TRIPP·LITE
POWER PROTECTION



GREEN SOLUTIONS

Tripp Lite Green Power Solutions

Save Energy • Save Money • Protect the Planet

Green power solutions provide the strongest protection against power problems and downtime while reducing operating costs, energy consumption and environmental impact.


CONTENTS

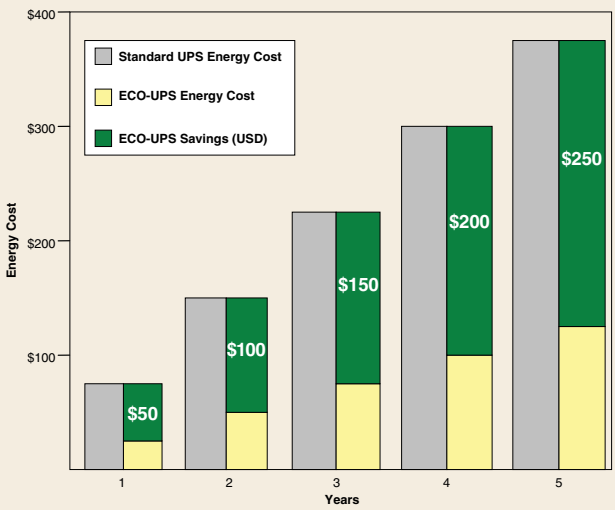
ECO-UPS™ Energy-Saving UPS Systems

- 350VA – 750VA
- Energy-Saving Outlets
- Up to 99% Efficiency
- Protection Against Blackouts, Abnormal Voltages, Surges, Line Noise & Phantom Loads

Save Energy & Lower Utility Bills

Part of the electricity used by any UPS system is wasted as radiated heat before it reaches your equipment, but Tripp Lite's energy-efficient ECO-UPS wastes less electricity than standard UPS systems. With special energy-saving outlets and up to 99% efficiency, ECO-UPS can lower your utility bills by up to $50 per year. In five years, you can shrink your carbon footprint 3,152 pounds and conserve 2,352 kilowatt-hours of electricity. That's enough energy to power a compact fluorescent light bulb* for more than 20 years!

** 60-watt equivalent.*



Compared to a standard UPS system, Tripp Lite's ECO-UPS can save up to $50 per year.*

**The savings estimate compares an ECO750UPS operating at 99% efficiency to a typical standby UPS system operating at 94% efficiency. The calculations assume active computer use for three hours per day, 60W total phantom load and 2008 average residential electricity cost of $.1136 per kilowatt-hour, as reported by the U.S. Department of Energy. Your actual savings may be more or less, depending on your specific application and local utility costs.*

Eliminate Phantom Loads

Each power adapter and glowing LED in your home or office represents a potential "phantom load"—power wasted by a device when it isn't being used, even when it appears to be turned off. ECO-UPS eliminates phantom loads by automatically turning off special energy-saving outlets when your computer is turned off or enters standby mode. The energy-saving outlets disconnect phantom loads from any source of electricity, making it impossible for them to waste energy. Other outlets stay on to support devices that operate 24x7, such as wireless routers. (For more information, refer to the Feature Focus section on the next page.)

Protect Computers & Electronics

Designed for home and office applications, ECO-UPS protects your computer, electronics and other equipment from downtime, damage and data loss caused by power problems, including blackouts, abnormal voltages, surges and line noise. Reliable battery backup power keeps computers operating safely through shorter blackouts and allows enough time to save files and shut down computers during longer outages. Free PowerAlert software* saves open files automatically on unattended computers. ECO-UPS is also compatible with the built-in power management features of Windows®, Mac OS® X and Linux®. Surge-blocking RJ11 phone jacks protect telephones, fax machines, analog modems, DSL modems and other communications equipment.

** Download at www.tripplite.com/poweralert.*

Protect the Environment

Tripp Lite was an early supporter of the RoHS (Restriction of Hazardous Substances) directive and leads the industry in RoHS compliance. RoHS improves environmental conditions worldwide by 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 ECO-UPS—which can be identified by the RoHS logo.

