High frequency online UPS

an **ATLANTIC POWER GROUP** company

Mexico DF - Sao Paulo - Madrid - Istanbul - Kuwait - Hong Kong - Melbourne

HPFE UPS (1KVA-20KVA)

Power Availability

Reliability, Availability, Scalability, Redundancy,

User-friendliness and Maintainability,

whichever value you need,

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YOUR POWER QUALITY PARTNER

HPFE online ups adopts the double conversion online architecture ideal for resolving all issues on power supply. The UPS is especially designed for elimi–nating power loss, extra high or low voltage of utility power, voltage sags or damped oscillation, high–voltage pulse, voltage fluctuation, surge voltage, harmonic distortion clutter immunity, and frequency fluctuation etc., delivering safe and and reliable power supply and guarantee for user's load.

Major Applications
- Information Technology
  - Data Centers
  - Servers (LAN, WAN, MAN, ERP, e-mail, web and others)
  - Networking
- Telecommunication
  - Mobile (2G, 2.5G, 3G)
  - Paging
  - Fixed (including WLL)
- Industrial Automation
  - Process (including instrumentation)
  - Motion (digital drives & robotics) and motor loads
- Transport Automation
  - Airport automation and flight booking
  - Others including railways & road transport automation & ticket booking
- Banking, Insurance and Financial Services
- Software Development Houses / Software Technology Parks (STP)
- Building Automation
  - Access Control
  - Security System
  - Fire Alarm System
  - Emergency Lighting
  - Other Critical Applications
- Medical Diagnostics
  - Magneto Resonant Imaging
  - CT Scanning
  - CathLab
- Satellite
  - Uplinking
  - Earth Stations

Features

▸ Its cut−edge digital technology of DSP (Digital Signal Professor), can greatly improve the products

▸ performance and system reliability, and deliver a compact integration with higher power density ;

▸ Output power factor up to 0.8 – applicable to the tendency of future load evolution, and deliver higher payload capacity;

▸ Higher payload and overload capability, better load compatibility, and suitable for various load type; Total power factor up to 90% can minimize the power loss of UPS and utilization cost for user;

▸ High Scalability: fully meet the customer's demands; Emergency Power Off (EPO): UPS can be instantly shut off in case of any emergency;

Grid environment

▸ Output power factor up to 0.8– applicable to the tendency of future load evolution, and deliver higher payload capacity;

▸ Total power factor up to 90% can minimize the power loss of UPS and utilization cost for user;

▸ Active power factor correction (PFC) technology allows the input power factor approaching to 1, dramatically reducing the immunity on utility grid；

▸ Wider range of input voltage tailored for hard grid can be suitable to all severe environments；

▸ Excellent input frequency range makes UPS suitable to different power supply devices, i.e. generator set；

Reliability

▸ Its cut−edge digital control technology of DSP (Digital Signal Processor) can deliver higher quality, performance and reliability；

▸ Higher payload and overload capability, better load compatibility, and suitable for various load type；

▸ Powerful Interference immunity capability in compliance with EMC requirements of IEC61000−4,deliver your device a clean electric environment.

LCD display & monitoring

▸ LCD display accurate UPS working environment and working status to the user, through the LCD display panel can be set output voltage and frequency, at the same time can be set ECO mode , convenient for user to operate the UPS .

▸ Support Microsoft Windows95/Me/NT/2000/XP/Unux operating system. Suit for TCP/IP local area network;

▸ Support TCP/IP network monitoring ; Provide a hierarchical directory structure management network;Unusual event can be notified to user through broadcast , e−mail, messenger call or mobil messager; Automatically detective the UPS model and the communication port; Provide password protection;

▸ Support timing boot up / shut off UPS function;

▸ Support timing UPS self−test function;

▸ Support graphically displayed UPS status function in real time;

▸ Support network to deactivate the function of multiple servers and workstations;

▸ Support Smart Event function, so that the user can defined according to their needs;

▸ Accept the abnormal power;

▸ Support to shut off most of the applications and the preservation of related document;

▸ Support for simplified/traditional Chinese,multi−language and English platform;

▸ Support the online help function; with data records(including mains,ups,load,battery) ,and event function,to convenient the system administrator for the routine maintenance.

Flexible configuration

▸ High Scalability： fully meet the customer's demands;

▸ Online Intervention: safe and online intervention without any power supply interruption to load;

▸ Emergency Power Off (EPO): UPS can be instantly shut off in case of any emergency;

▸ Parallel Kit: realize the parallel extension and redundancy function, offer more flexibility and safety for user's power supply planning;

▸ Isolating Transformer: offer isolation protection for the user.

