

Fresh air unit ALB

ALB – it's simple and so easy!
Air supplied through a heater
and filter in a single unit.

The ALB fresh air units from
Helios provide comfortable
room temperatures. Fresh out-
side air is supplied filtered and
preheated to the required set
temperature.

Fresh air units, ALB, are ideal
for all rooms where clean pre-
heated fresh air is required.
Whether in a bistro, boutique,
bar or other commercial areas.

A specially designed sound
absorbing casing with a low-
noise centrifugal fan result in
a very quiet unit with low
breakout sound levels. Large
bag filters reduce maintenance
to a minimum.

Efficient energy saving control-
lers are included as standard
or available as accessories.

- For inline duct mounting.
- **ALB.. EH**
With electric heater battery and air
filter. Integral smooth stepless control
of heating power.
Sizes 125 and 200 mm.
- **ALB.. WW**
With water heater battery and air filter.
Supplied ready to plug in, including
controller, room and duct sensor.
Sizes 315 and 355 mm.



Perfect room comfort delivered by these
preheated and filtered supply air units.

■ ALB fresh air units from Helios are designed for direct mounting in to the ducting and to ensure controlled supply of filtered and preheated air in bistros, boutiques, bars or other commercial areas.

Vol. = 350 m³/h to 5 000 m³/h.
Options available are:

- **ALB.. EH**
With electric heater battery and air filter.
- **ALB.. WW**
With water heater battery and air filter.

■ Delivery

Delivered ready to plug in. Fan, heater and filter are already integrated in a single compact unit.

■ Planning

ALB is delivered as a complete set including heater battery and air filter that offers many advantages for planning and installation. Follow these simple steps.

- ① Decide on the required amount of supply air.
- ② Decide on the dimensions and position of the supply duct (resistance).
- ③ Decide on the heat required comparing the temperature of the outside air and the indoor temperature (then use diagrams on the product pages).
- ④ Choose the suitable ALB (size and control) according to point 1, 2 and 3.
- ⑤ Select the control functions and the accessories.

■ Operation

- Fresh air units are used everywhere to supply controlled, filtered and preheated air at a required set temperature for comfort.
- Reduces drafts in properties and provides.
- Tempered fresh air for any room.
- Provides the clean fresh air in bars, bistros, meeting places and offices improving the comfort and the well being of all the occupants.
- For really clean air a filter, class F7, must be used as well as a filter control system (differential pressure switch DDS available as an accessory) if only one filter is used.
- The result is a targeted, temperature controlled quiet fresh air supply to the required areas. An attenuator (accessory) can be used when an even lower sound level is required.

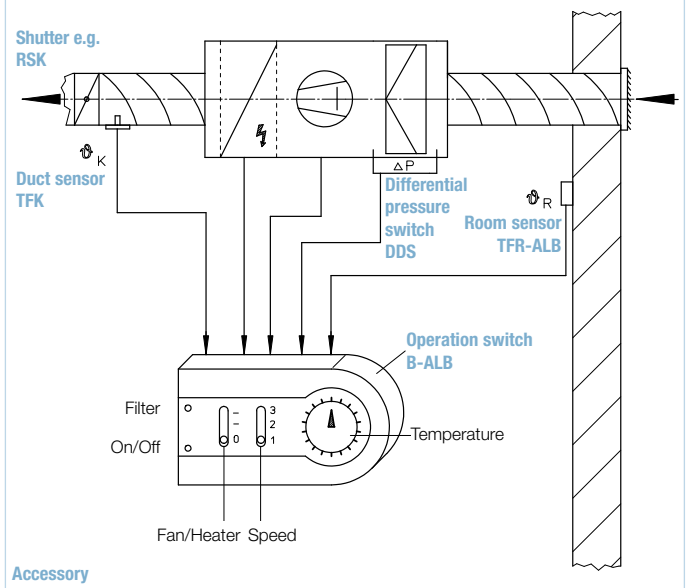
■ Installation

- Can be installed in to almost any position (see operation and maintenance instructions).
- An attenuator (accessory) can be fitted if required.
- Air stream or motor operated backdraught shutters may be used to prevent draughts when the ALB unit is off.
- We recommend using vibration isolation when securing the unit.
- The controller should be fitted within the ventilated space.
- Easy access to the unit should be provided for cleaning and replacement of the filter.

■ Control options

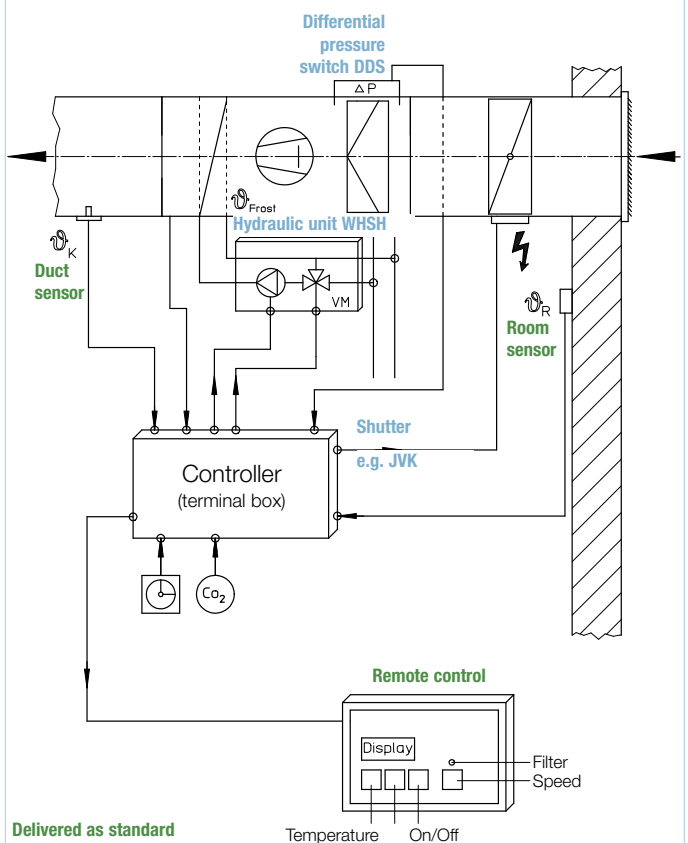
- Easy to control, the ALB offers the highest comfort for an efficient and energy saving operation.
- The ALB.. EH models are delivered with a stepless electronic heater controller as standard which is controlled via the operation switch B-ALB (accessory – see pic. 1). The electronic modulation gives stepless control of the heater output by continuously adjusting the amount of heat output against the set temperature compare to the room or duct sensor (TFR-ALB and TFK, accessory) measured temperature.
- Models ALB.. WW are delivered as standard with an external control unit (see fig. 2). There is a constant adjustment of the coil output to maintain the set point using the room or duct sensor (delivered as standard) measured temperature. In addition the control unit can receive an input for clock timers (e.g. night set back) as well as for a connection of air quality sensors, so that if it falls below a given limit value an optical or audible alarm signal occurs.
- To control one or several extract fans according to the speed of the fresh air unit ALB.. the control unit ALB-AS.. (accessory) can be used. This affords synchronised operation of the unit as required (supply- and extract air) with three/five speed levels.

