

Elan 10 2.0/ 16 2.0/ 25 2.1



INSTALLATION INSTRUCTIONS (English)

Air for Life

BRINK

Air for life

Indirectly fired heater

Elan 10 2.0 / Elan 16 2.0 & Elan 25 2.1



STORE NEAR THE APPLIANCE

This appliance may be used by children as of 8 years of age, persons with reduced physical or mental capacities, and persons with limited knowledge and experience if they are supervised or have received instructions on how to use the appliance safely and are aware of the possible dangers.

Children younger than 3 years of age must be kept away from the appliance, unless they are under constant supervision.

Children between the ages of 3 and 8 may only switch the appliance on or off, but only if supervised or if they have received clear instructions on the safe use of the appliance and understand the possible dangers, on the condition that the appliance has been placed and installed in the normal position for use. Children between the ages of 3 and 8 may not insert the plug into the socket, nor clean or make changes to the settings of the appliance, nor carry out any maintenance on the appliance that would normally be carried out by the user. Children may not play with the appliance.

If you need a new power cable, always order the replacement from Brink Climate Systems B.V. To prevent dangerous situations, a damaged mains connection must only be replaced by a qualified expert!

Country: GB



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1.1 Scope of delivery

Before starting installation of the Elan air heater, check that you received it complete and undamaged.

The scope of delivery of the indirectly fired air heater type Elan includes the following components:

- ① Indirectly fired air heater type Elan
- ② Residents instructions



1.2 Accessories Elan

Article description	Article code Elan 10 2.0	Article code Elan16 2.0/ Elan 25 2.1
Hot air unit 500 mm high (insulated)	007000	008000
Hot air unit 1000 mm high (insulated)	007010	008010
S-strip L= 500 mm	922450	
S-strip L= 1000 mm	922400	
Acoustic return plate (d= 120 mm)	007001	008001
Filter unit (d= 105 mm)	007002	008002
Connection frame return	007003	008003
Connection frame hot air unit	007004	008004
Output module white RAL9016 (Elan 10 → H = 300 mm; Elan 16/25 → H = 400 mm)	007006	008006
Base H= 50 mm	007007	008007
Cover panel side Elan	007008	008008
Return bin	007012	008012
Coupling strip Elan appliances L= 300 mm	007014	
Filter mat electronic filter (for Elan appliance made until January 2023)	532502	532602
ES Filter (Plissé filter)	531002	531003
Cooling block water	007025	008025
Coupling kit Renovent Elan H = 100 mm /Elan 10 → B = 450 mm; Elan 16/25 → B = 550 mm	007026	008026
Cooling block inverter Upflow	-	008020
Cooling block inverter Downflow	-	008021
4-way switch	540262	
Timer control	510498	

2.1 General

The Elan appliance is an indirectly fired air heater suitable for installations where hot water supply is available.

The appliance is also suitable for district heating.

The electric power consumption is reduced strongly because a direct current fan is used. This fan has a high electric efficiency under all conditions of use.

It is possible to combine the Elan air heater with the heat recovery unit Renovent Excellent or Renovent Elan.

The air quantity is automatically adapted to the outlet temperature of the appliance. All this results in very stable room temperature, realising a perfect interior climate.

The Elan appliance is available in three versions:

- **Elan 10 2.0**
- **Elan 16 2.0**
- **Elan 25 2.1**



Ex factory, the Elan 10 is always supplied in **Downflow** version; the Elan 16 and Elan 25 are always supplied ex-factory in **Upflow** version! The installer can easily convert the appliance into an Upflow version (see § 5.3) or a Downflow version (see § 5.4).

The appliance comes as standard with frost safety (see §4.2). This provision ensures that the heat exchanger cannot freeze.

The appliance comes ready to plug in. When it is placed, the appliance must be connected to the system air ducts, the condensate discharge (applicable if a Renovent is mounted) and the mains power.

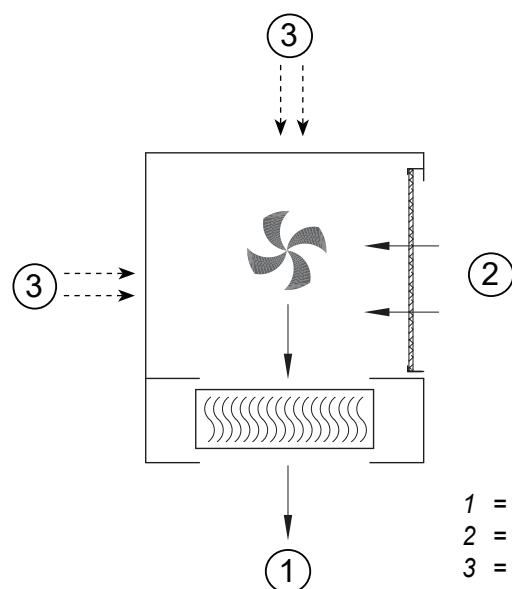
It is possible to connect a separate ventilation switch. This switch makes it possible to set the appliance at 4 different modes; see § 5.11.2.

The Elan appliance can also be set for outdoor air control (see § 4.3).

2.2 Upflow and Downflow versions

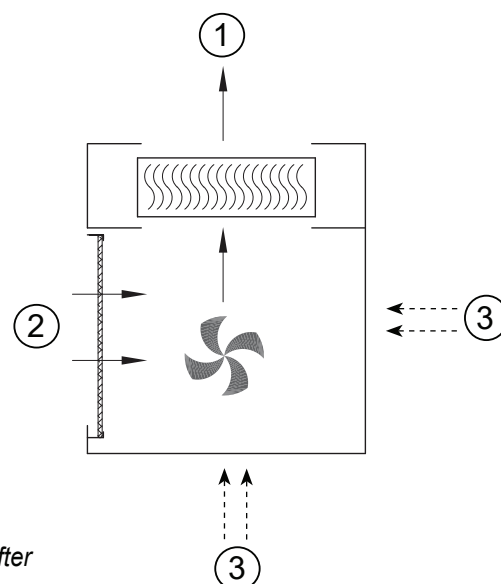
The Elan 10 appliance is always supplied in a Downflow version and the Elan 16 and Elan 25 appliances are always supplied in an Upflow version.

The installer can easily convert the appliance into an Upflow version (see § 5.3) or a Downflow version (see § 5.4).



Downflow version

- 1 = Hot air
2 = Return air ex factory
3 = Options for connection return air after moving filter or mounting filter unit



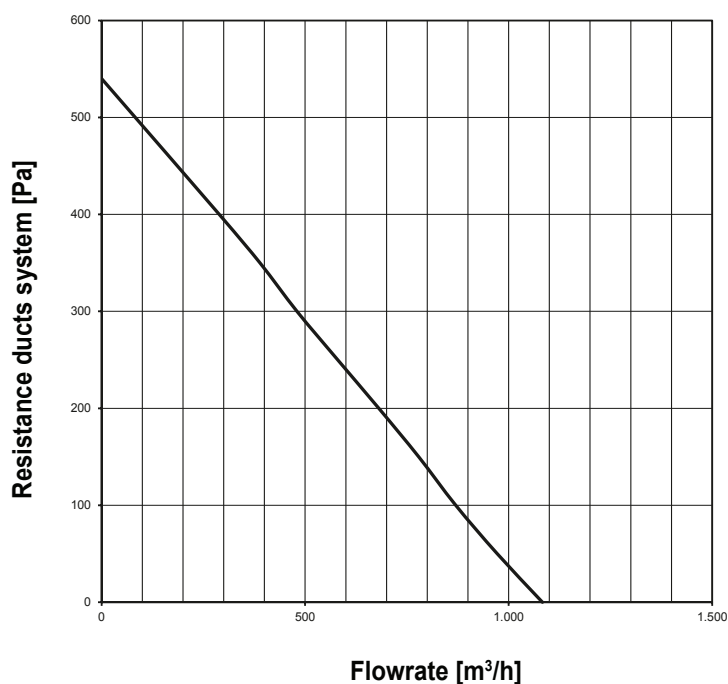
Upflow version

3.1 Technical information Elan 10 2.0

Supply voltage [V/Hz]	230/50	
Dimensions (l x b x h) [mm]	655 X 450 X 550	
Weight [kg]	32	
Filter class	G3	
Water connection [Ø mm]	22	
Water capacity exchanger [l]	2	
Water temperature range [°C]	70/50	
Air input temperature [°C]	18	
Maximum operating pressure exchanger [bar]	16	
	Rated	Maximum
Air displacement [m³/h]	650	800
Heating capacity [kW]	8	10
Water capacity [l/h]	500	500
Permissible resistance ducts system [Pa]	50	75
Waterside resistance [kPa]	4.2	4.2
Electric power consumption [W]	65	165
Sound pressure level [db(A)]	57	63

Correction factor heating capacity Elan 10 at other water and air input temperatures

Water flow [°C]	Air input temperature [°C]							
	Rated				Maximum			
	+16	+18	+20	+22	+16	+18	+20	+22
90/70	1.52	1.48	1.42	1.37	1.53	1.49	1.44	1.39
90/50	1.29	1.23	1.17	1.13	1.29	1.24	1.18	1.12
70/50	1.05	1.00	0.95	0.90	1.05	1.00	0.95	0.90
50/35	0.64	0.58	0.52	0.47	0.64	0.59	0.55	0.50

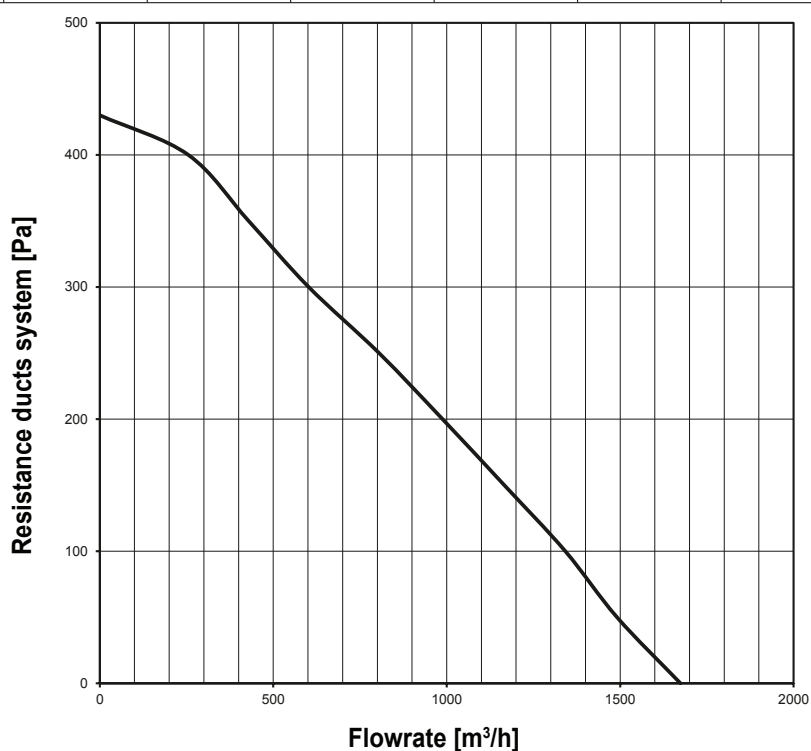


3.2 Technical information Elan 16 2.0

Supply voltage [V/Hz]	230/50	
Dimensions (l x b x h) [mm]	677 X 550 X 765	
Weight [kg]	62	
Filter class	G3	
Water connection [Ø mm]	22	
Water capacity exchanger [l]	3.4	
Water temperature range [°C]	70/50	
Air input temperature [°C]	18	
Maximum operating pressure exchanger [bar]	16	
	Rated	Maximum
Air displacement [m³/h]	800	1350
Heating capacity [kW]	11	16
Water capacity [l/h]	700	700
Permissible resistance ducts system [Pa]	44	100
Waterside resistance [kPa]	3.4	3.4
Electric power consumption [W]	55	165
Sound pressure level [db(A)]	50	60

Correction factor heating capacity Elan 16 at other water and air input temperatures

Water flow [°C]	Air input temperature [°C]							
	Rated				Maximum			
	+16	+18	+20	+22	+16	+18	+20	+22
90/70	1.52	1.47	1.42	1.37	1.53	1.48	1.43	1.38
90/50	1.30	1.25	1.20	1.13	1.29	1.24	1.18	1.13
70/50	1.05	1.00	0.96	0.90	1.05	1.00	0.95	0.90
50/35	0.63	0.57	0.52	0.46	0.62	0.57	0.52	0.46

