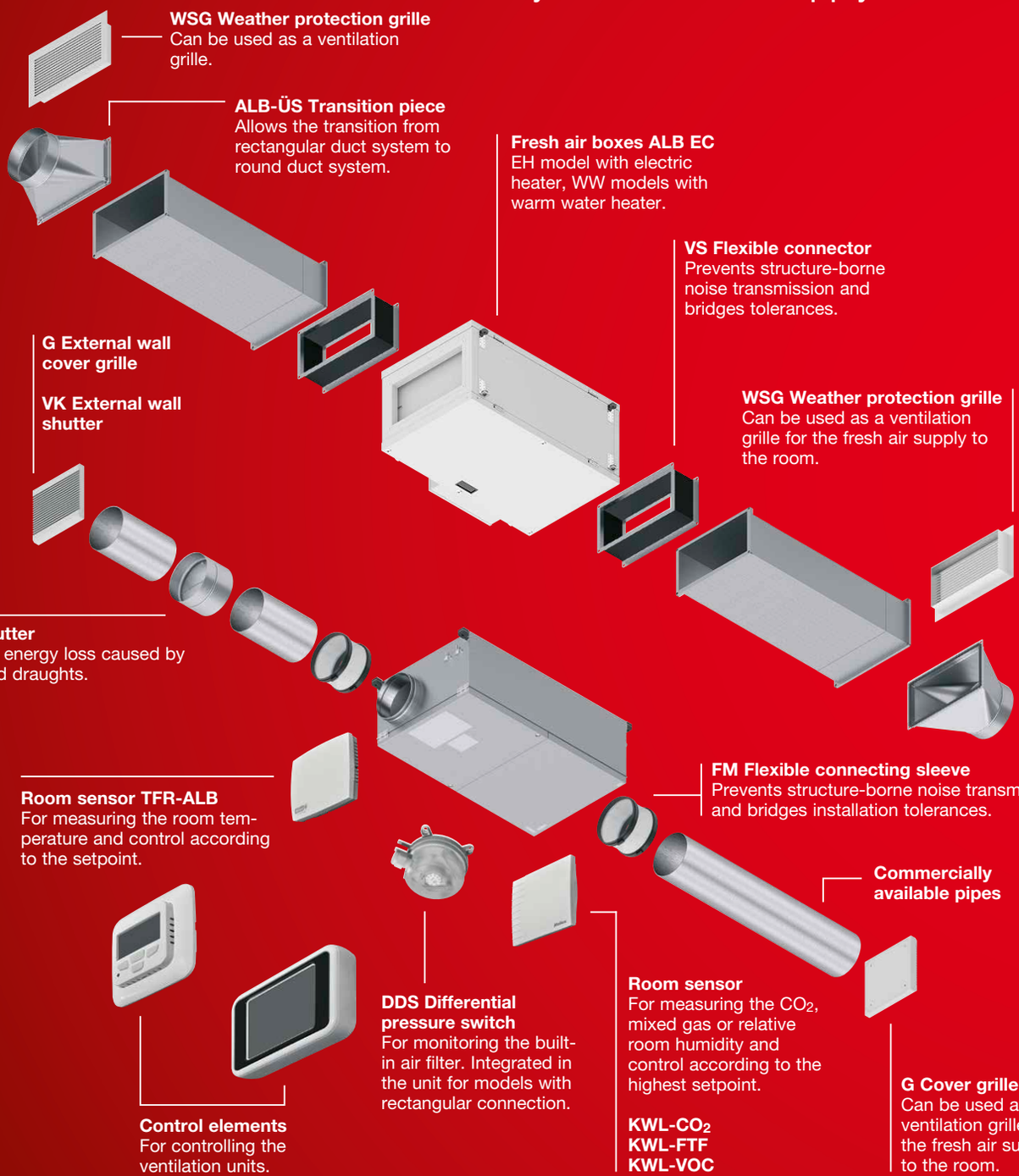
ALB

catalogus

Feel-good atmosphere. **With preheated, filtered supply air.**

System solution: Supply air ductwork.



WSG Weather protection grille
Can be used as a ventilation grille.

ALB-ÜS Transition piece
Allows the transition from rectangular duct system to round duct system.

Fresh air boxes ALB EC
EH model with electric heater, WW models with warm water heater.

VS Flexible connector
Prevents structure-borne noise transmission and bridges tolerances.

G External wall cover grille

VK External wall shutter

WSG Weather protection grille
Can be used as a ventilation grille for the fresh air supply to the room.

Duct shutter
Prevents energy loss caused by unwanted draughts.

RSK
RVS
RVM

Room sensor TFR-ALB
For measuring the room temperature and control according to the setpoint.

FM Flexible connecting sleeve
Prevents structure-borne noise transmission and bridges installation tolerances.

Commercially available pipes

DDS Differential pressure switch
For monitoring the built-in air filter. Integrated in the unit for models with rectangular connection.

Room sensor
For measuring the CO_2, mixed gas or relative room humidity and control according to the highest setpoint.

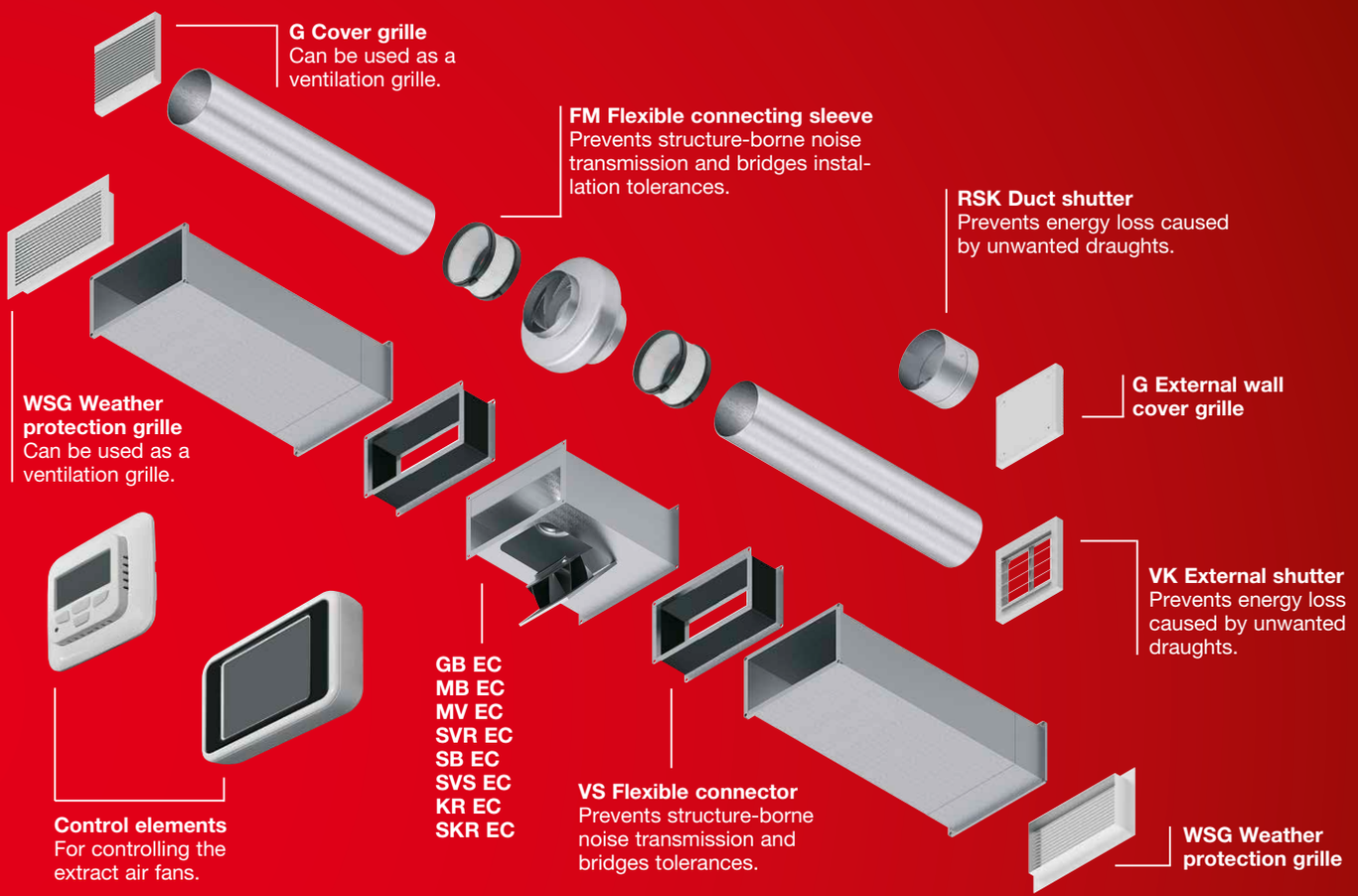
KWL-CO_2
KWL-FTF
KWL-VOC

G Cover grille
Can be used as a ventilation grille for the fresh air supply to the room.

Control elements
For controlling the ventilation units.

System solution: Extract air ductwork.

The fresh air box control elements allow the control of extract air fans in the Helios range.



Incredibly practical:

Supply air, heating and filter in one single unit. For direct insertion in round duct and rectangular duct runs.
The Helios fresh air boxes ALB provide for a pleasant indoor climate by supplying external intake air which is filtered and heated to the pre-set temperature.

ALB are ideally suitable for all rooms where clean and pre-heated fresh air is required.

Whether in bistros, boutiques or other commercial areas. Specially equipped silencer casings and low-noise centrifugal fans ensure that the fresh air boxes are virtually silent. Large cartridge filters result in the longest possible cleaning intervals.
Control options for maximum comfort and efficient energy saving are included in the scope of delivery or available as accessories.

EH models with electric heater

ALB EC EH
With el. heater and air filter. Heat output control is continuously variable. Delivered ready-for-connection with control unit incl.

Ø 125 – 250 mm
▭ 30 x 20 cm

316ff

WW models with warm water heater

ALB EC WW
With warm water heater and air filter. Delivered ready-for-connection with control unit included.

▭ 40 x 20 cm, 50 x 30 cm, 60 x 35 cm, 80 x 50 cm

324ff

125 mm ø fresh air box ALB EC EH with electric heating element and air filter

Application / Function

Pleasant indoor climate through the addition of external fresh air which is filtered and automatically heated to the specified temperature. This is achieved by the Helios fresh air boxes.

Operational unit for connection to round duct systems. Suitable for a wide range of applications.

Description / Delivery

The air filter, fan, heater with controller and electrical terminal box are integrated in a compact flat casing which is thermally and acoustically insulated. Equipped as standard with a continuously variable, electronic heating controller and an external control unit for controlling the unit, as well as a connection cable (10 metres). Air quality, humidity and temperature sensors (see accessories) can be connected to the electronics in the terminal box to control the specified setpoints.

