

Smallest 208V 3-Phase UPS Systems in the Market

Tripp Lite's SmartOnline S3M UPS series supports the continuous availability of critical loads in a remarkably compact footprint, without compromising runtime, reliability or functionality. Providing up to 600 kVA/kW (6 x 100kW parallel UPS) of clean, highly-efficient power in an easy-to-manage platform, it keeps operational costs to a minimum. SmartOnline S3M is perfect for small data centers, colocation data centers and edge computing, as well as other critical applications in IT, telecommunications, corporate, commercial, retail, financial, security, transportation, healthcare and manufacturing environments.

Key Features and Benefits

BEST-IN-CLASS FOOTPRINT AND POWER DENSITY

- Smallest footprint in the 208V 3-phase UPS market helps save space for revenue-generating equipment
- Innovative design allows for market-leading features in a compact housing

EFFICIENT OPERATION

- ENERGY STAR 2.0-certified 98% ECO efficiency and up to 94% on-line efficiency reduce utility and cooling costs
- Low input distortion (THDi <3%) enables 1:1 generator matching

HIGH PERFORMANCE

- Parallel for capacity or redundancy up to 6 units
- Dual AC input capability to connect two independent sources for additional power redundancy and system reliability
- Very low output distortion (THDv ≤ 2%) and active power factor correction improve output performance
- Unity output power factor (1.0) for supporting more equipment
- Smart battery charger (20-80 amp) for riding through successive power failures
- Voltage and frequency independent (VFI), advanced IGBT rectifier

DYNAMIC MANAGEMENT TOOLS

- Large 5 inch (12.7 cm) color touchscreen display supports full-featured local management in several language options
- Optional WEBCARDLX (SNMP) card enables network management and integration with network management systems and DCIM. Relay (I/O) card optional
- Integrated MODBUS RTU ports R2-232, RS-485 and USB
- On-site (EPO) or remote (REPO) Emergency Power Off capabilities let users monitor and control both the UPS and connected PDUs
- Ports compatible with Tripp Lite environmental accessories monitor temperature, humidity, access and more

REPAIR & WARRANTY

- Up to 75% less time to repair due to innovative design
- 2-year warranty for all S3M10K to 100K UPS models, including UPS models with internal batteries. Optional extended warranties available
- Tripp Lite CareSM dedicated 3-Phase UPS service support team



The smallest 208V 3-phase UPS product line in the market!

1 meter



10/20 kVA = 348.6 in. / 0.225 m²
(9.8 x 35.4 in.) (0.25 x 0.9 m)



25/30 kVA = 372 in. / 0.24 m²
(11.8 x 31.5 in.) (0.3 x 0.8 m)



50/60 kVA = 582.2 in. / 0.376 m²
(17.4 x 33.5 in.) (0.442 x 0.85 m)



80/100 kVA = 790.3 in. / 0.51 m²
(23.6 x 33.4 in.) (0.6 x 0.85 m)

42U rack = 1,008 in. / 0.65 m²
(24 x 42 in.) (0.61 x 1.07 m)

SmartOnline S3M Series Uses Less Space in Your Data Center and Your Budget

ENERGY STAR 2.0-certified high on-line efficiency reduces operational costs, while its compact design preserves more space for revenue-generating equipment than standard 3-phase UPS systems.



Lower Total Cost of Ownership (TCO)

- SmartOnline S3M is ENERGY STAR 2.0-certified and 98% ECO efficient, with up to 94% on-line efficiency to reduce utility and cooling costs
- Up to 75% reduction in mean time to repair (MTTR) over standard mono-block 208V 3-phase UPS systems = less time and money spent on repairs
- Low input distortion (THDi <3%) enables 1:1 generator matching and eliminates costly over-sizing requirements
- Small footprint requires less valuable data center space and allows the UPS to be installed in spaces that previously would have required expensive retrofitting
- Two S3M series UPS units connected in parallel may be supported with only one battery cabinet to minimize cost and footprint
- Powerful management tools and comprehensive Tripp Lite CareSM service plans reduce scheduled and unscheduled downtime



TRIPP-LITE AT THE EDGE OF YOUR NETWORK

Tripp Lite's SmartOnline S3M UPS series provides the reliable uptime, compact size, efficient power and convenient maintenance that critical loads and edge computing installations need to thrive.