Pic. 1: Functional scheme ALB.. EH with electric heater battery



Accessory

Pic. 2: Functional scheme ALB.. WW with water heater battery



Delivered as standard

Accessory

To be provided on site

■ Picture 1 ALB-EH..

with electric heater battery

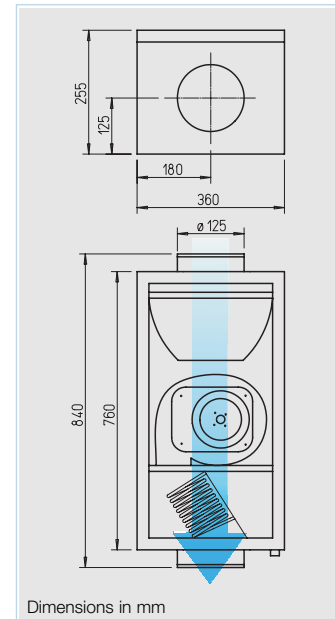
- Accessory:
 - Operation switch B-ALB
 - Backdraught shutter RSK
 - Differential pressure switch DDS
 - Room temp. sensor TFR-ALB
 - Duct temp. sensor TFK
 - Attenuator, e.g. FSD

■ Picture 2 ALB-WW..

with water heater battery

- Delivered as standard:
 - External control unit
 - 1 Duct temperature sensor
 - 1 Room temperature sensor
- Accessory:
 - Hydraulic unit WSH
 - Differential pressure switch DDS
 - Shutter, e.g. JVK
 - Attenuator, e.g. KSD

**125 mm ø fresh air unit ALB.. EH
with electric heater battery and air filter**



■ Operation

A comfortable indoor climate through the supply of external fresh air, filtered and automatically warmed to the desired temperature.

Designed to be installed within a ducted system.
For all commercial applications.

■ Specification

Compact shallow casing, thermally and acoustically insulated, with an integral air filter, fan, heater with controller and terminal box. Delivered ready for installation. Includes a stepless controller for the heater battery. Operation switch B-ALB is required for remote control. B-ALB allows for three-step ventilation and connection to a room or duct temperature sensor to control the set temperature. These elements need to be ordered separately (see accessories).

□ Casing

Made from galvanised steel, filled with 50 mm mineral wool on all sides, faced with glass woven fabric. The casing cover is easy to release using the four spring fasteners. Intake and extract duct spigots with air tight rubber gaskets for standard duct diameters.

□ Filter

The large surface filter reduces required maintenance. The casing cover provides good access. The filter supplied is G 4 - F 5 and F 7 are available as an accessory. With F-7 filters, a reduction of the air flow volume (see performance curve) must be considered. Regular filter cleaning is necessary. Automatic monitoring with DDS (accessory) is recommended to indicate when to clean. The casing of the ALB is supplied with fixing holes.

□ Fan

A silent and powerful centrifugal fan, installed within a spiral casing made from galvanised steel. The motor and impeller swing out to allow full access for servicing. Powered by a maintenance free external rotor motor, with protection to IP 44. The air flow volume can be controlled with a 3-step switch.

□ Heater battery

Enclosed heater elements made from stainless steel and of low surface temperature heat the outside air to the desired set temperature. The heating level depends on the set temperature and the actual temperature detected by the sensors.

□ Safety switch

The heater battery can only be operated if the fan is on and there is a minimum air-flow. If the air-flow falls below that limit, a thermostat disconnects the heater from the power supply as soon as the temperature rises to 80 °C. Additionally, two independent, thermostats can be reset manually if the heater is stopped when the heater temperature rises to 120 °C.

□ Overrun timer

The ALB comes with an overrun timer of approx. 1 minute, even if the heater is not in operation.

□ Electrical Connection

A large terminal box on the casing. Cable entry points at the front through four connection glands.

□ Motor protection

Motor protection by thermal contacts wired in series with the motor windings. To reset the thermal contacts the main supply must be switched off and on.

□ Sound levels

Total sound power levels and the spectrum figures in db(A) are given for – case breakout – intake and extract in the tables above the performance curves. In addition, the case breakout figure is given as a sound pressure level at 1 m (freefield conditions) in the technical data table.

