Online Transformerless UPS Series

Power range: 10~150kVA (3-Level PF: 1.0)

Mode: 3 phase input and 3 phase output

Module: 10/15/20/25/30kVA

Stand-alone installation
with wheels as standard,
for easy movement.

Rack-mounted installation
compact design,
saving valuable unit space.

Features

Modular Design

- All units adopt modular design, including power module, bypass module, monitoring module, can be easily integrated
- Power module, Bypass module, Monitoring module, ECU control module, all these modules are hot-swappable

High Reliability

- Wide input voltage range, line voltage range is 138-485V, UPS will derate to 40% when input voltage is below 305V
- UPS adopts multiple digital bus and redundancy parallel control system, making sure the whole system keep online if any single circuit fail
- The UPS will keep on single or parallel working, if any module fail
- Thickened conformal coating, applicable for harsh environment such as high heat, high humidity, dust

Green and Power Saving

- High input power factor, it is up to 0.99
- 3-level topology design, online efficiency up to 95.8%
- THDi<3% (100% linear load)
- The UPS will work in sleeping mode when the load is very small (Settable)

LBS Function

- LBS function can realize 2 independent UPS system work in synchronization, and it enhances the reliability of the system

Parallel Redundancy Function

- Support parallel expanded operation: maximum is 8 units
- Support sharing batteries for the UPS in parallel

Flexible Battery Configuration

- Batteries number of each group can be selected from 30 pieces to 50 pieces
- Large charging current can meet the requirement of long time backup

Strong Load Capability*

- Output power factor is 1.0, UPS can supply power to 100% unbalanced load
- High adaptability for load, it can connect full inductive load or capacitive load

Intelligent Management

- Standard colorful touch screen
- Support recording and exporting history logs and fault logs
- Support SNMP, RS232, RS485, Dry contact interface
- Support upgrading FW&SW on line (In bypass mode)
- EPO & REPO function

Compatible with Generator

- Power Walk In function, it can reduce the start current impact to system, and it can reduce the capacity of generator

*This series of products are not compatible with energy feedback loads, including but not limited to CT machines in the medical field, cutting machines in the semiconductor industry, and all types of elevators as well as other motor-driven equipment that incorporate energy feedback inverters at the front end.

Technical Specifications

MODEL		20 kW	40 kW	60 kW	30 kW	60 kW	90 kW
Capacity (VA/W)	UPS Cabinet	10~20k	10~40k	10~60k	15~30k	15~60k	15~90k
	Module	10			15		
	Max. Number	2	4	6	2	4	6
MODEL		40 kW	80 kW	120 kW	50 kW	100 kW	150 kW
Capacity (VA/W)	UPS Cabinet	20~40k	20~80k	20~120k	25~50k	25~100k	25~150k
	Module	20			25		
	Max. Number	2	4	6	2	4	6
MODEL		60 kW		120 kW		150 kW	
Capacity (VA/W)	UPS Cabinet	30~60k		30~120k		30~150k	
	Module	30					
	Max. Number	2		4		5+1	
INPUT							
Nominal Voltage (Vac)		380/400/415 (3Ph+N+PE)					
Operating Voltage Range (Vac)		138~305 for 40% load; 305~485 for 100% load					
Power Factor		≥0.99					
Harmonic Distortion (THDi)		≤3% (100% Linear load)					
Bypass Voltage Range (Vac)		Max. voltage: 220: +25% (Optional +10%, +15%, +20%) 230: +20% (Optional +10%, +15%) 240: +15% (Optional +10%) Min. voltage: -45% (Optional -10%, -15% -20%, -30%)					
Bypass Frequency Range (Hz)		50/60±10%					
OUTPUT							
Nominal Voltage (Vac)		380/400/415, (3Ph＋N＋PE)					
Voltage Regulation		±1%					
Output Frequency (Hz)		Line mode: Synchronize with input, when the input frequency >±10% (±1%/±2%/±4%/±5% optional), output 50/60 (±0.1); Bat. mode: (50/60±0.1%)					
Crest Factor		3:1					
Harmonic Distortion (THDv)		≤1% with linear load; ≤3% with nonlinear load					
Overload	Inverter mode	≤110% 60min, ≤125% 10min, ≤150% 1min, >150% 1.2s shut down inverter					
	Bypass mode	30℃: 135% forlong term; 40℃: 125% for long term; >1000%, 100ms					
EFFICIENCY*							
AC Mode		Up to 95.8%					
ECO Mode		Up to 99%					
HECO Mode		Up to 99%					
BATTERY							
Battery Type		VRLA (Lead acid maintenance free battery)					
Battery Voltage (Vdc)		±180/192/204/216/228/240/252/264/276/288/300 (30/32/34/36/38/40/42/44/46/48/50pcs, 36pcs default, 36~50pcs output power factor 1.0, 32~34pcs output power factor 0.9, 30pcs output power factor 0.8)					
Charging Current (Max.)(A)		18					
MANAGEMENT							
LCD Display		Line voltage, Bypass Mode, Battery Low, Battery Fault, Overload & UPS Fault					
Alarm		Line Failure, Battery Low, Overload, System Fault					
Communication Ports		RS232, RS485, Parallel, LBS, BMS, Dry contact port, Relay card (Optional), SNMP card (Optional), Battery temperature sensor (Optional)					
SYSTEM FEATURES							
Overheat		Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately					
Self-diagnostics		Upon Power On and Software Control					
Generator Input		Support					
EPO		Shut down UPS immediately					
ENVIRONMENTAL							
Operating Temperature (℃)		0~40					
Storage Temperature (℃)		-25~55					
Humidity Range		0~95% (Non condensing)					
Altitude (m)		<1000, derating required when >1000					
Noise Level (dB)		<58		<60		<62	
PHYSICAL							
Dimension WxDxH (mm)	UPS Cabinet	485Ч850Ч353 (8U)		485Ч850Ч575 (13U)		485Ч850Ч752 (17U)	
	Power Module	440Ч620Ч86 (2U)					
Weight (kg)	UPS Cabinet	69		79		98	
	Power Module	10kVA: 19; 15~30kVA: 21					
STANDARDS							
Safety		IEC/EN 62040-1, IEC/EN 62477-1					
EMC		IEC/EN 62040-2 (IEC 61000-2-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11)					
Performance		IEC 62040-3: 2021, EN IEC 62040-3: 2021					

*This efficiency is a typical value measured under standard test conditions and may vary slightly depending on the actual operating environment and conditions.
1. Specifications are subject to change without prior notice
2. Data above are typical values for reference only, not as a basis for engineering design