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Mar. 2018



Uninterruptible Power Supply





Frankfurt(Oder)



Hangzhou



Shanghai



Wenzhou

Constant Brand Concept

- CHINT is the leading brand in the domestic industrial electrical field.
- The operation concept of CHINT is to "Create Values for Client, Seek Development for Staff and Shoulder Responsibility for Society" .
- The constant brand spirit of CHINT is "Empower the World" .
- CHINT involves new energy, PTB equipment, low-voltage apparatus, instrument, industrial automation, building electric, automotive electrical appliance and etc.



Renewable Energies



Transmission and Distribution Equipment



Low-Voltage Electrical Appliances



Instrument and Meter



Automation

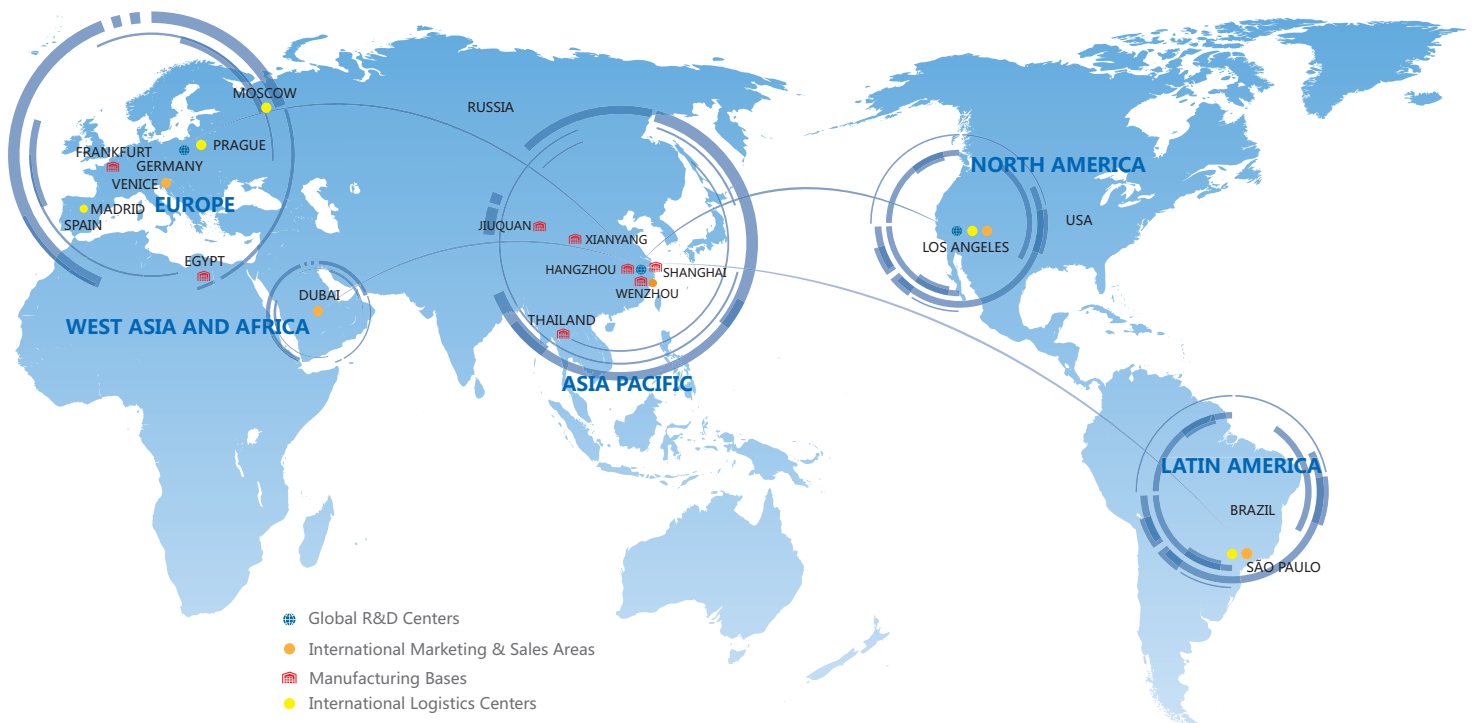


Building Electrical Appliances

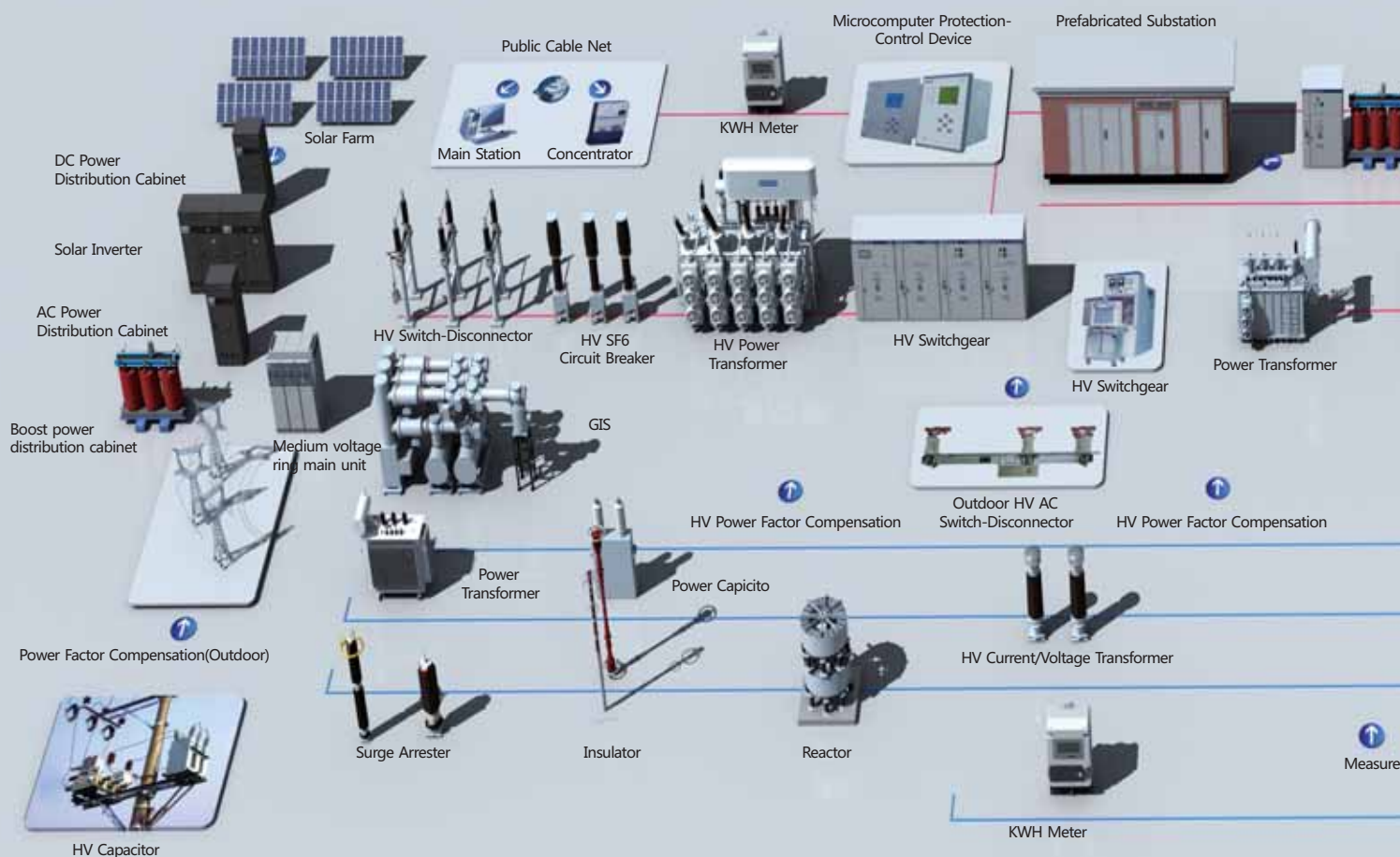
CHINT GLOBAL PRESENCE

China Based, World Visioned

- 3 Global Research Centers: Europe, North America, Asia Pacific
- 6 International Marketing & Sales Areas: Asia Pacific, Middle East and Africa, Europe, Latin America, North America, China
- 9 Manufacturing Bases: China (Wenzhou, Shanghai, Hangzhou, Xianyang, Jiuquan), Egypt, Germany, Thailand
- 14 International Subsidiaries
- 17 Marketing Offices in China
- 22 Logistics Centers
- 2300 Sales Companies

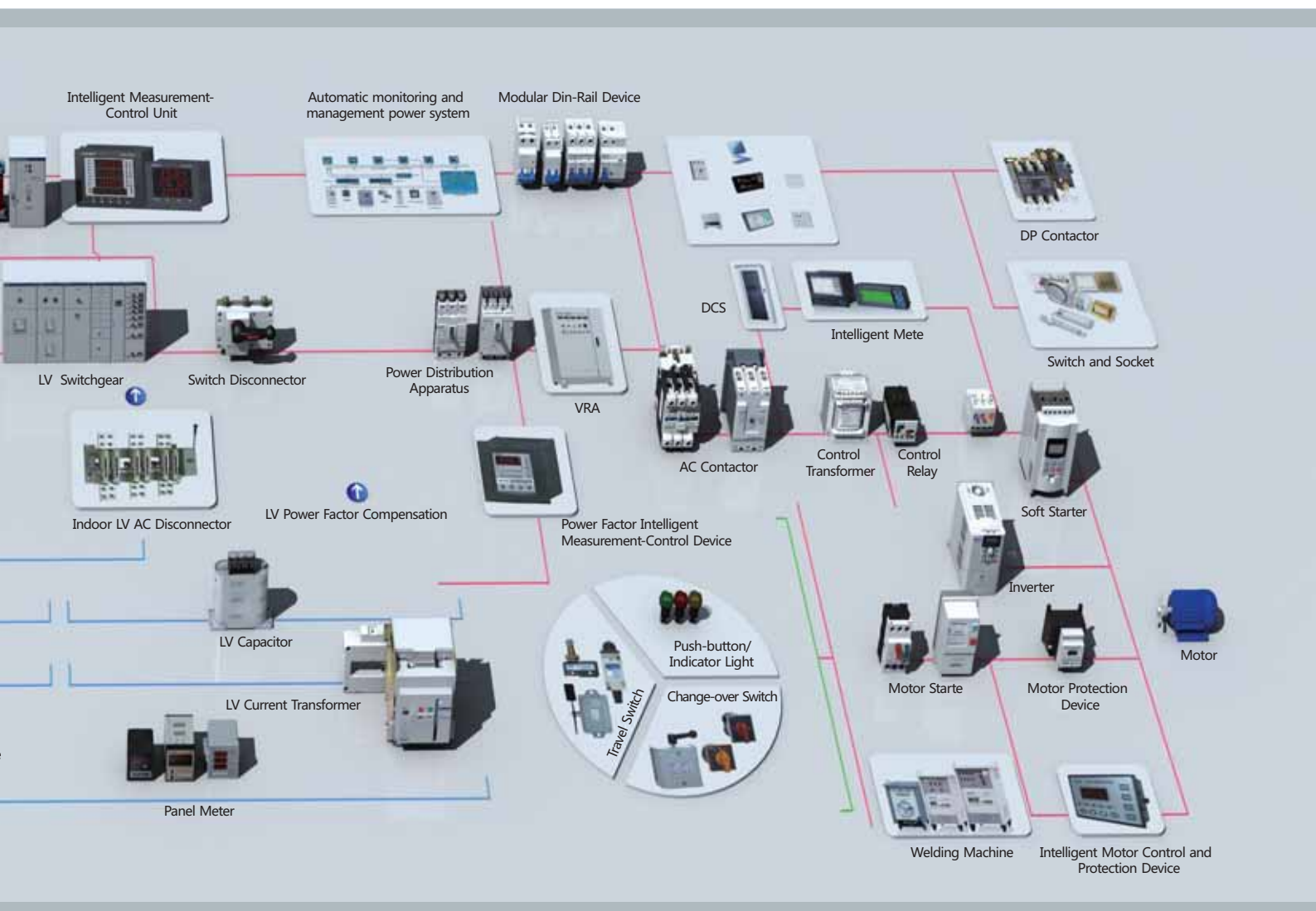


CHINT - the Leading Brand of the Whole Industry Chain in Industrial Electric in Asia



Founded in 1984, CHINT GROUP has been providing the world with safe, reliable and stable industrial electrical equipments and solutions for energy efficiency management system; After 30 years' development, it has been grown from Asia's largest low-voltage electrical products supplier into the leading brand of the whole industry chain in industrial electric in Asia. CHINT's sales revenue has exceeded 5 billion Euros in the year of 2014. With 3 R&D centers located in Europe, US and China, branches in over 20 countries and more than 30000 employees over the whole world, CHINT has provided reliable products, system solutions and services for more than 100 countries worldwide.

