

Riello UPS: the new NextEnergy 500 kVA for ever larger data center and mission critical applications

With the new 500 kVA model, the company is able to supply ever larger systems, now up to 4 MVA.

Legnago, 20 May 2020. Riello UPS, a brand of the Riello Elettronica group, a global player among the top five companies in the world in the production of uninterruptible power supplies (UPS), announces the release of a new 500 kVA model in its NextEnergy range.



Flexibility and resilience are the characteristics of NextEnergy, a dynamic range that is constantly enhanced with new sizes to meet the most stringent availability needs of "Mission Critical" applications such as those of modern Data Centers. In these applications, a reliable and protected power supply is essential in order to guarantee regularity of service (Business Continuity). IT Managers now have a flexible UPS available that can be adapted to the various types of architecture and which at the same time guarantee maximum system availability.

Like the rest of the NextEnergy family, the 500 kVA model is also a three-phase UPS that uses the most innovative transformer-free double conversion online technologies, with IGBT converters and three-level control. Designed to meet the power requirements of the future, it offers extremely high energy efficiency - the highest levels on the market - and therefore a low operating cost. In addition, it allows multiple operating modes to ensure energy consumption is always optimized: for example, thanks to the ECM (Efficiency Control Mode) system, the UPS optimizes the level of efficiency in parallel systems according to the power required at that time.

As with the existing models, the Riello UPS research and development center has worked to create a solution capable of providing the highest power density on the market in the smallest possible footprint. In addition, **compatibility with lithium-ion batteries** was introduced thanks to the development of a dedicated control and management system.

Exceptional performance

The advanced technologies adopted and the careful selection of high quality and reliable components used in the production of the NextEnergy range guarantee "best in class" performance, such as unity power factor (to guarantee kW = kVA), the ability to power critical loads up to 40 °C without power derating and extraordinary system efficiency: NextEnergy guarantees up to 97% in double conversion mode (ON LINE), with an increase to over 99% in ECO Mode or SMART ACTIVE.

The NextEnergy range is characterized by an innovative operating mode called ACTIVE ECO that feeds the load from the bypass line, therefore with very high efficiency, but at the same time also working as an active filter, thereby reducing the current harmonics and increasing the power factor towards the input network. Active Eco guarantees lower energy consumption and avoids the need for power factor correction systems with important investment reductions by the user.

Particular attention is also paid to the reduction of maintenance costs and to the operating life of the system, thanks to the intelligent ventilation control system that constantly adapts to the level of the load applied, leading to a smart cooling system. In addition, each fan is redundant and monitored to report any faults.

"Thanks to this new size, the most powerful of our NextEnergy range, Riello UPS is able to power larger and larger systems, now up to 4 MVA, thanks above all to parallel configurations, all whilst maintaining the high reliability and lower operating costs that characterize the range" - declares Nicola Caglia, Product Manager of Riello UPS - "Furthermore, thanks to the static or dynamic "Peak Shaving" function, which allows to supply the additional power required by the batteries, NextEnergy 500 kVA guarantees a better adaptation to the power supply networks with reduced capacity or cheaper generating sets." - concludes Caglia.



Installation versatility

NextEnergy 500 kVA is able to operate with or without a neutral line. This important function reduces the installation costs of the distribution system: it can be applied, for example, in modern Data Centers or in systems that do not require the use of the neutral line.

The small footprint of the cabinet and full accessibility from the front of the UPS for all maintenance activities ensure optimal use of floor space. The ventilation takes place from the front to the top, enabling the UPS to be installed back-2-back or against the wall, optimizing the installation layout. Like all models in the NextEnergy range, it also provides cable entry from above or below, eliminating the need for expensive and bulky accessory cabinets.

Maximum reliability and availability

NextEnergy 500 kVA implements all the features present in the existing Riello UPS families, such as:

- parallel configuration, up to 8 units, for additional redundancy (N + 1) or power;
- Hot System Expansion (HSE): allows the insertion of an additional UPS block within an existing parallel system, without the need to turn off the UPSs already working or having to switch them to bypass. This ensures maximum load protection even during maintenance and system expansion.

Advanced communications

Particular attention is also paid to supervision and connectivity: NextEnergy implements communication interfaces developed specifically for the IT Facility Manager and for service technicians. The 7-inch color LCD touch screen, the communication slots, the relay cards and specific service connectors simplify the setup, control and monitoring of the UPS. The system can be easily integrated into any data center infrastructure management system (DCIM - Data Center Infrastructure Management).

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 five 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, 16 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, 30 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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