

1500W, Portable Battery Charger for Field Applications

BCP 1K5-PEL



- Rugged industrial quality
- Field-proven design
- Fan cooled
- Full electronic protection
- Input breaker ON/OFF
- Output breaker/crowbar diode
- Volt and Amp meter
- Splash-proof portable Pelican case

This rugged, industrial quality battery charger is housed in a water-proof Pelican case with a sturdy handle for easy use in the field. It uses high-frequency conversion technology to deliver up to 1500W continuous output power. The charging voltage and current are indicated on digital meters on the front panel. The unit is built with field-proven internal power modules. The Pelican case must be open during operation. High quality built-in fans provide sufficient airflow for operation within the specified temperature range without derating. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the baseplate. This also ensures exceptional mechanical ruggedness. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, low component count, large headroom and the use of components with established reliability result in a high MTBF. The unit is manufactured at our plant under strict quality control. Custom options, as well as versions with higher output power and for different battery voltages, are also available.

SPECIFICATIONS

Input Voltage

180Vac to 264Vac
Universal input on request
47 -63Hz
Input current 10Arms max
Power Factor is better than 0.97 at full load for the entire input range.
Meets EN61000-3-2
Consult factory for other voltages

Input Protection

Inrush current limiting
Varistor
Input breaker also serves as ON/OFF switch
Lower voltage than the specified minimum input will not damage the unit

Input Isolation

2250Vdc input to chassis
4300Vdc input to output
8mm spacing
500Vdc output to chassis

Standards

Designed to meet EN 62368 and related standards

EMI

EN 55032 Class A with margins

Switching Frequency

80kHz \pm 5kHz

Charging Current and Voltage

Any requested voltage in the 20 - 400V range
1500W continuous
Output is floating, either terminal can be grounded

Output Separation Diode

Installed internally

Line Regulation

\pm 1% for open circuit voltage

Output Ripple/Noise

Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHZ BW)

Overload Protection

Rectangular current limiting
Thermal shut-down with automatic recovery in case of insufficient cooling
Output crowbar diode
Output breaker for protection against accidental reverse battery connection

Note: Battery must be fused externally, directly at the battery

Output Overvoltage Protection

Double regulator loop. Second regulator loop, completely stable and independent of main regulator loop.

Efficiency

Typically over 85% at full load

Operating Temperature

0°C to +50°C without de-rating.
Extended temperature range available on request

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Two high quality built-in fans

Environmental Protection

Heavy ruggedizing
Conformal coating
Splash-proof Pelican case

Shock/Vibration

IEC 61371 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

100,000 hours at 45°C (fans not included)
Demonstrated MTBF significantly higher

Indicators

Analog voltmeter and ammeter on the front-panel (upper surface).

Control Input

None

Alarm Outputs

None

Package/Dimensions (L x W x D)

Pelican Case #1520
50 x 40 x 19 cm
19.8" x 15.8" x 7.4"

Weight

12kg. (26lbs).

Connections

AC-input: IEC receptacle for 230V input version
Output <130V: Anderson
Output >130V: AMP CPC or TBD

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice
Contamination related failures and shipping cost excluded

ABSOPULSE power supplies are designed and built to customer requirements. The specifications on this data sheet are generic guidelines only and are subject to change

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