

220/230/240V



Smart-UPS[®] RT

220/230/240V

Versatile, high density power protection for computer networks, telecommunications, and industrial applications



Features and Benefits

Availability

Zero Transfer Time ensures no interruption of mission-critical applications when UPS transfers to/from the batteries.

Wide Input Voltage Range 160-280 VAC input voltage range at full load allows less time on battery while preserving battery capacity for blackout conditions. Input voltage can go as low as 100 VAC, at half load, without using the battery.

Continuous Voltage and Frequency Regulation Smart-UPS® RT provides premium, regulated sine-wave power for sensitive equipment. Smart-UPS RT is also generator-set compatible.

Built-in Automatic & Manual Bypass ensures continuous supply of power to the critical loads in the event of electronic failure, overload condition, or scheduled maintenance.

Scalable Runtime Unlimited number of matching battery packs can be added to increase runtime to desired levels.

Faster Recharge Time ensures battery power is available more quickly for subsequent power disturbances.

Cold Start allows the unit to be powered without input power being available.

Intelligent Battery Management utilizes microprocessor to control battery charging and diagnostic testing ensuring maximum battery life.

Hot-Swappable, User Replaceable Batteries allow continuous operation of the load when batteries are being replaced by the end user.



User-friendly, hot-swappable battery replacement

Protection

Sine-wave Output provides assurance of compatibility with all types of loads.

Lightning and Surge Protection Integrated Surge Suppression is superior to separate surge suppressors.

Network-grade Line Conditioning provides full time EMI/RFI filtering, thus preventing data errors caused by line noise.

Emergency Power Off (EPO) Smart-UPS RT can be attached to central EPO system for shutdown in an emergency situation.

Unattended Safe & Graceful Shutdown prevents possible data corruption by providing systematic, unattended operating system shutdown in the event of an extended power outage.

Alarms and Indicators provide operational status information of the UPS instantaneously.

Redundancy

Automatic Transfer Switch Application provides redundant power to single-corded equipment.



3000VA Automatic Transfer Switch

PowerChute® Network Shutdown

Software allows for simultaneous management of two UPSs. Supports multiple servers as well as 2N configurations. Servers with one primary and one redundant power supply can be plugged into separate UPSs.

Economy

Input Power Factor Correction increases safety and compliance with regional wiring/electrical standards. Also reduces the utility power and wiring costs.

Adaptability

Rack/Tower Convertible gives Smart-UPS RT a flexible form factor enabling integration into a wide variety of end-user environments.

1:1 and 3:1 Combined in a Single Product allows the same product to be wired to a single-phase or a three-phase input. This feature is available in Smart-UPS RT 8000/10000 VA models only.

Multiple Output Voltages 230 VAC nominal output voltage can be programmed for 220 or 240 VAC operation.

Auto-sensing and Programmable Frequency automatically provides 50 or 60 Hz. The end user can also set output frequency to desired tolerance levels.

Flash Programmable Firmware makes the UPS field-upgradeable.

Terminal Mode Programmability is a menu-driven interface that allows quick and easy configuration of the UPS. Ideal for users not using PowerChute® software or a management card.

Built-in SmartSlot houses APC's accessory cards, which increase overall system manageability through timely notification of hazardous conditions.



APC accessory cards can be inserted into the built-in SmartSlot to allow monitoring of power conditions. The Smart-UPS RT 5000, 8000, and 10,000 units ship bundled with the Web/SNMP Management Card

INFORMATIVE LED DISPLAY PROVIDES STATUS AT A GLANCE

- A Load Display** shows the power being drawn by the load so you can avoid exceeding capacity.
- B On-line LED** lights when the UPS is drawing utility power and performing double conversion to supply clean power.
- C On-Battery LED** lights and alarm sounds when the UPS is supplying battery power to the load.
- D Bypass LED** lights when unit is operating in bypass mode.
- E Overload LED** lights and alarm sounds when the load connected to the UPS exceeds capacity.
- F Fault LED** lights when unit is experiencing an internal fault.



- G Replace Battery** lights and alarm sounds when the UPS battery is nearly dead and must be replaced (typically within 30 days).
- H Battery Charge/Line Voltage** displays both present battery charge as a percentage of battery capacity and utility line voltage. Alarm sounds upon low battery condition.
- I Off Button** turns off the UPS and the load and is designed to prevent accidental shutdowns.
- J On/test button** turns on the UPS and activates the UPS self-test and utility line voltage displays.

Display can be rotated 90° for correct orientation as unit is shifted from tower to rack configuration.

