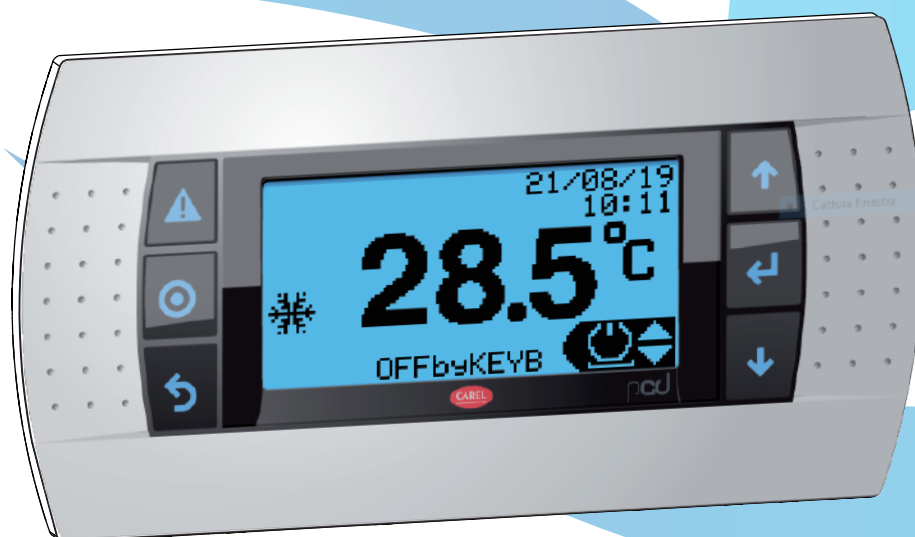


LYRA 2T



Reversible heat pump with inverter technology

The page features several large, overlapping, wavy shapes in various shades of blue. One large shape starts from the left edge and curves downwards and to the right, partially enclosing the main text. Another shape is positioned below it, and a third, lighter blue shape is at the bottom. The background is plain white.

Dear Customer,

Thank you for choosing a Thermics energie machine, an innovative, modern and quality product that will ensure your well-being, silence operation and safety for a long time.

This instruction manual contains important indications and suggestions that must be observed in order to make the installation and use of the machine as easy as possible.

Thank you again.
Thermics energie

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1 Use

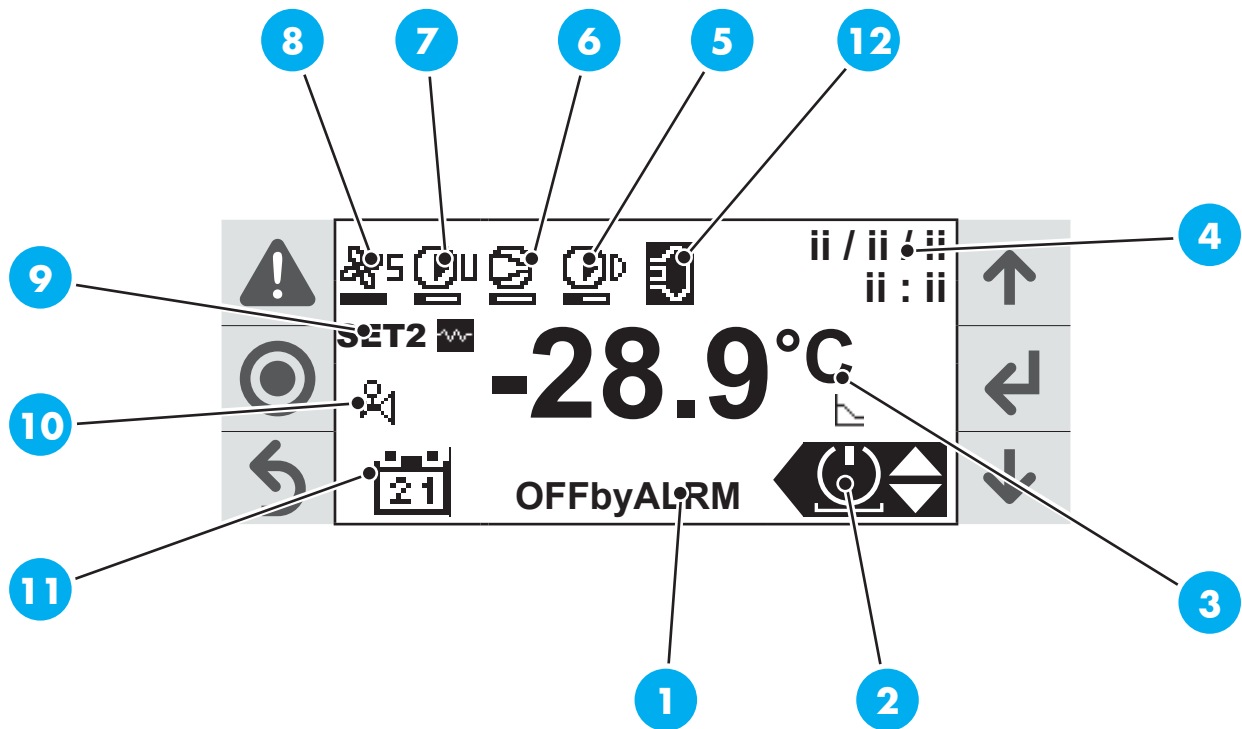
1.1 Control panel

The control panel consists of a display and programming keys.



1 Alarms	It illuminates in the presence of alarm states. Press the button to display the type of alarm or to reset it.
2 Programming	Allows you to access the programming pages or read the parameters.
3 ESC	Allows you to exit the programming pages.
4 Up arrow	Moves the blinking cursor to the previous page or increases the value to be changed.
5 ENTER	To confirm and enter the parameter to be modified.
6 Down arrow	Moves the blinking cursor to the next page or decreases the value to be changed.
7 Display	Information display.

1.2 Display



DISPLAY DESCRIPTION

1 Operating information

Shortcut menu



Unit ON-OFF menu.

2



Setpoint setting and setpoint 2 activation menu.



Operating mode change menu: heating, cooling and domestic hot water only.



Unit information display.

Reference temperature (DHW or system water inlet).

3



Standard display: the standard setpoint is active.



Negative display: setpoint 2 is active.

4 Date and time.

5 Active compressor with speed bar.

6 DHW circulator with speed bar.

7 System circulator with speed bar.

8 Fan(s) with speed bar.

Setpoint 2 activation and/or Boost coil.

9

SET 2

Setpoint 2 is active and the reference temperature numbers are negative.

ECO











Boost function is active.



DHW alternative source is active.

DISPLAY DESCRIPTION

Operating modes (heating, cooling and DHW).

-  Operation in DHW production mode.
-  Operation in system heating mode.
-  Operation in system cooling mode.
- 10**  Operation in DHW priority in heating mode.
-  Operation in DHW priority in cooling mode.
-  Defrost function active.
-  Drip function active.
-  Hot gas defrost valve open.

11 Program active.

12 System alternative source is active.

1.2.1 Operating information

<i>FUNCTION</i>	<i>DESCRIPTION</i>
STAND-BY	All the setpoints are met, unit waiting.
OFFbyALRM	Unit OFF due to an active alarm.
OFFbyBMS	Unit OFF from Modbus connection.
OFFbyDI	Unit OFF by remote contact.
OFFbyKEYB	Unit OFF from control panel.
OFFbyChgOvr	Unit OFF for operating mode change.
SEASON CHG.	Season change active.
PLANT REG.	Unit active on system regulation
DEFROST	Defrost status active.
SHUT DOWN	Shut down procedure active.
CYCL. INV.	Cycle inversion after defrosting.
AFREEZE ADV	Advanced antifreeze mode active.
ALARMS	Alarms present with unit ON.
DHW REG.	Unit active on DHW regulation.
DHW SUBST	Replacement function is active during DHW operation
PLANT SUBST	Replacement function is active during system operation.
TEMP FRCOFF	Unit OFF due to temperature too high.
EQUAL	Equalization



1.3 Access levels

It has 3 consultation and programming levels:

ACCESS LEVELS

Without password	To start/stop the unit, program the setpoints, activate/deactivate the most common functions, change the season and refer to the active setpoints and the main temperatures detected.
With User password (Default: "2345")	To check the unit's programming, change date and time, activate a time, daily, annual programming and make some simple settings.
With Maintainer password	To read and program the setpoints and check the machine parameters.
With Manufacturer password	To read, program and edit software settings.



1.4 Procedures

1.4.1 Machine start-up

The machine must be started up for the first time by personnel authorised by the manufacturer.







1. Set the QF main differential switch located outside the machine to the OFF position.
2. Set any remote ON/OFF switch to OFF.
3. Remove the front panel first, then the electrical panel.
4. Lift the lever of the compressor's thermal-magnetic circuit breaker.
5. Close the cover of the electrical panel.
6. Place the thermal-magnetic circuit breaker in the electrical panel to ON.
7. Set the QF main differential switch to ON.
8. At this point the control panel will turn on to indicate that the machine is powered.
9. To allow the oil inside the compressor to warm up, select the "OFF" operation on the control panel and wait at least two hours before activating the unit.

1.4.2 Control panel settings









1. Enter your Service password.
2. Set the language of the control panel.
3. Set date and time.
4. Activate the remote contact (if provided) or alternatively select the function of the multifunction input F3.
5. Modify the setpoints according to the type of system.
6. If required, set the parameters of the heating or cooling curve related to the dynamic setpoint (not provided for the DHW setpoint).
7. Select the operating season.
8. Check the correct reading of the BT6 DHW cylinder probe (if present).

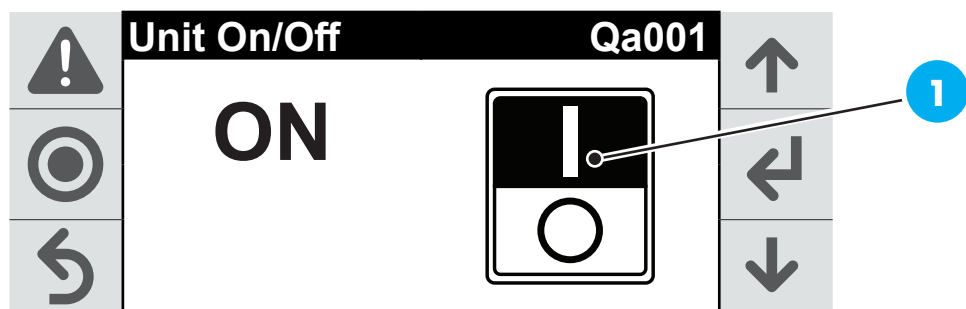
1.4.3 Entering the password

To enter the password:





1. Use the  and  keys to select the first number.
2. Press the  key to confirm the selected number and move on to the next number.
3. Select the next password numbers using the  and  keys and confirm by pressing .

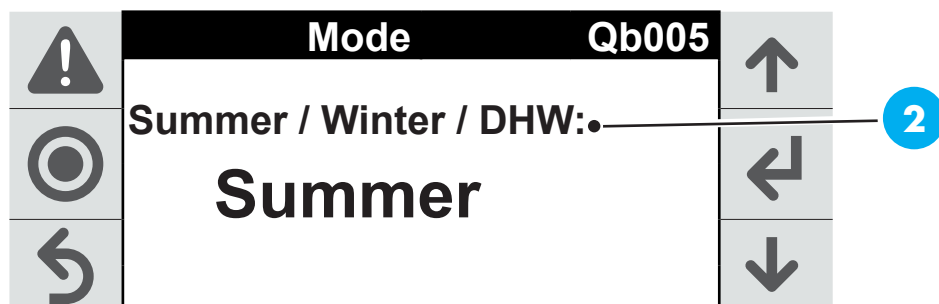
1.4.4 Starting

1. Press the  and  keys to select the ON/OFF menu.
2. Press the  key to select ON (1).
3. Press the  key to return to the main page.
4. Press the  key to move to the "operating mode" menu.
5. Use the  and  keys to select the desired operating mode: summer, winter and DHW only.
6. Confirm by pressing .









1.4.5 Changing the season













1. Press the  and  keys to select the "operation mode" menu.
2. Press the  key.
3. Press the  key again and select the desired operating mode: summer, winter and DHW only (2).









