



POWERHOUSE

Reliable Power Solutions

T5 SERIES (10kVA-400kVA)

ST5 (10kVA-400kVA) features true on line double conversion and zero sec. transfer time. Intellectual blocking design, adopts advanced power apparatus IGBT, predominantly a SPWM inverter. It also features MMBM intellectual multi-modes battery management and intellectual monitoring and management software. The parallel capacity can extend the on line parallel redundancy or N+1 for upgradeability.

TRUE ONLINE DOUBLE CONVERSION

Output is isolated by a transformer, with IGBT power units used, making sure a safe working environment for all equipment. Isolation between N and G, and anti-impact from all kinds of surges and disturbances in power. 3 output phases can be adjusted independently, thus allowing 3 phase 100% unbalanced load, flexible load capacity and high system reliability. Especially fit for computer rooms, communication etc.

RELIABLE EMC FEATURES

All products have passed the EMC tests. Testing includes conducting disturbance, radiant disturbance, conducting anti-disturbance, radiant anti-disturbance, power fault, mass pulse, surge, ESD etc. Excellent EMC features allow the ST5 series to be capable of high frequency communication and video & audio broadcasting.

COLD START FUNCTION

Due to a special current limiting circuit on the UPS, the user can start the UPS directly from the battery bank connected for emergency situations in a no mains situation. The UPS can run on cold start on full load.

FULL FUNCTION LCD DISPLAY

All ST5 series products above 20KVA are equipped with large LCD Displays. They also feature real time surveillance on UPS running parameters and status, FE and daily maintenance.

The ST5 features an Intelligent battery management system while batteries are being charged and discharged for longer operational life and higher reliability of the batteries.

FLEXIBLE NET PROJECT MONITORING (OPTIONAL)

Independent digital remote control, supported by RS485, with a range of 1000 meters or SNMP network adapter

ADVANCED NON-MASTER-SLAVE SELF-ADAPTIVE CONTROL TECHNOLOGY (PARALLEL TYPE)

ST5 series parallel UPS features a powerful parallel capacity. There is no need to set the parallel units. The User can extend the parallel capacity as needed for N+1 parallel redundancy. This increases the reliability of the power system.

STAR

T5 SERIES

10kVA -400kVA





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| Model | ST5 010 | ST5 020 | ST5 030 | ST5 040 | ST5 050 | ST5 060 | ST5 080 | ST5 100 | ST5 120 | ST5 160 | ST5 200 | ST5 300 | ST5 400 |
|---|---|---------|---------|------------------|---------|---------|-------------------|---------|---------|---------|--------------------|--------------------|---------|
| Input | | | | | | | | | | | | | |
| Voltage * | 380/400VAC ± 25% | | | | | | | | | | | | |
| Rectifier Frequency Range | 40Hz~65Hz | | | | | | | | | | | | |
| SYNC Frequency Tracking Range | 50Hz ± 5% (± 10% option) | | | | | | | | | | | | |
| Phase | 3φ4W+PE | | | | | | | | | | | | |
| Battery | 12Vdc × 29 = 348Vdc / 12vDC x 30 = 360Vdc | | | | | | | | | | | | |
| Charge Current (Max) | 5~40A (adjustable) | | | | | | | | | | 5~80A (adjustable) | | |
| Charge DC Voltage Regulation | 395V ± 5Vdc | | | | | | | | | | | | |
| DC Ripple Voltage | <1% | | | | | | | | | | | | |
| Output | | | | | | | | | | | | | |
| Capacity (kVA) | 10 | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 120 | 160 | 200 | 300 | 400 |
| Phase | 3φ4W+PE | | | | | | | | | | | | |
| Voltage * | L-N: 220VAC ±1%, L-L: 380VAC ± 1% | | | | | | | | | | | | |
| Frequency | Utility normal, follow in phase automatically, Utility fault, output frequency at 50Hz ± 0.2% | | | | | | | | | | | | |
| Parallel mode (optional) | None-principle-subordinate Adaptive Control Technique, User can extend parallel capacity as needed for N+1 parallel redundancy | | | | | | | | | | | | |
| 3 phase 100% load unbalance voltage stability | ≤2%, allows 100% unbalance | | | | | | | | | | | | |
| Waveform | Sinewave THD ≤ 3% (linear load) | | | | | | | | | | | | |
| Crest Factor | 3:1 | | | | | | | | | | | | |
| Efficiency | 90% | | | | | | | | | | | | |
| Static Bypass Transfer Time | 0ms | | | | | | | | | | | | |
| Overload Capacity | 110% load for 30 min,125% load for 10 min,150% load for 1min | | | | | | | | | | | | |
| Regulation no load to full load steady state | ±2% | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | |
| Panel Display | LCD Display indicates 3 phase input voltage, input frequency, 3 phase output voltage, load, battery voltage, battery charging and discharging etc. LED indicates running status | | | | | | | | | | | | |
| Battery Self-Testing | Automatically sounds an alarm and estimates battery status in battery abnormal status | | | | | | | | | | | | |
| Lightning Protection | Complies with IEC 1312 | | | | | | | | | | | | |
| Operating Temp., Humidity | 0°C-40°C, 95% (non-condensing) | | | | | | | | | | | | |
| Dimension (W x D x H) (mm) | 500 x 800 x 1180 | | | 800 x 800 x 1600 | | | 1000 x 800 x 1800 | | | | 1800 x 1000 x 2000 | 2200 x 1000 x 2000 | |
| Weight (kg) | 185 | 205 | 235 | 430 | 450 | 470 | 680 | 705 | 745 | 805 | 1400 | 2350 | 2380 |

