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INTRODUCTION:

These days there is a huge energy gap between demand and supply of electricity everywhere. Today our technologically advanced Zip-Tech Sine wave U.P.S. with Inverter facility not only just fulfills light energy demand but also provides best protection and smooth operation for your crucial and highly expensive modern gadgets like L.E.D. Television, Laptop computers, Printer, Microwave Oven, Washing Machines, Mobile, L.E.D. lights etc. Our inverter technology uses compact and powerful internationally standard quality components as raw materials and highly advanced software design that controls automated operation of U.P.S. cum Inverter.

U.P.S. and Inverter difference:

U.P.S. (Uninterruptible Power Supply) facilitates instant switchover to the power backup source in the event of a power failure. HUPS (Home UPS) are inverters with built-in U.P.S. featuring over-and under-voltage protection that can be used to run computers, TV etc. along with other electronic appliances so that the PC is not affected by wide fluctuations.

M.P.P.E. and Zero Drop Charge Controller Circuit:

We know that solar pv is a constant current source whose output depends on direct sun light. The solar pv output is given to M.P.P.E. (maximum power point extraction) circuit or Zero drop charge controller (fixed P.W.M.) circuit. These circuits are designed to deliver maximum rated charging current to the battery / D.C. load. The voltage across the solar panel goes on reducing when maximum power is extracted from it. M.P.P.E. or Zero drop charge controller circuit adjusts the perfect balance between solar panel voltage and current flowing through it in such a way that maximum power can be delivered to the load. Easy select switch can be used to select ups or inverter mode.

The D.S.P. based M.P.P.E circuit continuously varies P.W.M. duty cycle to deliver maximum power to the load by perfectly matching impedance between solar panel and the load that ensure 25% to 35% more power can be delivered to the battery / D.C. load. A special type thick plate deep discharge battery (C 10) type is used for solar applications.

IMPORTANT:

Lead acid battery may produce hydrogen gas which is highly explosive .So, for precaution, always keep U.P.S./ Inverter and it's battery at least 1 meter away from each-other and away from fire and short circuit prone situations at

ventilated place only and at 25°C or below .

CAUTION:

Inductive loads such as motors, house hold mixer grinder, heaters, irons etc may take three times more power while switching on than the required power for normal operation so while selecting Inverter for such application one should consider this and must keep in mind that inductive load consumes more power than other type of loads and also battery drains at a faster rate.

Home U.P.S. SPECIFICATIONS:

- 1) dsP IC microcontroller based highly advanced design. (dsPIC16F1686 and dsPIC30F2010)
- 2) Handy switch Home UPS / Inverter mode selection.
- 3) Automatic Solar / Grid mode selection.
- 4) Fit & relax with robust design with high efficiency of conversion.
- 5) Pure sine wave output with less or equal to 3% T.H.D.
- 6) M.P.P.E. (maximum power point extraction) circuit or Zero drop charge controller (fixed P.W.M.) circuit option with 6 to 60 amps.
- 7) User friendly L.E.D. / L.C.D. based design.
- 8) Output short circuit and overload protection.
- 9) Battery charging even at low A.C. Voltage (110 V).
- 10) Inbuilt Cooling fan with every unit.
- 11) Fail proof transformer with minor core losses low power idle consumption.
- 12) Constant current battery charging that ensures long battery backup and enhanced battery life.
- 13) Fully software based system control in accordance with grid power cut frequency.
- 14) Internationally standard components based design.
- 15) Moderate cable length and wire thickness as per battery maximum dc current flow.
- 16) Best in class line and load regulation.
- 17) Instant switchover to ups mode.
- 18) Extra long backup for computers.
- 19) No load shut down.
- 20) Accurate Battery temperature sensing and shut down.
- 21) Best in class packaging.
- 22) Attractive and Decent External appearance and with proper internal wiring.
- 23) Perfect match for mixed load application.
- 24) Warning for Overload and battery low voltage.

25) Noiseless & eco-friendly operation.

Technical Specs. For Solar Home U.P.S. 650VA/850VA/1000VA

Sr. No.	Model name and number	LP-BMT 650VA/850VA/1000VA
INPUT		
01	Battery Voltage (D.C.)	12 Volts
02	Input voltage (U.P.S.mode)	180-260 volts
03	Input voltage (Inverter mode)	90-280 volts
OUTPUT		
01	Output Voltage (A.C.Mains mode)	Same as input
02	Output Voltage (Inverter mode)	230V \pm 5%
03	Output Frequency (Inverter mode)	50Hz \pm 1Hz
04	Output (A.C. Mains mode)	Same as input
05	Output (Inverter mode)	Pure Sine Wave
01	Battery Charging Current	Constant Current charging at approx. 6% of the rated battery current in AH
02	Charging Technology	Power factor controlled Boost Tech.
03	Switching from a.c. mains to U.P.S./ inverter and from U.P.S./ inverter to a.c. mains	Automatic
04	Technology	dsPIC Based Design
05	Performance Efficiency	> 88% to 96%<
PROTECTIONS		
01	Overload Protection	120%
02	Short Circuit Protection	300%
03	Battery Higher Cut off Voltage (Adjustable)	13.5 Volt to 14.5 Volt
04	Battery lower Cut off Voltage (Adjustable)	10.5 Volt
INDICATIONS		
01	L.C.D. Panel	LCD panel indication of Bat.Vol., Charg. Crt., Mains ON, Input Vol., Load ON, Overload, Short Ckt., Solar Charging ON
SOLAR SPECIFICATIONS (Optional)		
01	Solar charging current	20 Amps.(max)
02	Battery Full Voltage Cut off	14.5V
03	P.V. Panel Voc Max	23V

Note : Above mentioned specifications are for reference only. Actual specifications may not perfectly match with above specifications.

