DC-DC power conversion rack developed for harsh environmental conditions

Powerstax will be displaying their growing range of standard and custom COTs power solutions for MIL and non-tactical applications at this year's DESi exhibition.

To be seen for the first time in Europe will be the TVR3001, a 3000W DC-DC power conversion rack that has been developed specifically for harsh environmental conditions. In a highly efficient configuration, each of the three individual modules within the rack contain two of Powerstax's versatile F501 full brick DC-DC converters, coupled with a two phase boost converter to provide a standalone power solution. The Powerstax TVR3001 is ideal for use in vehicle or remote applications and the system is designed to protect the internal electronics from the ingress of dust.

Other significant developments in vehicle based power systems for communications systems include the Powerstax TVS1001 ruggedised 1000 watt DC-DC power supply which has demonstrated ability to perform under the harshest of conditions with field proven use in military applications. It is one of the few units of its kind that offers step-up or step-down conversion at consistently high efficiency. The electronic circuits are sealed to withstand exposure to the harshest of environments and are cooled with a mechanically isolated field replaceable fan unit. The unit is highly efficient offering a choice of fan speeds dependent on the operating environment. The Powerstax TVS1001 has a wide range DC input voltage, from 11 to 36 volts, making it ideal for vehicle mounted Military and Non-Tactical, fixed and mobile communications and security systems. The unit can be configured over a range of standard output voltages or customised to meet special requirements.

Also on display will be the Powerstax N series of ultra-compact ac-dc, high efficiency open frame power supplies. The 1U high, compact package makes this power supply ideal for applications using industry standard 1U chassis. Output power is from 125 to 375W and all models offer a single main output plus a standby supply. The series includes I2C communication for added functionality and monitoring and N+1 redundancy operation.

Completing the Powerstax product line up for DESi 2011 will be a wide range of board mounted DC:DC converters offering single, dual and triple outputs from 5 to 500W, pre-regulator modules, switching regulators, hold-up modules and EMC filters.

The Powerstax design and engineering team will design, develop and supply value-added and custom power solutions to meet customer's needs. Tim Worley, CEO of Powerstax comments;"Our engineers possess a wealth of expertise and experience in the research, development and manufacture of both AC and DC power solutions. We aim to operate as an extension to our customer's own design team to produce the fastest, most elegant and cost effective power solution."

Typical applications for Powerstax MIL COTS power solutions include defence, homeland security, avionics, shipboard and ground systems and mobile/vehicle mounted wireless and radar systems, telecomm infrastructure and security systems.

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