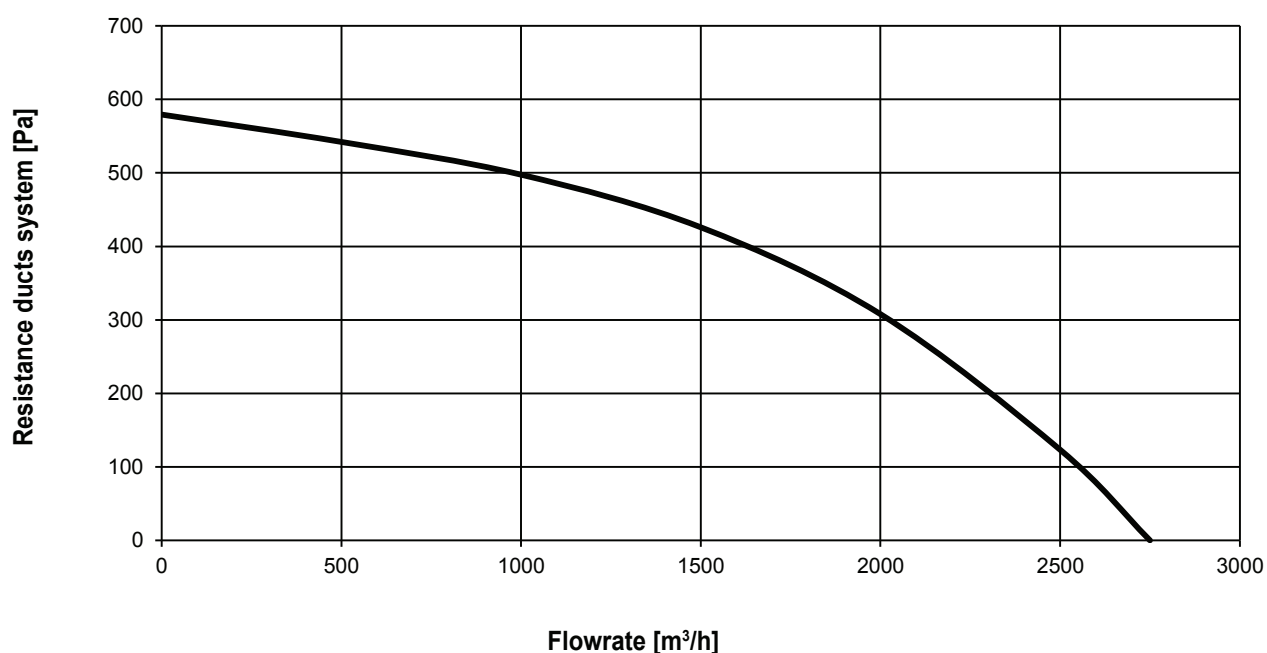


3.3 Technical information Elan 25 2.1

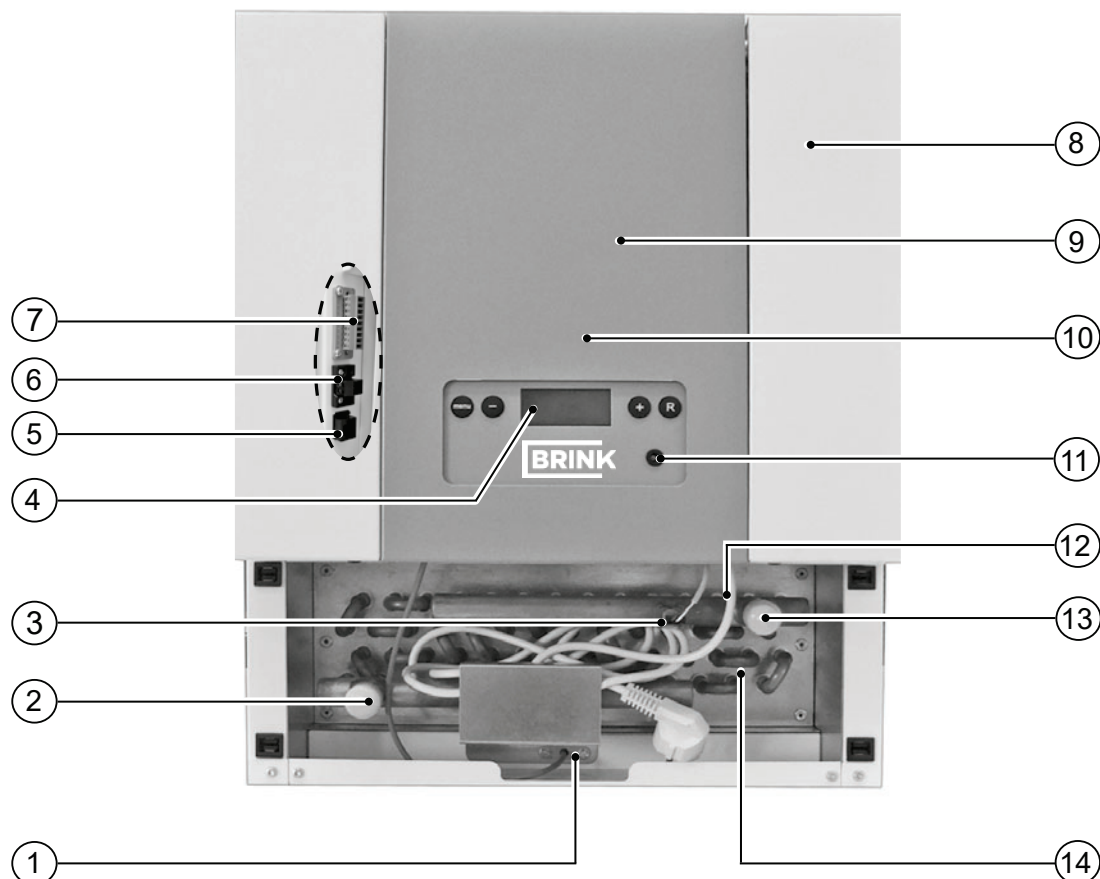
Supply voltage [V/Hz]	230/50	
Dimensions (l x b x h) [mm]	677 X 550 X 765	
Weight [kg]	65	
Filter class	G3	
Water connection [Ø mm]	22	
Water capacity exchanger [l]	3.4	
Water temperature range [°C]	70/50	
Air input temperature [°C]	18	
Maximum operating pressure [bar]	16	
	Rated	Maximum
Air displacement [m³/h]	1800	2350
Heating capacity [kW]	22	25,3
Water capacity [l/h]	1100	1100
Permissible resistance ducts system [Pa]	100	165
Waterside resistance [kPa]	7.0	7.0
Electric power consumption [W]	350	730
Sound power level [Lwa]	56.5	61,4

Correction factor heating capacity Elan 25 at other water and air input temperatures

Water flow [°C]	Air input temperature [°C]							
	Rated				Maximum			
	+16	+18	+20	+22	+16	+18	+20	+22
90/70	1.53	1.48	1.43	1.38	1.54	1.49	1.43	1.39
90/50	1.28	1.23	1.17	1.12	1.29	1.22	1.16	1.11
70/50	1.05	1.00	0.95	0.90	1.05	1.00	0.95	0.90
50/35	0.62	0.57	0.52	0.47	0.62	0.57	0.52	0.47

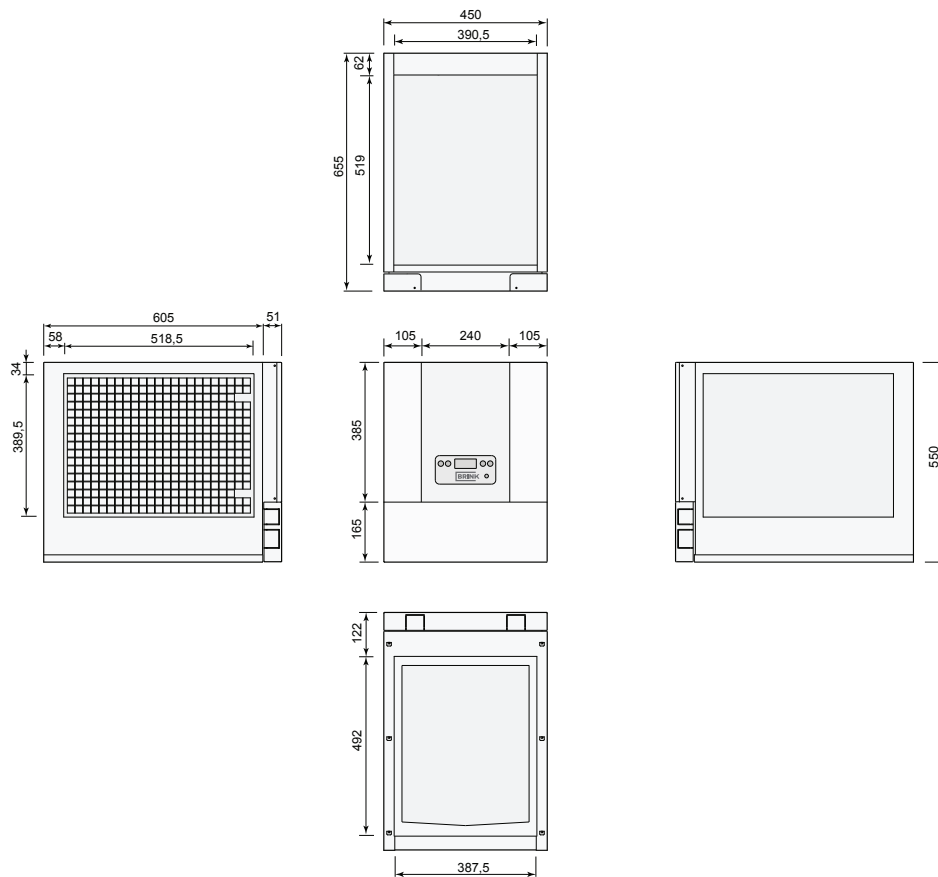


3.4 Exploded view appliance (Downflow version)

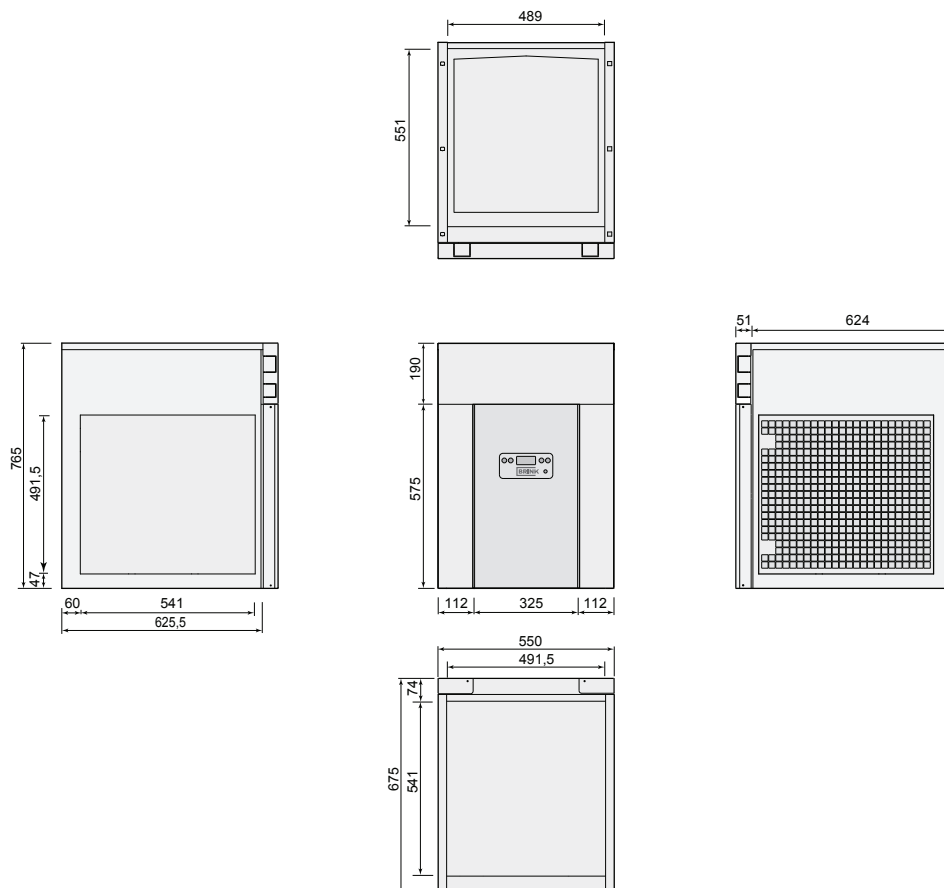


1	Output temperature sensor	Sensor that measures the output temperature and controls the system fan rpm.
2	Water connection (supply)	Connection water mains supply (Ø 22 mm)
3	Water temperature sensor	Frost safety - protects the heat exchanger from freezing
4	Display and 4 control buttons	Interface between user and control electronics.
5	Modular connector multiple switch X2	Connections to multiple switch, optionally with filter indicator. (accessible after opening filter door)
6	Connector rebus X1	Connection for eBus control (accessible after opening filter door)
7	Connector 9-pole X15	Contains the various additional control inputs and outputs; (accessible after opening filter door)
8	Air cleaner	Filters air flow from dwelling
9	System fan	Controls transport of air to the various rooms and extraction of the return air
10	Control pcb	Contains the control electronics for the functions
11	Service connector	Computer connection for service purposes
12	Mains cable 230 V	Power cable 230 Volt
13	Water connection (return)	Connection return water mains (Ø 22 mm)
14	Heat exchanger	This is where heat is exchanged with the air to be heated.

