



ClimaECO

Intelligent HVAC solutions with ABB i-bus® KNX



- A holistic solution for heating ventilation and air-conditioning automation
- Based on worldwide open standards
- Simplifies the design and realization of HVAC installations
- Reduces costs while increasing energy efficiency

Efficient climate control in one system – ClimaECO is the holistic HVAC automation solution based on ABB i-bus[®] KNX – a true ECOsystem.

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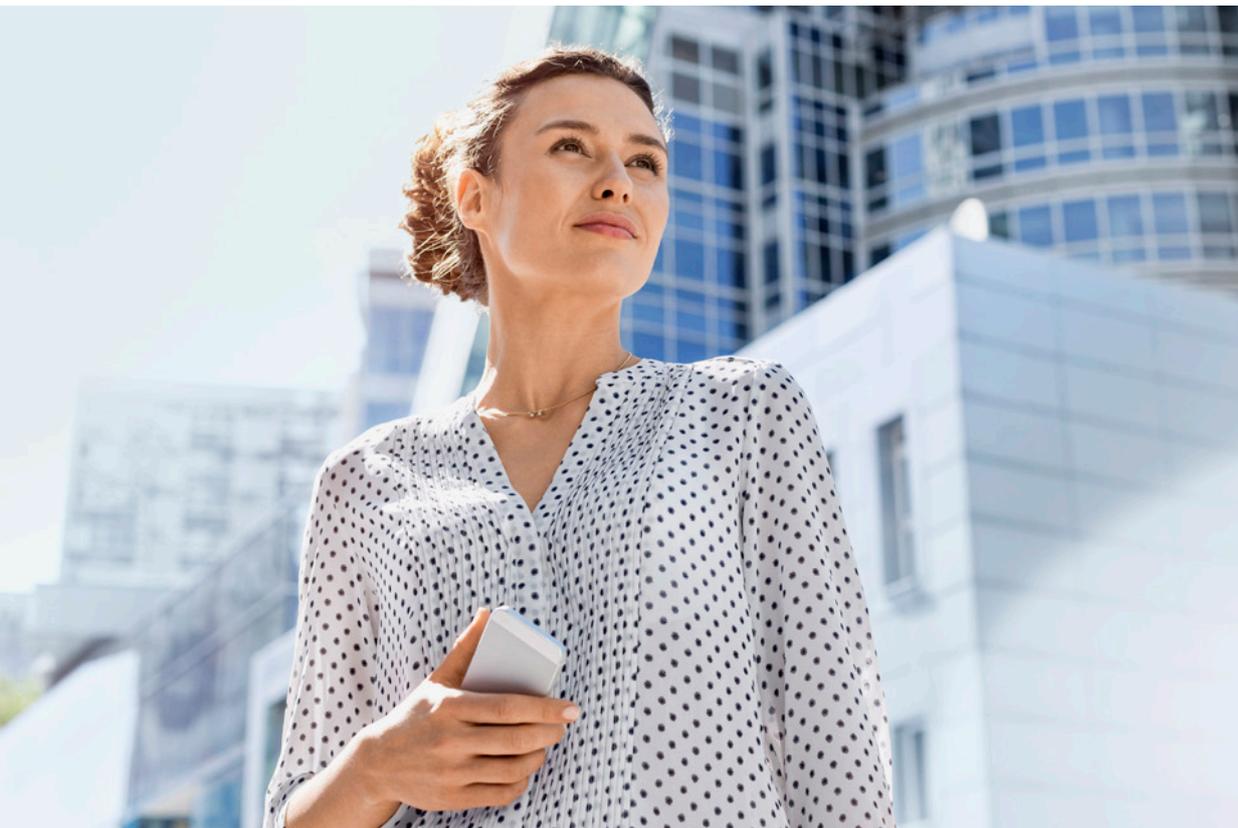
Efficient climate control in one system

New product range for HVAC automation

Heating, ventilation, and air-conditioning automation – ClimaECO brings HVAC applications together in one holistic solution portfolio based on the standardized KNX system.

Heating circuit in one single system

ClimaECO is the holistic heating, ventilation, and air-conditioning (HVAC) automation solution for commercial buildings based on the proven ABB i-bus® KNX system. A solution that seamlessly integrates room automation, central HVAC functions, and management and automation into one system – a significant step towards increasing energy efficiency and reducing operational costs. ClimaECO – making your building more economical, sustainable, and comfortable.