Casing

Robust construction made of galvanised steel sheet, 50 mm thick mineral wool lining on all sides, which is also covered with dirt-repellent glass fabric. The cover is easy to open with screw caps and hinge for cleaning purposes. Round duct connectors on inlet side and outlet side with sealing lips, adapted to standard duct Ø. No thermal bridges, smooth surface for easy cleaning.

Filter

The large filter for long cleaning intervals is freely accessible by opening the casing cover. Standard version in class M5[1]. Alternatively, filters with higher classifications in F7[2] (see accessories) can be used. The volume output reduction must be taken into account. Periodic filter inspection / cleaning is required. Equipment with automatic monitoring DDS (see accessories) is recommended.

Fan

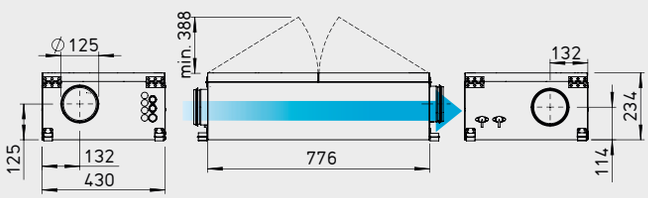
The volume flow rate switching is continuously variable with the control unit. Low-noise and high performance centrifugal fan made of galvanised steel sheet.

ALB EC EH

Efficiency class

B

ALB EC 125 EH



Dimensions in mm

Motor / impeller unit freely accessible for servicing. Drive through energy-saving, speed-controllable EC motor with the highest level of efficiency. Maintenance-free, with lifetime lubricated ball bearings.

Heating element

Enclosed sheathed heating elements made of stainless steel with low surface temperature heat the intake air to the specified setpoint temperature. The electronic pulser continuously variably controls the heat output in constant comparison between the setpoint and the temperature measured by the room or duct sensor.

Turn-off delay

The unit has a fixed turn-off delay time of approx. 2 minutes if the heating element has been activated.

Electrical connection

Spacious terminal box inside the casing. Cable entry from the front of the unit through three cable glands and another four holes are provided.

Motor protection

Deactivation when overheating is imminent. Automatic reactivation after cool down.

Noise

The total level and range for the case-radiated sound power and outlet side sound power in dB(A) are specified above the performance diagram. In addition, the type table shows the radiated noise and outlet side air noise as sound pressure at 1 m (free field conditions). If necessary, a cross talk silencer (see accessories) must be integrated in the duct system on site.

Control

The control element is included in the delivery and allows:

- Operation with different volume flows.
- Weekly and seasonal timer.
- Temperature control (using room sensor, accessories).
- Control of electronic heating controller. Specification of min. / max. temperature.
- Control of an EC extract air fan.
- Display of room temperature, outdoor temperature, supply air temperature, fan control and filter contamination (using differential pressure switch, accessories).

Other inputs and outputs:

- Emergency switch.
- Boost switch.
- Input for air quality or humidity sensor.
- Input for room temperature sensor.

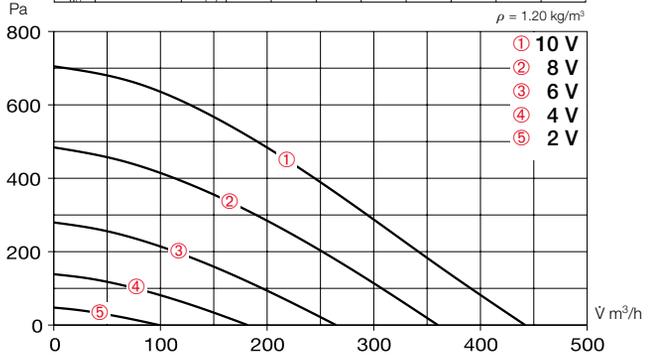
Control element with connection cable (10 m) included in delivery. For flush-mounted installation. Dim. mm (W x H) 82 x 82

Type	Ref. no.	Flow rate* free blowing	Max. speed	Sound pressure level Case radiation	Sound pressure level Air noise outlet side	Voltage 50 Hz	Power consumption	Current consumption max. tot.	Wiring diagram	Maximum intake temperature	Weight net approx.
		V̇ m³/h (max.)	min⁻¹	dB(A) at 1 m	dB(A) at 1 m	Volt	kW	A	No.	+°C	kg
ALB EC 125 EH	06808	440	3550	46	64	230, 1~	2.10	9.52	1308	40	20

* Volume reduction by approx. 15 % when using the F7 filter [2].

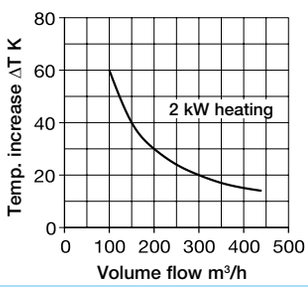
ALB EC 125 EH

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	52	44	50	46	37	35	34	30
L_{WA}	Inlet side	dB(A)	61	54	57	51	43	48	45	33
L_{WA}	Outlet side	dB(A)	72	61	63	67	64	67	60	52



Free blowing

Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	3550	440	100	0.80	46	0.82
8	2970	370	57	0.50	43	0.55
6	2290	270	26	0.25	37	0.35
4	1610	190	10	0.10	30	0.19



Reference

The integration of air filters ELF-ALB 125 F7 [2] (see right) and differential pressure switches DDS (accessories) in outdoor installation fulfils the requirements of VDI 6022.

Reference	Page
Planning information	10 ff.

Other accessories	Page
Silencers	468 f.
Flexible ventilation ducts, ventilation grilles, fittings, shutters, supply air disc valves	556 f.

Accessories

Replacement and pollen filter
Large bag or cassette filter for long cleaning intervals. Unit = 3 pcs.
– Filter class M5 [1]
ELF-ALB 125 M5 [1] No. 07231
– Filter class F7 [2]
ELF-ALB 125 F7 [2] No. 07337

Room sensor – Temperature
Type TFR-ALB No. 40000
Room temperature sensor for surface installation.

Temperature range	0 – 30 °C
Protection category	IP 20
Dimensions mm	W 86 x H 86 x D 30
Weight approx.	0.1 kg

Differential pressure switch
Type DDS No. 00445
Adjustable normally closed / normally open contact for monitoring drops in pressure.

Flexible cross talk silencer
Type FSD 125 No. 00677
Made of aluminium pipe with double-sided plug-in connectors. Sound insulation lining 50 mm thick, installation length 1 m.

Pipe clamp connectors
Type BM 125 Ref. no. 05076
For structure-borne noise-free connection of fan and piping and for suspension (1 set = 2 pcs.).

External wall cover grille
Type G 160 Ref. no. 00893
Made of plastic, white. For covering and insertion in round ventilation openings.

Duct shutter
Type RSSK 125 Ref. no. 05107
Automatic, made of plastic.

Supply air disc valve
Type KTVZ 125 Ref. no. 02737
Made of plastic, for low and high flow velocities or resistances.

Supply air disc valve
Type MTVZ 125 Ref. no. 09605
Made of metal, for low to high flow velocities.

[1] M5 = ISO ePM2.5 60%. [2] F7 = ISO ePM1 50%.

200 mm ø fresh air box ALB EC EH with electric heating element and air filter

Application / Function

Pleasant indoor climate through the addition of external fresh air which is filtered and automatically heated to the specified temperature. This is achieved by the Helios fresh air boxes.

Operational unit for connection to round duct systems. Suitable for a wide range of applications.

Description / Delivery

The air filter, fan, heater with controller and electrical terminal box are integrated in a compact flat casing which is thermally and acoustically insulated. Equipped as standard with a continuously variable, electronic heating controller and an external control unit for controlling the unit, as well as a connection cable (10 metres). Air quality, humidity and temperature sensors (see accessories) can be connected to the electronics in the terminal box to control the specified setpoints.

Casing

Robust construction made of galvanised steel sheet, 50 mm thick mineral wool lining on all sides, which is also covered with dirt-repellent glass fabric. The cover is easy to open with screw caps and hinge for cleaning purposes. Round duct connectors on inlet side and outlet side with sealing lips, adapted to standard duct Ø. No thermal bridges, smooth surface for easy cleaning.

Filter

The large filter for long cleaning intervals is freely accessible by opening the casing cover. Standard version in class M5[1]. Alternatively, filters with higher classifications in F7[2] (see accessories) can be used. The volume output reduction must be taken into account. Periodic filter inspection / cleaning is required. Equipment with automatic monitoring DDS (see accessories) is recommended.

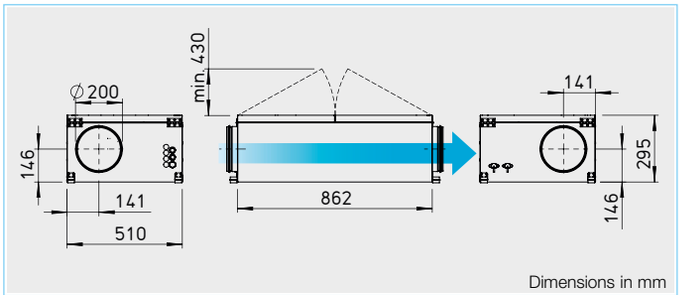
Fan

The volume flow rate switching is continuously variable with the control unit. Low-noise and high performance centrifugal fan made of galvanised steel sheet.

ALB EC EH

Efficiency class

B ALB EC 200 EH



Dimensions in mm

Motor / impeller unit freely accessible for servicing. Drive through energy-saving, speed-controllable EC motor with the highest level of efficiency. Maintenance-free, with lifetime lubricated ball bearings.

Heating element

Enclosed sheathed heating elements made of stainless steel with low surface temperature heat the intake air to the specified setpoint temperature. The electronic pulser continuously variably controls the heat output in constant comparison between the setpoint and the temperature measured by the room or duct sensor.

Turn-off delay

The unit has a fixed turn-off delay time of approx. 2 minutes if the heating element has been activated.

Electrical connection

Spacious terminal box inside the casing. Cable entry from the front of the unit through three cable glands and another four holes are provided.

Motor protection

Deactivation when overheating is imminent. Automatic reactivation after cool down.

Noise

The total level and range for the case-radiated sound power and outlet side sound power in dB(A) are specified above the performance diagram. In addition, the type table shows the radiated noise and outlet side air noise as sound pressure at 1 m (free field conditions). If necessary, a cross talk silencer (see accessories) must be integrated in the duct system on site.

Control

The control element is included in the delivery and allows:

- Operation with different volume flows.
- Weekly and seasonal timer.
- Temperature control (using room sensor, accessories).
- Control of electronic heating controller. Specification of min. / max. temperature.
- Control of an EC extract air fan.
- Display of room temperature, outdoor temperature, supply air temperature, fan control and filter contamination (using differential pressure switch, accessories).

Other inputs and outputs:

- Emergency switch.
- Boost switch.
- Input for air quality or humidity sensor.
- Input for room temperature sensor.

