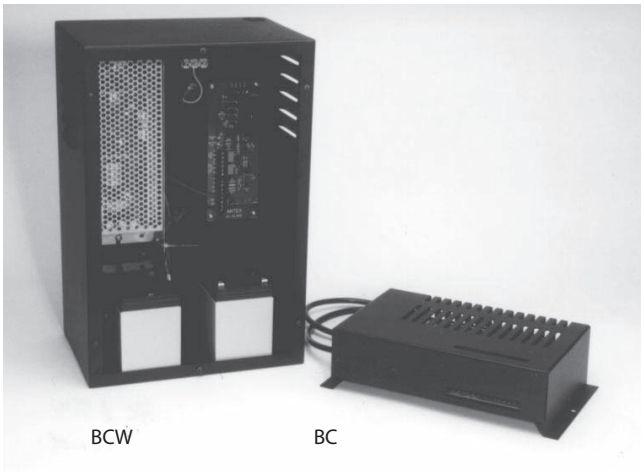
BC / BCW SERIES

Battery Chargers 12V & 24V: 75 ~ 150 Watts



BCW BC

Features

- Universal input 90 - 264VAC
- Three power levels 75, 100 and 150 watts
- 12V & 24V systems
- Convection cooled – No fans
- Power Fail & Battery Fail alarms.
- Output voltage adjustment
- Short circuit and OVP protection
- Battery fuse protection
- Wall mount enclosure option - **BCW models**
- Low Volt Disconnection option
- DC OK Led
- MTBF > 210,000hrs

Specifications

Input Voltage	90 ~264VAC
Input Frequency	47 ~ 63Hz
Input Current (115 / 230V)	75W: 1.0 / 0.5A 100W: 1.3 / 0.65A 150W: 1.9 / 0.95A
Efficiency	Model dependent typically 84-90%
Output Power	75 ~ 150 watts
Output Voltage	Refer to table
Harmonics	EN61000-3-2
Ripple & Noise	150mV pk-pk
Temp. Coefficient	0.02% per °C
Overload Protection	Charger Module: Constant current with auto recovery, Battery is Fused
Overvoltage Protection	YES. Recycle input power to power on.
Load/Line Regulation	120~150mv pk-pk
Parallel Operation	NO (only for N+1 Redundancy)
Operating Temp.	-10°C to +70°C. Derate above 50°C @ 2.5% per °C.
Humidity	30 – 90% RH Non Condensing
Cooling	Convection cooled
Isolation Voltage	Input-Output: 3Kvac, Input-Frame Ground: 2kVAC Output-Frame Ground: 500VAC.
Vibration	10-55Hz (1min sweep) 16.6m/s^2 constant X,Y,Z 1hr.
Safety:	UL60950-1, EN60950-1, EN50178 approval (Internal Modules only)
EMI	Radiated : EN55011-A Conducted : EN55022-A
Immunity	IEC61000-4-2
Connector	Input : Mains Power Cord Output : Barrier strip terminal block
Alarms	• Power Fail (AC / Rectifier Fail) • Battery Fail (Battery Fail only operates on loss of AC power)
Indicators	• Power Fail – LED • Battery Fail - LED
Dimensions	BC Series: 259 x 148 x 70mm (1 ~ 1.5kg) BCW Series: 248 x 166 x 361mm (3 ~ 5kg)

Description

The BC & BCW series battery chargers are designed for powering DC loads for battery back-up applications and available in 12V and 24V systems.

They are available in two styles.

- BC for panel mounting with AC Power Cord
- BCW designed for wall mounting and the option to hold batteries. 2 x 7AH or 2 x 12AH batteries.

The units provide two alarms via voltage free contacts, which can be used for remote monitoring.

The internal modules used are a mature power supply module that ha ve proven extra reliable over 20 years in the field.