CHINT's sub-brands include CHINT, NOARK, ASTRONERGY, XINHUA, CHITIC and others, covering photovoltaic power generation, industrial automation, power transmission and distribution equipment, low voltage electrical apparatus, instruments and meters, building electrical appliance, automotive electrics and other fields. Forming the leading superiority in the whole industry chain in electric from the generation, transmission, substation, distribution of electrical power to the terminal uses, CHINT is providing systems support from products to solutions services to customers worldwide.



CHINT-Empower the World

R&D, QUALITY, SALES, LOGISTICS

Great Quality

By providing reliable products and service for clients, CHINT puts forward the concept "Great Quality." Quality control and upgrade is divided into four systems: scientific research, quality control, marketing service and logistics distribution. These methods and strategies make a comprehensive upgrade to product quality and services. Emphasis on "prevention first, continuous improvement" is the basis of an effective quality inspection system. Leading the management process of "Great Quality" in the production process controls each link of production accurately and realizes the institutional operation of quality improvement.

"Great Quality" is not just a slogan, but a belief rooted in each employee's work. High-quality and accuracy are the basic requirement. Starting from a routine operation by each staff to implementing a high-quality of production and service, CHINT is your most reliable partner.

Service Concept

Sincerely care for customers, quality creates value

Service Purpose

Innovative and progressive, satisfying the customers



Integrated Vertical R&D



By gathering the global industry elites to Provide safe and stable energy-saving green and advanced electric products.

