About Us

Founded & established in 1983 as Hi-Rel Electronics Pvt. Ltd., we are now a 100% Hitachi group company – Hitachi Hi-Rel Power Electronics Pvt. Ltd., recognized as a pioneer in power electronics. More than 3 decades of experience, we have garnered a significant level of trust in our market segment and continue to offer world class power electronics products, value added services & customized solutions.

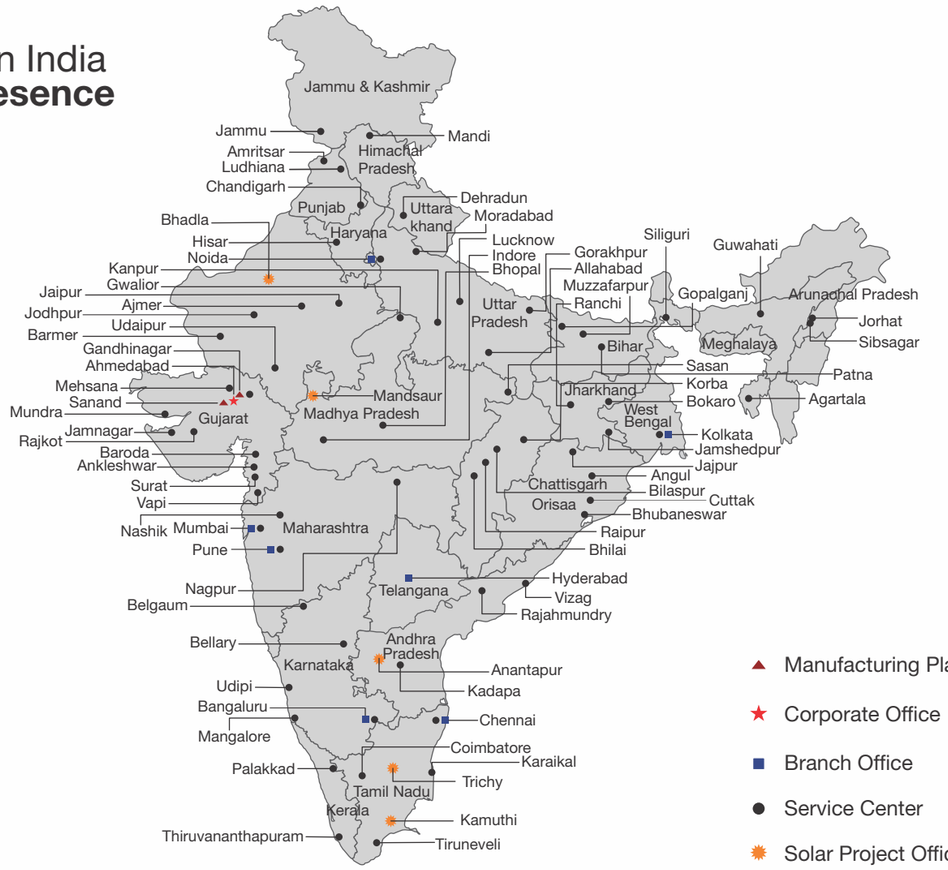
Our state-of-the-art product portfolio includes UPS for Industrial (non-IT) and IT & commercial applications, medium & low voltage variable frequency drives, solar inverters and railway products.

- Leading Manufacturer of UPS, DRIVES and SOLAR INVERTERS
- State-of-the-Art MANUFACTURING FACILITY at Gandhinagar & Sanand in Gujarat, India
- IN-HOUSE R&D Facility recognized by DSIR, Government of India
- ISO 9001:2015, ISO 14001:2015 & BS OHSAS 18001:2007 Certified Company adhering to World Class Quality Standards with Export House Status
- APPROVED by Leading Consultants and EPC Vendors
- PAN INDIA & GLOBAL Presence
- SERVING Entire Gamut of Industries
- Rich Experience in "MISSION CRITICAL" Applications
- Dedicated & Decentralized 24X7 AFTER SALESSERVICE at 45+ Locations
- OFFERS Products with Greater Energy Efficiency & Lower Carbon Footprint

With expertise, experience and an efficient product line, we will always be your power electronics partner.