S3M UPS systems are ideal in:



COLOCATION OR SMALL DATA CENTERS:

Small data centers housing 10-200 racks



IN-HOUSE OR REMOTE EDGE COMPUTING:

On-premise and remote edge computing spaces for telecommunications, retail, manufacturing, transportation, corporate, healthcare and financial/educational institutions



CONTAINERIZED EDGE COMPUTING:

Precast concrete or metal remote micro data centers for utilities, government, telecom and oil/gas exploration

480V and 600V Adaptable Configurations

Tripp Lite SmartOnline S3M UPS units are conveniently available in UPS + transformer kit models to accommodate 480V applications, such as medical equipment and manufacturing, and 600V for Canadian market applications.

16 Transformer + UPS kit models available.

- Kit models with 480V input transformers + UPS from 20 kVA to 100 kVA
- Kit models with 480V input/output transformers + UPS from 30 kVA to 100 kVA
- Kit models with 600V input transformers + UPS from 50 kVA to 100 kVA
- Transformers are UL/CSA certified, ISTA-3B tested, and include overheat and current protection
- All transformers may also be purchased separately



Powerful Local Management is at Your Fingertips

The advanced, user-friendly display provides local management from 7 touchscreens:

HOME: View the operating status and setting mode of the UPS.

STATUS: View phase voltage, current, PF and frequency of the main, bypass, output and battery status.

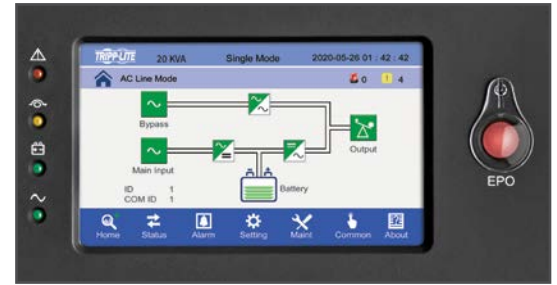
ALARM: Check the alarm status and history, and control the UPS alarm buzzer.

SETTING: Select the UPS operational mode and the display language.

MAINT: Download history records, and set battery self-tests and self-screen correction.

COMMON: Navigate the most common menu features from one screen.

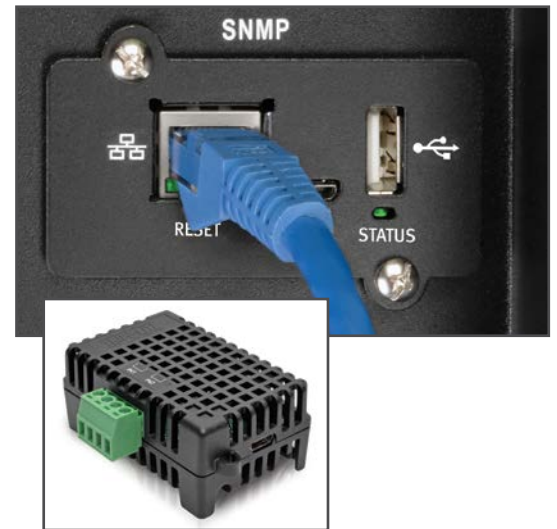
ABOUT: View the LCD, REC and INV versions.



Powerful Network Management is Only a Click Away

WEBCARDLX (SNMP) network management card enables remote monitoring and control through several interfaces: HTML5 web via HTTP(S), menu/CLI via SSH/Telnet, and SNMP for integration with software management platforms such as DCIM. Using WEBCARDLX in your UPS combined with Tripp Lite's network-enabled switched PDUs, you can manage power throughout your facility and receive automated alerts to identify problems before they cause downtime.

WEBCARDLX also supports a family of sensors for remotely monitoring environmental conditions. You can link up to three sensors together, connecting them to a single port on the WEBCARDLX. Tripp Lite offers free PowerAlert® Network Management System software. Learn more and download at tripplite.com/products/power-alert.