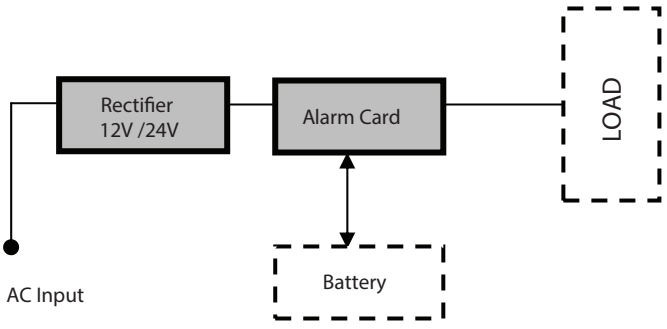


Fig 1: Block Diagram.

REV (22-06 -12)

BC / BCW SERIES

Battery Chargers 12V & 24V: 75 ~ 150 Watts

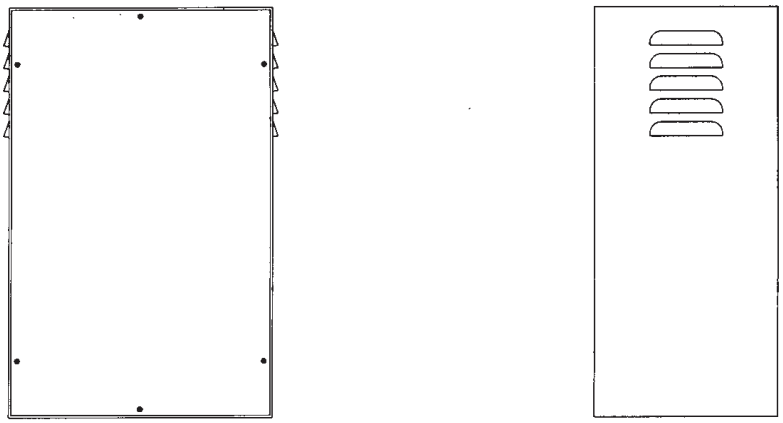
Model	Output			Power	Case
	Nom V	Float V	A	W	
BC75-12	12V	13.8V	5A	75W	Panel Mount
BC100-12	12V	13.8V	7A	100W	
BC150-12	12V	13.8V	10.5A	150W	
BC75-24	24V	27.6V	2.7A	75W	
BC100-24	24V	27.6V	3.6A	100W	
BC150-24	24V	27.6V	5.4A	150W	
BCW75-12	12V	13.8V	5A	75W	Wall Mount
BCW100-12	12V	13.8V	7A	100W	
BCW150-12	12V	13.8V	10.5A	150W	
BCW75-24	24V	27.6V	2.7A	75W	
BCW100-24	24V	27.6V	3.6A	100W	
BCW150-24	24V	27.6V	5.4A	150W	

Note: Low Battery Disconnect option to avoid low battery discharge:
Add "-LVD" to above part numbers….BC150-12-LVD

