euroclima

euroclima®

We care for better air

WE CARE FOR BETTER AIR

CONTROL SOLUTIONS

WE MAKE THE INDOOR AIR **TECHNOLOGY SMARTER**

CONTROL SYSTEMS & REMOTE SUPPORT

Our Air Handling Units come with **factory-mounted control systems** and all essential protective components. The **freely programmable controller** manages all peripheral devices such as sensors, actuators, and valves. Each unit is factory pre-commissioned to ensure high reliability, fast start-up, and minimal on-site effort.

Our software is perfectly matched to the control types to be executed. **No programming knowledge is required** for commissioning. All control strategies are preloaded and adapted to the unit via SD card. **Operation is done through an external display**.

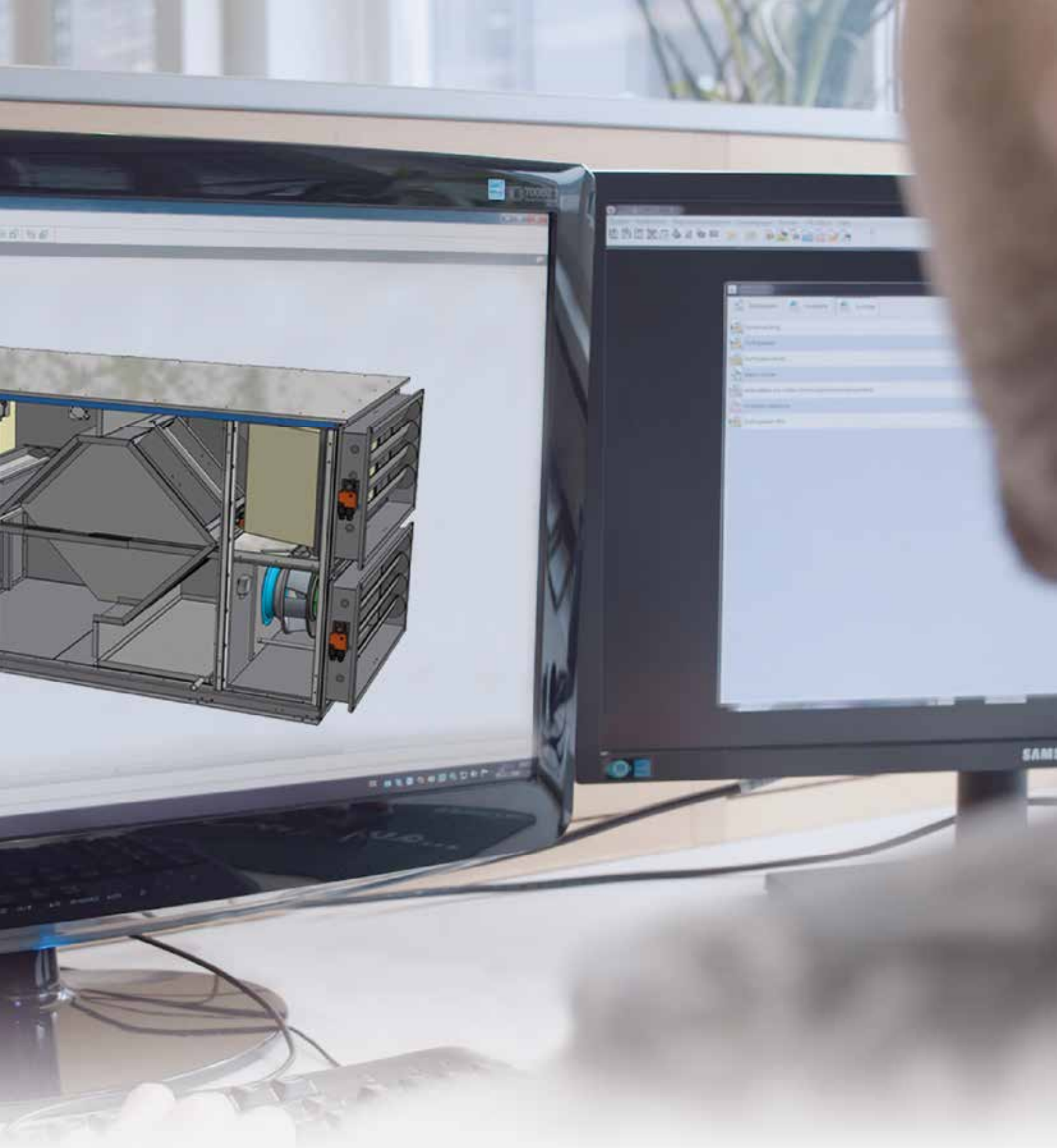
The **software** ensures high flexibility and reliability through internal communication and balanced control of airflow, temperature, and humidity. **BACnet SC** enables secure, encrypted communication with building management systems.

