



Eaton 9355 UPS Keeps Airwaves Open

Product:

Eaton® 9355 UPS

Location:

Multiple locations in Arkansas

Market Served:

Broadcasting/Television

"We found the 9355 to be the most efficient and reliable UPS out there ... and it's held up to be true."

- Ron Brown, director of engineering

Background

As the only Christian Television Network headquartered in Arkansas, Victory Television Network (VTN) reaches audiences in more than half of the state, as well as within the boot heel of Missouri and into the Memphis area. With coverage on more than 200 cable systems, VTN operates KVTN Channel 25 in Little Rock – its first station to go on the air – as well as KVTH Channel 26 in Hot Springs, Ark., and KVTJ Channel 48 in Jonesboro, Ark.

Like other broadcasting stations across the county, the non-profit organization will be making the transition to digital television (DTV) by Feb.17, 2009.

Challenge

Keeping the air waves open for programming requires the continuous availability of clean power, which at times proved challenging for VTN. "We have our fair share of power glitches, especially during thunderstorms," acknowledges Ron Brown, director of engineering.

Exacerbating the problem was the station's refurbished uninterruptible power system (UPS), which was not adequately protecting its critical systems. "We were very unhappy with the results," Brown says of the UPS. "It just kept failing."

With one main hub feeding to all three of its stations, even the slightest amount of downtime was disastrous for the television network. So two years ago, the station began to research other power protection options. VTN sought a solution capable of providing the highest level of reliability and uptime for its on-air network equipment and traffic control devices. Another prerequisite was a UPS that would be compatible with the station's existing generator, which is needed to deliver power during prolonged outages.

Solution

After investigating various options, one UPS emerged in the spotlight: the Eaton 9355. "We found the 9355 to be the most efficient and reliable UPS out there ... and it's held up to be true," Brown reveals.

Having purchased a 20 kVA model, the station is now able to ensure reliability with the 9355's double-conversion design, which completely isolates equipment from utility power and protects against all nine of the most common power problems, including outages, sags, surges, spikes, brownouts, line noise, frequency variation, switching transients and harmonic distortion.

With a sleek tower configuration that includes the internal batteries, the 9355 packs significant power into half the footprint of previous generation systems. In fact, the 15 kVA units measure just 12 inches wide and 33 inches deep, while the larger 20 to 30 kVA models are only 20 inches wide and 34 inches deep. As a result, the unit does not occupy a significant amount of space within VTN's equipment room.



Powering Business Worldwide

Furthermore, the generator-friendly design of the unit made it an ideal choice for the station. With total input harmonic distortion (THD) remaining below five percent without compromising overall efficiency, the 9355 provides a maximum transfer of power between source and protected load, enabling exceptional compatibility with generators.

Another key benefit is the 9355's innovative design, which provides one of the industry's best combinations of high efficiency, low input current distortion and high power factor. These features lead to maximum economy, adaptability and power performance – all of which give VTN the reliability and performance it was seeking in a solution.

Additionally, the 9355's high 0.9 output power factor delivers more power than the vast majority of competitors' models. The unit's high efficiency rating of up to 92 percent across all load ranges reduces utility costs and helps the UPS run cooler, which in turn extends component life. The internal batteries of the 9355 also afford a substantial amount of runtime, which is made possible in part by sophisticated technologies that maximize the health and service life of the batteries. Eaton's exclusive ABM® technology relies on an innovative three-stage charging technique that features prolonged rest periods between charge phases, as well as temperature-compensated charging, both of which prolong life to make battery replacements less frequent. Even more, with the ability to purchase additional matching extended battery modules for the 9355, VTN is able to bolster its runtime, if desired—from a matter of minutes up to several hours.

Implementation

With its small footprint and flexible deployment options, the 9355 was quickly and easily installed within VTN's equipment room. In addition to offering a high power density per square foot, the UPS supports more location options, facilitates fast and easy installation, lowers deployment costs, and preserves more space for future expansion.

In addition, ongoing maintenance is eased for VTN with the 9355's, hot-swappable batteries, which can be changed without disrupting business operations or powering down the protected equipment.

Result

Since deploying the 9355 at VTN, it's been nothing but "lights, camera, availability" for the station. "Without the UPS, we'd lose everything," Brown points out, adding that the system has been tested numerous times by power glitches but has always performed as expected.

So much so that VTN just purchased a second 30 kVA 9355 to protect its new digital station, slated to go on the air in February. "We wouldn't have bought the second one if we weren't extremely happy with the first, I can tell you that!" Brown enthuses.

With the 9355 UPSs safeguarding its critical equipment, VTN is now able to:

- Ensure the ability to remain on air even when the power fails
- Provide high availability and protection to its broadcasting equipment
- Easily perform maintenance as needed, without powering down the connected load
- Preserve valuable space for other equipment needs



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