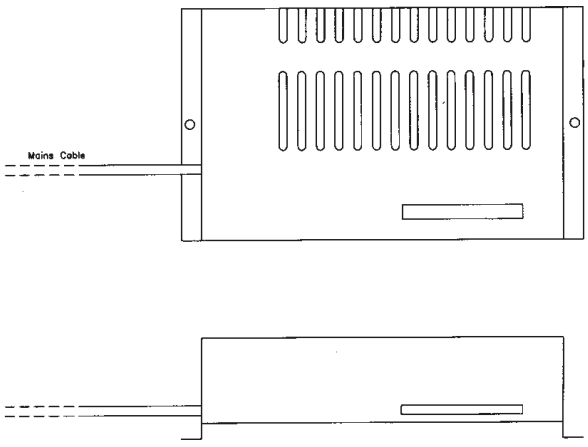
BCW WALL MOUNTING

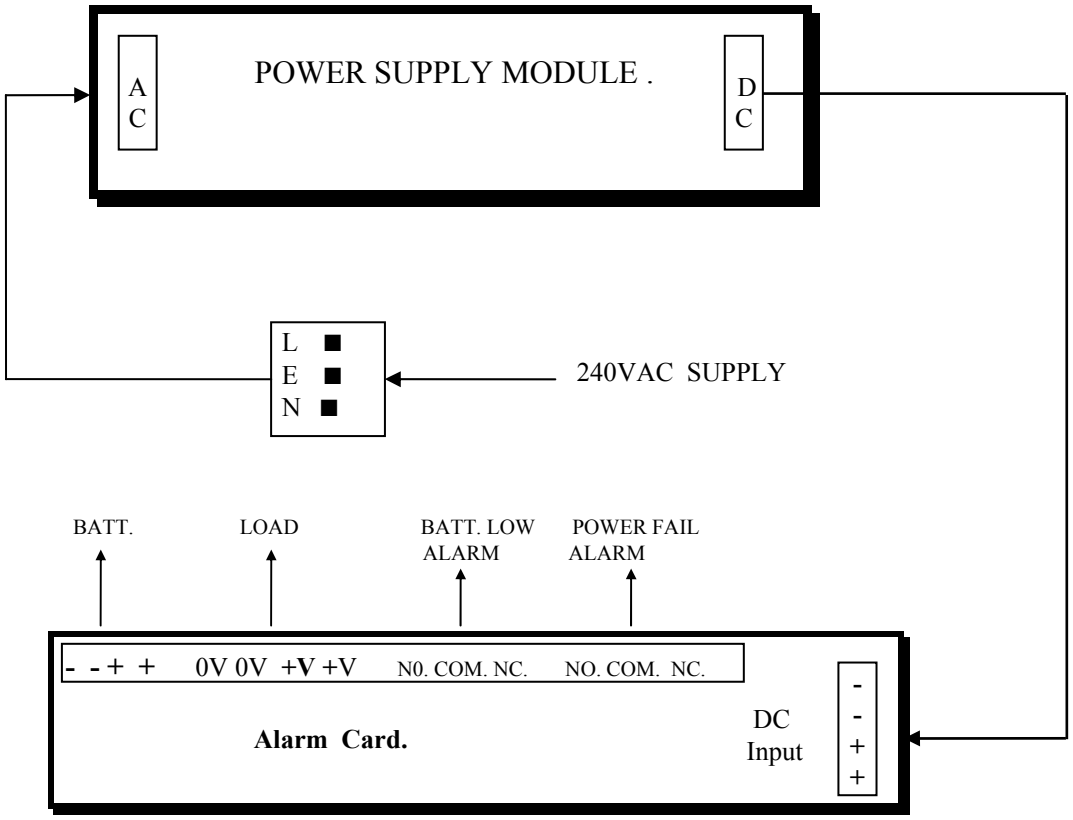
Overall dimensions:
361 x 248 x 166mm
Mounting hole diameter:
6mm
Mounting hole pitch:
332 x 205mm

Cable entry is via 25mm holes locatedin the right hand rear corners of top and bottom



BC PANEL MOUNT UNIT





Alarm Conditions:

1. Power Fail Alarm

   In the event of a mains failure or rectifier module failure the:

   Power OK, LED will go off

   Power Fail Relay contacts will change state (NO. C. NC)

2. Battery Low Alarm

- The Battery Fail Alarm & LED will only operate in the event of Power Fail or Module Failure.

  The Battery OK LED, will go off in the event Power Failure & Battery Failure / Low occur.

  The Battery Low Relay contacts, will change state (NO.C.NC) in the event Power Failure & Battery Failure / Low occur.

  Battery Fail Alarm will operate at about 11.0 ~11.5V or 22.0 ~23.0V (12 / 24V system)

3. Low Volt Disconnect (LVD Option)

- The low volt disconnect is designed to save the battery from deep discharge and operates at approx 1.6 ~ 1.65V per cell.
- CAUTION: Link has to be set for 12V or 24V system.

Drawing No.	BC/BCW.Rev 1	HELIOS POWER SOLUTIONS
Issue Date:	2 Mar 1998	
Drawn By:	Peter Mitso	TITLE: **BC / BCW Battery Charger Wiring Diagram.**