Building automation with AC500, KNX and BACnet
AC500 as building automation controller

AC500 as freely programmable controller, gateway or monitoring and visualization device

Monitoring and control
In commercial buildings the reliable operation and control of critical functions like doors, access systems, escalators and elevators is important for e.g. a safe and secure operation even in emergency situations.

Reliability and scalability
In critical building applications, such as data centers, hospitals, airports or railway/metro stations, reliability of the installed automation solution is key to a safe, productive and cost-efficient operation.

Communication and openness
Use the AC500 PLC and S500 I/O for modular control e.g. for advanced energy efficient, safe and secure operation and monitoring tasks, from small to largest buildings.

Use the AC500 communication capabilities with other fieldbuses and protocols to connect, control and monitor the large portfolio of ABB components such as other low voltage products, ACS drives, motors, substations or connect them with building automation systems and the cloud e.g. with BACnet and OPC UA.

Use the AC500 and CP600 visualization capabilities for powerful local or remote monitoring across all levels.

Use KNX connectivity to add communication capabilities of the proven ABB i-bus® KNX devices like e.g. Dali, M-Bus etc. to the PLC automation level.

Everything in one system from room to central building functions, based on
• KNX and its efficient engineering by integration of ETS and ABB Ability™ Automation Builder.
• BTL certified BACnet (IP and MS/TP) with comfortable configuration in ABB Ability™ Automation Builder.

Easy creation and reuse of automation software in building automation by using the IEC 61131 standardized programming languages and library philosophies.
HVAC application
Heating, ventilation and air-conditioning technology is made up of various systems, often spread on room, floor and central levels that can now be integrated into a single system with the same integrated engineering to enable optimization across all levels.

BACnet
OPC UA
Modbus TCP
BACnet
(IP, MS/TP)

IPR/S
Movement detector
Blinds

KnX TP

IPR/S

Air Handling Unit AHU

Decentral cooling

Cooling tower fans
Boiler draft fan
Condenser pump
Compressor
Chilled water pump

Hot water pump
Supply and return fans

Switches
Actuators

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