



**HITACHI**  
Inspire the Next

**Modular IT & Infra UPS System**  
Range: 60 kVA to 500 kVA (3:3)



**HM33 Series**  
IT & Infra UPS



**Exceptional safeguard against Power Disruption**

## About HM33 Series IT & Infra UPS

HM33 Series modular UPS provides the most compact footprint of less than 2m<sup>2</sup> with maximum capacity of 900kVA. With best reliability and high performance, it has been leading the domestic market for years. HM33 series UPS is considered to be the best power protection solution for large data centres, as well as for sensitive electronics. The HM33 series UPS having user friendly LCD touch screen display. This display provides graphical and text information of alarms, status data, instructions and faults. User can have friendlier and safer operation.

The HM33 series UPS keeps your network protected while saving on cost and data centre space. With best in class true online double conversion technology,

redundancy options and flexible battery configurations and provides best reliability. This UPS is the Next Generation of true online, double conversion digital modular UPS.

Designed to meet the high availability power for wide variety of applications (IT, non-IT & medical), HM33 series combines innovation and simplicity and low total cost of ownership. The result is a power system that delivers both reliability and a return on investment.



### Total Solution for

- ISP (Internet Service Provider)
- IDC (Internet Data Center)
- Computer room, service center
- Intelligent equipment
- Corporate office

### Features

- User friendly LCD display provides graphical and text based information
- Modular design of subsystem, convenient for field maintenance
- All components are in module so less fault point and higher reliability
- The hot-swappable power modules take unique structure design
- Alarms data store in system (890 alarms)
- Less space needed Inherently N+X redundant
- Smart sleep function can intelligently make some power modules go to sleep, when load is relatively low to increase efficiency
- Only front access up to 120 kVA UPS and front and rare access for higher ratings UPS
- On site setting supported, easy for factory testing
- Can be paralleled up to 30 modules
- Wide voltage and frequency range for input supply
- Available in 30 kVA and 50 kVA module for multiple available options
- Programmable dry contacts are available in HM series UPS

### Optional Features

- Isolation transformer
- SNMP card
- Capacity enhancement at site

### Configuration

- Hot swappable modular concept
- Can be paralleled up to 30 modules

### Technology

Fully DSP controlled IGBT based

### Certification

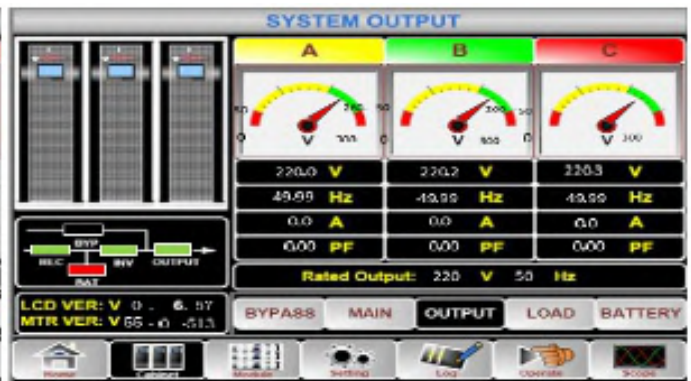


## Control Panel

Friendly interface 7" LCD touch screen display provides graphical and text based information of alarms, status data, instructions for more friendly and safer operation.



(a) Interface of Main



(b) Interface of Output



(d) Interface of Load



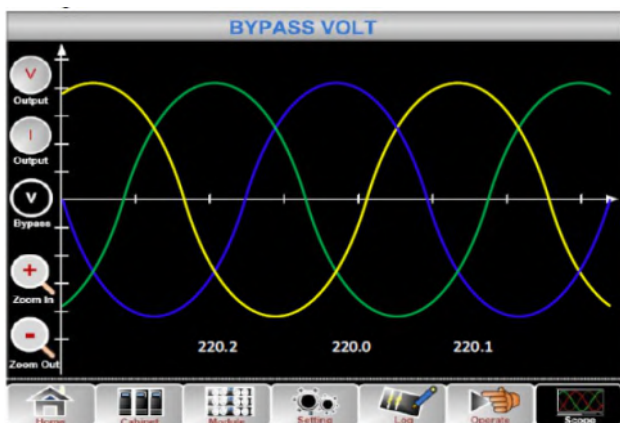
(a) Interface of Battery

## Smart Sleep Function

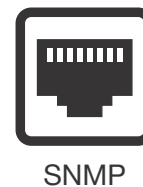
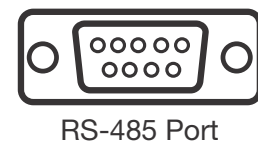
Smart sleep function can intelligently make some power modules go to sleep. When load is relatively low, improves the total system efficiency and save by using power and

cooling cost. It offers easy setting with just two steps sleep mode and rotation period, power modules works in rotation, prolong the life time.