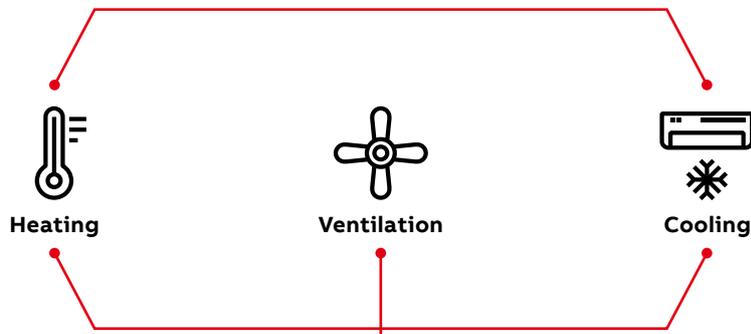


When it comes to HVAC you often have to deal with several systems. ClimaECO offers one solution for everything.

HVAC automation from the room level to the management level

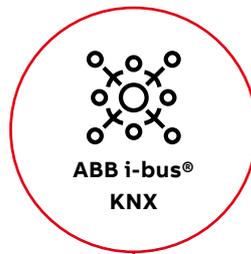
HVAC – multiple functions

Heating, ventilation, and air-conditioning technology is made up of various systems that are now integrated into one system.



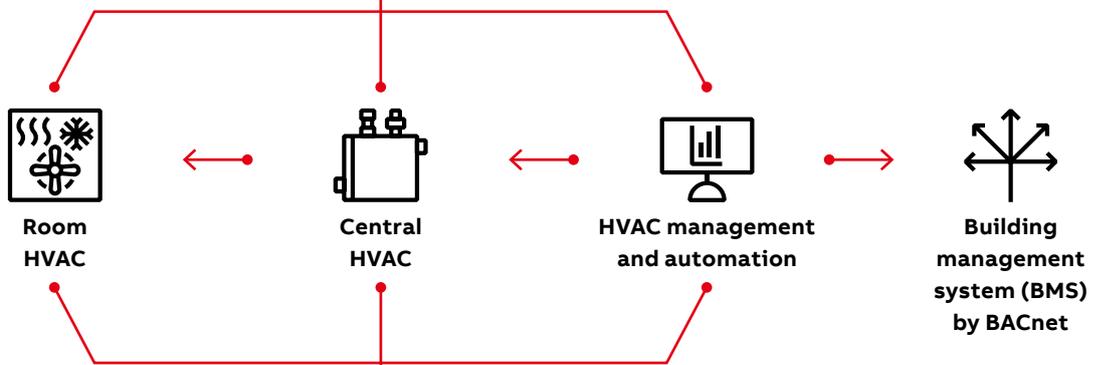
KNX – a standardized system

With the proven ABB i-bus® KNX system it is possible to automate all HVAC applications and combine them into a single solution.



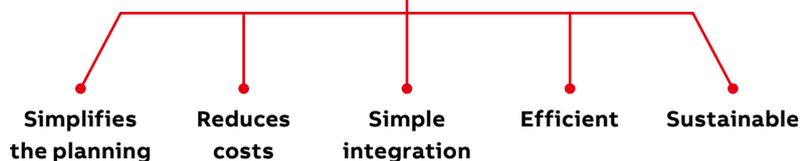
HVAC – levels

ClimaECO combines the three different levels of HVAC automation, ranging from management level to central HVAC systems (generation and distribution) to room automation (energy consumption).



ClimaECO – a holistic solution

ClimaECO bundles all functions and solutions for HVAC automation into a single integrated system. This saves you time and effort with planning, integration, and maintenance, while significantly increasing energy efficiency in buildings.



HVAC control for commercial buildings

Benefits of the new solution

ClimaECO creates many advantages, making HVAC automation more efficient. It ranges from central HVAC automation and HVAC management automation for small to medium buildings to full room automation for large commercial buildings.



