

Software and accessories

As a subsidiary of the
Riello Elettronica Group,
we are able to offer a range
of communication interfaces
providing visibility and status
of your UPS, environment
and associated equipment.

Software

PowerShield³

SHUTDOWN SOFTWARE



HIGHLIGHTS

GRAPHIC MONITORING OF UPS AND ENVIRONMENTAL SENSOR STATUS

PowerShield³ is a simple but powerful UPS management tool. A graphic version is available for all operating systems.

DETAILED DISPLAY OF ALL UPS AND ENVIRONMENTAL SENSOR PARAMETERS

PowerShield³ provides all the information required for first level diagnostics.

EVENTS LOG AND GRAPHIC DISPLAY OF MAIN PARAMETERS

All changes in UPS operating states are logged, as well as the main physical values and parameters. These constantly recorded values are displayed in graphic format.

UPS CONTROL PROGRAMMING

This allows you to automate all the actions normally carried out by the user: turning the server on and off, UPS battery test, etc.

BLOCK DIAGRAM OF OPERATION

A display of UPS operation in the form of a block diagram makes the analysis of UPS operating states more intuitive.

PowerShield³ provides efficient, user-friendly UPS management, displaying all major operational information such as input voltage, applied load and battery charge. The software also provides detailed information on fault conditions and UPS operating states. Developed with a client/server architecture, it is the ideal tool for managing multi-platform network systems.

Features

- **PowerShield³ free version:** supports a single UPS for the operating systems highlighted in **green**.
- **PowerShield³ full version:** supports up to maximum of 32 UPS for all operating systems.
- With sequential and priority-based shutdown, PowerShield³ provides unattended shut-down of all networked PCs, saving any active work on the most widely used applications. Users can define the shutdown priorities for the various

computers in the network and can also customise the procedure.

- With multi-platform compatibility, PowerShield³ uses the TCP/IP communications protocol to achieve standardised management and monitoring across the widest possible range of platforms. This makes it possible to monitor computers with different operating systems from a single console, for example monitoring a UNIX server from a PC running Windows and also connecting to UPS located in different geographical areas using dedicated networks (intranets) or the Internet.
- With event scheduling, PowerShield³ users can program their own shutdown procedures, detailing power-off and power-up scenarios to increase system security and save energy.
- With messages management, PowerShield³ keeps users constantly informed about the status of UPS and environmental sensors, either locally or via network messages. A list can also be defined of users who should receive e-mails, faxes, voice messages and SMS messages when faults or sudden mains power supply failures occur.
- Integrated SNMP agent: PowerShield³ features an integrated SNMP agent for UPS management which can send all the information required and generate traps using the RFC1628 standard, and environmental sensors.
- Secure, easy to use and connect; communication is now password protected to ensure UPS system security. Using the new discovery/ browsing function, all UPS connected to a protected computer

and/or LAN can be displayed in a list format for monitoring. In the absence of a LAN connection, support is provided for modem-based communication.

Developed for virtualized systems

PowerShield³ permits to initiate live migration of virtual machines (VM) to automatically and transparently migrate VMs during power disturbance to protected devices by UPS with migration systems such as VMware vMotion™ and Microsoft Live Migration. PowerShield³ can monitor and manage UPS either inside or outside the data centre. Can also measure power consumption to help calculate power usage effectiveness (PUE), a the standard metric utilized for gauging data centre power efficiency.

Supported operating systems

- Windows 2008, 2012, 2016 Server, XP, Vista, 7, 8, 10 on X86, X86_64 and IA 64 processors
- Microsoft Hyper-V
- Microsoft SCVMM™
- Linux on X86, X86_64 and IA64 processors
- Novell Netware 3.x, 4.x, 5.x, 6
- Mac OS X
- VMWare ESX, ESXi.
- Citrix@ XenServer,
- Xen@ open source platforms
- The most common UNIX operating systems such as: IBM AIX, HP, SUN Solaris INTEL and SPARC, SCO Unixware and Open Server, Silicon Graphics IRIX, Compaq Tru64 UNIX and DEC UNIX, Open BSD UNIX and FreeBSD UNIX, NCR UNIX
- HP OPEN VMS.



PowerShield³ is available for download at www.riello-ups.com

PowerNetGuard

INVENTORY MANAGER SOFTWARE



HIGHLIGHTS

GRAPHIC MONITORING OF UPS AND ENVIRONMENTAL SENSOR STATUS

PowerNetGuard is a simple but powerful UPS management and display tool. A graphic version is available for all operating systems.

