

Smart-UPS On-Line

1 – 20 kVA

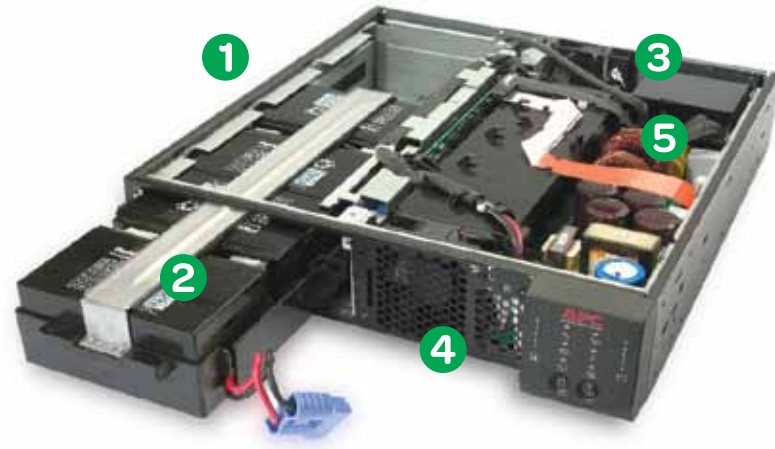
High-density, double-conversion online power protection with scalable runtime



A versatile UPS developed for the harshest power conditions in the world

Smart-UPS™ On-Line provides high-density, true double-conversion online power protection for servers, voice/data networks, medical labs, and light industrial applications. Capable of supporting loads from 1 to 20 kVA in a rack/tower convertible form, the Smart-UPS On-Line is available from 2 U to 12 U. The 15 kVA and 20 kVA models enable support of 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 matching battery packs to comply with aggressive runtime demands. The included PowerChute™ management software provides unattended graceful shutdown of network operating systems. All models 5 kVA and above include an integrated network management card for remote management (optional on models below 5 kVA). The entire Smart-UPS On-Line family provides value to customers with demanding power environments, including a very wide input voltage window, extremely tight output voltage regulation, frequency regulation, internal bypass, and input power factor correction.

Features and Benefits



- 1 Rack/Tower Convertible**
Ensures integration in various environments
- 2 Hot-swappable/User-replaceable Batteries**
Ensures continuous operation of the load even when the batteries are being replaced
- 3 Double-conversion Online**
Provides tight voltage and frequency regulation and zero transfer time for reactive loads (machinery, lab equipment, etc.)
- 4 Advanced 16-segment LED Display**
Quickly understand unit and power status with visual indicators. (LCD on 15 – 20 kVA models)
- 5 Frequency and Voltage Regulation**
Gives higher application availability by correcting poor frequency and voltage conditions without using the battery

Product Accessories

Management Cards

- AP9610: Relay I/O SmartSlot™ Card (Not compatible with SURTD UPS models)
- AP9622: Modbus®/Jbus Interface Card (Not compatible with SURTD UPS models)
- AP9630: UPS Network Management Card
- AP9631: UPS Network Management Card with Environmental Monitoring
- AP9810: APC™ Dry Contact I/O Accessory (Not compatible with SURTD UPS models)
- AP9620: Legacy Communications SmartSlot Card (Compatible with SURTD UPS models only)

Transformers

- APTF10KW01: APC WW 10 kVA Isolation Transformer
- APTF20KW01: APC WW 20 kVA Isolation Transformer
- SURT001: APC Smart-UPS RT 3000 VA 230 V Isolation Transformer
- SURT002: APC Smart-UPS RT 5000 VA 230 V Isolation Transformer

Backplate Kits

- SURT007: APC Smart-UPS RT 3/5/6 kVA Input/Output Hardwire Kit
- SYPD10: Symmetra™ RM 230 V Backplate Kit with (2) IEC 320 C19 and (1) IEC 60309

Other

- SURT013: SURT Equipment Cart

Rail Kits

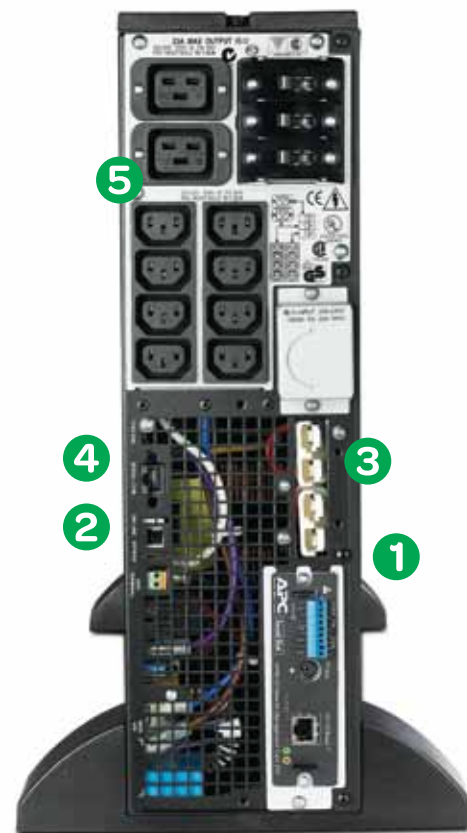
- SURTRK: APC Smart-UPS RT 482 mm Rail Kit 1 kVA and 2 kVA
- SURTRK2: APC Smart-UPS RT 482 mm Rail Kit for Smart-UPS RT 3/5/6/8/10 kVA
- SURTRK4: APC Smart-UPS RT 482 mm Rail Kit for Smart-UPS RT 15/20 kVA