Global Service Programs



APC Smart-UPS® RT Service Recommendations

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

Warranty Services

PowerPlan Extended Warranties

- Next business day replacement of unit/parts
- 24x7 telephone technical support

On-Site Support Service

- Next business day on-site replacement of unit/parts
- 24x7 telephone technical support

Replacement Battery Cartridges

- Genuine APC replacement batteries
- Use of Non-APC batteries voids APC's Equipment Protection Plan

Start-up Service

- Delivers the vital resources, expertise, and tools needed to quickly and efficiently implement APC solutions

Other Installation and Consulting Services

- Network Integration
- Power Audit Consulting Service

Smart-UPS RT Runtime Chart

SURT1000XLI						
VA	Watts	SURT1000XLI	+1 SURT48XLBP	+2 SURT48XLBP	+5 SURT48XLBP	+10 SURT48XLBP
140	100	1h 16m	5h 11m	9h 23m	22h 50m	46h 44m
280	200	43m	3h 1m	5h 30m	13h 25m	27h 30m
420	300	29m	2h 5m	3h 50m	9h 23m	19h 16m
570	400	21m	1h 35m	2h 55m	7h 10m	14h 43m
710	500	16m	1h 16m	2h 20m	5h 46m	11h 52m
1000	700	10m	53m	1h 39m	4h 7m	8h 29m
SURT2000XLI						
VA	Watts	SURT2000XLI	+1 SURT48XLBP	+2 SURT48XLBP	+5 SURT48XLBP	+10 SURT48XLBP
280	200	59m	3h 47m	6h 57m	17h 31m	37h 37m
710	500	22m	1h 33m	2h 54m	7h 23m	15h 55m
1140	800	12m	55m	1h 44m	4h 30m	9h 44m
1420	1000	8m	43m	1h 21m	3h 31m	7h 38m
1710	1200	6m	34m	1h 5m	2h 52m	6h 14m
2000	1400	4m	28m	55m	2h 24m	5h 15m
SURT3000XLI						
VA	Watts	SURT3000XLI	+1 SURT192XLBP	+2 SURT192XLBP	+5 SURT192XLBP	+10 SURT192XLBP
710	500	1h 16m	4h 23m	7h 43m	18h 20m	37h 12m
1140	800	46m	2h 43m	4h 48m	11h 27m	23h 16m
1420	1000	36m	2h 29m	3h 48m	9h 6m	18h 31m
1710	1200	29m	1h 46m	3h 8m	7h 32m	15h 19m
2280	1600	20m	1h 17m	2h 18m	5h 33m	11h 19m
3000	2100	14m	57m	1h 40m	4h 15m	8h 48m
SURT5000XLI						
VA	Watts	SURT5000XLI	+1 SURT192XLBP	+2 SURT192XLBP	+5 SURT192XLBP	+10 SURT192XLBP
1000	700	47m	2h 44m	4h 50m	11h 33m	23h 27m
2000	1400	21m	1h 18m	2h 20m	5h 38m	11h 28m
2570	1800	15m	59m	1h 46m	4h 18m	8h 47m
3570	2500	9m	41m	1h 14m	3h 1m	6h 11m
4280	3000	7m	33m	1h	2h 28m	5h 4m
5000	3500	5m	27m	50m	2h 5m	4h 17m
SURT6000XLI						
VA	Watts	SURT6000XLI	+1 SURT192XLBP	+2 SURT192XLBP	+5 SURT192XLBP	+10 SURT192XLBP
875	700	57m	2h 38m	4h 39m	11h 6m	22h 33m
1250	1000	69m	1h 50m	3h 15m	7h 47m	15h 50m
2500	2000	17m	52m	1hr 33m	3h 47m	7h 44m
3125	2500	12m	40m	1h 13m	2h 59m	6h 6m
3750	3000	9m	32m	60m	2h 26m	5h 1m
5000	4000	8m	28m	52m	1h 47m	3h 41m
SURT8000XLI						
VA	Watts	SURT8000XLI	+1 SURT192XLBP	+2 SURT192XLBP	+5 SURT192XLBP	+10 SURT192XLBP
875	700	1h 34m	2h 54m	4h 34m	9h 50m	19h 6m
1250	1000	1h 6m	2h 5m	3h 17m	7h 4m	13h 46m
2500	2000	32m	1h 1m	1hr 37m	3h 33m	6h 57m
3125	2500	24m	48m	1h 17m	2h 49m	5h 31m
3750	3000	19m	39m	1h 3m	2h 19m	4h 34m
5000	4000	13m	28m	46m	1h 42m	3h 21m
6250	5000	10m	21m	35m	1h 19m	2h 38m
7500	6000	7m	16m	28m	1h 5m	2h 10m
SURT10000XLI						
VA	Watts	SURT10000XLI	+1 SURT192XLBP	+2 SURT192XLBP	+5 SURT192XLBP	+10 SURT192XLBP
1250	1000	1h 6m	2h 5m	3h 17m	7h 4m	13h 46m
2500	2000	32m	1h 1m	1h 37m	3h 33m	6h 57m
3750	3000	19m	39m	1h 3m	2h 19m	4h 34m
3125	4000	13m	28m	46m	1h 42m	3h 21m
6250	5000	10m	21m	35m	1h 19m	2h 38m
7500	6000	7m	16m	28m	1h 5m	2h 10m
8750	7000	5m	13m	23m	55m	1h 49m
10000	8000	4m	11m	20m	47m	1h 34m