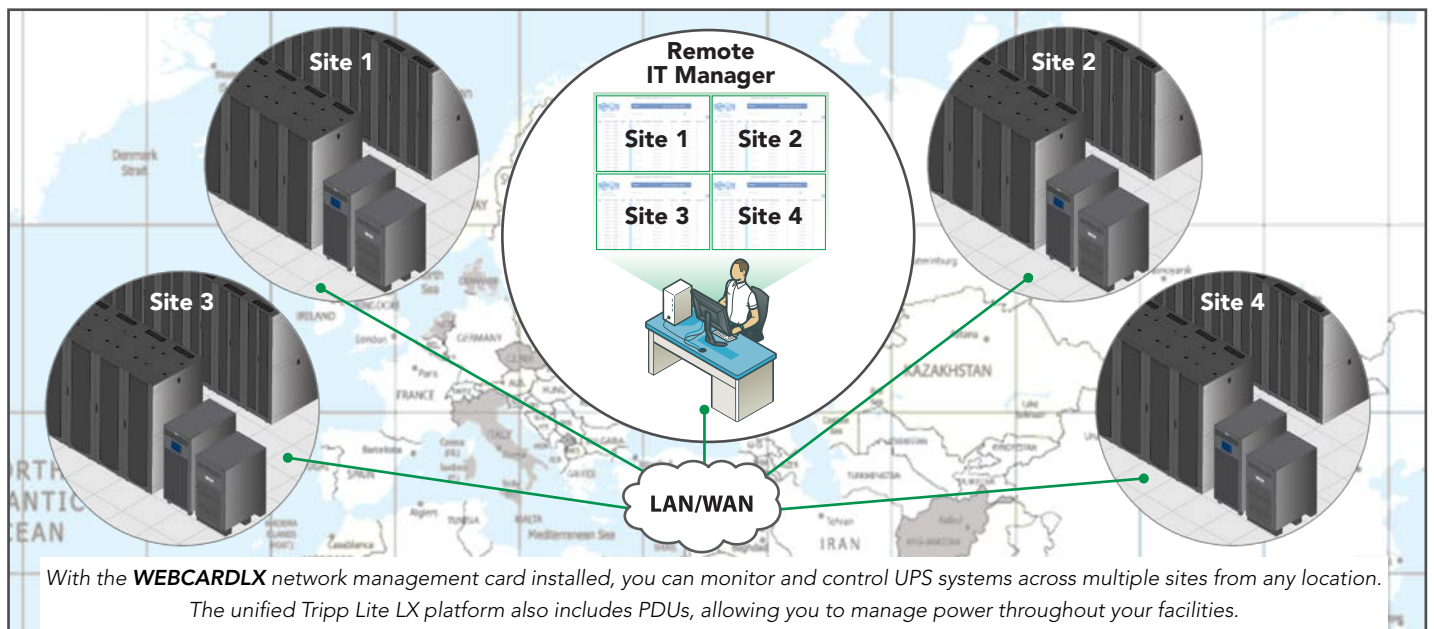


Network Management Card

WEBCARDLX Network Management Card for Compatible Tripp Lite UPS Systems. Provides HTML5 Web, SSH/Telnet and SNMP Interfaces.

Environmental Sensors (Require WEBCARDLX)

E2 modules & SRSWITCH ENVIROSENSE2 (E2) Environmental Sensor Module with Temperature (E2MT) and Digital Outputs (E2MTDO) and Humidity and Digital Inputs (E2MTHDI). Water Leak Detection Sensor (E2SLD) and Magnetic Door Switch Kit (SRSWITCH) available (both require E2MTHDI).



