

PLD-100

POULTRY COMPUTER













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1. GENERAL INTRODUCTION

HOW TO USE THIS MANUAL

The following symbols are used in this manual:

	Probability of dangerous electric shocks. Danger to humans or animals
	Warning indicating potential damage to the product if procedures are not followed carefully
	Warning indicating danger to humans or animals
	Note
	Additional information
	Example of a concrete application of the functionality described
	Example calculation
	Manual control
	Tips and suggestions
	Screenshot

STIENEN BEDRIJFSELEKTRONICA B.V. CUSTOMER SERVICE

If you have any questions, please contact our Customer Service Department. Be sure to have all the necessary data at hand. Always write down the cause of a fault and the circumstances that occurred during the fault. This will enable you to avoid any ambiguities and it will enable us to deal with faults quickly and effectively.

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Stienen BE accepts no liability for the contents of this manual and explicitly waives all implicit guarantees of marketability or fitness for a certain use. Stienen BE also reserves the right to improve or change this manual without being under the obligation to inform any person or organisation accordingly.

You cannot hold Stienen BE liable for any damage, loss or injury resulting from improper use or from use not in accordance with the instructions in this manual.

2. GENERAL WARNING



- Shut down the power before opening the poultry computer!
- Only to be opened by authorized personnel!



Although we design and manufacture our equipment with the greatest care possible, technical faults can never be ruled out.

You should therefore ensure that an adequate alarm system and/or emergency provisions is/are in place to prevent any technical failure of the equipment and installation from leading to danger to people, animals or property.



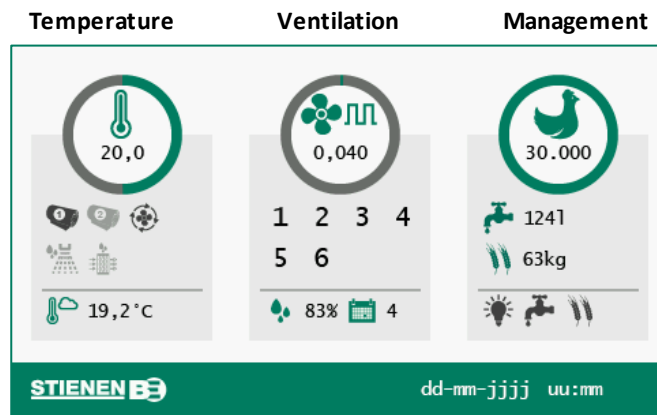
In the event of an emergency, note down the following:

- The installer settings;
- The circumstances in which the emergency occurred;
- Any possible causes;
- The software version number.



If the software version of a module or peripheral device does not comply with the requirements of the operating software, you should update the software of the module/peripheral device.

3. OVERVIEW SCREEN



TEMPERATURE



Current house temperature



Temperature controls status



Current outside temperature

On	Off	
		Heating 1
		Heating 2
		Recirculation fan

VENTILATION



Current ventilation in m³/h/m



Ventilation group:

Black number

Being activated

Black number, green underscore On

Grey number

Not active



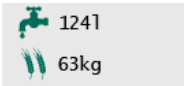
Readout of the current relative humidity (RH) and day number

	Duty-cycle ^{plus} ventilation
	Step-by-step ventilation
	Tunnel ventilation

MANAGEMENT/TIMERS



Current number of animals present



Total readings for today: water, feed



Timer status

On	Off	
		Light timer
		Water timer
		Feed timer

STATUS BAR



No alarm



Alarm

The date and time are also shown in the status bar.

CHANGE SETTING / POP-UP WINDOW



- The green dot (●) next to a value or icon indicates that you can change the value or icon.
- Tap the grey area of the screen with the value/icon in it.
- The above pop-up window appears. You can change the value/icon in the central frame.
- The number of dots indicates the number of values/icons that can be changed (● = current value/icon).

CONTROL KEYS





Edit mode not active



In edit mode. Select setting:

- Use the left/right cursor keys to select the desired setting.

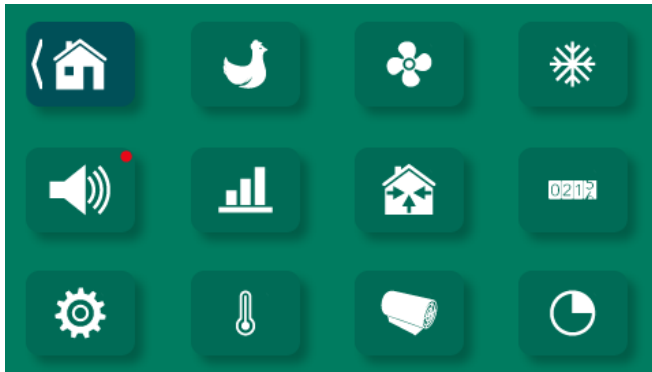
In edit mode. Select setting:

- Use the up/down cursor keys to change the value or icon.
-  = cancel change.
-  = implement change.

SCREEN NUMBER

Tap  3 times. A frame with a screen number is displayed. The screen number disappears when you select another screen or tap  3 times again.

4. MAIN MENU



Tapping anywhere on the overview screen, brings up the main menu.

The red dot (●) in the alarm key indicates that an alarm situation has occurred for one of the controls.