Tripp Lite also uses recyclable, CFC-free packaging designed to minimize waste, and successful recycling initiatives allow most components to reenter the supply chain instead of landfills. Because new high-frequency UPS systems are lighter and smaller than legacy models, they require fewer raw materials during manufacture and consume fewer resources during distribution.

FEATURE FOCUS

How the Energy-Saving Feature Works

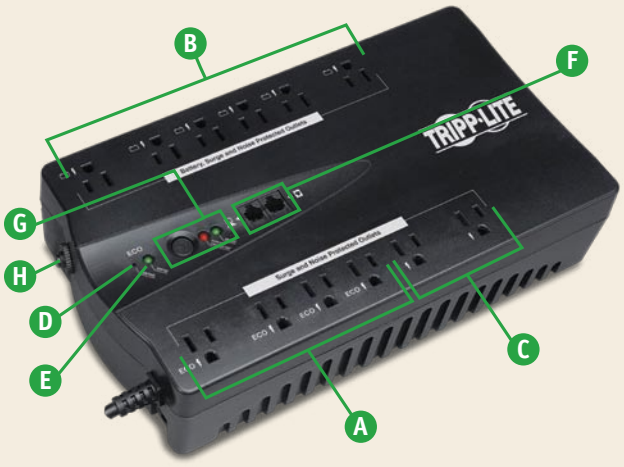
ECO-UPS connects to your computer's USB port with the included cable, allowing it to determine whether your computer is turned on, turned off or in standby mode. When your computer shuts down or enters standby mode, the UPS system waits for three minutes to make sure the computer is not rebooting or temporarily unable to communicate, then turns off the ECO energy-saving outlets.

Turning off the ECO outlets prevents any phantom loads connected to those outlets from wasting electricity. The battery backup outlets and surge-only outlets remain powered while the ECO outlets are turned off, supporting always-on devices like wireless routers and broadband modems. When your computer starts up again, the UPS system turns the ECO outlets on and your entire system is ready to use.

You can enable or disable the energy-saving feature with the ECO control switch. The ECO status LED illuminates when the energy-saving feature is enabled and blinks when the energy-saving outlets are turned off.

ECO-UPS also has superior efficiency—up to 99%—that saves energy whenever any connected equipment is turned on.

ECO-UPS turns off its special ECO energy-saving outlets when your computer shuts down or enters standby mode, preventing phantom loads connected to the ECO outlets from wasting energy. Other outlets stay on to support equipment that operates 24x7, like wireless routers and broadband modems.



ECO750UPS

A ECO Energy-Saving Outlets

Eliminate phantom loads by turning off automatically when your computer shuts down or enters standby mode.* Also provide surge and noise protection.

** USB connection required.*

B Battery-Backup Outlets

Protect equipment from blackouts, abnormal voltages, surges and line noise. Remain on as long as AC power or battery backup power is available.

C Surge-Only Outlets

Protect equipment from surges and line noise. Remain on as long as AC power is available.

