Protec GmbH
Vertrieb elektronischer Bauteile

AVIONIC COMPONENTS NEWSLETTER MAY 2015

Features

- Wide input voltage range: 9 V to 60 V
- Single outputs of 3.3V, 5V, 12V and 15V
- High efficiency
- Rugged epoxy encapsulated package
- Fully compatible with aqueous cleaning processes
- -55 °C to +105 °C operation
- Integral EMI shield
- Dual-sided thermal conduction
- 2000 V isolation
- Fixed frequency
- Low noise
- Output current limit protection
- Short circuit protection

Compliance

- MIL-STD-1275 A-E - Including initial engagement surge starting & cranking surges
- MIL-STD-1275 A-D - Voltage spikes when used with a VXR series EMI filter / Transient Protection Module
- RTCA / DO-160-Section 16
- MIL-STD-704 A-F
- MIL-STD-461 C/D/E/F when used with appropriate VXR EMI filter
- RTCA / DO-160-section 18 and 21 when used with a VXR EMI filter

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VPT Adds VXR Series to Hi-Rel COTS Product Line

Wide Input Voltage Range and Advanced Packaging Technology for Superior Operation in Harsh Environments

VPT has today launched its new VXR Series of DC-DC Converters and EMI Filters. The VXR Series of DC-DC Converters and EMI Filters represent VPT's most advanced offering of its extensive line of high-reliability COTS DC-DC Converters and accessory products. Available in models ranging from 7 to 100 Watts with an industry leading wide continuous input voltage range from 9 to 60 VDC and transient operation from 6 to 80 VDC, the VXR Series is optimized for a broad range of applications from military ground vehicles to commercial and military aircraft, including the unique power needs of unmanned aerial and ground systems.

Fully encapsulated epoxy package for rugged duty. -55 °C to +105 °C

The VXR Series utilizes VPT's patent-pending advanced packaging technology. This proprietary encapsulation process incorporates EMI shielding and dual-sided thermal conduction. The integral epoxy encapsulated packaging is highly resistant to chemical, solvent and salt environments and is fully compatible with high-volume manufacturing processes including wave solder, cleaning solvents, high-pressure sprays and aqueous wash.

"The VXR Series of products is reliability and efficiency focused, utilizing a low-noise, fixed frequency wide input voltage range topology," said Jeremy Ferrell, VPT's Manager of Standard Product Engineering. "We achieved this high efficiency over a wide input voltage range with a proprietary precision-controlled synchronous rectification topology. The high efficiency design in-turn reduces the thermal management requirements. We also incorporated a proprietary control loop design that provides a fast transient response without the use of optoisolators." Ferrell added, "For customers with noise sensitive applications, we developed the VXR EMI Filter Series with current ratings from 2 to 20 Amps that were specifically designed to meet specific MIL-STD-461 and DO-160 conditions when used with our VXR Series DC-DC Converters."

Max. Output Power (W)	Model Series	Input Voltage (V)	Output Voltage (V)	EMI Filter
7	VXR7-2800S	9-60	Single 3.3, 5, 12, 15	VXRF2-28, VXRF5-28
15	VXR15-2800S	9-60	Single 3.3, 5, 12, 15	VXRF2-28, VXRF5-28
30	VXR30-2800S	9-60	Single 3.3, 5, 12, 15	VXRF5-28, VXRF10-28
100	VXR100-2800S	11-60	Single 3.3, 5, 12, 15	VXRF10-28, VXRF20-28