

# PowerVerter PV50s DC-DC voltage

## converter from *AlfaTRONIX*

In addition to the regular range of 24Vdc –12Vdc converters in the PowerVerter range, covering currents from 3-24 Amps continuous, a new model is now being introduced with a continuous rating of 50Amps called the PV50s.

This unit is ideal for powering large pieces of 12Vdc equipment or multiple loads from 24Vdc systems on vehicles, vessels and aircraft.

The units have the following key benefits:

- ? Quick and easy to connect
- ? Power rating to 50Amps continuous (60Amps intermittent)
- ? Cool running switch mode design with efficiency >90%
- ? Low quiescent current (<50mA)
- ? Can be coupled in parallel for larger loads
- ? Internal protection against over voltage, short circuits, overload and overheating.
- ? 3 year no quibble warranty



### Common characteristics

Input Voltage Range	24Vdc nominal (18-32V)
Output Voltage	13.6Vdc +/- 5%
Intermittent Output Power	Continuous rating +25%, taken for a maximum of 2 minutes followed by 8 minutes rest.
Transient Voltage Protection	Meets ISO7637-2 International Standard for 24Vdc Commercial Vehicles.
Electro Static Voltage Protection	Meets ISO10605, ISO14892, >8kV contact, 15kV discharge.
Output Noise	<50mV pk-pk at continuous load. Meets CISPR25 and VDE0879-3..
Off load current (quiescent current)	<50mA. is connected to the battery, but not powering any equipment.
Power Conversion Efficiency	>90%
Isolation	>400Vrms between input, output and case
Operating Temperature	-25°C to +70°C
Storage Temperature	-25°C to +85°C
Operating Humidity	20% to 90% non-condensing. (PCB is tropicalised)
Case Work	Anodized Aluminum, Dust, water and impact resistance IP533
Connections	M6 screw terminals at both input and output.
Operation Indicators	Yellow LED: indicates 24Vdc input Green LED: indicates 12V output Red LED: indicates a fault in the converter.
Mounting Method	Four mounting holes on main body of converter
Safe Area Protection:	
? Over Current	Limited by current sensing circuit
? Input Over voltage	Limited by voltage control circuit > 33V (auto reset)
? Input under voltage	Limited by voltage control circuit < 18V (auto reset)
? Output over voltage	Limited by voltage control circuit > 18V (auto reset)
? Over Heat	Limited by temperature sensing circuit > 90° (auto reset)
? Transients	Protected by filters and rugged component selection
? Catastrophic failure	Protected by input and output fuses
Approvals	89/336/EEC The General EMC Directive 95/54/EC The Automotive EMC Directive (pending) 93/68/EEC The CE Marking Directive
Tested to	ISO7637, ISO10605, ISO11451, ISO11452,- included OK. CISPR 25, VDE0879-3, - both included OK. EN60945 Annex A – the marine spec (under evaluation)
Markings	CE marked e marked (pending)



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EU-EN- PV50s –03/04