TURBOVEX TX 75A

Installation, operation and maintenance manual

Revision 2013.06.13

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General information

Preface

This manual contains technical data and information on installation, operation and maintenance.

Areas of use

TX 75A is a decentral ventilation unit for heat recycling in homes, which can be installed on a window or wall.

Incorrect use

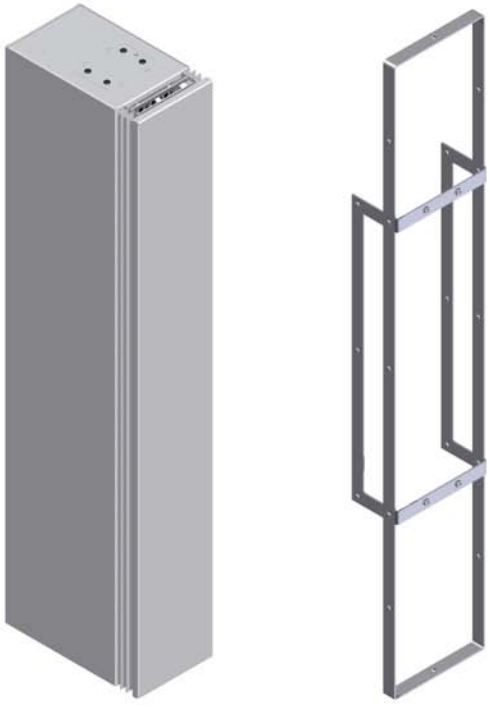
- The window models are not designed for point extraction, and are therefore not suitable for this purpose.
- The unit is not fitted with a condensate pump or drain, and should not be used in humid environments, such as bathrooms.

Deliverables

- Ventilation unit including TX control system

Mounting components:

- Mounting frame
- 4 x M6 machine screws



Optional extras

- TX controller (control panel)
- CO_2 sensor
- PIR sensor (movement sensor)
- Facade grille

Function principle

The unit is designed to change the air in a room to ensure a better indoor climate. The TX 75A has two fans which blow the same amount of air in as is extracted via a heat exchanger. The heat exchanger is designed to heat cold outdoor air by transferring the heat from extracted air to the intake air, reducing heat loss by approx. 85%. The heat exchanger can also be used to cool intake air if the outdoor temperature is higher than the room temperature.

The air volume can be adjusted using a CO_2 sensor (optional extra) to ensure the level of air change is in line with activity in the room.

