Ups power factor chart

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As long as the electricity stays on, a UPS system supplies conditioned utility power to its outlets and keeps its internal battery charged. It also protects your valuable devices and data from power problems, such as power surges and abnormal voltages. If the power goes out, the UPS system provides backup power from its internal battery. This allows your equipment to stay on during a power outage, which is especially useful for devices like computers that can lose data when they turn off unexpectedly.

Between the aging electrical grid, rising power demand, severe weather, faulty wiring and disruptive devices connected to your AC line, your equipment is under constant threat from power problems. Even a brief loss of power or a momentary surge can ruin valuable electronics or corrupt irreplaceable data ranging from business records to family photos. A UPS helps prevent this from happening.

UPS systems are easy to use. You simply plug the UPS into the wall outlet, plug your equipment into the UPS outlets and turn on the UPS. Most UPS systems have extra features like communicating with a computer or customizing the default settings, but using the extra features is optional.

For a fraction of the value of the equipment, data and productivity it protects, a UPS system can prevent damage, data loss and downtime. It conditions incoming AC power, protects against common power problems and provides enough battery backup to outlast most outages. A huge range of models are available, ensuring there is a cost-effective solution ideal for your needs.

Blackout: Also known as a power outage or power failure, a blackout is a complete interruption of utility power. Typically caused by accidents, grid component failures, tripped breakers, severe weather or excessive power demand, blackouts may last a few seconds, a few minutes or even longer. Blackouts cause reduced productivity, lost business revenue, system crashes and data loss.

Brownout: Also known as an undervoltage, sag or dip, a brownout is a sustained deficiency in line voltage, lasting minutes to hours. Brownouts are caused by excessive power demand, either in the building or throughout the grid, and can be aggravated by poor circuit design. Localized brownouts can occur repeatedly as air conditioners and refrigerators start and stop, overloading building electrical circuits. Brownouts cause equipment failures, overheating, incremental damage, decreased stability and data loss.

Overvoltage: Also known as a swell, an overvoltage is essentially the opposite of a brownout. Instead of a voltage deficiency, an overvoltage is a voltage increase that lasts seconds to minutes - longer than a surge. An overvoltage occurs when the power provided is greater than the power accepted by connected equipment, resulting in lost data, damaged equipment, flickering lights, overheating and equipment stress.

Surge/Spike: Surges and spikes are short-term (transient) voltage increases. Surges last three nanoseconds or

more; spikes last less than three nanoseconds. They can cause catastrophic equipment damage, system freezes, data corruption and incremental damage that degrades equipment performance. They are produced by utility company load shifting, short circuits and lightning strikes. During the storm season, the incidence of surges and spikes rises with heightened thunderstorm activity and sudden power restoration after outages.

As long as electricity stays on, the UPS system provides utility power to the devices connected to its outlets, keeps its internal battery charged and protects equipment from power problems. During an outage, the UPS system keeps connected devices functioning by supplying electricity from its internal battery.

The battery backup runtime of the UPS is the estimated time it will keep connected equipment powered during an outage, without an opportunity to recharge its batteries. Runtime varies depending on the size of the UPS battery and the wattage required by the connected equipment, as well as factors like efficiency, room temperature and battery age. Each UPS product information page at tripplite.eaton provides access to estimated runtimes for the entire range of wattages the UPS can support.

In the event of an extended blackout that exceeds the backup runtime of the UPS, battery backup provides an opportunity to shut down computers properly and prevent data loss. Automatic shutdown is also available for unattended computers. For applications where shutting down is not an option, many network and mission-critical UPS systems support increasing battery capacity to extend runtime from minutes to hours.

Network and mission-critical applications often include standby generators as part of the facility"s backup system, so UPS systems may only require sufficient runtime to support the equipment load until generators start up, stabilize and take over. While generators are operating, UPS systems continue to condition power before it reaches connected equipment.