DETAILED DISPLAY OF ALL UPS AND ENVIRONMENTAL SENSOR PARAMETERS

PowerNetGuard provides all the information required for first level diagnostics.

EVENTS LOG AND GRAPHIC DISPLAY OF MAIN PARAMETERS

All changes in UPS operating states are logged, as well as the main physical values and parameters. These constantly recorded values are displayed in graphic format.

CENTRALISED MANAGEMENT

PowerNetGuard is the ideal solution for managing all UPS in an infrastructure using a single application. With this one application you can monitor and manage all your UPS, ensuring prompt warnings in the event of faults or malfunctions.

SUPPORT FOR THIRD PARTY UPS

PowerNetGuard also allows you to manage UPS made by other manufacturers via SNMP using their own network boards. This allows you to centralise the management of the UPS fleet into a single system without the need for many different applications, simplifying management and use.



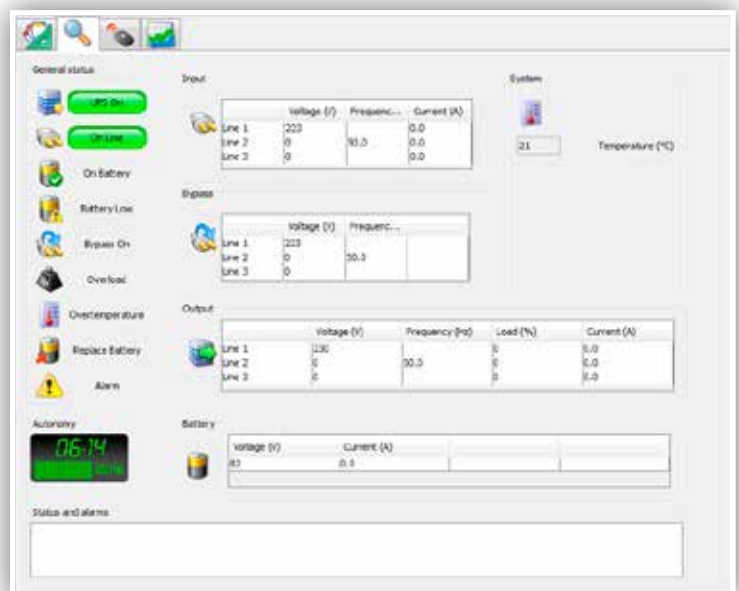
PowerNetGuard is available for download at www.riello-ups.com

PowerNetGuard software centralises UPS management using network interface (SNMP) communications. It is ideal for Data Centre EDP managers and medium to large-sized networks. Using the RFC1628 Management Information Base (MIB), it ensures standardised management for all UPS compliant with this worldwide standard.

Features

- Centralised control of remote UPS via Ethernet with SNMP protocol
- Multi-level display of geographical areas, building plans, maps, etc.

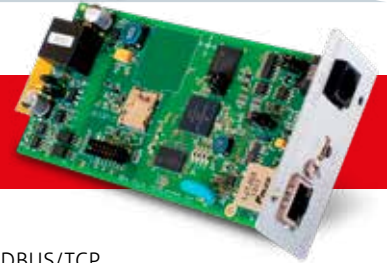
- Multi-user access with various security levels
- Compatible with NetMan and RFC1628 standard SNMP agents
- Creation of graphs of input and output values and data back-up to file
- Alarm notifications via e-mail and SMS
- Windows operating systems 10, 8, 7, 2016, 2012 and previous versions, Mac OS X, Linux.



Accessories

NetMan 204

CARD - ETHERNET - SNMP



The NetMan 204 network agent allows UPS directly connected over LAN 10/100 Mb connections to be managed using the main network communication protocols (TCP/IP, HTTP and SNMP). It is the ideal solution for the integration of UPS over Ethernet networks with MODBUS/TCP or BACNET/IP protocols. It was developed to integrate UPS into medium-sized and large networks, to provide a high level of reliability in communication between the UPS and associated management systems.

Features

- 32 bit RISC processor
- Compatible with 10/100 Mbps Ethernet and IPv4/6 networks
- wifi ready
- Compatible with PowerShield³ and TeleNetGuard
- SNMP v1 and v3 with RFC1628 for PowerNetGuard and NMS connection
- SNMP v1, v2 and v3 with RFC3433 for the management of environmental sensors
- HTTP for UPS control via web browser
- SMTP for alarm notifications and UPS status updates via email
- MODBUS/TCP
- BACNET/IP
- Maximum expandability
- USB host for Pendrive USB connection
- Events log and data management
- Wake-on-LAN management for starting computers via TCP/IP network
- Other standards: DHCP, DNS, RARP, FTP, NTP, ICMP, IGMP
- Management of environmental sensors
- Configurable via Telnet or SSH sessions, and web
- Firmware upgradeable via USB port, FTP and HTTP.



