

# HAIRF<sup>®</sup>

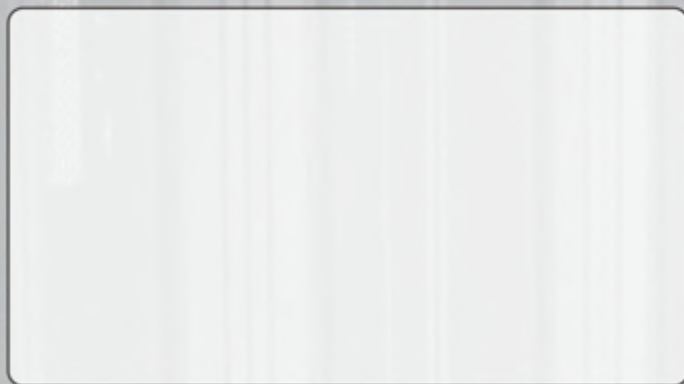
## Hairf X8 series UPS

30kVA-800kVA

### HAIRF<sup>®</sup>

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## Hairf X8 series UPS

### STABLE

1. Extreme environmental testing to ensure the stability of the product;
2. Fault simulation test upon different environment and perfect automatic test equipment;
3. The stability of the power supply ensure the stable operation of the loading equipment in harsh environments;
4. Hairf UPS adopt integration design concept, provide stable, safe protection and power supply for the power input, storage and output, to ensure the safety of loading equipment.

### SMART

1. The intelligent fault diagnosis, improve the efficiency of maintenance;
2. Intelligent battery management, to ensure the high service life of battery ;
3. Intelligent real-time monitoring system, strongly support customer on controlling the dynamic state of the whole system, realize the real-time monitoring management and covers all power supply nodes.

### SIMPLE

1. Integration, easy to deliver ;
2. Many event record, easy to identify ;
3. Inner part modular, easy to install, easy to maintain ;
4. System adopts the integrated design idea, unique design, simple operation. Host, power supply part and intelligent monitoring modules are all easy to install; Using full digital without master-slave and paralleling control technology, easy expansion.

### SAVING

1. High efficiency, ECO mode efficiency can reach up to 98%;
2. Low input current harmonics, improve the utilization rate of power supply ;
3. Start-up delay technology, reduce the instantly shocks on power distribution system, then to reduce customer investment ;
4. The product adopts on-line double transformation technology, low heat release, high efficiency of the system, to save more energy and reduce investment for customer.

### RELIABLE

1. Key parts adopt international famous brand, to ensure product quality ;
2. 24 hours continuous working and related verification test, ensure the high reliability of the system ;
3. Output isolation design, reduce the effect on the load and ensure the safety of the loading equipment ;
4. Unique system design, multiple protection system design to ensure high reliability of the system in harsh environments ;
5. Redundancy design of key part, improve the reliability of system, ensure the reliable power supply system.





## X8 SERIES 40-800KVA UPS

X8 series is a high-end three phase input/ three phase output double conversion uninterruptible power supply products. Adopt innovative design, integration concept, has a number of patents, greatly Improvement in the green environmental protection, energy-efficient and reliability. Product performance has reached the international leading level, adopts multiple DSP, MCU, CPLD digital control, which can realize 8 units parallel running independently without the master-slave, has a very high cost performance, which is the best choice of the power supply high demanding industry. The characteristics of this series UPS is as follows:

### PRODUCT FEATURES

#### 1. High performance

- Super load adaptability and output overload and short-circuit ability;
- Wide range of input voltage and frequency, high power grid adaptability;
- Super long normal working time without any fault, short repair service time;
- Output power factor as high as 0.9, Load capacity 12.5% higher than traditional UPS;
- Intelligent fault diagnosis, fault record, the large capacity of fault storage space;
- When connected to the harmonic filter, the input power factor can be as high as 0.95, input harmonic current is less than 4.5%;
- Advanced rectifier and IGBT inverter control technology, on-line 3phase input/ 3 phase output double conversion structure, support 380/400/415 v, 50/60 hz power system

