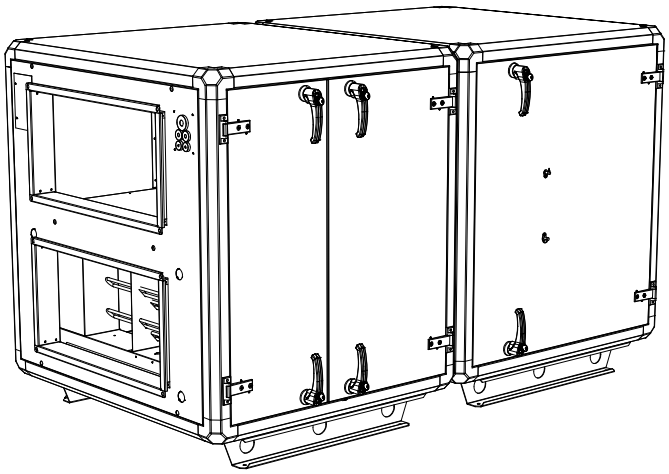
Topvex SR07, SR09, SR11 E
Compact Air Handling Unit



GB Installation instruction

Corrigo ver. no. 3.0-1-03

Dimensions & weight

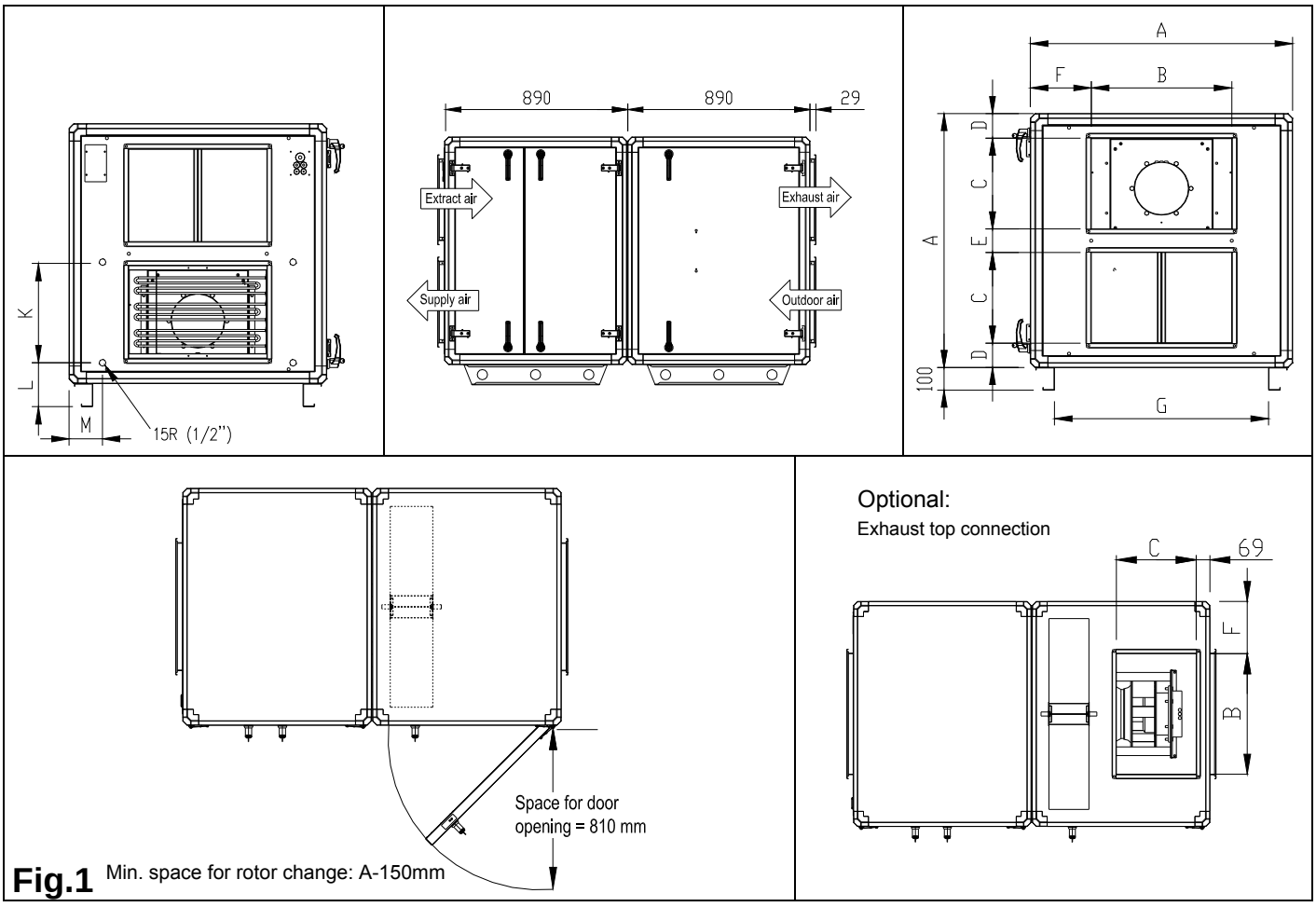


Fig.1 Min. space for rotor change: A-150mm

Model spec.	A	B	C	D	E	F	G	K	L	M	Weight kg
Topvex SR07 E	1000	600	300	125	150	200	795	337	195	145	320
Topvex SR09 E	1120	600	400	108	104	260	915	434	195	145	365
Topvex SR11 E	1230	800	400	135	165	215	1025	487	195	145	435

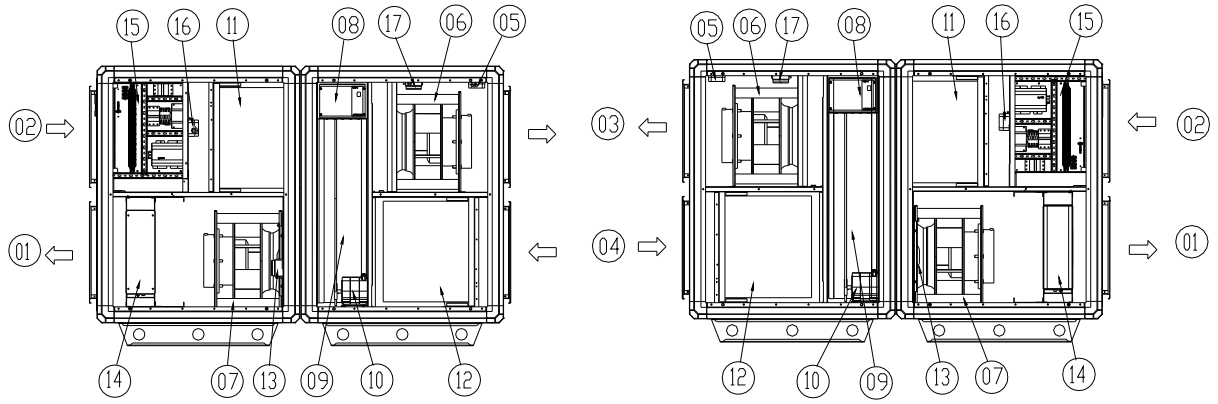


Fig. 2 Left version Right version

Description

1.	Supply air	**10.**	Rotor motor
2.	Extract air	**11.**	Filter, Extract air
3.	Exhaust air	**12.**	Filter, supply air
4.	Outside air	**13.**	Pressure transmitter supply air fan
5.	Pressure sensor supply air filter	**14.**	Electrical Heater/Water coil
6.	Fan, extract air	**15.**	Electrical Connection box (see fig.3)
7.	Fan supply air	**16.**	Pressure sensor extract air filter
8.	Control Heat exchanger	**17.**	Pressure transmitter extract air fan
9.	Heat exchanger, Rotor		

Connection box

Description

20.	Fuse heater
21.	Fuse fans
22.	24 V Transformer
23.	Control unit Corrigo
24.	Contactor
25.	ADO – terminal block tool
26.	Overheating protection , EL- heating battery, Manual reset.
27.	Overheating protection EL- heating battery, Automatic reset.