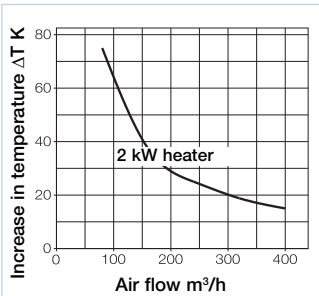
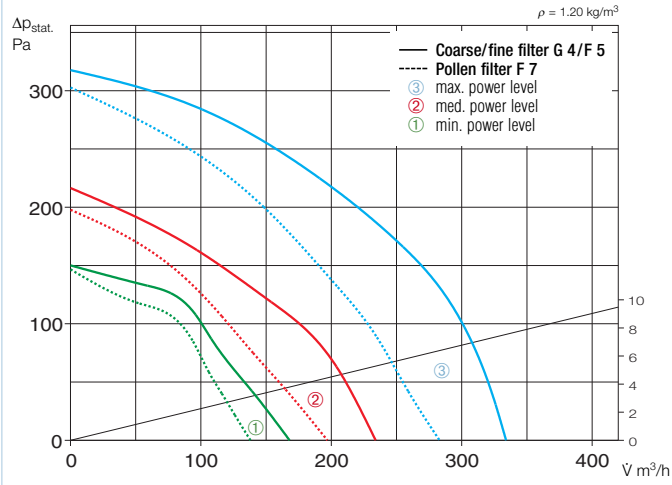
Cross talk attenuators are available (accessory) for further acoustic reduction.

Type	Ref.No.	Spigot dia.	Air flow volume*	R.P.M.	Sound pressure level		Voltage 50 Hz	Power consumption		Power input max. total	Wiring diagram	Maximum supply air temperature		Nominal weight
					case breakout	supply air noise		Motor	Heater			with heater	without heater	
		mm	m ³ /h (max.)	min ⁻¹	dB(A) at 1 m	dB(A) at 1 m	Volt	kW	kW	A	No.	+°C	+°C	kg
ALB 125 C EH 2	2701	125	340	1850	44	61	230, 1 ph.	0.110	2	9.2	795.3	20	40	20

* with standard filter, class G 4

ALB 125 C EH 2

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA}	Case breakout	dB(A)	48	38	44	45	39	36	32	32
L _{WA}	Extract	dB(A)	65	60	56	56	58	57	49	45
L _{WA}	Intake	dB(A)	54	43	51	43	42	43	42	32



Information

Fresh air ventilation systems with ELF-ALB.. F7 (see right) and differential pressure switch DDS (Ref. No. 0445) are according to VDI 6022.

Information	Pages
Technical description	205
Design of systems	12 on

Other accessories	Pages
Attenuator	318
Flexible ducts, grilles, circular spigots and roof outlets	361 on
Supply air valve	382

Accessories

Operation switch

B-ALB Ref. No. 2734

Functions:

- Ventilation operation 3-step and on/off
- Heater battery with adjustable temperature when sensors are connected.
- Overrun operation of the fan.
- Filter monitoring (accessory DDS)
- Operation display (LED).

Protection to IP 30
 Wiring diagram No. SS-795.3
 Dimensions mm W 145 x H 80 x D 30



Room temperature sensor

TFR-ALB Ref. No. 2761

Room temperature sensor surface mounted for connection to operation switch B-ALB.

Made from polymer.
 Temperature range 0 - 30 °C
 Protection to IP 20
 Dimensions mm W 85 x H 85 x D 30
 Weight 0.1 kg



Duct temperature sensor

TFK Ref. No. 5005

Temperature sensor to be installed within the duct for connection to operation switch B-ALB.

Temperature range 0 - 30 °C
 Protection to IP 20
 Length inside/outside 130/50 mm, Ø 10 mm
 Weight 0.1 kg



Spare and pollen filters

ELF-ALB 125 G4 Ref. No. 2704

ELF-ALB 125 F5 Ref. No. 2705

ELF-ALB 125 F7 Ref. No. 2706

Large surface filter Set = 3 pcs



Differential pressure switch

DDS Ref. No. 0445

A complete kit to monitor filters and system pressure with n/o or n/c terminals.



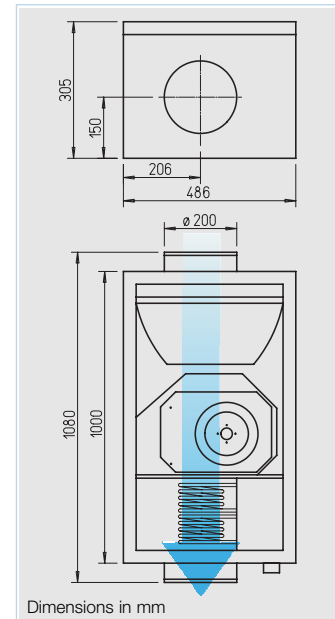
Extract air control

ALB-AS 125 Ref. No. 2696

A control unit for the regulation of an extract air fan (max. 1.5 A) at the same rate as the speed of the supply air fan. Allows synchronised operation of the unit (supply and extract air) with three (from 5 selectable) speed steps (factory setting 80, 130, 230 V). The control unit is connected with the supply system through a cable, the setting takes place directly at the operating switch B-ALB (accessories, Ref. No. 2734). ALB-AS.. allows the connection of one or many speed controllable fans up to nominal load. Additionally an extract and supply air shutter can be operated each, which open with switching on the fan.



Voltage/Frequency 230 V 1 ph., 50 Hz/400 V 2 ph., 50 Hz
 Load max. 13.3 A
 Protection class IP 54
 Dim. mm W 236 x H 316 x D 128
 Weight approx. 4.3 kg
 Wiring diagram no. SS-900



■ **Operation**

A comfortable indoor climate through the supply of external fresh air, filtered and automatically warmed to the desired temperature.

Designed to be installed within a ducted system.
For all commercial applications

■ **Specification**

Compact shallow casing, thermally and acoustically insulated, with an integral air filter, fan, heater with controller and terminal box. Delivered ready for installation. Includes a stepless controller for the heater battery. Operation switch B-ALB is required for remote control. B-ALB allows for three-step ventilation and connection to a room or duct temperature sensor to control the set temperature. These elements need to be ordered separately (see accessories).

□ **Casing**

Made from galvanised steel, filled with 50 mm mineral wool on all sides, faced with glass woven fabric. The casing cover is easy to release using the four spring fasteners. Intake and extract duct spigots with air tight rubber gaskets for standard duct diameters.

