



## WHALE SERIES

LOW Frequency Online UPS 10-200KVA  
10-200KVA (3 Ph IN/1 Ph out & 3 PH IN/ 3Ph out)

### High intelligence and reliable Power supply:

Whale series provides maximum protection for vital mission-critical networks, security applications (electro-medical) and industrial applications thanks to its outstanding mechanical and electrical design.

The load is powered continuously by the inverter with a filtered, stabilized and regulated sinewave supply. The input and output EMI filters considerably increase the immunity of the load to mains disturbances and surges.

The Whale series uses on-line double conversation technology (VFI) with isolation transformer on the inverter output.

The Whale series is supplied with watch & save 3000 software as standard and can be remotely monitored using the power NetGuard system from anywhere in the world. Additional battery extension packs allow the standard battery runtime to be extended up to several hours.

#### Application:

Servers  
Local Area Networks (LAN)  
Data centers  
Telecommunications  
Electro-medical equipment.  
MINIMUM IMPACT ON SUPPLIES EASY

#### SOURCE:

Input current distortion <4% for the Whale series with filter with sinusoidal absorption to remove the risk of resonance with other input supply users or phase shift capacitor sets. The absorbed current distortion is independent of input supply parameters such as impedance. This enable Whale series to deliver maximum performance levels regardless of the installation environment. With these input features Whale series can achieve significant saving in terms of sizing and power supply sources isolation transformers and generators over less sophisticated power systems.

#### MAXIMUM BATTERY CARE:

Battery deep discharge protection;  
Temperature compensating charger;  
Built-in automatic and manual battery test feature.

#### SIMPLE TO INSTALL:

Capability to install the UPS into any distribution system (neutral not required on rectifier input);  
Capability to separate the rectifier/bypass power networks and to power these from two separate sources, without Galvanic isolation (Necessary on UPS without an output transformer).

#### HIGH RELIABILITY:

Extremely high short-circuit current to ensure compatibility with the most difficult transformer applications (lighting drives and industrial processes) and an isolation transformer on the inverter output;  
Full microprocessor control with no-break static and manual bypasses;  
IGBT technology.

#### OTHER CHARACTERISTICS:

0.8 power factor make Whale series suitable for powering ICT and industrial loads;  
High level diagnostics: event log with 128 messages, states, measurements alarms- available from the built-in LCD with several languages;  
BACK FEED protection: to avoid energy feeding back into the main supply cause a fault occur.

#### MAXIMUM RELIABILITY AND AVAILABILITY:

Connect up to 6 units in parallel or N+1 redundancy, even of different power rating. The UPS continue to work in parallel even if one of the interconnecting communication cables is disconnected (CLOSED LOOP).

#### LOW CONSUMPTION LEVELS:

Whale series can achieve efficiencies >98% thanks to selectable Economy Mode which can be used in stable electrical environments to provide power supply continuity should the mains fail.

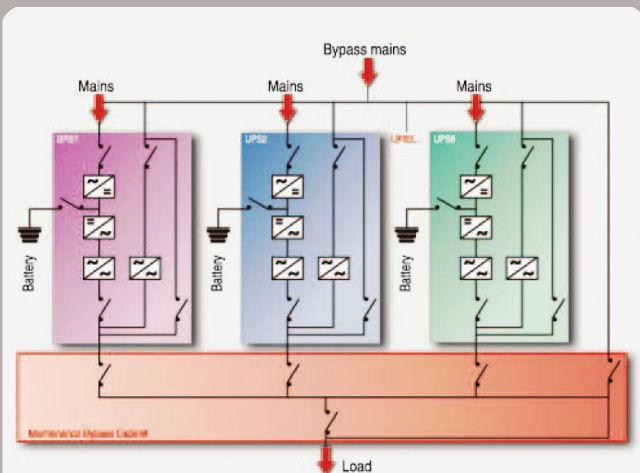
#### ADVANCE COMMUNICATION:

Compatible with TeleNetGuard for remote maintenance;  
Advanced, multi-platform communication for all operation systems and network environments:  
Watch & Save 3000 monitoring and shut-down software included, with SNMP agent, for Windows 2008, Vista, 2003, XP; Mac OS X, Linux, Novell and most popular Unix operating systems;  
The UPS is supplied with a cable for direct connection to the PC (Plug and Play);  
RS232 double Serial port;  
Installation slot for an Emergency Power Off (EPO) interface to allow the UPS to be switched off remotely in an emergency;  
Generator interface: enables desynchronisation of the UPS output from a generator supply which may be subject to phase and frequency variations. The interface also enables more economic use of the battery charge..

