



High speed rail

**Reliable and Stable  
Intelligent and Efficient**

## HQi SERIES ONLINE UPS

## HQi SERIES UPS FOR INDUSTRY

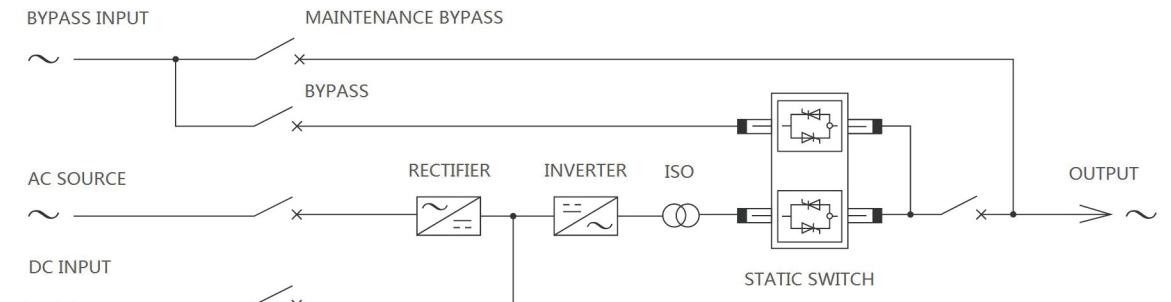
**10KVA~800KVA**  
**Input Phase:3P3W ( 3P4W )**  
**Output Phase:1P2W or 3P3W ( 3P4W )**  
**DC Input voltage: DC348V/DC220V/DC110V**  
Different specifications required are available



### > APPLICATIONS

- Industrial Manufacturing
- Network Data Center
- OA ( Office Automation )
- Rail Transit
- Off - Shore Drilling Platform
- Ocean Transportation Ships

### > SYSTEM STRUCTURE



### > FEATURES & ADVANTAGES

- With the output Isolation and double conversation online design and high speed DSP, it is a full intelligent and digital UPS.
- Design with the excellent compatibility between the IGBT rectifier and Phase controlled rectifier. The user can choose either of the two according to different requirements.
- Adopting IGBT components with PFC function technology, power factor is more than 0.975. With the reduction of input Harmonic and Reactive Power Loss, it is an energy-saving and high efficiency UPS.
- One touch 7' color LCD Display design with plenty of information, easy to operate, . It is easy to modify electric power characteristics to meet the different power-supply standards of various countries in the world.
- Excellent overload capacity, adopting five-stage overload protection technology, it is suitable for the most demanding industrial load.
- High Efficiency: The overall efficiency is more than 0.93 such reducing the energy consumption.
- Adopting advanced detection & protection measures and technology to prevent the current flow-backwards and common-conducting of the IGBT components to improve the reliability of the system.
- Key PCB boards with Conformal Coating treatment to ensure damp - proof, salt fog - proof mildew proof, suitable for any quiet dirty and high pollution industrial environment.
- Three stage Intelligent Battery Management System can be preset to symmetrically charge and discharge operation test for battery in a regular time, and with the function of temperature compensation such prolong the battery life and reduce the battery replacement cost.
- With the exclusive function of automatic correcting cut-off voltage to prevent the low current deep discharge resulted in permanent damage to batteries.
- Designed with Intelligent battery polarity detection and reverse connection alarm technology, AC input without phase-sequence requirements and strict power on & off program constrain. It is safe and easy for operation.
- Fan designed with self-diagnosis and redundancy functions, Intelligent Fan Rotation Speed control, UPS fan rotation speed can change automatically according to the actual temperature load level.
- Equipped with Manual maintenance bypass switch to ensure the transfer to bypass line without interruption to continue the power supply to the loads during maintenance.
- Single-Phase and Three-Phase compatibility design, Plug & Play modular design to reduce the maintenance time and cost.
- Dry Contact, RS232/RS485 ( MODBUS ) , Optional SNMP Card and Remote Control Panel.
- Unlimited History Data Records can be downloaded to U disk so the user can get full understanding and records of what has happened to the UPS in the past.
- Excellent Compatibility designs, various nonstandard products made according to user's requirements are available, Reserved Parallel Interface which allowed for Multi-unit Parallel operation.

## Reliable and Stable

The critical requirement of power supply for the industrial applications is security and stability, meanwhile to reduce the operating costs and energy consumption, that is the driving force for our constant pursuit of technological innovation.

