



Heat recovery unit with rotary exchanger  
Air flow rate from 1.000 to 30.000 m<sup>3</sup>/h  
Quickly user manual

**ERSR**



EN



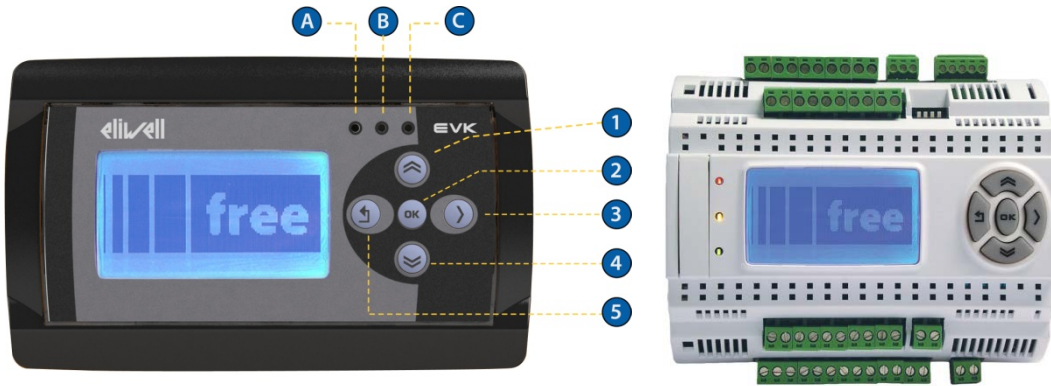







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# User Manual ERSR

## Button Functionality

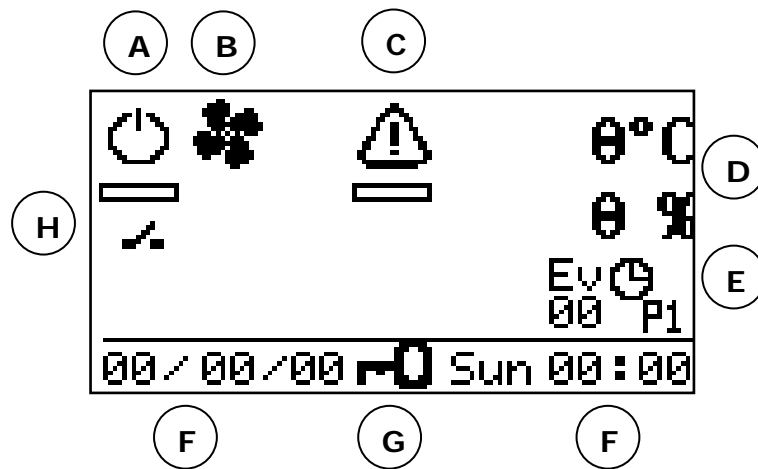


Button	Short Press	Long Press
	Navigation: - Change Selected Object Counter clockwise  Value editing: - Change digit value	On Main view page: - Lock/Unlock OK button
	Navigation: - Change Selected Object Clockwise  Value editing: - Change digit value	On Setting page & Password page: - Password logout
	Navigation: - Change Selected Object Counter clockwise  Value editing: - Change selected digit	Navigation: - Page Esc  Value editing: - Cancel Value Modification
	Navigation: - Change Selected Object Clockwise  Value editing: - Change selected digit	On Main view page: - Enter into the settings page
	Navigation: - Enter Value Editing - Graphic Button Press  Value editing: - Confirm Modification	On Alarm Page: - Alarm Reset
Page Timeout	- Go to previous page - On Main view page lock of the OK button	

# Led

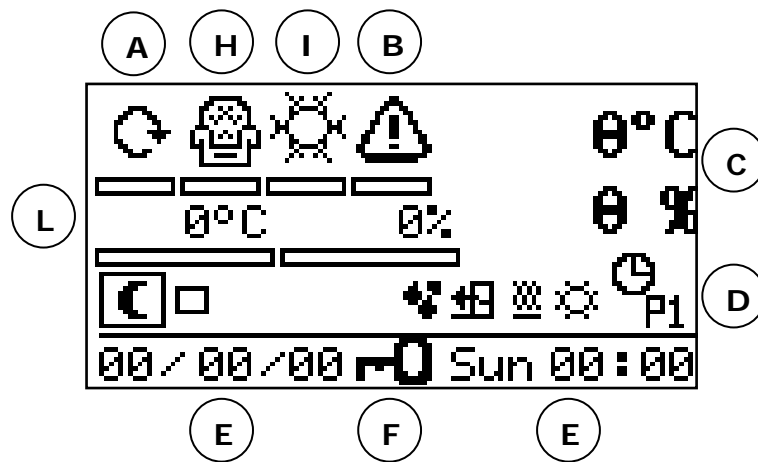
	Off	On	Blink
Green	ERSR Off	ERSR On	-
Yellow	-	Usb functions running	-
Red	No Active Alarms	Active Alarms	Resettable Alarms

## Main View - Unit Off




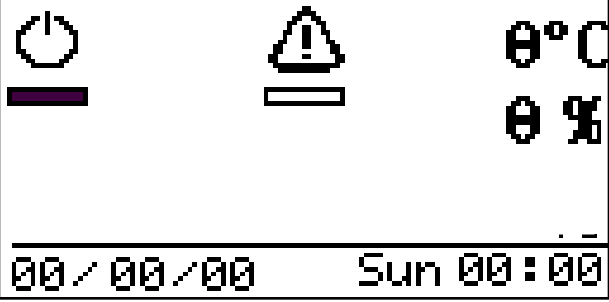

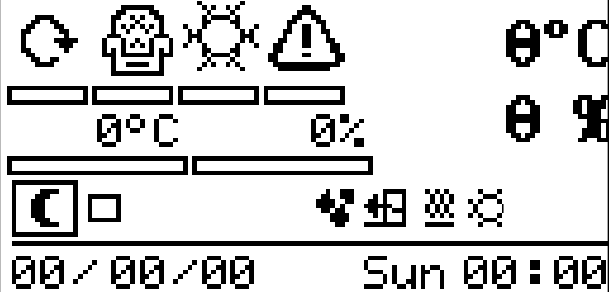

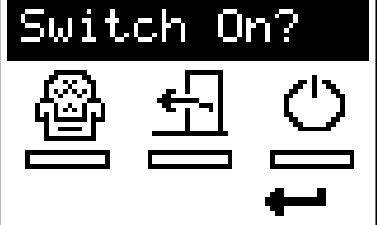

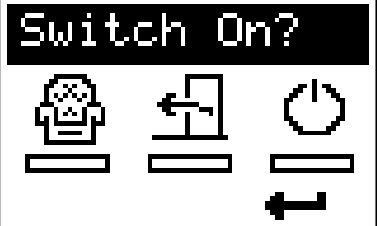

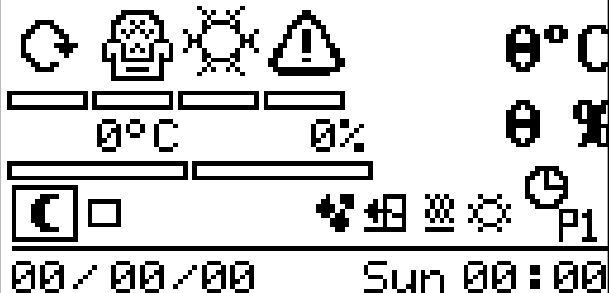
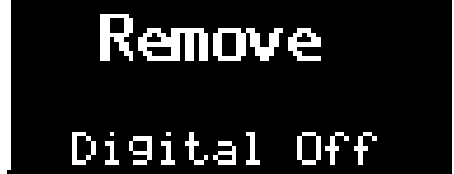

<b>A</b>	On/Off Button with Icon Status: ☐ : Permanent Off by keyboard ◐ : On by keyboard, the unit may be off by time table
<b>B</b>	Post Ventilation Active
<b>C</b>	Button with Icon Status: ⚠ Visible if some alarms is active
<b>D</b>	Current Temperature and Humidity
<b>E</b>	Current Time Bands Profile: ⌚ <sub>P1</sub> - P1 ⌚ <sub>P2</sub> - P2 ⌚ <sub>P3</sub> - P3 ⌚ <sub>P4</sub> - P4 ⌚ <sub>OFF</sub> - P5
<b>F</b>	Hour and Date
<b>G</b>	🔒 Visible if keyboard is locked
<b>H</b>	↘ Visible if unit is off by digital input

