

BWS SERIES

Rack Mount Battery Chargers: 300 ~ 1000 Watts



Features

- Universal input: 90 ~ 264VAC with PFC
- AC input via IEC socket
- 2U x 19in Rack mount or 3U x 19in Rack mount
- 12V, 24V, 36V and 48V standard models
- 110V option contact office
- Build-in Redundancy diodes for **N+1** applications
- High efficiency 88%
- Power Fail & Battery Low alarms
- EN60950 safety approved modules
- Suitable for use as a combined **power supply** and **Battery Charger** in DC Back Up systems

General Specifications

Input Voltage	90 ~ 264VAC (120~360VDC)
Frequency	47~63Hz
Power Factor	0.95 at nominal input
Input Current @ 230V	SWS300: 2.0A, SWS600: 3.6A SWS600L 3.6A SWS1000L: 6.0A
Efficiency	Model dependent typically 83%
Output Voltage	Nominal: 12Vdc , 24Vdc 36Vdc, 48Vdc • 110V options
Output Voltage Adj	Typically $\pm 10\%$
Output Power	200 – 1000 watt options • Output power is nominal / average power
Ripple & Noise	12V / 120mV, 24V / 150mV 36V / 200mV, 48V / 240mV
Line Regulation	$\pm 0.5\%$
Load regulation	$\pm 0.4 \sim 0.6\%$ model dependent
Temp Coefficient	0.02% per °C
Over current protection	YES set at 105-120% of rated current, with auto recovery.
Over voltage protection	YES Manual reset, recycle input power after 1minute to activate.
Over temperature protection	YES Manual reset, recycle input power after 1minute to activate.
Battery Protection	Battery Fuse
Parallel Operation	Yes (consult office for details)
Operating Temp	-10°C to +50°C at Full load Derate to 50% load at 65°C
Operating Humidity	10~95% RH (non Condensing)
Cooling	On board fan
Isolation	Input – Output: 3000Vac Input – Ground: 2000Vac Output – Ground: 500Vac

Description

The **BWS** series Rack Mount Battery Chargers make use of established, standard rectifier / charger modules that are assembled into 19in Racks, to provide a range of Battery Chargers from 12V to 48V output.

This approach ensures high level of reliability and simplicity of operation.

The two Alarms (Power Fail & Battery Low) are provide as Voltage Free contacts for external monitoring. In-line Battery Fuse offers further protection and system reliability.

Options

Meters	Front Panel Digital V and A meters
Distribution	Output Circuit breakers

Safety	Internal rectifier / charger modules EN60950-1, UL60950-1, EN50178
EMI	EN55001 / EN55022 Level B
Immunity	EN61000-4-2, -3, -4, -5, -6, -8, 11
Alarms	Power Fail (Voltage Free Contacts) Battery Low (Voltage Free Contacts) <ul style="list-style-type: none">• Battery low will only activate when input power not present
Connector	Input: IEC socket rear of rack Output: Phoenix screw terminals Alarms: Terminal strip (other options on request)
Indicator	Optional
Meters	Optional
Dimensions	2U x 19in x 370mm 3U x 19in x 370mm <ul style="list-style-type: none">• Excluding rear terminals

BWS SERIES

Rack Mount Battery Chargers: 300 ~ 1000 Watts

Model	Output		Power
	Nom V	Float V	
BWS300-12	12V	13.8V	260W
BWS300-24	24V	27.6V	300W
BWS300-36	36V	40.5V	300W
BWS300-48	48V	55.2V	300W
BWS600L-12	12V	13.8V	43A
BWS600L-24	24V	27.6V	18A
BWS600L-36	36V	40.5V	18A
BWS600L-48	48V	55.2V	10A
BWS1000L-24	24V	27.6V	29A
BWS1000L-48	48V	55.2V	17A

- 2U x 19in Rack Mount models

Model	Output		Power
	Nom V	Float V	
BWS600-12	12V	13.8V	480W
BWS600-24	24V	27.6V	600W
BWS600-36	36V	40.5V	570W
BWS600-48	48V	55.2V	570W

- 3U x 19in Rack Mount models



Fig 1: Rear view of a 2U x 19in Rack assembly with distribution



Fig 2: Rear view of a 3U x 19in Rack assembly with High Current Phoenix Connectors



Fig 3: Front view of a 3U x 19in Rack assembly with Circuit Breakers