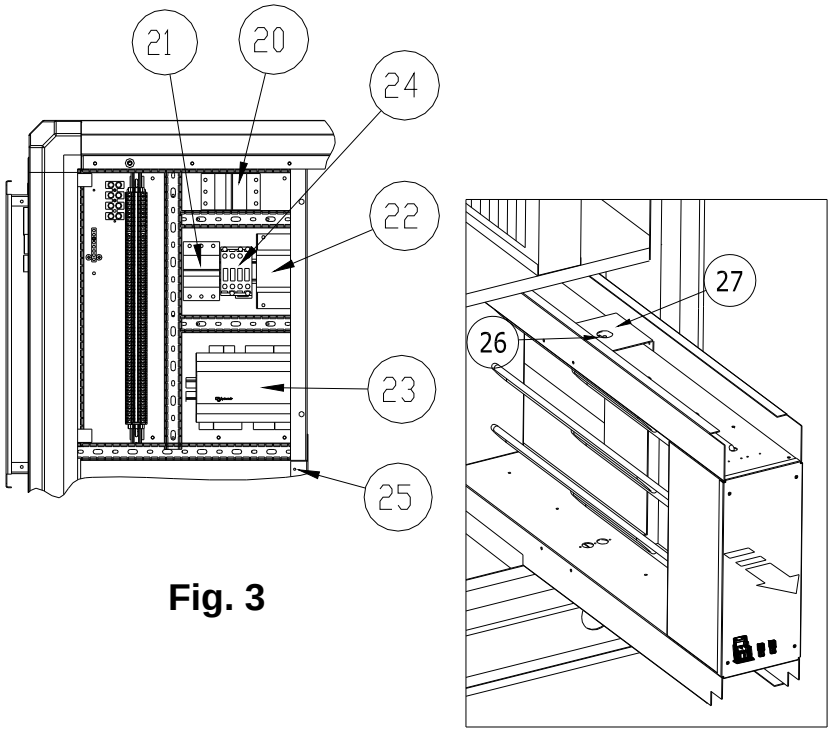


Fig. 3

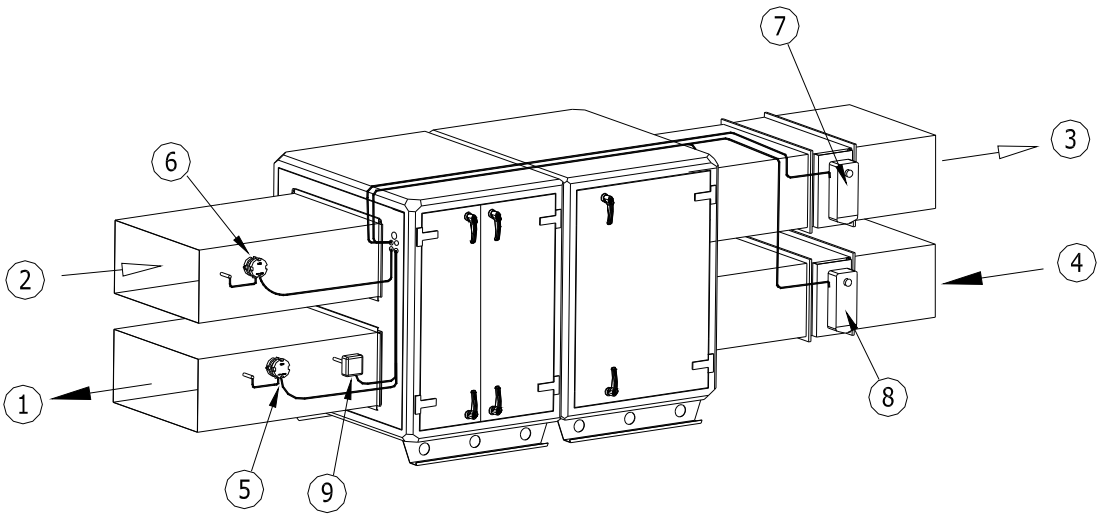


Fig. 4

Description

1.	Supply air	**6.**	VAV pressure transmitter extract air (accessories)
2.	Extract air	**7.**	Damper and motor exhaust air (accessories)
3.	Exhaust air	**8.**	Damper and motor outside air (accessories)
4.	Outside air	**9.**	Sensor supply air
5.	VAV pressure transmitter supply air (accessories)		

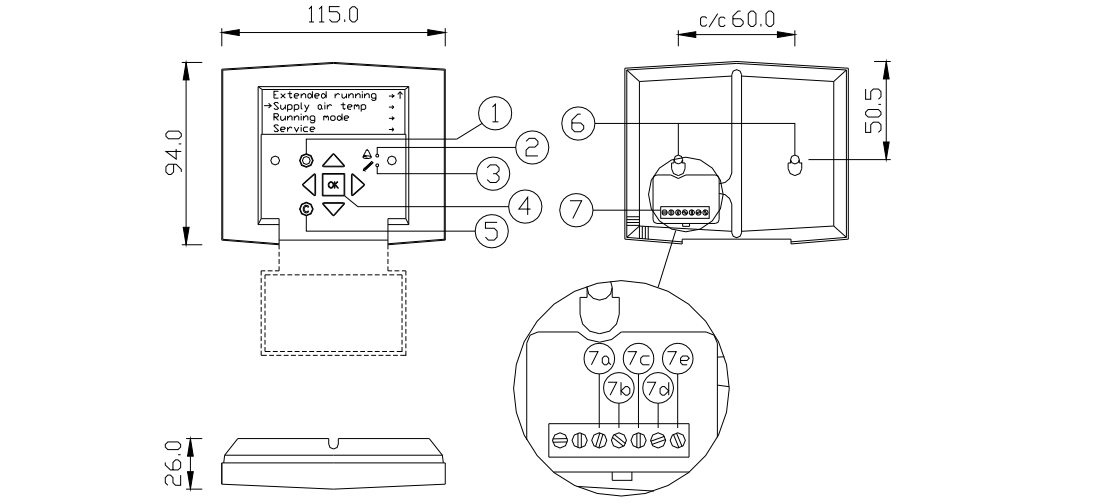


Fig. 5

Description

1.	Alarm button	**7.**	Connection block
2.	Alarm LED	**7a.**	Yellow cable
3.	Write enable LED	**7b.**	Orange cable
4.	OK button	**7c.**	Red cable
5.	Clearing button	**7d.**	Brown cable
6.	Mounting holes	**7e.**	Black cable

Introduction

Installation, operation and maintenance manual concerns air handling unit type Topvex SR, manufactured by Systemair AB. It consists of basic information and recommendations concerning the design, installation, start-up and operation, to ensure a proper fail-free operation of the unit.