1.4.6 Switching off

1. Press the  and  keys to select the ON/OFF menu.
2. Press the  key.
3. Press the  and  keys to move to OFF.
4. Press  to confirm.





1.4.7 Setting the setpoints

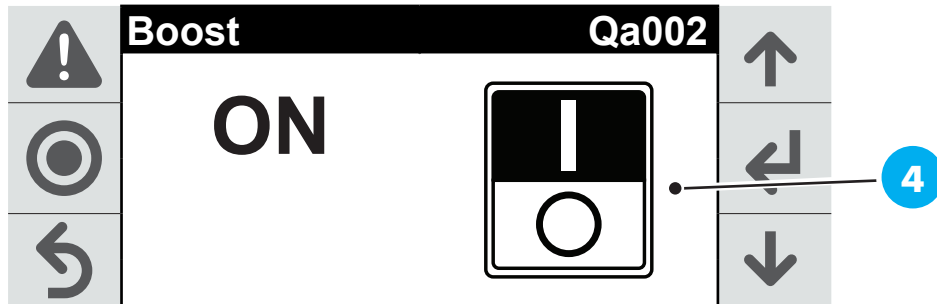
1. Press the  and  keys to select the "setpoint settings" menu.
2. Press  to confirm.
3. The "Qb01"(3) screen displays the winter setpoints "Set" and "Set 2" (the latter is only active if the "Set 2" mode is activated).
4. Press the  key to move the cursor to the first setpoint ("Set").
5. Press the  and  keys to select the desired temperature.
6. Press the  key again to change the "Set 2" setpoint
7. Press the  key again to move the cursor to the screen header line.
8. Press the  and  keys to access pages "Qb02" (domestic hot water), "Qb03" (cooling) and "Qb04" (Set 2 setting).
9. To modify the setpoints of pages Qb02 and Qb03, repeat the operations listed above from point 4 to 8.
10. On page "Qb04" ("Set 2" setting) it is possible to activate/deactivate the "Set 2" mode: moving to the ON/OFF menu, press the  and  keys.

Heating		Qb01	
	Set	30. 0°C	
	Set2:	35. 0°C	
			





3

1.4.8 Boost coil activation (optional)




1. Press the  and  keys to select the "coil" menu (4).
2. Press the  key.
3. Press the  key to select ON.














1.4.9 Boost coil deactivation (optional)







1. Press the  and  keys to select the "coil" menu.
2. Press the  key.
3. Press the  key to select ON.

1.4.10 Information menu display













1. Press the  and  keys to select the "coil" menu.
2. Press the  key.

1.4.11 Setting current date and time

1. Press the  key.
2. Enter the user password (see paragraph "1.4.3 Entering the password").
3. Press the  key to enter the "programming" menu.
4. Press the  and  keys to select "a. Date and Time".
5. Press the  key to enter the "Ha001" menu.
6. Press the  key again to move the cursor to the "date" field display mode.
7. The  and  keys can be used to change the parameter if necessary.
8. Move the cursor back to the "date" field by pressing .
9. Press the  and  keys to change the numerical value of the day.




10. Press the  key to change the month and then the year.
11. Move the cursor back to the "time" field by pressing .
12. Press the  and  keys to change the hour.
13. Press the  key to change the "minutes" field.
14. Press the  key again to move the cursor to the screen header line where you can select other items from the "programming" menu.

1.4.12 Setting the language

1. Press the  key.
2. Enter the user password (see paragraph "1.4.3 Entering the password").
3. Press the  key to enter the "programming" menu.
4. Press the  and  keys to select "H. Settings".
5. Press  to confirm.
6. Press the  and  keys to select "c. Language".
7. Press the  key to enter the "Language" menu.
8. Press the  key again to move the cursor to the language selection field.
9. Press the  and  keys to change the parameter if necessary.
10. Press the  key to return to the Home screen.





1.4.13 Alarms

In the event of a malfunction, the alarm indication appears on the main screen:








1. Press the  key to display the alarm.
2. Press the  key to not reset the alarm.
3. Press the  key to reset the alarm.

1.4.14 Program activation






System program:

1. Press the  key.
2. Enter the user password (see paragraph "1.4.3 Entering the password").
3. Press the  key to enter the "programming" menu.
4. Press the  and  keys to select "I. Time Program"







Menu "Fc001":

1. Press the  key to enter the "Fc001" menu.
2. Press the  key again to move the cursor to the time program enable parameter for the "Heating/Cooling" circuit.
3. Press the  and  keys to change to "YES": Time, day of the week and date will be displayed. In addition, information about the active time band and the currently active operating mode will be displayed.
4. Press the  key again to move the cursor to the screen header line.
5. Press the  and  keys to continue programming.

Menu "Fc002":

1. Press the  key to enter the "Fc002" menu.
2. Press the  key again to set the daily operation to four different time bands by moving the cursor over the various fields.
3. In the last field of the page it is possible to save the time program: press the  key and change the field entry to "YES" with the  and  keys.


Once you have saved your selection, you can copy the settings to other days of the week:

1. Press the  key to move with the cursor over the indicated field.
2. Press the  and  keys to change the item by selecting the day of the week on which to copy the daily program.
3. Once the program for the "Heating/Cooling" circuit has been completed, move the cursor to the "Header" field.
4. Press the  key and change page with the  and  keys.

Menu "Fc003":

1. On page "Fc003" you can set the special operation to 3 different periods in the year using the as described in the previous points.

Menu "Fc004":

1. On page "Fc004" you can set the special daily operation on 6 different days of the year by moving the cursor over the various fields using the  key.

















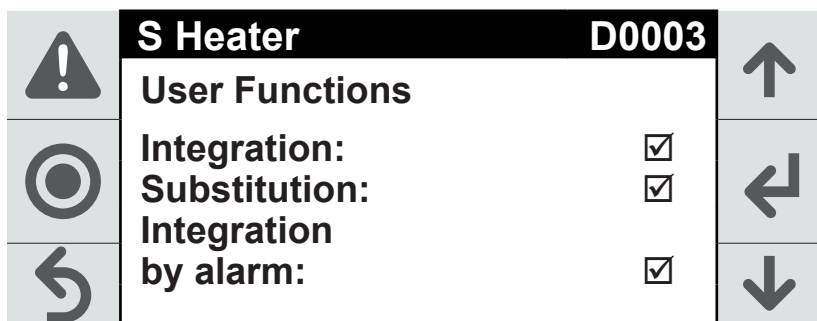
IMPORTANT

You can set the DHW program (from menu "Fc005" to menu "Fc008") by following the procedures of the system program (menu "Fc001" corresponds to menu "Fc005", "Fc002" to "Fc006", etc.).

1.4.15 Enabling the Supplementary Source

On the control panel:

1. The "PROGRAMMING" button can be used to access the programming menu after entering the Service password.
2. Buttons  and  can be used to select the first number of the password, after confirming by pressing the  button, you can move to the second number and so on until reaching the fourth.
3. After selecting the fourth number and pressing , if the password is correct, you can access the programming menu.
4. Press the  and  buttons, select the "D. Heater" option and press .
5. You will access menu D0001. Pressing the  button will move the cursor to the parameter for enabling the supplementary source on the system side. This will make all subsequent screens visible for parameterization.
6. In the following screens, the operation can be adjusted by using  to move the cursor to the required field,  and  to modify the parameter and by pressing  again to confirm and move the cursor to the next field. When the cursor is in the upper left corner, you can change page using  and .
7. Choosing functions:







By enabling the individual items, it will be possible to access the relative submenus to set the trip thresholds according to the outdoor temperature, set a hysteresis value for the outdoor temperature and a temperature value as an alarm threshold to activate the boiler.

The following parameters are available:

OPERATING MODE	DESCRIPTION
INTEGRATION	The supplementary source is activated in addition to the heat pump to generate heat
SUBSTITUTION	The heat pump switches off and the supplementary source is activated
INTEGRATION BY ALARM	The supplementary source takes over from the heat pump as it was stopped by mistake

INTEGRATION

	S Heater D0004	
	User Integration	
	Thresh.: 20.0°C	
	Diff.: 2.0°C	
	Delay: 175s	







OPERATING MODE	DESCRIPTION
THRESH	external probe value for boiler switch on (recommended value 7°C)
DIFF	hysteresis threshold between the operation of one generator and another (recommended value 3.0°C)
DELAY	boiler activation delay (recommended value 180s)



IMPORTANT

Page D0005 shows the parameters that can be used to specify when one and the other source switches on. These parameters should be modified by qualified technical personnel.

SUBSTITUTION

	S Heater D0006	
	User Substitution	
	Thresh.: 6.0°C	
	Diff.: 2.0°C	

OPERATING MODE	DESCRIPTION
THRESH	external probe value for switching on (recommended value 5°C)
DIFF	hysteresis threshold between switching on and off (recommended heat 3°C)









IMPORTANT


Page D0007 displays the parameters for managing the circulator and requests. These parameters should be modified by qualified technical personnel.







Intervention parameters for distance from the setpoint

Screen for setting the operating mode of the warning due to an excessive divergence from the setpoint that activates the supplementary source.

	S Heater D0008	
	Low water temp.alarm Mng.type: Ext.Temp.Active Setpoint offset: 5.0°C	
	Startup: 30min Run: 180s	

OPERATING MODE	DESCRIPTION
MNG.TYPE	is set as active for outdoor temperature, it can also be set as always on or always off.
SETPOINT OFFSET	permitted divergence from the setpoint temperature before the count is activated.
STARTUP	waiting time after which the supplementary source is activated, it is activated when the reference temperature is lower than the setpoint – offset temperature
RUN	system start-up time within which the supplementary source is not enabled in any way.

8. The configuration of the supplementary source on the DHW side then starts. Pressing the  button on page D0010 will move the cursor to the parameter for enabling the supplementary source on the system side. This will make all subsequent screens visible for parameterization.
9. Choosing functions:

	S Heater D0012	
	Heater Functions	
	Legionella: <input checked="" type="checkbox"/>	
	Integration: <input checked="" type="checkbox"/>	
	Substitution: <input checked="" type="checkbox"/>	
	Int. by alarm: <input checked="" type="checkbox"/>	
	Int. by boost: <input checked="" type="checkbox"/>	

By enabling the individual items, it will be possible to access the relative submenus to set the trip thresholds according to the outdoor temperature, set a hysteresis value for the outdoor temperature and a temperature value as an alarm threshold to activate the boiler.



The following parameters are available:

OPERATING MODE	DESCRIPTION
LEGIONELLA	The supplementary source is activated to carry out the disinfection cycle.
INTEGRATION	The supplementary source is activated in addition to the heat pump to produce DHW
SUBSTITUTION	The heat pump switches off and the supplementary source is activated
INTEGRATION BY ALARM	The supplementary source takes over from the heat pump as it was stopped by mistake
INTEGRATION BY BOOST	The supplementary source is activated in addition to the heat pump to produce DHW at a higher setpoint.

IMPORTANT









On pages D0013, D0014 and D0016, you can decide the mode and frequency of the disinfection cycle.
 On page D0016, you can also set an alarm to check how many times the cycle has not been completed within the set time.
 This parameter should be modified by qualified technical personnel.

INTEGRATION

	S Heater D0017	
	DHW Integration	
	Thresh.: -5.0°C	
	Diff.: 4.0°C	
	Delay: 60s	

OPERATING MODE	DESCRIPTION
THRESH	external probe value for boiler switch on (recommended value 7°C)
DIFF	hysteresis threshold between the operation of one generator and another (recommended value 3.0°C)
DELAY	boiler activation delay (recommended value 180s)

SUBSTITUTION

	S Heater D0018	
	DHW Substitution	
	Thresh.: -15.0°C	
	Diff.: 5.0°C	
		







OPERATING MODE	DESCRIPTION
THRESH	external probe value for switching on (recommended value 5°C)
DIFF	hysteresis threshold between switching on and off (recommended heat 3°C)



IMPORTANT

Pages D0019 and D0020 display the parameters for managing the circulator and requests. These parameters should be modified by qualified technical personnel.

