VALLOX

Model	Document
MyVallox 51 CFi	D11666
Type	**Valid from**
3830	15.9.2025
3831	**Updated**
	15.9.2025

MyVALLOX
51 CFi

User Manual

Contents

1. Introduction

Thank you for choosing a Vallox product. For optimal performance, read the instructions carefully before installation, operation, or maintenance.

1.1. General Safety Instructions

Read these instructions before operating the ventilation unit. Safe and appropriate handling of the unit requires knowledge of the basic safety regulations, and of the intended use of the ventilation unit.

These instructions contain all the information needed for the safe operation of the unit. All persons who install, operate, and maintain the ventilation unit must follow the provided instructions. Furthermore, all local accident prevention regulations must be observed.

1.1.1. Safety signs used in the instructions

⚠ **DANGER:**	Indicates a hazard that will result in death or serious injury if not avoided.
⚠ **WARNING:**	Indicates a hazard that can result in death or serious injury if not avoided.
⚠ **CAUTION:**	Indicates a hazard that can result in minor or moderate injury if not avoided.
❗ **IMPORTANT:**	Indicates a hazard that can result in damage to property or loss of data if not avoided.
❗ **NOTE:**	Indicates essential information about the product.
TIP:	Provides additional information about the use of the product and its benefits.

1.2. Intended use

All MyVallox ventilation units have been designed to provide appropriate and continuous ventilation so as to present no threat to health of people and to maintain structures in good condition.

IMPORTANT: In order to ensure that the indoor air presents no harm to health and remains optimal also for the structures of the building, ventilation must be kept on without disruptions. It is recommended that ventilation be left turned on during long holidays also. This keeps the indoor air fresh and prevents humidity from condensing in the ventilation ducts and structures. It also reduces the risk of moisture damage.

IMPORTANT:
Prolonged overpressure can result in damage to the structures of the building.

1.3. Warnings

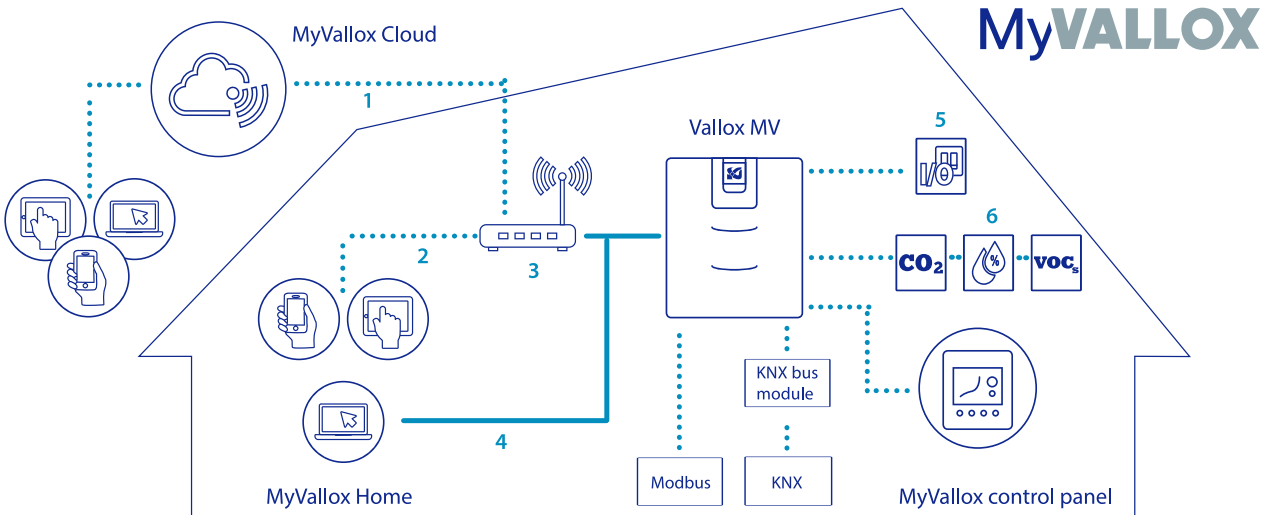
⚠ **WARNING:** The unit is not intended for use by children under 8 or by persons with reduced sensory, physical or mental capabilities, or whose lack of knowledge and experience do not ensure safe operation of the unit. Such persons can use the unit under supervision, or by following the instructions of someone who is responsible for their safety. Children must be supervised and not be allowed to play with the device.

- The ventilation unit is very heavy.
- The door of the ventilation unit is heavy.

- Water must at all times be kept out of the electrical system.

- The timer function of the Custom mode can only be turned off when the external fireplace switch has a timer.
- The fan settings must be completed by a qualified specialist in accordance with the ventilation plan. If you edit the settings, ensure that they comply with the ventilation plan.
- If the heating resistor needs to be removed from the unit in connection with maintenance measures, ensure that the relay is not hot before pulling it out of the unit.
- Connect the cables so that they do not touch the resistor.

1.4. System description



1	Internet
2	WLAN
3	Router
4	WLAN/LAN
5	Additional switch
6	Sensors

1.5. Warranty and liability

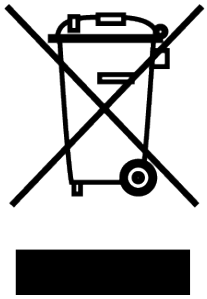
The guarantee and liability exclude damage resulting from:

- Inappropriate use of the ventilation unit or the control panel
- Incorrect or inappropriate installation, setup, or use
- Failure to follow instructions regarding transport, installation, operation, or maintenance
- Structural or electronic modifications or changes made to the software

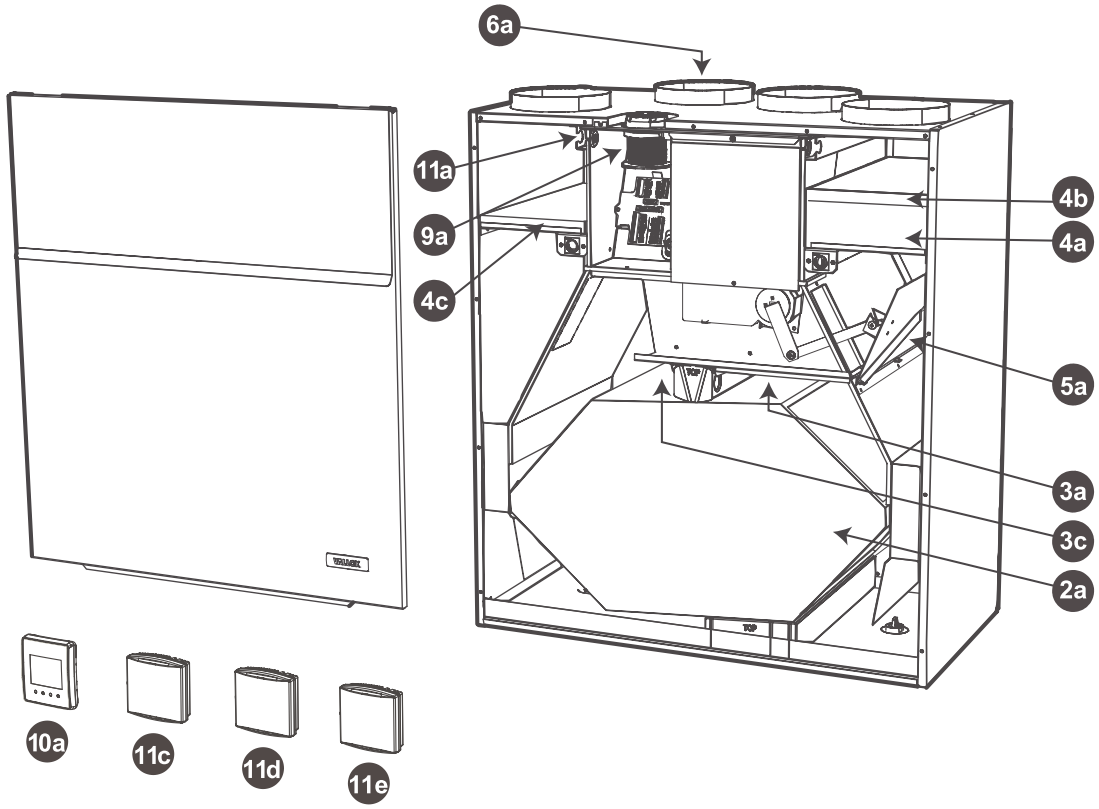
1.6. Disposal of the ventilation unit

Do not dispose of electronic devices with household waste. Follow local laws and regulations on safe and ecological disposal of the product.

See the MyVallox ventilation unit recylcing instructions at: https://res.cloudinary.com/vallox/image/upload/v1704800151/FileStock/ValidManuals/Recycling_Instructions_Vallox_Ventilation_units.pdf.



1.7. Main parts



R model in the figure. In the L model, the parts are mirrored.

No.	Part	No.	Part
2a	Heat recovery cell	9a	Ceiling bushing for electric wires
3a	Extract air fan	10a	Control panel
3c	Supply air fan	11a	Internal humidity sensor
4a	Fine filter for supply air	11a	Internal carbon dioxide sensor
4b	Coarse filter for supply air	11c	Carbon dioxide sensor (optional)
4c	Coarse filter for extract air	11d	Humidity sensor (optional)
5a	Bypass damper of the HR cell	11e	VOC sensor (optional)
6a	Post-heating resistor		

2. Installation

This section describes the installation of the Vallox ventilation unit.

Only a qualified technician is allowed to install and set up the unit. Electrical installation and connection work must be carried out by an electrician in line with local regulations.

Check the package contents before installation and make sure that all parts are intact. Store the product in a dry place (indoors).

Check the product dimensions and weight in the unit's specifications.

The ventilation unit must be installed in a dry place where the temperature does not drop below +10°C. When installed without its enclosure, the unit must be placed in a place where its running noise is not bothersome; for example, a storage room, utility room or a dropped ceiling.

Avoid mounting the ventilation unit to a hollow partition wall or a bedroom wall, or prevent the conduction of noise through the wall.

NOTE:
The outdoor air duct to the unit and the exhaust air duct must be insulated over their entire length with closed-cell insulation.

NOTE:
The ventilation unit must be installed so that it can be connected to a LAN cable. The LAN cable must be able to be connected to a router.

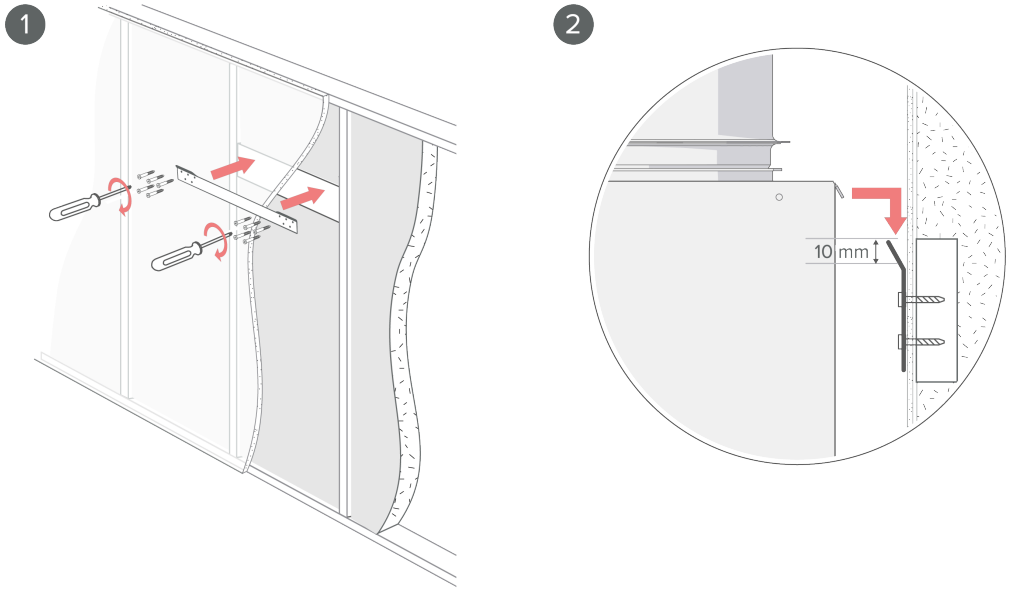
2.1. Mounting the ventilation unit to a wall

NOTE:
Avoid mounting the ventilation unit to a hollow partition wall or a bedroom wall, or prevent the conduction of noise through the wall.
The minimum distance between the unit roof and the room ceiling is 30 mm. Please note that the unit sits 10 mm higher than the final height when mounted by using a wall bracket.

