POWERVERTER
24VDC TO 12VDC VOLTAGE CONVERTERS

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These products offer a convenient way to operate mass produced 12Vdc equipment such as cell phones, in car entertainment, professional communications, telematics equipment, refrigerators, televisions etc. from the 24Vdc mobile electrical systems found on diesel engined vehicles and vessels.

A COMPREHENSIVE RANGE

There are 14 products in the range from 3A to 50A in isolated or common earth configurations. They have been optimised for high volume 24Vdc to 12Vdc applications such as on heavy goods vehicles, coaches, buses, forestry and agricultural vehicles, as well as commercial and leisure marine vehicles.

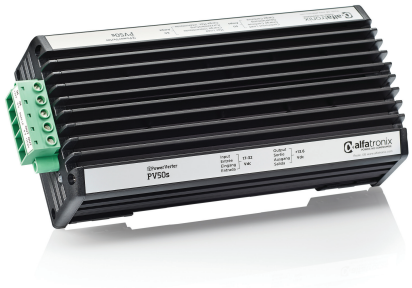
TAMPER PROOF

These units are IP53, so there are no ventilation holes to permit stray objects, dust or water droplets to enter the case, there are no external fuses to be tampered with. Fuses will only blow if there is a fault so there is no need to make them accessible.

PRODUCT VARIANTS

Many PowerVerters and DD Series products can be configured with alternative output voltages etc. for specialist applications. *Please call our sales team to discuss your requirements.*

Galvanically isolated units are suitable for marine applications and come complete with the green tamperproof label for petrochemical applications.



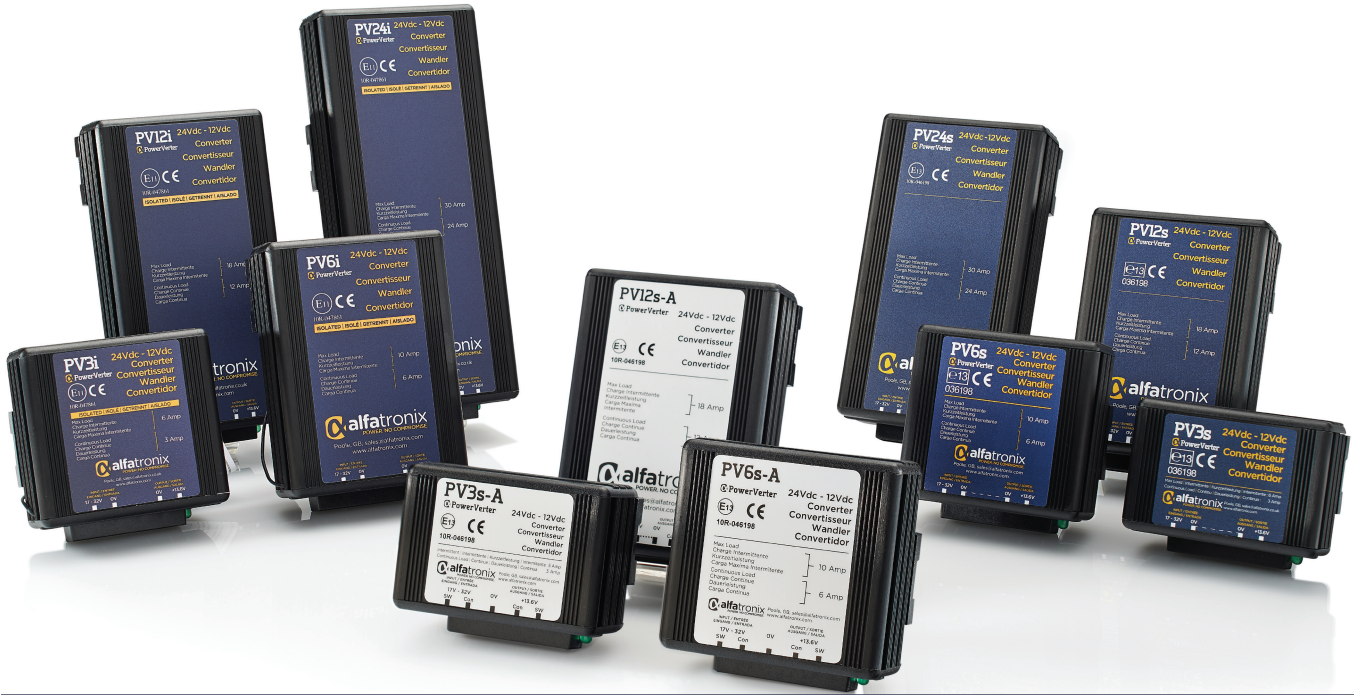
PV50s, 50Amp converter

FAST INSTALLATION

All the units consume an off load current of less than 15mA, which is probably less than the self discharge current of the vehicle's battery. In most cases this can be ignored, speeding the installation by removing the need to fit a remote switch.

