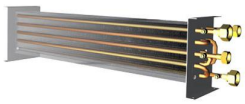
TROX® TECHNIK
The art of handling air



Conforme à VDI 6022

FSL-B-SEK

SECONDARY AIR UNIT WITH HEAT EXCHANGER FOR INSTALLATION UNDER THE SILL

Ready-to-operate decentralised ventilation unit that provides good comfort levels

- Acoustically optimised EC fan with low specific fan powers, SFP = 1 according to EN 13779
- Heat exchanger for heating and cooling as 2-pipe or 4-pipe system
- G3 filter fleece to protect the unit
- Condensate drip tray with condensate drain

Optional equipment and accessories

- Modular control system X-AIRCONTROL, specially for decentralised ventilation systems
- Various fixing systems to fix the unit to the floor or wall
- Powder coating in many different colours, e.g. RAL CLASSIC

Application

Application

- 2-pipe or 4-pipe heat exchangers enable good comfort levels
- Inducing displacement flow
- Energy-efficient solution since water is used as a medium for heating and cooling
- For new buildings and refurbishment projects
- Installation under the sill
- Typical installation locations include offices and meeting rooms

Special characteristics

- Air-water heat exchanger as 2-pipe or 4-pipe system, with G½" union nuts and flat seals
- 4 levelling feet (optional)
- Installation into a frame as an option
- Condensate drip tray with condensate drain
- Easy filter change with quick release fasteners, no tools required
- Compact construction, hence particularly suitable for refurbishment projects

Description

Variants

- Traungasse project (Vienna, Austria)
- Bennigsenplatz project (Düsseldorf, Germany)
- Laimer Würfel project (Munich, Germany)

Construction

- Powder-coated RAL 9005, black, gloss level 70 %
- P1: Powder-coated in any other RAL colour, gloss level 70 %

Useful additions

- Modular control system X-AIRCONTROL, specially for decentralised ventilation systems
- Connecting hoses

Construction features

- 1 energy-efficient EC fan with low specific fan powers, SFP = 1 according to EN 13779
- The supply air is discharged to the room as an inducing displacement flow from the lower front part of the unit

Materials and surfaces

- Casing, filter chamber cover, fans and levelling feet are made of galvanised sheet steel
- Heat exchanger with copper tubes and aluminium fins
- Casing is powder-coated RAL 9005, black, or in any other RAL colour
- Mineral wool lining to DIN 4102, fire rating class A, faced with glass fibre fabric as a protection against erosion, effective with airflow velocities up to 20 m/s
- Closed cell sealing strips

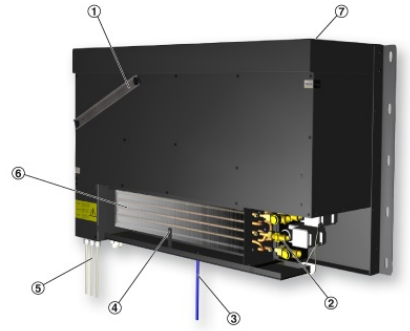
TECHNICAL INFORMATION

Functional description

Decentralised secondary air units dissipate cooling loads and heat loads.

The room air is taken in by an EC centrifugal fan and passes through a filter fleece. The air is subsequently heated or cooled by the heat exchanger and eventually supplied to the room as an inducing displacement flow.

Schematic illustration of FSL-B-SEK (Traungasse project)



① Cover of G3 coarse dust filter chamber
② Water connections
③ Condensate drain
④ Supply air temperature sensor (optional)
⑤ Electrical connections
⑥ Heat exchanger
⑦ Room air inlet

	Traungasse	Bennigsenplatz	Laimer Würfel
Width	1085 mm	1590 mm	950 mm
Height	630 mm	503 mm	586 mm
Depth	319 mm	400 mm	491 mm
Fresh air flow rate	-	-	-
Supply air flow rate	Up to 150 m^3/h	Up to 150 m^3/h	Up to 200 m^3/h
Cooling capacity	Up to 390 W	Up to 390 W	Up to 520 W
Heating capacity	Up to 830 W	Up to 940 W	Up to 1220 W
Max. operating pressure, water side	6 bar	6 bar	6 bar
Max. operating temperature	75 °C	75 °C	75 °C
Sound power level	27 – 37 dB(A)	26 – 35 dB(A)	36 – 43 dB(A)
Supply voltage	230 V AC ±10 %, 50/60 Hz	230 V AC ±10 %, 50/60 Hz	230 V AC ±10 %, 50/60 Hz

FSL-B-SEK (Traungasse)

