



# Smart-UPS On-Line 230 V

Unity output power factor single-phase,  
double-conversion online UPS  
with advanced management features



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# A versatile UPS developed for unstable power conditions worldwide

Smart-UPS™ On-Line provides high-density, double-conversion, online power protection for servers, voice/data networks, medical labs, and light industrial applications. The Smart-UPS On-Line is capable of supporting loads from 1 kVA – 10 kVA in a rack/tower convertible chassis. The 6 kVA, 8 kVA, and 10 kVA models feature unity output power factor enabling them to support power-hungry blade servers or heavily loaded equipment racks. When business-critical systems require runtime in hours, not minutes, Smart-UPS On-Line can be configured with multiple battery packs to meet aggressive runtime demands.

The included PowerChute™ Network Shutdown management software provides unattended graceful shutdown of network operating systems. Models 5 kVA to 10 kVA include an integrated network management card for remote management. The entire Smart-UPS On-Line family provides value to customers with demanding power conditions, including a very wide input voltage window, extremely tight output voltage regulation, frequency regulation, internal bypass, and input power factor correction.

# Smart-UPS On-Line

Industry-leading power factor maximizing UPS density.  
Rackmount and tower SRT 1 kVA – 10 kVA



SRT6KXLI shown

## Standard features

### Best-in-class power density

More real power in watts, 0.9 pf on 2.2 kVA – 5 kVA, Unity on 1-1.5 kVA units and 6 kVA – 10 kVA units.

### High-efficiency “green mode”

Achieves 98 percent efficiency, which saves utility and cooling costs without compromising performance or reliability.

### Graphical LCD display with multicolor backlight

Intuitive interface provides detailed and accurate information with ability to configure locally.

### Intelligent battery management

Temperature-compensated charging extends life and advanced algorithms recommend replacement date. The UPS can inform user which batteries need to be replaced and auto detect when additional battery packs are added.

### Built-in energy meter

Measures energy use and displays UPS efficiency in various modes of operation for easy energy tracking.

### Operate without battery

Ability to immediately protect equipment when power returns after a complete discharge of the battery.

### Three-year warranty on electronics

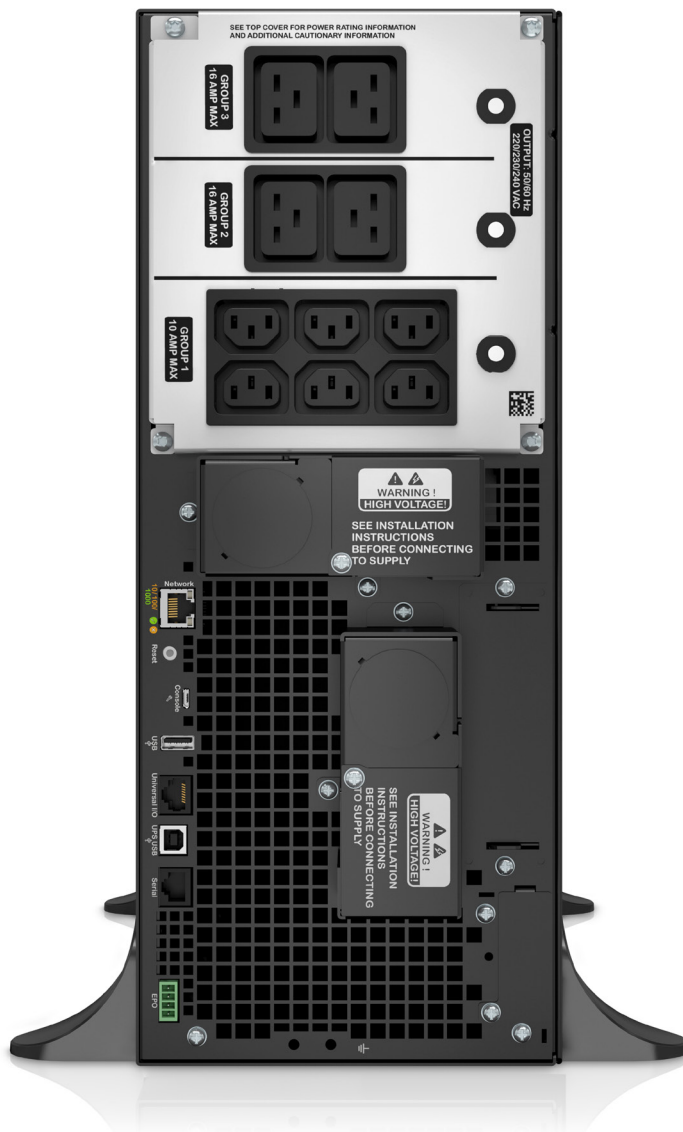
Additional year of warranty protection for electronics provides peace of mind.