Model	S3M10K1B	S3M10K2B	S3M10K3B	S3M10K-NIB	S3M15K2B	S3M15K3B	S3M15K-NIB	S3M20K3B	S3M20K-NIB	
OVERVIEW										
Capacity	10 kVA/10 kW	10 kVA/10 kW	10 kVA/10 kW	10 kVA/10 kW	15 kVA/15 kW	15 kVA/15 kW	15 kVA/15 kW	20 kVA/20 kW	20 kVA/20 kW	
Topology	True On-Line Double Conversion; Voltage and Frequency Independent (VFI)									
INPUT										
Voltage and Phase	208/220V (Ph-Ph); 120/127V (Ph-N); 3-Phase, Neutral and Ground									
Voltage Range	-20%, +25% (Ph-Ph 166–260V or 176–275V) at 100% Load; -40%, +25% (Ph-Ph 125–260V or 132–275V) at <50% Load									
Frequency (Range)	50/60 Hz, Selectable (40 – 70 Hz)									
Power Factor	≥ 0.99 (Linear Load)									
Dual AC Input	Yes, standard									
Protection	Backfeed Contactor									
Harmonic Distortion	< 2% THDi (100% Load)									
OUTPUT										
Voltage and Phase	208/220V (Ph-Ph); 120/127V (Ph-N); 3-Phase, Neutral and Ground									
AC Voltage Regulation	±1% of Nominal (Double-Conversion Mode, Converter Mode or Battery Mode); ±10% of Nominal (ECO Mode)									
Power Factor	1.0									
Frequency	Selectable ±1%, ±2%, ±4%, ±5%, ±10% of Input (Default: ±10%)									
Frequency Regulation	±0.1 Hz (Converter Mode or Battery Mode)									
Overload (AC Mode)	Load ≤ 110%=1 hour; Load ≤ 125%=10 min.; Load ≤ 150%=1 min.; Load >150%=Bypass									
Crest Factor	3:1 Maximum									
Harmonic Distortion	≤ 1% THD (100% Linear Load); ≤ 3% THD (100% Non-Linear Load)									
Waveform	Pure Sine Wave									
Transfer Time	0 ms (Line ↔ Battery and Inverter ↔ Bypass)									
Parallel Capability	Parallel Up to 4 Units for Increased Capacity or N+N Redundancy									
BYPASS										
Bypass Voltage Range	Upper Limit: +10%, +15%, +20% or +25% (Default: +20%); Lower Limit: -10%, -20%, -30% or -40% (Default: -30%)									
Bypass Frequency Range	±10% (Adjustable)									
EFFICIENCY										
On-line Mode	Up to 94%									
ECO Mode	Up to 98%									
BATTERY AND CHARGER										
Battery Type	12V Maintenance-Free Non-Spillable VRLA AGM/GEL									
DC Acceptance Voltage	±120V DC (Nominal)									
Battery Configuration	Internal Only	Internal Only	Internal Only	External Only*	Internal Only	Internal Only	External Only*	Internal Only	External Only*	
Internal Battery Quantity	20 x 9 Ah	40 x 9 Ah	60 x 9 Ah	None*	40 x 9 Ah	60 x 9 Ah	None*	60 x 9 Ah	None*	
Runtime (100% Load)	4 min.	9 min.	20 min.	27 – 107 min.*	6 min.	13 min.	15 – 90 min.*	7 min.	10 – 64 min.*	
Runtime (50% Load)	10 min.	22 min.	45 min.	60 – 255 min.*	13 min.	27 min.	35 – 220 min.*	16 min.	27 – 156 min.*	
External Battery Cabinets*	10-20 kVA UPS models with internal batteries are compatible with battery cabinets BP240V09 and BP240V09K . 10-20 kVA UPS models without internal batteries are compatible with battery cabinets BP240V09K , BP240V40 , BP240V40L , BP240V65 , BP240V65L and BP240V100 .									
Recharge Time to 90%	≤ 8 hr.	≤ 8hr.	≤ 8 hr.	Varies with battery pack	≤ 8 hr.	≤ 8 hr.	Varies with battery pack	≤ 8 hr.	Varies with battery pack	
Charging Current (Default)	1 – 20A (1.35A)	1 – 20A (2.7A)	1 – 20A (4.05A)	1 – 20A (2.7A)	1 – 20A (2.7A)	1 – 20A (4.05A)	1 – 20A (2.7A)	1 – 20A (4.05A)	1 – 20A (2.7A)	
ENVIRONMENT										
Operating Temperature	0 – 40° C (≤ 25° C for optimal battery lifespan)									
Storage Temperature	0 – 35° C (UPS with batteries); -15° – 60° C (UPS without batteries)									
Operating Humidity	0 – 95% (Non-Condensing)									
Operating Altitude	< 1000 m (Derate output power by 1% per 100 m above 1000 m)									
Audible Noise at 1 m	< 58 dBA	< 58 dBA	< 58 dBA	< 58 dBA	< 58 dBA	< 58 dBA	< 58 dBA	< 60 dBA	< 60 dBA	
Heat Dissipation (100% Load)	2457 BTU/h				3686 BTU/h			4915 BTU/h		
MANAGEMENT										
Control Panel	Large 12.7 cm (5-inch) Multi-language Touchscreen Display with Supplemental LEDs									
Communications	SNMP Network Management Card (WEBCARDLX) (optional), integrated MODBUS RTU via 3-ports, RS-232 (DB9), USB, RS-485 x 2 (RJ45), second slot for optional Relay I/O card									
STANDARDS										
Safety	UL1778:2014 (5th Edition); CAN/CSA-C22.2 No. 107.3-14 (3rd Edition)									
EMC/EMI	FCC Part 15B Class A									
Additional	ENERGY STAR 2.0; RETIE; IP20 Ingress Protection Rating; RoHS; ISTA-3B vibration, shock and tip tested									
PHYSICAL										
Unit Dimensions (H x W x D)	34.17 x 9.84 x 35.43 in. (868 x 250 x 900 mm)									
Unit Weight	300 lb./136 kg	412 lb./187 kg	522 lb./237 kg	179 lb./81 kg	414 lb./188 kg	525 lb./238 kg	181 lb./82 kg	527 lb./239 kg	183 lb./83 kg	

* Consult the S3M UPS model product page on the Tripp Lite website to access the "Runtime" configuration tool. Battery cabinets without internal batteries (-NIB models) are also available.

