



TAURUS SERIES

Three Phase UPS 10KVA - 60KVA

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THREE PHASE UPS SERIES

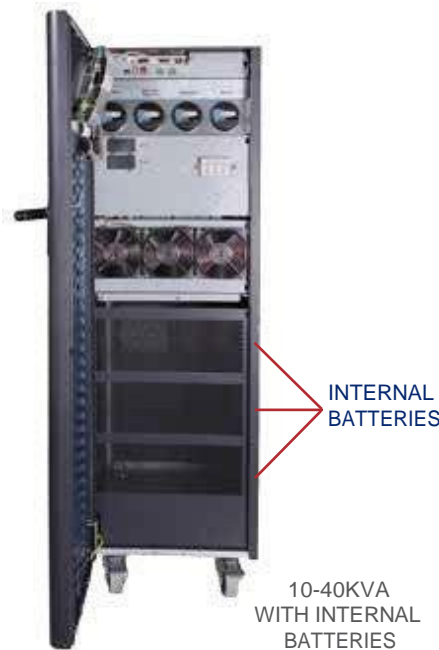
The Taurus is a three-phase, new generation of transformer-less UPS with power factor 1.0 which provides a perfect solution for power protection, and solves power quality problems such as surges, spikes, voltage fluctuations, harmonic distortion, clutter interference and frequency fluctuations.

The Taurus 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. Also, possibility to have dual feed on UPS input adds availability thus increases reliability of system.



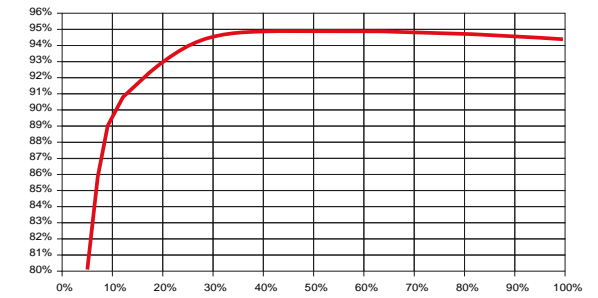
Taurus is available in 10, 20, 30, 40kVA output power rates with internal space for housing max 80 batteries. Further extent reliability is accomplished by introducing intelligent charge mode which significantly prolongs service life of batteries.

To make it more flexible on the existing installation, Taurus can be work with a wide range of battery number: 32-34-36-38-40 blocks per string.



EFFICIENT ENERGY SOLUTION

Power Performance by providing a clean rectifier connection to the utility power. It meets today's industry standards for energy saving, low current harmonic pollution to the utility power.



HIGH EFFICIENCY FROM LOW LOAD TO FULL LOAD

The state-of-the-art three-level inverters of Taurus 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 possible to recover the investment in less than three years of operation.

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.

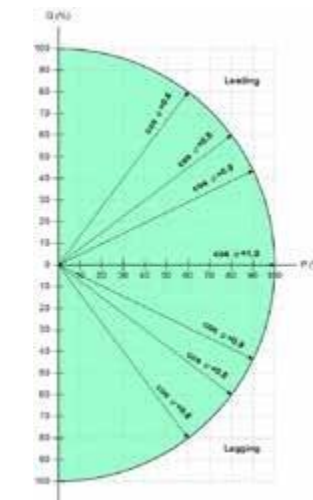
Economy Mode (ECO): Economy mode effectively improves overall efficiency. In ECO Mode grid power is routed through the Static Switch to the load.

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.

SUITABLE FOR THE LATEST GENERATION OF SERVERS

Taurus 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 Taurus fits perfectly with the new generation of server (capacitive load).

The Taurus manage 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.



- 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

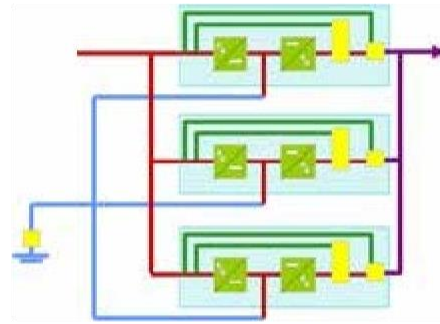
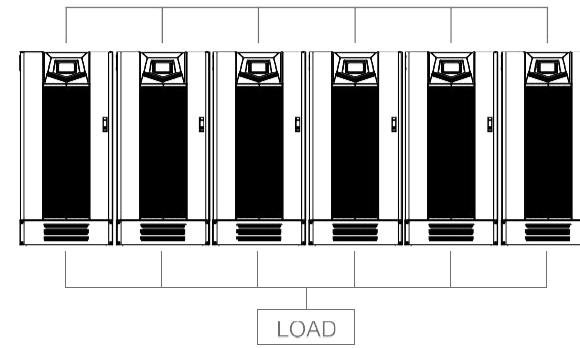
- LOW INPUT HARMONIC DISTORTION, THDi <3%
- UP TO 95% EFFICIENCY IN DOUBLE CONVERSION MODE
- HIGH INPUT POWER FACTOR <0,99
- 3 WORKING MODES: NORMAL, ECO, CONVERTER MODE
- LEADING AND LAGGING WITHOUT DE-RATING



HIGH FLEXIBILITY

With a transformer less design and Energy Saving Storage (ESS) technology, the Taurus is available in various configurations with integrated enclosures and external battery cabinets, ranging from 10kVA to 60kVA to suit your requirements.

