GT Series UPS 30~100 kVA

"Digital Signal Processor (DSP) Controlled, IGBT Technology"
"three/three phase"

- 3-phase in / 3-phase out
- Online Double Conversion
- IGBT Rectifier / Inverter
- DSP Controlled
- Parallel : up to 6 units

The GT series UPS with Green technology Power range gives the highest efficiency performance on the market: up to 93 % over a wide range of uses.

GREEN TECHNOLOGY

An ISO 9001 : 2000 Company

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Properties:

Standard Properties

- IGBT rectifier&inverter technology
- High input power factor (≥0.99)
- Low input current harmonic distortion (THD*i* ≤3%)
- Dynamically wide input voltage range depends on the load
- Intelligent battery management
    - *Adjustible charging current
    - *Temperature compensated battery charging
    - *Automatic and manual battery test
    - *Accurate battery capacity and remaining time on display
    - *Safe battery test by reducing rectifier voltage without switching off rectifier
    - *Compatible with the maintenance free batteries
- Adjustable output frequency: 50 / 60 Hz
- Static and manual (maintenance) bypass
- 7 programmable free dry contacts
- Compatible with generators
- Emergency power off (EPO)
- A wide range of communication options
    - *RS232 and RS485 protocols
    - *MOD-bus connection
    - *SNMP/ Web compatible
- Overload and short circuit protection
- Digital signal processing (DSP) controlling technology.
- 512 event log and operational status record
- Ambient temperature, date and time on display
- Advanced multi-lingual dual LCD panels
- Small footprint and easy maintenance access
- Highly reliable regenerative filtering
- High crest factor (3:1)

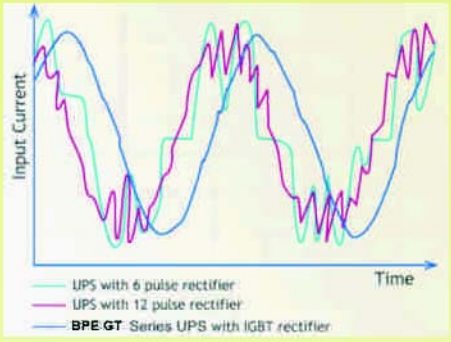
Optional Accessories

- Parallel board for parallel operation
- Remote monitoring panel
- SNMP adapter
- Isolation transformer
- External maintenance by-pass panel

All in one GT Series UPS

Today's embedded applications demand a unique set of features, product life cycle and performance.
follows new technologies and needs of today's contemporary life.
GT Series UPS is designed to meet the growing demands of a new generation of leading-edge embedded products.

In addition to offering high performance, flexibility and robust functionality, GT Series UPS' value is mainly based upon:



- High Technology
- Low Cost
- High Customer Satisfaction

Advantages

- Ideal for a wide range of applications with its high technology, high reliability and efficiency and functional structure.
- IGBT rectifier and inverter based, low THDi, high input power factor (PF ≥0.99); manufactured from 30 to 100 kVA single modules.
- GT series UPS' are parallelable up to 6 units.

- **IGBT Rectifier with PFC (power factor correction)**

With the aid of advanced IGBT rectifier, input power factor close to 1 (≥0.99) and input current harmonic distortion THDi less than 3% are achieved. Ensures clean and sinusoidal input current, avoids pollution of the upstream power supply.

- **Lower overall cost of ownership with high efficiency:**

More efficient UPS offers an advantage of reduced electricity cost. Since a true online UPS runs through energy conversion to supply its load, a percentage of the input power is dissipated in the form of heat. An efficient system keeps this loss to minimum so that the gain becomes high to supply maximum possible energy to the load. GT Series UPS provides up to 93% efficiency due to high input power factor and transformerless inverter design. As a result overall costs decrease and lifespan of the system gets longer.

