

PB314A Series

BATTERY CHARGER SYSTEM

FEATURES

- 636 - 1056W PSU for Battery Backup
- DC UPS Connectable
- Digital Display System
- Rack Mounting
- Constant Float Voltage & Current Limit
- Circuit Breakers & Alarm Relays
- Independent Battery Charging Output
- DC OK & Battery OK Alarms
- Battery connected test
- Optional LVD - Battery Low Volts Disconnect
- Optional Network Connected
- Optional Battery Temperature Probe
- OPERATIONS INSTALLATION HANDBOOK AVAILABLE

SPECIFICATIONS

INPUT	
Input Voltage	85-264Vac or 120-360Vdc
Frequency:	47 to 63 Hz
Input Current:	4.1A typical 200Vac
Inrush current:	40A typical cold start 200Vac
Line regulation	60mV maximum

OUTPUT	
Output Voltage	13.8Vdc, 27.6Vdc, 55.4Vdc
Output Power	624W - 1056W
Output Current	See Selection Table
Load regulation	1% typical
Ripple	160mVp-p maximum
Noise	180mVp-p maximum
Overvoltage shutdown	16.2 to 19.8V latching
Output short circuit protection	Indefinite (Autoresetting)
Battery charger short circuit protection	Indefinite (Autoresetting)
Load output protection	Thermal - Magnetic Circuit Breaker
Battery output protection	Thermal - Magnetic Circuit Breaker.
Efficiency	79% typical

PROTECTION	
Overvoltage shutdown	16.2 to 19.8V latching
Output short circuit protection	Indefinite (Autoresetting)
Battery charger short circuit protection	Indefinite (Autoresetting)
Load output protection	Thermal - Magnetic Circuit Breaker
Battery output protection	Thermal - Magnetic Circuit Breaker.
Isolation	Input - Output: 3KVac 1 min Input - Ground: 2KVac 1 min Output - Ground: 500Vac 1min

ENVIRONMENT	
Operating temperature	-20°C to +71°C Derating linearly from 50°C to 71°C to 50% power
Humidity	20-90% relative humidity (non condensing)
Cooling	Forced cooling - internal fan



DISPLAY AND ALARMS	
DC OK	LED Green On = OK, Voltage-free changeover contact (32V, 1A). Alarm on failure of AC/DC PSU and tripping of over temperature limit.
AC OK	Neon Green On = OK, Voltage-free changeover contact (32V, 1A). Alarm on mains fail.
Charger voltage OK alarm	LED Green On = OK, Voltage-free changeover contact (32V, 1A). Alarm on battery low voltage or on opening of battery circuit breaker.
Battery low voltage alarm	11.0V (12V), 22.0V (24V), 44.0V (48V)

OPTIONAL FEATURES	
Battery charge current	Option XXA: The battery charging current limit "XX" amps is set at time of manufacture. Often recommended by battery manufacturer given AH rating of battery.. Or contact Powerbox for more information. See selection table
Battery LVD disconnect	Option LVD: For 12V and 24V models, not available in 48V models.
Network enabled	Option N: Internal network card in conjunction with PB314A becomes a network enable device combining the benefits of SNMP V1, XML and an embedded webpage.
Temperature compensation	Option T: Temperature probe 2.5M cable Option T5: Temperature probe 5M cable Float voltage set to 2.3V per cell at 25°C with compensation of 3.3mV per cell
Output Alarm Connection	Option P: Phoenix Contact Mating Connector included

STANDARDS & APPROVALS	
C-Tick	AS/NZS CISPR11 Group 1 Class A.
Safety	UL 60950 Class 1
EMC	Emissions comply with AS/NZ CISPR22 Class-B

MECHANICAL	
AC input socket	IEC320 fused / on off switch
Output termination	Cage clamp terminals (-C version)
Output Alarm Connection	Standard DB25 Socket Mating Connector not included
Load fault current protection	63A circuit breaker
Battery fault current protection	63A circuit breaker
Rack mount size	270 D x 19" W x 2RU H
Weight	5.0 kg