NOTE: Make sure there is at least 330 mm of free space in front of the unit for easy maintenance.

NOTE: Install the ventilation unit in a place where the temperature does not drop below +10°C.

Mount the ventilation unit to the wall by using a wall mounting plate (optional). Follow the images below. Make sure the unit is level after installation.



2.2. Mounting the ventilation unit to the ceiling

An optional ceiling mounting plate is available for the MyVallox 51 CFi ventilation unit. Attaching the ceiling mounting plate:

- Rafters or other framework: Use M8 thread bars that can bear the weight of the unit.
- Make sure the mounting plate is level, because this affects the unit position.
- The top of the white covering strip of the ceiling mounting plate can be fixed against the ceiling. The ceiling mounting plate can also be flush-mounted, in which case the ceiling can be 30 mm lower than the top edge of the white covering strip.

Insulate the channels against condensing water also between the unit and the ceiling mounting plate.

NOTE: Install the ventilation unit in a place where the temperature does not drop below +10°C.

Attaching the ceiling mounting plate:

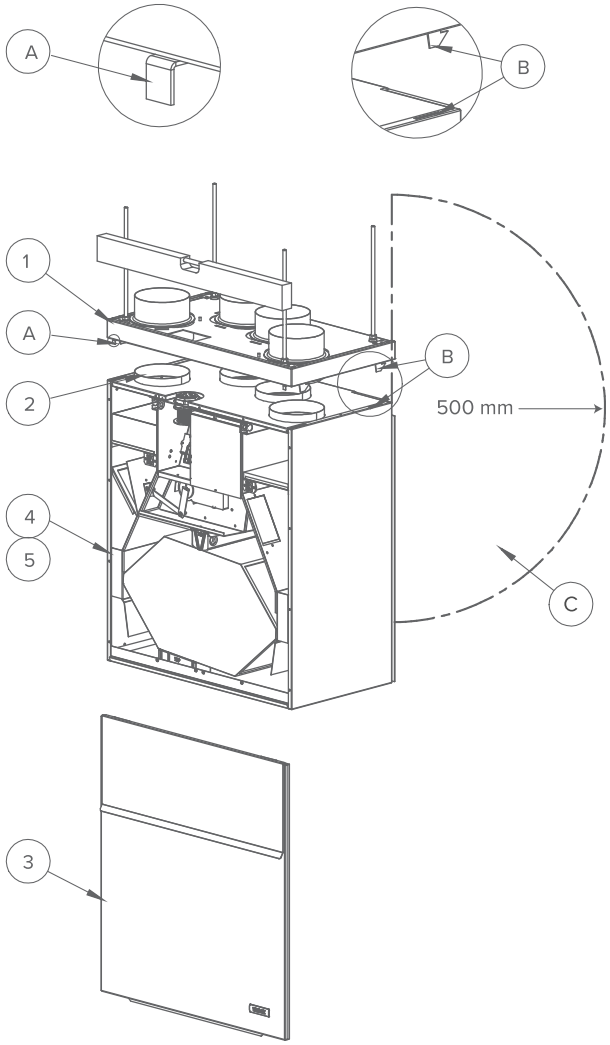
1. Fix the thread bars to the rafters or other framework and put nuts around them.
2. Lift the ceiling mounting plate in place.
3. Push the rubber damper and washer to the bottom of the thread bar plate cups.
4. Tighten the nuts so that the ceiling mounting plate is level.
5. Shorten the thread bars so that they are no more than 10 mm from the bottom surface of the

ceiling mounting plate.

> ⚠ **WARNING:**
> The ventilation unit is very heavy. Do not perform this procedure alone.

Mounting the ventilation unit to the ceiling mounting plate:

6. Install the ceiling mounting plate horizontally with M8 thread bars.



> ❗ **NOTE:** An electrical outlet needs to be within 500 mm of the back right corner of the unit (C).

> **NOTE:** The thread bar head should be no more than 5 mm below the fastening nut. Do not tighten the ceiling mounting plate too tightly against the ceiling. Pull the operating levers (A) to make sure the sliding bars can move and return to their original position. The top of the white covering strip of the ceiling mounting plate can be fixed against the ceiling. The ceiling mounting plate can also be flush-mounted, in which case the ceiling can be 30 mm lower than the top edge of the white covering strip.

7. Check that the insulation washers are attached to the outlet collars below the ceiling mounting plate.
8. Remove the ventilation unit door before mounting the unit to the ceiling mounting plate.
9. Lift the ventilation unit close to the ceiling mounting plate and pull the cords through the hole in the ceiling mounting plate above the ceiling. Alternatively, the cords can be pulled between the ceiling mounting plate and the ventilation unit to the back wall, as shown in the image here.

   > **NOTE:** Remember to make a maintenance hatch in the ceiling to ensure the cords and the connection box are accessible. The maintenance hatch should be approximately 500 mm from the ceiling mounting plate.

   When the ventilation unit is lifted against the ceiling mounting plate, the unit is locked in place. (If necessary, guide the ceiling mounting plate's mounting hooks (B) to the slots on the side panels of the ventilation unit).

   There are operating levers (A) for locking in the bottom corners of the front edge of the ceiling mounting plate. When the levers are level with the white covering strip of the ceiling mounting plate, the unit is secured to the ceiling mounting plate.

10. If necessary, the unit can be detached from the ceiling mounting plate. Remove the unit door, lift the unit slightly and pull the operating levers (A) of the ceiling mounting plate simultaneously to detach the unit from the ceiling mounting plate.

Attic floor feedthrough plate

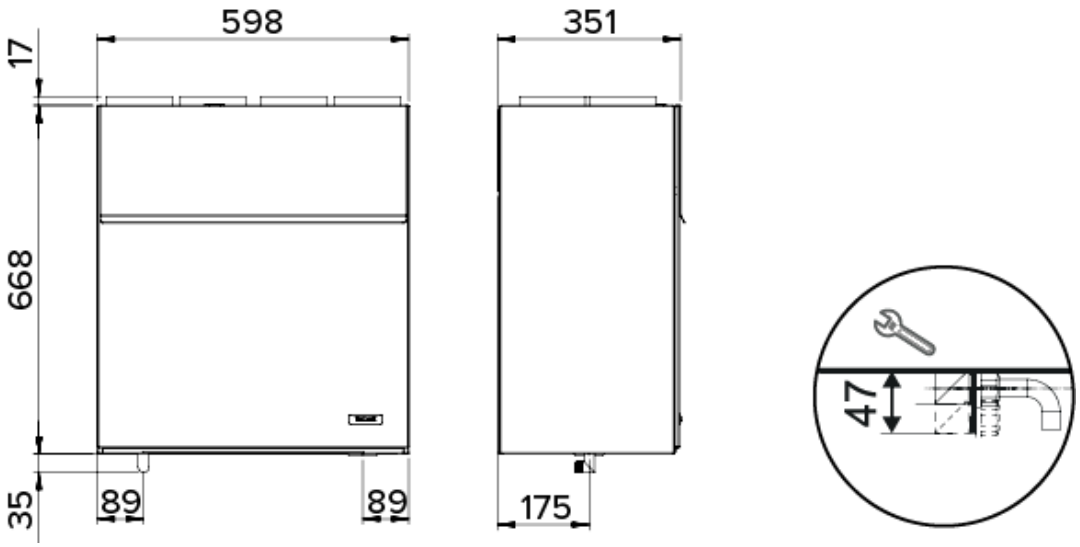
The attic floor feedthrough plate (F) is an optional accessory. When using the insulated attic floor feedthrough plate, make sure the vapour barrier is tightly sealed.

The minimum distance between the attic floor feedthrough plate and the back wall is 5 mm. The minimum distance between the attic floorfeedthrough plate and the side panels is 15 mm.

2.3. Draining of condensing water

NOTE:
MyVallox 51 CFi comes with the Vallox Silent Klick siphon package. See the instructions for siphon installation in the package or at www.vallox.com. When using an alternative siphon installation method, move the washer and locking part to the pipe connection mounted to the wall.

A Vallox Silent Klick siphon is installed to the bottom pool of the MyVallox 51 CFi unit, from which a condensing water tube is connected to, for example, a sink's siphon or floor drain. You can also install an elbow to the bottom pool, in which case the Vallox Silent Klick siphon is installed to the condensing water tube so that its maintenance is possible.



3. Ventilation unit control options

The Vallox ventilation unit can be controlled by the following means:

- Through the MyVallox control panel installed to the building
- Through the MyVallox Home LAN connection and the MyVallox Home/Cloud user interface
- Through the MyVallox Cloud service and the MyVallox Home/Cloud user interface
- Through a remote monitoring or building automation system that uses voltage signals or Modbus messages.

The ventilation unit's integrated humidity and carbon dioxide sensors control ventilation automatically, as necessary. Ventilation can also be adjusted automatically by using an optional carbon dioxide, humidity, or VOC (air quality) sensor. When these sensors are used, ventilation remains optimal even when the apartment is unoccupied. The standard equipment and available optional accessories vary from country to country.

Each user can use the week clock to adjust the ventilation to fit their lifestyle and schedule.

TIP:
The MyVallox control panel automatically switches to the sleep mode when the pre-set Sleep time has elapsed. To reactivate the MyVallox control panel, press any button.

3.1. Connecting the ventilation unit to the cloud service

You can connect the ventilation unit to the MyVallox Cloud service. In the cloud service, you can control ventilation remotely with a smartphone or tablet, for example. The unit software is updated automatically through the cloud service. To connect to the cloud service, the ventilation unit must be connected to the internet through LAN and registered for the cloud service. By registering the unit, you create a MyVallox Cloud account for yourself. Read more about the service at https://cloud.vallox.com.

To register a Vallox ventilation unit with the MyVallox Cloud service:

1. Connect one end of the network cable to the grey connector of the Vallox ventilation unit and the other end to the router.
2. Open the computer's network settings by selecting Start → My Computer → Network. You can see a computer icon with the text Vallox and a series of numbers. Open the MyVallox Home user interface by double clicking on the icon. The MyVallox Home user interface opens.
   OR

   Select on the MyVallox control panel Service menu → Diagnostics display → IP address.

Type in the IP address and press Enter. The MyVallox Home user interface opens.

3. Select Special functions.
4. The MyVallox Cloud area will open and you can see whether you are signed in to the cloud service.
5. Select Connect.
6. The registration page of the MyVallox Cloud cloud service opens, Ventilation unit ID i.e. the unique identification number of the unit will be automatically generated into the field.
7. Enter the following information in the form:
    - Ventilation unit name - Enter the ventilation unit name of your choice in this field.
    - Language - Select the desired language from the menu.
    - Country - Select the desired country from the menu.
    - Choose username - Enter the username of your choice in this field.
    - Email - Enter the email address of your choice in this field.
    - Password - Enter the password of your choice in this field.
    - Retype your password - Retype your password in this field.
8. Select the I want to receive notifications related to my ventilation unit box if you wish to receive email notifications related to your ventilation unit.
9. Read the terms and conditions of use of the service and select I have read and accepted the terms and conditions of use of the MyVallox Cloud cloud service. The use of the service requires that the user has accepted the terms and conditions.
10. Select Create MyVallox Cloud account. The ventilation unit generates a unique identification code and sends it to the service. The service will remember the unit the next time you sign into the cloud service.
11. A confirmation message will be sent to your email address. Click on the link in the message to confirm your email address and to sign in to the cloud service for the first time.
12. Once you have signed in, the MyVallox Cloud service will open and the main page of the MyVallox Cloud account will be displayed in your browser.

3.2. Connecting the ventilation unit to the computer

To use a computer as a second controller alongside the MyVallox control panel, connect the computer directly to the Vallox ventilation unit.

Before starting, make sure that you have:

- A computer with a browser that supports Web Sockets data transmission. Supported browsers:
    - Firefox, version 31 or later.
    - Internet Explorer, version 10 or later.
    - Opera, version 25 or later.
    - Chrome, version 31 or later.
    - Safari, version 7 or later.

- An internet connection to the Vallox ventilation unit with a network cable (RJ-45).