The Parallel Redundant System (up to 6) can be configured with common battery bank or individual battery bank to achieve the required back up time autonomy, providing highest load availability and reliability with cost effectiveness. The UPS continue to operate in parallel even if the connection cable is interrupted (Closed Loop).



3 CHARGING MODES

Taurus 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:

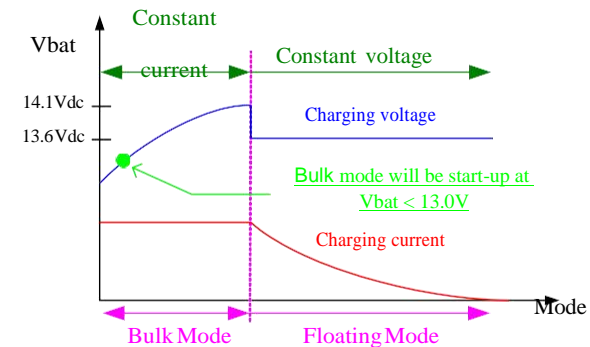
- C. C. Mode: Constant current charge (Equalizing)
- C. V. Mode: Constant voltage charge
- F. V. Mode: Constant voltage charge (Floating)

This system allows recharging the battery in shorter time and preserving the battery life.

COMMON BATTERY

Taurus 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.



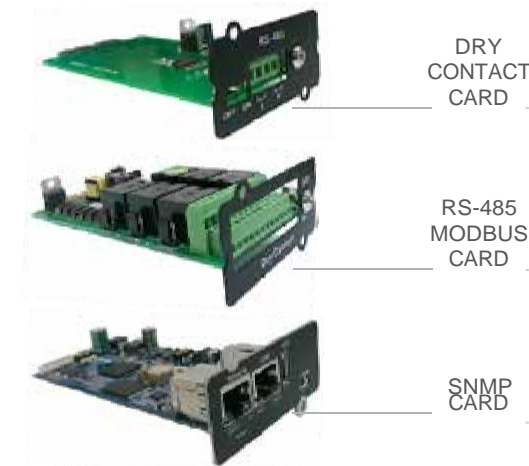
BUILT-IN LCD TOUCH SCREEN

Taurus 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 than 15 languages. It is also possible to implement the by adding more languages if required.

The graphic user interface has been designed with 3 access levels (user, maintenance, and factory) to allow the different user to access or modify only specific parameters.

From the LCD is possible to read and download all the event logs to analyse the status of the UPS and maintain the unit on the proper way.

It is also possible to make graphic customization if customer requires.



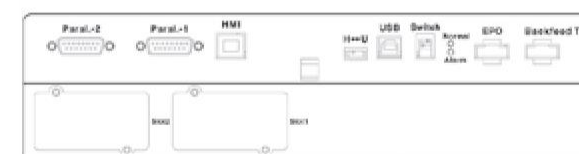
COMMUNICATIONS AND REMOTE MANAGEMENT

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 Parallel communication port LED Status Indicators



EPO-- Emergence 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 and 1 input contact

- 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

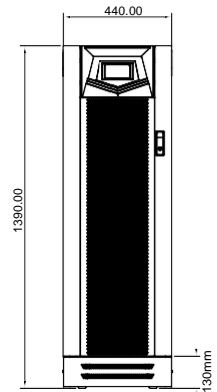
- ADVANCE INTERFACE TOUCH SCREEN DISPLAY
- POWER PEAK SHAVING AND LOAD LEVELLING
- SMALL FOOTPRINT
- COLD START (OPTIONAL)
- LITHIUM BATTERY



