# **UPS SYSTEMS**



TRACT



Enter

# Tripp Lite UPS Systems

The most reliable and cost-efficient solutions available for protecting and supporting critical systems in any environment.



e Most Reliable and Cost-Effici

ficient Solutions Available for Protecting and S vironment • The Most Reliable and Costotecting and Supporting Critical Systems in liable and Cost-Efficient Solutions Available



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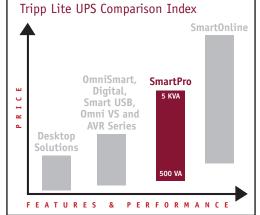
THE

### INDEX Intelligent, Line-Interactive Operation SmartPro Rackmount/ 2-5 Tower UPS SmartPro Shallow-Depth 6-7 Rackmount UPS SmartPro Tower UPS 24-25 Intelligent, True On-Line Operation SmartOnline Rackmount/ 8-13 Tower UPS SmartOnline Tower UPS 14-15 SmartOnline Modular 16-19 3-Phase Tower UPS SmartOnline 3-Phase 20-23 Tower UPS Network Power Management PowerAlert Software 26-27 Line-Interactive Operation Tower & Low-Profile UPS 28-29 Special Application UPS 32 Standby Operation Tower & Low-Profile UPS 30-31 **Additional Solutions** <u>3</u>3-35 KVM Switches Rack Enclosures 36-37 Power Distribution Units 38-39

Green UPS Technology

# $SmartPro^{\circ}$ Intelligent Line-Interactive UPS Systems





- ▶ 500 5,000 VA
- Internal Batteries & Extended Runtime Options
- ► Automatic Voltage Regulation (AVR)
- Rack/Tower/Stack Adaptable

# Conserve Space—Slim as 1U!

SMART5000RT3U, SMART5000XFMRXL & SMART5000TEL3U

SmartPro Rackmount/Tower UPS Systems provide more battery backup (up to 5000VA) and premium product features in compact cases (as slim as 1U) which make the best use of available rack space. Select models are compact and shallow enough to allow users to mount a UPS system and an external battery pack back-to-back to increase the power protection in the same rack space.



N I N G

# Protect Every Application

SmartPro Rackmount/Tower UPS Systems are available in a wide variety of capacities to protect every size computer application from downtime, damage and data loss due to power problems. SmartPro Rackmount/Tower UPS Systems provide complete protection against all types of power problems, including brownouts, blackouts, surges and line noise. Line-interactive operation—also known as automatic voltage regulation (AVR) automatically regulates incoming voltage to keep equipment working through low voltage (brownouts) and high voltage conditions\* indefinitely, without draining battery power. SmartPro Rackmount/Tower UPS Systems provide reliable battery power to keep computers up and running through short blackouts and allow enough time to safely shut down during longer ones. In addition, all AC outlets are backed by internal surge suppression and line noise filtering components to protect equipment from damage due to lightning and surges or audio/video distortion due to line noise.

\* SMART500RT1U models supply battery power during high voltage conditions.

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### **Extend Runtime**

Select models accept external battery packs to provide extended runtime. Without enough runtime, businesses stand to lose up to \$50,000 per hour according to a recent survey on the cost of lost productivity for an hour of network downtime.\* Locate your planned load and optimum runtime on the chart to the right.

\* Yankee Group.



Extending runtime is as simple as plugging in additional external battery packs.

# Adapt to Rack/ Tower/Stack Applications

Adapt all models from rackmount to tower or stacking applications.\*

- Removable rack hardware
- Optional base stands



SMART3000RM2U tower mount with optional base stands.

\* 1U models include hardware to adapt to tower mounting. Optional base stands (model: 2-9USTAND) are available to adapt any combination of models, from 2U to 9U wide, to tower mounting.

		Runtime (m	inutes) with a	ditional exter	nal battery pa	ack(s)
Load	Runtime (minutes) with	Non-Expandable	Expa	ndable Battery	/ Pack(s)*	
(Watts)	included batteries	Battery Pack	1	2	3	4
SMART750F	MXL2U Extended Runtime	BP24V28-2U		BP24V	70-3U	
200	41.2	179.7	437.3	866.9	1285.9	1692.5
440	16.0	72.6	187.3	389.3	592.9	795.0
SMART1500	RMXL2Ua Extended Runtime	BP36V15-2U		BP36V	42-3U	
500	25.0	74.6	205.9	420.6	636.3	850.1
1000	10.0	29.7	86.5	185.2	288.1	392.3
SMART2200	RMXL2U Extended Runtime	BP48V24-2U		BP48V	60RT3U	
800	16.0	62.0	128.5	264.3	403.4	542.9
1600	6.0	24.5	52.6	113.0	177.3	243.5
SMART2600	RM2U Extended Runtime	BP48V24-2U		BP48V6	SORT3U	
800	21.2	59.9	124.3	256.2	391.5	527.2
1600	8.5	24.9	53.4	114.5	179.7	246.6
SMART3000	RM2U Extended Runtime	BP48V24-2U	BP48V60RT3U			
800	21.2	59.9	124.3	256.2	391.5	527.2
1600	8.5	24.9	53.4	114.5	179.7	246.6
SMART3000	RMOD2U Extended Runtime	BP72V15-2U		BP72V2	28RT-3U	
1440	11.0	33.0	97.0	166.0	238.0	311.0
2880	3.8	13.0	39.0	69.0	102.0	135.0
SMART5000	RT3U Extended Runtime			BP48V	60RT3U	
2000	38.0	N/A	79.1	129.5	181.9	235.3
4000	15.0	N/A	32.6	54.5	78.0	102.6
SMART5000	XFMRXL Extended Runtime			BP48V	60RT3U	
1820	27.7	N/A	63.0	117.9	175.8	235.2
3750	10.0	N/A	24.4	47.0	71.7	97.6

\* Battery packs that are "expandable" can be connected together for increased runtime.

For additional extended runtime solutions to fit your specific load requirements, use Tripp Lite's interactive UPS Selector Guide at www.tripplite.com/selector/ups, or call Tripp Lite's Application Specialists at (773) 869-1236.

# Manage Multiple Servers

Multiple built-in communication ports provide the ability to simultaneously manage multiple servers without the need for accessories. Using PowerAlert software, select models with multiple communication ports will simultaneously provide intelligent communications, shutdown commands and reporting on multiple servers—even if they are running different operating systems.\* Intelligent communications allow you to check UPS status (including battery charge level) and AC power status as well as reboot Customized Load Management Banks.

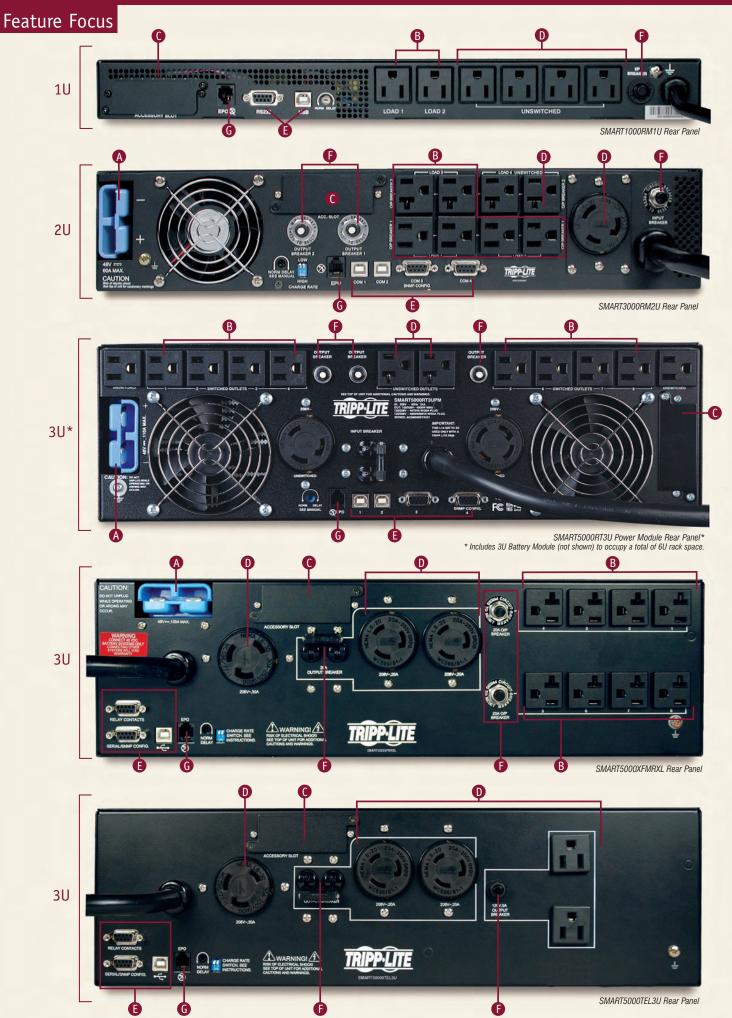
\* Additional PowerAlert features: pages 26 and 27.

### Protect Telecom Applications

Protect large telecom equipment and servers with a specially designed SmartPro Rackmount/Tower UPS System—SMART5000TEL3U. The SMART5000TEL3U allows you to power and protect multiple pieces of high-voltage equipment from a single 208V circuit. In addition, the SMART5000TEL3U features two 120V receptacles which supply enough support to low-powered monitors and peripherals used with high-voltage equipment.

### Control Individual Outlets

Prioritize the uptime of mission-critical loads during a power failure with Customized Load Management Banks featured on select models. Customized Load Management Banks can be controlled independently through PowerAlert. Use PowerAlert to reboot a locked-up computer by cycling the power on and off to select receptacles on the UPS system. You can also program PowerAlert to shut down less important systems during an extended blackout, preserving battery runtime for more critical equipment.



### A Extended Runtime Capability

Select models feature connectors that accept optional external battery packs for additional runtime. External batteries can be "hot-swapped". See Extended Runtime Chart on page 3 to locate the perfect SmartPro Rackmount/Tower model that fits your runtime needs.

### Customized Load Management

Prioritize the uptime of missioncritical loads during a power failure. Select models feature special load banks that you control independently through PowerAlert software. Use PowerAlert to reboot a locked-up computer or to shut down less important systems during extended blackouts, preserving battery runtime for more critical equipment.

Creation

### C Accessory Card Slot

internal



SNMPWEBCARD provides network interface for monitoring and control via SNMP, Web or telnet, enabling remote reboots, shutdowns and more. Use with optional ENVIROSENSE to monitor temperature and humidity or to control and monitor alarms and security systems. RELAYIOCARD provides programmable contact closure interface with 6 outputs and 1 input.

### **D** Variety of Output Options

15-, 20- and 30-amp receptacles on select models ensure maximum connection flexibility.

### Multiple Server Support

Up to four built-in communication ports on select models simultaneously provide shutdown commands and reporting on multiple servers without the need for accessories.

#### Short Circuit Protection

Breakers safequard your equipment and the UPS from damage due to input or output short circuits and system overloads.

### **G** Emergency Power Off (EPO)

A modular jack included with all models allows remote emergency shutdown.

### **Complete Performance Conditions Displayed**

Front panel LEDs alert you to a variety of perfor-

load and replace battery.



mance conditions, including AC line present, automatic voltage regulation, UPS





includes a bypass feature that allows the power module to be removed for maintenance while continuously passing through utility power to connected equipment.

### Front Panel Battery Replacement (not shown)

Tripp Lite UPS batteries will protect equipment for several years with normal use. Most models feature a removable panel which allows for internal battery replacement.\* Internal batteries can be "hot-swapped".

\* Tripp Lite offers a complete line of replacement battery cartridges (R.B.C.); visit www.tripplite.com.

Specifications							_				ROHS
c(H) us NOM (A) Model	Output Capacity (VA/Watts)	Backup Time (Typical Minutes) Half/Full Load <sup>(C)</sup>	Optional External Battery Packs	Total Rack Space	Nominal Input- Output Voltage/ Frequency 60 Hz	AC F Quantity	Receptacles NEMA Type	Customized Load Management Banks	"Smai USB	rt" Comm. Ports RS-232 (DB9)	Input Plug (NEMA)
UPS Systems											
SMART500RT1U	500/300	17/5		1U	120	7 <sup>(D)</sup>	5-15R	1	1	1	5-15P
SMART750RM1U	750/450	24/7	—	1U	120	6	5-15R	2	1	1	5-15P
📩 SMART750RMXL2U	750/450	34/16+	AB	2U	120	6	5-15R	2	1	1	5-15P
SMART1000RM1U	1000/640	24/10	—	1U	120	6	5-15R	2	1	1	5-15P
SMART1000RM2U	1000/700	21/9	—	2U	120	6	5-15R	2	1	1	5-15P
SMART1500RM2U	1500/1000	21/7.5		2U	120	8	5-15R	2	1	1	5-15P
枯 SMART1500RMXL2Ua	1500/1000	21/7.5+	CD	2U	120	8	5-15R	3	1	1	5-15P
💼 SMART2200RMXL2U	2200/1600	16/6+	EF	2U	120 (& 100 or 110) user-selectable	8	4 (5-15R), 4 (5-15/20R)	3	1	1	5-20P <sup>(E)</sup>
亡 SMART2600RM2U	2600/2100 <sup>(B)</sup>	18/6+	EF	2U	120	9	4 (5-15R), 4 (5-15/20R), 1 (L5-20R)	3	1	1	5-20P <sup>(E)</sup>
📩 SMART3000RM2U	3000/2250	13/4+	EF	20	120	9	4 (5-15R), 4 (5-15/20R), 1 (L5-30R)	3	1	1	L5-30P <sup>(E)</sup>
詰 SMART3000RM0D2U	3000/2880	11/3.8+	GH	2U	120	7	6 (5-15R), 1 (L5-30R)	2	1	1	L5-30P
📩 SMART5000RT3U	5000/4000 <sup>(B)</sup>	38/16+	F	6U	208 (In); 208 & 120 (Out)	14	10 (5-15R), 2 (5-15/20R), 1 (L6-30R), 1 (L14-30R)	8	2	2	L6-30P
📩 SMART5000XFMRXL	5000/3750 <sup>(B)</sup>	20/8.5+	F	3U	208 (ln); 208 & 120 (Out)	11	8 (5-15/20R), 2 (L6-20R), 1 (L6-30R)	8	1	2 <sup>(F)</sup>	L6-30P
SMART5000TEL3U	5000/3750 <sup>(B)</sup>	-,	—	3U	208 (In); 208 & 120 (600VA @ 120V max.) Out	5	2 (5-15R), 2 (L6-20R), 1 (L6-30R)	—	1	2(F)	L6-30P
External Battery Packs											
A BP24V28-2U	24V external	battery pack and ca	able, 2U. Not exp	andable. RED/	BLACK 2-point connect	tor.					

A BP24V28-2U	24V external battery pack and cable, 2U. Not expandable. RED/BLACK 2-point connector.
B BP24V70-3U	24V external battery pack and cable, 3U. Expandable. RED/BLACK 2-point connector.
C BP36V15-2U	36V external battery pack and cable, 2U. Not expandable. GREY 2-point connector.
D BP36V42-3U	36V external battery pack and cable, 3U. Expandable. GREY 2-point connector.
E BP48V24-2U	48V external battery pack and cable, 2U. Not expandable. BLUE 2-point connector.
F BP48V60RT3U	48V external battery pack and cable, 3U. Expandable. BLUE 2-point connector.
G BP72V15-2U	72V external battery pack and cable, 2U. Not expandable. BLACK 3-point connector.
H BP72V28RT-3U	72V external battery pack and cable, 3U. Expandable. BLACK 3-point connector.
SNMPWEBCARD	Internal SNMP/Web management accessory card (connects compatible UPS systems to Ethernet).
ENVIROSENSE	Allows UPS to monitor external temperature/humidity and contact-closure inputs (requires SNMPWEBCARD).
RELAYIOCARD	Programmable contact closure accessory card with 6 output contacts and 1 input contact.
2-9USTAND	Tower kit with 2 adjustable base stands—2U to 9U—(for all models except 1U models).
4P0STRAILKIT	Adjustable horizontal mounting rails for 4-post rackmount installation. For all UPS and battery pack models.
2POSTRMKITWM	Horizontal mounting rails for 2-post rackmount installation. For all UPS and battery pack models.
UPSHDEARKIT	Heavy-duty mounting ear kit supports 2U cabinets up to 65 lb from front vertical rails in 4-post racks. Not suitable for 2-post mounting.
Common specifications for	r all LIPS systems: Accessory card slot for optional SNMPWERCARD or RELAYIOCARD. 10 ft. power cord. All models include mounting hardware to fit standard 19 in. racks

Common specifications for all UPS systems: Accessory card slot for optional SNMPWEBCARD or RELAVIOCARD. 10 ft. power cord. All models include mounting hardware to fit standards. + Backup times are expandable using external battery packs. (N Certifications vary by model. (III) SMART5000RM2U models will supply 2600VA output with included 30 hug. SMART5000RT3U, SMART5000XFMXL and SMART5000TEL3U models provide 4500VA output with included plug, but will supply 5000VA output with user-supplied 50A plug. While SMART5000RT3U and SMART5000XFMXL models supply full VA output through both 208 and 120V receptacles, SMART5000TEL3U models are limited to providing 540VA output through its 120V receptacles (or 600VA with user-supplied 50A plug). (NB Backup times will vary depending on battery condition and load. (III) SMART5000TT1U features one "surge-only" receptacle designed for Pintese. (III) These models include an additional plug which can be installed in place of the existing plug. Installing the additional plug will change the output capacity. (SMART200RMXL2U: 5-15P; SMART2600RM2U: L5-30P; SMART3000RM2U: 5-20P) (III) SMART5000XFMXL and SMART5000TEL3U include an RS-232 DB9 port and a relay contact-closure DB9 port.

### Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com

Also available: interactive UPS System selector guide, extended warranties, owner's manuals and more!

# TRIPP-LITE SHALLOW-DEPTH UPS

# $SmartPro^{\circ}$ Shallow-Depth Rackmount UPS Systems



SMART3000CRMXL/SMART2200CRMXL & BP48V48RT4U

# Support Network/Telecom Wiring Closets

Shallow mounting depth matches popular network/telecom equipment and allows UPS systems to fit in confined spaces. High load capacity and internal battery capacity allow you to attach more equipment safely without installing additional circuits and UPS systems. SMART3000CRMXL, SMART2200CRMXL and the matching BP48V48RT4U external battery pack include all hardware required for secure mounting in 2-post network/ telecom racks. Combine with Tripp Lite's SR2POST or SR2POST25 2-post racks to create ideal solutions for organizing, protecting and powering important equipment in cramped network/telecom wiring closets.

# Lower Operating Costs

AC-to-AC efficiency up to 97% reduces power consumption and lowers operating costs. Each two watts saved by increased UPS efficiency saves an additional watt in cooling requirements. Higher efficiency also lowers your facility's environmental impact.

# SmartOnline OmniSmart, SmartPro Digital, Smart USB, Omni VS and AVR Series Desktop Solutions 1.5 KVA

- ▶ 1,500 3,600 VA
- Best-In-Class Mounting Depth
- Automatic Voltage Regulation (AVR)
- Optional External Battery Packs for Extended Runtime

# Protect Sensitive Equipment

Line-interactive operation—also known as automatic voltage regulation (AVR)—automatically adjusts incoming voltage to safe levels without draining battery power. Reliable battery backup keeps equipment operating through power failures. Pure sine wave output guarantees maximum stability and compatibility with sensitive equipment. All outlets include network-grade surge suppression and noise filtering. SMART3000CRMXL and SMART2200CRMXL include an automatic AC bypass that keeps equipment powered in case of internal fault or battery depletion.

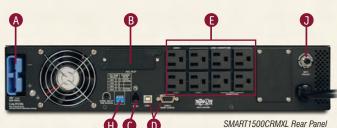
# Extend Runtime

All models accept external battery packs to provide extended runtime. Without enough runtime, businesses stand to lose up to \$50,000 per hour according to a recent survey on the cost of lost productivity for an hour of network downtime.\* Locate your planned load and optimum runtime on the chart to the right. \* Yankee Group.

- 1						Estir	nated Ba	ttery Bac	kup Runti	ime (minu	ites)		
A K	Model	200W	400W	600W	800W	1000W	1200W	1400W	1600W	1800W	2400W	3000W*	3600W*
т С	SMART1500CRMXL	<i>69</i>	30	18	12	10	7.9	6.3	—	—	—		
	+1 BP48V24-2U	299	141	88	61	46	36	29	—	—	—	—	—
Σ	SMART2200CRMXL	177	82	51	36	27	21	17	14	12	—	_	—
	+1 BP48V48RT4U	788	400	260	190	146	116	95	80	69	—	—	—
Z	+2 BP48V48RT4U	1271	662	439	324	253	202	168	142	123	—	—	—
R	+3 BP48V48RT4U	1738	922	618	459	361	291	242	206	179	—	—	—
	SMART3000CRMXL	183	83	52	36	27	22	19	15	13	<b>9</b> .1	6.7	5.1
П	+1 BP48V48RT4U	707	349	226	163	126	102	85	72	62	44	_	—
Z	+2 BP48V48RT4U	1145	581	383	281	219	178	149	128	111	79	—	—
-	+3 BP48V48RT4U	1570	812	541	400	314	257	216	186	162	116	_	
Ч×	* For output >2880W use in	nternal batte	ries only. B	attery back	up runtime	varies with	load, battery	condition ar	nd other facto	irs.			~

For additional extended runtime solutions to fit your specific load requirements, use Tripp Lite's interactive UPS Selector Guide at www.tripplite.com/selector/ups, or call Tripp Lite's Application Specialists at (773) 869-1236.

