

HS33 Series

Three Phase IT & Infra UPS Systems

Range: 10 kVA to 40 kVA (3:3)



HITACHI

About HS33 Series IT & Infra UPS

HS33 Series UPS applies advanced technology that increases performance and reliability. Two high speed DSPs with complete digital control fully ensures high quality of power supply, high input power factor and low input current distortion.

It offers reliable and flexible secured power in a fully integrated package solution. It comes with highly efficient transformer-free double conversion technology allowing it to provide installation and operational cost savings. It is a compact solution designed to optimize installation space requirements and provides enhanced flexibility to ensure superior protection for all load types (leading and lagging).

Combination of performance features, impressive integrated autonomy and compact footprint make it ideal for guaranteeing clean & continuous power for a wide range of applications for IT, medical facilities and laboratories.

Advantages

- Easy to install and operate
- Compact in size
- Large input voltage window
- State-of-the-art technology providing high level of performance in very compact unit
- Online double conversion mode
- Error messages are displayed on LCD
- Logs are stored in processor and can be extracted as and when required
- Remote monitoring service through SNMP



Features

- High efficiency, up to 96%
- True double-conversion
- Full DSP control technology guarantees high performance
- Wide input voltage range
- High input PF>0.99; Input current THDi<3%
- Active power factor correction in all phases
- 50 Hz / 60 Hz frequency converter mode
- Multi-protection, as temperature, overload, battery under voltage, fan failures, short circuit
- Alarms data store in system (890 alarms)
- Four circuit breakers, providing full protection when fault happens
- Battery management: smart charging control, auto maintenance, greatly extend the battery life
- Friendly operation interface, high resolution intelligent LCD screen
- Eco mode operation for energy saving (ECO)
- Emergency power off function (EPO)
- Generator compatible
- SNMP+USB+RS-232 multiple communications
- Adjustable battery numbers
- Maintenance bypass available

Optional Features

- N +Y parallel redundancy
- Isolation transformer
- SNMP card
- PFC (Potential free contact)
- Battery cold start