## Main View - Unit On




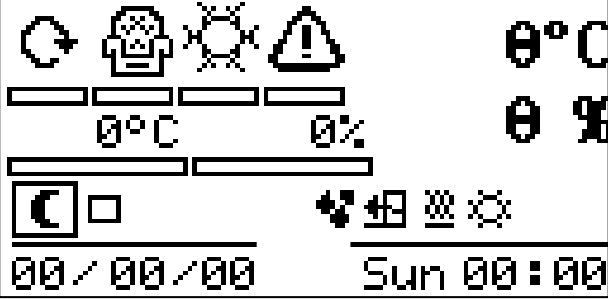

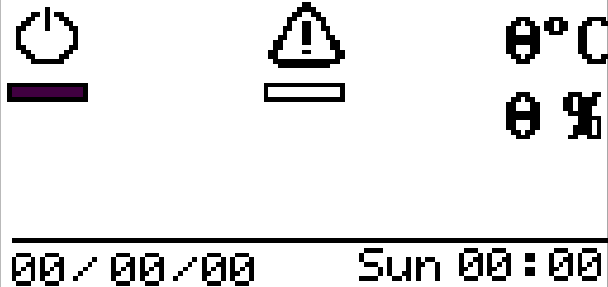





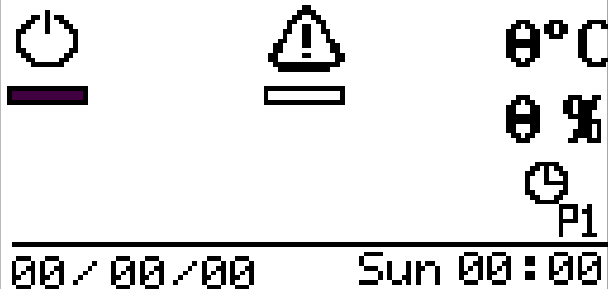
<b>A</b>	On/Off Button with Icon Status: ☰ : On by keyboard
<b>B</b>	Button with Icon Status: ⚠ Visible if some alarms is active
<b>C</b>	Current Temperature and Humidity
<b>D</b>	Current Time Bands Profile: 🕒 <sub>P1</sub> - P1 🕒 <sub>P2</sub> - P2 🕒 <sub>P3</sub> - P3 🕒 <sub>P4</sub> - P4 🕒 <sub>OFF</sub> - P5 Current Mode: ☀ - Cool; 🔥 - Heat 🏠 - Economy Mode Active 💧 - Dehumidification Active 🌙 - Night Mode Active
<b>E</b>	Hour and Date
<b>F</b>	🔒 Visible if keyboard is locked
<b>G</b>	⚡ Visible if unit is off by digital input
<b>H</b>	Comfort/Eco Button with Icon Status: 👤 - Comfort Mode 🏠 - Economy Mode
<b>I</b>	Mode Button with Icon Status: ☀/🔥 - Auto Mode ☀ - Cooling Mode 🔥 - Heating Mode
<b>L</b>	Setpoint Buttons with display of the current temperature and humidity setpoint

# How to Switch On

		<p>Move until the On/off button is selected</p>
<p>1)</p> 		<p>If the time bands are not active, unit will switch on immediately</p>
<p>2)</p> 		<p>If the time bands are active, this popup will appear</p>
		<p>Select <i>Comfort</i> or <i>Eco</i> if you want the unit to restart in this mode until the time bands next event          Select <i>Stand By</i> if you want the unit to be Off independently by next time bands events</p>
		<p>If the time bands are not active, unit will switch on immediately</p>
<p>3)</p>		<p>This popup appears if the unit is  by digital input</p>



## How to Switch Off


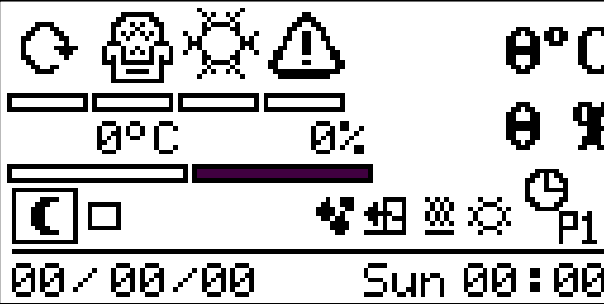

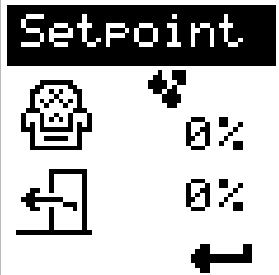

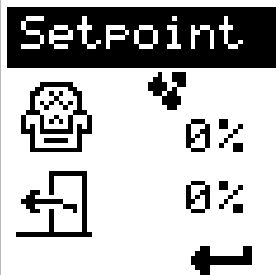

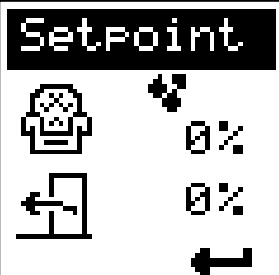

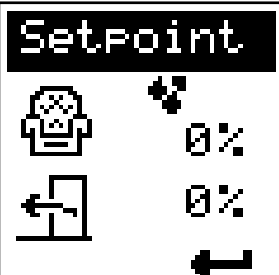


		<p>Move until the On/off button is selected</p>
<p>1)</p> 		<p>If the time bands are not active unit will switch off immediately</p>
<p>2)</p> 		<p>If the time bands are active this popup will appear</p>
		<p>Select <i>Temporary</i> if you want the unit to restore the working mode required by time bands at next event          Select <i>General</i> if you want the unit to be Off independently by next time bands events</p>
		<p>⏻ : Permanent Off by keyboard          ⏪ : The unit is temporary Off</p>

# How to change the Temperature Setpoint

		<p>Move until the button of the setpoint you want to change is selected</p>
		<p>This popup will appear</p>
		<p>Select the desired setpoint</p>
		<p>Modify the value and press ok to confirm or Long Esc to Cancel modification          Note: setpoints are limited one with each other in the following way:          Eco Heat&lt;Heat&lt;Cool&lt;Eco Cool</p>
		<p>Select ← and press to  close the popup, or long press of </p>


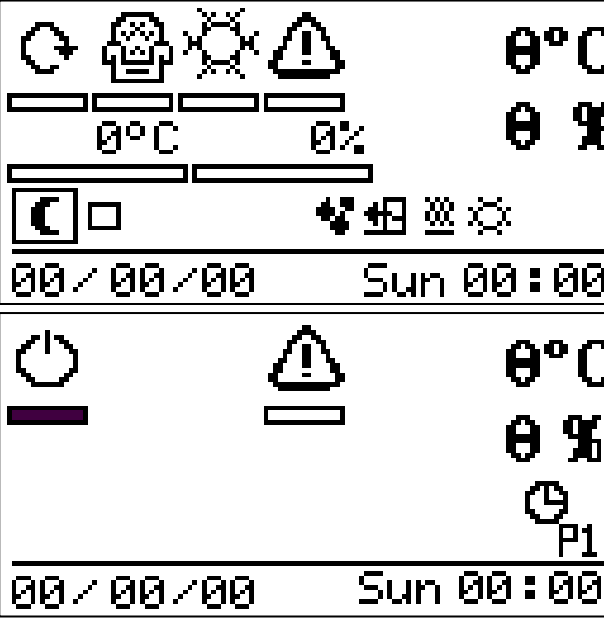

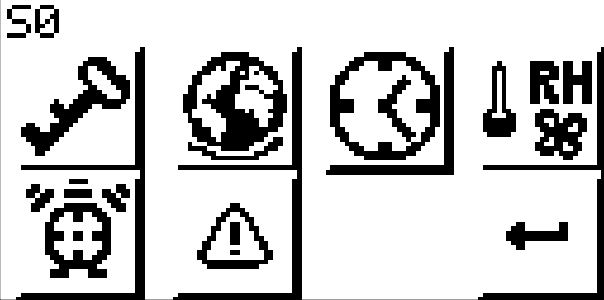




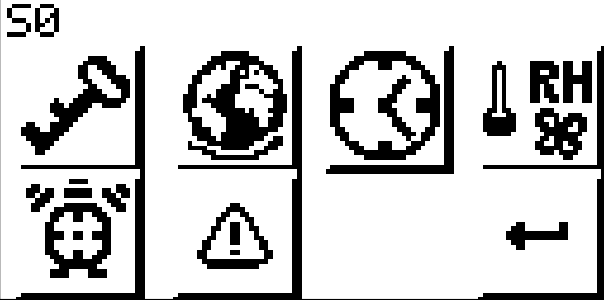

# How to change the Dehumidification Setpoint

Note: Dehumidification is not active on all the unit, this part might be not visible on the display








		<p>Move until the button of the setpoint you want to change is selected</p>
		<p>This popup will appear</p>
		<p>Select the desired setpoint</p>
		<p>Modify the value and press ok to confirm or Long Esc to Cancel modification Note: setpoints are limited one with each other in the following way: Eco Heat&lt;Heat&lt;Cool&lt;Eco Cool</p>
		<p>Select ← and press to  close the popup, or long press of </p>

