

AC-DC PSU for a Nano Scope

INDUSTRY

Test and Measurement
- Industrial

SOLUTION

CoolX1000

APPLICATION

Nano Scope

CHALLENGE

A manufacturer of high-performance scientific instruments and analytical and diagnostic solutions approached Advanced Energy for a PSU for their next generation of the Nano Scope. They needed an AC-DC PSU with multiple outputs: 48V for the motor, 5V, 12V, 15V, and 24V to drive discrete components, and 12V and 24V for other discrete components of the Nano Scope. Total power was 650W with short peak power needs on the 48V during motor start up. One of their main requirements had been that the measurement accuracy is the most important factor considered in their products, so the PSU should not cause any disturbances.

SOLUTION

Considering multiple outputs, the customer chose AE's CoolX 1000, which can accommodate up to six modules. A wide range of modules is available, producing power from 150W up to 900W that fits in the CoolX chassis. To meet the customers output requirements, they selected one CMD module to produce a 48V output, one CmB module for 12V and one CMC module for 24V outputs. The customer also used two dual-output CMG modules to produce four low current outputs of: 5V, 12V, 15V, and 24V outputs. The final product that met their voltage and power requirements is the CX10S-DBC G0-P-A.



CONCLUSION / RESULT

The success to solve this challenge is not only based on excellent partnership but also due to these attributes:

- A fanless PSU that eliminates vibration problems for accurate measurements of the Nano Scope.
- A PSU that works on low line power with isolated outputs.
- A wide range of modules to choose from, simplifying product design to match exact requirements.
- Dual output modules that reduce the total number of modules and eliminated the need to opt for a higher-end PSU with more outputs.



For international contact information,
visit advancedenergy.com.

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

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