BOOST







	S Heater D0021	
	DHW Boost	
	Offset: 5.0°C	
	Diff.: 2.0°C	
	Max setpoint: 85.0°C	
	Min setpoint: 7.0°C	

OPERATING MODE	DESCRIPTION
OFFSET	setpoint temperature increase (recommended value 5°C)
DIFF	hysteresis threshold between switching on and off (recommended heat 2°C)
MAX SETPOINT	maximum allowed resulting setpoint value
MIN SETPOINT	minimum allowed resulting setpoint value



Intervention parameters for distance from the setpoint

On this screen, we can set the operating mode of the warning due to an excessive divergence from the setpoint that activates the supplementary source, where:
















	S Heater D0022	
	Low water temp.alarm Mng. type: Ext. Temp. Active	
	Setpoint offset: Startup: 45min Run: 180s	

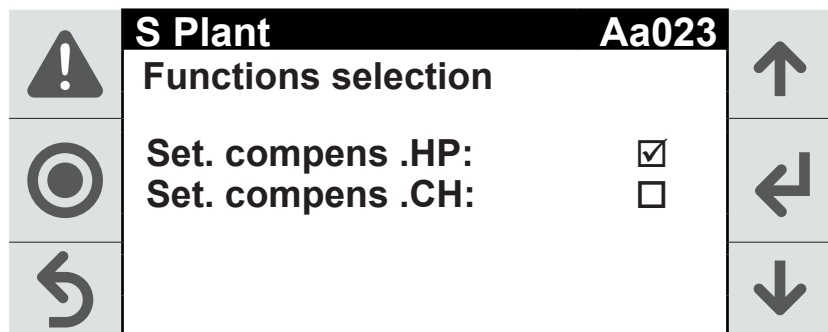
OPERATING MODE	DESCRIPTION
MNG.TYPE	is set as active for outdoor temperature, it can also be set as always on or always off.
SETPOINT OFFSET	permitted divergence from the setpoint temperature before the count is activated.
STARTUP	waiting time after which the supplementary source is activated, it is activated when the reference temperature is lower than the setpoint – offset temperature
RUN	system start-up time within which the supplementary source is not enabled in any way.

- Pressing the ESC key repeatedly will take you back to the main screen.

1.4.16 Enabling the heating or cooling curve

On the control panel:







1. The "PROGRAMMING" button can be used to access the programming menu after entering the Service password.
2. Buttons  and  can be used to select the first number of the password, after confirming by pressing the  button, you can move to the second number and so on until reaching the fourth.
3. After selecting the fourth number and pressing , if the password is correct, you can access the programming menu.
4. Press the  and  buttons, select the "A. Regulation" option and press .
5. Select the submenu "a. Plant" and press .
6. Move through the pages as far as Aa023, pressing the  button will move the cursor to the "Set. Compens. HP" and "Set. Compens. CH" parameters in order to enable the heating or cooling curves for winter and summer respectively. This will make all subsequent screens visible for parameterization.
7. In the following screens, the operation can be adjusted by using  to move the cursor to the required field,  and  to modify the parameter and by pressing  again to confirm and move the cursor to the next field. When the cursor is in the upper left corner, you can change page using  and .
8. Enabling heating or cooling curves



In order to provide a more efficient and rational use of energy, which is also aimed at improving the heat comfort in the environment, temperature adjustment curves for both heating and air conditioning can be enabled, where:

OPERATING MODE	DESCRIPTION
SET.COMPENS.HP	enables the heating compensation curves
SET.COMPENS.CH	enables the cooling compensation curves

9. Heating curve

	S Plant	Aa025	
	HP set compens.		
	(ExtT X)	(PlantT Y)	
	X1: -10.0°C	Y1: 56.0°C	
	X2: -5.0°C	Y2: 50.1°C	
	X3: 2.0°C	Y3: 46.0°C	
	X4: 10.0°C	Y4: 46.5°C	

This menu can be used to set the heating curves for winter operation.



WARNING!

This menu appears only if the setting explained in point 5 is enabled

RECOMMENDED VALUES

- In combination with underfloor radiant heating

Ref.	Display description	U.M.	Default	Default
Aa025	HP set compens.	°C	X1: -25.0	Y1: 35.0
		°C	X2: 7.0	Y2: 35.0
		°C	X3: 20.0	Y3: 20.0
		°C	X4: 45.0	Y4: 20.0

- In combination with steel radiators

Ref.	Display description	U.M.	Default	Default
Aa025	HP set compens.	°C	X1: -25.0	Y1: 40.0
		°C	X2: 10.0	Y2: 40.0
		°C	X3: 20.0	Y3: 20.0
		°C	X4: 45.0	Y4: 20.0

- In combination with aluminium radiators

Ref.	Display description	U.M.	Default	Default
Aa025	HP set compens.	°C	X1: -25.0	Y1: 40.0
		°C	X2: 10.0	Y2: 40.0
		°C	X3: 20.0	Y3: 20.0
		°C	X4: 45.0	Y4: 20.0

IMPORTANT



The Y4 value and the summer setpoint are linked; modifying one also modifies the other. Please note that:

- $X1 \leq X2$; $X2 \leq X3$; $X3 \leq X4$;
- $Y1 \geq Y2$; $Y2 \geq Y3$; $Y3 \geq Y4$;

10. Cooling curve

S Plant		Aa024
CH set compens.		↑
(ExtT X)	(PlantT Y)	↶
X1: 30.0°C	Y1: 18.0°C	↓
X2: 35.0°C	Y2: 10.0°C	
X3: 40.0°C	Y3: 10.0°C	
X4: 45.0°C	Y4: 10.5°C	

This menu can be used to set the cooling curves for summer operation.



WARNING!

this menu appears only if the setting explained in point 5 is enabled



RECOMMENDED VALUES

- Direct zone with outdoor probe

Ref.	Display description	U.M.	Default	Default
Aa024	CH set compens.	°C	X1: -25.0	Y1: 12.0
		°C	X2: 25.0	Y2: 12.0
		°C	X3: 35.0	Y3: 7.0
		°C	X4: 50.0	Y4: 7.0

- Mixed zone with outdoor probe

Ref.	Display description	U.M.	Default	Default
Aa024	CH set compens.	°C	X1: -25.0	Y1: 20.0
		°C	X2: 25.0	Y2: 20.0
		°C	X3: 35.0	Y3: 18.0
		°C	X4: 50.0	Y4: 18.0

IMPORTANT

















The Y4 value and the summer setpoint are linked; modifying one also modifies the other. Please note that:

- $X1 \leq X2$; $X2 \leq X3$; $X3 \leq X4$;
- $Y1 \geq Y2$; $Y2 \geq Y3$; $Y3 \geq Y4$;

11. Pressing the ESC key repeatedly will take you back to the main screen.

1.4.17 User circulator parameter selection and management

If the circulator is powered from the electrical panel of the internal unit, refer to the following points when setting the parameters:

1. Press the  key.
2. Enter the password (see paragraph "1.4.3 Entering the password").
3. Press the  key to enter the "programming" menu.
4. Press the  and  keys to select "A. Regulation".
5. Press the  key. A menu will appear below. Use the  and  keys to select "a. Plant".
6. Press  to confirm.
7. Press the  and  keys to move to page Aa027. Press the  key repeatedly to move the cursor to the required field. Use the  and  keys to modify the value and press the  key again to confirm. The cursor will then move to the next field.



IMPORTANT

When the cursor is in the top left corner of the page, you can use the  and  keys to navigate between menu pages.

The functions of the relative pages are illustrated below:















CODE	DISPLAY DESCRIPTION	FUNCTION	DEFAULT	UoM	MIN	MAX
	Enable	Enable function	Selected	No Units	0	1
Aa027	Regulation type:	Defines the User circulator control type: - TEMP + USER ON: Circulator active with system request active and water temperature close to the setpoint. - ON UNIT ON: Circulator active with Unit ON and water temperature close to the setpoint. - ALWAYS ON UNIT ON: Circulator active with Unit ON - TEMP + UNIT ON: Circulator active with Unit ON and water temperature close to the setpoint - Active with system ON.	TEMP + USER ON	No Units	0	4



<i>CODE</i>	<i>DISPLAY DESCRIPTION</i>	<i>FUNCTION</i>	<i>DEFAULT</i>	<i>UoM</i>	<i>MIN</i>	<i>MAX</i>
Aa028	SepP. Offset:	Distance from the setpoint for enabling the User circulator	3.0	°C	-99.9	99.9
	Current SepP.:	Reference temperature for activating the user circulator (display only)		°C	-99.9	99.9
	Hysteresis:	Hysteresis from the reference temperature beyond which the circulator is switched off.	5.0	°C	-99.9	99.9
	Safety Control TA On Only	If the safety activation function is enabled, it will only start if TA is active.	FALSE	No Units	0	1
	Enable Man. Req.:	If enabled, the circulator is forced to ON.		No Units	0	1
Aa029	Enable funct.:	Enable circulator anti-seize function		No Units	0	1
	h	Number of hours since last circulator ON status	168.0	h	1.0	8760.0
	min	Minutes of operation during the anti-seize function.	3.0	min	1.0	1440.0

1.4.18 Unit management via BMS

To control the heat pump using the BMS protocol, refer to the following points when setting the parameters:

1. Press the  key.
2. Enter the password (see paragraph "1.4.3 Entering the password").
3. Press the  key to enter the "programming" menu.
4. Press the  and  keys to select "F. Unit".
5. Press the  key. A menu will appear below. Use the  and  keys to select "a. General".
6. Press  to confirm.
7. Press the  and  keys to move to page Fa021. Press the  key repeatedly to move the cursor to the required field. Use the  and  keys to modify the value and press the  key again to confirm. The cursor will then move to the next field.



IMPORTANT







When the cursor is in the top left corner of the page, you can use the  and  keys to navigate between menu pages.

CODE	DISPLAY DESCRIPTION	FUNCTION	MIN	MAX
	BMS On / Off	Enables the unit control function using the BMS protocol	0	1
Fa021	BMS Status En.	Enabling operating mode using BMS	0	1
	BMS Plant Req En.	Enabling system side manual request	0	1
	BMS DHW Req En.	Enabling DHW side manual request	0	1



1.4.19 Logout

After entering a password (user password or maintainer password) you can exit the programming change status with the "logout" function.

1. Press the  key.
2. Enter the password (see paragraph "1.4.3 Entering the password").
3. Press the  key to enter the "programming" menu.
4. Press the  and  keys to select "L. Logout".
5. Press the  key. A warning screen will appear.
6. Press the  key again to return to the unit's main screen.



IMPORTANT

Access to a programming function with a password is deactivated after a period of inactivity.

1.4.20 Shutdown for long periods

- Check that the control panel indicates OFF. Check that the remote switch (if any) is OFF.
- Turn off the indoor terminal units by turning the switch on each unit to OFF.
- Close the water cocks.
- Set the QF main differential switch to OFF.



WARNING!

If the temperature drops below zero, there is a danger of frost: the hydraulic system and circuits of the heat pump must be emptied.



WARNING!

When the unit is switched on again, turn the main switch to ON to power the heat pump; then wait for at least 2 hours before switching operation to ON from the Control Panel (the circuits must be filled and vented and, if necessary, with the addition of glycol; refer to the preliminary warnings).

