

Technical Specification

NUMERIC *Digital HP Series*

Capacity in VA	Single Phase Input - Single Phase Output						
	500	1000	2000	3000			
Product Identification Number(PID No.)	DHP 500	DHP 1000	DHP 2000	DHP 3000			
Input							
Voltage Range	170 VAC - 270 VAC (Other Voltages Optional)						
Frequency Range	45 to 55 Hz						
Phase	1 Phase 230 V AC + Neutral + Earth						
Power Factor	0.99 to Unity						
Input Harmonic	< 10%						
Output							
Voltage	220 VAC / 230 VAC / 240 VAC						
Voltage Regulation	+/-1%						
Frequency	50 Hz +/- 0.1%						
Frequency (Synchronised Range)	46 - 54 Hz						
Harmonic Distortion(THD)	≤ 2% (linear load), < 3% (non-linear load)						
Output Waveform	Pure Sinewave						
Crest Factor	3:1						
Efficiency (AC - AC)	>90%						
Power Factor	0.7 lag						
Voltage Load	105% to 130% for 10 minutes > 130% for 10 seconds						
Battery							
Battery Type	Sealed Lead Acid Maintenance Free, Lead Acid Tubular (Battery Voltage, Ah and Quantity depending on backup time)						
Charger	Built-in solid state float-cum-boost charger with automatic boost / trickle charge modes with current limiting features						
Transfer Time	0 ms						
General							
Operating Temperature	0 to 45 Deg.C						
Noise Level	<45 dB @ 1 Meter	<50 dB @ 1 Meter	<55 dB @ 1 Meter				
Indications	Mains ON, Inverter ON / OFF / Faulty, Battery Level, Static Bypass ON, Load Level						
Audible Alarm	Mains Failure Alarm, Low Battery Alarm and Overload						
Protection	Advanced Electronic protection for device safety backed with MCBs Fast acting fuses. High speed pulse blanking, Electronic overvoltage / undervoltage						
Bypass	Static Bypass						
Communication Interface							
Standard	RS 232 port for software interface						
Optional	SNMP / Web enabled interface						
Dimensions (in mm) and Weight (Kg)							
	500 VA / 1000 VA (H x W x D)	500 VA Weight	1000 VA Weight	2000 VA (H x W x D)	2000 VA Weight	3000 VA (H x W x D)	3000 VA Weight
Floor Model without Galvanic isolation	210 x 145 x 390	6	7	331 x 192 x 457	15	331 x 192 x 457	16
Floor Model with Galvanic isolation	385 x 165 x 390	19	21	582 x 221 x 460	38	582 x 221 x 460	50
Rack Model without Galvanic isolation	133 x 445 x 450	6	7	133 x 445 x 450	15	133 x 445 x 450	16
Rack Model with Galvanic isolation	222 x 445 x 450	23	25	222 x 445 x 450	40	222 x 445 x 450	55

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

NUMERIC POWER SYSTEMS LIMITED

Registered Office: 'NUMERIC HOUSE' No.5, Sir P.S.Sivasamy Salai, Mylapore, Chennai - 600 004. India.

Tel: 91-44-24993266 Fax:91-44-24998210 Email:npsl.corporate@numericups.com

Factory: RS No.33/5, 100 Feet Road, Gayatri Nagar, Mudaliarpet, Pondicherry - 605 004.

REGIONAL OFFICES: AHMEDABAD 079-27488779 / 556 BANGALORE 080-25351455, 25357678, 25354147 BHOPAL 0755-2764201, 2764202 BHUBANESWAR 0674-2550760, 3295210 CHENNAI 044-24993266, 24990064, 24660099 COCHIN 0484-2324616/23, 2322334 COIMBATORE 0422-2213716, 2213740, 2212290, 2212672 HYDERABAD 040-27603048, 27662817, 27621163 KOLKATTA 033-24192031/32 LUCKNOW 0522-2206110, 2206112 MADURAI 0452-2604555, 2602629 MUMBAI 022-26826281/ 2 / 3 / 4 / 5 NEW DELHI 011-28524939/ 40/42

Please Refer our website: www.numericups.com for list of service centres.



