

Overview

CASE STUDY:

Federal Institute of Technology in Lausanne, Switzerland

PRODUCT:

16M33 PowerKit Engine

DUTY:

Emergency Standby

POWER OUTPUT:

2000KVA

APPLICATION:

Data Center

PARTNERS:

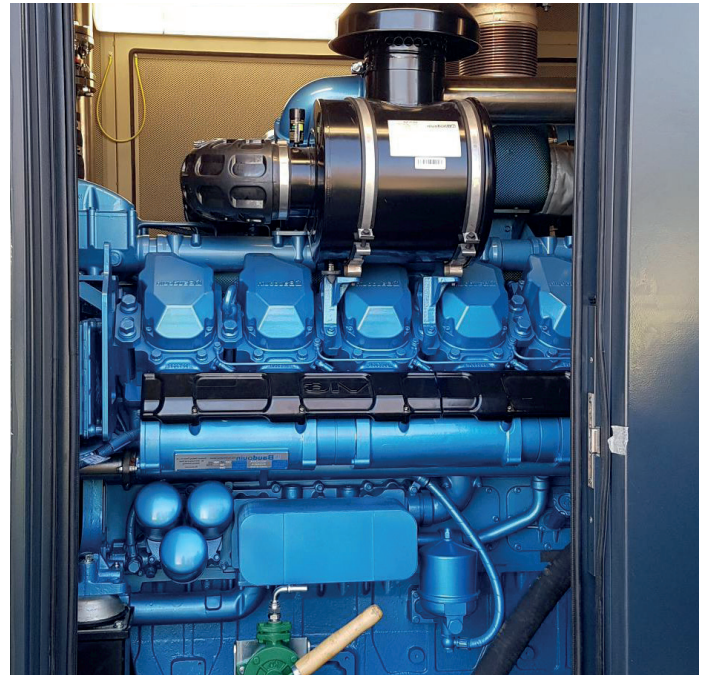
Margen SPA

Huawei

Baudouin's PowerKit engine is an integral part of a new data center for the Swiss Federal Institute of Technology in Lausanne, alongside the groundbreaking SmartLi UPS Li-ion battery system from Huawei.

Launched at the university in 2021, this new datacenter project was managed by Margen SPA., the respected Italian energy company specializing in customized projects for various industry sectors around the world. The project was realized with Baudouin, Margen and Huawei working hand-in-hand to deliver a unique solution to the Institute.

At the new data center, Huawei's new Li-ion batteries ensure a reliable power supply while slashing the required physical footprint by 50%. This new technology means any room can now be transformed into a data center, and is set to become the preferred choice for data centers around the world.



Such an important part of the university needed a reliable emergency power generator, to ensure the data center would stay up and running at all times. This is where Baudouin have been able to exceed all expectations.

The project combines a 2MVA emergency diesel generator with four of the Li-ion Uninterruptable Power Supply modules from Huawei, connected in parallel with the network. The Li-ion UPS provides a significantly longer lifespan compared to traditional lead-acid batteries.

The final system also includes safety fire detection and separation, and is completely containerized, turnkey, and modular. This ensures easy transport, along with fast installation and commissioning onsite.

To provide emergency power when needed by the data center, Baudouin supplied a reliable and robust power solution: a 16M33 PowerKit engine. Smaller than competitor units, it delivers a unique combination of size and high-quality performance. Most importantly, the PowerKit engine has clear and certified emissions data.

The Baudouin team modified certain ECU parameters providing a customized configuration to reduce emissions output and limit it below 2000mg/m³ NO_x at 5% O₂. This satisfies the local BAFU certification demanded by the Switzerland Federal Office for the Environment.

Baudouin also offered support in the selection of a diesel particulate filter to further meet the unique BAFU requirement, and assistance with a custom rooftop electro radiator that is an essential part of the setup.

Along with its high-end components and engineering excellence, the PowerKit engine is backed by one of the best warranty programs on the market: four years or 800 hours for standby power applications. In addition, both Margen SPA and the client have full aftercare and technical support from Baudouin.

Both are assurances that the new data center at the Swiss Federal Institute of Technology will stay up and running, without interruption.