# How to enter into user setting page


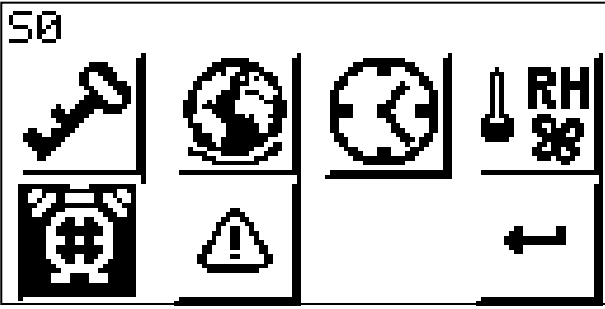





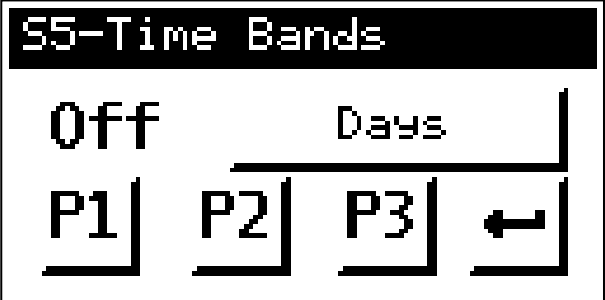





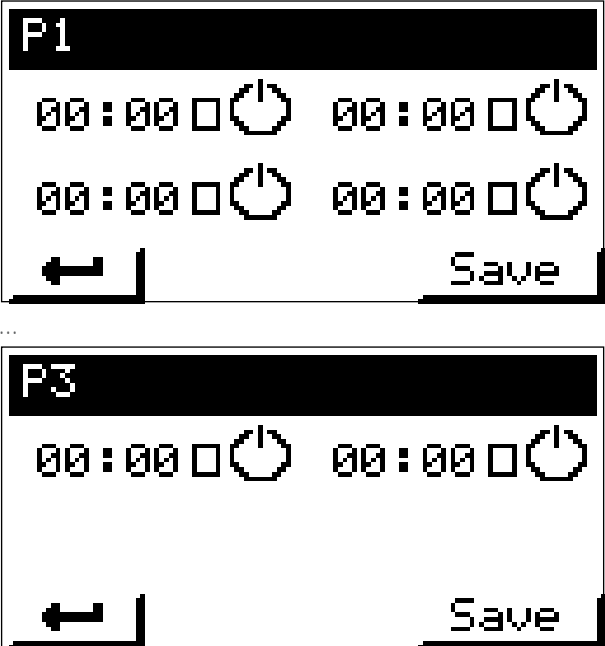










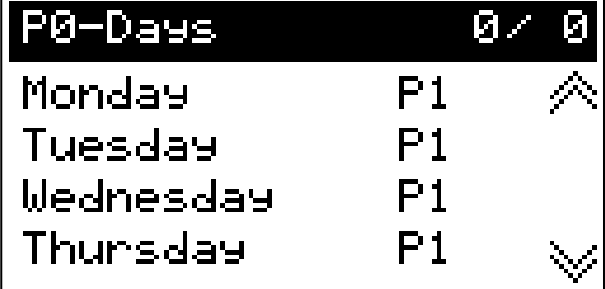
Note: Dehumidification is not active on all the unit, this part might be not visible on the display

		<p>Press long right button</p>
		<p>This page will appear</p>
   		<p>Select the desired option and press </p>


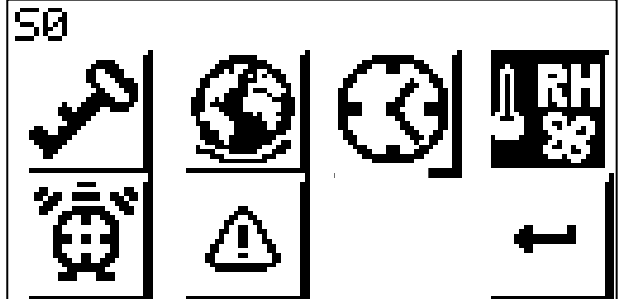



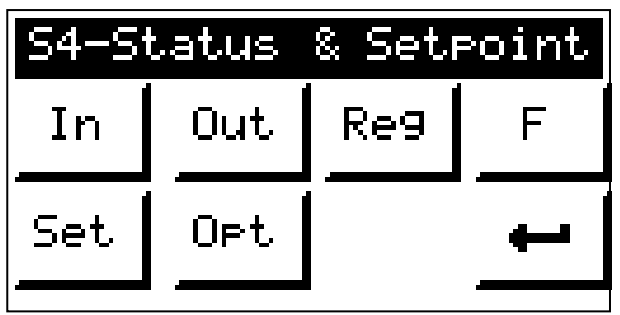
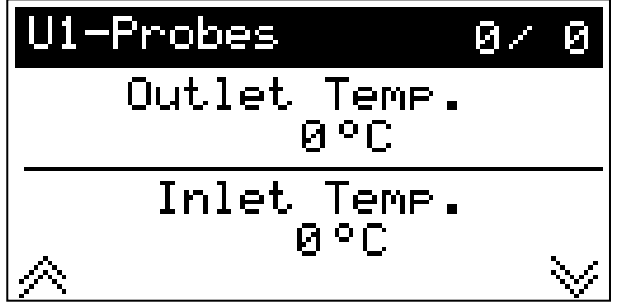
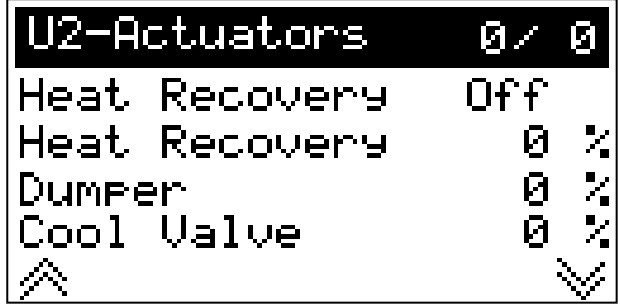
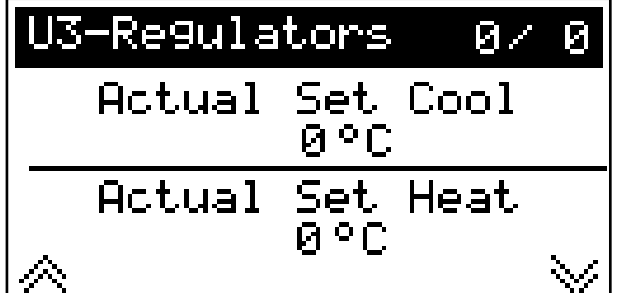
# Setting page

	<p>Service Settings</p> <p><b>S1-Password</b></p> <p>rev: abcde</p> <p>abcde</p> <p>← [X] Ok</p>		<p>Set &amp; Status Settings</p> <p><b>S4-Status &amp; Setpoint</b></p> <table border="1"> <tr> <td>In</td> <td>Out</td> <td>Reg</td> <td>F</td> </tr> <tr> <td>Set</td> <td>Opt</td> <td></td> <td>←</td> </tr> </table>	In	Out	Reg	F	Set	Opt		←
In	Out	Reg	F								
Set	Opt		←								
	<p>Language Settings</p> <p><b>S2-Languages</b></p>  <p>English</p> <p>←</p>		<p>Time Bands Settings</p> <p><b>S5-Time Bands</b></p> <p>Off Days</p> <table border="1"> <tr> <td>P1</td> <td>P2</td> <td>P3</td> <td>←</td> </tr> </table>	P1	P2	P3	←				
P1	P2	P3	←								
	<p>Hour Settings</p> <p><b>S3-Clock</b></p> <p>00 : 00 : 00</p> <p>Sunday</p> <p>00 / 00 / 00</p> <p>Update</p>		<p>Alarm and Historical</p> <p><b>S6-Alarms</b></p> <p>Active - Res.</p> <p>Historical</p> <p>←</p>								

## How to set Time Bands

		
    		<p>This page will appear.</p> <p>Select and eventually change <i>Off (On)</i> to enable/disable Time Bands</p> <p>Select <i>Days</i> to change the profile associates to each day of the week</p> <p>Select <i>P1,P2,P3</i> in order to change a profile setting</p> <p>Profile <i>P4,P5</i> cannot be changed they corresponds to all day on and all day off respectively</p>
    		<p>Define the 2/4 time events of the profile and the related working mode:   Off -  Comfort -  Economy-  Night</p> <p>Press <i>Save</i> to update the profile or  to cancel</p>
    		<p>Define the profile associate to each day of the week</p>