Home

Back to overview screen



Alarm

Code, on/off, test, delay, set temperature alarm, set RH alarm



System

Info, date & time, device number, software version, activate controls, system settings access code



Management

Number of animals, new animals entered, unload



Growth curves

Growth curves on/off, current day number, curve day numbers



House temperature



Ventilation

Min./Max., bandwidth, curve, interval, tunnel, mode



Air inlet flaps

Side wall air inlet flaps, tunnel flaps



Heating

Heating 1, heating 2, circulation fan



Cooling

Mist cooling, aisle cooling



Counters

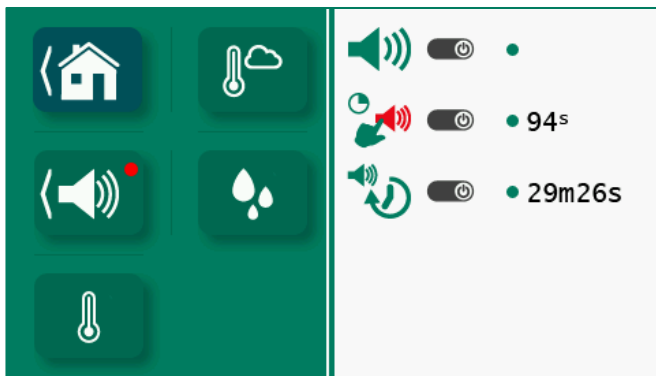
Water counter, feed counter



Timers

Light timer, water timer, feed timer

5. ALARM



Main alarm on/off

Siren test

Alarm switched off temporarily



Return to the overview screen



Back to the previous screen



Temperature



Outside temperature



Relative humidity (RH)

Main alarm ON/OFF



If you switch off the main alarm, the controls will continue to be active. This means that, if anything goes wrong, you will not get any alarm messages. Your animals' lives will then be in danger.

ALARM CODES



Temperature sensor failure



No outside temperature



RH sensor failure



Overlapping timer periods



Bottom PCB not found



Temperature too high



Ventilation too low



RH too high



Communication error



Jumper A on LCCPU PCB not in upper position



Temperature too low

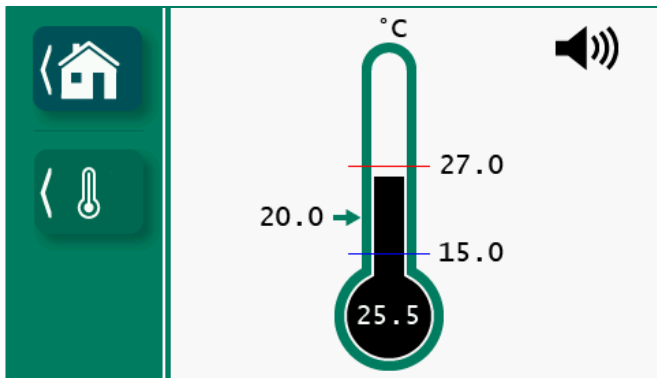


Ventilation too high



RH too low

HOUSE TEMPERATURE ALARM



Alarm / Main alarm on/off.

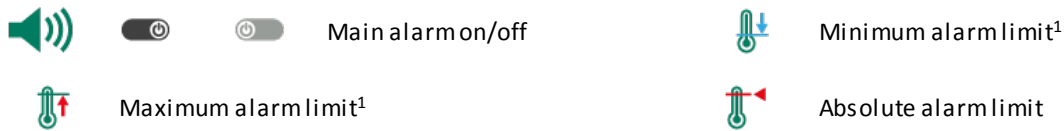
Main alarm ON/OFF



If you switch off the main alarm, the controls will continue to be active. This means that, if anything goes wrong, you will not get any alarm messages. Your animals' lives will then be in danger.

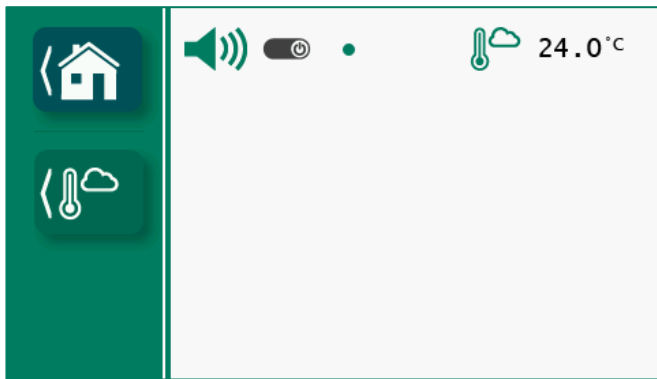
Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

Pop-up settings



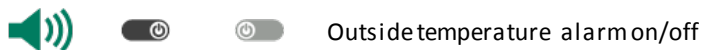
¹ Setting relative to the house temperature (see page 21)

OUTSIDE TEMPERATURE ALARM

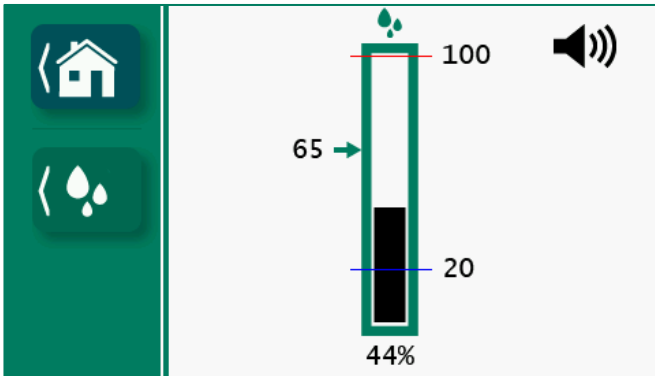


Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

Pop-up settings




RELATIVE HUMIDITY ALARM (RH)




Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

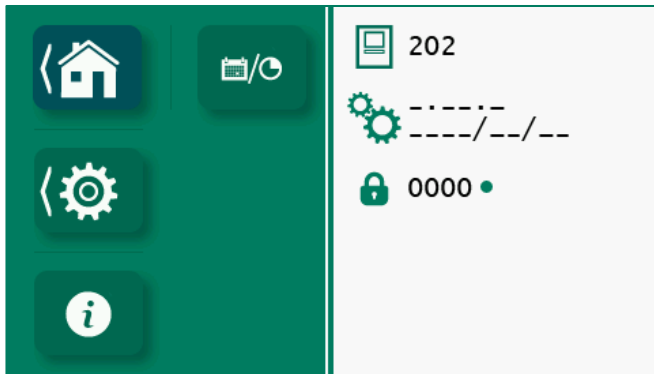
Pop-up settings




 RH alarm on/off

 Lower RH alarm limit

 Upper RH alarm limit

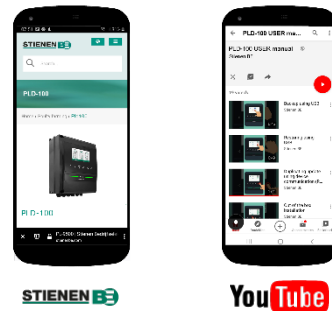
6. SYSTEM



-  Device number
-  Software version number and software date
-  Access code for installation and service codes

Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

INFO



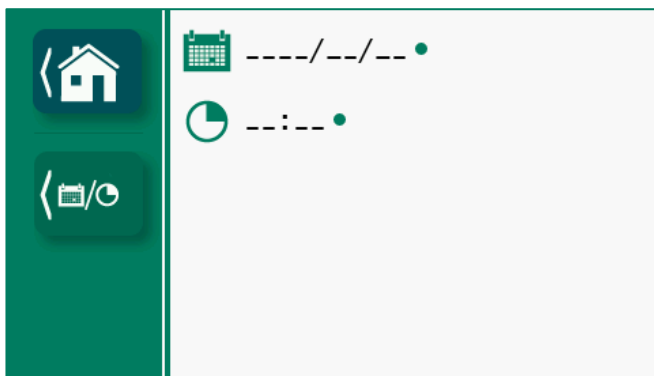
If you do not have a QR code scanner, you can download Google Lens or a similar application from the App store.

You can use your smartphone to retrieve documentation or watch an instructional video.

SCANNING THE QR CODE

- Open the QR code app.
- Hold your device so that the QR code appears in the viewfinder of the app.
- Tap the message in order to open the link associated with the QR code and then follow the instructions on your smartphone.

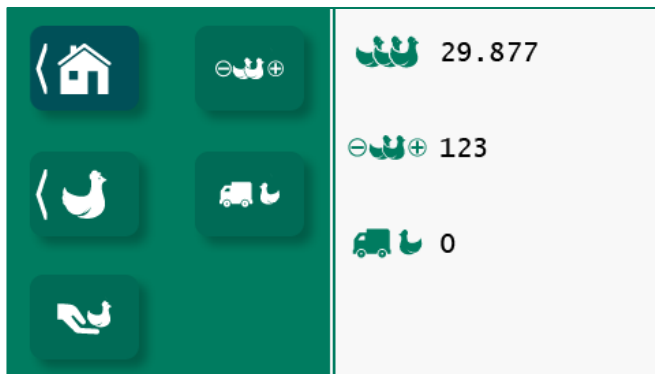
DATE AND TIME






-  Date
-  Time

Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

7. MANAGEMENT






-  Animals present
-  Animal changes (dead/sick animals)
-  Unloaded animals






Back to the previous screen





-  Number of animals entered
-  Entry date
-  New animal(s) entered

Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

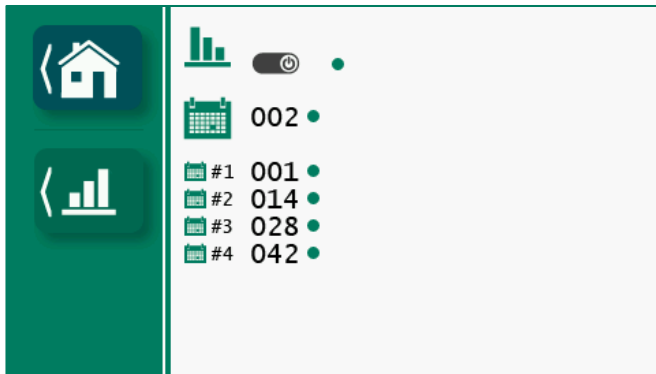


-  Input of change
-  Total changes today
-  Total changes

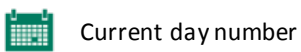
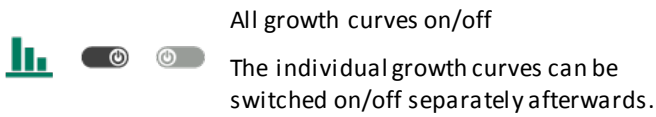


-  Unloaded today
-  Total unloaded

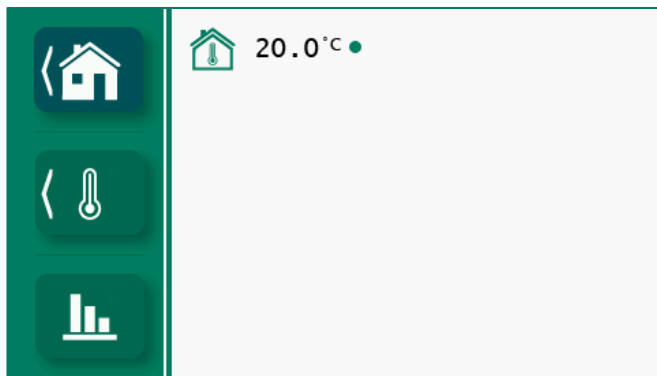
8. GROWTH CURVES



Tap anywhere in the grey area of the screen. A pop-up window with settings appears.



9. HOUSE TEMPERATURE



Tap anywhere in the grey area of the screen. A pop-up window with settings appears (if the curve is off).