To use the Vallox ventilation unit through the MyVallox Home user interface:

1. Start the computer.
2. Connect one end of the network cable to the computer's Ethernet port and the other end to the grey Ethernet port of the Vallox ventilation unit.

   NOTE:
   You can also connect the Vallox ventilation unit to a router. In that case, the Vallox ventilation unit can be connected to the MyVallox Cloud service. You can also use a WLAN network by connecting the Vallox ventilation unit to a computer.
3. On your computer, select Start → My Computer → Network.
4. Please wait until you see a computer icon with the text Vallox and a series of numbers. Double-click on the icon to open the MyVallox Home user interface in your browser. The ventilation unit is now connected to the computer.
   OR

   You can skip steps 3 and 4 and:

   a. Select Service menu → Unit information → IP address from the MyVallox control panel. The MyVallox Home user interface opens in the browser.
   b. Type the IP address in the address field of the browser and press Enter

3.3. Registering the ventilation unit in the MyVallox Cloud service

This section explains how to register the Vallox ventilation unit in the MyVallox Cloud service.

When the ventilation unit is connected to the MyVallox Cloud service, you can control ventilation remotely with a smartphone or tablet, for example. The unit software is updated automatically through the cloud service. To connect to the cloud service, the ventilation unit must be connected to the internet through LAN and registered for the cloud service. By registering the unit, you create a MyVallox Cloud account for yourself.

To register a Vallox ventilation unit with the MyVallox Cloud service:

1. Connect one end of the network cable to the grey connector of the Vallox ventilation unit and the other end to the router's LAN port (usually numbered 1,2,3,4). The LAN port must not be bridged, i.e. it must share private IP addresses (addresses that begin with 10.x.x.x, 172.x.x.x or

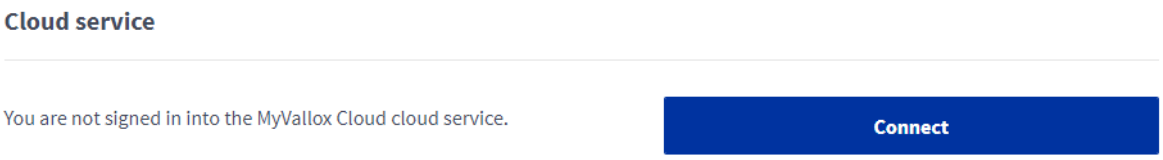
192.168.x.x).

> **TIP:**
> If the ventilation unit rejects the IP address and it is not possible to connect the unit to the intranet, go to the router settings and make sure the DHCP server is on and it is sharing private IP addresses (addresses that begin with 10.x.x.x, 172.x.x.x or 192.168.x.x).

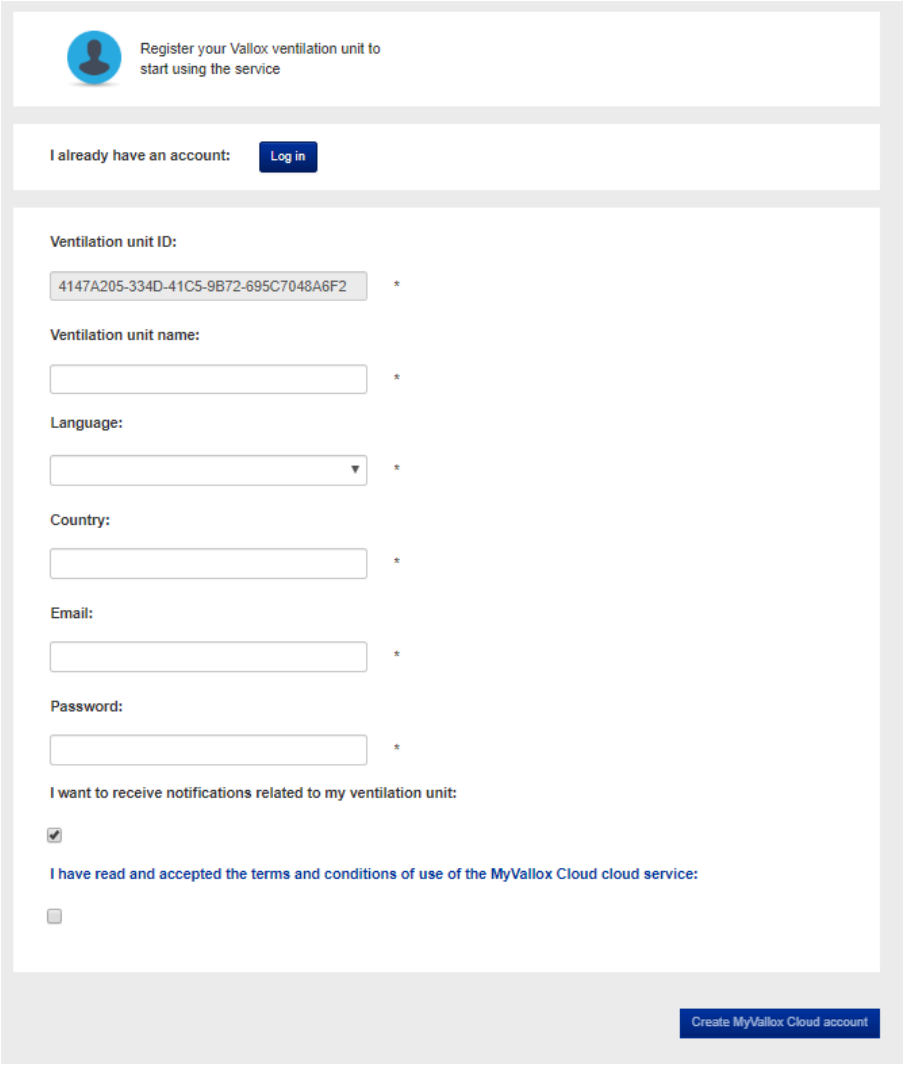
2. Open the computer's network settings by selecting Start → My Computer → Network. You can see a computer icon with the text Vallox and a series of numbers.
   OR

   Select on the MyVallox Control control panel Service menu → Unit information → IP address. Type in the IP address and press Enter.

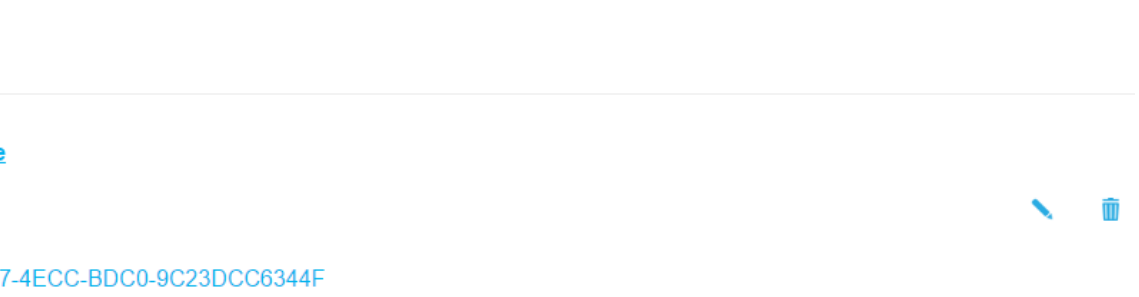
3. Open the MyVallox Home user interface by double-clicking on the icon.
4. Select Special functions.
5. Under Cloud service, you can see whether you are signed in to the MyVallox Cloud service.



6. Select Connect.
7. The registration page of the MyVallox Cloud service opens.
   The Ventilation unit ID, i.e. the unit's unique identifier, is generated automatically in the field.



8. Enter the following information in the form:
   - Ventilation unit name — Enter the ventilation unit name of your choice in this field.
   - Language — Select the desired language.
   - Country — Select the desired country.
   - Email — Enter your email address in this field. The email address is your username.
   - Password — Enter the password of your choice in this field.
9. Select the I want to receive notifications related to my ventilation unit box if you wish to receive notifications related to your ventilation unit.
10. Select I have read and accepted the terms and conditions of use of the MyVallox Cloud cloud service and read the terms and conditions of use of the service. The use of the service requires that the user has accepted the terms and conditions.
11. Select Create MyVallox Cloud account. The ventilation unit generates a unique identification code and sends it to the service. The service will remember the unit the next time you sign into the cloud service.
12. A confirmation message will be sent to your email address. Click on the link in the message to confirm your email address and to sign in to the cloud service for the first time.
13. Once you have signed in, the MyVallox Cloud service will open and the main page of the MyVallox Cloud account will appear in your browser.


My devices
Demo Machine
Last seen:
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Device ID:
8853824E-C597-4ECC-BDC0-9C23DCC6344F

4. Maintenance

This section describes the maintenance of the Vallox ventilation unit.

⚠ **WARNING:** Always disconnect the power plug before starting maintenance on the ventilation unit. The unit has no safety switch that would switch the power off when the door of the unit is opened.

⚠ **WARNING:**
If you are using water to clean unit parts, be careful that the water does not touch the electrical parts.

IMPORTANT:
If the power cord is damaged, the manufacturer, their service representative or another equally qualified person should replace it to avoid accidents.

NOTE:
Vallox ventilation units are available in two models: a left-handed (L) and a right-handed (R) model. The images below depict the right-handed model.
In the right-handed model, outdoor air enters the unit from the right side of the centre line, as shown in these instructions. In the left-handed model, outdoor air enters the unit from the left. Correspondingly, the placement of the filters, HR cell bypass damper and heating resistor is reversed.

The table below indicates the recommended maintenance intervals for different Vallox ventilation unit parts.

Table 1. Recommended maintenance intervals for Vallox ventilation unit parts

	Year 1				Year 2			
Part	Spring	Summer	Autumn	Winter	Spring	Summer	Autumn	Winter
Filters	x		x		x		x	
Cell							x	
Fans	x		x		x		x	
Siphon			x				x	
General cleaning and visual check			x				x	

4.1. Filter replacement

⚠ **WARNING:** Always disconnect the power plug before starting maintenance on the ventilation unit. The unit has no safety switch that would switch the power off when the door of the unit is opened.

The Vallox ventilation unit has three filters:

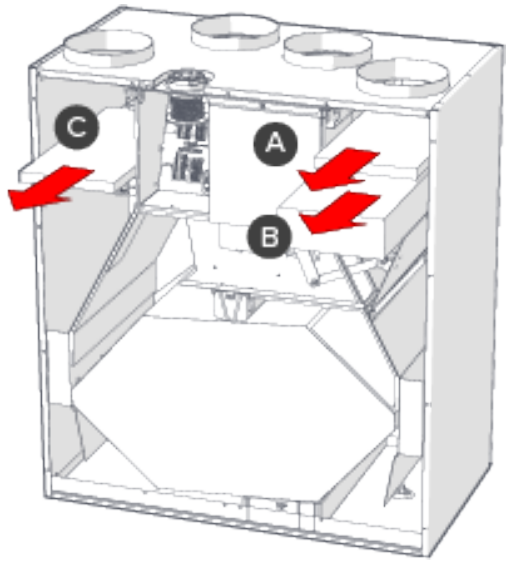
- Coarse filter for supply air filters insects, heavy pollen and other relatively large foreign objects out of the outdoor air.
- Fine filter for supply air filters microscopic pollen and dust particles out of the supply air.
- Coarse filter for extract air filters the extract air and keeps the heat recovery cell clean.

The filter replacement interval depends on the ambient particle concentration. It is recommended that the filters be replaced every spring and autumn, or, at the very least, once a year.

IMPORTANT: If the power cord is damaged, the manufacturer, their service representative or another equally qualified person should replace it to avoid accidents.

NOTE: At least 330 mm of free space must be left in front of the unit to ensure enough room for maintenance.

NOTE:
Using original Vallox filters ensures that the ventilation unit remains in top condition, giving the best results. Selection and ordering of filter packages: valloxsuodattimet.fi/en



When you want to replace the filters:

1. Disconnect the ventilation unit from the mains electricity supply.
2. Open the door of the unit.

   ⚠ **CAUTION:** The door is heavy.

3. Remove the old filters **(A, B, C)** and discard them.
4. Install the new filters **(A, B, C)**.
5. Close the door of the unit.
6. Plug the ventilation unit back into the mains.

The filters have now been replaced.

4.2. Cleaning the HR cell

⚠ **WARNING:** Always disconnect the power plug before starting maintenance on the ventilation unit. The unit has no safety switch that would switch the power off when the door of the unit is opened.