D ECO Control Switch

E ECO Status LED

F Tel/Modem Surge Protection

G On/Off Switch & Power Status LEDs

H Circuit Breaker

$100,000 ULTIMATE Lifetime Insurance

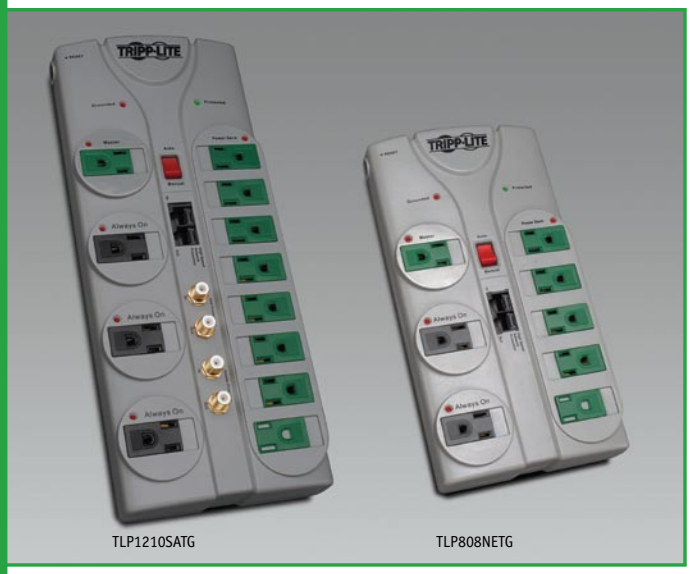
SPECIFICATIONS

RoHS COMPLIANT

Model	Load Capacity	Nominal AC Input/Output	Runtime (Single PC)*	Outlets (5-15R)	Input Cord Length	USB Protocol	Data Line Surge Protection	Connected Equipment Insurance***	Housing Type
ECO350UPS	350VA (180W)	120V, 60Hz	12 min.	6 Total (3 Battery-Backup, 2 Energy-Saving, 1 Surge-Only)	6 ft.	HID-Compliant**	Tel/Modem	$100,000	Compact/ Low-Profile
ECO550UPS	550VA (300W)	120V, 60Hz	17 min.	8 Total (4 Battery-Backup, 3 Energy-Saving, 1 Surge-Only)	6 ft.	HID-Compliant**	Tel/Modem	$100,000	Compact/ Low-Profile
ECO750UPS	750VA (450W)	120V, 60Hz	45 min.	12 Total (6 Battery-Backup, 4 Energy-Saving, 2 Surge-Only)	6 ft.	HID-Compliant**	Tel/Modem	$100,000	Compact/ Low-Profile

*Battery backup runtime varies with load, battery condition and other factors. Single PC runtime based on desktop computer with 15-inch LCD monitor. **USB human interface device compliant. ***Valid in the U.S. and Canada only.

ECO-Surge™ Energy-Saving Surge Suppressors



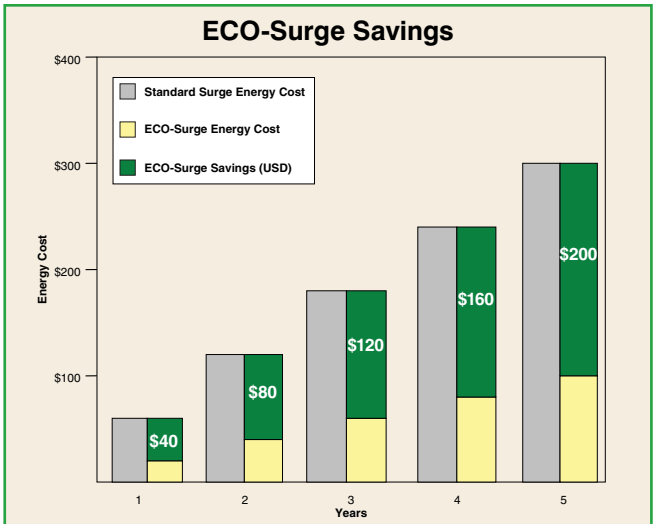
TLP1210SATG TLP808NETG

- 8 – 12 Outlets, Including Energy-Saving Outlets
- Up to 3,600 Joules
- Protection Against Surges, Line Noise & Phantom Loads
- Data Line Surge Protection (Tel/Network or Tel/Network + Coaxial)

Save Energy & Lower Utility Bills

Special energy-saving outlets allow ECO-Surge to cut your utility bills by up to $40 per year. In five years, you can shrink your carbon footprint 2,568 pounds and conserve 1,916 kilowatt-hours of electricity. That's enough energy to power a compact fluorescent light bulb* for 16 years!