Control panels include an integrated **UPS** to maintain controller power for up to 60 seconds during outages, ensuring protection and stability. An **ATS** (Automatic Transfer Switch) enables automatic switching to backup power – crucial for data centers.

With the **Climatix IC Cloud, remote access via smartphone, tablet, or PC allows predictive maintenance**, fast troubleshooting, and data logging.

Reliable, efficient, and customized.

- **From planning to commissioning – all from one source**
- **High-end components: Siemens, Rittal, WAGO**
- **Compatible with all major building management systems (BMS)**
- **Significant cost reduction – service operations can be optimised thanks to remote access**
- **Independent communication between units**
- **Cloud-ready, with predictive features**
- **API service for simple connection to existing or new applications**
- **Continual software updates and control via the cloud**



EASY TO SELECT
IN EUROCLIMA SOFTWARE

CONTROLS IN AIRCALC

Designed, assembled and calculated in the factory.

Total integration into AirCalc

- AirCalc provides an easy and simple user interface where with slight clicks an individual solution fitted to different needs can be created
- AirCalc provides a direct overview about the costs & equipment of your individual solution

All information on one place

- All your information and configuration get stored in the project data. So it´s easily possible to rework the project later or to send it to Euroclima experts
- All documents can be created fast and easily and prepared for print outs

A solution according to your wishes

- Detailed and complete specific texts
- Detailed part list of all used components with explanation and their properties
- Clear and well arranged structure

Included performances

- Design and planning of individual solution for your air handling unit
- All necessary components are already chosen in the basic configuration – if you don´t add optionals – the unit will have everything which is necessary
- Cabled/wired and with all components mounted and tested control cabinet
- Sensor, frequency inverters, actuators and all modules get mounted as you wish
- Pre cabling so far possible with sections plug & play solution as optional
- Complete startup in factory to avoid unnecessary problems on site

Advantages

- Everything from one hand – no additional clarification work is necessary
- No organizing work on site because everything comes from one supplier
- All functions, set points and optionals are controlable without computer
- Total integration into building management system
- Total access with every network compatible device (optional)
- No programming knowledge required – all settings can be done via display
- Direct and easy selectrion of optionals and features in AirCalc

SERVICE
WORLDWIDE

Siemens POL 638.00/648.10 Main controller

» Power supply AC 24 V or DC 24 V
» 8 universal I/Os
» 5 digital inputs (potential-free contacts)
» 2 analog outputs
» 6 relay outputs (NO contacts)
» Local service connector for user interface (RJ45) and PC tools (USB)
» SD card
» Modbus IP-interface

Siemens POL 638.70/648.80 Main controller with integrated display

» Power supply AC 24 V or DC 24 V
» 8 universal I/Os
» 5 digital inputs (potential-free contacts)
» 2 analog outputs
» 6 relay outputs (NO contacts)
» Local service connector for user interface (RJ45) and PC tools (USB)
» SD card
» Modbus IP-interface

Siemens POL 895.51 Remote display

» 8 lines of display with selectable blue and white backlight
» Push-and-roll knob for easy operation
» Alarm button with LED indicator
» Info button
» Powered by controller via bus or HMI on the controller
» Supporting panel and wall mounting

Siemens POL 822.60 Room unit

» Measurement of room temperature
» 2-cable Connection to main controller (KNX)

Siemens POL 902.00 communication Modbus RTU

» Integration into BMS via RS 485 Modbus RTU
» 2 Modbus Slaves
» Galvanically separated connection

Siemens POL 904.00 communication module BACnet MS/TP

» Integration into BMS via BACnet MS/TP
» Supports BACnet MS/TP (B-AAC Profile) with different baud rates
» Network parameters possible via controller, HMi or Scope software

Siemens POL 906.00 communication module LON

» Integration into BMS via LON network
» Galvanically separated connection to LON Network via 78kbaud Rate
» TP/FT-10 Transceiver
» User applications can be downloaded to the flash memory

Siemens POL 908.00 communication module BACnet IP

» Integration in ein Gebäudeleitsystem via BACnet IP
» Unterstützt BACnet/IP (B-AAC Profile und BBMD
» Netzwerkparameter über Controller, HMi oder Scope-Software einstellbar
» Klientkommunikation mit anderen BACnet Geräten

Siemens POL 925.00 I/O expansion module

» Supply AC 24 V or DC 24 V
» 4 Digital inputs potential free
» 2 Digital inputs galvanically separated AC 115/230 V

