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ROTATION+

6kVA - 10kVA PARALLEL
ON LINE DOUBLE CONVERSION

ROTATION+

6kVA - 10KVA

The Rotation+ Series is a Parallel Redundancy On-Line UPS which is the perfect solution for critical users who demand high reliability and performance for crucial electronic equipment and computer loads.

The 6-10kVA series features true On-Line Double Conversion Technology. The Rotation+ Series is field proven and incorporates a full Digital Signal Processor (DSP) technology maximizing patented inverter control technology. The 6-10kVA series is a scalable system which achieves N + 1 redundancy without any additional parts.

Simple Parallel Installation (No extra PCB required)

The Rotation+ Series is designed to run in parallel or N+1 without any changes to its design, all it requires is to be connected via an RJ45 connector in order to run in parallel. Up to four machines can be paralleled allowing clients to expand their power protection as their IT requirements increase.

Power Factor Corrected

To fall inline with modern day power supply equipment the Rotation+ Series is fitted as standard with input Power Factor correction.

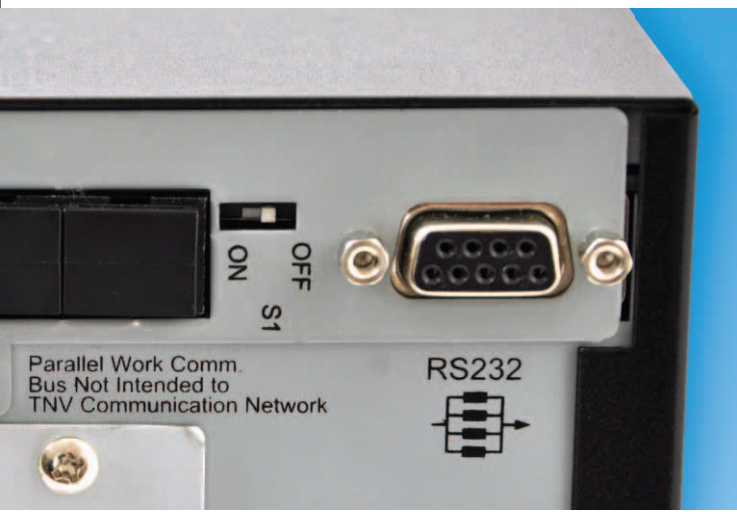
This ensures that the current and voltage are drawn in unison (typically .99); this discreet technical specification guarantees real energy savings.

Super Compact Convertible Design

The compact design of the Rotation+ Series means it occupies less space in a 19" rack than its equivalent competitor, with the help of an optional mod kit the Rotation can also be used in 21"cabinets. When being used as a floor standing UPS feet are supplied.

i-Batt

The i-Batt technology automatically manages the discharge voltage according to the load capacity. The i-Batt control system prevents deep discharging of the batteries under mains fail conditions. Upon detection that the batteries are reaching their discharge limit, they will be isolated which prevents any damage.



Full Digital Signal Processor (DSP) Control

Provides both pure sine wave at the output and perfect sine wave on the input ensuring compatibility with all kinds of loads. Full DSP technology also allows:

• Programmable Frequency Converter

Reprogram the UPS to be a frequency converter for either 50HZ or 60 HZ through the front mounted keypad.

• Customise Options

Through the LCD front panel default parameters such as input/output voltages, synchronisation windows, bypass voltage tolerance and buzzer alarm status can all be set by the client.

• Intelligent Self-Diagnostics

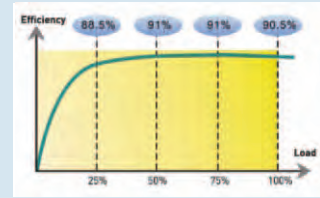
The on board DSP monitoring system allows potential faults to be pin-pointed rapidly, this results in faster repair times and easier servicing. Simply access the service mode and check each module step by step, the results will be displayed on the panel and no laptop is required.

• Smart fan control

The speed of the cooling fans is controlled and adjusted according to load or temperature conditions. By reducing speed, efficiency is increased and noise levels are reduced.

Energy Efficient UPS

The AC to AC efficiency of the Rotation+ Series has the ability to reach 91% efficiency.
This is an amazing testimony on the fundamental design concept of the Rotation+ Series.



LCD Mimic Panel

An easy to read display provides real time status on all critical UPS parameters which includes:
AC voltage, frequency, battery voltage, load level, internal temperature etc.

“Parallel redundancy – UPS rack or tower configurable.”

Optional Accessories

- EPO function
- Maintenance manual bypass
- Galvanic isolated transformer
- External battery charger box 1000 watts/4amps

Comms Option Slot

The comms slot allows flexibility in Network Configuration.

