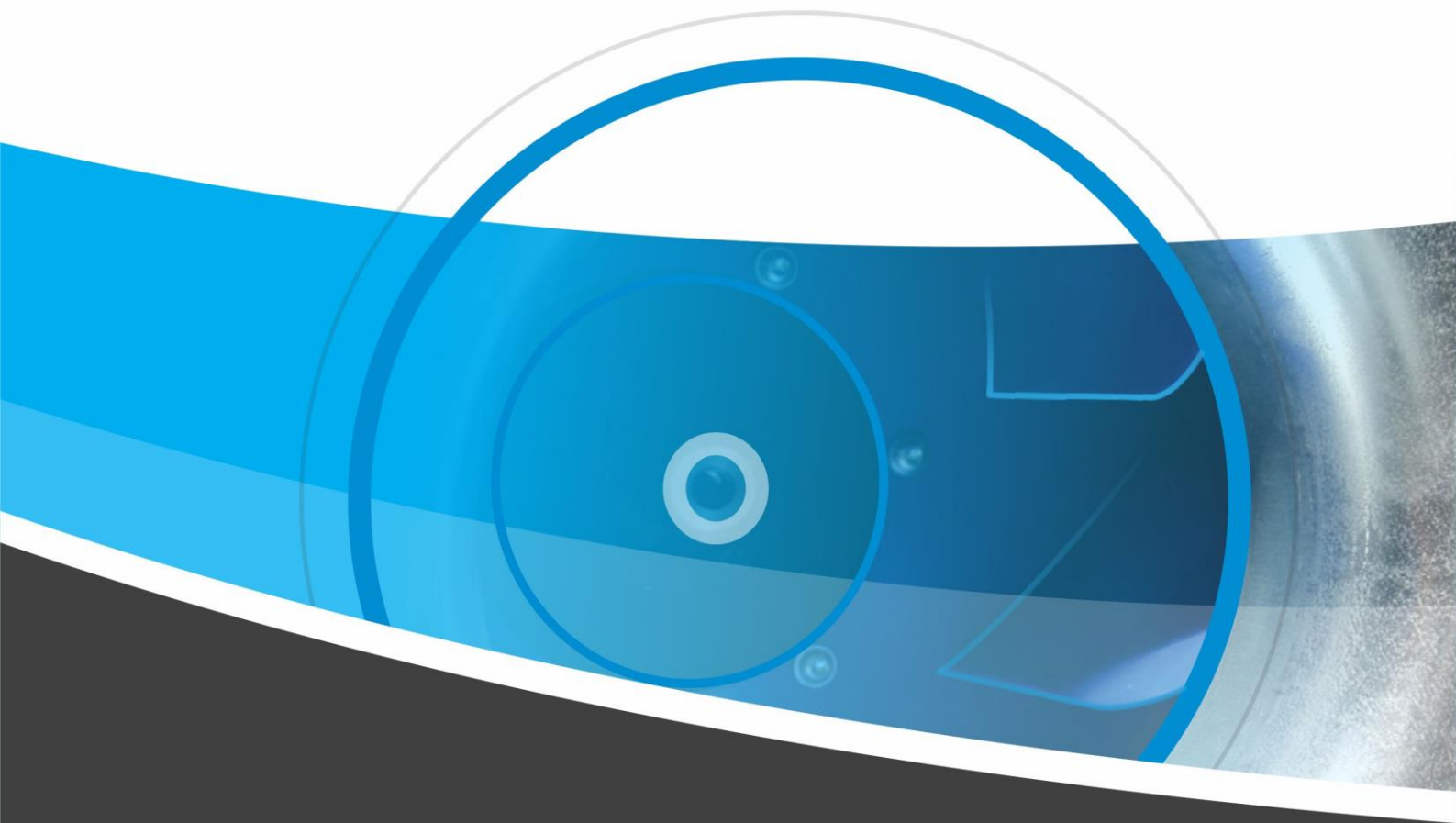


# Operation instruction

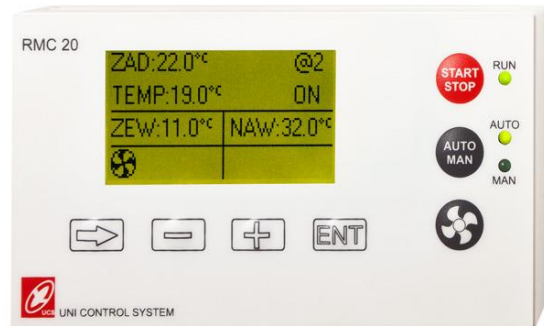
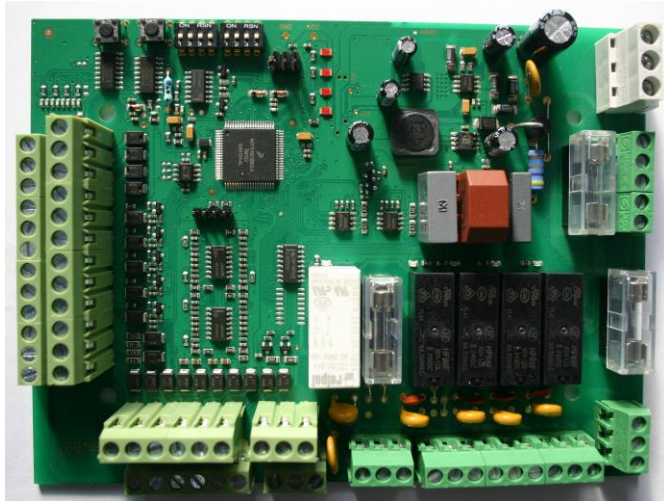
Remote control manual for heat recovery units

P-TYPE, K-TYPE, REKU-TYPE with UCS control  
system



 **VentiAir**

Software version of CU24V1: from 6.2



Contact:

VentiAir s.r.o.  
Adolfovice 512  
790 01 Bělá pod Pradědem  
CZ – Czech Republic  
IČ: 06935320 DIČ: CZ06935320  
email: obchod@ventiair.com; technical@ventiair.com  
tel.: +420 602 500 287

**The device is manufactured in accordance with the European standard EN1886, EN13053**

**This documentation must always be handed over to the customer!**

**In case of non-compliance with the conditions stated in this documentation, VentiAir s.r.o. reserves the right to refuse the warranty.**

Version 03/2021



Regular  
Production  
Surveillance  
Safety



www.tuv.com  
ID: 6005073965



# WARNING!!

When connecting the panel to the controller, take care not to change the G0 earth voltage cable with G phase cable in one of the devices.