The key to proper and safe operating of the unit is to read this manual thoroughly, use the unit according to given guidelines and follow all safety requirements.

Table of contents

Declaration of Conformity

Manufacturer

Systemair AB
Industrivägen 3
SE-73930 Skinnskatteberg SWEDEN
Office: +46 222 440 00 Fax: +46 222 440 99
www.systemair.com

hereby confirms that the following products:

Air handling units

Topvex SR 07 E EL	Topvex SR 07 E HWL/HWH
Topvex SR 09 E EL	Topvex SR 09 E HWL/HWH
Topvex SR 11 E EL	Topvex SR 11 E HWL/HWH

(The declaration applies only to product in the condition it was delivered in and installed in the facility in accordance with the included installation instructions. The insurance does not cover components that are added or actions carried out subsequently on the product)

Comply with all applicable requirements in the following directives

- **Machinery Directive 2006/42/EC**
- **Low Voltage Directive 2006/95/EC**
- **EMC Directive 2004/108/EC**

The following harmonized standards are applied in applicable parts:

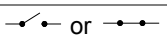
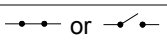
EN ISO 12100-1	Safety of machinery – Basic concepts, general principles for design – Part 1: Basic terminology, methodology
EN ISO 12100-2	Safety of machinery – Basic concepts, general principles for design – Part 2: Technical principles
EN 14121-1:2007	Safety of machinery – Risk assessment – Part 1: Principles
EN 13857	Safety of machinery – Safety distances to prevent hazard zones being reached by upper or lower limbs
EN 60 335-1	Electric domestic products and similar – safety-general requirements
EN 60 335-2-40	Safety of household and similar electrical appliances - Part 2-40: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers.
EN 50 106	Safety of household and similar appliances – Particular rules for routine tests referring to appliances under the scope of EN 60 335-1 and EN 60967
EN 60 529	Degrees of protection provided by enclosures (IP code)
EN 61000-6-2	Electromagnetic compability (EMC) – Part 6-2: Generic standards – Immunity for industrial environments
EN 61000-6-3	Electromagnetic compability (EMC) – Part 6-3: Generic standards – Emission standards for residential, commercial and light-industrial environment

The complete technical documentation is available.

Skinnskattberg 11-02-2011

Mats Sándor
Technical Director

Electrical connection

Terminal block		Remark	Description
1	L1	See the rating plate for correct supply voltage.	Phase (supply voltage)
2	L2		
3	L3		
4	N		Earth neutral (supply voltage)
5-12		For internal use	
13	G	24V AC, 0,5A	Water valve actuator, supply voltage (HW units only)
14	G0	Neutral	Water valve actuator (HW units only)
15-26		For internal use	
27	AI	PT 1000	Temp. sensor, Outdoor air (when needed, disconnect the standard sensor and replace it with the wall mounted temperature sensor). AI ref is terminal block 62.
28	UAI2	Free to use	
29 -30		For internal use	
31	AI	PT 1000	Temp. sensor, Supply air
32	AI ref	Reference	
33	DO	24V AC, 0,5A	Damper, exhaust air
34	G0	Neutral	Damper, exhaust air — By spring- loaded damper connect 33/35
35	G	24V AC	Damper, exhaust air
36	DO	24V AC, 0,5A	Damper, outdoor air
37	G0	Neutral	Damper, outdoor air — By spring-loaded damper connect 36/38 Water valve actuator cooling (EL units only)
38	G	24V AC	Damper, outdoor air Water valve actuator cooling (EL units only)
39	DO	24V AC, 0,5A	Water pump, control voltage (contactor). Cooling
40	DO	24V AC, 0,5A	Sum alarm, A- and B-alarm
41-42		For internal use	
43	AO	0-10V DC	Control signal water valve actuator heating/cooling
44	AO ref	Reference	Only for EL models
45	N	Neutral	Water pump, supply voltage. HW Heating
46	L1	230V AC	Water pump, supply voltage. HW Heating
*47	DI	 or	Fire alarm
*48	DI		External stop
*49	DI		Extended operation, Normal
50	DI ref	Reference	
51	Net +		LON
52	Net -		LON
53	DO ref	Reference	
54	DO	24V AC, 0,5A	DX cooling, step2
55	DO	24V AC, 0,5A	DX cooling, step1
56	AI3		Sensor extract air
57	AO	0-10V DC	Control signal water cooling
58	UAI3		Free to use
*59	DI		External alarm
60	G	24V AC	Pressure transmitter, supply voltage
61	AI	0-10V DC	Pressure transmitter, control signal. Supply air
62	AI ref	Reference	Pressure transmitter
63	AI	0-10V DC	Pressure transmitter, control signal. Extract air
*64	DI	 or	Run-indication/alarm circulation pump Cooling
65-67		Free to use	

* These inputs may only be wired to voltage free contacts.

Description of functions (Topvex SR E EL)

Electrical heating, extract air temperature control with cascade function.

Function

Start and stop times are set in the Control panel. To maintain constant room temperature the UC receives a signal from ETS and regulates the HE and the electrical heater in sequence.

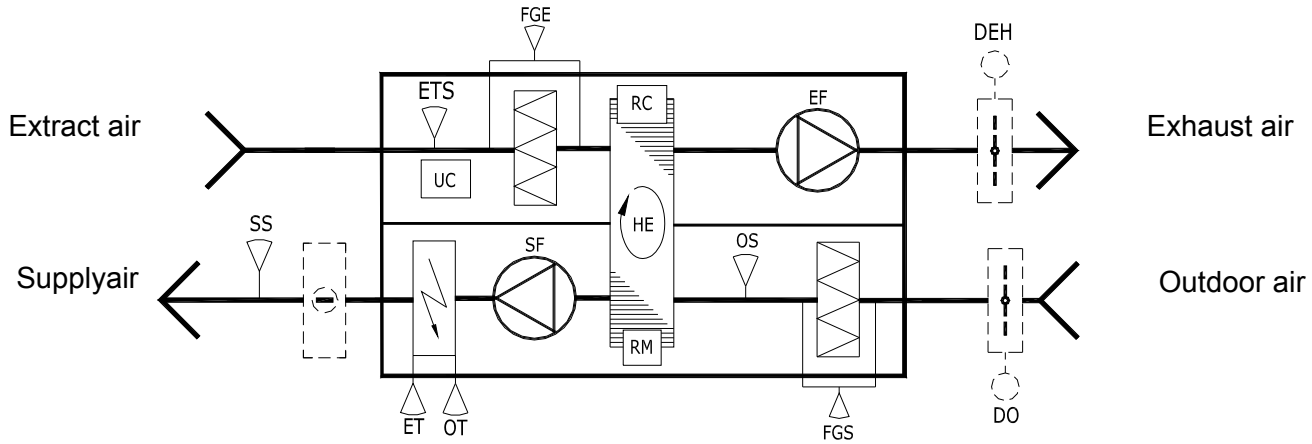
The SS sensor is used to limit the max and min supply air temperature. Maximum temperature in the electrical re-heater is controlled by ET. OT disconnects the heater, gives an alarm signal and stops the appliance in case of overheating.

DO closes the outdoor air damper when the appliance is stopped. In case of an unintended stop on the rotor, a signal is sent to RC, which is displayed on the Control panel as an alarm.

Also displayed in the Control panel are date and time, operating status, desired and actual room temperature.