5%

At least 5% of revenue is invested in research and development

Great Quality System



Ensuring flaw-free and trouble-free products, the multi-dimensional and multilevel control is conducted through procurement, inspection, quality control and certification.

One-stop Services



CHINT's concept is that it is not difficult to fulfill a high-quality logistics distribution at one time, while it is difficult to stay as accurate and prompt as the first-time. High-efficiency and high-precision accuracy are our requirement.

48-Hour Response



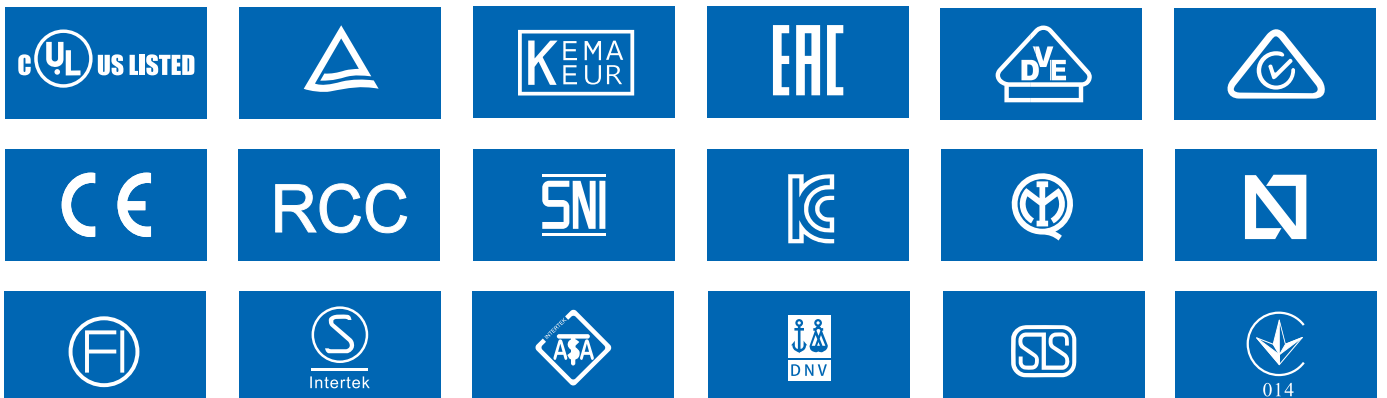
Providing end-to-end one-stop services for customers with complaints, business consulting and technical support by solving problems immediately and including any possible problems in advance.





Qualifications

Our products are certificated through: UL, CE, TUV, EAC, KEMA, RCM and RCC.



Uninterruptible Power Supply

Backup Uninterruptible Power Supply



PC-UPS Series
Backup Uninterruptible Power Supply

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Online Uninterruptible Power Supply



HP-UPS Series
Online Uninterruptible Power Supply

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GP-UPS Series
Online Uninterruptible Power Supply

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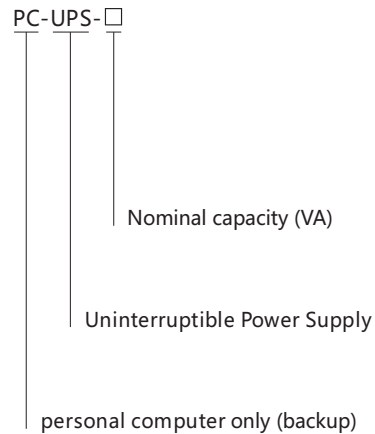


PC-UPS Series Backup Uninterruptible Power Supply

1. Applicable scope

PC-UPS series uninterruptible power supply is a backup UPS developed for computer load by our company. It is consist of various modules, such as charging module, battery pack, inverter module and conversion device, etc. when the mains supply is normal, it supplies load a straight power or alternating current slightly regulated by tapped transformer. The inverter does not work, the battery is charged by an independent charger. When the mains exceeds the specified range, the load will be powered by battery inverter instead of relay The backup UPS features high operating efficiency, low noise and relatively low price. It is mainly used for applications with small mains fluctuation and low requirements for the quality of power supply, which can ensure reliable operation of personal computers and other loads. It is also suitable for computer equipment and peripherals and other loads at home or in commercial office.

2. Model and meaning



3. Normal working conditions and installation conditions

- 3.1 Ambient temperature: 0°C~+40°C;
- 3.2 Relative humidity: less than 90% (temperature: +20 °C);
- 3.3 Altitude of installation site should not exceed 1000m;
- 3.4 Installation: the installation environment should be well ventilated, no obvious; contamination, corrosive gases, dust, combustibles and combustible gases.

4. Main parameters and technical performance

Model	PC-UPS-400		PC-UPS-600	PC-UPS-800	PC-UPS-1000	PC-UPS-1500	PC-UPS-2000
Capacity	400VA/240W		600VA/360W	800VA/480W	1000VA/600W	1500VA/900W	2000VA/1200W
Input							
Voltage	220/230/240VAC						
Voltage range	180~270VAC	140~290VAC	162~268VAC	140~300VAC	162~268VAC	162~268VAC	
Frequency	60/50Hz (automatic detection)						
Output							
Output voltage	110/120VAC or 220/230/240VAC						
Voltage range (battery mode)	±10%						
Frequency range (battery mode)	50Hz or 60±1Hz						
Conversion time	Typically 2-6ms						
Waveform (battery mode)	Analog sinewave						
Battery							
Battery model &number	12V/4.5Ah×1	12V/7Ah×1	12V/9Ah×1	12V/7Ah×2	12V/9Ah×2	12V/9Ah×2	
Charging time	Charged to 90% after 4hours				Charged to 90% after 4-6hours		
Protective function	Overload, deep discharge and overcharge protection						
Indicator description							
LCD display	Load size, battery capacity, mains mode, battery mode, bypass mode, fault indication						
Ring of alarm							
Battery mode	Ring every 10 seconds						
Battery is low	Ring every 1 second						
Overload	Ring every 0.5 seconds						
Error	Ring continuously						
Physical properties							
L × W × H (mm)	300×101×142				320×130×182		
Net weight (Kg)	3.7	4.4	5.0	8.2	10.4	10.6	

Note: We reserve the right to make changes to the current products. Please take the actual product as the standard.

5. Features

- 5.1 Full-plastic enclosure, features simple, compact and generous design;
- 5.2 Ultra-wide mains input range, automatically adjust mains voltage boosting and dropping, and stabilize voltage output (only for 600VA-2KVA);
- 5.3 Superior microprocessor ensures reliable operation;
- 5.4 LCD touch screen, easy to operate;
- 5.5 Output analog sinewave, with auto restart function after mains supply restored and shutdown charging function.

6. Precautions for use

- 6.1 Do not place it on the inclined or uneven plane;
- 6.2 Avoid direct sunlight, rain or damp;
- 6.3 Keep away from fire and heat. Please do not place any object on the device;
- 6.4 Avoid corrosive gases;
- 6.5 If the user's load exceeds the rated output power, the output voltage will be very low, then device cannot work;
- 6.6 The main loads of PC-UPS series are computer load, inductive loads (e.g. fan, drill, hair drier, etc.). The backup UPS is not suitable for photocopier, laser printer and other devices with large starting current;
- 6.7 Please put the device in a clean, well-ventilated place far away from heat sources and strong magnetic fields;
- 6.8 Do not open the housing by yourself to ensure your personal safety. If a fault occurs, please contact professional maintenance personnel;
- 6.9 Please keep uninterruptible power supply at a distance of more than 30cm from the monitor, so as not to interfere with the monitor.

