



# FLEXIT L4 X L7 X

## **E** Operating Instructions Air Handling Unit - Cross

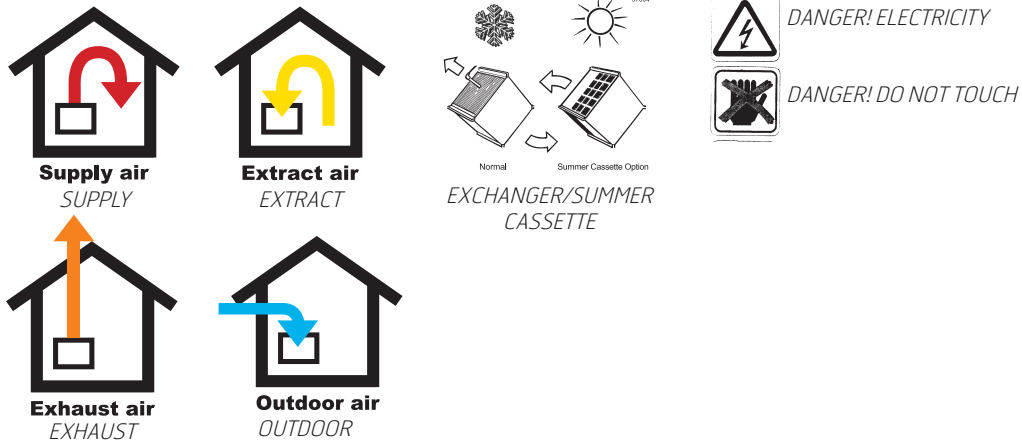


## Innhold

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## Symbols Used

This product has a number of symbols that are used to label the product itself and in the installation and user documentation. Here is an explanation of some of the commonest symbols



*Our products are subject to continuous development and we therefore reserve the right to make changes. We also disclaim liability for any printing errors that may occur. .*



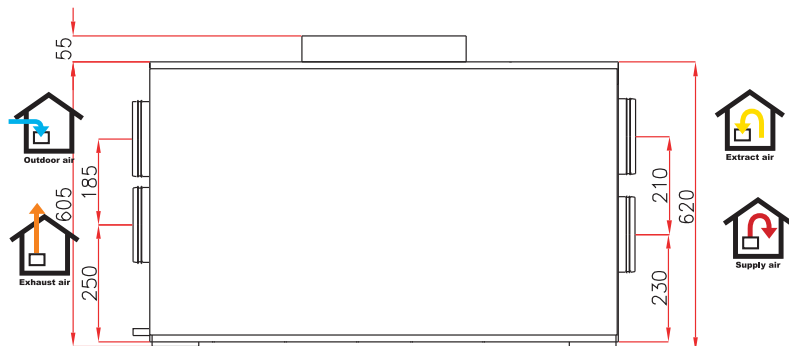
**CAUTION:** When a text bears this symbol, it means that personal injury or serious damage to the equipment may follow if the instructions are not followed.



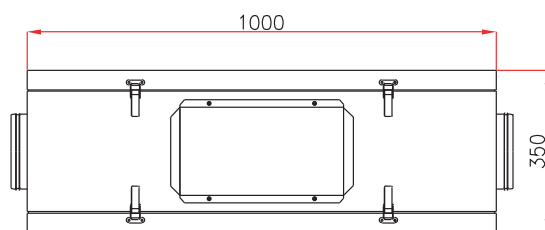
**NB:** When a text bears this symbol, damage to equipment or a poor utilisation ratio may be the consequence of not following the instructions.

# 1 Sizes/Physical Dimensions

## 1.1 Dimensions L4 X

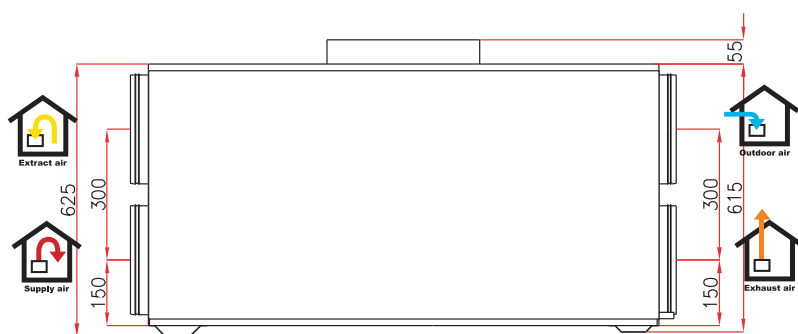


\*Mål i mm

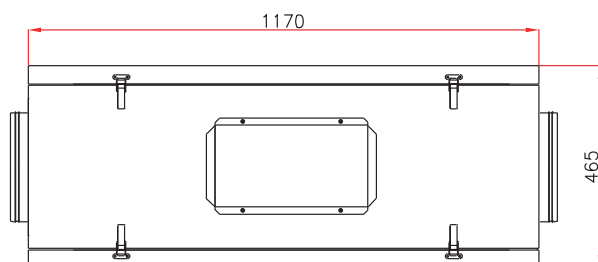


OBS: The units have doors on each side so that they can be operated from either side.

## 1.2 Dimensions L7 X



\*Mål i mm



OBS: The units have doors on each side so that they can be operated from either side.

## 2 Installation

**△** The unit is designed for indoor installation.

### 2.1 Inspection/Maintenance

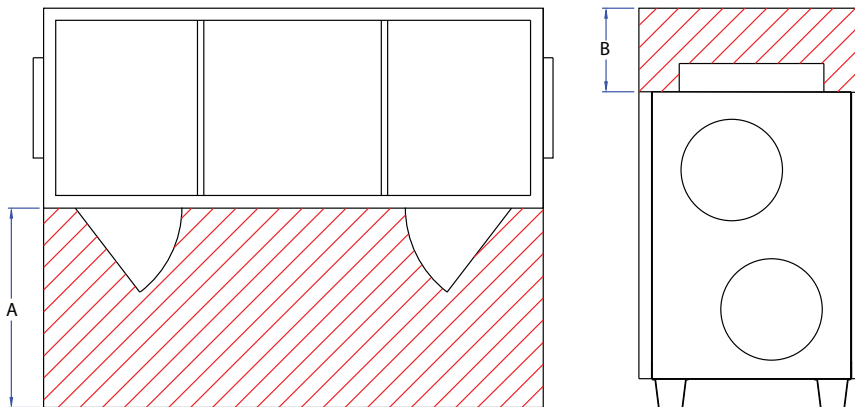
The unit must be installed with space for service and maintenance such as filter replacement and cleaning the fans and recovery system. It is also important for the unit to be located so that the electrical cabinet is easily accessible for electrical connection, troubleshooting and future component replacement.

### 2.2 Space Required

Type	A	B
L4 X	400 mm	500 mm
L7 X	500 mm	500 mm

A: In front/above unit  
B: Distance from wall

Fig. 1

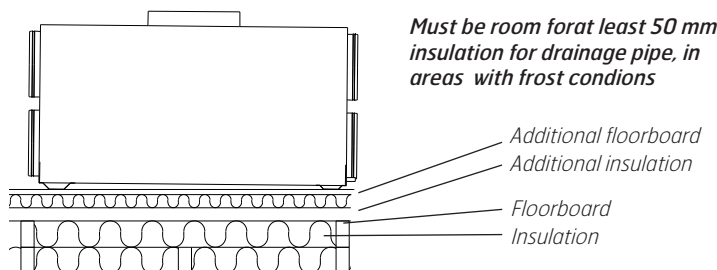


Space in front of unit: min. A-measures (see listing). Space over unit: min. 50 cm. These are minimum requirements that only take service needs into account. National statutory requirements for electrical safety may deviate from this. Check which rules apply in your country.

### 2.3 Recommended Location/Sound Insulation

The unit is intended for installation in lofts, but may also be mounted in other locations. The unit should not be installed directly above sleeping rooms due to potential noise problems. The unit should be placed on a firm surface e.g. plaster or compound board in level position. If the room is noise sensitive the floorboard can be placed on top of an additional firm piece of insulation material for optimal muffling (see Fig. 2).

Fig. 2



Recommended surface

**△** Check that the installed unit has a fall towards the drainage outlet.

### 2.5 Drainage

The drainage system must be installed by a qualified plumber.

The condensed water must be lead to the nearest air valve for discharge water, drainage from wash basin/ dishwasher or floor outlet.