FGS and FGE give alarm signals when the actual value exceeds the pre-set desired value for pressure drop over the filter.

Designation	Name
EF	Extract air fan
SF	Supply air fan
SS	Sensor, supply air
OS	Sensor, outdoor air
ETS	Sensor, extract air
ET	Sensor, max temperature in the electric re-heater
OT	Sensor, overheating in the electrical re-heater
FGE	Filter guard extract air
FGS	Filter guard supply air
UC	Regulator Corrigo E28
RC	Control box for rotor
RM	Driving motor, rotor wheel
HE	Energy exchanger, rotor wheel
DO	Damper motor, outdoor air
DEH	Damper motor, exhaust air
NB! Dashed components are accessories	



Drawn as a left version

Description of functions (Topvex SR E HW)

Water heating, extract air temperature control with cascade function.

Function

Start and stop times are set in the Control panel. To maintain constant room temperature the UC receives a signal from ETS and regulates the HE and WVA in sequence. The SS sensor is used to limit the max and min supply air temperature.

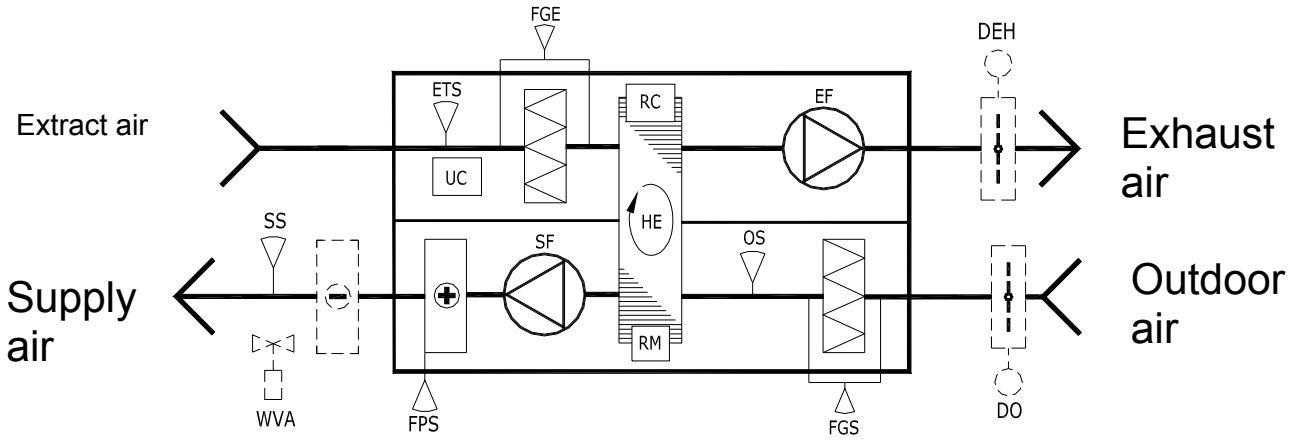
If there is a risk of frost in the water heater WVA opens completely. If the temperature drops further, an alarm is set off and the appliance stops. FPS maintains constant water temperature even when the fans have stopped.

DO closes the outdoor air damper when the appliance stops. In case of an unintended stop on the rotor, a signal is sent to RC, which is displayed on the Control panel as an alarm.

Also displayed in the Control panel are date and time, operating status, desired and actual room temperature.

FGS and FGE give alarm signals when the actual value exceeds the pre-set desired value for pressure drop over the filter.

Designation	Name
EF	Extract air fan
SF	Supply air fan
SS	Sensor, supply air
OS	Sensor, outdoor air
ETS	Sensor, extract air
FPS	Frost protection sensor
FGE	Filter guard extract air
FGS	Filter guard supply air
UC	Regulator Corrigo E28
RC	Control box for rotor
RM	Driving motor, rotor wheel
HE	Energy exchanger, rotor wheel
WVA	Actuator, hot water
DO	Damper motor, outdoor air
DEH	Damper motor, exhaust air
NB! Dashed components are accessories	



Drawn as a left version

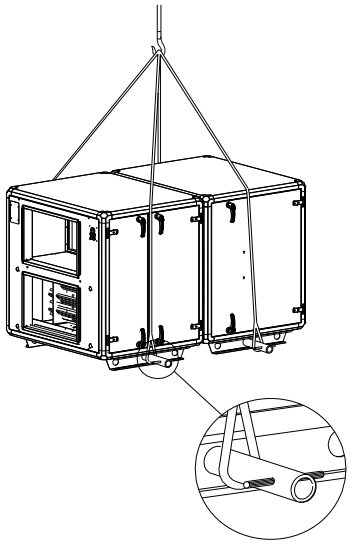
Dimension and Weight

Dimension and weight See **fig. 1.**
Handle and hinges are removable.
Inspection doors can open without handle by using a 16mm cap key.

Transport and storage

The Topvex should be stored and transported in such a way that it is protected against physical damage that can harm panels, handles, display etc. It should be covered so that dust, rain and snow cannot enter and damage the unit and its components. The unit is delivered in one piece containing all necessary components, wrapped in plastic on a pallet for easy transportation. If separation is required, please refer to section headed "Separation of the appliance".

The appliance may be lifted using a forklift truck or be elevated using metal tubes inserted through the holes in the feet and suspended by soft cables. If possible secure the ends of the metal bars and cables. To avoid collapse of the unit's feet, do not try to slide the unit into place after it has been put down on the ground.



Where/how to Install

The unit is meant for horizontal installation. The electronic components should not be exposed to lower temperature than 0°C or higher than +50°C.

When mounting; make sure to leave enough space to access the service doors. See **fig.1** for measurement requirements.

General maintenance includes replacing the filters and removing fan motors inside the unit for cleaning and cleaning the heat exchanger inside the unit.

Avoid placing the unit against a wall, as low frequency noise can cause vibrations in the wall.

The outdoor air intake of the building should if possible be put in the northern or eastern side of the building and away from other exhaust outlets like kitchen fan outcasts or laundry room outlets. The extract air should ideally be led out via a roof cowl away from any outdoor air intakes, windows, balconies etc.

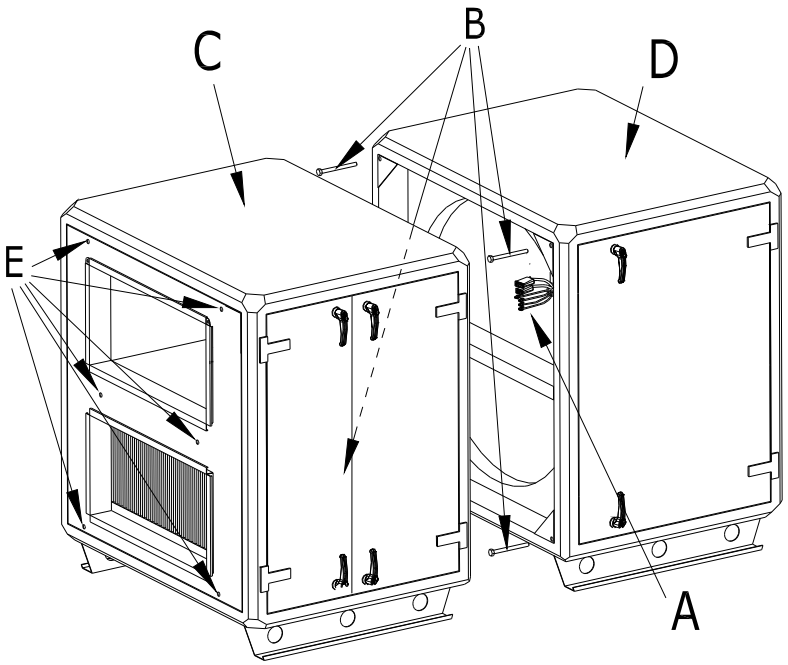
Note! If the handles are used, the required safety for the unit is only reached if the handles are locked and the keys kept in a secure place during operation.
The unit must be duct connected or in some other way provided with protection so that it is not possible to come in contact with the fans through the duct connections.

