Socomec and Saft deliver state-of-the-art backup power system for Total’s supercomputer environment

Benfeld, November 26, 2018

Socomec innovative hot-swappable uninterruptible power supply (UPS) integrates high-performance Saft lithium-ion (Li-ion) batteries and enable Total to protect the operations of its High Performance Computer (HPC) data center.

To protect one of the world’s largest industrial supercomputer

Industrial group Socomec and battery leader Saft have delivered a high-performance UPS featuring lithium-ion data batteries for Total's HPC data center which hosts one of the world’s largest industrial supercomputer.

Total’s supercomputer is a unique decision-support tool used for oil & gas exploration and field management. It allows to improve the accuracy of subsurface imaging, optimize the development and production of Total's fields as well as save time, by shortening the duration of studies.

To protect critical information and calculations for the supercomputer Total required a high-performance UPS and battery system. The main criteria were low Total Cost of Ownership (TCO), hot-swappability and integration with its monitoring systems. The scope also included the enhancement of the environmental performance of the data center through increased energy efficiency and the ability to re-inject power from the UPS into the grid or to support other loads.

A modular and energy efficient installation

To meet these requirements, Saft and Socomec worked together to integrate a Saft Flex’ion battery system into Socomec’s DELPHYS XTEND GP UPS. Both components are modular and energy efficient so that the UPS can be scaled to meet new additional power and energy requirements over time. A program of functional testing and certification demonstrated the electrical performance of the system as well as the electronic control interface between the battery and Socomec’s UPS.

Made in Europe, the lithium-ion battery system is sized to deliver 550 kW for up to seven minutes within the voltage window required by the UPS after an operational life of 15 years.

Socomec’s technology is hot-swappable to enable extension or maintenance without interrupting data center operations. The UPS system was installed on a turnkey basis in October 2018 at Total’s Centre Scientifique et Technique Jean Féger (CSTJF) in Pau, France and can be extended by up to 2,400 kW with additional 200 kW modules.

The partners integrated two identical UPS with Flex’ion li-ion batteries for redundancy. The battery system is based on Saft’s proprietary Super Lithium Iron Phosphate (SLFPTM) technology and was developed specifically for data centers and other mission-critical industries. Saft’s lithium-ion battery technology offers...
the benefits of low maintenance, safety and high power density, as well as a long life at elevated temperatures, which reduces the need for cooling and ventilation.

A major advantage is that Flex’ion’s electronic battery management can be integrated with control and management, such as building management and SCADA systems, to enable smart monitoring and free up data center operators to focus on their servers.

ABOUT SOCOMEC

Founded in 1922, SOCOMEC is an independent, industrial group with a workforce of 3200 people spread over 27 subsidiaries in the world. Our core business – the availability, control and safety of low voltage electrical networks with increased focus on our customers’ power performance. In 2017, SOCOMEC posted a turnover of 505M€.

MORE INFORMATION

Xavier MERCIER
Market Segment Director
Tel.: +33 1 45 14 27 02,
E-mail: xavier.mercier@socomec.com
www.socomec.com