

PBB2S MK II Series:

DC UPS / Battery Charger



FEATURES

- 13.8Vdc 3.25A and 6A | 27.6Vdc 3.0A power supply with battery backup
- High reliability and high efficiency industrial-grade switching power converter.
- Universal AC input range from 115Vac to 240Vac nominal without power derating.
- Light weight corrosion resistant aluminium enclosure
- Output overcurrent and short circuit protection
- Output overvoltage protection
- Self-resetting battery fuse
- Over temperature protection
- Green Mains / DC OK LED and form-C alarm contact
- Green Battery OK LED and form-C alarm contact
- Red Battery Fuse Fail LED

SPECIFICATIONS

INPUT

Nominal Voltage	115 - 240Vac
Current	PBB2S-13-3.5 MK II: 1.7A PBB2S-13-7 MK II: 2.3A PBB2S-28-3.5 MK II: 2.3A
Nominal Frequency	50 - 60Hz

OUTPUT - AC MAINS OPERATION

Output Voltage	See table
Output Current	See table
Ripple and Noise ¹	See table
Short Circuit Protection	Hiccup, non-latching
Overload Protection	Hiccup overcurrent protection <175% of rated current
Overvoltage Protection	Shutdown, latching
PBB2S-13-3.5/-7 MK II	16.5V - 21.0V
PBB2S-28-3.5 MK II	33.0V - 40.5V

BATTERY - EXTERNAL

Chemistry	Lead acid
Battery Voltage	See table
Battery Charger	Current-limited taper charger
Battery Charging Current Limit ²	See table

OUTPUT BATTERY OPERATION

Voltage Drop	PBB2S-13-3.5 MK II: 0.47V
Battery to Output (typical)	PBB2S-13-7 MK II: 0.55V PBB2S-28-3.5 MK II: 0.47V
Short Circuit Protection	Self-resetting battery fuse
Battery Reverse Polarity Protection	Indefinite

DISPLAYS / ALARMS

Mains / DC OK	Green LED: ON = OK Form-C contact, 30Vdc/7A
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Battery OK	Green LED: OFF = $V_{batt} < 10.5V$, 21.0V ON = $V_{batt} > 11.5V$, 23.0V Form-C contact, 30Vdc/7A
Battery Fuse Fail	Red LED: ON = FAIL

STANDARDS

Safety	AS / NZS 61558.1/ .216 AS / NZS 62368.1
Short Circuit Protection	SMPS incorporating a short-circuit-proof safety isolating transformer
Electric Shock Protection	Class I
Overvoltage Category	II
Pollution Degree	2
Isolation	
I / P to Output	4.0 kVac, 1min
I / P to Ground	2.0 kVac, 1 min
O / P to Ground	500 Vac, 1 min
Alarms to O / P & Grounding	500 Vac, 1min
EMC	AS / NZS CISPR 32 Class B

MECHANICAL AND ENVIRONMENTAL

Case Size	219 x 115 x 62mm (LxWxH)
Weight	
PBB2S-13-3.5 MK II	600g
PBB2S-13-7 MK II	670g
PBB2S-28-3.5 MK II	670g
Surrounding Operating Air Temperature	-10°C ≤ T ≤ 70°C
Output Power Derating	-2.9% / °C for T ≥ 40°C
Cooling	Natural Convection

SPECIFICATIONS

MECHANICAL AND ENVIRONMENTAL (CONT'D)

Overtemperature Protection	Shutdown, latching
Protection Index	IP20
Environment	For indoor use only

¹BW = 20MHz, AC coupled, measured in parallel with a 0.1 µF ceramic capacitor and a 47µF electrolytic capacitor.