When you choose to do business with us, you are partnering with a company who cares.

Pan India **Presence**



- Manufacturing Plant
- Corporate Office
- Branch Office
- Service Center
- Solar Project Office

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ISO 9001 ISO 14001 OHSAS 18001 BUREAU VERITAS Certification

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HITACHI
Inspire the Next

UPS and Power Conditioning Solutions

IP11 & HS11 Series IT UPS

Hitachi Hi-Rel Power Electronics Pvt. Ltd.

Pioneer in Power Electronics

UPS I Drives & Automation I Solar Inverters

IP11 Series IT UPS

Single Phase Input - Single Phase Output
1 kVA to 3 kVA

Configuration
1. Standalone UPS
2. Standalone with inbuilt isolation transformer
3. HSB mode with individual battery bank
4. In-built battery

IP11 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.

IP11 UPS provides protection from blackouts, brownouts, sags, surges or noise interference and provides reliable and stable power.

IP11 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.

IP11 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.

IP11 UPS 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

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

FEATURES

- High frequency and double conversion on-line 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
- MTBF 300000 hrs
- Cold start facility
- Hot standby configuration
- High input power factor

OPTIONAL FEATURES

- Extended battery pack
- SNMP card
- Output power factor 0.9
- Internal isolation transformer
- Remote monitoring service through SNMP
- Modbus card
- AS-400
- Universal socket
- 6A extra charger card

TECHNOLOGY

Advanced PFC & IGBT technology

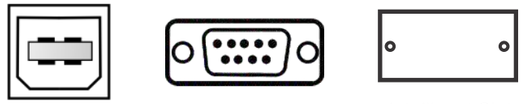
CERTIFICATION

CE & BIS

Input / Output Connection

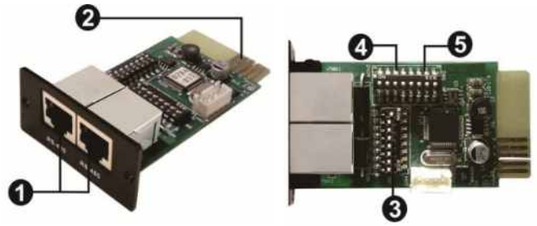
AC Input | Output Receptacle

Communication Connection



USB Port | RS-232 Port | Intelligent Slot

MODbus

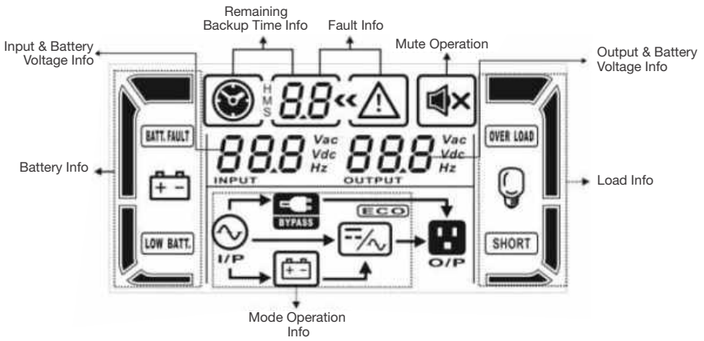


1. RS-485 port
2. Golden finger
3. Address switch
4. Communication setting

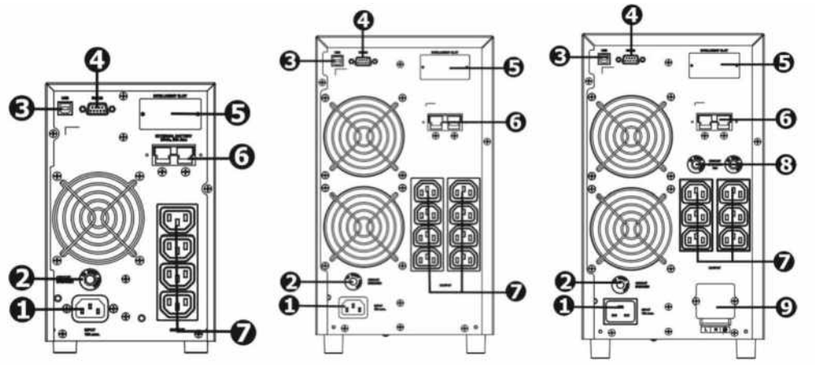
SNMP

AS-400
Remote shutdown

Control Panel



Connections



iP11-1 kVA | iP11-2 kVA | iP11-3 kVA

1. AC input
2. Input circuit breaker
3. USB communication port
4. RS-232 communication port
5. SNMP intelligent slot
6. External battery connection (only available for L model)
7. Output receptacles
8. Output circuit breaker
9. Output terminal