7. Model selection guide

PC-UPS series is designed for computers and other equipment. When selecting models, you can mainly refer to nominal power and standby power supply time to choose the capacity of UPS. UPS can be selected according to 2-5 times of load. The larger the value, the longer the backup time, and vice versa.

Note: UPS is a precision power supply, suitable for weak inductive load such as computer. You cannot connect too many ticket printers! Strong inductive loads, such as currency pressing machine for bank system, photocopier, laser printer, electric roller shutter door cannot be connected! If needed, the matching ratio of UPS and such strong inductive load power must be 4:1 or more. Similarly, the matching ratio of conventional UPS and power of power equipment should be 5:1 or more!

Example of model selection: If the user's total computer load power is 200W, according to the smallest multiple of 2, then: UPS capacity (VA) = $200\text{W} \times 2 = 400\text{ VA}$, you can choose PC-UPS-400.

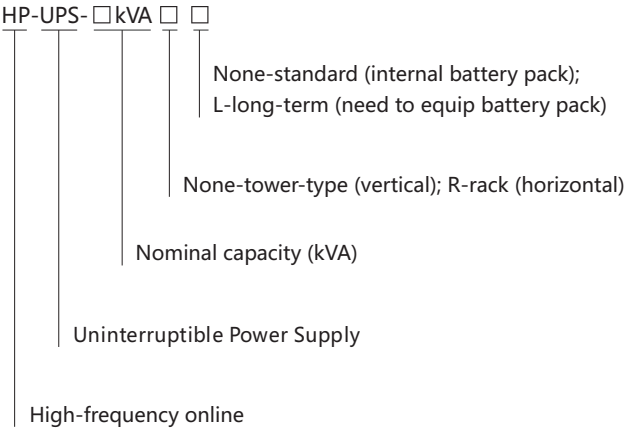


HP UPS Series Online Uninterruptible Power Supply

1. Applicable scope

HP-UPS series online uninterruptible power supply is a single-inlet and single-outlet high-frequency UPS developed by our company. This series of UPS using high-frequency switching technology, replacing the bulky industrial frequency transformer in rectifier and inverter with high-frequency switching elements. During operation, regardless of whether the grid voltage is normal or not, the output AC voltage is always output by the inverter online, features small size, high efficiency and saving operating costs. Each capacity model has both standard and long-term version and is widely applied, ideal for small space, such as office and computer room. It can be applied in applications such as government office, education organization, bank branch, and branch of large enterprise, small and medium enterprises. It can provide reliable power supply for critical equipment, such as miniaturized data center, memory, network device, network phone, communication device, automation device, Office terminal as well as precision instrument.

2. Model and meaning



3. Normal working conditions and installation conditions

- 3.1 Ambient temperature: 0℃~+40℃;
- 3.2 Altitude of installation site should not exceed 1000m;
- 3.3 Installation: the installation environment should be well ventilated, no obvious contamination, corrosive gases, dust, combustibles and combustible gases.

4. Main parameters and technical performance

Model		HP-UPS-1kVA(L) HP-UPS-1kVAR	HP-UPS-2kVA(L) HP-UPS-2kVAR			HP-UPS-3kVA(L) HP-UPS-3kVAR		HP-UPS-6kVA(L) HP-UPS-6kVAR		HP-UPS-10kVA(L) HP-UPS-10kVAR	
Phase		Single-phase									
Capacity		1000VA/800W	2000VA/1600W			3000VA/2400W		6000 VA/4800W		10000VA/8000W	
Input											
Input voltage		110/110/115/120/127VAC or 200/208/220/230/240VAC							208/220/230/240VAC		
Voltage range		55-150VAC or 110-300VAC at 50% load 85-140VAC or 160-280VAC at 100% load							110-300VAC at 50%load 176-300VAC at 100%load		
Frequency range		40-70Hz							46-54Hz or 56-64Hz		
Power factor		≥0.99@100% load									
Output											
Output voltage		110/110/115/120/127VAC or 200/208/220/230/240VAC							208/220/230/240VAC		
Voltage range (battery mode)		±1%									
Frequency range(Sync calibration range)		47-53Hz or 57-63Hz							46-54Hz or 56-64Hz		
Frequency range (battery mode)		50±0.25Hz or 60±0.3Hz							50Hz or 60±0.1Hz		
Peak factor		3:1									
Harmonic distortion		≤3%THD (linear load) ≤6%THD (non-linear load)							≤3%THD (linear load) ≤5%THD (non-linear load)		
Conversion time	AC to DC	0 ms									
	Inverted to bypass	4 ms (under standard conditions)							None		
Waveform(battery mode)		Pure sine wave									
Efficiency											
Mains mode		88%	88%			90%		92%		93%	
Battery mode		83%	85%			88%		90%		91%	
Battery											
Standard	Battery model	12V/9Ah									
	Number	2	4			6		16	20	16	20
	Standard charging time	Charged to 90% after 4 hours							Charged to 90% after 9 hours		
	Maximum charging current	1A							1A/2A		
	Charging voltage (VDC)	27.4±1%	54.7±1%			82.1±1%		218.4±1%	273±1%	218.4±1%	273±1%
Long-term	Battery model	Depends on customer (equip based on emergency time)									
	Number	2	3	4	6	8	6	8	16-20 (adjustable)		
	Maximum charging current	1A/2A/4A/6A (adjustable)							1A/2A/4A/6A(adjustable, 6A only for 16 batteries)		
	Charging voltage (VDC)	27.4±1%	41.0±1%	54.7±1%	82.1±1%	109.4±1%	82.1±1%	109.4±1%	218.4±1% (basedon 16 batteries)		
Indicator description											
LCD display		Load size, battery capacity, mains mode, battery mode, bypass mode, fault indication									
Ring of alarm											
Battery mode		Ring every 10 seconds									
Battery is low		Ring every 1 second									
Overload		Ring every 0.5 seconds									
Error		Ring continuously									
Environmental conditions											
Humidity		20-90%RH @ 0-40°C (no condensation)					0-95%RH @ 0-50°C			0-95%RH @ 0-40°C	
Noise		Less than 50dBA @ 1 meter					Less than 55dBA @ 1 meter			Less than 58dBA @ 1 meter	
Control management											
Smart RS232/ optional USB		Support Windows 2000/2003/XP/Vista/2008, Windows 7/8, Linux, Unix and MAC									
Optional SNMP		Power supply management supports SNMP management and network management									