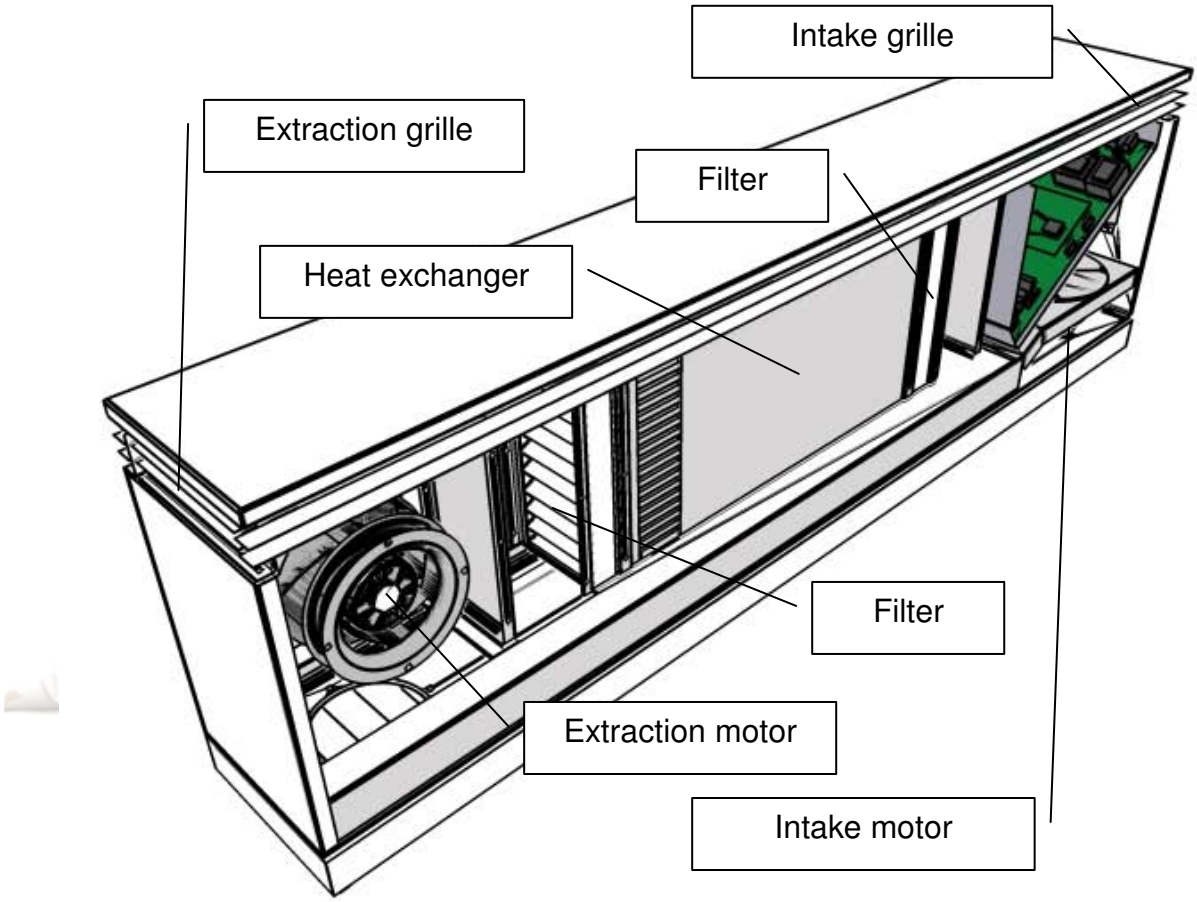


Figure 1 - Function principle

Outdoor air is sucked in by the intake motor and blown through the intake filter. The air then passes through the heat exchanger and out via the intake grille into the room.

Room air is sucked out by the extraction motor through the extraction grille. It is then blown through the filter and heat exchanger into the open air.