** 60-watt equivalent.*



By eliminating energy-wasting phantom loads, Tripp Lite's ECO-Surge can save up to $40 per year.*

** The savings estimate compares TLP1210SATG to a standard surge suppressor. The calculations assume the Master device is turned on for three hours per day, 50W total phantom load and 2008 average residential electricity cost of $.1136 per kilowatt-hour, as reported by the U.S. Department of Energy. Your actual savings may be more or less, depending on your specific application and local utility costs.*

Eliminate Phantom Loads

Each power adapter and glowing LED in your home or office represents a potential "phantom load"—power wasted by a device when it isn't being used, even when it appears to be turned off. ECO-Surge eliminates phantom loads by automatically turning off special energy-saving outlets when you turn off the device connected to the "Master" outlet. The energy-saving outlets disconnect phantom loads from any source of electricity, making it impossible for them to waste energy. Other outlets stay on to support devices that operate 24x7, such as DVRs. (For more information, refer to the Feature Focus section on the next page.)

Protect Computers & AV Equipment

Designed for home and office applications, ECO-Surge protects your computers, electronics and other equipment from damage and data loss caused by power problems, including surges and line noise. Surge-blocking RJ45 jacks protect any equipment connected to a phone or Ethernet network line, including telephones, fax machines, analog modems, DSL modems, network cards, routers, hubs, switches and other networking and communications equipment. Model TLP1210SATG also includes surge-blocking coaxial "F" connectors that protect flat-panel televisions (LCD or Plasma HDTV), cable boxes, cable modems, satellite systems, TV tuners, indoor antennas and other AV equipment.

Protect the Environment

Tripp Lite was an early supporter of the RoHS (Restriction of Hazardous Substances) directive and leads the industry in RoHS compliance. RoHS improves environmental conditions worldwide by 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 ECO-Surge—which can be identified by the RoHS logo. Tripp Lite also uses recyclable, CFC-free packaging designed to minimize waste.