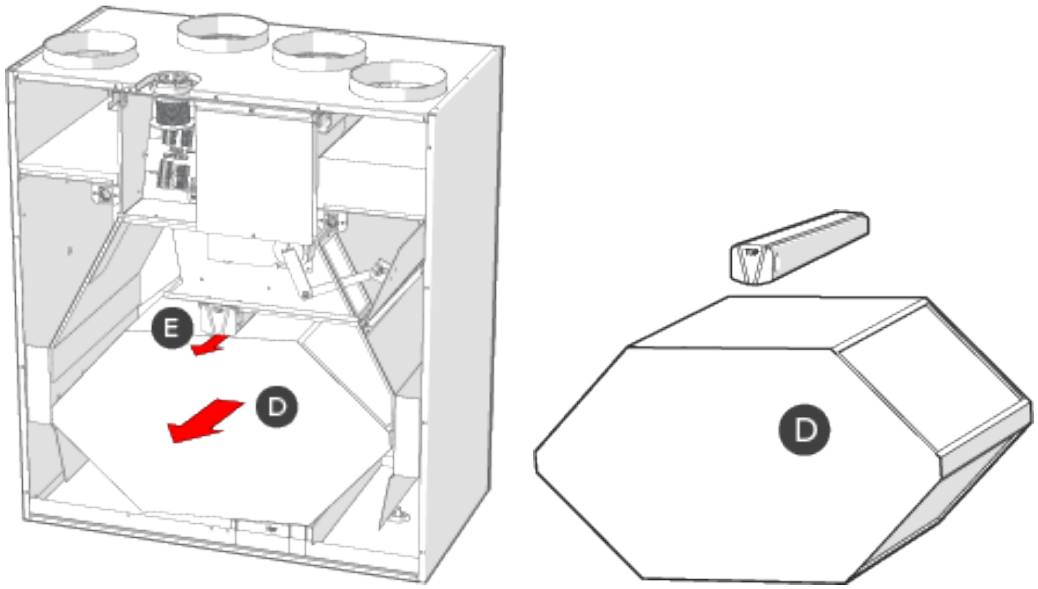
Check that the heat recovery cell is clean roughly once a year, or whenever the filters are being replaced. Clean by washing as required.

Cleaning the HR cell:

1. Disconnect the ventilation unit from the mains electricity supply.
2. Open the ventilation unit's door by loosening the knurled-head screws and lifting off the door.

   ⚠ **CAUTION:** The door is heavy.

3. Pull out the black upper support of the cell located above the cell (**E**).



4. Lift and pull out the cell (**D**).

> **IMPORTANT:** Handle the cells carefully! For example, do not lift the cells by the layers. The cell layers are very thin and easily damaged.

5. If the cell is dirty, clean it by immersing it in warm water, to which a small amount of a mild detergent has been added.
6. Rinse the cell clean with a water spray. Do not use a high-pressure cleaner.
7. When all the water has drained from between the layers, reassemble the ventilation unit in the reverse order.
8. Close the door.
9. Plug in the ventilation unit.

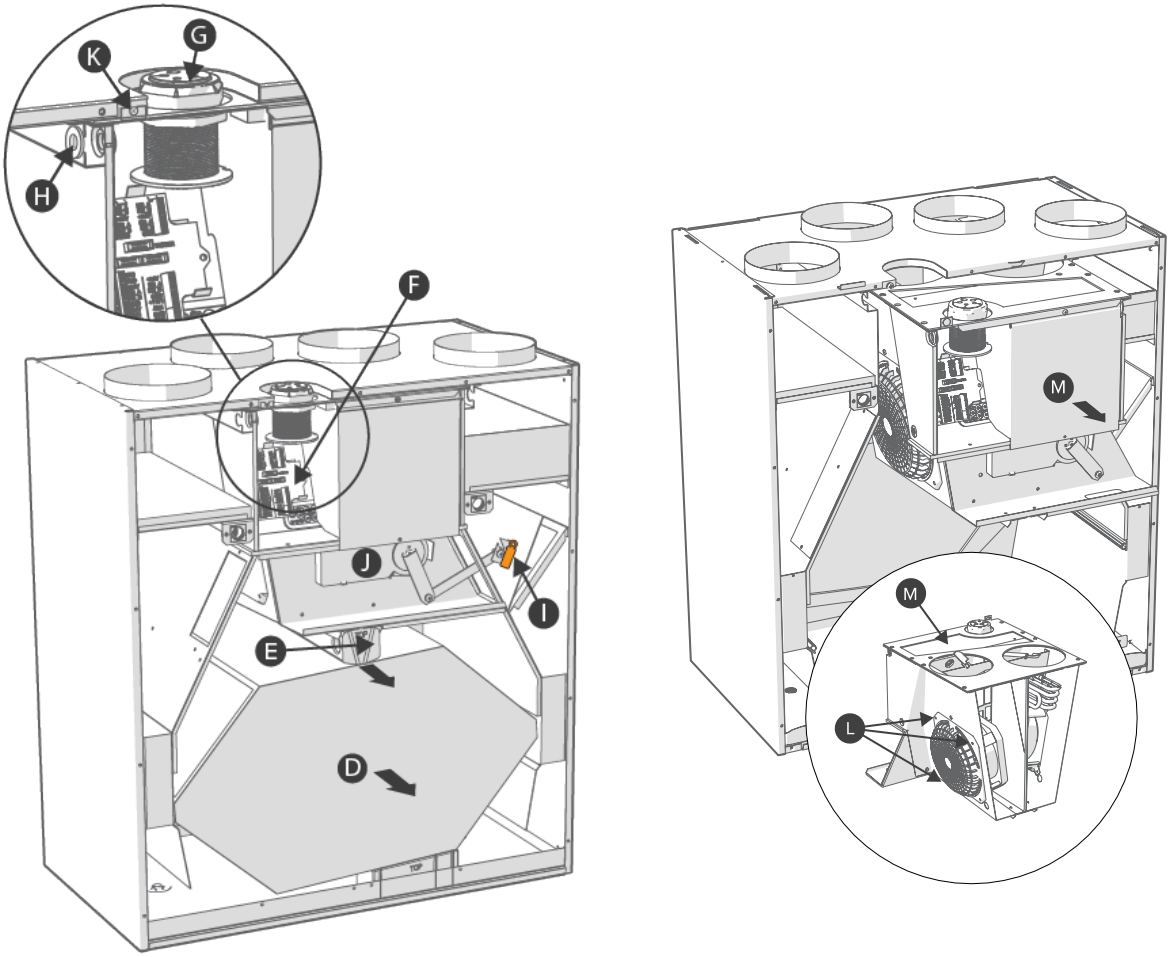
The HR cell is now clean.

4.3. Cleaning the fans

> ⚠ **WARNING:** Always disconnect the power plug before starting maintenance on the ventilation unit. The unit has no safety switch that would switch the power off when the door of the unit is opened.

Check the cleanliness of the fans when servicing the filters and the heat recovery cell. Clean the fans as required.

IMPORTANT:
The fans are extremely sensitive to external shocks.It is recommended that the fans be cleaned in place, i.e. without attempting to remove them.Handle the fan blades carefully.
We recommend having a professional clean the fans.



To clean the fans:

1. Disconnect the ventilation unit from the mains electricity supply.
2. Open the door of the Vallox ventilation unit by loosening the door screws.
3. Lift the door off.

   ⚠ **CAUTION:** The door is heavy.

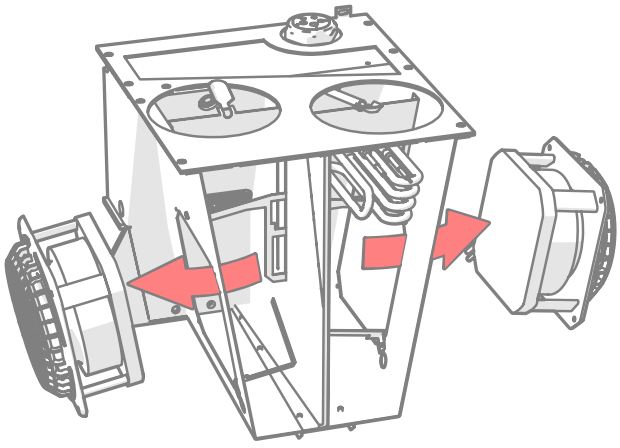
4. If cables, whose length prevents the fan chamber from being moved far enough from the ventilation, have been connected to the connection card on the electric box **(F)** through the ceiling bushing **(G)**, disconnect the cables. Then, pull out the cables through the bushing.
5. Detach the outdoor and exhaust air temperature sensors from the ceiling brackets. Pull off the round feedthrough rubbers **(H)** from the partition wall slots.
6. Loosen the earthing screw in the top left corner of the electric box **(K)**.

7. Release the damper actuator **(J)** by placing the orange magnet **(I)** on the magnet symbol on the damper actuator. Memorise the magnet placement so that you can replace it correctly after maintenance. Detach the bar from the damper pivot. Turn the damper actuator handle to detach the bar from the bypass damper and turn the damper to the cell bypass position.
8. Pull out the black upper support of the cell **(E)**. Lift and pull out the cell **(D)**.
9. Pull out the fan chamber **(M)** (including fans, electric box and bypass duct with its damper actuators).
10. The fans are secured to the fan chamber with three screws **(L)**. You do not need to remove the earthing screw at the bottom of the back wall.
11. Remove the quick couplings on the fan conductor.
12. Clean the fans. You can clean the fan with compressed air (use eye protection) or by brushing them with a clean paint brush.
13. Replace the parts in reverse order.

IMPORTANT:
Remember to reattach the damper actuator bar to the damper pivot and secure it with the orange magnet. Make sure the sensors and their feedthrough rubbers are in place. Check also that the connections have been made correctly and the earthing screw is in place in the left corner.

Cleaning the anemometer

The fan anemometer must be cleaned at least every three (3) years. Compressed air is recommended to be used for cleaning the anemometer. Do not remove the fan anemometer, but clean it with



compressed air.

NOTE: When using compressed air, do not allow the arms to move freely. This can damage the bearings.

NOTE: Using a brush to clean the anemometer is not recommended. This can damage the arms.

4.4. Condensing water

During the heating season, moisture in extract air condenses into water. Condensation can be heavy in new buildings. It is important that the condensing water is drained from the unit without hindrance.

NOTE:
There may be a little bit of condensing water in the unit's bottom pool. This is perfectly normal and does not call for action.

While carrying out maintenance, make sure that the condensing water blocks in the bottom pool are not clogged and that they are not leaking. You can do this in autumn before the start of the heating season, for example. To check that there are no blockages or leaks, pour water into the pool. Unblock and clean if necessary.

WARNING:
Water must at all times be kept out of the electrical system.

4.5. Troubleshooting

The table below provides instructions for troubleshooting and repair.

IMPORTANT:
We recommend you always use the latest software version. You can check the latest version at https://cloud.vallox.com.

NOTE:
Error messages are displayed on the control panel and in the MyVallox Home and MyVallox Cloud services.

Table 2. Troubleshooting

Error	Cause	Follow these steps
Error message: Extract air fan	The extract air fan has stopped.	Make sure the fan has really stopped. Check the fan wires and operation. If necessary, the fan must be replaced. Contact the service centre.
Error message: Supply air fan	The supply air fan has stopped.	Make sure the fan has really stopped. Check the fan wires and operation. If

Error	Cause	Follow these steps
		necessary, the fan must be replaced. Contact the service centre.
Error message: Temperature sensor 1/2/3/4/5	A temperature sensor indicated by the user interface is damaged.	Check the sensor installation. If necessary, the sensor must be replaced. Contact the service centre.
Error message: High supply air temperature	The supply air temperature is too high.	Check the operation of the post-heating and additional heating resistors. Make sure the resistors are on in the user interface. If necessary, contact the service centre.
Error message: Low supply air temperature	The supply air temperature is too low.	Check the operation of the post-heating and additional heating resistors. Make sure the resistors are on in the user interface. If necessary, contact the service centre.
Error message: Bus error	Problems in data transmission.	Make sure that the control panel and any external sensors are connected and working correctly.
Both the ventilation unit and the control panel do not work.	The unit's power supply has been cut off.	Check: • Fuse on the fuse panel • The unit's glass tube fuse. Contact the service centre.
The ventilation unit works but the control panel does not work.	The control panel's 24 VDC supply has been cut off, there are problems in data transmission or the control panel is damaged.	• Check the cords between the unit and the control panel. • Unplug the unit and restart the unit. • Update the unit software. • Contact the service centre.

