes are essential. Example applications include telephone PBXs, order entry data base servers, computers supporting manufacturing or service operations and critical data communications links. The XL allows a business to survive a protracted power outage. With the Smart-UPS XL, run time can be added by simply plugging-in additional battery packs.



Low cost shipping and installation. Most extended run UPS systems must be shipped via special truck and unloaded on a special dock to handle the large size and weight of the UPS. In contrast, the modular design of the Smart-UPS XL allows it to be delivered directly by common carrier including United Parcel Service.

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.

Simple maintenance. A battery change usually requires trained service personnel or an expensive electrician. Heavy batteries must be delivered to the site using special shipping methods. In the case of the Smart-UPS XL, batteries may be shipped directly on-site using a common carrier and any user can safely plug in the new batteries in minutes. No expensive service contracts, no waiting for factory authorized repairmen and no wait for replacement parts. The modular Smart-UPS XL lets the user easily replace battery packs while the protected equipment remains up and running.

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). In contrast, the Smart-UPS XL uses standard NEMA receptacles and input plugs for maximum convenience.

APC Smart-UPS XLs have the most advanced performance features available. CellGuard intelligent battery management improves reliability and extends battery life. SmartSlot internal accessory slot allows you to install optional accessory boards to customize and enhance the performance of your APC Smart-UPS. Optional PowerChute[®] plus software provides extensive UPS power management and diagnostics. Also, the QuickSwap user replaceable battery system allows you to hot-swap batteries on site, while the system is up and running.

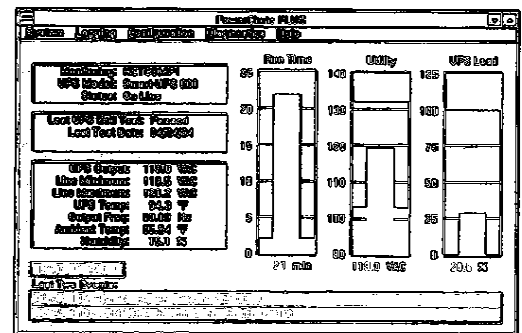
APC Smart-UPS XLs protect your hardware and extend system life through superior full time multi-stage surge suppression and noise filtering. Meeting Novell's approval for network protection without the need for additional external conditioners.

APC Smart-UPS XLs increase your productivity. SmartBoost and SmartTrim automatically correct low voltage and high voltage conditions allowing you to work through brownouts and overvoltages without using battery power.

PERFORMANCE

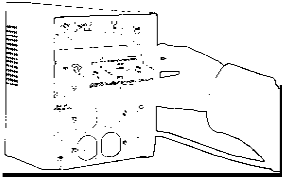
PowerChute[®] plus software for advanced UPS Power Management and diagnostics

APC Smart-UPS work together with APC's optional PowerChute[®] plus UPS power management and diagnostic software to provide network administrators with more useful information about the UPS and greater flexibility in configuring the UPS's reaction to power events. This ability to tailor each UPS to the network environment significantly enhances UPS performance. Use your APC Smart-UPS in conjunction with PowerChute plus to be SURE you're protected. In addition to extensive unattended system Shutdown, you'll get UPS testing/status, Remote UPS management and Environmental/power monitoring. (PowerChute plus software sold separately, see literature for details)



▶ **SmartSlot™ built-in accessory card slot gives you the customizable performance you need**

APC Smart-UPS are equipped with a built-in accessory card slot. This SmartSlot allows you to install one of a variety of accessory cards that are available to customize and enhance the management of your APC Smart-UPS. APC's SmartSlot series of UPS accessories plug directly into the Smart-UPS to create a UPS customized to your specific application. When a SmartSlot accessory is installed in your UPS, it becomes an integral part of the unit, getting power from the UPS (even when the UPS is in "sleep mode") and requires no other UPS connection.



▶ **PowerNet™ SNMP Adapter™**
10Base-T Ethernet adapter makes your APC Smart-UPS "SNMP manageable" from your NMS. When using the adapter, your Smart-UPS becomes a manageable part of the network.



▶ **UPS Interface Expander**
Provides two additional ports to facilitate safe system shutdown and advanced UPS management of up to three servers from one UPS. The unit is ideal for "server farms" or multiple operating system environments, since all three servers can be running different network operating systems.



▶ **Call-UPS™ II Remote UPS Management Device**
Remotely manage your APC Smart-UPS via modem. The unit provides complete UPS information, paging on power problems and remote safe reboot of servers via user supplied modem.

