Fresh air box ALB EC EH with electric heating element and air filter Ø 125 mm

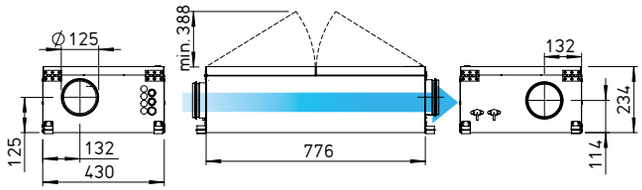
ALB EC 125 EH



Efficiency class

B ALB EC 125 EH

Dimensions ALB EC 125 EH



Dim. in mm

Application /Function
Pleasant indoor climate through the addition of external fresh air which is filtered and automatically heated to the specified temperature.

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

Description / Scope of 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 ISO $ePM_{2.5}$ 60% (M5). Alternatively, filters with higher classifications ISO ePM_1 50% (F7) (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. 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. The radiated noise as sound pressure level at 1 m (free field conditions) is additionally stated in the type table as well as in the table below the performance curve.

Control
The control element is included in the delivery and offers the following functions:
- ☐ 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 ambient temperature, outdoor temperature, supply air temperature, fan control and filter contamination (using differential pressure switch, accessories).

Other inputs and outputs:
- ☐ Emergency switch contact.
- ☐ Boost switch contact.
- ☐ Input for air quality or humidity sensor.
- ☐ Input for room temperature sensor.



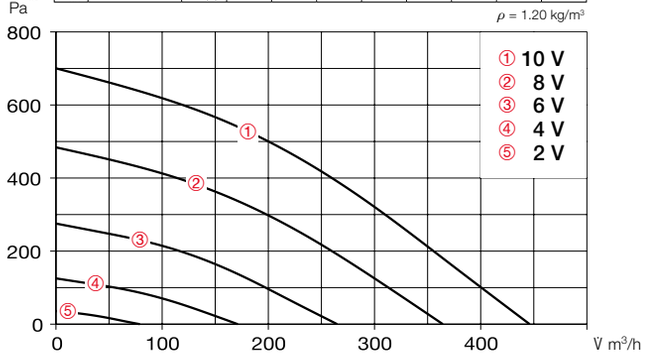
Control element with connection cable (10 m) included in delivery. For flush-mounted installation. Dimensions mm (W x H) 82 x 82

Type	Ref. no.	Flow rate* free blowing	Max. speed	Freq.	Sound pressure level		Prot. category	Voltage	Power consumption	Current consump. max. tot.	Wiring diagram	Max. intake temp.	Weight net aprx.
					Case-radiation	Air noise outlet side							
		V̇ m³/h (max.)	min-1	Hz	dB(A) at 1m	dB(A) at 1m		Volt	kW	A	No.	+°C	kg
ALB EC 125 EH	06808	445	3640	50/60	45	64	IP44	230, 1~	2.10	9.52	SS-1308	40	20

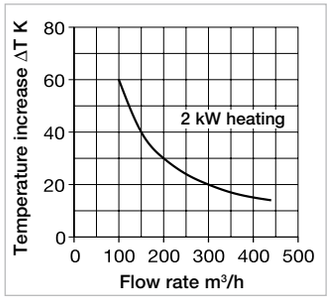
* Volume reduction by approx. 15% when using the filter ISO ePM_1 50% (F7).

Performance curves ALB EC 125 EH

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	53	44	50	48	39	35	33	31
L_{WA}	Inlet side	dB(A)	62	57	58	51	43	45	44	33
L_{WA}	Outlet side	dB(A)	72	63	65	64	63	67	60	52



	Voltage V	n min⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
Free blowing	10	3640	445	96	0.77	45	0.77
	8	3030	360	56	0.48	41	0.56
	6	2270	260	26	0.24	35	0.35
	4	1510	170	9	0.11	28	0.20
	2	730	80	4	0.06	24	0.17



Reference

The integration of air filters ELF-ALB 125 F7 (ISO ePM$_1$ 50 %) and differential pressure switches DDS (accessories) in outdoor installation fulfils the requirements of VDI 6022.

Reference	Page
Planning information	14 ff.

Other accessories	Page
Silencers	494 ff.
Flexible ventilation ducts, ventilation grilles, fittings, shutters,	
Supply air disc valves	584 f.

Accessories

Replacement and pollen filter

Large cassette filter for long cleaning intervals.
Unit = 3 pcs.
– Filter class ISO ePM$_{2,5}$ 60% (M5)
ELF-ALB 125 M5 No. 07231
– Filter class ISO ePM$_1$ 50 % (F7)
ELF-ALB 125 F7 No. 07337





Differential pressure switch

DDS Ref. no. 00445
Adjustable normally closed / normally open contact for monitoring drops in pressure.

Room sensor – Temperature

TFR-ALB Ref. no. 40000
Room temperature sensor for surface installation.

Temperature range	0 – 30 °C
Protection category	IP20
Dim. mm	W 86 x H 86 x D 30
Weight approx.	0.1 kg





Flexible cross talk silencer

FSD 125 Ref. 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

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

Surface-mounted casing incl. frame

ALB-APG Ref. no. 00134
Casing for surface-mounting of control element.

Protection category	IP20
Dim. mm	W 85 x H 85 x D 48





External wall cover grille

G 160 Ref. no. 00893
Made of plastic, white. For covering and insertion in round ventilation openings.

Duct shutter

RSKK 125 Ref. no. 05107
Automatic, made of plastic.

Plastic supply air disc valve

KTVZ 125 Ref. no. 02737
Made of plastic, for low and high flow velocities or resistances.





Metal supply air disc valve

MTVZ 125 Ref. no. 09605
Made of metal, for low and high flow velocities.