

NUMERIC®

HPE 33 Series

10 kVA to 80 kVA





High Performance Power **Protection Solutions**

Features

- Advanced DSP controlled SPWM technology
- True Galvanic Isolation Transformer design
- ECO Mode and EPO function as standard
- Intelligent Fan Speed Control System
- Redundant power supply with dual input
- DC Cold Start Feature as standard



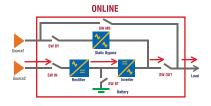
10 - 80 KVA - On-line Double Conversion Three Phase UPS Systems

NUMERIC, India's No:1 Online UPS Manufacturer brings you the new HPE 33 Series, 3 Phase UPS Systems, which sets new level of standards in protection for your mission critical applications. HPE 33 Series ensures that all the needs of the customers are addressed efficiently and effectively.

True Online Double Conversion

HPE 33 Series is a true online double conversion 3/3 UPS System with VFI-SS-111 (Voltage and Frequency Independent) and state of the art Digital Signal Processor (DSP) control, solution that is best suitable for Mission Critical Application.

- Online Mode
- Eco Mode
- Intelligent Eco Mode



Advanced DSP Based SPWM Technology

HPE 33 UPS System is designed with Double DSP control system, which helps in faster processing speed and simplify the circuit for better protection. This enables regulation and rapid modification of pulse width thereby maintaining the IGBT in inverter output within tolerance limits even for non-linear loads.

Reduced Cost of Ownership

- Wide input voltage helps in minimising transfer to battery mode, thereby reducing the charge, discharge cycle and prolonging the battery life.
- Its Automatic float and boost charge control, temperature compensated battery charging and battery discharge protection helps to extend battery life.



Full function LCD display

The system incorporates a full function with Mimic diagram which is user friendly.

- Real time observation of operation parameters
- Records 1000 log events

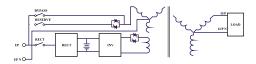
- Battery Circuit Abnormal
- Activation of EPO & Maintenance bypass ON alarm
- Short circuit at output & Fan failure alarm
- Mimic LED panel shows the operation sequence of the UPS System

Galvanic Isolation

HPE 33 model has an built-in Isolation transformer that provides complete Galvanic Isolation to the loads from the mains interference (Voltage & frequency variations etc...)

Designed to provide excellent output voltage stability ideally suited for demanding applications with either 100% step or unbalanced loads.

Option for Isolated output is a feature, which completely isolate the Input and Output Neutral. Advantage of isolated output will help in voltage conversion under same frequency (400V to 208V), avoids risk of UPS load on bypass mode and high N-E voltage during lightening.



Battery Care System

The "Battery Care System" is a set of functions designed to control, manage and preserve the battery for as long as possible.

- i) Battery recharging: This UPS product will work with sealed lead acid (VRLA), AGM, open vase or Ni-Cd batteries. Depending on the type of battery, two recharging methods are available:
- a. Cyclical recharging
- b. Float and boost recharging

ii) Battery test: In normal operating conditions the battery is checked automatically at regular intervals or on manual command. The test takes place without appreciably discharging the battery, in complete safety for the load and without compromising the battery service life. If the test has a negative outcome, a report signal will appear on the UPS panel.



Standard features for Battery Monitoring

- · Battery reverse polarity connection alarm
- · Temperature compensated battery charging
- Reminder for battery replacement when life is expired
- · Auto start when mains return
- Automatic periodic battery maintenance function
- · Automatic battery charge current set
- · Remaining backup time display

Flexibility and East to Upgrade

- Power requirements can be changed over time.
 HPE 33 UPS can be connected for parallel operations. Redundancy also can be added or upgraded as needed.
- UPS system can be switched ON without utility power (Cold start facility).
- Adjustable power-walk in. When UPS connected in Parallel, rectifier is turned on in sequence to avoid sudden load on the generator.
- Truly a fault tolerant design incorporating redundancy for critical circuits, Intelligent fan speed control system for better air ventilation.
- Regenerative Protective System (Optional) UPS can be fitted with regenerative protective system as external feature upto 30kVA and built-in from 40 to 80kVA. Reverse energy generated by motor, machine tools, etc. in production line is absorbed by the protective system.

Power Options

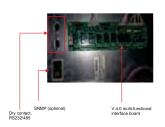
- 12 Pulse rectifier
- LC & active filters for reducing the THDi and improving PF
- · Increased IP Protection
- · Cable Entry panel
- Wrap around panel for easy maintenance

Major Applications

- Information Technology
- · Work stations
- · Software Development Technology
- Networking (Routers, Hubs, Switches etc)
- Bank Insurance and Financial Services
- Telecommunications, Paging and Mobile Services
- · Industry and Process automation
- Transport Automation, Airport, Railway and other ticket booking centers
- · Hospitality, Educational Institutions
- · Building Automation

Communication Options

- Communication alternatives through RS232 & RS485 ports
- **SNMP**
- Remote alarm panel
- Dry contacts for additional monitoring for the following:
- a) UPS Fault
- b) Battery Low Voltage
- c) Manual Maintenance Operation
- d) Inverter Overload
- e) Mains Fault,
- f) System on bypass
- g) Abnormal output signal of the fan
- h) Remote EPO
- i) Battery Cabinet Switch Trip OFF
- j) Battery Cabinet Temperature Sensor
- k) Battery cabinet breaker detection and
- I) ON / OFF contact







TECHNICAL SPECIFICATION	DNS						
Capacity (KVA)	10	20	30	40	50	60	80
Description	True On-line Double Conversion (VFI - SS - III)						
Input					·		
Voltage	380/ 400/ 415, 3 Ph 4 Wire						
Range	± 20%						
Frequency	50/ 60 Hz (± 5%)						
Current distortions (THDi)	< 5 - 10 % with Optional filter						
Power Factor	upto 0.96 with Optional filter						
By Pass System Input							
Voltage	380/ 400/ 415 (± 15%)						
Frequency	$50/60 \text{ Hz} \pm 5\%(\pm 10\% \text{ selection})$						
Output							
Voltage	380/400/415 (±1%)						
Frequency	50/ 60 ± 0.05						
Voltage (THDU)	< 3% Ph/Ph						
Dynamic Response	±/- 5%						
Overload	125% : 15 min ; 150% : 1 min						
Efficiency	Up to 92%						
Cold Start	Available						
Environment							
Noise (dBA)	< 65 < 70						
Operation temperature	0 - 40 °C						
Storage temperature	-20 - +60 °C						
Relative humidity	0 ~ 95%						
Standards							
Safety	IEC 62040-1-2						
EMC	IEC 62040-2						
Design	IEC 62040-3						
Protected grade	IP20						
Dimensions							
Depth (mm)	800						
Width x Height (mm)	500 x 1180 800 x 1600					1000 x 1800	
Weight (Kg without battery)	205	240	255	430	450	470	600

• 12 Regional offices • Over 258 service centres across India • Over 900 field support team • 24 x 7 x 365 Help Desk



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