□ **Filter**

The large surface filter reduces required maintenance. The casing cover provides good access. The filter supplied is G 4 - F 5 and F 7 are available as an accessory. With F-7 filters, a reduction of the air flow volume (see performance curve) must be considered. Regular filter cleaning is necessary. Automatic monitoring with DDS (accessory) is recommended to indicate when to clean. The casing of the ALB is supplied with fixing holes.

□ **Fan**

A silent and powerful centrifugal fan, installed within a spiral casing made from galvanised steel. The motor and impeller swing out to allow full access for servicing. Powered by a maintenance free external rotor motor, with protection to IP 44. The air flow volume can be controlled with a 3-step switch.

□ **Heater battery**

Enclosed heater elements made from stainless steel and of low surface temperature heat the outside air to the desired set temperature. The heating level depends on the set temperature and the actual temperature detected by the sensors.

□ **Safety switch**

The heater battery can only be operated if the fan is on and there is a minimum air-flow. If the air-flow falls below that limit, a thermostat disconnects the heater from the power supply as soon as the temperature rises to 80 °C. Additionally, two independent, thermostats can be reset manually if the heater is stopped when the heater temperature rises to 120 °C.

□ **Overrun timer**

The ALB comes with an overrun timer of approx. 1 minute, even if the heater is not in operation.

□ **Electrical Connection**

A large terminal box on the casing. Cable entry points at the front through four connection glands.

□ **Motor protection**

Motor protection by thermal contacts wired in series with the motor windings. To reset the thermal contacts the main supply must be switched off and on.

□ **Sound levels**

Total sound power levels and the spectrum figures in db(A) are given for
– case breakout
– intake and extract
in the tables above the performance curves. In addition, the case breakout figure is given as a sound pressure level at 1 m (freefield conditions) in the technical data table.

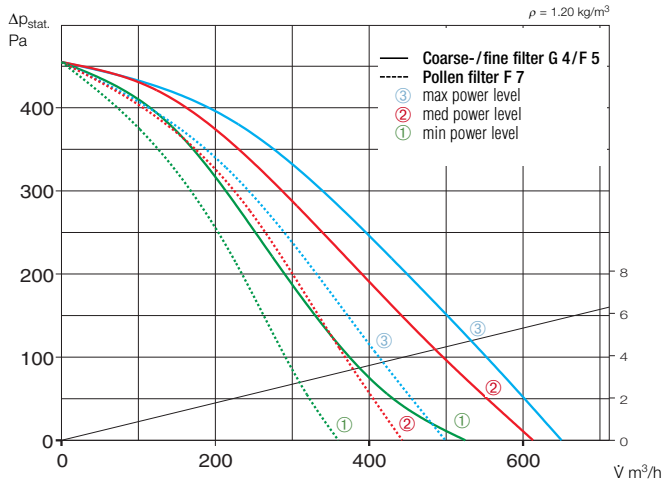
Cross talk attenuators are available (accessory) for further acoustic reduction.

Type	Ref. No.	Spigot dia. mm	Air flow volume* V m³/h (max.)	R.P.M. min ⁻¹	Sound pressure level		Voltage 50 Hz Volt	Power consumption		Power input max. total A	Wiring diagram No.	Maximum supply air temperature		Nominal weight kg
					case breakout dB(A) at 1 m	supply air noise dB(A) at 1 m		Motor kW	Heater kW			with heater +°C	without heater +°C	
ALB 200 B EH 5	2702	200	650	2500	47	66	400, 2 N-	0.105	4.4	11.6	795.3	20	40	33
ALB 200 C EH 5	2703	200	790	2500	49	68	400, 2 N-	0.160	4.4	11.7	795.3	20	40	35

* with standard filter, class G 4

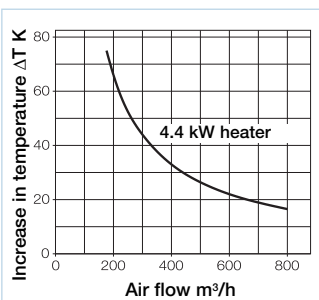
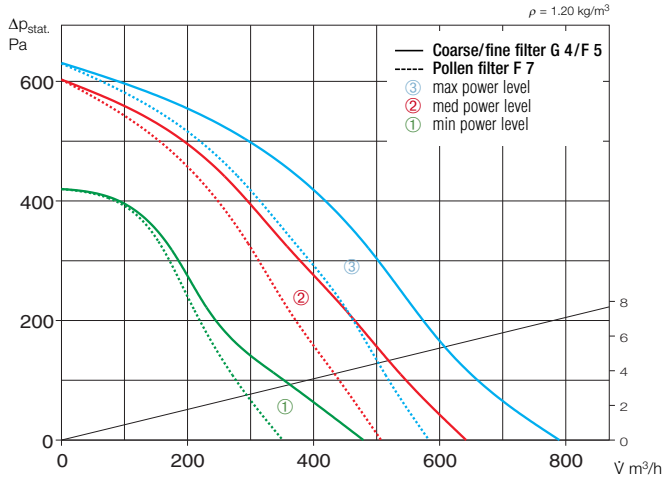
ALB 200 B EH 5

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA}	Case breakout	dB(A)	51	38	43	49	42	39	34	31
L _{WA}	Extract	dB(A)	67	47	57	65	60	57	54	44
L _{WA}	Intake	dB(A)	53	44	48	50	42	39	35	28



ALB 200 C EH 5

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA}	Case breakout	dB(A)	53	41	47	49	44	41	37	33
L _{WA}	Extract	dB(A)	68	47	58	65	62	59	56	48
L _{WA}	Intake	dB(A)	54	46	49	51	44	42	41	34



Information

Fresh air ventilation systems with ELF-ALB.. F7 (see right) and differential pressure switch DDS (Ref. No. 0445) are according to VDI 6022.