This connection must always be placed in a frost free environment and be completed with a water lock (enclosed). A water lock **MUST** be installed or this will lead to the drainage system not functioning due to under pressure in the ventilation unit. Make sure that there is a height difference between the drainage outlet and the water lock/drainage pipe, in order for function properly (see Fig. 3). You must use 15 mm

copper pipes, with a minimum fall of 5°, avoiding if possible cold rooms. In cold rooms the drainage pipe must be insulated with at least 50 mm mineral wool (drain bowls).

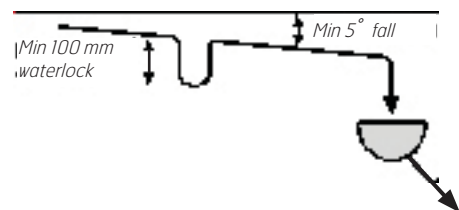
If the pipe cannot be lead directly down from the unit, it must be placed between inner roof and insulation. If there is no risk of frost the water lock may be placed in the loft insulation and connected with ventilation unit and breather pipe with 16mm plastic hose.

Condensation water pipe must never be placed on top of the loft insulation without installing heating cable

connected to the piping and proper outside insulation.

**△** Pour some water in the bottom of the ventilation unit so that the water lock is filled. If the drainage system is not installed in accordance with prevailing standards water leaks may occur.

Fig. 3



### 3 Connections

- The ducts usually come from joists and are connected to the nipples on the top of the unit.
- Ensure that the ducts are connected to the right nipple. See the labelling on the unit (top/bottom and behind door). The symbols are explained on page 3 and the placing is shown on measurement drawing in Chap. 1.
- Pull the duct insulation well up to the unit.
- To avoid condensation, it is very important for the outdoor air duct to have insulation and a plastic sleeve pulled right down to the unit. Seal the plastic sleeve to the unit with tape. The outdoor air duct is normally designed with 25 mm insulation.
- Lay the outdoor air duct with a slight incline towards the outdoor air cap so that any water that enters drains out again.
- With a short distance between the unit and the exhaust point, sound insulation must be installed to meet the requirements for the outdoor sound level.
- Ducts must have good sound insulation, particularly above the unit.

### 4 Electrical Works

 **The unit should be equipped with a separate earth-leakage circuit-breaker.**

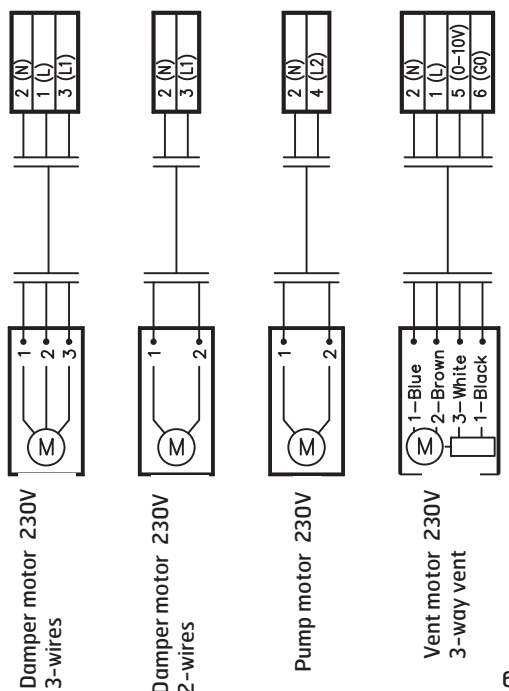
#### Power Cord

The unit is supplied with a 1.8 m cable and plug (which also functions as the service switch). The cable emerges on the top of the unit (front) on the left side of a right model and the right side of a left model. This is connected to a 230 V 50 Hz single-phase earthed power point that is located in an easily accessible position close by.

For fuse types, see chap. 8.

Water models

Connected to external box



6

Electrical models

Connected directly on the mainboard

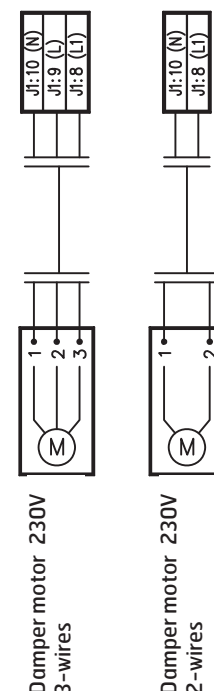


Fig. 4

#### 4.1 Automatics

The control package is supplied with the unit. The low-voltage cable must be laid between the unit and the switch unit. See separate automatics documentation.



**The low-voltage cable must be laid at least 30 cm away from the 230 V cable. For flush installation, lay the cable in 20 mm conduit pipe.**

#### 4.2 Supply Air Temperature Sencor (B1)



**Temperature sensor B1 must be placed after the water battery.**

This should be placed in the supply air duct (red on Flexit Drawing/Symbol Used page 3) approx. 1 m from the unit. Roll out the marked wire coil on the unit located close to the supply air intake. Drill a  $\varnothing 7$  mm hole in the duct where the sencor can be placed. Seal the hole with a sealant and tape the wire on the outside of the duct to keep in place.

#### 4.3 Temperature sensor for water battery (B5)

In order to avoid that the water battery is destroyed by frost a temperature sensor (B5) must be installed on the return water pipe where the cold water leaves the battery

#### 4.4 External Components

Refer to separate electrical circuit drawing enclosed with the individual ventilation unit and Fig. 4 below. All electrical connections must be made by qualified personell only.

## 5 Plumbing Works



All plumbing work must be performed by an authorised plumber.

### 5.1 Technical Data Water Batteries (Transformer and EC)

Water temp. In °C	80	70	60	50	40
Water temp. Out °C	60	50	40	30	30
<b>L4 XW</b>					
Water pressure l/s	0,06	0,05	0,04	0,03	0,05
Pressure drop waterside kPa	8,30	6,12	4,18	2,48	8,53
Max battery capacity kW	4,6	3,8	3,0	2,5	2,2
Max temp. increase °C	39,1	32,4	25,6	18,6	18,6
Pipe connection Ø mm	10	10	10	10	10
Recommended kvs-value	1,0	1,0	1,0	1,0	1,6
<b>L7 XW</b>					
Water pressure l/s	0,07	0,06	0,04	0,03	0,06
Pressure drop waterside kPa	12,4	9,3	6,6	4,1	13,1
Max battery capacity kW	5,4	4,5	3,7	2,8	2,6
Max temp. increase °C	32,0	26,9	21,6	16,3	15,5
Pipe connection Ø mm	10	10	10	10	10
Recommended kvs-value	1,0	1,0	1,0	1,0	1,0

## 5.2 Possible Valve Types

3-way valve, type Belimo DN15:

Article no. 56597 Kvs 1,6

Article no. 56604 Kvs. 1,0

## 5.3 Possible Valve Motor

Valve motor type Belimo L230A-SR, 0-10V.

Article no. 56596.



**24V motor cannot be used**

## 5.4 Connections

Use the recommended connection (see Fig. 18) unless specified otherwise. The water supply must be at the bottom of the water battery - the return must be on the top.

Place the adjustment valve as close to the unit as possible. (Please note that many valve motors can go in both directions and this can be set on the motor.

Set it so that the valve opens on an increasing 0-10 V signal.)



**Vannbatteriene har ingen luftemulighet da dette ikke har noen funksjon. Om aggregatets vannbatteri er det høyeste punktet i kretsen må luftningsventil monteres etter vannbatteriet**

If you use a water battery that has not had glycol (or another antifreeze) added, the unit should be in a heated room on account of the risk of frost in the battery. Install air dampers with spring-loaded return for outdoor air. Place the unit close to a gully to avoid damage caused by any water leaks.