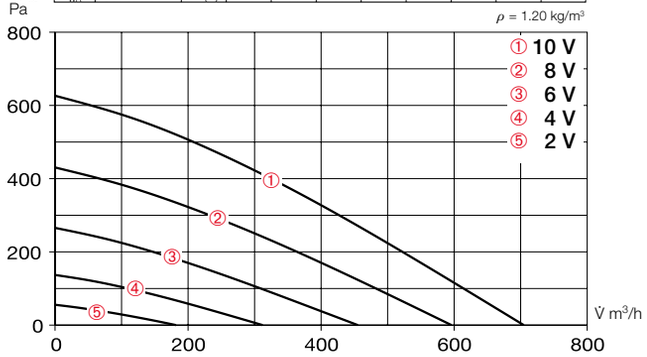
Control element with connection cable (10 m) included in delivery. For flush-mounted installation. Dim. mm (W x H) 82 x 82

Type	Ref. no.	Flow rate* free blowing	Max. speed	Sound pressure level Case radiation	Sound pressure level Air noise outlet side	Voltage 50 Hz	Power consumption	Current consumption max. tot.	Wiring diagram	Maximum intake temperature	Weight net approx.
		V̇ m³/h (max.)	min⁻¹	dB(A) at 1 m	dB(A) at 1 m	Volt	kW	A	No.	+°C	kg
ALB EC 200 EH	06809	700	2870	47	65	400, 3N~	5.12	13.47	1309	40	26

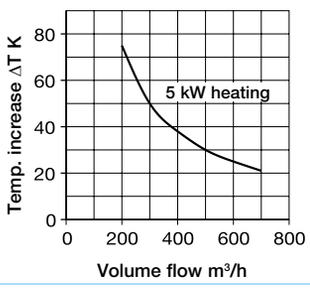
* Volume reduction by approx. 15 % when using the F7 filter [2].

ALB EC 200 EH

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	53	42	52	45	35	33	30	28
L_{WA}	Inlet side	dB(A)	63	55	61	52	44	42	42	32
L_{WA}	Outlet side	dB(A)	73	59	69	66	62	60	59	53



Free blowing						
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2830	700	120	0.96	47	0.62
8	2400	570	73	0.63	43	0.46
6	1880	450	33	0.31	38	0.26
4	1370	320	14	0.20	31	0.16



Reference

The integration of air filters ELF-ALB 200 F7 [2] (see right) and differential pressure switches DDS (accessories) in outdoor installation fulfils the requirements of VDI 6022.

Reference	Page
Planning information	10 ff.

Other accessories	Page
Silencers	468 f.
Flexible ventilation ducts, ventilation grilles, fittings, shutters, supply air disc valves	556 f.

Accessories

Replacement and pollen filter
Large bag or cassette filter for long cleaning intervals. Unit = 3 pcs.
– Filter class M5 [1]
ELF-ALB 200 M5 [1] No. 07238
– Filter class F7 [2]
ELF-ALB 200 F7 [2] No. 07266

Room sensor – Temperature
Type TFR-ALB No. 40000
Room temperature sensor for surface installation.

Temperature range	0 – 30 °C
Protection category	IP 20
Dimensions mm	W 86 x H 86 x D 30
Weight approx.	0.1 kg

Differential pressure switch
Type DDS No. 00445
Adjustable normally closed / normally open contact for monitoring drops in pressure.

Flexible cross talk silencer
Type FSD 200 No. 00679
Made of aluminium pipe with double-sided plug-in connectors. Sound insulation lining 50 mm thick, installation length 1 m.

Pipe clamp connectors
Type BM 200 Ref. no. 05078
For structure-borne noise-free connection of fan and piping and for suspension (1 set = 2 pcs.).

Duct shutter
Type RSK 200 Ref. no. 05074
Automatic, made of plastic.

External wall cover grille
Type G 200 Ref. no. 00255
Made of plastic, white. For covering and insertion in round ventilation openings.

Supply air disc valve
Type KTVZ 200 Ref. no. 02739
Made of plastic, for low and high flow velocities or resistances.

Supply air disc valve
Type MTVZ 200 Ref. no. 09607
Made of metal, for low to high flow velocities.

[1] M5 = ISO ePM2.5 60%. [2] F7 = ISO ePM1 50%.

250 mm ø fresh air box ALB EC EH with electric heating element and air filter

Application / Function

Pleasant indoor climate through the addition of external fresh air which is filtered and automatically heated to the specified temperature. This is achieved by the Helios fresh air boxes.

Operational unit for connection to round duct systems. Suitable for a wide range of applications.

Description / Delivery

The air filter, fan, heater with controller and electrical terminal box are integrated in a compact flat casing which is thermally and acoustically insulated. Equipped as standard with a continuously variable, electronic heating controller and an external control unit for controlling the unit, as well as a connection cable (10 metres). Air quality, humidity and temperature sensors (see accessories) can be connected to the electronics in the terminal box to control the specified setpoints.

Casing

Robust construction made of galvanised steel sheet, 50 mm thick mineral wool lining on all sides, which is also covered with dirt-repellent glass fabric. The cover is easy to open with screw caps and hinge for cleaning purposes. Round duct connectors on inlet side and outlet side with sealing lips, adapted to standard duct Ø. No thermal bridges, smooth surface for easy cleaning.

Filter

The large filter for long cleaning intervals is freely accessible by opening the casing cover. Standard version in class M5[1]. Alternatively, filters with higher classifications in F7[2] (see accessories) can be used. The volume output reduction must be taken into account. Periodic filter inspection / cleaning is required. Equipment with automatic monitoring DDS (see accessories) is recommended.

Fan

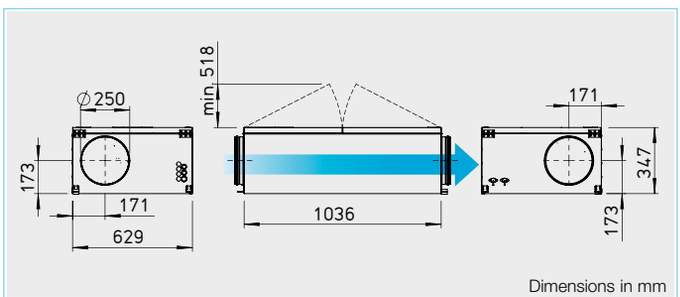
The volume flow rate switching is continuously variable with the control unit. Low-noise and high performance centrifugal fan made of galvanised steel sheet.

ALB EC EH

Efficiency class

B

ALB EC 250 EH



Dimensions in mm

Motor / impeller unit freely accessible for servicing. Drive through energy-saving, speed-controllable EC motor with the highest level of efficiency. Maintenance-free, with lifetime lubricated ball bearings.

Heating element

Enclosed sheathed heating elements made of stainless steel with low surface temperature heat the intake air to the specified setpoint temperature. The electronic pulser continuously variably controls the heat output in constant comparison between the setpoint and the temperature measured by the room or duct sensor.

Turn-off delay

The unit has a fixed turn-off delay time of approx. 2 minutes if the heating element has been activated.

Electrical connection

Spacious terminal box inside the casing. Cable entry from the front of the unit through three cable glands and another four holes are provided.

Motor protection

Deactivation when overheating is imminent. Automatic reactivation after cool down.

Noise

The total level and range for the case-radiated sound power and outlet side sound power in dB(A) are specified above the performance diagram. In addition, the type table shows the radiated noise and outlet side air noise as sound pressure at 1 m (free field conditions). If necessary, a cross talk silencer (see accessories) must be integrated in the duct system on site.

Control

The control element is included in the delivery and allows:

- Operation with different volume flows.
- Weekly and seasonal timer.
- Temperature control (using room sensor, accessories).
- Control of electronic heating controller. Specification of min. / max. temperature.
- Control of an EC extract air fan.
- Display of room temperature, outdoor temperature, supply air temperature, fan control and filter contamination (using differential pressure switch, accessories).

Other inputs and outputs:

- Emergency switch.
- Boost switch.
- Input for air quality or humidity sensor.
- Input for room temperature sensor.

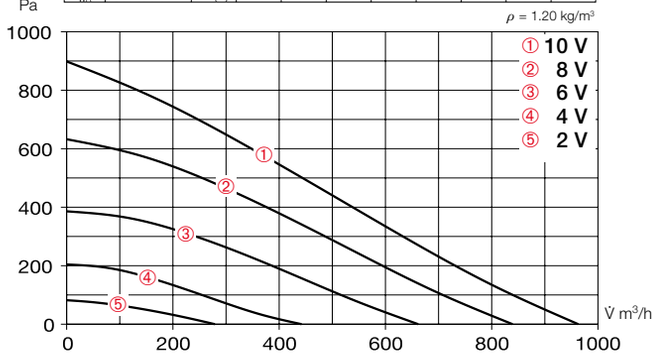
Control element with connection cable (10 m) included in delivery. For flush-mounted installation. Dim. mm (W x H) 82 x 82

Type	Ref. no.	Flow rate* free blowing	Max. speed	Sound pressure level Case radiation	Sound pressure level Air noise outlet side	Voltage 50 Hz	Power consumption	Current consumption max. tot.	Wiring diagram	Maximum intake temperature	Weight net approx.
		V̇ m³/h (max.)	min⁻¹	dB(A) at 1 m	dB(A) at 1 m	Volt	kW	A	No.	+°C	kg
ALB EC 250 EH	06818	960	2970	42	62	400, 3N~	5.17	13.81	1309	40	36

* Volume reduction by approx. 15 % when using the F7 filter [2].

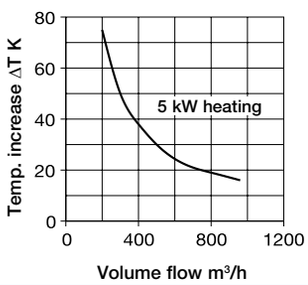
ALB EC 250 EH

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	48	35	46	40	34	33	32	28
L_{WA}	Inlet side	dB(A)	59	54	54	49	44	41	40	32
L_{WA}	Outlet side	dB(A)	70	57	66	61	62	58	57	50



Free blowing

Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2850	950	160	1.27	42	0.61
8	2500	820	104	0.88	39	0.46
6	2000	650	55	0.48	34	0.30
4	1400	460	20	0.20	27	0.16



Reference

The integration of air filters ELF-ALB 250 F7 [2] (see right) and differential pressure switches DDS (accessories) in outdoor installation fulfils the requirements of VDI 6022.

Reference	Page
Planning information	10 ff.

Other accessories	Page
Silencers	468 f.
Flexible ventilation ducts, ventilation grilles, fittings, shutters, supply air disc valves	556 f.

Accessories

Replacement and pollen filter
Large bag or cassette filter for long cleaning intervals. Unit = 3 pcs.
– Filter class M5 [1]
ELF-ALB 250 M5 [1] No. 07294
– Filter class F7 [2]
ELF-ALB 250 F7 [2] No. 07305

Room sensor – Temperature
Type TFR-ALB No. 40000
Room temperature sensor for surface installation.