3.5 Dimensions Elan 10 2.0 Downflow



3.6 Dimensions Elan 16 2.0/ Elan 25 2.1 Upflow



4.1 Description

The Elan is an advanced air heater, specially designed for achieving the lowest possible energy consumption. A microprocessor control unit controls and monitors the safe operation of the appliance.

The system fan steplessly displaces more or less air, dependent on the appliance output temperature. The installer can set the minimum and maximum air flowrate on the control panel, just like the cooling air flowrate.

4.2 Frost safety

To prevent freezing of the heat exchanger at very low outdoor temperatures, the Elan appliance is equipped with frost protection.

When the output temperature drops below limit value 1 set at step no. 10, output H is deactivated and output G is energised (see §10.1 for an explanation of outputs G and H).

The system fan does keep running to ensure that the system remains ventilating.

If the temperature drops below the limit value 2 set at step no.

11, the system fan is switched off as well.

When the watertemperature at the heat exchanger rises again or the output temperature raised above the limit value set at step no. 11 + 5°C then the Elan control is automatically reactivated.

You will find an overview of all step numbers in Chapter 13.

4.3 Outdoor air control

An appliance in outdoor air version has an outdoor air duct, if necessary fitted with a diverter valve, connected to the return duct. In this version the appliance may take in between 0 and 100% outdoor air, dependent on the setting of the diverter valve.

To make the appliance perform as an outdoor appliance, the installer must change parameter 9 in the settings menu of the control unit, using the control panel on the appliance (see § 6.3).

4.4 Extra connectors

The Elan appliance is equipped with a 9-pole connector with additional connection options for various applications.

This connector is accessible behind one of the two filter doors, without requiring the use of tools.

In a Downflow appliance this 9-pole connector is behind the left-hand filter door; an Upflow appliance has this connector behind the right-hand filter door.

Connection no. 9 has no application.

See § 11.1 for more information about connection options of the 9-pole connector.

5.1 Installation general

Installing the appliance.

1. Placing the appliance (§5.2)
2. Connecting the condensate discharge (if applicable)
3. Connecting the ducts (§5.6)
4. Electric connection:
Connecting the power supply and, if applicable, a separate ventilation switch (§5.11)

Installation must take place under:

- The safety regulations for central heating installations,

- Quality requirements ventilation systems dwellings
- The relevant articles in accordance with the Building Decree
- Regulations for ventilation of dwellings and residential buildings
- The safety provisions for low voltage installations,
- The regulations for connections to interior sewers in dwellings and residential buildings
- Any additional regulations of the local utilities
- The Elan installation instructions

5.2 Placing the appliance

The following items should be observed when placing the Elan appliance.

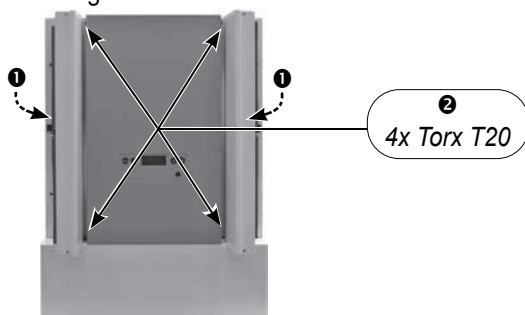
- Place the appliance vibration-free and level.
- Leave room between the appliance and the wall and the ceiling.
- Put the appliance at an accessible place with sufficient room for service.
- The installation room must be frost-free.
- On a damp floor the air heater must be placed at a raised level.
- Put the appliance as closely as possible to the water input/output.

- Put the appliance as centrally as possible relative to the air ducts.
- The installation room must be such that a good condensate discharge with air trap and pitch for condensate can be made (if applicable).
- Make sure there is a free space of at least 1 m at the front of the appliance and a free headroom of 1.8 m for cleaning the filters and carrying out maintenance.
- The air heater can be equipped with a free return. This means that the installation room has an open connection with the rest of the dwelling.

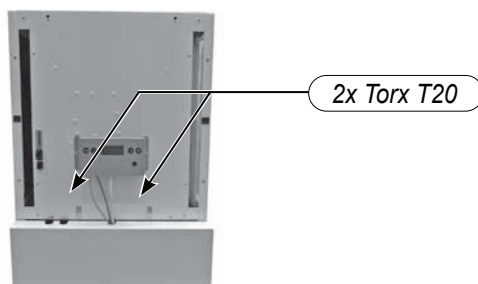
5.3 Conversion to Upflow version

A Downflow Elan appliance can easily be converted to an Elan Upflow appliance.

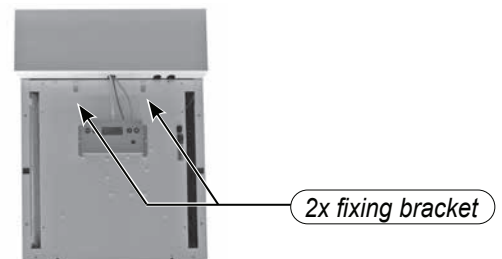
- Open both filter doors ❶.
Unscrew 4 screws ❷ (Torx T20) that hold the front panel with the doors and take out this panel so the control panel with the mounting bracket is accessible.



- Unscrew the two screws (Torx T20) that hold the control panel to the front panel and rotate this control panel 180 degrees.



- Rotated the entire Elan appliance 180 degrees.
- Remount the front panel with the doors with the four screws. Use the two brackets to fix the front panel.



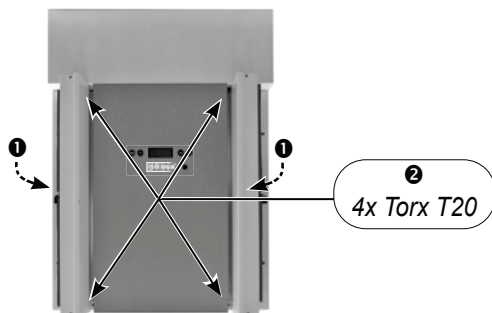
- The appliance is now an Upflow version.



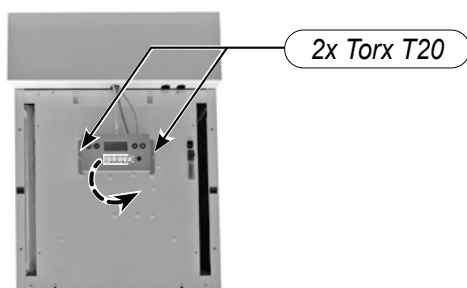
5.4 Conversion to Upflow version

An Upflow Elan appliance can easily be converted to an Elan Downflow appliance.

- Open both filter doors ❶.
- Unscrew 4 screws ❷ (Torx T20) that hold the front panel with the doors and take out this panel so the control panel with the mounting bracket is accessible.



- Unscrew the two screws (Torx T20) that hold the control panel to the front panel and rotate this control panel 180 degrees.



- Rotate the entire Elan appliance 180 degrees.
- Remount the front panel with the doors with the four screws.



- The appliance is now a Downflow version.



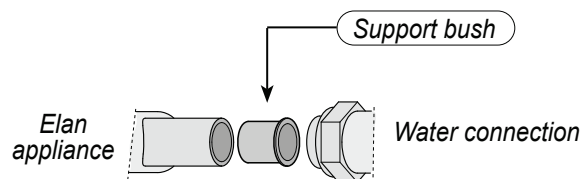
5.5 Water connections

The heat exchanger in the air heater is connected with 22 mm connectors (both compression fitting and soldered fitting are possible).

It is recommended to place stop cocks with couplings directly on the outside of the appliance in the input as well as the input lines.

Use one of the breakout tabs for feeding through the water lines. The water connections can be routed out of the appliance on the left or on the right.

When using a compression fitting, always use a support bush Ø 22 mm when making the water connections.



5.6 Connecting ducts

Standard manifolds are available for the Elan series. For an Upflow these are placed **on** the appliance and for a Downflow they are placed **under** the appliance. The hot air ducts are connected to this manifold.

Observe the following items when connecting the ducts.

- Install (if necessary) a control valve in every branch of the manifold or the main duct.
- Always lay out return ducts in such a manner that they do not become sound bridges, so no straight connections between two rooms.
- Insulate all hot air ducts including the grill adapters and the exterior air duct.

- When mounting flexible ducts, bear in mind that it must be possible to replace them in due course.
- Place a moisture barrier around the insulation material to prevent condensation.
- Always lay out return ducts in such a manner that they do not become sound bridges, so no straight connections between two rooms.
- Connecting the return: Connect the return duct to the return air or the installation room. An acoustic return plate is available for an appliance with open return.
- Provide the exterior air connection with a control valve and connect it to the return duct.

5.7 Conversion from right-handed to left-handed appliance

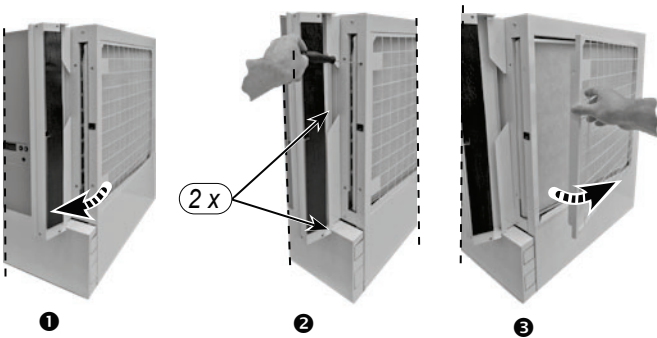
As standard, an Elan has the filter on the right-hand side of the appliance. If necessary, it can be moved to the left-hand side.



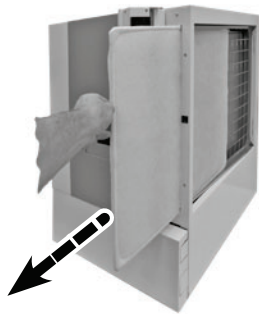
Always take the voltage from the appliance by pulling the power plug when working on the appliance.



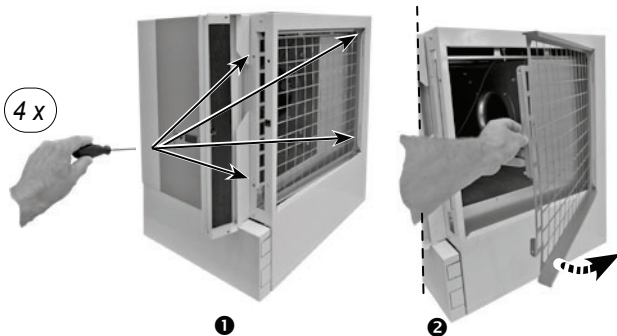
- ① ① Open both filter doors.
- ② Unscrew two long countersunk screws (Torx T20).
- ③ Take filter mesh from the appliance.



