

CNI310 Series Technical Specifications

CNI310 10-100KVA								
Model	10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA
Capacity	8KW	12KW	16KW	24KW	32KW	48KW	64KW	80KW
Input								
Rated voltage	380/400/415 Vac three-phase							
Voltage range	±20%							
Frequency range	50/60HZ±5%							
Power factor	≥0.8							
Current harmonic distortion	<5%with harmonic filter							
Soft Start	0-100% in10"							
Bypass Input								
Rated voltage	220/230/240 Vac 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							
Maximum recharge current(A)	0.2 X C10							
DC Voltage	384VDC							
AC ripple voltage	<1%							
Inverter output								
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								
Remote signaling	Volt free contacts							
Remote controls	EPO and Bypass							
Communication	RS232 + remote contacts							
Operation temperature	0℃ / + 40℃							
Relative humidity	< 95% non condensing							
Colour	Light grey (RAL 7035)							
Noise	54dBA at 1m		60dBA at 1m		65dBA at 1m			
Protection degree	IP42							
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	260	290	340	440

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.



CNI330 Series Technical Specifications

CNI330 10-160KVA											
Model	10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA	120KVA	160KVA	
Capacity	8KW	12KW	16KW	24KW	32KW	48KW	64KW	80KW	96KW	128KW	
Input											
Rated voltage	380/400/415 Vac three-phase										
Voltage range	±20%										
Frequency range	50/60HZ±5%										
Power factor	≥0.8										
Current harmonic distortion	<5%with harmonic filter										
Soft Start	0-100% in10"										
Bypass Input											
Rated voltage	380/400/415 Vac three-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										
Maximum recharge current(A)	0.2 X C10										
DC Voltage	384VDC								480VDC		
AC ripple voltage	<1%										
Inverter output											
Number of phases	3+N										
Rated voltage(V)	380/400/415 Vac										
Regulation of the output voltage	348~424Vac 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;±2%(selectable from ±1% to ±5%)with mains supply present										
System											
Remote signaling	Volt free contacts										
Remote controls	EPO and Bypass										
Communication	RS232 + remote contacts										
Operation temperature	0℃ / + 40℃										
Relative humidity	<95% non condensing										
Colour	Light grey (RAL 7035)										
Noise	54dBA at 1m						50-65dBA at 1m				
Protection degree	IP42										
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	855	1300	

STANDARD: Conform to GB/IEC regulation: EMC:GB7260.2/IEC62040-2 -GB/17626.2~5/IEC61000-4-2~5 SAFETY:GB4943  
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Industrial Special UPS 10-160KVA

CNI310 & CNI330

Series

GREEN

ENERGY SAVING

ENVIRONMENTAL PROTECTION





# CNI310 & CNI330 Series

Industrial Special UPS  
10-100KVA (3Ph in & 1Ph out) 10-160KVA (3Ph in & 3Ph out)

Industrial Processes



## Product snapshot:

Model: 10-160KVA  
Nominal voltage: 380/400/415VAC  
Nominal frequency: 50/60Hz  
Output Power factor: 0.8



## High-reliability Industrial Grade Design:

The CNI310 & CNI330 system is composed of power special-purpose UPS, DBW bypass regulator cabinet, PDU series feeder cabinet. CONSNANT company apply herself to the development of China's electricity demands for power plants, substations, power distribution products are designed with online double conversion, zero conversion function. Main applications including electric power long distance, RTU, power carrier wave, power monitoring and so on. When the utility power is normal, single phase 220V (or three-phase 380V.) After isolation, rectification and filtering through the inverter to provide a stable power supply to the load; if the input AC power is abnormal or power failure, the backup power system by the DC screen provide power supply through non-return diode inverter. When the DC screen occurs voltage shortage or power break, the static switch transfer to bypass for power supply; When the electricity is restored, the inverter automatically switches to utility power and provide power supply under inverter mode. If the inverter overload or fault and transfer power supply under bypass mode, also give a warning signal at the same time.

Security for key equipment continuing to run, we offer all serial of uninterruptible AC power system and relative distribution and complete power distribution products, including individual products, integrated system, personal network security, IT, medical systems, provide good power protection and stable operation for manufacturing.

