

Powering Innovation: Panduit and Miller Electric Collaborate and Deliver Advanced Power Solutions

Panduit and Miller Electric Company showcased decades of experience and innovation, successfully joining forces to deliver a cutting-edge power distribution solution for one of their clients. Miller Electric Company, a leading electrical and technology solutions contractor, chose the innovative, UL-Certified, Panduit developed Fault Managed Power System (FMPS) to overcome complex power distribution challenges. Panduit and Miller Electric are long-time partners, and the positive outcome of this project highlights the strength of our ongoing partnership and the superior customer support that strengthens the relationship and fosters collaboration.

Miller Electric was tasked with the installation of new cameras, distributed UPSs, PoE switches, and media converters across several buildings. Under normal circumstances, a project like this would not challenge the capabilities of Miller Electric. However, in this case the power source nearest these new devices was over 1000 feet away. The cost and complexity of installing new panels, conduit pathways, and managing power shutdowns made this deployment significantly more demanding. By using FMPS to distribute power across each 85,000 sq. ft. building, Miller Electric was able to complete this project with minimal shutdowns. Even more impressively, the project timeline was reduced from two weeks to two days.

The Panduit Strategy and Solution

Miller Electric, known for its expertise in technology solutions, recognized the need for an innovative approach.

The Panduit Fault Managed Power System emerged as the ideal solution. Tantamount to the plethora of key features and benefits it offers long-distance power distribution capabilities, enhanced

At a Glance

Company

Miller Electric Company



MILLER ELECTRIC COMPANY

Location

Jacksonville, FL, USA

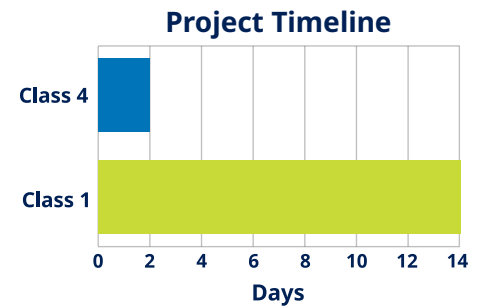
Industry

Government

Panduit Solution

[Fault Managed Power System](#)
[Uninterruptible Power Supply](#)
[TrueEdge Wall Mount Enclosure](#)
[Category 6A Class 4 Copper Cable](#)
[Category 6A Copper Jacks and Patch Cords](#)

safety features, simplified installation, and it is the only fault management system on the market, certified to UL 1400-1 standard, to deliver reliable Class 4 Power. Panduit Class 4 Transmitter Chassis were connected to a centralized UPS to provide power to distributed PoE switches, eliminating the need for a distributed UPSs that are difficult to manage and maintain. The distance to each remote location ranged from 100 feet to 1000 feet from the centralized transmitters. For an efficient and future proofed power network, 3-pair 16 AWG Panduit Class 4 cables were used to connect the Class 4 Transmitters to the Panduit Class 4 Chassis in various remote locations.



Chris Cuyler, Senior Project Manager at Miller Electric, explains,

“When we started looking, the Panduit Fault Managed Power System came up. Panduit and Miller Electric have maintained a partnership for many years. It made perfect sense that we partnered with them for this project too. The most compelling factor that drove this decision was that it is UL-certified. That was huge because that gives me the confidence to install a system which I know is vetted, tested, and approved to GP meet that standard.”

Along with the UL-Certification, our trusted commitment to customer support stood out throughout the project and our robust network offerings made a complete power distribution solution including Panduit UPSs and PDUs, copper and fiber patch cables and connectivity, racks and cable management, and a host of electrical and grounding accessories.

The Implementation

The FMPS proved to be the distinct impact driver for this project, integrating seamlessly with the Avigilon camera system allowing the deployment to move forward on time and under budget.

Chris Cuyler explains the synergy between the two systems, “We used Avigilon for servers and cameras, and everything else was Panduit. We used Panduit cabling, Panduit fiber and copper connectivity, Panduit racks, etc. This was a Panduit solution!”

The integration of FMPS with Avigilon cameras addressed the challenge of powering high-resolution, cameras, which required significant power, over long distances. Cuyler notes, “The ask from the client was for cameras on a flight line at an airfield. They wanted to know how to get cameras onto a one thousand-foot building, knowing that their Ethernet standard was 100 meters. That is about the extent a circuit can reach, which could not support high-powered cameras, some of which need 50+ watts.”