1.5 Parameter list: User menu

REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
Qa001	Unit Power On/Off	-	OFF	OFF	ON
System heating setpoint					
Qb01	System heating standard setpoint	°C	30.0	10.0	50.0
	System heating setpoint 2	°C	35.5	10.0	50.0
DHW setpoint					
Qb02	DHW standard setpoint	°C	48.0	10.0	55.0
	DHW setpoint 2	°C	50.0	10.0	55.0
System Cooling setpoint					
Qb03	System cooling standard setpoint	°C	18.0	10.0	25.0
	System cooling setpoint 2	°C	18.0	10.0	25.0
Qb04	Setpoint 2 activation/deactivation	OFF	-	OFF	ON
Qb05	Operating mode change	-	Winter	Winter, summer, DHW only	
Temperatures					
Info	Unit inlet water temperature	°C	-	-	-
	Reference setpoint	°C	-	-	-
	DHW temperature	°C	-	-	-
	DHW reference setpoint	°C	-	-	-
	Outdoor air temperature	°C	-	-	-
Qa002	DHW coil activation/deactivation	-	OFF	OFF	ON



1.6 Parameter list: programming menu

1.6.1 Adjustment

REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
System					
Aa001	System pump operating hours	h	-	0	999999
	Maintenance hour threshold (in thousands)	h	99	0	999
	Reset of system pump hour count	-	-	0	1
	System pump request	%	-	-999.9	999.9
	Inverter system pump manual mode	%	-	0	101
	Direct logic and reverse logic circulator	-	TRUE	0	1
Aa002	User pump 1 hours of operation	h			999999
	User pump 1 maintenance hours threshold (thousands)	h	99	0	999
	User pump 1 reset hours counters	-	-	0	1
	User pump 1 status	-	-	0	1
	User pump 1 manual mode	-	-	0	2
	Direct logic and reverse logic circulator	-	TRUE	0	1
Aa003	Minimum setpoint temperature in cooling mode	°C	7.0	-99.9	999.9
	Maximum setpoint temperature in cooling mode	°C	27.0	(*)	999.9
	Hysteresis difference for adjustment	°C	4	(*)	999.9
Aa004	Minimum setpoint temperature in heating mode	°C	10.0	0.0	999.9
	Maximum setpoint temperature in heating mode	°C	50.0	(*)	999.9
	Hysteresis difference for adjustment	°C	4	(*)	999.9
Aa005	Water high temperature offset	°C	40.0	0.0	99.9
	High temperature start delay	Min.	45	0	99
	Waiting for high temperature operation	Sec.	180	0	999
Aa006	Water low temperature offset	°C	30.0	0.0	99.9
	Low temperature start delay	Min.	45	0	99
	Waiting for low temperature operation	Sec.	180	0	999
Aa007	Adjustment with system probe (if any)	-	FALSE	0	1
	Adjustment with system probe (if any)	-	FALSE	0	1
	Delay between start PID and operating PID	Sec.	180	0	999
	System IO control warning	-	-	0	1

(*) Minimum setpoint temperature in cooling mode.



REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
Aa008	Start adjustment probe (0=Return; 1=Delivery)	-	TRUE	0	1
	Delay between start PID and operating PID	Sec.	180	0	999
	Operation adjustment probe (0=Return; 1=Delivery)	-	TRUE	0	1
	System IO control warning	-	-	0	1
	Enabling start PID control	-	-	0	1
Aa009	Adjustment water temperature	°C	-	-999.9	999.9
	System adjustment request	%	-	-100.0	100.0
	Start PID proportional band	°C	12.0	0.0	999.9
	Start PID integral time	Sec.	180	0	65535
	Start PID derivative time	Sec.	0	0	99
Aa010	Enabling operation PID control	-	-	0	1
	Adjustment water temperature	°C	-	-999.9	999.9
	System adjustment request	%	-	-100.0	100.0
	Operation PID proportional band	°C	10.0	0.0	999.9
	Operation PID integral time	Sec.	120	0	65535
Aa011	Operation PID derivative time	Sec.	3	0	99
	On request - With unit on - Always on - On request TA	-	0	0	3
Aa012	System demand threshold to consider request active	-	25	0.0	99.9
	Start flow alarm delay	Sec.	15	0	999
As013	Operation flow alarm delay	Sec. ex.	5	0	99
	Compressor start delay with system pump ON	Sec.	30	0	999
Aa014	System pump stop delay with compressor OFF	Sec.	60	0	999
	User pump rotation time	h	12	0	99
Aa015	System pump request in case of management with fixed speed	%	100.0	User. UserPmpLimMin	User. UserPmpLimMax
	Inverter system pump minimum limit	%	70.0	0.0	User. UserPmpLimMax
	Inverter system pump minimum limit	%	100.0	User. UserPmpLimMin	100.0
Aa016	Summer pump speed	-	100	-999.9	999.9
	0: Fixed speed; 1: EVAP/COND; 2: DELTA T (IN- OUT)	-	2	0	2
	Warning of system pump regulation type	-	-	0	1

REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
Aa017	Control setpoint	°C	5	-999.9	999.9
	Proportional regulation band	°C	2.5	-999.9	999.9
	Delta Off:	°C	2.5	-999.9	999.9
	Forced activation differential	°C	2.5	-999.9	999.9
Aa018	Control setpoint	°C	35	-999.9	999.9
	Proportional regulation band	°C	5	-999.9	999.9
	Delta Off:	°C	2.5	-999.9	999.9
	Forced activation differential	°C	2.5	-999.9	999.9
Aa019	User pump setpoint Delta T	°C	3	-999.9	999.9
	User pump PID Kp	-	4	-999.9	999.9
	User pump PID Ti	s	300	0	65535
Aa020	System antifreeze alarm threshold	°C	-0.8	-999.9	999.9
	System antifreeze alarm differential	°C	30.0	0.0	999.9
	Antifreeze alarm delay at 1K below the threshold	Sec.	30	0	999
Aa020b	Suction antifreeze alarm threshold	°C	5.0	-999.9	999.9
	Suction antifreeze alarm differential	°C	2.0	0.0	999.9
Aa021	Antifreeze setpoint (with unit off)	°C	4.0	-999.9	999.9
	Antifreeze differential (with unit off)	°C	2.0	0.0	99.9
Aa022	Enabling compressor start by advanced antifreeze request	-	FALSE	0	1
	Advanced antifreeze setpoint (with unit off)	°C	2.0	-999.9	AFreezeSetP
	Advanced antifreeze differential (with unit off)	°C	15.0	0.0	99.9
	Maximum duration of the AFreezeHeat_Adv condition (in minutes)	Min.	30	0	999
	Time interval between two consecutive AFreezeHeat_Adv conditions (in minutes)	Min.	15	0	999
Aa023	Enabling system setpoint compensation function in heating mode	-	FALSE	0	1
	Enabling system setpoint compensation function in cooling mode	-	FALSE	0	1
Aa024	Outdoor air temperature X1	°C	25.0	-99.9	X_CH[2]
	Setpoint Y1 relating to outdoor temperature X1	°C	15.0	Y_CH[2]	HiLimMskSetP_CH
	Outdoor air temperature X2	°C	30.0	X_CH[1]	X_CH[3]
	Setpoint Y2 relating to outdoor temperature X2	°C	15.0	Y_CH[3]	Y_CH[1]
	Outdoor air temperature X3	°C	35.0	X_CH[2]	X_CH[4]
	Setpoint Y3 relating to outdoor temperature X3	°C	15.0	Y_CH[4]	Y_CH[2]
	Outdoor air temperature X4	°C	40.0	X_CH[3]	99.9
	Setpoint Y4 relating to outdoor temperature X4	°C		LowLimMskSetP_CH	Y_CH[3]



REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
Aa025	Outdoor air temperature X1	°C	-5.0	-99.9	X_HP[2]
	Setpoint Y1 relating to outdoor temperature X1	°C	45.0	Y_HP[2]	HiLimMskSetP_HP
	Outdoor air temperature X2	°C	0	X_HP[1]	X_HP[3]
	Setpoint Y2 relating to outdoor temperature X2	°C	45.0	Y_HP[3]	Y_HP[1]
	Outdoor air temperature X3	°C	5.0	X_HP[2]	X_HP[4]
	Setpoint Y3 relating to outdoor temperature X3	°C	45.0	Y_HP[4]	Y_HP[2]
	Outdoor air temperature X4	°C	10.0	X_HP[3]	99.9
	Setpoint Y4 relating to outdoor temperature X4	°C		LowLimMskSetP_HP	Y_HP[3]
Aa026	Sniffer function	-	-	-	-
	Enable function	-	TRUE	0	1
	Sniffer function duration	Min.	1	0	999
	Sniffer function delay	Min.	5	0	999
	Sniffer function request	%	85	0	100
Aa027	Enable function	No Units	FALSE	0	1
	Defines the User circulator control type: - TEMP + USER ON: Circulator active with system request active and water temperature close to the setpoint. - ON UNIT ON: Circulator active with Unit ON and water temperature close to the setpoint. - ALWAYS ON UNIT ON: Circulator active with Unit ON - TEMP + UNIT ON: Circulator active with Unit ON and water temperature close to the setpoint."	No Units	0	0	4
	Enable input system request	No Units	TRUE	0	1
	Distance from the setpoint for enabling the User circulator	°C	3.0	-99.9	99.9
Aa028	Reference temperature for activating the user circulator (display only)	°C		-99.9	99.9
	Hysteresis from the reference temperature beyond which the circulator is switched off.	°C	5.0	-99.9	99.9
	If enabled, the circulator is forced to ON.	No Units		0	1
	Safety control only with TA On:	No Units	FALSE	0	1
Aa029	Enable circulator anti-seize function	No Units	TRUE	0	1
	Number of hours since last circulator ON status	h	168.0	1.0	8760.0
	Minutes of operation during the anti-seize function.	min	3.0	1.0	1440.0

REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
DHW					
Ab001	DHW pump operating hours	h	-	0	999999
	DHW pump maintenance hour threshold (in thousands)	h	99	0	999
	Reset of DHW pump hour count	-	-	-	1
	DHW pump request	-	-	0	100.0
	Inverter DHW pump manual mode	%	-	0	101
Ab002	User pump 1 hours of operation	h	-	0	999999
	Domestic hot water pump 1 maintenance threshold (thousands of hours)	h	99	0	999
	User pump 1 Reset hours	-	-	0	1
	DHW Pump 1 status	-	-	0	1
	DHW pump 1 manual mode	-	-	0	2
Ab003	Enabling DHW start PID control	-	-	0	1
	Adjustment water temperature	°C	-	-999.9	999.9
	DHW regulation request	%	-	-100.0	100.0
	DHW start PID proportional band	-	10.0	0.0	999.9
	DHW start PID integral time	Sec.	150	0	65535
	DHW start PID derivative time	Sec.	0	0	99
Ab005	Minimum temperature setpoint in DHW mode	°C	10.0	-99.9	999.9
	Maximum setpoint temperatures in DHW mode	°C	55.0	LowLimMskSet_CH	999.9
	Hysteresis difference for domestic hot water adjustment	°C	4	LowLimMsk-SetP_CH	999.9
	enable DHW recovery mode	-	FALSE	0	1
	DT ON:	-	3	-99.9	999.9
	Diff. off:	-	1.5	-999.9	999.9
	SET cond ON:	-	30	-999.9	999.9
	Diff. cond OFF:	-	3	-999.9	999.9
	DT water-cond:	-	2	-999.9	999.9
	DHW proportional regulation band	-	5	0.0	999.9
Ab006	Enabling DHW setpoint compensation function	-	FALSE	0	1



REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
Ab007	Axis coordinates for the DHW mode compensation curve	°C	-5	-99.9	X_DHW[2]
	Vertical axis coordinates for the DHW mode compensation curve	°C	10	Y_DHW[2]	HiLimMskSetP_DHW
	Axis coordinates for the DHW mode compensation curve	°C	0	X_DHW[1]	X_DHW[3]
	Vertical axis coordinates for the DHW mode compensation curve	°C	10	Y_DHW[3]	Y_DHW[1]
	Axis coordinates for the DHW mode compensation curve	°C	5	X_DHW[2]	X_DHW[4]
	Vertical axis coordinates for the DHW mode compensation curve	°C	10	Y_DHW[4]	Y_DHW[2]
	Axis coordinates for the DHW mode compensation curve	°C	10	X_DHW[3]	99.9
	Vertical axis coordinates for the DHW mode compensation curve	°C		LowLimMskSetP_DHW	Y_DHW[3]
Ab008	DHW start flow alarm delay	Sec.	15	0	999
	DHW operation flow alarm delay	Sec.	5	0	99
Ab009	0: ON REQUEST- 1:Unit On-2: Always active	-	0	0	2
	DHW demand threshold to consider the request active	No Units	60	0.0	99.9
Ab010	Compressor start delay with DHW pump ON	Sec.	30	0	999
	DHW pump stop delay with compressor OFF	Sec.	60	0	999
Ab011	DHW pump request in case of management with fixed speed	%	100.0	DHW PmpLimMin	DHW_PmpLimMax
	Inverter DHW pump minimum limit	%	20.0	0.0	DHW_PmpLimMax
	Inverter DHW pump minimum limit	%	100.0	DHW PmpLimMin	100.0
Ab012	Type of DHW pump regulation	-	0	0	1
	DHW pump regulation warning	-	-	0	1
Ab013	Setpoint adjustment	°C	55	-999.9	999.9
	Proportional regulation band	°C	5	-999.9	999.9
	Delta Off:	°C	2.5	-999.9	999.9
	Forced activation differential	°C	2.5	-999.9	999.9
Ab014	DHW setpoint offset	°C	20.0	0.0	99.9
	DHW start delay	Min.	45	0	99
	DHW operation delay	Sec.	180	0	999
Ab015	Sniffer function	-	-	-	-
	Enable function	-	FALSE	0	1
	Sniffer function duration	Min.	5	0	999
	Sniffer function delay	Min.	300	0	999
	Sniffer function request	%	20	0	100

REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
Setpoint					
Ac001	Heating setpoint	°C	30.0	(**)	(**)
	DHW setpoint	°C	45.0	(***)	(***)
	Cooling setpoint	°C	18.0	(****)	(****)
Ac002	Heating setpoint 2	°C	30.0	(**)	(**)
	DHW setpoint 2	°C	50.0	(***)	(***)
	Cooling setpoint 2	°C	18.0	(****)	(****)
Ac003	Eco Heating setpoint	°C	30.0	(**)	(**)
	Eco DHW setpoint	°C	40.0	(***)	(***)
	Eco cooling setpoint	°C	14.0	(****)	(****)
Unit info					
Qc001	Requests	-	-	-	-
Qc002	System circuit information	-	-	-	-
Qc003	DHW circuit information	-	-	-	-
Qc005	Cooling circuit information	-	-	-	-
Qc006	Compressor status	-	-	-	-
Qc009	Electronic expansion valve status	-	-	-	-
Qc010	Source information	-	-	-	-
Qc011	Defrosting information	-	-	-	-
Qc018	System supplementary source status	-	-	-	-
Qc019	DHW supplementary source status	-	-	-	-
Qc020	System program status	-	-	-	-
Qc021	DHW programme status	-	-	-	-
	Other information after pressing ENTER	-	-	-	-
Qc022	Condenser system circulator status	-	-	-	-
Qc023	Evaporator system circulator status	-	-	-	-
Qc100	Inverter board status	-	-	-	-
Qc101	Record status	-	-	-	-
Qc102	Software status	-	-	-	-
Qc106	Driver type information	-	-	-	-
Qc110	Hardware information	-	-	-	-
Qc111	Modbus network status	-	-	-	-
Qc112	Unit OFF time information	-	-	-	-
Qc113	Unit software information	-	-	-	-

(**) LowLimMskSetP_ HP
 (***) LowLimMskSetP_ DHW
 (****) LowLimMskSetP_ CH

1.6.2 Coil

REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
D0001	System coil	-	-	-	-
	Enabled	-	FALSE	0	1
	Off differential	°C	2.0	-99	99
	Supplementary source operating hours	h	-	0	999999
D0002	Maintenance warning threshold	h	-	0	999
	Hour counter reset	No Units	-	0	1
	Activation status	No Units	-	0	1
	Manual request (0: None; 1: Man Off; 2: Man On)	No Units	-	0	2
D0003	Function enabling	No Units	-	0	1
D0004	Integration activation threshold	°C	-	-999.9	999.9
	Activation differential	°C	-	-999.9	999.9
	Activation delay	s	-	0	9999
D0005	Integration activation request threshold	No Units	-	Plant_ReqThrsh	100.0
	Integration activation request differential	No Units	-	0.0	Plant_HeaterThrsh_Req
	Supplementary source Off request offset	No Units	-	-999.9	999.9
	Supplementary source On request offset	No Units	-	-999.9	999.9
D0006	Substitution activation threshold	°C	-	-999.9	999.9
	Substitution activation differential	°C	-	-999.9	999.9
D0007	Enable circulator forcing in substitution mode	No Units	-	0	1
	Disable exclusive request	No Units	-	0	1
D0008	Integration activation mode due to distance from setpoint 0:Off; 1:Ext. Temp. Active; 2: Always Integration; 3: Always Substitution	No Units	-	0	3
	Setpoint offset	°C	-	0.0	99.9
	Activation delay	min	45	0	99.9
	Activation delay during start-up	s	-	0	999
D0009	Enable function	No Units	-	0	1
D0010	Enabling DHW coil	-	TRUE	0	1
D0011	DHW coil	-	-	-	-
	Hours of activation	h	0.0	0	999999
	Maintenance check threshold	h	0.0	0	999999
	Operating hour count reset	-	NO	0	1
	Status	-	-	-	-
D0012	Manual activation	-	-	-	-
	Legionella	-	TRUE	0	1
	Integration	-	TRUE	0	1
	Replacement	-	TRUE	0	1
D0013	Integration by alarm	-	TRUE	0	1
	Disinfection mode selection (Fixed Days; Fixed Period)	No Units	-	0	1



REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
D0014	Legionella cycle start time - hours	h		0	23
	Legionella cycle start time - minutes	min		0	59
	Legionella cycle end time - hours	h		0	23
	Legionella cycle end time - minutes	min		0	59
	Days of the week	No Units		0	1
D0015	Legionella cycle start time - hours	h		0	23
	Legionella cycle start time - minutes	min		0	59
	Legionella cycle end time - hours	h		0	23
	Legionella cycle end time - minutes	min		0	59
	Number of days after which to reactivate the anti-legionella cycle	d		0	99
D0016	Max. number of times that the cycle does not end within the specified time without generating an alarm.	s		0	99
D0017	Integration activation threshold	°C		-999.9	999.9
	Activation differential	°C		-999.9	999.9
	Activation delay	s		0	9999
D0018	Substitution activation threshold	°C		-999.9	999.9
	Substitution activation differential	°C		-999.9	999.9
D0019	Enable circulator forcing in substitution mode	No Units		0	1
D0020	Disables DHW priority in substitution mode (service only)	No Units		0	1
D0021	Boost: Offset added to the DHW setpoint	°C	5.0	-999.9	999.9
	Resulting setpoint differential	°C		-999.9	999.9
	Resulting setpoint maximum limit	°C	85.0	LowLimMskSetP_ DHW	999.9
	Resulting setpoint minimum limit	°C	7.0	-99.9	999.9
D0022	"Integration activation mode due to distance from setpoint 0:Off; 1:Ext. Temp. Active; 2: Always Integration; 3: Always Substitution"	No Units		0	3
	Offset from the DHW setpoint	°C		0.0	99.9
	Activation delay	min	45	0	99
	Activation delay during start-up	s		0	999
	Compressor coil	-	-	-	-
D0050	Setpoint on:	°C	7.0	-99	99
	Off differential	°C	1.0	-99	99
D0051	Accumulation coil	-	-	-	-
	Setpoint on:	°C	2.0	-99	99
	Off differential	°C	2.0	-99	99

REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
Source					
E0003	Fan management (0=Independent; 1=Common)	-	TRUE	0	1
	Fan operating hours	h	-	0	999999
	Fan maintenance threshold	h	99	0	999
	Fan inverter request	-	-	0	1
	Fan operating hour counter reset	%	-	0.0	100.0
	Fan inverter manual mode	%	-	0	101
E0007	Reference temperature threshold for cold climates		-5.0	-999.9	999.9
	Minimum fan speed in cooling mode		10.0	0.0	100.0
	Fan acceleration in cooling mode		50.0	0.0	100.0
E0008	Fan acceleration time in cooling mode		5	0	300
	Enable silent function		FALSE	0	1
E0013	Fan adjustment mode (0: Fixed setpoint; 1: Outdoor temperature compensation; 2: Envelope modulation)		0	0	2
	Control setpoint configuration type alarm		-	0	1
E0016	Fan setpoint in cooling mode		30.0	-999.9	999.9
E0017	Fan setpoint in heating mode		10.0	-999.9	999.9
E0018	Fan offset setpoint in cooling mode		5.0	0.0	99.9
	Fan start setpoint in cooling mode		45.0	0.0	999.9
E0019	Fan start delay in cooling mode		240	0	999
	Fan offset setpoint in heating mode		3.0	0.0	99.9
E0020	Fan setpoint limit in cooling mode		0.0	0.0	100.0
E0021	Fan setpoint limit in heating mode		30.0	-50.0	50.0
E0022	Fan differential in cooling mode		15.0	0.0	99.9
	Enabling second fan		-	0	1
	Fan differential in cooling mode [%] (percentage of the entire differential)		50.0	0.0	100.0
E0023	Fan differential in heating mode		5.0	0.0	99.9
	Enabling second fan		-	0	1
	Fan differential in heating mode [%] (percentage of the entire differential)		60.0	0.0	100.0

REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
E0024	Inverter fan minimum speed		20.0	0.0	100.0
	Inverter fan maximum speed		100.0	0.0	100.0
	Fan acceleration time		2	0	30
	Maximum forcing activation offset		2.0	-99.9	99.9
E0026	0: None; 1: Temp. Evap.; 2: Outdoor temperature; 3: Evap. Temp. & Press.		1	0	4
	Defrost warning based on evaporation temperature		-	0	1
	Defrost warning based on outdoor temperature		-	0	1
E0028	Hot gas defrosting	-	-	-	-
	Hot gas defrosting setpoint	°C	8.0	-999.9	999.9
	Hot gas defrosting setpoint hysteresis	°C	1.0	-999.9	999.9
	Hot gas successful defrosting setpoint	°C	0.0	-999.9	999.9
	Hot gas Defrosting successful defrosting setpoint hysteresis	°C	1.0	-999.9	999.9
	Minimum time between two defrosting cycles	Sec.	120	0	9999
	Maximum valve opening time	Sec.	60	0	9999
E0029	Hot gas defrosting				
	Minimum outdoor temperature for hot gas defrosting switchingoff	°C	2.0	-999.9	999.9
	Maximum outdoor temperature for hot gas defrosting switchingoff	°C	10.0	-999.9	999.9
	Minimum temperature setpoint for compressor delivery	°C	35.0	-999.9	999.9
	Minimum temperature setpoint hysteresis for compressor delivery	°C	5.0	-999.9	999.9
	Enabling hot gas defrosting	-	TRUE	0	1
	Start threshold of defrostby inversion	°C	-5.5	-99.9	99.9
E0028	Reverse defrost reset threshold	°C	-3.5	DfrStartThrsh_EvapTemp	99.9
	Delay threshold of defrostby inversion	Min.	30	0	99
	Maximum threshold for defrost by inversion	°C	52.0	-999.9	999.9
E0030	Defrost start differential	°C	12.0	-99.9	99.9
	Defrost start reset differential	°C	10.0	DfrStartThrsh_Temp	99.9
	Defrost start delay	Min.	30	0	99
E0031	Page reserved for maintenance users and manufacturer.				
E0032	Page reserved for maintenance users and manufacturer.				
E0033	Page reserved for maintenance users and manufacturer.				
E0034	Page reserved for maintenance users and manufacturer.				
E0035	Page reserved for maintenance users and manufacturer.				
E0036	Page reserved for maintenance users and manufacturer.				


<i>REF.</i>	<i>DISPLAY DESCRIPTION</i>	<i>U.M.</i>	<i>DEFAULT</i>	<i>MIN</i>	<i>MAX</i>
E0037	Page reserved for maintenance users and manufacturer.				
E0038	Page reserved for maintenance users and manufacturer.				
E0039	Page reserved for maintenance users and manufacturer.				
E0040	Page reserved for maintenance users and manufacturer.				
E0044	Page reserved for maintenance users and manufacturer.				
E0045	Page reserved for maintenance users and manufacturer.				
E0046	Page reserved for maintenance users and manufacturer.				
E0047	Page reserved for maintenance users and manufacturer.				