Physical properties								
Model (tower-type)		HP-UPS-1kVA (L)	HP-UPS-2kVA (L)	HP-UPS-3kVA (L)	HP-UPS-6kVA (L)		HP-UPS-10kVA (L)	
Standard	L × W × H (mm)	282×145×220	397×145×220	421×190×220	369×190×688	442×190×668		
	Net weight (Kg)	9.8	17	27.6	61	74	66	76
Long-term	L × W × H (mm)	282×145×220	397×145×220		369×190×318		442×190×318	
	Net weight (Kg)	4.1						
Model (rack)		HP-UPS-1kVAR	HP-UPS-2kVAR	HP-UPS-3kVAR	HP-UPS-6kVAR		HP-UPS-10kVAR	
Standard	L × W × H (mm)	310×438×88[2U]	410×438×88[2U]	630×438×88[2U]	Host: 500×438×88[2U] Battery kit: 668×438×88 [2U]	Host: 500×438×88[2U] Battery kit: 580×438×133[2U]	Host: 580×438×133[3U] Battery kit: 580×438×133[2U]	
	Net weight (Kg)	12	19	29.3	Host: 15 Battery kit:48	Host: 15 Battery kit:61	Host: 18 Battery kit:51	Host: 18 Battery kit:61
Long-term	L × W × H (mm)	310×438×88[2U]	410×438×88[2U]		500×438×88[2U]		580×438×133	
	Net weight (Kg)	9	12	14.2	15		18	

Note:

- When 1-3 kVA UPS is set to constant voltage and constant frequency mode, the output power will decrease by 80%. When the output voltage of UPS is set to 100/200/208 VAC, the output power will decrease by 80%;
- When 6/10 kVA UPS is set to constant voltage and constant frequency mode, the output power will decrease by 60%. When the output voltage of UPS is set to 208VAC, the output power will decrease by 90%;
- 200/208/220/230/240 VAC is only for long-term device (200VAC only for 1-3kVA); We reserve the right to make changes to the current products. Please take the actual product as the standard.

5. Features

- Truly realize online double-conversion, the conversion time from mains mode to battery mode is 0 ms. Microprocessor control ensures high reliability;
- Input power factor correction, the output power factor is up to 0.8;
- Wide voltage input range 110-300V, for use in harsh power grid environment;
- Frequency support 50/60 Hz adaptive, efficient frequency conversion mode;
- Compatible generator input (generator capacity must be 2 times of UPS capacity);
- The matched delicate SNMP card can implement perfect monitoring separately or together with USB or RS232;
- Simple operation and control through LCD display, and integrate display of state of UPS monitoring;
- Support automatic power-on function (this feature is turned off by default, only for 1-3k);
- Battery mode, shut down when the power runs out; automatically boot after the power is back on;
- With ECO energy-saving mode (only for 1-3k), 6-10k standard EPO (emergency power-off device);
- Features small size, easy operation, high power density, strong stability, cost-effective, wide application.

6. Precautions for use

- Do not place it on the inclined or uneven plane; avoid direct sunlight, rain or damp; avoid corrosive gases; keep away from fire and heat; please do not place any object on the device; please put the device in a clean, well-ventilated place far away from heat sources and strong magnetic fields.
- If the user's load exceeds the rated output power, the output voltage will be very low, then device cannot work.
- Do not open the housing by yourself to ensure your personal safety. If a fault occurs, please contact professional maintenance personnel.

7. Model selection guide

HP-UPS series is designed for computers and other equipment. When selecting models, you can reasonably choose the capacity of UPS according to nominal power and standby power supply time. It's generally recommended to select the UPS based on 2-5 times of total load power.

Note: HP-UPS series applies half-bridge inverter architecture, it cannot adapt to half-wave load. More than 7% of the pure half-wave load will cause the UPS's BUS voltage imbalance or the BUS voltage too high. Therefore, for half-wave loads, such as laser printer, hairdryer, heat gun, servo motor, balanced loads (e.g. pure resistive load such as light bulbs, resistors in , or RCD load such as computers) need to be added to the UPS output. For equipment such as motor or compressor, it is easy to lead to machine overload due to a large starting current. So the capacity of UPS must be 3-5 times of the load capacity.



GP UPS Series Online Uninterruptible Power Supply

1. Applicable scope

GP-UPS series of online uninterruptible power supply is a three-inlet and three-outlet or three-inlet and single-outlet industrial frequency UPS developed by our company. This series of UPS is an on-line double conversion uninterruptible power supply system with pure sine wave output, it is a kind of power device for supplying power for important loads without grid interference, with stabilized voltage and stabilized frequency. When the mains power supply fails, the battery energy is inverted and output to the load via UPS to achieve uninterrupted output. This series of UPS applies high frequency double conversion structure of output isolation transformer and advanced digital control, to provide stable, clean and uninterrupted output. At the same time, it also provides a variety of communication solutions and user-friendly HMI, facilitating machine settings and monitoring. Modbus, RS232 interface and expandable smart slot are provided on communication section. This series of UPS system is mainly composed of rectifier module and inverter module, AC-to-DC-to-AC converter circuit, static bypass, maintenance bypass, charge and discharge circuit of circuit. Compared with GP-UPS series built-in isolation transformer, the HP-UPS series has obvious advantages of strong anti-high-frequency interference, high anti-overload ability, capability of effectively reducing zero voltage and high reliability. This series of UPS can provide reliable power supply for applications, such as medium and large networks, data centers, and concentrated power supply of building, industrial factories and mines.

2. Model and meaning

GP-UPS-□ kVA

Nominal capacity (kVA)

Uninterruptible Power Supply

Industrial frequency online

3. Normal working conditions and installation conditions

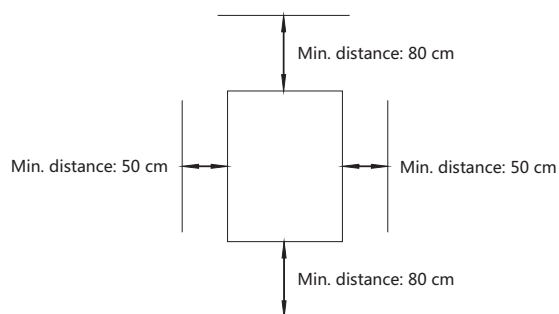
3.1 Ambient temperature: 0°C~+55°C,
storage temperature: -15°C ~ 60°C;

3.2 Relative humidity: 5% ~ 95%;

3.3 Altitude of installation site should not exceed 1000 m;
please derate to use if exceed this height;

Attitude (meter)	1000	1500	2000	2500	3000	3500	4000	4500	5000
Derating factor	100%	95%	91%	86%	82%	78%	74%	70%	67%

3.4 No vibration and shock at the installation site and vertical tilt angle should be no more than 5°; the distance between front and back of device and the wall or other objects should be at least 80 cm; the distance between the both sides of device and the wall or other objects should be at least 50 cm;



3.5 The UPS system should be installed in well-ventilated, cool and dust-free operating environment with low humidity and clean air. Recommended ambient temperature is 20°C~25°C, the humidity is controlled at about 50%;

3.6 Note: Flammable, explosive or corrosive gases or liquids should not be stored near the installation site; install in the working environment with conductive dust is forbidden.

4. Tower-type (ordinary industrial frequency UPS)/10~200kVA/three-inlet and three-outlet



4.1 Features

Digital control online double conversion technology;

This series provides with built-in output isolation transformer as standard, with low output power clutter. Industrial-strength design is suitable for a wide range of harsh conditions, areas and environments, and has excellent performance especially in the harsh environment; Front maintenance design, providing with maintenance bypass switch as standard, designed for various different loads and with multiple communication interfaces;

Compatible with generator input (the capacity of generator must be 2 times of UPS capacity);

Support wrong phase input and rectifier without N wire;

Number of battery and charging current can be set on-site as required;

Battery mode, shut down when the power runs out;

Automatically boot after the power is back on;

Provide parallel function as standard, up to 4 device can operate in parallel, without any extra parallel card.