Technical Specifications

Model		IP11S-1/IP11H-1	IP11S-2/IP11H-2		IP11S-3/IP11H-3	
Phase		Single Phase with Ground				
Capacity		1000 VA / 800 W	2000 VA / 1600 W		3000 VA / 2400 W	
Input		2500 kVA / 2500 kW	AC OUTPUT			
Nominal Voltage		100 / 110 / 115 / 120 / 127 VAC or 200 / 208 / 220 / 230 / 240 VAC				
Input Voltage Range		55 - 150 VAC or 110 - 300 VAC (Based on Load at 50%) 85 - 140 VAC or 160 - 280 VAC (Based on Load at 100%)				
Frequency Range		40 Hz ~ 70 Hz				
Power Factor		≥ 0.99 @ Nominal Voltage (100% Load)				
Output						
Output Voltage		100 / 110 / 115 / 120 / 127 VAC or 200 / 208 / 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		Ambient Temp <30°C 105% - 110% UPS Shut Down After 10 min. at Battery Mode or Transfer to Bypass When Utility is Normal 110% - 130% UPS Shut Down After 1 min. at Battery Mode or Transfer to Bypass When Utility is Normal >130% UPS Shut Down After 3 sec. at Battery Mode or Transfer to Bypass When Utility is Normal				
Current Crest Ratio		3:1				
Harmonic Distortion		≤ 3 % THD (Linear Load) ≤ 6 % THD (Non-Linear Load)				
Transfer Time	AC Mode to Battery Model Inverter to Bypass	Zero 4 ms (Typical)				
Waveform (Batt. Mode)		Pure Sinewave				
Efficiency						
AC Mode (Overall)		88%	88%		90%	
Battery Mode (Inverter)		83%	87%		88%	
Battery						
Standard Model	Battery Type	12 V / 7 AH				
	Numbers	3	6			
	Typical Recharge Time	4 Hours Recover to 90% Capacity				
	Charging Current (max.)	1A				
	Charging Voltage	41.0 VDC ± 1%	82.1 VDC ±1%			
Long-run Model*	Battery Type	Depending on the Capacity of External Batteries				
	Numbers	3	6	8	6	8
	Charging Current (max.)	1A / 2A / 4A / 6A (Adjustable)				
	Charging Voltage	41.0 VDC ± 1%	82.1 VDC ±1%	109.4 VDC ±1%	82.1 VDC ±1%	109.4 VDC ±1%
Indicators						
LCD		Load Level, Battery Level, AC Mode, Battery Mode, Bypass Mode and Fault Indicators				
Alarm						
Battery Mode		Sounding Every 4 Seconds				
Low Battery		Sounding Every Second				
Overload		Sounding Twice Every Second				
Fault		Continously Sounding				
Physical						
Standard Model	Dimensions (WxDxH) (mm)	397 x 145 x 220	419 x 190 x 318			
	Net Weight (kgs)	13	26	30.5	28	33
Long-run Model**	Dimensions (WxDxH) (mm)	397 x 145 x 220	419 x 190 x 318			
	Net Weight (kgs)	7	13		13	
Environment						
Humidity		20 - 90 % RH @ 0 - 40°C (Non-Condensing)				
Noise Level		Less than 50dBA @ 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				

* 1 - 3 kVA: Derate to 80% of capacity in frequency converter mode and to 80% when the output voltage is adjusted to 100 / 200 / 208 VAC
** Long-run model is only available in 200 / 208 / 220 / 230 / 240 VAC systems (200 VAC system only available for 1-3 kVA)
* Product specifications are subject to change without further notice

HS11 Series IT UPS

Single Phase Input - Single Phase Output
6 kVA to 10 kVA

Configuration
1. Standalone UPS
2. Standalone with inbuilt isolation transformer
3. HSB mode with individual battery bank
4. In-built battery

HS11 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.