Installation

Dimensioned drawing

External measurements

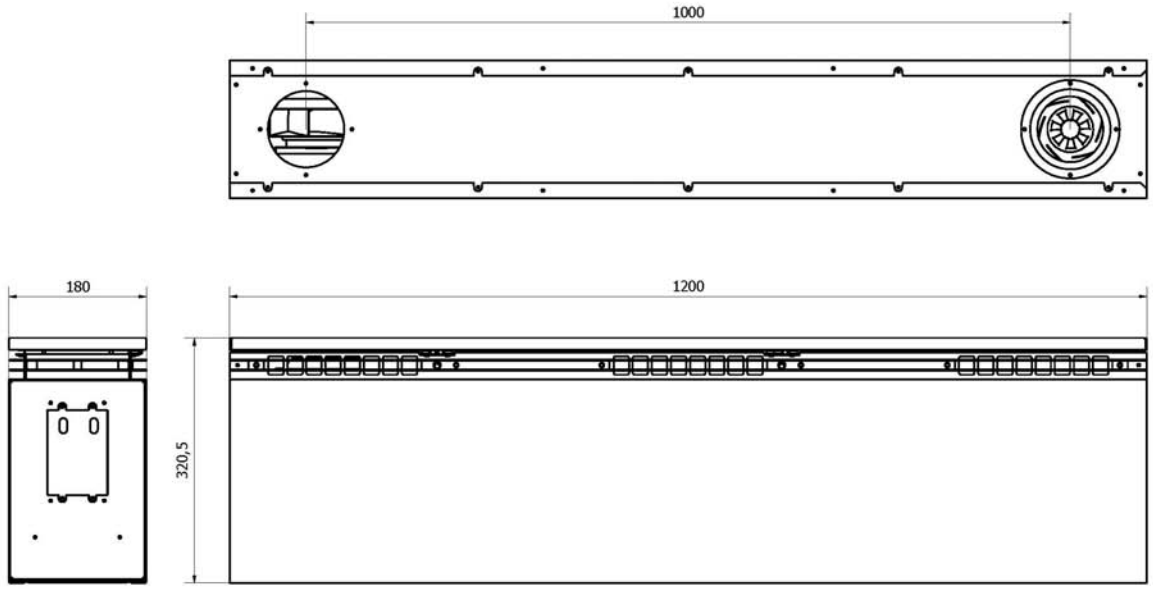


Figure 2 - External dimensions in mm

Mounting frame external measurements

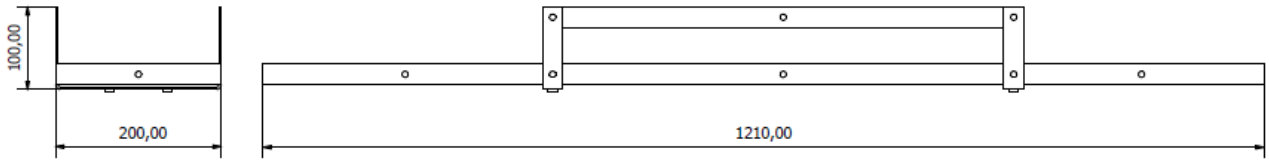


Figure 3 - Mounting frame external dimensions in mm

Placing

The unit is usually placed on the wall by a window, with the extraction grille near the ceiling. This position makes the most of the coanda effect, which circulates fresh air well into the room. This gives the air longer to mix with the existing air in the room, avoiding drafts.

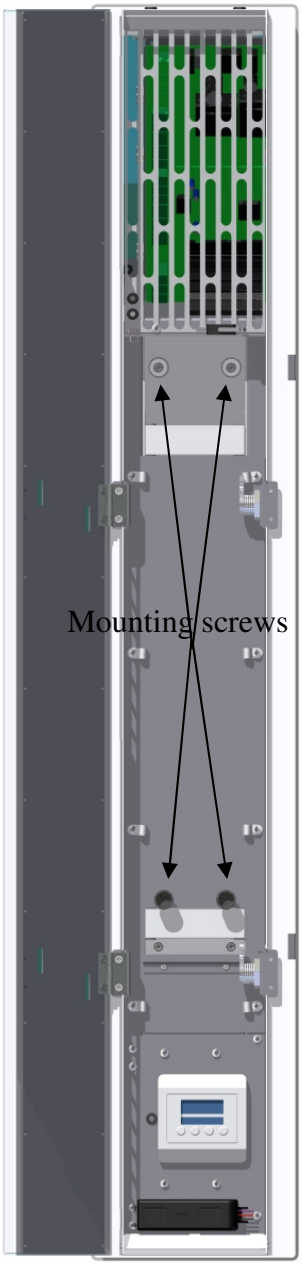
Installation on wall/window

Reinforcement according to local building regulations is required between the unit and window, which permits the window to be retained by min. 3 frame fixing screws. The hole in which the unit is fitted must be minimum 200 mm wide and 1210 mm high to take the mounting frame.

