

CNG310 Series Technical Specifications

CNG310    10-100KVA								
Model	10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA
Capacity	8KW	12 KW	16 KW	24 KW	32 KW	48 KW	64 KW	80 KW
Input								
Rated voltage	380/400/415 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"							
Bypass Input								
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 portection; split bypass line							
Batteries								
Type	Maintenance-free lead-acid VRLA AGM / GEL;NiCd							
Battery Voltage	384VDC							
Maximum recharge current(A)	0.2 X C10							
AC ripple voltage	<1%							
Inverter output								
Rated power(kVA)	10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA
Active power(kW)	8KW	12 KW	16 KW	24 KW	32 KW	48 KW	64 KW	80 KW
Number of phases	1							
Rated voltage(V)	230Vac single-phase							
Regulation of the output voltage	220 ~ 244Vac phase/neutral(from control panel)							
Crest factor(Ipeak/Irms)	3:1							
Static stability	±1%							
Dynamic stability	±5%							
Frequency	50/60Hz configurable							
Overload	110% 125% 150% of the rated current for 5h/10'/1'							
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℃ to + 40℃							
Relative humidity	<95% non condensing							
Colour	Light grey (RAL 7035)							
Noise	54dBA at 1m		60dBA at 1m		65dBA at 1m			
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	176	220	205	213	295	440	520	770
Dimensions:(WxDxH)mm	555*730*1210					800*730*1400		1115*730*1400
Internal batteries	optional	optional	optional	No	No	No	No	No

STANDARD: Conform to GB/IEC regulation: EMC:GB7260.2/IEC62040-2 -GB/17626.2~5/IEC61000-4-2~5 SAFETY:GB4943  
Note: Product specifications are subject to change without further notice.



CNG330 Series Technical Specifications

CNG330 10-600KVA															
Model	10KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA	120KVA	160KVA	200KVA	250KVA	300KVA	400KVA	500KVA	600KVA
Capacity	8KW	16 KW	24 KW	32 KW	48 KW	64 KW	80 KW	96 KW	128 KW	160 KW	200KW	240KW	320KW	400KW	480KW
Input															
Rated voltage	400 Vac three-phase														
Voltage range	380/400/415VAC(+25%,Can be set through the LCD panel)														
Frequency range	40-70Hz(Automatically select synchronization range according to grid frequency)														
Range(HZ)	50±5%(±10%)Bypass synchronization tracking														
Rectifying pulse number	6 pulse rectification					6/12 pulse rectification					12 pulse rectifier				
Phase system	3 ϕ 4W+PE(Three phase five wire system)														
Battery voltage(VDC)	384													480	
Battery quantity(section)	Standard with 32(30~34, can be set through the LCD panel) Standard 40 knots(38~42 knots,can be set by LCD panel)														
Output															
Power factor	0.8/0.9(optional)														
Voltage(V)	L-N: 220±1% L-L: 380±1%														
Three-phase 100% load unbalance voltage stability	≤2%,Allow 100% imbalance														
Frequency(HZ)	Normal power, tracking the frequency of power, Grid abnormal. 50±0.2%														
Transfer time(ms)	0														
Parallel operation mode (parallel type)	8 parallel machine														
Waveform distortion	Linear loadTHD<3%; Nonlinear loadTHD<5%														
Overload capacity	125% full load for 10 minutes, maintain 150 % full load for 1 minute and then switch to bypass power supply, after reducing the load can automatically restore the inverter														
Crest factor	>3:1														
Others															
Index	Standard with no transfer time maintenance bypass switch														
Communication function	Provides dry contract communication and RS232/RS485, Optional SNMP option to achieve intelligent monitoring of UPS.														
Panel display	LED displays working status and fault indication; LCD displays three-phase input voltage, input frequency, three-phase output voltage, load ,battery voltage, battery charge and discharge current, etc														
Display	LCD 7" touch screen display														
The audio noise(dB)	<65(within 1 meter)														
Alarm function	Battery low voltage, abnormal power supply, overload, UPS failure, over temperature protection														
Protection	Input over voltage, battery under voltage, overload, short circuit, over temperature protection														
Cooling way	Forced cooling														
Operating temperature(℃)	0~40														
Humidity	0~95%, non-condensing														
electromagnetic compatibility	Conform GB7260.2														
Size(W*D*H)(mm)	540*660*1135				1100*800*1800		800*800*1900		1200*850*1900				2600*1100*2000		
Weight	196	233	276	329	461	547.5	643	754	1375				1510	1646	

STANDA D: Conform to GB/IEC regulation: EMC:GB7260.2/IEC62040-2 -GB/17626.2~5/IEC61000-4-2~5 SAFETY:GB4943  
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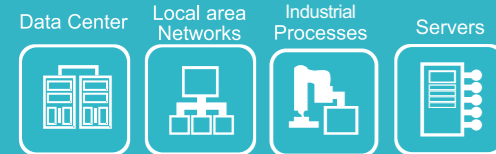
Low Frequency Online UPS 10-600KVA

CNG310 & CNG330 Series

GREEN ENERGY SAVING ENVIRONMENTAL PROTECTION

# CNG310 & CNG330 Series

Low Frequency Online UPS 10-600KVA



## Product snapshot:

Model:CNG310 10-100KVA(3Ph/1Ph)  
Model:CNG330 10-200KVA(3Ph/3Ph)  
Nominal Input Voltage: 380/400/415VAC  
Output Power Factor:0.8/0.9(optional)  
Parallel: Maximum 8PCS UPS  
Battery can be shared in parallel mode



## High intelligence and reliable power supply:

Due to its outstanding mechanical and electrical design,CNG310\330 series UPS provides maximum protection for vital mission-critical networks, security applications (electro-medical) and industrial applications.

