

HS11 Series

Single Phase IT & Infra UPS Systems

Range: 6 kVA to 10 kVA (1:1)



HITACHI

About HS11 Series IT & Infra UPS

HS11 Series UPS is a true on-line UPS with microprocessor controller that delivers continuous, high-quality AC power to connected equipment with no interruption when transferring to battery. It provides protection from blackouts, brownouts, sags, surges or noise interference and provides reliable and stable power.

This UPS is a full feature transformer free UPS designed to offer compact, efficient and reliable solutions to modern electronic gadgets. It features true double conversion on line back up power solution for small data centres, data networks, voice networks and process automation equipments.

Hs11 Series UPS provides customers with a reliable source of uninterruptible power even in harsh power environment, including very wide input voltage / frequency window, better output voltage regulation, frequency regulation, internal bypass and input power factor correction and low THDi.

It has built-in RS-232 and bundled monitoring software. This online UPS offers enhanced performance for power monitoring.



Advantages

- Easy to install and operate
- Compact footprint
- Robust and reliable connectivity
- LCD interface
- UPS can be configured with or without battery
- UPS can be configured to ECO mode
- Designed to operate in challenging electrical environment
- Low EMI emission compliant for commercial installation
- Large input voltage window
- Available in variable DC link in 6-10 kVA UPS for extend battery backup

Features

High frequency and double conversion online technology
Advanced PFC & IGBT technology
Lighting and surge protection
Fan speed auto control when loads varies
Short circuit and overload protection
Smart RS 232 communication with monitoring software
EMI/RFI noise filter
Cold start facility
MTBF 300000 hrs
Hot standby configuration
High input power factor

Technology

- Advanced PFC & IGBT technology

The Solution For

- Small range server and corporate network
- Routers, switches and hubs
- Personal workstation
- Security system
- Service sector, Wi-Fi application
- Infrastructure, small office network
- Health sector, medical equipments
- Banks and ATMs
- Sensitive electronics equipments
- Process automation equipments

Optional Features

- Extended battery pack
- SNMP card
- Internal isolation transformer
- Remote monitoring service through SNMP
- Modbus card
- AS-400
- 6A extra charger card

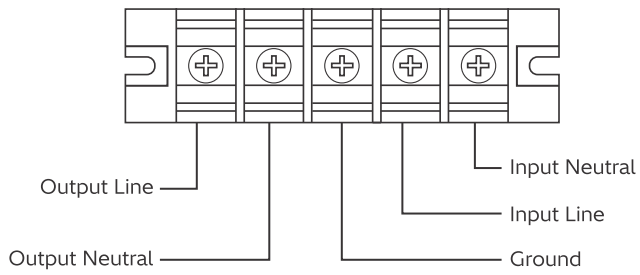
Configuration

- Standalone UPS
- Standalone with inbuilt isolation transformer
- HSB mode with individual battery bank
- In-built battery

Certification



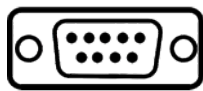
Input / Output Connection



Communication Connection



USB Port



RS-232 Port



Intelligent Slot

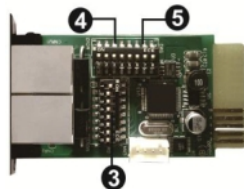
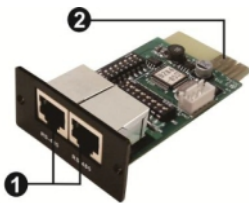
SNMP