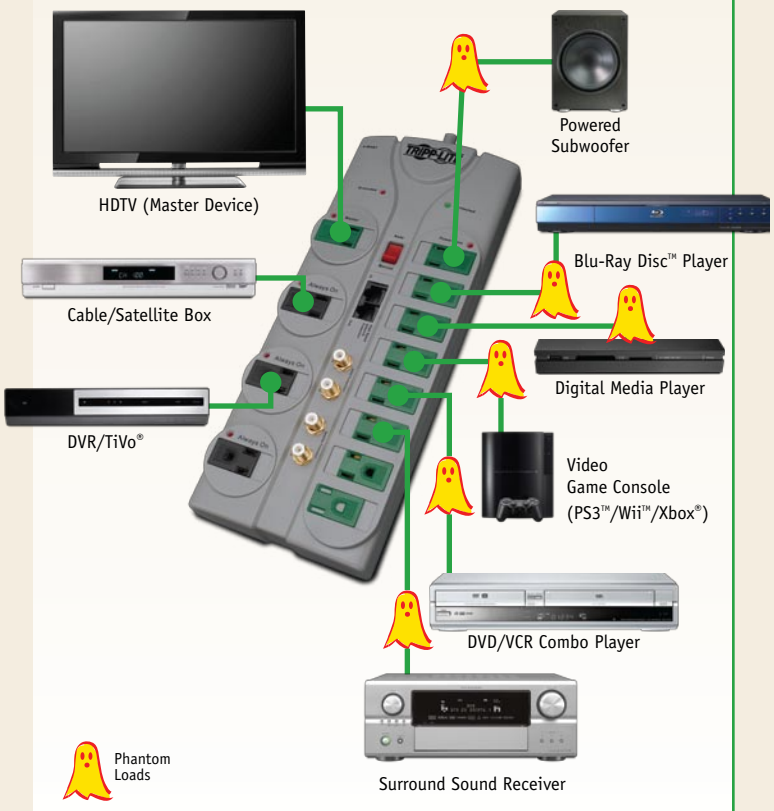
FEATURE FOCUS

How the Energy-Saving Feature Works

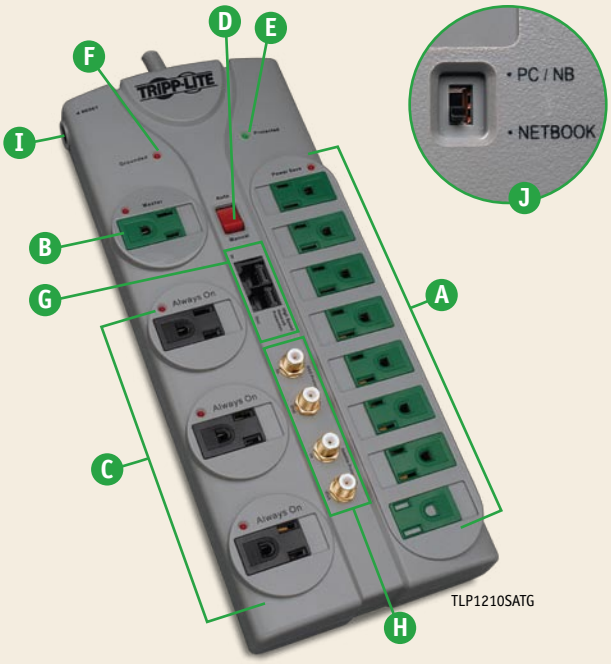
ECO-Surge detects when you turn off the device connected to the "Master" outlet—typically a computer or television—then turns off the "Power Save" outlets.

Turning off the Power Save outlets prevents any phantom loads connected to those outlets from wasting electricity. The "Always On" outlets remain powered to support devices like DVRs, cable/satellite boxes, broadband modems and wireless routers. When you turn on the Master device, the Power Save outlets also turn on and your entire system is ready to use.

The ECO-Surge wattage switch ensures reliable operation whether you're using a higher-wattage Master device (such as a television, desktop computer or full-size laptop) or a lower-wattage Master device (such as a netbook). Simply flip the switch to match your device.



ECO-Surge turns off its special Power Save outlets when the Master device is turned off, preventing phantom loads from wasting energy. The Always On outlets remain powered to support devices that operate 24x7, like DVRs and cable/satellite boxes.



A Power Save Outlets

Turn off automatically when the Master device is turned off, eliminating phantom loads.

B Master Outlet

Detects whether the Master device is turned on or off.

C Always On Outlets

Remain powered at all times, regardless of the status of the Master device.

D Auto/Manual Switch

Switches between energy-saving mode (Auto) and standard mode (Manual).

E Protected LED

Indicates whether surge protection is functioning.

F Grounded LED

Indicates whether the wall outlet is grounded.

G RJ45 Tel/Network Protection

H Coaxial Protection

I Circuit Breaker

J Wattage Switch

UP TO $250,000 ULTIMATE Lifetime Insurance

SPECIFICATIONS

RoHS COMPLIANT

Model	Surge Protection Rating*	Nominal Input/Output	Outlets (5-15R)	Input Cord Length	Data Line Surge Protection	Connected Equipment Insurance**	Housing Type
TLP808NETG	2,160 Joules	120V, 60Hz	8 Total (5 Power Save, 2 Always On, 1 Master)	8 ft.	Tel/Network	$150,000	Low-Profile
TLP1210SATG	3,600 Joules	120V, 60Hz	12 Total (8 Power Save, 3 Always On, 1 Master)	10 ft.	Tel/Network + Coaxial (2 Lines)	$250,000	Low-Profile

*The surge protection rating indicates how much surge energy a surge suppressor can absorb. More joules mean more protection. **Valid in the U.S. and Canada only.