Battery Packs

- SURT48XLBP: APC Smart-UPS RT 48 V Battery Pack
- SURT48RMXLBP: APC Smart-UPS RT 48 V RM Battery Pack
- SURT192XLBP: APC Smart-UPS RT 192 V Battery Pack
- SURT192RMXLBP: APC Smart-UPS RT 192 V RM Battery Pack
- SURT192RMXLBP2: APC Smart-UPS RT 192 V RM Battery Pack 2 Rows

Service Bypass Panels

- SBP3000: APC Service Bypass Panel 100 – 240 V; 30 A; BBM; Hardwire Input/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
- SBP20KP: APC Service Bypass Panel 200/208/230/240 V 125 A HW Input/Output
- SBP20KRMI4U: APC Service Bypass Panel 230 V 125 A HW Input IEC 320 Output (8) C19



- 1 UPS Network Management Card with Environmental Monitoring**
Provides remote user interface, managed via web browser, SNMP, and Telnet. Includes graceful unattended shutdown. The UPS Network Management Card is pre-installed on UPS models 5 kVA through 20 kVA
- 2 Serial Connectivity**
Enables quick and easy configuration of the UPS
- 3 Scalable Runtime**
Allows additional run time to be quickly added as needed
- 4 Built-in Automatic and Manual Bypass**
Ensures seamless power to the load even in the event of catastrophic UPS failure
- 5 Field-replaceable Power Distribution Panels**
Enables quick in-field modification of output receptacles to fit changing needs

Technical Specifications

UPS VA	1000	2000	3000	5000	6000	8000	10000	15000	20000
Output									
Topology	Double-conversion Online								
Nominal Output Voltage	Configurable for 220 : 230 or 240 nominal output voltage							Configurable for 220 : 230 : 240 : 400 V nominal output voltage	
Efficiency at Full Load	Up to 92%								
Output Frequency (sync to mains)	50/60 Hz +/- 3 Hz user adjustable								
Output Power Capacity	700 W	1400 W	2100 W	3500 W	4200 W	6400 W	8000 W	12 kW	16 kW
Output Connections	(6) IEC 320 C13	(8) IEC 320 C13; (2) IEC 320 C19				(1) Hardwire 3-wire (H + N + G); (4) IEC 320 C13; (4) IEC 320 C19		(1) Hardwire 3-wire (H + N + G); (1) Hardwire 5-wire (3PH + N + G); (8) IEC 320 C19	
Input									
Nominal Input Voltage	230 V					230 V or 400 V			
Input Frequency	45 – 65 Hz (auto sensing)								
Input Connections	British BS1363A; IEC 320 C20; Schuko CEE 7/EU1-16P			Hardwire 3-wire (1PH + N + G)		Hardwire 3-wire (1PH + N + G); Hardwire 5-wire (3PH + N + G)			
Bypass	Automatic and Manual (Built-in)								
Battery									
Battery Type	Maintenance-free sealed lead-acid battery with suspended electrolyte: leak proof								
Replacement Battery	RBC57			RBC44					
Runtime	See Chart Below								
Communications and Management									
Interface Port(s)	DB-9 RS-232, SmartSlot, USB			RJ-45 10/100 Base-T, RJ-45 Serial, SmartSlot					
Pre-installed SmartSlot Card	–	–	–	AP9631					
Emergency Power Off (EPO)	Yes								
Control panel	LEDs							LCD Display	
Physical									
Rack Height	2 U		3 U			6 U		12 U	
Maximum Height	432 mm			533 mm					
Maximum Width	85 mm		130 mm			263 mm		432 mm	
Maximum Depth	483 mm		660 mm			736 mm		773 mm	
Net Weight	25.00 kg		54.55 kg			110.91 kg		247.70 kg	

Runtime Estimates at Half and Full Load (minutes)

UPS VA	1000	2000	3000	5000	6000	8000	10000	15000	20000
Internal	32/14	17/6	34/14	18/6	16/5	20/7	15/5	22/8	15/5
(1) Battery Pack	122/69	67/30	122/57	70/31	49/21	48/21	37/15	53/23	38/15
(2) Battery Pack	257/129	121/56	217/102	125/58	88/40	76/35	60/26	84/38	60/27
(3) Battery Pack	360/180	177/83	315/150	183/85	130/60	106/49	83/38	117/54	85/38
(4) Battery Pack	480/240	234/110	416/199	242/113	172/80	136/63	107/49	150/69	104/50