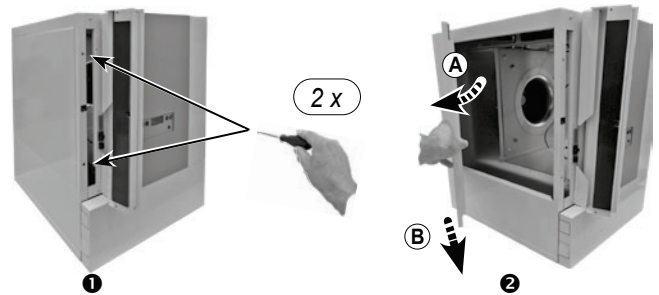
- ② Slide the filter from the appliance.



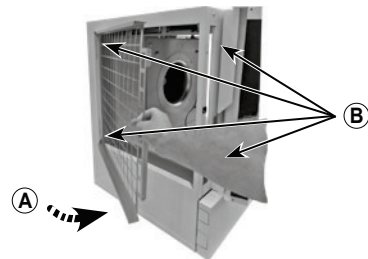
- ③ ① Unscrew the filter rail (4x Torx T20)
- ② Take the filter rail from the appliance.



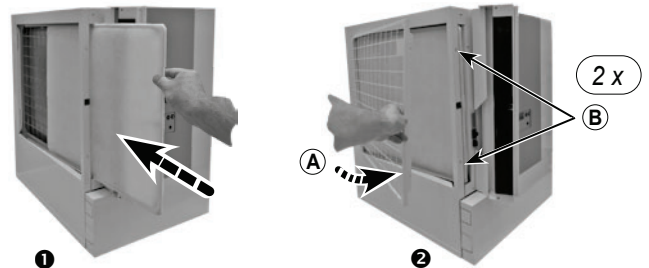
- ④ ① Unscrew the panel on the left-hand side (2x Torx T20)
- ② Take out the panel.



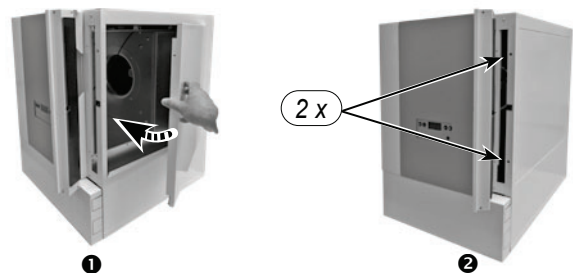
- ⑤ Place the filter rail that was removed from the right-hand side on the now free opening and fix it with 4 screws.
Note: Filter rail is mounted at a pitch to the rear!



- ⑥ ① Place the filter in the filter rail.
- ② Mount the filter mesh with 2 long Torx screws.



- ⑦ ① Mount the panel taken from the right-hand side.
- ② Fix it with 2 long Torx screws.



- ⑧ Now the Elan appliance has the filter connection on the left-hand side instead of on the standard right-hand side.



5.8 Placing HRV on Elan Downflow

The Elan Downflow is prepared in such a way that a Brink heat recovery unit (HRV) Type Renovent Elan can be placed on the appliance.

When placing the Renovent Elan on an Elan Downflow appliance, it is assumed that the fronts of both appliances are kept flush.

The connection "to dwelling" is connected at the top on the Elan Downflow appliance.

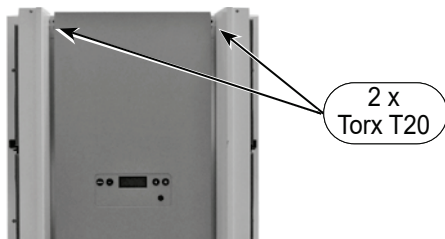
Use the optionally available coupling kit (Brink article code 007026 for Elan 10/ Brink article code 008026 for Elan 16/25) that is placed between the Elan Downflow appliance and the Renovent Elan.

If a Renovent Excellent is placed separately in the installation room, this coupling it is not necessary and the air supply connection of the Renovent Excellent can be connected to the return duct of the Elan air heater.

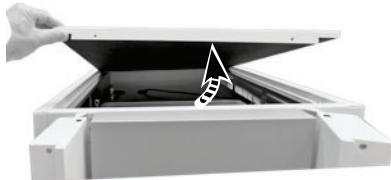
5.9 Filter connection top / bottom

If the return air duct must be connected on (Downflow version) or under (Upflow version) the appliance, a filter unit must be placed.

- ① Open both filter doors of the appliance and remove the two long countersunk Torx screws that hold the top panel.



- ② Remove the top panel (it will be used later to replace the filter mesh on the side of the appliance).



- ③ Put the filter unit on the appliance and fix it with the two long Torx screws.



- ④ Replace the existing filter mesh by the panel that was taken out. For removing the filter mesh and mounting the top panel, see §5.7.

5.10 Cooling

An Elan appliance can be equipped for cooling. For that purpose an Elan cooling block (cooling block water or cooling block inverter) must be installed in the air system and (if necessary) a condensing unit must be connected to the cooling block. In addition, a relay (mounted in the interface cooling that comes with the cooling block) on the control unit must be connected to the Elan on connection 7 and 8 on the 9-pole connector. (also refer to §10.1 and §11.3).

When cooling is switched on, the system will always be running at the air quantity cooling (setting step 4). For switching on cooling, a connection must be made between terminals 1 and 2 on the 9-pole connector (also refer to §10.1 and §11.3).

5.11 Electric connections

The appliance comes with a 230 V mains plug.
On delivery, the 230 V mains cable is stored behind the bottom

panel (Downflow version); see §3.4 or behind the upper panel (Upflow version).

5.11.1 Connecting the power plug

The appliance can be connected to an easily accessible, earthed wall socket with the plug that is mounted to the appliance. The electric installation must comply with the requirements of your power company.
Various breakout tabs are provided for routing the power plug out of the appliance.



Warning

The fan and control board carry a high voltage. Always take the voltage from the appliance by pulling the power plug when working on the appliance.



Note:

Make sure that the mains cable is **always** free from the exchanger when it is routed outside!

5.11.2 Ventilation switch

With an optional 4-way ventilation switch (connected to modular connector X2), the user can set a number of operating modes.

For electric connection of the 4-way ventilation switch, see §11.2.

The position of the multiple switch is indicated on the appliance display (behind the ventilation symbol).

Note: The multiple switch functions differ when the appliance is set to the outdoor air programme!

Position 4-way switch	Operating mode standard (step no. 9 to 0)
	Increased fan setting with cooling switched on (high) - System fan runs continuously at cooling air flowrate + switch cooling output
1	Comfort setting (regular) - System fan controlled by system temperature sensor; at no demand the system continuously runs at minimum air flowrate
2	Ventilation setting off (stand-by) - System fan controlled by system temperature sensor; at no heat demand the system fan is stopped
3	Increased fan setting (high) - System fan continuously runs at maximum set air flowrate

Position 4-way switch	Operating mode at outdoor air programme (step no. 9 to 1)
	Increased fan setting with cooling switched on (high) - System fan runs continuously at cooling air flowrate + switch cooling output
1	Comfort setting (regular) - System fan runs continuously at maximum air flowrate
2	Ventilation setting off (stand-by) - System fan runs continuously at minimum air flowrate
3	Increased fan setting (high) - System fan runs continuously at cooling air flowrate

6.1 General explanation control panel

The display shows the appliance's current operating mode. Four control keys can be used to call up and modify settings in the control unit programme.

When the mains power to the Elan appliance is switched on, all display symbols will appear during 2 seconds; at the same time the backlight is switched on for 60 seconds.

When one of the control keys is operated, the display will light up during 30 seconds.

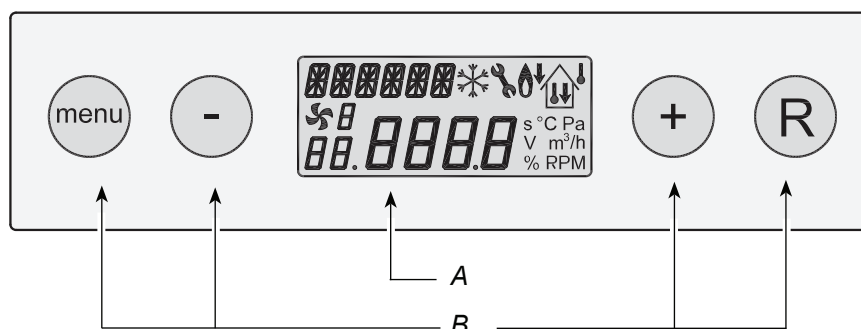
When no keys are operated or when no deviating situation has developed (such as a blocking fault) the display will show the operating mode (see § 6.2).

After operating the key 'Menu', the keys "+" or "-" can be used to select from three different menus, including:

- **Settings menu** (SET); see § 6.3
- **Readout menu** (READ), see § 6.4
- **Service menu** (SERV), see § 6.5

Press the R key to leave any menu and return to operating mode.

Briefly press the R key (for shorter than 5 seconds) to switch on the display backlight without changing anything in the menu.



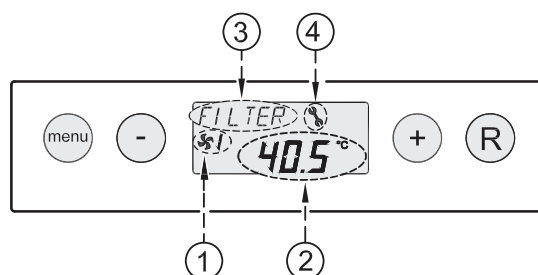
A = display
B = 4 control keys

Key	Function key
Menu	Activate the settings menu; to the next step in the submenu; confirm value change
-	Scroll; modify value
+	Scroll; modify value
R	One step back in menu; cancel value modification; filter reset (press for 5 seconds), delete fault history

6.2 Operating mode

In operating mode, the display may simultaneously show 4 different situations/values.

- 1 = Status fan situation, (see § 6.2.1)
- 2 = Output temperature (see § 6.2.2)
- 3 = Message text e.g. text filter situation, (see § 6.2.3)
- 4 = Fault symbol (see § 8.1 and § 8.2)

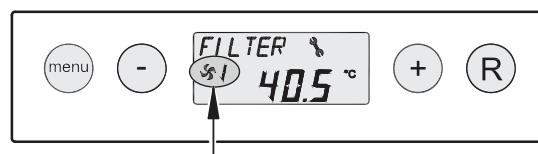


6.2.1 Status system fan

This part of the display shows a fan symbol together with a number.

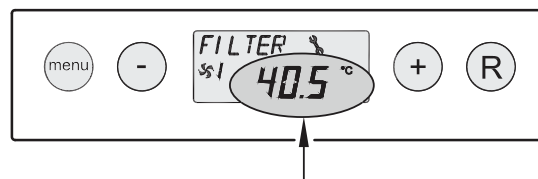
The fan symbol is visible when the system fan is running. When the system fan is stopped, the fan symbol is not visible.

The number behind the fan symbol indicates the fan mode. A 1 is shown here by default; when a ventilation switch is connected, numbers 2 or 3 or no value may be indicated here; Refer to section 5.11.2 for an explanation of the numbers.



6.2.2 Display output temperature

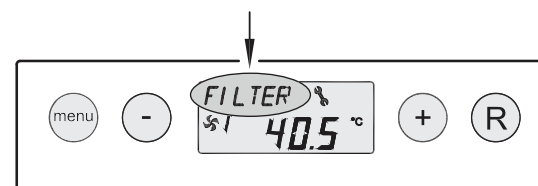
The current temperature of the output air temperature is displayed here.



6.2.3 Message text for operating mode

This part of the display may show a message text. The message text "Filter" always takes precedence over the other message texts.

The following message texts may appear during operating mode.



Message text on display	Description	
FILTER	When the text "FILTER" appears on the display, the filter must be cleaned or replaced; for detailed information on this subject see § 9.1.	
PR1	The Elan appliance is set to the outdoor air programme	

6.3 Settings menu

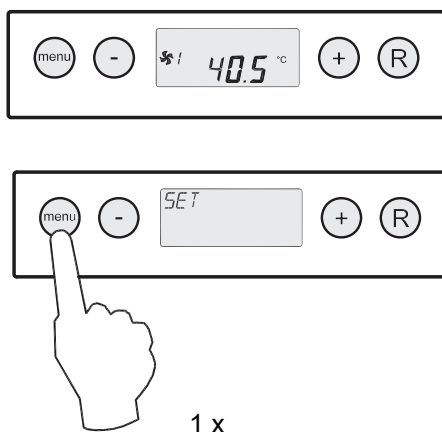
For optimum performance of the appliance, set values can be modified in the settings menu to adjust the appliance to the installation situation; refer to chapter 13 for a list of the set values. A number of set values, such as the air flowrates, are laid down in the design data.