# Feature Focus



shutdown.

**5**-15/20R Outlets

reboot or shutdown.

twist-lock plug.

H Charge Rate Switch

battery packs are connected.

routes AC power to the outlets.

AC Bypass Alarm Switch

Select outlets can be switched on or off remotely

through PowerAlert software or SNMPWEBCARD,

These 20-amp outlets accommodate 5-15P or

5-20P plugs. Select outlets can be switched on

or off remotely through PowerAlert software or

SNMPWEBCARD, enabling connected equipment

Sets battery charger to higher or lower amperage.

Increasing the amperage allows the UPS system

to recharge batteries more rapidly when external

Enables or disables AC bypass alarm. In case of

internal fault or battery depletion, the bypass

**G** L5-30R Outlet (SMART3000CRMXL only)

This 30-amp outlet connects to an L5-30P

enabling connected equipment reboot or

A External Battery Pack Connector **E** 5-15R Outlets Connects to an external battery pack for extended battery backup runtime. Expandable battery packs can be daisy-chained for additional runtime expansion.

B Accessory Card Slot

> Accepts optional internal SNMPWEBCARD or RELAYIOCARD. SNMPWEBCARD provides network interface for monitoring and control via SNMP, Web or telnet, enabling remote reboots, shutdowns and more. Use with optional ENVIROSENSE to monitor temperature and humidity or to control and monitor alarms and security systems. RELAYIOCARD provides programmable contact closure interface with 6 outputs and 1 input.

### C Emergency Power Off (EPO) Connector

Connects to facility's emergency power off switch for emergency shutdown of the UPS system.

D HID-Compliant USB Port and RS-232 Serial Port (DB9)

> Connects to a computer's USB or serial port for automatic shutdown during extended power failures. Use with PowerAlert software\* or the built-in power management utilities of Mac OS® X, Linux® and Windows®. PowerAlert CD-ROM and cabling are included.

\* Additional PowerAlert features: pages 26 and 27.

### **Specifications**

#### ◄ Output Typical Nominal Remotely Primary NOM (A) Backup Runtime AC Outlet Switchable Comm. Plug Type Capacity Input/Output Mounting Dimensions Model (VA/Watts) (10 ft cord) (Half/Full Load) Voltage & Frequency Quantity (Type) Outlets Ports Option (H x W x D) SMART1500CRMXL RS-232, 1500VA/1440W 14/6 min 120V AC, 60 Hz. 8 (5-15R) 3 5-15P 4-Post 3.5 x 17.25 x 19.5 in USB, EPO Rack (2U) SMART2200CRMXL 2200VA/1900W 5-20P 7 x 17.25 x 17.75 in 28/11 min 120V AC, 60 Hz. 4 (5-15R) & 3 RS-232, 2-Post 4 (5-15/20R) USB, EPO Rack (4U) E SMART3000CRMXL 3000VA/2880W 19/7.5 min<sup>(B)</sup> 120V AC, 60 Hz. 4 (5-15R) & 3 RS-232, L5-30P 2-Post 7 x 17.25 x 17.75 in Rack (4U) (3600VA/3600W via 4 (5-15/20R) & 1 (L5-30R) USB. EPO (optional hardwire) optional hardwire)(A) **External Battery Packs** BP48V48RT4U Expandable 4U battery pack optimized for SMART3000CRMXL and SMART2200CRMXL. Includes 2-post mounting hardware. 17.75 inch depth. BP48V24-2U Non-expandable 2U battery pack optimized for SMART1500CRMXL. Includes 4-post mounting hardware. 13.5 inch depth. BP48V60RT3U Expandable 3U battery pack. Includes 4-post mounting hardware. 26 inch depth. Accessories SNMPWEBCARD Internal card adds Ethernet (RJ45) network interface to UPS for remote monitoring and control via SNMP, Web or telnet. ENVIROSENSE Allows UPS to monitor external temperature, humidity and contact-closure inputs. Requires SNMPWEBCARD. RELAYIOCARD Programmable contact closure accessory card with 6 output contacts and 1 input contact. 2POSTRMKITWM Mounting kit for 2-post rackmount installation. Included with SMART3000CRMXL, SMART2200CRMXL and BP48V48RT4U. Mounting kit for 4-post rackmount installation. Included with all UPS systems and battery packs except SMART3000CRMXL, SMART2200CRMXL and BP48V48RT4U. 4POSTRAILKIT UPSHDEARKIT Heavy-duty mounting ear kit supports 2U cabinets up to 65 lb from front vertical rails in 4-post racks. Not suitable for 2-post mounting. 2-9USTAND Tower kit with two adjustable base stands enables vertical placement of UPS systems and battery packs.

(A) Included cord and plug can be removed to permit hardwire input for 3600VA/3600W output capacity. (®) Typical half/full load backup time is 13/5 min for optional hardwire input. Battery backup runtime varies with load, battery condition and other factors

### Complete, up-to-date specifications available at www.tripplite.com

Also available: interactive UPS System selector guide, extended warranties, owner's manuals and more!



( Output Breakers (SMART3000CRMXL only)

SMART3000CRMXL/SMART2200CRMXL Rear Panel

Internal Battery Replacement (not shown) Recyclable internal batteries last several years under normal conditions. A removable front panel allows hot-swappable internal battery replacement. Tripp Lite offers a complete line of replacement batteries.

#### Easy-to-Read Control Panel

ψφψφ

Front panel LEDs display a variety of power conditions, including AC line status, automatic voltage regulation, overload, on battery, check battery and more. Real-time



updates allow you to respond to power problems before your equipment is placed at risk.

# SmartOnline<sup>™</sup> Single-Phase Intelligent True On-Line UPS Systems





SU5000RT**4U**, SU6000RT**4U**, SU8000RT4U, SU16000RT4U\* & SU16000RT4UHW\* \* Power module shown.



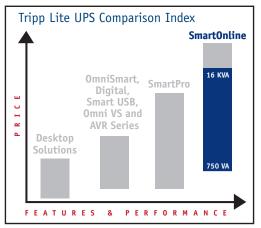
SU5000RT3U, SU5000RT3UHV, SU6000RT3U, SU6000RT3UHV, SU8000RT3U, SU8000RT3U1TF, SU8000RT3UHW, SU8000RT3UN50, SU8000RT3UN50TF, SU8000RT3UG, SU10000RT3U, SU10000RT3U2TF, SU10000RT3UG, SU10KRT3UHV, SU10KRT3U Power module shown.

# Deliver True On-Line, Pure Sine Wave, Zero Transfer Time Operation

SmartOnline Rackmount/Tower UPS Systems provide mission-critical equipment with the highest level of power protection. Doubleconversion technology continually converts incoming AC power into filtered DC power, and then resynthesizes it back into AC power with a pure sine wave. Constant on-line operation completely isolates sensitive equipment from every power problem on the AC line. SmartOnline models accept the widest range of incoming voltage and frequency variations, delivering the most consistently pure, highly-regulated AC power: ±3% V or ±2% V and ±0.05 Hz.

SmartOnline Rackmount/Tower UPS Systems provide reliable battery power with zero transfer time to keep networks up and running through short blackouts and allow enough time to safely shut down during longer ones. In addition, they stop damaging surges and filter disruptive line noise.

8



# **TRUE ON-LINE**

- ▶ 750 16,000 VA
- Zero Transfer Time, Double-Conversion
- Wide Input Voltage Range with Precision-Regulated Output
- Extended Runtime Options
- Automatic Internal Bypass
- Maintenance Bypass & Detachable PDU Options

# Manage Multiple Servers

Using PowerAlert software, select models with multiple communication ports will simultaneously provide intelligent communications, shutdown commands and reporting on multiple servers—even if they are running different operating systems.\* Intelligent communications allow you to check UPS status (including battery charge level and runtime remaining) and AC power status as well as reboot Customized Load Management Banks. \* Additional PowerAlert features: pages 26 and 27.

# Control Individual Outlets

Customized Load Management Banks on select models can be controlled independently through PowerAlert. Use PowerAlert to reboot a locked-up computer by cycling the power on and off to select receptacles on the UPS system. You can also program PowerAlert to shut down less important systems during an extended blackout, preserving battery runtime for more critical equipment.

# Save Electricity & Reduce Costs

SmartOnline UPS Systems are up to 97% efficient in economy mode, a potential increase of 10% or more versus comparable on-line UPS systems. Economy mode can make your data center significantly cooler, greener and more cost-effective.\*

\* See back cover for more information.

### Provide 100% Availability with Hot-Swappable Modular Design





Hot-Swap the UPS Module . . .

... PDU Module Continues Powering Equipment

All SmartOnline Rackmount/Tower UPS Systems include an automatic internal bypass that ensures 100% availability of connected equipment by passing through utility power in the event of an internal fault or overload. Hot-Swappable Modular models include two additional features that ensure continuous availability: an external maintenance bypass switch and a modular design. When the external switch is set to "bypass", the UPS module can be removed for maintenance while the detachable PDU module remains installed, continuing to power connected equipment as long as utility power is present. Hot-Swappable Modular models are designated by the  $\mathbf{9}$  symbol in the specifications chart on page 12.

### Adapt to Rack/ Tower/Stack Applications

Adapt all models from rackmount to tower or stacking applications.\*

- Removable rack hardware
- Optional base stands



SU3000RTXL3U tower mount with optional base stands.



SU6000RT3U or SU10KRT3U tower mount with optional base stands.

\* Optional base stands (model: 2-9USTAND) are available to adapt any combination of models, from 2U to 9U wide, to tower mounting.

### **Display Critical Operational Conditions**

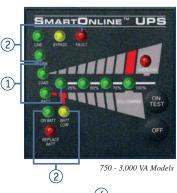
SmartOnline Rackmount/Tower UPS Systems feature a front panel LED display or combination LCD/LED display which shows a variety of UPS operational modes and conditions. This interface provides more information than comparable models, allowing you to react more rapidly to an alert before your systems are put at risk.

**LED Display**— ① **Battery & Load Conditions:** The Load and Battery Active Meters allow you to monitor the percentage levels (25% - 100%) of two conditions: 1) battery charge as equipment is supported by the UPS system during a blackout, and 2) the total amount of the UPS system's capacity that the equipment load is utilizing under normal operating conditions.

(2) Fault/Warning & UPS System Operational Conditions: LED set alerts you to several fault conditions (including wiring faults in the wall outlet) and warning conditions (including the need to recharge or replace the UPS system's internal battery). It also indicates UPS system operational status, including normal on-line operation, bypass operation (due to fault or overload) or on-battery operation (due to a blackout or severe brownout).

**Combination LCD/LED Display**— (3) **LCD Display:** LCD Display lets you access more precise information than provided by LEDs alone. View over 45 separate fault/warning and UPS system operational conditions including operational mode, alarm/shutdown conditions, input/output voltage/frequency, battery voltage, load percentage and more.

(4) **LED Display:** LED set is organized into a flow chart that indicates UPS system operational status, including normal on-line operation, bypass operation (due to fault or overload) or on-battery operation (due to a blackout or severe brownout).





5,000 - 16,000 VA Models

# Feature Focus

### A Extended Runtime Capability

All models feature connectors that accept optional external battery packs for additional runtime. External batteries can be "hot-swapped". See Extended Runtime Chart on page 13 to locate the perfect SmartOnline Rackmount/Tower model that fits your runtime needs.

### B Detachable PDU

Passes through power to connected equipment if UPS module is removed for maintenance.

### C Customized Load Management

Select models feature special load banks that you control independently through PowerAlert software.

### D Server Support

Up to two built-in communication ports on select models simultaneously provide shutdown commands and reporting on multiple servers without the need for accessories.

### **B**ypass Operation

An external maintenance bypass switch allows the UPS module to be removed for maintenance while continuously passing through utility power to connected equipment.

### Accessory Card Slot

Accepts optional internal SNMPWEBCARD or RELAYIOCARD. SNMPWEBCARD provides network interface for monitoring and control via SNMP, Web or telnet, enabling remote reboots, shutdowns and more. Use with optional ENVIROSENSE to monitor temperature



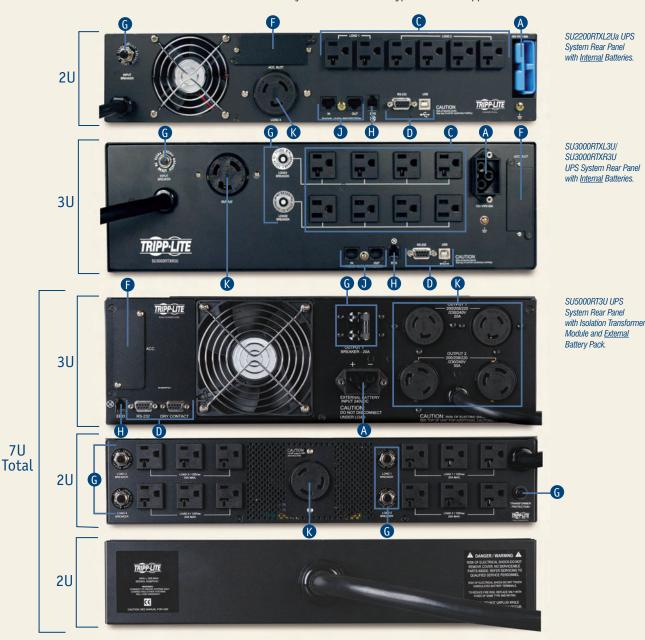
and humidity or to control and monitor alarms and security systems. RELAYIOCARD provides programmable contact closure interface with 6 outputs and 1 input.

### **G** Short Circuit Protection

Circuit breakers help guard against input/output short circuits and system overloads.

### H Emergency Power Off

A modular jack included with select models allows remote emergency shutdown. All other models can perform emergency shutdown by attaching an optional cable (model 73-0909, sold separately) to the communication port. The optional cable includes a DB9 connector to allow server support and a modular jack to allow emergency shutdown.



Standard Models 100% Availability Features: Internal Bypass • Hot-Swappable Batteries

### I Hardwire, Single-Phase Input

To convert select models to hardwire input and output, select optional hardwire input/output PDUs. To add an input plug and receptacles to SU6000RT3U and SU6000RT3UHV select SUPDM alternate back panel accessories.

### Dependence of the state of the

Protect Internet-connected or networked computers from damage on a single phone/DSL/Ethernet line with surge-protected jacks featured on select models.

### K Variety of Output Options

15-, 20- and 30-amp receptacles on select models ensure maximum connection flexibility.

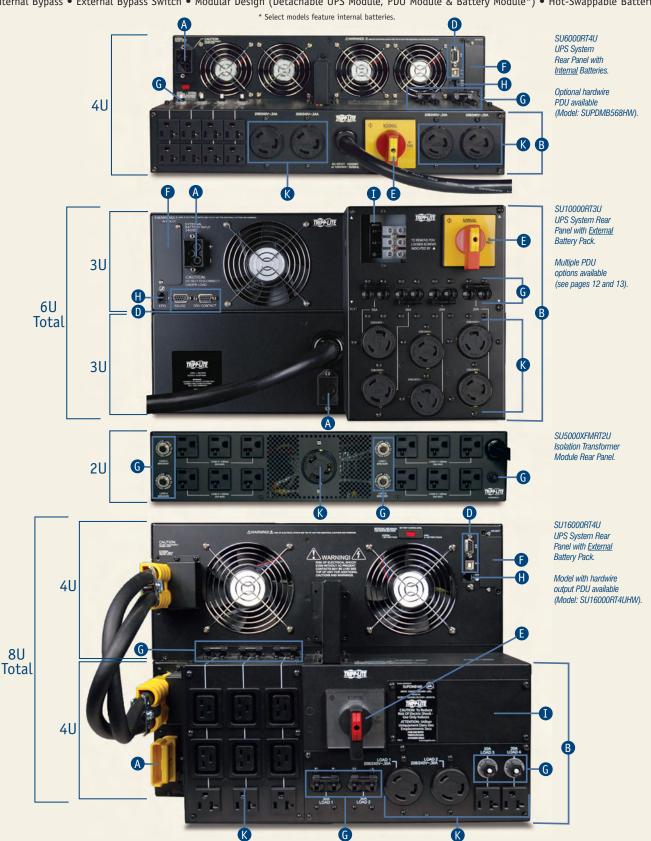
#### Front Panel Battery Replacement (not shown)

1,000 to 3,000 VA models feature a convenient front access door to replace internal batteries.\* All models allow "hot-swap" battery replacement.

\* Tripp Lite offers a complete line of replacement battery cartridges (R.B.C.); visit www.tripplite.com.

### Hot-Swappable Modular Models 100% Availability Features:

Internal Bypass • External Bypass Switch • Modular Design (Detachable UPS Module, PDU Module & Battery Module\*) • Hot-Swappable Batteries



(YL) us NOM (A)(H)	0,	Dooluun 71	Optional	Tatal	Input	Nemi-1			Co	mmunication			Pow
Model		Backup Time (Typical Minutes) Half/Full Load <sup>(B)</sup>	External Battery Packs	Total Rack Space	Voltage Range/ Frequency (Hz)	Nominal Output Voltage	AC I Quantity	Receptacles	USB	"Smart" RS-232 (DB9)	Contact Closure (DB9)	Input Plug (NEMA)	Cor Leng (ft)
UPS Systems SU750RTXL2U	750/ 600	11/4+	AB	2U	65-138 (50/60) <sup>(c)</sup>	120 (100/ 110/120)	6	5-15R <sup>(D)(E)</sup>	1	1(F)	_	5-15P	10
SU1000RTXL2Ua	1000/ 800	14/4.5+	AB	2U	65-138 (50/60) <sup>(c)</sup>	120 (100/ 110/120)	6	5-15R <sup>(D)(E)</sup>	1	1 (F)	-	5-15P	10
SU1500RTXL2Ua	1500/ 1200	17/5+	CD	2U	65-138 (50/60) <sup>(c)</sup>	120 (100/ 110/120)	6	5-15R <sup>(D)(E)</sup>	1	1 (F)		5-15P	10
SU2200RTXL2Ua	2200/ 1600	14/4.5+	CD	2U	65-138 (50/60) <sup>(c)</sup>	120 (110/120)	7	6 (5-15/20R), 1 (L5-20R) <sup>(D)(E)</sup>	1	1 (F)	_	5-20P <sup>(G)</sup>	10
SU3000RTXL2U	3000/ 2500	14/5+	EE	2U	70-144 (50/60) <sup>(C)</sup>	120 (100/110/ 120)	7	6 (5-15/20R), 1 (L5-30R) <sup>(0)</sup>	1	1(F)	_	L5-30P	10
SU3000RTXL3U	3000/ 2400	13/5+	EF	3U	65-138 (50/60) <sup>(c)</sup>	120 (110/120)	9	4 (5-15R), 4 (5-15/20R), 1 (L5-30R) <sup>(D)(E)</sup>	1	1(F)	_	L5-30P	10
SU3000RTXR3U	3000/ 2400	33/14+	EF	3U	65-138 (50/60) <sup>(c)</sup>	120 (110/120)	9	4 (5-15R), 4 (5-15/20R), 1 (L5-30R) <sup>(D)(E)</sup>	1	1 (F)	_	L5-30P	10
SU3000RTXL3UHV	3000/ 2400	17/6+	EF	3U	160-275 (50/60) <sup>(c)</sup>	208/240	8	6 (6-15/20R), 2 (L6-20R) <sup>(0)</sup>		1 (F)	_	L6-20P	10
SU5000RT4U	5000/ 3800	17/8+	G	4U	65-140 (60) (L-N)	208/240 & 120	12	8 (5-15/20R), 2 (L6-20R), 2 (L6-30R)	1	1 (F)	_	L14-30P (split phase 4 wire)	10
SU5000RT3U	5000/ 3500	20/8+		7U	156-276 (50/60) <sup>(0)</sup>	208 & 120	16	2 (L6-20R), 2 (L6-30R), 12 (5-15/20R)		1	1	L6-30P	1(
SU5000RT3UHV <sup>(A)</sup>	5000/ 3500	20/8+		5U	156-276 (50/60) <sup>(C)</sup>	208/240	4	2 (L6-20R), 2 (L6-30R)	—	1	1	L6-30P	1(
SU6000RT4U	6000/ 4200	24/9+	G	4U	65-140 (60) (L-N)	208/240 & 120	12	8 (5-15/20R), 2 (L6-20R), 2 (L6-30R)	1	1(F)	_	L14-30P (split phase 4 wire)	1(
SU6000RT3U	6000/ 4200	37/15+		9U	156-276 (50/60) <sup>(0)</sup>	208/240 & 120		lwire standard & L optional)	_	1	1	hardwire (K&L	
SU6000RT3UHV	6000/ 4200	37/15+		6U	156-276 (50/60) <sup>(c)</sup>	208/240		wire standard Joptional)	_	1	1	hardwire (Jop	
SU8000RT4U	8000/ 5600	12/5+	G	4U	65-140 (60) (L-N)	208/240 & 120	8	4 (5-15/20R), 2 (L6-20R), 2 (L6-30R) plus hardwire	1	1 (F)	_	hardv (split p 4 wi	hase
SU8000RT3U	8000/ 6400	15/6+	Ι	6U	156-276 (50/60) <sup>(c)</sup>	208/240	6	4 (L6-20R), 2 (L6-30R)	-	1	1	hard	wire
SU8000RT3UN50	8000/ 6400	15/6+		6U	156-276 (50/60) <sup>(c)</sup>	208/240	6	4 (L6-20R), 2 (L6-30R)	_	1	1	50A Hubbell CS8265C	1
SU8000RT3U1TF	8000/ 6400	15/6+		8U	156-276 (50/60) <sup>(c)</sup>	208 & 120	18	4 (L6-20R), 2 (L6-30R), 12 (5-15/20R)	_	1	1	hard	wire
SU8000RT3UN50TF	8000/ 6400	15/6+		8U	156-276 (50/60) <sup>(c)</sup>	208 & 120	18	4 (L6-20R), 2 (L6-30R), 12 (5-15/20R)	_	1	1	50A Hubbell CS8265C	1
SU8000RT3UG	8000/ 6400	15/6+		6U	156-276 (50/60) <sup>(c)</sup>	208/240	6	C19	_	1	1	hard	wire
SU8000RT3UHW	8000/ 6400	15/6+		6U	156-276 (50/60) <sup>(C)</sup>	208/240	h	ardwire	_	1	1	hard	wire
SU10000RT3U	10000/ 8000	10/4+		6U	156-276 (50/60) <sup>(c)</sup>	208/240	6	4 (L6-20R), 2 (L6-30R)	_	1	1	hard	wire
SU10000RT3U2TF	10000/ 8000	10/4+		10U	156-276 (50/60) <sup>(c)</sup>	208 & 120	18	4 (L6-20R), 2 (L6-30R), 12 (5-15/20R)	-	1	1	hard	wire
SU10000RT3UG	10000/ 8000	10/4+		6U	156-276 (50/60) <sup>(c)</sup>	208/240	6	C19	_	1	1	hard	wire
SU10KRT3UHV	10000/ 8000	10/4+		6U	156-276 (50/60) <sup>(c)</sup>	208/240		hardwire	_	1	1	hard	wire
SU10KRT3U	10000/ 8000	10/4+		9U	156-276 (50/60) <sup>(c)</sup>	208/240 & 120		hardwire	_	1	1	hard	wire
SU16000RT4U	16000/ 11200	12/5+	H	8U	100-140 (60) (L-N)	208/240 & 120	13	5 (5-15/20R), 2 (L6-30R), 6 (C19)	1	1(F)	—	hard <sup>y</sup> (4 w	
SU16000RT4UHW	16000/ 11200	12/5+	H	8U	100-140 (60) (L-N)	208/240 & 120		hardwire	1	1(F)	_	hardv (4 w	