Toll Free No. 1800 425 3266
www.numericups.com

Catalogue No. NPDM / MKT / CAT / 09 / R2



NUMERIC® *Digital HP Series*

Net Ready High Performance On-Line Double Conversion UPS Systems

FEATURES

- Microprocessor Controlled Design
 - PWM Technology with IGBTs
 - Wide Input Voltage Range
- Active Power Factor Correction - Input PF > 0.99
 - High efficiency
 - Cold start feature
 - Galvanic Isolation Option
- Compact Design, Small Footprint
 - Rack & Floor Mount Models
- Easy Installation, Simple Operation
- Versatile Communication Options
 - SNMP Interface
 - Web enabled monitoring



NUMERIC - The No.1 On-line UPS Manufacturer in India

NUMERIC Digital HP Series

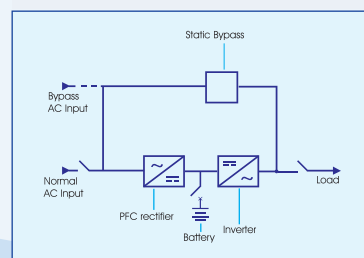
NUMERIC Power Systems Ltd, the No.1 On-line UPS Manufacturing Company in India* with around 2 decades of experience in the Design and Manufacture of UPS systems, in technology tie-up with NUMERIC Technologies Inc, USA offers Microprocessor-Controlled NUMERIC Digital HP Series UPS systems. As today's business applications are based on Technology solutions and sophisticated hardware, the need for power protection systems providing impeccable power quality



with high reliability and high availability becomes extremely vital. The Digital HP series UPS systems address a wide range of critical applications including Networks, Servers, Pcs, Telecom equipment, Access Control, Fire Protection, ATMs etc. Delivering Quality Power with less than 2% THD & 1% regulation to protect the loads, and operating with a high electrical efficiency, the Digital HP series UPS stands head and shoulders above the contemporary UPS systems.

* Source: Softdisk

On-line Double Conversion Topology

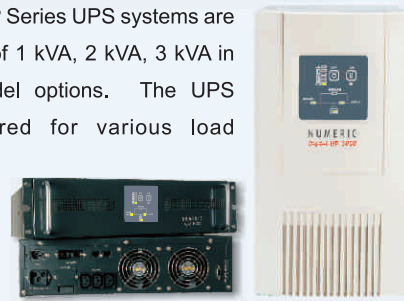


Most of the malfunctions in electronic equipment and sophisticated circuits are directly attributed to power aberrations like voltage fluctuations, sags, surges, spikes, transients, RFI, frequency variations,

interruptions, brown-outs, blackout etc. The continuous double conversion process employed in the NUMERIC Digital HP Series corrects the effect of such electrical aberrations in the input, thereby providing continuous and failsafe protection to the installations that are critical to the business. By means of innovative software control programs, the complicated hardware circuitry inlaid in the powerful microprocessor in the Digital HP Series UPS System facilitates high reliability of the system.

Power Ratings in 12 Models

NUMERIC Digital HP Series UPS systems are available in ratings of 1 kVA, 2 kVA, 3 kVA in Rack or Floor Model options. The UPS systems are offered for various load requirements in floor mount and rack mount versions with Galvanic Isolation optionally - A total of 12 possible combinations.



Wide Input Voltage Range

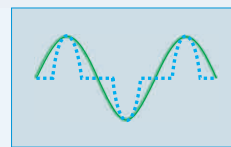
Ideal for the challenging power conditions, the wide input Voltage range of 140V to 295 V AC becomes even wider at lower loads, upto an extreme extent of 118 V AC at load levels upto 40% load, thereby greatly enhancing the battery life. The UPS also has the distinct feature of getting started even when the AC mains power supply is not available.

