

CONTINUOUS POWER FOR THE FOOD INDUSTRY

MANUFACTURING RWANDA

- UPS type: Dynamic UPS
- Power module: PowerPRO1800
- No-break rating: 1670 kVA
- Phase 1 install: 2
- Total install: 3200 kVA
- Operating voltage: 400V
- Configuration: Parallel
- Housing: Generator building

Africa Improved Foods (AIF) operates one of the largest factories in Kigali, Rwanda, where it manufactures and supplies high-quality and nutrient-rich complementary foods that address nutritional needs among vulnerable segments of the population, such as pregnant and breastfeeding mothers, older infants,

and young children. AIF Rwanda is a joint venture between the Government of Rwanda and a consortium of Royal DSM, the FMO (a Dutch development bank), the DFID Impact Acceleration Facility managed by CDC Group plc, and the IFC (the investment arm of the World Bank).

Project Challenge

When building their new factory in Rwanda, AIF hired Gauff Consultants, based in Kenya, to produce the electrical design. Their design relied on the factory having a continuous electrical power supply, which was an issue in Rwanda; therefore, the consultants advised AIF to take additional measures to ensure quality and continuity of production. Gauff worked with HITEC to design a suitable rotary UPS system. A dedicated building was proposed to house the systems, including cooling systems, diesel supply, and switchboards. However, timing was a

challenge as the construction of the factory had already started when AIF decided to add the dynamic rotary UPS (DRUPS). This meant that the mains connection to the factory would not be available for the planned production start date, because the factory could only be started up once the UPS had been commissioned. As this put a serious time constraint on the project, HITEC proposed a turnkey solution, which meant the design was made on a modular, prefab basis to reduce installation time on site.



Project Solution

HITEC designed the dynamic UPS system to deal with the difficult operating environment in Rwanda. Because the quality of the mains supply was poor, the PowerPRO1800 units were equipped with Mitsubishi diesel engines, which are known for their reliability and endurance, even under adverse circumstances. Using a turnkey approach, HITEC engineered and installed the two 1670 kVA dynamic UPS systems in the new dedicated building. The two units work in parallel to deliver the projected 3 MVA critical

load to the factory. When it was time for HITEC to commission the units, all the auxiliary systems had already been tested and were functioning. The turnkey approach used by HITEC enabled AIF to build their factory in time to meet the planned production schedule. HITEC trained the AIF engineers how to operate the dynamic UPS. However, the installation condition monitoring system enables HITEC to provide advice and assistance remotely if needed.



Customer Experience

The AIF factory is important for Rwanda as it produces high-quality, enriched food for many of its people. AIF is delighted with the HITEC

Dynamic UPS solution as it enables them to meet their ongoing production and quality targets.



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