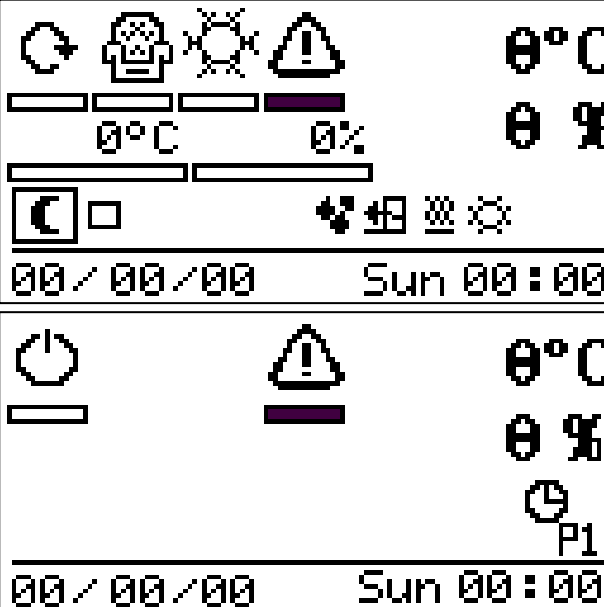



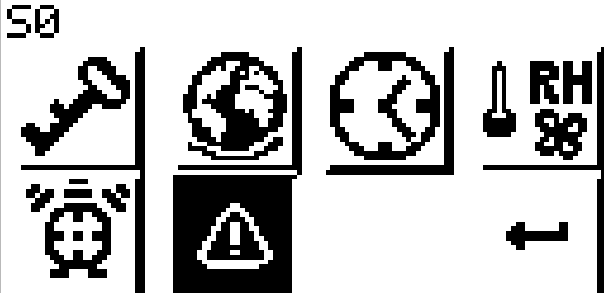



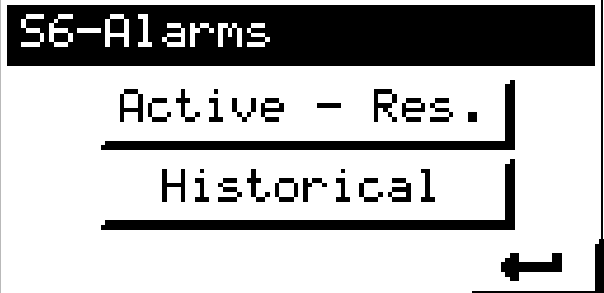




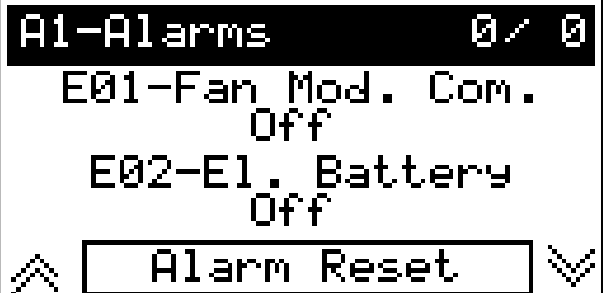

# Status & Setpoint


		<p>Status &amp; Setpoint page can be accessed directly by pressing  on the  icon</p>
		<p>By selecting one of the icon user can access to the following lists.</p>
<p>In</p>		<p>Probe measures ----- is displayed in case of probe not connected or in alarm</p>
<p>Out</p>		<p>Actuators status ----- is displayed in case of actuator not present</p>
<p>Reg</p>		<p>Status List:</p> <ul style="list-style-type: none"> <li>- Actual Set Cooling</li> <li>- Actual Set Heating</li> <li>- Outlet power reduction</li> </ul>

F	<pre> U4-Functions  0/0 External      Comfort Voc           Comfort Keyboard      Comfort   </pre>	<p>Status List:</p> <ul style="list-style-type: none"> <li>- Eco/Comfort call by digital input</li> <li>- Eco/Comfort call by VOC</li> <li>- Eco/Comfort call Keyboard</li> <li>- Warpup phase</li> </ul>
Set	<pre> U5-Set  0/0 Dynamic Set Cool          0 °C ----- Dynamic Set Heat          0 °C   </pre>	<p>Parameter List:</p> <ul style="list-style-type: none"> <li>- Dynamic Setpoint Set in Cooling</li> <li>- Dynamic Setpoint Set in Heating</li> <li>- VOC Setpoint (R/W if enabled)</li> <li>- Changeover Setpoint (R/W if enabled)</li> <li>- Post Setpoint</li> </ul>
Opt	<pre> U6-Options  0/0 Dynamic Setpoint             No ----- Dehumidif.             No   </pre>	<p>Parameter List:</p> <ul style="list-style-type: none"> <li>- Enable/Disable Dynamic Setpoint</li> <li>- Enable/Disable Dehumidification (enable is possible only on limited configuration)</li> </ul>









# Alarms & Historical

<p>1)</p> 		<p>Alarm page can be accessed directly by pressing  on the alarm icon </p>
<p>2)</p> 		<p>Alarm page can be accessed from setting page by pressing  on the alarm icon </p>
<p>2)</p> 		<p>Select <i>Active – Res.</i></p>
   		<p>The list displays the current not active alarms and related status</p> <p>By long press of  user can try to reset alarms</p>


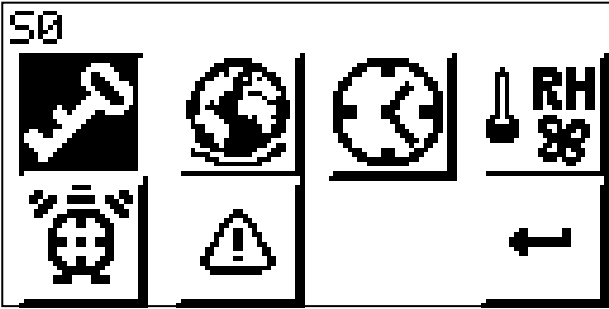



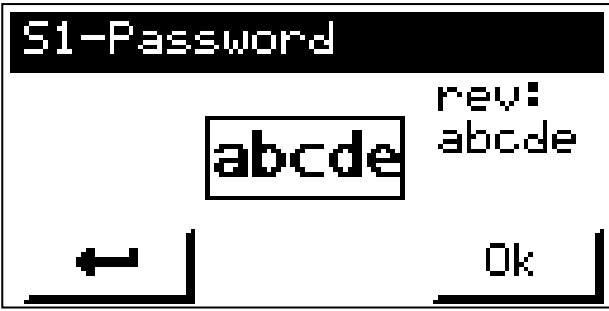

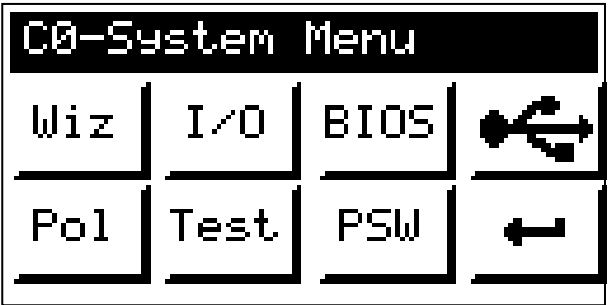

	<p>A2-Historical 0/30</p> <p>---</p> <p>Off</p> <p>00:00:00 00000</p> <p>⏪ ⏩</p>	<p>The list displays the historical alarms</p>
---	--	--


<b>Alarm &amp; Historical List</b>
E01-Fan Mod. Com.
E02-El. Battery
E03-Ext.Temp.Pr.
E04-Inlet Temp.Pr.
E05-Outlet Temp.Pr.
E06-Inlet Inverter
E07-Outlet Inverter
E08-Inlet Pres.Pr.
E09-Outlet Pres.Pr.
E10-Inlet Filter
E11-Outlet Filter
E12-Umidity probe
E13-Smoke
E14-Reg. Probe
E15-Inlet Low Pres.
E16-Outlet Low Pres.
E17-Antifreeze
E18-Antifreeze Pr.
E19-Clock
E20-Voc Pr.

## Messages


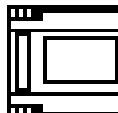


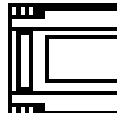
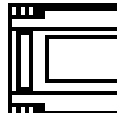
		The user has tried to write a value lower than the minimum allowed
		The user has tried to write a value greater than the minimum allowed
		Keyboard is locked

## Service – How to enter System Menu

		<p>Service page can be accessed directly by pressing  on the  icon</p>
		<p>Insert the password and press <i>OK</i> button</p>
		<p>Select the desired option and press </p>