### > Output specification

	Output specification)	
	10KVA~200KVA	200KVA~800KVA
Single-phase out voltage	●	
Three-phase output voltage	●	●

### > Standard Equipment

- Output Isolated Low Frequency Transformer
- IGBT Rectifier Module with PFC power factor correction
- Full-Bridge IGBT Inverter Module
- Static Bypass Components
- Double independent large-scale DSP Control components
- Hardware and software mutual redundancy backup Control device
- Strong steel Structure suitable for industrial Environment
- LCD Touch Control Screen
- Three stage Intelligent Battery Management System
- Intelligent Fan Rotation Rate Control redundant Device
- Expandable Parallel Components
- Dry Contact and RS232/RS485 ( MODBUS ) communication port

## Intelligent and Efficient

### > Control panel

HQ33i standard with 7 inch color touch screen, you can set the operating parameters of the UPS, view the UPS operating parameters and historical records.



### > Optional Equipment

- Input Isolated Low Frequency Transformer
- 6-Plus or 12-Plus Rectifier
- Bypass Isolated Low Frequency Transformer
- Remote Control panel with LCD Touch Control Color Screen
- E.P.O (Emergency Power Off) Button
- Top Cable Entry & Exit Connection Device
- SNMP Adapter
- Custom-made large current charging Module
- Ni-Cr Battery Charging Module

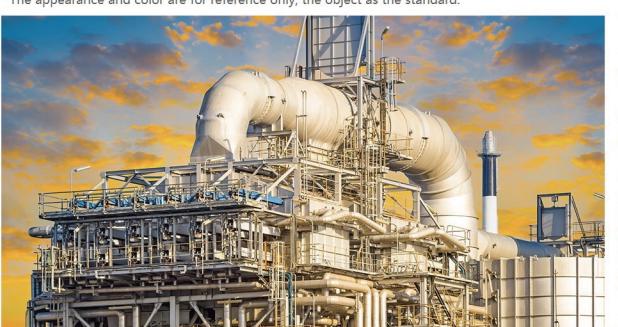


## Reliable and Stable

### > Technical data

KVA		10	20	30	40	50	60	80	100	120	160	200	240	300	320	400	500	600	800																												
Rectifier		IGBT Rectifier with power factor correction (or 6- Pulse or 12- Pulse Phase controlled rectifier)																																													
Input	Voltage	AC380V/400V/415V/480V 3P3W or 3P4W, Other specifications required are available																																													
	Voltage Range	$\pm 25\%$																																													
	Frequency	50Hz / 60Hz $\pm 10\%$																																													
	Power Factor	>0.95			>0.985			>0.8																																							
Inverter		3-Phase Independent Full Bridge IGBT Inverter																																													
Output	Voltage	AC380V/400V/415V/480V 3P3W or 3P4W, or AC220V/230V/240V/277V 1P2W, Other specifications required are available																																													
	Voltage Regulation	$\pm 1\%$																																													
	THD	Linear Load < 2% ; Non-linear Load < 3%																																													
	Frequency and Frequency	50Hz / 60Hz $\pm 0.1\%$																																													
	Phase Shift Under 100% Unbalance Load	< 0.5°																																													
	Power Factor	0.8																																													
	Overload Capacity	< 110% 60 Min, 125% 10 Min, 150% 1 Min, 200% 10 Sec																																													
	Crest ratio	3: 1																																													
	Efficiency (100% Load)	$\geq 93\%$																																													
Battery	Input Voltage	DC348V, DC384V, DC220V, DC125V, DC110V, Other specifications required are available																																													
	Batter Cold Start without AC Source	Yes																																													
Physical & Environment	Dimension ( mm ) : W D H	550 800 1800	800 800 1800	1100 800 1800	1650 800 1800	2200 800 1800	3300 800 1800	4400 800 1800																																							
	Net Weight ( kg )	250	280	380	450	520	650	780	910	1180	1340	2200	2550	2860	2950	3300	4200	4750	5950																												
	Color	RAL7035 Light Grey With Ultra-violet Resistance, or RAL7032																																													
	Maximum Ambient Temperature allowed for 100% load	40°C Continuous, 50°C Less Than 8 Hours																																													
	Relative Humidity	< 90% non-condensing																																													
	Altitude	< 1000M Above Sea Level																																													
	Shell Protection Level	IP20 , Other IP protection levels required are available																																													
	Audible Noise	< 60dB At 1 Meter					< 65dB At 1 Meter																																								
Partial Standard	Safety Standard (CE Standard)	EN50091-1 Approved																																													
	Electromagnetic Compatibility (CE Standard)	EN50091-2 Approved																																													
	Emanation Standard & Safety Standard	FCC CLASS A, CE Approved																																													
	EMC/EMI	Conduction	EN50091-2 Approved																																												
		Eradiation	EN50091-2 , CLASS A Approved																																												
		Harmonic Current	IEC1000-3-4 Approved																																												
		Interference Resistance	EN61000-4-2.3.4.6.8.9.11 Level III , EN61000-4-5 Level IV Approved																																												
Protection		Short Circuit, lightning, EMC Filter, Isolation																																													
Communication Interface		Dry Contact, RS232, RS485 ( MODBUS )																																													