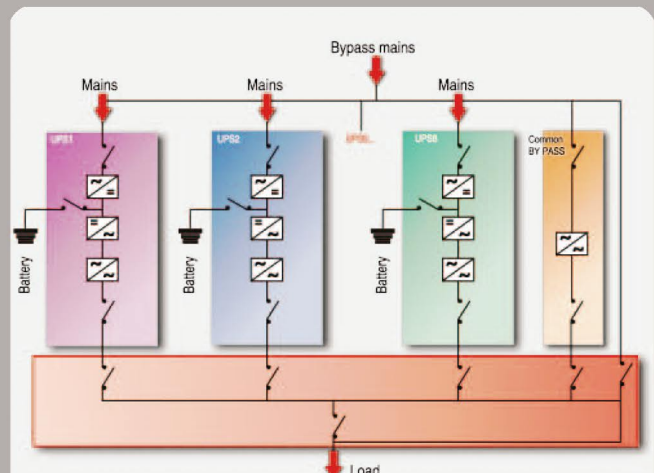
## EXPANDABILITY:

The units can be connected in parallel up to 8 units to increase power availability or redundancy. The single module or the system can be expanded any time to suit power requirements without influencing the initial investment.

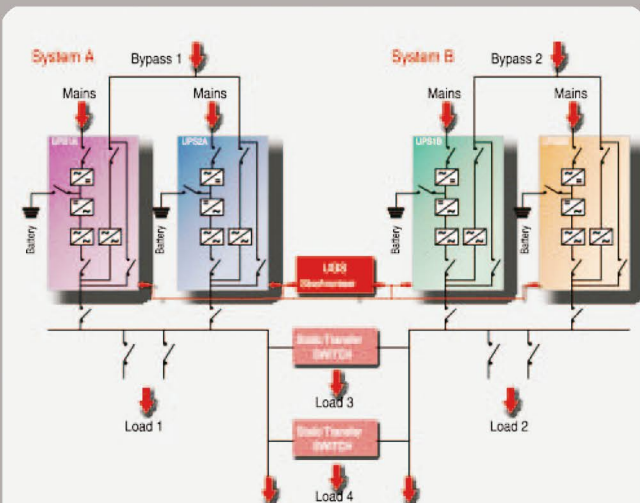
Thanks to the peculiarity of the "Hot System Expansion" feature, the additional unit can be connected in parallel while the other units are on-line and supplying regular power to the load. The new UPS is on-line and will be set up automatically.



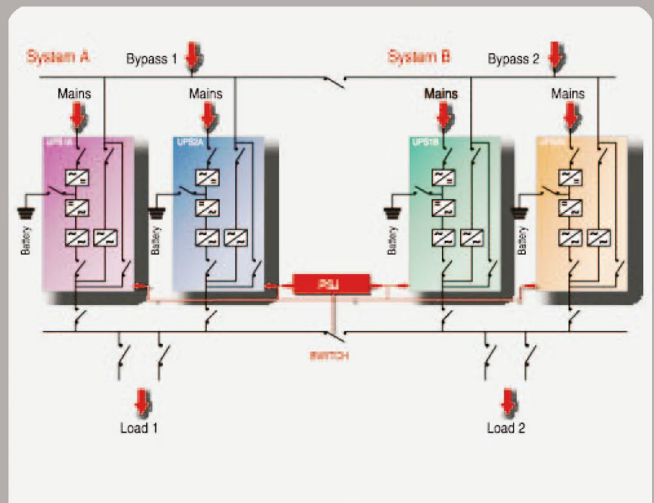
Parallel configuration of up to 8 units with distributed bypass  
Parallel architecture which guarantees the redundancy of the power source. + Flexibility and modularity