If the house temperature curve is “on”, the green dot (●) next to the setting disappears.



Return to the overview screen



Back to the previous screen



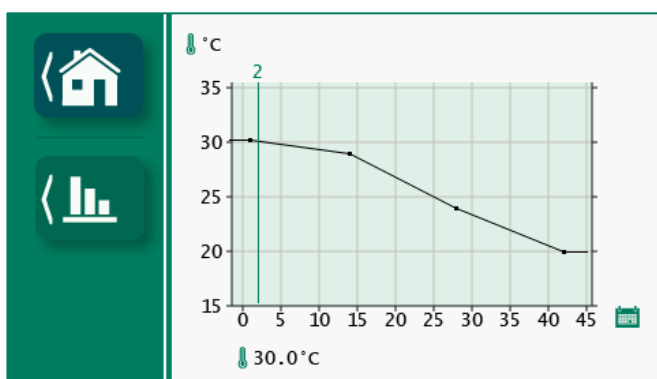
House temperature curve

Pop-up settings



House temperature

HOUSE TEMPERATURE CURVE



Tap the graph to set the curve. A pop-up window with settings appears.

The graph is grey when the house temperature curve is off or when all the curves are off (see page 14).

The graph shows the current day number and the temperature calculated on the basis of the curve.

Pop-up settings



Growth curve on/off



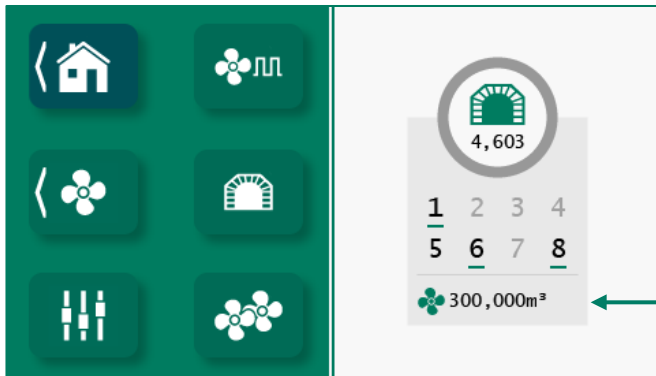
...



Temperature breakpoints 1 to 4

Note! Always check the house temperature alarm limit settings. This prevents an unexpected alarm from occurring when the house temperature calculated from the curve exceeds the settings.

10. VENTILATION



Total ventilation capacity



Return to the overview screen



Back to the previous screen



Settings



Interval ventilation

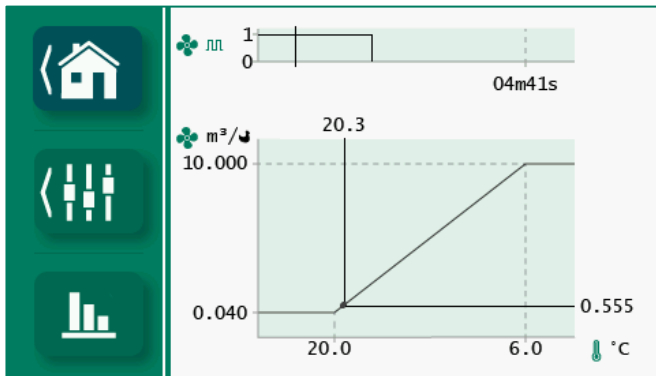


Tunnel ventilation



Ventilation groups

SETTINGS



If interval ventilation is active, only the top graph will appear.

Tap the illustration. A pop-up window with settings appears.

Pop-up settings



Control temperature¹



Bandwidth



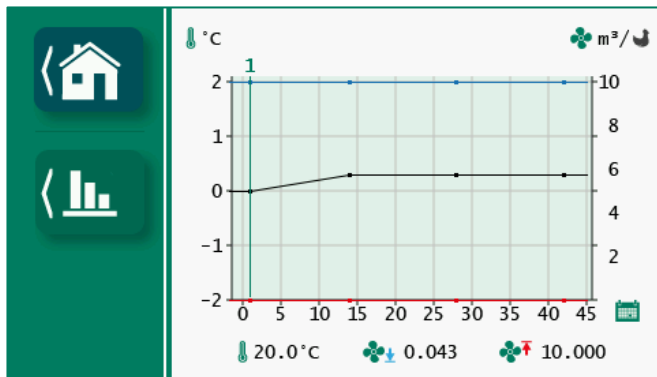
Minimum ventilation



Maximum ventilation

¹ Setting relative to the house temperature (see page 21).

VENTILATION CURVE







Tap the graph to set the curve. A pop-up window with settings appears.



The graph is grey if the house temperature curve is off or if all curves are off (see page 14).



The graph shows the current day number, the calculated temperature, minimum and maximum ventilation from the curve.

Pop-up settings

  Growth curve on/off

#1  ... #4  Temperature¹ breakpoints 1 to 4

#1  ... #4  Minimum ventilation breakpoints 1 to 4

#1  ... #4  Maximum ventilation breakpoints 1 to 4

¹ Setting relative to the house temperature (see page 21)

DUTY-CYCLE^{PLUS} VENTILATION

Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

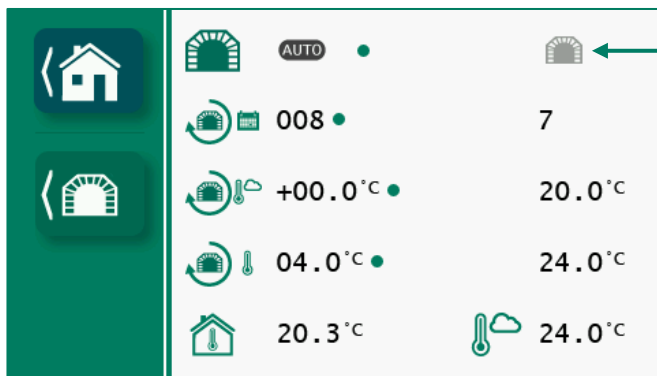
Pop-up settings



 Standard pulse duration "on"  Maximum pulse duration (cycle time)

 Minimum pulse duration "on"  Minimum pulse duration "off"

 Current pulse duration (cycle time)  Current cycle time

TUNNEL VENTILATION



Current tunnel mode ( on /  off).

