DC-DC Power Supplies Deliver Up To 6000 V At 30 W With High Performance

Dean Technology's UMR collection of standard dc-dc high-voltage power supply modules consists of three full series that are form-fit-function replacements for industry-standard solutions covering two package sizes, biasing or capacitor charging variations, and outputs up to 6,000 V at 30 W. These low-ripple, high-stability and high-efficiency power supplies meet or exceed alternative offerings at a price point that makes them the best value available, according to the vendor (see the figure).

The first three series in the UMR collection are the UMR-A, UMR-C, and UMR-AA. The UMR-A series power converters are biasing supplies with 12- or 24-V input and outputs from positive or negative 125 to 6,000 V at 4, 20, or 30 W. This series also has an optional output voltage monitor.

The UMR-C series converters are capacitor charging supplies with 24-V input, and outputs from positive or negative 125 to 6,000 V at 20 or 30 W. The series is designed with exceptional capacitor charging capabilities, says the vendor, with limited overshoot and outstanding rise time.

The UMR-AA series converters are biasing supplies with 12- or 24-V input, outputs from positive or negative 125 to 6,000 V at 4, 20, or 30 W. They offer standard voltage monitoring and a minimal footprint.

All three series come standard with current monitoring and output voltage control. All models and configurations have UL and CE certification. They are also available with a wide range of hardware options, including flying high voltage output lead, Mu-metal shielding, eared mounting plate, heatsinks, and RF tied enclosures.

DTI intends to expand the UMR collection to cover what is currently offered in the market and beyond. Many other series are in active development and release is anticipated in the next few months. Dean Technology welcomes the opportunity to customize all products to meet customers' specific needs. The design and manufacturing methodology used for all of the UMR collection further this principal and allow for easy customizations that do not require extravagant lead times or upfront costs, according to the vendor.

All models in the UMR-A, UMR-C, and UMR-AA series are readily available. More information about the entire collection is available on the company's website.

Figure. "The UMR collection shows just how far Dean Technology has come with our high voltage power supply offerings," said Scott Wilson, power supply product manager for Dean Technology. "By using the groundbreaking design tools and methods that have come out of our extensive power supply research and development group we've been able to produce a wide range of standard dc-dc products with remarkable performance at costs the competition can only dream of."