Password logout can be done by long press of  inside pages Setting or Password

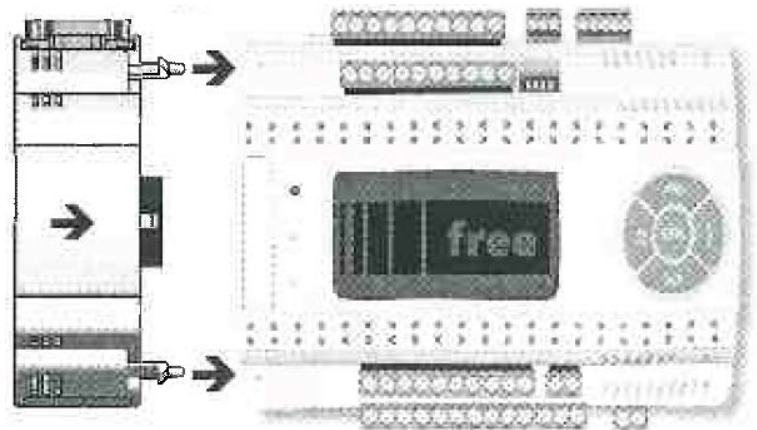
# System Menu page

Wiz	<p>Unit Configuration</p> <p><b>C1-Wizard</b></p> <p>°/RH      ACT   VOC</p> <p>HR   ...   HW   ←</p>	Pol	<p>Polarity Settings</p> <p><b>C5-Polarity</b>   0 / 0</p> <p>DI1 0=Off/Alarm, 1=On</p> <p>DI2 0=Off/Alarm, 1=On</p> <p>⌞   ⌟</p>
I/O	<p>Physical I/O Value</p> <p><b>C2-I/O</b></p> <p>Analog Input</p> <p>Digital Input</p> <p>Analog Output</p> <p>Digital Output</p>	Test	<p>Test Output</p> <p><b>C6-Test</b>   0 / 0</p> <p>D01   Off</p> <p>D02   Off</p> <p>D03   Off</p> <p>D04   Off</p> <p>⌞   ⌟</p>
Bios	<p>I/O and Connectivity Settings</p> <p><b>C3-Bios</b></p> <p>In      RS485</p> <p>Out</p>	Psw	<p>Password Definition</p> <p><b>C7-Password</b></p> <p>Service   abcde</p> <p>OEM   *****</p> <p>←</p>
	<p>Update application / Download parameter map</p> <p><b>C4-USB Key</b></p> <p>   →   </p> <p>←   </p>		

## Models plug in ( EVS RS 485)

Plug-ins are 2DIN modules that connect to a FREE Evolution EVD/EVC controller. To assemble EVS to EVD/EVC follow the instructions:

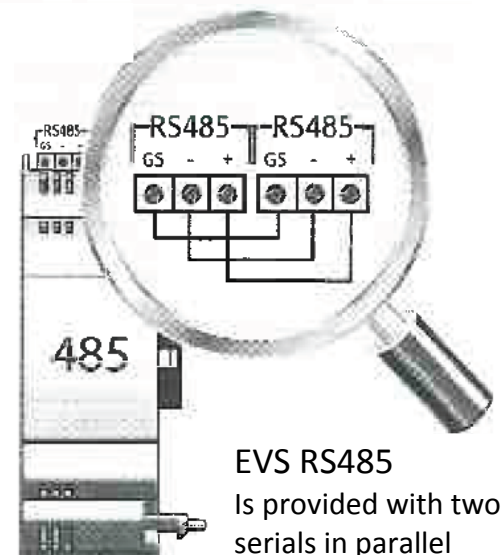
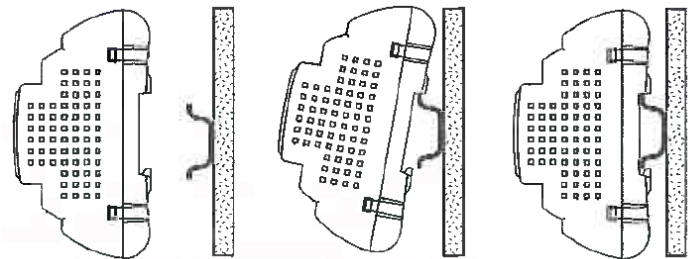
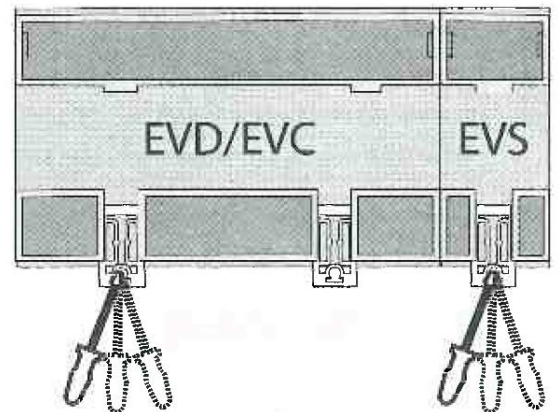
- remove the door (if present) on the left side of the EVD/EVC controller by using fingers or a screw-driver;
- anchor EVS to the EVD/EVC controller;
  - a) via the plug-in connector, behind the removable door.
  - b) with the fixing screws to which the plug-in is anchored.



To follow the instructions below to install it on DIN RAIL:

- Move the spring coking devices (two for EVD/EVC, one for EVS) to his standby position (use a screwdriver).
  - Install EVD/EVC+EVS on the DIN RAIL, the "Spring docking device" which will go to the closing position.
- N.B.: Once the "BASE" is mounted on the DIN RAIL, the "Spring docking device" must be turned downwards.

For connection to EVE expansion please read User Manual



## Modbus variables list for unit with control

<b>RS485 Plug-in Passive</b>						
Address	Name	Value	Um	Min	Max	Description
15782	Addr_RS485_PI	1	Num	0	255	RS485 passive Plug-In address
15783	Proto_RS485_PI	3=Modbus/RTU	Num	2	3	Select RS485 passive Plug-In protocol
15784	DataBit_RS485_PI	8	Num	8	8	RS485 passive Plug-In Data bit number
15785	StopBit_RS485_PI	1	Num	1	2	RS485 passive Plug-In stop bit number
15786	Parity_RS485_PI	Null	Num	0	2	RS485 passive Plug-In parity protocol
15787	Baud_RS485_PI	9600 bps	Num	0	5	RS485 passive Plug-In baud rate protocol



## Variable parameters ModBus\_ERSR

Modbus	Variable	Type	UM	Default	Min	Max	Description
9010	TE_Enabled	R		0			Time management status: True = enabled; False = disabled
9011	TE_CurrentProfile	R		0			Current profile; when time management is enabled
9012	TE_CurrentMode	R		0			Current mode; when time management is enabled
9030	ST_CurrentState	R		0			Current On/Off state
9031	ST_DigitalInput	R		0			Remote On/Off state (from digital input)
9032	ST_TimeEvents	W		0			On/Off state from time events management
9040	ECO_CurrentMode	R		0			Current Comfort/Economy mode
9041	ECO_DigitalInput	R		0			Remote Comfort/Economy mode (from digital input)
9042	ECO_VocCo2	R		0			Comfort/Economy mode from VOC/CO2 probe
9050	MOD_CurrentMode	R		0			Current Cool/Heat mode
9051	MOD_DigitalInput	R		0			Remote Cool/Heat mode (from digital input)
9052	MOD_Auto	R		0			Cool/Heat mode from automatic change-over
9053	MOD_ChangeOverProbe	R		0			Selected probe for automatic change-over
9054	MOD_ChangeOverProbeValue	R	°C	0			Value read from automatic change-over probe
9055	MOD_ChangeOverHeatValue	R	C	0			Value for automatic change-over to HEAT mode
9056	MOD_ChangeOverCoolValue	R	°C	0			Value for automatic change-over to COOL mode
9060	T_CoolingSetpoint	R	°C	0			Temperature setpoint in COOL mode
9061	T_CoolingSetpointWithoutDynamicDiff	R	°C	0			Temperature setpoint in COOL mode w/o dynamic differential
9062	T_HeatingSetpoint	R	°C	0			Temperature setpoint in HEAT mode
9063	T_HeatingSetpointWithoutDynamicDiff	R	°C	0			Temperature setpoint in HEAT mode w/o dynamic differential
9064	RH_DehumidificationSetpoint	R	%R.H.	0			Relative humidity setpoint in dehumidification
9065	T_CurrentSetpointWithoutDynamicDiff	R	°C	0			Current temperature setpoint
9070	T_RegulationProbe	R	°C	0			Active thermoregulation probe
9071	RH_RegulationProbe	R	%R.H.	0			Active relative humidity regulation probe
9072	TR_SelectedRegulationProbe	R		0			Selected thermoregulation probe
9080	Er_GlobalAlarmStatus	R		0			Alarm status: 0 = no active alarm; 1 = at least one active alarm; 2 = waiting for reset
9082	Er_GeneralAlarm	R		0			General alarm (if TRUE the unit is off)
9083	Er_CommunicationError	R		0			Communication (with FREE Smart) error
9084	Er_ClockError	R		0			Clock error
9085	Er_ThermoregulationProbeError	R		0			Thermoregulation probe error
9086	Er_InletAirTemperatureProbeError	R		0			Inlet air temperature probe error
9087	Er_OutletAirTemperatureProbeError	R		0			Outlet air temperature probe error
9088	Er_ExternalTemperatureProbeError	R		0			External temperature probe error
9089	Er_AntifreezeTemperatureProbeError	R		0			Antifreeze temperature probe error
9090	Er_RoomRelativeHumidityProbeError	R		0			Room relative humidity probe error
9091	Er_SmartAIL3ProbeError	R		0			FREE Smart AIL3 probe error
9092	Er_SmartAIL4ProbeError	R		0			FREE Smart AIL4 probe error
9093	Er_AntifreezeAlarm	R		0			Antifreeze alarm
9094	Er_SmokeAlarm	R		0			Smoke alarm
9095	Er_OutletFilterPressureSwitchAlarm	R		0			Outlet air filter pressure switch alarm
9096	Er_InletFilterPressureSwitchAlarm	R		0			Inlet air filter pressure switch alarm
9097	Er_ElectricAirHeaterThermalAlarm	R		0			Electric air heater thermal alarm
9098	Er_OutletFanInverterAlarm	R		0			Outlet fan inverter alarm
9099	Er_InletFanInverterAlarm	R		0			Inlet fan inverter alarm
9100	Er_SmartAIL3LowValueAlarm	R		0			FREE Smart AIL3 probe low value alarm
9101	Er_SmartAIL4LowValueAlarm	R		0			FREE Smart AIL4 probe low value alarm
9102	Er_RoomAirQualityProbeError	R		0			FREE Smart AIL4 probe low value alarm
9110	I_OutletAirFilterPressureSwitch	R		0			Outlet air filter pressure switch (normally closed)
9111	I_InletAirFilterPressureSwitch	R		0			Inlet air filter pressure switch (normally closed)