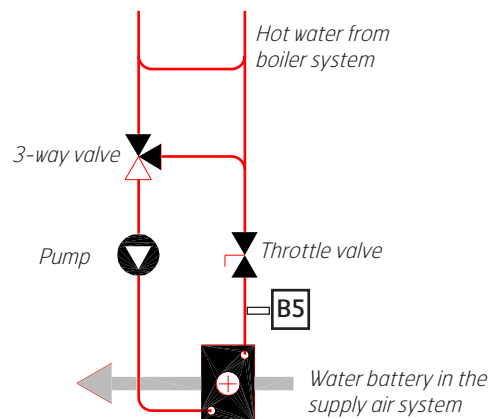


Fig. 18 Recommended connection

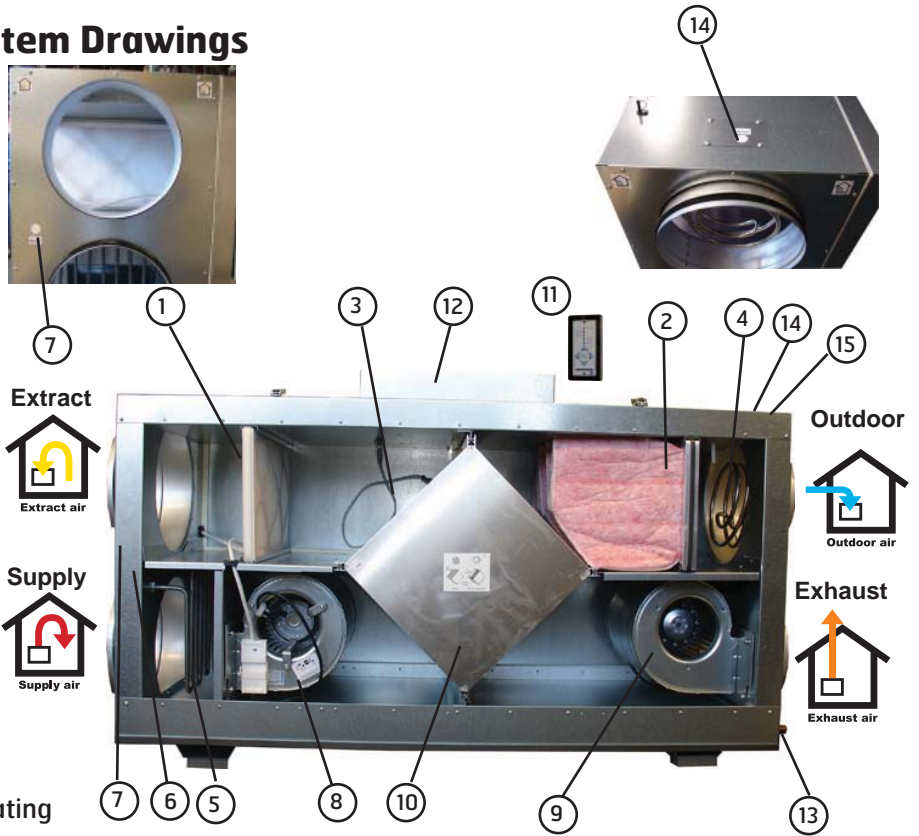


## 6 General Drawings and System Drawings

### 6.1 L4 XE and L7 XE

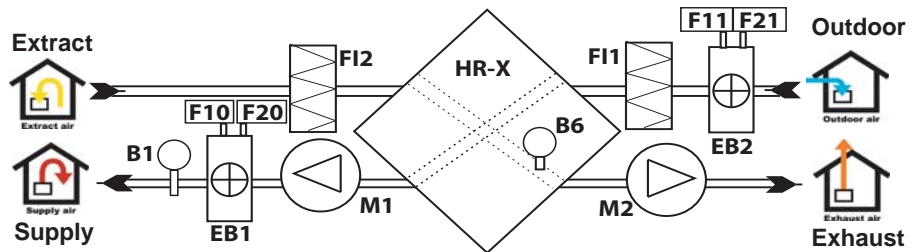
General Figure - Cross Heat Exchanger

- 1 (F12) Extract air filter
- 2 (F11) Supply air filter
- 3 (B6) Thermoguard
- 4 (EB2) Preheater, electrical
- 5 (EB1) Heating battery, electrical
- 6 (F20) Overheating thermostat heating
- 7 (F10) Overheating thermostat heating (manual reset)
- 8 (M1) Supply air fan
- 9 (M2) Extract air fan
- 10 (HR-X) Cross heat exchanger
- 11 Control panel
- 12 Control central
- 13 Drainage
- 14 (F11) Overheating thermostat pre-heating (manual reset)
- 15 (F21) Overheating thermostat pre-heating



System Drawing - Electrical Battery

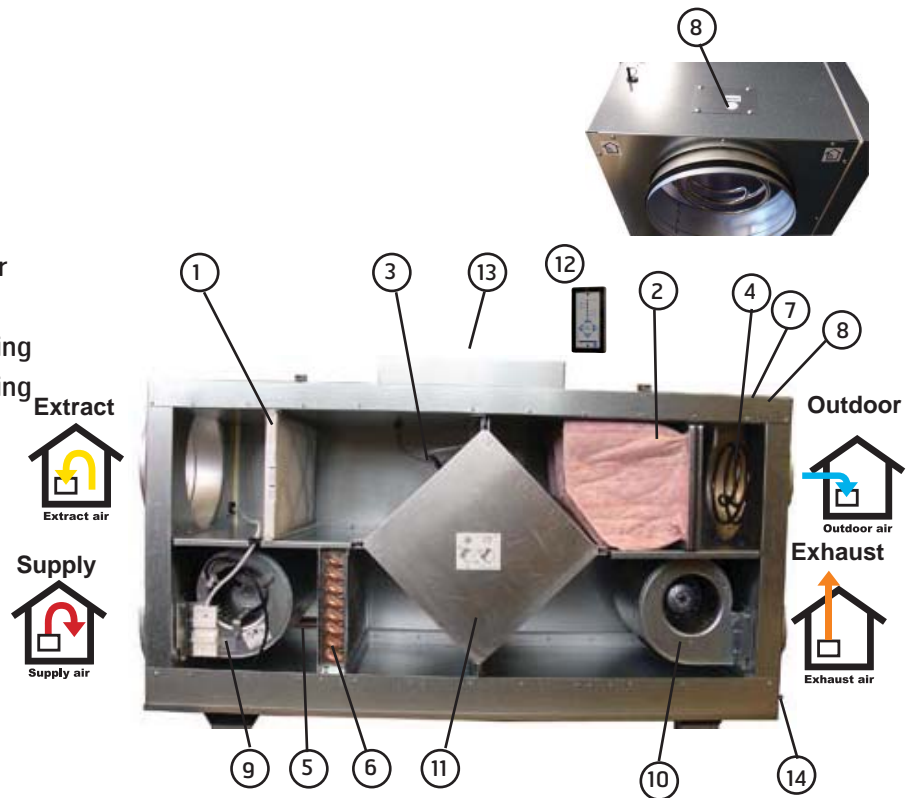
- B1 Temperature sensor, supply air
- F12 Extract air filter
- F11 Supply air filter
- B6 Thermoguard
- EB2 Preheater, electrical
- EB1 Heating battery, electrical
- F20\F21 Overheating thermostat
- F10\F11 Overheating thermostat (manual reset)
- M1 Supply air fan
- M2 Extract air fan
- HR-X Cross heat exchanger



## 6.2 L4 XW and L7 XW

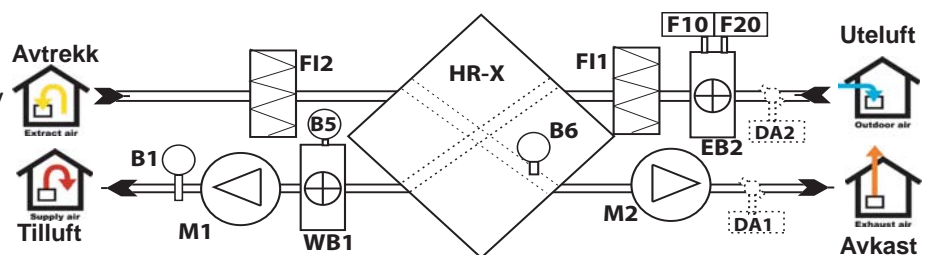
General Figure - Cross Heat Exchanger

- 1 (FI2) Extract air filter
- 2 (FI1) Supply air filter
- 3 (B6) Thermoguard
- 4 (EB2) Preheater, electrical
- 5 (B5) Temperature sensor, water battery
- 6 (WB1) Heating battery, water
- 7 (F20) Overheating thermostat preheating
- 8 (F10) Overheating thermostat preheating (manual reset)
- 9 (M1) Supply air fan
- 10 (M2) Extract air fan
- 11 (HR-X) Cross heat exchanger
- 12 Control panel
- 13 Connector box
- 14 Drainage