1.6.3 Unit

<i>REF.</i>	<i>DISPLAY DESCRIPTION</i>	<i>DEFAULT</i>	<i>MIN</i>	<i>MAX</i>
	Unit Type	0	0	9
Fa000	Unit nominal power	0	0	99
	Hydraulic circuit	1	0	9
Fa001	"Unit type (DHW ONLY; HEATING ONLY; COOLING ONLY; DHW + HEATING; DHW + COOLING; HEATING + COOLING; DHW + HEATING + COOLING)"		0	6
Fa002	Page reserved for maintenance users and manufacturer.			
Fa003	Page reserved for maintenance users and manufacturer.			
Fa004	Page reserved for maintenance users and manufacturer.			
Fa005	Page reserved for maintenance users and manufacturer.			
Fa006	Page reserved for maintenance users and manufacturer.			
Fa007	Page reserved for maintenance users and manufacturer.			
Fa008	Page reserved for maintenance users and manufacturer.			
Fa009	Page reserved for maintenance users and manufacturer.			
Fa010	Page reserved for maintenance users and manufacturer.			
Fa011	Page reserved for maintenance users and manufacturer.			
	Enable antifreeze alarm		0	1
Fa012	Enable anti-freeze alarm during defrost		0	1
	Antifreeze check (By temperature; Always Off; Always On)	0	0	2
Fa013	Alarm relay configuration (important alarms only; All alarms)		0	1
Fa014	Page reserved for maintenance users and manufacturer.			
Fa015	Page reserved for maintenance users and manufacturer.			
Fa016	Page reserved for maintenance users and manufacturer.			
Fa017	BMS Offline Alarm Management (Disabled; Warning Only; Alarm; Alarm with Timeout)	3	0	3
	Timeout [s]	1	0	999
Fa018	Season Summer / Winter		0	1
	Compressor forced to Off during summer / winter switching		0	65535
Fa019	Page reserved for maintenance users and manufacturer.			

<i>REF.</i>	<i>DISPLAY DESCRIPTION</i>	<i>DEFAULT</i>	<i>MIN</i>	<i>MAX</i>
Fa020	Enable Summer / Winter contact	1	0	1
	Enable contact system request	1	0	1
	Enable booster pump output		0	1
	Display system related digital input settings		0	1
Fa021	Enable On/Off from BMS		0	1
	Enable operating mode from BMS		0	1
	Enable system request from BMS		0	1
	Enable DHW request from BMS		0	1

1.6.4 Alarms (Events)

This field is also available after pressing the  button.


1.6.5 Settings

REF.	DISPLAY DESCRIPTION	U.M.	DEFAULT	MIN	MAX
Date and Time					
Ha001	Date format (0: DDMMYY; 1: MMDDYY; 2: YYMMDDD)	-	0	0	2
	Day	d	-	1	31
	Month	mont h	-	1	12
	Year	y	-	0	99
	Hour	h	-	0	24
	Minutes	Min.	-	0	59
	Seconds	s	-	0	59
	1 - Monday; 2 -Tuesday; 3 - Wednesday; 4 - Thursday; 5 - Friday; 6 - Saturday; 7 - Sunday	-	-	0	9
Ha002	Time zone	-	38	1	103
	Update time zone	-	-	0	1
Unit of measure					
Language					
Serial ports					
Change password					
Initialisation					
Time program					
Fc001	Enable system time program	-	FALSE	0	1
Fc002	System daily program setting	-	-	-	-
Fc003	System special period program setting	-	-	-	-
Fc004	System special day program setting	-	-	-	-
Fc005	Enable DHW time program	-	FALSE	0	1
Fc006	DHW daily program setting	-	-	-	-
Fc007	DHW special period program setting	-	-	-	-
Fc008	DHW special day program setting	-	-	-	-
Logout Password					




1.7 Alarms and signals


1.7.1 Alarm indication LEDs

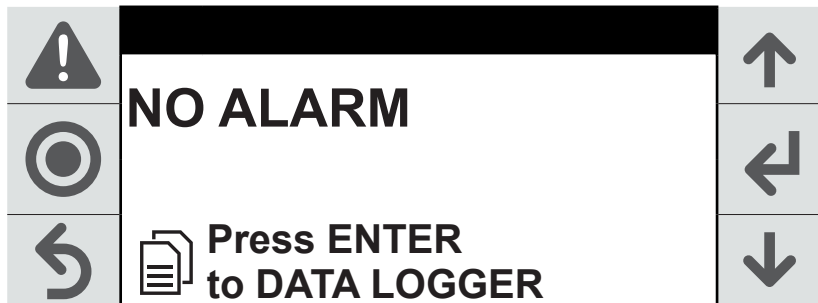
The red LED under the  button may be:

- Off: no active alarm.
- Flashing: at least one active alarm.
- On: at least one active alarm and the display shows an alarm mask.

1.7.2 Alarm masks

Pressing the  button can lead to two different cases:

1. No alarm active:
press the  button for quick access to the "Alarms Log".
2. At least one active alarm:

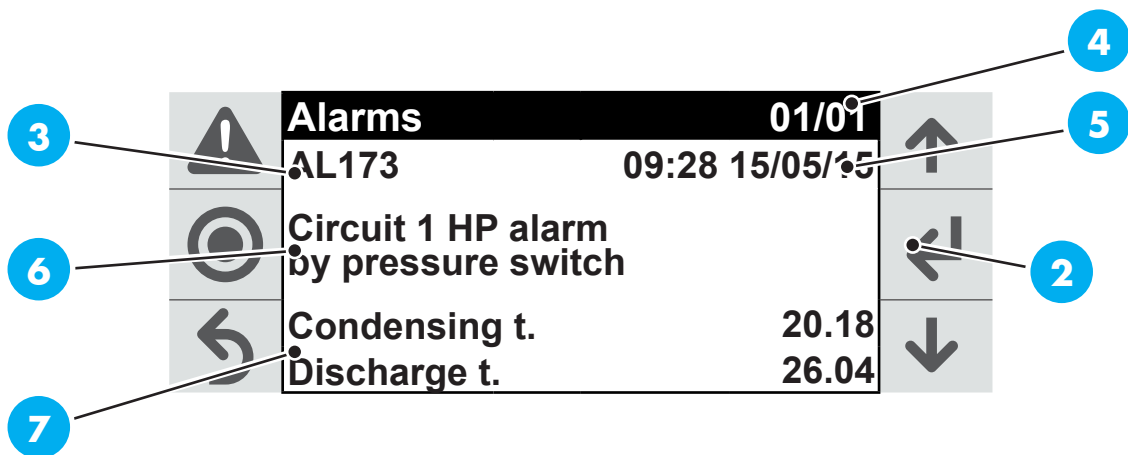


the mask shows the alarm code **(3)** in ascending order.

Each alarm contains the information necessary to understand the possible causes of the problem:







- alarm number / total alarms **(4)**;
- alarm code **(3)**;
- date and time of alarm activation **(5)**;
- alarm description **(6)**;
- values of the probes connected to the alarm **(7)**.

In each alarm mask, you can enter the "Alarm Log" mask by pressing the  button.



1.8 Alarm Log



From the main menu, by entering the "Alarm history" menu you can access the following alarm log display mask:

	Data logger	Record: 01	
	AL173	09:28 15/05/15	
	Circuit 1 HP alarm by pressure switch		
	Event:	Start	
	Condensing t.	20.18	
	Discharge t.	26.04	

The alarm log allows storing the operating status of the software when alarms are triggered. Each storage is an event that can be displayed among all the events available in the memory. The same information saved in the alarm mask will also be saved in the alarm log. The maximum number of events that can be stored is 64. When the maximum limit is reached, the last alarm will overwrite the oldest one. The alarm log can be deleted in the "Initialisation Setting" menu using the specific control.

1.9 Resetting the alarms

The alarms can be reset manually, automatically or automatically after repeated attempts:

- Manual reset: once the cause of the alarm has been eliminated, you first have to reset the buzzer (if present) by pressing the  button. Press and hold the  button to reset.
- Automatic reset: when the alarm condition ends, the buzzer is silenced and the alarm reset.
- Automatic reset after repeated attempts: the number of interventions in one hour is checked. If the number of interventions in one hour is lower than the maximum set number, the alarm is reset automatically, otherwise it is necessary to reset it manually.

1.10 Alarm list

<i>CODE</i>	<i>DESCRIPTION</i>	<i>TYPE</i>	<i>EFFECTS</i>
AL000	Unit - Prototype operation alarm	Auto reset	Unit switching off
AL001	Unit - Remote conn. alarm	User reset	Unit switching off
AL002	Unit - Permanent memory writing error	User reset	Information purpose only
AL003	Unit - Memory writing error	User reset	Information purpose only
AL004	Unit - System inlet temperature alarm	Auto reset	System circuit switching off
AL005	Unit - System outlet temperature alarm	Auto reset	System circuit switching off
AL006	Unit - Source inlet probe alarm (if any)	Auto reset	Information purpose only
AL007	Unit - Outdoor temperature probe alarm	Auto reset	Information purpose only
AL008	Unit - System pump overload	User reset	System circuit switching off
AL009	Unit - Source pump overload (if any)	User reset	Unit switching off
AL010	Unit - System pump flow alarm active	Auto reset up to 8 times in one hour	System circuit switching off
AL011	Unit - Source pump flow alarm (if any) active	Auto reset up to 5 times in one hour	Unit switching off
AL012	Unit - System pump unit alarm	User reset	System circuit switching off
AL013	Unit - Source pump unit alarm (if any)	User reset	Unit switching off
AL014	Unit - System pump alarm	Auto reset	Information purpose only
AL015	Unit - Source pump maintenance (if any)	Auto reset	Information purpose only
AL016	Unit - Water high temperature in cooling mode	Auto reset	Information purpose only
AL017	Unit - System water temperature too low	Auto reset	Information purpose only
AL018	Unit - Domestic hot water temperature too low	Auto reset	Information purpose only
AL019	Unit - Antifreeze alarm in advanced mode	Auto reset	Information purposes only and forced start of the unit
AL020	Unit - DHW probe alarm	Auto reset	DHW circuit switching off
AL021	Unit - Source water outlet probe alarm (if any)	Auto reset	Information purpose only
AL022	Unit - User system probe alarm (if any)	Auto reset	System circuit switching off
AL023	Unit - Source generic alarm	Auto reset up to 3 times in one hour	Unit switching off
AL024	Unit - DHW pump maintenance	Auto reset	Information purpose only
AL025	Unit - DHW pump unit alarm	User reset	DHW circuit switching off



<i>CODE</i>	<i>DESCRIPTION</i>	<i>TYPE</i>	<i>EFFECTS</i>
AL026	Unit - DHW circuit flow failure alarm (if any)	Auto reset up to 8 times in one hour	DHW circuit switching off
AL027	Unit - DHW pump overload	User reset	DHW circuit switching off
AL028	Unit - External coil temperature alarm (if any)	Auto reset	Information purpose only
AL029	Unit - System circuit antifreeze alarm in cooling mode	Auto reset	Compressor shutdown and forced start of the system pump
AL030	Unit - System circuit antifreeze alarm in heating mode	Auto reset	Forced start of the system pump
AL031	Unit - Source circuit antifreeze alarm in heating mode (if any)	Auto reset	Compressor shutdown and forced start of the system pump
AL032	Unit - Source circuit antifreeze alarm in cooling mode (if any)	Auto reset	Forced start of the system pump
AL033	Unit - DHW circuit water outlet probe alarm	Auto reset	Information purpose only
AL034	Unit - BMS Offline alarm	Auto reset	BMS offline
AL092	Cooling circuit 1 - Defrost interrupted due to a system alarm	Auto reset	Information purpose only
AL093	Cooling circuit 1 - High pressure sensor alarm	Auto reset	Circuit 1 switching off
AL094	Cooling circuit 1 - Low pressure sensor alarm	Auto reset	Circuit 1 switching off
AL095	Cooling circuit 1 - Discharge temperature probe alarm	Auto reset	Circuit 1 switching off
AL096	Cooling circuit 1 - Suction temperature probe alarm	Auto reset	Circuit 1 switching off
AL097	Cooling circuit 1 - Liquid temperature probe alarm (if any)	Auto reset	Information purpose only
AL098	Cooling circuit 1 Compressor envelope - High compression ratio	Auto reset	Circuit 1 switching off
AL099	Cooling circuit 1 Compressor envelope - High pressure	Auto reset up to 8 times in one hour	Circuit 1 switching off
AL100	Cooling circuit 1 Compressor envelope - High compressor absorption	Auto reset	Circuit 1 switching off
AL101	Cooling circuit 1 Compressor envelope - High suction pressure	Auto reset	Circuit 1 switching off
AL102	Cooling circuit 1 Compressor envelope - Low compression ratio	Auto reset	Circuit 1 switching off
AL103	Cooling circuit 1 Compressor envelope - Low pressure difference	Auto reset	Circuit 1 switching off
AL104	Cooling circuit 1 Compressor envelope - Low discharge pressure	Auto reset	Circuit 1 switching off
AL105	Cooling circuit 1 Compressor envelope - Low suction pressure	Auto reset	Circuit 1 switching off
AL106	Cooling circuit 1 Compressor envelope - High discharge temperature	Auto reset	Circuit 1 switching off