SmartOnline™ Intelligent True On-Line UPS Systems

GREEN SOLUTIONS


SmartOnline UPS Systems

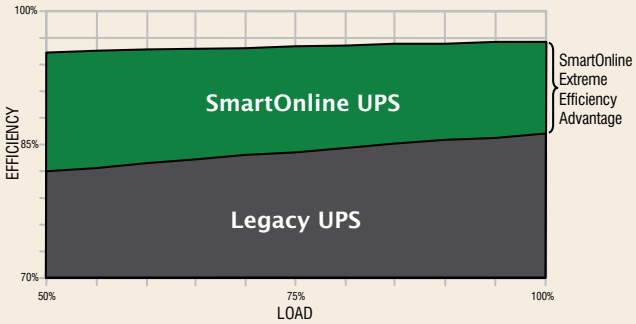
- 750VA – 160kVA
- Up to 97% Efficiency
- True On-Line Operation
- Pure Sine Wave Output
- Free PowerAlert Network Management System
- Ideal Protection for Critical Systems

Save Energy & Reduce Operating Costs

Replacing legacy on-line UPS systems with high-efficiency SmartOnline UPS Systems will make your data center cooler, greener and more cost-effective. Because all UPS systems are less than 100% efficient, part of the electricity drawn by the UPS is lost as radiated heat before it reaches your equipment. The radiated heat also requires cooling systems to work harder, consuming an additional ½ watt of cooling for each watt lost by the UPS.*

Advanced on-line UPS systems have better overall efficiency and offer an "Economy Mode" setting that delivers excellent efficiency even at lighter load levels. Tripp Lite's SmartOnline UPS Systems are up to 97% efficient in Economy Mode, a potential increase of 10% or more versus comparable on-line UPS systems. Replacing 160kVA of legacy UPS capacity with SmartOnline UPS Systems can save more than $20,000 per year. You'll also reduce your facility's CO_2 emissions by 136 tons (enough to offset more than 2,000 flights from New York to Washington) and conserve more than 200 megawatt-hours of electricity (enough to power 18 typical U.S. homes).**

**As reported by Gartner, IBM, Intel and other sources. **2007 average residential electricity consumption was 936 kWh per month, as reported by the U.S. Department of Energy.*



Higher efficiency means lower utility bills. SmartOnline UPS Systems can save over $20,000 per year for each 160kVA load they support.*

**The data center savings estimate compares a SmartOnline UPS System operating at 97% efficiency in Economy Mode to an on-line UPS system operating at 87% efficiency. The calculations assume a 24x7 duty cycle and 2008 average commercial electricity cost of $.1028 per kilowatt-hour, as reported by the U.S. Department of Energy. Your actual savings may be more or less, depending on your specific application and local utility costs.*

Optimize Efficiency

UPS efficiency is typically best at full load and decreases as the load decreases. Operating at less than 100% load is recommended to avoid overloads caused by fluctuating equipment power requirements, but the load is often far below recommended levels simply because it hasn't been optimized. Tripp Lite offers several tools to help you safely right-size load levels and find a "sweet spot" that balances fault tolerance and efficiency. Metered, Monitored and Switched PDUs include load meters that allow you to monitor load levels on-site. Monitored and Switched PDUs also include a network interface that allows you to monitor load levels remotely. The optional SNMPWEBCARD accessory adds the same capability to any SmartOnline UPS System.

Protect Critical Systems

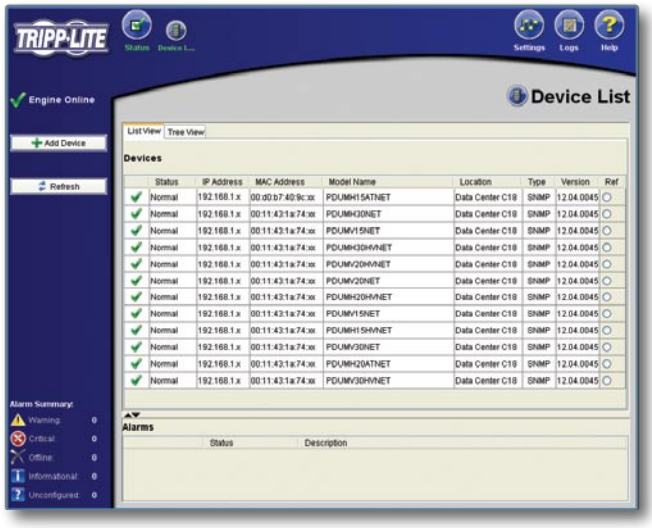
SmartOnline UPS Systems provide ideal protection for servers, storage, network equipment and telecom equipment in data center, colocation, virtualization, VoIP, cloud computing, computer room, network closet, generator backup and other applications. True on-line, double-conversion operation delivers precision-regulated, pure sine wave output power continuously, isolating equipment from damaging power problems, including blackouts, brownouts, overvoltages, surges, line noise, harmonic distortion, electrical impulses and frequency variations. Optional external battery packs provide unlimited runtime scalability to meet any battery backup requirement. SmartOnline EZ, EZ2 and E3 Series UPS Systems also include hot-swappable power module technology and advanced bypass features that eliminate critical system downtime and ensure business process continuity, even during UPS maintenance, repair or replacement.

