



EVH RELIES ON CONTROLLER DEVELOPMENT BASED ON PROVEN TECHNOLOGY

Configuring district heating applications quickly and easily

EVH GmbH, a wholly-owned subsidiary of Stadtwerke Halle, operates two combined-cycle gas and steam turbine power plants in the city on the river Saale. The district heating generated there is delivered to customers throughout the city using above and underground pipelines. In 2020, the company set out to find new solutions for its district heating stations. The solution: YADO|MATIX. The DDC heating controller was developed by Climatix partner Yados GmbH on the basis of the Climatix and field device portfolio from Siemens. Up to 180 district heating applications can be configured quickly and in a user-friendly way.

Task: More transparency thanks to digitisation

The increased use of renewable, decentralised energy sources ensures longer flow times and lower return temperatures for district heating networks. Both the network and individual components such as heat exchangers therefore need to be smart. This smart feature demands transparency - and that requires a high level of digitisation. Digitisation also offers a way to overcome the shortage of skilled workers, for example with remote maintenance options. In addition, there were EVH-specific requirements, such as the control of an automatic, time-controlled refilling device from the district heating into the house heating system. Another request was an integrated web server to allow convenient remote access to the controller.

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With the modern controller technology from Yados based on Climatix from Siemens, both the customer and the contractors are satisfied.

Solution: Yado Matix Controller with Climatix

The YADO|MATIX06 DDC heating controller was chosen for the upgrade. With the controller application, Yados GmbH from Hoyerswerda, Saxony, has set a standard on the market for district heating applications. The Hoval Group company offers solutions for energy systems, heating network solutions, the transfer of heating and cooling, and hot water production and distribution. The new development is a particularly easy-to-configure solution.

Approximately 150 hydraulic applications are possible, with which 95 percent of conceivable control tasks can be implemented - at the same time, the controller is very practical and easy to use. The hardware basis - and thus the heart of the controller - is a component from the Climatix portfolio of Siemens Smart Infrastructure. Designed specifically for OEMs (Original Equipment Manufacturers), this range of flexible and scalable control solutions covers all types of heating, ventilation and air conditioning applications.

A plus point of the controllers is their ability to communicate. The information needs of district heating customers, building owners and district heating companies are covered at all times.

You can use the district heating company's communication network or that of an external provider and integrate it into a building management system at the same time. The modularity of Climatix controllers guarantees all options for the future. Modular design, easy upgrading and choice of sensors, as well as the variety of hydraulic applications make Climatix controllers particularly suitable for retrofitting in networks that already exist.

District heating providers can thus gradually upgrade existing networks with new control and communications technology. Return temperature, volume or power limits can be stored in the controller for easy access. Pressure and temperatures in the heat transfer station are monitored and recorded via the device.

Benefits: User-friendly and quickly implemented

EVH gains operational reliability with this new controller technology and detects undesirable changes at an early stage. Increased costs for the heating customer and negative effects on the network are thus avoided. In practice, the rapid detection of inefficient operating modes has proved its worth thanks to the integrated trend recording including optional cloud connection. The more convenient

Highlights

- Further development of controllers based on the Climatix and field device portfolio
- Powerful measurement and control technology from a single source
- User-friendly and rapid configuration and operation
- 24/7 transparency and analysis of data
- Rapid customer-specific planning and implementation

operation of the controller via the integrated web server saves a lot of time for customer service. An automatic refilling device also eliminates the need for on-site inspection and manual refilling. And: Subsequent connection to cloud and building management systems is possible. EVH can now transparently control its network and analyse its data. This allows plants to be controlled and operated more efficiently. It leads to cost savings and reduces the CO₂ emissions from energy generation.

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