Modbus	Variable	Type	UM	Default	Min	Max	Description
9112	I_SmokeAlarm	R		0			
9113	I_ElectricHeaterThermal	R		0			Electric heater thermal protection (normally closed)
9120	HR_RelativeHumidityProbeEnabled	R		0			Relative humidity probe enabled
9121	HR_EnableDehumidification	R		0			Enable dehumidification
9123	HR_DehumidificationActive	R		0			Dehumidification On/Off status
9130	VOC_Enabled	R		0			VOC/CO2 probe enabled
9140	FREE_FreeCoolingEnabled	R		0			Free-cooling enabled
9141	FREE_FreeHeatingEnabled	R		0			Free-heating enabled
9150	DAMP_Level	R	%	0			External dampers opening level [%]
9151	DAMP_RecirculationDamperEnabled	R		0			Recirculation damper enabled
9160	FAN_OutletFanSpeedSetpoint	R	%	0			Outlet fan speed setpoint [%]
9161	FAN_OutletFanPressureSetpoint	R	Pa	0			Outlet fan pressure setpoint [Pa]
9162	FAN_InletFanSpeedSetpoint	R	%	0			Inlet fan speed setpoint [%]
9163	FAN_InletFanPressureSetpoint	R	Pa	0			Inlet fan pressure setpoint [Pa]
9164	FAN_CommAlarm	R		0			Communication Alarm
9165	FAN_OutletFanEnabled	R		0			Outlet fan enabled
9166	FAN_InletFanEnabled	R		0			Inlet fan enabled
9167	FAN_OutletFanPressure	R	Pa	0			Outlet fan pressure
9168	FAN_OutletFanInverterSpeed	R	%	0			Outlet fan inverter speed
9169	FAN_InletFanPressure	R	Pa	0			Inlet fan pressure
9170	FAN_InletFanInverterSpeed	R	%	0			Inlet fan inverter speed
9192	HRU_Level	R	%	0			Heat-recovery unit level [%]
9212	MVALV_Level	R	%	0			Mixing valve opening level
9221	CVALV_Level	R	%	0			Cooling valve opening level
9232	HVALV_Level	R	%	0			Heating valve opening level
9241	ELEC_Role	R		0			Electric heater role; given the current hardware configuration and unit state/mode
9245	ELEC_Out1	R		0			Electric heater 1st digital output
9246	ELEC_Out2	R		0			Electric heater 2nd digital output
9247	ELEC_Level	R		0			Electric heater level (number of active steps)
9248	ELEC_ThermalProtectionEnabled	R		0			Electric heater thermal protection enabled
9250	PUMP_State	R		0			Water pump On/Off state
9260	I_OutletAirTemperature	R	°C	0			Outlet air temperature
9261	I_AntifreezeTemperature	R	°C	0			Antifreeze temperature
9262	I_InletAirTemperature	R	°C	0			Inlet air temperature
9263	I_ExternalTemperature	R	°C	0			External temperature
9264	I_RoomRelativeHumidity	R	%	0			Room relative humidity
9265	I_RoomAirQuality	R	%	0			Room air quality (VOC/CO2)
9270	NIGHT_Active	R		0			Night function On/Off status
9271	NIGHT_DigitalInput	R		0			Remote Night function request (from digital input)
9272	NIGHT_TimeEvents	R		0			Night function request from time events management
9273	NIGHT_Enabled	R		0			Night function enabled
9274	NIGHT_KeyboardRequest	W		0			Night function request (from keyboard/network)
9280	INFO_AppVersion	R		*****			Application version
9290	TR_OutletAirTemperaturePowerReduction	R	%	0			Actuators' power reduction due to limitations on outlet air temperature
9291	TR_LowOutletAirTemperaturePowerReduction	R	%	0			Actuators' power reduction due to low outlet air temperature
9292	TR_HighOutletAirTemperaturePowerReduction	R	%	0			Actuators' power reduction due to high outlet air temperature
9300	AL_OutletAirFilterPressureSwitchEnabled	R		0			Outlet air filter pressure switch enabled
9301	AL_InletAirFilterPressureSwitchEnabled	R		0			Inlet air filter pressure switch enabled
9302	AL_AntifreezeTemperatureProbeEnabled	R		0			Antifreeze temperature probe enabled

Modbus	Variable	Type	UM	Default	Min	Max	Description
16390	SYS_SelectConfiguration	W		12			Hardware selection: C=Cold Water; H=Hot Water; M=Mixed; E=Electric
16430	TE00_EnableTimeEvents	W		0			Enable time events
16431	TE01_TimeProfileMonday	W		0			Time events profile on Monday
16432	TE02_TimeProfileTuesday	W		0			Time events profile on Tuesday
16433	TE03_TimeProfileWednesday	W		0			Time events profile on Wednesday
16434	TE04_TimeProfileThursday	W		0			Time events profile on Thursday
16435	TE05_TimeProfileFriday	W		0			Time events profile on Friday
16436	TE06_TimeProfileSaturday	W		1			Time events profile on Saturday
16437	TE07_TimeProfileSunday	W		4			Time events profile on Sunday
16438	TE10_TimeProfile1Event1	W		480	0	1439	Time of event #1 of profile #1
16439	TE11_ModeProfile1Event1	W		1			Mode of event #1 of profile #1
16440	TE12_TimeProfile1Event2	W		720	0	1439	Time of event #2 of profile #1
16441	TE13_ModeProfile1Event2	W		2			Mode of event #2 of profile #1
16442	TE14_TimeProfile1Event3	W		840	0	1439	Time of event #3 of profile #1
16443	TE15_ModeProfile1Event3	W		1			Mode of event #3 of profile #1
16444	TE16_TimeProfile1Event4	W		1080	0	1439	Time of event #4 of profile #1
16445	TE17_ModeProfile1Event4	W		0			Mode of event #4 of profile #1
16446	TE20_TimeProfile2Event1	W		480	0	1439	Time of event #1 of profile #2
16447	TE21_ModeProfile2Event1	W		1			Mode of event #1 of profile #2
16448	TE22_TimeProfile2Event2	W		720	0	1439	Time of event #2 of profile #2
16449	TE23_ModeProfile2Event2	W		0			Mode of event #2 of profile #2
16450	TE24_TimeProfile2Event3	W		840	0	1439	Time of event #3 of profile #2
16451	TE25_ModeProfile2Event3	W		1			Mode of event #3 of profile #2
16452	TE26_TimeProfile2Event4	W		1080	0	1439	Time of event #4 of profile #2
16453	TE27_ModeProfile2Event4	W		0			Mode of event #4 of profile #2
16454	TE30_TimeProfile3Event1	W		480	0	1439	Time of event #1 of profile #3
16455	TE31_ModeProfile3Event1	W		1			Mode of event #1 of profile #3
16456	TE32_TimeProfile3Event2	W		1080	0	1439	Time of event #2 of profile #3
16457	TE33_ModeProfile3Event2	W		0			Mode of event #2 of profile #3
16470	ST_Keyboard	W		0			Local On/Off state (from keyboard)
16481	ECO_EnableDigitalInput	W		0			Economy digital input enabled
16482	ECO_Keyboard	W		0			Local Comfort/Economy mode (from keyboard/network)
16490	MOD_Keyboard	W		0			Local mode (COOL, HEAT or AUTO)
16491	MOD_EnableDigitalInput	W		0			Cool/heat mode digital input enabled
16492	MOD_ChangeOverProbeSelection	W		0			Automatic change-over probe selection
16493	MOD_ChangeOverDifferentialCool	W	°C	0	255	255	Differential for automatic change-over in COOL
16494	MOD_ChangeOverDifferentialHeat	W	°C	0	255	255	Differential for automatic change-over in HEAT
16495	MOD_ChangeOverExternalSetpoint	W	°C	150	500	999	External temperature setpoint for automatic change-over
16496	MOD_ChangeOverExternalDifferential	W	°C	50	1	255	External temperature differential for automatic change-over
16500	SP01_T_MinSetpoint	W	°C	50	500	18.00	Minimum temperature control setpoint
16501	SP02_T_MaxSetpoint	W	°C	350	3.0	999	Maximum temperature control setpoint
16502	SP10_T_CoolingSetpoint	W	°C	6000.00.00	20.00	27.00	Setpoint in cooling mode (comfort)
16503	SP11_T_CoolingSetpointEco	W	°C	0.00	25.00	35.00	Setpoint in cooling mode (economy)
16504	SP20_T_HeatingSetpoint	W	°C	4800.00.00	18.00	25.00	Setpoint in heating mode (comfort)
16505	SP21_T_HeatingSetpointEco	W	°C	0.00	5.00	20.00	Setpoint in heating mode (economy)
16506	ds00_EnableDynamicSetpoint	W		0.00			Enable dynamic setpoint
16507	ds01_BandDynamicDifferentialCool	W	°C	15	1	255	Proportional band in cooling mode for dynamic differential
16508	ds02_BandDynamicDifferentialHeat	W	°C	15	1	255	Proportional band in heating mode for dynamic differential
16509	ds03_DynamicDifferentialCool	W	°C	50	500	999	Max offset setpoint in cooling mode from dynamic setpoint