Information	Pages	Other accessories	Pages
Technical description	205	Attenuator	318
Design of systems	12 on	Flexible ducts, grilles, circular spigots and roof outlets	361 on
		Supply air valve	382

Accessory

Operation switch

B-ALB Ref. No. 2734

Functions:

- Ventilation operation 3-step and on/off
- Heater battery, adjustable temperature when sensors are connected.
- Overrun operation of the fan.
- Filter monitoring (accessory DDS)
- Operation display (LED).

Protection to IP 30
Wiring diagram No. SS-795.3
Dimensions mm W 145 x H 80 x D 30



Room temperature sensor

TFR-ALB Ref. No. 2761

Room temperature sensor for surface mounted for connection to operation switch B-ALB.

Made from polymer.
Temperature range 0 - 30 °C
Protection to IP 20
Dimensions mm W 85 x H 85 x D 30
Weight 0.1 kg



Duct temperature sensor

TFK Ref. No. 5005

Temperature sensor to be installed within the duct for connection to operation switch B-ALB.

Temperature range 0 - 30 °C
Protection to IP 20
Length inside/outside 130/50 mm, Ø 10 mm
Weight 0.1 kg



Spare and pollen filters

ELF-ALB 200 G4 Ref. No. 2707

ELF-ALB 200 F5 Ref. No. 2708

ELF-ALB 200 F7 Ref. No. 2709

Large surface filter Set = 3 pcs



Differential pressure switch

DDS Ref. No. 0445

A complete kit to monitor filters and system pressure with n/o or n/c terminals.



Extract air control

ALB-AS 200 Ref. No. 2696

A control unit for the regulation of an extract air fan (max. 1.5 A) at the same rate as the speed of the supply air fan. Allows synchronised operation of the unit (supply and extract air) with three (from 5 selectable) speed steps (factory setting 80, 130, 230 V). The control unit is connected with the supply system through a cable, the setting takes place directly at the operating switch B-ALB (accessories, Ref. No. 2734). ALB-AS.. allows the connection of one or many speed controllable fans up to nominal load. Additionally an extract and supply air shutter can be operated each, which open with switching on the fan.



Voltage/Frequency 230 V 1 ph., 50 Hz/400 V 2 ph., 50 Hz
Load max. 13.3 A
Protection class IP 54
Dim. mm W 236 x H 316 x D 128
Weight approx. 4.3 kg
Wiring diagram no. SS-900

Operation

A comfortable indoor climate through the supply of external fresh air, filtered and automatically warmed to the desired temperature.

Designed to be installed within a ducted system.
For all commercial applications.

Specification

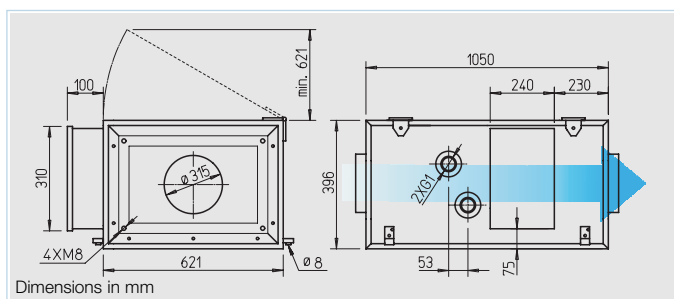
Compact shallow casing, thermally and acoustically insulated, with an integral air filter, fan, heater with controller and terminal box. Delivered ready for connection with an external control box for operation of the unit, including an 8 metre long connecting lead, to connect the electronic system in the terminal box to the room or duct temperature sensors. These can be connected optionally to control the set temperature.

Casing

Robust construction made from coated steel plate, double-skin and filled with 30 mm mineral wool on all sides, faced with woven glass fabric. The hinged casing cover is easy to open undoing the securing screws. Intake and extract duct spigots with air tight rubber gaskets for standard duct diameters. No thermal bridge, smooth surface for an easy cleaning. Integrated mounting panel with damper.

Filter

The large surface filter reduces required maintenance. The casing cover provides good access. The filter supplied is G 4 - F 5 and F 7 are available as an accessory. With F-7 filters, a reduction of the air flow volume (see performance curve) must be considered. Regular filter cleaning is necessary. Automatic monitoring with DDS (accessory) is recommended to indicate when to clean. The casing of the ALB is supplied with fixing holes.



Fan

A silent and powerful centrifugal fan, installed within a spiral casing made from galvanised steel. The motor and impeller can be easily accessed for service. Powered by a maintenance free external rotor motor. The air flow volume can be controlled with a 3-step switch.

Heater battery

A heater with aluminium fins and copper tubes heats up the outside air to the given set temperature. The regulation takes place at connection to a hydraulic unit (accessory) via the integrated control board. There is a continuous adjustment between pre-setting and the room or duct sensor measured temperature. A frost protection control is integral as standard. Max. working pressure is 1.6 MPa. Water connection pipe has a male thread.

Electrical connection

A terminal box is fitted externally on the unit as standard (IP 55).

Motor protection

Motor protection is by thermal contacts wired in series with the motor windings. After cooling down, automatic reconnection takes place.

Sound levels

Total sound power levels and the spectrum figures in db(A) are given for – case breakout – intake and extract in the tables above the performance curves. In addition, the case breakout figure is given as a sound pressure level at 1 metre (freefield conditions) in the technical data table.

Cross talk attenuators are available (accessory) for further acoustic reduction.

Information	Pages
Techn. description	205
Design of systems	12 on

Control

- The remote control is included in delivery and offers:
 - 5-stage operation.
 - Temperature control with connection from room and/or duct temperature sensor (included in delivery).
 - Anti-freeze protection.
 - Control of the hydraulic unit (accessory) for regulation of the WW-heater battery. Presetting from min.- / max.-temperature.
 - Operation of the extract air control ALB-ASW (accessory) for speed control of the extract fans at the same speed steps.
 - Indication of surrounding temperature, fan speed and filter contamination (via differential pressure switch, accessory).

Further options:

- connection for time switch (night mode).
- connection for air quality sensor.
- Output for e.g. damper control.
- Indication of the cause of malfunction, alert.