System Drawing - Water Battery

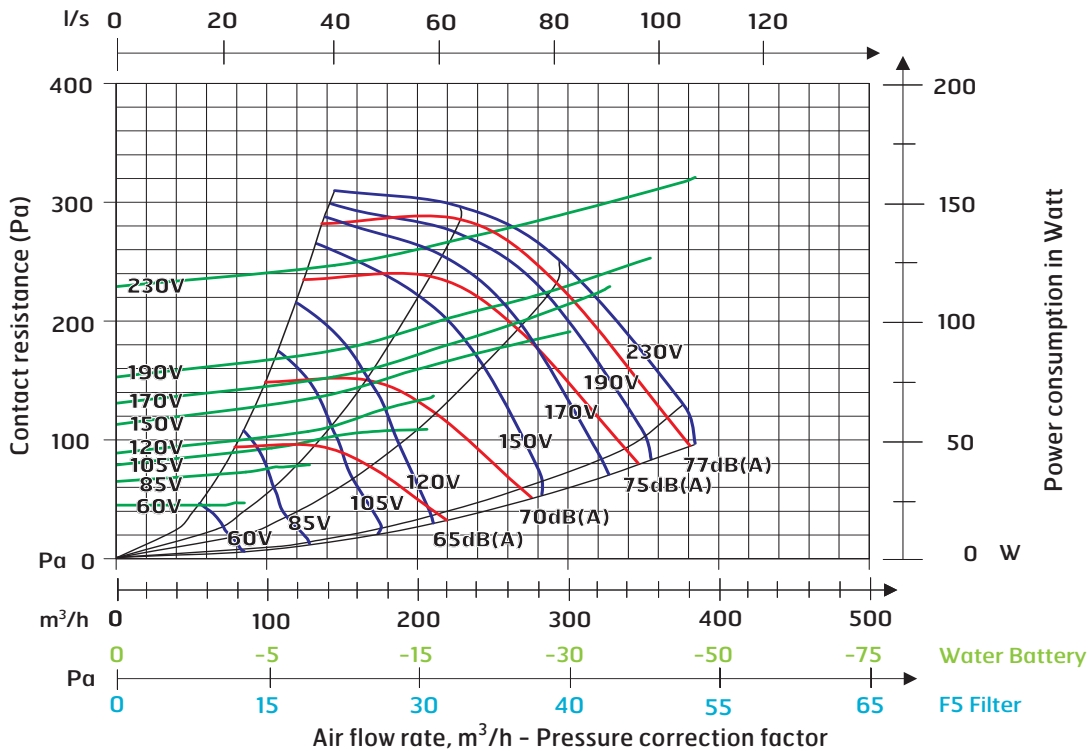
- B1 Temperature sensor, supply air
- FI2 Extract air filter
- FI1 Supply air filter
- B5 Temperature sensor, water battery
- B6 Thermoguard
- EB2 Preheater, electrical
- WB1 Heating battery, water
- F20 Overheating thermostat
- F10 Overheating thermostat (manual reset)
- M1 Supply air fan
- M2 Extract air fan
- DA1 Damper, extract air
- DA2 Damper, outdoor air
- HR-X Cross heat exchanger



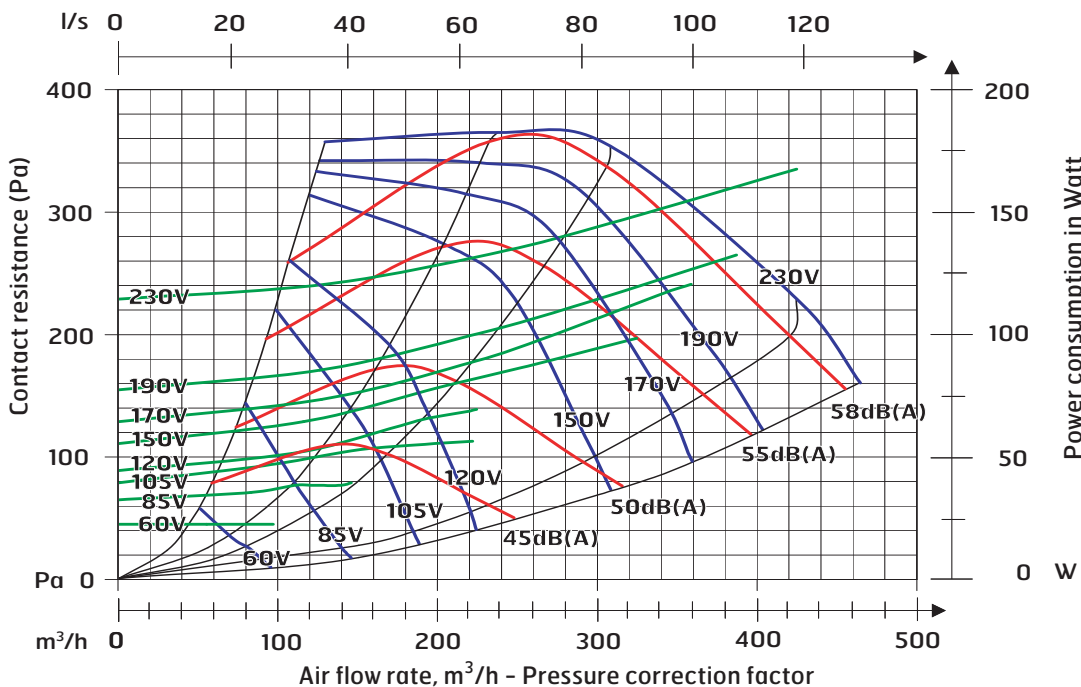
## 7 Capacity and sound data

### 7.1 Capacity Diagram, Sound Data, Specifications - L4 XE (Transformer regulation)

Supply air side (with F7 filter)



Extract air side (with F7 filter)



Sound data is given at sound power level L<sub>wA</sub> in the capacity diagrams and is corrected with the table below for the various octave bands. Radiated noise produces L<sub>w</sub> in the various octave bands and total L<sub>wA</sub>. Radiated noise is estimated by finding the noise level from the supply air table and deduct the total value found in the correction factor table.

**Correction factor for L<sub>w</sub>**

Hz	63	125	250	500	1000	2000	4000	8000	L <sub>wA</sub>
Supply air	3	2	-2	-5	-5	-6	-13	-29	
Extract air	18	14	1	-12	-14	-28	-37	-43	
Radiated	-47	-42	-40	-43	-44	-45	-49	-57	-38,7

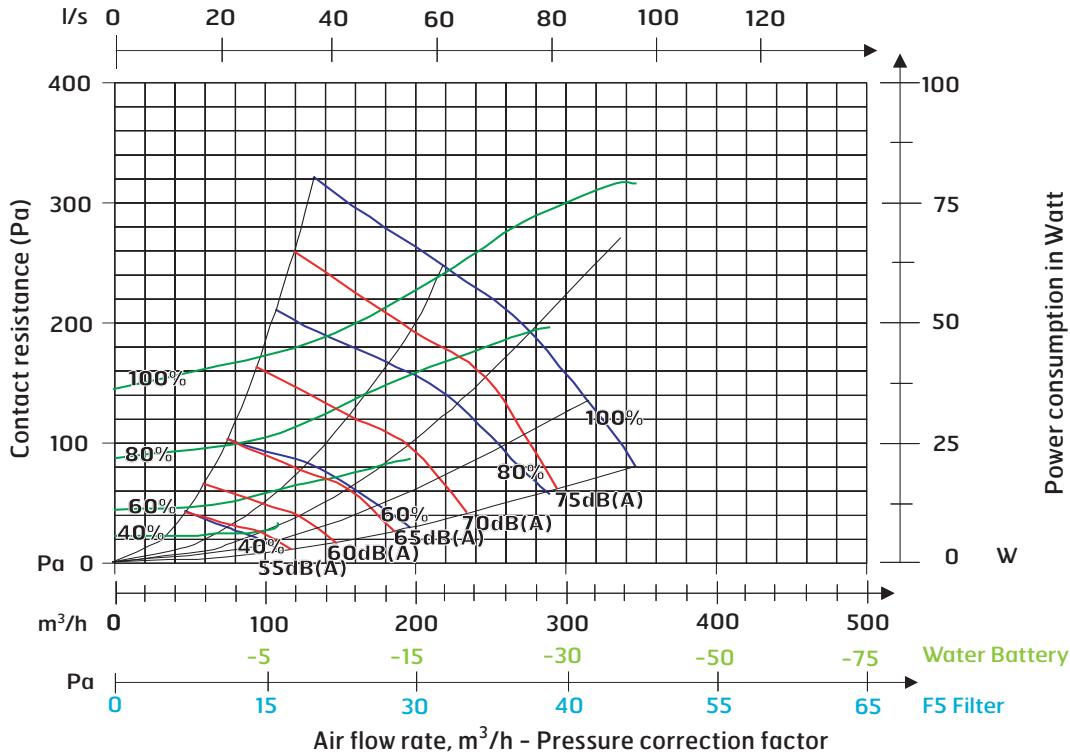
Data for supply air is measured in accordance with ISO 5136, the "In duct method".