#### 2. safety stabilization

- Full range of UPS power supply standard BCB components;
- Inner fan system redundancy design, greatly improve the system reliability;
- Built-in output isolation transformer, can reduce the inverter influence from the voltage between "N" and "PE" and the load harmonic current;
- Adopts DSP to realize fully digital control of all power conversion link, the UPS system are more stable;
- More than 90% system components adopt international famous brand, after 24 hours continuous working and relative test, to guarantee high reliability of the system.

#### 3. Many options

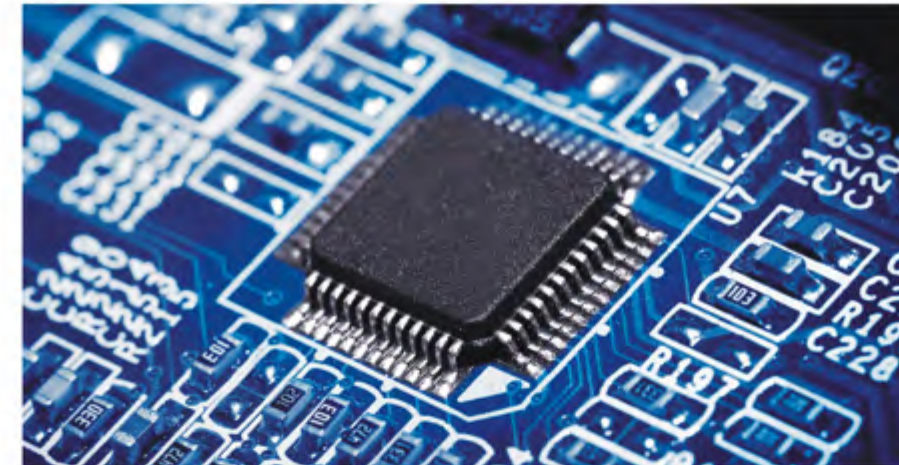
- Built-in many kinds of communication interface:RS232, RS485, dry contact, EPO, et;
- variety of options: SNMP network communication card, battery temperature compensator, the lightning protection module, dust-proof net, etc.

#### 4. Unique design , simple operation

- All front maintenance, support up and down connection line, service entrance is equipped with protection devices;
- Friendly human-machine interface, large LCD screen with keyboard used in combination, the operation is convenient.

### TYPICAL TECHNICAL FEATURES

- Environment friendly green UPS, with various harmonic restrain technology;
- 6-inch LCD display, friendly interface, easy to operate;
- Wide input voltage/frequency range, adapt to harsh utility power;
- Redundant control power, increase even higher system reliability;
- Non master/slaver digital intelligent parallel control, self-load share algorithm, parallel up to 8 units
- Multi DSP、CPLD、MCU digital control, higher consistency and reliability;
- Advanced intelligent battery management, self diagnose technology, extend battery life;
- Output power factor 0.9, delivers 12.5% more power than tradition 0.8 UPS ;
- Super overload capacity and output short-tolerant ability, maximize protect load even under abnormal conditions;
- Independent cooling system, multi-protection design, ensures high reliability even under harsh environments;
- Double conversion online topology, with output isolation transformer, all-round protect load from utility or generator problems.



### OPTION

- Upper wiring kit,SNMP card,Battery thermal sensor,Parallel kit,Bypass load share choke LBS cable,Dry contact card,5<sup>th</sup> filter,11<sup>th</sup> filter,BCB kit,Battery grounding fault detector

### USING RANGE

- Datacenters, Server rooms, Finance, Telecommunications, Insurance, Education, Government, Large stadium, Opera, Theater, Harbor, Traffic facilities, Production areas etc.



