

Case note

Kabeldon distribution boards from ABB constitute a safe solution for power supply.



With a Kabeldon distribution board, Mika Hämmeläinen from Borgå Energi could resolve Malmgård's need for a larger power supply and also conserve indoor production space.

The Malmgård estate is situated in the Municipality of Pernå in southern Finland. From having previously been a producer of milk, Malmgård changed orientation and became a producer of grain with production of its own beer. This required, however, an entirely new power feed, and this is where a Kabeldon distribution board from ABB came into the picture in a very decisive manner.

It was a deliberate investment in both equipment and a new power supply that made Malmgård's decision to shift to production of its own beer feasible. The beer was previously produced at Nyslott, but the investment entails that Malmgård now has complete control of the process, enabling brewing of 200,000 liters of beer annually.

The estate also has its own hydroelectric power plant, which was put in service back in 1901, making it one of Finland's oldest. The electricity produced normally suffices for operations at the estate and even for net sales to the Borgå Energi utility. During the phase when the beer is boiled, however, the consumption of electricity is so high at Malmgård that additional capacity must be purchased. The system therefore required expansion. This could have been done in the traditional manner by erecting a substation, but there was also another proposal.

Perfect solution for Malmgård

When it was time for the investment, Borgå Energi and their long-time collaborative partner ABB presented a solution that was a perfect fit for Malmgård.

Safe technology

The advantage of the presented solution was that in Malmgård's case, it could be installed directly adjoining the existing transformer. In other words, no special structure was needed for this solution. During installation, the old 100 kVA high voltage line was replaced with a 300 kVA line to handle the necessary demands for brewing beer.

The distribution board has two incoming lines, each fused at 200 A. The board is equipped with Kabeldon IP-system, which means that it can be complemented with additional outgoing groups even during operation. This is due to the equipment being semi-enclosed in compliance with IP2X and a method of working when the system is energized. In addition to fuse-switches, equipment for current transformer measurement and accessories from the Kabeldon IP system, measurement terminals were also installed.

Saved space, time and money

According to Malmgård's owner, Count Johan Creutz, the combined investment was quite large and the goal is to get as much out of it as possible.

"That was why we decided on the power solution with a Kabeldon distribution board. It saved money and space because we didn't have to build a separate structure for power supply. We also received prompt delivery," says Johan Creutz.

"The power requirements for producing beer are high in that we boil 2,000 liters at a time. The boil kettle has a peak output of about 80 kW. After the boiling process, which is underway for about 24 hours, the beer is fermented for five or six days before being conditioned for three for four weeks in cooling tanks, a process that naturally consumes energy. Energy is now assured with the help of, among other things, a Kabeldon distribution board."

Suitable for agriculture

"Johan Creutz has realized the benefits of Kabeldon distribution boards," says ABB's Anker Paulsen. "The solution is smart, safe and flexible and is suitable for various types of premises, buildings and industries, and in this case for an agricultural estate."

Customer need

Increased power supply

Solution

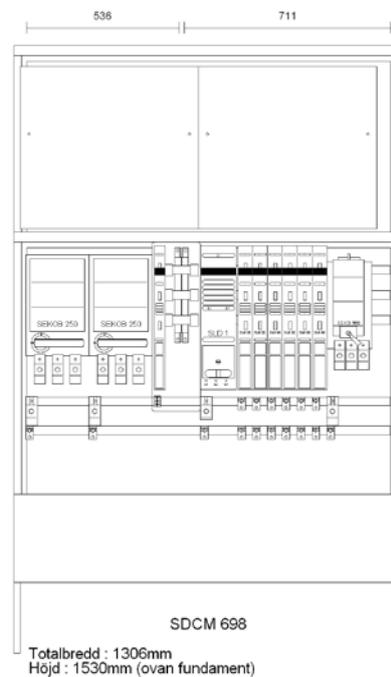
Kabeldon distribution board

Customer benefit

Safe power supply
Conserves space
Saves money



Count Johan Creutz decided on a Kabeldon distribution board because it provided Malmgård with a solution that saved space and money. Furthermore, the solution is safe.



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