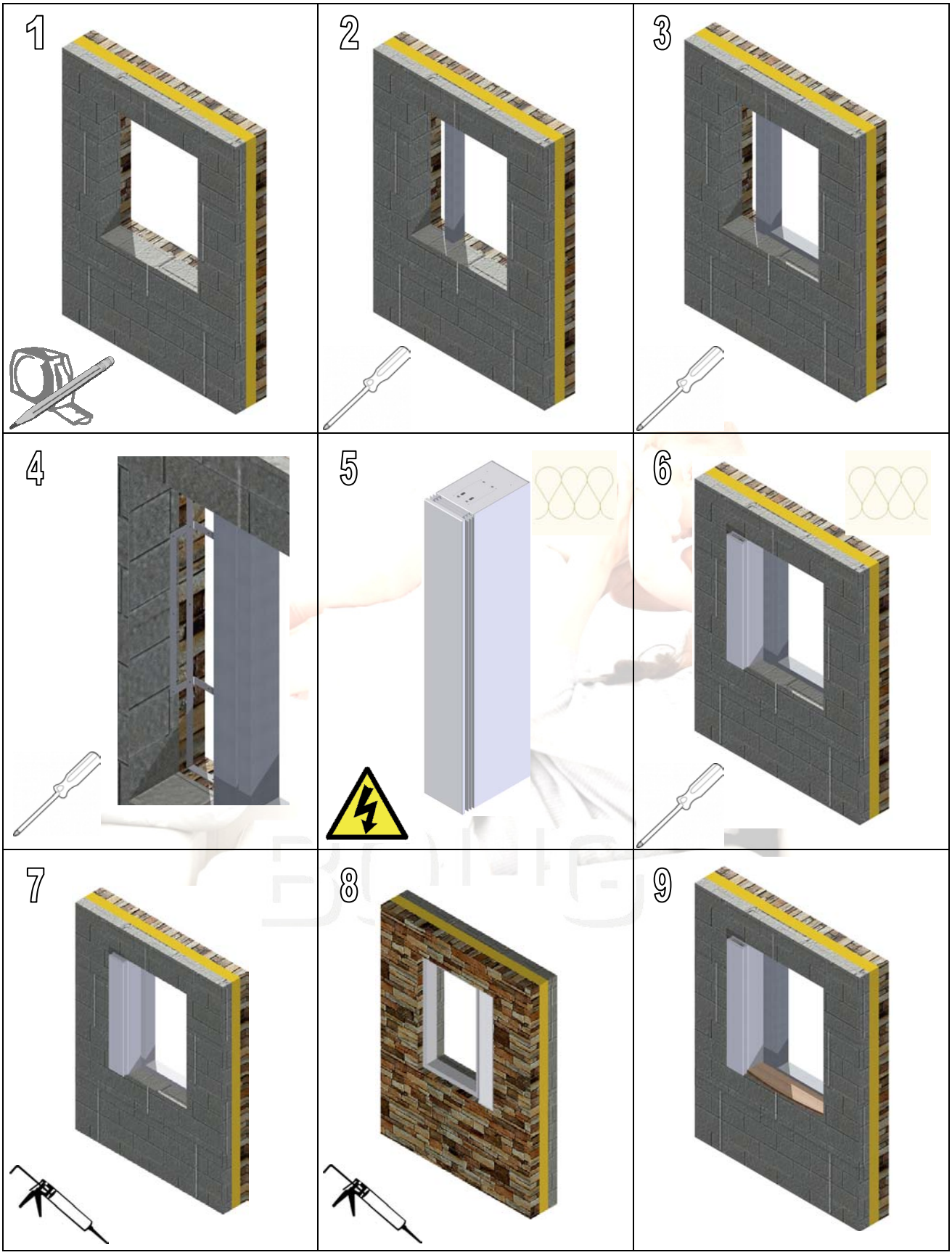
The mounting frame supplied is attached to the reinforcement and wall, or between two reinforcements (if the unit is placed between two windows) using suitable screws.

Connect the unit to mains electricity, and fit it in the mounting frame using the M6 machine screws supplied. The holes are located by the unit air filter the lowest behind the filter cover.

Finish off by sealing around the unit. Refer to the sealant compound manufacturer's instructions.



Window installation diagrams for TX-75A

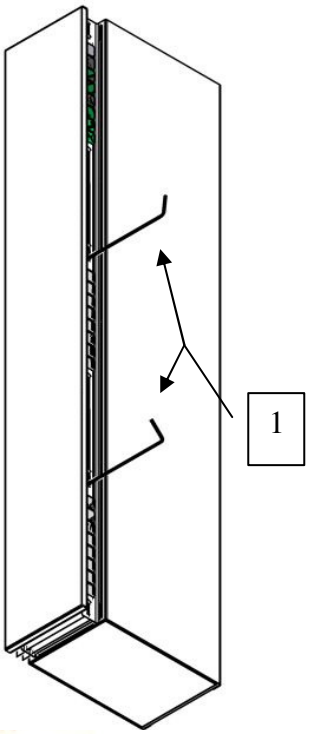


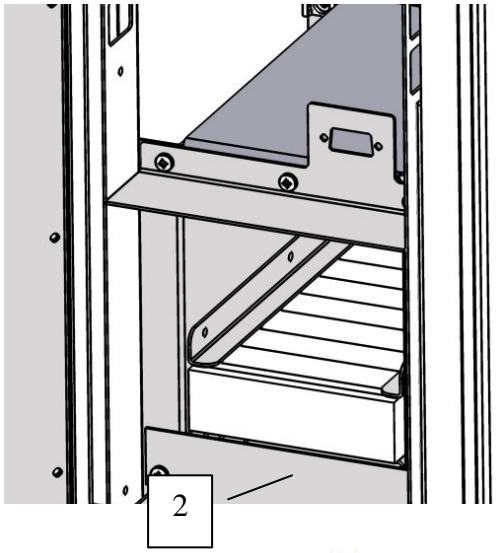
Service

Changing filter

We recommend changing the filter and cleaning the heat exchanger once or twice per year. Remember to disconnect from the mains before opening the front.

Open the front using a 6 mm Allen key (1). The locks are located behind two holes in the side, and can be unlocked by turning the Allen key anticlockwise, and locked by turning it clockwise.