Reversing these cables in one of the devices will lead to a short-circuit between G and G0 through the RS485 output and to the damage of this output.

3

24 V AC power supply should be connected as below:

- G0 earth voltage cable should be connected to terminal No. 1
- G phase cable should be connected to terminal No. 2



Regular  
Production  
Surveillance  
Safety



www.tuv.com  
ID: 6005073965



## 1 CONTENTS

2	DESCRIPTION OF PANEL INPUTS AND OUTPUTS.....	6
3	TRANSMISSION PARAMETERS.....	6
4	CONNECTION OF THE RMC 20 PANEL.....	6
5	OPERATION OF THE RMC 20 PANEL.....	7
5.1	List of displayed signs.....	7
5.2	List of alarms.....	7
5.3	Scanning the network.....	8
5.4	Functional buttons.....	8
5.5	Switching the display modes.....	8
5.6	Switching the display menu page.....	8
5.7	Changing the set values.....	8
5.8	Clearing alarms.....	9
5.9	Changing the set temperature value.....	9
5.10	Changing the fan speed.....	10
5.11	Setting the schedule.....	10
5.12	Setting the clock.....	12
6	SETTING THE PARAMETERS.....	13
6.1	Setting a program.....	13
6.2	Setting the AHU.....	14
6.2.1	Selecting the type of heating and cooling.....	14
6.2.2	Selecting the type of control.....	15
6.2.3	Selecting the type of recovery.....	15
6.2.4	Selecting the type of fan.....	16
6.2.5	Heat pump control.....	16
6.3	Supply air parameters.....	17
6.4	Heating parameters.....	17
6.5	Cooling parameters.....	18
6.6	Heat-cool hysteresis.....	19
6.7	Compressor.....	19
6.8	Heat exchanger parameters.....	20
6.9	Exchanger defrost.....	20
6.10	Recirculation dampers control (mixing chamber).....	21
6.11	CO2 control.....	21
6.12	Fan parameters.....	21



Regular  
Production  
Surveillance  
Safety  
www.tuv.com  
ID: 6005073965



6.13	5.13 Programming the fan gears.....	22
6.14	Pump parameters.....	23
6.15	Language selection.....	23
6.16	Changing the password.....	23
6.17	5.17 Logging in.....	24
7	Wiring diagram of the controller.....	25
8	Dimensions of RMC20 panel.....	26



Regular  
Production  
Surveillance  
Safety

www.tuv.com  
ID: 6005073965



## 2 DESCRIPTION OF PANEL INPUTS AND OUTPUTS

No.	Type	Description	UCS series controller input or output
1	Power supply (-)	G0: Supply earth voltage	
2	Power supply (+)	G: +24V AC	
3	Unused	-	
4	M	System earthing voltage	
5	A	Serial interface RS485	A or DT1+
6	B		B or DT1-

## 3 TRANSMISSION PARAMETERS

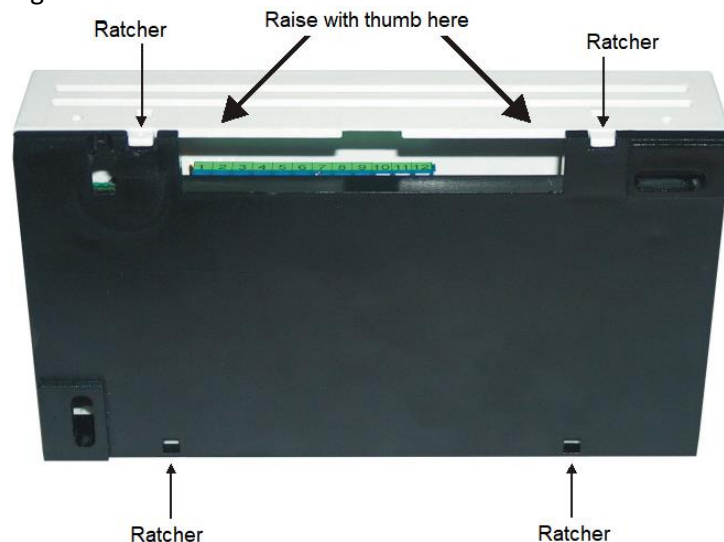
The panel has fixed transmission parameters as follows:

- MODBUS "RTU" mode
- Transmission rate: 9,600 bit/s
- Number of bits: 8
- Number of stop bits: 1
- Parity: none

## 4 CONNECTION OF THE RMC 20 PANEL

6

Figure 1.



To access the connection terminal strip of the panel, use your thumb to gently pry open the cover close to the catch (1) (see figure) and take it out of the catches (2) by shifting it to the back. Once the cover is opened, gently remove the keyboard tapes from the connections by holding the black terminal. **Do not pull the tapes, as this may result in disconnecting the connection and in consequence, the buttons will not work.**










**Note: The guarantee does not cover any mechanical damage to the keyboard tape.**

Having connected the cables, re-insert the keyboard tape to the connection by holding the black terminal. Care not to omit any connection terminal.

