


Uninterruptible Power Supplies



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PBT1500 to PBT4000 Series 1500, 2200, 3300 & 4000VA

Features

- Pure sine wave output
- Microprocessor based line interactive design
- Adjustable voltage sensitivity, charging voltage & voltage transfer points
- Remaining estimated backup time indication, smart battery management with double stage charge control
- Real time auto detection for battery condition
- Automatic restart of load after UPS shutdown
- Smart AVR function (two buck/boost modes)
- Generator compatible
- Green Power design with auto on/off function and adjustable level
- Hot swappable batteries optional for 3kVA and 4kVA models
- Network manageable SNMP card optional
- RS232 interface for communications, compatible with all major o.s., including Windows, Linux, SCO UNIX & DOS
- Protection for overload, short circuit & over temperature
- Model PBT1500-230-E is  US listed



SPECIFICATION				
MODEL (LCD)	PBT1500-230 LCD	PBT2200-230 LCD	PBT3300-230 LCD	PBT4000-230 LCD
MODEL (LED)	PBT1500-230 LED	PBT2200-230 LED	PBT3300-230 LED	PBT4000-230 LED
RATING VA(Watts)	1500VA (900W)	2200VA (1350W)	3300VA (2000W)	4000VA (2600W)
INPUT				
Input Voltage	230V models 200V/220V/230V/240V selectable 115V models 100V/110V/115V/120V selectable			
Input Frequency	47-65Hz auto sensing			
Efficiency	97% normal mode			
EMI/RFI	Full time filtering			
Over current protection	by re-settable over current protector			
Input Voltage Range	-20 to +20% selected nominal V, -29 to +33% adjustable with remote set up software			
AVR Range	Enhanced Buck: +15% of selected nominal V, Buck mode: +5% of selected nominal V Boost mode: -5% of selected nominal V, Enhanced Boost: -12.5% of selected nominal V			
Surge Protection	230V models: 1500VA 220 Joules, 2200VA-3300VA 440 Joules, 4000VA 660 Joules 115V models: 216 Joules, 2200VA-4000VA 324 Joules			

Note: For 115V output model number replace -230 with -115

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SPECIFICATION (CONT.)				
MODEL (LCD)	PBT1500-230 LCD	PBT2200-230 LCD	PBT3300-230 LCD	PBT4000-230 LCD
MODEL (LED)	PBT1500-230 LED	PBT2200-230 LED	PBT3300-230 LED	PBT4000-230 LED
RATING VA(Watts)	1500VA (900W)	2200VA (1350W)	3300VA (2000W)	4000VA (2600W)
OUTPUT				
Output Voltage	230V models 200V/220V/230V/240V selectable 115V models 100V/110V/115V/120V selectable			
Voltage Waveform	Pure Sine Wave			
Crest Factor	3:1			
Output Frequency (synchronized to AC input)	Auto Select for 50/60Hz 47-55Hz for nominal 50Hz 56-65Hz for nominal 60Hz			
Regulation (AC mode)	±5% typical of nominal input voltage (optional ±8% AVR for wide I/P up to ±35%)			
Regulation (Batt. Mode)	±3% of selected output voltage (adjustable with remote set up software)			
Transfer Time	Blackout 3mS typical, Brownout 1mS typical Battery mode to normal mode 1mS typical			
Over Current Protection	Over load alarm level 100-120% Over load shutdown level 120-190% (Adjustable with remote set up software)			
BATTERY				
Battery Type	Maintenance free, valve regulated, sealed lead acid. 1500-3300VA 12V 7Ah, 4000VA 12V			
Voltage	36V DC (3 x 12V 7Ah)	48V DC (4 x 12V 7Ah)	72V DC (6 X 12V 7Ah)	72V DC (6 X 12V 9Ah)
Typical Back Up 50% Load	14 minutes	14 minutes	14 minutes	12 minutes
Typical Back Up 100% Load	4.5 minutes	4.5 minutes	4.5 minutes	4 minutes
Charging Method	Smart pulse charging with two charging modes. Fast charge when battery not fully charged followed by trickle charge when battery is 90% charged			
Charging Time	Less than 3 hours to 90% at nominal line and nominal temperature			
Average Charging Current	2.5 Amps			
Average Charging Voltage (for each battery)	Quick charging mode: 14V maximum Trickle charging mode: 13.2-13.9V adjustable with the remote set up software			
Protection	Over current protection (SCR control), Over charging voltage protection (SCR control) Thermal protection (CPU control), when temperature inside UPS over 45°C charger will stop charging for 2.5 minutes followed by 1.5 minutes of charging. This cycle will be repeated until the temperature falls to below 44°C			
Monitoring	Smart monitoring & warning for failed battery or open circuit battery. Auto detection each time when power on or every 6 days			

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SPECIFICATION (CONT.)				
MODEL (LCD)	PBT1500-230 LCD	PBT2200-230 LCD	PBT3300-230 LCD	PBT4000-230 LCD
MODEL (LED)	PBT1500-230 LED	PBT2200-230 LED	PBT3300-230 LED	PBT4000-230 LED
RATING VA(Watts)	1500VA (900W)	2200VA (1350W)	3300VA (2000W)	4000VA (2600W)
COMMUNICATIONS & MANAGEMENT				
Standard Interface Port	RS232, optional for RJ45 & USB	RS232 + USB optional for RJ45	RS232 + USB + RJ45 (surge Protection)	RS232 + USB + RJ45 (surge Protection)
Optional Interface Port	DB9, SNMP Card (external type)			
Control Panel	Optional LED or LCD			
Audible Alarm	Alarm for battery: indicates low battery or battery over voltage Alarm for abnormal operation: indicates over load, short circuit or over temperature			
Estimation of back up time	supported with LCD display version			
Green Mode Function	1% to 14% of full load (adjustable with remote set up software) Default setting OFF			
ENVIRONMENTAL, SAFETY & EMC				
Operating Temperature	0 to 40°C up to 1500 metres			
Storage Temperature	-15 to +55°C			
Relative Humidity	5-95% non condensing			
Operating Altitude	0 to 3000 metres			
Audible Noise	≤40dBA (at 1 metre from surface of unit)			
Safety Markings	BSMI for 115V version, CE for 230V version. UL & cUL available on PBT1500-230			
EMC	EN50091-2 Class B, FCC part 15 Class B, IEC1000-2-2			
Quality Control System	ISO 9001			
MECHANICAL				
Dimensions (unit/shipping)	1500VA Model: 45D x 20H x 18W cm / 54D x 33H x 30W cm 2200VA to 4000VA Model: 51D x 20H x 18Hcm / 61D x 33H x 30W cm			
Weight: Net/Gross	1500VA Model: 21/22 Kg, 2200VA Model: 25/26 Kg 3300VA Model: 36/37 Kg, 4000VA Model: 36/37 Kg			