Temperature range	0 – 30 °C
Protection category	IP 20
Dimensions mm	W 86 x H 86 x D 30
Weight approx.	0.1 kg

Differential pressure switch
Type DDS No. 00445
Adjustable normally closed / normally open contact for monitoring drops in pressure.

Flexible cross talk silencer
Type FSD 250 No. 00680
Made of aluminium pipe with double-sided plug-in connectors. Sound insulation lining 50 mm thick, installation length 1 m.

Pipe clamp connectors
Type BM 250 Ref. no. 00579
For structure-borne noise-free connection of fan and piping and for suspension (1 set = 2 pcs.).

Duct shutter
Type RSK 250 Ref. no. 05673
Automatic, made of plastic.

Automatic duct shutter
Type RVS 250 Ref. no. 02592
With spring return, can be installed horizontally in any direction, vertically with throughflow from bottom to top. Shutter opening in flow direction; automatic function through fan operation.

External wall cover grille
Type G 250 Ref. no. 00256
Made of plastic, white. For covering and insertion in round ventilation openings.

[1] M5 = ISO ePM2.5 60%. [2] F7 = ISO ePM1 50%.

Fresh air box ALB EC EH
backward curved, for rectangular ducts 30 x 20 cm

ALB EC EH

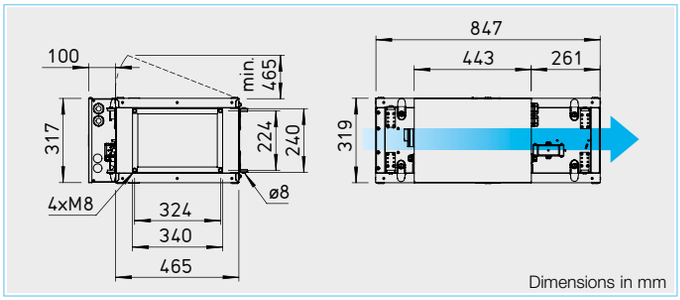
■ **Application / Function**
Pleasant indoor climate through the addition of external fresh air which is filtered and automatically heated to the specified temperature. This is achieved by the Helios fresh air boxes.

Operational unit for connection to rectangular duct systems. Suitable for a wide range of commercial applications.

■ **Description / Delivery**
The air filter, fan and electric heating element are integrated in a compact flat casing which is thermally and acoustically insulated. The unit is delivered ready for connection and includes an external control unit for controlling the unit, as well as a connection cable (10 metres). Air quality, humidity and temperature sensors (see accessories) can be connected to the electronics in the terminal box to control the specified setpoints.

☐ **Casing**
Robust construction made of coated steel sheet, double-walled with 30 mm thick mineral wool lining. The cover is easy to open with screw caps and hinge for cleaning purposes. Rectangular duct connectors on inlet side and outlet side, adapted to standard rectangular duct dimensions.
No thermal bridges, smooth surface for easy cleaning.

☐ **Filter**
The large filter for long cleaning intervals is freely accessible by opening the casing cover. Standard version in class G4[1]. Alternatively, filters with higher classifications in M5[2] or F7[3] (see accessories) can be used. The volume output reduction must be taken into account. Periodic filter inspection / cleaning is required.



Dimensions in mm

A filter monitoring system is integrated.
The requirements of VDI 6022 are fulfilled through the integration of a F7 filter[3].

☐ **Fan**
The volume flow rate switching is continuously variable with the control unit. Low-noise and high performance centrifugal fan made of galvanised steel sheet. Motor / impeller unit freely accessible for servicing. Drive through energy-saving, speed-controllable EC motor with the highest level of efficiency. Maintenance-free, with lifetime lubricated ball bearings.

☐ **Heating element**
The electric heating element made of stainless steel with low surface temperature heats the intake air to the specified setpoint temperature.
Control via the integrated control board. The setpoint and the temperature measured by the room sensor (accessories) are constantly compared.
The electric heating element is equipped with an automatic safety temperature limiter (+ 50 °C) and a manually resettable safety temperature limiter (+ 115 °C).

☐ **Electrical connection**
Spacious terminal box in IP 20 on outside of casing.

☐ **Motor protection**
Deactivation when overheating is imminent. Automatic reactivation after cool down.

■ **Noise**
The type table shows the radiated noise and outlet side air noise as sound pressure at 1 m (free field conditions).
If necessary, a cross talk silencer (see accessories) must be integrated in the duct system on site.

■ **Control**
The control element is included in the delivery and allows:
☐ Operation with different volume flows.
☐ Weekly and seasonal timer.
☐ Temperature control (using room sensor, accessories).
☐ Control of an EC extract air fan.
☐ Display of ambient temperature, fan control and filter contamination.

■ **Other inputs and outputs:**
☐ Emergency switch.
☐ Boost switch.
☐ External switch.
☐ Input for air quality or humidity sensor.
☐ Input for room temperature sensor.
☐ Output for shutter control.

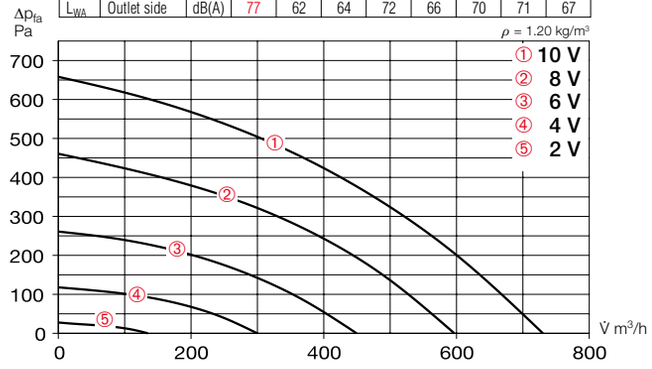
Control element with connection cable (10 m) included in delivery.
Dimensions mm (W x H x D) 115 x 80 x 25

Type	Ref. no.	Flow rate* free blowing	Max. speed	Sound pressure level Case radiation	Sound pressure level Air noise outlet side	Voltage 50/60 Hz	Power consumption Motor	Power consumption Heater	Current consump. max. tot.	Wiring diagram	Maximum intake temperature	Weight net approx.
		V̇ m³/h (max.)	min⁻¹	dB(A) at 1 m	dB(A) at 1 m	Volt	kW	kW	A	No.	+°C	kg
ALB EC 30/20 EH	06538	720	3900	49	69	230, 1~	0.12	6.60	10.4	1371	40	36

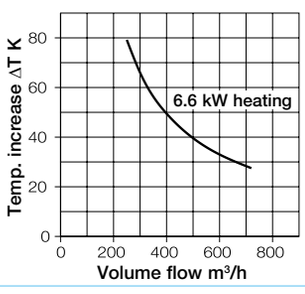
* Volume reduction by approx. 5 % when using the M5 filter[2], by approx. 15 % when using the F7 filter[3].

ALB EC 30/20 EH

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	57	42	45	55	48	47	45	35
L_{WA}	Inlet side	dB(A)	75	60	65	73	65	60	59	58
L_{WA}	Outlet side	dB(A)	77	62	64	72	66	70	71	67



	Free blowing				
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)
10	3860	720	105	0.81	49
8	3200	590	60	0.45	45
6	2420	440	28	0.22	39
4	1640	300	11	0.10	31



Reference

The integration of air filters ELF-ALB 30/20 F7[3] in outdoor installations fulfils the requirements of VDI 6022.

Reference

Other accessories

Accessories

Replacement and pollen filter
– Filter class G4[1]
ELF-ALB 30/20 G4[1] No. 07284
– Filter class M5[2]
ELF-ALB 30/20 M5[2] No. 07285
– Filter class F7[3]
ELF-ALB 30/20 F7[3] No. 07319
Large bag or cassette filter for long cleaning intervals. Unit = 3 pcs.

Room sensor – Air quality
Type KWL-CO_2 Ref. no. 04272
Type KWL-FTF Ref. no. 04273
For measuring the CO_2 concentration or relative room humidity and controlling the ventilation unit according to the setpoint. Maximum total of one sensor can be connected.
Dim. mm (W x H x D) 95 x 97 x 30

Room sensor – Temperature
Type TFR-ALB/KWL No. 07277
For measuring the room temperature and controlling the ventilation unit according to the setpoint.
Incl. 20 m control line.
Dim. mm (W x H x D) 80 x 80 x 25

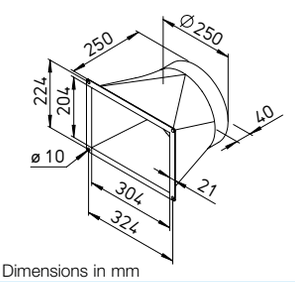
Connection cable
– 20 metres long
Type ALB EC-SK 20 No. 06816

– 40 metres long
Type ALB EC-SK 40 No. 06817
Attach between ALB and control element as well as between ALB and TFR-ALB/KWL.

Transition piece – Symmetrical
Type KWL-ÜS 700 D No. 04206
From unit flange to round duct systems.

Flexible connecting sleeve
Type FM 250 Ref. no. 01672
For acoustic decoupling, incl. 2 pcs. hose clamps.

Angle flange ring
Type FR 250 Ref. no. 01203
Made of galvanised steel sheet, for duct connection.



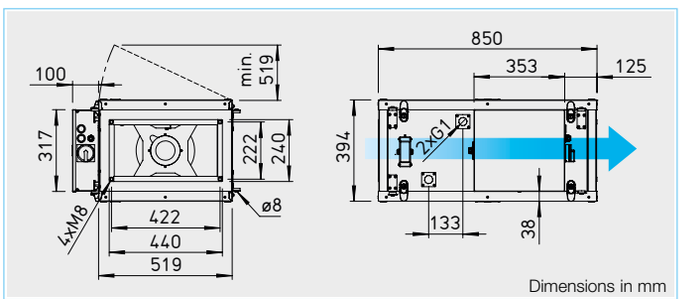
Dimensions in mm

Duct shutter, motorised
Type RVM 250 Ref. no. 02576
Prevents cold draughts when the unit is at a standstill. Automatic function through fan operation, with mounted spring return motor. Installation in any position, closing force adjustable corresponding to fan power and installation position.

[1] G4 = ISO coarse 90%. [2] M5 = ISO ePM10 70%. [3] F7 = ISO ePM1 50%.

Fresh air box ALB EC WW
backward curved, for rectangular ducts 40 x 20 cm

ALB EC WW



Dimensions in mm

■ **Application / Function**
Pleasant indoor climate through the addition of external fresh air which is filtered and automatically heated to the specified temperature. This is achieved by the Helios fresh air boxes.

Operational unit for connection to rectangular duct systems. Suitable for a wide range of commercial applications.