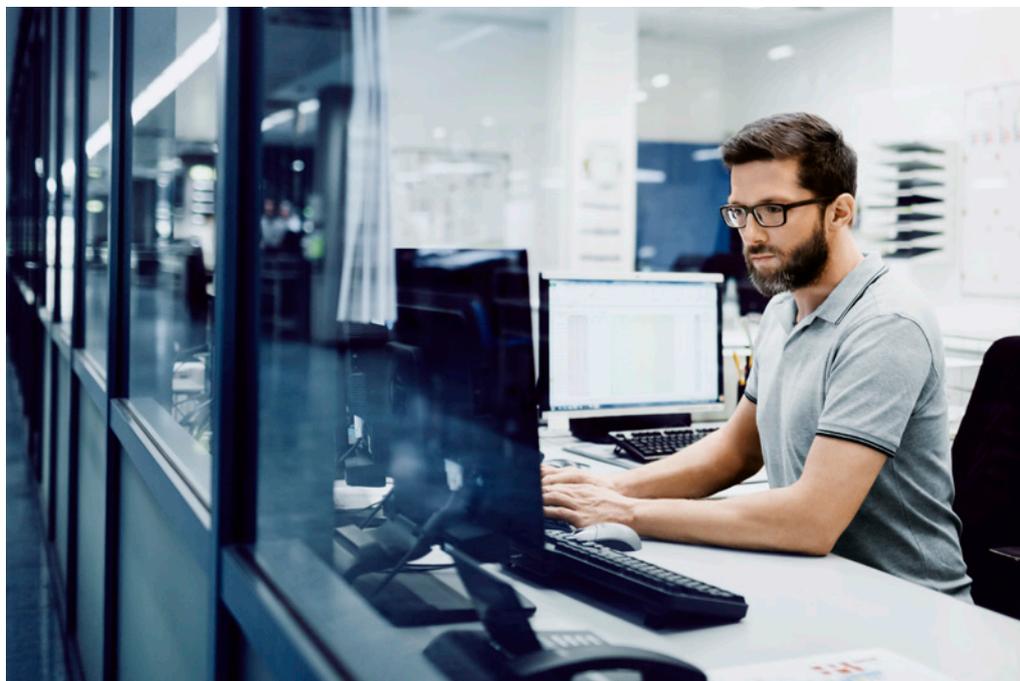
Small to medium commercial buildings

Central HVAC automation

Pre-configured standard KNX solutions control HVAC components for water-based heating, ventilation, and cooling.

HVAC management and automation

Links all system parts to a holistic solution to reach cost and energy efficiency objectives.





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Small, medium, and large
commercial buildings

HVAC room automation

Room automation solutions control fan coil units, radiators, floor heating, and cooling ceiling applications.



Energy efficiency

Highest energy efficiency thanks to a combination of room climate control and central HVAC automation. Achievement of energy efficiency class A according to EN 15232 with up to 30 percent energy savings.



Secure investment

ClimaECO solutions are based on open and standardized technologies, thus eliminating the threat of single sourcing and reducing system dependencies.



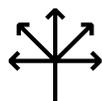
Cost reduction

Through simple, intuitive planning and integration, time is saved and costs are reduced in the project realization phase. Once the building is up and running, ClimaECO assists the facility management in running the building efficiently e.g. scheduling, maintenance, and fault monitoring.



Technology simplified

ClimaECO allows seamless integration into higher-level management systems. The pre-configured components enable the commissioning to be done in a short time. Dedicated functionalities simplify the system management, which is based on world-wide open standards.



Simple data transport

Based on KNX, ClimaECO has an integrated BACnet interface. Therefore HVAC solutions and other building control devices can work together on the same network. All applications can automatically be set up to local building automation requirements. Even products by different owners can be embedded.



Sales channel commitment

ABB works hand-in-hand as a product solution supplier, with its market partners in design, distribution, and installation.

HVAC room automation

New solutions for HVAC room automation

ABB's room automation solutions ensure that all functions in a room are operated as efficiently as possible to save operational costs and improve the space environment.

For perfect climate conditions in a room

ABB's portfolio includes controllers for fan coils, radiators, floor heating and cooling ceiling applications, and devices for operating that can be easily installed on the wall or above the ceiling. Room control units are determined for small to medium commercial buildings. The whole ABB i-bus® KNX product portfolio is compatible with ClimaECO.



Easy installation and commissioning

Room Control Unit, SAR/A

The room temperature control unit allows every kind of room to be individually and conveniently heated or cooled as needed.

- Can be connected directly to FCC/S and VC/S
- Easy installation and commissioning
- Optimal price/performance
- No power supply needed

User operation products



High degree of functionality

ABB Tenton® sensors

ABB has optimized its range of KNX room control units for commercial buildings. The result: easy-to-use room thermostats.