 $oldsymbol{Q}$  Model with maintenance bypass  $oldsymbol{inom}$  Model with expandable runtime

### Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com

Also available: interactive UPS System selector guide, extended warranties, owner's manuals and more!

# **Extend Runtime**

All models accept external battery packs to provide extended runtime. Without enough runtime, businesses stand to lose up to \$50,000 per hour according to a recent survey on the cost of lost productivity for an hour of network downtime.\* Locate your planned load and optimum runtime on the chart to the right.

\* Yankee Group.



Extending runtime is as simple as plugging in additional external battery packs.

```
For additional extended runtime
solutions to fit your specific load
requirements, use Tripp Lite's
interactive UPS Selector Guide at
www.tripplite.com/selector/ups,
or call Tripp Lite's Application
Specialists at (773) 869-1236.
```

		Runtime (n	ninutes) wit	h additional ext	ernal batterv	packs
Load	Runtime (minutes) with	Non-Expandable		andable Batter		
(Watts)	included batteries*	Battery Pack	1	2	3	4
SU750RTXL2		BP24V28-2U	•	BP24V70-3U		
300	11.0	88.0	224.4	461.7	699.1	933.8
600	4.0	44.1	117.1	249.9	386.3	523.3
SU1000RTXL	2Ua	BP24V28-2U		BP24V70-3U		
400	17.4	77.6	199.6	413.3	628.1	841.1
800	6.0	32.4	87.3	189.1	295.2	402.5
SU1500RTXL	2Ua	BP48V24-2U		BP48V60RT3U		
600	17.0	80.3	164.6	334.2	506.1	677.5
1200	5.0	33.6	71.3	151.0	234.8	320.2
SU2200RTXL	2Ua	BP48V24-2U		BP48V60RT3U		
800	14.0	56.2	117.0	241.9	370.3	499.3
1600	4.5	23.1	49.7	107.0	168.2	231.2
SU3000RTXL	20	BP72V15-2U		BP72V28RT-3U		
1250	13.0	37.0	106.0	181.0	259.0	338.
2500	5.0	15.0	46.0	82.0	119.0	158.
SU3000RTXL	3U & SU3000RTXL3UHV	BP72V15-2U		BP72V28RT-3U		
1200	17.0	40.9	77.6	157.8	241.9	327.3
2400	6.0	16.8	32.8	69.1	108.4	149.5
SU3000RTXR	3U	BP72V15-2U		BP72V28RT-3U		
1200	33.0	58.8	97.1	178.6	263.1	348.8
2400	14.0	24.6	41.5	78.7	118.6	159.9
SU5000RT3U	& SU5000RT3UHV			BP240V10RT3U	1	
1740	20.1	N/A	73.1	161.6	225.8	291.0
3500	8.0	N/A	30.6	70.2	100.0	130.9
SU5000RT4U	, I			BP192V12-3U		
1740	22.8	N/A	107.9	174.9	243.9	313.8
3750	8.0	N/A	42.5	70.7	100.7	131.
SU6000RT3U	& SU6000RT3UHV			BP240V10RT3U	1	
2100	37.0	N/A	80.0	130.9	183.9	237.9
4200	15.0	N/A	33.4	55.9	80.0	105.1
SU6000RT4U		.,		BP192V12-3U		
2100	24.0	N/A	86.6	141.4	198.2	256.0
4200	9.0	N/A	36.8	61.5	87.8	115.2
SU8000RT4U			00.0	BP192V12-3U	0.10	110.1
2800	12.0	N/A	45.8	100.0	141.4	183.8
5600	5.0	N/A	19.0	42.8	61.5	81.1
	, SU8000RT3U1TF, SU8000			BP240V10RT3U		01.1
	, 000000000000000000000000000000000000			51 2400 1011100		
3200	15.0	N/A	46.0	76.4	108.7	142.0
6400	6.0	N/A	18.6	31.6	45.6	60.4
	SU10KRT3UHV, SU10000RT			BP240V10RT3U		00.4
	U2TF & SU10000RT3UG	,		51 2401 1011130		
4000	10.0	N/A	35.1	58.6	83.8	110.0
8000	4.0	N/A N/A	13.7	23.5	34.1	45.3
	<u>4.0</u> U & SU16000RT4UHW	IV/A	13.7	<b>BP192V18-4U</b>	J4.1	40.0
5600	12.0	N/A	42.2	70.2	100.0	130.9
11200	5.0	N/A N/A	42.2	29.2	42.2	55.9
	D.U re contained either internally within the UPS s				.=.=	

Model	Description
External Battery Packs	
A BP24V28-2U	24V external battery pack and cable, 2U. Not expandable. RED/BLACK 2-point connector.
B BP24V70-3U	24V external battery pack and cable, 3U. Expandable. RED/BLACK 2-point connector.
C BP48V24-2U	48V external battery pack and cable, 2U. Not expandable. BLUE 2-point connector.
D BP48V60RT3U	48V external battery pack and cable, 3U. Expandable. BLUE 2-point connector.
E BP72V15-2U	72V external battery pack and cable, 2U. Not expandable. BLACK 3-point connector.
F BP72V28RT-3U	72V external battery pack and cable, 3U. Expandable. BLACK 3-point connector.
G BP192V12-3U	192V external battery pack and cable, 3U. Expandable. BLACK 3-point connector.
H BP192V18-4U	192V external battery pack and cable, 4U. Expandable. YELLOW INSULATED 2-point connector.
BP240V10RT3U	240V external battery pack and cable, 3U. Expandable. BLACK 3-point connector.
SU5000XFMRT2U	2U rack/tower mount isolation transformer. 208V input (L6-30P plug), 100/120V output. Outlets: 12 (5-15/20R) and 1 (L6-30R).
SUPDMB568HW	Hardwire PDU. Replaces UPS system's detachable PDU. (for SU5000RT4U, SU6000RT4U models only).
SUPDMB710HW	Hardwire PDU. Replaces UPS system's detachable PDU. (for SU8000RT3U, SU10000RT3U models only).
SUPDMB710IEC	Detachable PDU with six C19 outlets and hardwire input. Replaces PDU for SU8000RT3U & SU10000RT3U.
SUPDMB16KHW	Hardwire PDU. Replaces UPS system's detachable PDU. (for SU16000KRT4U model only).
J SUPDM11	Converts hardwired to L6-30P plug/cord & two L6-30R outlets. 200/208/240V (for SU6000RT3UHV model only).
K SUPDM12	Converts hardwired to L6-30P plug/cord & 13 outlets: ten 120V (5-15/20R), two 208V (L6-20R), one 208V (L6-30R) (for SU6000RT3U model only).
L SUPDM13	Converts hardwired to L6-30P plug/cord & 13 outlets: ten 120V (5-15/20R), two 240V (L6-20R), one 240V (L6-30R) (for SU6000RT3U model only).
SNMPWEBCARD	Internal SNMP/Web management accessory card (connects compatible UPS systems to Ethernet).
ENVIROSENSE	Allows UPS to monitor external temperature/humidity & contact-closure inputs (requires SNMPWEBCARD).
RELAYIOCARD	Programmable contact closure accessory card with 6 output contacts and 1 input contact.
AS400CABLEKIT	Provides shutdown capability for IBM® System i <sup>™</sup> / AS400 <sup>®</sup> / iSeries <sup>™</sup> servers through any SmartOnline UPS.
2-9USTAND	Tower kit with 2 adjustable base stands—2U to 9U.
2POSTRMKITWM	Horizontal mounting rails for 2-post rackmount installation. For all UPS and battery pack models.
UPSHDEARKIT	Heavy-duty mounting ear kit supports 2U cabinets up to 65 lb from front vertical rails in 4-post racks. Not suitable for 2-post mounting.
Common specifications for	all UPS systems: Accessory card slot for optional SNMPWEBCARD or RELAYIOCARD. All models are designed with mounting hardware to fit standard 19 in. racks. + Backup times are expandable

Common specifications for all UPS systems: Accessory card slot for optional SNMPWEBCARD or RELAVIOCARD. All models are designed with mounting hardware to fit standard 19 in. racks. + Backup times are expandable using external battery packs. (A) Optional SUS000XFMRT2U isolation transformer is available to provide 100/120V output. (B) Backup times will vary depending on battery condition and load. (D) Auto-selecting frequency. (D) Includes customized load management receptacles. (E) Includes phone/ISU/Ethernet surge protection. (F) Includes a single combination RS-232 and contact-closure port. (G) This model includes an additional 5-15P plug which can be installed in place of the existing plug. Installing the additional plug will change the output capacity. (H) Certifications vary by model.

Also available: interactive UPS System selector guide, extended warranties, owner's manuals and more!

# TRIPP-LITE TOWER UPS

# $SmartOnline^{{}^{\scriptscriptstyle{\mathrm{M}}}}$ Intelligent True On-Line UPS Systems

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# Deliver True On-Line, Pure Sine Wave, Zero Transfer Time Operation

SmartOnline Tower UPS Systems provide mission-critical equipment with the highest level of power protection. Double-conversion technology continually converts incoming AC power into filtered DC power, and then resynthesizes it back into AC power with a pure sine wave. Constant on-line operation completely isolates sensitive equipment from every power problem on the AC line. SmartOnline models accept the widest range of incoming voltage and frequency variations, delivering the most consistently pure, highly-regulated AC power:  $\pm 3\%$  V or  $\pm 2\%$  V and  $\pm 0.05$  Hz.

SmartOnline Tower UPS Systems provide reliable battery power with zero transfer time to keep networks up and running through short blackouts and allow enough time to safely shut down during longer ones. In addition, they stop damaging surges and filter disruptive line noise. All models ensure 100% availability with an automatic internal bypass which passes through utility power in the event of an internal fault or overload.

# Manage Multiple Servers

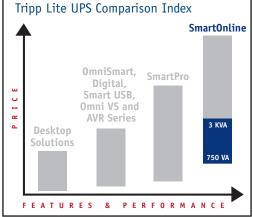
Using PowerAlert software, simultaneously manage multiple servers—even if they are running different operating systems.\* Intelligent communications allow you to check UPS status (including battery charge level and runtime remaining) and AC power status. You can use PowerAlert to reboot a locked-up server by cycling the power to select UPS receptacles or shut down nonessential systems during a blackout, preserving runtime for more critical equipment.

\* Additional PowerAlert features: pages 26 and 27.

### Save Electricity & Reduce Costs

SmartOnline UPS Systems are up to 97% efficient in economy mode, a potential increase of 10% or more versus comparable on-line UPS systems. Economy mode can make your data center significantly cooler, greener and more cost-effective.\*

\* See back cover for more information.



# **TRUE ON-LINE**

TO

- ▶ 750 3,000 VA
- Zero Transfer Time, Double-Conversion
- 65-138 V Input with Precision-Regulated Output
- Automatic Internal Bypass
- Internal Batteries & Extended Runtime Options

# **Extend Runtime**

All models accept external battery packs to provide extended runtime. Without enough runtime, businesses stand to lose up to \$50,000 per hour according to a recent survey on the cost of lost productivity for an hour of network downtime.\* Locate your planned load and optimum runtime on the chart below. \* Yankee Group.

A R T	Load	Runtime (minutes) with included		e (minute: xternal ba						
Ŧ	(Watts)	batteries	1	2	3	4				
ပ	SU750XL Ext	ended Runtime (with B	BP24V70-3U battery pack)							
ш	300	11.0	224.4	461.7	699.1	933.8				
Σ	600	4.0	117.1	249.9	386.3	523.3				
н	SU1000XLa l	Extended Runtime (with	h BP24V7	0-3U batte	ery pack)					
⊢	400	17.4	199.6	413.3	628.1	841.1				
z	800	6.0	87.3	189.1	295.2	402.5				
	SU1500XL EX	ctended Runtime (with	<b>BP48V60</b>	RT3U batt	ery pack	)				
R	600	17.0	164.6	334.2	506.1	677.5				
D	1200	5.0	71.3	151.0	234.8	320.2				
ш	SU2200XLa	Extended Runtime (with	h BP48V6	ORT3U ba	ttery pac	k)				
D	800	14.0	117.0	241.9	370.3	499.3				
z	1600	4.5	49.7	107.0	168.2	231.2				
ш	SU3000XL E	ctended Runtime (with	<b>BP72V28</b>	RT-3U bat	tery pack	()				
×	1200	17.0	77.6	157.8	241.9	327.3				
ш	2400	6.0	32.8	69.1	108.4	149.5				
use	Tripp Lite's inter	ded runtime solutions to ractive UPS Selector Guid pplication Specialists at	e at www.t	ripplite.co						

### **Feature Focus**

### A Extended Runtime Capability



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TRIPP-LITE 💿 🚽

**D** Multiple Server Support

multiple servers.

E Short Circuit Protection

Built-in communication ports provide

shutdown commands and reporting on

Circuit breakers help guard against input

short circuits and system overloads.

All models feature connectors that accept optional external battery packs for additional runtime. External batteries can be "hot-swapped". See Extended Runtime Chart on page 14 to locate the perfect SmartOnline Tower model that fits your runtime needs.

### B Customized Load Management

Prioritize the uptime of mission-critical loads during a power failure. All models feature special receptacles that you control independently through PowerAlert software. Use PowerAlert to reboot a locked-up computer or to shut down less important systems, preserving battery runtime for more critical equipment.

C Accessory Card Slot

Accepts optional internal SNMPWEBCARD or **RELAYIOCARD. SNMPWEBCARD** 

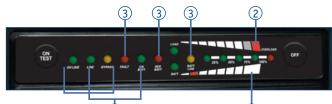


provides network interface for monitoring and control via SNMP, Web or telnet, enabling remote reboots, shutdowns and more. Use with optional ENVIROSENSE to monitor temperature and humidity or to control and monitor alarms and security systems. RELAYIOCARD provides programmable contact closure interface with 6 outputs and 1 input.

(4)

# Display Critical Operational Conditions

SmartOnline Tower UPS Systems feature a front panel LED display which displays a variety of UPS operational modes and conditions. This interface provides more information than comparable models, allowing you to react more rapidly to an alert before your systems are put at risk.



### **Specifications**

	M (A) ( <sup>0)</sup>	Output Capacity (VA/Watts)	Backup Time (Typical Minutes) Half/Full Load <sup>(A)</sup>		External / Packs	AC Quantity	Receptacles NEMA Type	Customized Load Management Banks	Coi USB	nmunication Ports "Smart" RS-232 (DB9)	Input Plug (NEMA)
	nartOnline UPS	S Systems									
📥 SU	750XL	750/600	11/4+	Α	В	6	5-15R	2	1	1 <sup>(B)</sup>	5-15P
🗄 SU	1000XLa	1000/800	14/4.5+	A	В	6	5-15R	2	1	<b>1</b> (B)	5-15P
븝 SU	1500XL	1500/1200	14/4.5+	С	D	6	5-15R	2	1	<b>1</b> (B)	5-15P
_	2200XLa	2200/1600	14/4.5+	С	D	7	6 (5-15/20R), & 1 (L5-20R)	2	1	1 <sup>(B)</sup>	5-20P <sup>(C)</sup>
븝 SU	3000XL	3000/2400	14/5+	E	F	9	4 (5-15R), 4 (5-15/20R) & 1 (L5-30R)	2	1	<b>1</b> (B)	L5-30P
Ext	ternal Battery	Packs and Ac	cessories								
A BP:	24V70-3U	24V external	battery pack and cal	ble. Tower	r or 2U rac	k. Expandal	ble. Small RED/BLACK connected	or.			
B BP:	24V28-2U	24V external	battery pack and cal	ble. Tower	or 2U rac	k. Not expa	ndable. Small RED/BLACK conr	iector.			

С	BP48V60RT3U	48V external battery pack and cable. Tower or 3U rack. Expandable. BLUE 2-point connector.

- D BP48V24-2U 48V external battery pack and cable. Tower or 2U rack. Not expandable. BLUE 2-point connector
- BP72V28RT-3U 72V external battery pack and cable. Tower or 3U rack. Expandable. BLACK 3-point connector.
- BP72V15-2U 72V external battery pack and cable. Tower or 2U rack. Not expandable. BLACK 3-point connector.

Common specifications for all UPS systems: 65-138 VAC (50/60 Hz, auto-selecting) input range. 120 VAC nominal output (additional user-selectable 110 and 100V options for SU750XL, SU1000XLa and SU1500XL). Accessory card slot for optional SNMPWEBCARD or RELAYIOCARD. 10 ft. power cord. Emergency Power Off (EPO) jack. Phone/DSL/Ethernet surge protection jacks. + Backup times are expandable using external battery packs. (A) Backup times will vary depending on battery condition and load. (III) Includes a single combination RS-232 and contact-closure port. (III) SU2200XLa models include a separate NEMA 5-15P plug which can be installed

### Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com

Also available: interactive UPS System selector guide, extended warranties, owner's manuals and more!

#### **1** Battery Conditions

SU3000XL Rear Panel

The Battery Active Meter allows you to monitor battery charge level (25%

F Emergency Power Off

SU1000XLa Rear Panel

All models include a modular jack that

allows remote emergency shutdown.

G Phone/DSL/Ethernet Surge Protection

computers from damage on a single

phone/DSL/Ethernet line with surge-

protected jacks featured on all models.

Protect Internet-connected or networked

- 100%) as equipment is supported by the UPS system during a blackout.
- 2 Load Conditions

The Load Active Meter allows you to monitor the total amount of the UPS system's capacity (25% - 100%) that the equipment load is utilizing under normal operating conditions.