Siemens POL 945.00 I/O expansion module

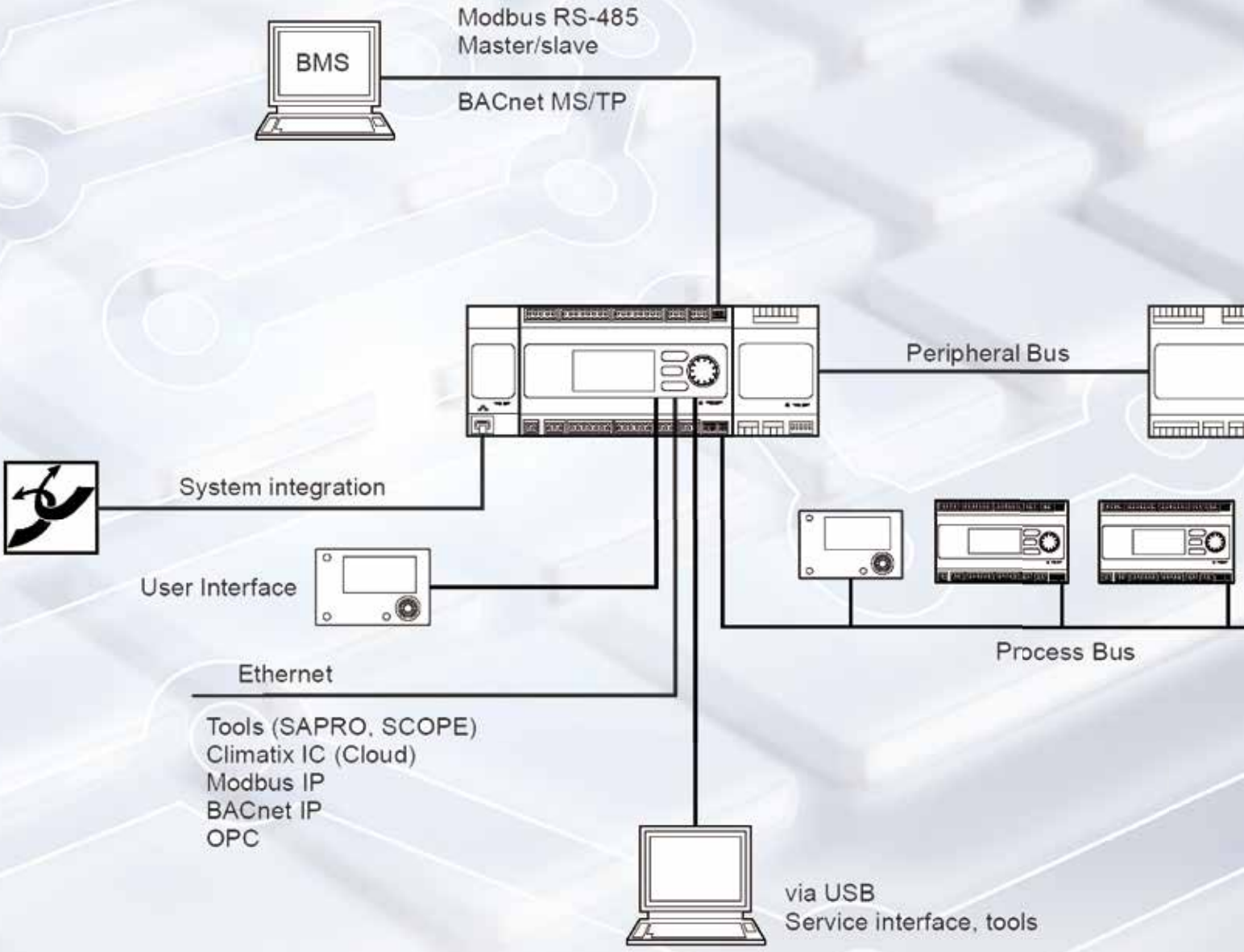
» Supply AC 24 V or DC 24 V
» 4 Analog inputs
» 4 Relais outputs

Siemens POL 955.00 I/O expansion module

» Power supply AC 24 V or DC 24 V
» 8 universal I/Os
» 4 relay outputs (NO contacts)
» 2 analog outputs (DC 0...10 V)
» Peripheral bus interface for local / remote extension I/Os

Siemens POL 985.00 I/O expansion module

» Supply AC 24 V or DC 24 V
» 8 universal In/Outputs
» 3 Analog inputs
» 3 Digital inputs potential free
» 2 Digital inputs galvanically separated AC 115/230 V
» 8 Relais outputs
» 2 Triac outputs (AC 24 V...230 V)



