Buck-Boost Convertor - 24V

(Also available in 13Vdc - TPS-BB-13)

Designed & Manufactured

Have you ever installed a long cable run and found the voltage at the far end was too low to power the device? Or have you needed to power a 24Vdc device and the only available power was 12Vdc?

Developed to provide a regulated 24Vdc output (adjustable), where input voltage ranges from 10Vdc to 36Vdc the TPS-BB-24 Buck Boost Converter is the answer. If input voltage is either too high or too low at your equipment, the TPS-BB-24 can automatically boost (increase) or buck (decrease) voltage to meet the device's requirements.

This module also features an on-board battery charging facility when the output is adjusted to 27.6Vdc.

Tactical Power Products TPS-BB-24

Buck Boost Convertor

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TACTICAL POWER PRODUCTS

TPS-BB-24

TPS-BB-24 Features

- Output over current and short-circuit protection
- Internal thermal shutdown
- Replaceable output fuse
- Reverse Battery protection
- On-board 150 mA current limited battery charger if output is adjusted to 27.6V
  (Ensure that your equipment is suitable for 27.68Vdc operation)

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Specifications

Input Voltage Range	10 - 36Vdc
Output Voltage	24Vdc (24Vdc-27.6Vdc Adjust)
Maximum Output Current	1 Amp
Load Regulation	< 1% from 0% to 100% load
Line Regulation	< 0.2%
Soft Start	Typically 1-2 seconds
Output Ripple & Noise	< 20 mV at full load over full input range
EMC	CCISPR 11
Dimensions	114 mm x 91 mm x 38 mm

Installation Notes

- If TPS-BB-24 is used as a voltage convertor (e.g. 24Vdc to 12Vdc), take care that the maximum input voltage (36 Volts DC) and maximum output current (1 Amp) are not exceeded.
- Remember to consider in-rush / start-up current drain when configuring the installation.
- Ensure that the unit is securely mounted in a dry, vibration free environment, where temperature does not exceed 50^0 C.
- If using the convertor for long line voltage drop correction, it may be placed adjacent to the load device or the primary power supply.
- If installed at the power supply end, convertor output voltage may be manually adjusted upwards, whilst monitoring the voltage under load using a digital voltmeter at the device end.
- If installed adjacent the load equipment, ensure that the convertor is mounted in a suitable enclosure, allowing adequate air circulation for cooling.
- Note that very long cable runs combined with under-rated cable may result in a voltage drop situation which cannot be corrected by the use of solid-state voltage convertors. In such cases, upgrade / replacement of cable may be required.