To close the cover, insert it at an angle into the back catches (2) and close its front part by snapping it. When closing the cover, the edge of the display opening may catch the display. If so, press harder and the display will pass through the opening.


## 5 OPERATION OF THE RMC 20 PANEL

### 5.1 LIST OF DISPLAYED SIGNS

Sign	Description
	Indicates the operation of fans. Next to this sign, a number is displayed to inform about the speed or gear of the fans
	Signalling of heating
	Signalling of cooling
	The heat exchanger is connected to the ventilation system
	The by-pass is on and the heat exchanger is disconnected from the ventilation system
	Exchanger frost alarm. The temperature at the exchanger sensor is below the alarm level
	Filter loading signalling After the air handler unit has been operational for three months, this sign will appear to inform about the need to replace filters in the air heating unit. After replacing the filters, press the RESET button on the controller inside the unit to reset the filter operation timer.

7

### 5.2 LIST OF ALARMS

Number	Name	Displayed message	Action
1	Frost alarm	FREEZE ALARM	Switch off the supply and extract fans, full open of the heating valve. After alarm is cleared the unit is not started automatically and should be manually started from the panel.
6	Hi temperature	Hi TEMPERATURE	Switch off electric heaters, The unit runs.
7	Exchanger alarm	EXCH. ALARM	Switch off the supply fan, Extract fan still runs
10	Filter alarm		Only display information

## 5.3 SCANNING THE NETWORK

At power ON UCS RMC20 panel will scan the network to find device. The address of the device is displayed in the top right corner and is preceded by the character "@". After a device is detected the appropriate information will be displayed.

## 5.4 FUNCTIONAL BUTTONS

The panel has the following functional buttons:



START/STOP: switches the system on/off,



AUTO/MAN: switches to AUTO or MANUAL.

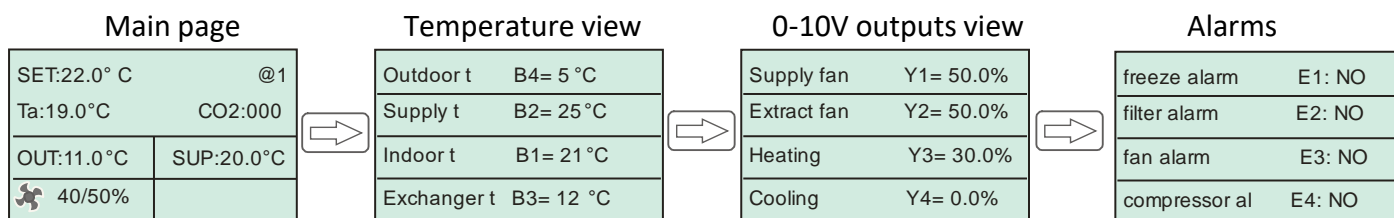
**WARNING: To switch on or off the AUTO/MAN mode, hold the AUTO/MAN button for about 4 seconds until a specific LED lights up.**



Fan gear change button:

Pressing the button once will result in the fan speed or gear value field to flash. The fan gear is increased by one level with each pressing of the button. After the maximum value is exceeded, the setting returns to the first gear. To end the change of gears, press the **ENT** button, which switches the flashing off, or leave the flashing field, which will automatically switch off after 30 seconds.

## 5.5 SWITCHING THE DISPLAY MODES



## 5.6 SWITCHING THE DISPLAY MENU PAGE

The display menu page with the parameters may be switched by pressing the button which winds on or the button which rewinds.

To return to the main page of the display, wind pages to the end or press unless the time zones menu is displayed.

## 5.7 CHANGING THE SET VALUES


To change the settings, from the main page of the display, press the **ENT** button. This will cause the first settings field to flash. Changes may be made using the and buttons. If other settings have to be changed, select other items using the button. If all the changes have been made, submit them by pressing the "ENT" button.








## 5.8 CLEARING ALARMS


Page No. 1 of the display (main page)










SET: 22.0° C @1	
Ta: 19.0° C CO2:000	
OUT: 11.0° C	EXC:15.0° C
 50	



1. If the display is not displaying the page No. 1 as shown above, press the  or  button as many times as needed to display page No. 1.
2. Press  and hold for about 3 seconds until the displayed alarm is cleared.

## 5.9 CHANGING THE SET TEMPERATURE VALUE

Main page of the display:

SET: 22.0° C @1	
Ta: 19.0° C CO2:000	
OUT: 11.0° C	EXC:15.0° C
 50	

1. If the display is not displaying the page No. 1 as shown above, press the  or  button as many times as needed to display page No. 1.
2. Press . This will make the field value in the **ZAD** field flash.
3. Press to  increase the value or  to decrease the value. Hold the button for a faster change of value.
4. To finish, press . The set value stops flashing.  
To go to the next set value, i.e. to set the fan speed, press . This will make the field value in the  field flash.
5. Press once  to change the fan gear by one gear. Pressing the button another time increases the fan gear, and once the maximum gear is reached, pressing the button once will switch to the lowest gear.


To fluently set the fan speed in case of EC fans, press  to increase the value or  to decrease it.



6. Press  to finish.






## 5.10 CHANGING THE FAN SPEED



Main page of the display:

SET: 22.0° C	@1
Ta: 19.0° C	CO2:000
OUT: 11.0° C	EXC:15.0° C
 50	

1. If the display is not displaying the page No. 1 as shown above, press the  or  button as many times as needed to display page No. 1.

2. Press . This will make the field value in the  field flash.

3. Press once  to change the fan gear by one gear. Pressing the button another time increases the fan gear, and once the maximum gear is reached, pressing the button once will switch to the lowest gear.


