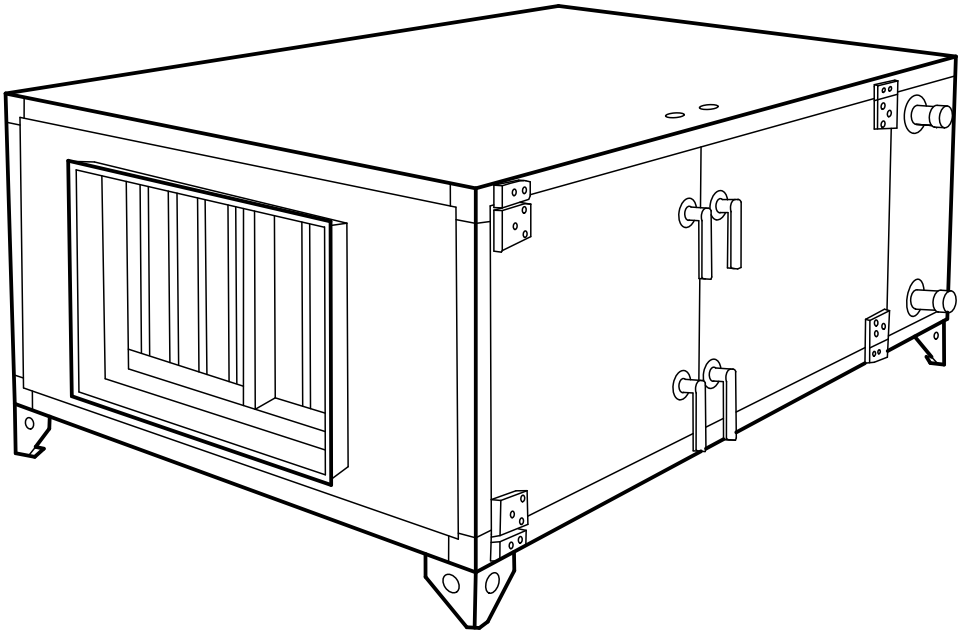
DVCompact

Supply Unit



GB Commissioning Record

Document in original language

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1 Commissioning Instructions

General

Systemair assemblies are tested and function tested at the factory before delivery. The automation is factory preset and a special document titled Test and control chart accompanies aggregate supply (a copy of the document is also filed with the manufacturer). This chart shows the settings applied.

A thorough inspection of the unit is done by the manufacturer before delivery. The unit should still be checked again by an electrician before deployment.

It is important that any changes to settings recorded in the commissioning protocol.

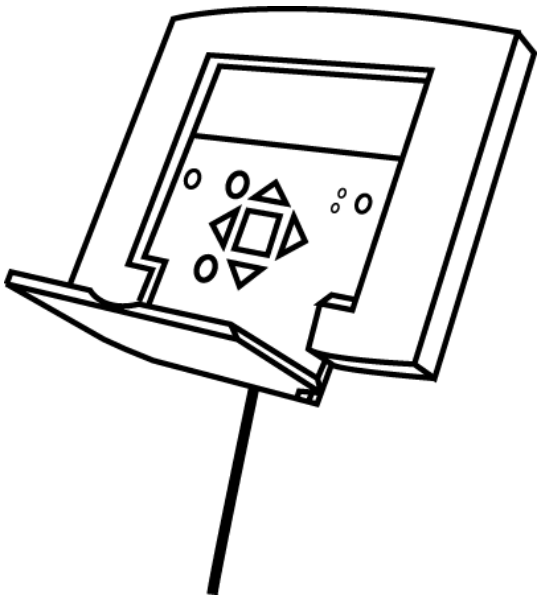

Fig. 1 Regulator

Before starting the unit

- The units are delivered in sections, fitted with quick connectors for the control and motor cables between each section. Make sure that these couplings are connected.
- **DVCompact** is equipped in different ways, for example, with water heater or electric heating coil. The control unit is fitted with cables towed out of the unit. Make sure that these cables are connected according to the schedule. The units are supplied with a master switch, which is also the point at which the electrician will connect the unit to the mains. Check voltage - measure between all phases and between all phases and earth. Electric Heating Batteries supplied for a separate power supply. Also check all phases.
- **Supply air sensor** is mounted in the channel. Check that this sensor is not damaged and is far enough away from the heating coil.
- **Control panel with display** is included with the delivery (pickled in the cabinet) and shall be connected to the bus cable.

Turn on main switch and fuses in the electrical cabinet. Wait a few minutes while the control panel loads all values. Any error messages is shown on the display.

The unit should now be ready to start.

