OUR UPS FLEET

THREE PHASE

10kVA - 60kVA

THE EXPERT AND RELIABLE DELIVERY OF
CRITICAL POWER, MAINTENANCE AND
HIRE SOLUTIONS NATIONWIDE.

WBPS

POWER YOU CAN TRUST

THETA 5000

THREE PHASE UPS SERIES

KEEP THE POWER FLOWING 24/7

The Theta 5000 is a three-phase, new generation transformer-less UPS with power factor 1.0 which provides a perfect solution for power protection, and solves power quality problems such as surges, spikes, voltage fluctuations, harmonic distortion, clutter interference and frequency fluctuations.

The Theta 5000 series is available 10-20-30-40-60kVA with three-phase input and output and on-line double conversion technology. Controlled by digital signal processor (DSP), it guarantees maximum protection for the installations supplied with a significant energy savings. Moreover, the dual feed on the UPS input gives more reliability to the system.

THETA 5000
10-40KVA

THETA 5000
60KVA

10-40KVA
WITH INTERNAL
BATTERIES

Theta 5000 is available in 10, 20, 30, 40kVA output power modules with internal space for housing max 80 batteries. Further extent reliability is accomplished by introducing intelligent charge mode which significantly prolongs service life of batteries.

To make it more flexible on an existing installation, Theta 5000 can work with a wide range of battery strings: 32-34-36-38-40 blocks per string.

There are many benefits to choosing a hybrid generator, these are:

- POWER FACTOR 1.0
- 3 LEVEL IGBT TECHNOLOGY
- INTERNAL BATTERY FOR 10-20-30-40kVA SYSTEM
- TRUE ONLINE TECHNOLOGY FOR MAXIMUM POWER PROTECTION
- FULL LOAD RATED NO BREAK DUAL SOLID-STATE STATIC SWITCH

ENERGY EFFICIENT SOLUTION

HIGH EFFICIENCY FROM LOW LOAD TO FULL LOAD

The state-of-the-art three-level inverters of Theta 5000 delivers high efficiency at partial and full load (up to 95 % in double conversion on line mode), dramatically reducing operating cost of the system, extending components service life and increasing overall power performance. This high performance makes it possible to recover the investment in less than three years of operation.

SUITABLE FOR THE LATEST GENERATION OF SERVERS

The Theta 5000 is designed to provide output power factor 1.0, so the kW = kVA. It supply loads for both leading and lagging without de-rating. For this reason Theta 5000 fits perfectly with the new generation of servers (capacitive load).

The Theta 5000 manages the input current total harmonic distortion (THDi) at a low level (3% at 100% load), eliminating harmonic distortion at the input of the system, providing greater operation reliability and extending the service life of UPS.

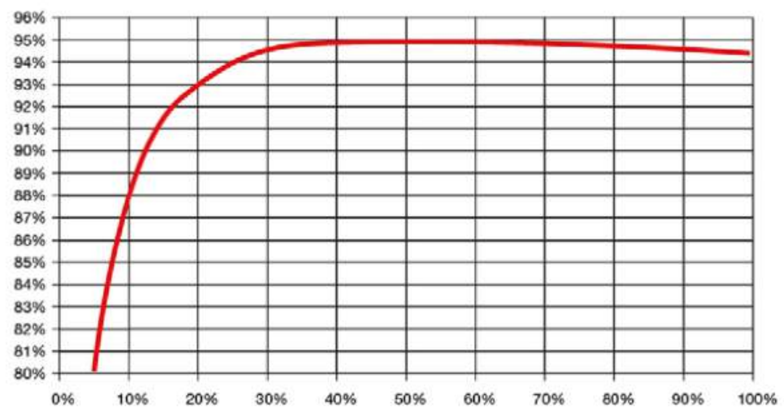
- LOW INPUT HARMONIC DISTORTION, THDI <3%
- UP TO 95% EFFICIENCY IN DOUBLE CONVERSION MODE
- HIGH INPUT POWER FACTOR A,99
- 3 WORKING MODES: NORMAL, ECO, CONVERTER MODE
- LEADING AND LAGGING WITHOUT DE-RATING

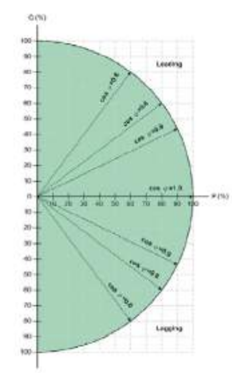
3 WORKING MODES

Normal Mode (Online Mode): In Normal mode, grid power is passed through Rectifier then used to charge the battery and provide power through the Inverter simultaneously.