## Output V/C waveforms on display



## Communication Connection



## Technical Specifications

| Model                           | HM-33-60<br>-3X  | HM33-80<br>-3X      | HM-33-90<br>-3X     | HM-33-100<br>-5X    | HM-33-120<br>-3X    | HM-33-150<br>-5X   | HM-33-200<br>-5X   | HM-33-250<br>-5X | HM-33-300<br>-5X | HM-33-400<br>-5X | HM-33-500<br>-5X |
|---------------------------------|--|---------------------|---------------------|---------------------|---------------------|--|--|------------------|------------------|------------------|------------------|
| <b>POWER RATING</b>             | 60 kVA   | 80 kVA              | 90 kVA              | 100 kVA             | 120 kVA             | 150 kVA  | 200 kVA  | 250 kVA          | 300 kVA          | 400 kVA          | 500 kVA          |
| <b>Main Input</b>               |  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Grid System                     | 3 Phases + Neutral + Ground  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Rated Input Voltage             | 380/400/415 VAC  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Rated Frequency                 | 50/60 Hz   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Input Voltage Range             | 304~478 VAC (Line-Line), Full Load<br>228V~304 VAC (Line-Line), Load Decrease Linearly According to the Min Phase Voltage                                |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Input Frequency Range           | 42-60 Hz (Adjustable)  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Input Power Factor              | >0.99  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Input Current THDi              | <3% (Full Linear Load)   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| <b>Bypass Input</b>             |  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Rated Bypass Voltage            | 380 V / 400 V / 415 V (Line to Line)   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Rated Frequency                 | ±2%  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Bypass Voltage Range            | Selectable, Default -20%~+15%<br>Up Limited: +10%, +15%, +20%, +25%<br>Down Limited: -10%, -15%, -20%, -30%, -40%  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Bypass Frequency Range          | Selectable, ±1Hz, ±3Hz, ±5Hz   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Bypass Overload                 | 125%, Long Time Operation<br>125%< Load <130%, Last for more than 10 min<br>130%<Load<150%, Last for more than 1 min<br>>150%, Last for more than 300 ms |                     |                     |                     |                     |  | 110% long term operation<br>110%~125% last for more than 5 min<br>125%~150% last for more than 1 min<br>>150% last for more than 1 s |                  |                  |                  |                  |
| <b>Output</b>                   |  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Rated Inverter Voltage          | 380/400/415 VAC (Line-Line)  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Rated Frequency                 | 50/60 Hz   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Output Power Factor             | 0.9  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Voltage Precision               | ±1%  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Transient Response              | <5% for Step Load (20% - 80% - 20%)  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Transient Recovery              | < 30 ms for Step Load (0% - 100% - 0%)   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Output Voltage THDu             | <1.5% from 0% to 100% Linear Load<br><6% Full Non-Linear Load According to IEC/EN62040-3   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Inverter Overload               | <110%, 60 min;<br>110%~125%, 10 min;<br>125%~150%, 1 min;<br>>150%, 200 ms   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Frequency Regulation            | 50/60 Hz±0.01%   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| 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  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| <b>Battery and Charger</b>      |  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Battery Rate Voltage            | ±240 VDC (Battery Settable at 34 to 44 Nos. Even Numbers)  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Charger Voltage Precision       | 1%   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Charger Power                   | max=20% *Output Power  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| <b>Efficiency</b>               |  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| AC Mode (Overall)               | >95%   | >96%                | >95%                | >96%                | >95%                | >96%   |  |                  |                  |                  |                  |
| Battery Mode (Inverter)         | >95%   | >96%                | >95%                | >96%                | >95%                | >96%   |  |                  |                  |                  |                  |
| <b>System</b>                   |  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Display                         | LED + LCD + Touch Screen   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Interface                       | RS232, RS485, USB, Programmable Dry Contact  |                     |                     |                     |                     | RS232, RS485, USB, Programmable Dry Contact, Battery Cold Start              |  |                  |                  |                  |                  |
| Option                          | Battery Cold Start, SNMP, Parallel Kit, Lightning Protection Components, Dust Filter, LBS  |                     |                     |                     |                     | SNMP, AS400, Parallel Kit, Lightning Protection Components, Dust Filter, LBS |  |                  |                  |                  |                  |
| <b>Environmental</b>            |  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Operation Temperature           | 0 ~ 40°C   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Storage Temperature             | -40 ~ 70°C   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Relative Humidity               | 0 ~ 95% Non Condensing   |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Noise (1 meter)                 | 65dB @ 100% Load, 62dB @ 45% Load  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Altitude                        | <1000 m, Load Derated 1% per 100 m from 1000 ~ 2000 m  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Ingress Protection              | IP 20  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| <b>Physical Data</b>            |  |                     |                     |                     |                     |  |  |                  |                  |                  |                  |
| Cabinet Dimensions (WxDxH) (mm) | 600 x 980<br>x 950   | 600 x 980<br>x 1400 | 600 x 980<br>x 1150 | 600 x 980<br>x 1400 | 650 x 960<br>x 1400 | 650 x 960<br>x 2000  | 1300 x 1100<br>x 2000  |                  |                  |                  |                  |
| Cabinet Weight (kgs)            | 170  | 210                 | 231                 | 210                 | 266                 | 305  | 350  | 445              | 490              | 810              | 900              |



**Zonal Office:** VASTECH INFOSYSTEMS, Mona Shopping Center,  
Shop No. 28, Ground Floor, Dada Bhai Road, Andheri West:400058.

Phone No:-9321850282 Mail Id:- [sales.support@vastech.net](mailto:sales.support@vastech.net)

**Registered Office:** VASTECH INFOSYSTEMS, Flat no:401,20-75/5,  
Plot No:386, Sai Krupa Apartment, Street No:28

Goutham Nagar, Malkajgiri, Hyderabad – 500047.

Phone no:-9322817419 / 9321850282 Mail Id:- [upcountry@vastech.net](mailto:upcountry@vastech.net)