To fluently set the fan speed in case of EC fans, press  to increase the value or  to decrease it.

4. Press  to finish.


## 5.11 SETTING THE SCHEDULE

- Setting the common zone for all the days of the week

10

SET: 22.0° C	@1
Ta: 19.0° C	CO2:000
OUT: 11.0° C	EXC:15.0° C
 50	


Main page

1. Press  as many times as needed to display the zone to be set.



Zone 1
Run 00.00 Stop 00.00
SET: 22 °C      ECO: OFF
SPEED : 2      #1

### Time zone page:

The name of the zone without the name of the days of the week indicates the common zone for all days of the week. Changes made in this zone will be copied to the appropriate zone with all the days of the week.

2. Press . This will make the first item to flash, which is the zone start hour.

3. Using the buttons   enter the start hour of the time zone.

4. Press  to go to the next field - the minute field, or  to finish.

5. Using the buttons   enter the start minutes of the time zone.



6. Press to go to the zone end hour, or to finish.
7. Using the buttons enter the end hour of the time zone.
8. Press to go to the zone end minute, or to finish.
9. Using the buttons enter the end minute of the time zone.
10. Press to go to the temperature set in the zone, or to finish.
11. Using the buttons enter the set temperature.
12. Press to go to the setting of the fan gears in the zone, or to finish.
13. Using the buttons enter the fan gear.
14. Press to finish.

## - Input of the zone for particular days of the week

SET: 22.0° C @1	
Ta: 19.0° C	CO2:000
OUT: 11.0° C	EXC:15.0° C
50	

Main page

1. Press as many times as needed to display the zone to be set.

Zone 1	
Run 00.00 Stop 00.00	
SET: 22 °C	ECO: OFF
SPEED : 2	#1

### Time zone page:

The name of the zone without the name of the days of the week indicates the common zone for all days of the week. Changes made in this zone will be copied to the appropriate zone with all the days of the week.

2. Press as many times as needed to display the day of the week to be set.




















Zone 1 - MONDAY	
Run 00.00 Stop 00.00	
SET: 22 °C	ECO: OFF
SPEED : 2	#1

### Time zone for a given day of the week:


Changes made in this zone refer only to the selected day the week.

3. Press . This will make the first item to flash, which is the zone start hour.
4. Using the buttons enter the start hour of the time zone.
5. Press to go to the next field - the minute field, or to finish.




6. Using the buttons   enter the start minutes of the time zone.
7. Press  to go to the zone end hour, or  to finish.
8. Using the buttons   enter the end hour of the time zone.
9. Press  to go to the zone end minute, or  to finish.
10. Using the buttons   enter the end minute of the time zone.
11. Press  to go to the temperature set in the zone, or  to finish.
12. Using the buttons   enter the set temperature.
13. Press  to go to the setting of the fan gears in the zone, or  to finish.
14. Using the buttons   enter the fan gear.
15. Press  to finish. To set another zone, repeat the activities from point 1 or 2.

## 5.12 SETTING THE CLOCK

SET: 22.0° C @1	
Ta: 19.0° C	CO2:000
OUT: 11.0° C	EXC:15.0° C
 50	

Main page

12










1. Press  as many times as needed to display the clock page.

CLOCK	
H:M=13.45	
WDAY:TUESDAY	
DATE: 21.05.2011	#6











Clock page:

H:M - Hour: Minutes

DATA - day. month. year

2. Press  This will make the first item - the hour - to flash.
3. Using the buttons   enter the hour.
4. Press  to go to the next field - the minute field.
5. Using the buttons   enter the minutes.
6. Press  to go to the setting of the days of the week.
7. Using the buttons   enter the day of the week.



8. Press  to go to the setting of the days of the month.
9. Using the buttons   enter the day of the month.
10. Press  to go to the setting of the month.
11. Using the buttons   enter the month.
12. Press  to go to the setting of the year.
13. Using the buttons   enter the year.
14. Press  to finish.

## 6 SETTING THE PARAMETERS

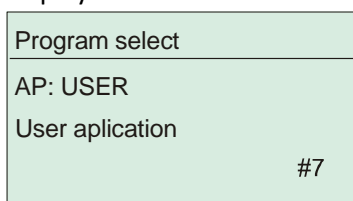
### 6.1 SETTING A PROGRAM







Setting a program to the CU24V1 controller is done remotely using the RMC20 panel. **Before setting a program, the unit should be switch off (In the display the message „UNIT IS OFF” should be displayed).**

You can choose from a ready-made application or user application that allows you to manually configure the application by editing individual options.


Name	Default value	Possible values	Description
AP	USER	USER	User application: Manually configuration the application by editing individual options.
		W-001 ÷ E-012	Application for inlet/outlet air handling units

Display:



1. Press  or  until requested page shown above is displayed.
2. Press  to make AP field flash.
3. Use ,  to set the desired value.
4. Press  to end.

## 6.2 SETTING THE AHU

After setting user program (Parameter **AP** is set as **USER**) and entering the password, the parameters can be set. Before setting the parameters, the AHU should be switched off by  key. While the AHU is running the parameters, setting is locked.

### 6.2.1 Selecting the type of heating and cooling

Display:

AHU set
Heating: water
Cooling: agregat
#8

**Beware:**

The below settings are valid when the heat pump mode at page #11 of the menu is off, it means the following setting is done: **Heat pump: No**

**Heating: Selecting the type of heating**

- **water:** Water coil heater with control signal at Y3 output
- **electr:** Electric heater with control signal at PWM output P2
- **None:** No heater

Outputs **Y3** and **P2** of the CU24V1 controller work independently of the type of heater, while the E1 input, depending on the type of heater, functions as an anti-freeze alarm or a high temperature alarm.