Supply air flow rate	m^3/h	90	120	150
Fresh air flow rate	m^3/h	0	0	0
Total cooling capacity	W	240	320	390
Internal cooling capacity	W	240	320	390
Temperature of the air in the unit	°C	26.0	26.0	26.0
Relative humidity	%	50.0	50.0	50.0
Water content of the dry air	g/kg	10.5	10.5	10.5
Supply air temperature	°C	18	18	18
Condensation	g/h	0	0	0
Chilled water flow rate	l/h	100	150	210
Water temperature, inlet	°C	16	16	16
Water temperature, outlet	°C	18.0	17.8	17.6
Pressure drop, water side	kPa	<3	<3	<5
Total heating capacity	W	540	690	830
Internal heating capacity	W	540	690	830
Temperature of the air in the unit	°C	20.0	20.0	20.0
Supply air temperature	°C	37.9	37	36.5
Hot water flow rate	l/h	50	70	100
Water temperature, inlet	°C	60	60	60
Water temperature, outlet	°C	50.5	51.4	52.7
Pressure drop, water side	kPa	<3	<3	<3
Sound power level L_{WA}	dB (A)	27	32	37
Sound pressure level with 8 dB room attenuation	dB (A)	19	24	29

FSL-B-SEK (Bennigsenplatz)

Supply air flow rate	m^3/h	90	120	150
Fresh air flow rate	m^3/h	0	0	0
Total cooling capacity	W	240	320	390
Internal cooling capacity	W	240	320	390
Temperature of the air in the unit	°C	26.0	26.0	26.0
Relative humidity	%	50.0	50.0	50.0
Water content of the dry air	g/kg	10.5	10.5	10.5
Supply air temperature	°C	18	18	18
Condensation	g/h	0	0	0
Chilled water flow rate	l/h	80	130	180
Water temperature, inlet	°C	16	16	16
Water temperature, outlet	°C	18.6	18.1	17.9
Pressure drop, water side	kPa	<3	<3	<5
Total heating capacity	W	580	770	940
Internal heating capacity	W	580	770	940
Temperature of the air in the unit	°C	20.0	20.0	20.0
Supply air temperature	°C	39.2	39	38.7
Hot water flow rate	l/h	50	90	150
Water temperature, inlet	°C	60	60	60
Water temperature, outlet	°C	49.9	52.5	54.5
Pressure drop, water side	kPa	<3	<3	<5
Sound power level L_{WA}	dB (A)	26	30	35
Sound pressure level with 8 dB room attenuation	dB (A)	18	22	27

Decentralised secondary air units of Type FSL-B-SEK, with heat exchanger, for installation under the sill.

Special characteristics

- Air-water heat exchanger as 2-pipe or 4-pipe system, with G½" union nuts and flat seals
- 4 levelling feet (optional)
- Installation into a frame as an option
- Condensate drip tray with condensate drain
- Easy filter change with quick release fasteners, no tools required
- Compact construction, hence particularly suitable for refurbishment projects

Materials and surfaces

- Casing, filter chamber cover, fans and levelling feet are made of galvanised sheet steel
- Heat exchanger with copper tubes and aluminium fins
- Casing is powder-coated RAL 9005, black, or in any other RAL colour
- Mineral wool lining to DIN 4102, fire rating class A, faced with glass fibre fabric as a protection against erosion, effective with airflow velocities up to 20 m/s
- Closed cell sealing strips

Construction

- Powder-coated RAL 9005, black, gloss level 70 %
- P1: Powder-coated in any other RAL colour, gloss level 70 %

Technical data

- Width: 1085, 1590, 950 mm
- Height: 630, 503, 586 mm
- Depth: 319, 400, 491 mm
- Fresh air flow rate: –
- Supply air flow rate: up to 200 m³/h
- Cooling capacity: up to 520 W
- Heating capacity: up to 1220 W
- Max. operating pressure: 6 bar
- Max. operating temperature: 75 °C
- Sound power level: 26 – 43 dB(A)
- Supply voltage: 230 V AC ±10 %, 50/60 Hz
- Rating: up to 27 VA
- Power consumption: 18 W with boost level, 10 W with medium speed (nominal volume flow rate)

FSL-B-SEK

FSL - B - SEK – 4 / 1085 x 319 x 630 / R
1 2 3 4

1 Type
FSL-B-SEK Decentralised under sill ventilation units

2 Heat exchanger
2 2-pipe
4 4-pipe

3 Dimensions [mm]
B × H × T
1085 × 630 × 319
1590 × 503 × 400
949 × 586 × 491

4 Control equipment
No entry: none
R With