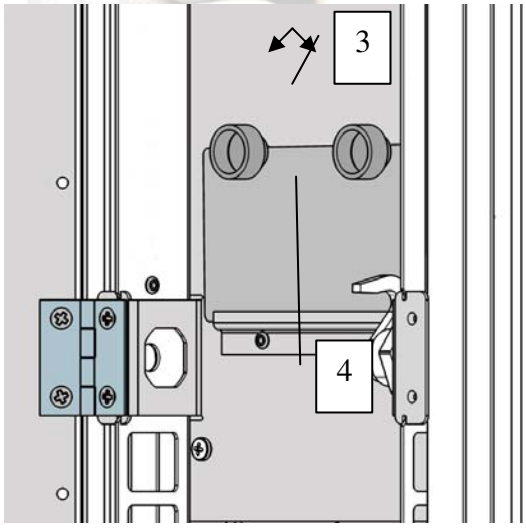
The extraction filter (2) is easily accessible when the cover is opened. Pull out the filter and replace with a new one.

If the following is printed on the filter: "Staubluftseite/Dust Air Side", the text should face away from the heat exchanger. If there is no printed text, the filter cannot be fitted the wrong way round.

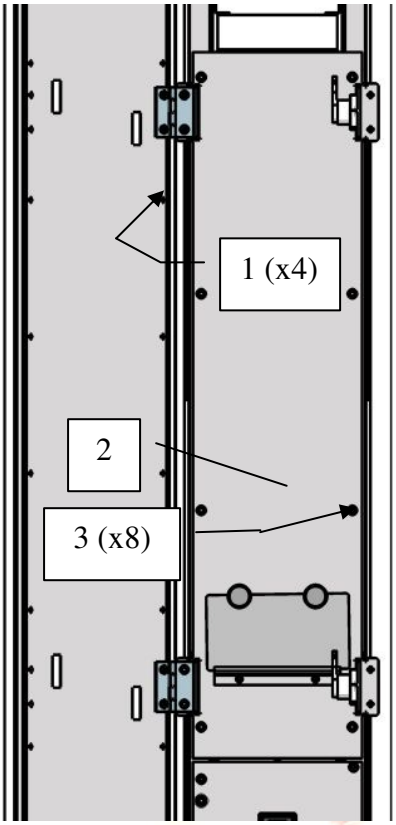
To remove the intake filter, unscrew the two finger screws (3). The cover (4) can now be removed and filter taken out.

Ensure the filter is inserted correctly when replacing with a new one. The side which must face away from the heat exchanger (downwards according to the figure) has the following printed text: "Staubluftseite/Dust Air Side". If there is no printed text, the filter cannot be fitted the wrong way round.

Replace the cover and tighten the finger screws.



Cleaning the heat exchanger



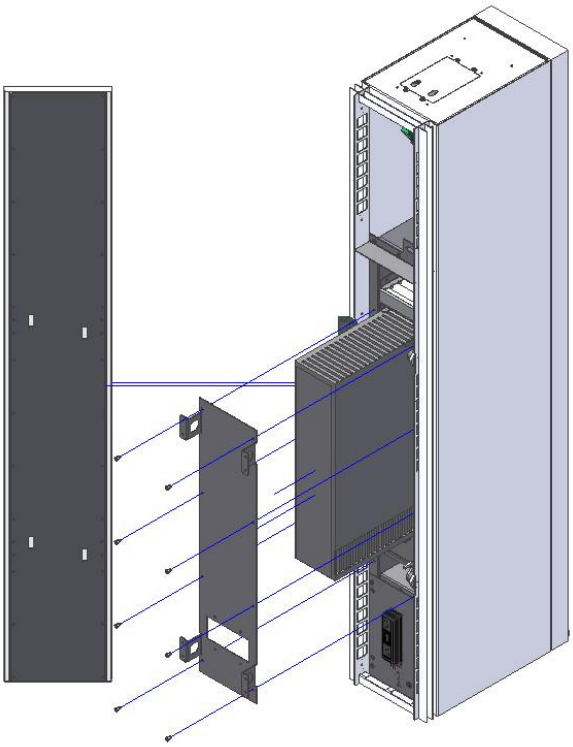
Requires two people!

Start by removing the door by slackening the 4 screws (1) securing the hinges. One person should support the door and the other remove the screws. This method avoids damaging the hinges.

