

UPS and Power Conditioning Solutions

HS31 Series IT UPS



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Three Phase Input - Single Phase Output
10 kVA to 20 kVA



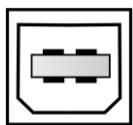
Configuration

1. Standalone UPS
2. N+X redundancy
3. Can be paralleled up to 3 units

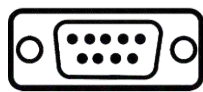
HS31 UPS available in three phase input and single phase output, range available from 10 kVA to 20 kVA. External battery cabinets can be added for extended run time. With true double-conversion design, HS31 UPS provides powerful and overall protection to your sensitive devices. It can accept wider input voltage for harsh environment. It is perfect protection for your precious servers and workstations.

HS31 UPS is a true on-line power source, which means power is always being conditioned and supplied to the connected device(s), whatever the quality of power coming in, a pure sine wave output results to ensure equipment is protected.

Communication Connection



USB Port

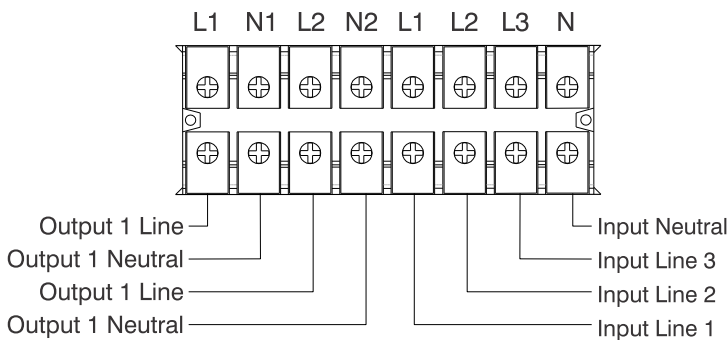


RS-232 Port



Intelligent Slot

Input / Output Connection for 10 kVA



THE SOLUTION FOR

- Mission critical applications and systems
- Small / medium size server rooms
- Network workstation
- BPO / call centres
- Infrastructure
- Health sector
- Light industrial applications
- Banks
- Sensitive electronics equipments
- Process automation equipments

FEATURES

- True double-conversion
- DSP technology guarantees high performance
- Output power factor 0.8
- Wide input voltage range
- Active power factor correction in all phases
- 50 Hz / 60 Hz frequency converter mode
- Eco mode operation for energy saving (ECO)
- Programmable power management outlets (only available for 10 kVA - 20 kVA models)
- Emergency power off function (EPO)
- Generator compatible
- SNMP+USB+RS-232 multiple communications
- 3-stage extendable charging design for optimized battery performance
- Adjustable battery numbers
- Maintenance bypass available

OPTIONAL FEATURES

- N+X parallel redundancy
- Isolation transformer offers full isolation and complete common mode noise rejection
- SNMP Card