4.6. Updating the unit software (MyVallox Control)

To update the ventilation unit software through the MyVallox Control panel:

1. Download the latest update package to your computer from the home page of the MyVallox Cloud service https://cloud.vallox.com. You can find the latest update under Latest firmware

version.

> **NOTE:**
> The name of the update file must always be the same: HSWUPD.BIN. If you have downloaded an older update file to your computer, delete it before downloading the new update to make sure the file name does not change.

2. Connect the computer to the ventilation unit control panel with a USB Micro-B connector.

> **NOTE:**
> - The MyVallox control panel cannot be used when it is connected to the computer. A USB icon is shown on the control panel.
> - If the computer is unable to find the ventilation unit, you are probably using a charging cable. Try another USB Micro-B cable.

3. When the ventilation unit is turned on, the control panel appears as an external drive in the computer's resource management.
4. Copy the new update package HSWUPD.BIN and paste it to the control panel, i.e. the root of the external drive.

> **IMPORTANT:**
> Do not change the file name.

5. Make sure the update package has been completely transferred to the control panel by selecting Safely Remove USB. This is an OS-specific function.
6. Disconnect the USB cable.
7. The control panel loads the update for a moment (you can see the process on the panel) and starts to transfer the update package to the ventilation unit in the background. This takes approximately 4–5 hours.
8. When the update is complete, the unit launches the new software and restarts itself automatically.

> **NOTE:**
> The ventilation unit must stay on throughout the update process. If the ventilation unit's power is cut off during the process, the transfer time of 4–5 hours starts from the beginning.

> **NOTE:**
> If a red error screen appears on the control panel, the update must downloaded again. Go back to step 1.

When the update is complete, the software version shown on the Unit information screen should be the same as the version at https://cloud.vallox.com.

5. Technical specifications

Table 3. Technical properties MyVallox 51 CFi

Product titles	MyVallox 51 CFi R MyVallox 51 CFi L
Type code	3830
Air volumes	• Supply air — 44 dm^3/s, 100 Pa • Extract air — 45 dm^3/s, 100 Pa
Electric connection	230 V, 50 Hz, 4.24 A plug
Enclosure class	IP 34
Post-heating	Electrical resistor, 900 W
Pre-heating	-
Additional heating	-
Fans	• Extract air — 0.035 kW 0.35 A EC • Supply air — 0.035 kW 0.35 A EC
Specific energy consumption (SEC)	• Cold climate — A+ • Temperate climate — A+
Efficiency*	• Annual efficiency — 81% • Supply air efficiency — 89% • Specific fan power SFP — 1.04 $kW/m^3/h$ (32 dm^3/s)
Filters	• Supply air — ISO Coarse > 75% + ISO $ePM_1 \geq 50\%$ • Extract air — ISO Coarse > 75%
HR cell bypass	Automatic
Dimensions (width x height x depth)	598 x 668 x 349 mm
Weight	45 kg
*Working point defined in the Ecodesign Directive (2009/125/EC), Southern Finland, Helsinki-Vantaa TRY year 2020.	

Table 4. Technical properties MyVallox CFi, enthalpy

Product titles	MyVallox 51 CFi R enthalpy MyVallox 51 CFi L enthalpy
Type code	3831
Air volumes	• Supply air — 44 dm^3/s, 100 Pa • Extract air — 45 dm^3/s, 100 Pa
Electric connection	230 V, 50 Hz, 4.24 A plug
Enclosure protection class	IP 34
Post-heating	Electrical resistor, 900 W
Pre-heating	-
Additional heating	-
Fans	• Extract air — 0.035 kW 0.35 A EC • Supply air — 0.035 kW 0.35 A EC
Specific energy consumption (SEC)	• Cold climate — A+ • Temperate climate — A+
Efficiency*	• Supply air efficiency — 88% • Specific fan power SFP — 1.01 $kW/m^3/h$ (32 dm^3/s)
Filters	• Supply air — ISO Coarse > 75% + ISO $ePM_1 \geq 50\%$ • Extract air — ISO Coarse > 75%
HR cell bypass	Automatic
Dimensions (width x height x depth)	598 x 668 x 349 mm
Weight	45 kg
*Working point defined in the Ecodesign Directive (2009/125/EC), Southern Finland, Helsinki-Vantaa TRY year 2020	

5.1. Supply and extract air volumes and input power

Figure 1. Supply and extract air volumes, aluminium HR cell

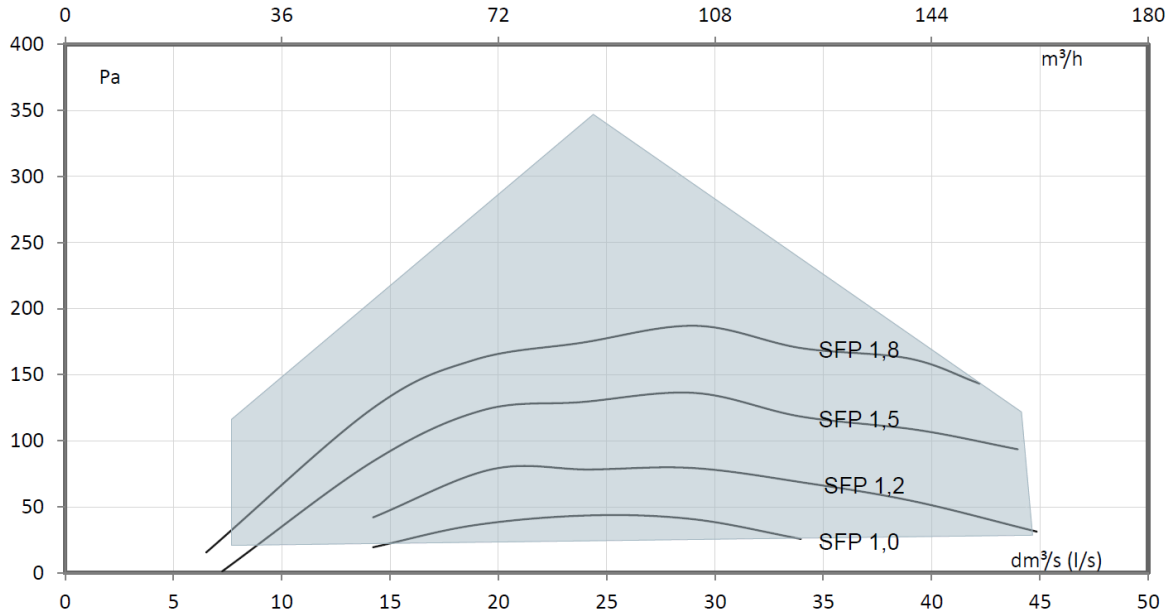
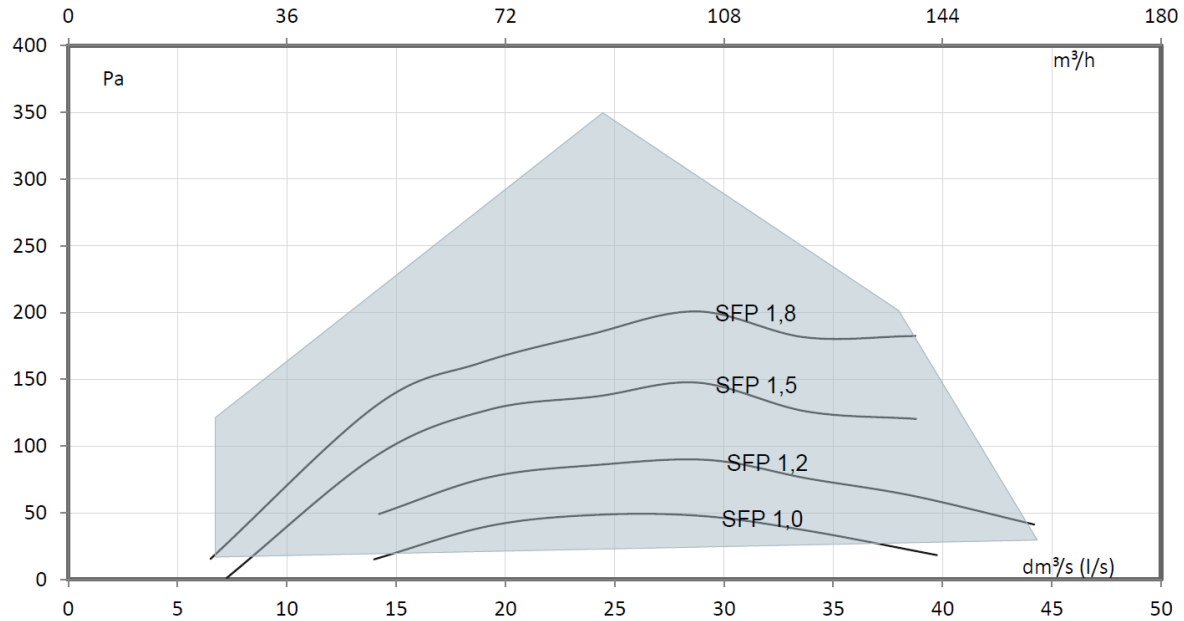


Figure 2. Supply and extract air volumes, enthalpy HR cell



The recommended SFP (Specific Fan Power) rate is <1.8 (kW m^3/s). At a lower total pressure, the SFP rate is lower.

Table 5. Input power, aluminium HR cell

	l/s	m3/h	Pa	W
Min	7	27	73	16
Mid	24	87	145	39
Max	44	158	122	72

Table 6. Input power, enthalpy HR cell

	l/s	m3/h	Pa	W
Min	7	23	65	15
Mid	24	87	78	27
Max	38	136	202	77

You can calculate the operating-point-specific input power with the *Vallox MySelecta* product selection program.

5.2. Sound values

Table 7. Sound power level in the supply air ducts, aluminium HR cell

Sound power level in the supply air ducts by octave band $L_{W'}$ dB									
Air flow l/s		**8**	**15**	**20**	**25**	**30**	**35**	**40**	**45**
Medium frequency of the octave band Hz	**63**	64	64	66	68	70	73	73	73
	125	55	55	59	62	66	66	67	67
	250	57	57	57	60	61	64	64	64
	500	47	47	52	56	59	63	64	64
	1000	41	41	47	51	54	58	63	63
	2000	32	32	38	43	46	50	52	52
	4000	24	24	32	38	43	47	48	48
	8000	22	22	24	29	35	41	43	43
$L_{W'}$ dB		65	65	67	70	72	75	75	75
$L_{WA'}$ dB(A)		51	51	54	57	60	63	66	66

Table 8. Sound power level in the extract air ducts, aluminium HR cell

Sound power level in the extract air ducts by octave band $L_{W'}$ dB									
Air flow l/s		**8**	**15**	**20**	**25**	**30**	**35**	**40**	**45**
Medium frequency of the octave band Hz	**63**	56	56	61	65	68	68	72	72
	125	47	47	51	54	56	58	60	60
	250	34	34	39	44	46	47	50	50
	500	35	35	39	42	46	49	54	54
	1000	25	25	30	34	37	40	44	44
	2000	14	14	17	20	24	28	33	33
	4000	17	17	17	17	17	19	24	24
	8000	22	22	22	22	22	22	22	22
$L_{W'}$ dB		56	56	62	65	68	69	72	72
$L_{WA'}$ dB(A)		37	37	41	44	48	50	53	53

Table 9. Sound pressure level coming through the envelope, aluminium HR cell

Sound pressure level coming through the envelope of the Vallox 51 CFi unit in the room in which it is installed (10 m^2 sound absorption)							
Air flow l/s	**15**	**20**	**25**	**30**	**35**	**40**	**45**
L_{pA}, dB (A)	25	29	32	34	38	40	40

The operating-point-specific sound values can be calculated with the *Vallox MySelecta* product selection program.