To remove the heat exchanger, remove the cover (2). To do so, remove the 8 screws (3) with a Philips screwdriver.

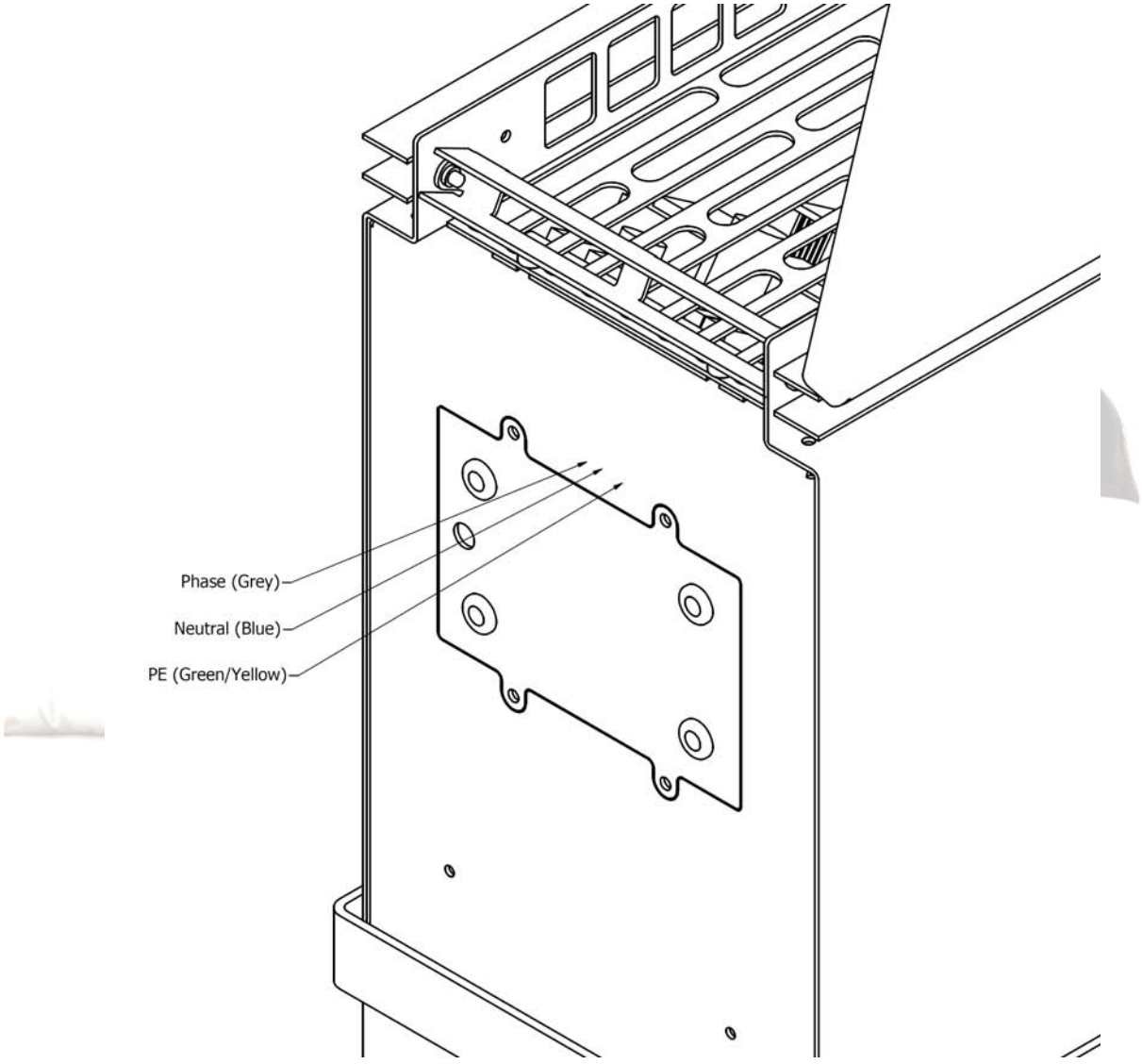
When the heat exchanger is out, clean it carefully with a vacuum cleaner.

Reassemble the unit after cleaning. Ensure the heat exchanger is correctly positioned. The visible ribs on the sides must face downwards and to the right, and upwards and to the left respectively.