2 Commissioning Protocol

Company:

Responsible:

Customer	Date	Installation
Object/Unit	Item	Installation address
Model	Serial number	

Time and date set: ☐ Weekly program set: ☐

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

Function	**Default setting**	**Set value**
Temp. (°C)		
Regulatory Function Temp.	Supply ☒ Room ☐ Outside compensatory supply air temp. ☐	Supply ☐ Room ☐ Outside compensatory supply air temp. ☐
Outdoor temperature compensation (supply air)		
Set point	21,0 °C	____ °C
Breakpoint 1, 2 and 3	-20,0 / 25,0 ____ ____ -10,0 / 23,0	____ / ____ ____ ____ ____ / ____
Breakpoint 4, 5 and 6	-5,0 / 23,0 ____ ____ 5,0 / 20,0	____ / ____ ____ ____ ____ / ____
Breakpoint 7 and 8	10,0 / 18,0 ____ ____	____ / ____ ____ ____
Low set point supply air	14,0 °C	____ °C
High set point supply air	30,0 °C	____ °C
Temperature for switching between supply-and cascade control	13,0 °C	____ °C

Function	Default setting		Set value	
Airflow				
Fan control	Airflow (m³/h) ☐		Airflow (m³/h) ☐	
	Pressure (Pa) ☐		Pressure (Pa) ☐	
Setpoint normal[1]	Inlet fan		Inlet fan	
Setpoint reduced[1]	Inlet fan		Inlet fan	
Outdoor temperature compensation	Lower point -22 °C	-500 m³/h	Lower point °C	m³/h
	Higher point 3 °C	0 m³/h	Higher point °C	m³/h

1. *The airflow and pressure is according to the calculation in the technical description*

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
Night Cooling		
Location	On ☐ 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
CO_2—adjustment		
Active	Never ☒ At off time channel ☐ Always ☐ At on time channel ☐	Never ☐ At off time channel ☐ Always ☐ At on time channel ☐
Shortest running time	20 min	____ min
Activation Level	Half speed 800 ppm Full speed 1000 ppm Difference (below half-speed, fan stops) 160 ppm	Half speed ____ ppm Full speed ____ ppm Difference (below half-speed, fan stops) ____ ppm
Fire Function		
Supply fans at fire	No ☒ Yes ☐	No ☐ Yes ☐
Fire entry	Sealing ☒ Breaking ☐	Sealing ☐ Breaking ☐

Function	Default setting	Set value
HW Heat Pump		
Pump end (generating sets off)	On ☐ Off ☒	On ☐ Off ☐
Stop Delay	5 min	____ min
Pump stop at outdoor temperature	10 °C	____ °C
Hysteresis	1 °C	____ °C
Hours for exercising	15 h	____ h
Cooling, cold water pump		
Stop Delay	5 min	____ min
Other		
Extended operation	60 min	____ min

Alarm settings	Def.setting	Set value	Alarm settings	Def.setting	Set value
1. Malfunction, supply fan			**10. Moisture Deviation**		
Class	A		Class	Not active	
Delay	120 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
2. Malfunctinl, P1–heat, HW-pump (HW-units)			**11. High inlet air temperature**		
Class	Not active		Class	B	
Delay	5 s		Delay	300 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
			High inlet air temperature	35°C	
3. Malfunction, P1–cooling (Cold water pump)			**12. Low inlet air temperature**		
Class	Not active		Class	A	
Delay	5 s		Delay	300 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
			Low inlet air temperature	35°C	
4. Filter guard			**13. Inlet fan, upper limit**		
Class	B		Class	Not active	
Delay	180 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
5. Pressure sensor			**14. Inlet fan, lower limit**		
Class	Not active		Class	Not active	
Delay	5 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
6. External freeze guard			**15. High room 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	
7. Fire alarm			**16. Low room temperature**		
Class	A		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	
8. External switch			**17. Overheating, electric heating** (Off on HW-units)		
Class	C		Class	A	

Alarm settings	Def.setting	Set value	Alarm settings	Def.setting	Set value
Delay	0 S		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	Yes	
9. External alarm			**18. Freeze protection**		
Class	B		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. Low freeze protection temperature			**27. Inlet fan, freq. conv. manual**		
(Applies to HW-units)					
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				
20. Sensor failure			**28. Heating coil in manual mode**		
Class	B		Class	Not active	
Delay	5s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
21. Fire dampers			**29. Cooling coil 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	
22. Inlet fan, control errors			**30. P1–heat in manual mode**		
			(Only for HW-units)		
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				
23. Inlet fan, external operating			**31. P1–Cooling in manual modee**		
Class	Not active		Class	Not active	
Delay	1200 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
24. Ventilation in manual modee			**32. Fire dampers manual**		
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
25. Supply air control in manual model			**33. Error on internal battery**		
Class	Not active		Class	A	
Delay	0 s		Delay	0 s	
The unit stopped at alarm	No		The unit stopped at alarm	No	
26. Supply fan in manual mode					
Class	Not active				
Delay	0 s				
The unit stopped at alarm	No				

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

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