

(ONLINE UPS 10kVA-600kVA, Three Phase / Three Phase)



Brief

AEROSPACE BAYKEE (GUANGDONG) TECHNOLOGY is excited to extend our 3-phase solutions with the perfect CHP3000 Series of transformer based double conversion on-line UPS. This series UPS adopts high-speed microprocessor (MCU), Programmable logic device (CPLD) program which are controlled by software, the sixth generation low-exhaust and big-power IGBT and static switch as power components. This series product combines the world's newest control spare parts and the most advanced software. It entirely breaks through the technical bottleneck in traditional simulation age. It adopts the digital control technology and high-precision SMD technology. This UPS can suit for various power grid environments. All features can offer users the big capacity, flexibility, high reliability, stability etc. at a value expected from Baykee name.

CHP3000 is widely used in telecom, bank, security, transporting,

utility, manufacture, industry, commerce, government, medical equipment etc.

Highlights

- True On line-Double Conversion Technology.
- 7 inches Big Screen Display.
- Stable Rectifier and Harmonic Filters.
- IGBT PWM Inverter Technology.
- High Efficiency up to 92%.
- Wide Input Voltage Range.
- Advanced Battery Management.
- Short Circuit and Overload Protection.
- 256 Real Time Event Log with Detailed Parameters.
- Static & Manual Bypass Operation.
- Advanced Communication Capabilities.
- Perfect Generator Compatibility.
- Cold Start Function.
- Auto Restart Function.
- Can Set ECO Work Mode.
- Optional EPO Function.

Main Features

- **Digital control technique**
- **Advanced digital circuit system, provide over stable machine run:**
Through digital circuit system's high speed microcontroller and programmable logic devices, this circuit system of CHP3000 series UPS makes circuit control, parameters setting and running management more perfect. Digital circuit system can provide self-inspection and fault analysis function, and achieve pure sine wave voltage under various loading conditions.
- **Advanced & Intelligent battery management:**
CHP3000 series UPS guarantees to enhance battery life and maximize battery performance, life span and reliability through intelligent precision charging. Advanced battery management provides real-time information about battery voltage, charging current, battery quantity and battery capacity. This information can be seen on LCD panel. Besides, CHP3000 series can provide temperature compensated battery charging, battery discharging

management.

- **Intelligent inspection system:**

CHP3000 series UPS can online inspect power status, breaker status, fuse status and all circuit work status. Once machine has fault, inspection system will alarm and notify the administrator.

- **Parallel redundancy:**

Optional N+1 redundancy parallel. In redundant operation number of devices (N) would supply the load and one more unit (N+1) would remain ad standby. When one of the UPS' goes out of order because of failure or maintenance works, the other standby UPS continues feeding the critical loads without any interruption.

- **High Precision SMD technique**

Improve the circuit reliability and running precision.

Chip modules can work without jamming, anti-jamming ability greatly improved thereby.



Stand higher temperature, work more precisely, better filtering and more durable, life span extended by 80%.

■ **The 6th Generation IGBT Inverter**

DSP controlled IGBT Inverter provides the highest quality output power, the inverter efficiency is higher, ensures the cleanest output voltage waveform to protect connected loads.

■ **Static & Manual (Maintenance) Bypass**

Static bypass provides safe failure to mains if the ups is overloaded or develops a fault condition.

Manual bypass is used to power down the UPS without interrupting the power to the load. With this feature technical personnel can work on the faulty UPS and it is completely safe to change the inner units.

■ **Auto Restart**

When the main and bypass sources fail, the ups draws power from the battery system to supply the load until the batteries are depleted.

When UPS will reach its end of discharge, it will shut down. UPS will automatically restart and enable output power.

■ **Advanced User Interface**

Audio alert function.

User-friendly touch screen display, which can provide operating information in two different languages: English and Chinese. Thanks to this advanced LCD display all parameters of working device can be monitored and controlled. UPS is capable of recording up to 256 events.

Visual LED indicator: work flow and work status can be seen on LED indicator.

■ **Advanced communication Capabilities**

CHP3000 series has a wide range of advanced communication options. Standard RS232 & RS485, optional dry contacts or SNMP card for remote control.

■ **Excellent load characters**

Completely fulfill saltus from 0-100% without switching to bypass, and safeguard stable output.

■ **Thorough protections**

Input-output over-low voltage protection, input surge protection, phase protection.

Battery overcharge-over discharge protection, output overload shortcut protection.

Overheat protection and alerting.

■ **High-performance dynamic characters**

Implement high dynamic regulation and minish output voltage distortion.

■ **3 phases separately adjustment, balance stabilizing**

Can achieve 100% unbalanced loads output.

■ **Perfect Generator Compatibility**

CHP3000 series UPS are perfectly compatible with diverse sources, especially with generators.

With high input power factor performance it is enough to choose generator with power only 20% higher rated then the UPS.

■ **Optional EPO (Emergency Power Off)**

EPO function is designed to switch off the UPS in emergency conditions. This system will turn off the rectifier, inverter and will stop powering the load immediately (including the inverter and bypass) also the battery stops charging or discharging.

If the input utility is still present, the UPS's control units will remain active, however, the output will be turned off. To remove all power from the UPS the external feeder breaker should be opened.

■ **Optional input harmonic filter or 12 pulse wave rectifier**

UPS with 12 pulse rectifier and input harmonic filter can make the THD <5%, and make the input power factor >0.96.

■ **Optional battery detecting modules**

Can inspect single cell battery's parameters, and display in panel. If the battery has fault, will alarm immediately and notify the administrator.

■ **Personalized settings**

Users can set UPS work status, can choose UPS, ECO, or Inverter work mode.