#### (3) Fault/Warning Conditions

LED set alerts you to several fault conditions (including wiring faults in the wall outlet) and warning conditions (including the need to recharge or replace the UPS system's internal battery).

#### (4) **UPS System Operational Conditions**

LED set indicates UPS system operational status. The LEDs indicate normal on-line operation, bypass operation (due to fault or overload) or onbattery operation (due to a blackout or severe brownout).

# SmartOnline<sup>™</sup> Modular 3-Phase

Intelligent True On-Line UPS Systems

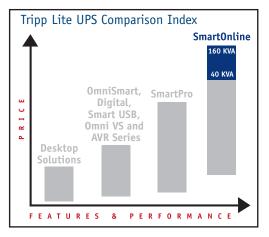


SU40K, SU60K, SU60KTV, SU80K & SU80KTV

# Deliver True On-Line, Pure Sine Wave, Zero Transfer Time Operation

SmartOnline Modular 3-Phase UPS Systems provide mission-critical equipment with the highest level of power protection. Doubleconversion technology continually converts incoming AC power into filtered DC power, and then resynthesizes it back into AC power with a pure sine wave. Constant on-line operation completely isolates sensitive equipment from every power problem on the AC line. SmartOnline Modular 3-Phase UPS Systems automatically correct the widest range of incoming voltages of any models in their class. A wider voltage correction range saves battery power and decreases battery wear by up to 40%, reducing battery replacement costs. SmartOnline Modular 3-Phase models provide reliable battery power with zero transfer time to keep networks up and running safely through short blackouts and allow enough time to safely shut down or switch to generator backup during longer ones. In addition, all models stop damaging surges and filter disruptive line noise.

SmartOnline Modular 3-Phase UPS Systems are ideal for protecting critical equipment in computing, networking or telecommunications environments.



# **TRUE ON-LINE**

- ▶ 40 80 kVA (Up to 160 kVA in Parallel)
- ▶ 3-Phase Hardwire (120/208V or 277/480V)
- ► N+1 Modular Architecture
- 1+1 Parallel Capability with Patented Dual DSP Control
- Low THDi for 1:1 Generator Sizing
- Zero Transfer Time, Double Conversion
- Advanced IGBT Rectifier and Inverter Technology with Power Factor Correction (PFC)
- Real-Time Log of 500 Events

# Save Installation Costs (1:1 Generator Sizing)

SmartOnline Modular 3-Phase UPS Systems include a generatorfriendly design that lowers installation costs. The SmartOnline UPS's high input power factor and Digital Signal Processor (DSP) technology create less than 3% input Total Harmonic Distortion (THDi), enabling a 1:1 sizing of the UPS System to a generator set. Generators are affected by the THDi that a UPS system passes back through its input into the overall power system. If the THDi is high, managers are forced to oversize generators in order to compensate. With the SmartOnline UPS's low THDi, generators run cooler and last longer, allowing managers to save installation costs by installing a generator with a capacity equal to their equipment load (a 1:1 ratio). In addition, low THDi eliminates the need to oversize cables and breakers and eliminates nuisance breaker tripping and overheated transformers.

# Save Operating Costs

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UPS

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SmartOnline Modular 3-Phase UPS Systems include advanced IGBT inverter technology that provides the highest efficiency (up to 96% in economy mode) of any UPS system in its class. High efficiency operation lowers UPS system operating and related cooling costs and lengthens UPS system service life. Since inverter components are smaller, SmartOnline models also save significant facility floor space compared to legacy systems.

# Include Additional Availability Features

A manual bypass breaker as well as an automatic bypass function included on SmartOnline Modular 3-Phase UPS Systems ensure the constant availability of connected equipment by safely passing through AC power if the UPS system requires maintenance. In addition, a battery cold-start function (initiated through the control panel) allows you to restart your UPS system and connected equipment during an extended blackout for periodic system access or retrieval of vital data.

# Provide Optional Extended Service / Support Programs

Start-Up and On-Site Service Programs are recommended and available separately to enhance the reliability of the installation. Preventative Maintenance Services are also available for added peace of mind.

# **Provide 100% System Availability** with N+1 Modular Architecture & 1+1 Parallel Capability

### N+1 Modular Architecture

### 100% Availability with N+1 Redundancy

- Multiple, Redundant Power Modules
- Dual, Redundant Controller Power Supplies

All SmartOnline Modular 3-Phase UPS Systems include multiple, self-contained power modules that provide the ultimate level of fail-safe redundancy. In an N+1 configuration, a power module can be hot-swapped (with the load powered) if maintenance is required.



20kVA Redundant Power Module

### Modular Architecture Provides N+1 (and Greater) Redundancy

Equipment Load ("N")									
UPS System Model #	20kVA	40kVA	60kVA	80kVA					
SU40K	N+1	N							
SU60K & SU60KTV	N+2	N+1	N						
SU80K & SU80KTV	N+3	N+2	N+1	N					
SU80K & SU80KTV	N+3	N+2	N+1						





### 1+1 Parallel Capability

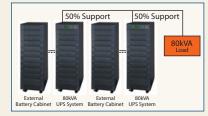
### **Provides Redundancy**

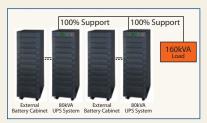
Connect two SmartOnline UPS Systems in parallel (1+1) to provide redundancy that "hardens" the power distribution system. If one UPS is removed or taken offline for maintenance, the second UPS supports the equipment load automatically—without requiring additional programming, like standard legacy systems. SmartOnline UPS Systems are parallel-ready and use a non-proprietary, wall-mounted parallel distribution panel. Patented dual DSP technology provides state-of-the-art parallel control.

### **Increases Capacity**

Connect two SmartOnline Modular 3-Phase UPS Systems in parallel to double the capacity offered to a single equipment load.

Note: UPS systems connected in parallel must have the same capacity and voltage. Parallel connection also requires a wall-mounted parallel tie cabinet.





### Feature Focus

# **UPS System Power Module Cabinet**

The UPS System's power module cabinet delivers true on-line, pure sine wave power to connected equipment.



### Extended Runtime Capability (rear panel access, not shown)



40kVA models include internal batteries. 60kVA and 80kVA models require a stand-alone, hardwired external battery cabinet (available separately from Tripp Lite) to provide battery backup support. All models accept connection of additional external battery cabinets for extended runtime. Contact Tripp Lite for a runtime solution customized for your application.

### Advanced Communications Capabilities

### A RS-232 Interface

Provides shutdown commands and reporting on a single server.

#### B Accessory Card Slot

Accepts optional internal SNMPWEBCARD. SNMPWEBCARD provides network interface for monitoring and control via SNMP, Web or telnet, enabling remote reboots, shutdowns and more. Use with optional ENVIROSENSE to monitor temperature



and humidity or to control and monitor alarms and security systems.

### C 1+1 Parallel Interface

Allows two UPS systems to support a single equipment load.

### Dry-Contact Interface

### (Including "EPO" Emergency Power Off Function)

Allows remote emergency shutdown of the UPS system. Also allows the UPS system to monitor a variety of input/output conditions, including external battery module conditions.

### Hardwire, 3-Phase (4-Wire, wye) Output

(rear panel access, not shown)

Connects the power module directly to your equipment or a PDU (power distribution unit).

Hardwire, 3-Phase (4-Wire, wye) Input (rear panel access, not shown) Connects the power module directly to the 3-Phase utility power source.

#### Cooling Fans

Keep UPS system at optimal operating temperature, prolonging service life.

F Removable Mounting Brackets, Heavy-Duty

Casters & Levelers Provide added mobility and stability during installation.



Removable

Mounting Brackets

### Multiple, Redundant Hot-Swappable 20kVA Power Modules

All SmartOnline Modular 3-Phase UPS Systems include multiple, selfcontained power modules that provide the

ultimate level of fail-safe



20kVA Redundant Power Module

redundancy. In an N+1 configuration, a power module can be hotswapped (with the load powered) if maintenance is required.

### **H** Bypass Operation

A manual bypass breaker as well as an automatic static



bypass ensure 100% availability of connected equipment by safely passing through AC power if the UPS system requires maintenance.

### I Short Circuit Protection

Breakers safeguard your equipment, the UPS system and your electrical infrastructure against potential damage due to input or output short circuits and system overloads.

### Display & Control Panel

This interface indicates a variety of UPS operational modes and conditions, allowing you to react more rapidly to an alert before your systems are put at risk.

(1) LCD Display: lets you access more precise information than provided by LEDs alone. Text and intuitive operational block diagrams communicate a variety of fault/warning and UPS system operational conditions.

### Real-Time Event Log Screen (Up to 500 Events Listed)

Event log helps managers decisively react to changing conditions by providing a broader context of UPS operation.

### **Dynamic Battery Management Screen**

Use the LCD display and control buttons to select optional settings for charge current and battery equalization—lengthening battery service life. Also use the control panel to "cold start" the UPS system.

(2) LED Set: indicates normal on-line operation, on-battery operation, bypass operation or an input fault condition.

(3) Inverter On/Off Buttons

**(4)** LCD Display Control Buttons

(5) "EPO" (Emergency Power Off) Button: onsite safety measure (covered to protect against accidental contact) completely shuts down the UPS.

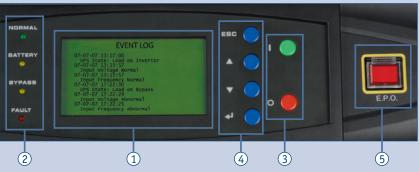
### **Specifications**

opcomoat						-				Rol
cUL us Model #	Output Capacity (VA/Watts)	Backup Time (Typical Minutes) Half/ Full Load <sup>(A)</sup>	Included Internal Battery Strings (Quantity)	External Battery Cabinets (Required for 60kVA & 80kVA Models)	Input/Output Voltage (Hardwire, 50/60Hz Auto-Selecting)	Input Voltage Range (Frequency 60 Hz)	Coi "Smart" RS-232 (DB9)	mmunication Parallel Interface (DB9)	Ports Dry Contact Interface	SNMP/Web Accessory Slot <sup>(B)</sup>
SmartOnline M	odular 3-Phase UF	S System Power Ma	dules							
<mark>3</mark> SU40K ) )	40,000/32,000	13/5.5	4	ABCDEF	120/208 VAC 3ø, 4-wire (plus ground), wye	94-150/ 163-260 VAC	1	1	1	1
<mark>)</mark> Sugok	60,000/48,000	Contact Tripp Lite for Customized Runtime Solutions	_	ABCDEF	120/208 VAC 3ø, 4-wire (plus ground), wye	94-150/ 163-260 VAC	1	1	1	1
<mark>1</mark> SU60KTV )	60,000/48,000	Contact Tripp Lite for Customized Runtime Solutions	_	ABCDEF	277/480 VAC 3ø, 4-wire (plus ground), wye	218-348/ 378-603 VAC	1	1	1	1
<b>1</b> SU80K	80,000/64,000	Contact Tripp Lite for Customized Runtime Solutions	_	A B C D E F	120/208 VAC 3ø, 4-wire (plus ground), wye	94-150/ 163-260 VAC	1	1	1	1
<sup>≟</sup> SU80KTV ∕	80,000/64,000	Contact Tripp Lite for Customized Runtime Solutions	—	ABCDEF	277/480 VAC 3ø, 4-wire (plus ground), wye	218-348/ 378-603 VAC	1	1	1	1
		I Battery String and								
BP480V26B				ple cabinets can be daisy-cl						
BP480V40C			,	ple cabinets can be daisy-cl						
BP480V55				ple cabinets can be daisy-cl	, ,					
BP480V78				ple cabinets can be daisy-cl						
BP480V103				ple cabinets can be daisy-cl						
BP480V140			,	ple cabinets can be daisy-cl	nained. 10-year design	i life.				
SURBC2030		acement internal batte				·				
SU40KMBPK				all mount. Kirk Key interlock						
SU60KMBPK				all mount. Kirk Key interlock	<u> </u>	·				
SU80KMBPK				all mount. Kirk Key interlock						
		21 1	,	Wall mount. Kirk Key interlo						
SU80KMBPKX		21 1	,	Wall mount. Kirk Key interlo	· ·	equence of operation	un errors.			
SUPT40K				OK models only. Wall mount						
SUPT60K SUPT80K				OK models only. Wall mount OK models only. Wall mount						
SUPTOOK				OK Models only. Wall mount OKTV models only. Wall mou						
SUPT80KX				OKTV models only. Wall mou	JIIL.					
SNMPWEBCARI ENVIROSENSE		Web management c		& contact-closure inputs (rec	ULITOS SNIMDWEDCAD	וח				
				condition and load. 60kVA and 8		,	ttoru ophinat (a		ماريد مريد الم	hellen beelen

(4) 40kVA models include internal batteries. Backup times will vary depending on battery condition and load. 60kVA and 80kVA models require a stand-alone external battery cabinet (available separately) to provide battery backup support. All models accept connection of additional external battery cabinets for extended runtime. <sup>(B)</sup> For use with optional internal cards. SNMP/Web management accessory card (model: SNMPWEBCARD) available separately from Tripp Lite.

### Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com

Also available: start-up and on-site service programs, interactive UPS System selector guide, extended warranties, owner's manuals and more!



# SmartOnline<sup>™</sup> 3-Phase

Intelligent True On-Line UPS Systems

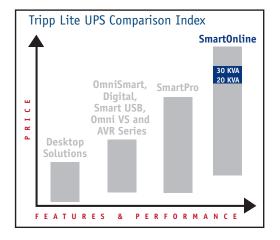


SU20K3/3 & SU30K3/3

# Deliver True On-Line, Pure Sine Wave, Zero Transfer Time Operation

SmartOnline 3-Phase UPS Systems provide mission-critical 3-phase equipment with the highest level of power protection. Double-conversion technology continually converts incoming AC power into filtered DC power, and then resynthesizes it back into AC power with a pure sine wave. Constant on-line operation completely isolates sensitive equipment from every power problem on the AC line. SmartOnline models include a wide incoming voltage tolerance, automatically correcting a wide range of incoming voltages\* to save battery power for when it's needed during a blackout. SmartOnline 3-Phase UPS Systems provide reliable battery power with zero transfer time to keep networks up and running safely through short blackouts and allow enough time to safely shut down during longer ones. In addition, they stop damaging surges and filter disruptive line noise.

SmartOnline 3-Phase UPS Systems are ideal for protecting critical equipment in computing, networking or telecommunications environments.



# TRUE ON-LINE

- ▶ 20 30 kVA
- Small Footprint Cabinet
- Front-Panel Battery Access
- Zero Transfer Time, Double-Conversion
- IGBT Inverter Technology
- 3-Phase Hardwire Input & Output (120/208V)
- Internal Batteries & Extended Runtime Options

# Deliver Superior Reliability

SmartOnline 3-Phase UPS Systems provide some of the lowest THD (total harmonic distortion) output available— <3% using IGBT technology—allowing your connected equipment to continuously perform at its peak. In addition, SmartOnline 3-Phase models provide a 3:1 crest factor to safely support a variety of equipment, even equipment with wildly fluctuating power demands.

# Provide 100% Availability

A manual bypass switch as well as an automatic bypass function included on SmartOnline 3-Phase UPS Systems ensure the constant availability of connected equipment by safely passing through AC power even if the UPS system requires maintenance. In addition, a battery cold-start switch allows you to restart your UPS system and connected equipment during an extended blackout for periodic system access or retrieval of vital data.

### Save Space

SmartOnline 3-Phase UPS Systems feature the smallest footprints in their class. While many competitive solutions require two bulky modules that must be installed side by side, SmartOnline 3-Phase UPS Systems combine power and battery components into a single, smallfootprint module. SmartOnline models save valuable facility floor space in every environment.

# Simplify Runtime Scalability

In addition to a space-optimized design, SmartOnline UPS Systems include convenient front-panel battery access that simplifies runtime scalability. A robust internal battery capability can be easily extended by installing additional optional internal batteries through the front panel access door.

Room for additional internal battery strings is built into each SmartOnline 3-Phase UPS System—so runtime can be significantly extended without changing the UPS System's space-saving footprint. SU20K3/3 models provide room for two additional internal battery strings. SU30K3/3 models provide room for one additional internal battery string, and SU20K3/3XR5 and SU30K3/3XR5 models provide room for three additional battery strings.

# Provide Greater Product Availability

Since SmartOnline 3-Phase UPS Systems are fully stocked, they feature the lowest lead time (between ordering and installation) in the industry. On average, SmartOnline 3-Phase UPS Systems ship within several days compared to the industry average of 3 to 4 weeks.

### **Extend Runtime**

All models feature a robust internal battery capability. Additional internal batteries can be added to provide extended runtime. If more runtime is required, an optional stand-alone battery compartment can be added and configured with additional batteries. Without enough runtime, businesses stand to lose up to \$50,000 per hour according to a recent survey on the cost of lost productivity for an hour of network downtime.\* Locate your planned load and optimum runtime on the chart below.

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	Runtime (minutes)	Runtime	e (minutes) witl	h additional in	ternal battery	strings			
Load (Watts)	with included internal battery strings	1	2	3	4	5			
SU20K3/3 Exten	ded Runtime (with SURBC2	030 internal ba	nttery strings)						
8000	13.0	25.2	36.5	42.0*	61.0*	73.9*			
16000	5.0	10.1	14.9	17.0*	25.5*	31.2*			
SU20K3/3XR5 Extended Runtime (with SURBC2030 internal battery strings)									
8000	42.0	61.0	73.9	87.1	100.5*	114.2*			
16000	17.0	25.5	31.2	37.0	43.0*	49.1*			
SU30K3/3 Exten	ded Runtime (with SURBC2	030 internal ba	nttery strings)						
12000	13.0	22.0	25.0*	37.1*	45.2*	53.5*			
24000	5.0	8.5	11.0*	14.9*	18.3*	21.8*			
SU30K3/3XR5 E	xtended Runtime (with SUR	BC2030 interna	al battery string	ys)					
12000	25.0	37.1	45.2	53.5	62.0*	70.7*			
24000	11.0	14.9	18.3	21.8	25.4*	29.1*			

\* The number of additional battery strings exceeds the number of vacant slots in the UPS System's internal battery compartment. An additional, stand-alone battery compartment (model # SUBF2030) will need to be purchased to accommodate the additional battery strings. The SUBF2030 can accommodate up to four battery strings and can be daisy-chained to further extend runtime. For additional extended runtime solutions, call Tripp Lite's Application Specialists at (773) 869-1236.

### Lower Your Cost of Ownership

Lower your cost of ownership with the superior efficiency of SmartOnline 3-Phase UPS Systems. Extremely efficient operation saves money by lowering electricity consumption. As an extra measure of efficiency, SmartOnline 3-Phase models feature a high power density (packing more capacity into a smaller footprint cabinet) which saves valuable facility space.

### Provide Optional Extended Service / Support Programs

Start-Up and On-Site Service Programs are recommended and available separately to enhance the reliability of the installation. Preventative Maintenance Services are also available for added peace of mind.

# Include Enhanced Communication Capability

SmartOnline 3-Phase UPS Systems include three communications ports, an SNMP slot and a remote EPO jack. PowerAlert software provides power management, monitoring and control locally or remotely through TCP/IP. Intelligent communications allow you to check UPS status (including battery charge level) and AC power status.\*

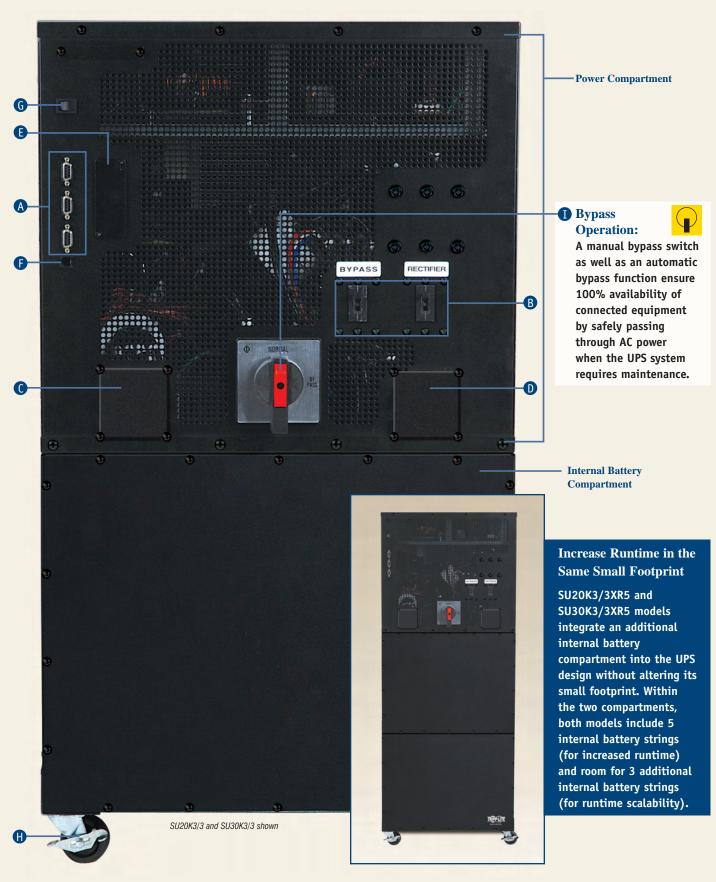
\* Additional PowerAlert features: pages 26 and 27.