All information contained in this brochure is purely indicative and can not be used to form any contractual obligations. Specification or design can be changed at anytime without prior notice.



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SNMP CARDS

- Internal units to be used with UPS's equipped with an intelligent slot
- External units to be used with UPS's already equipped with RS232 communications
- Web server interface
- Linux, MAC and Windows compatible
- Remotely control UPS's
- Battery management features for UPS's being monitored
- SMS and Email capable for several UPS alarms and statuses
- Shut down multiple PC's and/or servers during a power outage



GSM INTERFACE CARD

- Easy setup with any terminal
- Emulator software
- Flexible messages
- Dedicated standalone operation
- 10 SMS alarm recipients
- No need to use a PC



REMOTE ALARMS PANEL FOR UPS

- LED Indications for Mains Present, Mains Fail, Low Battery and UPS on Bypass
- To be used with UPS's equipped with potential free alarm contacts
- Audible alarm
- Alarm can be cancelled with a push button



BATTERY CABINETS

- Used for all battery types
- In 7 different sizes, selection matrix below for battery size and cabinet sizing requirements



| No. of Batteries | 7.2Ah | 8Ah | 9Ah | 12Ah | 17Ah | 20Ah | 24Ah | 28Ah | 33Ah | 45Ah | 75Ah | 100Ah |
|------------------|-------|-----|-----|------|------|------|------|------|------|------|------|-------|
| A1 | 6 | 6 | 6 | 4 | 4 | 4 | 2 | 3 | 2 | 2 | 1 | 1 |
| A2 | 12 | 12 | 12 | 8 | 8 | 8 | 4 | 6 | 4 | 4 | 2 | 2 |
| A4 | 24 | 24 | 24 | 16 | 20 | 20 | 8 | 12 | 12 | 8 | 4 | 4 |
| A8 | 60 | 60 | 60 | 40 | 40 | 40 | 16 | 24 | 24 | 16 | 12 | 8 |
| A12 | 90 | 90 | 90 | 60 | 60 | 60 | 24 | 36 | 36 | 24 | 18 | 12 |
| A20 | 150 | 150 | 150 | 100 | 100 | 100 | 40 | 60 | 60 | 40 | 30 | 20 |
| A35 | 270 | 270 | 270 | 180 | 180 | 180 | 80 | 110 | 105 | 70 | 50 | 35 |