

BWS SERIES

Rack Mount Battery Chargers: 300 ~ 1000 Watts

C6GC@9H9



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 |

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

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 |

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| 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