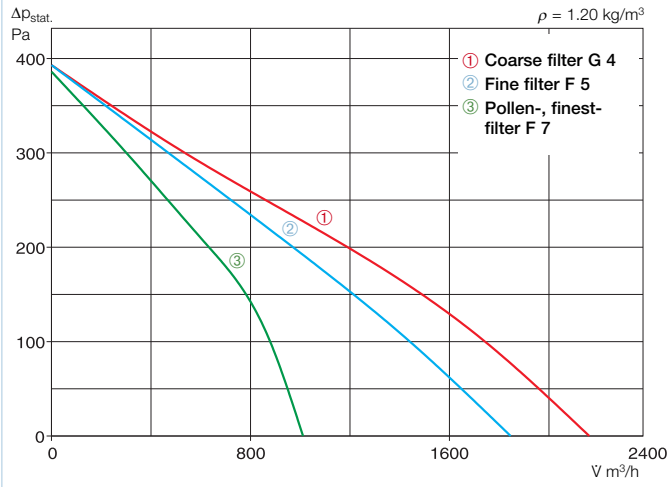
Remote control with connection cable (12 metre) included in delivery.

Type	Ref. No.	Spigot dia.	Air flow volume*	R.P.M.	Sound pressure level		Voltage 50 Hz	Power consumption		Power input max. total	Wiring diagram	Maximum supply air temperature		Nominal weight
					case breakout	supply air noise		Motor	Heater			with heater	without heater	
		mm	V m³/h (max.)	min ⁻¹	dB(A) at 1 m	dB(A) at 1 m	Volt	kW	kW	A	No.	+°C	+°C	kg
ALB 315 WW	2699	315	2100	1250	62	69	230, 1~	0.420	—	3.8	812	20	40	73

* standard with filter class G 4

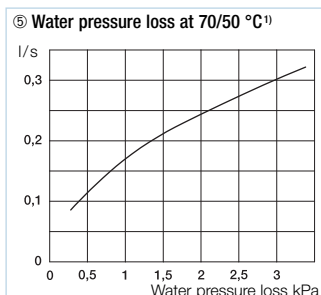
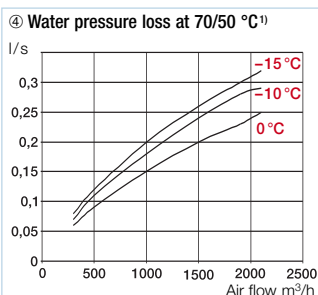
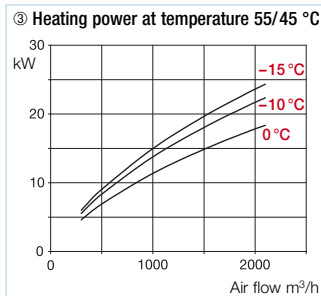
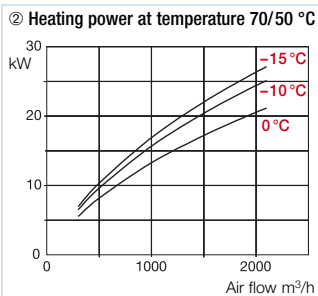
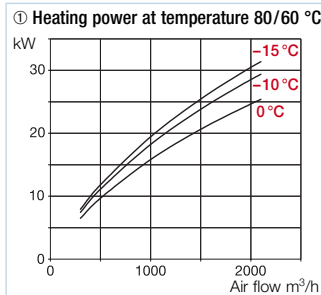
ALB 315 WW

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout	dB(A)	70	55	63	63	65	63	57	52
L _{WA} Extract	dB(A)	77	62	66	68	72	70	69	63
L _{WA} Intake	dB(A)	72	60	65	65	65	64	61	53



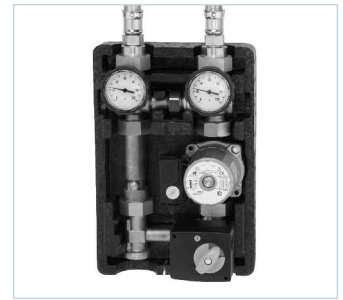
Other accessory	Pages	Information
Attenuator	318	Outside ventilation systems with ELF-ALB.. F7 (see right) and differential pressure switch DDS (Ref. No. 0445) are according to VDI 6022.
Details for hydraulic unit	316	
Flexible ventilation ducts, grilles, circular spigots	361 on	
Supply valve	382	

- **Heating power WW-Register**
①-③ The diagrams ①-③ show the heating power against the flow/ return and outdoor temperature via air flow.
- **Water quantity WW-Register** ④
④ shows the water flow against the V-/R- and outdoor temperature via air flow.
- **Pressure loss WW-Register** ⑤
⑤ shows the water pressure loss kPa via water flow.



¹) Correction factor for 80/50 °C: 1.16; for 55/45 °C: 1.81

■ **Accessory Hydraulic unit**
– max. flow 1100 l/h
WHSH 1100, 230 V Ref. No. 2515
– max. flow 2200 l/h
WHSH 2200, 230 V Ref. No. 2516
For regulation of the heating output of the water heater battery in connection with room/ duct sensor. Inclusive VL- / RL-temperature display, pump, servo motor, mixing valve, ball valve with integrated non-return valve, thermal casing and flexible connection hose.



■ **Spare and pollen filters**
Large surface filter for extended cleaning periods. Set = 3 pcs.
– Filter class G 4
ELF-ALB 315 G4 Ref. No. 2763
– Filter class F 5
ELF-ALB 315 F5 Ref. No. 2764
– Filter class F 7
ELF-ALB 315 F7 Ref. No. 2760



■ **Differential pressure switch DDS** Ref. No. 0445
Complete kit to monitor filters and system pressure with n/o or n/c terminals.



■ **Connection cable (extra long)**
– 30 meter long
ALB-SK 30 Ref. No. 2517
– 50 meter long
ALB-SK 50 Ref. No. 2518
Connection between remote control and ALB; ALB and ALB-AS; with RJ-connector.