4.2 Main parameters and technical performance

Model	GP-UPS -10kVA	GP-UPS -15kVA	GP-UPS -20kVA	GP-UPS -30kVA	GP-UPS -40kVA	GP-UPS -60kVA	GP-UPS -80kVA	GP-UPS -100kVA	GP-UPS -120kVA	GP-UPS -160kVA	GP-UPS -200kVA
Capacity	10kVA	15kVA/ 12kW	20kVA/ 16kW	30kVA/ 24kW	40kVA/ 32kW	60 kVA/ 48 kW	80kVA/ 64kW	100kVA/ 80kW	120kVA/ 96kW	160kVA/ 128kW	200kVA/ 160kW
Input											
Nominal voltage	3x380VAC/400VAC (3Ph+N)										
Voltage range	165V~280V(Ph-N);285V~485V(Ph-Ph)										
Frequency range	50/60Hz ±10%										
Inverter											
Output voltage	3X380VAC/400VAC/415VAC(3Ph+N)										
Voltage stability	Stable: typ. ±1%										
	Transient: typ. ±5% (load change 100%-0%-100%)										
Range of frequency synchronization	50/60Hz synch. ± 1%; Mains lost ± 0.1Hz										
Frequency tracking rate	±1Hz/s										
Output waveform	Sine wave										
Total harmonic (THDv)	<2% (linear load); <5%(non-linear load)										
Phase imbalance	120°±1% (balanced load) ; 120°±2% (50% unbalanced load)										
Dynamic adjusting time	Restore to 90% of rated value in less than 60 ms										
Overload capacity	110%~150% can run for 10 minutes to 1 minute; 150% ~>160% can run for 1 minute to 200 ms; >160% can run for 200 ms										
Peak factor	3:1										
Factor range of load	0.6~1 (capacitive or inductive)										
Unbalanced output voltage @ 100% Unbalanced load	<1%										
Current limit	Extremely heavy overload, short circuit: limit of effective value of voltage; surge current: peak voltage limit										

Table (continued)

Model	GP-UPS -10kVA	GP-UPS -15kVA	GP-UPS -20kVA	GP-UPS -30kVA	GP-UPS -40kVA	GP-UPS -60kVA	GP-UPS -80kVA	GP-UPS -100kVA	GP-UPS -120kVA	GP-UPS -160kVA	GP-UPS -200kVA
Capacity	10kVA/ 8kW	15kVA/ 12kW	20kVA/ 16kW	30kVA/ 24kW	40kVA/ 32kW	60kVA/ 48kW	80kVA/ 64kW	100kVA/ 80kW	120kVA/ 96kW	160kVA/ 128kW	200kVA/ 160kW
Bypass											
Type	Static switch										
Voltage	3x380VAC/400VAC (three-phase + N wire)										
Frequency	50/60Hz										
Control method	Microprocessor control										
Inverted to bypass switching time	Synchronous mode: 0 ms, asynchronous mode: 10 ms										
Overload capacity	150%~180% can continue for 1 hour ~30 seconds; 180%~200% can continue for 30 seconds ~ 200 ms; 200% can continue for 200 ms										
Switch to bypass	Overload 160%: switch immediately										
Switch back to inverter	Automatically switch after alarm cleared										
Maintenance bypass											
Type	Uninterrupted										
Voltage	3 x 400V (three-phase + N wire)										
Frequency	50/60Hz										
Overall effect	Online mode	89%		90%		91%		92%			
	Battery mode	90%		91%		92%		93%			
Battery & charge											
Number of battery (12 V)	29/30/31/32 (adjustable)										
Charging method	Optional: constant voltage charging / constant current charging										
Charging current	Default 10A, Max. = capacity/battery voltage (real-time value) The maximum current limit does not exceed 40A					Preset 10A, max. 40A; 5A @ full load					
Battery type	Sealed lead-acid battery, nickel-cadmium battery										
Physical											
Size D x W x H (mm)	656 x 405 x 817			656 x 405 x 941	821 x 432 x 1159		975 x 554 x 1286		975 x 554 x 1326	1051 x 705 x 1646	
Net weight (kg)	118	120	145	193	278	365	471	573	650	760	790

5. Cabinet-type (industrial design)

5.1 Features

Equipped with high-performance DSP chip (302-bit 150 MHz, independent multiplier) full digital THDV control;
 Increased board integration (motherboard, display, rectifier drive, inverter drive, power × 2, make contact, sampling) ;
 Use front flipping structure, no wire bending;
 Smart fan speed control, the operating noise of the whole device is less than 60 db (in accordance with YD/T1095-2008II Class) under redundancy or half load conditions;
 Optimized air duct guarantees high heat emission efficiency;
 Equipped with 6 temperature detection sensors, with early-warning function;
 Parallel digital ring control, without balanced reactor, multiple devices can be paralleled;
 Signal wire/electronic wire laid independently, the circuit board has protection function, with increased operational reliability;
 Optimized ventilation path, with protection class IP20, optional IP42;
 Equipped with cold start function;
 Provide protection against installation errors (wrong connection of input and output, reverse connection of battery);
 The UPS power supply instantly put into 100% non-linear load, without switch to bypass;
 Battery switch detection;
 ECO mode;
 DSP online upgrade;
 Meet the safety requirements 5.27 in YD/T1095-2008 standard (insulation resistance, insulation strength 2000VAC);
 Full front mount and maintenance, connect with other cabinets is possible;
 Selectable housing color and height;
 The modular design of wearing and consumable parts enables quick exchange.

5.2 Industrial design 10kVA~200kVA/three-inlet three-outlet/DC 384V



Model	GP-UPS-10kVA DC384 3:3	GP-UPS-15kVA DC384 3:3	GP-UPS-20kVA DC384 3:3	GP-UPS-30kVA DC384 3:3	GP-UPS-40kVA DC384 3:3	GP-UPS-60kVA DC384 3:3	GP-UPS-80kVA DC384 3:3	GP-UPS-100kVA DC384 3:3	GP-UPS-120kVA DC384 3:3	GP-UPS-160kVA DC384 3:3	GP-UPS-200kVA DC384 3:3
Capacity	10kVA/ 8kW	15kVA/ 12kW	20kVA/ 16kW	30kVA/ 24kW	40kVA/ 32kW	60kVA/ 48kW	80kVA/ 64kW	100kVA/ 80kW	120kVA/ 96kW	160kVA/ 128kW	200kVA/ 160kW
Input											
Nominal voltage	3x380VAC/400VAC/415VAC										
Voltage range	304VAC~456VAC										
Frequency range	50Hz ± 5Hz (±10%)										
Output											
Nominal voltage	3x380VAC/400VAC/415VAC (three-phase + N wire)										
Wiring method	Tree-phase five-wire (three-phase + N wire + ground wire)										
Output waveform	Pure sine wave										
Output voltage	Stable	±1%									
regulated accuracy	Dynamic	±5%									
Output frequency	50Hz										
Output frequency accuracy	±1%										
Frequency tracking range	± 5Hz (work area of equivalent bypass)										
Frequency tracking rate	1~2Hz/second										
Output power	0.8										
Peak factor of output current	3:1										
Output waveform distortion (THDv)	<2% (linear load)										
	<4% (non-linear load)										
Dynamic voltage transient range	0%->100%->0% (R load) <±5% ;20%->100%->20% (R load) ±3%										
Voltage transient recovery time The third level	0%~100% RCD load: recover to 90% of normal voltage in less than 60 ms										
Output voltage phase deviation	120°±1% (balanced load)										
	120°±2% (50% unbalanced load)										
Conversion time	0 ms										
Overload capacity	0%~110% can continually operate; 110%~150% can continue for 10~1 minute; >160% can continue for 200 ms										
Short-circuit capability	60~100ms										
Transient response time	<5ms										
Bypass											
Wiring method	Tree-phase five-wire (three-phase + N wire + ground wire)										
Output voltage range	3x380VAC/400VAC/415VAC (three-phase + N wire)										
Overload capacity	1.5 In ~ 1.8 in 1 hour to 30 seconds										
Short-circuit capability	1.8 In~>2.0 in 30 seconds~200 ms										
System											
Efficiency (linear load)	90%		91%		92%						
Energy-saving mode (non-parallel model)	Yes										
Emergency switch	Yes										
Safety standard	IEC 61000-4-5 surge protection										

