

# FIGHTING THE SUMMER STORMS – CHOOSING A UPS OR BPS

Summer is storm season and that means an increased risk of equipment damage and data loss from lightning strikes, power anomalies, power outages, etc. One good zap can sideline your company's operations in an instant.

Most power problems are brownouts (low voltage) or blackouts (complete outages). Only an uninterruptible power supply (UPS) or a backup power supply (BPS) can protect your systems against conditions of too little power.

To prevent power disasters before they happen, more than 70% of servers are protected with a UPS or BPS. Network managers know that having a server down brings many operations to a halt. Although the loss of a single hub or router may not bring the entire corporation to a standstill, it can result in zero productivity for entire workgroups or remote offices.

A UPS or BPS keeps power flowing, giving you enough time to shut down safely during a power outage. It also regulates your power, smoothing out dangerous overvoltages and undervoltages, spikes, surges, and impulses that often go unnoticed.

The difference between a UPS and a BPS is that a UPS provides continuous power that stays up during a power outage whereas a BPS provides standby battery backup to which it switches during a power problem.



With a UPS, your equipment is always running on battery power, which is continuously being recharged from your regular power lines. Because there is no switchover time with a UPS, it's a particularly stable source of power. Continuous UPSs, although they can cost twice as much as a standby BPS, provide extremely stable power and are frequently used in server rooms and other critical network applications.

A BPS does not operate until it detects a problem. If the power goes out or sags, it switches your equipment to battery power very quickly. Even though this switchover is nearly instantaneous, there is a small lag, which may affect your equipment. BPS systems cost less than UPSs and are commonly used in home or small business networks and for desktop computers.

Note that neither UPSs nor BPSs are standalone power generators designed to deliver a continuous supply of electricity. They're backup systems built to provide specific levels of emergency power for a limited amount of time, called the run time. You can extend the run time by adding battery packs, but the duration of any backup device's run time depends on the power load drawn by all the attached devices.

Most UPS or BPS systems today also provide sophisticated protection from surges and other overvoltages, and filter out line noise.

Many log power problems, enabling you to keep a close eye on power conditions within your network. A properly installed UPS or BPS can be all the power protection a small network needs.

There are systems available to support almost any equipment for time intervals of anywhere from five minutes to two days. You should plan on at least enough run time to allow you to save any open files and safely shut down the system.

A quick way of estimating how much backup power you'll need is:

1. List all the equipment you have that needs protection. Remember to include monitors, terminals, hard drives, external modems, and any other equipment in the critical path of potential power or surge sources.
2. Add up the total amperage ratings of your equipment. This information is often imprinted on the back of each device.
3. Multiply this total amperage figure by the operating voltage (typically 120 VAC in the U.S.) to obtain your total volt/amp (VA) requirement with a safety margin.
4. Select a UPS or BPS with a VA capacity at least as high as the amount in Step 3. To accommodate future expansion, it's wise to order a device with an even larger VA rating.

Source : <https://bboxblog.wordpress.com/2013/07/18/fighting-the-summer-storms-choosing-a-ups-or-bps/>