

VCS CONTROL UNITS



Your comfort

- ✓ COMPREHENSIVE CONTROL
- ✓ COMPREHENSIVE PROTECTION
- ✓ COMFORTABLE AND USER-FRIENDLY CONTROL
- ✓ COST-SAVING OPERATION
- ✓ EXCELLENT PRICE-PERFORMANCE RATIO

VCS control units



Your comfort

NEW GENERATION

OF REMAK CONTROL UNITS

When developing this new generation of VCS control units, REMAK used their long-time experience in the development of control systems for air-handling devices. Therefore, all the control functions for this unit have also been developed by us, and the software programmed into the control unit is the property of REMAK. In addition to the know-how and experience of our developers, your needs and expectations have primarily been included in the control applications.

The VCS control unit is intended for the following:

- Complex autonomous control of air-handling systems
- Room air temperature control
- Supply and power actuation of air-handling systems
- Protection and safeguarding of connected components

QUALITY ASSURANCE

We are able to provide you with very strong service support based on our long-time experience in the design and production of control units.

Comprehensive knowledge of the control application developed by REMAK and their employees is an unquestionable advantage.

- Products from world-renowned manufacturers are used in the production of these units.
- The wall installation of the electronic components ensures excellent quality, reliability and long service life.
- Each control unit is tested before delivery to the customer.



Control units are equipped with SIEMENS CLIMATIX controllers.

COMPREHENSIVE CONTROL

1

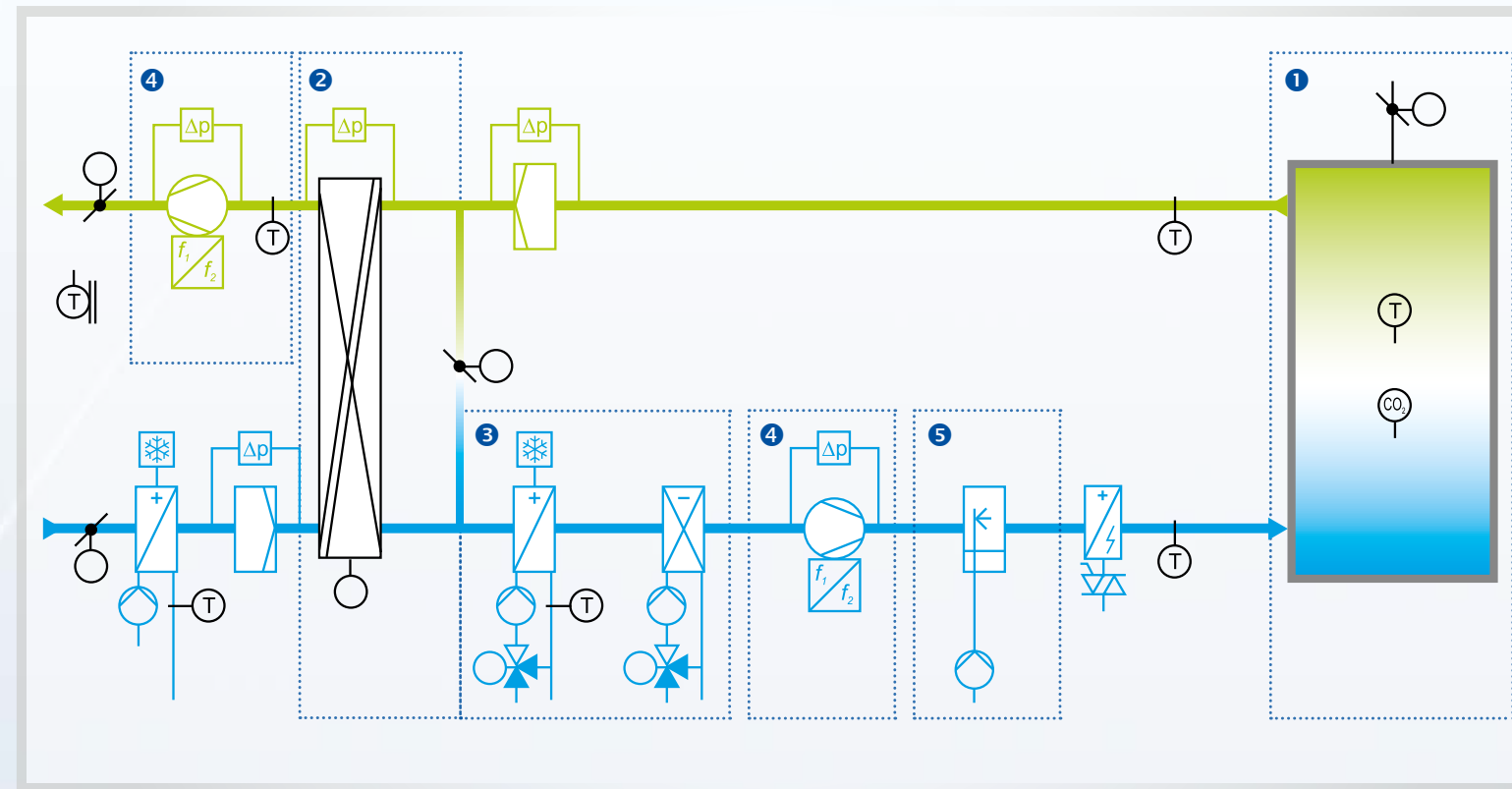
- Temperature control
 - in the room (cascade control)
 - in the inlet duct
- CO₂/CO/VOC content-dependent control

2

- Rotary heat-exchanger step-less control
- Plate heat-exchanger bypass control
- Step-less mixing control

3

- Heating, pre-heating and after-heating
 - water
 - electric
 - gas
- Cooling
 - water
 - direct
- Heat pumps
- Dehumidification