- Available with integrated room temperature controller and CO₂/humidity sensor
- Can be flush or surface-mounted
- Control of all room functions from HVAC to shading and lighting
- Available in four colours: studio white, aluminium silver, studio white matt and black matt

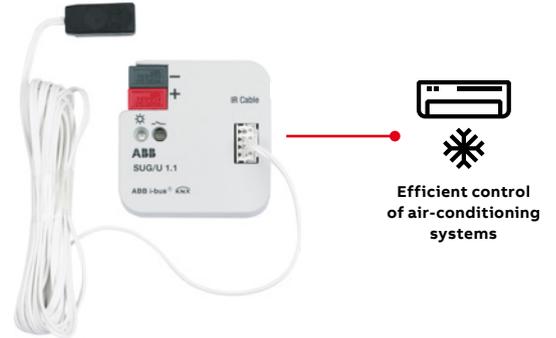


Sensor and controller for improved air quality

Air Quality Sensors

Air Quality Sensors with RTC measure the room temperature, CO₂ concentration, and relative humidity.

- With integrated room temperature controller
- Dew point calculation and alarming included
- CO₂ and humidity-dependent controllers



Split Unit Gateway, SUG/U

The Split Unit Gateway forms the interface between the KNX system and air-conditioning split units from a wide range of manufacturers.

- “Silent mode” reduces noise
- Boost option for maximum climate control
- Horizontal and vertical slat swing
- Selection of the split unit model via a free ETS app

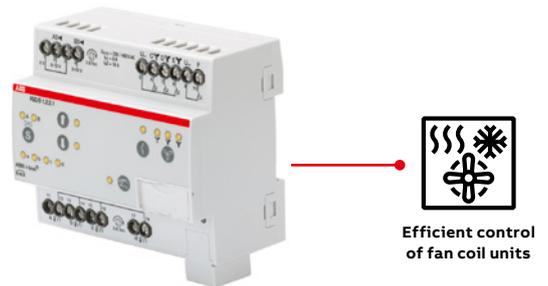
Room automation products



Valve Drive Controllers, VC/S

The Valve Drive Controller is suitable for controlling cooling surfaces, floor heating, or radiators. An analog room control unit can be connected to each channel to adjust the setpoint temperature.

- With integrated room-temperature controller
- Integrated inputs for connecting room sensors



Fan Coil Controllers, FCC/S

Fan Coil Controllers control fan coil units to regulate the room temperature. An analog room control unit can be connected directly to the device to adjust the setpoint temperature and fan speed.

- With integrated room-temperature controller
- Supports continuous fans (0–10 V) and 6-way valves

Central HVAC automation

New solutions for generation and distribution

Central HVAC automation includes KNX controllers for the generation and distribution level of heating circuits. They control and interface HVAC components for water-based heating, ventilation, and cooling.



Control of the mixing valve



Heating/Cooling Circuit Controllers, HCC/S

The Heating/Cooling Circuit Controller regulates the flow of temperature to match heating and cooling requirements.

- Control of 3-way mixing valves via 0–10 V or 3-point control
- Support of systems with single or double pumps
- Inputs for various temperature sensor types for measuring the flow and return-flow temperature



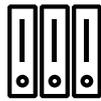
Interface to the chiller unit



Boiler/Chiller Interface, BCI/S

The Boiler/Chiller Interface enables the control and monitoring of chiller units and boilers and serves as an interface to the KNX system.

- Setpoint adjustment via standard analog signals (0–10 V)
- Control and monitoring of the heating/cooling circuit pump



Modular
expandability

Building Automation Controller, BAC/S, KNX
Advanced freely programmable KNX Building
Automation Controller.

- Standardized IEC 61131-3 programming based on the established Codesys software
- Fully integrated in KNX and ETS
- Modular extension of in-/outputs

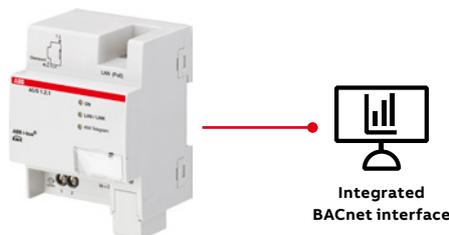
HVAC management and automation

New solutions for superordinate building automation

Application Controllers automate entire HVAC automation functions. They can be seamlessly integrated into higher-level building management systems.

Full energy management

ABB's Application Controllers manage all superordinate HVAC automation functions. They support heat demand calculations, schedules, data recording, device monitoring, and more. In addition freely programmable modules can be created to automate entire HVAC systems. They allow a seamless integration of HVAC automation into higher-level building management system thanks to the open BACnet interface.



Application Controllers, AC/S

Run predefined automation modules for a holistic HVAC automation solution from central HVAC to room. For example heat demand calculation, schedules, and trends logs. The automatically created web user interface includes all installed ClimaECO devices.

- Own automation modules can be created
- BACnet variant connects KNX to BACnet systems



Additional information

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