# Smart-UPS On-Line

Proven performance with the world's largest installed base of single-phase, double-conversion products.  
Rackmount and tower SRT 1 kVA – 10 kVA



SRT6KXLI shown

## Additional features

### Embedded network management card with environmental monitoring (5 kVA – 10 kVA models)

Remote monitoring and control of the UPS and the environment via Ethernet connection while freeing up the SmartSlot™ so customers can add accessories for additional communication options.

### Switched outlet group(s)

Ability to control a group of output load receptacles independent from the main UPS. Enables:

- Rebooting hung device without cycling the entire UPS
- Sequenced turn ON/OFF
- Shedding of noncritical loads based on a variety of parameters (battery time, runtime remaining, and overload)
- Scheduled time OFF to conserve energy

### Emergency power off

Remote UPS shutoff in the event of a fire or other emergency. The UPS can accept normally open (NO) or normally closed (NC) contacts.

### Communication ports

Serial, USB, Ethernet, and SmartSlot for network accessory cards.

### Communication protocols

Modbus serial, USB PowerSummary, HTTP, SNMP, and Telnet.

### 1:1, 3:1 input hard-wire options

Product can be wired for 3-PH or 1-PH input (230 V, 8 kVA, and 10 kVA models only).

### Dual input

Enables second input source to be connected to UPS bypass (230 V, 8 kVA, and 10 kVA models only).

# Smart-UPS On-Line display

Intuitive, easy-to-use LCD provides clear and accurate information in multiple languages.



#### Backlit screens:

**Amber:** Indication of condition that requires attention

**Red:** Indication of UPS alarm that requires immediate attention

## Standard features

### LCD display screen

Accurately provides real-time status updates in your choice of basic or advanced menus.

### UPS status (scrolling)

- Output voltage
- Input voltage
- Output frequency
- Runtime
- Load
- Battery health

### Control

- UPS and outlet group settings
- Bypass control

### Configuration

- Output voltage, frequency
- Language, brightness, contrast
- Alarm volume
- IP address

### Test and diagnostics

- Initiate battery and runtime calibration tests

### About

- UPS serial number, battery part number
- Battery install and suggested replacement dates

# Product accessories



Management card

## Management cards

- AP9640: UPS Network Management Card
- AP9641: UPS Network Management Card with Environmental Monitoring
- AP9643: UPS Network Management Card with Environmental Monitoring and Modbus Support
- AP9810: APC dry contact I/O accessory
- AP9624: UPS interface expander
- AP9613: Dry contact I/O SmartSlot card



Battery pack

## Battery packs

- SRT48BP: APC Smart-UPS SRT 48 V 1 kVA and 1.5 kVA battery pack
- SRT48RMBP: APC Smart-UPS SRT 48 V 1 kVA and 1.5 kVA battery back
- SRT72BP: APC Smart-UPS SRT 72 V 2.2 kVA battery pack
- SRT72RMBP: APC Smart-UPS SRT 72 V 2.2 kVA RM battery pack
- SRT96BP: APC Smart-UPS SRT 96 V 3 kVA battery pack
- SRT96RMBP: APC Smart-UPS SRT 96 V 3 kVA RM battery pack
- SRT192BP: APC Smart-UPS SRT 192 V 5 kVA and 6 kVA battery pack
- SRT192RMBP: APC Smart-UPS SRT 192 V 5 kVA and 6 kVA RM battery pack
- SRT192BP2: APC Smart-UPS SRT 192 V 8 kVA and 10 kVA battery pack
- SRT192RMBP2: APC Smart-UPS SRT 192 V 8 kVA and 10 kVA RM battery pack
- SRT002: APC Smart-UPS SRT 5 M extension cable for 192 VDC External Battery Packs 5/6 kVA UPS
- SRT003: APC Smart-UPS SRT 5 M extension cable for 192 VDC External Battery Packs 8/10 kVA UPS
- SRT009: APC Smart-UPS SRT 5 M extension cable for 72 VDC external battery pack 2.2 kVA UPS
- SRT010: APC Smart-UPS SRT 5 M extension cable for 96 VDC external battery pack 3 kVA UPS

