

NUMERIC Digital 1000 HR-V Uninterrupted Power Backup User Manual

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NUMERIC Digital 1000 HR-V Uninterrupted Power Backup



Product Information

The Digital 1000 HR-V is a UPS (Uninterruptible Power Supply) unit designed to provide power backup during electrical outages. It comes in two models, one with an inbuilt 28Ah battery (B01) and the other with an inbuilt 42Ah battery (B01). The UPS features a front panel with an LCD display and a power switch, as well as a back panel with AC input, output sockets, a circuit breaker, and a battery breaker.

Important Safety Instructions

- 1. Provide ventilation to the outdoors from the battery compartment to prevent accumulation and concentration of hydrogen gas.
- 2. Do not install the UPS in compartments containing batteries or flammable materials, or in locations that require ignition protected equipment.
- 3. Avoid installing the UPS in spaces containing gasoline-powered machinery, fuel tanks, or connections between components of the fuel system.

Installation and Operation

- 1. **Inspection:** Before installation, inspect the unit to ensure nothing inside the package is damaged.
- 2. **Connect Internal Battery:** Keep the Battery Breaker ON and use tapes to isolate the battery terminals before operating the unit.
- 3. **Connect to Utility and Charge:** Plug in the AC input cord to a wall outlet. The unit will automatically charge the connected external battery even when it is off.
- 4. Connect to Device: Simply plug devices into the battery supplied sockets. During power failure, the UPS will

Specifications

| Mode I | Descrip tion | Cap acity | Inp ut V olta ge | Outp ut V olta ge | Battery Protectio n | Alarm | Physical Environm ent |
|--------------------------|---------------------------------|-------------------------|---------------------------|----------------------------|--|--|--|
| Digita I 1000 HR-V | UPS wit h inbuilt battery | 1000 VA/6 00 W | 230 VAC | 230 V +/- 10% | Discharge, Overch arge, and Overloa d Protection | Sounding every 10 second s (Battery Mode), Sounding every second (Low Battery), Sounding e very 0.5 seconds (Overloa d), Continuously sounding (Fault) | Indoor use, avoid ex treme temperatures and humidity |

Note: For detailed specifications related to battery capacity, voltage, and charging, refer to the table in the user manual.

CONGRATULATIONS!

We are delighted to welcome you to our family of customers. Thank you for choosing Numeric as your reliable power solution partner, you now have access to our widest network of 250+ service centers in the country. Since 1984, Numeric has been enabling its clients to optimize their business with top-notch power solutions that promise seamless and clean power with controlled environmental footprints. We look forward to your continued patronage in the years to come. This manual contains detailed instructions on how to use, install and operate this product.

Disclaimer

The contents of this manual are bound to change without prior notice. We have exercised reasonable care to give you an error-free manual. Numeric disclaims liability for any inaccuracies or omissions that may have occurred. If you find information in this manual that is incorrect, misleading or incomplete, we would appreciate your comments and suggestions. Before you begin the installation of the product, please read this manual thoroughly. The warranty of this product is null and void, if the product is abused/misused.

INTRODUCTION

This UPS is a compact unit which combines both the benefits of UPS and inverter for long-time operation. It can accept input voltage over a wide range and provide stable and pure power source to the connected devices such as personal computer, monitor and other precious 3C products.

- Simulated sine wave output
- · Excellent microprocessor control guarantees high reliability
- Boost and buck AVR for voltage stabilization
- · Selectable charging current
- · Auto restart while AC is recovering
- · Off-mode charging
- · Cold start function
- InBuilt Battery
- Ease of Installation.

IMPORTANT SAFETY INSTRUCTIONS

Save these instructions: This manual contains important instructions for this UPS that should be followed during installation and maintenance of the UPS and batteries.