In this example, the current day number (7) is lower than the day number setting (8). Tunnel mode is not yet active.

Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

Pop-up settings



AUTO The tunnel controls on the basis of the settings for the values



Tunnel continuously *on*.



Tunnel continuously *off*



Tunnel mode active from day number. The current day number is listed next to the setting.



Tunnel mode active because the current outside temperature exceeds the temperature setting (different than the house temperature setting, see page 21).



Tunnel mode active because the current house temperature exceeds the temperature setting (different than the house temperature setting, see page 21).

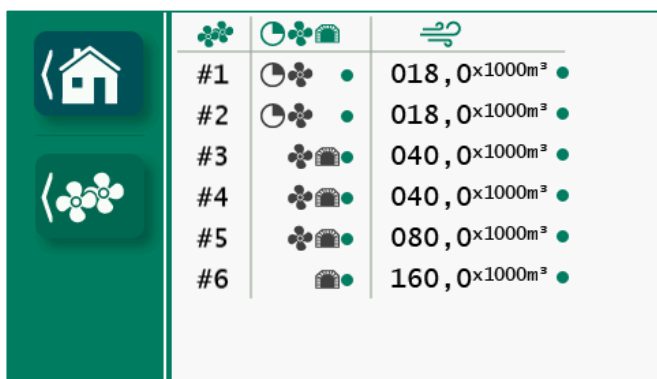


Current house temperature



Current outside temperature

VENTILATION GROUPS



Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

Pop-up settings



Ventilation group

A maximum of 8 ventilation groups can be installed.



Ventilation group mode



Ventilation group can be active during Duty-cycle^{plus} ventilation



Ventilation group can be active during step-by-step ventilation



Ventilation group can be active during tunnel ventilation

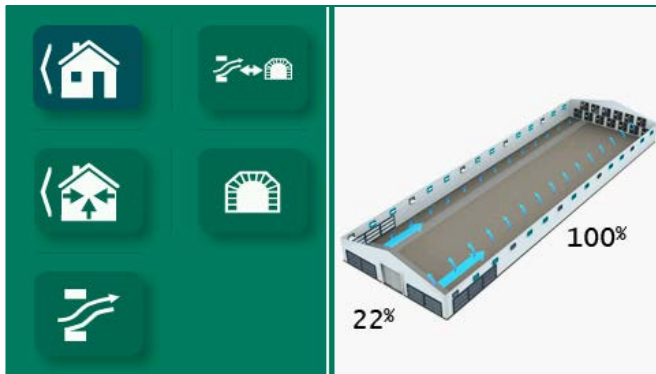


Ventilation group off



Ventilation capacity

11. AIR INLET FLAPS



Return to the overview screen



Back to the previous screen



Side wall air inlet flaps








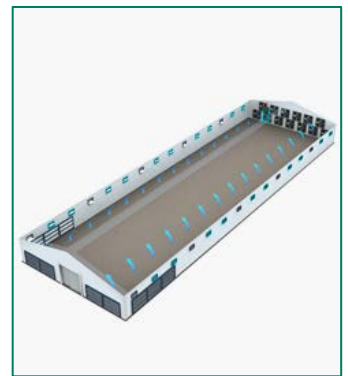
Tunnel flaps in transition mode



Tunnel flaps








STEP-BY-STEP VENTILATION

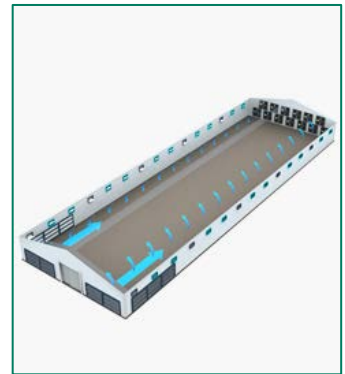
	00.040m ³ /↓	●	2%
	10.000m ³ /↓	●	100%
	76,000m ³		00m00s
	51,200m ³		100%



Tap anywhere in the grey area of the screen. A pop-up window with settings appears.








TUNNEL FLAPS IN TRANSITION MODE

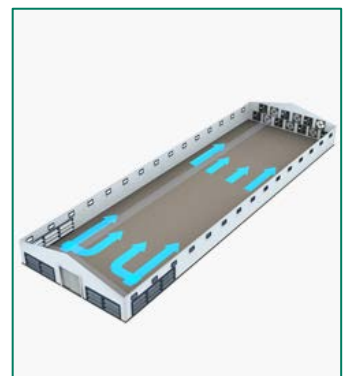
	 00.040m ³ /↓ ● 1%
	 10.000m ³ /↑ ● 100%
	 76,000m ³  00m00s
	 24,800m ³ 22%



Tap anywhere in the grey area of the screen. A pop-up window with settings appears.


TUNNEL FLAPS


	 00.040m ³ /↓ ● 1%
	 10.000m ³ /↑ ● 100%
	 76,000m ³  00m00s
	 24,800m ³ 22%




Tap anywhere in the grey area of the screen. A pop-up window with settings appears.