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SELECTION TABLE

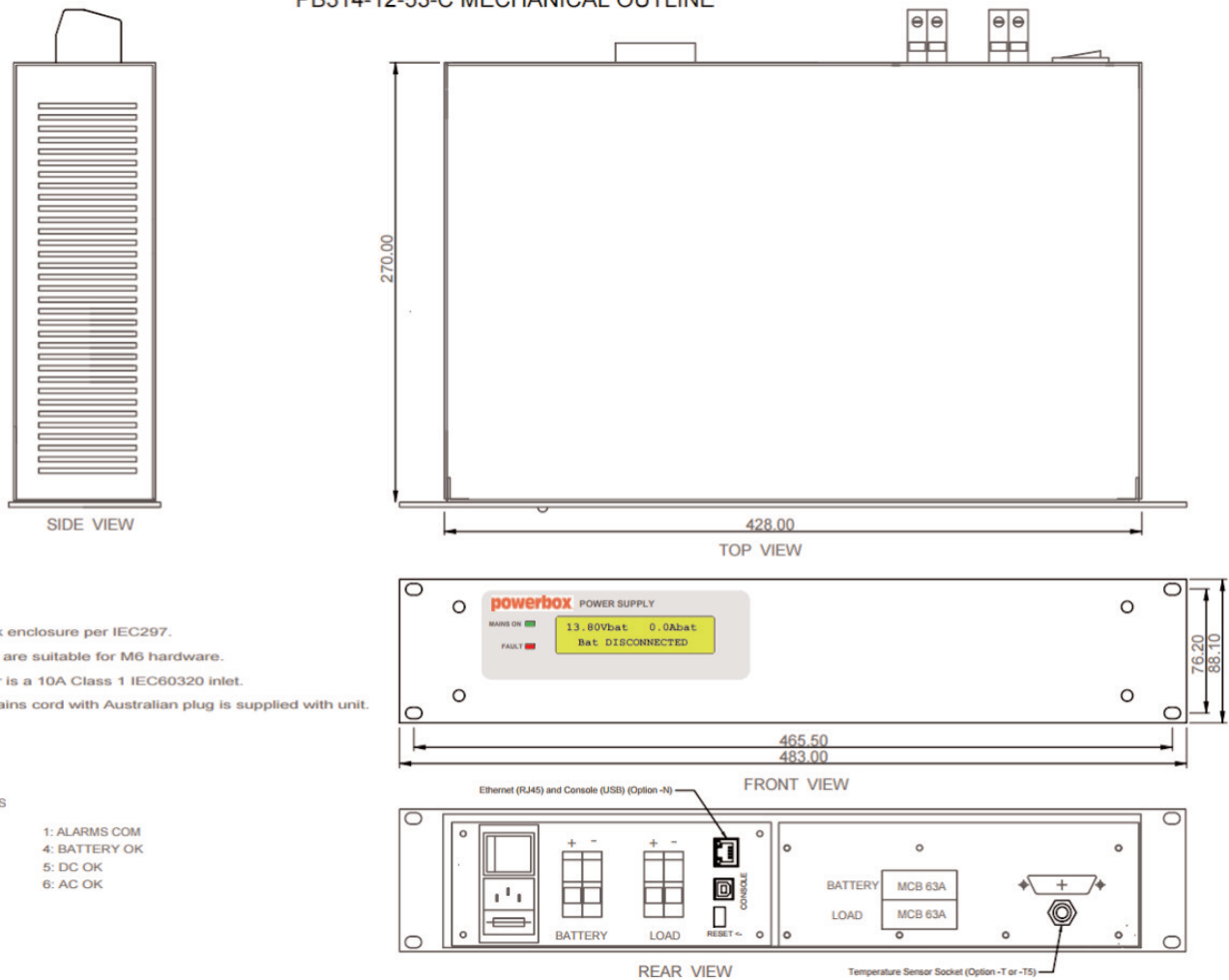
MODEL NUMBER	OUTPUT VOLTAGE	LOAD CURRENT	LOAD PK CURRENT	BATTERY CHARGE CURRENT	OUTPUT POWER
PB314A-12-53-C-XXA	13.8Vdc	46A	53A	5 - 53A	636W
PB314A-12-88-C-XXA	13.8Vdc	76A	88A	10 - 88A	1045W
PB314A-24-27-C-XXA	27.6Vdc	23A	27A	2.5 - 27A	648W
PB314A-24-44-C-XXA	27.6Vdc	38A	44A	5 - 44A	1056W
PB314A-48-13-C-XXA	55.4Vdc	11A	13A	2.5 - 13A	624W
PB314A-48-22-C-XXA	55.4Vdc	19A	22A	2.5 - 22A	1056W