Environmental sensors

FOR NETMAN 204

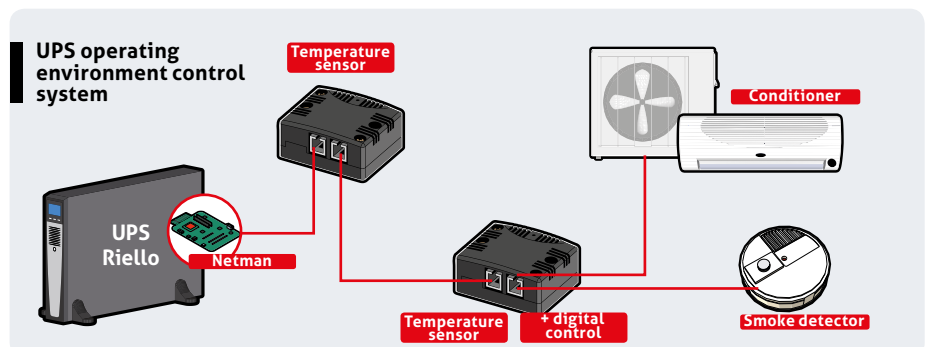
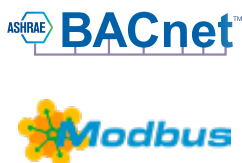
The NetMan 204 environmental sensors are able monitor and record environmental conditions as well as activities in protected areas and the area where the UPS is installed. The environmental sensors allow management and control to be extended to cover the area around the UPS, monitoring the temperature and humidity and driving cooling fans or locks. Values are provided via Internet, SNMP and via PowerShield³ software. PowerShield³ can be used to manage sensor operating states in order to send messages. Refer to PowerShield³ software documentation for further information. NetMan 204 can manage up to 6 separate sensors. Environmental sensors are quick

to install thanks to their small footprint, and they do not require a separate external power supply. Thanks to the self-learning sensors, configuration is also rapid and intuitive.



The following sensors are available:

- -55 +125 °C Temperature Sensor
- -55 +125 °C Temperature and 0-100% humidity Sensor
- -55 +125 °C Temperature and I/O digital 0-12 Vdc In, 1 A max Out at 48 Vdc Sensor.



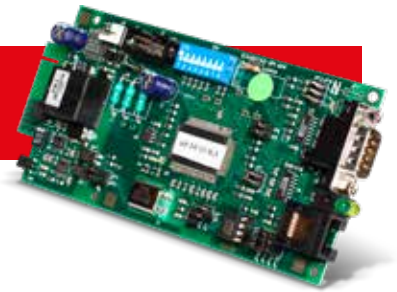
MultiCOM 302

CARD - MODBUS/JBUS INTERFACE

The MultiCOM 302 protocol converter allows UPS monitoring using the MODBUS/JBUS protocol over RS232 or RS485 serial lines. In addition, it also manages a second independent RS232 serial line that can be used to connect to other devices such as the PLC or a PC running PowerShield³ software.

Features

- Port configuration for MODBUS/JBUS as RS232 or RS485
- Management of two independent serial lines
- Suitable for integration with the main BMS management programs.



MultiCOM 352

CARD - INTERFACE DUPLEXER

The MultiCOM 352 serial duplicator is an accessory that allows two devices to be connected to a single communication serial port on the UPS. It can be used anywhere where several serial connections are required for multiple polling of the UPS. It is ideal for LAN networks with firewalls, where a high level of security is required, or for the management of separate LAN networks supplied by a single UPS.

Features

- Cascading configuration giving a maximum of 4 serial communication ports
- LED communication flow indicator
- Firmware upgradeable via serial port.



MultiCOM 372

CARD - RS232 INTERFACE

The MultiCOM 372 allows an additional communication port to be added to the UPS to control and monitor the UPS via the RS232 serial line. The board is supplied with an ESD (UPS Emergency Shutdown) input and an RSD (Remote Shutdown) input, both available on a removable terminal board and directly connectible to emergency buttons or other buttons.

Features

- Management of ESD input and UPS Shutdown
- Ability to supply devices at 12 V 80 mA max.