<i>CODE</i>	<i>DESCRIPTION</i>	<i>TYPE</i>	<i>EFFECTS</i>
AL107	Cooling circuit 1 EVD - Low overheating	Auto reset up to 3 times in one hour	Circuit 1 switching off
AL108	Cooling circuit 1 EVD - LOP	Auto reset	Circuit 1 switching off
AL109	Cooling circuit 1 EVD - MOP	Auto reset	Circuit 1 switching off
AL110	Cooling circuit 1 EVD - High condensate temperature	Auto reset	Circuit 1 switching off
AL111	Cooling circuit 1 EVD - Low suction temperature	Auto reset	Circuit 1 switching off
AL112	Cooling circuit 1 EVD - Motor error	User reset	Circuit 1 switching off
AL113	Cooling circuit 1 EVD - Emergency closure	Auto reset	Circuit 1 switching off
AL114	Cooling circuit 1 EVD - Out of range	Auto reset	Circuit 1 switching off
AL115	Cooling circuit 1 EVD - Setting range error	Auto reset	Information purpose only
AL116	Cooling circuit 1 EVD - Offline	Auto reset	Circuit 1 switching off
AL117	Cooling circuit 1 EVD - Low battery	Auto reset	Information purpose only
AL118	Cooling circuit 1 EVD - EEPROM	Auto reset	Information purpose only
AL119	Cooling circuit 1 EVD - Incomplete valve closure	Auto reset	Circuit 1 switching off
AL120	Cooling circuit 1 EVD - Firmware not compatible	Auto reset	Circuit 1 switching off
AL121	Cooling circuit 1 EVD - Configuration error	Auto reset	Circuit 1 switching off
AL122	Cooling circuit 1 Inverter - Offline	Auto reset	Power+ switching off
AL123	Cooling circuit 1 Inverter - Overcurrent	Auto reset	Power+ switching off
AL124	Cooling circuit 1 Inverter - Motor overload	Auto reset	Power+ switching off
AL125	Cooling circuit 1 Inverter - DC Bus overvoltage	Auto reset	Power+ switching off
AL126	Cooling circuit 1 Inverter - DC bus undervoltage	Auto reset	Power+ switching off
AL127	Cooling circuit 1 Inverter - Drive overtemperature	Auto reset	Power+ switching off
AL128	Cooling circuit 1 Inverter - Drive undertemperature	Auto reset	Power+ switching off
AL129	Cooling circuit 1 Inverter - HW overcurrent	Auto reset	Power+ switching off
AL130	Cooling circuit 1 Inverter - Motor PTC overtemperature	Auto reset	Power+ switching off
AL131	Cooling circuit 1 Inverter - Module IGBT error	Auto reset	Power+ switching off
AL132	Cooling circuit 1 Inverter - CPU error	Auto reset	Power+ switching off
AL133	Cooling circuit 1 Inverter - Default parameter (1 1)	Auto reset	Power+ switching off
AL134	Cooling circuit 1 Inverter - DC bus rippled	Auto reset	Power+ switching off
AL135	Cooling circuit 1 Inverter - Communication error	Auto reset	Power+ switching off
AL136	Cooling circuit 1 Inverter - Drive thermistor error	Auto reset	Power+ switching off
AL137	Cooling circuit 1 Inverter - Autotuning fault error	Auto reset	Power+ switching off
AL138	Cooling circuit 1 Inverter - Drive disabled	Auto reset	Power+ switching off
AL139	Cooling circuit 1 Inverter - Motor timing error	Auto reset	Power+ switching off
AL140	Cooling circuit 1 Inverter - Internal fan error	Auto reset	Power+ switching off
AL141	Cooling circuit 1 Inverter - Speed error	Auto reset	Power+ switching off
AL142	Cooling circuit 1 Inverter - PFC module error	Auto reset	Power+ switching off
AL143	Cooling circuit 1 Inverter - PFC overvoltage	Auto reset	Power+ switching off
AL144	Cooling circuit 1 Inverter - PFC undervoltage	Auto reset	Power+ switching off
AL145	Cooling circuit 1 Inverter - High pressure alarm	Auto reset	Power+ switching off

<i>CODE</i>	<i>DESCRIPTION</i>	<i>TYPE</i>	<i>EFFECTS</i>
AL146	Cooling circuit 1 Inverter - High pressure alarm	Auto reset	Power+ switching off
AL147	Cooling circuit 1 Inverter - Reference voltage error	Auto reset	Power+ switching off
AL148	Cooling circuit 1 Inverter - ADC conversion synchronisation error	Auto reset	Power+ switching off
AL149	Cooling circuit 1 Inverter - HW synchronisation error	Auto reset	Power+ switching off
AL150	Cooling circuit 1 Inverter - Drive overload	Auto reset	Power+ switching off
AL151	Cooling circuit 1 Inverter - Error code (29)	Auto reset	Power+ switching off
AL152	Cooling circuit 1 Inverter - Unexpected restart	Auto reset	Power+ switching off
AL153	Cooling circuit 1 Inverter - Unexpected shutdown	Auto reset	Power+ switching off
AL154	Cooling circuit 1 BLDC - Failed start	Auto reset up to 2 times in one hour	Power+ switching off
AL155	Cooling circuit 1 BLDC - Pressure difference greater than the allowed value at the start	Auto reset	Power+ switching off
AL159	Cooling circuit 1 - Evaporation temperature antifreeze alarm	Auto reset up to 3 times in one hour	Circuit 1 switching off
AL160	Cooling circuit 1 - Compressor 1 maintenance	Auto reset	Information purpose only
AL161	Cooling circuit 1 - Compressor 2 maintenance (if any)	Auto reset	Information purpose only
AL162	Cooling circuit 1 - Condensation temperature alarm	Auto reset	Circuit 1 switching off
AL163	Cooling circuit 1 - Fan 1 maintenance	Auto reset	Information purpose only
AL164	Cooling circuit 1 - Fan 2 maintenance	Auto reset	Information purpose only
AL165	Cooling circuit 1 - Fan 3 maintenance	Auto reset	Information purpose only
AL166	Cooling circuit 1 - Alarm for high pressure detected by the pressure switch	Auto reset up to 8 times in one hour	Circuit 1 switching off
AL167	Cooling circuit 1 - Low pressure detected by the pressure switch (if any)	Auto reset up to 8 times in one hour	Circuit 1 switching off
AL168	Cooling circuit 1 - Compressor 1 overload	User reset	Compressor 1 switching off
AL169	Cooling circuit 1 - Compressor 2 overload	User reset	Compressor 2 switching off
AL170	Cooling circuit 1 - End of forced pump shutdown for maximum time	Auto reset	Information purpose only
AL171	Cooling circuit 1 - Source temperature antifreeze alarm	Auto reset up to 5 times in one hour	Circuit 1 switching off
AL172	Circuit 1 - Suction antifreeze alarm	Auto reset	Circuit 1 switching off
AL190	Cooling circuit 2 - Defrost interrupted due to a system alarm	Auto reset	Information purpose only
AL191	Cooling circuit 2 - High pressure sensor alarm	Auto reset	Circuit 2 switching off
AL192	Cooling circuit 2 - Low pressure sensor alarm	Auto reset	Circuit 2 switching off
AL193	Cooling circuit 2 - Discharge temperature probe alarm	Auto reset	Circuit 2 switching off



<i>CODE</i>	<i>DESCRIPTION</i>	<i>TYPE</i>	<i>EFFECTS</i>
AL194	Cooling circuit 2 - Suction temperature probe alarm	Auto reset	Circuit 2 switching off
AL195	Cooling circuit 2 - Liquid temperature probe alarm (if any)	Auto reset	Information purpose only
AL196	Cooling circuit 2 Compressor envelope - High compression ratio	Auto reset	Circuit 2 switching off
AL197	Cooling circuit 2 Compressor envelope - High pressure	Auto reset up to 8 times in one hour	Circuit 2 switching off
AL198	Cooling circuit 2 Compressor envelope - High compressor absorption	Auto reset	Circuit 2 switching off
AL199	Cooling circuit 2 Compressor envelope - High suction pressure	Auto reset	Circuit 2 switching off
AL200	Cooling circuit 2 Compressor envelope - Low compression ratio	Auto reset	Circuit 2 switching off
AL201	Cooling circuit 2 Compressor envelope - Low pressure difference	Auto reset	Circuit 2 switching off
AL202	Cooling circuit 2 Compressor envelope - Low discharge pressure	Auto reset	Circuit 2 switching off
AL203	Cooling circuit 2 Compressor envelope - Low suction pressure	Auto reset	Circuit 2 switching off
AL204	Cooling circuit 2 Compressor envelope - High discharge temperature	Auto reset	Circuit 2 switching off
AL205	Cooling circuit 2 EVD - Low overheating	Auto reset up to 3 times in one hour	Circuit 2 switching off
AL206	Cooling circuit 2 EVD - LOP	Auto reset	Circuit 2 switching off
AL207	Cooling circuit 2 EVD - MOP	Auto reset	Circuit 2 switching off
AL208	Cooling circuit 2 EVD - High condensate temperature	Auto reset	Circuit 2 switching off
AL209	Cooling circuit 2 EVD - Low suction temperature	Auto reset	Circuit 2 switching off
AL210	Cooling circuit 2 EVD - Motor error	User reset	Circuit 2 switching off
AL211	Cooling circuit 2 EVD - Emergency closure	Auto reset	Circuit 2 switching off
AL212	Cooling circuit 2 EVD - Out of range	Auto reset	Circuit 2 switching off
AL213	Cooling circuit 2 EVD - Setting range error	Auto reset	Information purpose only
AL214	Cooling circuit 2 EVD - Offline	Auto reset	Circuit 2 switching off
AL215	Cooling circuit 2 EVD - Low battery	Auto reset	Information purpose only
AL216	Cooling circuit 2 EVD - EEPROM	Auto reset	Information purpose only
AL217	Cooling circuit 2 EVD - Incomplete valve closure	Auto reset	Circuit 2 switching off
AL218	Cooling circuit 2 EVD - Firmware not compatible	Auto reset	Circuit 2 switching off
AL219	Cooling circuit 2 EVD - Configuration error	Auto reset	Circuit 2 switching off
AL220	Cooling circuit 2 Inverter - Offline	Auto reset	Power+ switching off
AL221	Cooling circuit 2 Inverter - Overcurrent	Auto reset	Power+ switching off
AL222	Cooling circuit 2 Inverter - Motor overload	Auto reset	Power+ switching off
AL223	Cooling circuit 2 Inverter - DC Bus overvoltage	Auto reset	Power+ switching off
AL224	Cooling circuit 2 Inverter - DC bus undervoltage	Auto reset	Power+ switching off