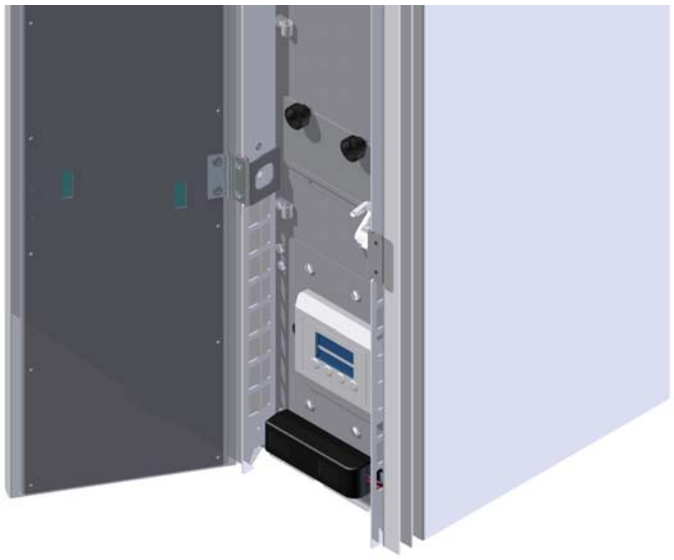
Mains connection

Connect Turbovex TX 75A to 230V AC mains electricity at the terminal clamp fitted behind the cover on the end of the unit. Remove the cover by removing the four screws (M3 x 10 mm). Pass the cable through the middle cable grommet in the cover, and connect the three wires to Phase, Neutral and PE.



NB – Mains connection must only be performed by an authorised electrician!

Retrofitting a TX controller



A TX controller can be retrofitted to a TX 75A inside the unit, such that the control panel is always accessible without having to mount it on the outside of the wall.

The controller is fitted in the holder located under the lower cover. The cover is retained by 4 screws, one in each corner. The holder can be removed by unscrewing the 4 middle screws.

Secure the controller to the holder using 2 screws from the back.

The cable can be shortened if necessary. Note wire colours and their positions to ensure correct re-installation. Pass the cable through the rubber grommet in the cover and through the cable holders along the inside of the unit on the left – and fit the SUB-D socket in the socket on the partition plate at the top of the unit.

Screw the holder securely onto the cover, which is then fitted in the unit.

If the unit has a CO_2 sensor fitted, secure it again using the screw in the bottom right corner.

Technical specifications

	TX 75A			
Dimensions: WxDxH (mm)	180 x 336 x 1200*			
Capacity (m^3/h)	75			
Weight (kg)				
Filter class	F5			
	Standby	Operation A	Operation B	Forced
Noise level (dB(A))	-	30	35	47
Flow (m^3/h)	-	50	75	135
Energy consumption (W)	7.6	13	17	51
cos(φ)	0.55	0.5	0.5	0.5
SEL (J/m^3)	-	936	838	1360
Temperature efficiency (%)	88.1			

*Integration measurements for TX 75A including mounting frame are 200 x 241 x 1210 mm.

EU Declaration of Compliance

Manufacturer:

Name:	Turbovex A/S
Address:	Industrivej 45
	DK-9600 Aars
Country:	Denmark
Tel:	+ 45 96 98 14 62

Dealer:

Name:	Turbovex A/S
Address:	Industrivej 45
	DK-9600 Aars
Country:	Denmark
Tel:	+ 45 96 98 14 62

hereby declares that

Product:

Name:	Turbovex TX 75A
Type:	Comfort ventilation

complies with

Council Directive of 17 May 2006 on harmonisation of member state legislation on electrical materiel intended for use within certain voltage ranges (2006/42/EC)

has been manufactured in accordance with the following national standards. which implement a harmonised standard:

DS/EN ISO 12100:2011
Safety of machinery - General principles for design - Risk assessment and risk reduction

DS/EN 60269-1/A1:2009
Low voltage fuses – Part 1: General requirements (IEC 60269-1-1998) supplement A1:2005 to

DS/EN ISO 13857:2008
Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs

DS/EN ISO -1:2007
Electromagnetic compatibility (EMC) Part 6-1: Generic standards, Immunity for residential, commercial and light-industrial environments

DS/EN ISO -3:2007
Electromagnetic compatibility (EMC) Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments

DS/EN ISO -4:2007
Electromagnetic compatibility (EMC) Part 6-4: Generic standards, Emission standard for industrial environments

Aars	14 May 2012	
Location	Date:	Marine Engineer Jan H. Møller