

Wallen Voltage Convertors

An innovative new concept in voltage conversion, with built-in protection for equipment and vehicle electrics.

- 24~13.2 volt switch-mode operation
- High performance, high reliability
- Soft Shutdown fault protection
- Isolated and non-isolated versions

Switch-mode conversion, with unbeatable protection and lifetime warranty

Wallen voltage convertors have been developed specifically to provide high performance and reliability. They feature intelligent monitoring circuitry for “Soft-Shutdown” to completely avoid short-circuit, overload and wiring fault problems ...protecting not only the equipment driven, but also the vehicle wiring and systems. Soft-Shutdown can be important in applications where the voltage convertors might be retro-fitted by people whose level of expertise may be unknown to you. (For details of our quick & easy super-safe installation process, click on the link below.)

Wallen voltage convertors will operate over a wider input voltage range and at a lower cranking voltage than rival designs. Different versions are available to support a wide range of applications, typically in vehicles (and particularly for a growing variety of mobile communications). Non-isolated versions are supplied with the unique extra protection of Soft-Shutdown. Our sophisticated Isolated versions do not normally require Soft-Shutdown (but this can be added to special order) and are thus ideal for price-sensitive applications such as volume manufacturing. All versions are highly efficient and extremely compact ...and all offer protection against overload, reverse polarity and short circuits.

Wallen Voltage Convertors are available in isolated versions for use on isolated-return vehicles, such as petro-chemical tankers.

[Performance data for non-isolated versions](#)

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Intelligent Monitoring Circuitry If a short circuit or voltage overload occurs during operation, Wallen voltage convertors are designed to shut down and send only low current to the output side. These convertors are designed to recover when either the input is disconnected (and subsequently reconnected); or the offending load is removed, the problem rectified and that load reconnected. Our intelligent monitoring circuitry prevents fuses being blown, which can happen with other types of convertor that could threaten connected equipment (even equipment that has a protection diode).

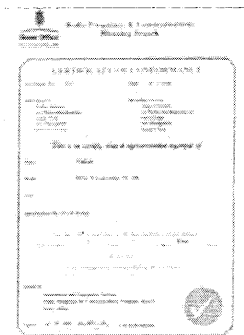
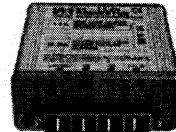
If a fault condition occurs, the Wallen intelligent shut-down circuit switches in so fast that the protective fuse on the output side of the convertor will not blow. Furthermore, Wallen convertors will continue to run at maximum current all day if there is no fault ...and due to their highly-specified design, these convertors are able to provide continued operation even at 20% overload for extended periods.

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Performance data for non-isolated versions

	VC3.8S	VC6.8S	VC10S
<i>Type</i>	Switch mode Non-isolated	Switch mode Non-isolated	Switch mode Non-isolated
<i>Input</i>	15 - 38V DC	15 - 38V DC	15 - 38V DC
<i>Output</i>	13.2V DC	13.2V DC	13.2V DC
<i>Constant current (100% duty cycle)</i>	3.8A	6.8A	10A
<i>Intermittent current (30% duty cycle)</i>	7A	11A	14A
<i>Quiescent current</i>	<15mA	<15mA	<15mA
<i>Oscillator frequency</i>	60KHz	60KHz	60KHz
<i>Transient voltage</i>	Level 3 @ ± 2kV	Level 3 @ ± 2kV	Level 3 @ ± 2kV
<i>Protection</i>	Overload Reverse Polarity Short Circuit Soft-Shutdown	Overload Reverse Polarity Short Circuit Soft-Shutdown	Overload Reverse Polarity Short Circuit Soft-Shutdown
<i>Efficiency (approx)</i>	91%	90%	89%
<i>Connection</i>	4x spade	4x spade	4x spade
<i>Colour</i>	Black/gold	Black/gold	Black/gold
<i>Dimensions (mm)</i>	69 x 74 x 31	79 x 74 x 31	89 x 74 x 31
<i>Weight</i>	138g + fixings	138g + fixings	138g + fixings
<i>Warranty*</i>	Lifetime	Lifetime	Lifetime

* Against manufacturing defects

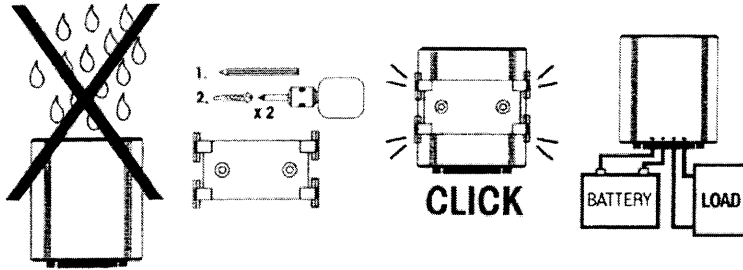


Specifications are approximate and are subject to change without prior notification

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[Performance data for isolated versions](#)
[Super-safe installation process](#)

Wallen Voltage Convertors

Quick & easy super-safe installation process



Wallen Voltage Convertors are very easy to install.

The convertor should be suitably sited.

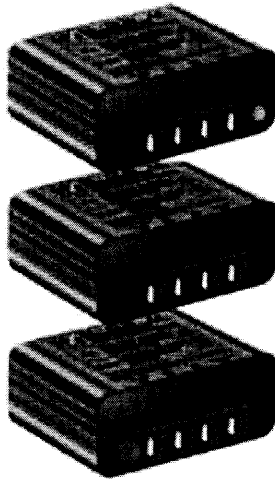
Use two self-drilling screws to fix the bracket, then click the convertor into place.

Just connect the positive and negative leads to the required equipment...

...then connect the vehicle (supply) to the negative and positive input terminals.

Ensure that in-line fuses are used on both sides of the convertor ...and it's ready!

Super-safe installation



Wallen "S" voltage convertors use intelligent monitoring circuitry as a safety feature designed into the convertor, to provide soft and non-damaging shutdown.

Two LEDs on the front interconnection panel indicate the operating status of the voltage convertor:

If the green LED is lit, the convertor is operating normally.

If neither the green nor the red LED is lit, there is a 24V supply problem.

If the red LED is lit, then there is a problem on the output side ...probably a short circuit or a wrong-polarity connection.

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