Scalable Battery Cabinets Complete Your Installation

- Scalable battery cabinets support backup runtime from 15 minutes to nearly 6 hours
- 15 models available, accommodating 10-100 kVA UPS systems

Note: 10-20 kVA units come with or without internal batteries. 25-100 kVA units require external battery cabinets.



Model	S3M25K	S3M30K	S3M50K	S3M60K	S3M80K	S3M100K
OVERVIEW						
Capacity	25 kVA/25 kW	30 kVA/30 kW	50 kVA/50 kW	60 kVA/60 kW	80 kVA/80 kW	100 kVA/100 kW
Topology	True On-Line Double Conversion; Voltage and Frequency Independent (VFI)					
INPUT						
Voltage and Phase	208/220V (Ph-Ph); 120/127V (Ph-N); 3-Phase, Neutral and Ground					
Voltage Range	-20%, +25% (Ph-Ph 166–260V or 176–275V) at 100% Load; -40%, +25% (Ph-Ph 125–260V or 132–275V) at <50% Load					
Frequency (Range)	50/60 Hz, Selectable (40 – 70 Hz)					
Power Factor	≥ 0.99 (100% Linear Load); ≥ 0.98 (50% Linear Load)					
Dual AC Input	Yes, standard					
Protection	Backfeed Contactor					
Harmonic Distortion	< 3% THDi (100% Load)					
OUTPUT						
Voltage and Phase	208/220V (Ph-Ph); 120/127V (Ph-N); 3-Phase, Neutral and Ground					
AC Voltage Regulation	±1% of Nominal (Double-Conversion Mode, Converter Mode or Battery Mode); ±10% of Nominal (ECO Mode)					
Power Factor	1.0					
Frequency	Selectable ±1%, ±2%, ±4%, ±5%, ±10% of Input (Default: ±10%)					
Frequency Regulation	±0.1 Hz (Converter Mode or Battery Mode)					
Overload (AC Mode)	Load ≤ 110%=1 hour; Load ≤ 125%=10 min.; Load ≤ 150%=1 min.; Load >150%=Bypass					
Crest Factor	3:1 Maximum					
Harmonic Distortion	≤ 2% THD (100% Linear Load); ≤ 5% THD (100% Non-Linear Load)					
Waveform	Pure Sine Wave					
Transfer Time	0 ms (Line ↔ Battery and Inverter ↔ Bypass)					
Parallel Capability	Parallel up to 5N+1 Units for Increased Capacity or up to 6 for Redundancy					
BYPASS						
Bypass Voltage Range	Upper Limit: +10%, +15%, +20% or +25% (Default: +20%); Lower Limit: -10%, -20%, -30% or -40% (Default: -30%)					
Bypass Frequency Range	±10% (Adjustable)					
EFFICIENCY						
On-line Mode	Up to 94%					
ECO Mode	Up to 98%					
BATTERY AND CHARGER						
Battery Type	12V Maintenance-Free Non-Spillable VRLA AGM/GEL					
DC Acceptance Voltage	±120V DC (Nominal)					
Battery Configuration*	External Only	External Only	External Only	External Only	External Only	External Only
Internal Battery Quantity	None	None	None	None	None	None
Runtime (100% Load)	N/A	N/A	N/A	N/A	N/A	N/A
Runtime (50% Load)	N/A	N/A	N/A	N/A	N/A	N/A
Compatible External Battery Cabinets*	BP240V40, BP240V40L, BP240V65, BP240V65L, BP240V100		BP240V40L, BP240V65, BP240V65L, BP240V100, BP240V100L		BP240V65L, BP240V100L	
Recharge Time to 90%	Please consult the Battery Cabinet Manual					
Charging Current (Default)	1 – 20A (0.15C)	2 – 20A (0.15C)	4 – 40A (0.15C)	4 – 40A (0.15C)	6 – 60A (0.15C)	8 – 80A (0.15C)
ENVIRONMENT						
Operating Temperature	0 – 40° C					
Storage Temperature	-15° – 60° C					
Operating Humidity	0 – 95% (Non-Condensing)					
Operating Altitude	< 1000 m (Derate output power by 1% per 100 m above 1000 m)					
Audible Noise at 1 m	< 65 dBA	< 68 dBA	< 72 dBA	< 72 dBA	< 74 dBA	< 75.6 dBA
Heat Dissipation (100% Load)	6399 BTU/h	7679 BTU/h	12628 BTU/h	15154 BTU/h	19932 BTU/h	24915 BTU/h
MANAGEMENT						
Control Panel	Large 12.7 cm (5-inch) Multi-language Touchscreen Display with Supplemental LEDs					
Communications	Network Management Card SNMP (WEBCARDLX) optional, 3 integrated MODBUS RTU ports (R2-232, USB, RS-485) and optional Relay I/O card for the second COMS slot					
STANDARDS						
Safety	UL1778:2014 (5th Edition); CAN/CSA-C22.2 No. 107.3-14 (3rd Edition)					
EMC/EMI	FCC Part 15B Class A					
Additional	ENERGY STAR 2.0; RETIE; IP20 Ingress Protection Rating; RoHS; ISTA-3B vibration, shock and tip tested					
PHYSICAL						
Unit Dimensions (H x W x D)	39.37 x 11.81 x 31.50 in. (1000 x 300 x 800 mm)		47.24 x 17.4 x 33.46 in. (1200 x 442 x 850 mm)		62.99 x 23.62 x 33.46 in. (1600 x 600 x 850 mm)	
Unit Weight	209 lb./95 kg		353 lb./160 kg		624 lb./283 kg	