## Application:

Petroleum, chemical industry, gas and power station...

## Key Features:

- Adopt full digital control technology.
- Intelligent detection and monitoring function.
- Digital control and static switch zero switching.
- Input/output full isolation
- DC UPS isolated with utility power completely.
- Cubicle design with power standard.
- Multifunctional protection for overvoltage, low voltage,
- Overcurrent, short circuit and so on.
- Large-screen LCD monitor Chinese and English operation interface.
- Ultralong 256 event records, user-friendly analysis and management to the situation of power supply.
- Static bypass has a strong anti-overload capacity.

## Control System

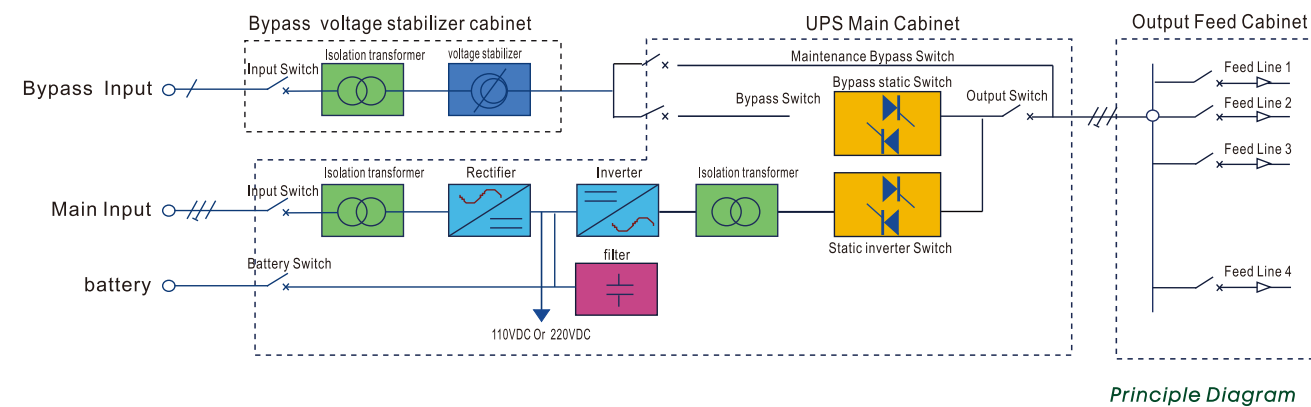
Adopt microprocessor bus control technology and ensure the real-time control of rectifier, inverter, static switch as well as coordination of each power part, characterized by increased control of aging, higher reliability, enhance the efficiency of complete UPS system and the output technical parameters are better than that of the general capacity of equipment.

## Rectifier

6 pulse or 12 pulse fully controlled bridge (6 or 12 SCR) composed of rectifier, its function is input AC 380V rectified for DC 405V or so. Control features for the "slope" start, that is to say the output voltage of rectifier within 10 seconds from the 0V to 405V and no impact on the power grid.

## Inverter

6 IGBT high power tubes of SPWM (sinusoidal pulse width modulation) composed of all Control bridge. It's function is to transform DC voltage for standard sinusoidal AC voltage by the special ( $\Delta/Y$ ) zero phase shift zigzag type isolation transformer and become AC220V as load required; In addition, the transformer can eliminate from such as computer(non-linear load) reflect three times harmonic current capacity. Control feature adopt a "slow-down gate voltage" protection technology and greatly reduce the disturbance shutoff of inverter (inverter and static switch change each other), and increase the over-load capacity of complete UPS system, short circuit and anti-overload are better than general UPS, especially it's anti-short-circuit capacity is unmatched by similar devices.