Protect the Environment

Tripp Lite was an early supporter of the RoHS (Restriction of Hazardous Substances) directive and leads the industry in RoHS compliance. RoHS improves environmental conditions worldwide by 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 SmartOnline UPS Systems—which can be identified by the RoHS logo. Successful recycling initiatives also allow most components to reenter the supply chain instead of landfills, including UPS batteries.

Centralize Power Management

You can use the included PowerAlert Network Management System to manage the Economy Mode settings of SmartOnline UPS Systems manually or define a schedule to turn Economy Mode on and off automatically. You can also schedule automated equipment idling through remotely switchable UPS outlet banks or Tripp Lite Switched PDU outlets. Remotely switchable outlets that aren't being used can be locked out to prevent unauthorized loads that increase the risk of circuit overloads.



PowerAlert Network Management System can control Economy Mode settings and remotely switchable outlets for up to 250 SmartOnline UPS Systems or PDUs over your network from a single workstation.

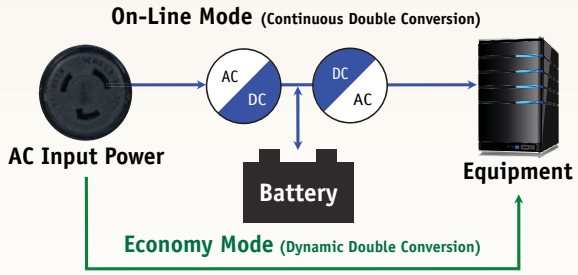
FEATURE FOCUS

Economy Mode Operation

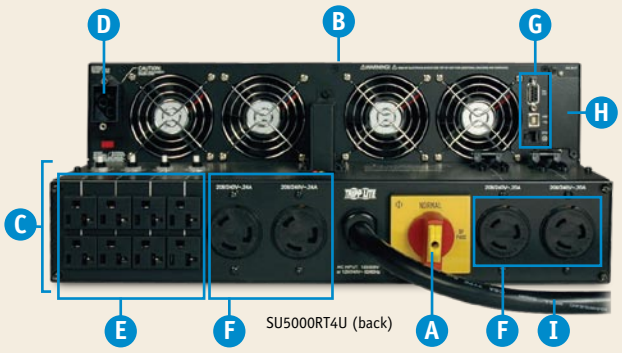
When a SmartOnline UPS System operates in on-line mode, it continuously converts AC input power to DC (battery) power and converts DC power to regulated AC output power. Continuous double conversion produces ideal output, but does not provide maximum efficiency.

In Economy Mode, the UPS increases efficiency by implementing dynamic double conversion, which means it suspends or resumes double conversion automatically as the quality of input power changes. As long as input power quality is satisfactory, the UPS system suspends double conversion and operates with maximum efficiency. If input power quality deviates from the designated safe operating range, the UPS system resumes double conversion until input power quality improves.

Using the included PowerAlert software, you can turn Economy Mode on or off at any time, from any location. You can also schedule Economy Mode, allowing the UPS system to provide maximum protection during peak hours and maximum efficiency during off-peak hours.