Technical Specs.For Solar Home U.P.S. 1500VA/1000VA

Sr. No.	Model name and number	MP-BMT 1000VA/1500VA/2000VA
INPUT		
01	Battery Voltage (D.C.)	24 Volts

02	Input voltage (U.P.S.mode)	180-260 volts
03	Input voltage (Inverter mode)	90-280 volts
OUTPUT		
01	Output Voltage (A.C.Mains mode)	Same as input
02	Output Voltage (Inverter mode)	230V \pm 5%
03	Output Frequency (Inverter mode)	50Hz \pm 1Hz
04	Output (A.C. Mains mode)	Same as input
05	Output (Inverter mode)	Pure Sine Wave
01	Battery Charging Current	Constant Current charging at approx. 6% of the rated battery current in AH
02	Charging Technology	Power factor controlled Boost Tech.
03	Switching from a.c. mains to U.P.S./ inverter and from U.P.S./ inverter to a.c. mains	Automatic
04	Technology	dsPIC Based Design
05	Performance Efficiency	> 88% to 96%<
PROTECTIONS		
01	Overload Protection	120%
02	Short Circuit Protection	300%
03	Battery Higher Cut off Voltage (Adjustable)	27 Volt to 29 Volt
04	Battery lower Cut off Voltage (Adjustable)	22.5 Volt
INDICATIONS		
01	L.C.D. Panel	LCD panel indication of Bat.Vol., Charg. Crt., Mains ON, Input Vol., Load ON, Overload, Short Ckt., Solar Charging ON
SOLAR SPECIFICATIONS (Optional)		
01	Solar charging current	20 Amps. To 40 Amps.
02	Battery Full Voltage Cut off	28.5V
03	P.V. Panel Voc Max	45V

Note: Above mentioned specifications are for reference only. Actual specifications may not perfectly match with above specifications.

Technical Specs.For Solar Home U.P.S. 3000VA

Sr. No.	Model name and number	HP-BMT 3000VA
INPUT		
01	Battery Voltage (D.C.)	36Volts / 48 Volts
02	Input voltage (U.P.S.mode)	180-260 volts
03	Input voltage (Inverter mode)	90-280 volts
OUTPUT		
01	Output Voltage (A.C.Mains mode)	Same as input
02	Output Voltage (Inverter mode)	230V \pm 5%
03	Output Frequency (Inverter mode)	50Hz \pm 1Hz

04	Output (A.C. Mains mode)	Same as input
05	Output (Inverter mode)	Pure Sine Wave
01	Battery Charging Current	Constant Current charging at approx. 6% of the rated battery current in AH
02	Charging Technology	Power factor controlled Boost Tech.
03	Switching from a.c. mains to U.P.S./ inverter and from U.P.S./ inverter to a.c. mains	Automatic
04	Technology	dsPIC Based Design
05	Performance Efficiency	> 88% to 96%<
PROTECTIONS		
01	Overload Protection	120%
02	Short Circuit Protection	300%
03	Battery Higher Cut off Voltage (Adjustable)	42 Volt / 58 Volt
04	Battery lower Cut off Voltage (Adjustable)	34.5 Volt / 46.5 Volt
INDICATIONS		
01	L.C.D. Panel	LCD panel indication of Bat.Vol., Charg. Crt., Mains ON, Input Vol., Load ON, Overload, Short Ckt., Solar Charging ON
SOLAR SPECIFICATIONS (Optional)		
01	Solar charging current	40 Amps.(max)
02	Battery Full Voltage Cut off	42.5 Volt / 55.2 Volt
03	P.V. Panel Voc Max	68 Volt

Note: Above mentioned specifications are for reference only. Actual specifications may not perfectly match with above specifications.

Technical Specs.For Solar Home U.P.S. 4000VA / 5000VA

Sr. No.	Model name and number	VHP-BMT 4000VA/ 5000VA
INPUT		
01	Battery Voltage (D.C.)	48 Volts / 60 Volts
02	Input voltage (U.P.S.mode)	180-260 volts
03	Input voltage (Inverter mode)	90-280 volts
OUTPUT		
01	Output Voltage (A.C.Mains mode)	Same as input
02	Output Voltage (Inverter mode)	230V ± 5%
03	Output Frequency (Inverter mode)	50Hz ± 1Hz
04	Output (A.C. Mains mode)	Same as input
05	Output (Inverter mode)	Pure Sine Wave
01	Battery Charging Current	Constant Current charging at approx. 6% of the rated battery current in AH
02	Charging Technology	Power factor controlled Boost Tech.

03	Switching from a.c. mains to U.P.S./ inverter and from U.P.S./ inverter to a.c. mains	Automatic
04	Technology	dsPIC Based Design
05	Performance Efficiency	> 88% to 96%<
	PROTECTIONS	
01	Overload Protection	120%
02	Short Circuit Protection	300%
03	Battery Higher Cut off Voltage (Adjustable)	58.5 Volt
04	Battery lower Cut off Voltage (Adjustable)	46.5 Volt
	INDICATIONS	
01	L.C.D. Panel	LCD panel indication of Bat.Vol., Charg. Crt., Mains ON, Input Vol., Load ON, Overload, Short Ckt., Solar Charging ON
	SOLAR SPECIFICATIONS (Optional)	
01	Solar charging current	60 Amps.(max)
02	Battery Full Voltage Cut off	55.2V
03	P.V. Panel Voc Max	92V

Note: Above mentioned specifications are for reference only. Actual specifications may not perfectly match with above specifications.