



How to get the most out of your UPS system

Environment

Your UPS is happiest installed in a well-ventilated, air-cooled environment. Excess heat causes premature degradation for your batteries and capacitors whilst proper ventilation helps mitigate dust build up and helps the UPS fans to function properly.

Batteries

Your batteries are stored energy. They will typically have either a 5 or 10 year design life (3-5 and 7-10 years respectively). The actual battery life is not an exact science and there are many variables that contribute towards this, it is important therefore for the batteries to be checked periodically to ensure they provide the required backup when needed. A battery check can be set to run once a month to ensure the batteries are healthy. Should there be an issue with a single battery (or string of batteries) your UPS will alert you to this and corrective measures can be taken.

The batteries are the most expensive consumable item in your UPS system and unfortunately, the most likely to fail. If this happens it can cause downtime and potentially, loss of revenue.

So why do they fail?

The primary factors for battery failure is heat and age. They like to be kept at around 22 – 25°C (72 – 77°F). The life of the battery will be greatly reduced in areas of excessive heat so it is paramount that your UPS is kept in a well ventilated, temperature controlled environment.

Capacitors

The capacitors in your UPS system are components that adjust fluctuations in electrical voltage. Smaller capacitors smooth out the power supplied to the UPS processor while larger ones regulate the power flow to your critical load (protected equipment).

Much like batteries, capacitors are a consumable item that require replacing over time and are subject to the same environmental conditions. Capacitors may bulge or leak towards the end of their life cycle and whilst this is easy to identify, not all failed capacitors exhibit a visual identifier.

Should a capacitor fail, the other capacitors have to then take up the workload which in turn shortens their natural life.

A pro-active replacement service for both batteries and capacitors should be considered towards the end of their anticipated life span as best practice, waiting until these vital consumables fail can cause severe disruption and commercial detriment to the UPS equipment and ultimately, your organisation.