Technology

- Fully DSP controlled IGBT based

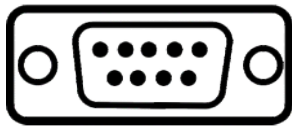
Configuration

- Standalone UPS
- Can be Paralleled up to 8 units

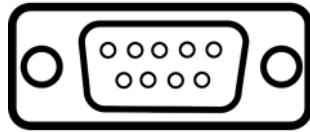
Certification



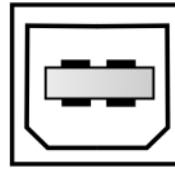
Communication Connection



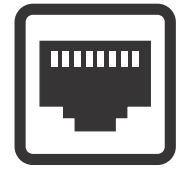
RS-232 Port



RS-485 Port

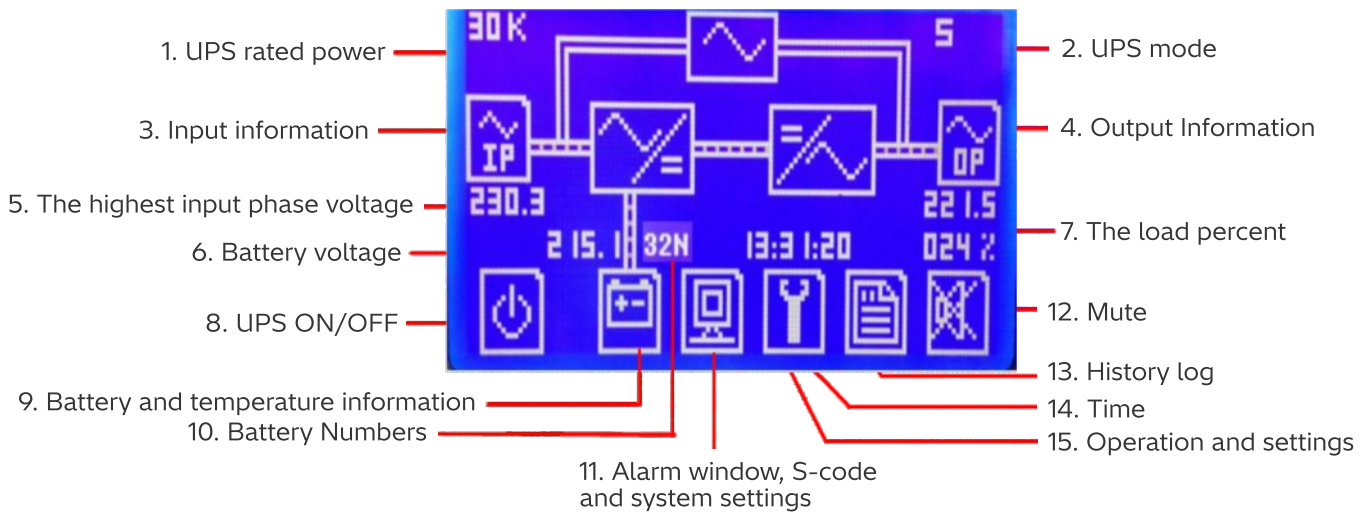


USB Port



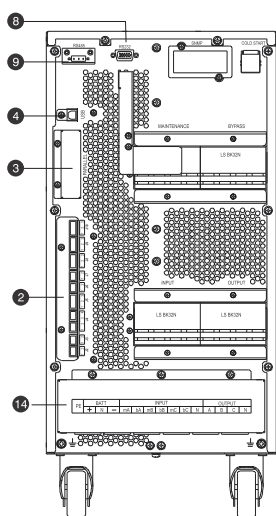
SNMP

Control Panel

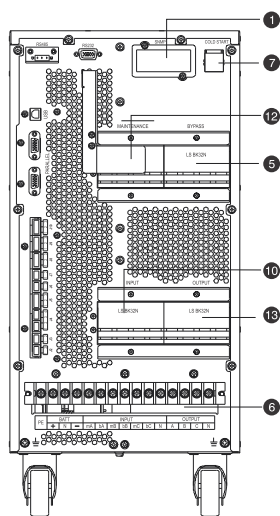


Friendly operation interface, high-resolution LCD screen

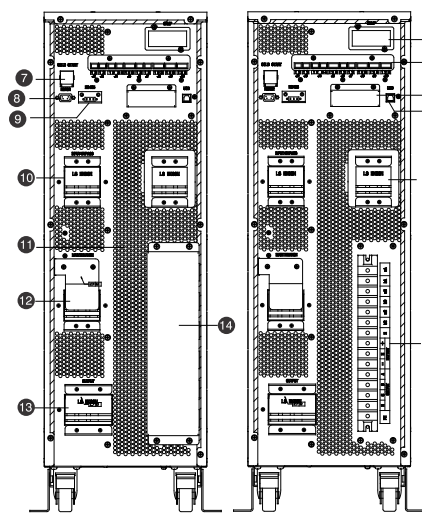
Connections



10/15 kVA



20/30 kVA



- ① SNMP
- ② Dry contact
- ③ Parallel board
- ④ USB
- ⑤ CB (optional)
- ⑥ Connection terminals
- ⑦ Cold start button
- ⑧ RS-232
- ⑨ RS-485
- ⑩ Input CB
- ⑪ Air vent
- ⑫ Maintenance switch
- ⑬ Output CB
- ⑭ Protective cover