■ **Backdraught shutter RSK 315** Ref. No. 5674
For installation in the inlet duct to prevent cold air entry when the fan is off.

■ **Extract air control ALB-ASW 315** Ref. No. 2697
A control unit for the regulation of an extract air fan at the same rate as the 5 speeds of the supply air fan. Allows synchronised operation of the unit (supply and extract air) with five speed steps. The control unit is connected with the supply systems through a control cable. The programming takes place in few steps directly to the ALB-remote control. ALB-ASW is mountable in any position and allows the connection of one or many speed controllable 1 ph. fans up to nominal load.



■ **Technical datas**
Voltage 230 V / 1 ph. / 50 Hz
Load max. 4 A
Protection to IP 55
Dim in mm W 255 x H 330 x D 120
Weight approx. 6.0 kg
Wiring diagram No. SS-868



Operation

A comfortable indoor climate through the supply of external fresh air, filtered and automatically warmed to the desired temperature.

Designed to be installed within a ducted system.
For all commercial applications.

Specification

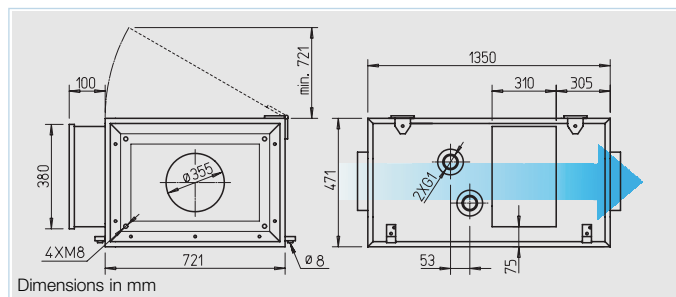
Compact shallow casing, thermally and acoustically insulated, with an integral air filter, fan, heater with controller and terminal box.
Delivered ready for connection with an external control box for operation of the unit, including an 8 metre long connecting lead, to connect the electronic system in the terminal box the room or duct temperature sensors. These can be connected optionally to control the set temperature.

Casing

Robust construction made from coated steel plate, double-skin and filled with 30 mm mineral wool on all sides, faced with woven glass fabric. The hinged casing cover is easy to open undoing the securing screws. Intake and extract duct spigots with air tight rubber gaskets for standard duct diameters.
No thermal bridge, smooth surface for an easy cleaning. Integrated mounting panel with damped panel.

Filter

The large surface filter reduces required maintenance. The casing cover provides good access. Filter supplied is G 4 - F 5 and F 7, are available as an accessory. With F-7 filters a reduction of the air flow volume (see performance curve) must be considered. Regular filter cleaning is necessary. Automatic monitoring with DDS (accessory) will indicate when to clean the filter. The casing of the ALB is supplied with fixing holes.



Fan

A silent and powerful centrifugal fan, installed within a spiral casing made from galvanised steel. The motor and impeller can be easily accessed for service. Powered by a maintenance free external rotor motor. The air flow volume can be controlled with a 3-step switch.

Heater battery

Air heater with aluminium fins and copper tubes heats up the outside air to the given set temperature. The regulation of the coil temperature requires the hydraulic unit (accessory) via the integrated control board. There is a continuous adjustment between presetting and the room or duct sensor measured temperature. Frost protection control is integral as standard. Max. working pressure is 1.6 MPa. The water connection pipe has a male thread.

Electrical connection

A terminal box is fitted externally on the unit as standard (IP 55).

Motor protection

Motor protection is by thermal contacts wired in series with the motor windings. After cooling down, automatic reconnection takes place.

Sound levels

Total sound power levels and the spectrum figures in db(A) are given for – case breakout – intake and extract in the tables above the performance curves. In addition, the case breakout figure is given as a sound pressure level at 1 metre (freefield conditions) in the technical data table.

Cross talk attenuators are available (accessory) for further acoustic reduction.

Information	Pages
Techn. description	205
Design of systems	12 on

Control

- The remote control is included in delivery and offers:
 - 5-stage operation.
 - Temperature control with connection from room and/or duct temperature sensor (included in delivery).
 - Anti-freeze protection.
 - Control of the hydraulic unit (accessory) for regulation of the WW-heater battery. Presetting from min.- / max.-temperature.
 - Operation of the extract air control ALB-ASD (accessory) for speed control of the extract fans at the same speed steps.
 - Indication of surrounding temperature, fan speed and filter contamination (via differential pressure switch, accessory).

Further options:

- connection for time switch (night mode).
- connection for air quality sensor.
- Output for e.g. damper control.
- Indication of the cause of malfunction, alert.

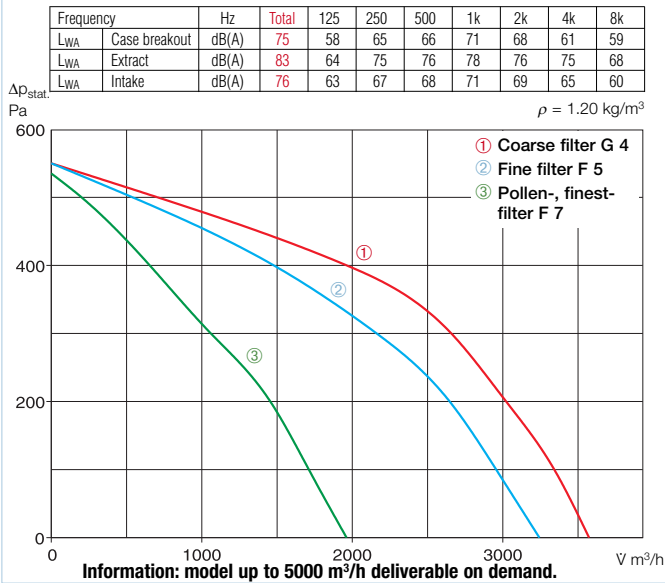


Remote control with connection cable (12 metre) included in delivery.

