

PRODUCT OVERVIEW



The BCH10 Step Down series of Battery Chargers supply up to 10 amps of charging current at 12, 24, 36 or 48 volts from any higher voltage between 20 and 80 volts DC for use in automotive, heavy equipment, marine, industrial, rail or alternative energy environments. The output voltage is configured to allow permanent connection to the battery.

All surface mount high frequency design offers higher reliability, higher efficiency (more than 91%), more power (up to 544 watts at 48 VDC Out) and minimum size.

The unit has reverse input protection, reverse battery connection protection, and output over-voltage protection and features spark free connection to the battery. Smart Ideal Diode output circuitry prevents any reverse current flowing from the battery back into the converter.

Available models

Input (VDC)

20 - 80	30 - 80	40 - 80	45 - 80	60 - 80
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Output | Nominal (VDC)

12	24	32	36	48
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Output | Actual (VDC)

13.6	27.2	36.3	40.8	54.4
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Applications



TECHNICAL SPECIFICATIONS

INPUT					
Model	BCH10-12	BCH10-24	BCH10-32	BCH10-36	BCH10-48
Input Volts	20 - 80 VDC	30 - 80 VDC	40 - 80 VDC	45 - 80 VDC	60 - 80 VDC

OUTPUT VOLTS					
Nominal	12 VDC	24 VDC	32 VDC	36 VDC	48 VDC
Actual	13.6 VDC	27.2 VDC	36.3 VDC	40.8 VDC	54.4 VDC

OUTPUT					
Output Amps	10 Amps				
Dissipation	12 Watts				
Efficiency	91.9%	95.8%	96.8%	97.1%	97.8%

ELECTRICAL	
Input Ripple & Noise	< 100 mV Peak to Peak
Output Ripple & Noise	< 50 mV Peak to Peak
Regulation (Line & Load)	< +/- 0.5%

MECHANICAL	
Dimensions	4.85 in / 12.3 cm Long x 4.13 in / 10.5 cm Wide (incl. mounting flanges) x 1.03 in / 2.6 cm High
Clearance	1.0 in / 2.5 cm all around
Weight	0.62 lb / 0.28 kg
Material and Finish	Marine grade aluminum with red anodize cover / black anodize chassis
Mounting	Wall or shelf mount
Connections	Pluggable Phoenix Combi-Com four position terminals

ENVIRONMENTAL AND SAFETY	
Operating Temperature Range	-25°C to +40°C @ maximum output. Derate Linearly 2.5% per °C from 40°C (Optional -40°C wide temperature range available)
Humidity	0 - 95% relative humidity (non-condensing) with standard conformal coating
Audible Noise	NONE 0db @ 3ft
Typical Service Life	> 10 years (87,600 hrs)
Isolation	>1500 VDC Input-Output, Input-Case, Output-Case
Warranty	Five years
Safety	Built to meet CSA 22.2.107.1 & UL458

OPTIONS

- Ruggedized and wide temperature
- Heavy duty ruggedization with wide temperature range
- Custom output voltages available

FEATURES



Simple plug in wiring

DIMENSIONS