- **Compatible to non-linear loads with high crest factor**

With high performance DSP and advanced control algorithms, the inverter output voltage regulation is accomplished instantly. When loaded with high crest factor (3:1) non-linear loads, the output voltage is still maintained sinusoid with a very low harmonic distortion. This feature ensures the longevity of the connected loads. The inverter output impedance is maintained low that makes GT series UPS compatible to a wide range of loads. This feature especially is required by some medical easements

Intelligent Battery Management-Guarantees Enhanced Battery Life

DSP controlled battery management provides the possible maximum battery lifespan. Battery monitoring gets real time information of battery capacity and remaining time that facilitates you to proactively plan maintenance operations to avoid any unexpected failures. Besides, UPS tests the batteries at certain adjustable intervals without switching off the rectifier thus even if the batteries malfunction; it guarantees consistent operation of inverter for the critical loads supplied. Temperature compensated battery charging continuously monitors temperature changes in battery cabinets and adjusts the charging rate accordingly that greatly extends the battery life. Moreover, "Hot Swap" feature is available allowing battery change without disconnecting the UPS.

Total Digital Control System

In GT Series UPS structure, in order to control and operate all power stages at their ultimate performance, Digital Signal Processors (DSP) are dedicated. Various complex feedback algorithms, data acquisition, communication protocols are sensed by simultaneously working DSPs. The DSP controlling technology supplies useful features such as high efficiency and reliability.

Features of GT Series Parallel Operation

*Parallel feature is optional depending on customer requirements
*Parallel operation up to 6 units
*Each unit fitted with a bypass static switch
*An extra isolated parallel board
*Accurate current sharing by using DSP based advanced algorithm
*Ring connection
*Sensing the removal of the parallel cable
*Easy power upgrade
*Viewing the whole system on each unit's LCD panel
*Starting/stopping the whole system on each unit's front panel
*Automatic bypass transfer when external bypass switch used
*Synchronization of two separate parallel groups/units

Communication Solutions

A wide range of common communication options are available with GT Series UPS that ensure your command and control over the installed UPS systems wherever they are located worldwide.

SNMP: Network solution

Dry Contacts (Programmable Relay Unit)

Custom Contacts

Connection with EPC with RS232 and RS485 ports

Remote Monitoring Panel

Modbus

UNINTERRUPTIBLE POWER SUPPLY

TECHNICAL SPECIFICATIONS	GT Series				
Power (KVA)	30	40	60	80	100
INPUT					
Voltage	380 / 400 / 415 Vac 3ph + N				
Voltage tolerances	± 15% (without downgrading)				
Frequency	50 / 60 Hz				
Frequency tolerances	± 10%				
Power factor	≥ 0.99				
THDi	< 3%				
BYPASS					
Dual input	Standard				
Voltage	380 / 400 / 415 Vac 3ph + N				
Voltage tolerances	± 10% (adjustable)				
Frequency	50 / 60 Hz				
Frequency tolerances	adjustable up to ± 10%				
OUTPUT					
Voltage	380 / 400 / 415 Vac 3ph + N				
Voltage tolerances	± 1% (static load), dynamic load in accordance with VFI-SS-11				
Frequency	50 / 60 Hz (selectable)				
Frequency tolerances	± 0.1% (self-synchronize), ± 4% (mains-synchronize, adjustable up to ± 5%)				
Power factor	0.8				
THDv	≤ 2% (linear load), non-linear load in accordance with IEC/EN 62040-3				
Crest factor	3:1				
Short circuit current	up to 4.5 x In				
OVERLOAD CAPACITY					
110%	Normal mode continuously				
125%	10 min.				
150%	1 min.				
> 150%	Bypass mode continuously				
EFFICIENCY					
Online	up to 93%				
Eco-mode	up to 98%				
GENERAL					
Technology	True online-double conversion, IGBT rectifier				
Control	DSP, SPWM				
Communication	SNMP, RS232, RS485, MODBUS				
Remote monitoring	SNMPView, UPSMon, Remote panel				
Dry contacts	Programmable 3 dry contacts				
Custom inputs	Generator, Battery temperature sensor, Remote EPO				
ENVIRONMENT					
Operating temperature	from 0 °C up to +40 °C (from 20 °C to 25 °C for maximum battery life)				
Relative humidity	0% - 85% (without condensation)				
Maximum altitude	1000 m (without downgrading), max. 2000 m				
Noise level	< 65 dB (A)				
Paralleling units	up to 6				
UPS CABINET					
Dimensions (W x D x H) (mm)	480 x 890 x 1220				
Weight (kg)	170	185	200	265	320
Degree of protection	IP20				
Colour	RAL7012				
Internal battery	128 pcs. of 7-9Ah / 64 pcs. of 12Ah				not available

We reserves the right to make any changes to data without prior notice.

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