### 3-Phase Accessories Ease Deployment

Non-proprietary accessories are available to integrate SmartOnline 3-Phase UPS Systems into your existing infrastructure, including external maintenance bypass panels (with Kirk Key interlock), external battery cabinets and more.

# UPS System Rear Panel (Power & Battery Components in One Module)

The UPS System's power components (located within the top half of the unit) deliver true on-line, pure sine wave power to connected equipment. The power components work with internal batteries (located within the bottom half of the unit) to supply connected equipment with battery backup during a blackout. The internal battery compartment includes vacant slots to accept additional battery strings for extended runtime.



### Extended Runtime Capability (front panel, not shown)

Additional internal batteries can be added to provide extended runtime. If more runtime is required, an optional, stand-alone battery

compartment can be added and configured with additional batteries.

Multiple built-in communication ports simultaneously provide shutdown commands and reporting on multiple servers without

Multi-pole breakers safequard your equipment, the UPS system and

your electrical infrastructure against potential damage due to input

Connects the power module directly to your equipment or

Connects the power module directly to the 3-Phase utility

See Extended Runtime Chart on page 21 to locate the perfect SmartOnline

All models feature a robust internal battery capability.

3-Phase model that fits your runtime needs.

or output short circuits and system overloads.

Hardwire, 3-Phase (4-Wire, wye) Output

a PDU (power distribution unit).

Hardwire, 3-Phase (4-Wire, wye) Input

Accepts optional internal SNMPWEBCARD or

**RELAYIOCARD. SNMPWEBCARD** provides network

interface for monitoring and control via SNMP, Web

or telnet, enabling remote reboots, shutdowns and

more. Use with optional ENVIROSENSE to monitor temperature and humidity or to control and monitor alarms and security systems. RELAYIOCARD provides programmable contact closure interface with

Multiple Server Support

the need for accessories.

B Short Circuit Protection

power source.

Accessory Card Slot

6 outputs and 1 input.

**Snocifications** 



**F** Emergency Power Off

A modular jack allows remote emergency shutdown.

### **G** Battery Cold Start

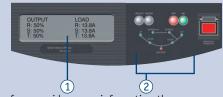
Restart your UPS during a prolonged blackout to utilize its batteries for periodic system access or data retrieval.

### Heavy-Duty Casters

Provide added mobility during installation.

#### Front Panel Display

A front panel combination LCD/LED display indicates a variety of UPS operational modes



and conditions. This interface provides more information than comparable models, allowing you to react more rapidly to an alert before your systems are put at risk.

1 **LCD Display:** lets you access more precise information than provided by LEDs alone. View over 45 separate fault/warning and UPS system operational conditions, including operational mode, alarm/shutdown conditions, input/output voltage/frequency, battery voltage, load percentage and more.

(2) **LED Set:** is organized into a flow chart that indicates UPS system operational status, including normal on-line operation, bypass operation (due to fault or overload) or on-battery operation (due to a blackout or severe brownout).

	Backup Time	Included	Optional	Additional Capacity		Input			Ports	ROH
Output Capacity (VA/Watts)	(Typical Minutes) Half/ Full Load <sup>(A)</sup>	Internal Battery Strings (Quantity)	Internal Battery Strings	for Optional Internal Battery Strings (Quantity)	Input/Output Voltage (Hardwired)	Voltage Range (Frequency 60 Hz)	"Smart" RS-232 (DB9)	Contact Closure (DB9)	AS-400 (DB9)	Accessory Card Slot
Phase UPS Syst	ems									
20,000/16,000	13/5+	2	A	2	120/208 VAC 3ø, 4-wire (plus ground), wye	96-144/ 166-250 VAC	1	1	1	Yes
20,000/16,000	42/17+	5	A	3	120/208 VAC 3ø, 4-wire (plus ground), wye	96-144/ 166-250 VAC	1	1	1	Yes
30,000/24,000	13/5+	3	A	1	120/208 VAC 3ø, 4-wire (plus ground), wye	96-144/ 166-250 VAC	1	1	1	Yes
30,000/24,000	25/11+	5	A	3	120/208 VAC 3ø, 4-wire (plus ground), wye	96-144/ 166-250 VAC	1	1	1	Yes
	Capacity (VA/Watts) thase UPS Syst 20,000/16,000 20,000/16,000 30,000/24,000	Output Capacity (VA/Watts)         (Typical Minutes) Half/ Full Load <sup>(A)</sup> thase UPS Systems           20,000/16,000         13/5 +           20,000/16,000         42/17 +           30,000/24,000         13/5 +	Output Capacity (VA/Watts)(Typical Minutes) Half/ Full Load(A)Internal Battery Strings (Quantity)thase UPS Systems20,000/16,00013/5 +220,000/16,00042/17 +530,000/24,00013/5 +3	Output Capacity (VA/Watts)(Typical Minutes) Half/ Full Load(A)Internal Battery Strings (Quantity)Internal Battery Stringsthase UPS Systems20,000/16,00013/5 +2A20,000/16,00042/17 +5A30,000/24,00013/5 +3A	Output Capacity (VA/Watts)(Typical Minutes) Half/ Full Load(A)Internal Battery Strings (Quantity)Internal Battery Strings (Quantity)for Optional Internal Battery Strings (Quantity)thase UPS Systems13/5+2A220,000/16,00013/5+2A320,000/16,00042/17+5A330,000/24,00013/5+3A1	Output Capacity (VA/Watts)(Typical Minutes) Half/ Full Load(A)Internal Battery Strings (Quantity)for Optional Internal Battery Strings (Quantity)Input/Output Voltage (Quantity)thase UPS Systems20,000/16,00013/5+2A2120/208 VAC 3Ø, 4-wire (plus ground), wye20,000/16,00042/17+5A3120/208 VAC 3Ø, 4-wire (plus ground), wye30,000/24,00013/5+3A1120/208 VAC 3Ø, 4-wire (plus ground), wye30,000/24,00025/11+5A3120/208 VAC 3Ø, 4-wire (plus ground), wye	Output Capacity (VA/Watts)(Typical Minutes) Half/ 	Output Capacity (VA/Watts)(Typical Minutes) Half/ Full Load <sup>(A)</sup> Internal Battery Strings (Quantity)for Optional Internal Battery Strings (Quantity)Input/Output Voltage (Quantity)Voltage Range (Frequency 60 Hz)"Smart" RS-232 (DB9)thase UPS Systems13/5 +2A2120/208 VAC 3Ø, 4-wire (plus ground), wye96-144/ 166-250 VAC120,000/16,00013/5 +2A3120/208 VAC 3Ø, 4-wire (plus ground), wye96-144/ 166-250 VAC120,000/16,00042/17 +5A3120/208 VAC 3Ø, 4-wire (plus ground), wye96-144/ 166-250 VAC130,000/24,00013/5 +3A1120/208 VAC 3Ø, 4-wire (plus ground), wye96-144/ 166-250 VAC130,000/24,00025/11 +5A3120/208 VAC 3Ø, 4-wire (plus ground), wye96-144/ 166-250 VAC1	Output Capacity (VA/Watts)Internal Battery Strings (Quantity)Internal Battery Strings Stringsfor Optional Internal Battery Strings (Quantity)Input/Output Voltage (Hardwired)Voltage Range (Frequency 60 Hz)"Smart" RS-232 (DB9)Contact Closure (DB9)thase UPS Systems13/5+2A2120/208 VAC 3@, 4-wire (plus ground), wye96-144/ 166-250 VAC1120,000/16,00042/17+5A3120/208 VAC 3@, 4-wire (plus ground), wye96-144/ 166-250 VAC1130,000/24,00013/5+3A1120/208 VAC 3@, 4-wire (plus ground), wye96-144/ 166-250 VAC1130,000/24,00025/11+5A3120/208 VAC 3@, 4-wire (plus ground), wye96-144/ 166-250 VAC1130,000/24,00025/11+5A3120/208 VAC 3@, 4-wire (plus ground), wye96-144/ 166-250 VAC11	Output Capacity (VA/Watts)Internal Battery Strings (Quantity)Internal Battery Stringsfor Optional Internal Battery Strings (Quantity)Input/Output Voltage (Hardwired)Voltage Range (Frequency 60 Hz)"Smart" RS-232 (DB9)Contact Closure (DB9)AS-400 (DB9)thase UPS Systems13/5+2A2120/208 VAC 3Ø, 4-wire (plus ground), wye96-144/ 166-250 VAC11120,000/16,00013/5+2A3120/208 VAC 3Ø, 4-wire (plus ground), wye96-144/ 166-250 VAC11120,000/16,00013/5+3A1120/208 VAC 3Ø, 4-wire (plus ground), wye96-144/ 166-250 VAC11130,000/24,00013/5+3A1120/208 VAC 3Ø, 4-wire (plus ground), wye96-144/ 166-250 VAC11130,000/24,00025/11+5A3120/208 VAC 3Ø, 4-wire (plus ground), wye96-144/ 166-250 VAC111

A SURBC2030	240V internal battery string (for all models).
SUBF2030	Additional, stand-alone battery compartment (for all models). Requires SURBC2030 battery strings. Capacity: 4 strings.
SU20KMBPK	External maintenance bypass panel (for 20kVA models only). Wall-mount. Three 70A breakers. Kirk Key interlock system prevents sequence of operation errors.
SU30KMBPK	External maintenance bypass panel (for 30kVA models only). Wall-mount. Three 100A breakers. Kirk Key interlock system prevents sequence of operation errors.
SNMPWEBCA	RD Internal SNMP/Web management card (connects UPS system to Ethernet).
ENVIROSENS	Allows UPS to monitor external temperature/humidity & contact-closure inputs (requires SNMPWEBCARD).
RELAYIOCARI	Programmable contact closure accessory card with 6 output contacts and 1 input contact.
+ Backup times	are expandable using additional optional internal battery strings (model # SURBC2030, available separately). (A) Backup times will vary depending on battery condition and load.

### Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com

Also available: start-up and on-site service programs, interactive UPS System selector guide, extended warranties, owner's manuals and more!

# TRIPP-LITE TOWER UPS

# $SmartPro^{\circ}$ Intelligent Line-Interactive UPS Systems

TOWER



UPS

- ▶ 500 5,000 VA
- Internal Batteries & Extended Runtime Options
- ► Automatic Voltage Regulation (AVR)

### **Extend Runtime**

Select models accept external battery packs to provide extended runtime. Without enough runtime, businesses stand to lose up to \$50,000 per hour according to a recent survey on the cost of lost productivity for an hour of network downtime.\* Locate your planned load and optimum runtime on the chart below. \* Yankee Group.

H	Load	Runtime (minutes) with included	Runtime (minutes) with additional external battery packs								
æ	(Watts)	batteries	1	2	3	4	5				
A	SMART750	XLa Extended Runtin	me (with BP36V42-3U)								
т	250	13	331.6	866.8	1285.7	1692.3	2086.6				
ں	500	5.0	151.6	420.7	639.0	855.3	1068.8				
	SMART1500XL Extended Runtime (with BP36V42-3U)										
	490	20.4	181.9	398.5	616.7	833.1	1046.7				
ш	980	7.1	77.8	179.1	285.2	392.7	500.5				
Σ	SMART1500SLTXL Extended Runtime (with BP36V42-3U)										
н	490	16	177.2	388.9	602.3	814.1	1023.3				
F	980	6.8	75.6	174.3	277.9	382.9	488.2				
z	SMART2200VSXL Extended Runtime (with BP48V60RT3U)										
~	800	19.0	128.5	264.3	403.4	542.9	681.9				
	1600	7.0	52.6	113.0	177.3	243.5	310.5				
Ж	SMART220	ONET Extended Runt	ime (w	ith BP24	4V70-3U	)					
	800	27.0	121.8	229.3	339.7	450.9	562.1				
۵	1600	11.0	N/A	N/A	N/A	N/A	N/A				
	SMART300	ONET Extended Runt	ime (w	ith BP24	4V70-3U	)					
ш	800	33.3	122.6	230.8	341.8	453.6	565.3				
D	1600	13.1	51.5	N/A	N/A	N/A	N/A				
z	SMART300	OVS Extended Runtin	ne (wit	h BP48	V60RT3l	J)					
ш	800	19.7	124.3	256.2	391.5	572.2	662.5				
	1600	7.4	53.4	114.5	179.7	246.6	314.4				
F	SMART500	OXFMRXL Extended	Runtime	e (with	BP48V6	ORT3U)					
×	1820	27.7	63.0	117.9	175.8	235.2	295.2				
ш	3750	10.0	24.4	47.0	71.7	97.6	124.4				
For	additional exte	nded runtime solution	s to fit	VOUR SDG	cific loa	l requirer	ante				

For additional extended runtime solutions to fit your specific load requirements, use Tripp Lite's interactive UPS Selector Guide at www.tripplite.com/selector/ups, or call Tripp Lite's Application Specialists at (773) 869-1236.

# Protect Every Application

SmartPro Tower UPS Systems are available in a wide variety of capacities to protect every size computer application from downtime, damage and data loss due to power problems. SmartPro Tower UPS Systems provide complete protection against all types of power problems, including brownouts, blackouts, surges and line noise. Line-interactive operation—also known as automatic voltage regulation (AVR)—keeps equipment working through low voltage (brownouts) and high voltage conditions indefinitely, without draining battery power. SmartPro Tower UPS Systems provide reliable battery power to keep computers up and running through short blackouts and allow enough time to safely shut down during longer ones. In addition, all AC outlets stop damaging surges and filter disruptive line noise.

# Control Individual Outlets

Prioritize the uptime of mission-critical loads during a power failure with Customized Load Management Banks featured on select models. Use PowerAlert to reboot a locked-up computer by cycling the power on and off to select receptacles on the UPS system. You can also program PowerAlert to shut down less important systems during an extended blackout, preserving battery runtime for more critical equipment.

# Manage Multiple Servers

Multiple built-in communication ports provide the ability to simultaneously manage multiple servers without the need for accessories. Using PowerAlert software, select models with multiple communication ports will simultaneously provide intelligent communications, shutdown commands and reporting on multiple servers even if they are running different operating systems.\*

### Feature Focus

### A Extended Runtime Capability

Select models feature connectors that accept optional external battery packs for additional runtime. External batteries can be "hot-swapped". See Extended Runtime Chart on page 24 to locate the perfect SmartPro Tower model that fits your runtime needs.

#### Customized Load Management B

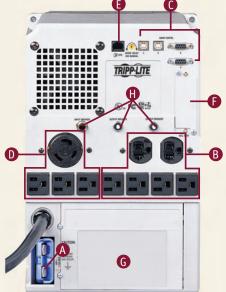
Prioritize the uptime of mission-critical loads during a power failure. Select models feature special receptacles that you control independently through PowerAlert software. Use PowerAlert to shut down less important systems first, preserving battery runtime for more critical equipment.

#### C Multiple Server Control

Up to four built-in communication ports on select models simultaneously provide shutdown commands and reporting on multiple servers without the need for accessories.

#### **D** Variety of Output Options

15- 20- and 30-amp receptacles ensure maximum connection flexibility.







#### E Emergency Power Off (EPO)

A modular jack on select models allows remote emergency shutdown.

Phone/DSL/Ethernet Surge Protection (Select

Models, Not Shown) Protect Internet-connected or networked computers from damage on a single phone/ DSL/Ethernet line.

### Accessory Card Slot Accepts optional internal SNMPWEBCARD or RELAYIOCARD.



SNMPWEBCARD provides network interface for monitoring and control via SNMP, Web or telnet, enabling remote reboots, shutdowns and more. Use with optional ENVIROSENSE to monitor temperature and humidity or to control and monitor alarms and security systems. RELAYIOCARD provides programmable contact closure interface with 6 outputs and 1 input.

#### **Battery Replacement**

Tripp Lite UPS batteries will protect equipment for several years with normal use. Most models feature a removable panel which allows for internal battery replacement\*. Internal batteries can be "hot-swapped".

### Short Circuit Protection

### Performance Conditions Displayed

Front panel LEDs alert you to a variety of



performance conditions, including AC line present, automatic voltage regulation, UPS load level and replace battery.

\* Tripp Lite offers a complete line of replacement battery cartridges (R.B.C.); visit www.tripplite.com

	Specification	S												
	c(4). us NOM (a)." Model		Backup Time (Typical Minutes) Half/Full Load <sup>(©)</sup>	Optional External Battery Packs	Nominal Input- Output Voltage/ Frequency 60 Hz	Quantity	AC Receptacles NEMA Type	Customized Load Management Banks		mart" m. Ports RS-232 (DB9)	Phone/DSL/ Ethernet Surge Protection	Accessory Card Slot <sup>(F)</sup>	Input Plug (NEMA)	Power Cord Length (ft)
	SmartPro UPS Systen		. = (=											
	SMART500RT1U	500/300	17/5	—	120	7 <sup>(D)</sup>	5-15R	1	1	1		yes	5-15P	10
	SMART750	750/450	16/5.5	—	120	6	5-15R		1		_	_	5-15P	6
	SMART700SER	700/450	20/6	—	120	6	5-15R	—	_	1	_	_	5-15P	7
_	SMART700DV	700/450	54/22		120 or 230 (input)/120 (output)	6	5-15R		1	1		yes	5-15P	6
	SMART750XLa	750/500 <sup>(A)</sup>	27/10+	AB	100/110/120/127 user-selectable	8	5-15R	—	1	1	1 line	yes	5-15P	6
	SMART750SLT	750/500	20/7	—	100/110/120 user-selectable	8 <sup>(D)</sup>	5-15R		1	1	1 line	yes	5-15P	6
	SMART1050	1050/705 1050/650	23/8 21/8	—	120 100/110/120 user-selectable	6	5-15R 5-15R		1	1	1 line	_	5-15P 5-15P	6
	SMART1050SLT Smart1500	1050/650	21/8	-	120	8	5-15R	1	1	1		yes	5-15P	6
	SMART1500	1500/980	20/7		100/110/120 user-selectable	8	5-15R		1	1	 1 line	ves	5-15P	6
	SMART1500SL		20/7+	CD	120	6	5-15R	1	1	1			5-15P	7
_		1500/980										_		
	SMART1500SLTXL	1500/980	16/7+	CD	120	8	5-15R		1	1	1 line	yes	5-15P	6
	SMART2200VS SMART2200SLT	2200/1600 2200/1600	19/7 13/5	_	120 120	9	7 (5-15R), 2 (5-15/20R)	3	2	2	_	yes	5-20P <sup>(G)</sup> 5-20P <sup>(G)</sup>	8 10
	SMART2200SLI	2200/1600	13/5		120	10	6 (5-15/20R) & 1 (L5-20R) 7 (5-15R), 2 (5-15/20R),	3	1	2	_	yes	5-20P(0)	8
		,		EF			1 (L5-20R)					yes		
	SMART2200NET	2200/1700	27/11+	AB	120	6	5-15R	2		3 <sup>(E)</sup>	_	_	5-15P <sup>(G)</sup>	8
	SMART3000VS	3000/2250	14/4+	EF	120	10	7 (5-15R), 2 (5-15/20R), 1 (L5-30R)	3	2	2	_	yes	L5-30P <sup>(G)</sup>	8
	SMART3000NET	3000/2400	23/7+	AB	120	8	4 (5-15R), 4 (5-15/20R)	2	—	3(E)	—	—	L5-30P	10
	SMART3000SLT	3000/2250	10/3.5	—	120		6 (5-15/20R) & 1 (L5-30R)	—	1	1	—	yes	L5-30P	10
<mark>⊡</mark>	SMART5000XFMRXL	5000/3750 <sup>(B)</sup>	20/8.5+	F	208 (In); 208 & 120 (Out)	11	8 (5-15/20R), 2 (L6-20R), 1 (L6-30R)	8	1	2 <sup>(H)</sup>	—	yes	L6-30P	10
<mark>≓</mark>	SMART5000TEL3U	5000/3750 <sup>(B)</sup>	20/8.5	—	208 (In); 208 & 120 (600VA max.) Out	5	2 (5-15R), 2 (L6-20R), 1 (L6-30R)	—	1	2 <sup>(H)</sup>	—	yes	L6-30P	10
	External Battery Pack													
	BP24V28-2U				U. Not expandable. RED/BLACK									
	BP24V70-3U				U. Expandable. RED/BLACK 2-pc									
	BP36V15-2U				U. Not expandable. GREY 2-point		)r.							
	BP36V42-3U BP48V24-2U				U. Expandable. GREY 2-point cor		noint connector							
	BP48V24-20 BP48V60RT3U				ower or 2U rack. Not expandable ower or 3U rack. Expandable. BL									
	SNMPWEBCARD				essory card (connects compatible									
	ENVIROSENSE				rature/humidity and contact-closu			RD).						
	RELAYIOCARD				ory card with 6 output contacts a									
	2-9USTAND				s-2U to 9U-(for SMART5000)			nodels).						
	2POSTRMKITWM	Horizontal n	nounting rails for	2-post ra	ckmount installation (for SMART5	5000XFMF	RXL and SMART5000TE	_3U models) .						