Warning:

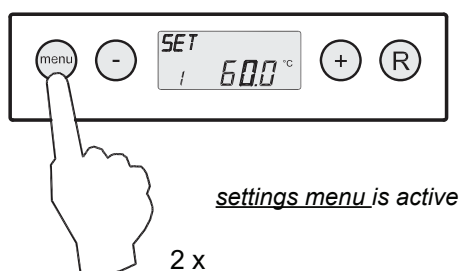
Because changes in the settings menu may affect the proper performance of the appliance, changes of settings not described here require consultation with Brink. Incorrect settings may seriously affect the proper performance of the appliance!

Modifying the set value in the settings menu:

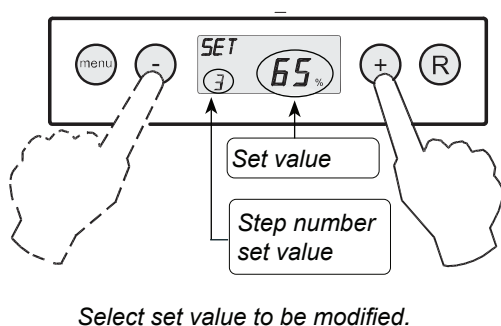
1. In operating mode, press the 'Menu' key.



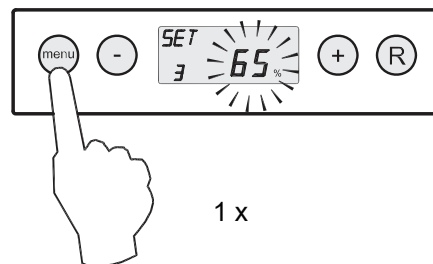
2. Press the 'MENU' key to activate the "settings menu".



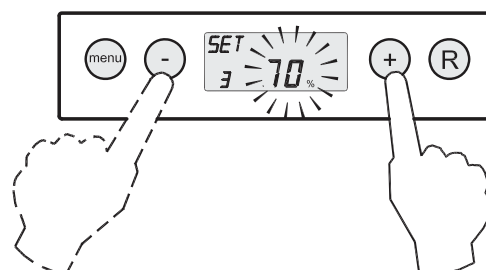
3. Select the set value to be modified with the '+' or '-' key.



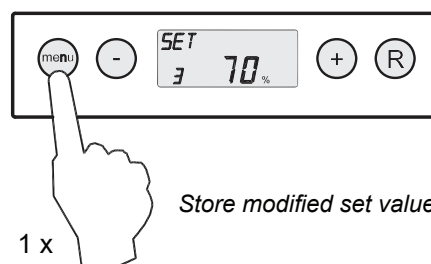
4. Press the 'Menu' key to select the required set value.



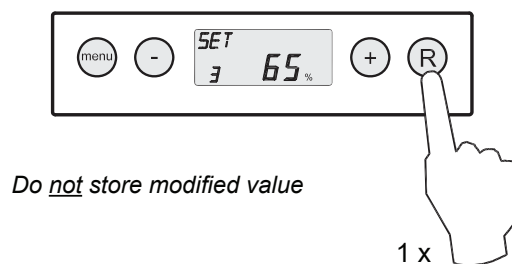
5. Use keys '-' and '+' to modify the selected set value.



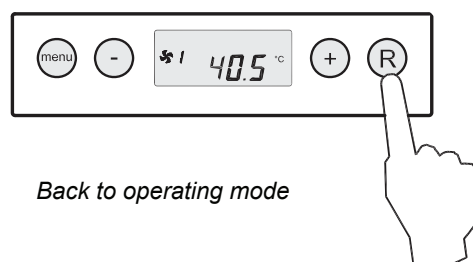
6. **Store the modified set value**



Do not store the modified set value



7. To modify other set values, repeat steps 3 - 6. When you do not want to modify any more set values and return to operating mode, press the 'R' key.



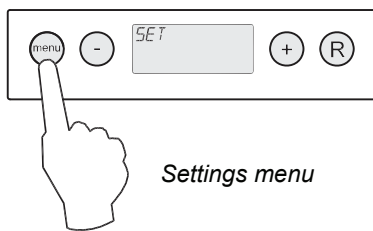
6.4 Readout menu

The readout menu can be used to call up a number of current sensor values to obtain more information on the appliance's performance. Modifying values or settings is **not** possible in this menu. The **readout menu** can be displayed as follows:

1. In operating mode, press the 'Menu' key. Now the display shows the settings menu.

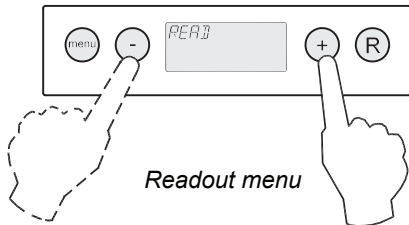


Operating mode



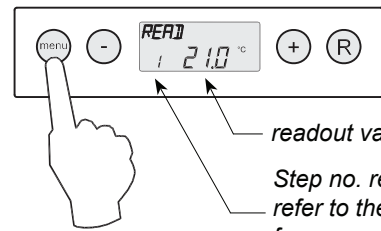
Settings menu

2. Use the '+' and '-' keys to go to the **readout menu**.



Readout menu

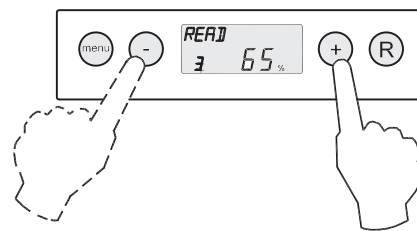
3. Activate the **readout menu**.



readout value

Step no. readout value;
refer to the table below
for an explanation

4. Use the '+' and '-' keys to 'scroll' through the readout menu.



5. Press the 'R' key twice to go to operating mode. If no key is operated during 5 minutes, the appliance automatically returns to operating mode.



Operating mode

2 x

Step no. readout value	Description readout value	Unit
1	Current output temperature sensor	°C
2	Current temperature water temperature sensor	°C
3	Percentage system fan setting	%
4	RPM system fan	RPM
5	Status frost protection (ON = frost protection active, OFF = frost protection not active)	

6.5 Service menu

The service menu shows the 10 most recent fault messages.

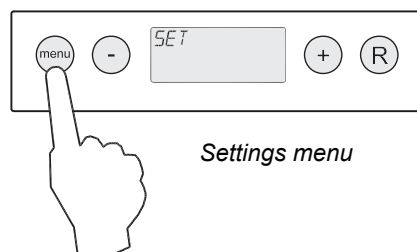
In the event of a locking fault, the settings menu and the readout menu are blocked and only the service menu can be opened. Pressing the 'menu' key directly opens the service menu.

The **service menu** can be called up as follows:

1. In operating mode, press the '**MENU**' key. The display now shows the settings menu.

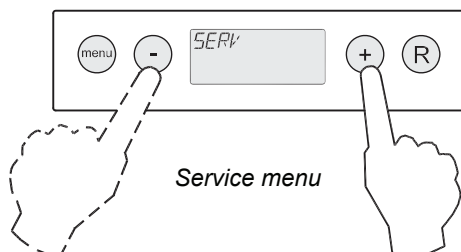


Operating mode



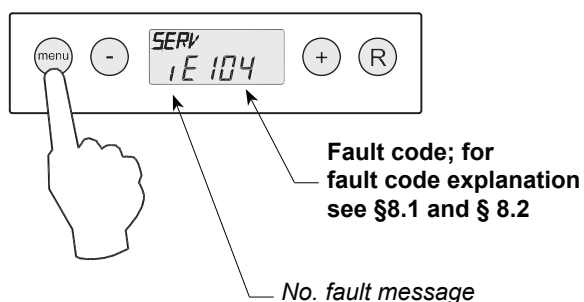
Settings menu

2. Use the '+' and '-' keys to go to the **service menu**.

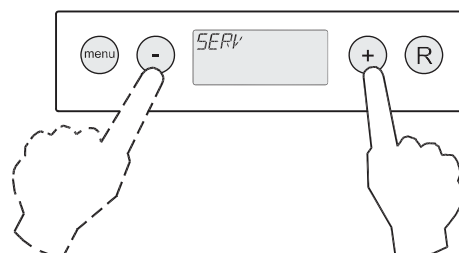


Service menu

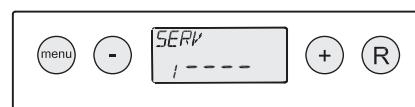
3. Activate the **service menu**.



4. Use the '+' and '-' keys to scroll through the messages in the service menu.



- Display not any fault message.



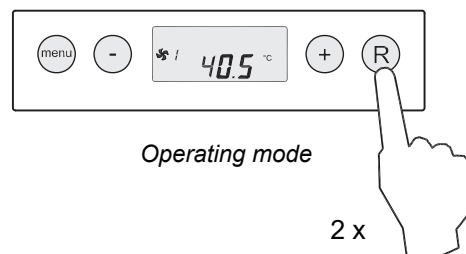
- Current fault message (spanner on display).



- Solved fault message (no spanner on display).



- 5 Press the '**R**' key twice to go to operating mode. If no key is operated during 5 minutes, the appliance automatically returns to operating mode.



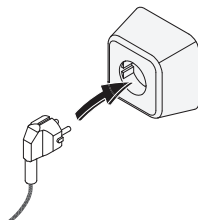
Operating mode

All fault messages can be deleted by pressing the "R" key in the service menu during 5 seconds; This is only possible when there is no active fault!

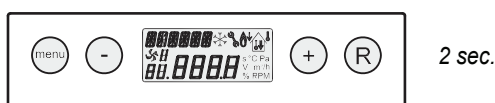
7.1 Switching the appliance on and off

Switching on:

- Switching on the mains power:
Connect the 230 V power plug to the electric system.



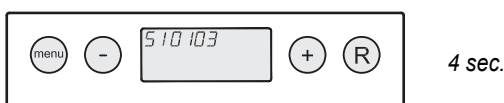
All display symbols appear during 2 seconds.



The hardware code appears during 2 seconds.



Then the software version appears during 4 seconds.



Subsequently, the Elan appliance is in operating mode and goes to the preset value of the output temperature set at step number 1.



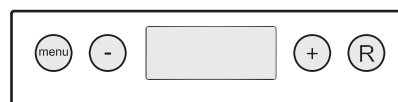
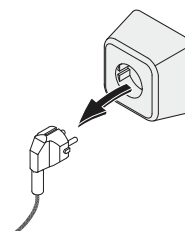
Switching off:



Warning

Set the room thermostat for the unit connected to the Elan to 5 °C lower than the room temperature. There is now no heat demand from the connected unit.

- Switching off the mains power:
Pull the 230 V mains plug from the mains to take the voltage from the appliance.
Nothing is shown on the display now.



Warning

When working on the appliance, always take the voltage from the appliance by first switching it off through software and subsequently pulling the power plug.

7.2 Setting the air flow

Ex factory, the air quantities of the Elan appliance for the minimum air flowrate, maximum air flowrate and cooling air flowrate are set at respectively 20%, 65% and 80%.

The performance and the energy consumption of the Elan appliance depend on the pressure drop in the ducts system, as well as on the filter resistance.

For modifying the air flowrates in the settings menu, see § 6.3.

7.3 Other settings installer

More settings of the Elan appliance can be changed. How to modify these is explained in §6.3.

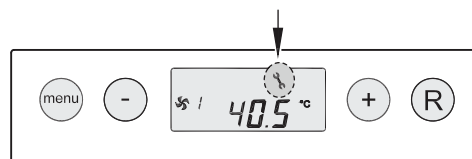
8.1 Trouble shooting

When the appliance control system detects a fault, it is indicated on the display with a spanner symbol, possibly together with a fault code.

The appliance makes a distinction between a fault at which the appliance keeps running (limitedly) and a serious (locking) fault at which the fan is switched off.

In case of locking fault, the settings and readings menu is switched off as well and only the service menu is available.

The appliance remains in this fault mode until the problem in question has been solved. Then the appliance will reset itself (auto reset) and the display will once more show the operating mode.



Fault E999

If message E999 appears on the display directly when the appliance is powered up, the control pcb is not suitable for this appliance or the dip switches on the control pcb are set incorrectly.

