



Aviv Clinics

THE VILLAGES, FLORIDA



SUMMARY

Unique Power Application

- Support for AC and DC requirements
- 277/480V feeders
- Rack-based power distribution

Space-Saving Distribution

- Used six pole positions in panel instead of sixteen
- One Z-PDS unit in 2u of rack space

Powerful Cost Savings

- High utilization with 16 of 18 hot/neutral pairs used
- Shorter feeders, higher voltages, more energy efficient
- No cost for panels, breakers, or long cable runs

ABOUT THE COMPANY

Aviv Clinics is located in The Villages, Florida, and delivers a highly effective personalized protocol to enhance performance in the aging brain and body via The Aviv Medical Program. Their aim is to improve the aging process by increasing cognitive and physical performance in healthy aging adults.

ABOUT THE PROJECT

The project for Aviv Clinics consisted of bringing both AC and DC power to a piece of specialty medical equipment which, in this case, was a hyperbaric chamber. The chamber needed an AC feed to power the unit and its microprocessor controls; it also needed DC power to supply rectifier battery shelves that provided emergency battery backup. Working through its representative at Data Center Systems, Inc. (DCSI), Zonit supplied a Z-PDS power distribution unit that fit the bill.

PROJECT CHALLENGE

As is often the case, powering the unit was a bit of an afterthought. The end user requested all power distribution to the DC power systems be done in a rack. This presented a challenge since there were four total DC rectifier plants that each required four 20A single phase inputs. Further, the customer needed to feed the unit with 277/480V power and had limited feeders provisioned.

A typical install would simply require 120V circuits that are pulled into two post racks via conduits from a distribution panel. An application like this would have had sixteen 120V or 227V L-N pairs brought in from an external panel, which would have required use of sixteen poles on an AC electrical panel.

To complicate matters, the racks were located in a small power corridor between multiple hyperbaric-chamber units, and space was tight. All of the power distribution and cabling had to be contained within the footprint of the racks that were provided, which meant that most standard, panel-based distribution options were off the table.

PROJECT SOLUTION

DCSI of Minneapolis, Zonit's design-build reseller, reached out to Zonit to discuss the project because they thought it might be a fit for the Z-PDS. They knew the Z-PDS was capable of providing a large number of power feeds in a small footprint

CASE STUDY



ABOUT THE PRODUCT

Designed for data center, telecom, and MDF/IDF applications. The Z-PDS outputs a wide variety of single, split-single, or three-phase power. A single Z-PDS can feed up to twelve racks, depending on your power density needs. The system is compatible with all standard power distribution methods including whips, busways and RPP's. And the Z-PDS is revolutionary because it can also replace all of these standard power distribution methodologies. Z-PDS is available in 20, 30 and 60A three-phase units.

“The team at Zonit helped us find a way to save space on an already tight project — not only floor space, but breaker space as well.”

PROJECT SOLUTION (Continued)

within a rack-mount form factor, but needed to confirm that it could be used in this application.

Post consult, DCSI's recommendation to their customer was a three-phase Z-PDS unit configured with two 277/480V 60A inputs. Utilizing the Z-PDS unit's six standard L22-20 output receptacles, DCSI was able to supply custom-made L22-20P cables with open-wire pigtail connections to feed individual rectifier-unit inputs. This meant that a total of sixteen out of eighteen available hot/neutral feeders were utilized, which was made possible because the Z-PDS's six L22-20 receptacles provided three hots to pull 277V feeds.

CUSTOMER EXPERIENCE

Aviv Clinics' hyperbaric-chamber project was completed without a hitch. The Zonit Z-PDS was able to deliver all required power distribution within the footprint of a rack. And not only did it provide distribution in a small form-factor unit, it was able to provide it at 277/480V three phase. This allowed the project to be completed within the existing design constraints, and avoided project delays and additional expense that would have resulted from redesigning upstream distribution.

In addition to saving floor space, the Z-PDS unit saved on breaker space as well. By feeding over only two larger three phase 60A circuits, DCSI utilized only six poles of electrical-distribution space. This reduced the total number of positions by two-thirds, a significant gain in breaker space. Additionally, the wired connections to each rectifier input were much shorter runs, which translated into cost savings from a materials standpoint, and greater efficiency from an electrical standpoint.

CONCLUSION

Bringing together Zonit's design-build reseller, DCSI, to consult directly with the manufacturer determined the most efficient solution for Aviv Clinics. The dynamics of the resulting setup gave the clinic what they needed in their space, and capitalized on their existing design. The outcome was a cost-effective and reliable power distribution solution customized to their needs, and another example of the way in which the Zonit Z-PDS can be implemented in any number of use cases.