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direktor control

Product range

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Product information Direktor control

Efficient energy supply

The Direktor control system regulates multi-energy generation systems in modern energy centers, enabling combined and coordinated heat and power generation in buildings and districts. Project-specific automation ensures the most efficient energy supply possible at all times.

Integration of different energy producer

The operating mode of various controllable energy generators, such as CHP units, heat pumps and boiler systems, can be parameterized depending on various environmental conditions. This makes it possible, for example, to prioritize CHPs and air-to-water heat pumps depending on the current outside and flow temperatures or the current PV yield and electricity consumption in the building. This allows the efficiency of the individual generators and the cost-effectiveness of the entire system to be optimized during operation.

Numerous control options

The Direktor control also offers numerous control options for the consumer side. This allows for the control of multiple heating circuits, each with different heating curves. It can also handle the charging control of a buffer tank for hot water preparation–in the form of a central freshwater station or a domestic hot water tank.

Easy to use

All settings can be configured via the Direktor control user interface, even without programming knowledge. As a basis for configuring the control system, a suitable hydraulic system and electrical measurement concept are selected from a template catalog, on the basis of which the corresponding generators, pumps, valves, sensors, and meters are configured.

Visualization and data recording

The visualization of the measurement concept and hydraulics allows for current operating data such as CHP power generation, PV yield and power consumption, as well as buffer storage temperatures and operating and fault messages from the generators to be accessed at a glance. The integrated data recording function also makes it possible to display historical data of all measured values and operating data in diagrams.

Direktor control

Higher-level control with 10" touch display for wall mounting in the energy center.
You can use the following interfaces of the integrated industrial computer as standard:

- 24 sensor inputs (PT1000),
- 8 analog inputs and outputs (each optionally 0-10 V or 0-20 mA)
- 14 digital inputs (24 V),
- 8 digital outputs (24 V / 0.4 A),
- another 8 digital outputs with coupling relay (230 V / 5 A).
- Bus interfaces:
  - M-Bus (meter)
  - GeniBus (Magna3 pumps)
  - Modbus (parameterized for Mephisto CHP and heat pumps from Kraftwerk)

Depending on the selected hydraulics and the available components, the following functions are possible:

- Approval of CHP, heat pump and/or peak load generator taking into account ecological and economic conditions (energy requirements in the property, electricity and gas prices, PV yield, outside temperature / COP of the heat pump)
- Control of loading and unloading of buffer tanks including hot water storage
- Control of the necessary actuators and pumps
- Weather-controlled operation for up to four mixed heating circuits (standard), optionally expandable to eight

We would be happy to provide you with detailed information on the specific range of functions for each hydraulic system.

Operating and measurement data (e.g. energy consumption, temperatures, operating hours per unit) can be monitored and evaluated via the Webgate power plant. Direct remote access to the Direktor control to view live data and parameterize the control is also possible. A remote monitoring module (available separately) is required for the online functions.

Accessories Direktor control

Remote monitoring module	OpenVPN gateway for remote monitoring and control of the Direktor control. Communication takes place either via an on-site network connection or the integrated LTE modem. The remote monitoring module for the Direktor control can also be used to monitor Mephisto cogeneration plants.
Communication interface Direktor API	Standardized programming interface for directly retrieving the data points processed by the controller using customer-side HTTP requests. The documentation of the Direktor API follows the "OpenAPI" description standard and is made available via the Swagger UI. The API calls are protected by authentication.
Extended regulation of the producer side	Implementation of a hydraulic system from Kraftwerk's extended template catalog. Required, for example, for controlling heat generation with different temperature levels (HT and NT circuits).
Optical adjustment of the hydraulic drawing	Visual adjustment of the hydraulic drawing in the software of the Direktor control according to customer requirements. Adjustments in the programming of the control are not part of this article and must be ordered separately if required.
Project-specific adaptation of hydraulics or measurement concept	Customer-specific implementation of a hydraulic or electrical measurement concept including visualization in the Direktor control.
Software extension heating circuit	Control and monitoring of an additional (mixed) heating circuit. Any interface extensions required for the Direktor control are available as accessories.
Software extension for hot water preparation	Enables the controlled loading of a drinking water tank with an internal or external heat exchanger or a buffer tank with a connected fresh water station. The following controlled pumps can be controlled: - Buffer charging pump - System separation pump (with external heat exchanger) - Circulation pump The pump of a fresh water station is not controlled.
SPS software extension	This extension module allows you to implement your project-specific functions via the Direktor user interface.
Parameterization of bus participants	Parameterization of the data points (max. 20) ex works for the integration of a bus participant (e.g. heat or power generator). Functional check as part of commissioning on site. A data point list of the respective generator must be made available on site.
Interface extension	We can adapt the interfaces of the Direktor control to your specific project needs. Possible options include: - Transfer modules for using up to 16 additional digital outputs on the computer board, optionally also with coupling relays - Additional digital inputs and outputs using a CAN bus extension module - Additional analog inputs and outputs using a CAN bus extension module

Delivery, assembly, services Direktor control

Laying and connecting electrical control cables	Laying and connecting electrical control cables in the boiler room, including installation accessories. For connecting energy generators, pumps, actuators, meters, etc. to the Direktor control.
Commissioning Direktor Control	- Initial setup of the required program template - Checking the interface connections - Checking the Internet connection and setting up access to the web gate - Checking the function and testing the control of heat generators, pumps and actuators - Parameterizing the control with regard to project-specific values such as target temperatures, bivalence points and energy prices.
Parameterization of M-Bus meters	Software connection of an on-site M-Bus meter to the standard M-Bus interface of the Direktor control.

Contact

We will provide you with extensive consultation on all technical and financial matters related to our entire product portfolio.

We will be happy to provide you with a project-specific quote. You can contact us by phone +49 511 262 9970 or by email **mail@kwk.info**. You will find other options to contact us on our website **www.kwk.info/en/contact**.

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