MITSUBISHI ELECTRIC
CRITICAL POWER SOLUTIONS

CASE STUDY

BUILDING BLOX FOR THE FUTURE

DC BLOX | Greenville, South Carolina

Designing a World-Class Data Center

CHALLENGE

DC BLOX set an ambitious goal to build one of the most technologically advanced regional edge data centers and the first lithium ion battery installation in their Authority Having Jurisdiction (AHJ).

SOLUTION

A thorough evaluation of potential suppliers led to partnering with Mitsubishi Electric and purchasing five 500kVA SUMMIT Series® UPS, two lithium ion battery cabinets, and a three-year service contract.

RESULTS

DC BLOX built one of the most technologically advanced regional edge data centers and became the first lithium ion installation in Greenville, SC - all while enjoying a reduced total cost of ownership (TCO) by upgrading their VRLA batteries to lithium ion.

OVERVIEW. Strategically located in underserved markets in the Southeastern US, DC BLOX set a goal to build one of the most technologically advanced regional edge data centers, prioritizing efficiency, security, and reliability.

CHALLENGE. One of the goals of this new facility centered around advancing their Uninterruptible Power Supply (UPS) design to industry-leading levels. The current design became very costly to operate, especially with the high maintenance cost associated with VRLA batteries. While efficiency remained a top consideration, price, quality, and lead time also played a significant role. Even though DC BLOX had a long-term partnership with a competitor, they were open to new suppliers that could excel in these categories.

Achieving their goal included a more technically sophisticated UPS system, as well as an upgrade from VRLA to lithium ion batteries. The DC BLOX location in Greenville, SC would be the first lithium ion installation in its Authority Having Jurisdiction (AHJ), bringing with it a whole slew of codes and protection features. An ambitious task was at hand with a litany of considerations - and the looming pressure of setting the precedent for future builds.

SOLUTION. To back up their world class data center, DC BLOX placed Mitsubishi Electric at the top of their list for excelling in the categories of efficiency, lead time, cost, technology, and support. Jeff Williams, *Vice President, Operations,* said he "spoke to references and heard nothing but good things."

After working closely with The Mission Critical Management Group (MCM Group) and members of the Mitsubishi Electric team, DC BLOX selected the SUMMIT Series® UPS for its high efficiency, unrivaled reliability, advanced Silicon Carbide (SiC) technology, small footprint, and low heat rejection. In fact, the SUMMIT Series® UPS beat the competition's efficiency rating by +4%.

Although the newness of the lithium ion installation brought on some hesitation, DC BLOX embraced the challenge, working closely with Mitsubishi Electric and Samsung to not only integrate a safe and efficient VRLA alternative, but to go above and beyond the minimum AHJ fire protection requirements. DC BLOX incorporated exhaust fans, as well as advanced sensors for off-gas detection to improve the safety of the design. They further increased reliability with the purchase of a three-year service contract.

RESULTS. The five 500kVA SUMMIT Series® UPS and two lithium ion battery cabinets were successfully installed and started up in October of 2021. To date, the systems have run flawlessly, safeguarding DC BLOX and their customers from the increasingly expensive cost of downtime. DC BLOX is also happy about the 10-15-year lifespan of their lithium ion batteries as opposed to the five years with VRLA.

With five locations up and running, two more DC BLOX data centers are currently under construction: a new build in Myrtle Beach, SC and an expansion project in Birmingham, AL. DC BLOX intends to deploy Mitsubishi Electric's 9900D UPS systems.

"Mitsubishi Electric offers an exceptional balance of technical sophistication and value for what you get."
- John Dumler, *Vice President, Data Center Design & Engineering*

As stated by Bill Thomson, *Vice President, Marketing & Product Management*, becoming one of the most technologically advanced regional edge data centers requires partnering with "world-class companies like Mitsubishi."

ABOUT DC BLOX

DC BLOX owns and operates interconnected multi-tenant data centers and dark fiber solutions that deliver the infrastructure and connectivity essential to power today's digital business. DC BLOX's private network fabric and robust connectivity ecosystem enable access to built-in carriers, Internet exchanges, public cloud providers, and DC BLOX data centers to business across the Southeast United States. As of 2022, DC BLOX has five active locations, two under construction, and 13 planned for the future.

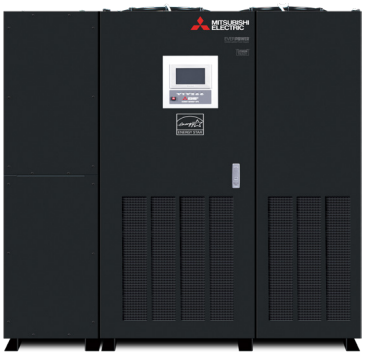
Serving locally, Connecting globally.

Learn more about DC BLOX at www.dcblox.com.

ABOUT THE PRODUCT/ SUMMIT SERIES® UPS

Mitsubishi Electric's SUMMIT Series® UPS (500 & 750kVA) replaces the Silicon (Si) IGBT with advanced capability Silicon Carbide (SiC) semiconductors. Mitsubishi Electric began development of SiC semiconductors during the early 1990s and now offers this proven technology in the SUMMIT Series® UPS.

Efficiency up to 98% is achieved across all load levels with SiC's lower switching losses, high switching frequencies, and improved thermal conductivity range. The SUMMIT Series® UPS achieves the highest efficiency on the ENERGY STAR website when tested in VFI mode. This model also achieves an industry-leading equipment reliability figure of 99.9995%.



ABOUT US

Since 1964, Mitsubishi Electric has manufactured precision engineered, high-quality uninterruptible power supplies to protect its customers' mission critical equipment during times of power instability.

Mitsubishi Electric leads the industry in designing and manufacturing reliable, environmentally-friendly UPS systems to extend uptime, prevent data loss, and protect against power surges. The Critical Power Solutions Division (CPSD) offers systems in both single and multi-module configurations in a broad range of kVA capacities.

MITSUBISHI ELECTRIC
CRITICAL POWER SOLUTIONS

MitsubishiCritical.com
CPSsales@meppi.com
800-887-7830
724-772-2555

SA-ENL0093 (11/22)