Continuous power flow for the Central Bank of Malta

ABB’s partner for UPS systems, VSS Ltd., installed customized DPA UPScale ST UPS systems in the Central Bank’s data center, located in the completely remodeled city gate – the centerpiece of a civil complex developed by Italian architect Renzo Piano.

The historic city of Valletta in Malta is renowned for its architectural beauty and was declared a World Heritage Site by UNESCO in 1980. The city gate, Valletta’s only land entrance, has been rebuilt multiple times since the 16th century and is now being completely reshaped in a project dubbed “City Gate.” This enterprise has four parts: the Valletta City Gate itself, a flexible performance space that incorporates the ruins of the former Royal Opera House, the construction of a new parliament building, and landscaping the moat.

The work includes a new building to house the Central Bank of Malta. A core element of the bank is its data center, which includes a “cold aisle” – a data center configuration that conserves energy and lowers cooling costs by managing air flow. The cold aisle is enclosed, with cold air flowing into the electronic and power modules from below and allowing the rest of the data center to become a large, hot-air return plenum.

To ensure a continuous flow of clean power to the bank’s data center, ABB’s partner VSS installed two DPA UPScale 120 uninterruptible power supplies (UPSs), each one equipped with five slide-in, 20-kilowatt power modules.

The UPS is an all-in-one solution that includes the frame, UPS, battery and communications devices. The design conforms to ABB’s decentralized parallel architecture (DPATM), delivering unprecedented reliability, availability, low total cost of ownership, and simple service and maintenance.

Because DPA allows modules to be added as the need for power grows, it’s not necessary to overspecify the original configuration. This reduces capital outlay and simplifies maintenance and servicing, as modules can simply be hot-swapped. These features all lead to a low cost of ownership.

As well as providing a fully scalable and easily maintained UPS with unparalleled uptime and energy efficiency, the DPA UPScale 120 also delivers clean backup power to the electronic devices that monitor and control infrastructure, preventing loss of data or damage to equipment.

The City Gate installation required the UPS to be installed in a cold aisle containment, not an environment that the DPA UPScale 120 was designed for, so a cabinet with custom sliding doors, roofing and color was produced to the client’s specifications.
The cabinet planning and implementation included a 3D model, which was presented to the client in order to show how the cabinet would fit into the current configuration and the look of the final installation. It also made installing the UPS simpler once the components arrived on site, as the technicians already had a 3D model to work from.

The client chose ABB's UPS solution as it was the only supplier able to implement a system such as this, with sliding doors and roofing. As well as the customized cabinet, the system’s full redundancy and online-swap functionality were deciding factors for the client in selecting ABB as their supplier.