Type	Ref. No.	Spigot dia.	Air flow volume*	R.P.M.	Sound pressure level		Voltage 50 Hz	Power consumption		Power input max. total	Wiring diagram	Maximum supply air temperature		Nominal weight
					case breakout	supply air noise		Motor	Heater			with heater	without heater	
		mm	V m³/h (max.)	min ⁻¹	dB(A) at 1 m	dB(A) at 1 m	Volt	kW	kW	A	No.	+°C	+°C	kg
ALB 355 WW	2700	355	3600	1400	67	68	400, 3N~	2.050	—	3.6	812	20	40	117

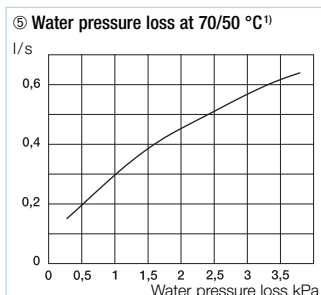
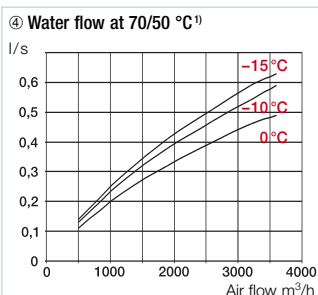
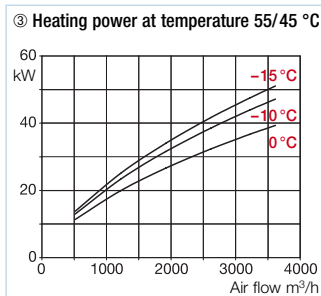
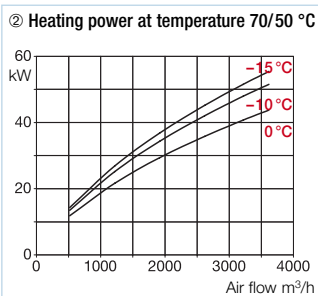
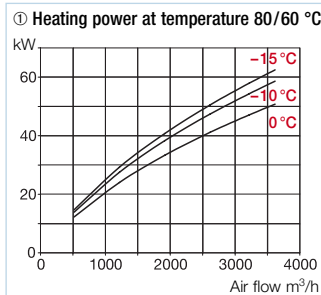
* with standard filter, class G 4

ALB 355 WW



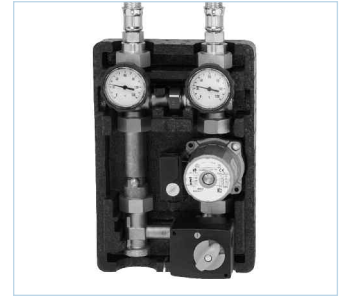
Other accessory	Pages	Information
Attenuator	318	Outside ventilation systems with ELF-ALB.. F7 (see right) and differential pressure switch DDS (Ref. No. 0445) are according to VDI 6022.
Details for hydraulic unit	316	
Flexible ventilation ducts, grilles, circular spigots	361 on	
Supply valve	382	

- **Heating power WW-Register**
①-③ The diagrams ①-③ show the heating power against the flow/ return and outdoor temperature via air flow.
- **Water quantity WW-Register** ④
④ shows the water flow against the V-/R- and outdoor temperature via air flow.
- **Pressure loss WW-Register** ⑤
⑤ shows the water pressure loss kPa via water flow.



¹⁾ Correction factor for 80/50 °C: 1.16; for 55/45 °C: 1.81

■ **Accessory Hydraulic unit**
– max. flow 2200 l/h
WHSH 2200, 230 V Ref. No. 2516
For regulation of the heating output of the water heater battery in connection with room/duct sensor. Inclusive VL-/RL-temperature display, pump, servo motor, mixing valve, gravity valve, thermal casing and flexible connection hose.



■ **Spare and pollen filters**
Large surface filter for extended cleaning periods Set = 3 pcs
– Filter class G 4
ELF-ALB 355 G4 Ref. No. 2765
– Filter class F 5
ELF-ALB 355 F5 Ref. No. 2768
– Filter class F 7
ELF-ALB 355 F7 Ref. No. 2769



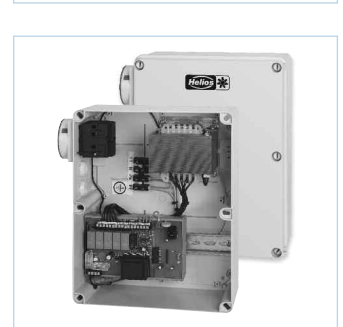
■ **Differential pressure switch DDS** Ref. No. 0445
Complete kit to monitor filters and system pressure.



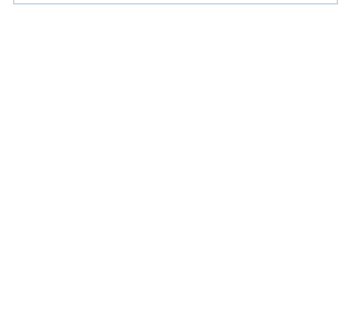
■ **Connection cable (extra long)**
– 30 meter long **ALB-SK 30** Ref. No. 2517
– 50 meter long **ALB-SK 50** Ref. No. 2518
Connection between remote control and ALB; ALB and ALB-AS; with RJ-connector.



■ **Backdraught shutter RSK 355** Ref. No. 5650
For installation in the inlet duct to prevent cold air entry when the fan is off.



■ **Extract air control ALB-ASD 355** Ref. No. 2698
A control unit for the regulation of an extract air fan at the same rate as the 5 speeds of the supply air fan. Allows synchronised operation of the unit (supply and extract air) with five speed steps. The control unit is connected with the supply systems through a control cable. The programming takes place in few steps directly to the ALB-remote control. ALB-ASD is mountable in any position and allows the connection of one or many speed controllable 3 ph. fans up to nominal load.



■ **Technical datas**
Voltage 400 V / 3 ph. / 50 Hz
Load max. 5 A
Protection to IP 55
Dim in mm W 396 x H 473 x D 130
Weight approx. 15.0 kg
Wiring diagram No. SS-868