For compatibility, refer to the Table on page 18



MultiCOM 384

CARD - RELAY I/O INTERFACE

The MultiCOM 384 provides a set of relay contacts for managing UPS alarm notifications and operating states. The board has two removable terminal boards. One of these terminal boards includes the ESD (UPS Emergency Shut Down) and RSD (Remote Shut Down) signals. The board also provides the possibility of associating Battery Working, Bypass, Alarm and Battery Low warnings with potential

free contacts on normally close or normally open contacts.

Features

- Max. current 3 A at 250 Vac
- Signal-contact customisation
- Normally Open or Normally Close configuration for each contact

For compatibility, refer to the Table on page 18



Multi I/O

BOX - RELAY I/O CARD & MODBUS/JBUS INTERFACE

The Multi I/O is a device that integrates UPS into a control system using fully configurable input and output relay signals. It can be used to connect two devices to a single UPS serial communication port. It can be used anywhere where several serial connections are required for multiple polling of the UPS. It can also communicate on RS485 lines using the MODBUS/JBUS protocol.

Features

- 8 analogue/digital inputs
- 8 relay outputs (3A at 250Vac) that can be configured using UPS and input operating states
- Can communicate with UPS via RS232
- It can control two independent RS232/RS485 serial lines to monitor the UPS and its operating states using the MODBUS/JBUS protocol
- Firmware upgradeable via serial port.



I/O

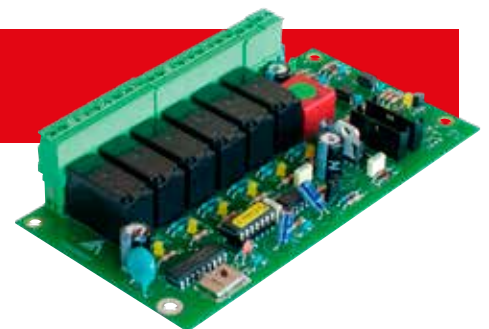
EXPANSION BOARD

The I/O expansion board for the Master range is equipped with:

- 6 outputs with NC/NO potential-free contacts (250 V/5 A), electrically isolated from each other and from other circuits
- 2 self-powered inputs.

Each output or input can be configured with different meanings, using the associated menu.

For compatibility, refer to the Table on page 18



Multi Panel

REMOTE DISPLAY INTERFACE

The Multi Panel is a remote monitoring device that can provide a detailed UPS status overview in real time. This device is able to display mains power, output and battery readings as well as UPS operating states. The high visibility graphic display supports English, Italian, German, French, Spanish, Russian, Chinese and many other languages. It has 3 independent serial ports, one of which allows for UPS monitoring via the MODBUS/JBUS protocol (on either an RS485 or RS232 serial line). The other independent serial lines can be used to connect devices such as the Netman 204 or a PC running PowerShield³ software.

Features

- High visibility LCD with graphic functions
- Management of three independent serial lines
- Port configuration for MODBUS/JBUS as RS232 or RS485
- Suitable for integration with the main BMS management programs
- Firmware upgradeable via serial port.



Multi Pass 10, 16, and 16-R

MAINTENANCE BYPASS

The Multi Pass manual bypass cuts out UPS in the event of malfunction or breakage. Multi Pass ensures that the connected consumers are automatically switched to mains power if a UPS is switched off or goes into blocked status. Multi Pass is available for rack or wall installations (box).

Features

- 16 A rack version
- 10 A and 16 A wall version
- Standard back-feed protection
- Automatic switching during mains failure
- Mains power present LED indicator
- Available with different socket standards (IEC, British socket, terminal boards).



MBB32A

MAINTENANCE BYPASS

Available in a 32 A single-phase configuration, enables UPS servicing Sentinel Dual from 5 to 6 kVA in a quick and safe manner ensuring power continuity. Equipped with a metal bracket for wall mounting.



MBB125A 4P, MBB100A 2P

MAINTENANCE BYPASS

Available in a single configuration that allows for manual bypass operations on any single-phase UPS from 10-20 kVA and three-phase UPS from 10-60 kVA. The device is equipped with three disconnect switches for the complete isolation of the UPS in the event of maintenance or removal, whilst guaranteeing power supply continuity to the consumers. The device is equipped with a manual

bypass closure warning micro-switch to be connected to the dedicated input on the UPS in order to prevent simultaneous supply from the manual bypass and inverter.

RIELLO UPS offers a wide range of external bypasses and static switches for UPS up to 800 kVA, and for parallel systems up to 6.4 MVA.



MBB125A 4P

