

PRONIX use ABB DPA UPS for TTC TELEPORT data center



In October 2015, PRONIX finalized the development of a data center in the Czech Republic for TTC TELEPORT. With a floor area of 8,000 m², the data center is the largest in the country. The project included a new backup power supply concept with ABB DPA UPSs.

TTC TELEPORT is a leading provider of data center services in the Czech Republic. Their DC1 data center was running out of capacity to satisfy the needs of new clients so a new data center – “DC2” – of 4,000 m² (for customer hardware) was planned.

PRONIX, a long-standing ABB channel partner in the Czech Republic, entered the project as the investor’s technology consultant, tasked to assess the state and the quality of the work done by the original lead project designer. The original technical solution was found to suffer from a number of major defects that led the investor to make radical changes: The lead project designer was withdrawn and the entire project was redesigned by a new group.

In a record time of just four months, PRONIX developed a brand-new backup power supply concept for the entire data centre with a total capacity of 9× 1,600 kVA. One of the key components of this was the medium-voltage (MV) power supply, which complies with the globally recognized Uptime Institute TIER 3 security standard as securing the ongoing processes of the TTC TELEPORT data center represents a

key requirement of the entire project. The proposed concept and the backup power supply technology were designed so as to ensure maximum reliability and availability levels. As a UPS, ABB's Conceptpower DPA was chosen. In all, two Conceptpower DPA 500s and two Conceptpower DPA 250s were installed.

ABB's Conceptpower DPA and DPA 500 are true double conversion modular UPSs designed for medium- and large-sized critical applications. The robust, proven modular architecture provides very flexible power configuration based on differently sized modules that can be added as power requirements grow. This eliminates oversizing, reduces energy costs and minimizes upfront capital investment. Each DPA module is self-contained and can be online-swapped at any time, so nothing has to be ever transferred to the bypass or switched off – making routine maintenance safe and easy. A Conceptpower DPA UPS can be expanded step-wise up to 1.5 MVA, a Conceptpower DPA 500 UPS step-wise up to 3 MW.

Because the power backup performance demands are so high, PRONIX also supplied 1,600 kVA FG Wilson diesel generators by Caterpillar.

Prior to commissioning, the entire data center system was subjected to a number of tests, including load tests. More than 800 partial functional tests of the individual subsystems and load tests of the individual technologies were performed with a simulated operating module load of 700 kW IT/module. Testing was concluded by a general integration test of all technologies simulating standard operation as well as non-standard random defects. The system passed all of the tests with honors. At the end of November 2015, a grand opening of the new TTC TELEPORT DC2 data center took place in Praha Malešice.



TTC TELEPORT data center

“We highly appreciated the cooperation with TTC TELEPORT that started several years ago and was crowned by completion of one of the major data centres in the Czech Republic and, indeed, Europe. The project further cements the reputation of the Czech Republic being a European leader in data center development,” says Krzysztof Józef Górski, owner of PRONIX. “Our excellent collaboration with ABB on the UPS side meant we were able to provide the customer with best-in-class UPSs that not only met the current backup power reliability and availability needs but also that could be easily expanded in future to meet the increases in data storage demands that are inevitable in our age of digitalization,” adds Lenka Frydrychová, Executive Director of PRONIX.

“The data center was built in line with the anticipated schedule, quality, and budget. Our cooperation proved to be efficient and, therefore, we are already working on the next stage of the data center,” comments Radek Majer, CEO of TTC TELEPORT.

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