Battery management

▸ With its advanced intelligent charge control mode, UPS can automatically select the optimal charge mode as per the battery type and conditions, thus further maximizing the lifespan of battery bank. In addition, the system can periodically conduct the charge & discharge management for the battery bank. User also can select the battery voltage (192V or 240V) on demands.

▸ The user can query and set the proper UPS control parameters for intelligent UPS management. automatically identify and adapt to 50/60Hz power supply system, fulfilling the requirements in various power supply systems.

▸ Perfect failure protection and alarm function: provide complete failure protection and clear alarm notification function in case of I/O over−voltage or under−voltage, battery over−charge or under−voltage, overload, and short circuit.

Low noise

With leading control technology and craftsmanship, this UPS can greatly increase the power density and reduce the footprint, therefore save more expensive space in your office environment. Additionally, its lower noise during operation can allow you a more comfort working environment.

Communication

▸ Provide RS232、USB interface and communication cable for local or remote power supply management；

▸ Provide intelligent slot available to Window's Web Power (SNMP), CMC, or AS400 card (dry contact) for remote management and monitoring function.

Technical Specifications

Model		HPFE 1−10KVA				
Capacity		1KVA/800W	2KVA/1600W	3KVA/2400W	6KVA/4800W	10KVA/8000W
Norminal voltage		220/230/240VAC Single phase 2 wire+G				
Norminal frequecy		50/60Hz				
Input						
Voltage Range		115 ~ 300VAC			120~275VAC	
Frequency Range		50Hz:(46 ~ 54Hz);60Hz:(56Hz ~ 64Hz)				
Power Factor		> 0.98			0.99	
Output						
Voltage Precision		220/230/240X(1 ± 2%)VAC				
Frequency Precision		50/60Hz ± 0.05Hz				
Power Factor		0.8				
Harmonic Distortion		Linear load<3% Non−linear<6%				
Overload Capacity		108% ± 5%<load<15% ± 5%, >25s switch to by pass and alarm;150% ± 5%<load<200% ± 5%,>300ms swicth to bypass and alarm.			105%~125%, 60s switch to by pass,125%~150%,30s switch to bypass, 60s cut off output;>150%, 0.5s switch to bypass	
Current Crest Ratio		3:1				
Transfer time		0 ms(AC mode↔DC mode);(AC mode↔Bypass<4ms)				
Battery						
DC Voltage		36VDC / 72VDC	96VDC	192 or 240VDC		
Recharge time		5 hours to 90% (it means standard model which battery inside UPS)				
Charging current		1A / 4A/8A(Optional)	1A / 4A/8A(Optional)	1A / 4A/8A(Optional)	2A / 4A	2A / 4A
Panel Display						
LCD		UPS status, input/oupout voltage and frequency,battery voltage,capacity,load temperature,history records adjust Voltage ECO mode				
Communication						
Communication port		RS232, SNMP Card (Optional),USB port(Optional)				
Working Environment						
Temperature		0℃ ~ 40℃				
Relative Humidity		Non−condensing				
Storage Temperature		−25℃ ~ 55℃				
Elevation		< height 1500m				
Noise Level		< 45dB	< 50dB	< 50dB		
Physics Characteristic						
Weight (Kg)	N.W	12 / 6.5	23 / 10.5	31.5 / 14	57 / 18	67.5 / 20
	G.W	14 / 8	35 / 13	33.5 / 16.5	59 / 20	70 / 22
Dimension：(W*D*H)		145X355X220	190X383X318	190X433X318	248X500X616 / 248X500X460	248X500X616 / 248X500X460

STANDARD:Conform to GB / IEC regulation: EMC:GB7260.0 / IEC62040−2   GB / 17626.2~5 / IEC61000−4−2~5   SAFETY:GB4943

HPFE UPS (1KVA-20KVA)