- **CAUTION!** Do not drop any metal tool on the batteries. It could spark or short-circuit the batteries and could cause an explosion.
- CAUTION! Remove personal metal items such as rings, bracelets, necklaces and watches when working with batteries. Batteries can produce a short-circuit current high enough to melt metal, and could cause severe burns.
- CAUTION! Avoid touching eyes while working near batteries.
- CAUTION! Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing or eyes.
- CAUTION! NEVER smoke or allow a spark or flame in vicinity of a battery.
- **CAUTION!** If a remote or automatic generatorstart system is used, disable the automatic starting circuit or disconnect the generator to prevent accident during servicing.
- CAUTION! The unit is designed for indoor use. Do not expose this unit to rain, snow or liquids of any type.
- **CAUTION!** To reduce risk of injury, only use qualified batteries from qualified distributors or manufacturers. Any unqualified batteries may cause damage and injury. Do NOT use old or overdue batteries. Please check the battery type and date code before installation to avoid damage and injury.

WARNING!

It is very important to use an appropriate external battery cable for the system's safety and its efficient operation. To reduce risk of injury, battery cables should be UL certified and rated for 75° C or higher. And do not use copper cables less than 10AWG. Check the external battery cable reference table according to system requirements.

• **CAUTION!** Do not disassemble the unit. Contact with the qualified service center when service or repair is required.

WARNING!

Provide ventilation to outdoors from the battery compartment. The battery enclosure should be designed to prevent accumulation and concentration of hydrogen gas at the top of the compartment.

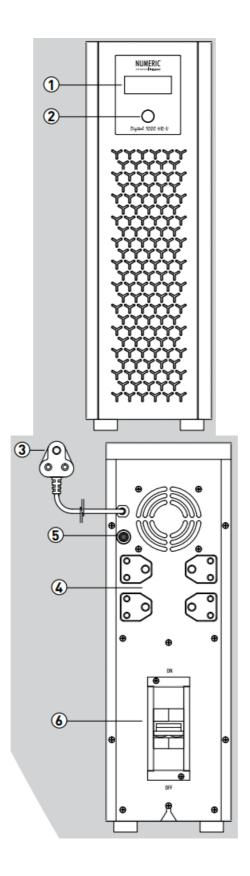
• **CAUTION!** Use insulated tools to reduce the chance of short-circuit when installing or working with the inverter, the batteries, or other equipments attached to this unit.

WARNING!

This equipment contains electronic components, which can produce arcs or sparks. To prevent fire or explosion do not install in compartments containing batteries or Flammable materials or in locations that require ignition protected equipment. This includes any space containing gasoline-powered machinery, fuel tanks, or joints, fittings, or other connection between components of the fuel system.

SYSTEM DESCRIPTION

Digital 1000 HR-V inbuilt 28Ah B01



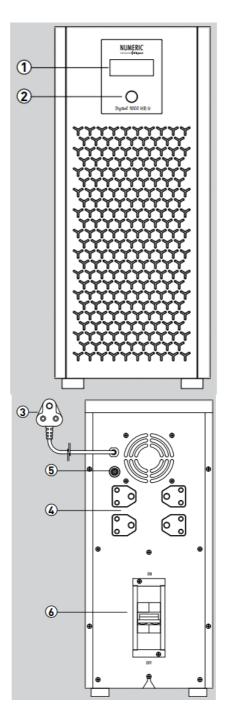
Front panel

- 1. LCD Display
- 2. Power Switch

Back panel

- 3. AC Input
- 4. Output Sockets
- 5. Circuit Breaker
- 6. Battery Breaker

Digital 1000 HR-V inbuilt 42Ah B01



Front panel

- 1. LCD Display
- 2. Power Switch

Back panel

- 3. AC Input
- 4. Output Sockets
- 5. Circuit Breaker
- 6. Battery Breaker

INSTALLATION AND OPERATION

Inspection

NOTE: Before installation, please inspect the unit. Be sure that nothing inside the package is damaged.

Checking Package Contents

You should receive the following items inside the package.

- · UPS Unit with Battery
- User manual

Connect Internal Battery

The rating of the DC Breaker must be according to the Inverter's battery current (50Amp). Keep the Battery Breaker ON.

Note: For the user operation safety, we strongly recommend that you should use tapes to isolate the battery terminals before operating the unit.