Separating the appliance

On delivery the two halves of the Topvex appliance are mounted together. If necessary they can be separated for easy transport to the site of installation.

How to split the unit:

A. Loosen the cable connectors in the wall
B. The two halves of the appliance are joined using 4 M10 screws, one in each corner
C. Control section
D. Heat recovery section
E. It's possible to dismount the gables by removing 6 MRX M6 screws with TH2 bits tool



Reassemble in the reverse order.
The illustration shows a left-handed version of the unit.

Important!
When reassembling the pieces make sure they are connected correctly - see cable markings on the side of the cables.

Plumbing

Connecting to water
The water battery is equipped with two pipes (see fig. 6). These have hexagonal connectors, internal threaded tube. Cover plates around the pipes are fixed to the unit (reinforcement).

Note! Take care not to damage the water battery when connecting water pipes to connectors. Use a spanner to tighten the connection.

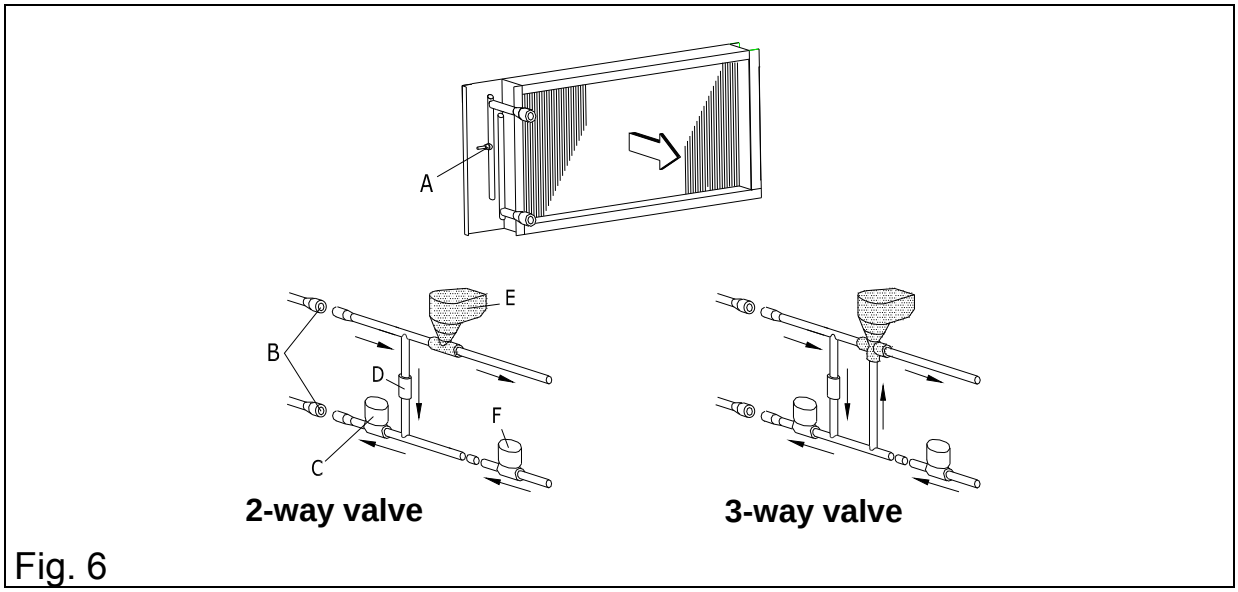


Fig. 6

	Description
A.	Frost protection sensor (standard)
B.	Internal dimension 15R (1/2'')
C.	Pump, secondary circuit
D.	Non return valve
E.	Valve actuator + water valve (accessories)
F.	Pump, primary circuit

Ducting

Air to and from the unit is led through a duct system. To ensure long life and satisfactory cleaning possibilities, ducts made of galvanized steel are highly recommended.
To obtain high efficiency, low energy consumption and the required airflow, the duct system should be commissioned for low air speeds and low pressure drops.

NOTE!

- **Do not connect tumble dryers to the ventilation system**
- **Duct connections/duct ends should be covered during storage and installation**
- **Grilles for discharge/roof units must be installed according to building regulations in force.**

Duct connections

To ensure air tightness the connections needs sealing strips or sealing compound between the ducts and the unit.

Attention

To avoid fan noise being transferred via the ducting system, silencers should be installed both on supply and extract air.

Condensation/heat insulation.

All the air ducts must be well insulated against condensation. To obtain the heat recovery efficiency it is especially important to insulate the Supply and Extract air ducts against heat losses. Use insulating covering (minimum 100 mm mineral wool) with plastic diffusion barrier.
In areas with extremely low outdoor temperatures during the winter, additional insulation must be installed.
Total insulation thickness must be at least 150 mm.
NOTE! If the unit is installed in a cold place make sure that all joints are well taped and covered with insulation.

Electrical connection

The unit must not be put into operation before all the electrical safety precautions have been read and understood.

Electrical connections must be made by authorized installer and in accordance with current wiring regulations.

See **fig. 2** where to find the electrical connection box.

The TOPVEX unit should be permanently connected to the mains electric supply through a lockable safety switch, as shown in fig. 7. The safety switch is not mounted from the factory but delivered with the unit.

If the unit is equipped with a heater, which has separate power supply (see table below). The unit shall bee provided with a working switch, see fig. 8.
N.B this switch is not included.

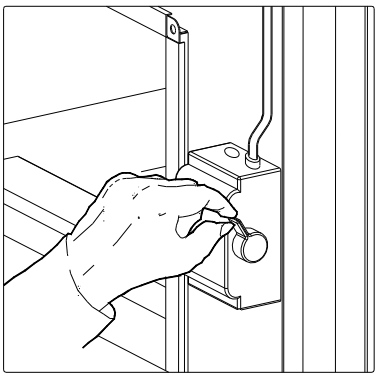


Fig. 7

Switch for disconnection from the supply, shall have at least 3 mm contact separation in all poles.

