The key to the DPA 500’s success is that the UPS is modularized and each module has all the hardware and software needed for autonomous operation.

Many data centers are being located in higher latitudes to exploit natural cooling and it is in such a northern location that ABB recently received a significant order for two DPA 500 UPSs. The DPA 500 has been well received by markets around the world as it matches exactly the needs of many customers – especially those responsible for large data centers. The DPA 500 has critical advantages that made it a natural choice for this major customer in Scandinavia.

ABB representative Conny Hurtig said, “our client in Scandinavia recognized all the advantages the modular architecture of the DPA 500 brings and decided to go with ABB. They needed extensions and changes to the current 12 kV and 0.4 kV systems, backup power and UPS system and the DPA 500s fitted the UPS bill perfectly. ABB’s modular UPSs were chosen mainly because of their reliability, advanced technology, and the prestige and high quality associated with the ABB brand.”

The key to the DPA 500’s success is that the UPS is modularized and each module has all the hardware and software needed for autonomous operation. If redundancy is provided for - ie, there are more modules than needed to supply the critical load - then one or more modules can be lost without jeopardizing the load. Availability is maximized – a key requirement in a data center. Further, as UPS power requirements change it is simple to add modules and increase the power capabilities. The modules can be online-swapped too, thus directly addressing continuous uptime requirements, reducing repair times, reducing inventory levels and simplifying system upgrades.

This online-swap technology, as well as having a significant impact on cost, can also help achieve so-called six nines (99.9999 percent) availability - highly desirable for data centers in pursuit of zero downtime.

The user is also then only powering and cooling the UPS capacity he needs – the resultant energy savings made by the data center over the service life of the UPS are substantial. Energy costs are also held down by the DPA 500’s best-in-class energy efficiency - up to 96 percent.

The four-frame, DPA 500 N+1 configurations will be installed in two new IT room segments and have startup power capacities of 500 kW and 900 kW respectively, with 10 minute battery backup.
They can be upgraded to 900 kW and 1,500 kW. For further flexibility, UPS capacity can be quickly switched from one system to the other, in minutes. The battery bank comprises 690 Powersafe 12V92F from energy storage solution provider Enersys on open racks and 15 ABB battery breakers. An ABB AKKA battery monitoring system for 690 blocks was also supplied, with measurement resolution in the mV range. AKKA periodically transmits battery performance data at block level and ensures that the critical backup power systems are ready when needed. The monitoring solution is fully in compliance with DPA battery tests. Communication is by Modbus over SNMP (USHA).

Heikki Rantama, ABB representative comments, “apart from the technical specification, the customer was well aware of the advantages of ABB’s local support and the quality of this Swiss product. But ABB’s novel truly modular concept, even though we didn’t follow the customer’s specs, swung things for us too.”

This Scandinavian project is a key reference for ABB modular UPS. It shows that very critical applications are best served by using ABB modular UPS technology with an N+1 configuration.

Contact us

ABB Power Protection SA
A member of ABB group
Via Luserte Sud 9
6572 Quartino
Switzerland
Tel: +41 (0)91 8502929
Fax: +44 (0)91 8401254

www.abb.com/ups

Note
We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB.

Copyright© 2014 ABB
All rights reserved