Optional cards include 2nd RS232 serial port, 2nd USB, dry contact for BMS applications, SNMP for web functionality.

Matching Battery Cabinet

The Rotation+ Series is also available with standard matching battery cabinets which extend UPS run time, autonomy can be extended into hours if required.

Power Range and Runtime Scalability

The Rotation+ Series provides excellent return on investment. The system is fully modular which allows you to increase the overall power output, battery runtime and redundancy as and when required.

Note: This same system allows for N+1 configuration providing the power being drawn is no greater than any remaining UPS in the string.

Cold Start Function

Enables users to turn on the UPS without connecting to the utility.

Smart Eco Mode

In ECO mode power to the load is supplied via internal static switch. Upon mains failure the load will instantaneously be reconnected back to the inverter, this is all achieved with no disturbance or threat to the IT or EPOS network.

True double Conversion On-Line Technology

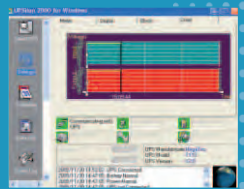
Line Interactive or Off Line UPS feed the mains directly or indirectly, via a transformer to the load. This has the advantage of slightly increasing efficiency but at the cost of exposing the connected equipment to an unregulated or semi regulated supply. Under mains fail conditions both these technologies create a break in supply when engaging or disengaging the batteries, typically 7 to 20ms.

Double Conversion is not subject to any of the problems mentioned above. Upon connection to the UPS the AC supply is converted to DC, the DC is then reconstructed into a perfect interference free sinusoidal waveform, all this is achieved whilst maintaining high efficiency. The reconstructed AC supply is continuously connected to the load through an inverter, thus your load will never see a break in supply, hence the term “On-Line”.

UPS Software

The UPS is equipped with monitoring/shutdown software as standard. The software allows control of the UPS and its ability to instigate a structured auto shut down (subject to operating platform). Other communication features:

- Remotely test major operating functions of the UPS
- Communicate via SNMP/WEB card
- Access UPS functions via the web



ROTATION+

TECHNICAL SPECIFICATIONS • 6kVA - 10kVA

SPECIFICATIONS	6kVA	10kVA
INPUT		
Voltage Window	160-280 VAC	160-280 VAC
Frequency	45-65 Hz	45-65 Hz
Phase / Wire	Single Line + Neutral + Grd	Single Line + Neutral + Grd
Power Factor	up to 0.99	up to 0.99
Current THD (100% Linear)	< 6%	< 6%
OUTPUT		
Voltage Window	220/230/240 VAC	220/230/240 VAC
Voltage Adjustment	Nominal +1-3% / -1-3%	Nominal +1-3% / -1-3%
Voltage Regulation	+/-2%	+/-2%
Capacity	6000VA / 4200W	10000VA / 7000W
Rated Power Factor	0.7 Lag	0.7 Lag
Wave Form	SINE WAVE	SINE WAVE
Frequency Regulation	+/- .2% (Free Running)	+/- .2% (Free Running)
Transfer Time	0ms	0ms
Crest Factor	3:1	3:1
Efficiency AC to AC	95%	95%
DC Start	Yes	Yes
BATTERY		
Type	Sealed Lead Acid Maintenance Free	
Quantity	20 pcs	20 pcs
Voltage	240 Vdc	240 Vdc
Recharge Time (typical)	4 hours to 90%	5 hours to 90%
DISPLAY		
Status on LCD	Line, Back-up, ECO Mode. Bypass Supply, Battery Low, Disconnect Battery, Overload, Transferring with interruption & UPS Fault	
Readings on LCD	Input /Output Voltage, Input/Output Frequency, Load Percentage, Battery Voltage & Internal Temperature	
Self-Diagnostics	Upon Power-ON, Front Panel Setting & Software Control, 24-HOUR Routine checking	
ALARMS		
Audible and Visual	Line Failure, Battery Low, Transfer to Bypass, System Fault Conditions	
PROTECTION		
Overload	Inverter Supply: 105% - 150% for 160 Seconds	
Short Circuit Protection	Yes	Yes
Overheat	Yes	Yes
Battery Low	Alarm and Switch off	Alarm and Switch off
Heat Dissipation at full load	< 615W	< 1100W
PHYSICAL		
Dimensions (WxDxH)	440x680x88* (2u)	440x680x132* (3u)
Input / Output Connection	Hardwired	Hardwired
Net Weight	24 KG	28 KG
QUALITY		
Quality Assurance	ISO9001 Certified	ISO9001 Certified
Safety Standard	EN62040-1-1, UL1778	EN62040-1-1, UL1778
EMC Standard	EN62040-2, EN61000-3-2, EN61000-3-3, FCC Class A	
Marks	CE, UL	CE, UL

* Batteries separate