

Case Study - Husvärden Gothenburg

**KRAFT
POWERCON**

KraftPowercons UMD secures operation of a 5,5 kW pump for heat and a 4 kW pump for cooling.

Customer

Husvärden is a long-term property owner with a focus on commercial properties, primarily in the Gothenburg area.

Strong relationships with tenants in combination with a sustainability focus make Husvärden a reliable partner in the commercial real estate segment.



Challenge

A power outage in the area will shut down the entire heating and cooling system which would very abruptly stop the transfer to the buildings. During the construction of the heating and cooling system, the designer made the opportunity to use the stored energy in the system in the event of a power outage. By continuing to pump the water into the system, the stored energy would continue to heat or cool the properties.

One of the key requirements was the capability to start the pumps even in case of main power outage, a so-called black start.

Other requirements were:

- High availability
- High reliability
- Turnkey solution
- Easy to install

The solution also required total selectivity, which enables continued operation in any possible faults. To run the solution, MODBUS communication is needed to be able to be controlled by a superior system.



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Solution

KraftPowercons system for Uninterruptible Motor Drive (UMD) is connected to a 5,5 kW pump for heating and a 4 kW pump for cooling. When a power outage occurs, the circulation pumps will continuously be operated for 3 hours according to UMD battery size. An integrated MODBUS interface in the UMD communicates with the superior system to operate according to the best operating mode.

The customer chose KraftPowercon's UMD thanks to a complete factory-tested solution based on well-proven technology. In addition, a quick installation during property installation was required. The UMD system is designed to remove all Single Points of Failure compared to general UPS systems that need to be doubled or oversized to achieve the same level of security.

The VFD-based UMD technology has access to full torque regardless of main or battery supply. No extra oversizing is required to handle black start.

Solution - UMD Single Line Diagram