+ Backup times are expandable using external battery packs. (A) These models can be set to match the UPS System's output voltage to the input voltage available at the wall outlet. Output capacity varies depending on voltage selection. (B) SMART5000XFMRXL and SMART5000XFMRXL models supply full VA output through both 208 and 120V receptacles, SMART5000XFMRXL models are limited to providing 540VA output through its 120V receptacles (or 600VA with user-supplied 50A plug). (A) Backup times will vary depending on battery condition and load. (B) SMART5000XFMRXL models are limited to providing 540VA output through its 120V receptacles (or 600VA with user-supplied 50A plug). (B) Backup times will vary depending on battery condition and load. (B) SMART5000XFII (F) SMART5000XFMRXL or optional SNMPWEBCARD or RELAVIOCARD. (B) These models include a single SNAPE CONTROL or optional SNMPWEBCARD or RELAVIOCARD. (B) These models include an additional plug (SMART2200VS: 5-20P) which can be installed in place of the existing plug. Installing the additional plug would change the output capacity. (B) SMART5000XFMRXL and SMART5000TEL3U include an RS-232 DB9 port and to contact-closure DB9 port. (C) Certifications vary by model.

### Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com

Also available: interactive UPS System selector guide, extended warranties, owner's manuals and more!

# PowerAlert Software

TRIPPLIT	E 🜌	as Dev	<b>2</b> ko L						Logs		<b>?</b>
Add Device	٢	-									8
	Dev	ices									
		Status normal	IP Address	MAC Address	Hostname	Model Name	Location	Type	Ver	Ref	1
		Normal	192.168.1.28	00111432316			-		12		1
		Normal	192.168.1.20			SMART1500RM2U	-		12	-	-
								-	-	-	-1
		Info	192.168.1.21			SMART1500RM2U	000000	-	12		4
	- 10 March 10	Normal	-			TRIPP LITE SMA		-	12	-	4
		Normal	192.168.1.125	00:06:67:20:6	192.168.1	TRJPP LITE SMA		snm	12	0	
	Alar	ms					192.1	68.1.1	21		
			Status	Description					-	-	
		0	ohd	Battery Over 3 Year	s Old						
Aarm Summary: A Warning: 0 Critical: 0 R Offline: 0 D Informational: 1											

PowerAlert software monitors and controls power for up to 250 UPS systems or PDUs and the computers and equipment that they support. Since PowerAlert is a FREE, software-only solution, it saves network managers significant installation costs compared to competitive solutions that require additional hardware or license purchases.\* Using JAVA and SNMP standards, PowerAlert simplifies power management for every network—from a single, local server to a large, global enterprise. PowerAlert allows managers to centrally monitor every UPS and PDU on their network. In addition, PowerAlert allows users to set parameters for graceful, automatic system shut down in the event of an extended blackout. \* *FREE PowerAlert CD included with SmartPro and SmartOnline UPS systems. FREE download available at www.tripplite.com*.

# **Reduces Deployment Time**

### • Mass Configuration of Devices

PowerAlert saves time and money by allowing managers to mass-configure multiple remote device settings from a single location.

# Device Auto-Discovery

Managers can set PowerAlert to auto-discover UPS and PDU devices in specific network segments or IP address ranges.

# Reduces Troubleshooting Time

### • Alarm Log

PowerAlert speeds up alarm resolution by pooling all network alarms into a single, sortable easy-to-read list. Alarm entries feature intuitive color coding, including white (normal), yellow (warning) and red (critical).

• "Recommended Action" Messaging PowerAlert takes the guesswork out of how to respond to alarms. When managers select a device from the Network Management Screen, the device's real-time power status is displayed along with the alarm's "cause" and recommended "response."



Tripp Lite's PowerAlert software, version 12.5, has tested compatible with Cisco CallManager, versions 4.0 and 4.1, Cisco 7600 Series Routers, 7500 Series Routers and Catalyst 65XX Layer 3 Switch. Tripp Lite PowerAlert software, version 12, has tested compatible with Cisco CallManager, versions 3.3(4)-MCS and 4.0(2)-MCS. Go to www.tripplite.com/logodisclaimer for details.

Monitors & Controls up to 250 UPS Systems or PDUs, plus up to 250 ENVIROSENSE modules

ARE

S 0

- Software-Only Solution Requires No Additional Hardware or Licenses
- Available FREE—CD Included or Web Download

### Simplifies Network Power Management

### • SNMP Control

Any UPS connected to PowerAlert via a USB or serial cable can now be monitored via SNMP—without an internal SNMPWEBCARD and its additional IP address. PowerAlert's built-in SNMP agent can make even a basic desktop UPS a monitored device on your network, visible to the PowerAlert NMS or any third-party NMS such as HP OpenView.

### • Alarm Notification

PowerAlert keeps managers continuously apprised of network power conditions through emails and SNMP traps, enabling them to proactively manage power problems before they affect productivity.

### • Individual Outlet Control

PowerAlert allows managers to reboot locked devices or preserve runtime for more critical equipment by remotely controlling the outlet power of UPS and power distribution units that offer outlet control capability. Select UPS and PDU devices can also be configured to perform custom, sequential startup and shutdown sequences.

### • Redundant UPS System Management

PowerAlert is smart enough to manage multiple UPS systems connected to a single load. For example, when two UPS systems are connected to support two power supplies on a server, PowerAlert is typically configured to gracefully shut down the server only after battery power is exhausted on both UPS systems.

### Network Shutdown Commands

When a UPS communicates with PowerAlert software or via internal SNMPWEBCARD, other computers on the network may also be dependent on the condition of the UPS. Any networked computers with PowerAlert Network Shutdown Agent installed and configured can listen for an outage and automatically shut down before UPS battery power is exhausted. PowerAlert can also execute custom scripts upon any alarm condition.

### Convenient Web-Browser Access

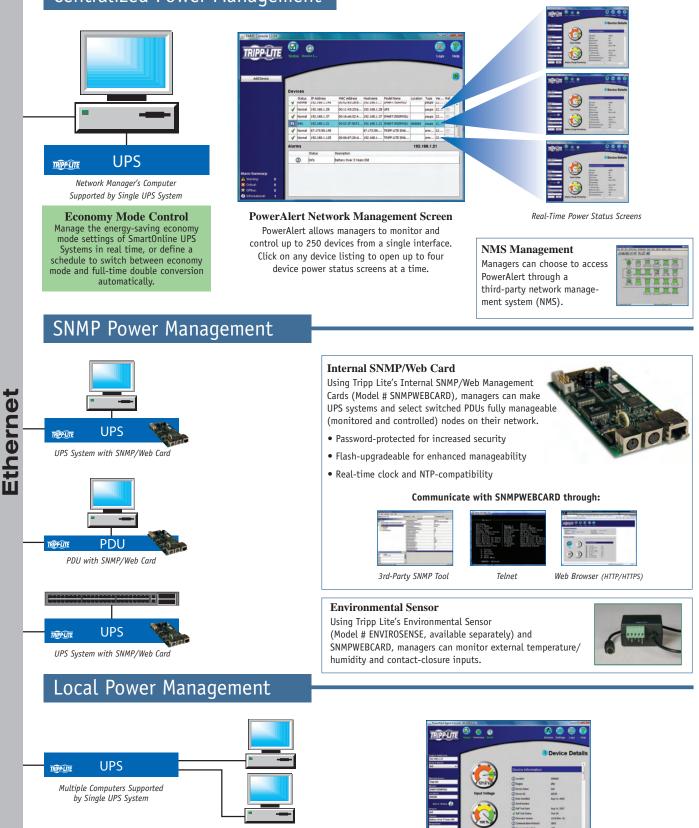
When the internal SNMPWEBCARD is used, network managers can access its management interface from any networked computer via a secure, password-protected browser session (HTTP or HTTPS).

PowerAlert software now supports Windows® and Linux® platforms!

# PowerAlert's Power-Management Architecture



W



Real-Time Power Status Screen Managers can view power events in real time, responding to power problems before they affect network performance, and also configure shutdown and alarm settings.

Redundant Protection: Single Computer Supported by Multiple UPS Systems

UPS

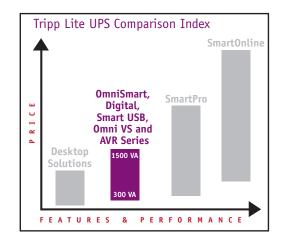
UPS

TRIPP-LITE

TRIPPLITE

# OmniSmart<sup>™</sup>, Digital, Smart USB, Omni VS and AVR Series Line-Interactive UPS Systems





- ▶ 300 1,500 VA
- Automatic Voltage Regulation (AVR)
- Phone/DSL, Ethernet & **Coaxial Surge Protection** Options
- Extended Runtime Option

# **Protect Every Application**

OmniSmart, Digital, Smart USB, Omni VS and AVR Series UPS Systems are available in a wide variety of capacities to protect every size computer application from downtime, damage and data loss due to power problems. These UPS Systems provide complete protection against all types of power problems, including brownouts, blackouts, surges and line noise. Line-interactive operation—also known as automatic voltage regulation (AVR) keeps equipment working through low voltage (brownouts) indefinitely, without draining battery power. OmniSmart, Digital, Smart USB, Omni VS and AVR Series UPS Systems provide reliable battery power to keep computers up and running through short blackouts and allow enough time to safely shut down during longer ones.

Digital UPS Systems include an LCD display that shows incoming power conditions in real time. Monitor input voltage, battery and load status and more at a glance. The LCD display includes a dimmer switch and can be rotated for easy viewing in any application.

# Protect Systems On Phone/DSL, Ethernet or Coaxial Lines

Select UPS Systems include surge-protected jacks that safeguard equipment against damaging surges traveling on the phone/DSL, Ethernet or coaxial lines. In addition to protecting equipment against surges, reliable battery backup power maintains Internet, network or coaxial connections during brief blackouts.

# Automatically Shut Down **Unattended Systems**

All models feature at least one built-in communication port. Use with included cabling and PowerAlert software (available as a FREE Web download) to automatically save open files and shut down unattended equipment during an extended blackout. PowerAlert software waits for a user-specified length of time (during which on-screen notifications are displayed) before safely shutting down connected equipment. SMART550USBWD model also includes WatchDog Service Monitoring/Rebooting Software to automatically reboot locked-up or poorly performing system service applicationsperfect for kiosk, point-of-sale or other unattended applications.

### Feature Focus SMART1000LCD Rear Panel G Bottom G Panel (not shown) TRIPPLITE SMART1500LCD Rear Panel B AVR750U OMNIVS1500XL Rear Panel

### A Phone/DSL, Ethernet & Coaxial Surge Protection

Protect computers from damage on the phone/ DSL, Ethernet or coaxial line with surge-protected jacks featured on many Tripp Lite UPS Systems.

• 1-Line (phone/DSL & Ethernet): Protects one device using one phone/DSL or Ethernet line.

• 1-Line (phone/DSL): Protects one device using one phone/DSL line.

• 1-Line (phone/DSL with built-in splitter):\* Protects two devices sharing one phone/DSL line. Saves the hassle of unplugging devices to share

a single line. • 1-Line (coaxial): Protects one device using one cable modem, DSS satellite, cable TV or antenna line. Connectors are gold "F" style and are digital-capable.

\* AVR750U and AVR900U models only.

•

### **B** Automatic Data Protection

At least one built-in communication port connects all models to a PC or workstation. Use with FREE PowerAlert software\* and included cabling to automatically save open files and shut down equipment during an extended blackout. \* Available FREE as a Web download.

C Battery-Supported and Surge-Protected Receptacles (for Computers and Monitors) All models include receptacles that provide reliable battery support for computers and monitors during a blackout as well as complete surge suppression and line noise filtering.

D Surge-Only Protected Outlets (for Printers and Peripherals) Select models include receptacles that provide complete surge suppression and line noise filtering for printers and peripherals.

### E Performance Conditions Displayed

All UPS Systems feature either LEDs or an LCD display to alert you to potential power problems before they affect your equipment. The LCD display featured on



Rotatable LCD Display

Digital models includes a dimmer switch and can be rotated for easy viewing, regardless of whether the UPS is placed in a horizontal or vertical ("tower") position.

- F Space-Saving Cabinets
- Battery Replacement Access
- Widely-Spaced Outlets
- Extended Runtime Capability

Specifications							
, (PL) us NOM (D) (D) Model	Output Capacity (VA/Watts)	Backup Time (Typical Minutes) Half/Full Load <sup>(A)</sup>	Optional External Battery Packs	AC Receptacles Quantity (NEMA 5-15R)	Comm. Ports	Phone/DSL, Ethernet or Coaxial Surge Protection	LEDs or LCD Display <sup>(B)</sup>
OmniSmart UPS Systems							
OMNISMART300	300/180	32/14	—	3	1 USB	1 line (Phone/DSL)	В
OMNISMART500	500/300	17/5		6 (3 UPS/surge & 3 surge-only)	1 USB	1 line (Phone/DSL)	В
OMNISMART700	700/450	22/7	_	6 (3 UPS/surge & 3 surge-only)	1 USB & 1 DB9	1 line (Phone/DSL & Ethernet)	В
OMNISMART1050	1050/705	23/7	—	6	1 USB	<u> </u>	A
OMNISMART1400	1400/940	24/8	—	6	1 USB		A
Digital UPS Systems			-		-		-
OMNI650LCD	650/350	11/3.5	—	8 (4 UPS/surge & 4 surge-only)	1 USB	<u> </u>	D (LCD)
OMNI900LCD	900/475	10/3	—	8 (4 UPS/surge & 4 surge-only)	1 USB	<u> </u>	D (LCD)
SMART1000LCD	1000/500	9/3	—	8 (4 UPS/surge & 4 surge-only)	1 USB	1 line (Phone/DSL) & 1 line (Coax)	D (LCD)
SMART1200LCD	1200/700	12/4	—	8	1 USB & 1 DB9	1 line (Phone/DSL & Ethernet)	D (LCD)
SMART1500LCD	1500/900	13/3.5	—	8	1 USB & 1 DB9	1 line (Phone/DSL & Ethernet)	D (LCD)
Smart USB UPS Systems						· · · · · · · · · · · · · · · · · · ·	· · ·
SMART550USB	550/300	17/5	_	6 (3 UPS/surge & 3 surge-only)	1 USB	1 line (Phone/DSL)	В
SMART550USBWD <sup>(C)</sup>	550/300	17/5	_	6 (3 UPS/surge & 3 surge-only)	1 USB	1 line (Phone/DSL)	В
SMART750USB	750/450	11/3	—	6 (3 UPS/surge & 3 surge-only)	1 USB	1 line (Phone/DSL & Ethernet)	В
Omni VS Series UPS Syst	tems						
OMNIVS800	800/475	11.5/3.5	_	7 (6 UPS/surge & 1 surge-only)	1 USB	1 line (Phone/DSL & Ethernet)	В
OMNIVS1000	1000/500	18/7	_	8 (6 UPS/surge & 2 surge-only)	1 USB	1 line (Phone/DSL & Ethernet)	В
OMNIVS1500	1500/940	8.5/4	_	8 (6 UPS/surge & 2 surge-only)	1 USB	1 line (Phone/DSL & Ethernet)	A
OMNIVS1500XL	1500/940	14/5+	AB	8 (6 UPS/surge & 2 surge-only)	1 USB	1 line (Phone/DSL & Ethernet)	A
AVR Series UPS Systems							
AVR550U	550/300	10/3	—	8 (4 UPS/surge & 4 surge-only)	1 USB	1 line (Phone/DSL)	С
AVR750U	750/450	11/4	_	12 (6 UPS/surge & 6 surge-only)	1 USB	1 line (Phone/DSL)	С
AVR900U	900/480	10/2.5	—	12 (6 UPS/surge & 6 surge-only)		1 line (Phone/DSL)	С
External Battery Packs				· · · · · · · · · · · · · · · · · · ·		· · · ·	
BP24V28-2U	24V external b	attery pack and cable. Tower	or 2U rack. Not exp	andable. Small RED/BLACK conne	ector.		

24V external battery pack and cable. Tower or 2U rack. Not expandable. Small RED/BLACK connector.

B BP24V15RT2U Common specifications for all UPS systems: 120 VAC (60 Hz) nominal input/output in line mode. 6 ft. power cord with NEMA 5-15P plug. + Backup times are expandable using an external battery pack. (A) Backup times will vary depending on battery condition and load. (B) LEDs: A (AC Line Voltage, On Battery, Battery Low/Replace, Automatic Voltage Regulation, UPS Load); B (AC Line Voltage, On Battery, Battery Low/Replace, UPS Load); C (0n/Off & Overload/Check Battery). D (LCD Display includes Input Voltage Meter, Battery Capacity Meter, AVR Icon, Battery Charge/Replace Icon, On Battery Icon and Fault Icon). (© Includes Watchdog Software. (®) Certifications vary by model

### Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com

Also available: interactive UPS System selector guide, extended warranties, owner's manuals and more!

# **TRIPPLITE** TOWER, LOW-PROFILE & UNDER-MONITOR UPS

# **Cost-Effective Desktop Solutions**

# Standby UPS Systems



INTERNET750U

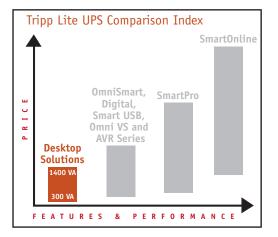
INTERNETOFFICE700 BCPR0600

# Protect Every Application

Designed for desktop applications, Internet Office<sup>®</sup>, BC Pro<sup>®</sup> and BC Personal<sup>®</sup> UPS Systems are available in a wide variety of capacities to protect every size computer from downtime, damage and data loss due to power problems. Internet Office, BC Pro and BC Personal UPS Systems provide complete protection against all types of power problems, including brownouts, blackouts, surges and line noise. Internet Office, BC Pro and BC Personal UPS Systems provide reliable battery power to keep computers up and running through short blackouts and brownouts and allow enough time to safely shut down during longer ones.

# Protect Internet-Connected & Networked Systems

Computers connected to the Internet or Ethernet require additional protection against damaging surges traveling on phone/DSL or network lines. Select Internet Office, BC Pro and BC Personal UPS Systems include surge-protected jacks which safeguard modems and other communication hardware. In addition to protecting your equipment against surges online, reliable battery backup power maintains your Internet or network connection during brief blackouts.



- ▶ 300 1,400 VA
- Phone/DSL & Ethernet Surge Protection Options
- Space-Saving Cabinets: Tower (small footprint), Low-Profile & Under-Monitor

# Protect the Planet & Save Money ECO Series UPS Systems use less electricity than

ECO Series UPS Systems use less electricity than conventional models, reducing your costs and your environmental impact:

- Superior power efficiency (up to 99%) conserves energy around the clock.
- ECO energy saver feature automatically turns off idle peripherals when your computer is turned off or in standby mode.\*
- Earth-friendly design and recyclable materials minimize hazardous substances and waste.
- \* USB connection required.

# Automatically Shut Down Unattended Systems

Select models feature a built-in communication port. Use with included cabling and PowerAlert software (available as a FREE Web download) to automatically save open files and shut down unattended equipment during an extended blackout. PowerAlert software waits for a user-specified length of time (during which on-screen notifications are displayed) before safely shutting down connected equipment.

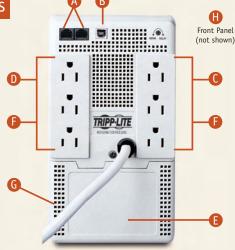
В

30



"Tripp Lite was the only power protection company I wanted to deal with." Xerox Engineering Systems Rick Santina, Network Manager

# Feature Focus





INTERNETOFFICE500 Rear Panel

### A Phone/DSL & Ethernet Surge Protection Protect Internet-connected or networked PCs from damage on the Ethernet and/or phone/ DSL line with surge-protected jacks featured

- on many Tripp Lite UPS Systems.
   1-Line (phone/DSL & Ethernet): Protects one device using one phone/DSL or Ethernet line.
- 1-Line or 2-Line\* (phone/DSL): Protect devices using phone/DSL lines.
- 1-Line (phone/DSL with built-in splitter):\*\* Protects two devices sharing one phone/DSL line. Saves the hassle of unplugging devices to share a single line.
- \* INTERNETOFFICE500 model only. \*\* INTERNET750U model only.

### B Automatic Data Protection

Built-in communication port connects select models to a PC or workstation. Use with FREE PowerAlert software\* and included cabling to automatically save open files and shut down equipment during an extended blackout.

\* Available FREE as a website download.

# Battery-Supported and Surge-Protected Receptacles (for PCs and Monitors)

All models include receptacles that provide reliable battery support for PCs and monitors during a blackout as well as complete surge suppression and line noise filtering.

