



Hi-Rel Rugged Power Solutions

Wide Input Voltage Range COTS DC-DC Converters for Harsh Environments

Compliance and Reliability Testing:

- ▶ MIL-STD-1275 A-E – Including starting disturbances
- ▶ MIL-STD-1275 A-E – 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-F when used with appropriate VXR EMI filter
- ▶ RTCA / DO-160-Section 18 and 21 when used with a VXR EMI filter
- ▶ Testing to JESD22, MIL-STD-810 and MIL-STD-883

Features:

- ▶ 7 to 100 Watts
- ▶ 9 to 60 Volt continuous input
- ▶ 6 to 80 Volt transient input
- ▶ -55 °C to +105 °C operation
- ▶ 2 to 20 Amp EMI filters
- ▶ Output current limit protection
- ▶ Short circuit protection

Advanced Packaging Technology:

- ▶ EMI shielding
- ▶ Dual-sided thermal conduction
- ▶ Chemical and solvent resistant

VPT[®]

Power Your Critical Mission Today

www.vptpower.com



The VXR Series of isolated DC-DC converters is the latest and most advanced offering in VPT's extensive line of high reliability COTS products.

Building on a proven design heritage, the VXR Series features a wide input voltage range, high efficiency and next-generation packaging. The VXR family is optimized for a broad range of applications from military ground vehicles to commercial and military aircraft that endure harsh environments including severe vibration, shock and temperature cycling.

The VXR Series utilizes a low noise, fixed frequency, wide input voltage range topology with extended high and low input transient capability to simplify overall power system design and compliance.

Precision controlled synchronous rectification achieves high efficiency over a wide input range, reducing power dissipation and minimizing external heatsink requirements. Additionally, a proprietary control loop design provides fast transient response without optoisolators.

VPT's patent-pending 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. A unique and integral metalized shield improves system EMI compatibility. Dual-sided cooling coupled with reduced power dissipation simplifies your system's thermal design.

[VXR ISOLATED DC-DC CONVERTERS]

Power Level (W)	Model Series	Output (VDC)
7	VXR7-2800S	Single 3.3, 5, 12, 15
15	VXR15-2800S	Single 3.3, 5, 12, 15
30	VXR30-2800S	Single 3.3, 5, 12, 15
100	VXR100-2800S	Single 3.3, 5, 12, 15

[VXR EMI FILTERS]

Output Current (A)	Model Series	Outputs
2	VXRF2-28	Single
5	VXRF5-28	Single
10	VXRF10-28	Single
20	VXRF20-28	Single

For complete data, see datasheets at www.vptpower.com

Proven MIL/COTS Heritage – A partial list of the global COTS programs supported by VPT:

- Advanced Hawkeye Warfighter
- Bradley Fighting Vehicle
- Eurocopter Tiger Helicopter
- F-35 Lightning II
- Global Hawk UAV
- Hummingbird UAV Helicopter
- Husky Mine Vehicle
- P-1 Maritime Patrol Aircraft
- Predator UAV
- Stryker Tank
- Type 10 Main Battle Tank
- Titan Armored Personnel Carrier
- US-2 Flying Boat
- Virginia Class Submarine
- Watchkeeper UAV

VPT powers aerospace, avionics, military and other critical programs globally. For a comprehensive programs list, please see www.vptpower.com.

VPT, Inc. Sales and Support Headquarters

19909 120th Avenue NE
Suite 102
Bothell, WA 98011
Telephone: (425) 353-3010
Fax: (425) 353-4030
Email: vp.sales@vptpower.com

VPT, Inc. Headquarters

1971 Kraft Drive
Blacksburg, VA 24060
Telephone: (540) 552-5000
Fax: (540) 552-5003
Email: vp.sales@vptpower.com

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