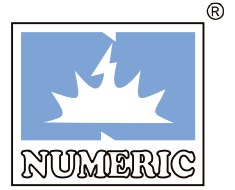


# NUMERIC<sup>®</sup>

## HPE 33 Series

100 kVA to 800 kVA



The ultimate in clean power

A Group brand | **legrand**



## High Performance Power Protection Solutions

### Features

- True online double conversion UPS Systems
- Inbuilt Galvanic Isolation Transformer
- Online, Eco, Intelligent Eco modes of operations
- Flexible and easy to Upgrade
- Advanced DSP Controlled SPWM Technology
- LC and 12 Pulse Filter Options
- Energy saving feature as standard



NUMERIC - No .1 UPS Manufacturer in India\*

(\*Source: Softdisk)

## HPE 33 Series

### 100 - 800 KVA – On-line Double Conversion Three Phase UPS Systems

NUMERIC India's No: 1 On-Line 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. This new range ensures that all the needs of the customers are addressed efficiently and effectively.

HPE 33 Series three phase UPS Systems are carefully designed with user centric features that maximize energy savings and protects your Business critical loads.



#### True On-line Double Conversion with Flexible Operational Modes

HPE 33 is a true on-line double conversion 3 / 3 UPS system with VFI –SS-111 (Voltage and Frequency Independent) classification in compliance with IEC EN 62040-3, solution that is suitable for high level of Mission critical applications due to its stabilized and reliable output voltage, free from any utility interference.

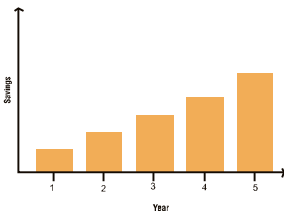
- Online
- Frequency Converter
- Eco Mode
- Intelligent Eco Modes of Operations

#### Reduced Cost of Ownership

Wider Input voltage helps in minimizing transfer to battery mode thereby reducing the Charge, Discharge Cycle and prolonging the battery life.

Temperature compensated battery charging extends battery life.

Highly efficient even at lower loads leading to lower utility bills.



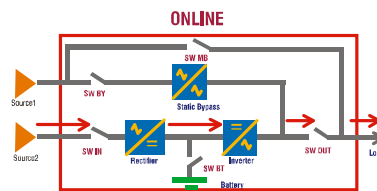
#### Maximum Reliability and Availability

Units can be connected in parallel or N+1 redundancy. The UPS continue to operate in parallel even if one of the interconnecting communication cables is disconnected (closed loop). With the HPE 33 UPS system, you have complete peace of mind.

#### Full function LCD Display

The systems incorporates a full function display with mimic diagram which is user friendly :

- Real time observation of operation parameters.
- Records 1000 log events
- Through LCD Display, UPS parameters can be monitored, controlled and selected.



#### Modular Design

Power components are designed on the independent hot insert-draw structure for

- Easy Maintenance
- Lesser MTTR



100 - 800 kVA

#### Galvanic Isolation

- HPE 33 Model has a built in Isolation transformer that provides complete Galvanic Isolation to the load from the Mains Interference (Over voltages, Frequency Variations etc)
- Designed to provide excellent output voltage stability, ideally suited to very demanding applications with either 100% step or unbalanced loads.

#### 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.

**a) Battery recharging:** This UPS product will works with hermetically-sealed lead (VRLA), AGM, open vase or Ni-Cd batteries. Depending on the type of battery, two recharging methods are available:

1. Cyclical recharging (factory set)
2. Two-level recharging (configurable)

**b) 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.

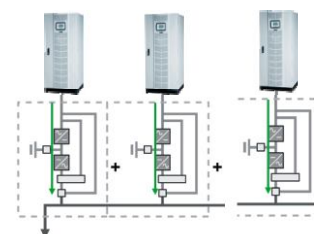
**c) Protection against slow discharges** in the event of discharges of long duration and low load, the end of discharge voltage is raised to approx. 1.8 V/Cell as prescribed by the battery manufacturers so as to avoid damages to batteries.