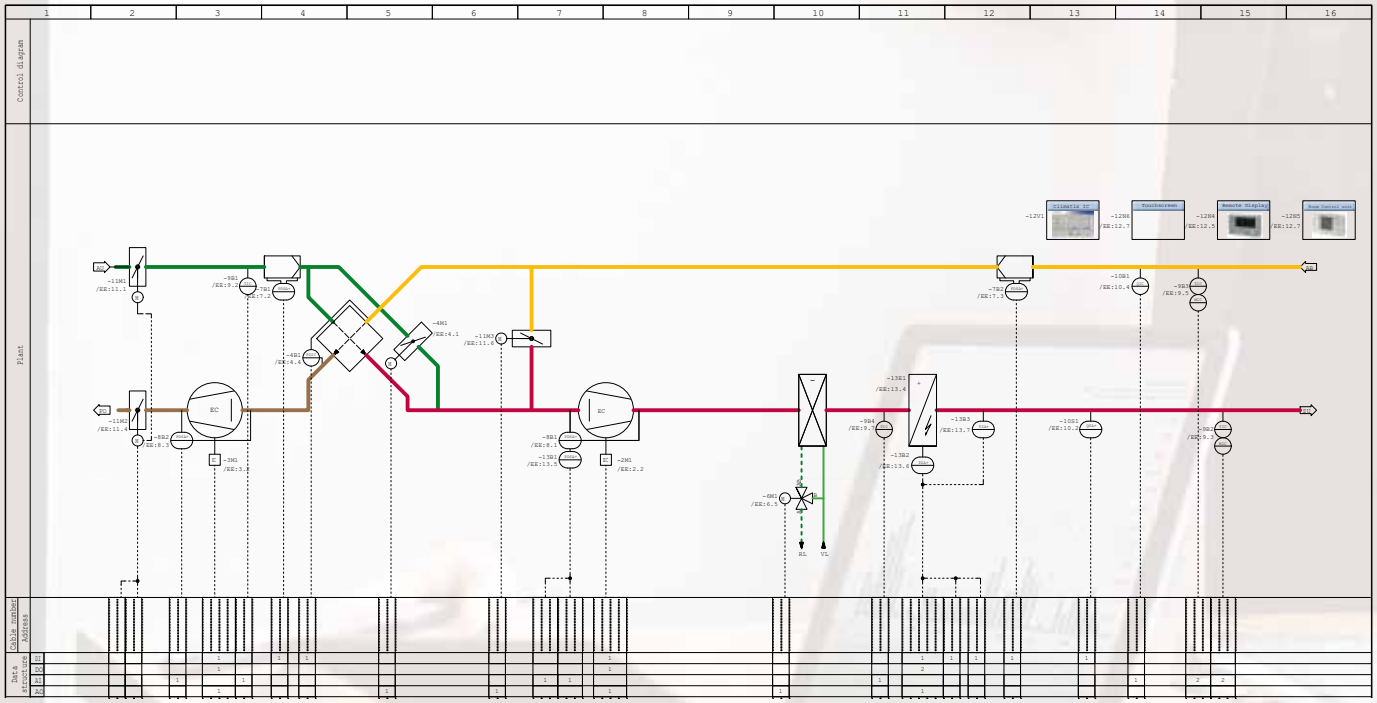
SOFTWARE
OPTIONS

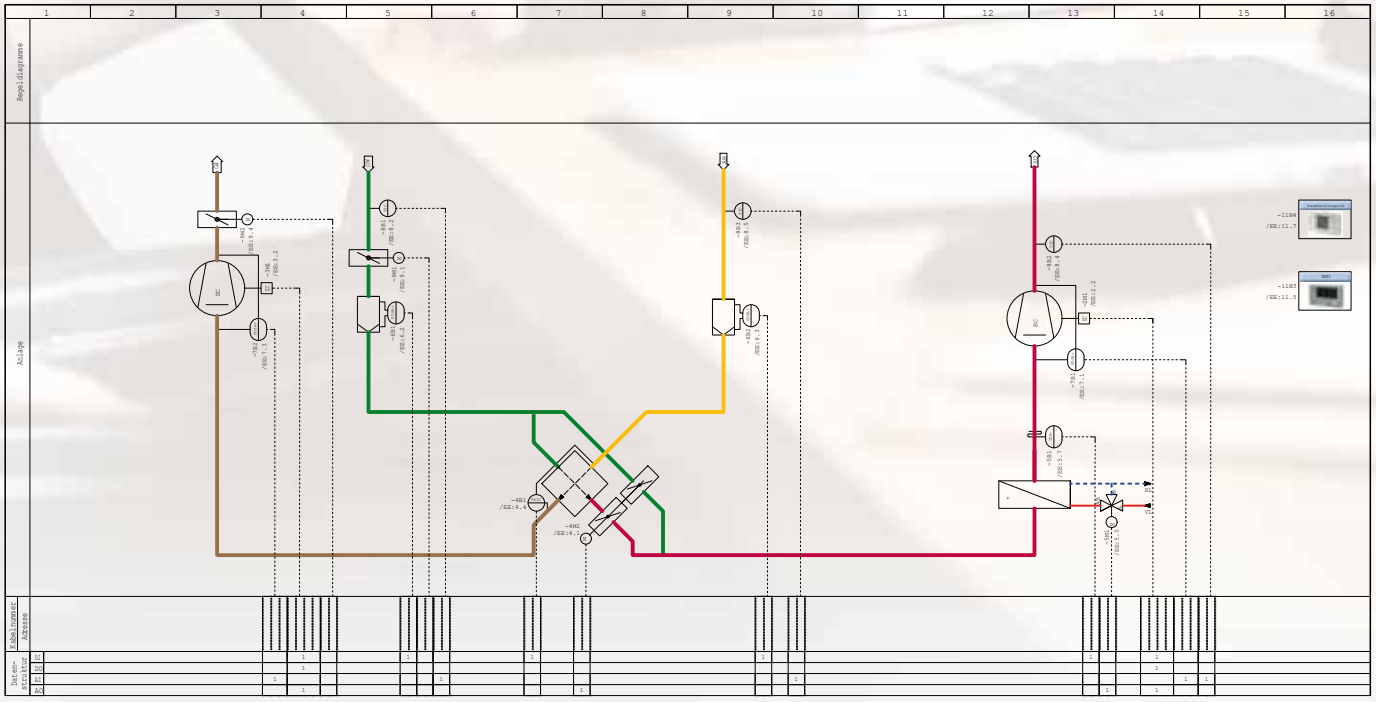
CONTROL SOFTWARE PACKAGES

Our ETA control software packages provide intelligent and user-friendly solutions for air handling unit management. They optimize performance, energy efficiency and reliability throughout the entire system lifecycle. With flexible features and seamless integration, they offer maximum comfort and operational security.

ETA control options	ECO CONTROL	COMPACT	FULLMATIC
Heat recovery		✓ PHE, ROTOR, KVS	✓ PHE, ROTOR, KVS
Supply and return air	only one direction	✓	✓
Heating coil		✓	✓
Cooling coil	✓	✓	✓
Condensing Unit		✓ max. 2	✓ max. 4
Refrigeration circuit		✓	✓
Fans		✓	✓
Air quality measurement		✓	✓
Smoke detector		✓ optional VDS & DIBT	✓ optional VDS & DIBT
Fire damper connection	✓ end position switch only	✓ end position switch only	✓ optional individual display, control
Room control unit	✓	✓	✓
Remote control	✓ optional	✓ optional	✓
Touch control panel		✓	✓
Climatix IC Cloud	✓	✓	✓
Room sensor			✓
WEB-Server	✓	✓	✓
Free night cooling	✓	✓	✓
Pre-wiring	✓	✓	✓
Commissioning	✓	✓	✓
BACnet IP & MS/TP	✓	✓	✓
Modbus RTU & IP	✓	✓	✓
Power outputs for pumps	✓ 230 V optional	✓ 230 V optional	✓
Humidity control		✓	✓
Humidifier		✓	✓
Fireman switch			✓
Energy measurement			✓
Plug & Play solution			✓
Zone control			✓

✓ = default or optionally





ETA MATIC
CONTROL APPLICATION

FUNCTIONALITY AND DOCUMENTATION

The freely configurable software enables perfect adaptation of the unit to your requirements. The application is loaded into the controller via an SD memory card and all parameters can be saved to the SD card for later reconfiguration. This enables an easy adaptation of the application without a computer.

- 3 password levels for user (changeable), service technician (changeable) and factory technician; display of values is possible without password.
- The control system includes an integrated web server or a "web display" in each unit, which can be accessed via a web browser in the LOCAL network. All settings, adjusting setpoints, changing configurations, etc. can be made on the display or on the integrated web server, outputs and inputs can be switched to manual mode (test purposes), all common types can be used as sensors, outputs are output as 0-10V - each output signal can be adjusted via the web server or the display (e.g. 2-10V or 0-5V).