Radiated noise is measured in accordance with ISO 9614-2. Bruel & Kjaer measuring equipment, type 2260.

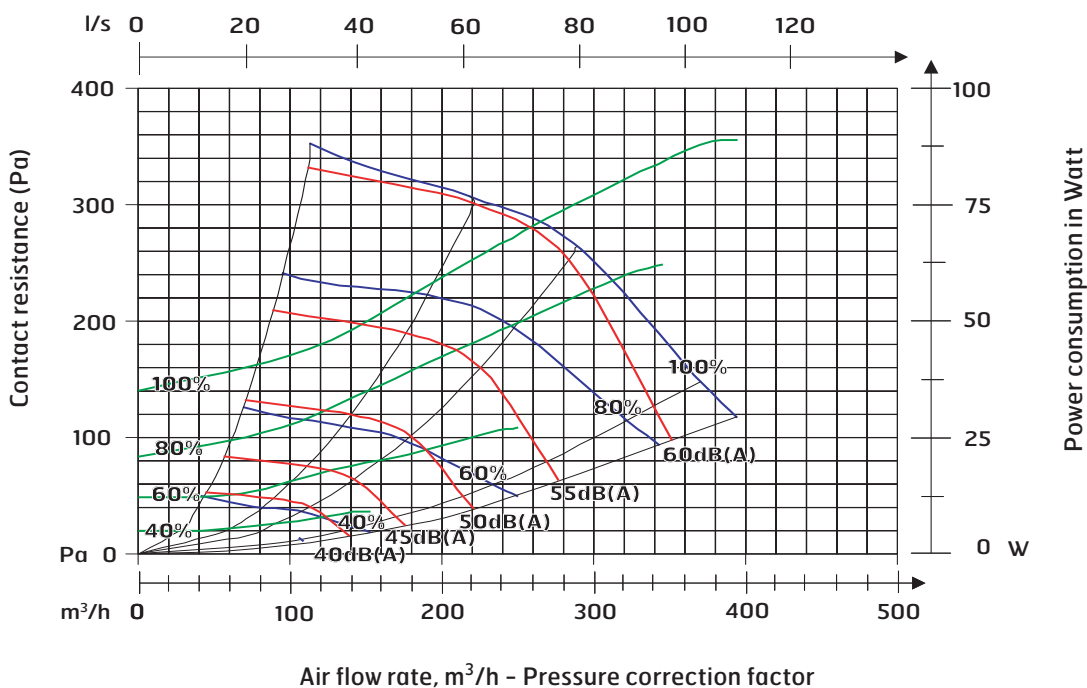
- Blue curves: Air capacity at various capacity settings in Volt.
- Green curves: Supply air fan power consumption at various capacity settings.
- Red curves: Sound power level L<sub>wA</sub>, cf. correction table.
- Light blue correction axis: Pressure increase using an EU-5 filter.
- Light green correction axis: Pressure reduction using a water battery.

### 7.2 Capacity Diagram, Sound Data, Specifications - L4 XE EC

Supply air side (with F7 filter)



Extract air side (with F7 filter)



Sound data is given at sound power level L<sub>wA</sub> in the capacity diagrams and is corrected with the table below for the various octave bands. Radiated noise produces L<sub>w</sub> in the various octave bands and total L<sub>wA</sub>. Radiated noise is estimated by finding the noise level from the supply air table and deduct the total value found in the correction factor table.

**Correction factor for L<sub>wA</sub>**

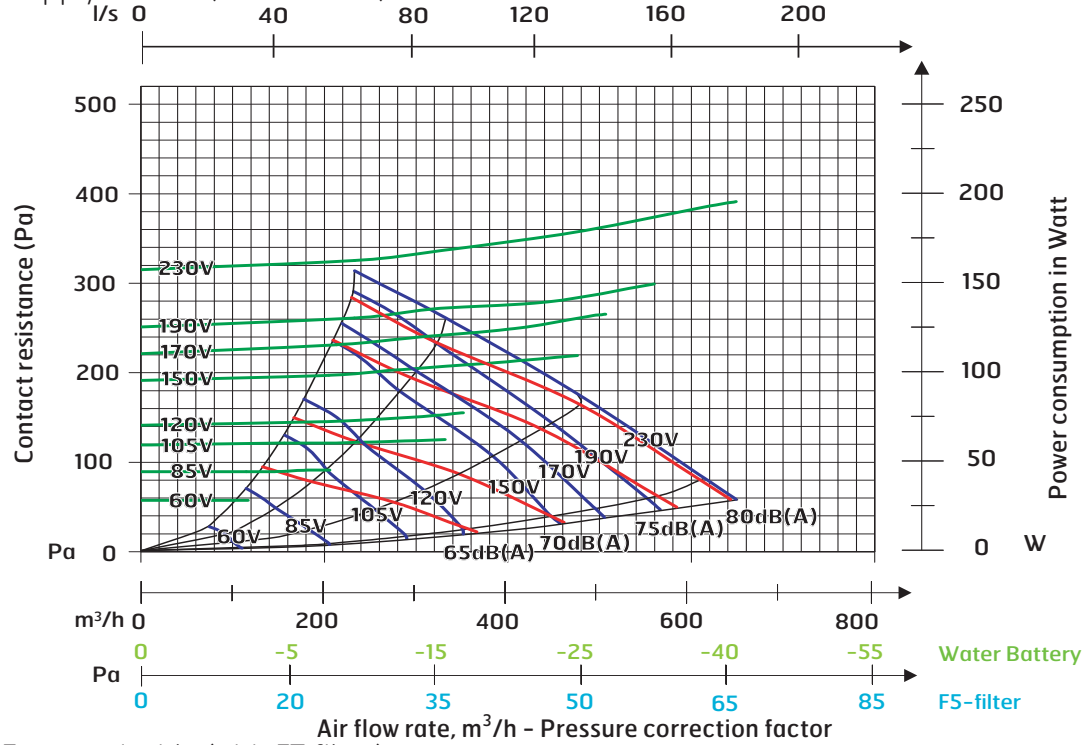
Hz	63	125	250	500	1000	2000	4000	8000	L <sub>wA</sub>
Supply air	9	6	-2	-3	-4	-9	-17	-31	
Extract air	-38	-33	-32	-40	-42	-43	-44	-45	
Radiated	-47	-42	-40	-43	-44	-45	-49	-57	-34,5

Data for supply air is measured in accordance with ISO 5136, the "In duct method". Radiated noise is measured in accordance with ISO 9614-2. Bruel & Kjaer measuring equipment, type 2260.