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 CNG310/CNG330 uses on-line double conversion technology (VFI) with isolation transformer on the inverter output.

The CNG310/CNG330 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 Network(LAN)  
Data centers  
Telecommunications  
Electro-medical equipment

## MAXIMUM BATTERY CARE:

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

## MINIMUM IMPACT ON SUPPLIES EASY SOURCE:

Input current distortion <4% for the CNG310/CNG330 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 CNG310/CNG330 to deliver maximum performance levels regardless of the installation environment. With these input features CNG310/CNG330 can achieve significant savings in terms of sizing and power supply courcesiso- ation transformers and generators over less sophisticated power systems.

## 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 them 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 makes CNG310/CNG330 suitable for powering ICT and Industrial loads;
- High level diagnostics: event log with 128 messages, states, measurements and alarms – available from the built-in LCD with several languages;
- BACK FEED protection: to avoid energy feeding back into the mains supply cause a fault occur.

## MAXIMUM RELIABILITY AND AVAILABILITY:

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



## LOW CONSUMPTION LEVELS:

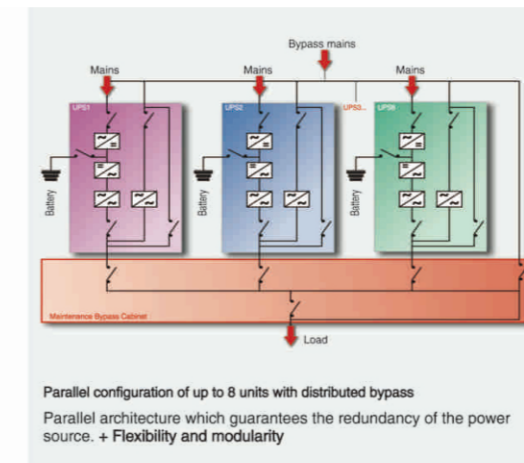
CNG310/CNG330 can achieve efficiencies >98% thanks to selectable Economy Mode which can be used in stable electrical environments to provide power supply continuity when the mains fail.

## ADVANCE COMMUNICATION:

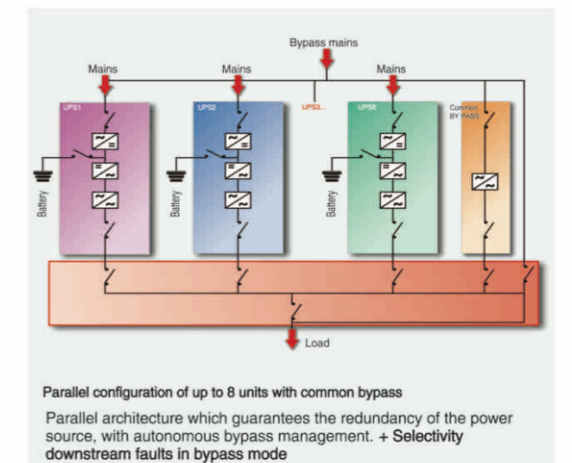
- Compatible with TeleNetGuard for remote maintenance;
- Advanced, multi-platform communication for all operation systems and network environments: Watch & Save 3000 monitoring and shut-down software included, with SNMP agent, for Windows 2008, Vista,2003, XP; Mac OS X, Linux, Novell and most popular 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 :

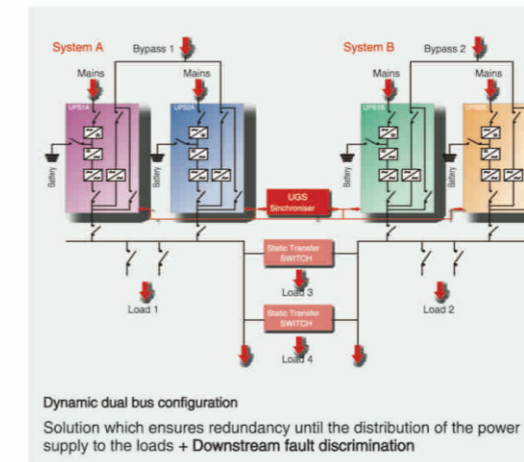
- The units can be connected in parallel up to 8 units to increase power availability or redundancy. The single module or the system can be expanded any time to suit power requirements without influencing the initial investment.
- Thanks to the peculiarity of the “Hot System Expansion” feature, the additional 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.



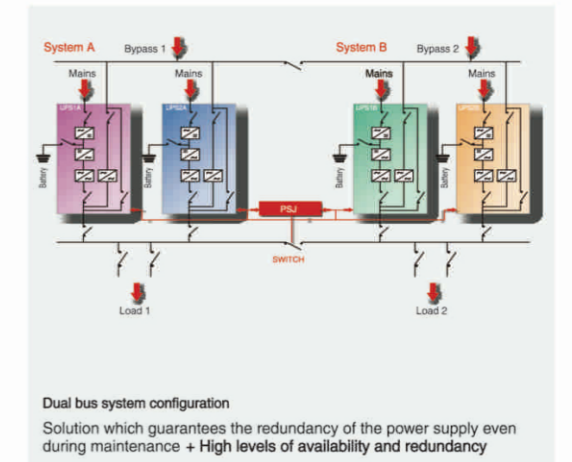
Parallel configuration of up to 8 units with distributed bypass  
Parallel architecture which guarantees the redundancy of the power source. + Flexibility and modularity



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