14

Heating	CU24V1 outputs			CU24V1 input
	Y3	P2	U1-U2	E1
<b>water</b>	0-10V: heating control	PWM output for electric heater	230 VAC: Pump start.	Frost alarm of water heating coil
<b>electr</b>	0-10V: heating control	PWM output for electric heater	230 VAC: Enable working for electric heaters.	Hi temperature alarm of electric heater

**Cooler: Selecting the type of cooling**

- **water:** Water coil cooling with smooth control in PI integration mode
- **aggregate-1:** Single stage cooling unit with ON/OFF control
- **aggregate-2:** Two-stage cooling unit with control outputs at Q3 and Q4 in PI integration mode
- **None:** No cooler

The Y4 output of the CU24V1 is active regardless of the type of cooling (water, chiller-1, or chiller-2) and can be used to control the valve or chiller. On the other hand, the output Q3 is used to control the pump or the first stage of the chiller depending on the selection, and Q4 confirms the cooling mode or controls the second stage of the chiller.

Below the table illustrating the possible situation.

Cooler	CU24V1 outputs		
	Y4	Q3	Q4
water (PI control)	0-10V: valve or chiller control	Pump or chiller start	Signalling of operating mode - closed: cooling mode - open: heating mode
aggregate-1 (ON/OFF contr.)	0-10V: valve or chiller control	Chiller start	Signalling of operating mode - closed: cooling mode - open: heating mode
aggregate-2 (PI control)	0-10V: valve or chiller control	Chiller start – first stage	Chiller start – second stage

## 6.2.2 Selecting the type of control

**Temp control: Control type**

- cascade: Cascade control with main sensor at B1 input and limit sensor at B2 input
- supply: Supply air temperature control with supply sensor at B2 input

## 6.2.3 Selecting the type of recovery

**Display:**

AHU set
Recovery: plate
Exch prot: B3
#10

**Recovery: Recovery type**

- by-pass: Plate heat exchanger with by-pass or rotary heat exchanger with 0-10V control at Y5 output of the CU24V1 controller.
- plate: Plate heat exchanger without by-pass with inlet fan speed control.
- damper: Recirculation (mixing chamber) with 0-10V control at Y6 output of the controller.
- exc+damper: Plate heat exchanger with by-pass or rotary heat exchanger + recirculation (mixing chamber). 0-10V control outputs of the CU24V1 controller are respectively Y5 for the exchanger and Y6 for the mixing chamber.

**Exch prot: type of exchanger protection**

- B3: Temperature sensor at input B3
- E5: Pressure control at input E5.



## 6.2.4 Selecting the type of fan

**Display:**

AHU set
Fans: freq. Heat pump: Yes
#11

**Fans: Type of fan**

Select between inverter control or 1-2 gear AC fan control.

## 6.2.5 Heat pump control

**Display:**

AHU set
Fans: freq. Heat pump: Yes
#11

**Heat pump: Heat pump mode**

For systems with a heat pump where the device performs winter heating and summer cooling, it is possible to program the controller to control these systems. Set the heat pump mode by setting the following parameters:

- **Heat pump: Yes**
- **Heating: water**
- **Cooling: water**

After this setting, signal Y3 controls the heating or cooling power from 0 to 10V, while for some units with other control logic, signal Y4 controls the heating power from 5 to 10V and the cooling power from 5V to 0V. Output Q3 works as the start of the unit while Q4 determines the heating or cooling mode.

Below is a description of the outputs in the table.

Operating mode	Output CU24V1			
	Y3	Y4	Q3	Q4
<b>Heating</b>	0-10V: Heating control	5-10V: Heating control	Unit start	Operating mode select <i>Open: heating</i>
<b>Cooling</b>	0-10V: Cooling control	5-0V: Cooling control	Unit start	Operating mode select <i>Closed: cooling</i>













## 6.3 SUPPLY AIR PARAMETERS

Name	Default value	Range	Description
MIN	15°C	0 ÷ 66°C	Minimum temperature of air supply
MAX	35°C	5 ÷ 70°C	Maximum temperature of air supply

The display:

Supply temperature set
MIN: 15 °C
MAX: 35 °C
#12

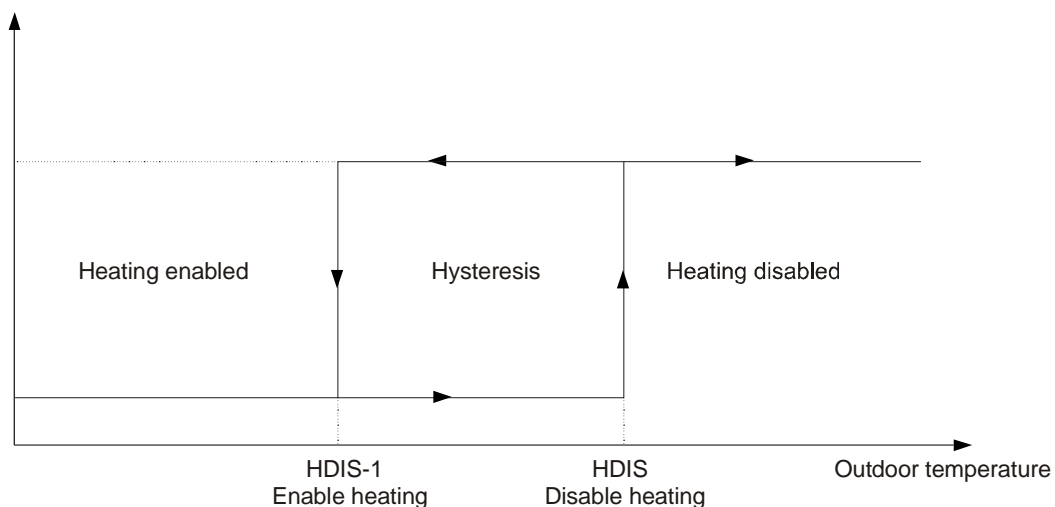
1. Press  or  until the page shown above is displayed.
2. Press  which makes the **MIN** field flash.
3. To set the MAX parameter, press .
4. Using the  and  buttons, set the desired value.
5. To finish, press .