■ **Description / Delivery**
The air filter, fan and warm water heater are integrated in a compact flat casing which is thermally and acoustically insulated. The unit is delivered ready for connection and includes an external control unit for controlling the unit, as well as a connection cable (10 metres). Air quality, humidity and temperature sensors (see accessories) can be connected to the electronics in the terminal box to control the specified setpoints. In order to prevent frost damage to the unit, a shutter (see accessories) is essential.

☐ **Casing**
Robust construction made of coated steel sheet, double-walled with 30 mm thick mineral wool lining. The cover is easy to open with screw caps and hinge for cleaning purposes. Rectangular duct connectors on inlet side and outlet side, adapted to standard rectangular duct dimensions.
No thermal bridges, smooth surface for easy cleaning.

☐ **Filter**
The large filter for long cleaning intervals is freely accessible by opening the casing cover. Standard version in class G4[1]. Alternatively, filters with higher classifications in M5[2] or F7[3] (see accessories) can be used. The volume output reduction must be taken into account. Periodic filter inspection / cleaning is required.
A filter monitoring system is integrated. The filters comply with VDI 6022.

☐ **Fan**
The volume flow rate switching is continuously variable with the control unit. Low-noise and high performance centrifugal fan made of galvanised steel sheet. Motor / impeller unit freely accessible for servicing. Drive through energy-saving, speed-controllable EC motor with the highest level of efficiency. Maintenance-free, with lifetime lubricated ball bearings.

☐ **Heating element**
Air heater with AL blades and staggered copper pipes heat the intake air to the specified setpoint temperature.
Control through connection of a hydraulic unit (accessories) via the integrated control board. The setpoint and the temperature measured by the room sensor (accessories) are constantly compared.
A frost protection circuit is integrated as standard. Max. operating pressure 1.6 MPa.
Water connection pipes with external thread.

☐ **Electrical connection**
Spacious terminal box in IP 20 on outside of casing.

☐ **Motor protection**
Deactivation when overheating is imminent. Automatic reactivation after cool down.

■ **Noise**
The type table shows the radiated noise and outlet side air noise as sound pressure at 1 m (free field conditions).
If necessary, a cross talk silencer (see accessories) must be integrated in the duct system on site.

■ **Control**
The control element is included in the delivery and allows:
☐ Operation with different volume flows.
☐ Weekly and seasonal timer.
☐ Temperature control (using room sensor, accessories).
☐ Frost protection.
☐ Control of hydraulic unit (accessories) for controlling the WW heating element. Specification of min. / max. temperature.
☐ Control of an EC extract air fan.
☐ Display of ambient temperature, fan control and filter contamination.

■ **Other inputs and outputs:**
☐ Emergency switch.
☐ Boost switch.
☐ External switch.
☐ Input for air quality or humidity sensor.
☐ Input for room temperature sensor.
☐ Output for shutter control.

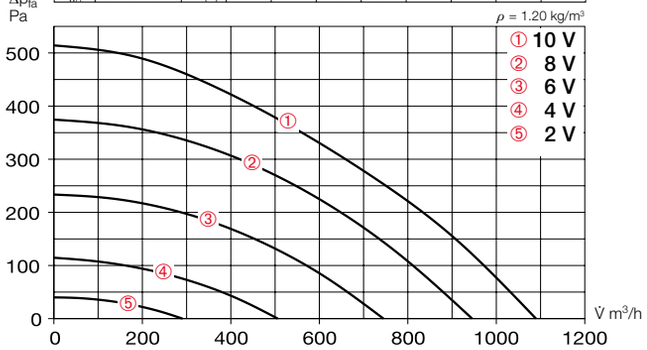
Control element with connection cable (10 m) included in delivery.
Dimensions mm (W x H x D) 115 x 80 x 25

Type	Ref. no.	Flow rate* free blowing	Max. speed	Sound pressure level Case radiation	Sound pressure level Air noise outlet side	Voltage 50/60 Hz	Power consumption Motor	Power consumption Heater	Current consump. max. tot.	Wiring diagram	Maximum intake temperature	Weight net approx.
		$\dot{V}$ m³/h (max.)	min^{-1}	dB(A) at 1 m	dB(A) at 1 m	Volt	kW	kW	A	No.	+°C	kg
ALB EC 40/20 WW	06533	1100	2900	52	73	230, 1~	0.15	—	1.09	1371	40	37

* Volume reduction by approx. 5 % when using the M5 filter[2], by approx. 15 % when using the F7 filter[3].

ALB EC 40/20 WW

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	60	60	64	60	49	44	42	35
L_{WA}	Inlet side	dB(A)	75	73	78	72	67	65	64	59
L_{WA}	Outlet side	dB(A)	81	74	86	81	70	55	57	61



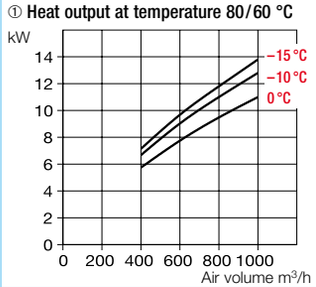
	Free blowing				
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)
10	2890	1090	128	0.92	52
8	2365	945	89	0.68	48
6	1840	745	49	0.38	42
4	1193	505	22	0.20	33

■ **Heat output WW element** ①-③
These diagrams show the heat output depending on the flow/return/outside temp. over the air volume.

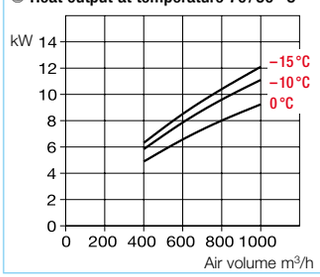
■ **Water volume WW element** ④
shows the water flow rate depending on the flow/return/outside temp. over the air volume.

■ **Pressure loss WW element** ⑤
shows the water throughflow over water pressure loss kPa.

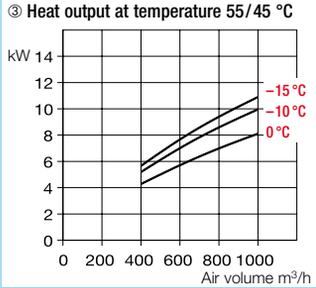
① Heat output at temperature 80/60 °C



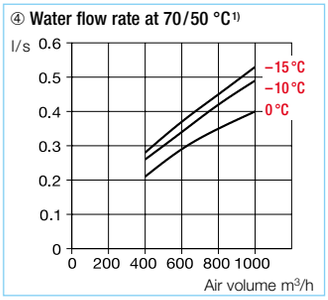
② Heat output at temperature 70/50 °C



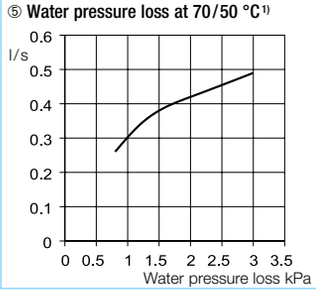
③ Heat output at temperature 55/45 °C



④ Water flow rate at 70/50 °C[1)]



⑤ Water pressure loss at 70/50 °C[1)]



[1)] Corr. factor for 80/50 °C: 1.16; for 55/45 °C: 1.81.

Reference

The integration of air filters ELF-ALB 40/20 F7[3)] in outdoor installations fulfils the requirements of VDI 6022.

Reference	Page
Planning information	10 ff.
Other accessories	**Page**
Silencers	468 f.
Hydraulic unit details	466 f.
Flexible ventilation ducts, ventilation grilles, fittings	
Shutters	533 ff.
Supply air disc valves	556 f.

■ Accessories

Hydraulic unit
WHSH HE 24 V (0-10 V) No. 08318
For controlling the heat output of the warm water heating element in combination with room/duct sensors. Includes VL-/RL temperature display, pump, actuator, mixer valve, gravity brake, thermal cladding and flexible connection hoses.

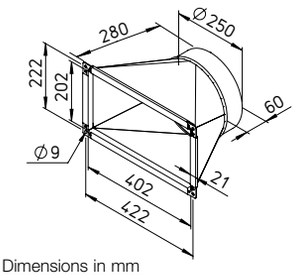
Replacement and pollen filter
– Filter class G4[1)]
ELF-ALB 40/20 G4[1)] No. 07619
– Filter class M5[2)]
ELF-ALB 40/20 M5[2)] No. 06766
– Filter class F7[3)]
ELF-ALB 40/20 F7[3)] No. 06767
Large bag or cassette filter for long cleaning intervals. Unit = 3 pcs.

Room sensor – Air quality
Type KWL-CO_2 Ref. no. 04272
Type KWL-FTF Ref. no. 04273
For measuring the CO_2 concentration or relative room humidity and controlling the ventilation unit according to the setpoint. Maximum total of one sensor can be connected.
Dim. mm (W x H x D) 95 x 97 x 30

Room sensor – Temperature
Type TFR-ALB/KWL No. 07277
For measuring the room temperature and controlling the ventilation unit according to the setpoint.
Incl. 20 m control line.
Dim. mm (W x H x D) 80 x 80 x 25

Connection cable
– 20 metres long
Type ALB EC-SK 20 No. 06816
– 40 metres long
Type ALB EC-SK 40 No. 06817
Attach between ALB and control element as well as between ALB and TFR-ALB/KWL.

Transition piece – Symmetrical
Type ALB-ÜS 40/20 No. 07617
From unit flange to round duct systems.

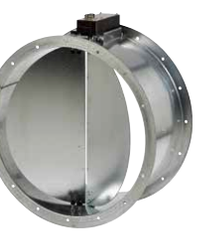


Dimensions in mm

Flexible connecting sleeve
Type FM 250 Ref. no. 01672
For acoustic decoupling, incl. 2 pcs. hose clamps.

Angle flange ring
Type FR 250 Ref. no. 01203
Made of galvanised steel sheet, for duct connection.

Duct shutter, motorised
Type RVM 250 Ref. no. 02576
Prevents cold draughts when the unit is at a standstill. Automatic function through fan operation, with mounted spring return motor. Installation in any position, closing force adjustable corresponding to fan power and installation position.



[1)] G4 = ISO coarse 90%. [2)] M5 = ISO ePM10 70%. [3)] F7 = ISO ePM1 50%.

Fresh air box ALB EC WW
backward curved, for rectangular ducts 50 x 30 cm

ALB EC WW

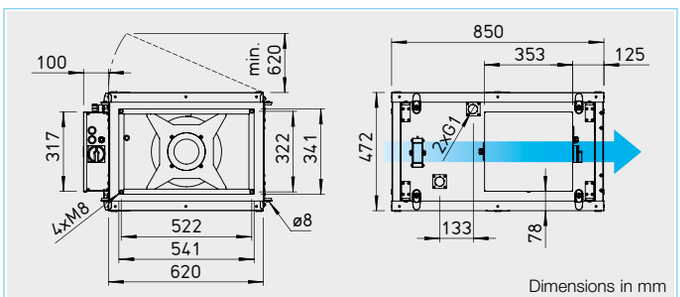
■ **Application / Function**
Pleasant indoor climate through the addition of external fresh air which is filtered and automatically heated to the specified temperature. This is achieved by the Helios fresh air boxes.