Table 10. Sound power level in the supply air ducts, enthalpy HR cell

Sound power level in the supply air ducts by octave band $L_{W'}$ dB									
Air flow l/s		**8**	**15**	**20**	**25**	**30**	**35**	**40**	**45**
Medium frequency of the octave band Hz	**63**		64	66	68	70	73	73	73
	125		55	59	62	66	66	67	67
	250		57	57	60	61	64	64	64
	500		47	52	56	59	63	64	64
	1000		41	47	51	54	58	63	63
	2000		32	38	43	46	50	52	52
	4000		24	32	38	43	47	48	48
	8000		22	24	29	35	41	43	43
$L_{W'}$ dB			65	67	70	72	75	75	75
$L_{WA'}$ dB(A)			51	54	57	60	63	66	66

Table 11. Sound power level in the extract air ducts, enthalpy HR cell

Sound power level in the extract air ducts by octave band $L_{W'}$ dB									
Air flow l/s		**8**	**15**	**20**	**25**	**30**	**35**	**40**	**45**
Medium frequency of the octave band Hz	**63**		56	61	65	68	68	72	72
	125		47	51	54	56	58	60	60
	250		34	39	44	46	47	50	50
	500		35	39	42	46	49	54	54
	1000		25	30	34	37	40	44	44

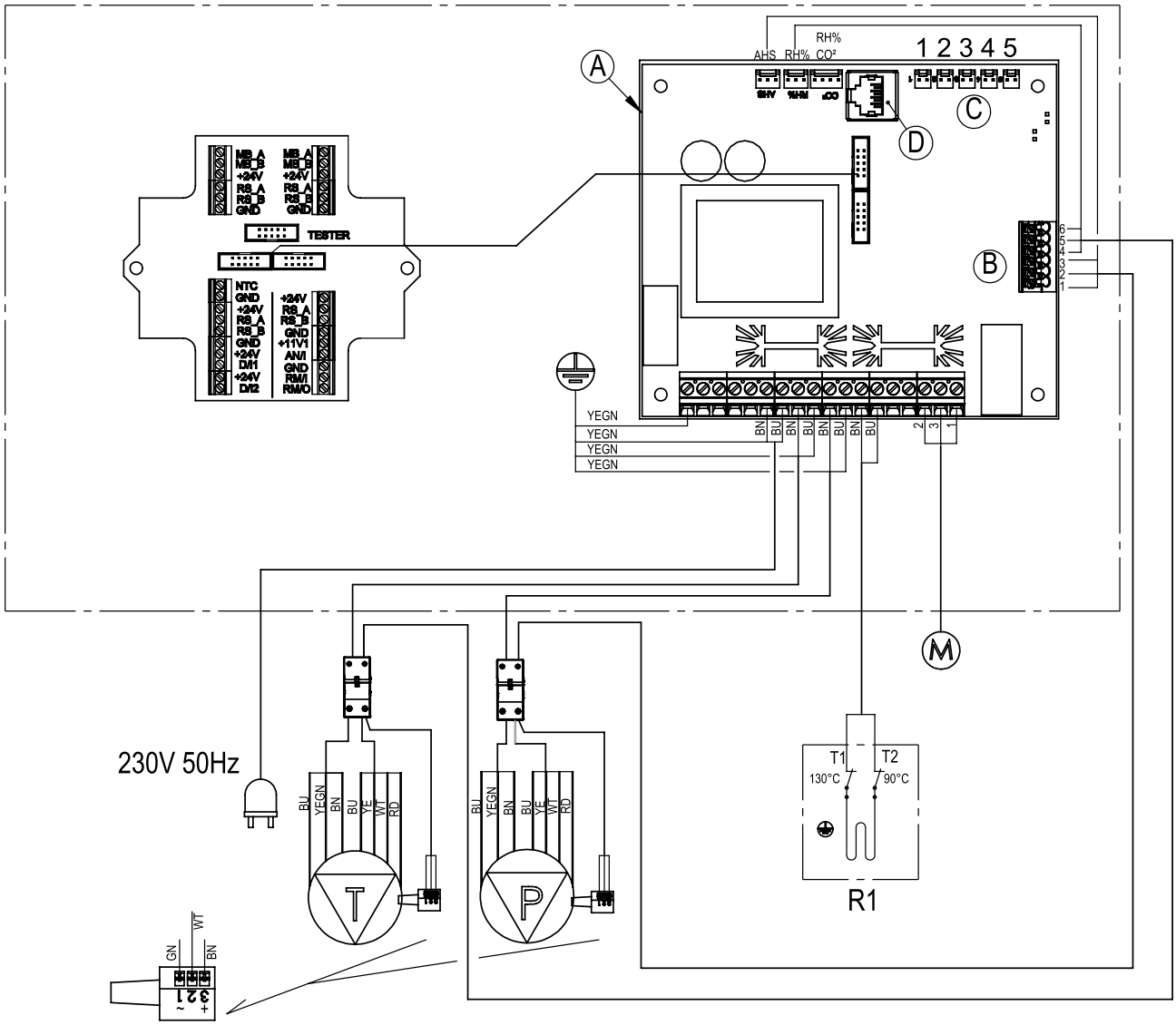
Sound power level in the extract air ducts by octave band $L_{W'}$ dB									
	2000		14	17	20	24	28	33	33
	4000		17	17	17	17	19	24	24
	8000		22	22	22	22	22	22	22
$L_{W'}$ dB			56	62	65	68	69	72	72
$L_{WA'}$ dB(A)			37	41	44	48	50	53	53

Table 12. Sound pressure level coming through the envelope in the room, enthalpy HR cell

Sound pressure level coming through the envelope of the Vallox 51 CFi unit in the room in which it is installed (10 m^2 sound absorption)							
Air flow l/s	**15**	**20**	**25**	**30**	**35**	**40**	**45**
L_{pA}, dB (A)	25	29	32	34	38	40	40

The operating-point-specific sound values can be calculated with the *Vallox MySelecta* product selection program.

5.3. Internal electrical connection



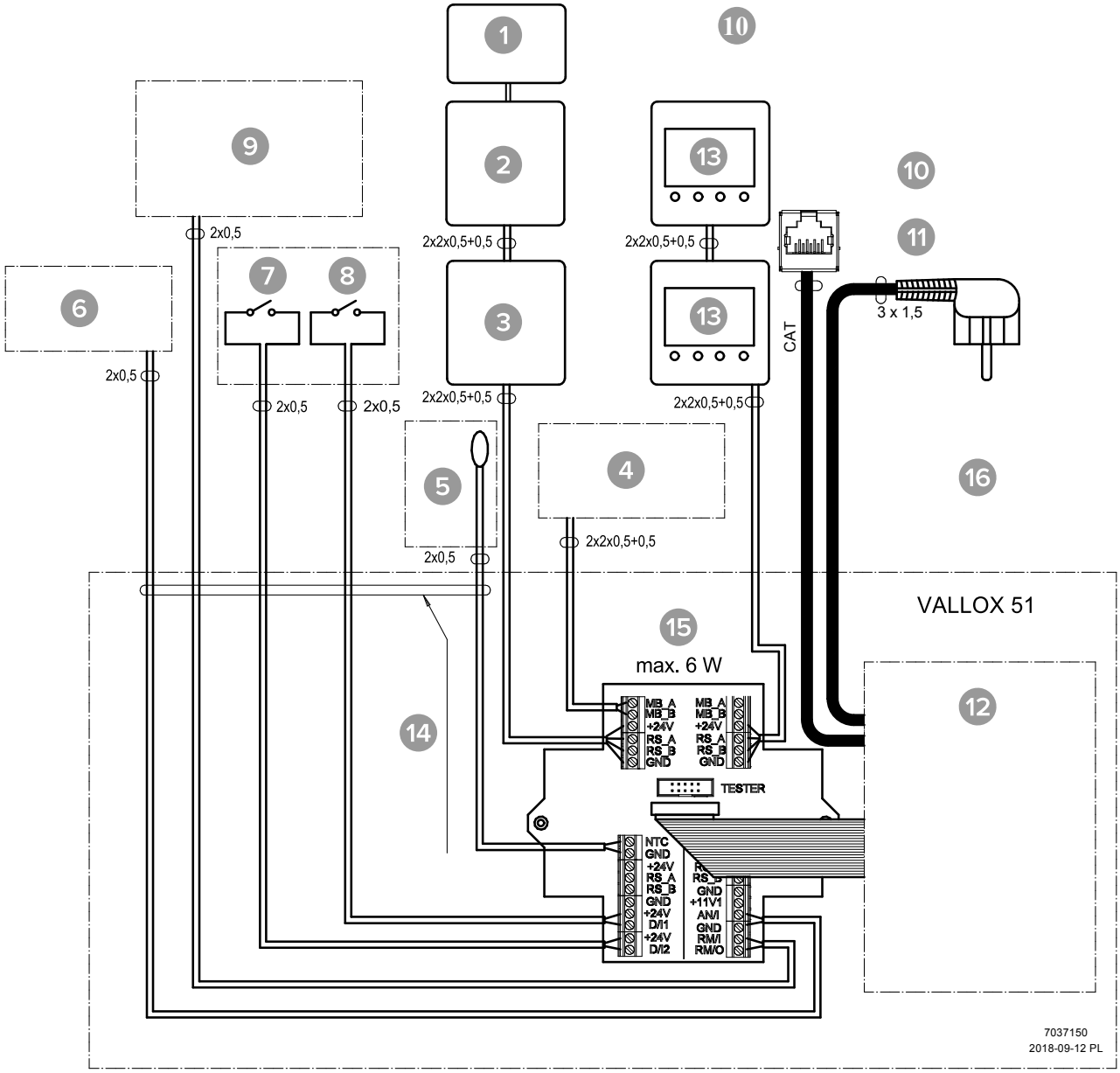
A	Motherboard	**11V1**	11.1 V operating voltage
B	1. Extract air fan tacho (WT) 2. GND (GN) 3. Extract air fan PWM (YE) 4. Supply air fan tacho (WT) 5. GND (GN) 6. Supply air fan PWM (YE)	**AN/I**	Analog input 0-10 VDC

C	1. Extract air 2. Outdoor air 3. Supply air 4. Exhaust air 5. Supply air from the cell	**RM/I**	24 V relay input
D	LAN	**RM/O**	24 V relay output
MB_A	External Modbus A signal	**T**	Supply air fan
MB_B	External Modbus B signal	**P**	Extract air fan
+24 V	+24V voltage (DC)	**M**	Damper actuator
GND	Digital and analog ground potential	**AHS**	Air flow measuring sensor for extract air fan
RS_A	Local hardware Modbus A signal	**%RH**	Air flow measuring sensor for supply air fan
RS_B	Local hardware Modbus B signal	**S/E**	Fan balance adjustment
NTC	External temperature sensor connector	**%RH CO_2**	Internal humidity and carbon dioxide sensor
D/I1	Digital input 1	**R1**	Additional heating resistor with 90°C and 130°C overheating protection
D/I2	Digital input 2		

Table 13. Cable colours

Code	Colour	Code	Colour
BK	Black	GN	Green
BU	Blue	RD	Red
BN	Brown	YE	Yellow
WT	White	YEGN	Yellow-green

5.4. External electrical connection



1	MyVallox VOC sensor	9	Potential-free contact data 24VDC. Can be programmed to display, for example, error notifications or the HR cell's bypass status.
2	MyVallox %RH sensor	10	Ethernet connection and power plug on top of the unit

3	MyVallox CO2 sensor	11	RJ45 female
4	Remote monitoring Modbus RTU	12	Motherboard
5	External temperature sensor NTC 4K7	13	MyVallox control panel
6	Analog input. Two separate functions.	14	These low-current signals can be led out with a single cable.
7	Digital input 1	15	Connection box power supply max. 6 W
8	Digital input 2	16	**NB!** The ventilation unit has three vacant feedthroughs. If necessary, more holes can be added or all the required low-current signals can be led out of the unit with one cable and split outside the unit.