* Consult the S3M10-100K UPS model product page on the Tripp Lite website to access the "Runtime" configuration tool. Battery cabinets without internal batteries (-NIB models) are also available.

Tripp Lite UPS Web Resources

Browse UPS systems and accessories to find the optimal solutions for your application at Tripp Lite's 3-Phase UPS Solutions page.

For your convenience, Tripp Lite also provides design files for use in engineering and architectural projects that include Tripp Lite products.

Visit Tripp Lite's 3-Phase UPS solutions resource page: triplite.com/pages/3-phase-ups-solutions

Tripp Lite Care Service and Support

Service is the most critical component of 3-phase UPS ownership. When you invest in a large UPS, you may need it to operate reliably for 10 years or more. Tripp Lite CareSM 3-phase UPS services are designed to protect your UPS over its entire lifecycle, from commissioning to preventive maintenance and eventual replacement. They keep your UPS in peak condition so it is always ready to protect you from downtime.

Warranty

Tripp Lite's 3-phase UPS factory warranty is two years. Optional extended warranties of up to three years beyond the standard factory warranty are available. External batteries include a one-year warranty in all regions.

Commissioning

Commissioning builds a solid foundation for improved reliability, higher efficiency, reduced costs, enhanced safety, fewer repairs, quicker service and longer UPS lifespan. Commissioning helps you verify and document the proper installation and startup of your UPS system at the installation site. Commissioning also registers your UPS, initiates its service record and establishes a working relationship between your organization and the Tripp Lite service team, which is essential for a successful 3-phase UPS deployment. Lastly, commissioning activates an enhanced 24/7/365 on-site UPS warranty, which covers parts, travel and labor.

Annual Service Agreements with Preventive Maintenance

Annual service agreements include extended 24/7/365 on-site warranties and on-site preventive maintenance visits. Regular preventive maintenance significantly reduces failure rates by identifying potential threats early and correcting problems before they cause downtime. UPS systems with regular preventive maintenance are much less likely to experience a failure than UPS systems without it. Component failures can still happen, but on-site warranties minimize the cost and disruption of unavoidable repairs.

Non-Warranty Services

Tripp Lite provides non-warranty services when the UPS system is outside the warranty or service agreement period, or when a required service or repair is not covered under the terms of the current warranty or service agreement. Tripp Lite quotes non-warranty services on a case-by-case, time-and-materials basis, and cost depends on the UPS model and specific service requested. Available non-warranty services include rapid-response on-site repair, battery installation and battery service/replacement.

Planned Replacement Services

Although Tripp Lite products are built to provide long service life, there comes a point for every UPS system when it makes more sense to modernize than to keep an older system in service. Tripp Lite's planned replacement services provide a free assessment of your current UPS, balancing the cost of replacement against the cost of maintenance and risk of downtime. Once you decide to modernize, Tripp Lite helps you make the transition efficient and seamless, minimizing disruption to your critical operations.

Note: Service availability varies with location.



Contact Tripp Lite for more information:

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