DIMENSIONS

TAURUS 10-20 KVA

■ Front view

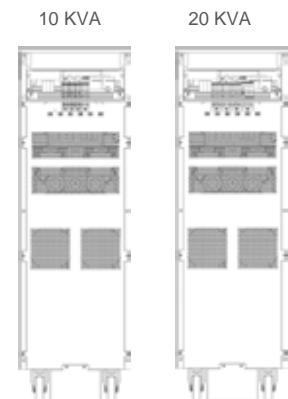


■ Internal view



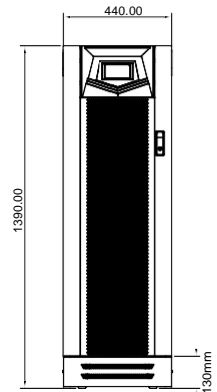
1. Parallel Communication Ports
2. HMI Communication Port
3. Communication Selector for service only
4. USB Port for service only
5. Terminal Resistor Setting Switch for parallel communication
6. Status LED Indicators
7. EPO
8. Backfeed Protection
9. Communication Card Slot2
10. Communication Card Slot1
11. Mains Input Switch
12. Bypass Input Switch
13. Manual Bypass Switch
14. Output Switch
15. Fuses for Control Power
16. Battery Tray (Option)

■ Rear view

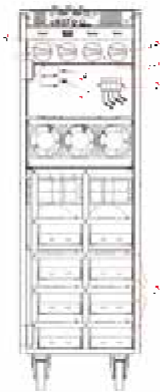


TAURUS 30-40 KVA

■ Front view

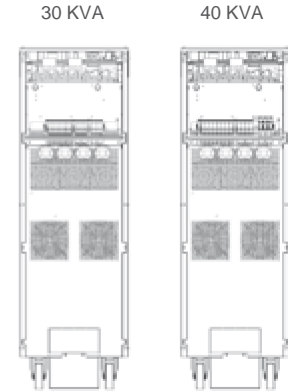


■ Internal view



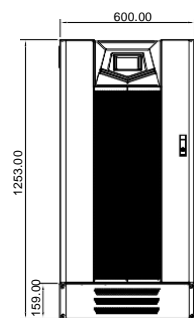
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8. Backfeed Protection
9. Communication Card Slot2
10. Communication Card Slot1
11. Mains Input Switch
12. Bypass Input Switch
13. Manual Bypass Switch
14. Output Switch
15. Fuses for Control Power
16. Battery Tray (Option)

■ Rear view



TAURUS 60 KVA

■ Front view



■ Internal view

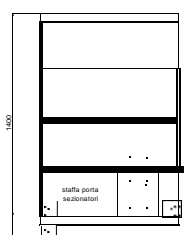


1. Parallel Communication Ports
2. HMI Communication Port
3. Communication Selector for service only
4. USB Port for service only
5. Terminal Resistor Setting Switch for parallel communication
6. Status LED Indicators
7. EPO
8. Backfeed Protection
9. Communication Card Slot2
10. Communication Card Slot1
11. Mains Input Switch
12. Output Switch
13. Bypass Input Switch
14. Manual Bypass Switch
15. Fuses for Control
16. X20: External Battery Connections Terminal (B+,N,B-,G)
17. X10: Mains Input Connections Terminal (R, S,T,N,G)
18. X40: Bypass Input Connections Terminal (R,S,T,N,G)
19. X50: Output Connections Terminal (R,S,T,N,G)

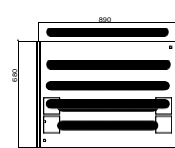
BATTERY BANKS

■ A1-0000 / A2-0000

FRONT VIEW

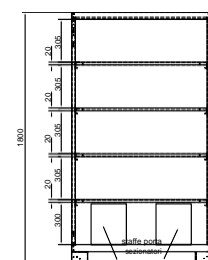


BASE

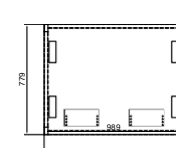


■ B1-0000 / B2-0000

FRONT VIEW



BASE



SPECIFICATIONS

Capacity	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)		<52dBA	<55dBA	<60dBA		
Input	Voltage		400V 3 Phase + N				
	Voltage Tolerance		±20% @ 100% load				
	Frequency		45 ~ 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				
Battery	Overload		110% for 60 minutes, 125% for 10 minutes, 150% for 1minutes				
	Number of batteries		32~40pcs configurable				
	Max. Charging Current		3.5A	7A	10A	13A	20A
	Common Battery		Yes				
Internal Batteries		Available for housing 9Ah 40pcs x 2 strings		Not Available			
Efficiency	VFI Mode		94%		95%		
	ECO Mode		98%				
	Backup Mode		93%		94%		
General	Parallel		Up to 6 units				
	Dimensions (W x D x H) mm		440 x 860 x 1390 with Wheel		600x827x1345 (w/o Wheel)		
	Protection Grade		IP20				
	Display and MMI		4.3" Colorful LCD Touch Screen				
	Built-in Communication Port		RS232, USB, EPO, Dry Contact				
	Optional Communication		2 Communication Slots forSNMP Card, RS-485 Modbus Card, Dry Contact Card				



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