Operational unit for connection to rectangular duct systems. Suitable for a wide range of commercial applications.

■ **Description / Delivery**
The air filter, fan and warm water heater are integrated in a compact flat casing which is thermally and acoustically insulated. The unit is delivered ready for connection and includes an external control unit for controlling the unit, as well as a connection cable (10 metres). Air quality, humidity and temperature sensors (see accessories) can be connected to the electronics in the terminal box to control the specified setpoints. In order to prevent frost damage to the unit, a shutter (see accessories) is essential.

☐ **Casing**
Robust construction made of coated steel sheet, double-walled with 30 mm thick mineral wool lining. The cover is easy to open with screw caps and hinge for cleaning purposes. Rectangular duct connectors on inlet side and outlet side, adapted to standard rectangular duct dimensions.
No thermal bridges, smooth surface for easy cleaning.

☐ **Filter**
The large filter for long cleaning intervals is freely accessible by opening the casing cover. Standard version in class G4[1]. Alternatively, filters with higher classifications in M5[2] or F7[3] (see accessories) can be used. The volume output reduction must be taken into account. Periodic filter inspection / cleaning is required.
A filter monitoring system is integrated. The filters comply with VDI 6022.



Dimensions in mm

☐ **Fan**
The volume flow rate switching is continuously variable with the control unit. Low-noise and high performance centrifugal fan made of galvanised steel sheet. Motor / impeller unit freely accessible for servicing. Drive through energy-saving, speed-controllable EC motor with the highest level of efficiency. Maintenance-free, with lifetime lubricated ball bearings.

☐ **Heating element**
Air heater with AL blades and staggered copper pipes heat the intake air to the specified setpoint temperature.
Control through connection of a hydraulic unit (accessories) via the integrated control board. The setpoint and the temperature measured by the room sensor (accessories) are constantly compared.
A frost protection circuit is integrated as standard. Max. operating pressure 1.6 MPa.
Water connection pipes with external thread.

☐ **Electrical connection**
Spacious terminal box in IP 20 on outside of casing.

☐ **Motor protection**
Deactivation when overheating is imminent. Automatic reactivation after cool down.

■ **Noise**
The type table shows the radiated noise and outlet side air noise as sound pressure at 1 m (free field conditions).
If necessary, a cross talk silencer (see accessories) must be integrated in the duct system on site.

■ **Control**
The control element is included in the delivery and allows:
☐ Operation with different volume flows.
☐ Weekly and seasonal timer.
☐ Temperature control (using room sensor, accessories).
☐ Frost protection.
☐ Control of hydraulic unit (accessories) for controlling the WW heating element. Specification of min. / max. temperature.
☐ Control of an EC extract air fan.
☐ Display of ambient temperature, fan control and filter contamination.

■ **Other inputs and outputs:**
☐ Emergency switch.
☐ Boost switch.
☐ External switch.
☐ Input for air quality or humidity sensor.
☐ Input for room temperature sensor.
☐ Output for shutter control.

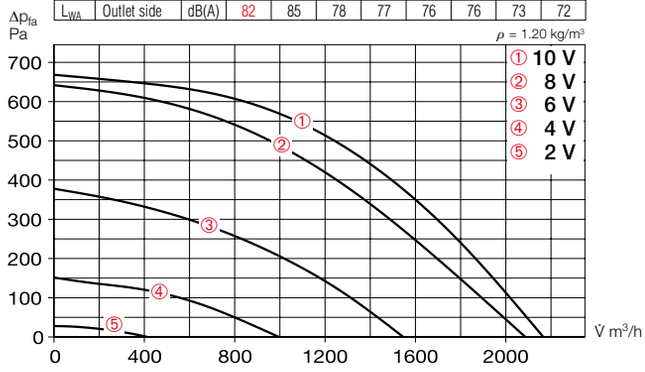
Control element with connection cable (10 m) included in delivery.
Dimensions mm (W x H x D) 115 x 80 x 25

Type	Ref. no.	Flow rate* free blowing	Max. speed	Sound pressure level Case radiation	Sound pressure level Air noise outlet side	Voltage 50/60 Hz	Power consumption Motor	Power consumption Heater	Current consump. max. tot.	Wiring diagram	Maximum intake temperature	Weight net approx.
		$\dot{V}$ m³/h (max.)	min^{-1}	dB(A) at 1 m	dB(A) at 1 m	Volt	kW	kW	A	No.	+°C	kg
ALB EC 50/30 WW	06534	2100	2600	57	74	230, 1~	0.47	—	2.90	1371	40	55

* Volume reduction by approx. 5 % when using the M5 filter [2], by approx. 15 % when using the F7 filter [3].

ALB EC 50/30 WW

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	65	70	63	65	58	55	50	38
L_{WA}	Inlet side	dB(A)	76	83	76	76	67	62	61	59
L_{WA}	Outlet side	dB(A)	82	85	78	77	76	76	73	72



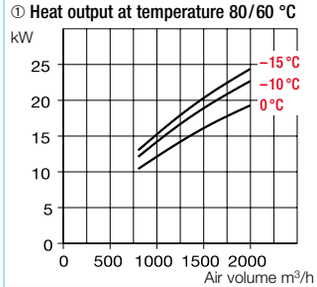
	Free blowing				
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)
10	2594	2162	367	2.29	57
8	2475	2086	320	2.01	56
6	1858	1546	141	0.93	50
4	1193	994	47	0.35	40

Heat output WW element ①-③
These diagrams show the heat output depending on the flow/return/outside temp. over the air volume.

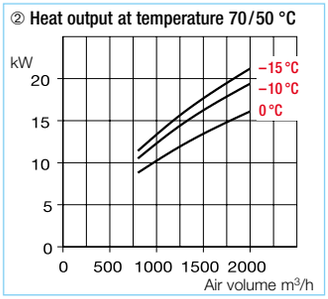
Water volume WW element ④
shows the water flow rate depending on the flow/return/outside temp. over the air volume.

Pressure loss WW element ⑤
shows the water throughflow over water pressure loss kPa.

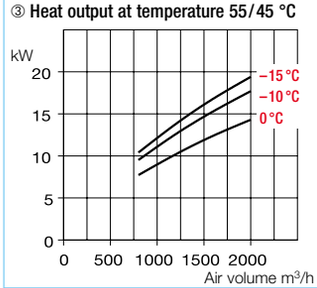
① Heat output at temperature 80/60 °C



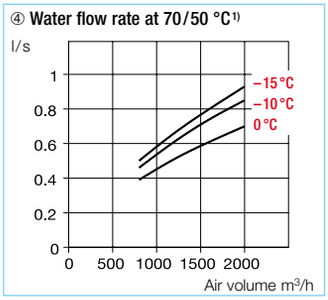
② Heat output at temperature 70/50 °C



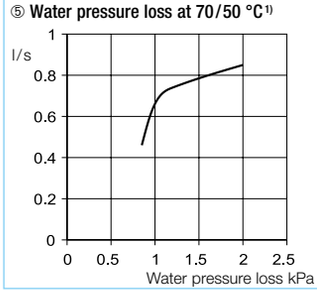
③ Heat output at temperature 55/45 °C



④ Water flow rate at 70/50 °C[1)]



⑤ Water pressure loss at 70/50 °C[1)]



[1)] Corr. factor for 80/50 °C: 1.16; for 55/45 °C: 1.81.

Reference

The integration of air filters ELF-ALB 50/30 F7[3)] in outdoor installations fulfils the requirements of VDI 6022.

Reference	Page
Planning information	10 ff.
Other accessories	**Page**
Silencers	468 f.
Hydraulic unit details	466 f.
Flexible ventilation ducts, ventilation grilles, fittings	
Shutters	533 ff.
Supply air disc valves	556 f.

Accessories

Hydraulic unit
WHSH HE 24 V (0-10 V) No. 08318
For controlling the heat output of the warm water heating element in combination with room/duct sensors. Includes VL-/RL temperature display, pump, actuator, mixer valve, gravity brake, thermal cladding and flexible connection hoses.

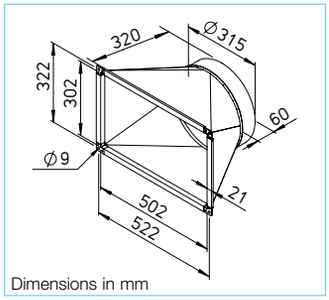
Replacement and pollen filter
– Filter class G4[1)]
ELF-ALB 220/4/50/30 G4[1)] No. 03646
– Filter class M5[2)]
ELF-ALB 220/4/50/30 M5[2)] No. 03647
– Filter class F7[3)]
ELF-ALB 220/4/50/30 F7[3)] No. 03648
Large bag or cassette filter for long cleaning intervals. Unit = 3 pcs.

Room sensor – Air quality
Type KWL-FTF Ref. no. 04273
For measuring the CO_2 concentration or relative room humidity and controlling the ventilation unit according to the setpoint. Maximum total of one sensor can be connected.
Dim. mm (W x H x D) 95 x 97 x 30

Room sensor – Temperature
Type TFR-ALB/KWL No. 07277
For measuring the room temperature and controlling the ventilation unit according to the setpoint.
Incl. 20 m control line.
Dim. mm (W x H x D) 80 x 80 x 25

Connection cable
– 20 metres long
Type ALB EC-SK 20 No. 06816
– 40 metres long
Type ALB EC-SK 40 No. 06817
Attach between ALB and control element as well as between ALB and TFR-ALB/KWL.

Transition piece – Symmetrical
ALB-ÜS 220/4/50/30 No. 07515
From unit flange to round duct systems.



Dimensions in mm

Flexible connecting sleeve
Type FM 315 Ref. no. 01674
For acoustic decoupling, incl. 2 pcs. hose clamps.

Angle flange ring
Type FR 315 Ref. no. 01204
Made of galvanised steel sheet, for duct connection.

Duct shutter, motorised
Type RVM 315 Ref. no. 02578
Prevents cold draughts when the unit is at a standstill. Automatic function through fan operation, with mounted spring return motor. Installation in any position, closing force adjustable corresponding to fan power and installation position.

[1)] G4 = ISO coarse 90%. [2)] M5 = ISO ePM10 70%. [3)] F7 = ISO ePM1 50%.

Fresh air box ALB EC WW
backward curved, for rectangular ducts 60 x 35 cm

ALB EC WW

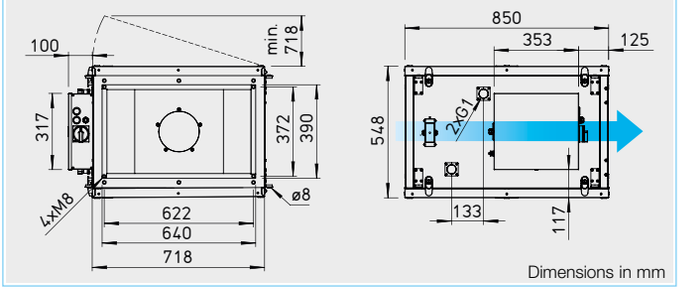
■ **Application / Function**
Pleasant indoor climate through the addition of external fresh air which is filtered and automatically heated to the specified temperature. This is achieved by the Helios fresh air boxes.