Wide Frequency Synchronisation Range

Frequent transfers to battery mode or power interruptions to the loads, caused by the constraint of the UPS to transfer load from inverter to the bypass due to narrow frequency synchronisation range, is overcome by the wide frequency synchronisation range 46 Hz to 54 Hz in the NUMERIC Digital HP Series, providing improved battery life and greater reliability for the UPS system.

Active Power Factor Correction

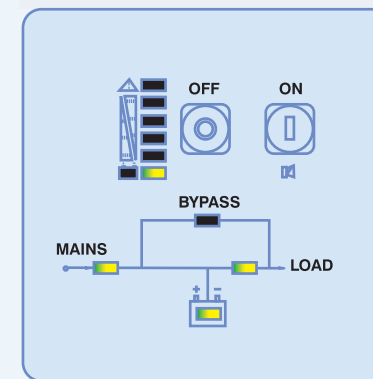
The power factor of the input current reaches over 0.99 through the built-in active power factor correction circuitry. It prevents any decrease of the power quality and loss of kW component. This also limits the load generated harmonics from being reflected back in to the line sources.



Low Losses - High Efficiency

The Microprocessor-Controlled High Frequency PWM Technology with IGBTs (voltage-controlled devices with high input impedance & consequent low drive requirements) in the NUMERIC Digital HP Series, ensures Lower Switching Losses & Higher Efficiency (> 90%) resulting in considerable savings in the running cost of equipment by reducing the energy bills.

User-Friendly Front Panel



The front panel displays a set of informative LED indicators along with a mimic display for parameters such as Mains ON, Inverter ON/OFF/Faulty, Battery Level, Static Bypass ON, Load Level and alarms for

Low Battery and Mains Failure. Touch-key Control Switches for Power OFF and Power ON / Alarm Silence make the Operation highly user friendly.

Auto Self-test

When the UPS is powered on, it immediately performs a self-diagnosis to check the control functions and the various power stage voltages including the battery voltage to ensure reliable operation of the UPS for normal running with load.

Comprehensive Protection

In addition to the total protection offered by the On-Line Double Conversion design employed in the Digital HP Series UPS Systems, additional protection is available in the form of Galvanic Isolation. This apart, the Static Bypass Switch available in the UPS System enables transfer of load to the Bypass AC input without interruption in the event of any contingencies. NUMERIC also offers bypass line conditioners such as isolation Transformers and Servo stabilizers to enhance availability of the UPS Systems.



Installation : Simple & Flexible

NUMERIC Digital HP Series UPS systems make installation easy. Simple connections of UPS systems to the mains input and output at the respective screw-type terminals, and one end of the external battery cord is plug-in type for connecting at the UPS end.



Compact Footprint

The advanced technology of NUMERIC Digital HP Series UPS systems makes it very compact in design. The floor mount models offers considerable flexibility in the entire range. The floor mount models occupy minimum footprint and they save considerable space when placed vertically.



Rack Mount Models



The 19" rack models are ideal for rack-optimized servers. The Rack Mount models are appropriate for applications in

Mobile communication solutions, Mobile ATMs & Network servers. Provision is available for positioning the rack mount model on the table top also..

Communication & Remote Monitoring



NUMERIC Digital HP Series offers a variety of communication solutions and accessories for remote control and supervision of UPS. The standard feature of RS232 port and software enables the users to supervise the UPS while working on platforms such as Windows 95/98/2000 and NT. The SNMP Communication option facilitates remote monitoring of the UPS in computer networks with TCP/IP address. The SNMP communication option offers web-enabled monitoring of the critical parameters of the UPS from any part of the world through Internet.

Traditional support

Customer delight has always been the catalyst in the success of NUMERIC and this is guaranteed by the nation-wide presence of NUMERIC's 13 regional offices and 210 service centres supported by over 1000 dedicated sales & support team. The emphasis lies in building relationships that is evident from the over 4,00,000 installations of NUMERIC UPS systems across the county and the high level of gratification expressed by the clientele through continued patronage.

A pioneer in the field of power conditioning equipment, NUMERIC is the one-stop solution for all your power conditioning needs.