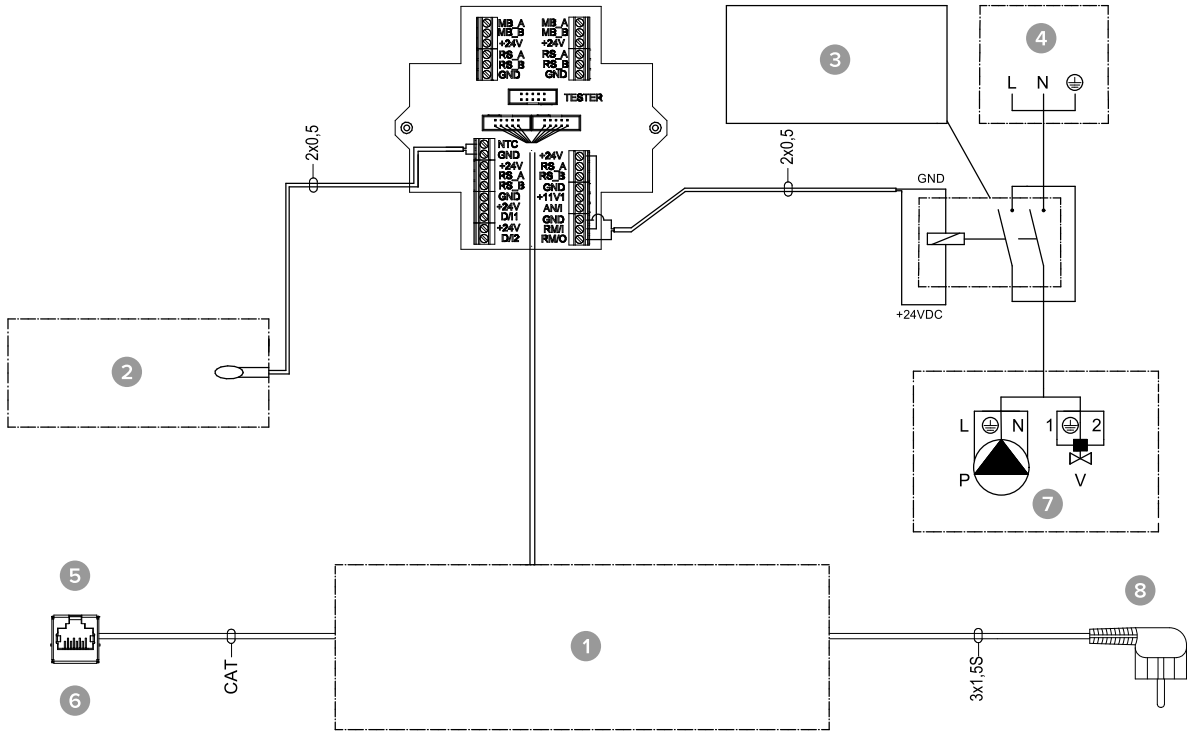
MB_A	External Modbus A signal	**D/I1**	Digital input 1
MB_B	External Modbus B signal	**D/I2**	Digital input 2
+24 V	+24 V voltage (DC)	**11V1**	11.1 V operating voltage
GND	Digital and analog ground potential	**AN/I**	Analog input 0-10 VDC
RS_A	Local hardware Modbus A signal	**RM/I**	24 V relay input
RS_B	Local hardware Modbus B signal	**RM/O**	24 V relay output
NTC	External temperature sensor connector		

Table 14. Power supply

Part	Supply
Max.	≤6W
MyVallox Control	1 W
MyVallox Touch	0.5 W
%RH sensor	0.3 W
CO_2 sensor	1.2 W
VOC sensor	2 W

Part	Supply
Voltage	24 VDC

5.5. External electrical connection for controlling the MLV duct radiator



1	Internal electrical connection of the ventilation unit	5	Ethernet connection above the unit
2	External temperature sensor NTC 4K7	6	RJ45 female
3	24 VDC relay/contactor for controlling the pump and solenoid valve	7	MLV control
4	Distribution board	8	Plug connection 1.2 m above the unit

MB_A	External Modbus A signal	**D/I2**	Digital input 2
MB_B	External Modbus B signal	**11V1**	11.1 V operating voltage
+24 V	+24 V voltage (DC)	**AN/I**	Analog input 0-10 VDC
GND	Digital and analog ground potential	**RM/I**	24 V relay input
RS_A	Local hardware Modbus A signal	**RM/O**	24 V relay output
RS_B	Local hardware Modbus B signal	**P**	Circulation pump
NTC	External temperature sensor connector	**V**	Solenoid valve
D/I1	Digital input 1		

5.6. Duct radiator operation

Always primarily follow the connection plan provided by the HVAC designer or heat pump manufacturer. Remember to also read the duct radiator's instructions for use.

Here is an example of connecting the heating/cooling radiator unit to the heat collection circuit.

> **NOTE:**
> If the duct radiator is placed in the supply air duct, it can only be used for cooling.

The output pipe of the radiator unit is connected to the return pipe of the heat collection circuit. The liquid returning from the radiator unit is circulated back to the heat collection circuit's return pipe. If it is known that the pressure losses inside the heat collection circuit's heat pump are too great, bypassing the heat pump is recommended. In that case the liquid is circulated when the heat pump is at rest, and the pressure loss of the bypass' one-way valve Y2 must be smaller than the pressure loss of the heat pump.

Heating: The pump is switched on when the outdoor air temperature drops below the factory-set winter limit (-5°C).

Cooling: The target supply air temperature set for the unit's mode (e.g. At Home mode) determines when the pump is switched on. The pump is switched on when the supply air setting is lower than the temperature of the air supplied.

The duct radiator can be installed in the supply air duct or the outdoor air duct. If the radiator is placed in the outdoor air duct, it can be used for pre-heating and cooling. If the radiator is placed in the supply air duct, it can only be used for heating or cooling.

NOTE:
To control the outdoor air duct radiator, an external NTC sensor is installed in the outdoor air duct before the radiator. To control the supply air duct radiator, an external NTC sensor is installed after the radiator.

The duct radiator can be set to work automatically or manually.

- Automatic operation: In summer, the set supply air temperature is maintained. In winter, the duct radiator is switched on when the outdoor air temperature drops below the winter setting.
- Manual operation: In summer, the duct radiator is switched on when the outdoor air temperature rises above the summer setting. In winter, the duct radiator is switched on when the outdoor air temperature drops below the winter setting.

To eliminate the supply air duct's condensation risk, decide whether the supply air limit is adjusted automatically or manually.

- Automatic adjustment: The supply air limit is adjusted automatically according to the extract air dew point. When the supply air temperature drops too low, the duct radiator is switched off.
- Manual adjustment: The supply air limit is set manually. When the supply air temperature drops below the set value, the duct radiator is switched off.

If you are using an external sensor, go to the external sensor settings and select either outdoor air duct radiator or supply air duct radiator control. The external sensor's temperature reading is displayed in the maintenance menu: Menu → Service menu → Unit information (page 5) → External sensor.

NOTE:
When choosing the relay (C), take into account the maximum joint power supply of the motherboard of the MV electric box (max. 6 W), if the relay is supplied by the motherboard's +24 V connector.

NOTE:
Due to a risk of humidity damage, the supply air temperature must not drop below +16...20°C in a duct that has not been insulated against condensation.

Figure 3. Outdoor air duct radiator's functional diagram

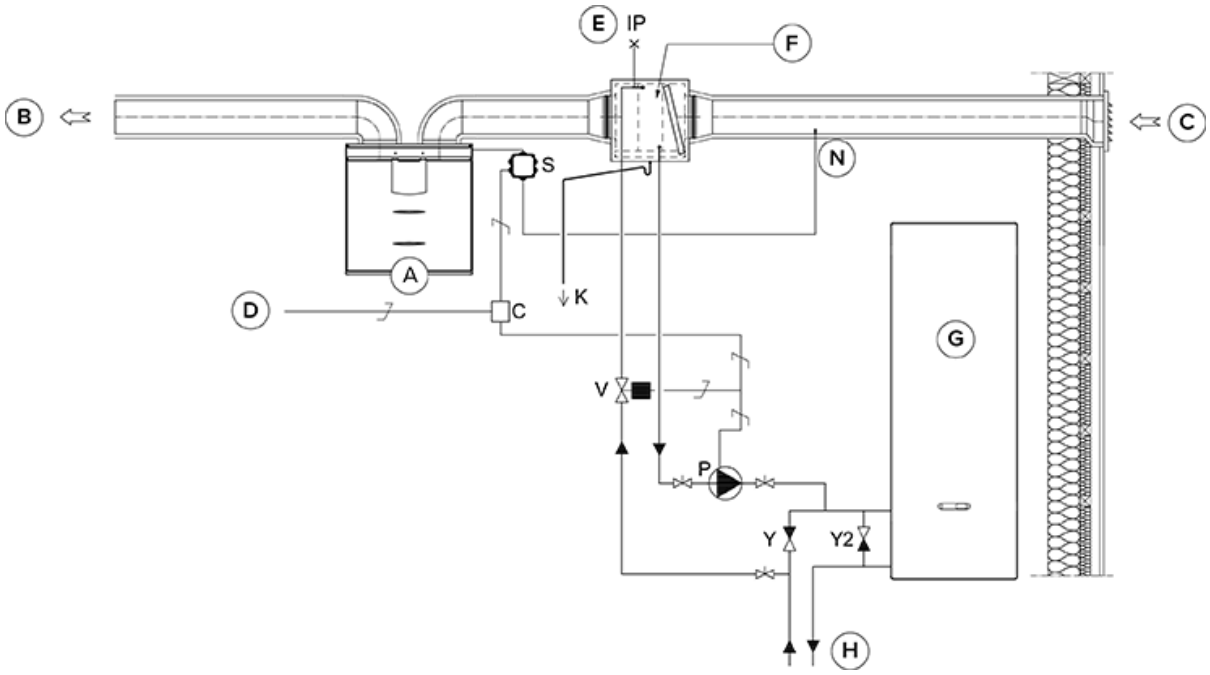
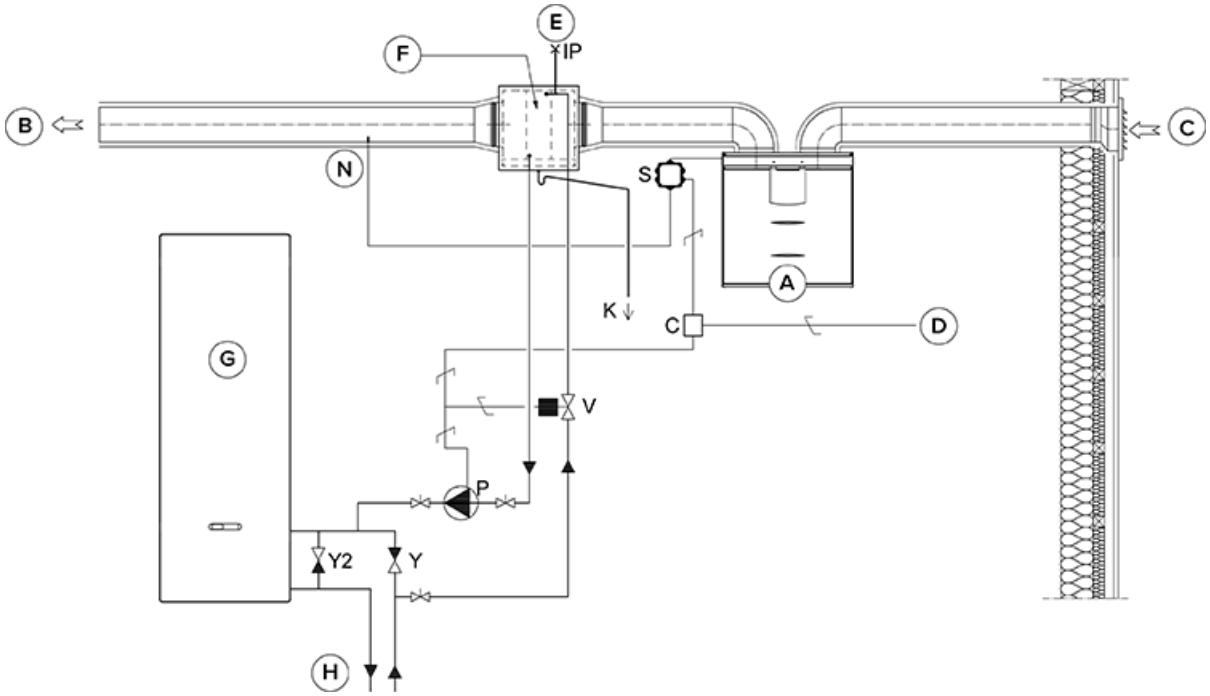


Figure 4. Supply air duct radiator's functional diagram



A	Ventilation unit	**P**	Circulation pump. Not included in delivery. Due to a risk of condensation, use a pump that is suitable for pumping liquid colder than the environment (e.g. Grundfos Magna 1 25-80).