Economy Mode (EGO): Economy mode effectively improves overall efficiency. In ECO Mode grid power is routed through the Static Switch to the load.

Converter Mode: Converter mode allows the user to provide a power supply with constant voltage and constant frequency based on their power requirements. The frequency can be set to 50Hz or 60Hz. The voltage options are 380/220V, 400/230V and 415/240V.





HIGH FLEXIBILITY

KEEP THE POWER FLOWING 24/7

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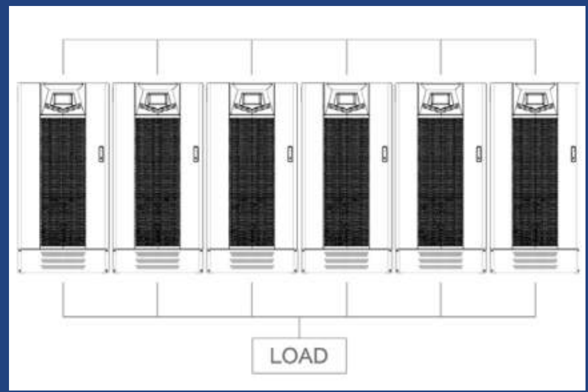
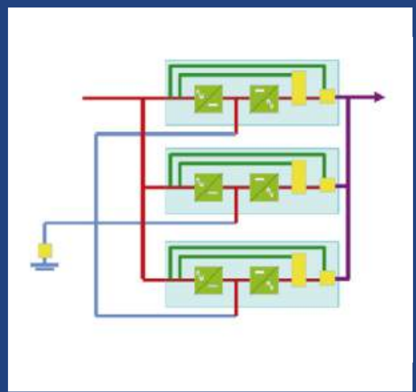


COMMON BATTERY

Theta 5000 offer the possibility to connect common or individual battery and allows flexible string voltage.

The number of batteries is programmable: 32, 34, 36, 38, 40 blocks (12V), to achieve optimal sizing of battery capacity and minimal investment.

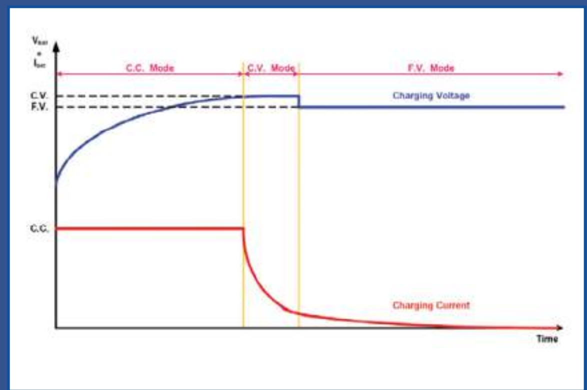


- **COMMON BATTERY BANK OR INDIVIDUAL BATTERY BANK CONFIGURABLE**
- **INTELLIGENT BATTERY MANAGEMENT**
- **UP TO 6 UNITS POWER SCALABLE AND PARALLEL REDUNDANCY**
- **SELECTABLE NUMBER OF BATTERY PER STRING**
- **DUAL INPUT**

3 CHARGING MODES

Theta 5000 UPS battery intelligent system consists of a series of features and programs to optimise battery management and obtain the best performance and operating life. It offers 3 battery charging modes:

- **C.C MODE: CONSTANT CURRENT CHARGE**
- **C.V MODE: CONSTANT VOLTAGE CHARGE (EQUALIZING)**
- **F.V. MODE: CONSTANT VOLTAGE CHARGE (FLOATING) THIS SYTEM ALLOWS RECHARGING THE BATTERY IN SHORTER TIME AND PRESERVING THE BATTERY LIFE**



BUILT IN LCD TOUCH SCREEN

The Theta 5000 is a really user friendly UPS as it is equipped with a 4.3" LCD Touch screen. It provides: UPS information, measurement values, operating status and alarms in more languages. It is also possible to implement it by adding more languages if required.