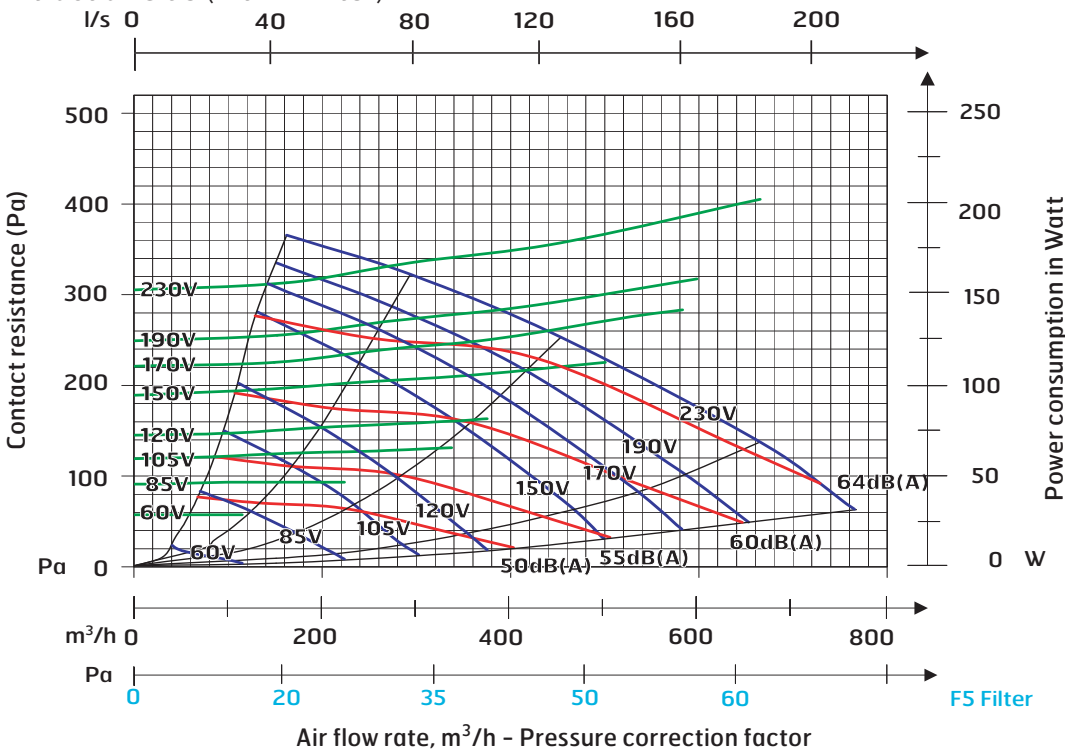
- Blue curves: Air capacity at various capacity settings in Volt.
- Green curves: Supply air fan power consumption at various capacity settings.
- Red curves: Sound power level L<sub>wA</sub>, cf. correction table.
- Light blue correction axis: Pressure increase using an EU-5 filter.
- Light green correction axis: Pressure reduction using a water battery.

**7.3 Capacity Diagram, Sound Data, Specifications - L7 XE (Transformer regulation)**

Supply air side (with F7 filter)



Extract air side (with F7 filter)



Sound data is given at sound power level LwA in the capacity diagrams and is corrected with the table below for the various octave bands. Radiated noise produces Lw in the various octave bands and total LwA. Radiated noise is estimated by finding the noise level from the supply air table and deduct the total value found in the correction factor table.

**Correction factor for LwA**

Hz	63	125	250	500	1000	2000	4000	8000	LwA
Supply air	3	1	2	-1	-7	-11	-18	-31	
Extract air	10	8	5	-2	-11	-19	-30	-48	
Radiated	-55	-43	-35	-36	-33	-31	-40	-50	-27,1

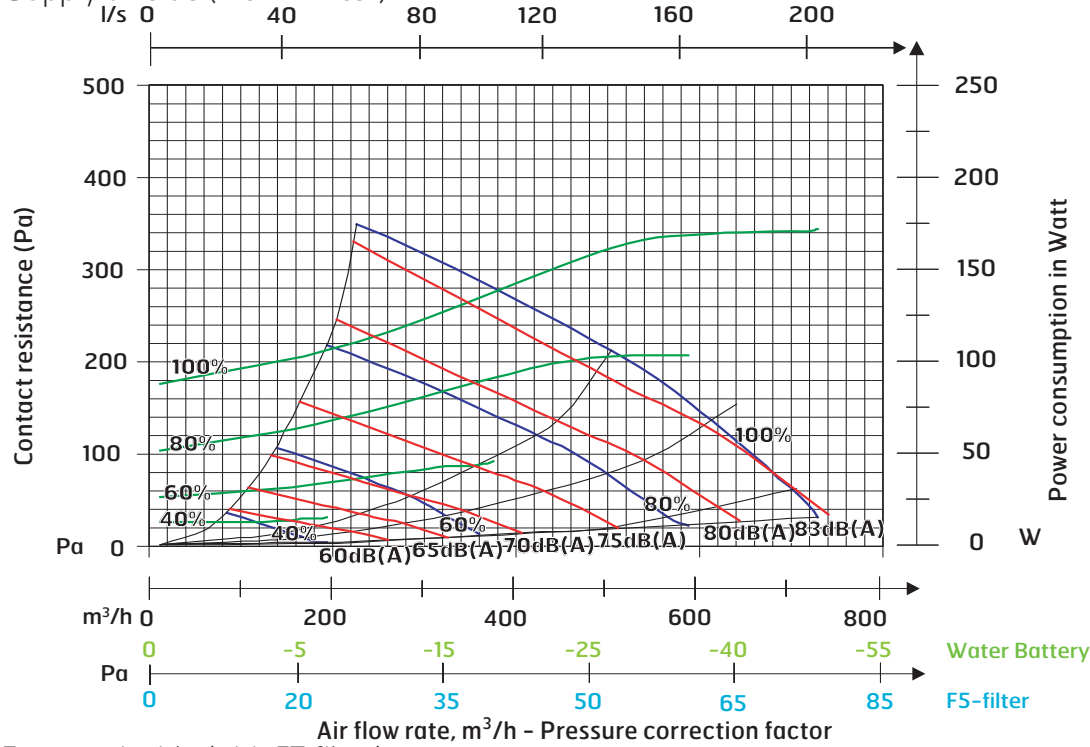
Data for supply air is measured in accordance with ISO 5136, the "In duct method".

Radiated noise is measured in accordance with ISO 9614-2. Bruel & Kjaer measuring equipment, type 2260.

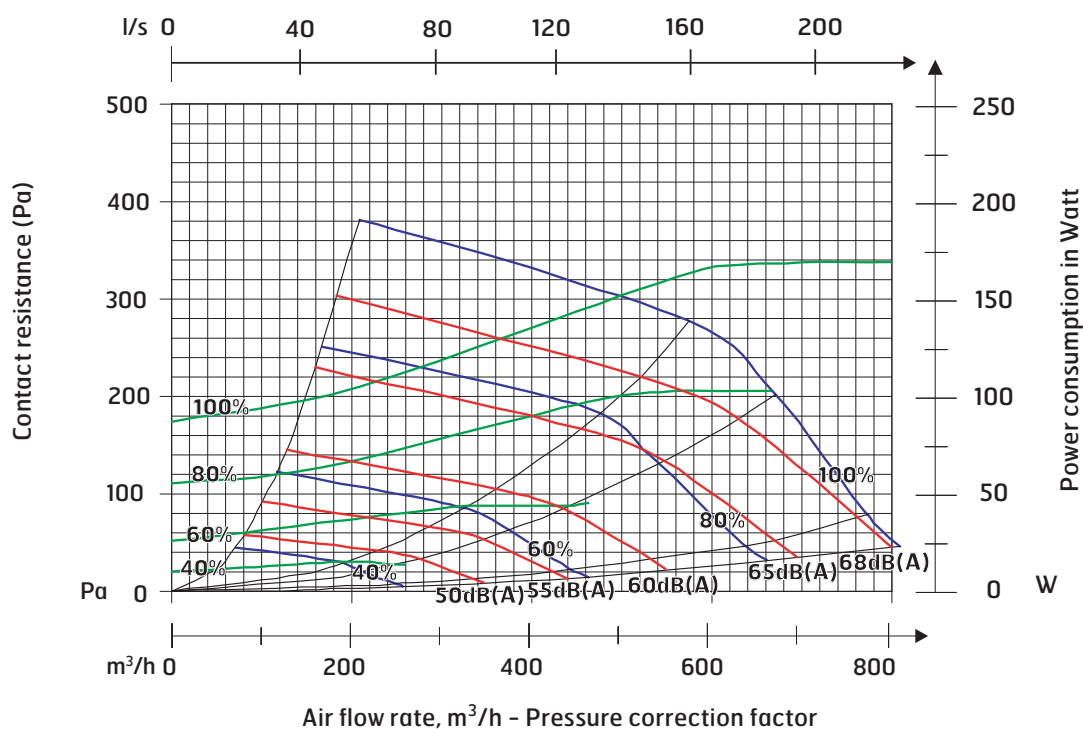
- Blue curves: Air capacity at various capacity settings in Volt.
- Green curves: Supply air fan power consumption at various capacity settings.
- Red curves: Sound power level LwA, cf. correction table.
- Light blue correction axis: Pressure increase using an EU-5 filter.
- Light green correction axis: Pressure reduction using a water battery.