In Economy Mode, a SmartOnline UPS System suspends and resumes double conversion dynamically. If input power quality deviates from the safe operating range, the UPS system automatically resumes double conversion until input power quality improves.



- **A** Manual Bypass Switch
- **B** Hot-Swappable Power Module
- **C** Detachable PDU
- **D** External Battery Connector
- **E** Low-Voltage Outlets
- **F** High-Voltage Outlets
- **G** Communication Ports
- **H** Accessory Card Slot
- **I** Long Input Power Cord


A


B


C


D


E

A. SmartOnline T Series

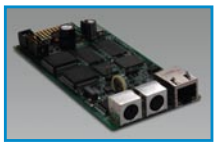
B. SmartOnline E Series

C. SmartOnline EZ Series

D. SmartOnline EZ2 Series

E. SmartOnline E3 Series

GREEN SOLUTIONS


SNMPWEBCARD


ENVIROSENSE


RELAYIOCARD

RoHS COMPLIANT

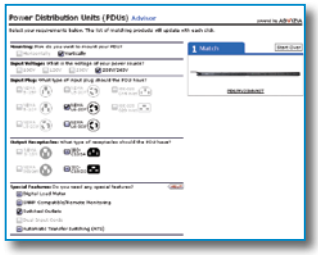
SPECIFICATIONS

UPS Series	Economy Mode	Capacity	Topology	Form Factor	Expandable Runtime*	SNMP Card Slot	Hot-Swappable Batteries	Hot-Swappable Power Module	Pure Sine Wave Output
SmartOnline T Series	Yes	750VA-3kVA	On-Line	Tower	Yes	Yes	Yes	No	Yes
SmartOnline E Series	Yes	750VA-5kVA	On-Line	Rack/Tower	Yes	Yes	Yes	No	Yes
SmartOnline EZ Series	Yes	6-10kVA	On-Line	Rack/Tower	Yes	Yes	Yes	Yes	Yes
SmartOnline EZ2 Series	Yes	5-16kVA	On-Line	Rack/Tower	Yes	Yes	Yes	Yes	Yes
SmartOnline E3 Series (3-Phase Input/Output)	Yes	40-80kVA (160kVA in Parallel)	On-Line	Tower	Yes	Yes	Yes	Yes	Yes

Accessories

SNMPWEBCARD	Internal card adds Ethernet network interface to SmartOnline UPS Systems for remote monitoring and control via SNMP, Web or telnet.
ENVIROSENSE	Environmental sensor connects to Monitored PDUs, Switched PDUs or SNMPWEBCARD for remote monitoring of temperature and humidity. Also monitors and controls devices that support contact closure communications. Can monitor up to 3 additional sensors.
RELAYIOCARD	Internal card adds programmable contact closure interface to SmartOnline UPS Systems. Includes 6 output contacts and 1 input contact.

*Requires external battery packs, sold separately.



Product Selector Guides

Go to www.tripplite.com/selectors to access Tripp Lite's dynamic product selector guides. Refine choices according to your feature requirements, then compare compatible models to find the ideal product for your application. Selectors for UPS systems, PDUs, replacement batteries, KVM switches, surge suppressors, inverters and cables are available.

About Tripp Lite

Since 1922, Tripp Lite has established a global reputation for quality manufacturing, superior value and excellent service. Tripp Lite makes more than 1,000 products to power, protect and connect electronic equipment, including UPS systems, replacement batteries, PDUs, rack systems, surge suppressors, KVM switches, IP console servers, cables, laptop accessories, power strips and inverters. Headquartered in Chicago, Illinois, Tripp Lite maintains offices worldwide. Learn more at **www.tripplite.com**.

TRIPP·LITE POWER PROTECTION

OVER 85 YEARS Since 1922. Manufacturing Excellence

ISO 9001 CERTIFIED QUALITY SYSTEMS

RoHS COMPLIANT

GREEN SOLUTIONS

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