The application covers all applications for ventilation units and offers the following functions.

Operating modes:

- Off — Unit is in switched off mode
- Free-Cooling-mode (standby operation) — Unit is in free cooling mode
- Eco-mode — Operating mode with own setpoints, delivery 50% of the nominal air flow rate
- Comfort-mode — Operating mode with own setpoints, delivery 100% of the nominal air flow rate

Time switch for all days of the week. Up to six switching cycles per day. Function for exception days, switch-on/switch-off times according to integrated calendar, special switch-on times for events. The operating mode can be set via the display/web server, control system, room control unit, remote switch or external hardware signals.

CONTROL SPEZIFICATION

Fan control options

Air flow control (Standard): With air flow control, a setpoint is set separately for supply air and exhaust air for ECO mode, comfort mode and free cooling mode. Thus, depending on the requirements, an overpressure (supply air flow > exhaust air flow) or an underpressure (supply air flow < exhaust air flow) can be set. The setting is made in m³/h.

Optionally: Duct pressure control, master/slave control, combined duct pressure/air flow control, fan 1 or 2-stage, speed setting, run & standby control.

Temperature control options

Exhaust air cascade (Standard): The exhaust air temperature is used as the controlled variable and the supply air setpoints for the heating batteries and for the cooling batteries are calculated from the deviation between the current exhaust air temperature and the setpoints. The control of the valves and the recovery takes place depending on the deviation between the current supply air temperature and the calculated supply air setpoints within adjustable limits. The setpoints are adjusted separately for Eco and Comfort operation. This control strategy combines exhaust air temperature control with supply air temperature control.

Optionally: Supply air temperature, exhaust air temperature, room cascade, room temperature, supply air temperature limitation.

Summer/winter compensation: Summer compensation can be used to raise the cooling setpoints when the outdoor temperature is high to keep the difference between the outdoor and indoor temperature low or to save cooling energy. Winter compensation works in the same way for the heating setpoints.

Free cooling: is selected via the timer, the display, the control system, or the remote switch. In free cooling mode, the ventilation unit is operated with separately adjustable air flow, speed or operating stage. Thus, the rooms are cooled with the cool fresh air. Free cooling starts when the fresh air temperature does not fall below an adjustable value and the temperature difference between fresh air and exhaust air exceeds an adjustable value. Free cooling then runs until these conditions are no longer met or the setpoint room temperature is reached. A minimum running time of 30 min guarantees that the unit is not switched off again immediately after starting.

Humidity control options

Exhaust air control: Here, dehumidification and humidification are controlled via the exhaust air humidity. In this way, the desired room humidity is kept within predefined limits.

Supply air control: In the case of supply air units, control takes place via the supply air humidity. This is kept within predefined limits. Since the room humidity is not measured, the reaction of the room must be considered when entering the setpoints.

Dehumidification by means of cooling: For dehumidification, the supply air is cooled and reheated by means of a heating battery, resulting in dry supply air. In the case of 3 batteries (preheating, cooling, reheating), a saturation temperature sensor is additionally installed for temperature control.

Dehumidification by means of recirculation damper: For dehumidification, the recirculation damper is closed and at the same time the fresh/exhaust air damper is opened, and thus more dry fresh air is blown in; dry fresh air must be present. The fresh air damper cannot close completely in order to guarantee a minimum fresh air proportion.

Dehumidification by means of fan speed: If the humidity is low, the ventilation unit is operated with the air flow, speed or operating stage specified by the Eco and Comfort operating modes. If the humidity rises, the air flow, speed or operating stage is increased to an adjustable maximum value.

Air quality control options

VOC Sensor: Mixed gas sensor, which detects various organic compounds in the exhaust air; the signal is displayed as a concentration to a reference gas in % and the higher this is, the worse the air quality is.

CO2-Sensor: This measures the CO2 concentration [ppm] in the exhaust air; the higher the concentration, the poorer the air quality.

Recirculation damper: If the air quality is good, a small proportion of fresh air is used, and most of the exhaust air is fed back into the room. If the air quality drops, the proportion of fresh air is increased (up to 100%) by closing the recirculation damper and opening the fresh air damper. The minimum opening of the fresh air damper or the minimum fresh air proportion can be set.

Fan speed: If the air quality is good, the ventilation unit is only operated with the air flow rate, speed or stage specified by the Eco and Comfort operating modes. If the air quality drops, the air flow rate, speed or operating step is increased to an adjustable maximum value. This operating mode can only be used with are flow rate, speed or step control. The air flow rate, speed or operating stage specified by the Eco or Comfort operating mode is always maintained and only increased by the air quality control.