### 7.4 Capacity Diagram, Sound Data, Specifications - L7 XE EC

Supply air side (with F7 filter)



Extract air side (with F7 filter)



Sound data is given at sound power level LwA in the capacity diagrams and is corrected with the table below for the various octave bands. Radiated noise produces Lw in the various octave bands and total LwA. Radiated noise is estimated by finding the noise level from the supply air table and deduct the total value found in the correction factor table.

**Correction factor for LwA**

Hz	63	125	250	500	1000	2000	4000	8000	LwA
Supply air 6	1	-2	-4	-5	-7	-14	-27		
Extract air 11	2	4	0	-13	-15	-28	-44		
Radiated -36	-31	-33	-41	-42	-39	-41	-47		-33,4

Data for supply air is measured in accordance with ISO 5136, the "In duct method".

Radiated noise is measured in accordance with ISO 9614-2. Bruel & Kjaer measuring equipment, type 2260.

- Blue curves: Air capacity at various capacity settings in Volt.
- Green curves: Supply air fan power consumption at various capacity settings.
- Red curves: Sound power level LwA, cf. correction table.
- Light blue correction axis: Pressure increase using an EU-5 filter.
- Light green correction axis: Pressure reduction using a water battery.

## 8 Technical Specifications

### 8.1 Technical Specifications L4 X

	L4 XE	L4 XE EC	L4 XW	L4 XW EC
Rated voltage	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz
Fuse	10 A	10 A	10 A	10 A
Rated current, total	8,7 A	8,0 A	5,7 A	5,0 A
Rated power, total	1990 W	1826 W	1315 W	1151 W
Rated power, electric batteries	1650 W	1650 W		
Rated power, fans	2 x 165 W	2 x 83 W	2 x 165 W	2 x 83 W
Rated power, preheating	975 W	975 W	975 W	975 W
Fan type	F-wheel	F-wheel	F-wheel	F-wheel
Fan motor control	Transformer	EC-Stepless	Transformer	EC-Stepless
Max. fan speed	2230 r/min	2900 r/min	2230 r/min	2900 r/min
Automatic control standard	CS 50	CS 50	CS 50	CS 50
Filter type (SUP/EXTR)	F7/G3	F7/G3	F7/G3	F7/G3
SUP filter dimensions (WxHxD)	225x220x50 mm	225x220x50 mm	225x220x50 mm	225x220x50 mm
EXTR filter dimensions (WxHxD)	225x220x20 mm	225x220x20 mm	225x220x20 mm	225x220x20 mm
Weight	36 kg	36 kg	36 kg	36 kg
Duct connection	Ø 160 mm	Ø 160 mm	Ø 160 mm	Ø 160 mm
Height	675 mm	675 mm	675 mm	675 mm
Width	1000 mm	1000 mm	1000 mm	1000 mm
Depth	350 mm	350 mm	350 mm	350 mm

### 8.2 Technical Specifications L7 X

	L7 XE	L7 XE EC	L7 XW	L7 XW EC
Rated voltage	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz
Fuse	16 A	16 A	10 A	16 A
Rated current, total	10.7 A	10.2 A	6.4 A	5.9 A
Rated power, total	2470 W	2350 W	1470 W	1350 W
Rated power, electric batteries	2000 W	2000 W		
Rated power, fans	2 x 230 W	2 x 170 W	2 x 230 W	2 x 170 W
Rated power, preheating	1000 W	1000 W	1000 W	1000 W
Fan type	F-wheel	F-wheel	F-wheel	F-wheel
Fan motor control	Transformer	EC-Stepless	Transformer	EC-Stepless
Max. fan speed	2120 r/min	2250 r/min	2120 r/min	2250 r/min
Automatic control standard	CS 50	CS 50	CS 50	CS 50
Filter type (SUP/EXTR)	F7/G3	F7/G3	F7/G3	F7/G3
SUP filter dimensions (WxHxD)	394x223x250 mm	394x223x250 mm	394x223x250 mm	394x223x250 mm
EXTR filter dimensions (WxHxD)	394x223x20 mm	394x223x20 mm	394x223x20 mm	394x223x20 mm
Weight	66 kg	66 kg	66 kg	66 kg
Duct connection	Ø 250 mm	Ø 250 mm	Ø 250 mm	Ø 250 mm
Height	680 mm	680 mm	680 mm	680 mm
Width	1170 mm	1170 mm	1170 mm	1170 mm
Depth	465 mm	465 mm	465 mm	465 mm

## 9 Final Check

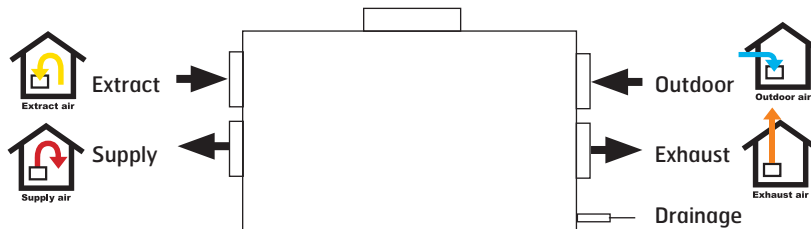
### Control that:

- The duct insulation is in accordance with the manual and the technical documents
- Ducts are connected to the right nipples – check against the unit drawings below
- Temperature sensor installed in supply air duct, 0,5-1 meters from unit
- Drainage connected, sufficiently frost protected and functioning. Refer to separate guide in in water lock kit.
- Adjustment has been carried out in accordance with the manual and ventilation data documentation
- The unit operates normally at all stages
- Heating switches on



**The installer may be held liable for any incorrect or defective installation.**

### Type L





## 10 Important Safety Instructions



**To reduce the risk of fire, electric shock or injury, read all the safety instructions and warning texts before using the unit.**

- This unit is only designed for ventilation air in buildings.
- It must not be used to extract combustible or flammable gases.
- Remove the power plug before commencing any service and maintenance work.
- Before you open the door, the unit must be dead and the fans must have been given time to stop (min. 3 minutes).
- The unit contains heating elements that must not be touched when they are hot.
- The unit must not be operated without the filters being in place.
- Follow the instructions in the user manual.



**To maintain a good indoor climate, comply with regulations and, to avoid condensation damage, the unit must never be stopped apart from during service/maintenance or in connection with an accident.**

## 11 Functional Description

I kryssveksleren **HR-X** passerer den kalde uteluften og den varme avtrekksluften i "kryss" uten å komme i direkte kontakt med hverandre. Ved dette prinsippet vil mye av varmen i avtrekksluften bli overført til tilluften. I tillegg vil et termostatstyrt ettervarmeelement **EB1** sørge for at tilluften holder ønsket temperatur. Denne tilluften føres via kanaler og ventiler til oppholdsrom og soverom. Avtrekksluften suges ut fra enten samme rom eller via dørspalter/overstrømningsrister til toalett og våtrom. Den brukte luften føres via kanalsystemet tilbake til aggregatet, gir fra seg varme som nevnt, og blåses ut av bygningen via takhatt eller veggrist.

### 11.1 Heating Elements

The heating elements are protected against overheating by the **F20/F21** overheating thermostat, which switches off at 65 °C. As an additional safety measure, the **F10/F11** overheating thermostat switches off at 80 °C. The overheating thermostat must be reset manually (Chap. 6).

### 11.2 Frost Protection

The ventilation unit is provided with a special thermoguard for maximum benefit of the heat recovery section and maintenance of a balanced ventilation. The thermoguard has a sensor stick B6 with a double function. It is located in the heat exchangers extract air duct and has a NTC-element for controlling temperature and an indicator for registration of moisture. This prevents frost in the heat exchanger.

Selve frostsikringsfunksjonen har følgende forløp:

- Preheater **EB2** is activated.
- When this does not provide sufficient frost protection, the supply air fan, **M1**, speed is reduced.

## 12 Cleaning - Maintenance L4 X/L7 X



**Before opening the door of the heat recovery system: switch off the heat, let the fans continue for three minutes to remove hot air, remove the power from the unit and wait 2 minutes before opening the doors.**

**Doors:** Opened by loosening both eccentric hooks and releasing the hooks. The doors can then be completely removed.

**Fans:** Item nos. 9 and 10/Chap. 6. General Drawings. The fans normally require no maintenance. If the ventilation unit is delivered combined with a kitchen hood (K-model), or is connected to an external kitchen hood (A-model), the fans must be cleaned once pr. year. The fans are cleaned with a small brush and compressed air, if available.