To switch to another parameter, press .

## 6.4 HEATING PARAMETERS

Name	Default value	Range	Description
HDIS	18°C	10 ÷ 22°C	Outside temperature above which the heating is turned off (the SUMMER mode)









HDIS parameter operation scheme



## The display:

Heating parameters	
PBAND: 030.0 °C	
INT: 100 sec	
HYS: 1.5 °C	#13

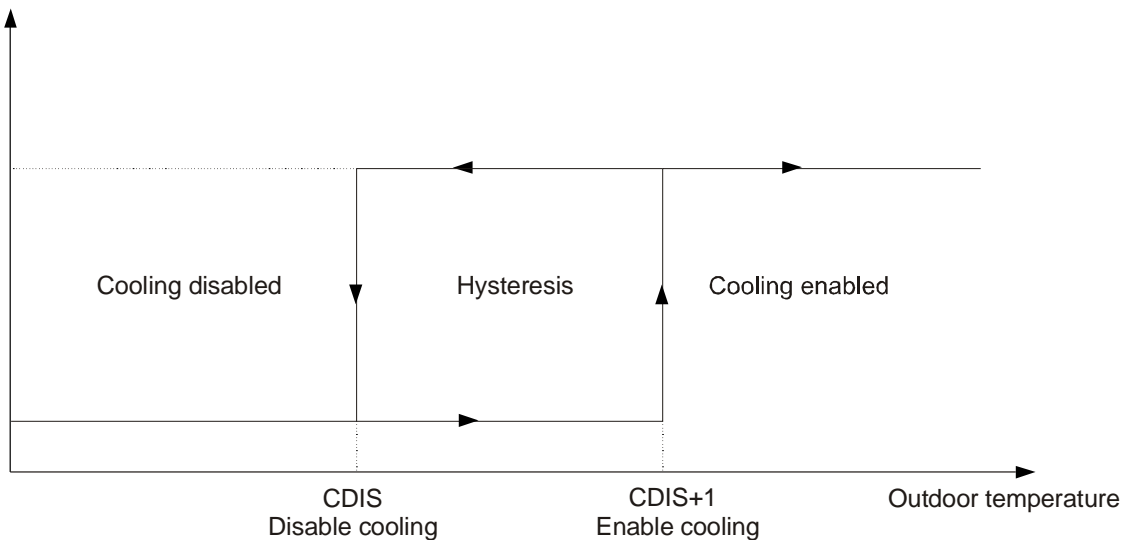
Heating parameters	
HDIS: 18 °C	
PREHEAT: ON	
FOVER: AUTO	#14

1. Press  or  until the requested page shown above is displayed.
  2. Press  to make the **PBAND** or **HDIS** fields flash.
  3. To set the next parameter, press .
  4. Using the  and  buttons, set the desired value.
  5. To finish, press .
- To switch to another parameter, press .

## 6.5 COOLING PARAMETERS

Name	Default value	Range	Description
CDIS	15°C	10 ÷ 22°C	Outside temperature below which the cooling is turned off (the WINTER mode)

CDIS parameter operation scheme











## The display pages:

Cooling parameters	
PBAND: 030.0 °C	
INT: 100 sec	
HYS: 1.5 °C	#15

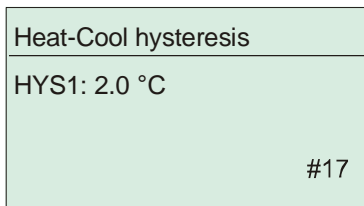
Cooling parameters	
CDIS: 15 °C	









1. Press  or  until the page shown above is displayed.
  2. Press  to make the **PBAND** or **CDIS** fields flash.
  3. To set the next parameter, press .
  4. Using the  and  buttons, set the desired value.
  5. To finish, press .
- To switch to another parameter, press .

## 6.6 HEAT-COOL HYSTERESIS

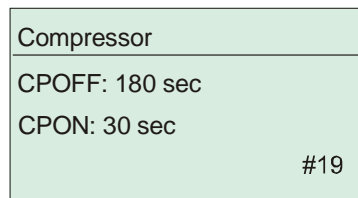
The display:











1. Press  or  until the page shown above is displayed.
2. Press  to make the **HYS1** fields flash.
3. Using the  and  buttons, set the desired value.
4. To finish, press .

## 6.7 COMPRESSOR

The display:



1. Press  or  until the page shown above is displayed.
  2. Press  to make the **CPOFF** fields flash.
  3. To set the next parameter, press .
  4. Using the  and  buttons, set the desired value.
  5. To finish, press .
- To switch to another parameter, press .

## 6.8 HEAT EXCHANGER PARAMETERS







The **ELIM** parameter specifies the minimum allowed temperature on the heat exchanger outlet. When the temperature is below this threshold, the heat exchanger alarm is switched on, the air supply fan is switched off and the system starts the heat exchanger defrosting cycle.

Name	Default value	Range	Description
ELIM	5°C	-10 ÷ +10°C	Alarm temperature for the heat exchanger

The display:

Exchanger parameters	
ELIM: 5 °C	
Sensed value: 8.0 °C	#22

The bottom line displays the current temperature on the heat exchanger outlet.

1. Press  or  until the page shown above is displayed.
2. Press  which makes the **ELIM** field flash.
3. Using the  and  buttons, set the desired value.
4. To finish, press .

