



Look into the future Trends in UPS system

These days, there is no argument that being sensible with energy is crucial from both an ecological and an economic perspective, and intermittent improvements are not enough to improve energy efficiency. If you want to optimise energy consumption - whatever your sector of industry - you need to think about the entire process chain and all the energy consumers involved.

In a data centre, only around one third of the energy consumed is actually used by the IT equipment itself; i.e. computers, memory and network equipment. The majority goes to the supporting infrastructure, such as the power supply and cooling systems. At 18 %, uninterruptible power supplies (UPSs) are the third largest electricity consumers. If we consider how quickly data centres are growing and how rapidly their absolute energy consumption is currently increasing, the potential savings which can be

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achieved by using energy-efficient infrastructure components are immense. So it is no surprise that there is increasing pressure on costs in the data centre sector, and that environmental awareness is becoming an ever more important factor for sparking innovations. Sustainability



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from an ecological and an economic perspective plays an important role and is the key element of all the trends which can currently be observed among data centres and the UPS systems.

Buying with foresight

With rising energy prices and an increasing demand for capacity, the efficient use of energy

The most important requisite is that the systems are future-ready, i.e. the technologies will support the further growth of the company.

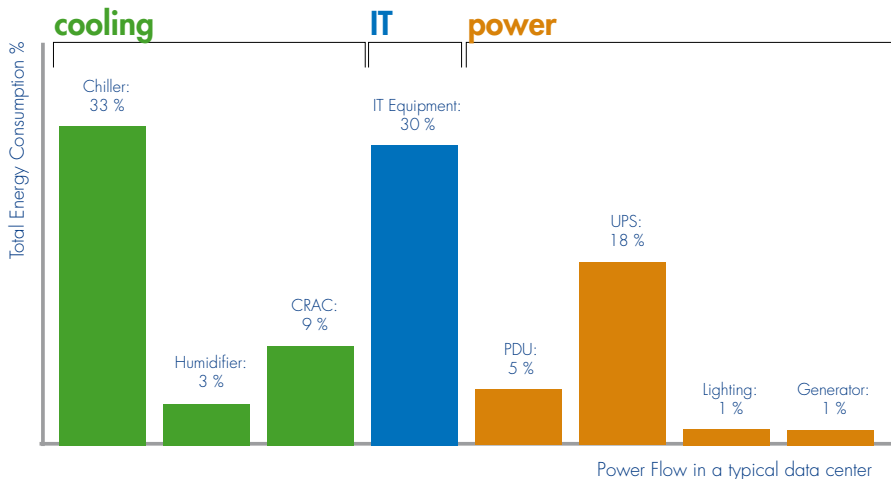
has become a top priority when it comes to purchasing decisions. The speed at which the requirements of an IT system are growing also represents a real challenge. The most important requisite is that the systems are future-ready, i.e. the technologies will support the further growth of the company. In all areas, modularity is a key factor in solving the problem. Modularity means that the system consists of individual elements which can be deployed on an on-demand basis. It is an important prerequisite in terms of agility and makes it possible, for example, to adapt a UPS to the actual demand. If demand alters, modules of a UPS set up in this way can easily be used elsewhere.

Against the backdrop of increasing cost-pressure, modularity has another major advantage: it lays the foundation for «right-sizing». The infrastructure of a data centre can be correctly sized from the outset and can then grow over its lifetime as a function of increasing requirements. At the same time, a correctly sized 40 kW UPS working at a capacity of 90 % for example, renders a 94.5% efficiency, whereas an

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incorrectly-sized (i.e. over-dimensioned) UPS working at a capacity of 25 % will merely render an inferior efficiency of 91 %. Although three and a half percentage points of difference do not sound much at first glance, it reduces the annual costs for each 100 kW supply by a good 4'200 Euros. Newave has had a major impact on the market with the introduction of modular systems. The systems have now proven their benefits in practice and are being constantly undergoing innovation. The recently launched DPA UPScale RI is a UPS system which can be integrated into any 19" rack. This is a major

In order to reduce energy consumption, solutions are required involving both IT and the data centre infrastructure.



step forward for modularity in practice as it means complete UPS systems can be integrated into existing server racks and utilised on a dynamic basis.

Space-saving thought through

While previously one had to leave space for the physical growth of a data centre in a central location, the trend now is towards decentralised solutions. Thanks to reduced connection costs, more and more data centres are popping up in more rural locations. Among other things, this trend is supported by the increased use of Data Centre Container Solutions. The mobile container solutions can be positioned anywhere and are ready for operation immediately. If the data centre needs to grow beyond its existing size, another container is added and simply connected to the existing one(s).

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As well as space-saving ideas, there is another clear trend: increasing performance density. So, for example, the UPS systems used 20 years ago took up about seven times the space of a modern system for the same output. This trend is still strong today and will lead to performance density in the future that we cannot even imagine today. UPS systems are therefore space-saving and can be built using a fraction of the materials otherwise required. Here, too, UPS systems are making a contribution to sustainability.

Legal framework conditions

At the end of the day, the legal framework conditions will influence the future development of data centres. Increasingly, it is of political interest to use incentive systems, codes of conduct and laws to regulate energy consumption and CO2 emissions in individual sectors of industry. For example, the European «Code of Conduct on Data Centres Energy Efficiency» provides very concrete suggestions as to how energy consumption can be optimised in data centres.

