

# BN54-13V8 -5A SERIES

Battery Charger: 13.8V 5A



## Specifications

Input Voltage	240Vac ( 200~264 )
Input Frequency	47 ~ 63Hz
Input Current	1A
Earth Leakage	<300 $\mu$ A @ 230Vac
Hold Up Time	30ms @ 230Vac input, full load and no battery connected
Power Factor	0.42 @ 230Vac and full load
No load Power	1.5W
Start up Time	Typically 1.5 seconds
Output Voltage	13.8V
Output Current	Load: 4A Battery: 1A
Power Limit	Typically at 115%
Efficiency	80-85% @ 230Vac and full load
OVP	105-125% latching. Recycle input after 30 seconds to restart
Short Circuit Protection	Hiccup mode
Current Limit	Primary side power limited
Thermal Protection	Primary side ( non-latching )
Operating Temp.	-10°C to +70°C (Derate 2.5% / °C above 50°C)
Cooling	Convection cooled
Humidity	10-95% non-condensing
Load Regulation	$\pm$ 0.75%
Line Regulation	$\pm$ 0.5%
Ripple & Noise	0.5% @ 230Vac , full load ( BW =DC-10Hz)
Safety	Designed to EN60950, Class I
Isolation	Input - Output / Case: 2200Vdc
EMC	EN55022 Class B Conducted EN55022 Class A Radiated
Immunity	EN61000-3-2 Class A Harmonics EN61000-4-4 Fast Transients EN61000-4-5 Surge EN61000-4-11 Voltage Dips

## Features

- Separate load and battery charging output  
Load 4A, Battery Charger 1A
- Deep discharge battery protection
- Reverse battery protection
- High efficiency up to 85%
- Meets requirements of EN61000-3-2 Class A
- Meets requirements of EN55022 Class B conducted noise
- Vented case package
- IEC socket for mains power
- Common Fault relay via voltage free contacts

## Description

The BN 54 Series is a new generation / smart Power Supply that is designed to provide battery backed-up power in the event of either the PSU or the battery being disconnected or short circuited. When the AC supply fails, the battery will automatically be connected and will provide power until the ac supply is restored. If the battery has reached it's disconnect voltage, it will automatically be disconnected to prevent deep discharge damage.

Designed for powering critical loads with battery back-up, in a wide range of Industrial applications and in particular Security installations and Access Control, with separate Load and Battery Charging circuits.

A wide range of Signals, Led's and Alarms, all aimed at a providing the optimum solution for powering critical DC Loads.

An isolated Common Fault relay has been provided which will operate if any fault is found (This is a fail-safe signal so will signal a fault even if no power sources are on/connected).

## Battery & Signals

Battery	Output current limited @ 1A
Temp Compensation	Connector provided for user to add 100K $\Omega$ thermistor ( $\beta=4400$ ), suitable for standby use
Deep Discharge	Protection at 10V $\pm$ 0.3V
Signals	<ul style="list-style-type: none"><li>• Mains Fail, Battery O/C, Charger Loss, Battery Low</li><li>• LED's &amp; open collector - 100mA sink, Status LED Green = Flashing = OK</li><li>• Common Fault (Volt free) relay 2x Customer options - open collector - 30mA sink HiZ indication =0.4<math>\Omega</math></li><li>• Battery Powerfail signal = 100mS</li></ul>
Alarm	Common Fault relay via voltage free contacts
LED'S	<ul style="list-style-type: none"><li>• Mains Fail</li><li>• Battery Low</li><li>• Batter Open Circuit</li><li>• Charger Loss</li><li>• Status ON</li></ul>
Connector -Input	Input:IEC C14 socket
Connector - Output	Load & Battery: Barrier Strip / Screw terminal
Connector - Signals	Molex 6410 vertical
Dimensions	196 x 153x 65mm 980gr

# BN54-13V8-5A SERIES

Battery Charger: 12V 5A