Refrigeration circuit control options

Up to 3 compressors can be used in up to 2 separate refrigeration circuits, whereby the compressors are divided between the circuits depending on the necessary power division. Compressor 1 can be executed as digital scroll, with inverter or ON/OFF, Compressor 2 and 3 only as ON/OFF.

- Heat pump switching: Yes (optionally)
- Standard installation of pressure switch for low pressure and high pressure for safety shutdown as well as pressure sensors for evaporation and condensation for each refrigeration circuit, as well as an electronic injection valve.

The correct control of the modulating compressor 1 in combination with the other 2 compressors ensures modulating operation over the entire capacity range.

Zone control options

In addition to the existing control functions for the ventilation unit, it is also possible to implement zone control as an option. Up to 6 independent zones can be operated. Each zone can be individually equipped with different sensors.

The following control functions are possible independently of the main ventilation unit:

Operating mode control: Each zone can be started/stopped independently of the other zones via the display, BMS or timer switch.

Temperature control: For each zone, there are separate heating and cooling setpoints for the operating modes. With 0-10V signals and pump contacts, a heating and a cooling register (or 1 switchable register) can be controlled.

Humidity control: For each zone there are separate humidification and dehumidification setpoints for the operating modes. Humidity control via air flow dampers or recirculation dampers in the main unit.

Air quality control: For each zone, there are separate air quality setpoints for the operating modes. Air quality control via air flow dampers or reduction of the recirculation air in the main ventilation unit.

The zone control is coordinated with the control of the ventilation unit. Requirements from the zones are combined and calculated accordingly for the ventilation unit. This results in an efficient control of all parameters to reduce any necessary reheating/post-cooling in the zones to a minimum. Control systems can also be integrated in the same way as for the ventilation unit.

Smoke extraction / Fireman mode

During a fire shutdown, the unit can be started manually via a switch, it can be set separately for the supply air and exhaust air fans whether they should run and at what speed.