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To do this, it considers all elements involved in the process chain and clarifies how savings in individual components can influence one another. Although the code of conduct is still only voluntary, many companies are adopting it as an internal guideline for future developments. In the long term, it is possible that this kind of code of conduct will become mandatory for manufacturers of components used in data centres. It is also conceivable that, for example, UPS systems will be classified based on their energy efficiency. This would prevent cheap but high-energy products making an impact on the market and would be a benefit from the point of view of sustainability •



DPA UPScale the versatile UPS system

In August 2009, Newave launched the new DPA UPScale. DPA UPScale ensures optimum availability for critical applications by combining modularity and decentralised parallel architecture or DPA. The modular concept allows you to purchase power protection technology on an on demand basis and keeps the purchasing and operating costs of power protection solutions exceptionally low. The DPA architecture delivers a redundant protection without "single point of failure". With all of the critical components duplicated and distributed between the independent modules, system uptime is maximised. In order to satisfy a wide range of application needs, the DPA UPScale has been designed in two versions:

- DPA UPScale ST (Standard) including frame, UPS, battery and communication.
- DPA UPScale RI (Rack-Independent) UPS, battery and communication which can be integrated into any 19" rack.

DPA UPScale ST: the compact all-rounder

Designed for high-density computing environments, the DPA UPScale ST delivers power protection from 10 kW to 120 kW (1 to 6 modules)



DPA UPScale ST: thanks to the low weight of the modules, inserting additional ones can be performed by a single technician.

in a single industry-standard 19" frame. The powerful configuration offers a solution with maximum power density of 272 kW/m². Its flexible design provides a "pay as you grow" model, ideal in situations where requirements change quickly and unpredictably. The UPS is designed for space-saving flexibility. No one packs more power capacity and features into a smaller package.

DPA UPScale RI: the "individual concept"

The rack-independent DPA UPScale RI (sub-rack) is designed to be the most versatile UPS on the market and provides the best technical and commercial solutions to meet individual power protection needs. The rack-independent solution is a standard product which can be integrated into any 19" rack. When customized solutions are required, the multi-purpose DPA UPScale RI simplifies the engineering and deployment of UPS systems ●



DPA UPScale RI: The UPS-subrack can be integrated into any 19" rack, independent of manufacturer.



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DPA UPScale features:

- Intelligent, self-contained modules
- Modules of low weight (10kW = 18.6kg; 20kW = 21.5kg)
- Total compatibility with any installation
- Excellent input performance
- PF > 0.99
- THDi < 3%
- AC-AC Efficiency 95.5%
- Transformerless
- Online double conversion technology

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Newave opens new office in India

India is brimming with opportunity for IT vendors of all kinds. Newave announced the opening of a branch office in Mumbai, India, to provide uninterrupted power supply products and services for the growing industries in India. "By opening this office we are looking to repeat our success in delivering first-class power protection systems in Asia Pacific and bring the product to this growing market," said Villaznim Xhiha, CEO of Newave. "The decision was dictated by a growing number of requests about our products from the region. India is one of the fastest growing markets and we are very confident that having local presence will enable us to better serve our customers. We have finished hiring

a team of experienced engineers and sales people to operate in Mumbai and Bangalore and I believe these offices will continue to expand in the next year," said Mr. Rajesh, Managing Director Newave India ●

Telecom Italia selects Newave

Newave Italy has been selected by Telecom Italia to supply a large package of UPS systems to ensure power availability for their telephone switchboards. The package includes the UPS Systems PowerWave 33 and CP Maxi 300 and represents substantial revenues over the next few months. Newave SA has signed a preferred supplier agreement with Telecom Italia for the delivery of more than 100 standalone units in the power ranges from 60 to 300kVA. The contract includes all services such as transport to site, installation, commissioning and maintenance. The first de-

liveries are expected to be due in the second half of August 2009 and will be deployed in numerous sites of Telecom Italia throughout Italy. "We are pleased to be selected by Telecom Italia for securing power availability by offering best-in-class UPS hardware and software products," said Roberto Cavasin, Managing Director of Newave Italy. «Newave's modular and scalable product portfolio demonstrates our commitment to offering customers such as Telecom Italia comprehensive power protection options while lowering the total cost of ownership" ●



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ineltec 2009: in dialogue with technology

The Technology Fair for Building and Infrastructure ineltec focuses on the innovative building technology industry and is certain to attract large numbers of visitors. Technology specialists are unlikely to miss out on the opportunity to find out about the latest developments in the area of electrics, energy, engineering, architecture and building automation. ineltec is both an industrial fair and a central meeting place for the innovative building technology sector. More than 26,000 visitors from Switzerland and its neighbouring countries are expected to attend ineltec 2009. The target audience for the exhibition consists of all the important decision-makers, including corporate and departmental managers and specialists from specific departments (installation, purchasing, maintenance etc.). At this year's ineltec Newave and its subsidiary ServiceNet will be present with a full range of product highlights such as the DPA UPScale ST and RI ●

Date: 1 to 4 Sept 2009

Location: Exhibition Centre Basel | Hall 1.0, B45 (Newave / ServiceNet)

To request free visitor tickets, please send an email with your contact details to info@newave.ch. Detailed information for exhibitors can be found at: www.ineltec.ch

Next Events

DatacenterDynamics Conference: Moscow Sept 15

