



POWERSTAX TVR3001 *Ruggedized DC-DC 3000W Power Rack*

Product Details

- ***Step-up and step-down DC-DC conversion***
- ***Up to 3000W of output power***
- ***Wide input range 11 - 36Vdc***
- ***12 - 48Vdc standard output voltages***
- ***High efficiency - typically 86%***
- ***The units are designed to protect the electronics from the ingress of dust***
- ***Reduced system heat dissipation***
- ***Comprehensive protection features***
- ***I²C temperature sensor***

The TVR3001 is 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 three individual modules plug into a 19", 2U rack which can be used in a 19" cabinet of various heights (typically 1620mm, 1798mm and 2020mm).

High system efficiency provides a low level of heat dissipation allowing the unit to be forced air cooled with the cooling air separated from the electronics.

The TVR3001 is ideal for use in vehicle or remote applications. The units are designed to protect the electronics from the ingress of dust.





POWERSTAX TVR3001

Ruggedized DC-DC 3000W Power Rack

Input characteristics

Supply voltage	11-36Vdc Suitable for MIL-STD-1275
Supply current up to	325Adc for low range recommended breaker rating >360Adc
Protection	Automatic input reverse polarity protection
Remote On/Off	Unit draws less than 15mA in the OFF condition (up to 28V input)

Output characteristics

Output voltage & current	12V (200A), 15V (200A), 24V (126A), 28V (102A), 48V (63A)
Setting tolerance	+/-2%
Overcurrent protection	Electronic limiting
Output power	3000W continuous
Efficiency	Typically 86%
Output ripple	Less than 2% p-p
Temperature monitor	Output from an I ² C temperature sensor (TC74A) is available

Safety

Compliance	CE marked for compliance with the LVD 73/23/EEC It complies with the requirements of EN60950
Setting tolerance	+/-2%
Earthing	Chassis to be grounded Input to ground 2200Vdc Input to output/ground 2200Vdc Output to ground 500Vac
Voltage proof	

Environmental

Cooling	Forced cooled via integral fans with operating temperature range of -25°C to +60°C
EMC	Designed to meet MIL-STD-461E tests CE102, RE101 & RE102
Bump & vibration	Designed to meet MIL-STD-810F Method 516.5 Procedure IV & Method 514.5 Procedure 1, Annex A, Category 20
Environment	Designed to meet MIL-STD-810F Method 506.4 Procedure 1 for rain & Method 510.4 Procedure II (blowing sand)

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