- **COMMON BATTERY BANK OR INDIVIDUAL BATTERY BANK CONFIGURABLE**
- **ADVANCE INTERFACE TOUCH SCREEN DISPLAY**
- **VFI TYPE ON-LINE**
- **SMALL FOOTPRIN**
- **COLD START (OPTIONAL)**
- **LITHIUM BATTERY**

DRY CONTACT CARD

RS-485 MODBUS CARD

SNMP CARD

COMMUNICATIONS AND REMOTE MANAGEMENT

Communication Slot 1 for Relay card and RS-485 MODBUS card.

Communication Slot 2 for Relay card and SNMP card

RS232 serial and USB ports

3 communication cards available: dry contact, RS485 and SNMP communication CARD

LED Status Indicators

EPO - Emergency Power Off

Temperature sensor to measure the external battery temperature

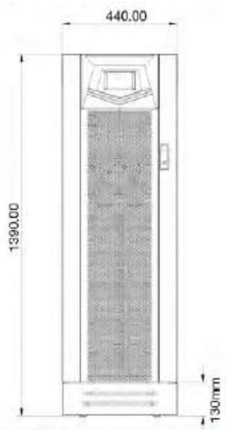
Backfeed trip to trip the external electromechanical device for isolation from the power circuit

Output & Input Contacts: it provides 3 output dry contacts andl input contact

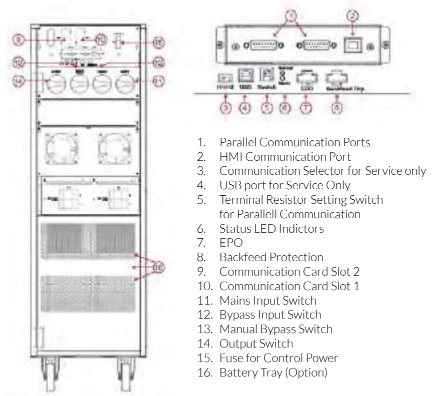
DIMENSIONS

THETA 5000 10-20 KVA

FRONT VIEW



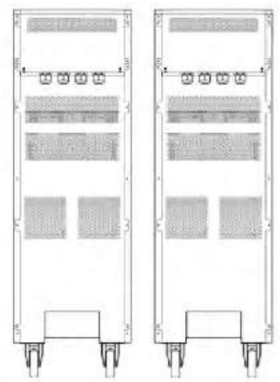
INTERNAL VIEW



1. Parallel Communication Ports
2. HMI Communication Port
3. Communication Selector for Service only
4. USB port for Service Only
5. Terminal Resistor Setting Switch for Parallell Communication
6. Status LED Indictors
7. EPO
8. Backfeed Protection
9. Communication Card Slot 2
10. Communication Card Slot 1
11. Mains Input Switch
12. Bypass Input Switch
13. Manual Bypass Switch
14. Output Switch
15. Fuse for Control Power
16. Battery Tray (Option)

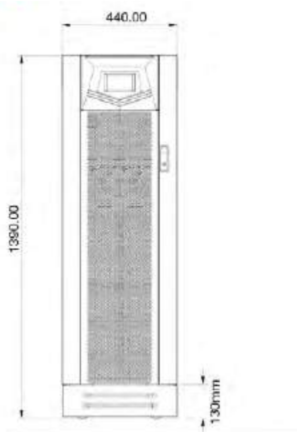
REAR VIEW

10 KVA 20 KVA

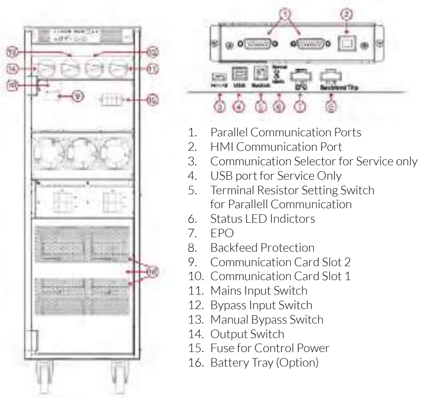


THETA 5000 30-40 KVA

FRONT VIEW



INTERNAL VIEW



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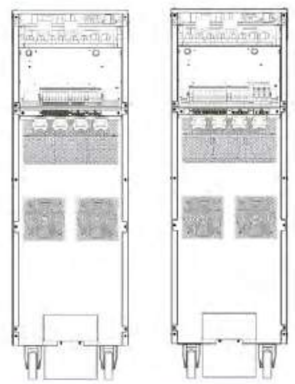
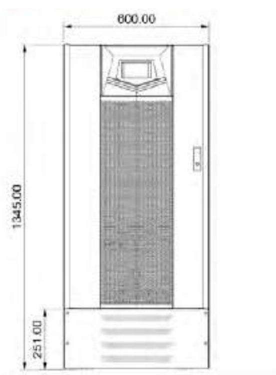
REAR VIEW