### Surge-Only Protected Outlets (for Printers and Peripherals)

Select models include receptacles that provide complete surge suppression and line noise filtering for printers and peripherals. These unique receptacles allow you to connect and protect peripherals without overloading the UPS system and diverting precious battery support away from your computer.

#### Battery Replacement Panel

Tripp Lite UPS batteries will protect equipment for several years with normal use. Select models feature a



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removable panel which allows for internal battery replacement.\*

\* Available on all models except TM500. Tripp Lite offers a complete line of replacement battery cartridges (R.B.C.); visit www.tripplite.com.

#### Widely-Spaced Outlets

Select models feature outlets that accept multiple transformers without blocking access to other receptacles.\*

\* Available on all models except TM500, BCPERS300 & BCPERSONAL450.

#### G Space-Saving Cabinets

All models feature space-saving cabinets. Select models feature low-profile



TM500 pictured.

cabinets or under-monitor cabinets with individual outlet switches.

#### H Performance Conditions Displayed

All UPS Systems feature LEDs to alert you to potential power problems



### before they affect your equipment.

Energy-Saving Outlets (not shown)

ECO Series UPS Systems include special energy-saving outlets (ECO350UPS has 2; ECO550UPS has 3; ECO750UPS has 4). The UPS system automatically turns off the ECO outlets when it detects that your computer is turned off or in standby mode. (USB connection required.)

|--|

opoontoutions							
	Output Capacity	Backup Time (Typical Minutes)	AC Receptacles	Comm.	Ethernet and/ or Phone/DSL		Housing
Model	(VA/Watts)	Half Load/Full Load <sup>(A)</sup>	Quantity (NEMA 5-15R)	Port	Surge Protection	LEDs <sup>(B)</sup>	Туре
Internet Office UPS Systems							
INTERNETOFFICE300	300/150	10/4	6 (3 UPS/surge & 3 surge-only)	-	1 line (Phone/DSL & Ethernet)	A	Ultra Low-Profile
INTERNET350U	350/180	8/2.5	6 (3 UPS/surge & 3 surge-only)	1 USB	1 line (Phone/DSL)	B	Compact/Low-Profile
INTERNET350SER	350/180	8/2.5	6 (3 UPS/surge & 3 surge-only)	1 DB9	1 line (Phone/DSL)	В	Compact/Low-Profile
TM500 (INTERNET OFFICE 500 LP)	500/300	17/6	6 (3 UPS/surge & 3 surge-only)	-	1 line (Phone/DSL)	F	Undermonitor
INTERNÉTOFFICE500	500/280	17/5	6 (3 UPS/surge & 3 surge-only)	1 USB	2 line (Phone/DSL & Ethernet)	С	Tower (small footprint)
INTERNET550U	550/300	10/3	8 (4 UPS/surge & 4 surge-only)	1 USB	1 line (Phone/DSL)	B	Low-Profile
INTERNET550SER	550/300	10/3.5	8 (4 UPS/surge & 4 surge-only)	1 DB9	1 line (Phone/DSL)	B	Low-Profile
INTERNET600U	600/300	10/3.5	8 (4 UPS/surge & 4 surge-only)	1USB	1 line (Phone/DSL)	B	Low-Profile
INTERNETOFFICE700	700/425	17/5	6 (3 UPS/surge & 3 surge-only)	1 USB	1 line (Phone/DSL & Ethernet)	С	Tower (small footprint)
INTERNET750U	750/450	11/4	12 (6 UPS/surge & 6 surge-only)	1 USB	1 line (Phone/DSL)	B	Low-Profile
INTERNET900U	900/480	10/2.5	12 (6 UPS/surge & 6 surge-only)	1 USB	1 line (Phone/DSL)	В	Low-Profile
BC Pro UPS Systems							
BCPR0600	600/345	19/7	6 (3 UPS/surge & 3 surge-only)	1 USB	1 line (Phone/DSL & Ethernet)	С	Tower (small footprint)
BCPR01050	1050/705	23/7	6	1 USB	-	E	Tower (small footprint)
BCPR01400	1400/940	24/8	6	1 USB	-	E	Tower (small footprint)
BC Personal UPS Systems							
BCPERS300	300/180	17/5	3	-	-	D	Tower (small footprint)
BC350	350/180	8/2.5	6 (3 UPS/surge & 3 surge-only)	-	-	В	Compact/Low-Profile
BCPERSONAL450	450/280	17/5	3	1 USB	-	С	Tower (small footprint)
ECO Series UPS Systems							
EC0350UPS	350/180	11/3	6 (3 UPS/surge & 3 surge-only)	1 USB	1 line (Phone/DSL)	G	Compact/Low-Profile
EC0550UPS	550/300	10/3.5	8 (4 UPS/surge & 4 surge-only)	1 USB	1 line (Phone/DSL)	G	Low-Profile
EC0750UPS	750/450	11/2.5	12 (6 UPS/surge & 6 surge-only)	1 USB	1 line (Phone/DSL)	G	Low-Profile
0		A second second descent for shared the phase	A STATE OF	Distance (N. Dissel	1. Provide the PRE second strend Provide the Rest Control		

Common specifications for all UPS systems: 120 VAC (60 Hz) nominal input/output in line mode. 6 ft. power cord with NEMA 5-15P plug. (A Backup times will vary depending on battery condition and load. (I) LEDs: A (AC Line Voltage, On Battery, Battery Low/Replace, UPS Load, Building Wiring Fault); B (On/Off & Overload/Check Battery); C (AC Line Voltage, On Battery, Battery Low/Replace); D (AC Line Voltage); D (AC Line Voltage); D (AC Line Voltage); D (AC Line Voltage); D (AC Li

### Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com

Also available: interactive UPS System selector guide, extended warranties, owner's manuals and more!

# **Full-Isolation UPS Systems**



# Combine Full-Isolation & **UPS** Protection

Tripp Lite Full-Isolation UPS Systems feature built-in, Faraday-shielded isolation transformers, providing superior filtering of potentially disruptive line noise. In addition, all models provide complete protection against all types of power problems. Line-interactive operation—also known as automatic voltage regulation (AVR)—keeps equipment working through low voltage (brownouts) indefinitely, without draining battery power. Reliable battery power keeps computers up and running through short blackouts and allows enough time to safely shut down during longer ones. In addition, all AC outlets stop damaging lightning and surges.

### **Specifications**

-) Backup Optional Nominal AC (**ŲL**)<sub>US</sub> Input-Output Voltage/ Output Time (Typical External Receptacles Phone/DSL Input Quantity (NEMA Type) Capacity (VA/Watts) Communication Surge Protection Plug (NEMA) Minutes) Batterv Half/Full Load<sup>(A)</sup> 60 Hz Frequency Model Packs Ports Medical-Grade (UL 60601-1) UPS Systems with Hospital-Grade Plug and Receptacles OMNISMART350HG 330/225 46/18 120 4 (5-15RHG)(B) 1 DB9 2 line 5-15PHG<sup>(B)</sup> SMART700HG 1 DB9 & 1 USB 5-15PHG<sup>(B)</sup> 700/450 42/18120 4 (5-15RHG)(B) E SMART1200XLHG 1000/750 34/16+ AB 120 4 (5-15RHG)(B) 1 DB9 & 1 USB 5-15PHG<sup>(B)</sup> **Commercial-Grade UPS Systems OMNI500ISO** 500/300 120 1 USB 11/53 (5-15R) 5-15P OMNI750IS0 31/13 120 6 (5-15R) 1 USB 5-15P 750/500 OMNI1000ISO 1 USB 1000/700 24/8 120 6 (5-15R) 5-15P Model Description External Battery Pack A BP36V15-2U 36V external battery pack and cable, 2U. Not expandable. GREY 2-point connector. B BP36V42-3U 36V external battery pack and cable, 3U. Expandable. GREY 2-point connector.

Common specifications for all UPS systems: 120 VAC (60 Hz) nominal input/output. 6 ft. power cord. (A) Backup times will vary depending on battery condition and load. (B) Hospital-grade receptacles and plug. (C) Certifications vary by model

### Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com

Also available: interactive UPS System selector guide, extended warranties, owner's manuals and more!

- Built-In, Faraday-Shielded Isolation Transformer
- Medical-Grade (UL 60601-1) Models for Healthcare **Applications**
- Commercial-Grade Models for Retail/P.O.S. and Network Applications
- Extended Runtime Option

# Provide Models for a Variety of Applications

Medical-Grade models reduce the cumulative shock potential (leakage current) of connected healthcare equipment as low as 100µA—providing UL 60601-1 compliance. All Medical-Grade models feature hospital-grade plug and receptacles and are designed for use both inside and outside of patient-care areas. Commercial-Grade models are used in retail/P.O.S. and network applications because they reduce data errors and audio/video distortion by delivering a clean signal-reference ground.

# Desktop KVM Switches



# B022-004-R

- ► Control Up to 4 PCs or Servers
- ► For Small-to-Medium Office Applications
- ► Support Wireless Keyboards & Mice
- ▶ PS/2 & USB Compatible Options

# Deliver Economical, Feature-Rich Solutions

Tripp Lite's Desktop KVM Switches allow users to control up to four PCs or servers with a single keyboard/monitor/mouse console. Compact, desktop designs save space in any environment. Select Desktop KVM Switches also offer wireless keyboard/ mouse support.

# Enhance Connectivity Support

Tripp Lite's Desktop KVM Switches are compatible with USB and PS/2 interfaces depending on the model and the KVM Cable Kits and adapters used. A variety of all-in-one USB and PS/2 KVM Cable Kits up to 25-feet in length are available and necessary to connect each PC or server to the KVM Switch. Select models include KVM Cable Kits for added convenience. A KVM Console Extender is also available to control multiple computers from a remote location.

# Simplify Operation

Plug-and-play setup requires no software. Hot-pluggable capability allows addition or removal of computers without powering down the KVM Switch or other computers. Easily switch between CPUs by using keyboard hot keys, software or port selection buttons on the KVM Switch.\* Auto-scanning function on select models automatically sequences through all of the active KVM Switch ports, allowing users to monitor multiple tasks simultaneously. Select 2-Port KVM Switches include speaker and microphone connections that allow sharing of audio components between systems.\*\* In addition, an audio locking function allows for listening to one PC while switching between systems.\*\* Tripp Lite's Desktop KVM Switches are compatible with all major operating systems and support most keyboards and mice. Crystal clear video transmission provides connected monitor with optimal video resolution.

### **Specifications**

CE F©			RoHS
Model #	Ports	Interface Supported	LEDs
B004-DUA2-K-R	2 <sup>(A)</sup>	USB	2
B004-VPA2-K-R	2 <sup>(B)</sup>	PS/2 <sup>(E)</sup>	2
B004-VUA2-K-R	2 <sup>(A)</sup>	USB	2
B006-004-R	4 <sup>(D)</sup>	USB	8
B022-002-KT-R	2 <sup>(C)</sup>	PS/2 <sup>(E)</sup>	2
B022-004-R	4 <sup>(D)</sup>	USB & PS/2 <sup>(F)</sup>	4

(A) Includes two USB KVM Cable Kits with audio connectors. (B) Includes two PS/2 KVM Cable Kits with audio connectors. (C) Includes two PS/2 KVM Cable Kits. (D) Requires one KVM Cable Kit for each CPU connected. (E) Also USB compatible with optional B015-000 adapter. (F) Both USB and PS/2 compatible depending on optional KVM Cable Kits or adapters used.

One Cable Kit is required for each CPU connected, visit www.tripplite.com for complete list of KVM Cable Kits (up to 25-ft. long) and Adapters.

*Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com* Also available: interactive cable selector guide, owner's manuals and more!

<sup>\* 4-</sup>Port USB KVM Switch (model: B006-004-R) does not support hot key functions. 2-Port KVM Switches (models: B004-DUA2-K-R, B004-VUA2-K-R and B004-VPA2-K-R) include software for switching between CPUs. \*\* Included on 2-Port KVM Switches (models: B004-DUA2-K-R, B004-VUA2-K-R and B004-VPA2-K-R).

# 1U Rackmount KVM Switches



# Compact, Innovative Design

Snecifications

Tripp Lite's rackmount KVM switches allow users to control multiple computers from a single console (keyboard, mouse and display). KVM switches are available in two different configurations: a KVM switch alone\* or a KVM switch that includes a built-in console. Console KVM switches include a full-size keyboard, touch pad and color LCD monitor. The console folds like a laptop and slides into a 1U rack drawer, providing compact storage and easy access without compromising control features.

\* Models without a console require a separate keyboard, mouse and display for complete functionality.

- ▶ With or Without Built-In Consoles
- ► With or Without Built-In IP Access
- ▶ 4, 8 or 16 Ports in 1U

# Remote Monitoring & Control

Select rackmount KVM switches include built-in IP access. Most KVM switches without built-in IP access can be monitored and controlled via dial-up, Internet or LAN with the addition of the optional B050-000 IP Remote Access Unit.

# Scalability, Security & Compatibility

NetDirector<sup>™</sup> KVM Switches can control up to 512 computers by daisy-chaining or cascading additional KVM switches. A two-level password accommodates up to four distinct user accounts and an administrator account. No software installation is required, guaranteeing that KVM switches will not degrade server performance, compatibility or reliability.



Console KVM switches fold and slide into a 1U rack drawer.

Specifications	3						
CC F©	Parte	Description	LCD	Interface	On-Screen	Maximum CPUs	RoH
Model #	Ports	Description	Monitor	Supported <sup>(A)</sup>	Display	Supported	IP Access
Standard 1U Rackmo	unt KVM Switc	hes					
B004-008	8	1U KVM Switch	-	USB & PS/2	No	8	Add B050-000
B007-008	8	1U KVM Switch	_	USB & PS/2	Yes	512 <sup>(C)</sup>	Add B050-000
NetDirector 1U Racki	mount KVM Sw	itches					
B020-008-17	8	1U Console KVM Switch	17 in.	USB & PS/2	Yes	504 <sup>(B)</sup>	Add B050-000
B020-008-17-IP	8	1U Console IP KVM Switch	17 in.	USB & PS/2	Yes	64 <sup>(C)</sup>	Built-In
B020-016-17	16	1U Console KVM Switch	17 in.	USB & PS/2	Yes	512 <sup>(B)</sup>	Add B050-000
B020-016-17-IP	16	1U Console IP KVM Switch	17 in.	USB & PS/2	Yes	128 <sup>(C)</sup>	Built-In
B022-016	16	1U KVM Switch	—	USB & PS/2	Yes	512 <sup>(B)</sup>	Add B050-000
VetController™ 1U Ra	ackmount KVM	Switches					
B040-008-19	8	1U Console KVM Switch	19 in.	USB & PS/2	Yes	120 <sup>(D)</sup>	_
B040-016-19	16	1U Console KVM Switch	19 in.	USB & PS/2	Yes	128 <sup>(D)</sup>	_
B042-004	4	1U KVM Switch	—	USB & PS/2	Yes	116 <sup>(D)</sup>	Add B050-000
8042-008	8	1U KVM Switch	_	USB & PS/2	Yes	120 <sup>(D)</sup>	Add B050-000
B042-016	16	1U KVM Switch	_	USB & PS/2	Yes	128 <sup>(D)</sup>	Add B050-000

All models include mounting hardware to fit standard 19-inch racks. <sup>(A)</sup> Interface compatibility depends on cable kits or adapters used (sold separately). <sup>(B)</sup> Requires additional B022-016 KVM switches. <sup>(C)</sup> Requires additional B042-series KVM switches.

One cable kit is required for each CPU connected. Visit www.tripplite.com for a complete list of KVM cable kits and adapters.

*Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com* Also available: interactive cable selector guide, owner's manuals and more!

# 1U Rackmount Cat5 KVM Switches



# Provide Single- or Multi-User Support

NetDirector<sup>™</sup> Matrix 1U Rackmount Cat5 KVM Switches allow up to 8 simultaneous, independent users to control multiple computers. Console and server interface modules connect the KVM switches to each user's console and each connected computer. Interface modules can be placed up to 500 ft. from the KVM switches using Cat 5/5e patch cables.

NetCommander<sup>™</sup> 1U Rackmount Cat5 KVM Switches are cost-effective Cat5 KVM switches for single users. They allow a user to control multiple computers from a single console. Server interface modules connect the KVM switches to each server up to 33 ft. away using Cat 5/5e patch cables.

- ▶ With or Without Built-In IP Access
- ► Single-User and Multi-User Options
- ▶ 8, 16 or 32 Ports in 1U

# Remote Monitoring & Control

Select rackmount KVM switches include built-in IP access. Most KVM switches without built-in IP access can be monitored and controlled via dial-up, Internet or LAN with the addition of the optional B050-000 IP Remote Access Unit.

### Scalability, Security & Compatibility

NetDirector Matrix KVM Switches can control up to 32 computers per switch, or up 8,192 computers by daisy-chaining and cascading additional KVM switches. NetCommander KVM Switches can control up to 16 computers per switch, or up 256 computers by daisy-chaining and cascading additional KVM switches. Password security accommodates multiple users. No software installation is required, guaranteeing that KVM switches will not degrade server performance, compatibility or reliability. The KVM switches and interface modules are compatible with all major operating systems. A variety of USB, PS/2 and Sun® interface modules are available.

Specifications State Sta										
KG FC Model	Ports	Description	LCD Monitor	Interface Supported	On-Screen Display	Maximum CPUs Supported	Users	IP Access		
NetCommander 1U Rackmount Cat5 KVM Switches										
B072-008-1	8	1U Cat5 KVM Switch	_	USB & PS/2(A)	Yes	128 <sup>(C)</sup>	1	Add B050-000		
B072-016-1	16	1U Cat5 KVM Switch	_	USB & PS/2(A)	Yes	256 <sup>(C)</sup>	1	Add B050-000		
B072-016-IP	16	1U Cat5 IP KVM Switch	_	USB & PS/2 <sup>(A)</sup>	Yes	256 <sup>(C)</sup>	1	Built-In		
NetDirector Matrix 1U Rackmount Cat5 KVM Switches										
B060-016-2	16	1U Cat5 KVM Switch	—	USB, Sun & PS/2(A)	Yes	1,024 <sup>(C)</sup>	2	Add B050-000		
B060-032	32	1U Cat5 KVM Switch	_	USB, Sun & PS/2(A)	Yes	2,048 <sup>(C)</sup>	4	Add B050-000		
B060-032-8	32	1U Cat5 KVM Switch	_	USB, Sun & PS/2(A)	Yes	8,192 <sup>(C)</sup>	8	Add B050-000		
NetDirector IP 1U Rad	NetDirector IP 1U Rackmount Cat5 KVM Switches									
B064-016-04-IP	16	1U Cat5 IP KVM Switch	—	USB & PS/2(A)	Yes	16	4	Built-In		
B064-032-02-IP	32	1U Cat5 IP KVM Switch	_	USB & PS/2 <sup>(A)</sup>	Yes	32	2	Built-In		
B064-032-04-IP	32	1U Cat5 IP KVM Switch	_	USB & PS/2 <sup>(A)</sup>	Yes	32	4	Built-In		
NetDirector 1U Rackmount Consoles (Keyboard, Touch Pad and Display)										
B021-000-17		1U Console	17 in.	PS/2 <sup>(B)</sup>	Yes	1	1	Add B050-000		
B021-000-19	_	1U Console	19 in.	USB & PS/2 <sup>(B)</sup>	Yes	1	1	Add B050-000		
B021-000-19-SH	_	1U Shallow-Depth Console	19 in.	USB & PS/2 <sup>(B)</sup>	Yes	1	1	Add B050-000		
All models include mount	ting hardwar	e to fit standard 19-inch racks. (A)Interfac	ce compatibility depend	ds on interface modules use	d (sold separately). (B)Cab	le kits are included. ©Requires da	isy-chaining an	d/or cascading additional		

KVM switches

Visit www.tripplite.com for a complete list of Cat5/5e cables, interface modules and adapters.



### IP Remote Access Unit Model # B050-000

Allows administrators to control KVM Switches via TCP/IP. Can be used for system administration, BIOS-level troubleshooting, installing GUI applications, rebooting and more. Operates through embedded processors only, not servers, so there is no interference with server or network performance. Offers password protection, certificate management, 256-bit SSL encryption and high-resolution video.

### Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com

Also available: interactive cable selector guide, owner's manuals and more!

# $SmartRack^{TM}$ Enclosures



# Offer Convenient Installation

With a design streamlined by years of customer feedback and IT best practices, SmartRack Enclosures make your job easier. Enclosures ship fully assembled\* for rapid deployment and roll into place on heavy-duty casters. Toolless mounting slots allow quick installation of PDUs and vertical cable managers. All mounting rails include an easy-view depth index to eliminate time-consuming measurements. Lightweight modular doors and side panels provide safe, convenient service access. Integrated baying tabs facilitate combining enclosures in rows for standard data center baying applications. \* Except knockdown models (see below).