Smart-UPS® RT Technical Specifications



Smart-UPS RT
1000



Smart-UPS RT
2000



Smart-UPS RT
3000



Smart-UPS RT
5000



Smart-UPS RT
6000



Smart-UPS RT
8000



Smart-UPS RT
10000

Output							
Capacity	1kVA/.7kW	2kVA/1.4kW	3kVA/2.1kW	5kVA/3.5kW	6kVA/4.2kW	8kVA/6.4kW	10kVA/8kW
Output Voltage	230 (default), 220, 240 VAC (user selectable), single phase						
Output Voltage Regulation (Typical)	+/- 1% static, 5% dynamic						
Output Connections	(6) IEC C13		(8) IEC C13, (2) IEC C19			(4) IEC C13, (4) IEC C19, hardwire output terminal block	
Efficiency at Full Load, Nominal Line	87%	90%	91%	92%	92%	92%	92%
Output Frequency (sync'd to mains)	50 or 60 Hz, +/- 3Hz (auto-select default) [or 50 or 60 Hz +/-0.1Hz (user selectable)]						
Bypass	Automatic		Automatic/Manual				
Overload Capacity	105% - infinite, 125% - 1 min, 150% - 30 seconds						
Output Voltage Distortion	<3% for linear loads, <5% for non-linear loads						
Crest Factor	3:1						
Heat Dissipation (Watts), Nominal Line	90	140	192	305	365	450	650
Input							
Nominal Input Voltage	220, 230 (default), 240 VAC Single Ø					220, 230 (default), 240 VAC Single or Three Ø	
Input Frequency	45-65 Hz Auto-selecting						
Input Connection	IEC C14	IEC C20		Hardwire			
Input Voltage Range	160 - 280 VAC (at full load), 100 - 280 VAC (at half load)						
Input Power Factor at Full Load	>.95						
Batteries							
Battery Type	Maintenance-free, Sealed Lead-Acid, valve regulated, 3-6 years typical lifetime						
Recharge Time to 90% Capacity	< 3 Hours	< 4 Hours	< 3 Hours				
Communications and Management							
Interface Port	1) SmartSlot accessory port; (1) Serial communication port			(1) RJ-45 10/100 Base T Connection; (1) Serial Communication port			
UPS Network Management Card with Environmental Monitoring	optional			included			
Management Software included	PowerChute Business Edition for Windows NT/2000/XP/Novell Netware, Solaris, Linux RedHat, PowerChute <i>plus</i> for HP-UX and IBM AIX AIX(Smart-UPS RT 5000 also ships with PowerChute Network Shutdown)					PowerChute Network Shutdown for Windows NT/2000/XP, Novell Netware, Solaris, Linux RedHat, HP-UX, IBM AIX	
Physical							
Dimensions HxWxD (mm and inches)	85x432x482 mm, 3.4x17x19 in		130x432x660 mm, 5.1x17x26 in			264x432x663 mm, 10.4x17x26.12 in	
U Height	2		3			6	
Weight net/shipping (kg)	23/27.8 kg	25/29.8 kg	54.5/64 kg			111/129 kg	
Environmental							
Operating Conditions	3,000 m max elevation; 0-95% non-condensing humidity; 0-40° C						
Storage Conditions	15,000 m max. elevation; 0-95% non-condensing humidity; -20 to 60° C						
Audible noise at 3 feet (1 m)	< 50 dB		< 55 dB				
Warranty & Conformance							
Approvals	BSMI; C-Tick; CE; EN 50091-1; EN 50091-2; VDE; EN 55022 Class A; EN 60950; EN 61000-3-2; GOST; JEON; PCBC; UL 1778; CSA; VCCI						
Warranty	2 years, repair or replace, optional on-site warranties available, optional extended warranties available						
Ordering Guide							
Tower UPS Part Number	SURT1000XLI	SURT2000XLI	SURT3000XLI	SURT5000XLI	SURT6000XLI	SURT8000XLI	SURT10000XLI
Rack-mount UPS Part Number	SURT1000XLI (+) SURTRK	SURT2000XLI (+) SURTRK	SURT3000XLI (+) SURTRK2	SURT5000XLI (+) SURTRK2	SURT6000XLI (+) SURTRK2	SURT8000XLI (+) SURTRK2	SURT10000XLI (+) SURTRK2
Tower Battery Pack Part Number	SURT48XLBP		SURT192XLBP				
Rack-mount Battery Pack Part Number	SURT48XLBP (+) SURTRK		SURT192XLBP (+) SURTRK2				
Replacement Battery Cartridge	RBC31	RBC31	RBC44	RBC44	RBC44	2x RBC44	2x RBC44

Battery Packs

Models	Net Weight (kg)	Ship Weight (kg)	Rack Height	Max Dimensions	Ship Dimensions (mm/in)	For Use With:	RBC
SURT48XLBP	29.6	32.3	2U	85 x 432 x 483 3.34 x 17 x 19	287 x 630 x 595 11.3 x 24.8 x 23.4	SURT1000XLI, SURT2000XLI	2 x RBC31
SURT192XLBP	90.9	101.4	3U	130 x 432 x 660 5.1 x 17 x 26	414 x 600 x 1000 16.3 x 23.6 x 39.4	SURT3000XLI, SURT5000XLI, SURT6000XLI SURT8000XLI, SURT10000XLI	2 x RBC44