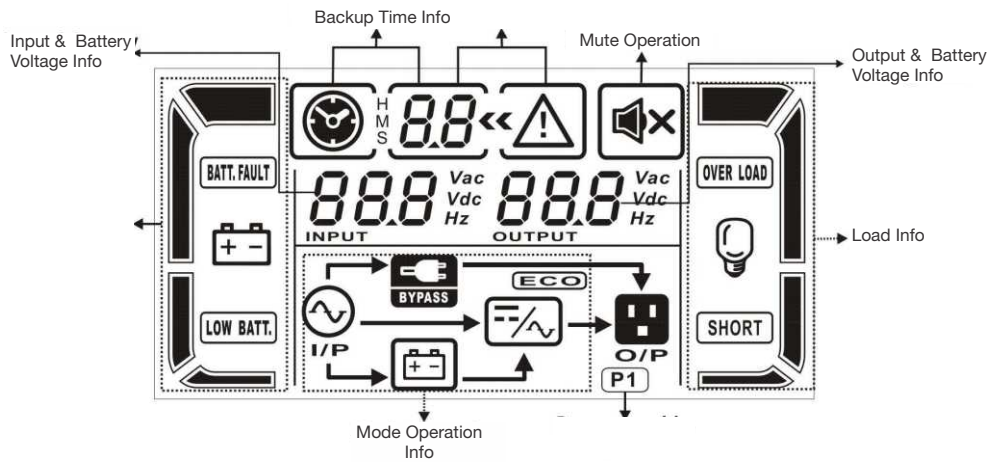
TECHNOLOGY

Advanced PFC & IGBT technology

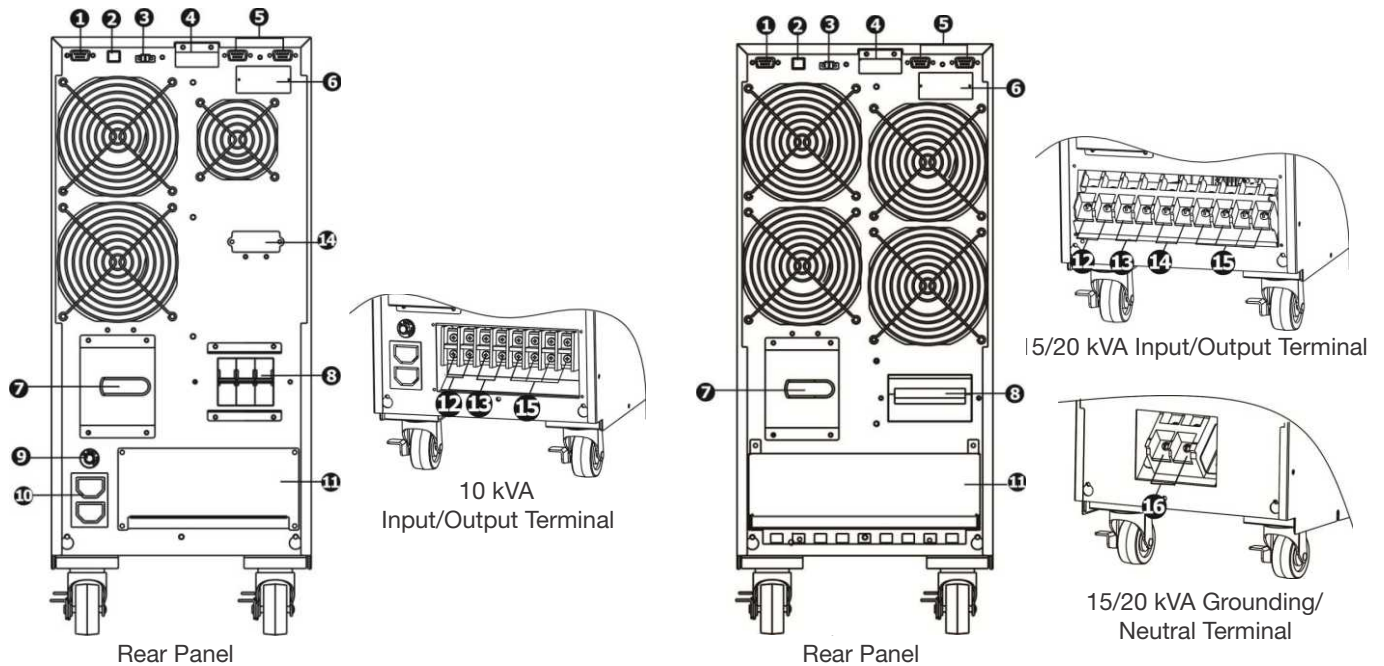
CERTIFICATION

CE

Control Panel



Connections



- | | |
|--|---|
| ① RS-232 communication port | ⑩ Output receptacles: connect to mission-critical loads |
| ② USB communication port | ⑪ Input/Output terminal |
| ③ Emergency power off function connector (EPO connector) | ⑫ Output terminal: connect to mission-critical loads |
| ④ Share current port (only available for parallel model) | ⑬ Programmable output terminal: connect to non-critical loads |
| ⑤ Parallel port (only available for parallel model) | ⑭ External battery connector/terminal (only available for long-run model) |
| ⑥ Intelligent slot | ⑮ Utility input terminal |
| ⑦ Maintenance bypass switch | ⑯ Grounding terminal |
| ⑧ Line input circuit breaker | |
| ⑨ Output circuit breaker for receptacles | |

Technical Specifications

Model		HS31-10	HS31-15	HS31-20
Phase		3 Phase Input / 1 Phase Output		
Capacity		10000 VA / 8000 W	15000 VA / 12000 W	20000 VA / 16000 W
Input				
Nominal Voltage		3 x 400 VAC (3Ph+N)		
Voltage Range		190-520 VAC (3 Phase) @ 50% Load 305-478 VAC (3 Phase) @ 100% Load		
Frequency Range		46~54 Hz or 56~64 Hz		
Power Factor		≥ 0.99 @ 100% Load		
THDi		< 6% @ 100% Load		
Output				
Output Voltage		208 / 220 / 230 / 240 VAC		
AC Voltage Regulation (Batt. Mode)		± 1%		
Frequency Range (Synchronized Range)		46~54 Hz or 56~64 Hz		
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)		
Current Crest Ratio		3:1 Max		
Harmonic Distortion		≤ 3 % THD (Linear Load) ≤ 6 % THD (non-linear load)		
Transfer Time	AC Mode to Battery Mode	Zero		
	Inverter to Bypass	Zero		
Waveform (Batt. Mode)		Pure Sinewave		
Efficiency				
AC Mode (Overall)		90.5%	91%	91%
ECO Mode		96%		
Battery Mode (Inverter)		86%	88%	87%
Battery				
Standard UPS	Battery Type	Depending on the Capacity of External Batteries		
	Numbers			
	Charging Current (max.)	4A	8A	8A
	Charging Voltage	273 VDC ± 1% (Based on 20 pcs Batteries)		
Indicators				
LCD Panel		UPS Status, Load Level, Battery Level, Input/Output Voltage, LCD Panel Discharge Timer and Fault Conditions		
Alarm				
Battery Mode		Sounding Every 4 Seconds		
Low Battery		Sounding Every Second		
Overload		Sounding Twice Every Second		
Fault		Continuously Sounding		
Physical				
Standard UPS	Dimensions (WxDxH) (mm)	592 x 250 x 576		
	Net Weight (kgs)	28	40	
Environment				
Operation 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® 2000/2003/XP/Vista/2008, Windows® 7/8, Linux, Unix, and MAC		
Optional SNMP		Power Management from SNMP Manager and Web Browser		

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In the spirit of innovation, specifications and features are subject to change without notice.



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