

150W, Universal Input Battery Charger with PFC-input BCP 150-FT Series



- Rugged industrial quality
- Field-proven design
- Conduction/convection cooled – no fan
- Full electronic protection

The BCP 150 Series is a rugged, industrial quality battery charger with external battery. It provides 150W total power for the output and for float charging the battery. The unit accepts a 95-264Vac universal input (47-63Hz) with power factor correction to meet EN61000-3-2. It has an AC/Charger Fail Alarm to indicate either failure of the charger circuit or loss of AC input power. The battery input is protected against accidental reverse battery connection by a crossbar diode and internal safety fuse. The battery must be fused externally, directly at the battery. Cooling is via baseplate to a heatsinking surface and by natural convection. Low component count, large design headrooms, and the use of components with established reliability result in a high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

95-264Vac universal, 47-63Hz
Input Current: 1.9Arms max.
The input is power factor corrected and meets EN61000-3-2

Input Protection

Inrush current limiting
Varistor
Internal safety fuse and crossbar diode
Lower voltage than the specified minimum input will not damage the unit

Isolation

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

Standards

Meets requirements for EN60950-1 and related standards
Meets requirements for CE marking

EMI

EN55022 Class A

Switching Frequency

50 - 150kHz (load dependent)

Output Voltage/Current

13.8Vdc, 27.6V or 55.2V float voltage at 25°C battery temperature
The output is isolated, either terminal can be grounded
Other outputs on request

Separation Diode

Installed internally

Line/Load Regulation

± 1.5% combined from zero load to full load including separation diode

Output Ripple/Noise

Better than 40mVrms or 200mVpp (@20MHz BW without battery)

Output Overload Protection (without battery)

Rectangular current limiting with hiccup type short-circuit protection
Current Limit: 10.5A +/- 0.5A
Battery Line: 25A internal safety fuse
Warning: Battery must be fused externally, directly at the battery with 15A fuse

Output Over-voltage Protection

Second regulator loop, completely stable and independent of main regulator loop
OVP limit: 15V +/-1V

Efficiency

Min 80% at full load

Operating Temperature

0 °C to +50°C cold plate temperature for full specification
Extended temperature range available on request.

Battery Temperature Comp.

Optional temperature probe.
Slope: -3mV/cell/°C for lead acid Batteries.

Cooling

Conduction to customer heatsink or chassis and natural convection

Environmental Protection

Basic ruggedizing
Heavy ruggedizing and conformal coating available as option

Shock/Vibration

IEC61373 Cat 1 A&B as minimum

Humidity

5-95% non-condensing

MTBF

140,000h at 45°C
Demonstrated MTBF is significantly higher

Indicators

Charger on LED visible through the cooling slots

Alarm Outputs

Charger/AC fail alarm (ACF/CHF)

Package/ Dimensions (WxHxL)

F2L package 114 x 58 x 310mm (4.5" x 2.3" x 12.2")
Mounting holes are clear

Weight

1.5kg (3.3 lbs)

Connections

9-pole terminal block with 7.62mm spacing for all connections, including alarm.

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice

Enhancements to these general specifications and customizing can be accommodated upon request. Specifications subject to change.

Designer and manufacturer of quality converters, inverters, UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-approved facility.

ABSOPULSE
ELECTRONICS LTD.

ABSOPULSE ELECTRONICS LTD

110 Walgreen Road
Ottawa, Ontario. K0A 1L0. CANADA
Tel: (613) 836-3511 Fax: (613) 836-7488
E-mail: absopulse@absopulse.com
<http://www.absopulse.com>