## Rail kits

- SRTRK2: APC Smart-UPS SRT 19 inch rail kit for Smart-UPS SRT 5/6/8/10 kVA UPS
- SRTRK3: APC 2-post mounting rail kit for Smart-UPS SRT 2.2/3/5/6/8/10 kVA UPS
- SRTRK4: APC Smart-UPS SRT 19 in rail kit for Smart-UPS SRT 1/1.5/2.2/3 kVA UPS



Rail kits

## Backplate kit

- SRT001: APC Smart-UPS SRT 5 kVA output HW kit
- SRT012: APC Smart-UPS SRT 2.2/3 kVA input/output HW kit

## Transformers

- SRT5KTF: APC Smart-UPS RT 3/5/6 kVA isolation and step-down transformer
- SRT10KRMTF: APC Smart-UPS RT 8 / 10 kVA isolation and step-down transformer

## Service bypass panels

- SBP1500RMI: APC service bypass panel 230 V; 10 A; BBM; IEC-320 C14 input; IEC-320 C14 / C13 output
- SBP3000RMI: APC service bypass panel 230 V; 16 A; BBM; IEC-320 C20 input; IEC-320 C20 /C19 output
- SBP3000RMHW: APC service bypass panel 230 V; 16 A; BBM; hardwire input; IEC-320 C20 /C19 output
- SBP6KRMI2U: APC service bypass panel 230 V; 50 A; MBB; hardwire input; (4) IEC-320 C19 output
- SBP10KRMI4U: APC service bypass panel 230 V; 100 A; MBB; hardwire input; IEC-320 output (8) C13 (2) C19

## Other

- SURT013: SURT Equipment Cart

## Replacement Battery Cartridge

- APCRBC140: RBC for SRT 5 kVA - 10 kVA UPS
- APCRBC141: RBC for SRT 2.2 kVA UPS
- APCRBC152: RBC for SRT 3 kVA UPS
- APCRBC155 RBC for SRT 1-1.5 kVA UPS

# Smart-UPS On-Line runtime

Runtime estimates at half and full load (minutes)

UPS half/full loads	SRT1000XLI (RM) (RM-NC) (500 W/1,000 W)	SRT1500XLI (RM) (RM-NC) (750 W/1,500 W)	SRT2200XLI (RM) (RM-NC) (990 W/1,980 W)	SRT3000XLI (RM) (RM-NC) SRT3000XLW-IEC (RM) (1,350 W/2,700 W)
Internal	21.5/8.4	14.6/4.0	11.6/3.9	11.8/4.0
(1) Battery pack	90.0/40.0	63.0/27.0	45.7/20.2	46.4/20.5
(2) Battery packs	134.0/63.0	95.1/45.0	82.1/37.6	83.3/38.1
(3) Battery packs	194.0/92.0	138.7/66.3	119.9/55.6	121.6/56.3
(4) Battery packs	257.0/122.0	183.4/88.2	158.6/74.1	160.9/75.1

UPS half/full loads	SRT5KXLI (RM) SRT5KRMXLW-HW (2,250 W/4,500 W)	SRT6KXLI (RM) (3,000 W/6,000 W)	SRT8KXLI (RM) (4,000 W/8,000 W)	SRT10KXLI (RM) (5,000 W/10,000 W)
Internal	11.8/4	8.7/2.5	14.5/5.2	11.5/3.8
(1) Battery pack	46.2/20.5	36/15.5	34.5/14.7	28/11.6
(2) Battery packs	83/38	65.2/29.4	55.43/24.63	45.3/19.8
(3) Battery packs	121/56.4	95.5/43.8	77/34.84	63.1/28.2
(4) Battery packs	160.4/75.1	126.6/58.6	99.1/45.33	81.3/36.8