²Measured at 10.V or 20.0V (12V or 24V battery), T=25°C

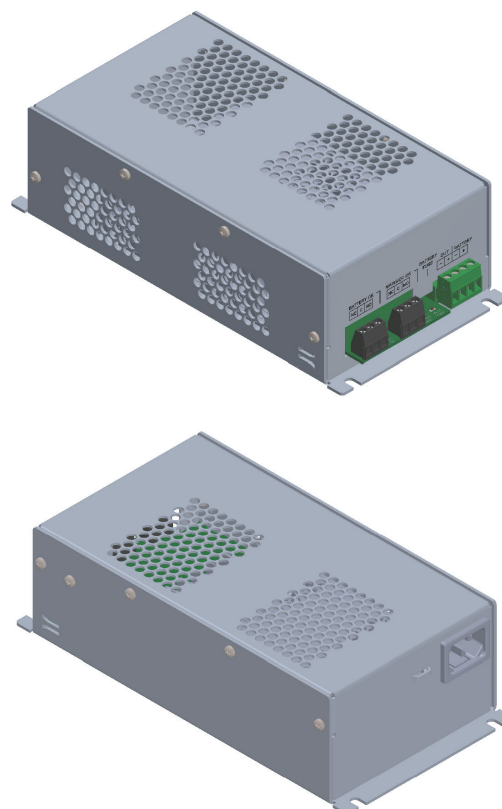
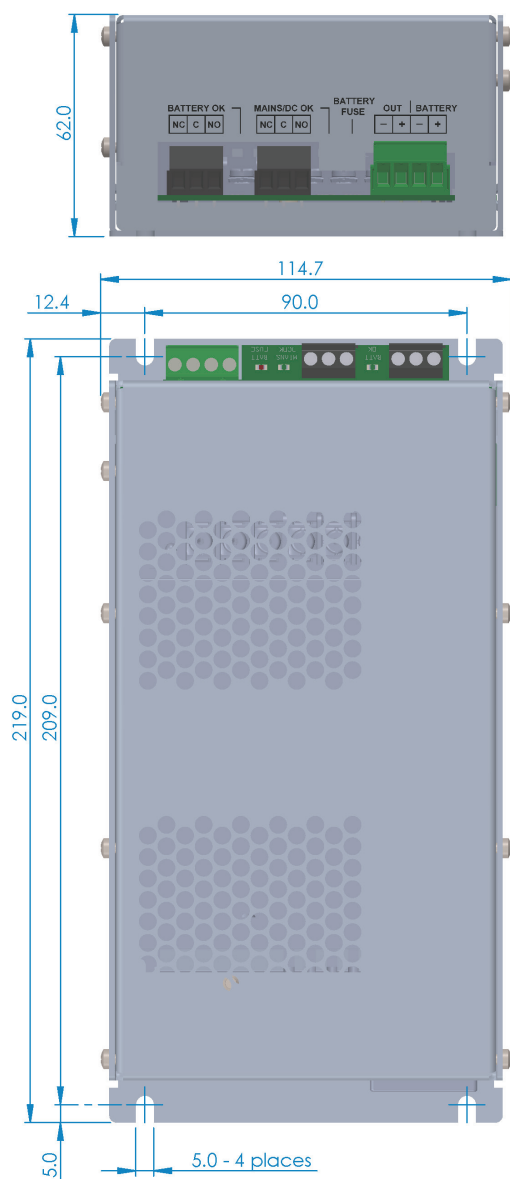
SELECTION TABLE

Model Number	Output Voltage	Output Current	Ripple and Noise ¹	Battery Voltage	Battery Charging Current Limit ²
PBB2S-13-3.5 MK II	13.8Vdc	3.25A	<120m Vp-p	13.8Vdc Float (12V battery)	0.25A typ.
PBB2S13-7 MK II	13.8Vdc	6.0A	<120m Vp-p	13.8Vdc Float (12V battery)	0.5A typ.
PBB2S-28-3.5 MK II	27.6Vdc	3.0A	<150m Vp-p	27.6Vdc Float (24V battery)	0.35A typ.

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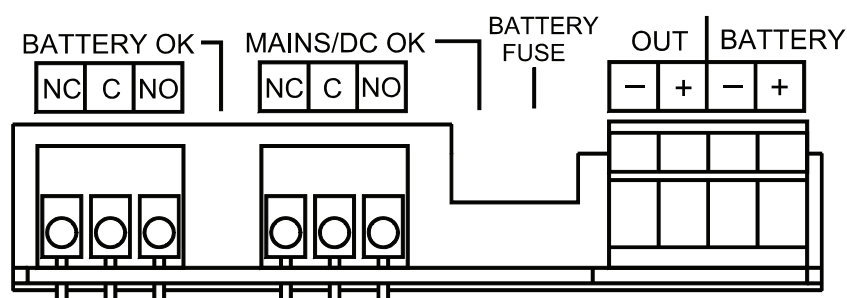
TECHNICAL DRAWINGS



NOTES:

1. AC Mains Termination:
10A IEC 60320 C14 Appliance inlet.
2. Output and Battery Terminations:
4W Pluggable Screw Terminal Block
Suitable for up to 2.5 sq. mm wire.
3. Alarm Terminations: 3W Screw Terminal Blocks
Suitable for up to 1.5 sq. mm wire.

TERMINATIONS



Note: Alarm terminations show state in normal non-alarm conditions.