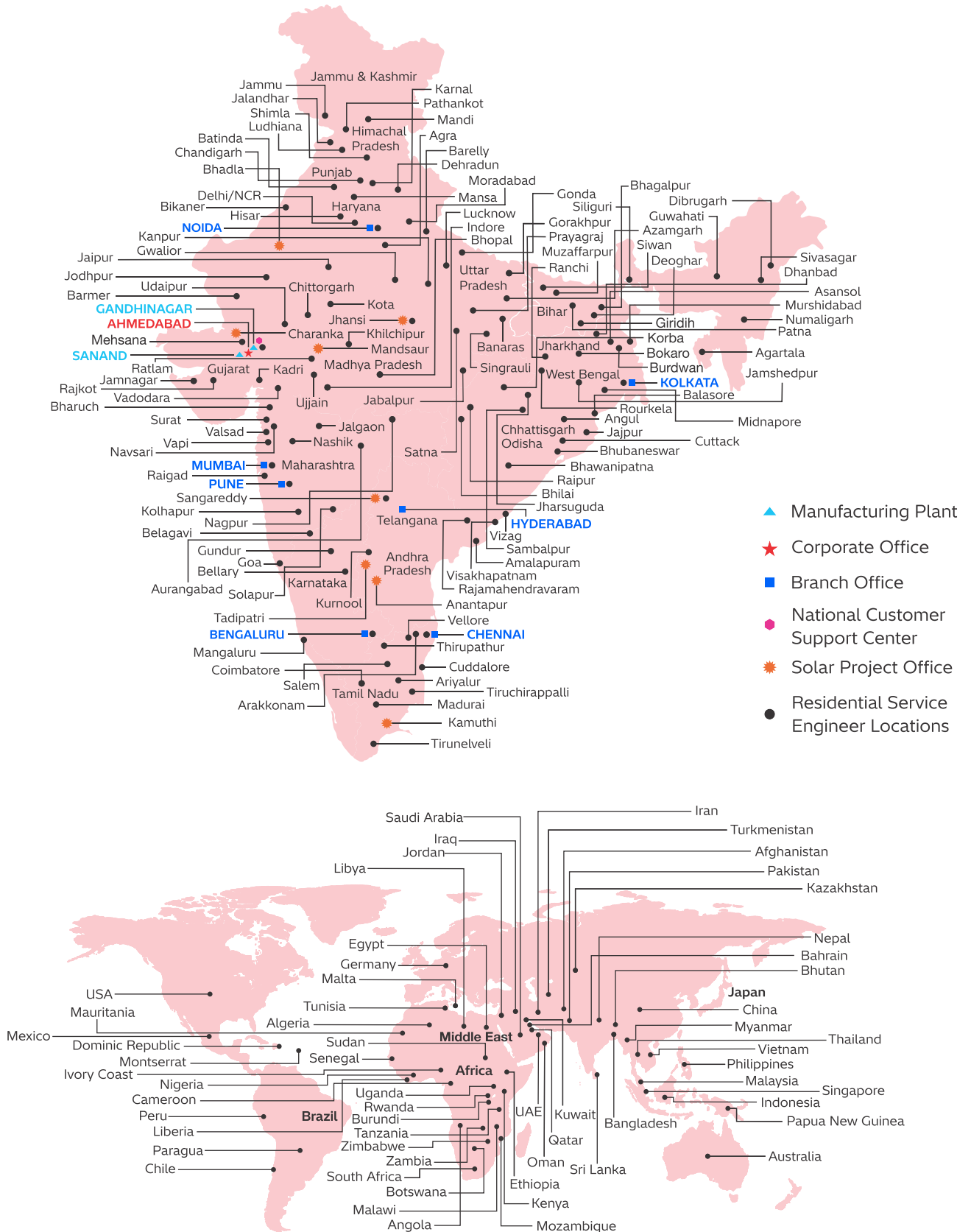
Technical Specifications

Model	HS33-10	HS33-15	HS33-20	HS33-30	HS33-40
Output					
Grid System	3 Phases + Neutral + Ground				
Rated Input Voltage	380/400/415 VAC (Line-Line)				
Rated Frequency	50/60 Hz				
Input Voltage Range	304~478 VAC (Line-Line), Full Load; 228V~304 VAC (Line-Line), Load Decreases Linearly According to the Min Phase Voltage				
Input Frequency Range	42-60Hz (Adjustable)				
Input Power Factor	>0.99				
Input Current THDi	<4% (Full Linear Load)		<3% (Full Linear Load)		
Bypass Input					
Rated Bypass Voltage	380/400/415 VAC (Line-Line)				
Rated Frequency	50/60 Hz				
Bypass Voltage Range	Selectable, Default -20%~+15%; Upper Limit: +10%, +15%, +20%, +25%; Lower Limit: -10%, -15%, -20%, -30%, -40%				
Bypass Frequency Range	Selectable, ±1 Hz, ±3 Hz, ±5 Hz				
Bypass Overload	125% Long Term Operation; 125%~130% for 10min; 130%~150% for 1min				
Output					
Rated Inverter Voltage	380/400/415 VAC (Line-Line)				
Rated Frequency	50/60 Hz				
Output Power Factor	1		0.9		
Voltage Precision	±1% (0-100% Linear Load)				
Transient Response	<5% for Step Load (20% - 80% -20%)				
Transient Recovery	< 30ms for Step Load (20% - 100% -20%)				
Output Voltage THDu	<1% (Linear Load); <5.5% (Non-Linear Load) According to IEC/EN62040-3		<1% Linear Load; <6% (Non-Linear Load) According to IEC/EN62040-3		
Inverter Overload	<110%, 60 min; 110% ~ 125%, 10 min; 125% ~ 150%, 1 min				
Frequency Regulation	50/60 Hz ± 0.1%				
Synchronized Range	Settable, ±0.5 Hz ~ ±5 Hz, Default ±3 Hz				
Synchronized Slew Rate	Settable, 0.5 Hz/s ~ 3 Hz/s, Default 0.5 Hz/s				
Battery and Charger					
Battery Rate Voltage	±240 VDC (Battery settable at 34 to 44 Nos. Even Nos.)				
Type Of Battery	12V / 2V / Li-Ion Battery				
Charger Voltage Precision	1%				
Charger Power	Max=20% System Power				
Efficiency					
AC Mode (Overall)	95% Max		>95%		>96%
Battery Mode (Inverter)	94.5% Max		>95%		>96%
System					
Display	LED + LCD				
Interface	Standard: RS232, RS485 Option: SNMP, Dry Contact, Parallel Kit, Battery Cold Start				
Environmental					
Operation Temperature	0 ~ 40°C				
Storage Temperature	-40 ~ 70°C				
Relative Humidity	0 ~ 95% (Non Condensing)				
Noise (1 meter)	58dB @ 100% Load, 52dB @ 45% Load		65dB @ 100% Load, 62dB @ 45% Load		
Physical Data					
Dimensions (W x D x H) (mm)	250 x 660 x 530		250 x 680 x 770		250 x 836 x 770
Weight (kgs)	31		50	52	61

Global Footprint and Reach

Delivering Critical Power Solutions Worldwide

We are a key manufacturing hub for global power electronics solutions, capable of meeting diverse international requirements. Our ability to supply specialized, high-reliability products to various industries across international territories reinforces our commitment to serve critical loads globally.



Hitachi Hi-Rel Power Electronics Pvt. Ltd.

Delivering Advanced Power Electronics Solutions that empower Industries and sustain Progress.

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