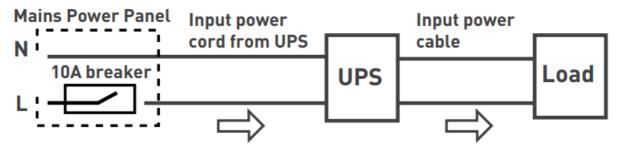
Table 2:

- Model Nominal Battery DC Voltage
- Digital 1000 HR-V 12 VDC

Connect to Utility and Charge

Plug in the AC input cord to the wall outlet. The unit will automatically charge the connected external battery even though the unit is off.

Note: Circuit Breaker rating of the Branch Circuit supplied from the Mains Input panel sizing must be 10A/250VAC in accordance with National Electrical Codes and Standards as per schematic. (Based on N.E.C NFPA 70 -2014; Reference: Article 240)



Connect to Device

Simply plug devices to battery supplied sockets. During power failure, it will provide continuous power to connected devices.

SPECIFICATIONS

| Model | Description | Digital 1000 HR–V |
|-------------|-------------------------------------|---|
| Capacity | VA/W | 1000 VA/600 W |
| | Voltage | 230 VAC |
| Input | Voltage Range | 140 – 300 VAC |
| 1 | Frequency Range | 50 Hz |
| | AC Voltage Regulation (Batt. Mod e) | 230 V +/- 10% |
| | Frequency Range (Batt. Mode) | 50 Hz +/- 1 Hz |
| | Transfer Time | Typical 4 – 8 ms |
| Output | Waveform (Batt. Mode) | Simulated Sinewave |
| | Battery Capacity (In-built) | 28AH / 42AH |
| | Battery Voltage | 12 VDC |
| Battery | Floating Charging Voltage | 13.7 VDC +/- 1.0 VDC |
| , | Maximum Charge Current | 5A – 15A |
| Protection | Protection | Discharge, Overcharge and Overload Protection |
| | Battery Mode | Sounding every 10 seconds |
| | Low Battery | Sounding every second |
| Alarm | Overload | Sounding every 0.5 seconds |
| | Fault | Continuously sounding |
| | | 150 X410 X 467 (28Ah Battery) |
| Physical | Dimensions (DxWxH) (mm) | 200 X 410 X 467 (42Ah Battery) |
| | Net Weight (Kgs) | 23 / 29 |
| | Humidity | "0 to 90% Relative Humidity (Non – Condensing)" |
| Environment | Noise Level | Less than 40 dB |

TROUBLESHOOTING

Use the table below to solve minor problems.

| Problem | Possible cause | Remedy | |
|--|---|--|--|
| Utility power is norma I but the unit | AC input power cord is not con nected well. | Check AC input power connection. | |
| is in battery mode. | Input breaker is activated. | Reset the input breaker. | |
| | The unit is overloaded. | Remove some non-critical loads. | |
| When power fails, | Battery voltage is too low. | Charge the unit at least 8 hours. | |
| the backup time is sh ortened. | Battery capacity is not full even after charging the unit for at least 8 hours. | Check the date code of the battery. If the batteries are too old, replace the batteries. | |
| | The unit is not turned on. | Press power switch to turn on the unit. | |
| Nothing displays on the front panel when | Battery is not connected well. | Check the Internal battery cable and terminal. Make s ure all the battery connections to the unit are all correct. | |
| the utility power is nor mal. | Battery defect. | Replace the batteries. | |
| | Battery voltage is too low. | Charge the unit at least 8 hours. | |

IMPORTANT SAFETY WARNING

As dangerous voltages are present within the UPS, only NUMERIC technicians are permitted to open the UNIT to replace the failed / dead Batteries.

Failure to observe this could result in electric shock risk and invalidation of any implied warranty.

Contacts

Head Office

- 10th Floor, Prestige Center Court,
- Office Block, Vijaya Forum Mall, 183,
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- Chennai 600 026.

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Regional Offices

New Delhi

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- 4th Floor, Phase-1,
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• Phone: +91 11 2699 0028

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- C/203, Corporate Avenue, Atul Projects,
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Documents / Resources



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References

• N Home | Numeric UPS

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