Pop-up settings

 Minimum flap position

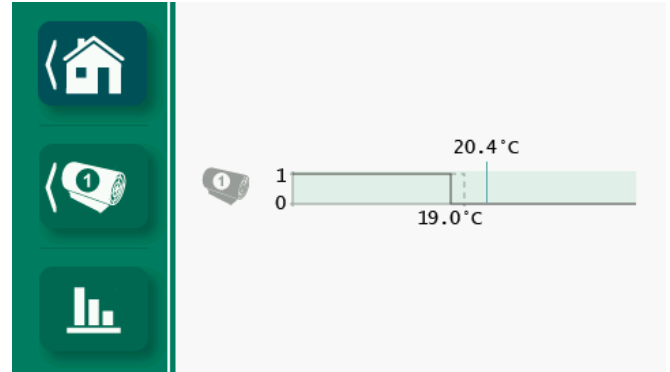
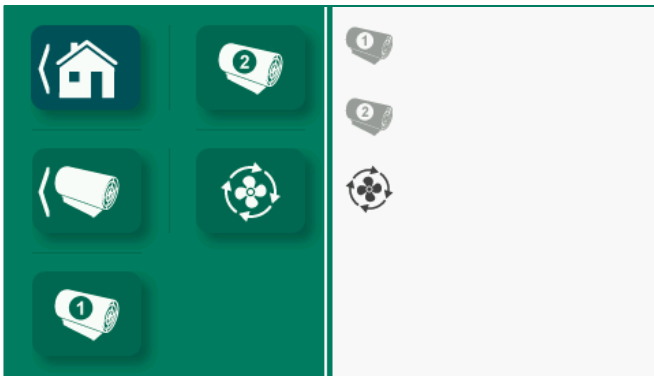
 Maximum flap position

 Current ventilation

  Tunnel mode on/off

 Current flap position

12. HEATING



Tap anywhere in the grey area of the screen. A pop-up window with settings appears.



Return to the overview screen



Back to the previous screen



Heating 1



Heating 2



Circulation fan



Curve



Heating 1 on/off



Heating 2 on/off



Circulation fan on/off

Pop-up settings



Growth curve on/off

#1



...

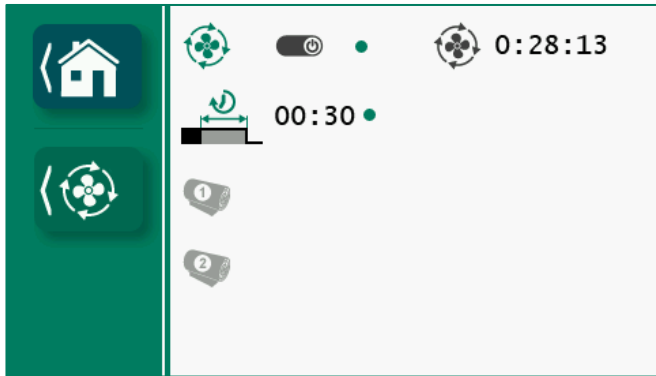
#4



Temperature breakpoints 1 to 4

Heating 2 is set identically to heating 1.



CIRCULATION FAN




Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

Whenever one of the two heating units switches on, the circulation fan also switches on. The switch-off delay time starts when all heating units switch off.

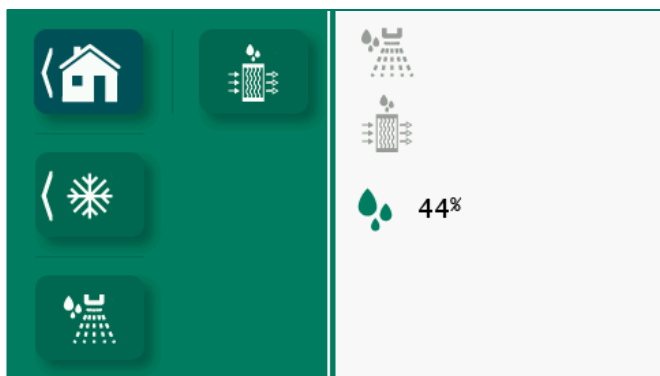
   Circulation fan on/off



  hh:mm:ss Circulation fan status + switch-off delay time



 Recirculation fan switch-off delay time setting

    Heating on/off status

13. COOLING



Mist cooling status ( on /  off)

Aisle cooling status ( on /  off)

Current relative humidity (RH)



Return to the overview screen



Back to the previous screen

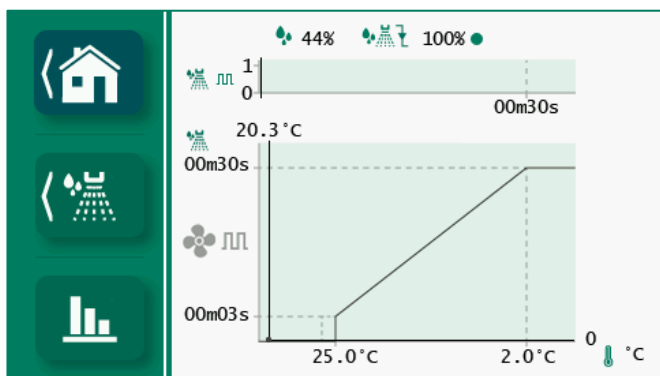



Mist cooling




Aisle cooling

MIST COOLING



 Current relative humidity (RH)

 Cooling off if RH > setting

 Duty-cycle^{plus} ventilation on

 Duty-cycle^{plus} ventilation off

 Tunnel ventilation on

 Tunnel ventilation off

Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

Pop-up settings



On Off



Setting relative to the house temperature (see page 21)



Bandwidth



Minimum pulse duration "on"