4

- Frequency (voltage) fan output control
- Two-speed motor control
- Connection of third controlled fan
- Control of standby fan motors

5

- Optional connection of autonomously-controlled humidification devices

ADDITIONAL CONTROL AND PROTECTION FEATURES AS STANDARD

- Filter fouling monitoring
- Damper control
- Antifreeze protection of connected components
- Connection of fire dampers
- Mixing set control

COST-SAVING OPERATION

ADJUSTABLE TIME MODES
DAILY/WEEKLY SCHEDULE
EXCEPTION PROGRAM

OPTIMIZED START
SWIFT ATTAINMENT OF REQUIRED
PARAMETERS IN THE ROOM

ADJUSTABLE TEMPERATURE MODES
COMFORT/ECONOMY



FREE COOLING
NIGHT BUILDING COOLING

TEMPERATURE START-UP
PREVENTS BUILDING
OVERHEATING OR UNDERCOOLING

ADJUSTABLE RESPONSE TO FIRE
ADVANCED UNIT OPERATION SETTINGS
DURING FIRE

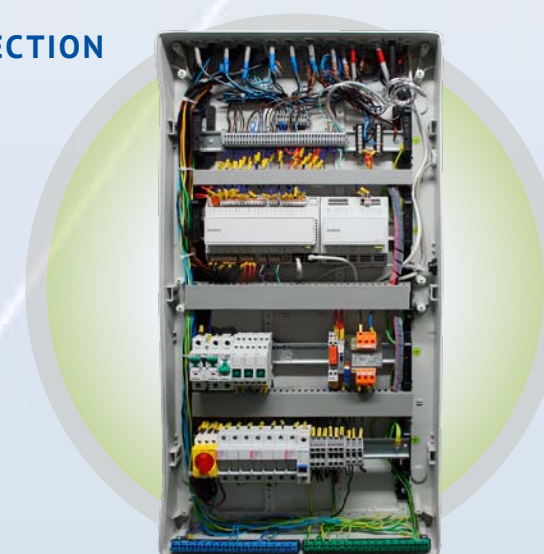
COMPREHENSIVE PROTECTION

FAN MOTORS

ELECTRIC HEATERS

GAS BURNERS

MIXING SET PUMPS



CONDENSING UNITS

ACTUATORS

HEAT PUMPS

ROTARY HEAT-EXCHANGER MOTORS

UNIT'S BASIC COMPONENTS



- | | |
|--------------------|--------------------------------|
| 1 Control unit box | 4 Main switch |
| 2 Circuit breakers | 5 HMI-SG controller |
| 3 Disconnecters | 6 Connection of the controller |

COMFORTABLE AND USER-FRIENDLY CONTROL

Users can communicate with the VCS control unit using well-arranged and user-friendly local controllers, LonWorks, ModBus and BACnet communication standards, or can access the unit via internet and control it from the internet browser interface.

BASIC HMI-SG CONTROLLER

- Optional connection of up to two controllers
- Integrated thermal sensor
- Displays current room temperature
- Enables you to change the control parameters (data points), including time and temperature modes
- Makes it easy to correct temperature settings and fan output control (in manual mode)
- Optional air-handling unit operating modes STOP - OPERATION - AUTO



COMFORTABLE SERVICE CONTROLLERS

If a very easy, fast and comfortable service control is required, the HMI-SG controller can be supplemented with the HMI-DM and HMI-TM controllers or HMI@Web controller.

HMI-DM

- Eight-line display
- Controlled using a scroll wheel
- Operating temperatures -20 to 60 °C



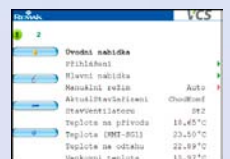
HMI-TM

- Eight-line colour display (white/blue)
- Six buttons for easy control
- Operating temperatures -20 to 60 °C, degree of protection IP 65



HMI@Web

- Secured access through a web server
- Identical control concept to HMI-DM/TM controllers
- Intuitive and graphically well-arranged environment



VCS – IDEAL CONTROL OF REMAK AIR-HANDLING UNITS



THE QUICKEST CONTROL UNIT CONFIGURATION ON THE MARKET

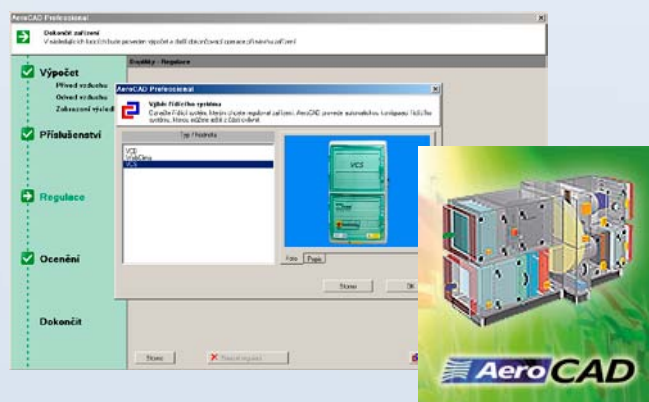
VCS control units are intended for all REMAK air-handling units. They can be designed using AeroCAD software. Thus, the control unit is directly optimized for use with a particular air-handling unit. The control unit design is fully automated so it will take only a few minutes for a more-or-less experienced user to do so.

STANDARD DESIGN OUTPUTS

- Control unit's configuration and order code
- Well-arranged wiring diagram
- List of recommended connection cables

ADVANTAGES

- Detailed data for electrical equipment project
- Swift design
- Optimum functional cohesion with controlled components
- Comprehensiveness



Save expenses by using automated AeroCAD design!
A comprehensive design is a competitive advantage.