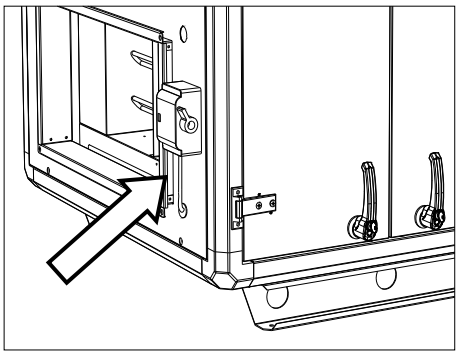


Fig. 8

Power consumption/currents

Model spec.	Voltage	Unit (A)	Heater (kW)	Heater with separate power supply (A)	Fuse (A)
Topvex SR07 E HWL/HWH	400V3N~	3,0	-	-	3x10
Topvex SR07 E EL	400V3N~	7,3	3,0	-	3x10
Topvex SR07 E EL	400V3N~	3,0	*12,0	*17,5	3x25
Topvex SR07 E EL	400V3N~	3,0	*12,0	*30 (230V 3~)	3x40
Topvex SR09 E HWL/HWH	400V3N~	5,4	-	-	3x10
Topvex SR09 E EL	400V3N~	11,9	4,5	-	3x16
Topvex SR09 E EL	400V3N~	5,4	*15,0	*22	3x32
Topvex SR09 E EL	400V3N~	5,4	*15,0	*38 (230V 3~)	3x50
Topvex SR11 E HWL/HWH	400V3N~	8,8	-	-	3x13
Topvex SR11 E EL	400V3N~	17,5	6,0	-	3x13
Topvex SR11 E EL	400V3N~	8,8	*12,0	*17.5	3x20
Topvex SR11 E EL	400V3N~	8,8	*24,0	*35	3x50
Topvex SR11 E EL	400V3N~	8,8	*12,0	*30 (230V 3~)	3x63
Topvex SR11 E EL	400V3N~	8,8	*24,0	*60 (230V 3~)	3x80

*Electic heater (above 6 KW) has separate incoming power supply. For 230V3~ a transformer (230V3~ to 400V3~) is needed for the unit supply.

External connections

See **page 6** and the attached wiring diagram, how to connect the electrical cables.

Timer (Extended operation)
When the unit is running on reduced speed or is in shutdown mode it can be forced up one step as long as the timer switch is closed. Set the *Extended operating* in the control panel to 0 minutes.

Push button (Extended operation)
When the unit is running on reduced speed or is in shutdown mode it can be forced up one step by using a Push button (impulse). Set the *Extended operating* in the control panel to the required time, in minutes.

Damper, outdoor/exhaust air
The outdoor / exhaust air damper (Supply voltage 24V AC, Spring return) is used to avoid cold air to enter the building when the unit is stopped e.g. during the night.
See **fig. 4** where to assemble the dampers and page 6 how to connect the electrical wiring.
The damper is also preventing the hot water battery (HW models) from freezing by closing when the returning water in the battery is below a set temperature, +7°C.

Cooling battery
A water valve actuator (Supply voltage 24V AC, Control signal 0-10 V) can be connected to the unit and be operated in sequence to the heater battery.
A DX-cooler can be connected to the unit.
See page 6 to see which terminal blocks to use.

HW valve/actuator
A water valve actuator (Supply voltage 24V AC, Control signal 0-10 V) can be connected to the unit to control a 2 or 3-way water valve.
See page 6 to see which terminal blocks to use.

Fire alarm
Connects to an external fire central. Choose if the unit should stop or run on normal fan speed when the alarm is activated. The Alarm activates thru a digital input DI that can be set to normal open or normal closed.

Room sensor
A room sensor can be connected to the unit. UAI3 on terminal block 58 (see page 6) can be configured for this purpose.

E-Tool (commissioning software)
Wirings are to be connected directly to the Corrigo E28 controller (see fig.3 pos.23) on terminal 50-52 (B, A, N).
N.B. For more detailed information see the instruction attached to the E-Tool software program.

Communication to BMS (Building Management System)
Exoline and Modbus via a built in RS-485 contact is included as standard.
LON and Exoline via TCP/IP are available as accessories.
Communication wirings are to be connected directly to the Corrigo E28 controller (see fig.3 pos.23) on terminal 50-53 (B, A, N, E), 57-59 (Net+, Net-, Egnd) or the TCP/IP terminal.

N.B. For more detailed information see the attached **Corrigo E – User Manual.**

Components

Heat exchanger
Topvex has a high efficient rotating heat exchanger. Required supply air temperature is therefore normally maintained without adding additional heat via the built in re-heater battery (water or electric). The operation of the heat exchanger is automatic and depends on the set temperature.
The heat exchanger is not removable and has to be cleaned inside the unit.

Heater battery
Topvex has a built in heater battery (water or electric). The operation of the heating battery is automatic and dependent on the set temperature.

Electrical heater
The heating rods are located in the heater beside the supply air fan **(see fig. 2 and 3)** and the material is stainless steel. The electric heating coil has both automatic and manual overheating protection. The power demand of the electric heating coil is controlled by a triac power regulator (Pulser) according to the desired supply/extract or room air temperature that is set in the control panel.

Hot water heater
The hot water coil is located beside the supply air fan **(see fig. 2)**. The coil is mounted with the connection pipes projecting from the side of the unit and is therefore easy to connect **(see fig. 1)**. The material is copper piping with a frame of galvanized sheet steel and aluminum fins. The coil has a venting nipple and an immersion sensor as frost guard. If there is a risk of freezing in the hot water coil, the control valve is forced open to prevent freezing. If there is still a risk of freezing, the unit is stopped and the outdoor sir dampers (accessory) are closed.

Control panel
The SCP control panel is delivered with a 10m cable that is pre-connected to the panel and with a fast coupling contact, pre-connected to the Topvex unit. The contact is connected to the *Corrigo* controller in the electrical connection box (**fig. 3)**. The cable can be unscrewed in the back of the control panel (**fig 5**).

General information is shown in (**fig 5**).

How to operate
The menus in the Corrigo E-controller are organized in a horizontal tree structure. The UP/DOWN-buttons are used to move between menus at the present menu level. The RIGHT/LEFT buttons are used to move between menu levels. When changing parameters the UP/DOWN buttons are used to increase/ ecrease the value of the parameter and the RIGHT/LEFT buttons to move between digits within the parameter.

The OK button is used to confirm the choice of a parameter setting.

The C button is used to abort an initiated parameter change and restore the original value.

The ALARM button is used to access the alarm list.

Changing parameters
In some menus there are parameters that can be set. This will be indicated by the LED □□flashing. To change a parameter, first press the OK button, the LED □□changes to a steady light. A cursor will appear at the first settable value. If you wish to change the value, do so by pressing the UP/DOWN buttons. In numbers containing several digits you can move between the digits using the LEFT/RIGHT-buttons.
When the desired value is displayed presses OK. If there are further settable values displayed the cursor will automatically move to the next one. To pass a value without changing it, press RIGHT.
To abort a change and return to the initial setting, press and hold the C-button until the cursor disappears.

Navigating the menus
The start display, the display normally shown, is at the root of the menu tree.

Pressing DOWN ▼ will move you through the menu choices at this, the lowest level. UP ▲ will move you back through the choices.

To enter a higher menu level, use UP or DOWN to place the display marker opposite the menu you wish to access and press RIGHT ►.
If you have sufficient log on privileges the display will change to the menu you have chosen.

At each level there may be several new menus through which you may move using the UP/DOWN buttons. Sometimes there are further submenus linked to a menu or menu item. This is indicated by an arrow symbol at the right-hand edge of the display. To choose one, use RIGHT ► again. To back down to a lower menu level, use LEFT ◄.

Commissioning

When the installation is finished, check that:
- the unit is installed in accordance with these instructions.
- sound attenuators are installed and that the duct system is correctly connected to the unit.
- outdoor air intake is positioned with sufficient distance to pollution sources (kitchen ventilator exhaust, central vacuum system exhaust or similar).

