Buck-Boost DC-DC Converter

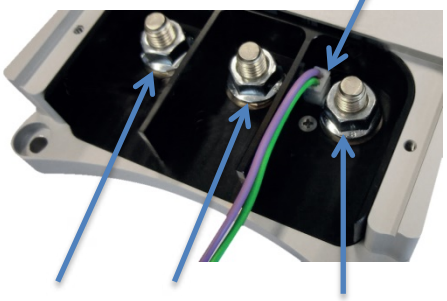
25A / 50A / 100A

www.victronenergy.com

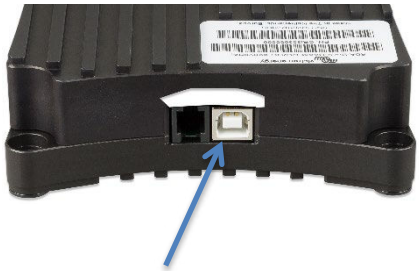
OUT LED indicator

IN LED indicator

Pin 1



OUT GND IN



USB connection

DC-DC Converter for charging a 12V or 24V service battery in vehicles with a smart alternator (regenerative braking, Euro 5 and Euro 6 engines)

The Buck-Boost DC-DC Converter is a DC-DC Converter for charging a 12V or 24V service battery in vehicles with a smart alternator. The converter will charge the auxiliary battery with a pre-set charge voltage, eliminating high voltages (e.g. Mercedes: 15,4V) and low voltages.

'Engine running' detection system

Deep discharge of the vehicle's starting battery is avoided by a built-in 'engine running' detection system.
Instead of this detection system, the converter can also be activated by means of a programmable input (D+, CAN bus or (+)15 connection).

Fully programmable

The converter can be fully programmed by means of a simple and user-friendly PC application. (USB type A male to USB type B male cable needed)

One product for 12V, 24V and 12/24V systems

The converter can be programmed to charge a 12V or a 24V auxiliary battery from either a 12V or a 24V alternator and starter battery.

Charge current and input current limiter

The output current is determined by the following factors:

- The maximum charge current setting.
- The maximum input current setting.
- The maximum operating temperature limit of the converter.

Input status indication (LED)

Green: converter on.
Yellow: input voltage below threshold, converter off.
Red: over temperature, converter off.
Blue, quick flash: engine running, converter will start after preset delay.
Blue, slow flash: the converter is OFF and activation is blocked due to low input voltage.

Output status indication (LED)

Green: converter off, battery voltage normal.
Yellow: converter off, battery voltage low.
Red: converter off, battery discharged or not connected.
Purple: converter on.

Buck-Boost DC-DC Converter	25A	50A	100A
Input voltage range	10-30V		
Under voltage threshold	10V		
Output voltage range	10-30V		
Maximum charge current	12V : 25A 24V : 15A	12V : 50A 24V : 25A	12V : 100A 24V : 50A
Power consumption			
Converter off, LEDs off (power save mode)	7 mA		
On/off input (pin 1, purple wire)			
'On' threshold voltage	> 2V		
Maximum input voltage	30V		
Output pin 1 and pin 2			
Output voltage if activated	V_{pinout} = Vin		
Maximum current (per pin)	I_{pinout} = 1A		
GENERAL			
Operating temperature range	-25 +60°C		
Ambient temperature	Max current: up to 60°C		
Weight	0,6kg	1,4kg	4,1kg
Dimensions	165 x 120 x 30mm	213 x 120 x 30mm	288 x 162 x 95mm

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