30 KVA 40 KVA

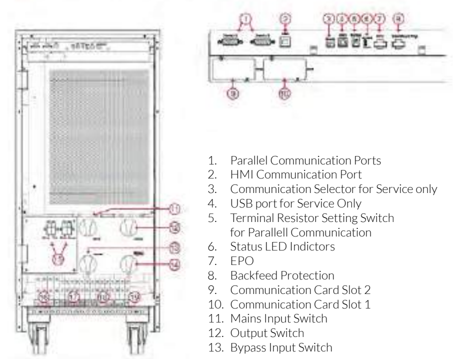


THETA 5000 60 KVA

FRONT VIEW



INTERNAL VIEW



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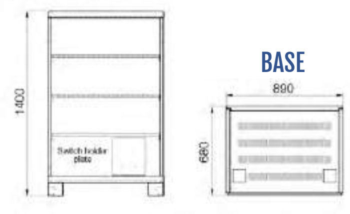
14. Manual Bypass Switch
15. Fuses for Control Power
16. X20: External Battery Connection Terminals (B+,N,B-,G)
17. X10/X40: Mains/Bypass Input Connections Terminal (1N,2N,1L3,2L3,1L2,2L2,1L1,2L1)
18. X50: Output Connection Terminals (3N,3L3,3L2,3L1)

BATTERY BANKS

A1-0000 / A2-0000

FRONT VIEW

BASE

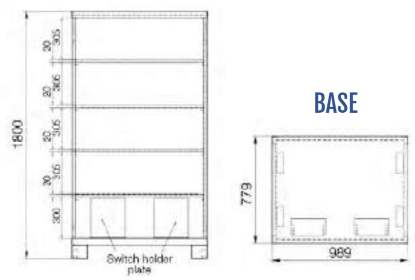


The battery bank drawings are not to scale.

B1-0000 / B2-0000

FRONT VIEW

BASE



DIMENSIONS

CAPACITY	THETA 5000	10KVA	20KVA	30KVA	40KVA	60KVA
Environment	Operation Temperature	0~40°C				
	Operation Humidity	0~95% (w/o condensation)				
	Tested to standards	LVD: EN62040-1, EMC requirements: EN62040-2				
	Mark	CE				
	Noise (at 1 meter)					
Input	Voltage	400V 3 Phase + N				
	Voltage Tolerance	+20% @ 100% load				
	Frequency	40 ~ 65Hz				
	Power Factor	>0.99				
	THDi	<3%				
Bypass	Voltage	380/400/415V 3 Phase + N				
	Voltage Tolerance	+5%~+25% (Programmable)				
	Frequency	50/60Hz				
	Frequency Tolerance	+1Hz / +3Hz (Selectable)				
Output	Voltage	380/400/415V 3 Phase + N				
	Voltage Tolerance	+1% (Static Load)				
	Power Factor	1.0				
	Frequency	50/60Hz				
	Frequency Tolerance	+0.01% (free running)				
	Crest Factor	3:1				
	Voltage Harmonic Distortion	<1% with linear load; <3% with distorting load				
	Overload	110% for 60 minutes, 125% for 10 minutes, 150% got 1 minutes				
Battery	Number of batteries	32~40pcs configurable				
	Max. Charging Current	3.5A	7A	10A	13A	20A
	Common Battery	Yes				
	Internal Batteries					
Efficency	VFI Mode					
	ECO Mode	98%				
	Backup Mode					

HEAD OFFICE
WB Power Services Ltd
Heanor Gate Road
Heanor Gate Industrial Estate
Heanor, Derbyshire DE75 7RJ

Email us at: sales@wbpsltd.co.uk
Call us 01159 444 422
www.wbpsltd.co.uk