AS-400 Remote shutdown

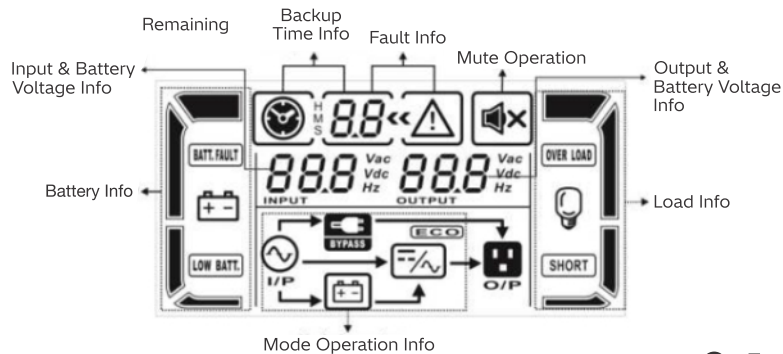


MODbus

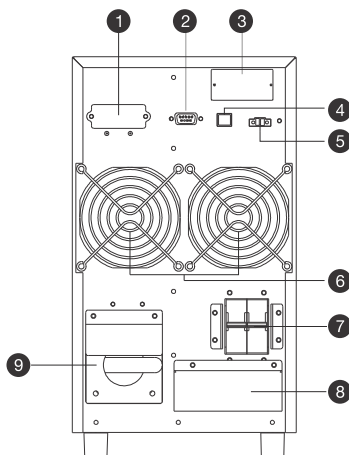


- ① RS-485 port
- ② Golden finger
- ③ Address switch
- ④ Communication setting

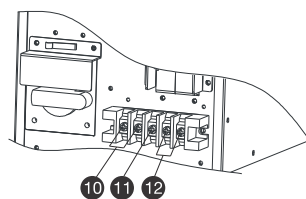
Control Panel



Connections



HS11- 6/10 kVA



- ① External battery connector
- ② RS-232 communication port
- ③ Intelligent slot
- ④ USB communication
- ⑤ Emergency power off function connector (EPO connector)
- ⑥ Cooling fan
- ⑦ Input circuit breaker
- ⑧ Input/Output terminal
- ⑨ Maintenance bypass switch
- ⑩ Output terminal
- ⑪ Grounding terminal
- ⑫ Utility input terminal

Technical Specifications

Model		HS11-6 / HS11S-6 / HS11H-6	HS11-10 / HS11S-10 / HS11H-10
Phase		Single Phase with ground	
Capacity		6000 VA / 4800 W	10000 VA / 8000 W
Input			
Nominal Voltage		220 / 230 / 240 VAC	
Input Voltage Range		176 - 280 VAC (Based on Load at 100%)	
Frequency Range		46 Hz ~ 54 Hz @ 50 Hz System 56 Hz ~ 64 Hz @ 60 Hz System	
Power Factor		≥ 0.99 @ Nominal voltage (100% Load)	
Output			
Output Voltage		220 / 230 / 240 VAC	
Voltage Regulation		± 1%	
Frequency Range (Synchronized Range)		47~ 53 Hz or 57 ~ 63 Hz	
Frequency Range (Batt. Mode)		50 Hz ± 0.25 Hz or 60 Hz ± 0.3 Hz	
Overload		100% - 110% 10 min. 110% - 130% 1 min. >130% 1 sec	
Current Crest Ratio		3:1 Max	
Harmonic Distortion		≤ 3 % THD (linear load) ≤ 6 % THD (non-linear load)	
Transfer Time	AC Mode to Battery Model	0 ms.	
	Inverter to Bypass	0 ms.	
Waveform (Batt. Mode)		Pure sinewave	
Efficiency			
AC Mode (Overall)		88%	88%
Battery			
Standard Model	Battery Type	12 V / 7 AH	
	Numbers	16	
	Typical Recharge Time	9 Hours recover to 90% capacity	
	Charging Current (max.)	1A ± 10%	
	Charging Voltage	218.4 VDC ± 1%	
Long-run Model*	Battery Type	Depending on the capacity of external batteries	
	Numbers	16 - 20	
	Charging Current (max.)	1A / 2A / 4A / 6A (adjustable)	
	Charging Voltage	218.4 - 272 VDC ±1%	
Physical			
Standard Model	Dimensions (WxDxH) (mm)	369 x 190 x 688	442 x 190 x 688
	Net Weight (kgs)	72	82
Long-run Model**	Dimensions (WxDxH) (mm)	369 x 190 x 318	442 x 190 x 318
	Net Weight (kgs)	21	23
Environment			
Operation Temp		0 - 40°C (Battery life cycle will be shorten when temperature is above 25°C)	
Operation Humidity		<95 and condensing	
Noise Level		Less than 55 dB @ 1 meter	Less than 58 dB @ 1 meter
Management			
Smart RS-232/USB		Supports windows 2000 / 2003 / XP / Vista / 2008 / 7 / 8, Linux, Unix and MAC	
Optional SNMP		Power management from SNMP manager and web browser	

* Derate to 80% of capacity in frequency converter mode and to 90% when the output voltage is adjusted to 208 VAC.

** If the UPS is installed or used in place where the altitude is above than 1000m, the output power must be derated one percent per 100m.

* Product specifications are subject to change without further notice.

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