▶ **PowerNet™ SNMP products provide full SNMP compatibility for enterprise UPS power management from a single NMS**

APC Smart-UPS support Simple Network Management Protocol (SNMP) via APC's PowerNet™ SNMP Adapter™ and PowerNet™ SNMP Agent™, delivering warnings regarding power events and UPS status to any NMS whether the UPS is located 20 feet or 2000 miles away. PowerNet SNMP products permit you to monitor and control the Smart-UPSs along the entire network data path, providing worldwide power management of both servers and internetworking equipment from a single network management console. (PowerNet SNMP products sold separately, see PowerNet literature for details)

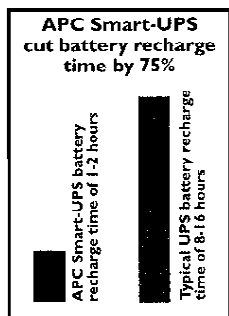
Choose from the following SmartSlot UPS accessories

APC Smart-UPS 2200XL, 1000XL and 700XL for mission critical applications where long runtimes are essential: Telephone PBXs, order entry data base servers, computers supporting manufacturing or service operations and critical data communications links.



▶ **CellGuard™ Intelligent Battery Management system - longer battery life**

Improved reliability results from a high precision FastCharge™ battery charge system, with automatic true-load battery tests. Redundant overcharge protection and continuous, non-pulsed charging are other battery life enhancements provided by the APC Intelligent Battery Management system. Batteries last longer, and warning is provided before batteries wear out.



▶ **Line-interactive design delivers unmatched performance and reliability**

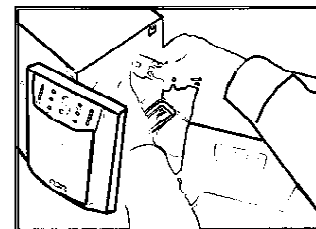
Innovative line interactive design uses the DC to AC power inverter "in reverse" as a battery charger during normal operation providing greater performance, filtering, and efficiency. Fewer components under stress loads results in greater reliability than inefficient double conversion on-lines. Line-interactive topology is approx. 98% efficient which leads to extremely high reliability. In contrast most on-lines operate at approx. 70% efficiency producing life-cycle costs 30% higher and worse still excess energy is turned into heat which damages batteries and decreases reliability.

▶ **Network Interface Port adds automatic safe system shutdown**

Other than installing an APC Smart-UPS, the second most important network protection step is to install automated safe shutdown. Power failures can occur at night, on weekends, or while the system administrator is out of the building. So having automated safe shutdown is a must. All APC Smart-UPS provide a bidirectional communications port to coordinate a safe shutdown with most popular operating systems by Novell, IBM, Microsoft, Banyan, UNIX, and others. Via the Network Interface Port you can also manage UPS power and diagnose power problems using APC's PowerChute plus software. (Required shutdown interface kits and software sold separately)

▶ **QuickSwap™ the user friendly, hot swappable battery replacement system**

Saves the time and expense of returning the UPS to the factory for battery service. 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.



DIAGNOSTICS

- ▶ **Battery Replacement Warning prevents downtime**
APC Smart-UPS automatically perform a self-test every two weeks. This insures that you will be alerted to degraded batteries before they wear out. Through optional software or a simple push of a button, you may perform self-tests as often as desired.
- ▶ **Informative LED Display provides status at a glance**
Instantly assess the status of your power and the APC Smart-UPS without even pushing a button. Bar meters and status indicators are simple to use and easy to understand. Visual and audible alarms alert you to fault conditions.
- ▶ **Site Wiring Fault Indicator saves you trouble and expense**
Alerts you to potential problems such as missing ground and reversed polarity, two common miswirings which usually require an electrician's visit to diagnose.
- ▶ **Load and Volt Meters keep you in control**
Load Meter prevents you from exceeding UPS capacity. Volt Meter reports utility line voltage and battery capacity allowing you to gauge how much time you have before batteries are depleted. Alarm sounds upon low battery condition allowing you time to save data and shutdown system.

