STARKSTROM

UNINTERRUPTIBLE POWER SUPPLIES

T3-SERIES

6kVA - 10kVA • 1/1 PHASE

ON-LINE DOUBLE CONVERSION

T3-SERIES

6kVA - 10kVA

With ever greater demands being made on the facilities manager, a reliable and robust power supply is crucial in today's clinical world. Starkstrom are proud to introduce the T3-Series On-Line UPS to facilitate this need.

In the past On-Line technology has struggled against low price Line-Interactive and Off-Line topologies offered by some of the world's biggest brands, however with the help of modern production techniques On-Line technology has come of age.

The T3-Series is a physically small On-Line double conversion UPS but retains all the features normally associated with On-Line technology. But what is On-Line double conversion technology and why does it matter? Simply put, "double-conversion" means the mains supply is rectified to a clean DC voltage and rebuilt into a very clean and regulated AC voltage, at all times your critical load runs from this clean no break supply.

Line-Interactive and Off-Line UPS are single conversion, so put in its crudest form, your computer runs on semi regulated mains, and will always suffer a small break in supply whist the UPS moves from mains mode to battery mode in a mains fail situation. The T3-Series offers a competitive price, and as standard, comes with an LCD screen, RS232, USB port, battery extension options, battery monitoring, no-break supply, static switch, wide voltage input without using batteries, optional software, manual internal by-pass switch and comms slot for SNMP/ Relays or Optocoupler.

Parallel

A big advantage offered by the T3-Series 6kVA to 10kVA is that by means of a simple cable the machines can be linked together to form a parallel N+1 system. This offers the client the opportunity to either have a fail safe system or the option to expand the power as the network grows. Up to three machines can be connected in this way, making the T3-Series a flexible and versatile solution.

Standard Properties

- True on-line double conversion technology for high level of protection
- DSP Technology
- Parallel redundancy capability
- Integrated smartcard slot providing a choice of communications interfaces
- Optional specialised UPS management software
- User friendly LCD display
- Failsafe internal bypass
- Switch with manual control
- Long runtime availability
- Advanced microprocessor control

UPS Software

The UPS management software is installed on a server or workstation connected to each UPS via the serial or USB port. Power failure, power restored, battery failure or eight events will be detected and the user informed. A shutdown will be initiated when the batteries are exhausted or a technical problem occurs with the UPS. The UPS management software disconnects network connections, logs out users and closes open applications (subject to app/os support) before shutting down the system itself.

- Extensive log files
- Scheduled battery and inverter testing
- Scheduled system shutdown/re-start
- User-customisable commands and messages
- Multiple UPS control from a single computer
- Remote Console Command module for remote multiple server shutdown
- Internal SNMP sub-agent for integration into existing NMS (e.g. HP OpenView, CA Unicenter)

Screenshots of UPSilon Software

Screenshot of Net Agent Mini Software

UPS Management

Our specialised optional UPS management software gives you the power to monitor and control your UPS from remote locations.

Simple Network Management Protocol (SNMP)

The T3-Series SNMP external agent can be located up to 5 metres away from the UPS. Initial configuration is carried out by serial comms using any suitable terminal application (e.g. Hyperterminal for Windows).

The embedded HTTP server presents an HTML interface to the network, which can be accessed from any web browser. All system parameters can be configured from here, including scheduled shutdown.

A sophisticated Java applet provides full monitoring in real time, along with comprehensive event and history logs.

Which areas within a hospital require IPS & UPS?

These areas are referred to as either “Group 2” or “Clinical Risk Category 5”. The current standards give “examples”, and their associated categories, of medical areas within a hospital based upon safety services and clinical risk. This should be considered as a guide only. The following list tries to summaries these areas.

- Anaesthetic Room
- Operating Theatre
- Operating Plaster Room
- Post Operative Recovery Beds (including stage 1 recovery for day surgery)
- Heart Catheterisation Room
- Intensive Care Rooms, including CCU, ITU
- High Dependency Room
- Angiographic Examination rooms
- Pacing rooms
- Special Care Baby Unit
- Neo-Natal Unit
- Resuscitation Bays (including A&E)
- PET Rooms
- CT Rooms
- MRI Rooms
- X-ray rooms
- Fluoroscopy Rooms
- Gamma Camera Rooms

T3-SERIES

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	6kVA	10kVA
Toplology	True On - Line, Double Conversion	
On- battery Output Waveform	Pure Sine Wave	
Number of Phase	Single (1 º 2W + G)	
INPUT		
Maximum Capacity	6000 VA /	10000 VA /
(VA / W)	4200 W	7000 W
Nominal Input Window	230 VAC	
Input Voltage Regulation	170~285 VAC Single Phase w/ Ground	
Nominal Input Frequency	50/60 ± 4 Hz	
Input PFC	≥0.98	
Input Short Protection	Circuit Breaker	
OUTPUT		
Nominal Output Voltage	220 / 230 / 240 VAC nominal	
Output Voltage Regulation	+ / - 1 %	
Output T.H.D	2% THD (Linear Load)	
	6% THD (Non-Linear Load)	
High Efficiency Mode (AC to AC)	> 88 %	
High Efficiency Mode (DC to AC)	95 %	
Crest Factor	3:1	
Start on Battery	Yes	
Output Frequency	50 Hz + / - 0.5 Hz	
BATTERY		
Typical Backup Time (at full load)	20 / 40 / 70 Minutes	
Battery Type	VRLA to BS6290-4	
Numbers of Batteries (per string)	20 blocks	
Recharge Time to 90%	7 hours	8 hours
DIAGNOSTICS		
Front Panel Indication - LCD	UPS Status, I/P Voltage & Frequency, O/P Voltage & Frequency, Battery Voltage, Battery Capacity, Loading %, Temperature, History Alarm.	
Audible Alarms	Battery Mode, Low Battery, Overload, Fault	
COMMUNICATION		
Communication port	RS232 (Standard) DB9 or USB or AS400 or SNMP / HTTP(Optional)	
SNMP Manageable	Yes	
ENVIRONMENTAL		
Operation Temperature	0-40°C	
Storage Temperature	- 15 to 50°C	
Relative Humidity	20% to 90 % Non-Condensing	
Audible Noise (at 1 meter from surface of unit)	< 55 dBA @ 1 meter	
MECHANICAL		
UPS Dimensions	260 x 570 x 720 (W x D x H mm)	
UPS Weight	50kg	55kg
BATTERY CABINET		
10kVA - 20 Min	Battery Box	480 x 845 x 1670 (W x D x H mm) (Weight) 270kg
10kVA - 40 Min	Battery Box	480 x 845 x 1670 (W x D x H mm) (Weight) 370kg
10kVA - 70 Min	Battery Box	782 x 845 x 1670 (W x D x H mm) (Weight) 605kg

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