- ► 48U, 42U and 25U models with or without side panels
- Adjustable mounting rails with easy-view depth index

RACK

- Toolless mounting slots for PDUs and vertical cable managers
- Airflow exceeds server manufacturer requirements

# Support High-Density Data Centers

Heavy-duty SmartRack Enclosures hold up to 3,000 lb and support advanced cooling, cable management, power distribution and monitoring features that keep critical servers and network equipment operating around the clock. Fully perforated doors permit massive front-to-rear airflow that exceeds server manufacturer requirements. Compatibility with hot-aisle / cold-aisle configurations is assured: cool air is drawn from the cold aisle through the front of the enclosure and warm air is exhausted to the hot aisle from the rear of the enclosure.

NETWORKS SQU UNISYS

TIA/EIA-310-D Compliant		B							
Model	SR25UB	SR25UBEXP	SR42UB	SR42UBEXP	SR48UB	SR48UBEXP			
Rack Spaces	25U	25U	42U	42U	48U	48U			
Side Panels	Yes (2)	No	Yes (4)	No	Yes (4)	No			
Stationary Load Capacity	3,000 lb (1,363 kg)								
Rolling Load Capacity	2,250 lb (1,022 kg)								
Mounting Depth	Adjustable from 4 to 35.75 in (102 to 908 mm) - Optional SREXTENDER accessory increases maximum depth to 43.75 in (1,111 mm)								
Mounting Holes	Square (All models include 50 cage nuts, screws and cup washers for equipment mounting)								
External Height	49 in (1,2	245 mm)	78.5 in (1,9	89 in (2,	261 mm)				
External Width	23.63 in (600 mm)								
External Depth	4	3 in (1,092 mm) - Optiona	I SREXTENDER accessory inc	creases external depth to	51 in (1,295 mm)				
Unit Weight	195 lb (88.6 kg)	149 lb (67.7 kg)	281 lb (127.7 kg)	203 lb (92.3 kg)	309 lb (140.5 kg)	211 lb (95.9 kg)			
Knockdown Option*	SR25UBKD	SR25UBEXPKD	SR42UBKD	SR42UBEXPKD	SR48UBKD	SR48UBEXPKD			
SHOCK PALLET MODELS**									
Model	SR25UBSP1	SR25UBEXPSP1	SR42UBSP1	SR42UBEXPSP1	SR48UBSP1	SR48UBEXPSP1			
Pre-Installed Equipment Capacity	1,005 lb (456.8 kg)	1,051 lb (477 kg)	919 lb (417 kg)	997 lb (453 kg)	891 lb (405 kg)	989 lb (449 kg)			

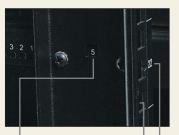
SmartRack Enclosures accommodate all 19-inch rackmount equipment, regardless of vendor.



# **Feature Focus**

### Adjustable Mounting Rails (4) with Easy-View Depth Index

Front and rear sets of rails adjust in ¼-inch (6.4 mm) increments. Adjustment is quick and convenient - simply unscrew rails, slide rails to desired depth and restore screws. Easy-view depth index ensures consistent rail placement without requiring time-consuming measurements. Square mounting holes and included hardware (not shown) support standard 19-inch rackmount installation.



Square Mounting Holes -Rack Unit Labeling Easy-View Depth Index

### Cable Management Rails (2) with Easy-View Depth Index

Adjustable rails include toolless mounting slots for quick installation of compatible PDUs and other accessories. Easy-view depth index ensures consistent rail placement without requiring time-consuming measurements. Toolless mounting slots are arranged in an industry-standard pattern compatible with a wide variety of accessories.

#### Roof Panel (Removable)

Spring-loaded pins allow the roof panel to be removed and replaced in seconds. Includes cable access channels and mounting slots for cable management accessories.

### Front Door (Lockable/Removable/Reversible)

Door is perforated for optimal front-to-rear airflow. Door handle is reversible to preserve standard orientation if door is reversed.

#### Split Rear Doors (Lockable/Removable)

Split rear doors reduce clearance requirements for service access. Doors are perforated for optimal front-to-rear airflow.

Go to www.tripplite.com for our complete line of 2-post and 4-post open frame racks and rack accessories, including airflow optimization, internal and external cable management, fan-assisted cooling, security accessories, stability accessories, mounting kits, hardware, shelves, patch panels and more.



Toolless Mounting Slot Toolless Mounting Button on Tripp Lite PDU





Reversible Handle



### Modular Side Panels (Lockable/Removable)

Modular side panels are smaller and lighter, improving ease of installation and service. Standard 25U Models Include 2 side panels. Standard 42U and 48U models include 4 side panels. Side panels are not included with "EXP" models, which are intended for in-row baying and other applications that do not require side panels.



### **Baying Tabs** (2)

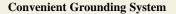
Baying tabs allow enclosures to be combined securely in rows. Center-to-center width can be set at 600 mm or 24 inches to match standard data center applications.



24 in. -

#### Heavy-Duty Casters and Levelers (4 each)

Casters support a rolling load capacity of 2,250 pounds (1,022 kg), allowing enclosures to be pre-configured and rolled to the final installation location. Levelers support a stationary load capacity of 3,000 pounds (1,363 kg) and adjust to improve enclosure stability. Casters and levelers are removable.



All components are grounded to the enclosure frame, which includes multiple connections for facility ground. Front and rear doors include quick-release ground wires for convenient configuration.

### **Stabilizing Brackets (2)**

Brackets attach at bottom of enclosure frame (inside or outside) to improve enclosure stability. Brackets can also be bolted to floor with addition of optional SRBOLTDOWN kit.

### **Shock Pallet** ("SP1" and "SP2" Models Only)

Specially reinforced shipping pallet allows the enclosure to be reshipped safely with pre-installed rackmount equipment. Included ramps allow convenient enclosure unloading and reloading.

Leveler

Caster



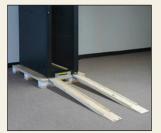
Quick-Release Ground Wire



Mounted Outside



Mounted Inside



# Power Distribution Units (PDUs)



- ▶ 8 40 Outlets
- Metered Models for Current Monitoring
- Switched Models for Remote Outlet Control
- Automatic Transfer Switching (ATS) Options

# Improve Power Distribution Manageability & Reliability

Tripp Lite Power Distribution Units (PDUs) are available in three different configurations (Basic, Metered and Switched) to provide a wide variety of power manageability options for every application. All PDU configurations reliably distribute power from a UPS system or utility wall outlet to multiple pieces of critical networking, server or telecom equipment. Metered models provide a digital current meter that allows managers to visually track PDU load conditions. Switched models include a digital current meter as well as a network interface that allows managers to remotely control individual PDU outlets.

# Avoid PDU/Circuit Overload with Digital Current Meter

All Switched and Metered models include a digital current meter that allows managers to track PDU load conditions (in amps), helping them to avoid overloading their PDUs and



utility circuits. Managers can also remotely monitor

PDU load conditions when they use the network interface and software included with all Switched models and select Metered models. With the network interface, managers can set alarm thresholds to avoid overload as networks grow.

# Remotely Control Outlets Through Network Interface

Switched PDUs include a built-in network interface that allows users to remotely control individual outlets (and connected devices) through SNMP, Web or Telnet, reducing costly



service calls by rebooting locked devices. Tripp Lite's Switched PDUs are the only PDUs that combine automatic transfer switching (ATS) and a network interface in one unit. Since other PDUs in their class include the remote interface as a separate option, Tripp Lite's Switched PDUs save users significant installation costs.

# Ensure Uptime with Dual AC Inputs & ATS

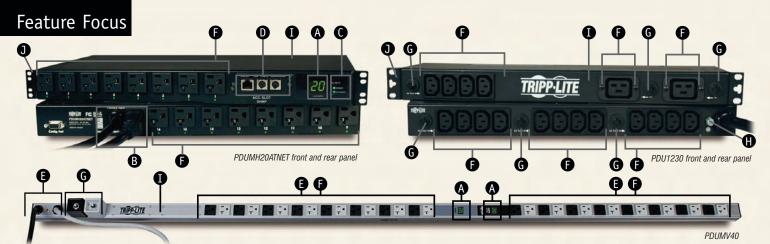
Select Switched and Metered models\* include dual AC inputs and an automatic transfer switch (ATS). The ATS feature ensures the uptime of connected devices by automatically providing a backup source of AC power if one source fails or is taken off-line for maintenance. Two AC input cords—one attached and one detachable/optional connect to separate, redundant power sources.





The PDU monitors voltage levels from both power sources, and an internal transfer switch selects the source with the optimal voltage. \* PDUMH15ATNET, PDUMH20ATNET, PDUMH15AT and PDUMH20AT.

			PDU Types			
Features	Benefits	Basic PDUs	Metered PDUs	Switched PDU		
Multiple Outlets	Increase the number of devices that can be powered by a UPS system or utility source.	Х	Х	Х		
High-Current Plug and Low-Current Outlets	Increase connection flexibility by converting a single high-amperage outlet into multiple low-amperage outlets.	Select Models	Select Models	Select Models		
Long Input Power Cord	Increases installation flexibility by allowing devices to be located far from an input power source.	Х	Х	Х		
On-Site Load Monitoring (Digital Current Meter)	Avoid overloads and safely add loads as total equipment power consumption is displayed.		Х	Х		
Remote Load Monitoring (Network Interface)	Remote notification of user-selectable load thresholds prevents downtime due to overload as network installations grow.			Х		
Dual AC Input Plugs with Automatic Transfer Switching	Ensure the uptime of connected devices by powering the PDU from two separate, redundant input sources (two utility inputs, two UPS systems, a utility input and a UPS system, etc.)		Models with ATS	Models with ATS		
Remote Control of Individual Outlets (through SNMP, Web or Telnet)	Reduces costly service calls by rebooting locked devices. Extends runtime of critical devices by turning off non-critical loads during blackouts.			X		



#### A Digital Current Meter

Maximizes the number of devices that can be safely added to the PDU (without overloading it) by displaying the total power consumption of connected equipment in amps.

B Dual AC Input Cords with Automatic Transfer Switching (ATS)

Two AC input cords can be connected to two separate, redundant power sources. Internal ATS safeguards the uptime of connected devices by automatically providing a backup source of AC power if one source fails or is taken off-line for maintenance.

C AC Input LEDs (ATS models only) Indicate which input supply is powering the PDU. Remote Control/Monitoring Network Interface

Remotely control individual PDU outlets through SNMP, Web or Telnet. "Status Link" jack connects PDU to Ethernet. "Envirosense" jack connects PDU to optional sensor module (model # ENVIROSENSE) for remote temperature and humidity monitoring. "Config" jack allows manual PDU configuration after initial installation.

 Dual Circuits for Redundant Power Supply Applications
 PDU40TDUAL and PDUMV40 include two separate circuits (with corresponding power cord, circuit breaker and outlets).

### Multiple AC Outlets

- G Short Circuit Protection
- Grounding Lug
- I Rugged, All-Metal Cabinet
- Uversatile Mounting Hardware

Plug Retention Bracket (not shown) Select models include a bracket that secures connected equipment cords, reducing the risk of accidental disconnection.

Toolless Mounting Buttons (not shown) Select models include mounting buttons that support toolless mounting in SmartRack Enclosures and Open Frame Racks.

Specifications									RoHE
	input	Current	Input	Outlet	Outlet	Front	Rear	Power Cord	<u></u>
Model #	Voltage	Capacity	Plug Type	Quantity	Туре	Outlets	Outlets	Length (ft)	Form Factor
Switched PDUs (Indivi					E ( E (000	10		10.0	
PDUMV15NET	120V	15A	5-15P	16	5-15/20R	16	—	10 ft.	OU vertical (49.00 in.)
PDUMV20NET	120V	20A	L5-20P / 5-20P <sup>(D)</sup>	24	5-15/20R	24	_	10 ft.	OU vertical (63.75 in.)
PDUMV20HVNET	208/230V	20A	L6-20P	24	20 C13, 4 C19	24	—	10 ft.	OU vertical (63.75 in.)
PDUMV30NET	120V	30A	L6-30P	24	5-15/20R	24	_	10 ft.	OU vertical (70.00 in.)
PDUMV30HVNET	208V	30A	L6-30P	24	20 C13, 4 C19	24	—	10 ft.	OU vertical (70.00 in.)
PDUMH15HVNET	208V/230V	15A	C14	8	C13	8	—	6.5 ft.	1U RM/0U vertical
PDUMH20HVNET	208V/230V	20A	C20 (L6-20P)	8	C13	8	—	8.5 ft.	1U RM/0U vertical
PDUMH30NET	120V	30A	L5-30P	16	5-15/20R	16	—	10 ft.	2U RM
PDUMH30HVNET	208V	30A	L6-30P	16	C13	16	—	10 ft.	2U RM
Include Automatic Tra									
PDUMH15ATNET	120V <sup>(B)</sup>	15A	5-15P	8	5-15R	8	—	2 x 12 ft. <sup>(H)</sup>	1U RM/0U vertical
PDUMH20ATNET	120V <sup>(B)</sup>	20A	L5-20P / 5-20P <sup>(C)</sup>	16	5-15/20R	8	8	2 x 12 ft. <sup>(H)</sup>	1U RM/0U vertical
Metered PDUs (Displa	ys Power Cons	sumption)							
PDUMH15	120V	15A	5-15P	13	5-15R	1	12	15 ft.	1U RM/0U vertical
PDUMH20	120V	20A	L5-20P / 5-20P <sup>(D)</sup>	13	5-15/20R	1	12	15 ft.	1U RM/0U vertical
PDUMV15	120V	15A	5-15P	16	5-15R	16	_	15 ft.	0U vertical (48.00 in.)
PDUMV20	120V	20A	L5-20P / 5-20P <sup>(D)</sup>	20	5-15/20R	20	_	15 ft.	OU vertical (60.00 in.)
PDUMV40	120V	2 x 20A	L5-20P / 5-20P (2)(E)	32	5-15/20R	32	_	2 x 10 ft.	OU vertical (71.25 in.)
PDUMV20HV	208/230V	20A	L6-20P	38	32 C13, 6 C19	38	_	10 ft.	OU vertical (63.75 in.)
PDUMV30	120V	30A	L5-30P	24	5-15/20R	24	_	10 ft.	OU vertical (63.75 in.)
PDUMV30HV	208V	2 x 15A	L6-30P	30	24 C13, 6 C19	30	_	10 ft.	OU vertical (63.75 in.)
Include Automatic Tran	nsfer Switching	ı (ATS)			,,				
PDUMH15AT	120V <sup>(B)</sup>	15A	5-15P	8	5-15R	8	_	2 x 12 ft. <sup>(H)</sup>	1U RM/0U vertical
PDUMH20AT	120V <sup>(B)</sup>	20A	L5-20P / 5-20P <sup>(C)</sup>	16	5-15/20R	8	8	2 x 12 ft. <sup>(H)</sup>	1U RM/0U vertical
Basic PDUs (Multi-Out	let Power Distr	ribution)			, .				
PDU1215	120V	15A	5-15P	13	5-15R	1	12	15 ft.	1U RM/0U vertical
PDU1220	120V	20A	5-20P	13	5-15/20R	1	12	15 ft.	1U RM/0U vertical
PDU1220T	120V	20A	L5-20P	13	5-15/20R	1	12	15 ft.	1U RM/0U vertical
PDU2430	120V	30A	L5-30P	24	5-15R	12	12	15 ft.	1U RM/0U vertical
PDU1230	200-240V	30A	L6-30P	18	2 C19, 16 C13	4 C13 / 2 C19	12 C13	15 ft.	1U RM/0U vertical
PDU1415	120V	15A	5-15P	14	5-15R	N/A	14	15 ft.	OU vertical (26.00 in.)
PDU1420T	120V	20A	L5-20P	14	5-15/20R	N/A	14	15 ft.	OU vertical (26.00 in.)
PDUV15	120V	15A	5-15P	12	5-15R	12		15 ft.	OU vertical (36 in.)
PDUV20	120V	20A	5-20P	12	5-15/20R	12	_	15 ft.	OU vertical (36 in.)
PDUV30HV	208V	2 x 15A	L6-30P	38	32 C13, 6 C19	38	_	10 ft.	OU vertical (63.75 in.)
PDU40TDUAL	120V	2 x 20A	L5-20P / 5-20P (2)(E)	40	5-15/20R	40	_	2 x 15 ft.	OU vertical (71.25 in.)
PDUNV	100-240V	16A	Supports 6 plugs <sup>(F)</sup>	14	12 C13, 2 C19	4 C13	8 C13 / 2 C19	10 ft.	10 RM/00 vertical
PDU12IEC	100-240V	16A	C20 inlet (no cord) <sup>(G)</sup>	14	12 C13, 2 C19	4 C13	8 C13 / 2 C19		1U RM/0U vertical
PDU Accessory (for us					010, 2 010	1010	0010/2010		

ENVIROSENSE Environmental sensor module. Allows select PDUs (with "NET" suffix in model number) to monitor external temperature/humidity & contact-closure inputs.
(A) Certifications vary by model. (B) Primary input tolerances: 100-137V, 45-65Hz. Outside of this range, the PDU switches to the secondary input. Secondary input is passed through to the output without voltage or frequency restrictions. Two front panel LEDs marked "primary" and "secondary" indicate which source is supplying power to the PDU. (B) PDUMH20AT and PDUMH20ATNET include two cords with twist-lock L5-20P input plugs and two adapters to support connection to a straight-blade S-20R outlet. (B) PDUMV40 and PDUMV20NET include a two-corded, dual-circuit PDUs with two twist-lock L5-20P plugs and two adapters to support connection to a straight-blade S-20R outlet. (B) PDUMV40 and PDUMV20NET include a two-corded, dual-circuit PDUs with two twist-lock L5-20P plugs and two adapters to support connection to a straight-blade S-20R outlet. (B) PDUMV40 and PDUMV20NET include a two-corded, dual-circuit PDUs with two twist-lock L5-20P plugs and two adapters to support connection to a straight-blade S-20R outlet. (B) PDUMV40 and PDUMV20NET include a two-corded, dual-circuit PDUs with two twist-lock L5-20P plugs and two adapters to support connection to a straight-blade S-20R outlet. (B) PDUMV40 and PDUMV20NET include a two-corded, dual-circuit PDUs with two twist-lock L5-20P plugs and two adapters to support connection to a straight-blade S-20R outlet. (B) PDUMV40 and PDUMV40

Complete, up-to-date specifications (including product weight and dimensions) available at www.tripplite.com

# **Eco-Friendly Backup Power**

Saves Money & Protects the Environment



SU8000RT3UN50TF, SU8000RT3UG, SU10000RT3U, SU10000RT3U2TF, SU10000RT3UG, SU10KRT3UHV, SU10KRT3U Power module shown.

# Reduces Data Center Costs

Two-thirds of the electricity required by a data center is consumed by cooling and power distribution, including UPS systems.\* Using high-efficiency SmartOnline (pages 8-23) or SmartPro (pages 2-7, 24-25) UPS Systems and right-sizing load levels to balance faulttolerance and economy can make your data center significantly cooler, greener and more cost-effective.

SmartOnline UPS Systems are up to 97% efficient in economy mode, a potential efficiency increase of 10% or more versus comparable systems from competing vendors. Tripp Lite offers several tools that help you safely right-size load levels for additional efficiency gains. Metered PDUs display load levels and Switched PDUs also include a network interface for remote load monitoring (pages 38-39). SmartOnline and SmartPro UPS Systems support on-site and remote load monitoring through the optional SNMPWEBCARD or free PowerAlert software (pages 26-27).

By increasing UPS efficiency 10% for a modest 32 kilowatt load, you can reduce carbon emissions by 34 tons per year. Over a five-year period, you can conserve more than 250 megawatt-hours of electricity—enough to power an average single-family home for more than 20 years—and you can save \$27,095 on your electric bill.\*\*

Superior Efficiency Conserves Electricity

- Special ECO Outlets Turn Off Energy-Wasting "Phantom Loads"
- ► RoHS Compliance Reduces Hazardous Substances
- Recycled and Recyclable Materials Minimize Waste

# Saves Energy at Home and Office

Tripp Lite's ECO Series UPS Systems (pages 30-31) are up to 99% efficient and turn off designated ECO outlets when your computer is inactive. This feature eliminates wasteful phantom loads that consume electricity even when a device appears to be turned off. ECO Series UPS Systems can save up to \$50 on your utility bill, conserve 470 kilowatt-hours of electricity and reduce your carbon footprint by 630 pounds per year.\*

\* Estimate assumes 5% efficiency gain and 60W of phantom loads.

### Protects the Planet

Tripp Lite was an early supporter of the RoHS (Restriction of Hazardous Substances) directive and leads the industry in RoHS compliance. RoHS aims to improve environmental conditions worldwide by strictly limiting the use of six hazardous substances: lead, mercury, cadmium, hexavalent



chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ether (PBDE). Tripp Lite manufactures hundreds of RoHS-compliant products—including UPS systems—which can be identified by the RoHS logo.

\* The Green Grid. \*\* Estimate assumes 24x7x365 duty cycle.

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