MODEL	CHP3010K	CHP3015K	CHP3020K	CHP3025K	CHP3030K	CHP3040K	CHP3050K	CHP3060K	CHP3080K	CHP3100K	CHP3120K	CHP3160K	CHP3200K	CHP3250K	CHP3300K	CHP3400K	CHP3500K	CHP3600K					
Capacity	10kVA	15kVA	20kVA	25kVA	30kVA	40kVA	50kVA	60kVA	80kVA	100kVA	120kVA	160kVA	200kVA	250kVA	300kVA	400kVA	500kVA	600kVA					
Power Watt	8kW	12kW	16kW	20kW	24kW	32kW	40kW	48kW	64kW	80kW	96kW	128kW	160kW	200kW	240kW	320kW	400kW	480kW					
Working Principle	Low Frequency Transformer Based True On Line-Double Conversion																						
RECTIFIER (INPUT) Phase	Three Phase																						
Input Power Factor	Standard ≥ 0.9 (6pulse Rectifier+Filter), Optional ≥ 0.96 (12pulse Rectifier+Filter)																						
Input Voltage Range	220/380VAC (230V/400VAC or 240V/415VAC) $\pm 25\%$ 3P+N+PE ; 110V/208VAC(120V/220VAC or 277V/480VAC) optional																						
Input Frequency Range	50Hz $\pm 10\%$ / 60Hz $\pm 10\%$ (Selectable)																						
Total Harmonic Distortion (THDi)	6pulse Rectifier $< 30\%$, Optional 12pulse Rectifier & Filter $< 5\%$																						
Output Ripple	$< 2\%$																						
Soft Start CHARGING	0~100% 5sec																						
Charging Mode	Constant current, then constant voltage, charge with temperature compensation, automatic switch Between Equalized charging and Float charging,																						
Float Charging	432VDC																						
Voltage Equalized Charging Voltage Temp. Compensated Voltage	464VDC																						
Charging Current	0.1C (Automatic adjust according to battery capacity)																						
BATTERY Type	VRLA/AGM/Gel, optional Lithium Battery																						
Battery Capacity	7~999AH settable (Configure Battery Capacity according to Back-up Time)																						
Quantity	32units 12V or 192units 2V batteries (Nominal Voltage 384VDC)																						
Temperature	20°C~25°C (For Maximum Efficiency)																						
INVERTER (OUTPUT)																							
Phase	Three Phase																						
Rated Voltage	Rated Capacity*0.9																						
Nominal Voltage	220/380VAC (230V/400VAC or 240V/415VAC), 3P+N 110V/208VAC(120V/220VAC or 277V/480VAC) optional																						
Output Voltage	$\pm 1\%$ (Stable load), $\pm 3\%$ (fluctuant load)																						
Regulated Accuracy																							
Output Frequency Range	50Hz 60Hz $\pm 0.5\%$ (Asynchronous)																						
Crest Factor Output Total	$> 3:1$																						
Harmonic Distortion (THD)	Pure Sine Wave, Linear Load $< 3\%$, Non-Linear Load $< 5\%$																						
Dynamic	Instant voltage $< \pm 5\%$ (from 0 to100%), Instant recover time $< 10\text{ms}$																						
Characteristics Unbalanced Load	$< \pm 5\%$																						
VoltageOverload Capacity	At 115% load, normal work, At 125% load 10 min, At 150% load 1min, At 200% load 1S																						
Inverter Efficiency	$> 92\%$ (full load)						$> 93\%$ (full load)						$> 95\%$ (full load)										
BYPASS																							
Phase	3 Phase +N																						
Input Nominal Voltage	220/380VAC (230V/400VAC or 240V/415VAC) 110V/208VAC(120V/220VAC or 277V/480VAC) optional																						
Output Nominal Voltage	220/380VAC (230V/400VAC or 240V/415VAC) 110V/208VAC(120V/220VAC or 277V/480VAC) optional																						
Transfer Time	0ms(adopt static switch)																						
PROTECTION FUNCTION																							
Input Protection	Input voltage, frequency over limited protection, Phase fault, Phase lack																						
Output Protection	Over current, short circuit, over voltage, low voltage																						
Battery Protection	Over charge, over-discharge protection																						
Temperature Protection	Environment over temperature protection, inverter over temperature protection																						
Hardware Fault Protection	Assistant power abnormal, breaker cut off, breaker overload, power devices over current/over voltage etc protection																						
GENERAL SYSTEM PARAMETERS Working																							
Environment	Temp: -10~40°C, relative humidity: 30%~90%, Altitude $< 2000\text{m}$ (1% decrease against 100 meters' rise, max. altitude 4000m)																						
Cooling Method Communitation	COMPULSIVE VENTILATION																						
Interface	RS232/ RS485, optional dry contact, SNMP card (for remote control via Internet)																						
Parallel Operation																							
Anti-surge Capacity	Tandem hot backup or parallel connection 10/700 μs , 5KV, 8/20 μs , 20KA																						
Protection Level	IP31												IP30										
Safety Performance																							
Noise (dB)	V_{in-n} V_{out-n} 3000Vac, $c_{reepage} < 3.5\text{mA}$, insulating resistance $> 2\text{M}\Omega/500\text{VDC}$																						
Dimension (W*D*H)	48-55					55-60					60-65					65-70							
mm	600*620*1250				700*600*1520				980*800*1800				1380*950*1800				2000*900*2000				2000*1200*2000		
Weight (Kg)	205	254	265	304	311	407	485	506	770	913	937	1440	1710	1980	2810	3060	3860	4120					

※ 200V-208V-220V (Ph-Ph) Version is available

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