## Options

#### Flexibility and Easy to Upgrade

Power requirements can change over time. HPE 33 outputs can be multiplied up to 8 UPS Systems in parallel. Redundancy can also be added or upgraded as needed e.g. 2N, N+1 or N+2.

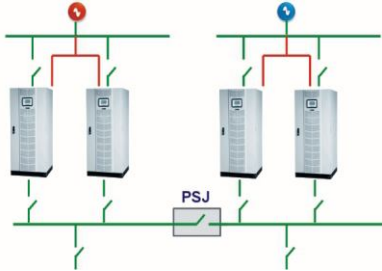
The "Hot System Expansion" feature means that a new UPS can be added to the system while the integrated UPS will configure itself automatically with the system data without any disturbance to the load.



## PSJ – Parallel System Joiner

Two independent systems (up to 4 units each) can be connected in a "Dynamic Dual Bus" configuration by means of the PSJ (Parallel System Joiner) option.

This enables the two systems to be joined to form a single system when, for example, if a part of one system is undergoing maintenance and it is felt appropriate to use the redundant UPS for both bars of the load



## Communication Options

- Compatible with Remote maintenance
- RS 232 Double Serial Port
- Installation slot for an Emergency Power Off (EPO) interface to allow the UPS to be switched off remotely in an emergency.

SNMP provides an efficient and intuitive system for controlling and monitoring the UPS, displaying all of the most important information, such as input voltage, applied load, battery capacity, etc. using a series of bar charts.

The Software is able to provide detailed information even if the UPS has malfunctioned, enabling the user to find out why the fault has occurred. It is flexible and easy to use, with multilingual support.

PowerShield<sup>3</sup> Monitoring and Shut-down software included with SNMP agent, for Windows 9x, ME, NT 4.0, 2000, XP, Vista and 2003 Server; Mac OS X, Novell and Linux Operating Systems.



## TECHNICAL SPECIFICATIONS

### Power

Capacity (kVA)	100	120	160	200	250	300	400	500	600	800
KW	90	108	144	180	225	270	360	450	480	640
Topology	True On-line Double Conversion (VFI - SS - III)									

### Input

Voltage	380/ 400/ 415 Vac Three-Phase + N (selectable)									
Voltage range	320 - 480V at 100% load									
Frequency range	50/60 Hz									
Input Power Factor	Up to 0.95 with Optional Filter									
THDi	5 - 10 % with Optional Filter									
Power Walk-in	Programmable from 5 - 30 sec									
Standard fittings	Backfeed Protection									

### Output

Voltage	380 / 400 / 415 V TP + N (selectable)									
Static Regulation	± 1%									
Dynamic Stability	± 5% in 10 ms									
Frequency	50 / 60 Hz									
Frequency Synchronization	0.5Hz - 3Hz Selectable									
THDu	≤ 1% for 100% linear load ≤ 3% for 100% non - linear load									
Crest Factor	3:1									
Overload	110% for 10 minutes 125% for 60 seconds									

### Overall Efficiency

Eco Mode	Up to 98%									
On-line Mode	Up to 94%					Up to 93.5%				

### General

Operating Temperature	0 - 40° C									
Relative Humidity	0 - 95% Non condensing									
Colour	RAL 7035									
Noise Level at 1 meter	< 68 dBA					< 75 dBA			< 78 dBA	

### Standards

Safety	EN 62040-1									
EMC	EN 62040-2									
Enclosure Protection	IP 20 (Others on Request)									
Marking	CE									

### Communication Options (3 Options)

RS 232 Ports for Remote Contacts  
Slots for Communication Interface for SNMP & BMS integration  
Other additional Options available on request

### Dimensions in mm

Width	800			1630			3200			4400
Depth and Height	800 x 900			850 x 1900			1000 x 1900			
Weight ( Kgs )	640	650	770	810	1700	1770	2045	3800	4200	5450

Note:

As standards, specifications and designs change from time to time, please ask for confirmation of the information given in this publication.



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