

Riello UPS Multi Power, the best choice for high density data centers

*The innovative modular solution perfect for critical environments
expands with two new power modules of 15 and 25 kW in 2U*

Legnago (VR), 20th January 2020. Riello UPS, a brand of the Riello Elettronica group, a world player in the production of uninterruptible power supplies, photovoltaic inverters and energy storage systems, **presents an important expansion of the best-selling Multi Power (MPW) range**, its family of state-of-the-art **modular UPSs for data centers and critical applications**.

The new **MPX** models have a power range from 15 to 75 kW and from 25 to 125 kW and up to four complete cabinets can be paralleled, further expanding power capacity from 75 to 300 kW and from 125 to 500 kW respectively.

The addition of the MPX series to the existing portfolio makes the **Multi Power Riello UPS** modular solution even more flexible and complete: the two new units can meet all the power needs for critical applications, while still guaranteeing expandability over time.

The small footprint of the Power Cabinet (a cabinet made up of only power modules) and the compactness of the Combo Cabinet system (a combination cabinet made up of both power modules and battery strings) provide the ideal answer to the modern protection needs of IOT applications, EDGE computing systems and Micro Data Centers, i.e. distributed applications aimed at reducing latency and improving network connectivity for data transfer and processing, which require exceptional installation flexibility and power protection.

Designed to guarantee continuity and quality of power supply in data centers and similar mission-critical environments, the Multi Power Riello UPS range also offers the benefits of modularity and system configuration flexibility: it allows designers and installers to size the UPS to meet the initial capacity needs, then easily scale up according to the real needs ("Pay as you grow" approach), which optimises both initial investment costs and Total Cost of Ownership (TCO).

The end-user can easily increase the power, the redundancy level and the battery autonomy simply by adding additional Power Modules (PM) and Battery Units (BU), in this way the system is fully scalable. There are five configurations available for the cabinets: Power Cabinet in the PWC and PWC X models, Combo Cabinet in the CBC and CBC X models and Battery Cabinet.

For example, in the case of critical applications for small and medium-sized enterprises, the Combo Cabinets make it possible to balance maximum power density in a reduced footprint.

The Power Cabinets can accommodate 15 kW and 25 kW Power Modules (MPX models) or 42 kW (MPW models). Riello UPS Multi Power can expand both vertically and horizontally - up to a maximum power of 1176 kW (including redundancy); even the Battery Cabinets can contain multiples of 4 Battery Units, up to a maximum of 36 units in a single cabinet and a maximum of 10 Battery Cabinets connected in parallel.

Plug & Play installation and hot-swap modularity features simplify any system expansion or maintenance process.

The principle of hot-swappable modules is further extended to all the main elements of the system, thus making it easy to replace damaged or non-functioning parts without the need for system downtime; in addition, all power modules and critical components are easily accessible from the front of the UPS.

Another strong point of the Multi Power range is the low input harmonic distortion, with an almost unitary input power factor and an extremely wide input voltage operating range (+20 / -40%), which simplifies the requirements for the upstream power supply during the UPS installation phase.

Advanced technology, unique components

In the design of the MPW and MPX Power Modules, we chose to use to collaborate directly with the component manufacturers during the design phase in order to guarantee high performance. The result is reliable and cutting-edge power components that take advantage of innovative control technologies to deliver maximum availability of energy and power.

To increase overall performance, Riello UPS research and development engineers have chosen to specifically design certain power components such as the IGBT module and the various stages connected to it, in order to extend the average time between failures (MTBF - Mean Time Between Failures).

Furthermore, all the modules of the system have been designed with the philosophy of "board-to-board connection", thanks to which the power interconnection distances between boards, modules and various stages are direct or reduced to a minimum. This reduces the presence of wiring flush and consequent losses due to power dissipation.

Exceptional performance

The advanced technologies used on the Multi Power range guarantee full-rated power even when operating at high temperatures up to 40°C; in double conversion ONLINE mode the operating efficiency of the system is very high, up to 96.5%; with loads of only 20%, the range still achieves exceptional efficiency of over 95%. Such high performance guarantees very low losses at any load level, while maintaining a true modular solution that adapts to any change in terms of power demand.

Multiple controls

The Multi Power range has been developed taking into account essential concepts such as operational safety and prevention of failures due to communication problems between the components. The Power Modules have been equipped with three microprocessors, each with specific tasks, and the Power Cabinets are equipped with two separate microprocessors: one to regulate general UPS operations, with another to manage communication with the user. Three separate dedicated communication buses manage and transmit data between the various intelligent units inside the UPS.

In terms of monitoring and control of the overall system, all temperatures of the main components are continuously monitored. The Power Cabinets can have up to four temperature sensors to guarantee constant and efficient operation. The Power Modules, on the other hand, are equipped with speed controlled fans and a continuous operation monitoring system. The Combo Cabinets and Battery Cabinets are supplied with a battery switch with release coil for managing the opening of the switch remotely.

All these features ensure easy expansion, operation and maintenance of the UPS and a minimization of downtime, decreasing the average repair time (MTTR) and removing any possible risk for continuity of power.

Advanced communication

Users can benefit from various communication systems developed specifically to meet the needs of IT staff, facility managers and service technicians. The 7" LCD touchscreen, the communication slots, the relay cards and the dedicated service ports ensure that the configuration, control and monitoring of the UPS are easy and compatible with the various communication protocols available on the market.

Information about Riello UPS

Riello UPS is the brand of uninterruptible power supplies for Data Centres, offices, electromedical applications, security and emergency equipment, industrial complexes, and communication systems, designed and produced by RPS S.p.A., a company based in Italy and part of the Riello Elettronica Group. With the Riello UPS brand, RPS S.p.A. is the industry leader in Italy and firmly placed among the top 5 companies in the world in technological research, production, sales, and assistance. The pursuit of quality, the optimization of resources and a strong drive towards technological innovation, together with seriousness, consistency, and experience, make RPS S.p.A. a company able to meet the needs of a fast-growing market. RPS S.p.A. has two production sites in Italy, sixteen subsidiaries placed between Europe, the United States, the United Arab Emirates, China, India, Singapore, Vietnam and Australia, and a presence in over 85 countries worldwide, that offers a very high level of customer service.

For additional information about the company and its products visit www.riello-ups.com

Information about Riello Elettronica

Established and successfully led by Pierantonio Riello in 1986, Riello Elettronica is the holding company of a group of businesses operating in sectors with high technological expertise. Energy represents the core business of the group (design, production, sale, and assistance of UPS and photovoltaic inverters) with the brands Riello UPS and Riello Solartech. This is complemented with work in the Automation and Security areas with the AVS and Cardin brands. The group has seven production sites, thirty subsidiaries in Europe, United States, United Arab Emirates, China, India, Singapore, Vietnam and Australia, and a presence in over 85 countries worldwide that offers a very high level of customer service.

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