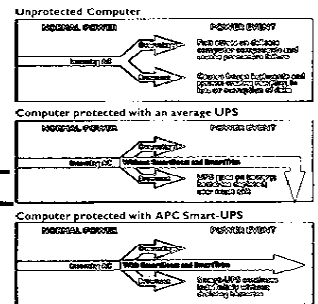
PROTECTION

- ▶ **Lightning and Surge Protection shields hardware**
When measured using the test methods detailed in ANSI/IEEE 587 Category "A" and "B", the suppression performance of the APC Smart-UPS is superior to virtually all separate surge suppressors. UL 1449 rated for maximum surge protection.
- ▶ **Network-grade Line Conditioning prevents glitches**
Full time EMI/RFI filters prevent line noise from causing data errors, meeting Novell's approval for network protection without the need for additional external conditioners.
- ▶ **SmartBoost™ Automatically corrects brownout conditions**
Allows you to work through brownouts without unnecessary battery drain. SmartBoost automatically steps up low voltage to output that is safe for your system.
- ▶ **SmartTrim™ Automatically corrects overvoltage conditions**
Allows you to work through overvoltages without unnecessary battery drain. SmartTrim automatically steps down high voltage to output that is safe for your system.
- ▶ **Sine Wave Output suits sensitive loads**
APC Smart-UPS' sine wave output provides an assurance of compatibility with all loads.

"Smart-UPS, PowerChute plus, PowerNet SNMP represent the best in power management tools..."
—LANMagazine

FEATURES AT A GLANCE

PROTECTION	PERFORMANCE	DIAGNOSTICS
SmartBoost - brownout protection	SmartSlot-built-in accessory slot	Battery Replacement Warning
SmartTrim - over voltage protection	QuickSwap-hot swappable batteries	Site Wiring Fault Indicator
Lightning/Surge Protection	Software Configurable Features	Load Power and Voltage Meters
Network-Grade Line Conditioning	SNMP Support Available	Low Battery Indicator
Sine Wave Output	CellGuard-intelligent Battery Management	Overload Indicator
	Line-Interactive Design	Test Switch
	Network Interface port	



WARRANTY & APPROVALS

2 years, with \$25,000 Lifetime Equipment Protection
UL Listed, CSA Certified, FCC Class B Compliance,
Verified to EN55022 Class B, Novell Labs Approved

WARRANTY AND APPROVALS

- ▶ **2 year warranty**
Unmatched reliability means you can purchase with confidence.
- ▶ **Full approvals mean a safe, reliable solution**
UL, CSA, and VDE approved
- ▶ **\$25,000 Lifetime Equipment Protection Policy**
If your properly connected equipment is ever damaged by an AC surge, including surges due to lightning, APC will repair or replace our product and up to \$25,000 of connected equipment (for as long as you own your APC Smart-UPS. (US and Canada only. See policy for details.)



APC's quality system is certified by ISO 9002 standards.