HS11 UPS provides protection from blackouts, brownouts, sags, surges or noise interference and provides reliable and stable power.

HS11 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 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.

HS11 UPS 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

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

FEATURES

- High frequency and double conversion on-line 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
- MTBF 300000 hrs
- Cold start facility
- Hot standby configuration
- High input power factor

OPTIONAL FEATURES

- Extended battery pack
- SNMP card
- Output power factor 0.9
- Internal isolation transformer
- Remote monitoring service through SNMP
- Modbus card
- AS-400
- 6A extra charger card

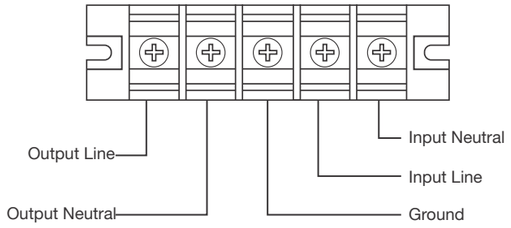
TECHNOLOGY

Advanced PFC & IGBT technology

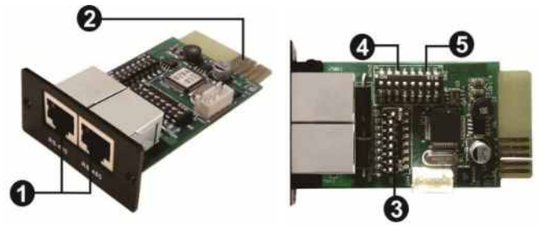
CERTIFICATION

IEC

Input / Output Connection

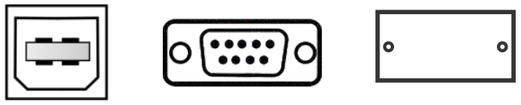


MODbus



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

Communication Connection

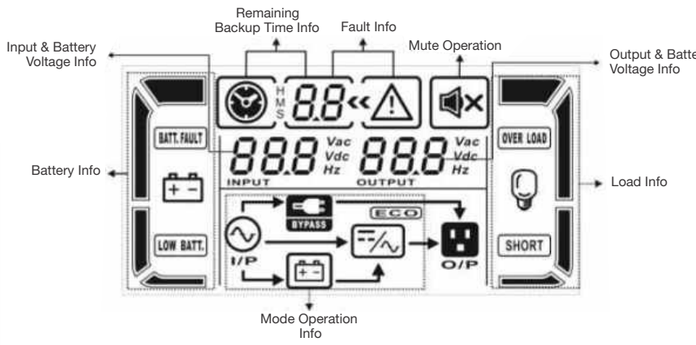


USB Port | RS-232 Port | Intelligent Slot

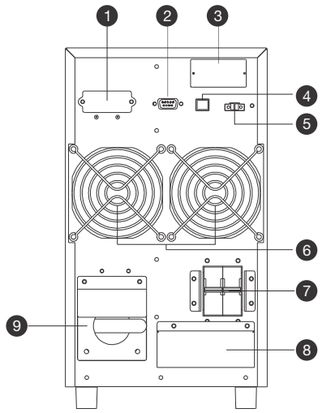
SNMP

AS-400
Remote shutdown

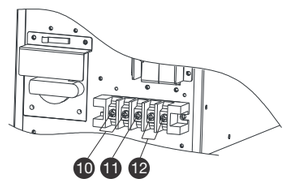
Control Panel



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		HS11S-6 / HS11H-6	HS11S-10 / HS11H-10
Phase		Single Phase with Ground	
Capacity		6000 VA / 4800 W	10000 VA / 8000 W
Input			
Nominal Voltage		200 / 208 / 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		200 / 208 / 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 Mode (Inverter)		83%	87%
Battery			
Standard Model	Battery Type	12 V / 7 AH	
	Numbers	6	
	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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