Table (continued)

Model	GP-UPS-10kVA DC384 3:3	GP-UPS-15kVA DC384 3:3	GP-UPS-20kVA DC384 3:3	GP-UPS-30kVA DC384 3:3	GP-UPS-40kVA DC384 3:3	GP-UPS-60kVA DC384 3:3	GP-UPS-80kVA DC384 3:3	GP-UPS-100kVA DC384 3:3	GP-UPS-120kVA DC384 3:3	GP-UPS-160kVA DC384 3:3	GP-UPS-200kVA DC384 3:3
Capacity	10kVA/ 8kW	15kVA/ 12kW	20kVA/ 16kW	30kVA/ 24kW	40kVA/ 32kW	60kVA/ 48kW	80kVA/ 64kW	100kVA/ 80kW	120kVA/ 96kW	160kVA/ 128kW	200kVA/ 160kW
Battery/rectifier											
Nominal voltage	6-pulse							6-Pulse or 12-pulse			
Rectifier voltage	384VDC										
Charging voltage	395VDC~435VDC (adjustable)										
Charging current (max.)	10A, max.= capacity (kW)/battery voltage (real-timevalue)			Preset 10A, max. 40A							
Battery model	Lead-acid battery										
Number	29~32 pieces(adjustable)										
DC non-return diode	None										
Cold start	Yes										
Physical properties											
IP protection class	IP20 (preset), IP21/IP31 (optional)										
Cabinet size (D × W × H) mm	800×800×1800							800×1200×1800		800×1600×1800	
Net weight of cabinet (kg)	290	312	349	385	427	508	563	760	850	1120	1390
Environmental conditions											
Operating temperature	0~35°C continuous running, full load running for 8 hours at 40 °C (nominal input voltage, battery charge, no overload), decrease to 85% of linear load at 45 °C										
Relative humidity	0~90%, no condensation										
Noise	less than 70dB @ 1 meter										
Control management											
Modbus RS-232/RS485	Support Windows 2000/2003/XP/Vista/2008, Windows 7/8/10, Linux and MAC										
Make contact interface	6 outputs, 2 inputs										
Optional SNMP	Power supply management supports SNMP management and network management										

We reserve the right to make technical changes.

5.3 Industrial design 10kVA~120kVA/three-inlet single-outlet/DC 384V



Uninterruptible Power Supply

Online Uninterruptible Power Supply

Model	GP-UPS-10kVA DC384 3:1	GP-UPS-10kVA DC384 3:1	GP-UPS-20kVA DC384 3:1	GP-UPS-30kVA DC384 3:1	GP-UPS-40kVA DC384 3:1	GP-UPS-60kVA DC384 3:1	GP-UPS-80kVA DC384 3:1	GP-UPS-100kVA DC384 3:1	GP-UPS-120kVA DC384 3:1
Capacity	10kVA/8kW	15kVA/12kW	20kVA/16kW	30kVA/24kW	40kVA/32kW	60kVA/48kW	80kVA/64kW	100kVA/80kW	120kVA/96kW
Input									
Nominal voltage	3x380VAC(three-phase + ground wire or three-phase + N wire + ground wire)								
Voltage range	304VAC~456VAC								
Frequency range	50Hz ± 5Hz (±10%)								
Output									
Nominal voltage	220VAC/230VAC/240VAC								
Wiring method	Single-phase three-wire (single phase + N wire + ground wire)								
Output waveform	Pure sine wave								
Output voltage regulated accuracy	Stable	±1%							
	Dynamic	±5%							
Output frequency	50Hz								
Output frequency accuracy	±1%								
Frequency tracking range	±5Hz (work area of equivalent bypass)								
Frequency tracking rate	1~2Hz/second								
Output power	0.8								
Peak factor of output current	3:1								
Output waveform distortion (THDv)	<2% (linear load) <4% (non -linear load)								
Dynamic voltage transient range	0%~>100%~>0% (R load) <±5%: 20%~>100%~>20% (R load) ±3%								
The third level of voltage transient recovery time	0%~100% RCD load: restore to 90% of nominal voltage in less than 60 ms								
Output voltage phase deviation	120° ±1% (balanced load) 120° ±2% (Half load unbalanced load)								
Conversion time	0ms								
Overload capacity	0%~110% can continually operate; 110%~150% can continue for 10~1 minute; >160% can continue for 200 ms								
Short-circuit capacity	60~100ms								
Transient response time	<5ms								
Bypass									
Wiring method	Single-phase three-wire (single-phase + Nwire + ground wire)								
Input voltage range	220VAC±25%								
Overload capacity	1.5 In ~ 1.8 in 1 hour to 30 seconds								
Short-circuit capacity	1.8 In~>2.0 in 30 seconds~200 ms								
System									
Efficiency (linear load)	≥90%								
Energy-saving mode (non-parallel model)	Yes								
Emergency switch	Yes								
Safety standard	IEC 61000-4-5 surge protection, IEC 62040-2 EMC/EMI, IEC62040-1 Safety specification								
Battery/rectifier									
Rectifier	Type	6-pulse							
	Rectifier voltage	384VDC							
	Charging voltage	395VDC~435VDC (adjustable)							
	Maximum charging current	Preset 10 A, Max. = capacity (kW)/battery voltage (real-time value)			Preset 10 A, Max. 40 A				
Battery	Battery model	Lead-acid battery							
	Number	29~32 pieces(adjustable)							
	DC non-return diode	None							
	Cold start	Yes							

Table (continued)

Model	GP-UPS-10kVA DC384 3:1	GP-UPS-10kVA DC384 3:1	GP-UPS-20kVA DC384 3:1	GP-UPS-30kVA DC384 3:1	GP-UPS-40kVA DC384 3:1	GP-UPS-60kVA DC384 3:1	GP-UPS-80kVA DC384 3:1	GP-UPS-100kVA DC384 3:1	GP-UPS-120kVA DC384 3:1
Capacity	10kVA/8 kW	15kVA/12kW	20kVA/16 kW	30kVA/24kW	40kVA/32kW	60kVA/48kW	80kVA/64 kW	100kVA/80kW	120kVA/96kW
Physical properties									
IP protection class	IP20 (preset), IP21/IP31 (optional)								
Cabinet size (D × W × H) mm	800×800×1800						800 x 1200 x 1800		
Net weight of cabinet(kg)	360	386	400	430	490	610	680	900	920
Environmental conditions									
Operating temperature	0~35℃ continuous running, full load running for 8 hours at 40 °C (nominal input voltage, battery charge, no overload), decrease to 85% of linear load at 45 °C								
Relative humidity	0~90%, no condensation								
Noise	less than 70dB @ 1 meter								
Control management									
Modbus RS-232/RS485	Support Windows® 2000/2003/XP/Vista/2008/7/8/10, Linux and MAC								
Make contact interface	6 output contact and 2 input contact								
Optional SNMP	Power supply management supports SNMP management and network management								

We reserve the right to make technical changes.