Power Availability

Technical Specifications

Model		HPFE 10–20KVA			
		10KT	10KT–XL	15KT–XL	20KT–XL
Capacity		10KVA/8000W		15KVA/12000W	20KVA/16000W
Norminal voltage		380/400/415VAC 3phase 4 wire+G			
Norminal frequecy		50/60Hz			
Input					
Voltage Range		304 ~ 478VAC		304~478VAC	
Frequency Range		50Hz:(46 ~ 54Hz);60Hz:(56Hz ~ 64Hz)			
Power Factor		> 0.98		0.99	
Output					
Voltage Precision		220/230/240X(1 ± 2%)VAC			
Frequency Precision		50/60Hz ± 0.05Hz			
Power Factor		0.8			
Harmonic Distortion		Linear load<3% Non–linear<6%			
Overload Capacity		105%~125%, 60s switch to by pass,125%~150%,30s switch to bypass, 60s cut off output;>150%, 0.5s switch to bypass			
Current Crest Ratio		3:1			
Transfer time		0 ms(AC mode↔DC mode);(AC mode↔Bypass<4ms)			
Battery					
DC Voltage		192VDC			
Charging current		2A	4A		
Panel Display					
LCD		UPS status, input/oupout voltage and frequency,battery voltage,capacity,load temperature,history records adjust Voltage ECO mode			
Communication					
Communication port		RS232, SNMP Card (Optional),USB port(Optional)			
Working Environment					
Temperature		0℃ ~ 40℃			
Relative Humidity		Non–condensing			
Storage Temperature		–25℃ ~ 55℃			
Elevation		< height 1500m			
Noise Level		< 55dB			
Physics Characteristic					
Weight （Kg）	N.W	20		35	35
	G.W	24		39	39
Dimension :(W*D*H)		248X500X616			

STANDARD:Conform to GB / IEC regulation: EMC:GB7260.0 / IEC62040–2   GB / 17626.2~5 / IEC61000–4–2~5   SAFETY:GB4943

HPFE UPS (10KVA-20KVA-3PH)   Power Availability

Technical Specifications

MODEL		HPFE 10-20KVA					
		10K	10K-XL	15K	15K-XL	20K	20K-XL
PHASE		3-phase in / 3-phase out					
CAPACITY		10000 VA / 8000 W		15000 VA / 12000 W		20000 VA / 16000 W	
INPUT							
Nominal Voltage		3 x 400 VAC (3Ph+N)					
Input Voltage Range		305-478 VAC (3-phase) at 100% load ; 190-520 VAC (3-phase) at 50% load					
Frequency Range		46~54 Hz or 56~64Hz					
Power Factor		≧ 0.99 @ 100% Load					
OUTPUT							
Output Voltage		3 x 400V (3Ph+N)					
AC Voltage Regulation (Batt. Mode)		± 1%					
Frequency Range (Synchronized Range)		46~54Hz or 56~64Hz					
Frequency Range (Batt. Mode)		50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz					
Current Crest Ratio		3:1 (max.)					
Harmonic Distortion		≦ 2 % THD (Linear Load) ; ≦ 5 % THD (Non-linear Load)					
Transfer Time	AC Mode to Batt. Mode	Zero					
	Inverter to Bypass	Zero					
Waveform (Batt. Mode)		Pure Sinewave					
EFFICIENCY							
AC Mode		89%		89%		89%	
Battery Mode		86%		88%		87%	
BATTERY							
Standard Model	Battery Type	12 V / 9 Ah					
	Numbers	20 pcs (18 - 20 adjustable)		20 pcs x 2 strings (18 - 20 adjustable)			
	Typical Recharge Time	9 hours recover to 90% capacity					
	Charging Current (max.)	1A		2A		2A	
	Charging Voltage	273 VDC ± 1%					
Long-run Model	Battery Type	Depending on the capacity of external batteries					
	Numbers						
	Charging Current (max.)	4A		4A		4A	
	Charging Voltage	273 VDC ± 1%					
INDICATORS							
LCD Display		UPS status, Load level, Battery level, Input/Output voltage, Discharge timer, and Fault					
ALARM							
Battery Mode		Sounding every 4 seconds					
Low Battery		Sounding every second					
Overload		Sounding twice every second					
Fault		Continously sounding					
PHYSICAL							
Standard Model	Dimension, D x W x H (mm)	815 x 250 x 826		815 x 250 x 826		815 x 250 x 826	
	Net Weight (kgs)	109		164		164	
Long-run Model	Dimension, D x W x H (mm)	592 x 250 x 826		592 x 250 x 826		592 x 250 x 826	
	Net Weight (kgs)	38		40		40	
ENVIRONMENT							
Humidity		0-95 % RH @ 0- 40°C (Non-condensing)					
Noise Level		Less than 58dB @ 1 Meter		Less than 60dB @ 1 Meter			
MANAGEMENT							
Smart RS-232 / USB		Supports Windows[2] 2000/2003/XP/Vista/2008, Windows[2] 7/8, Linux, Unix, and MAC					
Optional SNMP		Power management from SNMP manager and web browser					

* Product specifcations are subject to change without further notice