Operational unit for connection to rectangular duct systems. Suitable for a wide range of commercial applications.

■ **Description / Delivery**
The air filter, fan and warm water heater are integrated in a compact flat casing which is thermally and acoustically insulated. The unit is delivered ready for connection and includes an external control unit for controlling the unit, as well as a connection cable (10 metres). Air quality, humidity and temperature sensors (see accessories) can be connected to the electronics in the terminal box to control the specified setpoints. In order to prevent frost damage to the unit, a shutter (see accessories) is essential.

☐ **Casing**
Robust construction made of coated steel sheet, double-walled with 30 mm thick mineral wool lining. The cover is easy to open with screw caps and hinge for cleaning purposes. Rectangular duct connectors on inlet side and outlet side, adapted to standard rectangular duct dimensions.
No thermal bridges, smooth surface for easy cleaning.

☐ **Filter**
The large filter for long cleaning intervals is freely accessible by opening the casing cover. Standard version in class G4[1]. Alternatively, filters with higher classifications in M5[2] or F7[3] (see accessories) can be used. The volume output reduction must be taken into account. Periodic filter inspection / cleaning is required.
A filter monitoring system is integrated. The filters comply with VDI 6022.



Dimensions in mm

☐ **Fan**
The volume flow rate switching is continuously variable with the control unit. Low-noise and high performance centrifugal fan made of galvanised steel sheet. Motor / impeller unit freely accessible for servicing. Drive through energy-saving, speed-controllable EC motor with the highest level of efficiency. Maintenance-free, with lifetime lubricated ball bearings.

☐ **Heating element**
Air heater with AL blades and staggered copper pipes heat the intake air to the specified setpoint temperature.
Control through connection of a hydraulic unit (accessories) via the integrated control board. The setpoint and the temperature measured by the room sensor (accessories) are constantly compared.
A frost protection circuit is integrated as standard. Max. operating pressure 1.6 MPa.
Water connection pipes with external thread.

☐ **Electrical connection**
Spacious terminal box in IP 20 on outside of casing.

☐ **Motor protection**
Deactivation when overheating is imminent. Automatic reactivation after cool down.

■ **Noise**
The type table shows the radiated noise and outlet side air noise as sound pressure at 1 m (free field conditions).
If necessary, a cross talk silencer (see accessories) must be integrated in the duct system on site.

■ **Control**
The control element is included in the delivery and allows:
☐ Operation with different volume flows.
☐ Weekly and seasonal timer.
☐ Temperature control (using room sensor, accessories).
☐ Frost protection.
☐ Control of hydraulic unit (accessories) for controlling the WW heating element. Specification of min. / max. temperature.
☐ Control of an EC extract air fan.
☐ Display of ambient temperature, fan control and filter contamination.

■ **Other inputs and outputs:**
☐ Emergency switch.
☐ Boost switch.
☐ External switch.
☐ Input for air quality or humidity sensor.
☐ Input for room temperature sensor.
☐ Output for shutter control.

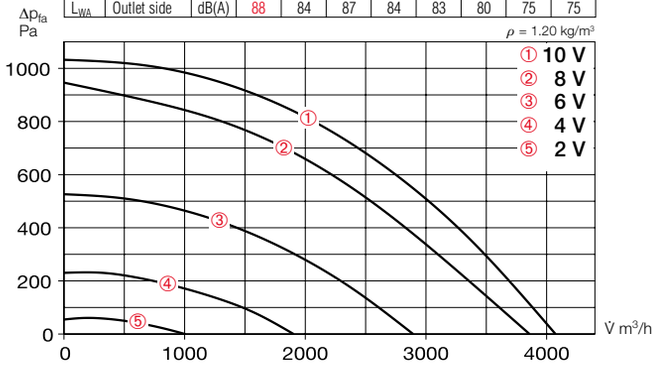
Control element with connection cable (10 m) included in delivery.
Dimensions mm (W x H x D) 115 x 80 x 25

Type	Ref. no.	Flow rate* free blowing	Max. speed	Sound pressure level Case radiation	Sound pressure level Air noise outlet side	Voltage 50/60 Hz	Power consumption Motor	Power consumption Heater	Current consump. max. tot.	Wiring diagram	Maximum intake temperature	Weight net approx.
		$\dot{V}$ m³/h (max.)	min^{-1}	dB(A) at 1 m	dB(A) at 1 m	Volt	kW	kW	A	No.	+°C	kg
ALB EC 60/35 WW	06536	4070	2650	63	80	400, 3N~	1.03	—	1.90	1371	40	70

* Volume reduction by approx. 5 % when using the M5 filter[2], by approx. 15 % when using the F7 filter[3].

ALB EC 60/35 WW

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	71	71	77	69	61	59	55	47
L_{WA}	Inlet side	dB(A)	86	82	93	83	73	70	67	70
L_{WA}	Outlet side	dB(A)	88	84	87	84	83	80	75	75



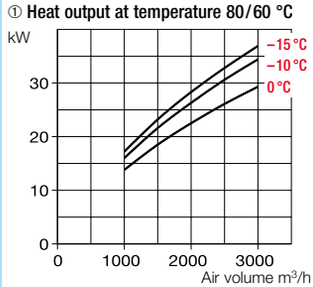
	Free blowing				
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)
10	2606	4077	860	1.54	63
8	2433	3861	712	1.32	62
6	1841	2906	336	0.68	56
4	1221	1901	120	0.3	47

■ **Heat output WW element** ①-③
These diagrams show the heat output depending on the flow/return/outside temp. over the air volume.

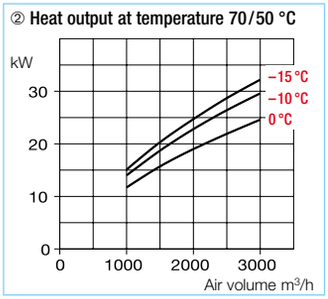
■ **Water volume WW element** ④
shows the water flow rate depending on the flow/return/outside temp. over the air volume.

■ **Pressure loss WW element** ⑤
shows the water throughflow over water pressure loss kPa.

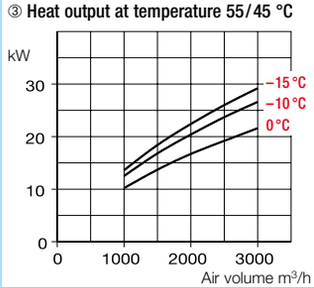
① Heat output at temperature 80/60 °C



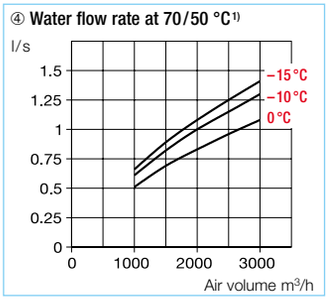
② Heat output at temperature 70/50 °C



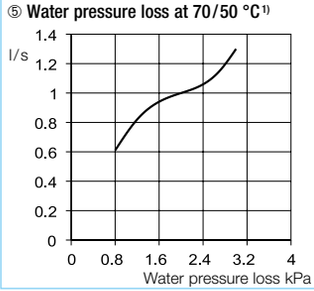
③ Heat output at temperature 55/45 °C



④ Water flow rate at 70/50 °C [1]



⑤ Water pressure loss at 70/50 °C [1]



[1] Corr. factor for 80/50 °C: 1.16; for 55/45 °C: 1.81.

Reference

The integration of air filters ELF-ALB 60/35 F7 [3] in outdoor installations fulfils the requirements of VDI 6022.

Reference	Page
Planning information	10 ff.
Other accessories	**Page**
Silencers	468 f.
Hydraulic unit details	466 f.
Flexible ventilation ducts, ventilation grilles, fittings	
Shutters	533 ff.
Supply air disc valves	556 f.

■ Accessories

Hydraulic unit
WHSH HE 24 V (0-10 V) No. 08318
For controlling the heat output of the warm water heating element in combination with room/duct sensors. Includes VL-/RL temperature display, pump, actuator, mixer valve, gravity brake, thermal cladding and flexible connection hoses.

Replacement and pollen filter
– Filter class G4 [1]
ELF-ALB 280/4/60/35 G4 [1] No. 03649
– Filter class M5 [2]
ELF-ALB 280/4/60/35 M5 [2] **N.** 03650
– Filter class F7 [3]
ELF-ALB 280/4/60/35 F7 [3] N. 03654
Large bag or cassette filter for long cleaning intervals. Unit = 3 pcs.

Room sensor – Air quality
Type KWL-CO_2 Ref. no. 04272
Type KWL-FTF Ref. no. 04273
For measuring the CO_2 concentration or relative room humidity and controlling the ventilation unit according to the setpoint. Maximum total of one sensor can be connected.
Dim. mm (W x H x D) 95 x 97 x 30

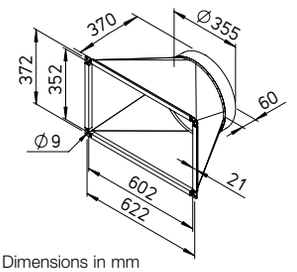
Room sensor – Temperature
Type TFR-ALB/KWL No. 07277
For measuring the room temperature and controlling the ventilation unit according to the setpoint.
Incl. 20 m control line.
Dim. mm (W x H x D) 80 x 80 x 25

Connection cable
– 20 metres long
Type ALB EC-SK 20 No. 06816
– 40 metres long
Type ALB EC-SK 40 No. 06817
Attach between ALB and control element as well as between ALB and TFR-ALB/KWL.

Transition piece – Symmetrical
ALB-ÜS 280/4/60/35 No. 07516
From unit flange to round duct systems.

Flexible connecting sleeve
Type FM 355 Ref. no. 01675
For acoustic decoupling, incl. 2 pcs. hose clamps.

Angle flange ring
Type FR 355 Ref. no. 01205
Made of galvanised steel sheet, for duct connection.



Dimensions in mm

Duct shutter, motorised
Type RVM 355 Ref. no. 02579
Prevents cold draughts when the unit is at a standstill. Automatic function through fan operation, with mounted spring return motor. Installation in any position, closing force adjustable corresponding to fan power and installation position.

[1] G4 = ISO coarse 90%. [2] M5 = ISO ePM10 70%. [3] F7 = ISO ePM1 50%.