For the location of the dip switches on the board, see §10.1.

In that case, check whether the dip switches on the control pcb are set as shown in the drawing of the dip switch settings; if they are, and the message E999 still appears, then replace the control pcb by a pcb of the correct type.

How to access the pcb is described in §9.2 item 1 - 6.



Elan 10 2.0



Elan 16 2.0



Elan 25 2.1



8.2 Display codes

Non-locking fault

When the appliance detects a non-locking fault, it will still keep running (limitedly). The display does show the fault symbol (spanner).



Locking fault

When the appliance detects a locking fault, it will no longer work. The (permanently lighted) display shows the fault symbol (spanner) together with a fault code (see table next page). The red LED on the multiple switch (if applicable) will be blinking. Contact the installer to remedy this fault. A locking fault cannot be remedied by taking the voltage from the appliance; first the fault must be solved.



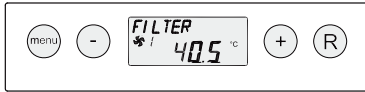
Fault code	Cause	Action appliance	Action installer
E101	Output temperature sensor fault.	- Fan is switched off.	- Take the voltage from the appliance. - Replace temperature sensor. - Put voltage back on appliance; fault has automatically been reset.
E102	Water temperature sensor fault.	- Fan is switched off.	- Take the voltage from the appliance. - Replace temperature sensor. - Put voltage back on appliance; fault has automatically been reset
E104	System fan fault.	- Appliance does nothing.	- Take the voltage from the appliance. - Check cabling. - Replace fan. - Put voltage back on appliance; fault has automatically been reset.
E105	Fault relay output X15 no. 5 & nr.6 or nr.7 & nr.8; relay with too high power on either of the two outputs or short-circuit at one of these two outputs (max. 60mA, 24V DC).	- Fan runs at minimum air flowrate.	Check wiring and connection value connected relay.
E106	Unknown switch position of optional multiple switch.	- Fan runs at minimum air flowrate.	- Take the voltage from the appliance. - Check correctness of connection multiple switch; correct installation modular connector.
E107	External fault input X15 no. 3 & no.4.	- An appliance that is connected to the Elan has a fault, e.g. instance condensing unit.	Check all appliances connected to the Elan and correct the fault.
E152	Flash memory fault.	- Fault in control pcb system.	- Take the voltage from the appliance. - Replace control pcb. - Put voltage back on appliance; fault has automatically been reset.
E999	Dip switches on control pcb not set correctly.	- Appliance does nothing; red fault LED on (optional) multiple switch is not activated either.	- Take the voltage from the appliance. - Set dipswitches to correct position (see § 8.1). - Put voltage back on appliance; fault has automatically been reset.

Note!

If mode 2 of a multiple switch does not work, the modular connector of the multiple switch has been connected the wrong way round. Cut off one of the RJ connectors to the multiple switch and mount a new connector the other way round.

9.1 Filter cleaning

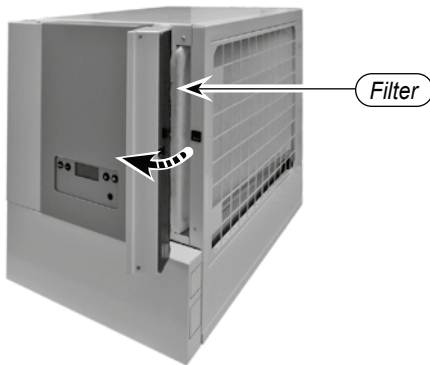
User maintenance is limited to periodically cleaning or replacing the filters. The filter only has to be cleaned when that is indicated on the display (it shows the text "FILTER") or, if a multiple switch with filter indication is installed; when the red LED at the switch lights up.



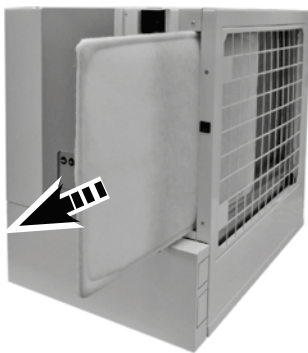
The filter must be replaced every year. It is not permitted to use the appliance without filter.

Cleaning or replacing the filter:

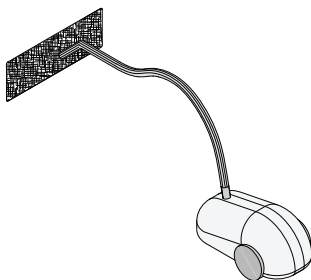
- 1 Open the filter door.



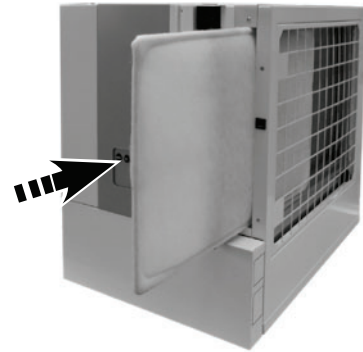
- 2 Remove the filter. Remember in what way the filter is taken out.



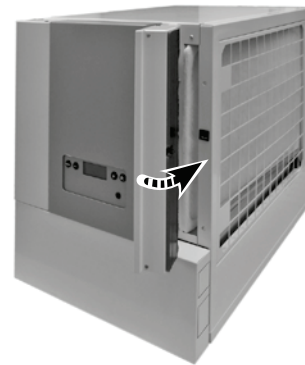
- 3 Clean the filter.



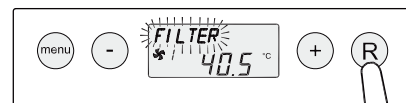
- 4 Place the filter back in the same position as it was.



- 5 Close the filter door.



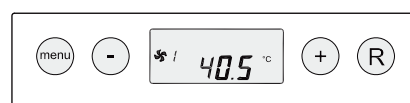
- 6 After the filters have been cleaned or replaced, press the "R" key for 5 seconds to reset the filter indication. The text "FILTER" will blink briefly to confirm that the filter has been reset. Also when the message "FILTER" has not yet appeared on the display, a filter reset can be carried out. the "counter" will be reset to zero.



5 sec.



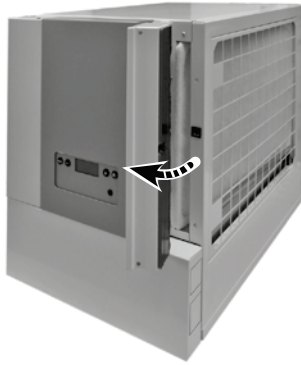
After the filter reset, the text "FILTER" disappears; the light at the multiple switch is off and the display is back to operating mode.



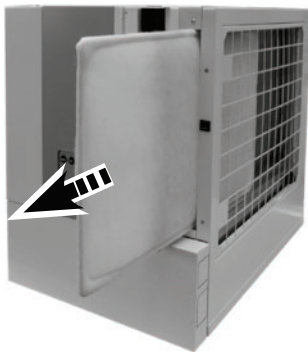
9.2 Maintenance

Installer maintenance includes cleaning the heat exchanger and fan. Dependent on the conditions, this must be done about once every three years.

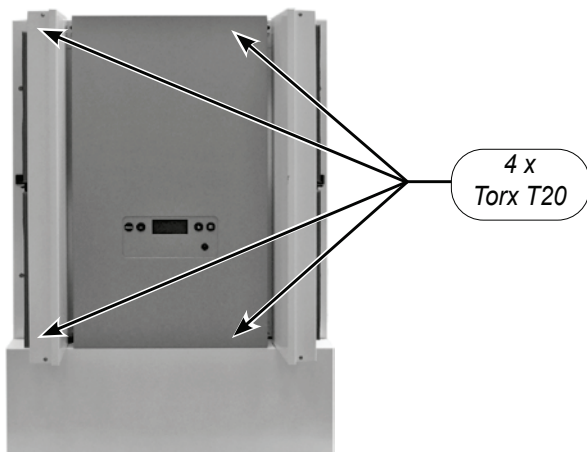
- 1 Take the voltage from the appliance.
Open the filter door.



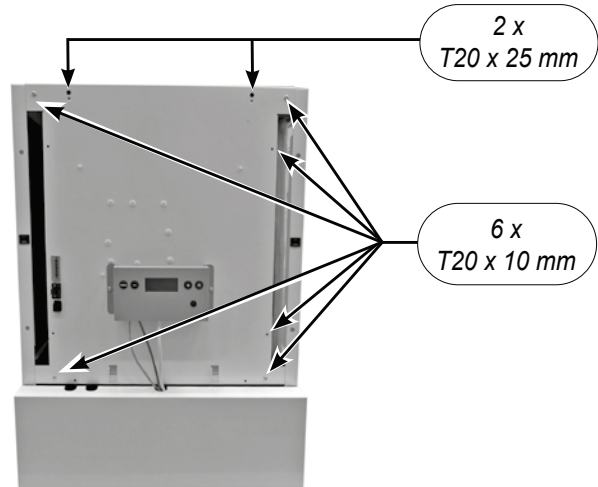
- 2 Remove the filter.



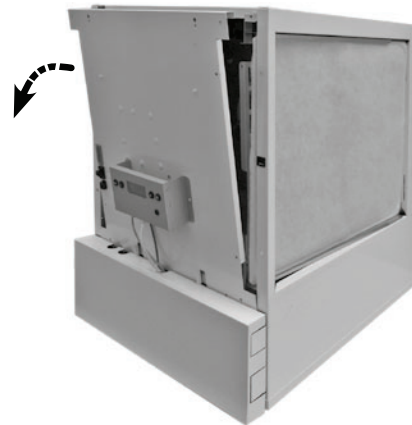
- 3 Unscrew the front panel with the two filter doors (4 screws) and take it out.



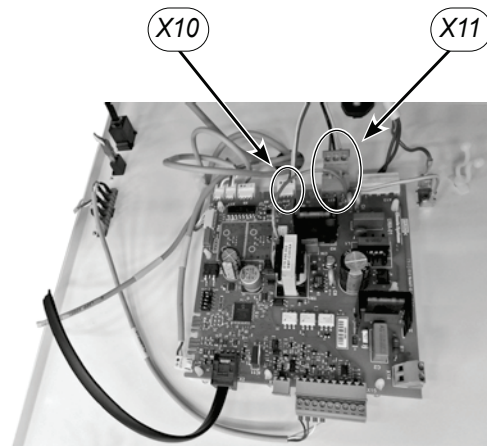
- 4 Unscrew the 8 screws that hold the fan compartment panel.



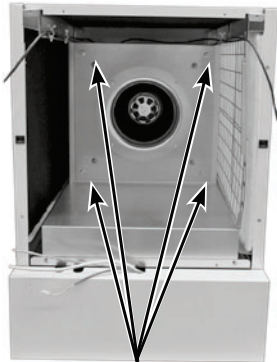
- 5 Carefully tilt the fan panel forward; take the fan cables from the cable clips so the panel can be opened further.



- 6 Take the two fan cables from the pcb.

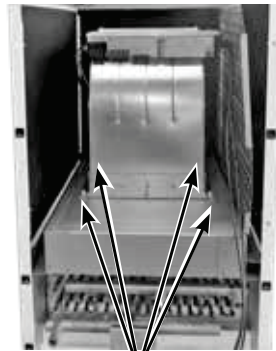


- 7 Unscrew the fan plate (4x female hex screw M6 x 20).



4x

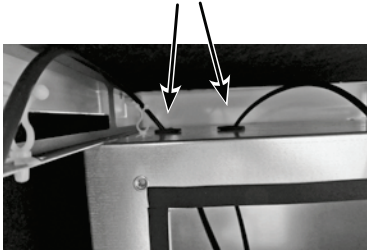
Fan Elan 10/16 2.0



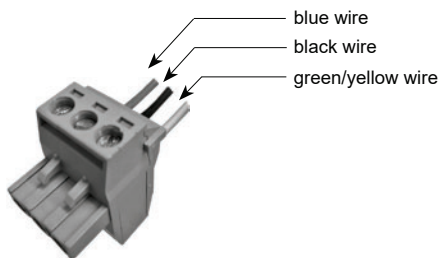
4x

Fan Elan 25 2.1

- 8 Only the Elan10/16 2.0: Slide the fan forward in the appliance; guide the cable through the grommets.



- 9 Only the Elan10/16 2.0: If you want to take the fan completely from the appliance, the fan mains cable plug must be taken off because it will not pass through the grommet; carefully note the position of the wires on the plug!