Before starting the system
Control that all external equipment are connected.
See operating and maintenance instructions, "Operation".
Switch on fuse in the unit.
Switch on the supply voltage.
Set present time and date, set the control temperature and program the week schedule. Do the necessary settings for extra functions if any.
Check that:
- there is no unusual noise from the unit.
- control panel and lamp signals are in function.

Commissioning Protocol

Company:

Responsible:

Customer	Date	Installation
Object/Unit	Item no.	Installation address
Model/size	Serial number	

Time and date set: ☐ Weekly program set: ☐

External connections (sensors, dampers, external alarm, etc.) performed: ☐

Function	Default setting			Set value		
Temp. (°C)						
Control function temp.	Supply ☐	Extract ☒	Room ☐	Supply ☐	Extract ☐	Room ☐
Set point	18 °C			____ °C		
Outdoor temp. compensated supply air control.						
Outdoor/supply air temp.						
Point 1, 2 and 3	-29,9 / 21,7	-20,0 / 21,0	-10,8 / 20,0	____ / ____	____ / ____	____ / ____
Point 4, 5 and 6	-4,0 / 19,7	5,3 / 18,9	11,9 / 18,4	____ / ____	____ / ____	____ / ____
Point 7 and 8	10,0 / 18,0	15,0 / 18,0		____ / ____	____ / ____	
If Cascade control:						
Low supply air set point	14,0°C			____ °C		
High supply air set point	30,0°C			____ °C		
Switching point (outdoor temp), supply with outdoor comp./extract air (room) temp. control	13,0°C			____ °C		

Function	Default setting				Set value			
Airflow								
Fan control	Airflow (m³/h)	☒			Airflow (m³/h)	☐		
	Pressure (Pa)	☐			Pressure (Pa)	☐		
	CO_2 (ppm)	☐			CO_2 (ppm)	☐		
Set point normal	Supply fan	*	Extract fan	**	Supply fan		Extract fan	
Set point reduced	Supply fan	***	Extract fan	****	Supply fan		Extract fan	
Outdoor temperature compensation	Lower point	-20 °C	0 m³/h		Lower point	°C	m³/h	
	Upper point	10 °C	0 m³/h		Upper point	°C	m³/h	

Topvex SR07	*2500 m³/h or 250 Pa	**2500 m³/h or 250 Pa	***1500 m³/h or 100 Pa	****1500 m³/h or 100 Pa
Topvex SR09	*3200 m³/h or 250 Pa	**3200 m³/h or 250 Pa	***1900 m³/h or 100 Pa	****1900 m³/h or 100 Pa
Topvex SR08	*4000 m³/h or 250 Pa	**4000 m³/h or 250 Pa	***2400 m³/h or 100 Pa	****2400 m³/h or 100 Pa

Function	Default setting						Set value					
Cooling (logon to system level required)												
Control function cooling	Not active	☒	0–10 V	☐	On/Off	☐	Not active	☐	0–10 V	☐	On/Off	☐
On/off function	1 step	☐	2 step	☐	Binary step	☒	1 step	☐	2 step	☐	Binary step	☐
Number of binary steps	1	☐	2	☒	3	☐	1	☐	2	☐	3	☐
Lowering of min. control temp. supply air, DX cooling	5,0 °C											
Humidity												
Control function, humidification	Not active	☒					Not active	☐				
	Humidification	☐					Humidification	☐				
	Dehumidification	☐					Dehumidification	☐				
	Humidification/Dehumidification	☐					Humidification/Dehumidification	☐				
Sensors (0-10V DC for 0-100% RH)	Room sensor	☐					Room sensor	☐				
	Room and Duct sensor (max limiting)	☐					Room and Duct sensor (max limiting)	☐				
Start limit	15% RH						% RH					
Stop limit	5% RH						% RH					

Setting the weekly program

- Times for normal and reduced fan speed is factory set as shown below.
- Period 1. 07:00 to 16:00 Monday to Friday, normal fan speed. 00:00 to 00:00 Saturday-Sunday and holidays.
- Period 2. 00:00 to 00:00 Monday to Sunday and public holidays. 00:00 to 00:00 off period.
- **OBS!** Normal fan speed has priority over a reduced fan speed.

Weekday	Period	Normal fan speed	Reduced fan speed
Monday	1	____ : ____ — ____ : ____	____ : ____ — ____ : ____
	2	____ : ____ — ____ : ____	____ : ____ — ____ : ____
Tuesday	1	____ : ____ — ____ : ____	____ : ____ — ____ : ____
	2	____ : ____ — ____ : ____	____ : ____ — ____ : ____
Wednesday	1	____ : ____ — ____ : ____	____ : ____ — ____ : ____
	2	____ : ____ — ____ : ____	____ : ____ — ____ : ____
Thursday	1	____ : ____ — ____ : ____	____ : ____ — ____ : ____
	2	____ : ____ — ____ : ____	____ : ____ — ____ : ____
Friday	1	____ : ____ — ____ : ____	____ : ____ — ____ : ____
	2	____ : ____ — ____ : ____	____ : ____ — ____ : ____
Saturday	1	____ : ____ — ____ : ____	____ : ____ — ____ : ____
	2	____ : ____ — ____ : ____	____ : ____ — ____ : ____
Sunday	1	____ : ____ — ____ : ____	____ : ____ — ____ : ____
	2	____ : ____ — ____ : ____	____ : ____ — ____ : ____

Holiday (month.day)	Holiday (month.day)	Holiday (month.day)	Holiday (month.day)
1. ____ . ____ — ____ . ____	7. ____ . ____ — ____ . ____	13. ____ . ____ — ____ . ____	19. ____ . ____ — ____ . ____
2. ____ . ____ — ____ . ____	8. ____ . ____ — ____ . ____	14. ____ . ____ — ____ . ____	20. ____ . ____ — ____ . ____
3. ____ . ____ — ____ . ____	9. ____ . ____ — ____ . ____	15. ____ . ____ — ____ . ____	21. ____ . ____ — ____ . ____
4. ____ . ____ — ____ . ____	10. ____ . ____ — ____ . ____	16. ____ . ____ — ____ . ____	22. ____ . ____ — ____ . ____
5. ____ . ____ — ____ . ____	11. ____ . ____ — ____ . ____	17. ____ . ____ — ____ . ____	23. ____ . ____ — ____ . ____
6. ____ . ____ — ____ . ____	12. ____ . ____ — ____ . ____	18. ____ . ____ — ____ . ____	24. ____ . ____ — ____ . ____

