

Configurable PSU capable of constant current supply for laser drivers

INDUSTRY

Measurement and Instrumentation - Industrial

SOLUTION

CoolX1800

APPLICATION

Laser Drivers

CHALLENGE

The customer is a test and measurement instrumentation manufacturer and a long-time customer of Advanced Energy. Laser drivers are one of the products they manufacture, and their existing laser driver uses Ultimod UX6 (1200 W). However, the customer built their own regulation stage to meet their needs of constant current performance. For their next generation of laser driver with a multi-channel controller that required additional power, they approached Advanced Energy for a product that fits their specific requirements.

SOLUTION

Advanced Energy experts understood the customer challenge and proposed the CoolX1800 as the right solution, offering an output power of 1800W. Advanced Energy's wide range of modules, proposed by our experts, made it easy to power different parts of their laser driver. Using the CoolX CMB-W01, 12 V wide module to supply constant current for the drivers, CmC 24 V module to power the controllers, and CmG 5 V and 24 V modules to power ICs and the cooling elements, respectively. The ability to operate in Constant current mode allowed the customer to eliminate the additional regulation stage thereby saving system space.



CONCLUSION / RESULT

Due to the successful collaboration between AE engineers and the customer, the final solution of CX18S-BBBCH0-X-A-A has been successfully implemented, which solved their problem and provided them with advantages beyond their expectations. The customer specific design also including a single PSU with high power density rather than multiple PSUs, a compact size, and digital communication, which is an additional advantage over traditional configurable PSUs.



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