# Smart-UPS On-Line SRT

## 1000 VA and SRT 1500 VA technical specifications

Product feature	SRT1000XLI SRT1000RMXLI SRT1000RMXLI-NC (Pre-installed NMC, AP9641)	SRT1500XLI SRT1500RMXLI SRT1500RMXLI-NC (Pre-installed NMC, AP9641)
<b>Output</b>		
Power rating	1000 VA/ 1000W	1500 VA/ 1500 W
Nominal output voltage	230 V (220 V, 240 V user selectable)	
Output frequency	50/60 Hz $\pm$ 3 Hz (auto sense) 50/60 Hz $\pm$ 0.1 Hz (user selectable)	
Topology	Double-conversion online	
Online efficiency at full load (typical)	91%	92%
Green mode efficiency at full load (typical)	94%	96%
Output connections (switched groups)	(6) IEC 320 C13	
<b>Input</b>		
Nominal input voltage	220, 230, 240 V	
Input voltage range full load (half load)	176 – 275 V (100 – 275 V)	
Input frequency	40 – 70 Hz	
Input connection	IEC-60320 C14	
<b>Batteries and runtime</b>		
Battery type	Sealed, maintenance-free, valve-regulated lead-acid battery	
Replacement battery (quantity)	APCRBC155	
External battery pack (tower/rack mount)	SRT48BP/SRT48RMBP	
<b>Communication and management</b>		
Interface ports	Serial (RJ45), USB (Type A) and SmartSlot	
Control panel	Multi-function LCD status and control console. Audible and visible alarms prioritized by severity.	
Emergency power off (EPO)	Yes (NO/NC connections)	
<b>Physical</b>		
Rack height	85 mm, 2U	
Maximum width (RM)	432 mm	
Maximum depth (RM)	505 mm	
Net weight	22.0 kg	
<b>Conformance</b>		
Regulatory	CE, CE Mark, VDE, RCM, and EAC, IEC/EN 62040-1, IEC/EN 62040-2	CE, CE Mark, VDE, RCM, and EAC, IEC/EN 62040-1, IEC/EN 62040-2
Warranty	Three years for electronics/two years for battery	

# Smart-UPS On-Line SRT

## 2200 VA and SRT 3000 VA technical specifications

Product feature	SRT2200XLI SRT2200RMXLI SRT2200RMXLI-NC (Pre-installed NMC, AP9641)	SRT3000XLI SRT3000RMXLI SRT3000RMXLI-NC (Pre-installed NMC, AP9641)	SRT3000XLW-IEC SRT3000RMXLW-IEC
<b>Output</b>			
Power rating	2200 VA/1980 W	3000 VA/2700 W	
Nominal output voltage	230 V (220 V, 240 V user selectable)		230 V (208 V, 220 V, 240 V user selectable)
Output frequency	50/60 Hz $\pm$ 3 Hz (auto sense) 50/60 Hz $\pm$ 0.1 Hz (user selectable)		
Topology	Double-conversion online		
Online efficiency at full load (typical)	92%		
Green mode efficiency at full load (typical)	96%	97%	
Output connections (switched groups)	(8) IEC 320 C13, (2) IEC 320 C19		(4) IEC320 C13, (2) IEC320 C19
<b>Input</b>			
Nominal input voltage	230 V		230 V (208 V, 220 V, 240 V user selectable)
Input voltage range full load (half load)	160 – 275 V (100 – 275 V)		
Input frequency	40 – 70 Hz		
Input connection	IEC-60320 C20, Schuko CEE 7/EU1-16P, British BS1363A		
<b>Batteries and runtime</b>			
Battery type	Sealed, maintenance-free, valve-regulated lead-acid battery		
Typical backup time at ½ load (min)	11.6 min	11.8 min	
Typical backup time at full load (min)	3.9 min	4.0 min	
Replacement battery (quantity)	APCRBC141 (1)	APCRBC152 (1)	
External battery pack (tower/rack mount)	SRT72BP/SRT72RMBP	SRT96BP/SRT96RMBP	
<b>Communication and management</b>			
Interface ports	Serial (RJ45), USB (Type A) and SmartSlot		
Control panel	High-resolution graphical LCD display		
Emergency power off (EPO)	Yes (NO/NC connections)		
<b>Physical</b>			
Rack height	85 mm, 2U		
Maximum width (RM)	432 mm	432 mm	
Maximum depth (RM)	585 mm	636 mm	
Net weight	25 Kg	31 kg	
<b>Conformance</b>			
Regulatory	CE, VDE, RCM, and EAC, IEC/EN 62040-1, IEC/EN 62040-2	CE, VDE, RCM, and EAC, IEC/EN 62040-1, IEC/EN 62040-2, UL-1778, FCC Part 15 Class A, CSA	
Warranty	Three years for electronics/two years for battery		