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



APC
AMERICAN POWER CONVERSION

SPECIFICATIONS		SU700XL	SU1,000XL	SU2200XL	SU24XLBP/SU48XLBP																			
Uses Additional Battery Pack #		SU24XLBP	SU24XLBP	SU48XLBP																				
Input Line		6 ft. (1.8m) line cord	6 ft. (1.8m) line cord	6 ft. (1.8m) line cord / L5-30 2: input connector																				
Output Receptacles (NEMA 5-15R)		6	6	8																				
Maximum Dimensions (HxWxD)		8.5 x 6.7 x 17.3"	8.5 x 6.7 x 17.3"	17.0 x 7.7 x 21.5"	8.5 x 6.7 x 17.3"																			
Net Weight		52 lbs.	56 lbs.	120 lbs.	69 lbs.																			
Shipping Weight		57 lbs.	61 lbs.	140 lbs.	73 lbs.																			
OPERATION		SU700XL	SU1,000XL	SU2,200XL	SU24XLBP/SU48XLBP																			
Normal Input Voltage		120 Vac, single phase, 50 or 60 Hz (auto-selectable)																						
Transfer Time (typical/max)		2/4 milliseconds, includes detection time																						
On-line Battery Output Voltage		Pure sine wave output at: 115 Vac +/-5%, -10% after low battery warning, synchronized to utility line																						
SmartBoost and SmartTrim Oper:		SmartBoost increases voltage 12% above input if 90 to 103 Vac. SmartTrim reduces voltage 12% below input if 145 to 132 Vac. Transfer points are user adjustable using optional software.																						
Capacity (Volt-Amps, Watts)		700, 450	1000, 670	2200, 1600																				
Load power fac. range, crest fac. range		.5 to 1.0, <5																						
Surge energy rating, peak current cap.		480 Joules, 39K																						
Normal, common mode clamping response time		0 ns, <5ns typical																						
Normal mode surge voltage let through when subj. to IEEE 587 Cat. A 6k test		<0.2% of peak typical																						
Normal/common mode noise suppression at 1.0MHz, 3.0MHz, 10.0MHz		68/50, 57/50, 50/27db	68/50, 57/50, 50/27db	63/74, 54/48, 47/35 db																				
Sealed, maintenance-free lead acid batteries with 3-6 year typical lifetime		Two 12V, 17AH	Two 12V, 17AH	Four 12V, 17AH	Four 12V, 17AH																			
Ambient Operation		10,000 ft. (15,000 meters) max.	50,000 ft. (15,000 meters) max.	50,000 ft. (15,000 meters) max.																				
Storage Elevation																								
Max audible noise at 3 ft. from surface		<42 dbA	<42 dbA	<53 dbA																				
TYPICAL 700 VA XL RECHARGE TIMES (IN HOURS) TO 90% OF RATED CAPACITY	TYPICAL 1,000 VA XL RECHARGE TIMES (IN HOURS) TO 90% OF RATED CAPACITY	TYPICAL 2,200 VA XL RECHARGE TIMES (IN HOURS) TO 90% OF RATED CAPACITY																						
Number of Packs	STD	1BP	2BP	3BP	4BP	5BP	6BP	7BP	8BP	9BP	10BP													
Recharge Time	1.7	5.1	8.5	12	15	19	22	25	29	32	36	36	36	32	32	36	36	32	32	36	36	18.4		
TYPICAL 700 VA XL ON-BATTERY RUN TIME VERSUS LOAD, IN HOURS	TYPICAL 1,000 VA XL ON-BATTERY RUN TIME VERSUS LOAD, IN HOURS	TYPICAL 2,200 VA XL ON-BATTERY RUN TIME VERSUS LOAD, IN HOURS																						
LOAD (VA)	STD	1BP	2BP	3BP	4BP	5BP	6BP	7BP	8BP	9BP	10BP	10BP	10BP	10BP	10BP	10BP	10BP	10BP	10BP	10BP	10BP	10BP	10BP	10BP
50	4.2	14.5	25.2	35.8	46.5	57.2	67.8	78.5	89.3	100.0	110.7	6.1	12.2	19.7	27.1	34.8	42.3	49.8	57.5	65.0	72.5	80.0		
100	2.7	9.3	16.7	23.8	31.2	38.5	45.7	53.0	60.3	67.7	74.8	4.5	8.8	14.3	20.3	25.8	31.5	37.2	42.8	48.5	54.2	59.8		
200	1.3	5.3	9.5	13.8	18.3	22.7	27.2	31.7	36.0	40.5	44.8	2.6	5.7	9.2	12.8	16.7	20.3	24.2	28.0	31.7	35.5	39.3		
300	8	3.7	6.5	9.5	12.7	15.8	19.0	22.2	25.3	28.5	31.7	1.8	4.0	6.7	9.2	12.0	14.8	17.7	20.5	23.2	26.0	28.8		
400	6	2.7	5.0	7.2	9.5	11.8	14.3	16.8	19.2	21.7	24.2	1.3	3.0	5.2	7.2	9.2	11.5	13.7	15.8	18.2	20.3	22.7		
500	4	2.0	3.8	5.7	7.5	9.3	11.3	13.3	15.3	17.3	19.3	1.0	2.3	4.2	5.8	7.5	9.2	11.0	12.8	14.7	16.7	18.5		
600	3	1.7	3.2	4.7	6.2	7.8	9.3	11.0	12.7	14.3	16.0	8	2.0	3.3	4.8	6.3	7.7	9.2	10.7	12.3	13.8	15.5		
700	2	1.3	2.5	3.8	5.2	6.5	7.8	9.2	10.7	12.0	13.5	7	1.5	2.8	4.0	5.3	6.5	7.8	9.0	10.3	11.8	13.2		
800												6	1.3	2.3	3.5	4.7	5.8	6.8	8.0	9.2	10.3	11.5		
900												4	1.1	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0		
1000												4	1.0	1.8	2.7	3.7	4.5	5.3	6.3	7.2	8.0	9.0		
1200												3	8	1.4	2.2	2.8	3.7	4.3	5.2	5.8	6.7	7.3		
1400												3	6	1.1	1.7	2.3	3.0	3.7	4.3	4.8	5.5	6.2		
1600												2	5	9	1.4	1.8	2.5	3.0	3.5	4.1	4.7	5.2		
1800												2	4	8	1.2	1.7	2.2	2.7	3.2	3.7	4.0	4.5		
2000												1	4	7	1.0	1.4	1.8	2.2	2.7	3.2	3.5	4.0		
2200												1	3	6	9	1.2	1.5	2.0	2.3	2.7	3.2	3.5		