User Manual

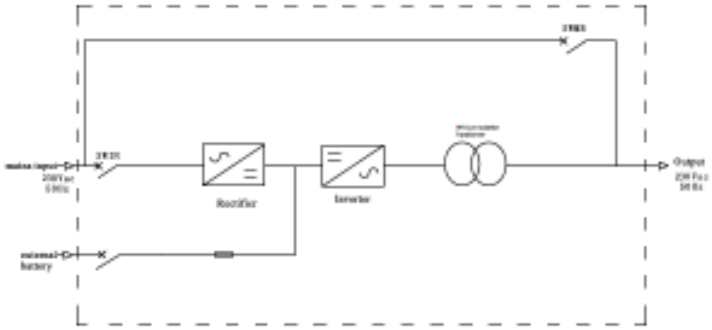
PB Series UPS

CONTENTS

1. SYSTEM INTRODUCTION

BPE PB Series UPS is an advanced true On-Line Uninterrupted Power System which produces reliable and pure sine wave power to user's equipment, ranging from computers, sensitive medical instruments, and telecommunication systems to industrial equipment. The On-Line design enables the system to adjust & filter power fluctuations continuously & automatically under power normal condition. During power failure, it can provide immediate back up power from the external batteries without any interruption. Once the power is restored the system shall again work on mains & will charge the batteries.

Block Diagram



IGBT & PWM TECHNOLOGY:

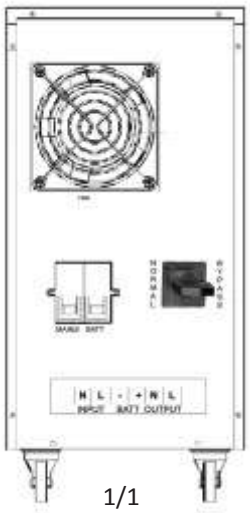
BPE make PB series UPS used the latest generation IGBT (Insulated Gate Bipolar Transistor), is used in the inverter part of the UPS. With the Pulse width Modulation technique, maximum operational efficiency is obtained and thus even the non-linear loads are fed with precise sinusoidal signal.

2. SAFETY INSTRUCTION

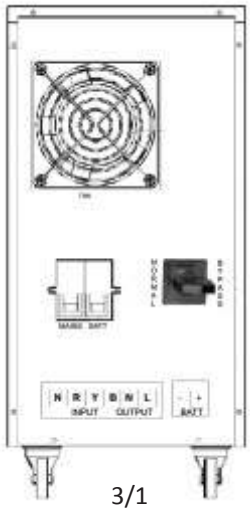
- This manual contains important safety instructions which must be strictly followed during installation & maintenance.
- The UPS contains voltages which are potentially hazardous. Please contact our offices or qualified personnel for any services required.
- The UPS is compatible to external strorage energy source(battery). So proper verification of the batteries with terminal is required before connecting to the UPS.
- Ground wire must be connected at the input at the time of installation.
- UPS should be connected with single phase input 230V, 3 wire phase, neutral and earth and respective points marks L N E.
- Batteries must be replaced or maintained by qualified personnel.
- Replacement of batteries must be subject to quantity and types of original specifications.
- To avoid explosion, keep fire or heating resources away from battery or battery pack.
- Do not disassemble or damage the batteries. The electrolytic of battery is poisonous and harmful especially to eyes and skin.
- The batteries contain high voltage and current with great risk.
- Do not short circuit the battery terminals.

3 A. Front Panel Diagram

3 B. Rear Panel Diagram



1/1



3/1

4. INSTALLATION & OPERATION

Unpacking & Inspection:-

Examine the packing carton. Notify the carrier immediately, if damage is present. Retain the package for future use.

UPS Installation:-

Connect the Input power to a MCB of recommended Capacity of distribution board. Charge the batteries for 8 hours before use so that all batteries attend similar voltage level. The UPS will recharge the batteries automatically whenever its power card is plugged into a wall outlet. You may use the UPS immediately without recharging but the backup time may be less than the rating. Connect the output load to the UPS. It is mandatory to connect ground point to avoid any malfunctioning of UPS.

Operational Instructions:-

Ensure that the installation procedures and metering, controls, indications as specified, are followed and the battery of rated voltage is connected to the system.

STARTUP PROCESS OF THE UPS

i. Please connect the mains power and the Battery wire at the terminal block of UPS properly.

ii. Make the Input Power ON and check the voltages at the UPS terminal Block and also check the battery voltage.

iii. Once all voltage seen normal, close the Input mains breaker. Press Start Switch "INVERTER ON LED" will glow and output AC voltage can be seen on the meter. After about 10 sec, "LOAD ON INVERTER LED" will glow. Check the output voltage as required on meter. Verify the battery charger voltage at terminal and then close the battery MCB, after confirming the voltage.

iv. Connect the load at output of the system and ensure its satisfactory working.

v. The Inverter may trip in following conditions.

   (a) Overload
   (b) DC Under/ Over Voltage
   (c) Output (AC) Over Voltage.
   (d) DC bus high

However, if so happens the respective LED will indicate the cause of tripping. After removal of the respective cause, inverter can be started again by pressing start switch.

IMPORTANT

BeforeSwitchingONOrSwitchingOFFtheInverter,Switchoffalltheloadsattheouput.

TROUBLE SHOOTING CHART

PROBLEM	PROBABLE CAUSE	REMEDY
DC Fuse Fail	A.Skin effect due to prolong use B.Short Circuit on Excessive overload on Inverter	A.Replace Fuse B.Check the inverter o/p for excessive over loading. Reduce the load to the limit and check the inverter.
DC under voltage comes immediately after the inverter is switch ON (No load) and Inverter Trips	A.DC input cable is less than the rated capacity B.Loose contact in output Line	A.Replace the cable, use the cable of proper rating B.Tighten all the connections
DC under voltage indication comes on when working on battery and Inverter Trips.	A.Battery is Discharged. B.Battery cable is of lesser capacity than rated.	A.Keep the battery in charged Condition B.Replace the cable with a rated ampere cable.
Inverter Not getting ON	A.Break in the DC supply either due to blown fuse or disconnected wire. B.Control Card not receiving the DC supply or same wire got de-soldered. C.Control Card Defective	A.Replace Fuse or Check wiring as necessary. B.Check Inverter fuse and replace if found faulty or check control wiring as may be required. C. Replace control card
Over load LED Flashing with no output	A.Feed back fail B.Short Circuit	A.Check feedback transformer or break in wiring of transformer. B.Remove the load and see the short circuit removed, there may be load short circuited.
Inverter trips before loaded fully.	Over load trip setting not proper	Set Overload tripping by means of adjusting the Potentiometer of inverter card. Check Power requirement of the load. Switch on the load one by one after the output voltage reaches 230V

WARRANTY CARD

Sl. No……

Purchase Date…….

Dealer Information:

Name……..……

Address…….....

…….....

FOR SERVICE:

Best Power Equipments (I) Pvt. Ltd.
G-215, Sector-63, Noida-201307, Uttar Pradesh, India
Service Toll Free Call: **1800 1031 247** Mob-+91-9310995859