<i>CODE</i>	<i>DESCRIPTION</i>	<i>TYPE</i>	<i>EFFECTS</i>
AL225	Cooling circuit 2 Inverter - Drive overtemperature	Auto reset	Power+ switching off
AL226	Cooling circuit 2 Inverter - Drive undertemperature	Auto reset	Power+ switching off
AL227	Cooling circuit 2 Inverter - HW overcurrent	Auto reset	Power+ switching off
AL228	Cooling circuit 2 Inverter - Motor PTC overtemperature	Auto reset	Power+ switching off
AL229	Cooling circuit 2 Inverter - Module IGBT error	Auto reset	Power+ switching off
AL230	Cooling circuit 2 Inverter - CPU error	Auto reset	Power+ switching off
AL231	Cooling circuit 2 Inverter - Default parameter (1 1)	Auto reset	Power+ switching off
AL232	Cooling circuit 2 Inverter - DC bus rippled	Auto reset	Power+ switching off
AL233	Cooling circuit 2 Inverter - Communication error	Auto reset	Power+ switching off
AL234	Cooling circuit 2 Inverter - Drive thermistor error	Auto reset	Power+ switching off
AL235	Cooling circuit 2 Inverter - Autotuning fault error	Auto reset	Power+ switching off
AL236	Cooling circuit 2 Inverter - Drive disabled	Auto reset	Power+ switching off
AL237	Cooling circuit 2 Inverter - Motor timing error	Auto reset	Power+ switching off
AL238	Cooling circuit 2 Inverter - Internal fan error	Auto reset	Power+ switching off
AL239	Cooling circuit 2 Inverter - Speed error	Auto reset	Power+ switching off
AL240	Cooling circuit 2 Inverter - PFC module error	Auto reset	Power+ switching off
AL241	Cooling circuit 2 Inverter - PFC overvoltage	Auto reset	Power+ switching off
AL242	Cooling circuit 2 Inverter - PFC undervoltage	Auto reset	Power+ switching off
AL243	Cooling circuit 2 Inverter - High pressure alarm	Auto reset	Power+ switching off
AL244	Cooling circuit 2 Inverter - High pressure alarm	Auto reset	Power+ switching off
AL245	Cooling circuit 2 Inverter - Reference voltage error	Auto reset	Power+ switching off
AL246	Cooling circuit 2 Inverter - ADC conversion synchronisation error	Auto reset	Power+ switching off
AL247	Cooling circuit 2 Inverter - HW synchronisation error	Auto reset	Power+ switching off
AL248	Cooling circuit 2 Inverter - Drive overload	Auto reset	Power+ switching off
AL249	Cooling circuit 2 Inverter - Error code (29)	Auto reset	Power+ switching off
AL250	Cooling circuit 2 Inverter - Unexpected restart	Auto reset	Power+ switching off
AL251	Cooling circuit 2 Inverter - Unexpected shutdown	Auto reset	Power+ switching off
AL252	Cooling circuit 2 BLDC - Failed start	User reset up to 2 times in one hour	Power+ switching off
AL253	Cooling circuit 2 BLDC - Pressure difference greater than the allowed value at the start	Auto reset	Power+ switching off
AL254	Cooling circuit 2 - Evaporation temperature antifreeze alarm	Auto reset up to 3 times in one hour	Circuit 2 switching off
AL255	Cooling circuit 2 - Compressor 1 maintenance	Auto reset	Information purpose only
AL256	Cooling circuit 2 - Compressor 2 maintenance (if any)	Auto reset	Information purpose only
AL257	Cooling circuit 2 - Condensation temperature alarm	Auto reset	Circuit 2 switching off
AL258	Cooling circuit 2 - Fan 1 maintenance	Auto reset up to 8 times in one hour	Information purpose only



<i>CODE</i>	<i>DESCRIPTION</i>	<i>TYPE</i>	<i>EFFECTS</i>
AL259	Cooling circuit 2 - Fan 2 maintenance	Auto reset up to 8 times in one hour	Information purpose only
AL260	Cooling circuit 2 - Fan 3 maintenance	User reset	Information purpose only
AL261	Cooling circuit 2 - Alarm for high pressure detected by the pressure switch	User reset	Circuit 2 switching off
AL262	Cooling circuit 2 - Low pressure detected by the pressure switch (if any)	Auto reset	Circuit 2 switching off
AL263	Cooling circuit 2 - Compressor 1 overload	Auto reset up to 5 times in one hour	Compressor 2 switching off
AL264	Cooling circuit 2 - Compressor 2 overload	Auto reset	Compressor 2 switching off
AL265	Cooling circuit 2 - End of forced pump shutdown for maximum time	Auto reset	Information purpose only
AL266	Cooling circuit 2 - Source temperature antifreeze alarm	Auto reset	Circuit 2 switching off
AL308	Cooling circuit 1 - Safety alarm 101	Auto reset	Cooling circuit 1 Power+ switching off
AL309	Cooling circuit 1 - Safety alarm 102	Auto reset	Cooling circuit 1 Power+ switching off
AL310	Cooling circuit 1 - Safety alarm 103	Auto reset	Cooling circuit 1 Power+ switching off
AL311	Cooling circuit 1 - Safety alarm 104	Auto reset	Cooling circuit 1 Power+ switching off
AL312	Cooling circuit 1 - Safety alarm 105	Auto reset	Cooling circuit 1 Power+ switching off
AL313	Cooling circuit 1 - Safety alarm 106	Auto reset	Cooling circuit 1 Power+ switching off
AL314	Cooling circuit 1 - Safety alarm 107	Auto reset	Cooling circuit 1 Power+ switching off
AL315	Cooling circuit 1 - Safety alarm 108	Auto reset	Cooling circuit 1 Power+ switching off
AL316	Cooling circuit 1 - Safety alarm 109	Auto reset	Cooling circuit 1 Power+ switching off
AL317	Cooling circuit 1 - Safety alarm 110	Auto reset	Cooling circuit 1 Power+ switching off
AL318	Cooling circuit 1 - Safety alarm 111	Auto reset	Cooling circuit 1 Power+ switching off
AL319	Cooling circuit 1 - Safety alarm 112	Auto reset	Cooling circuit 1 Power+ switching off
AL320	Cooling circuit 1 - Safety alarm 113	Auto reset	Cooling circuit 1 Power+ switching off
AL321	Cooling circuit 1 - Safety alarm 114	Auto reset	Cooling circuit 1 Power+ switching off
AL322	Cooling circuit 1 - Safety alarm 115	Auto reset	Cooling circuit 1 Power+ switching off
AL323	Cooling circuit 1 - Safety alarm 116	Auto reset	Cooling circuit 1 Power+ switching off

<i>CODE</i>	<i>DESCRIPTION</i>	<i>TYPE</i>	<i>EFFECTS</i>
AL324	Cooling circuit 1 - Safety alarm 201	Auto reset	Cooling circuit 1 Power+ switching off
AL325	Cooling circuit 1 - Safety alarm 202	Auto reset	Cooling circuit 1 Power+ switching off
AL326	Cooling circuit 1 - Safety alarm 203	Auto reset	Cooling circuit 1 Power+ switching off
AL327	Cooling circuit 1 - Safety alarm 204	Auto reset	Cooling circuit 1 Power+ switching off
AL328	Cooling circuit 1 - Safety alarm 205	Auto reset	Cooling circuit 1 Power+ switching off
AL329	Cooling circuit 1 - Safety alarm 206	Auto reset	Cooling circuit 1 Power+ switching off
AL330	Cooling circuit 1 - Safety alarm 207	Auto reset	Cooling circuit 1 Power+ switching off
AL331	Cooling circuit 1 - Safety alarm 208	Auto reset	Cooling circuit 1 Power+ switching off
AL332	Cooling circuit 1 - Safety alarm 209	Auto reset	Cooling circuit 1 Power+ switching off
AL333	Cooling circuit 1 - Safety alarm 210	Auto reset	Cooling circuit 1 Power+ switching off
AL334	Cooling circuit 1 - Safety alarm 211	Auto reset	Cooling circuit 1 Power+ switching off
AL335	Cooling circuit 1 - Safety alarm 212	Auto reset	Cooling circuit 1 Power+ switching off
AL336	Cooling circuit 1 - Safety alarm 213	Auto reset	Cooling circuit 1 Power+ switching off
AL337	Cooling circuit 1 - Safety alarm 214	Auto reset	Cooling circuit 1 Power+ switching off
AL338	Cooling circuit 1 - Safety alarm 215	Auto reset	Cooling circuit 1 Power+ switching off
AL339	Cooling circuit 1 - Safety alarm 216	Auto reset	Cooling circuit 1 Power+ switching off
AL340	Cooling circuit 2 - Safety alarm 101	Auto reset	Cooling circuit 2 Power+ switching off
AL341	Cooling circuit 2 - Safety alarm 102	Auto reset	Cooling circuit 2 Power+ switching off
AL342	Cooling circuit 2 - Safety alarm 103	Auto reset	Cooling circuit 2 Power+ switching off
AL343	Cooling circuit 2 - Safety alarm 104	Auto reset	Cooling circuit 2 Power+ switching off
AL344	Cooling circuit 2 - Safety alarm 105	Auto reset	Cooling circuit 2 Power+ switching off
AL345	Cooling circuit 2 - Safety alarm 106	Auto reset	Cooling circuit 2 Power+ switching off
AL346	Cooling circuit 2 - Safety alarm 107	Auto reset	Cooling circuit 2 Power+ switching off
AL347	Cooling circuit 2 - Safety alarm 108	Auto reset	Cooling circuit 2 Power+ switching off
AL348	Cooling circuit 2 - Safety alarm 109	Auto reset	Cooling circuit 2 Power+ switching off



<i>CODE</i>	<i>DESCRIPTION</i>	<i>TYPE</i>	<i>EFFECTS</i>
AL349	Cooling circuit 2 - Safety alarm 110	Auto reset	Cooling circuit 2 Power+ switching off
AL350	Cooling circuit 2 - Safety alarm 111	Auto reset	Cooling circuit 2 Power+ switching off
AL351	Cooling circuit 2 - Safety alarm 112	Auto reset	Cooling circuit 2 Power+ switching off
AL352	Cooling circuit 2 - Safety alarm 113	Auto reset	Cooling circuit 2 Power+ switching off
AL353	Cooling circuit 2 - Safety alarm 114	Auto reset	Cooling circuit 2 Power+ switching off
AL354	Cooling circuit 2 - Safety alarm 115	Auto reset	Cooling circuit 2 Power+ switching off
AL355	Cooling circuit 2 - Safety alarm 116	Auto reset	Cooling circuit 2 Power+ switching off
AL356	Cooling circuit 2 - Safety alarm 201	Auto reset	Cooling circuit 2 Power+ switching off
AL357	Cooling circuit 2 - Safety alarm 202	Auto reset	Cooling circuit 2 Power+ switching off
AL358	Cooling circuit 2 - Safety alarm 203	Auto reset	Cooling circuit 2 Power+ switching off
AL359	Cooling circuit 2 - Safety alarm 204	Auto reset	Cooling circuit 2 Power+ switching off
AL360	Cooling circuit 2 - Safety alarm 205	Auto reset	Cooling circuit 2 Power+ switching off
AL361	Cooling circuit 2 - Safety alarm 206	Auto reset	Cooling circuit 2 Power+ switching off
AL362	Cooling circuit 2 - Safety alarm 207	Auto reset	Cooling circuit 2 Power+ switching off
AL363	Cooling circuit 2 - Safety alarm 208	Auto reset	Cooling circuit 2 Power+ switching off
AL364	Cooling circuit 2 - Safety alarm 209	Auto reset	Cooling circuit 2 Power+ switching off
AL365	Cooling circuit 2 - Safety alarm 210	Auto reset	Cooling circuit 2 Power+ switching off
AL366	Cooling circuit 2 - Safety alarm 211	Auto reset	Cooling circuit 2 Power+ switching off
AL367	Cooling circuit 2 - Safety alarm 212	Auto reset	Cooling circuit 2 Power+ switching off
AL368	Cooling circuit 2 - Safety alarm 213	Auto reset	Cooling circuit 2 Power+ switching off
AL369	Cooling circuit 2 - Safety alarm 214	Auto reset	Cooling circuit 2 Power+ switching off
AL370	Cooling circuit 2 - Safety alarm 215	Auto reset	Cooling circuit 2 Power+ switching off
AL371	Cooling circuit 2 - Safety alarm 216	Auto reset	Cooling circuit 2 Power+ switching off
AL372	Offline expansion	Auto reset	Device resources are not used
AL373	Expansion configuration is incorrect	Auto reset	Device resources are not used

<i>CODE</i>	<i>DESCRIPTION</i>	<i>TYPE</i>	<i>EFFECTS</i>
AL375	System supplementary source maintenance time reached	Auto reset	Information purpose only
AL376	DHW supplementary source maintenance time reached	Auto reset	Information purpose only
AL377	High boiler temperature probe alarm	Auto reset	Information purpose only
AL378	External secondary boiler probe temperature alarm	Auto reset	Information purpose only
AL379	Device offline alarm uPC3 Exp.	Auto reset	Compressor Switch off
AL380	Device offline alarm cPCo Mini Exp.	Auto reset	Compressor Switch off



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