## Intelligent and Efficient





# HQi SERIES ONLINE UPS

## HQi SERIES UPS FOR ELECTRICITY

10KVA~200KVA

Input Phase:3P3W ( 3P4W )

Output Phase:1P2W or 3P3W ( 3P4W )

DC Input voltage: DC220V或DC110V

Different specifications required are available

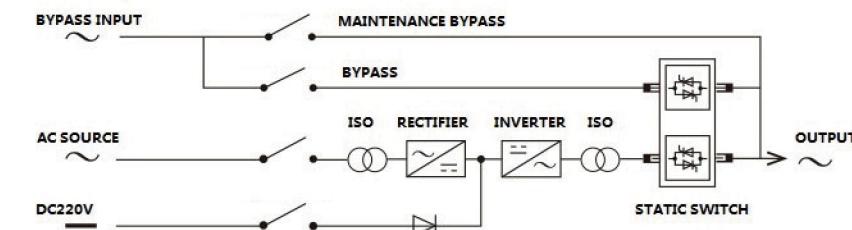


### > Applications

- Power Plant
- Petrochemical Industry
- Rail Transit
- Industrial Manufacturing

Because of **Focus**, so **Professional**

### > System Structure



### > Features & Advantages

#### High Reliability

- Adopting True on-line double conversion Technology, protection with Input/output Isolation Transformers.
- Excellent overload capacity, adopting five-stage overload protection technology, it is suitable for the most demanding industrial load.
- Adopting advanced detection and protection measures and technology to prevent the current flow-backwards and common-conducting of the IGBT components.
- PCB boards with Conformal Coating treatment to ensure damp – proof, salt fog – proof mildew proof, suitable for any quiet dirty and high pollution industrial environment.
- Fan designed with self-diagnosis and redundancy functions, Intelligent Fan Rotation Speed control, UPS fan rotation speed can change automatically according to the actual temperature load level.

#### High intelligence

- Adopting the advanced DSP and Parallel–Redundant Technology to achieve higher integration of the system control.
- One touch 7' color LCD Display design with plenty of information. It is easy to modify electric power characteristics to meet the power-supply standards of various countries in the world.

#### Most Cost-Effective

- Adopting IGBT rectifier with PFC function technology, the input power factor is more than 0.985. It is a best way to reduce the harmonic and contribute to energy saving and environmental protection.
- The overall efficiency is more than 0.94.

#### Easy Maintenance

- Designed with Intelligent DC polarity detection and DC reverse connection alarm technology, AC input without phase-sequence requirements and strict power on & off program constrain. It is safe and easy for operation.
- Front side operation design for easy installation and maintenance.
- Equipped with Manual maintenance bypass switch to ensure the transfer to bypass line without interruption to continue the power supply to the loads during maintenance.
- Single-Phase and Three-Phase compatibility design, Plug & Play modular design to reduce the maintenance time and cost.
- Unlimited History Data Records can be downloaded to U disk so the user can get full understanding and records of what has happened to the UPS in the past.

#### Intelligent Interface

- Dry Contact, RS232/RS485 ( MODBUS ) , Optional SNMP Card and Remote Control Panel.
- Excellent Compatibility designs, various nonstandard products made according to user's requirements are available, Reserved Parallel Interface which allowed for Multi-unit Parallel operation.