# Smart-UPS On-Line SRT

## 5 kVA – 10 kVA technical specifications

Product feature	SRT5KRMXLW-HW	SRT5KXLI SRT5KRMXLI	SRT6KXLI SRT6KRMXLI	SRT8KXLI SRT8KRMXLI	SRT10KXLI SRT10KRMXLI
<b>Output</b>					
Power rating	5,000 VA/4,500 W		6,000 VA/6,000 W	8,000 VA/8,000 W	10,000 VA/10,000 W
Nominal output voltage	230 V (220 V, 240 V, 208 V user selectable)	230 V (220 V, 240 V user selectable)			
Output frequency	50/60 Hz ± 3 Hz (auto sense)		50/60 Hz ± 0.1 Hz (user selectable)		
Topology	Double-conversion online				
Online efficiency at full load (typical)	94%				
Green mode efficiency at full load (typical)	98%				
Output connections	Hardwire three-wire (1 PH + N + G) or (2 PH + G)	(6) IEC 320 C13 (4) IEC 320 C19	(6) IEC320 C13, (4) IEC320 C19, hardwire three-wire (1 PH + N + G)		
<b>Input</b>					
Nominal input voltage	208 V, 220 V, 230 V, 240 V	220 V, 230 V, 240 V		220 V/380 V, 230 V/400 V, 240 V/ 415 V	
Input voltage range full load (half load)	160 – 275 V (100 – 275 V)			160/277 – 275/476 V (100/173-275/476 V)	
Input frequency	40 – 70 Hz				
Input connection	Hardwire three-wire (1 Ph+N+G) or (2 PH + G)	Hardwire three-wire (1 Ph+N+G)		Hardwire three-wire (1 Ph+N+G), Hardwire five-wire (3 Ph+N+G)	
<b>Batteries and runtime</b>					
Battery type	Sealed, maintenance-free, valve-regulated lead-acid battery				
Typical backup time at 1/2 load (min.)	11.8 min.	8.7 min.	14.5 min.	11.5 min.	
Typical backup time at full load (min.)	4 min.	2.5 min.	5.2 min.	3.8 min.	
Replacement battery (quantity)	APCRBC140 (1)			APCRBC140 (2)	
External battery pack (tower/rack mount)	SRT192BP/SRT192RMBP			SRT192BP2/SRT192RMBP2	
<b>Communication and management</b>					
Interface ports	Embedded network management with environmental monitoring, which includes an RJ-45 with status LEDs (10/100/1000 Base-T), USB ports, Serial port, Universal IO port, console port				
Control panel	High-resolution graphical LCD display				
Emergency power off (EPO)	Yes (normally open, NO/ normally closed, NC connections)				
<b>Physical</b>					
Rack height	3 U	4 U	6 U	6 U	
Maximum height (RM)	130 mm	174 mm	263 mm	263 mm	
Maximum width (RM)	432 mm	432 mm	432 mm	432 mm	
Maximum depth (RM)	719 mm	719 mm	715 mm	715 mm	
Net weight	54.5 kg	60 kg	112 kg	112 kg	
<b>Conformance</b>					
Regulatory	UL-1778, FCC Part 15 Class A, CSA, CE, VDE, RCM, and EAC, IEC/EN 62040-1, IEC/EN 62040-2	CE, VDE, RCM, and EAC, IEC/EN 62040-1, IEC/EN 62040-2			
Warranty	Three years for electronics/two years for battery				

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