5.4 Industrial design 10 kVA~120 kVA/three-inlet single-outlet/DC 220 V

Model	GP-UPS-10kVA DC220 3:1	GP-UPS-10kVA DC220 3:1	GP-UPS-20kVA DC220 3:1	GP-UPS-30kVA DC220 3:1	GP-UPS-40kVA DC220 3:1	GP-UPS-60kVA DC220 3:1	GP-UPS-80kVA DC220 3:1	GP-UPS-100kVA DC220 3:1	GP-UPS-120kVA DC220 3:1
Capacity	10kVA/8 kW	15kVA/12kW	20kVA/16 kW	30kVA/24kW	40kVA/32kW	60kVA/48kW	80kVA/64 kW	100kVA/80kW	120kVA/96kW
Input									
Nominal voltage	3 × 380VAC (three-phase + ground wire or three-phase + N wire + ground wire)								
Voltage range	304VAC~456VAC								
Frequency range	50Hz±5Hz (±10%)								
Output									
Nominal voltage	220VAC/230VAC/240VAC (optional)								
Wiring method	Single-phase three-wire (single phase + N wire + ground wire)								
Output waveform	Pure sine wave								
Output voltage regulatedt	Stable	±1%							
	dynamic	±5%							
Output frequency	50Hz								
Output frequency	±1%								
Frequency tracking	± 5Hz (work area of equivalent bypass)								
Frequency tracking	1~2Hz/second								
Output power	0.8								
Peak factor of output	3:1								
Output waveform distortion(THDv)	<2% (linear load)								
	<4% (non-linear load)								
Dynamic voltage transient range	0%~>100%~>0% (R load) <±5%: 20%~>100%~>20% (R load) ±3%								
The third level of voltage transient recovery time	0%~100% RCD load: restore to 90% of nominal voltage in less than 60 ms								
Output voltage phase deviation	120°±1% (balanced load)								
	120°±2% (Half load unbalanced load)								
Conversion time	0ms								
Overload capacity	0%~110% can continually operate; 110%~150% can continue for 10~1 minute; >160% can continue for 200 ms								
Short-circuit capability	60~100ms								
Transient response time	<5ms								
Bypass									
Wiring method	Single-phase three-wire (single phase + N wire + ground wire)								
Output voltage range	220VAC ± 25%								
Overload capacity	1.5 In ~ 1.8 in 1 hour to 30 seconds								
Short-circuit capability	1.8 In~>2.0 in 30 seconds~200 ms								
System									
Efficiency (linear load)	≥90%								
Energy-saving mode (non-parallel model)	Yes								
Emergency switch	Yes								
Safety standard	IEC 61000-4-5 surge protection , IEC 62040-2 EMC/EMI , IEC62040-1 Safety specifications								

Table (continued)

Model	GP-UPS-10kVA DC220 3:1	GP-UPS-10kVA DC220 3:1	GP-UPS-20kVA DC220 3:1	GP-UPS-30kVA DC220 3:1	GP-UPS-40kVA DC220 3:1	GP-UPS-60kVA DC220 3:1	GP-UPS-80kVA DC220 3:1	GP-UPS-100kVA DC220 3:1	GP-UPS-120kVA DC220 3:1
Capacity	10kVA/8 kW	15kVA/12kW	20kVA/16 kW	30kVA/24kW	40kVA/32kW	60kVA/48kW	80kVA/64 kW	100kVA/80kW	120kVA/96kW
Battery/rectifier									
Rectifier	Type	6-pulse				12-pulse			
	Rectifier voltage	220VDC							
	Charging voltage	216VDC~243VDC (adjustable)							
	Maximum charging current	Preset 10 A, Max. = capacity (kW)/battery voltage (real-time value)			Preset 10 A, Max. 40 A				
Battery	Battery model	Lead-acid battery							
	Number	16~18 pieces(adjustable)							
	DC non-return diode	Yes							
	Cold start	Yes							
Physical properties									
IP protection class	IP20 (preset), IP21/IP31 (optional)								
Cabinet size (D×W×H) mm	800×800×1800					800 x 1200 x 1800		800 x 1600 x 1800	
Net weight of cabinet(kg)	365	385	430	645	680	960	1160	1300	1580
Environmental conditions									
Operating temperature	0~35℃ continuous running, full load running for 8 hours at 40 °C (nominal input voltage, battery charge, no overload), decrease to 85% of linear load at 45 ° C								
Relative humidity	0~90%, no condensation								
Noise	less than 70dB @ 1 meter								
Control management									
Modbus RS-232/RS485	Support Windows® 2000/2003/XP/Vista/2008/7/8/10, Linux and MAC								
Make contact interface	6 output contact and 2 input contact								
Optional SNMP	Power supply management supports SNMP management and network management								

6. Precautions for use

- 6.1 Do not place it on the inclined or uneven plane; avoid direct sunlight, rain or damp; avoid corrosive gases; keep away from fire and heat; please do not place any object on the device; please put the device in a clean, well-ventilated place far away from heat sources and strong magnetic fields;
- 6.2 If the user's load exceeds the rated output power, the output voltage will be very low, then device cannot work.
- 6.3 Do not open the housing by yourself to ensure your personal safety. If a fault occurs, please contact professional maintenance personnel;
- 6.4 A battery pack should be equipped when an industrial frequency UPS operates. Users need to buy battery packs according to the emergency time;
- 6.5 Regular maintenance is necessary to ensure the service life of battery; the service life of the battery depends on the ambient temperature and charge and discharge times. Using batteries at high temperature or deep discharge will shorten the service life of the battery. Please try to keep the battery at an ambient temperature between 15℃ and 25℃. Regularly check the battery status, keep the environment in which the battery placed clean; regularly check the tightness of the battery's connection terminals, to prevent terminals damaged by spark produced due to high current discharge. Check the total voltage of the battery every week; check the voltage of the single battery every month. Please charge the battery once every other month when it has not been used for a long time. Please contact the dealer when you find that the battery discharge time is greatly reduced, to confirm whether the battery should be replaced or not.

7. Model selection guide

HP-UPS series is designed for computers and other equipment. When selecting models, you can reasonably choose the capacity of UPS according to nominal power. It's generally recommended to select the UPS based on 2-3 times of total load power.