## Static Switch :

Not sync automatically switch:

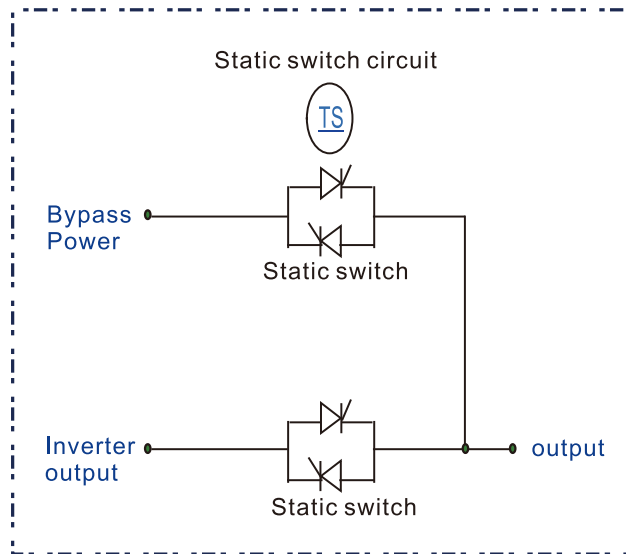
- When the bypass of UPS and inverter are not synchronized, system can automatically implement not sync switch, such as city electricity surge pulse width <5ms can ensure no power cutoff.
- When the bypass exceed limit, UPS will detect the bypass every 20ms, as long as the phase angle difference of bypass and inverter come back to the normal range, not synchronized bypass switch can be realized.

## Intelligent Monitoring :

Via RS232/RS485, passive contact and power transmitter signal to transfer working status of UPS and real-time data to the DCS system, finally realize intelligent monitoring.

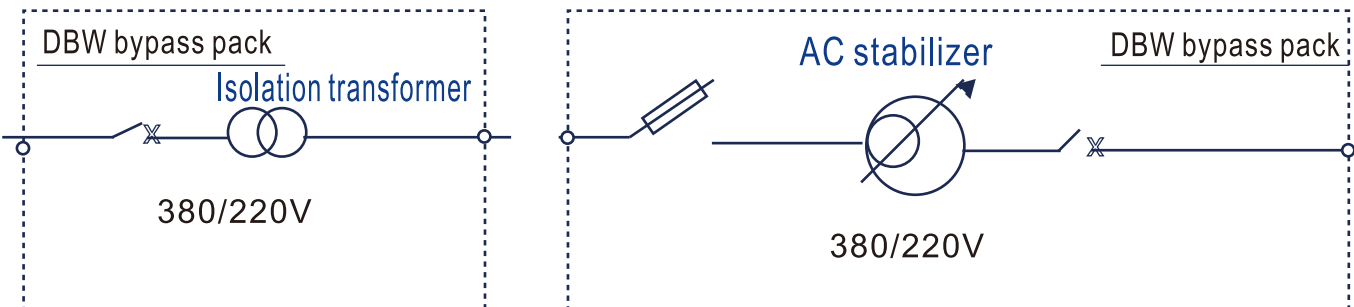
## Unique Option :

- SNMP Card
- AS400 Card
- Signal Transmitter
- Bypass Isolation and Voltage Regulation
- Increase feeder circuit (standard for 8 loops)
- 12 Pulse Rectifier
- The appearance of special models (Standard dimension:800x600x2260mm)



## Optional Bypass Cabinet :

Isolation transformer and Bypass voltage regulator



Model	Capacity	Nominal Voltage	Battery Voltage	Power Factor	W X D X H(mm)	Weight(KG)
CNI310	10KVA/8KW	380/400/415V	110/220/384V	0.8	600X800X1900	150
	15KVA/12KW				600X800X1900	300
	20KVA/16KW				600X800X1900	500
	30KVA/24KW				600X800X1900	700
	40KVA/32KW		220/384V		600X800X1900	750
	60KVA/48KW				800X800X1900	850
	80KVA/64KW				800X800X1900	1000
	100KVA/80KW				1200X800X1900	1800
CNI330	10KVA/8KW	380/400/415V	110/220/384V	0.8	600X800X1900	150
	15KVA/12KW				600X800X1900	300
	20KVA/16KW				600X800X1900	500
	30KVA/24KW				600X800X1900	700
	40KVA/32KW		220/432V		600X800X1900	750
	50KVA/40KW				800X800X1900	850
	60KVA/48KW				800X800X1900	1000
	80KVA/64KW				1200X800X1900	1200
	100KVA/80KW		220/432V		1200X800X1900	1500
	120KVA/96KW				1200X800X1900	1800
	160KVA/128KW		480V		1400X800X1900	2000