- 10 Clean the fan blades with a dry brush; when cleaning, make sure the balance weights do not shift!

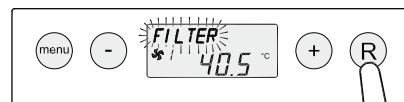


Fan Elan 10/16 2.0



Fan Elan 25 2.1

- 11 Carefully clean the top of the heat exchanger, for instance with a vacuum cleaner; check for any leakages.
- 12 Place the system fan back into the appliance.
- 13 Reconnect all removed cables to the pcb; make sure the fan cables are attached tightly in the cable clips.
- 14 Mount the fan compartment panel with 8 screws; make sure the filter frame is fastened again as well.
- 15 Mount the front panel with the mounted filter doors.
- 16 Place the filter with the clean side facing the fan.
- 17 Switch the mains power back on.
- 18 After cleaning or replacing the filter, press the “R” key for 5 seconds to reset the filter indication.
The text “**FILTER**” will blink briefly to confirm that the filter has been reset. Also when the message “**FILTER**” has not yet appeared on the display, a filter reset can be carried out. the “counter” will be reset to zero.



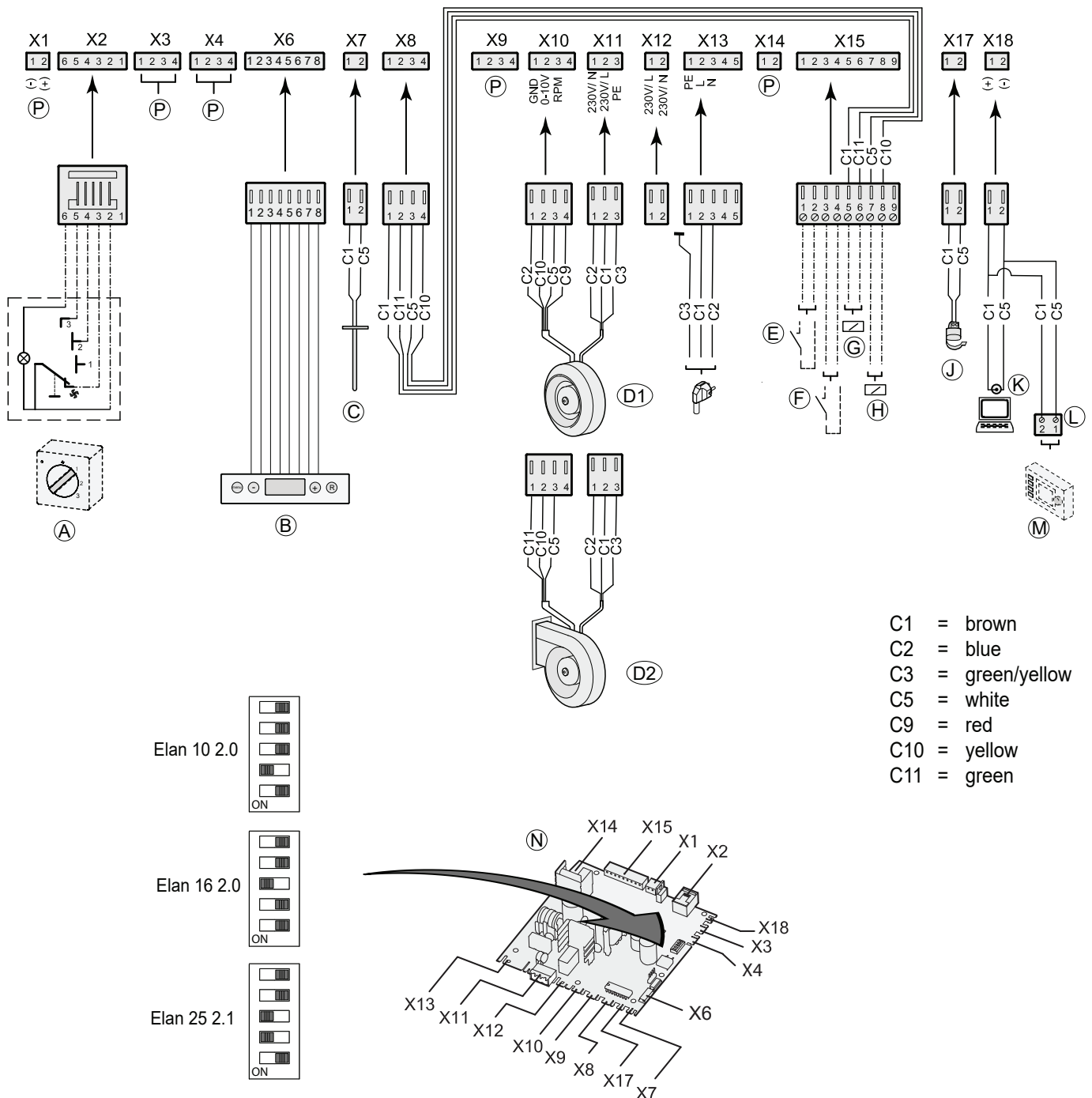
5 sec.



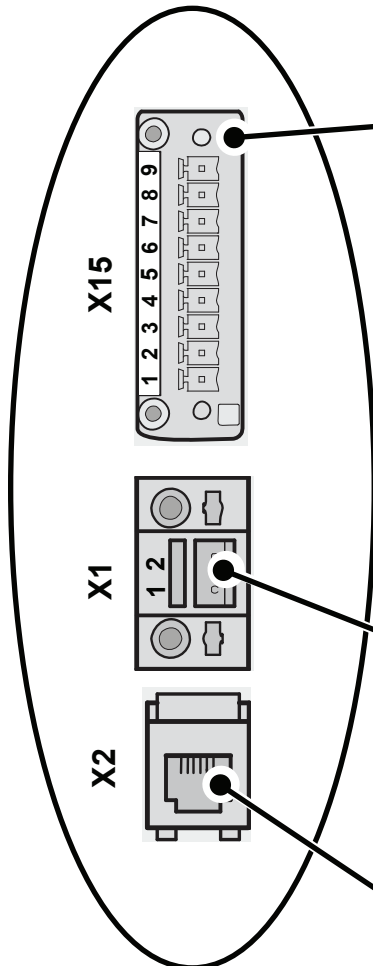
After the filter reset, the text “**FILTER**” disappears; the light at the multiple switch is off and the display is back to operating mode.



10.1 Wiring diagram



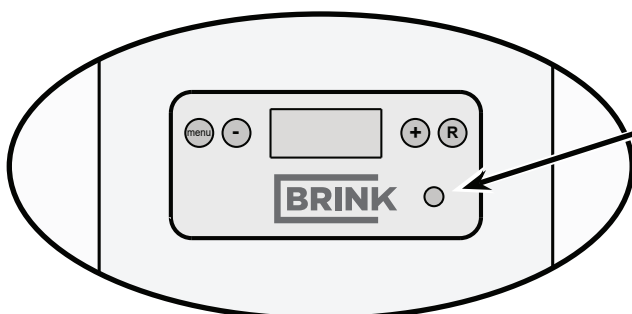
11.1 Connections connectors



Connector X15 (9-pole)	
Connection	Application
1 & 2	Switch contact cooling When this contact is closed, cooling is switched on (N.O. contact).
3 & 4	Switch contact external fault (At fault message E107 on the display, the system fan is switched off.)
5 & 6	Connection frost safety relay This connection is energised when frost safety is triggered. It can be used, for instance, to switch an external pump.
7 & 8	Connection cooling relay It is energised when cooling is switched on. For instance, the cable (from relay) from the interface cooling is connected here.
9	Not connected

E-Sleeve Connector X1	
 Not suitable for 230 V!	eBus Two-pole screw connector Only suitable for low voltage. Note: For eBus application, this connector is polarity-specific.

Connector X2	
 Not suitable for 230 V!	Modular connector X2 for rpm control Modular connector type RJ-12 Only suitable for low voltage.

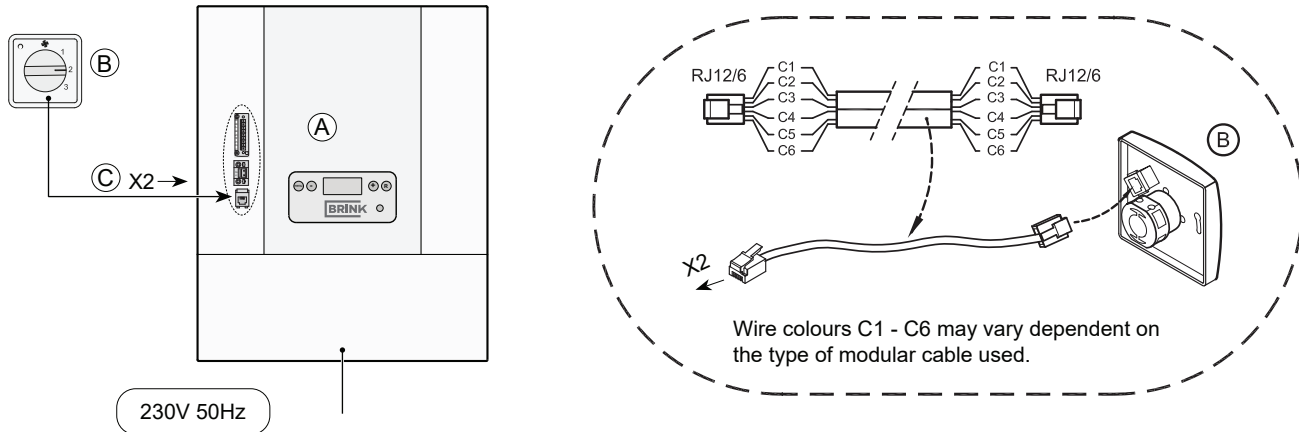


Service connector	
Laptop connection for installer.	

11.2 Connection examples multiple switch

A multiple switch can be connected to the modular connector X2 of the Elan appliance. This modular connector X2 can be accessed after opening the filter door. Cables can be guided out of the appliance through one of the breakout tabs of the appliance.

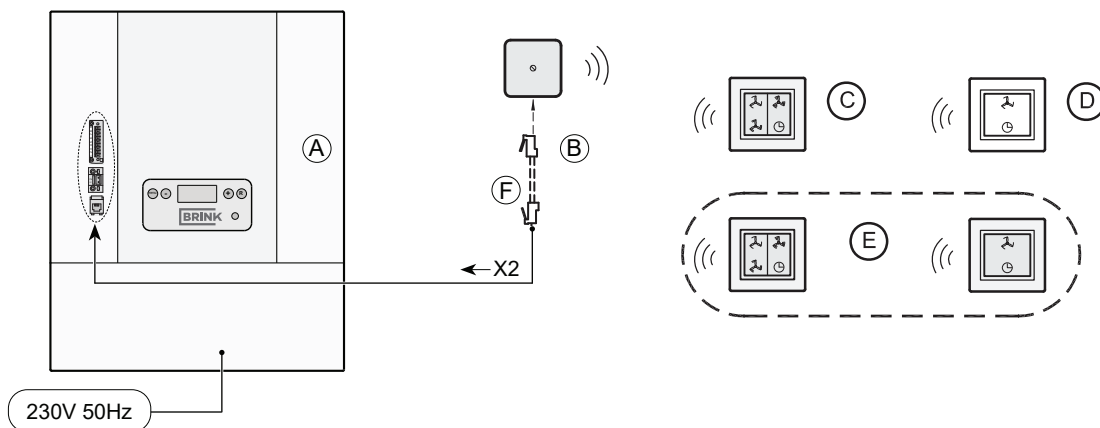
11.2.1 Multiple switch with filter indication



Note: For the modular cable used, the "tab" of both modular connectors must be mounted facing the mark on the modular cable.

