

## 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



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 IEC 62103 Ed. 1, EN/IEC 60950-1 Ed. 2 and related standards

#### EMI

Meets EN 55022 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

#### Shock/Vibration

IEC61371 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



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