Modbus	Variable	Type	UM	Default	Min	Max	Description
16510	ds04_DynamicDifferentialHeat	W	°C	-50	500	999	Max offset setpoint in heating mode from dynamic setpoint
16511	ds05_SetpointDynamicDifferentialCool	W	°C	370	8.00	999	Setpoint in cooling mode for dynamic differential
16512	ds06_SetpointDynamicDifferentialHeat	W	°C	0.00	500	37.00	Setpoint in heating mode for dynamic differential
16513	SP31_RH_MinSetpoint	W	%R.H.	30	24.00	50	Minimum relative humidity setpoint
16514	SP32_RH_MaxSetpoint	W	%R.H.	70	55	100	Maximum relative humidity setpoint
16515	SP40_RH_DehumidificationSetpoint	W	%R.H.	50	30	55	Relative humidity setpoint in dehumidification (comfort)
16516	SP41_RH_DehumidificationSetpointEco	W	%R.H.	55	50	70	Relative humidity setpoint in dehumidification (eco)
16540	AL_SetpointAntifreeze	W	°C	50			Setpoint for antifreeze control
16541	AL_HysteresisAntifreeze	W	°C	20			Hysteresis width for antifreeze control
16542	AL_SmokeAlarmConfiguration	W		0			Smoke alarm management configuration
16543	AL_OutletAirFilterPressureSwitchDelay	W	s	60			Outlet air filter pressure switch alarm delay
16545	AL_InletAirFilterPressureSwitchDelay	W	s	60			Inlet air filter pressure switch alarm delay
16547	AL_EnableOutletAirFilterPressureSwitch	W		1			Enable outlet air filter pressure switch
16548	AL_EnableInletAirFilterPressureSwitch	W		1			Enable inlet air filter pressure switch
16549	AL_EnableAntifreezeTemperatureProbe	W		1			Enable antifreeze temperature probe
16550	TR_RegulationProbeSelection	W		0			Select thermoregulation probe
16551	TR_TemperatureLowerLimit	W	°C	180	500	25.00	Outlet air temperature lower limit
16552	TR_TemperatureLowerLimitBand	W	°C	15	24.00	255	Band for outlet air temperature lower limit
16553	TR_TemperatureUpperLimit	W	°C	500		999	Outlet air temperature upper limit
16554	TR_TemperatureUpperLimitBand	W	°C	15	1	255	Band for outlet air temperature upper limit
16560	HR_EnableRelativeHumidityControl	W		0			Enable relative humidity control
16561	HR_PostheatingTemperatureSetpoint	W	°C	250	500	999	Post-heating temperature setpoint in dehumidification
16562	HR_Priority	W	°C	0			Priority between temperature and humidity objectives in Cool mode (cooling vs. dehumidification)
16563	HR_DehumidificationDifferential	W	°C	15	1	255	Temperature differential that disables dehumidification (w.r.t. temperature setpoint in Cool mode)
16564	HR_RegulationDifferential	W	%R.H.	5	1	25	Regulation differential in dehumidification
16570	VOC_Enable	W		0			VOC/CO2 probe enabled
16571	VOC_Setpoint	W	%	40	0	100	Air quality setpoint
16572	VOC_RegulationBand	W	%	20	1	99	Air quality regulation band
16573	VOC_DiffRelMin	W	%	10	1	50	Relative differential (with respect to regulation band) to switch to Economy mode
16574	VOC_DiffRelMax	W	%	50	10	99	Relative differential (with respect to regulation band) to switch to Comfort mode
16580	FREE_EnableFreeCooling	W		1			Enable freecooling
16581	FREE_EnableFreeHeating	W		1			Enable freeheating
16582	FREE_MinExternalTemperature	W	°C	120	500	999	Minimum external temperature for freecooling (below this temperature freecooling is not enabled)
16583	FREE_MinExternalTemperatureDifferential	W	°C	10	1	50	Minimum external temperature for freecooling hysteresis width
16584	FREE_FreeCoolingDifferential	W	°C	50	1	255	Temperature differential to enable freecooling (between regulation and external temperature)
16585	FREE_FreeCoolingDifferentialHysteresis	W	°C	10	1	50	Freecooling temperature differential hysteresis width
16586	FREE_FreeHeatingDifferential	W	°C	50	1	255	Temperature differential to enable freeheating (between external and regulation temperature)
16587	FREE_FreeHeatingDifferentialHysteresis	W	°C	10	1	50	Freeheating temperature differential hysteresis width
16600	DAMP_EnableRecirculationDamper	W		0			Enable recirculation damper
16601	DAMP_ExternalDamperMinLevel	W	%	300	0	1000	External damper minimum level
16602	DAMP_WarmUpTimeout	W	s	60			Warm-up timeout
16611	FAN_OutletFanMaximumSpeed	W	%	100	60	100	Outlet fan maximum inverter speed [%]
16612	FAN_InletFanMaximumSpeed	W	%	100	60	100	Inlet fan maximum inverter speed [%]
16613	FAN_OutletFanSpeedSetpointComfort	W	%	60	40	100	Outlet fan inverter speed setpoint [%] in Comfort mode
16614	FAN_OutletFanSpeedSetpointEconomy	W	%	40	20	60	Outlet fan inverter speed setpoint [%] in Economy mode
16615	FAN_InletFanSpeedSetpointComfort	W	%	60	40	100	Inlet fan inverter speed setpoint [%] in Comfort mode
16616	FAN_InletFanSpeedSetpointEconomy	W	%	40	20	60	Inlet fan inverter speed setpoint [%] in Economy mode
16617	FAN_OutletFanPressureSetpointComfort	W	Pa	1500	800	2500	Outlet fan pressure setpoint [Pa] in Comfort mode
16618	FAN_OutletFanPressureSetpointEconomy	W	Pa	800	10	1500	Outlet fan pressure setpoint [Pa] in Economy mode