Function	Default setting	Set value
Frost Protection (Only visible for units without EL heater)		
Mode (EL unit Off):	ON ☒	ON ☐ OFF ☐
Frost limit temperature:	See Alarm settings/Low frost guard temp	See Alarm settings/Low frost guard temp
Set point when stopped: (return water)	7°C	____ °C
P-band when running:	5	____
Pressure input Supply/extract air fan		
Supply air fan pressure at 0 V	0 (Pa)	____ (Pa)
Supply air fan pressure at 10 V:		
Topvex SR 07	CAV 1600 Pa VAV 500 Pa	____ (Pa)
Topvex SR 09	CAV 1600 Pa VAV 500 Pa	____ (Pa)
Topvex SR 11	CAV 2500 Pa VAV 500 Pa	____ (Pa)
Extract air fan pressure at 0 V	0 (Pa)	____ (Pa)
Extract air fan pressure at 10 V:		
Topvex SR 07	CAV 1600 Pa VAV 500 Pa	____ (Pa)
Topvex SR 09	CAV 1600 Pa VAV 500 Pa	____ (Pa)
Topvex SR 11	CAV 2500 Pa VAV 500 Pa	____ (Pa)
Free cooling		
Mode:	Off ☒	On ☐ Off ☐
Activation at outdoor temperatures higher than:	22 °C	____ °C
Stopped at outdoor night temperatures higher than:	15 °C	____ °C
Stopped at outdoor night temperatures lower than:	5 °C	____ °C
Stopped at room temperatures lower than:	18 °C	____ °C
Hour for start/stop:	Start: 0 Stop: 7	Start: ____ Stop: ____
Time to block heat output after free cooling:	60 min.	____ min.
Fan output when free cooling:	SAF: 0% EAF: 0%	SAF: ____ EAF: ____
Cool Recovery		
Mode:	Off ☒	On ☐ Off ☐
Start limit:	2°C	____ °C
Control on demand		
Min. time for control on demand:	60 min	____ min
Support control	Off ☒	On ☐ Off ☐

Function	Default setting	Set value
Run Exhaust Air Fan when support control active:	On ☒	On ☐ Off ☐
CO_2 control	On ☐ Off ☒	On ☐ Off ☐
	On when time channel is active ☐	On when time channel is active ☐
	On when time channel is not active ☐	On when time channel is not active ☐
CO_2 control type	Damper ☐	Damper ☐
	Fan ☐	Fan ☐
Fire Function		
Operation in case of fire alarm	Stopped ☒	Stopped ☒
	Only EAF ☐	Only EAF ☐
	Only SAF ☐	Only SAF ☐
	Normal Run ☐	Normal Run ☐
	Continuous run ☐	Continuous run ☐
Fire Input	Normally opened ☒	Normally opened ☒
	Normally closed ☐	Normally closed ☐
External Set point Knob		
External set point knob:	Off ☒	On ☐ Off ☐
Min. set point of knob:	12 °C	____ °C
Max set point of knob:	____ °C	____ °C
HW Heat Pump		
Pump stop mode (EL unit Off):	Off ☒	On ☐ Off ☐
Stop Delay:	5 min.	____ min.
Pump stop at outdoor temperature:	10 °C	____ °C
Hysteresis:	1 °C	____ °C
Hours for pump exercising:	15 h	____ h
Cooling, cold water pump		
Stop Delay	5 min.	____ min.
General		
Heat Pump Indication	Motor protection ☐	Motor protection ☐
	Run indication ☒	Run indication ☐
Cool pump indication	Motor protection ☐	Motor protection ☐
	Run indication ☒	Run indication ☐

Function	Default setting	Set value
Outdoor Temperature Related Settings Full heat when outdoor temp is below	3 °C	____ °C
Miscellaneous		
Extended operation	60 min	____ min
Min. set point reduction, Supply air. At DX-Cooling:	5 °C	____ °C

Alarm settings	Def. setting	Set value	Alarm settings	Def. setting	Set value
1. Malfunction, supply fan			**10. Fire alarm**		
Class	A		Class	A	
Delay	120 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
2. Malfunction, Extract fan			**11. External switch**		
Class	A		Class	C	
Delay	120 s		Delay	0 S	
The unit stopped at alarm	No		The unit stopped at alarm	No	
3. Malfunctinl, P1–heat, HW-pump (HW-units)			**12. External alarm**		
Class	Not active		Class	B	
Delay	5 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
4. Malfunction, P1–cooling (Cold water pump)			**13. Failure of air supply**		
Class	Not active		Class	B	
Delay	5 s		Delay	30 min	
The unit stopped at alarm	No		The unit stopped at alarm	No	
			Largest diff. between setpoint and supply air	10°C	
5. Malfunction, P1–Heat exchanger			**14. Moisture Deviation**		
Class	Not active		Class	Not active	
Delay	20s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
6. Filter guard			**15. High supply air temperature**		
Class	B		Class	B	
Delay	180 s		Delay	300 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
			High inlet air temperature	35°C	
7. Pressure sensor			**16. Low supply air temperature**		
Class	Not active		Class	A	
Delay	5 s		Fördröjning	300 s	

Alarm settings	Def. setting	Set value	Alarm settings	Def. setting	Set value
The unit stopped at alarm	No		The unit stopped at alarm	No	
			Lowinlet air temperature	35°C	
8. External frost guard			**17. Inlet fan, upper limit**		
Class	Not active		Class	Not active	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
9. Defrost, pressure switch			**18. Inlet fan, lower limit**		
Class	Not active		Class	Not active	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	

Alarm settings	Def.setting	Set value	Alarm settings	Def.setting	Set value
19. High room temperature			**21. High exhaust temperature**		
Class	Not active		Class	Not active	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
High room temperature	30°C		High exhaust temperature	30°C	
20. Low room temperature			**22. Low exhaust temperature**		
Class	Not active		Class	Not active	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
Low room temperature	10°C		Low exhaust temperature	10°C	

Alarm settings	Def.setting	Set value	Alarm settings	Def.setting	Set value
23. Overheating, electric heating (Off on HW-units)			**32. Extract fan, control errors**		
Class	A		Class	B	
Delay	0 s		Delay	15 min	
The unit stopped at alarm	Yes		The unit stopped at alarm	Yes	
			Largest diff. between must / is value	200 Pa	
24. Frost protection			**33. Supply fan, external operating**		
Class	Not active		Class	Not active	
Delay	0 s		Delay	1200 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
25. Low frost protection temperature (Applies to HW-units)			**34. Extract fan, external operating**		
Class	A		Class	Not active	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	Yes		The unit stopped at alarm	No	
Freezing limit	2°C				
26. Low efficiency			**35. Ventilation in manual mode**		
Class	Not active		Class	Not active	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
Low efficiency	50 %				

Alarm settings	Def.setting	Set value	Alarm settings	Def.setting	Set value
27. Sensor failure			**36. Supply air control in manual model**		
Class	B		Class	Not active	
Delay	5s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
28. Analog defrost			**37. Supply fan in manual mode**		
Class	Not active		Class	Not active	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
29. Rotation guard (Only for rotary heat exchanger)			**Manual Supply Air Fan freq control**		
Class	A		Class	Not active	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	Yes		The unit stopped at alarm	No	
30. Fire dampers			**39. Extract fan in manual mode**		
Class	Not active		Class	Not active	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
31. Inlet fan, control errors			**40. Manual Extract Air Fan freq. control**		
Class	B		Class	Not active	
Delay	15 min		Delay	0 s	
The unit stopped at alarm	Yes		The unit stopped at alarm	No	
Largest diff. between must / is value	200 Pa				

Alarm settings	Def.setting	Set value	Alarm settings	Def.setting	Set value
41. Manual heater control			**45. Manual P1-Exchanger**		
Class	Not active		Class	Not active	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
42. Heat exchanger control in manual mode			**46. P1–Cooling in manual modee**		
Class	Not active		Class	Not active	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
43. Manual cooler control			**47. Manual fire damper**		
Class	Not active		Class	Not active	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
44. P1–heater in manual mode (Only for HW-units)			**48. Internal battery error**		
Class	Not active		Class	A	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
			49-66. Sensor error indications		
			Class	B	
			Indicates malfunctions of connected sensors		

Notes

Systemair AB reserves the right to make changes and improvements to the contents of this manual without prior notice

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