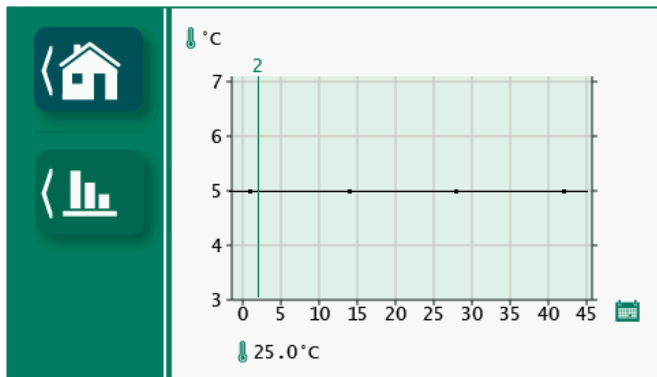


Maximum pulse duration "on" (cycle time)



Cooling off if the relative humidity (RH) setting is exceeded

CURVE



Tap the graph to set the curve; a pop-up window with the settings appears.

The graph is grey if the spray cooling curve is off or if all curves are off (see page 9).

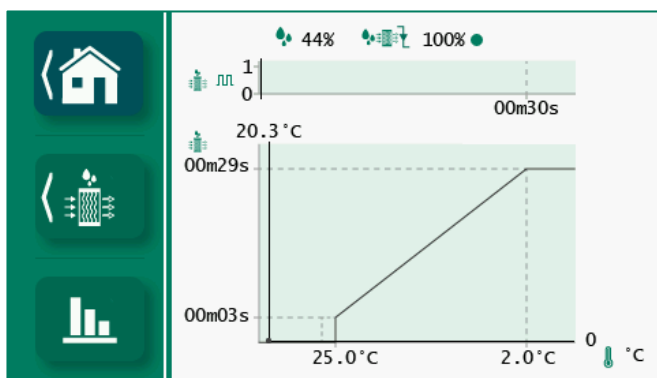
The graph shows the current day number and the calculated temperature from the curve.







Pop-up settings



¹ Setting relative to the house temperature (see page 21).

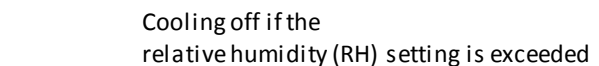
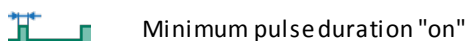
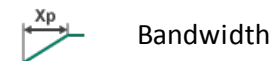
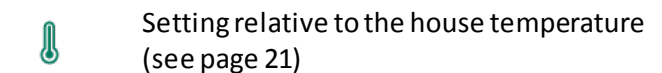
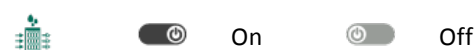
AISLE COOLING



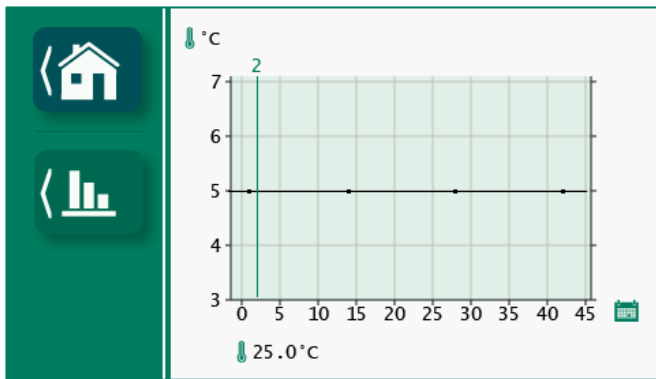
-  Current relative humidity (RH)
-  Cooling off if RH > setting
-  Duty-cycle^{plus} ventilation on
-  Duty-cycle^{plus} ventilation off
-  Tunnel ventilation on
-  Tunnel ventilation off

Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

Pop-up settings



CURVE



Tap the graph to set the curve. A pop-up window with settings appears.

The graph is grey if the cooling curve is off or if all curves are off (see page 14).

The graph shows the current day number and the calculated temperature from the curve.

Pop-up settings



Growth curve on/off



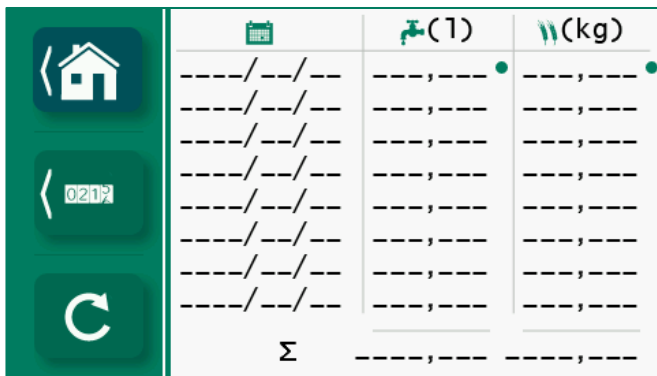
...



Temperature¹
breakpoints 1 to 4

¹ Setting relative to the house temperature (see page 21).

14. COUNTERS



Tap anywhere in the grey area of the screen. A pop-up window with settings appears.

List of today's counter readings and those of the past 7 days. You can change today's counter readings.