Modbus	Variable	Type	UM	Default	Min	Max	Description
16619	FAN_InletFanPressureSetpointComfort	W	Pa	1500	800	2500	Inlet fan pressure setpoint [Pa] in Comfort mode
16620	FAN_InletFanPressureSetpointEconomy	W	Pa	800	10	1500	Inlet fan pressure setpoint [Pa] in Comfort mode
16621	FAN_IOcfg	W		0			IO allocation (outlet vs inlet)
16622	FAN_SelectRegulationType	W		1			Regulation Type
16623	FAN_MinPress	W	Pa	10	1	2500	Low Pressure Setpoint
16624	FAN_MinPressBypass	W	Sec	60	1	60	Low Pressure Bypass
16632	FAN_OutletFanOnStartDelay	W	s	10			Outlet fan on-start delay
16634	FAN_InletFanOnStartDelay	W	s	10			Inlet fan on-start delay
16640	HRU_RegulationDifferential	W	°C	15	1	255	Heat recovery unit differential (with respect to thermoregulation setpoint)
16641	HRU_TypeSelection	W		1			Heat recovery unit type
16650	MVALV_ProportionalBand	W	°C	15	1	255	Mixing valve proportional band
16651	MVALV_NeutralZone	W	°C	5	1	255	Mixing valve neutral zone
16652	MVALV_IntegralTime	W	s	100			Mixing valve integral time
16660	CVALV_ProportionalBand	W	°C	15	1	255	Cooling valve proportional band
16661	CVALV_NeutralZone	W	°C	5	1	255	Cooling valve neutral zone
16662	CVALV_IntegralTime	W	s	100			Cooling valve integral time
16670	HVALV_HeatingProportionalBand	W	°C	15	1	255	Heating valve proportional band (in heating)
16671	HVALV_HeatingNeutralZone	W	°C	5	1	255	Heating valve neutral zone (in heating)
16672	HVALV_IntegralTime	W	s	100			Heating valve integral time
16673	HVALV_PostHeatingProportionalBand	W	°C	15	1	255	Heating valve proportional band (in post-heating)
16674	HVALV_PostHeatingNeutralZone	W	°C	5	1	255	Heating valve neutral zone (in post-heating)
16680	ELEC_HeatingProportionalBand	W	°C	15	1	255	Electric heater proportional band (in heating)
16681	ELEC_HeatingNeutralZone	W	°C	5	1	255	Electric heater neutral zone (in heating)
16682	ELEC_PostHeatingProportionalBand	W	C	15	1	255	Electric heater proportional band (in post-heating)
16683	ELEC_PostHeatingNeutralZone	W	°C	5	1	255	Electric heater neutral zone (in post-heating)
16684	ELEC_EnableThermalProtection	W		1			Enable electric heater thermal protection
16690	PUMP_MinTimeOn	W	s	120			Water pump minimum time on
16700	NIGHT_EnabledDigitalInput	W		0			Night digital input enabled
16702	NIGHT_MinTimeOn	W	min	15			Night function minimum time on [min]
16704	NIGHT_Timeout	W	h	1			Night function timeout [h]
16710	KBD_EnLockFunction	W		1			Enable keyboard lock
16800	TW00_EnabledYearEvents	W		1			Enable year events
16801	TW01_EventProfile01	W		0			Year events profile 1
16802	TW02_EventProfile02	W		0			Year events profile 2
16803	TW03_EventProfile03	W		0			Year events profile 3
16804	TW04_EventProfile04	W		0			Year events profile 4
16805	TW05_EventProfile05	W		0			Year events profile 5
16806	TW06_EventProfile06	W		1			Year events profile 6
16807	TW07_EventProfile07	W		4			Year events profile 7
16808	TW08_EventProfile08	W		0			Year events profile 8
16809	TW09_EventProfile09	W		0			Year events profile 9
16810	TW10_EventProfile10	W		0			Year events profile 10
16811	TW11_EventProfile11	W		0			Year events profile 11
16812	TW12_EventProfile12	W		0			Year events profile 12
16813	TW13_EventProfile13	W		1			Year events profile 13
16814	TW14_EventProfile14	W		4			Year events profile 14
16815	TW15_EventProfile15	W		4			Year events profile 15
16830	TW16_EnEvent01	W		0			Enable Year events 1
16831	TW17_EnEvent02	W		0			Enable Year events 2

Modbus	Variable	Type	UM	Default	Min	Max	Description
16832	TW18_EnEvent03	W		0			Enable Year events 3
16833	TW19_EnEvent04	W		0			Enable Year events 4
16834	TW20_EnEvent05	W		0			Enable Year events 5
16835	TW21_EnEvent06	W		0			Enable Year events 6
16836	TW22_EnEvent07	W		0			Enable Year events 7
16837	TW23_EnEvent08	W		0			Enable Year events 8
16838	TW24_EnEvent09	W		0			Enable Year events 9
16839	TW25_EnEvent10	W		0			Enable Year events 10
16840	TW26_EnEvent11	W		0			Enable Year events 11
16841	TW27_EnEvent12	W		0			Enable Year events 12
16842	TW28_EnEvent13	W		0			Enable Year events 13
16843	TW29_EnEvent14	W		0			Enable Year events 14
16844	TW30_EnEvent15	W		0			Enable Year events 15
16860	TW31_EventDDStart01	W	Day	1	1	31	Start Day Year events 1
16861	TW32_EventDDStart02	W	Day	1	1	31	Start Day Year events 1
16862	TW33_EventDDStart03	W	Day	1	1	31	Start Day Year events 1
16863	TW34_EventDDStart04	W	Day	1	1	31	Start Day Year events 1
16864	TW35_EventDDStart05	W	Day	1	1	31	Start Day Year events 1
16865	TW36_EventDDStart06	W	Day	1	1	31	Start Day Year events 1
16866	TW37_EventDDStart07	W	Day	1	1	31	Start Day Year events 1
16867	TW38_EventDDStart08	W	Day	1	1	31	Start Day Year events 1
16868	TW39_EventDDStart09	W	Day	1	1	31	Start Day Year events 1
16869	TW40_EventDDStart10	W	Day	1	1	31	Start Day Year events 1
16870	TW41_EventDDStart11	W	Day	1	1	31	Start Day Year events 1
16871	TW42_EventDDStart12	W	Day	1	1	31	Start Day Year events 1
16872	TW43_EventDDStart13	W	Day	1	1	31	Start Day Year events 1
16873	TW44_EventDDStart14	W	Day	1	1	31	Start Day Year events 1
16874	TW45_EventDDStart15	W	Day	1	1	31	Start Day Year events 1
16890	TW46_EventMMStart01	W	Day	1	1	12	Start Month Year events 1
16891	TW47_EventMMStart02	W	Day	1	1	12	Start Month Year events 1
16892	TW48_EventMMStart03	W	Day	1	1	12	Start Month Year events 1
16893	TW49_EventMMStart04	W	Day	1	1	12	Start Month Year events 1
16894	TW50_EventMMStart05	W	Day	1	1	12	Start Month Year events 1
16895	TW51_EventMMStart06	W	Day	1	1	12	Start Month Year events 1
16896	TW52_EventMMStart07	W	Day	1	1	12	Start Month Year events 1
16897	TW53_EventMMStart08	W	Day	1	1	12	Start Month Year events 1
16898	TW54_EventMMStart09	W	Day	1	1	12	Start Month Year events 1
16899	TW55_EventMMStart10	W	Day	1	1	12	Start Month Year events 1
16900	TW56_EventMMStart11	W	Day	1	1	12	Start Month Year events 1
16901	TW57_EventMMStart12	W	Day	1	1	12	Start Month Year events 1
16902	TW58_EventMMStart13	W	Day	1	1	12	Start Month Year events 1
16903	TW59_EventMMStart14	W	Day	1	1	12	Start Month Year events 1
16904	TW60_EventMMStart15	W	Day	1	1	12	Start Month Year events 1
16920	TW61_EventDDStop01	W	Day	1	1	31	Stop Day Year events 1
16921	TW62_EventDDStop02	W	Day	1	1	31	Stop Day Year events 1
16922	TW63_EventDDStop03	W	Day	1	1	31	Stop Day Year events 1
16923	TW64_EventDDStop04	W	Day	1	1	31	Stop Day Year events 1
16924	TW65_EventDDStop05	W	Day	1	1	31	Stop Day Year events 1
16925	TW66_EventDDStop06	W	Day	1	1	31	Stop Day Year events 1

Modbus	Variable	Type	UM	Default	Min	Max	Description
16926	TW67_EventDDStop07	W	Day	1	1	31	Stop Day Year events 1
16927	TW68_EventDDStop08	W	Day	1	1	31	Stop Day Year events 1
16928	TW69_EventDDStop09	W	Day	1	1	31	Stop Day Year events 1
16929	TW70_EventDDStop10	W	Day	1	1	31	Stop Day Year events 1
16930	TW71_EventDDStop11	W	Day	1	1	31	Stop Day Year events 1
16931	TW72_EventDDStop12	W	Day	1	1	31	Stop Day Year events 1
16932	TW73_EventDDStop13	W	Day	1	1	31	Stop Day Year events 1
16933	TW74_EventDDStop14	W	Day	1	1	31	Stop Day Year events 1
16934	TW75_EventDDStop15	W	Day	1	1	31	Stop Day Year events 1
16950	TW76_EventMMStop01	W	Day	1	1	12	Stop Month Year events 1
16951	TW77_EventMMStop02	W	Day	1	1	12	Stop Month Year events 1
16952	TW78_EventMMStop03	W	Day	1	1	12	Stop Month Year events 1
16953	TW79_EventMMStop04	W	Day	1	1	12	Stop Month Year events 1
16954	TW80_EventMMStop05	W	Day	1	1	12	Stop Month Year events 1
16955	TW81_EventMMStop06	W	Day	1	1	12	Stop Month Year events 1
16956	TW82_EventMMStop07	W	Day	1	1	12	Stop Month Year events 1
16957	TW83_EventMMStop08	W	Day	1	1	12	Stop Month Year events 1
16958	TW84_EventMMStop09	W	Day	1	1	12	Stop Month Year events 1
16959	TW85_EventMMStop10	W	Day	1	1	12	Stop Month Year events 1
16960	TW86_EventMMStop11	W	Day	1	1	12	Stop Month Year events 1
16961	TW87_EventMMStop12	W	Day	1	1	12	Stop Month Year events 1
16962	TW88_EventMMStop13	W	Day	1	1	12	Stop Month Year events 1
16963	TW89_EventMMStop14	W	Day	1	1	12	Stop Month Year events 1
16964	TW90_EventMMStop15	W	Day	1	1	12	Start Day Year events 1



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carta riciclata  
recycled paper  
papier recyclé  
recycled papier



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