Server backup battery

Server backup battery

,?,,?,UPS480V,208V?400V? ...

Rack mounted servers have been around for years, and will probably be with us indefinitely. They"re simply the most convenient way to organize large quantities of processing power. You can swap individual machines in and out with ease, and power and cable management are simplified. That said, a well set-up server rack contains more than just servers and switches. It should also include an uninterruptable power supply (UPS). After all, you"ve invested a lot of money in your equipment. You don"t want to lose a server just because of a power outage, especially not when it"s easily preventable.

An uninterruptable power supply consists of two essential components: a power strip and a backup battery. The power strip supplies normal AC power to your devices, while the battery steps in as needed. In the event of a blackout, this will buy you enough time to properly shut down your servers. Of course, a good UPS should include more than the basics. For example, almost every UPS on the market provides surge protection, another essential feature for server power. Power conditioning, voltage regulation, and remote monitoring are also important. With the right UPS, you"ll have an all-in-one solution for powering your rack-mounted equipment.

We"re about to review three of the best 1U and 2U rackmount UPS battery back-ups. We"ll begin with the Tripp Lite Smart UPS Battery Back Up. This is a highly-efficient 2U UPS with an impressive three-year warranty and insurance policy. Next, we"ll look at the APC Smart UPS. This is a long-running 2U UPS that comes with advanced online controls. Finally, we"ll review the CyberPower Smart App LCD UPS System. This 1U UPS provides the same wattage as our previous two options, but in a slimmer package. Which backup system is the best? We"re about to find out.

In the early days, finding the right equipment for your server rack could be a rocky process. There were no universal standards! Thankfully, this has not been the case for some time. Modern server racks come in two widths: 19 and 23 inches. In addition, they come in two different heights: 1.75 inches and 3.5 inches. The 1.75-inch size is considered one "unit" tall, or "1U," while the thicker size is designated as "2U." As a result, there are four sizes of rack-mounted equipment: 19-inch 1U, 19-inch 2U, 23-inch 1U, and 23-inch 2U. And because of the way their built, you can install any 19-inch device on any 19-inch rack. The same is true for 23-inch devices. So basically, as long as you have the right width for your rack, any given machine will fit.

That said, it took longer for manufacturers to agree on a standardized hole type. Early server racks used pre-threaded holes, but manufacturers couldn"t agree on threading. Depending on what you bought, you were using either M6, 10-32, or 12-24 screws. This isn"t a big deal, but it does mean you have to keep a stash of your own screws for mounting. Threaded holes have long gone out of style on server racks. If you have them, you probably already know about it. Still, it"s something you should be aware of.

In the late 90s, IBM started using round, unthreaded holes again. The idea was simple: you could use cage or clip nuts along with any kind of screw. In other words, installation was easier and faster. HP, Dell, and others soon started doing the same, and Dell built an entire new rail system, the Versa Rail.

Eventually, though, the industry settled on square cage nuts as the best option, necessitating square holes. The reasoning is that once inserted, a square cage nut doesn"t have to be manually held in place. You can use one hand to support whatever you"re mounting, and the other to turn your screw. Nuts can use a variety of threadings, but will always have an outside measurement of 3/8 x 3/8 inches. Square holes also allow a standard size for snap-in rails, although these vary by manufacturer.

Today, we"ll be looking strictly at newer UPS battery back-ups designed for square holes. This means that if you have an older rack, you"ll need to provide your own mounting hardware. All of today"s options are 19 inches in width, as well. We chose this size as it"s the most common, and 23-inch equipment is usually more specialized. Simply put, more people are using 19-inch racks. With that out of the way, let"s take a closer look at each of these UPS systems!

Tripp Lite is a well-known manufacturer of power equipment. Among their other offerings, we"ve reviewed their rackmount surge protectors in the past. The Tripp Lite Smart UPS Battery Backup is even more full-featured, providing not just surge protection but emergency power. This is a fat, 2U battery backup with eight grounded electrical outlets on the backside. The housing is a durable polymer, and comes as a standalone unit by default. However, you can also order it with a shelf, with a secondary power strip, or as a floor-standing UPS.

The front of the housing sports a blue LCD display that keeps you posted on the current power status. The current voltage is shown in big, bold numbers, so you know whether you"re getting sufficient juice. Underneath, you"ll see a battery meter. This is a simple visual meter, nothing fancy. But in the event of an outage, it gives you a reasonably good idea of how much power is remaining.

This UPS has an impressive efficiency rating of 98 percent. It also manages your power to ensure consistent voltage. During brownouts, the battery will compensate for any drop in power. During any power spike, the extra energy will be diverted either to the battery or to the ground. This automatic voltage regulation (AVR) is ideal for sensitive electronics, which can be damaged by small fluctuations. Not only that, but all eight outlets have built-in surge protection.

Server backup battery