## X8 seies UPS Parameter

Capacity	Rated Power	30kVA	40kVA	60kVA	80kVA	100kVA	120kVA	160kVA
	active power	27kW	36kW	54kW	72kW	90kW	108kW	144kW
Input	Wiring connection	Three Phase +Ground						
	Nominal Voltage	380/400/415VAC						
	Voltage Range	285VAC ~ 498VAC						
	Frequency	50/60Hz						
	Frequency range	45 ~ 65Hz						
	Soft start	5 ~ 600S settable						
	Power factor	0.95 ( Input harmonic filter )						
Bypass	Nominal voltage	380/400/415VAC three phase +Neutral +Ground						
	Voltage range	±10%, ±15%, ±20%settable						
	Frequency	50/60Hz±10%						
Output	Nominal voltage	380/400/415VAC						
	Voltage regulation	±1% ( balance load ) , ±2% ( 100%unbalance load )						
	Power factor	0.9						
	Dynamic response	±5% ( 0 ~ 100%load transient )						
	Distortion	<1% ( 100%Linear load )						
		<3% ( 100%non-Linear load )						
	Transient response	<5ms						
	Sync. Range	±5%						
	Overload	Power factor as 0.9,inverter working : 105% continues , 110%11Hr , 125% 100min , 150%11min						
	Frequency	±0.05%						
	Wave form	Pure sine wave						
Efficiency	Inverter mode	92%			94%			
	ECO mode	97%			98%			
N+X	Parallel quantity	Max 8units						
Battery	Configuration	12V, 32pieces ( 30 ~ 34pieces settable )						
Display		LCD+LED						
Dimension	Depth ( mm )	720			855			
	Height ( mm )	1200			1900			
	Width ( mm )	6pulse	550	650	890	1245		
12pulse		650	1000	1415	1770			
Weight	Net Weight ( kg )	6pulse	300	600	960	1075		
		12pulse	400	800	1390	1685		
Environment	Humidity	0 ~ 40°C						
	Temperature	0 ~ 95%non condensing						
	Noise ( 1m )	<55dB			67dB			
Control Management	RS-232/OptionUSB	Support windows2000/XP/7/Linux/Unix/Mac						
	OptionSNMP	Support remote control through web browser						
Standard	Safty	IEC60950-1, IEC62040-1-1						
	EMC	IEC62040-2, IEC62040-3						

## X8 seies UPS Parameter

Capacity	Rated Power	200kVA	250kVA	300kVA	400kVA	500kVA	600kVA	800kVA
	active power	180kW	225kW	270kW	360kW	450kW	540kW	720kW
Input	Wiring connection	Three Phase +Ground						
	Nominal Voltage	380/400/415VAC						
	Voltage Range	285VAC ~ 498VAC						
	Frequency	50/60Hz						
	Frequency range	45 ~ 65Hz						
	Soft start	5 ~ 600S settable						
	Power factor	0.95 ( Input harmonic filter )						
Bypass	Nominal voltage	380/400/415VAC three phase +Neutral +Ground						
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N+X	Parallel quantity	Max 8units						
Battery	Configuration	12V, 32pieces ( 30 ~ 34pieces settable )						
Display		LCD+LED						
Dimension	Depth ( mm )	855			900			
	Height ( mm )	1900						
	Width ( mm )	6pulse	1245	1640	2265			
12pulse		1770	2265	2265	2900	3200	3800	
Weight	Net Weight ( kg )	6pulse	1075	1630	2105			
		12pulse	1685	2290	2500	3000	3500	4100
Environment	Humidity	0 ~ 40°C						
	Temperature	0 ~ 95%non condensing						
	Noise ( 1m )	<67dB			71dB	72dB	76dB	
Control Management	RS-232/OptionUSB	Support windows2000/XP/7/Linux/Unix/Mac						
	OptionSNMP	Support remote control through web browser						
Standard	Safty	IEC60950-1, IEC62040-1-1						
	EMC	IEC62040-2, IEC62040-3						