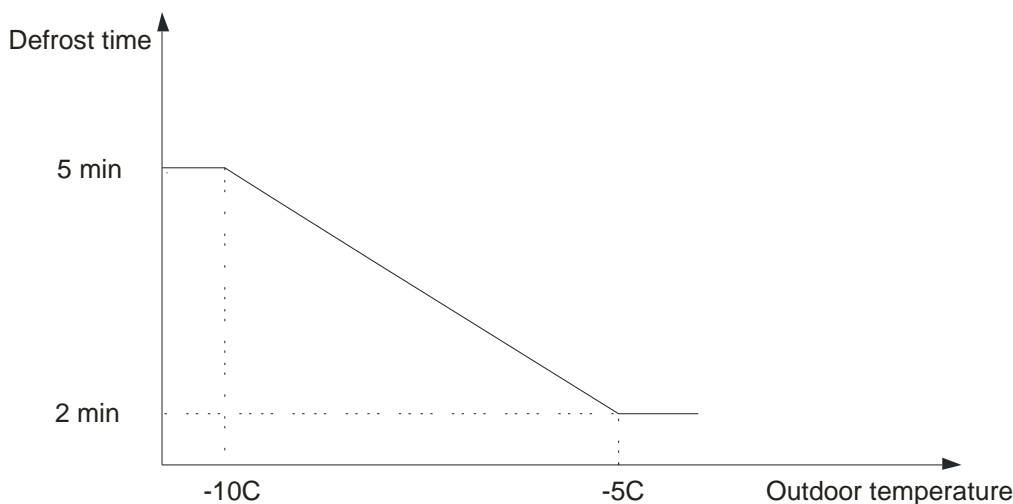
## 6.9 EXCHANGER DEFROST

Defrosting the exchanger is done by running the extract fan at the highest speed for a period of **two to five minutes** (depending on the outside temperature), while the inlet fan is stopped. After the defrost time has elapsed, the extract fan returns to the programmed speed for **20 minutes** and the inlet fan remains off unless the frost alarm goes off.

If after **20 minutes** the heat exchanger temperature is still lower than the alarm level, the defrost procedure will be restarted.

The defrosting procedure ends when the temperature at the exchanger outlet rises above the alarm level

The curve representing the defrost time as a function of the outdoor temperature:



## 6.10 RECIRCULATION DAMPERS CONTROL (MIXING CHAMBER)








After setting the type of recovery (MENU page #10), you can define at page #23 the damper control by setting the parameter **DAMP**:

- AUTO: damper control as a function of outdoor temperature according to the curve defined at MENU pages #24 and #25.
- OFF , 10%, 20% ... 100%: manual control of the dampers.

Name	Default value	Range	Description
DAMP	OFF	OFF, 10%,20%,...100%, AUTO	Type of damper control
ODT1	0 °C	-25 ÷ 30°C	Outdoor temperature low range value.
ODT2	0 °C	-25 ÷ 30°C	Outdoor temperature high range value.
DACO1	0 %	0 ÷ 100 %	Damper control low range value
DACO2	0 %	0 ÷ 100 %	Damper control high range value

### Display:

Dampers	Dampers parameters	Dampers parameters
DAMP: AUTO	ODT1: -5°C DACO1: 20%	ODT2: 15°C DACO2: 100%
#23	#24	#25

1. Press  or  until one of the pages shown above is displayed.
2. Press  to make field flash.
3. Press  to select the next parameter.
4. Set the desired value using , .
5. To finish press .

## 6.11 CO2 CONTROL

The CU24V1 controller has the ability to control CO2. The CO2 control is performed automatically after the CO2 detector has been detected in the X1 input of CU24V1. CO2 regulation is achieved either by adjusting the fan speed or by adjusting the dampers. If the damper parameter is set **DAMP = AUTO**, the damper is adjusted. If **DAMP** has a value other than **AUTO** then the regulation is controlled by fan speed.

## 6.12 FAN PARAMETERS

- FCOEF : **Programming separate speeds of the air supply and air exhaust fans**

It is possible to set separate speeds for both air supply and air exhaust fans. The **FCOEF** parameter defines the dependency between the fan speeds according to the following formula:








**Air exhaust fan speed = air supply fan speed x FCOEF.**

Name	Default value	Range	Description
FCOEF	1.00	0.5 ÷ 2	Air exhaust fan speed to the air supply fan speed ratio
STOP	0 sec or 30 sec	0 ÷ 100 sec	Delayed switch-off of the fans: In units with electric heaters, it is necessary to set a delay for fan switching off in relation to the electric heating coils.

### The display pages:

Fans setting	
FCOEF:1.00	
FMIN:10%	
FMOD:7 °C	#27

Fans setting	
START: 000 sec	
STOP: 30 sec	
	#28

1. Press  or  until the page shown above is displayed.
2. Press  which makes the **FCOEF** field flash.
3. Using the  and  buttons, set the desired value.
4. To finish, press .
5. To switch to another parameter, press .








## 6.13 5.13 PROGRAMMING THE FAN GEARS

Name	Default value	Range	Description
SPD1	25%	10 ÷ 100 %	Fan speed for gear 1
SPD2	50%	10 ÷ 100 %	Fan speed for gear 2
SPD3	75%	10 ÷ 100 %	Fan speed for gear 3
SPD4	100%	10 ÷ 100 %	Fan speed for gear 4

### The display pages:

Gear setting	
SPD1: 25	
SPD2: 50	
	#29

Gear setting	
SPD3: 75	
SPD4: 100	
	#30

1. Press  or  until one of the pages shown above is displayed.
  2. Press  to make the **SPD1** or **SPD3** fields flash.
  3. Using the  and  buttons, set the desired value.
  4. To finish, press .
- To switch to the next parameter (**SPD2** or **SPD4**) press .