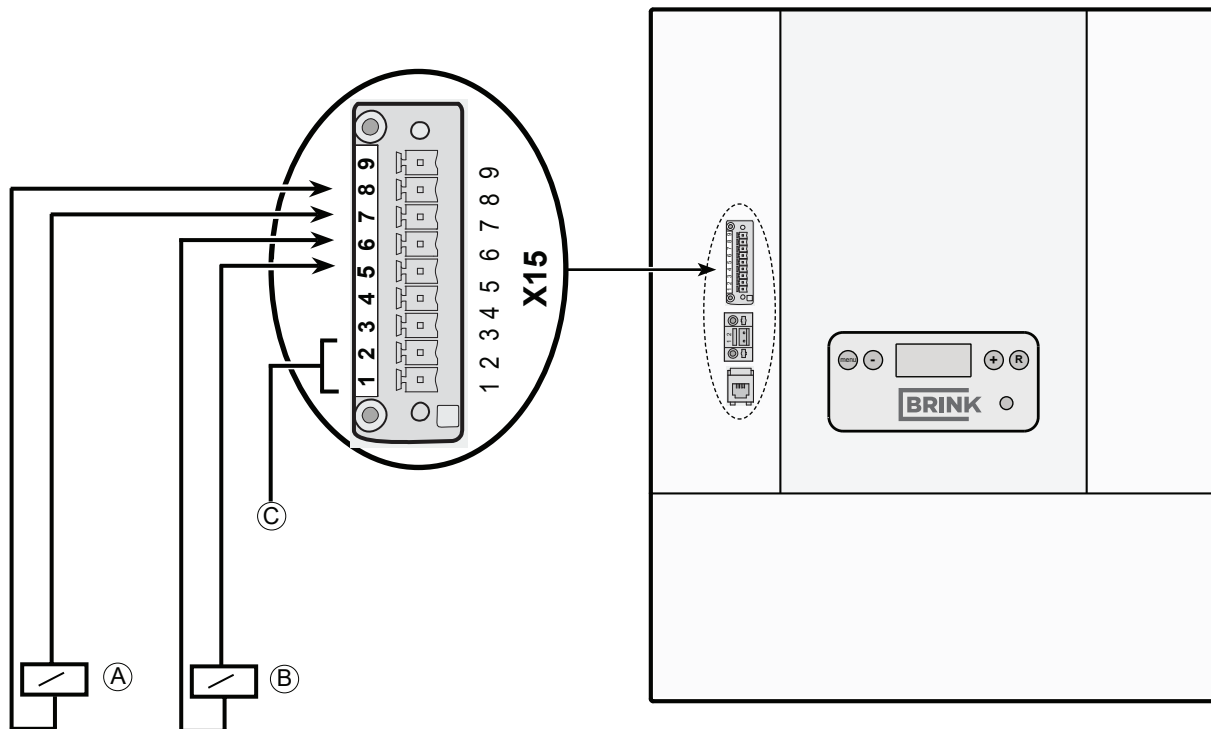
- A = Elan appliance
- B = Multiple switch with filter indication
- C = Modular cable 6-core

11.2.2 Wireless remote control (without filter indication)



- A = Elan appliance
- B = Receiver for wireless remote control
- C = Transmitter with 4 settings
- D = Transmitter with 2 settings
- E = Any additional 2- or 4-settings transmitters (A maximum of 6 transmitters can be signed on to 1 receiver)
- F = Modular cable 6-core

11.3 Connecting cooling



- A = Cooling relay; it is energised when the cooling is switched on.
(Relay 24 VDC, max. 60 mA)
- B = Frost safety relay; it is energised when the frost safety is activated.
See §4.2 for conditions switching on frost safety
(Relay 24 VDC, max. 60 mA)
- C = Switch contact cooling; when this contract is closed, the cooling is switched on.

Relay A is mounted at the Elan interface that comes with the cooling block.
Relay B is not supplied with the cooling unit!

Step no.	Description	Factory setting	Range
4	Percentage air flowrate cooling	80%	10% - 100%

12.1 Exploded view

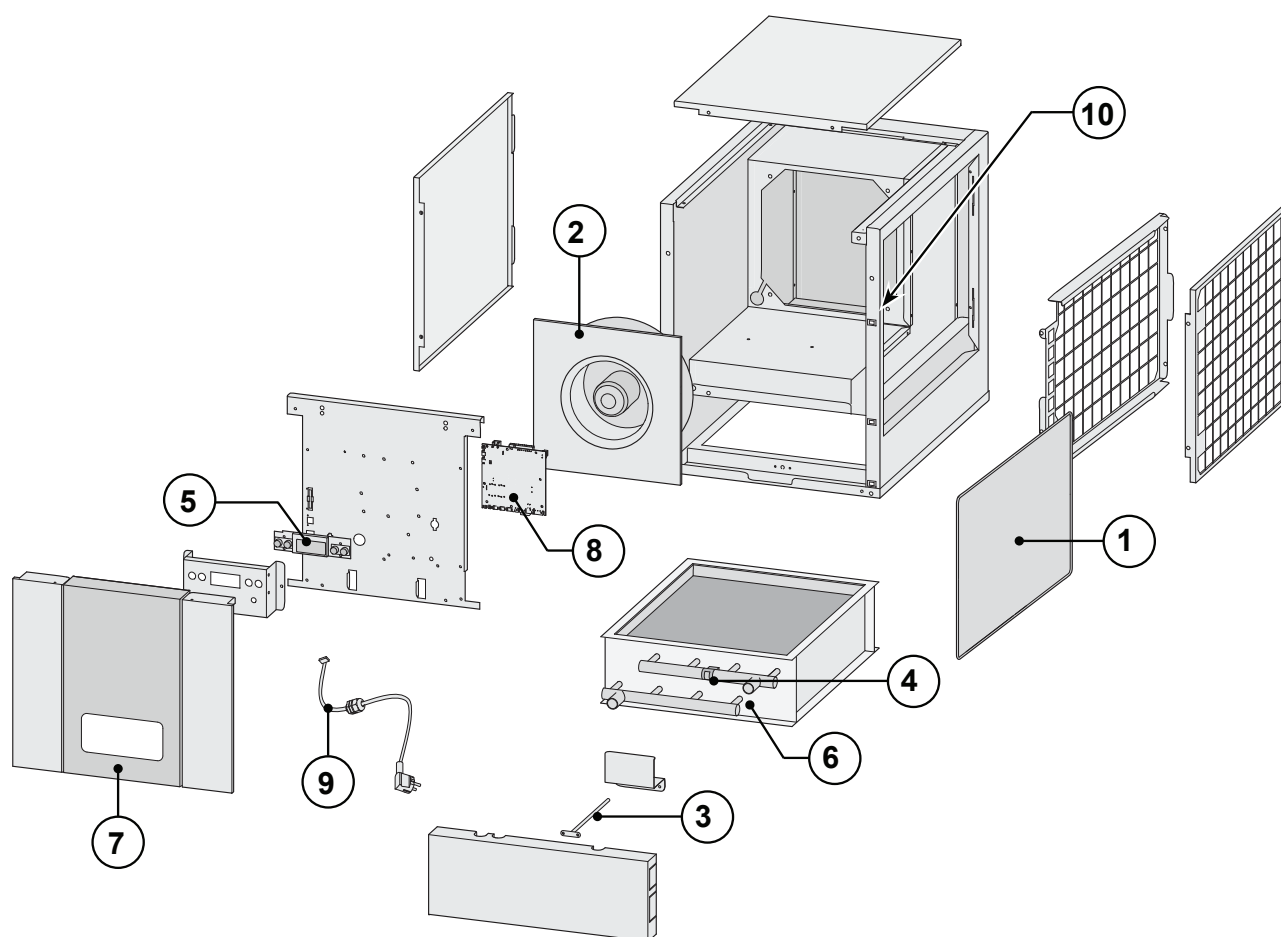
When ordering parts, in addition to the article code number (see exploded view), please state the type of the Elan 2.0/ 2.1 appliance, the serial number, the year of production and the name of the part:

N. B.:

Appliance type, serial number and year of production are stated on the identification plate that is mounted on the side of the appliance.

Example	
Appliance type	: Elan 16 2.0
Serial number	: 005701230801
Year of production	: 2023
Part	: Fan
Article code	: 530901
Quantity	: 1

12.2 Service articles



No.	Article description	Article code
1	Filter kit Elan 10(D) G3 filter (standard version)	532500
	Filter kit Elan 16(D) G25 filter (standard version)	532600
2	Fan Elan 10(D) (1 unit)	530900
	Fan Elan 16(D) (1 unit)	530901
	Fan Elan 25(D) (1 unit) 01-10-2015 delivered till 01-10-2015	530902
	Fan Elan 25(D) 2.1 (1 unit) delivered from 01-10-2015	530903
3	Output temperature sensor NTC 12K (1 units)	531238
4	Water temperature sensor clamping bracket NTC 12K (1 unit)	531390
5	Control panel UBP-01	531776
6	Heat exchanger Elan 10	530904
	Heat exchanger Elan 16	530905
7	Front cover Elan 10	530906
	Front cover Elan 16	530907
8	Control pcb (when replacing, please note the correct settings of the dip switches; see §8.1	531799
9	Cord with mains plug 230 V *	533009
10	Door lock (2 units)	531297

- * The mains cable comes with a print connector.
When replacing it, always order a replacement mains cable from Brink.
To prevent dangerous situations, a damaged mains connection must only be replaced by a qualified expert!

Recycling

Sustainable materials are used in the manufacture of this appliance.
The packaging should be disposed of in a responsible manner and in accordance with governmental regulations.



Modifications reserved

Brink Climate Systems B.V. continuously strives after improvement of products and reserves the right to change the specifications without prior notice.

STEP NO.	DESCRIPTION	FACTORY SETTING			SETTING RANGE	STEP
		Elan 10 2.0	Elan 16 2.0	Elan 25 2.1		
1	Max. output temperature	60,0			1.0°C ^{*1)} - 70.0°C	0.5 °C
2	Setting percentage minimum air flowrate	20			10% - 100% ^{*2)}	1%
3	Setting percentage maximum air flowrate	65			10% ^{*3)} - 100%	1%
4	Setting percentage air flowrate cooling	80			10% - 100%	1%
5	Start temperature control	30.0			0.0 °C - 60.0 °C ^{*1)}	0.5 °C
6	Switching-on temperature fan	30.0			0.0°C ^{*4)} - 60.0°C	0.5 °C
7	Switching off temperature fan	25.0			0.0°C - 60.0°C ^{*4)}	0.5 °C
8	Hysteresis switching temperature fan	1.0			0.0 °C - 5.0 °C	0.1 °C
9	Ventilation programme	0			0 = normal 1 = outdoor air programme	
10	Frost safety limit 1	5.0			-20.0°C ^{*5)} - 30.0°C	0.5 °C
11	Frost safety limit 2	0			-20.0 °C - 30.0 °C ^{*5)}	0.5 °C
12	Hysteresis frost safety	2			0.0 °C - 5.0 °C	0.1 °C



^{*1)} Step no. 1 always higher than or equal to step no. 5; step no. 5 cannot be higher than step no. 1

^{*2)} Step no. 2 cannot be higher than step no. 3

^{*3)} Step no. 3 cannot be lower than step no. 2

^{*4)} Step no. 6 always higher than or equal to step no. 7; step no. 7 cannot be higher than step no. 6

^{*5)} Step no. 10 always higher than or equal to step no. 11; step no. 11 cannot be higher than step no

DECLARATION OF CONFORMITY

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Manufacturers: Brink Climate Systems B.V.

Address: P.O. Box 11
NL-7950 AA Staphorst, The Netherlands

Product: Air heater:
Elan 10 2.0
Elan 16 2.0
Elan 25 2.1

The product described above complies with following directives:

- 2014/35/EU (OJEU L 96/357; 29-03-2014)
- 2014/30/EU (OJEU L 96/79; 29-03-2014)
- 2009/125/EU (OJEU L 285/10; 31-10-2009)
- 2017/1369/EU (OJEU L 198/1; 28-07-2017)
- RoHS 2011/65/EU (OJEU L 174/88; 01-07-2011)

The product described above has been tested according to the following standards:

- EN 55014-1 : 2017 + A11: 2020
- EN 55014-2 : 2015
- EN 61000-3-2 : 2014
- EN 61000-3-3 : 2013
- EN 60335-1 : 2012
- EN 60335-2-80 : 2003 + A1: 2004 + A2: 2009

Staphorst, 03-11-21



A. Hans,
Managing director

WWW.BRINKAIRFORLIFE.NL



BRINK CLIMATE SYSTEMS B.V.

Wethouder Wassebaliestraat 8 7951 SN Staphorst The Netherlands
Postbus 11 NL-7950 AA Staphorst The Netherlands
T. +31 (0) 522 46 99 44
F. +31 (0) 522 46 94 00
info@brinkclimatesystems.nl
www.brinkclimatesystems.nl