# Because of Focus, so Professional

## > TECHNICAL DATA

CAPACITY(KVA)		10	20	30	40	50	60	80	100	120	160	200							
Rectifier		IGBT Rectifier with power factor correction(or 6- Pulse or 12- Pulse Phase controlled rectifier)																	
INPUT		Voltage AC380V/400V/415V/480V 3P3W or 3P4W, Other specifications required are available																	
Voltage		$\pm 25\%$																	
Voltage Range		$\pm 25\%$																	
Frequency		50Hz / 60Hz $\pm 10\%$																	
Power Factor		>0.95(IGBT Rectifier) / >0.85(SCR Rectifier)				>0.985(IGBT Rectifier) / >0.85(SCR Rectifier)													
Inverter		3-Phase Independent Full Bridge IGBT Inverter or 1-Phase IGBT Inverter																	
OUTPUT		Voltage AC220V/230V/240V/277V 1P2W, 3P3W ( 3P4W ), Other specifications required are available																	
Voltage		$\pm 1\%$																	
Voltage Regulation		$\pm 1\%$																	
THD		Linear Load< 2%; Non-linear Load< 3%																	
Frequency and Frequency Stability		50Hz / 60Hz $\pm 0.1\%$																	
Phase Shift Under 100% Unbalance Load		$< 0.5^\circ$																	
Power Factor		0.8																	
Overload Capacity		< 110%Continuous, 125%10 Min, 150% 1 Min, 200% 10 Sec																	
Crest ratio		3: 1																	
Efficiency (100% Load)		$\geq 94\%$																	
BATTERY		Input Voltage DC220V or DC110, Other specifications required are available																	
PHYSICAL & ENVIRONMENT		Batter Cold Start without AC Source Yes																	
Dimension(mm): W		550				1100				1650									
D		800				800				800									
H		1800				1800				1800									
Net Weight ( kg )		400	515	570	590	620	980	1160	1350	1950	2310	2460							
Color		RAL7035 Light Grey With Ultra-violet Resistance																	
Temperature allowed for 100% load		40°C Continuous, 50°C Less Than 8 Hours																	
Relative Humidity		< 90% non-condensing																	
Altitude		< 2000M Above Sea Level																	
Shell Protection Level		IP30 ( Other IP protection levels required are available )																	
Audible Noise		< 60dB At 1 Meter						< 65dB At 1 Meter											
PARTIAL STANDARD		Safety Standard (CE) EN50091-1 Approved																	
EMC/EMI		Electromagnetic Compatibility (CE) EN50091-2 Approved																	
Conduction		Emanation Standard & Safety Standard FCC CLASS A, CE Approved																	
Radiation		EN50091-2, CLASS A Approved																	
Harmonic Current		IEC1000-3-4 Approved																	
Interference Resistance		EN61000-4-2.3.4.6.8.9.11 Level III, EN61000-4-5 Level IV Approved																	
Protection		Short Circuit, lightning, EMC Filter, Isolation																	
Communication Interface		Dry Contact, RS232, RS485 ( MODBUS )																	

Different specifications required are available, OEM/ODM acceptable.

All the specifications mentioned above are subjected to change without prior notice.

The appearance and color are for reference only, the object as the standard.

## > SPECIFICATIONS

规格选择(Output Specifications )												
CAPACITY(KVA)	10	20	30	40	50	60	80	100	120	160	200	200以上
Single-phase output voltage	●	●	●	●	●	●	●	●	●	●	●	
Three-phase output voltage	●	●	●	●	●	●	●	●	●	●	●	●
DC220V Input voltage	●	●	●	●	●	●	●	●	●	●	●	
DC110V Input voltage	●	●	●	●	●	●	●	●	●	●	●	

Other custom specifications, please consult the supplier for the details.

## > Standard Equipment

- Input & Output Isolated Low Frequency Transformers
- IGBT Rectifier Module with PFC function
- Full-Bridge IGBT Inverter Module
- Static Bypass Components
- Manual maintenance bypass switch
- Double DSP Control Technology
- Strong steel Structure suitable for industrial Environment
- LCD Touch Control Screen
- High-Capacity Blocking Diode
- Electronic Parallel Operation Device
- Intelligent Fan Rotation Rate Control redundant Device
- Dry Contact and RS232/RS485 ( MODBUS ) communication port

## > Optional Equipment

- 6-Plus or 12-Plus Rectifier整流方式
- Bypass Isolated Low Frequency Transformer
- E.P.O (Emergency Power Off) Button
- Top Cable Entry & Exit Connection Device
- SNMP Adapter
- Custom-made large current charging Module
- Ni-Cr Battery Charging Module