## 6.14 PUMP PARAMETERS

Name	Default value	Range	Description
PUMPON	0°C	-25 ÷ +15°C	Outdoor temperature below which the heater pump is switched on







### The display pages:

Pump parameters

---

PUMPON: 0°C

#31

1. Press  or  until the page shown above is displayed.
2. Press  which makes the **PUMPON** field flash.
3. Using the  and  buttons, set the desired value
4. To finish, press 

## 6.15 LANGUAGE SELECTION







### The display:

Language select

---

LANG: ENGLISH

#34

1. Press  or  until the page shown above is displayed.
2. Press  which makes the **JEZYK** (language) field flash.
3. Using the  and  buttons, set the desired value.
4. To finish, press 







## 6.16 CHANGING THE PASSWORD

In order to protect some parameters from changing, a password may be set. After inputting the password (value other than null), the parameters will be visible, but cannot be changed without logging in. If the password is null, changes may be made without logging in.



Page on the display:

Password setting
CODE1: 0 CODE2: 0
#35

1. Press  or  until the page shown above is displayed.
2. Press  which makes the **CODE1** (login) field flash.
3. Using the buttons ,  enter the new password.
4. To finish, press 

## 6.17 5.17 LOGGING IN



To be able to select certain parameters, log in using the password.

**The factory-set password is 0.**





Page on the display:

LOGIN
LOGIN: 0 You are logged in Level: user
#37

24

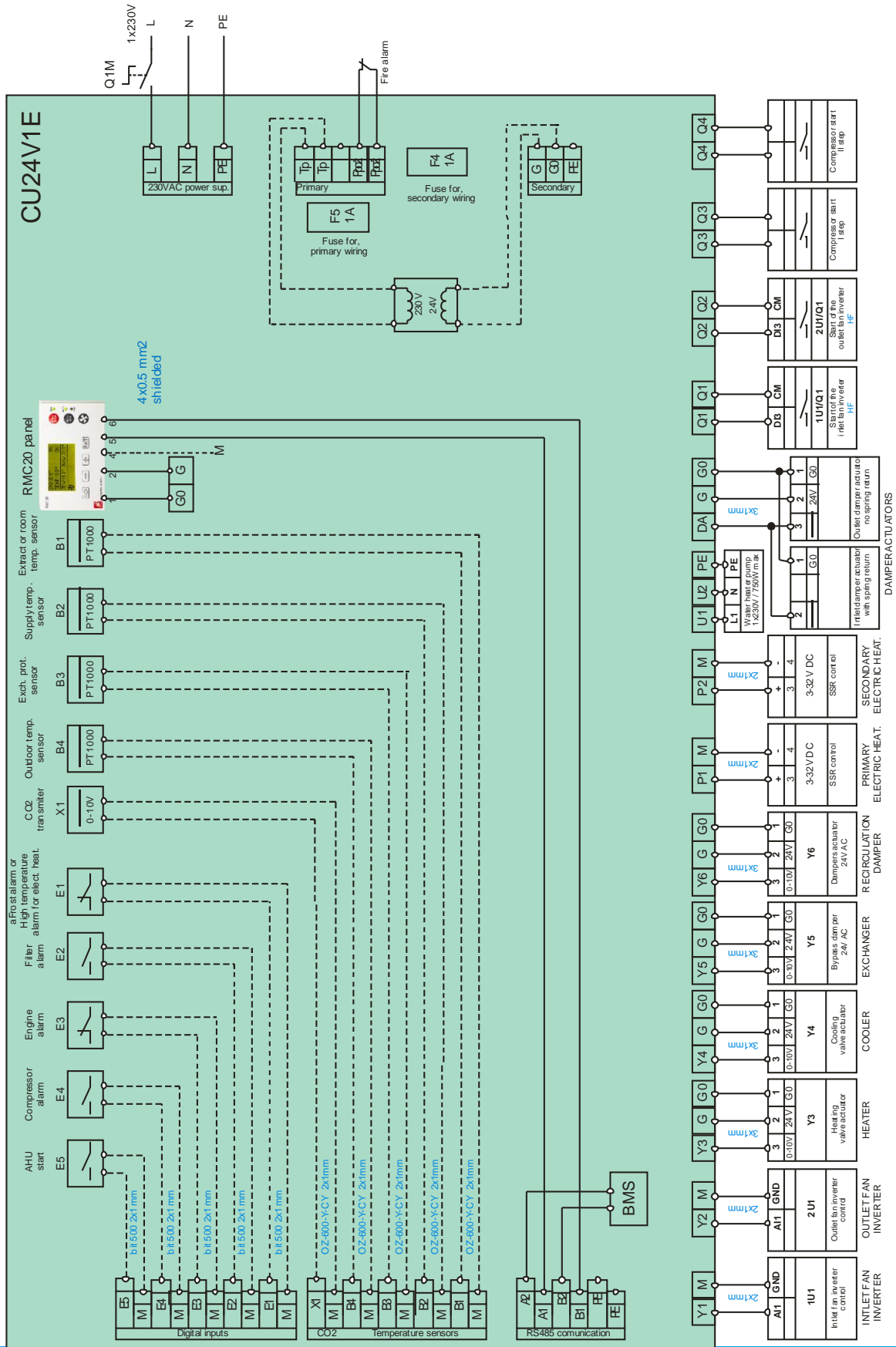
1. Press  or  until the page shown above is displayed.

This display page is the last one, therefore it may be directly accessed by pressing from the main page on the display.

2. Press  which makes the **LOGIN** field flash.
3. Using the buttons ,  enter the password.
4. Press  to confirm



## 7 WIRING DIAGRAM OF THE CONTROLLER



## 8 DIMENSIONS OF RMC20 PANEL

Figure 3