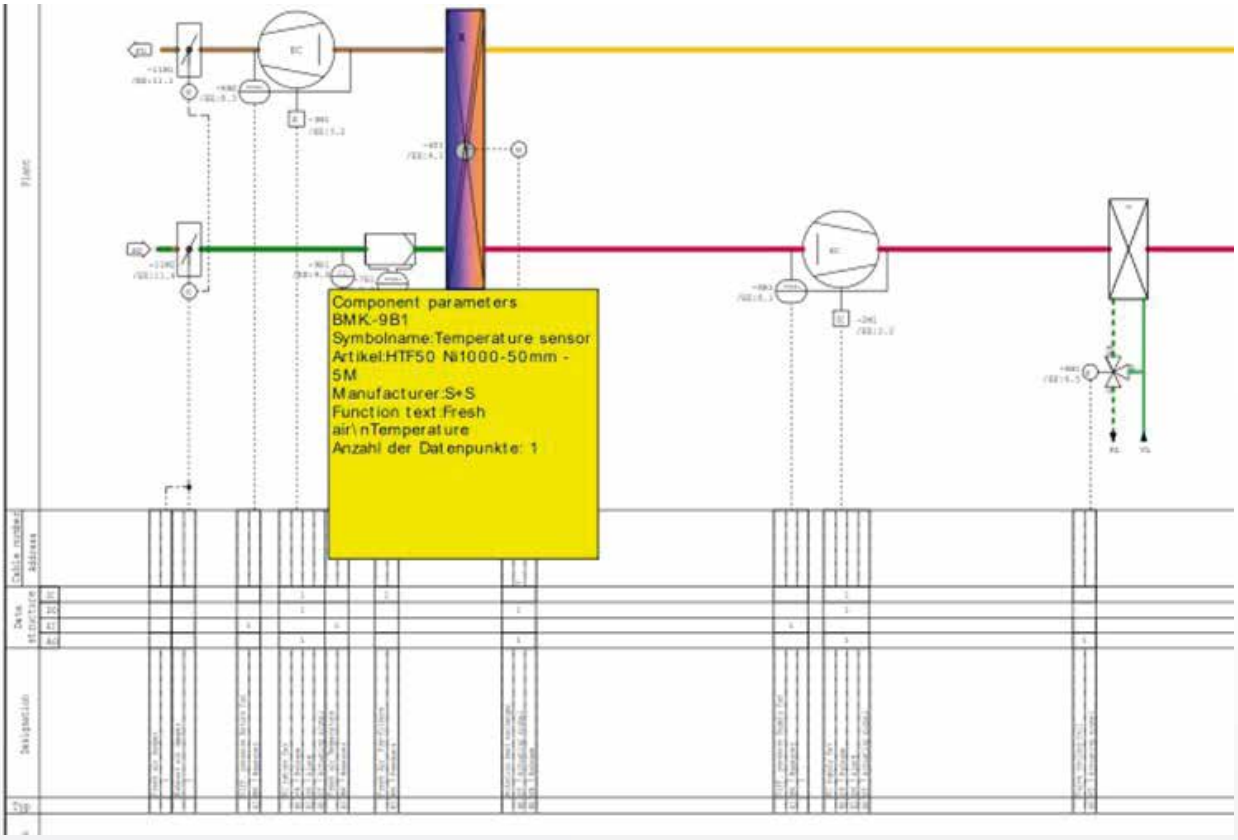
Technical documentation

For each unit the customer receives the following documentation: Wiring diagram, refrigeration circuit diagram, component overview of the installed control and refrigeration components, sequence of operation and instruction manual incl. data point list.

INTELLIGENT **DOCUMENTATION**

SMART PDF CIRCUIT DIAGRAM REPRESENTATION OF THE COMPONENTS

With a single click technology links allow you to switch quickly and easily between the smart pdf's in the various areas of circuit diagram, flow chart and enclosure layout plan. Furthermore, a window opens directly in the schematic or plan with a detailed display of the component parameters, such as manufacturer, item number, etc.



EUROCLIMA
CLOUD TECHNOLOGY

EUROCLIMA CLOUD SERVICE WORLDWIDE REMOTE ACCESS VIA SIEMENS CLIMATIX IC

Climatix IC - the **solution for remote monitoring and performing intelligent diagnostics** - is a web-based remote servicing system that uses the advantages of cloud technology. By means of remote maintenance, the unit can be accessed at any time and from any location. **All important process data is continuously collected and automatically stored in a central location**. The analysis of this data helps to make informed decisions and to optimise the performance of the equipment throughout its entire service life.

With the **included package "Climatix IC Cloud"**, you get cloud access to the unit for 3 years. With this access, the unit can be accessed from anywhere in the world, at any time and from any smartphone, tablet, PC, etc. with internet access. After the 3 years have expired, the access can be extended. Optionally, the "Climatix IC Cloud" package is also available with router / sim card.

Highlights and benefits of the cloud solution

- Significant cost reduction - service calls can be optimised through remote access. Service technicians are on site in time with the right tools and the right parts to fix the problem
- Faster troubleshooting / service support - response time for service calls is reduced
- Remote maintenance - faster and cheaper maintenance
- Predictive maintenance - wear and tear on unit components can be minimised, significantly reducing the number of on-site service visits to the units
- Display of data using customisable dashboards
- Value and data records over years
- Equipment reliability - potential problems can be detected before critical conditions occur
- API service for easy connection to existing or new applications
- Automatic warning or error notification by email
- Easy connection through the built-in IP interface of Climatix controllers
- Continuous software updates and control via the cloud to ensure optimal performance of the units
- Back-up and restoration of the commissioning configuration

EUROCLIMA CLIMATIX CLOUD

TEST-ACCOUNT

Productions sites of Euroclima group

Euroclima AG | SpA
St. Lorenzner Str. | Via S. Lorenzo 36
39031 Bruneck | Brunico (BZ)
ITALY
Tel. +39 0474 570 900
info@euroclima.com
www.euroclima.com

Euroclima Apparatebau Ges.m.b.H.
Arnbach 88
9920 Sillian
AUSTRIA
Tel. +43 (0) 48 42 66 61 -0
info@euroclima.at
www.euroclima.com

Euroclima Middle East
P.O.Box: 119870
Dubai
UNITED ARAB EMIRATES
Tel. +9714 802 4000
eumeinfo@euroclima.com
www.euroclima.com

Euroclima India Pvt Ltd.
Office no 501,505
Tropical new era business park
Opp. ESIC kamgar Hospital Road no -33
400604 Thane - Maharashtra
INDIA
Tel. +91 22 4015 8934
info@euroclima.in
www.euroclima.com

Bini Clima S.r.l.
Via A. Prato, 4 / A
38068 Rovereto
ITALY
Tel. +39 0464 437 232
info@biniclima.eu
www.biniclima.eu

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Euroclima participates in the EPC programme for Air Handling Units (AHU) and Fan Coil Units (FCU); Check ongoing validity of certificate: www.eurovent-certification.com

Euroclima October 2025
Due to it's commitment of continuous product development and improvement, Euroclima reserves the right to change specifications without notice.

euroclima®
We care for better air

euroclima