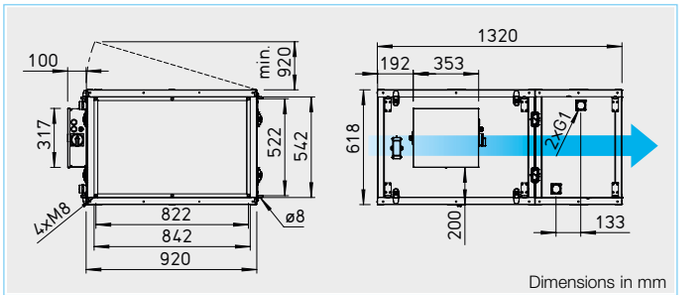
Fresh air box ALB EC WW
backward curved, for rectangular ducts 80 x 50 cm

ALB EC WW

■ **Application / Function**
Pleasant indoor climate through the addition of external fresh air which is filtered and automatically heated to the specified temperature. This is achieved by the Helios fresh air boxes.

Operational unit for connection to rectangular duct systems. Suitable for a wide range of commercial applications.

■ **Description / Delivery**
The air filter, fan and warm water heater are integrated in a compact flat casing which is thermally and acoustically insulated. The unit is delivered ready for connection and includes an external control unit for controlling the unit, as well as a connection cable (10 metres). Air quality, humidity and temperature sensors (see accessories) can be connected to the electronics in the terminal box to control the specified setpoints. In order to prevent frost damage to the unit, a shutter (see accessories) is essential.



Dimensions in mm

☐ **Casing**
Robust construction made of coated steel sheet, double-walled with 30 mm thick mineral wool lining. The cover is easy to open with screw caps and hinge for cleaning purposes. Rectangular duct connectors on inlet side and outlet side, adapted to standard rectangular duct dimensions.
No thermal bridges, smooth surface for easy cleaning.

☐ **Filter**
The large filter for long cleaning intervals is freely accessible by opening the casing cover. Standard version in class G4[1]. Alternatively, filters with higher classifications in M5[2] or F7[3] (see accessories) can be used. The volume output reduction must be taken into account. Periodic filter inspection / cleaning is required.
A filter monitoring system is integrated. The filters comply with VDI 6022.

☐ **Fan**
The volume flow rate switching is continuously variable with the control unit. Low-noise and high performance centrifugal fan made of galvanised steel sheet. Motor / impeller unit freely accessible for servicing. Drive through energy-saving, speed-controllable EC motor with the highest level of efficiency. Maintenance-free, with lifetime lubricated ball bearings.

☐ **Heating element**
Air heater with AL blades and staggered copper pipes heat the intake air to the specified setpoint temperature.
Control through connection of a hydraulic unit (accessories) via the integrated control board. The setpoint and the temperature measured by the room sensor (accessories) are constantly compared.
A frost protection circuit is integrated as standard. Max. operating pressure 1.6 MPa.
Water connection pipes with external thread.

☐ **Electrical connection**
Spacious terminal box in IP 20 on outside of casing.

☐ **Motor protection**
Deactivation when overheating is imminent. Automatic reactivation after cool down.

■ **Noise**
The type table shows the radiated noise and outlet side air noise as sound pressure at 1 m (free field conditions).
If necessary, a cross talk silencer (see accessories) must be integrated in the duct system on site.

■ **Control**
The control element is included in the delivery and allows:
☐ Operation with different volume flows.
☐ Weekly and seasonal timer.
☐ Temperature control (using room sensor, accessories).
☐ Frost protection.
☐ Control of hydraulic unit (accessories) for controlling the WW heating element. Specification of min. / max. temperature.
☐ Control of an EC extract air fan.
☐ Display of ambient temperature, fan control and filter contamination.

■ **Other inputs and outputs:**
☐ Emergency switch.
☐ Boost switch.
☐ External switch.
☐ Input for air quality or humidity sensor.
☐ Input for room temperature sensor.
☐ Output for shutter control.

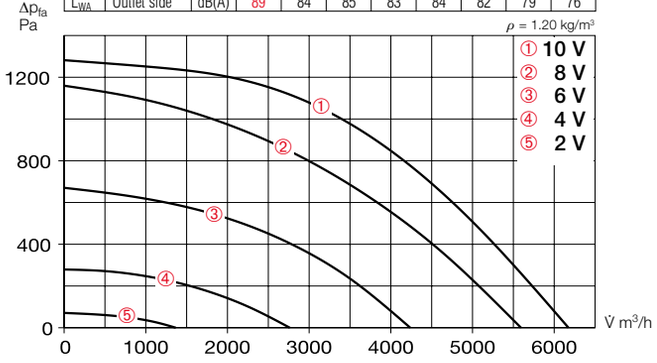
Control element with connection cable (10 m) included in delivery.
Dimensions mm (W x H x D) 115 x 80 x 25

Type	Ref. no.	Flow rate* free blowing	Max. speed	Sound pressure level Case radiation	Sound pressure level Air noise outlet side	Voltage 50/60 Hz	Power consumption Motor	Power consumption Heater	Current consump. max. tot.	Wiring diagram	Maximum intake temperature	Weight net approx.
		$\dot{V}$ m³/h (max.)	min⁻¹	dB(A) at 1 m	dB(A) at 1 m	Volt	kW	kW	A	No.	+°C	kg
ALB EC 80/50 WW	06537	6200	2600	69	81	400, 3N~	1.91	—	2.90	1371	40	104

* Volume reduction by approx. 5 % when using the M5 filter [2], by approx. 15 % when using the F7 filter [3].

ALB EC 80/50 WW

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	77	72	83	74	66	64	61	48
L_{WA}	Inlet side	dB(A)	86	81	92	83	76	73	71	70
L_{WA}	Outlet side	dB(A)	89	84	85	83	84	82	79	76



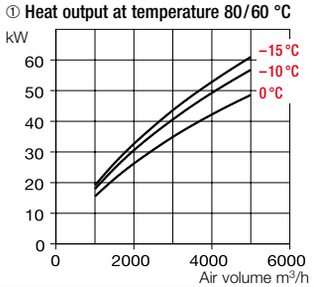
	Free blowing				
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)
10	2641	6188	1438	2.22	69
8	2394	5602	1084	1.65	67
6	1827	4236	510	0.86	61
4	1193	2769	172	0.39	52

■ **Heat output WW element** ①-③
These diagrams show the heat output depending on the flow/return/outside temp. over the air volume.

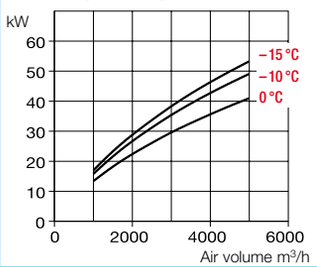
■ **Water volume WW element** ④
shows the water flow rate depending on the flow/return/outside temp. over the air volume.

■ **Pressure loss WW element** ⑤
shows the water throughflow over water pressure loss kPa.

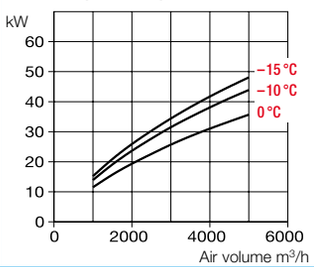
① Heat output at temperature 80/60 °C



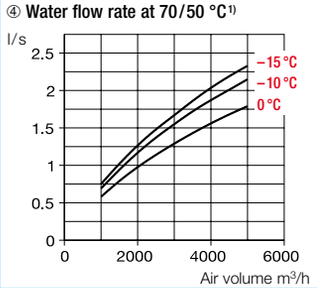
② Heat output at temperature 70/50 °C



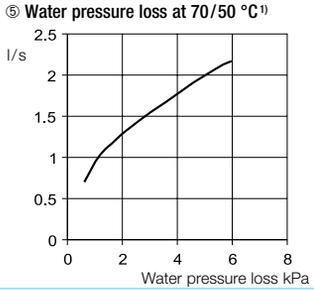
③ Heat output at temperature 55/45 °C



④ Water flow rate at 70/50 °C [1]



⑤ Water pressure loss at 70/50 °C [1]



[1] Corr. factor for 80/50 °C: 1.16; for 55/45 °C: 1.81.

Reference

The integration of air filters ELF-ALB 80/50 F7 [3] in outdoor installations fulfils the requirements of VDI 6022.

Reference	Page
Planning information	10 ff.
Other accessories	**Page**
Silencers	468 f.
Hydraulic unit details	466 f.
Flexible ventilation ducts, ventilation grilles, fittings	
Shutters	533 ff.
Supply air disc valves	556 f.

■ Accessories

Hydraulic unit
WHSH HE 24 V (0-10 V) No. 08318
For controlling the heat output of the warm water heating element in combination with room/duct sensors. Includes VL-/RL temperature display, pump, actuator, mixer valve, gravity brake, thermal cladding and flexible connection hoses.

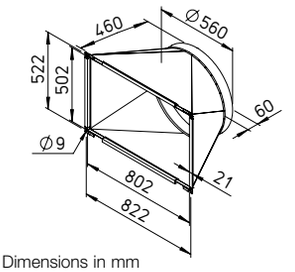
Replacement and pollen filter
– Filter class G4 [1]
ELF-ALB 80/50 G4 [1] No. 06768
– Filter class M5 [2]
ELF-ALB 80/50 M5 [2] No. 06769
– Filter class F7 [3]
ELF-ALB 80/50 F7 [3] No. 06815
Large bag or cassette filter for long cleaning intervals. Unit = 3 pcs.

Room sensor – Air quality
Type KWL-CO_2 Ref. no. 04272
Type KWL-FTF Ref. no. 04273
For measuring the CO_2 concentration or relative room humidity and controlling the ventilation unit according to the setpoint. Maximum total of one sensor can be connected.
Dim. mm (W x H x D) 95 x 97 x 30

Room sensor – Temperature
Type TFR-ALB/KWL No. 07277
For measuring the room temperature and controlling the ventilation unit according to the setpoint.
Incl. 20 m control line.
Dim. mm (W x H x D) 80 x 80 x 25

Connection cable
– 20 metres long
Type ALB EC-SK 20 No. 06816
– 40 metres long
Type ALB EC-SK 40 No. 06817
Attach between ALB and control element as well as between ALB and TFR-ALB/KWL.

Transition piece – Symmetrical
Type ALB-ÜS 80/50 No. 07618
From unit flange to round duct systems.

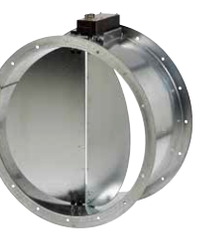


Dimensions in mm

Flexible connecting sleeve
Type FM 560 Ref. no. 01679
For acoustic decoupling, incl. 2 pcs. hose clamps.

Angle flange ring
Type FR 560 Ref. no. 01209
Made of galvanised steel sheet, for duct connection.

Duct shutter, motorised
Type RVM 560 Ref. no. 02583
Prevents cold draughts when the unit is at a standstill. Automatic function through fan operation, with mounted spring return motor. Installation in any position, closing force adjustable corresponding to fan power and installation position.



[1] G4 = ISO coarse 90%. [2] M5 = ISO ePM10 70%. [3] F7 = ISO ePM1 50%.