**NB! Do not use water. Disassemble the fans as follows:**

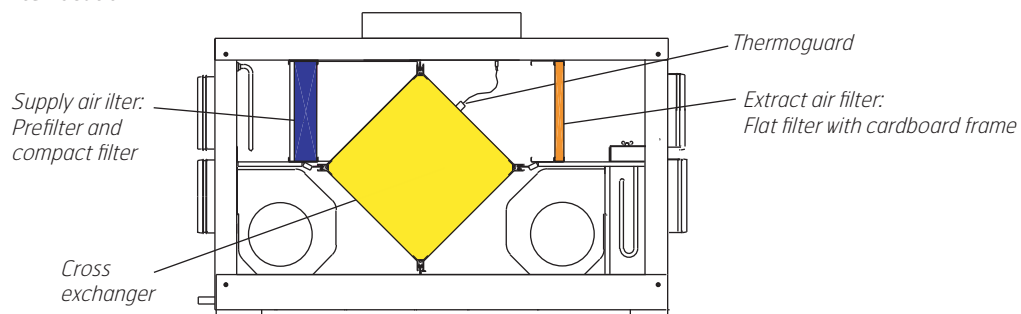
**L4 X:** Pull out the quick-release contacts. The fan with the visible quick-release contact is loosened by unscrewing the 4 screws in the round motor plate and carefully pulling the motor out of the motor housing. For the fan with the visible intake opening, the screw for the rail in the side wall must be removed and the rail pushed down as far as possible. The entire fan housing can then be released and turned around. The fan can then be released with 4 screws, like the first fan.

**L7 X:** The fan with the visible quick-release contact is loosened by unscrewing the 3 screws in the end of the fan housing and carefully pulling the fan out. For the fan on which the screws are on the opposite side, the entire fan housing must be loosened by unscrewing the mounting rails (2 screws) on each side of the fan, thus releasing it. The fan can then be released with 3 screws, like the first fan. The fan can be disassembled most easily if the exchanger cassette is removed first.

**Filter:** To preserve a healthy indoor environment, it is important to change filters when they are dirty. Dirty filters lead to: Increased air resistance in the filter – less air in the home – the risk of bacterial growth in the filter – in the worst case scenario, the system can be damaged.

How often the filters need to be changed depends on the degree of contamination of the air where they are installed. In general, the filters need to be changed once a year, preferably in the autumn (after the pollen season). In areas with a lot of dust and contamination, the filters should be changed in the spring and autumn. **Order no. for a complete set of filters: L4 X- 12318, L7 X - 12313**

*Loft model filter location*



### Exchanger cassette:

Should be checked roughly once a year for dust and dirt in the air ducts. First remove the thermoguard (3) and carefully pull the cross exchanger (11) out. If cleaning is required, place it in a bowl with warm soapy water (NB! not soda) and finally flush it through with warm water. Clean the thermoguard separately with a dry cloth. When removing/installing the exchanger cassette, it is important to ensure that both the cassette and the sensor rod are located correctly and that the cable plug is inserted in the contact. The thermoguard must be located 6 cm from the top of the exchanger cassette and in the centre of the exchanger cassette. Located on the side facing the extract air filter.

### Valves and duct system:

The valves should be cleaned at least once a year.  
The duct system should be cleaned at least every 10 years.

### Outdoor air intake:

Check once a year that the grille is not clogged with leaves, dust and dirt.

### Roof hat:

Check once a year that the drainage gap at the bottom is not clogged with leaves. This applies only if the system has a roof hat.

### Summer operation:

During the warm part of the year (outside the heating season), there is no need to recover heat.

The exchanger cassette can be replaced with a summer cassette that is available as an accessory. This is pushed into place where the cross exchanger (11) is located. This allows the outdoor air to enter the building directly without heat recovery taking place. The thermoguard (3) must then be transferred to the summer cassette. Its location is shown on the label. NB! At the same time, the heating must be switched off (press the left switch (+) on the control panel so that the green light goes out) to avoid the heating element switching on unnecessarily.

**Remember to reverse this again in the autumn.**

**Drainage:**

At the base of the unit there is a condensation water drain (14) that conducts condensation water to the waste water drain. It is important that this drain is always open, in good condition and well insulated where it is exposed to frost. It is also recommended that you keep an eye on the drainage system to avoid any leaks occurring.



**Lack of cleaning as prescribed will increase the risk of fire in the event of an accident.**

## 13 Fault Location



**If a power failure occurs the ventilation unit will return to the factory settings when restarting.**

<b>Error:</b>	
<b>The fans do not function and/or:</b>	<b>Do the following:</b>
The fans are not running or unable to regulate	<ul style="list-style-type: none"> <li>- Check that the power cord is correctly inserted in the outlet</li> <li>- Check that the fuses in the fuse box are active</li> <li>- The overheating thermostat(s) (Pos.no. 7, 8/Chapt. 6) General Drawings) may have been activated. Remove white plastic cover and push white reset button.</li> <li>- Check that thermoguard (Pos. no. 3) is connected.</li> </ul>
Supply air feels too cold	<ul style="list-style-type: none"> <li>- Check that the heating battery switch is on and that the summer cassette is not installed.</li> <li>- The heating regulation thermostat (Pos.no. 4/Chapt. 6) may be set to higher temperature.</li> <li>- Check that the thermoguard termofuktføler (Pos. no. 3) is connected.</li> <li>- The overheating thermostat (s) (Pos.no. 7, 8) may have been activated. Remove white cover and press the white reset button. Check that the switch for secondary heating is activated</li> </ul>
The air supply substantially reduced	<ul style="list-style-type: none"> <li>- Filter (Pos.no. 1, 2/Chapt. 6) may be clogged with dirt. Clean or replace, see under Cleaning - Maintenance.</li> <li>- Grille for supply air inlet may be clogged, see under Cleaning - Maintenance.</li> </ul>



**If non of these measures solves the trouble, contact your supplier for service. Please report the model type and serial number (found on the sign inside the ventilation unit/open door).**

## 14 CE Declaration of Conformity

This declaration confirms that the products meet the requirements in the following Council Directives and standards:

**89/336/EEC Electromagnetic compatibility (EMC)**

**73/23/EEC Low-voltage Directive (LVD)**

**NEK EN 60335-1 :94 + A11:95 + A1:96 + A1:96 + A12:96**

**55014:93, EN 61000-3-2/-3:95, EN 55014-2:97**

**Manufacturer:** FLEXIT AS, Televeien 15, N-1870 Ørje  
**Equipment group:** Ventilation units for installation in ducts

**Type:** **VG 400: 1997**  
**VG 700: 1997**

**The product is CE-marked:** Shown in the list above

**FLEXIT AS** 02/05/2001



**Pål J. Martinsen**  
 General Manager

*The right to give notice of lack of conformity applies to this product in accordance with the existing terms of sale, provided that the product is correctly used and maintained. Filters are consumables.*



*The symbol on the product or on its packaging indicates that this product may not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment.*

*By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information, please contact your local city office, your household waste disposal service or the shop where you purchased the product.*

*Notice of lack of conformity as a result of incorrect or defective installation must be submitted to the installation company responsible. The right to give notice of lack of conformity may lapse if the system is used incorrectly or maintenance is grossly neglected.*

## 15 Product/Environmental Declaration

*The declaration applies to the Flexit L4 X/L7 X ventilation units*

### **Materials:**

#### **Materials with which the user or treated air come into contact:**

- The unit's outer walls are made of galvanised steel DX51D+Z275 (NS-EN 10142)
- The rotary wheel-type heat exchanger, made of aluminium
- Miscellaneous electric cables with PVC insulation
- Electric motors consisting of galvanised steel, aluminium and copper
- Heating elements made of steel
- Air filters of glass fibre, cardboard and EVA melting glue

#### **Materials in the unit with which service personnel may come into contact:**

- Plastic-insulated electric cables
- Miscellaneous other electrical components
- Insulation of type EPS/Dacron

#### **Other materials that may occur in small quantities:**

- Silicon sealant
- Polyethylene foamed plastic
- EPDM rubber gaskets
- Miscellaneous steel screws, nuts and pop rivets, plus small quantities of copper and brass.

### **Safety:**

**Materials:** The materials are considered to be completely harmless to users.

**Use:** The unit is an electrical appliance which must be made dead for service and inspection. The unit also contains rotating motors that must have time to stop before the inspection door is opened, plus heating elements with a high operating temperature.



