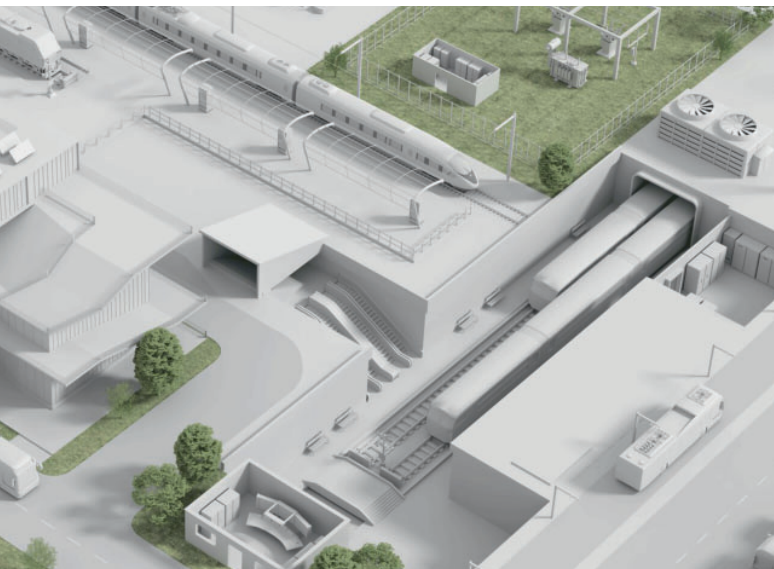


REFERENCE CASE STORY

Helsinki Metro goes driverless with ABB

The new systems need to have an uninterrupted source of clean and stable power



Helsinki City Transport (HKL) and an internationally leading provider of transportation and logistics solutions signed the contract for renovation of the metro network in the Finnish capital. The line will be made fully automatic in 2014, without interrupting or disturbing its operation. ABB has been chosen by the transportation solution provider to supply the uninterruptible power supply systems for 18 stations.

To modernise the Helsinki Metro, HKL will move to an automatic control system. Replacement of switchover monitors for traffic control and safety and their operation control systems, due in any case for reasons of age, will be carried out at the same time. Some current equipment dates from the 1970s and is difficult to maintain, partly due to the scarcity of replacement parts. With the new system, trains will run on automatic control, without a driver. Traffic controllers will monitor metro traffic from a control room and direct the operation of the system.

The automatic system will be supplied by the transportation solutions provider, which brings to the project its experience from a number of similar projects around the world. According to current plans the Helsinki Metro will run on automatic control from the beginning of 2014. The transportation solution provider is also responsible for the power supply sub-system.

The uninterruptible backup power systems are a critical link to ensuring the automation control system, the operations control centre, the signaling system, the onboard communication, the platform access doors and the dynamic passenger information system operate seamlessly during power disruptions.

The transportation solutions provider was used to work with Eaton and therefore decided to use Eaton's UPS system for testing purposes. The UPS systems had to fulfill the following criteria: compact design (due to the very limited space); easy serviceability and ability to scale power.

ABB's power protection team in Finland has learned from HKL that there was a need for such UPS systems. Although the decision to work with Eaton was already taken, ABB Finland could convince the transportation solutions providers' project team to evaluate ABB's modular solutions.

After the evaluation process ABB led the field in terms of their decision criteria: the small footprint of the DPA UPScale ST saves valuable floor space. Its flexible design provides a "pay as you grow" model, ideal in this situation with requirements increasing with time. The ability to safe-swap modules significantly reduces the system's mean time to repair, simplifies system upgrades and provides easy serviceability. ABB won the first contract for the Helsinki Metromodernisation project consisting of 18 DPA UPScale ST systems with 4 hour battery capacity each (4 x DPA UPScale ST 120 kW / 14 x DPA UPScale ST 80 kW / 47 kVA modules).

The project has been mainly managed by the transportation solutions providers' qualified staff members. ABB delivered the power protection infrastructure according to the customers' needs, supervised the installation and made the final commissioning. The project team fully installed the system including batteries without any hassle due to the simple installation procedures of DPA UPScale ST.

In the next months to come, there is potential for further investments in ABB products. The Länsimetro extension will continue the line into western Helsinki and the neighbouring municipality of Espoo. Upon completion the west metro will

transport over 100,000 passengers every day. Providing employment for thousands, Finland's largest infrastructure project comprises, for example, seven new stations, two tunnels each nearly 14 kilometres in length and the removal of around three million cubic metres of blasted rock.

ABB is proud to be a part of this important project that will mark the country's active role in public transportation, this contract wins highlights ABB's ability to provide the power protection solutions needed to supply reliable power and increase the flexibility in power management for the transportation industry.

DPA UPScale ST



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