With the FMPS, Miller Electric was enabled to extend power to high-resolution Avigilon cameras across vast distances. FMPS enabled the installation team to run the copper and fiber cable at the same time, which significantly reduced installation time and complexity with minimal shutdowns which prevented disruptions to operations. Enhanced safety and reliability scalability for future expansions of the camera system made Panduit FMPS an easy choice.



“Anybody can sell a product, but it’s how you back it up and support your client that really makes the difference. Panduit did, and they were excellent!” Also sharing, “By far this was the easiest electrical install we have done so far. What would have taken several days to weeks, requiring prescheduled shutdowns, thousands of feet of conduit, new breakers, junction boxes, etc., was done with 1 single shutdown for 2 hours, and completed in just under two days.”

Chris Cuyler, Sr. Project Manager – Integrated Solutions, Miller Electric Company

This approach demonstrates how the Panduit FMPS complements and enables advanced security systems like Avigilon, providing a comprehensive solution for complex environments.

The Outcome

The collaboration between Panduit and Miller Electric exemplifies how innovative technology, coupled with strong partnerships and customer support, can overcome complex challenges in large-scale projects.

This project not only recognized the established partnership between Panduit and Miller Electric, but also set a new standard for power distribution solutions in challenging environments, paving the way for future collaborations and innovations.

Miller Electric Company gained 22% savings on this project by using our Class 4 FMPS instead of traditional Class 1 A/C circuit.

Savings Breakdown compared to traditional installations:

▶ **>50% Material Cost Savings**

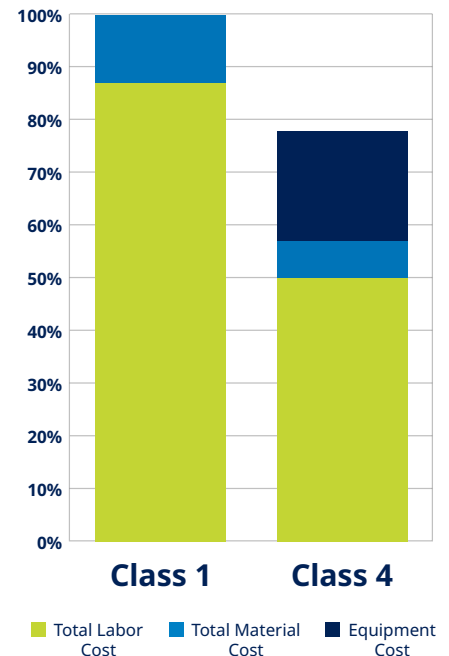
- Class 4 Circuits do not require conduit, contrary to the needs of Class 1 Circuits; therefore material cost savings were achieved as conduit, junction boxes, and gang boxes were not purchased.

▶ **>42% Labor Cost Reduction**

- Since Class 4 circuits do not require the installation of conduit, Miller Electric Company was able to run the Panduit Class 4 cable together with the fiber at no additional cost. A traditional Class 1 circuit requires installers to pull 3 wires through conduit, separate from the fiber.

In addition to the initial capital savings, Miller Electric Company estimated 78% savings in yearly operational costs due to the limited number of UPSs to maintain. In a Class 1 circuit, this installation would need 20 distributed UPSs, whereas the Panduit Class 4 offering required only three centralized UPSs – one per building. Likewise, FMPS offers faster power troubleshooting using the remote monitoring and control capabilities of the Panduit FMPS.

Additionally, the Panduit FMPS further enhances operational efficiency as it offers faster remote troubleshooting, remote monitoring, and remote control capabilities that are not made available with



a Class 1 circuit. Miller Electric estimates a troubleshooting event can be addressed within 30 minutes using the Panduit FMPS capabilities, versus four hours for a regular Class 1 circuit as it would require physical labor on site to troubleshoot.



The Customer

Founded in 1928, Miller Electric has evolved from a local electrical contractor into one of the largest firms in the industry. From its headquarters in Jacksonville, Florida, Miller proudly serves clients across the United States. With 19 branch offices and over 3,800 dedicated employees, Miller specializes in energy and technology infrastructure solutions tailored for various markets, including healthcare, industrial/manufacturing, commercial, and federal sectors.

Expanding its offerings beyond traditional electrical contracting to encompass systems integration, connected communities, building automation, business continuity, and energy sustainability services, Miller Electric remains focused on delivering innovative solutions that shape the energy and technology infrastructure landscape.



Read this case study on panduit.com



Learn more about the Panduit Fault Managed Power System at panduit.com/fmps

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