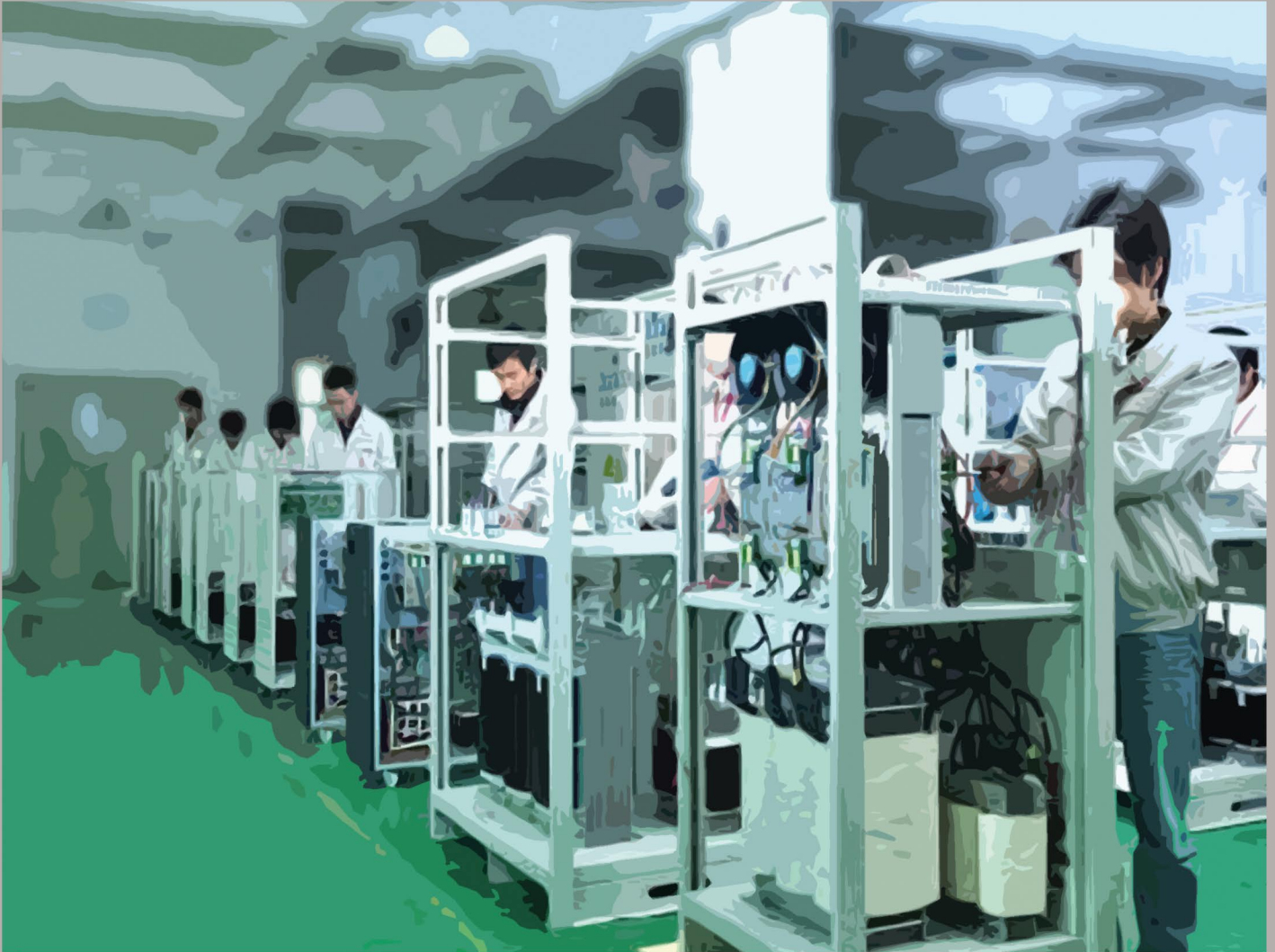
Parallel configuration of up to 8 units with common bypass  
Parallel architecture which guarantees the redundancy of the power source, with autonomous bypass management. + Selectivity downstream faults in bypass mode



Dynamic dual bus configuration  
Solution which ensures redundancy until the distribution of the power supply to the loads + Downstream fault discrimination



Dual bus system configuration  
Solution which guarantees the redundancy of the power supply even during maintenance + High levels of availability and redundancy



GP9332C 10-40KVA can batteries inside



Inner structure



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## UPS Power Solutions Expert WH9312C series Technical Specifications

Model Power(kVA)	WH9312C 10-100KVA								
	10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA	
Capacity	8KW	12KW	16KW	24 KW	32KW	48KW	64 KW	80KW	
<b>Input</b>									
Rated voltage	400 Vac three-phase								
Voltage range	± 20%								
Frequency range	45+65Hz								
Power factor	>0.92 with harmonic filter								
Current harmonic distortion	<5% with harmonic filter								
Soft Start	0-100% in 10"								
<b>Bypass Input</b>									
Rated voltage	230Vac single-phase								
Permitted voltage range	±15%(selectable from ±10% to ± 25% from front panel)								
Rated frequency	50/60Hz								
Permitted frequency range	± 2%(selectable from ±1% to ± 5% from front panel)								
Standard features	BackFeed protection; split bypass line								
<b>Batteries</b>									
Type	Maintenance-free lead-acid VRLA AGM / GEL; NiCd								
Maximum recharge current(A)	0.2XC10								
AC ripple voltage	<1%								
<b>Inverter output</b>									
Rated power(kVA)	10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA	
Active power(kW)	8KW	12KW	16KW	24 KW	32 KW	48KW	64 KW	80KW	
Number of phases	1								
Rated voltage(V)	230Vac single-phase /380Vac three-phase								
Regulation of the output voltage	220*244Vac phase/neutral(from control panel)								
Crest factor(I <sub>peak</sub> /I <sub>rms</sub> )	3:1								
Static stability	±1%								
Dynamic stability	±5%								
Frequency	50/60Hz configurable								
Overload	110% 125% 150% of the rated current for 5h/1071'								
Frequency stability	±0.05% on mains failure								
System	10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA	
Remote signaling	Volt free contacts								
Remote controls	EPO and Bypass								
Communication	RS232 + remote contacts								
Operation temperature	0°C / + 40t								
Relative humidity	<95% non-condensing								
Colour	Light grey (RAL 7035)								
Noise	54dBA at 1m		60dBAat1m 65dBAat1m						
Protection degree	IP20								
Efficiency Smart Mode	up to 98%								
Compliance	Safety:EN 62040-1-1 (Directive 2006/95/EC); EMC:6200-2(Directive 2004/108/EC)								
Weight (KG) N.W	200	220	230	290	340	440	520	770	
Dimensions: (WxDxH)mm	555X720X1200					800X740X1400		1070X740X1400	
Internal batteries	Yes	Yes	Yes	No	No	No	No	No	