B	Supply air	**V**	Solenoid valve. Not included in delivery. The valve should be suitable for heat collection circuit liquid (e.g. ELV05006, Stig Wahlström, Danfoss 032U161431, HVAC code 4122110).
C	Outdoor air	**K**	Condensing water tube. Not included in delivery.
D	Supply from distribution board	**IP**	De-aerator. Not included in delivery.
E	Deaeration	**S**	External MV electrical connection box.
F	Duct radiator (reverse connection)	**C**	24 VDC Relay/contactor for controlling the pump and solenoid valve. Not included in delivery. (e.g. ABB CR-P024DC2).
G	Heat pump	**Y**	One-way valve. Not included in delivery.
H	Heat collection circuit	**Y2**	One-way valve. Not included in delivery. The pressure loss must be smaller than the pressure loss of the heat pump.
N	External NTC sensor for Vallox MV units.		

5.7. Dimensions and duct outlets

Figure 5. Dimensions MyVallox 51 CFi

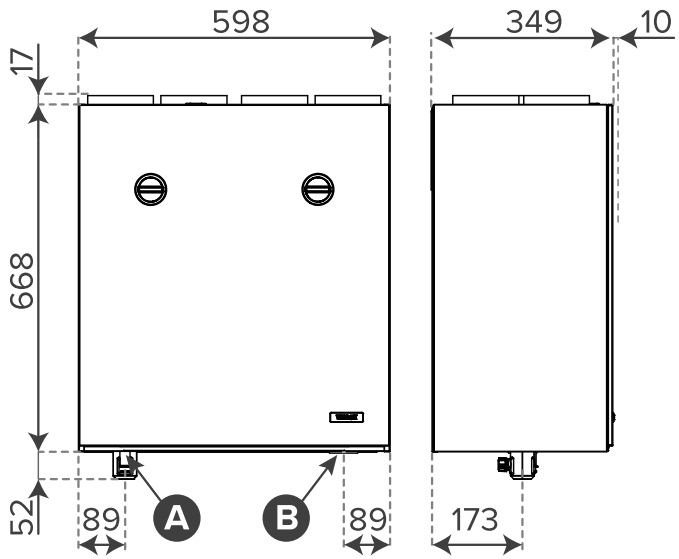
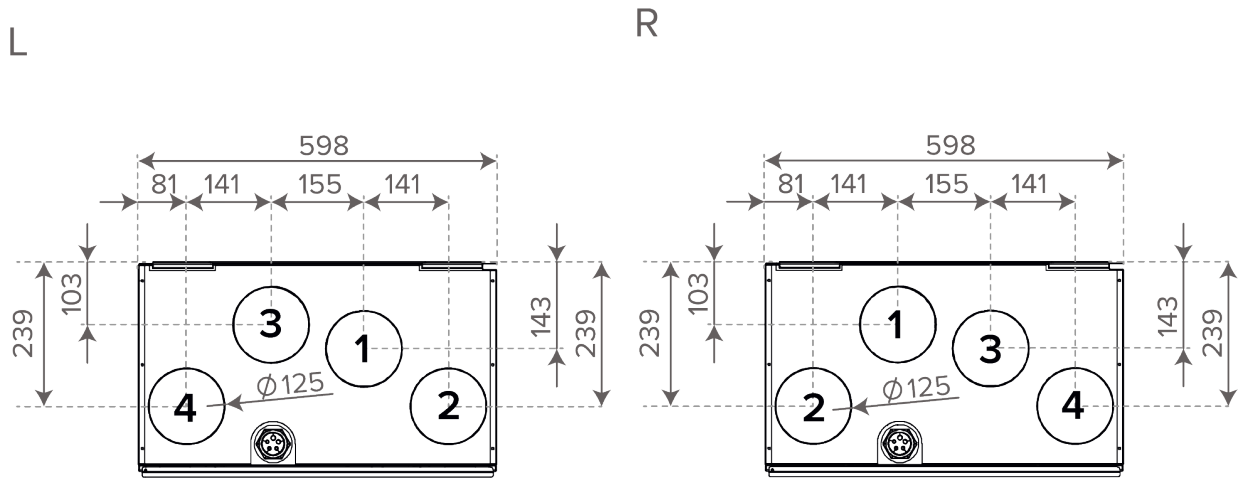


Figure 6. Duct outlets, L and R

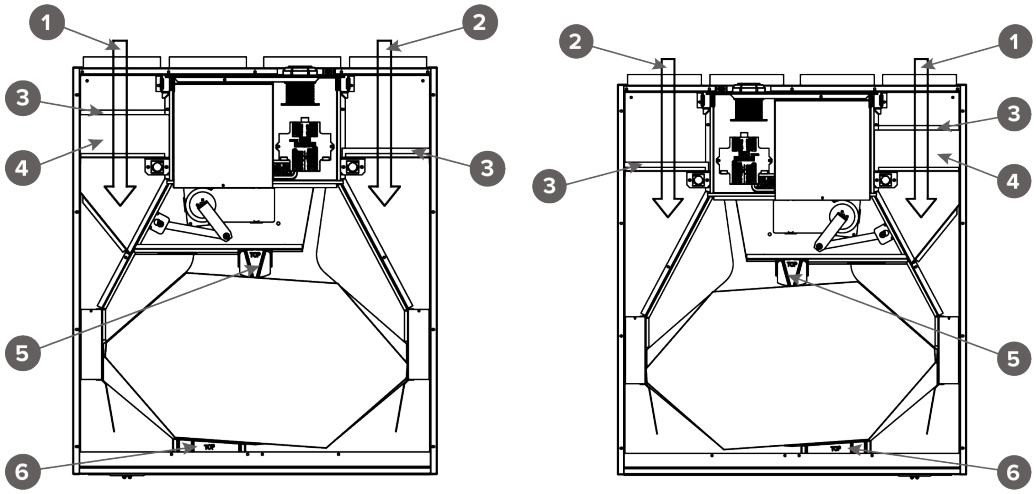


Inner diameter of the female collar ∅ 125 mm.

1. Supply air from unit to apartment
2. Extract air from apartment to unit
3. Exhaust air from unit to outdoors
4. Outdoor air to unit

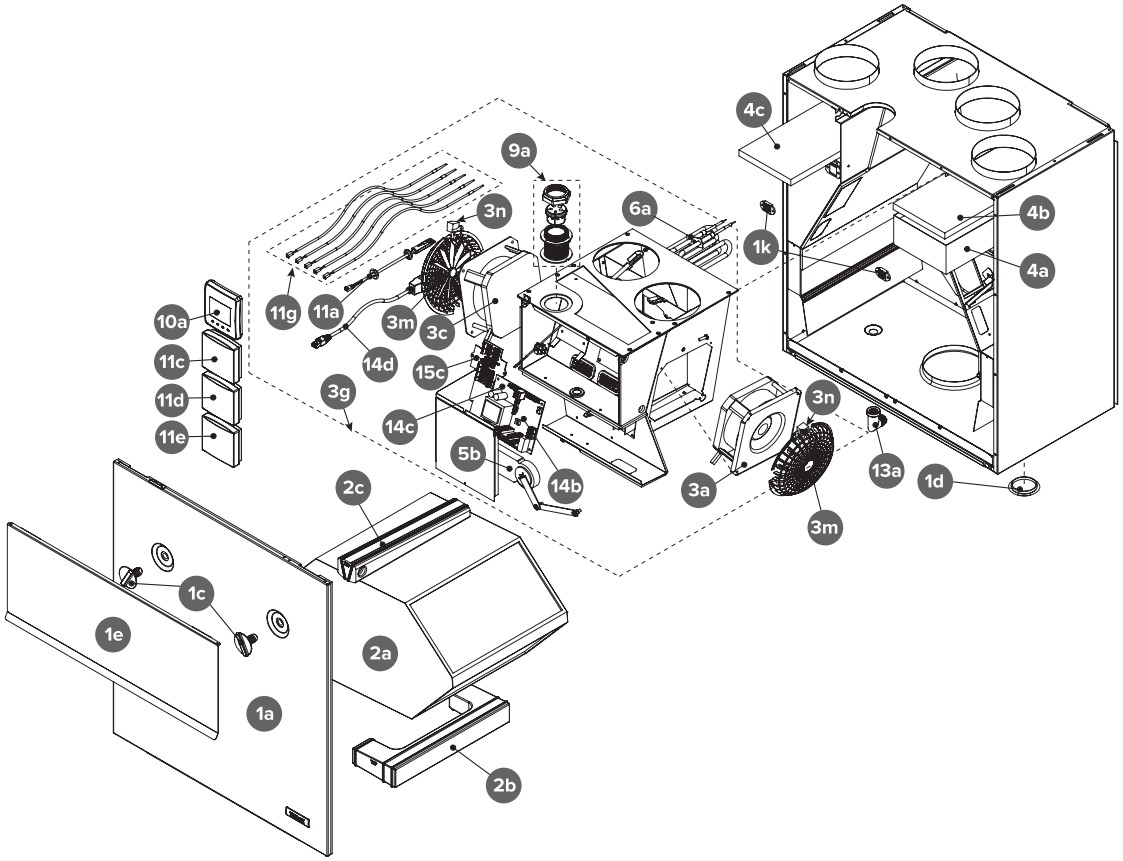
HR cell support locations

Figure 7. MyVallox 51 CFi (L and R model)



1. Supply air
2. Extract air
3. Coarse filter
4. Fine filter
5. Upper support of the cell
6. Lower support of the cell

6. Exploded view and list of spare parts



NO.	Part
1a	Door
1c	Door screw (delivered with the door screw's lock nut)
1d	Plastic screw Cover plug
1e	Door screw cover plate
1k	Door screw's lock nut (delivered with the door screw)
2a	HR cell
2b	Lower support of the HR cell
2c	Upper support of the HR cell
3a	Extract air fan

NO.	Part
3c	Supply air fan
3f	Air flow control grille
3 g	Fan chamber assembly, R Fan chamber assembly, L
3m	Anemometer
3n	Hall sensor circuit board
4a	Fine filter for supply air
4b	Coarse filter for supply air
4c	Coarse filter for extract air
5b	Bypass damper actuator
6a	Post-heating resistor, R model Post-heating resistor, L model
9a	Ceiling bushing Ceiling feedthrough seal
10a	Control panel
11a	Internal humidity and carbon dioxide sensor
11c	MyVallox carbon dioxide sensor (optional)
11d	MyVallox humidity sensor (optional)
11e	MyVallox VOC sensor (optional)
11 g	NTC sensor set
13a	Siphon Vallox Silent Klick
14b	Motherboard
14c	Glass tube fuse 63 mA slow 5x20 mm
14d	RJ-45 extension cable
15c	Connection card

7. Declaration of Conformity

VALLOX

DECLARATION OF CONFORMITY

DECLARATION OF CONFORMITY

Manufacturer Vallox Oy	
Address	Myllykyläntie 9-11, FIN-32200 LOIMAA, FINLAND
Telephone number	+358 10 7732 200
The person who compiles the technical file	Petri Koivunen Vallox Oy Myllykyläntie 9-11, FIN-32200 LOIMAA, FINLAND Tel. +358 10 7732 200 Email info@vallox.com
Description of unit	Ventilation unit with heat recovery

Model MyVallox 51/51K/99/119/125/149/245/245 VKL CFi
Vallox 51/51K SC/MV,
Vallox 99/125/096/110/145/245/245 VKL MV,
Vallox 99 MV CF,
Vallox TSK Multi 50/80 MV,
ValloPlus 180/180K/270/370/510/850 MV,
ValloPlus 180/270 SC,
ValloMulti 200 SC/MV, ValloMulti 300 MV

Declares that the ventilation unit for supply and extract air, equipped with heat recovery and operating as part of a ventilation system has been designed and manufactured to the following specifications:

1. Low Voltage Directive (2014/35/EU) – EN 60335-1:2012 + A11:2014, A13:2017 + A1:2919 + A14:2019 + A2:2019; EN 62233:2008
2. EMC Directive (2014/30/EU) – EN 61000-6-1:2007, EN 61000-3-2:2014 + A1:2009 + A2:2009, EN 61000-3-3:2013, EN 61000-6-3:2007 + A1:2011
3. Ecodesign Directive (2009/125/EY) – Comission regulation 1253/2014 – EN 13141-7 Annex B, EN 308, EN 13141-7, ISO 3741, ISO 5135
4. RoHS Directive (2011/65/EU, 2015/863/EU)

This is the original Declaration of Conformity

Loimaa, 3rd March 2025

Jukka-Pekka Korja
Managing Director

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