All products fit onto a "Click 'n' Fit" mounting clip which is fixed in three points allowing it to be mounted on uneven surfaces. It is easy to fit the clip into awkward places and then simply click the unit into position.
A fixing kit for din rail installation is also available.

A green LED indicates when there is output from the converter. This gives reassurance to the installation engineer and speeds fault finding.



Many units in the PowerVerter range are also available as IP65 Versions. *Please add the suffix -RU to the part number when ordering.*

CHOOSE YOUR POWERVERTER PRODUCT

Part Number	Cont/Int Power	Nominal Voltage	Dimensions	Weight
PV3s	3A/6A non-isolated	24Vdc input, 12Vdc output	67 x 87 x 50mm	200g
PV6s	6A/10A non-isolated	24Vdc input, 12Vdc output	89 x 87 x 50mm	250g
PV12s	12A/18A non-isolated	24Vdc input, 12Vdc output	127 x 87 x 50mm	405g
PV18s	18A/22A non-isolated	24Vdc input, 12Vdc output	167 x 87 x 50mm	605g
PV24s	24A/30A non-isolated	24Vdc input, 12Vdc output	167 x 87 x 50mm	620g
*PV50s	50A/60A non-isolated	24Vdc input, 12Vdc output	283 x 125 x 74mm	1820g
PV3i	3A/6A isolated	24Vdc input, 12Vdc output	89 x 87 x 50mm	280g
PV6i	6A/10A isolated	24Vdc input, 12Vdc output	127 x 87 x 50mm	505g
PV12i	12A/18A isolated	24Vdc input, 12Vdc output	167 x 87 x 50mm	590g
PV18i	18A/22A isolated	24Vdc input, 12Vdc output	217 x 87 x 50mm	775g
PV24i	24A/30A isolated	24Vdc input, 12Vdc output	217 x 87 x 50mm	785g

Other input and output voltage configurations are available as special orders, please ask our sales team

For Railway Approved Versions , please see PowerVerter Railway Converters.

TECHNICAL DATA

Input voltage range	17-32Vdc
Output voltage	13.6Vdc +15% -20% at extremes of temperature, load, input tolerance, etc.
Intermittent output power	As stated, taken for a maximum of 2 minutes followed by 8 minutes rest
Transient voltage protection	Meets ISO7637-2 International standard for 24Vdc commercial vehicles
Electrostatic voltage protection	Meets ISO10605, ISO14982, >8kV contact, 15kV discharge
Output noise	<50mV pk-pk at continuous load. Meets CISPR25.
Off load current (quiescent current)	<15mA
Power conversion efficiency	Typically: 90% for non-isolated units, 85% for isolated units, *95%
Isolation	>400Vrms between input , output and case, on isolated products only
Operating temperature	-25°C to +30°C to meet this specification table +30°C to +80°C de-rate linearly to 0A
Storage temperature	-25°C to +100°C
Operating humidity	95% max., non-condensing
Casework	Anodised aluminium, glass filled polycarbonate, dust water and impact resistance to IP533
Connections	Four 6.3mm push-on flat blade connectors *(5 way Phoenix connector including enable on/off terminal and mating half)
Output indicator	Green LED adjacent to output terminals
Mounting method	Click 'n' fit mounting clip, fitted separately using three hole fixture, * 4 hole cradle
Safe area protection: Over current	Limited by current sensing circuit
Over heat	Limited by temperature sensing circuit
Transients	Protected by filters and rugged component selection
Catastrophic protection	Protected by internal input and output fuses
Approvals	2014/30/EU The general EMC directive Regulation 10 The automotive directive 93/68/EEC The CE marking directive
Designed to	EN50498, ISO 7637-2, ISO 11452-1, ISO 14982, EN12895, EN60945, FCC15B.
Markings	CE and E (automotive) marked