UPS SYSTEMS

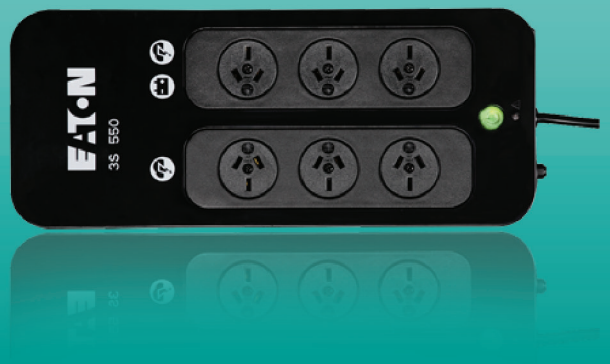
WHAT IS A UPS SYSTEM?

UPS stands for Uninterruptible Power Supply. A UPS system can provide instant back up power at the critical moment when a power outage or an electrical disturbance, surge, spike or sag interferes with your equipment

The UPS unit is inserted between the mains power and your IT equipment (e.g your PC, T.V. or server racks etc) so it can provide the security you need to ensure these applications remain operative should there be an electrical disturbance or failure.

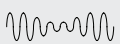
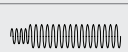
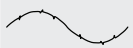
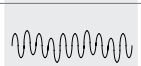
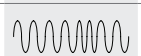
WHY IS A UPS IMPORTANT?

- Prevents data loss or corruption
- Prevents hardware damage to sensitive computer equipment
- Provides power continuance during severe brownouts and power outages
- Allows sufficient backup time to safely shutdown computer systems
- Protect your business operation
- Protect your business equipment
- Affordable protection for your data



WHAT IS A ELECTRICAL DISTURBANCE?

The distribution of electricity is often subjected to periods of interference and variations

Disturbance Category	Wave Form	Effects	Possible Causes	Possible Solutions
1. Transient				
Impulsive (spike)		Loss of data, possible damage, system halts	Lighting, ESD, switching impulses, utility fault clearing	TVSS Surge protector
Oscillatory		Loss of data, possible damage	Switching of inductive/ capacitive loads	TVSS, UPS
2. Interruptions				
Interruption		Loss of data possible, damage shutdown	Switching, utility faults, circuit breaker tripping, component failures	UPS
3. Sag/Undervoltage				
Sag		System halts, loss of data, shutdown	Startup loads, faults	UPS
Undervoltage		System halts, loss of data, shutdown	Utility faults, load changes	UPS
4. Swell/ Overvoltage				
Swell		Nuisance tripping, equipment damage/ reduced life	Load changes, utility faults	UPS
Overvoltage		Equipment damage/ reduced life	Load changes, utility faults	UPS
5. Wave Distortion				
Interharmonics		Light flicker, heating, communication interference	Control signals, faulty equipment, cycloconverts, frequency converters, induction motors, arcing devices	UPS
Notching		System halts, data loss	Variable speed drives, arc welders, light dimmers	UPS
Voltage Fluctuations		System halts, data loss	Transmitters (radio), faulty equipment, ineffective grounding, proximity to EMI/ RFI source	UPS
Power Frequency Variations		System halts, light flicker	Intermittent operation of load equipment	UPS

You owe it to yourself or to your company to maintain the safety and integrity of your computer systems, components and data.

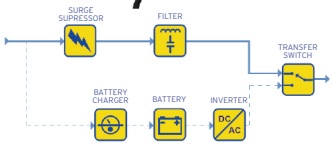
A suitable UPS is the only means of protection from the effects of power fluctuations or the total loss of power

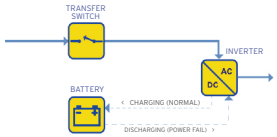
TYPES OF UPS SYSTEMS

Standby:

A Standby, or Offline UPS is ideal for homes and small offices.

If the main AC power fails, there is a small lag while the line is switched to battery.





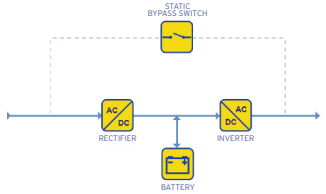
Line Interactive

Line-Interactive UPS units are usually found in small to medium sized businesses. The UPS is functionally similar to the standby type however they also feature automatic voltage regulation (AVR). This is important in keeping equipment running safely when voltage levels increase or decrease for periods of time, and eliminates the need to switch to battery.

Double Conversion - True Online

The Double Conversion Online UPS is the leading edge for supplying backup power in areas with frequent interferences or 'dirty power'.

The load is powered from the UPS unit's output inverter - instead of the mains. This means no switching or lag if the mains power fails.



CHOOSING UPS SYSTEMS

Choosing the right UPS System can be daunting task. Here are four basic questions you should ask to give you piece of mind knowing you made the right decision

WHAT TYPE OF UPS DO I NEED?

Network/Server UPS protect equipment in high-availability environments like data centres. Industrial UPS protect equipment that requires smooth continuous power, extended backup times or a controlled shutdown period. Desktop UPS protect computers, peripherals and other electronics in your home or office.

HOW MUCH UPS CAPACITY DO I NEED?

To estimate capacity requirements, add up the wattage of all the equipment you plan to connect. (Refer to the equipment manufacturer's documentation to find the wattage. If it lists amps, multiply by the AC voltage to estimate wattage. If you can't find documentation, refer to the equipment nameplate.) Check the UPS specifications to see which models will handle your requirements.

WHICH POWER CONNECTIONS DO I NEED?

Check the UPS specifications on the manufacturers website to make sure the UPS can connect to a compatible AC circuit/outlet in the installation location. This may be single phase or 3 phase. For smaller rack or tower type UPS you also need to make sure the UPS system's outlets match the plugs and voltage requirements of your equipment. You can provide additional outlets, placement flexibility and management capabilities by connecting one or more PDUs to the UPS output. Larger Data centre UPS and Industrial UPS are usually connected to UPS distribution boards.

HOW MUCH RUNTIME DOES THE UPS PROVIDE?

With an 80% load, batteries included in the UPS typically provide five to ten minutes of runtime in a power outage. That's long enough to outlast most outages. If you need additional runtime, choose a UPS system that supports connecting external battery packs.

OUR BRANDS

DELTA

UPS & Power Quality

www.deltapowersolutions.com

EATON

UPS & Power Quality
DC Power Systems

www.eatoncorp.com.au

YHI

www.powersystems.co.nz

YOUR UPS PROVIDER:

WHY DO I NEED A UPS SYSTEM?

Uninterruptible Power Supply

www.powersystems.co.nz