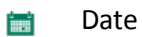
Return to the overview screen



Back to the previous screen



Reset all counter readings



Date



Water counter



Feed counter

Pop-up settings

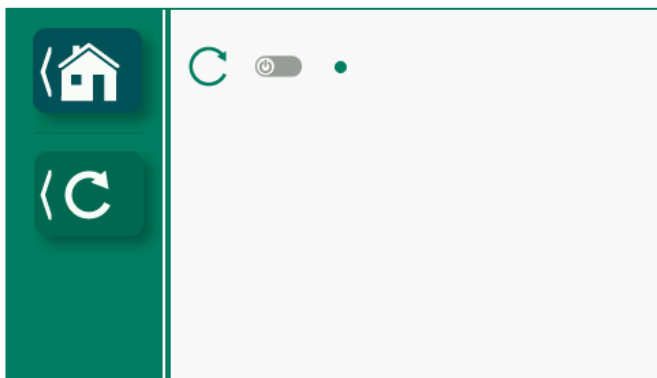


Today's water counter reading



Today's feed counter reading


RESET ALL COUNTER READINGS



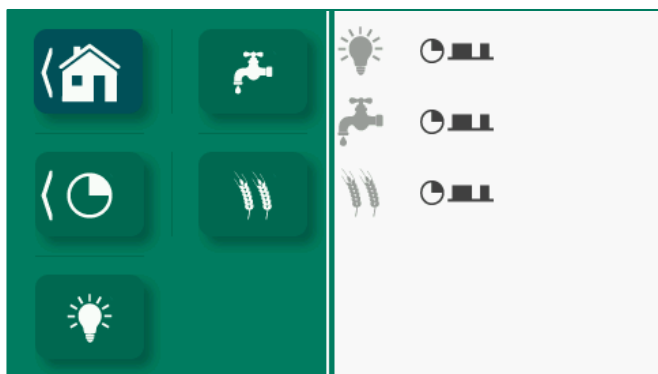
Tap anywhere in the grey area of the screen. A pop-up window with settings appears.




Pop-up settings



Reset all counter readings. Afterwards, the slider is reset to the  position.

15. TIMERS



-  Timer switches according to schedule
-  Timer on manually
-  Timer off



Return to the overview screen



Back to the previous screen



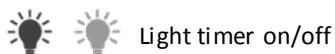
Light timer



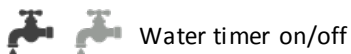
Water timer



Feed timer



Light timer on/off

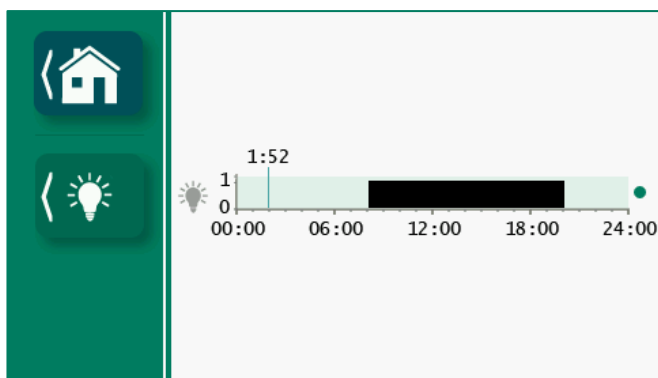


Water timer on/off

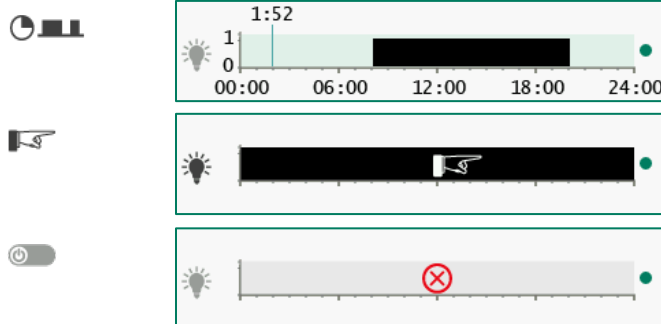


Feed timer on/off

SETTING THE TIMER



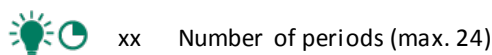
Timer status







Pop-up settings



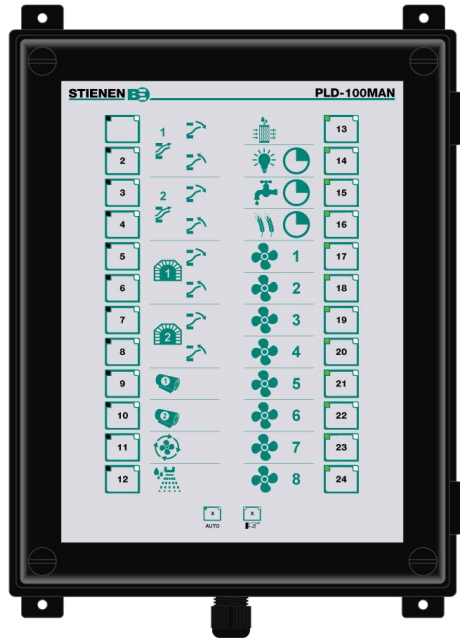
On/Off according to the schedule/manually



























#1  Period 1 on #1  Period 1 off #24  Period 24 on #24  Period 24 off

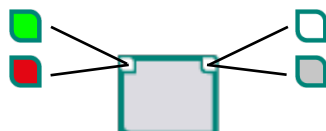
The water timer () and the feed timer () are set in the same way as the light timer ()

16. PLD-100MAN MANUAL CONTROL



- | | | | |
|---|-----------------|---|---------------------|
|  | Open |  | Aisle cooling |
|  | Closed |  | Light timer |
|  | Open |  | Water timer |
|  | Closed |  | Feed timer |
|  | Open |  | Ventilation group 1 |
|  | Closed |  | Ventilation group 2 |
|  | Open |  | Ventilation group 3 |
|  | Closed |  | Ventilation group 4 |
|  | Heating 1 |  | Ventilation group 5 |
|  | Heating 2 |  | Ventilation group 6 |
|  | Circulation fan |  | Ventilation group 7 |
|  | Mist cooling |  | Ventilation group 8 |

Automatic
Manual



On (relay activated)
Off (relay deactivated)