NOTE

1. Output Load Current also includes Battery Charge Current.
2. The Battery Charging Current is factory set. Battery supplier to recommend or contact Powerbox for recommendation battery charge current.
The 'XX' in model number designates the required battery charge current limit.

TECHNICAL ILLUSTRATIONS

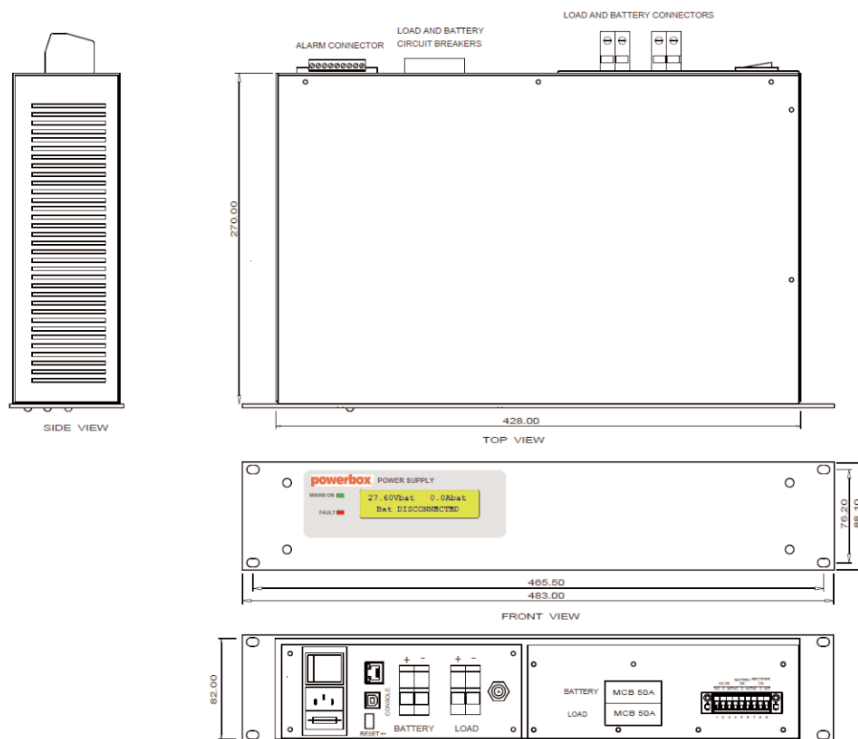
PB314-12-53-C MECHANICAL OUTLINE



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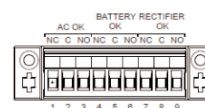
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PB314A WITH OPTION P: PHOENIX ALARM CONTACT



- NOTES:
1. 2RU x 19" rack enclosure per IEC297.
 2. Mounting slots are suitable for M6 hardware.
 3. Input connector is a 10A Class 1 IEC60320 inlet.
 4. 2 meter IEC mains cord with Australian plug is supplied with unit.

ALARM CONNECTIONS
PHOENIX CONTACT MSTB 2.5/5-ST-5.08 or equivalent.



ETHERNET INTERFACE (Option -N)

