

Reliable Power, Reliable Data Storage:

The LCM3000 AC-DC

Empowers Data-Storage Quality Assurance

INDUSTRY**Data Storage****SOLUTION****LCM3000****APPLICATION****Automated QA Tester****CHALLENGE**

In the world of data storage, reliability and efficiency are paramount. When a leader in the industry strove to upgrade their automated quality assurance (QA) processes, they sought a power solution that could match their high standards and rigorous requirements.

The customer's end system was designed around two 5-bay, 8U enclosures, to be housed in a standard 19" server rack alongside an AC distribution box. Each enclosure demanded a specific power configuration. The solution had to power the equipment and meet stringent technical requirements:

- Accept AC input of 415 V $\pm 10\%$, 125 A, 50 Hz, 3-phase, 4-wire
- Offer Semi-F47 capability for enhanced voltage sag immunity
- Provide flexible DC outputs of both 24 V and 48 V
- Deliver a total of 15 kW output at 3 kW increments per PSU, with 15 kW allocated for 24 V and 9 kW for 48 V
- Operate at efficiency greater than 92% under 50 to 80% workload
- Include a power management board (PMB) for real-time health monitoring and PSU control

SOLUTION

Advanced Energy answered the call with the LCM3000 series—a cost-effective, single-output AC-DC power solution engineered for both medical and industrial applications, with comprehensive safety approvals. The LCM3000 series delivered robust performance, high efficiency, and the flexibility required to handle both 24 V and 48 V outputs under demanding workloads.

Collaboration was key to success. The Advanced Energy team partnered with the key QA engineer, which enabled AE to tailor the solution and address every technical nuance of the project.



RESULT

Through expert local support, Advanced Energy met the customer's power demands and became their go-to partner. AE provided a solution for a complex power architecture that met/exceeded the customer's expectations for efficiency and reliability. AE's solution freed up the customer's time to focus on upgrading the remaining elements of their QA system.

CONCLUSION

AE's partnership with the client combined technical expertise, attentive collaboration, and innovative problem solving. With the LCM3000 at the system's core, the customer achieved a robust, future-proof QA infrastructure—ensuring that the data driving tomorrow's world is stored and protected with the utmost confidence.



For international contact information,
visit advancedenergy.com.

powersales@aei.com
productsupport.ep@aei.com
+1 888 412 7832

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