

Central ventilation system ZLS-DV EC according to DIN 18017-3.

Residential ventilation to DIN 18017-3



ZLS-DV EC is the ideal central ventilation system in multi-storey construction according to DIN 18017-3.

- Humid, polluted air is extracted in line with requirements. At the same time, the pressure-controlled controller integrated in the fan guarantees that a set negative pressure is maintained. Thus, the planned air flow volume remains unchanged in all other rooms.
- Energy-saving EC technology with highest efficiency, even for controlled operation, and up to 50 % energy saving in comparison with conventional motors.

**EXTRACT AIR**



The roof fan is connected to the central exhaust shaft. The extract air from wet-rooms and kitchens leaves via extract air elements with demand-oriented function. The automatic, stepless power adjustment takes place via the integrated pressure sensor.

**66<sup>on</sup>**

**OUTSIDE AIR**



Draught-free outside air is supplied to the living and bedrooms via automatic elements for window or wall installation.

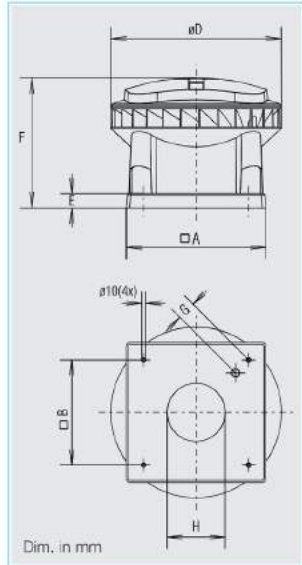
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**FIRE PROTECTION**



The spread of fire to other floors is prevented according to building requirements in the classified and unclassified shaft.

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up to **45% Saving\***  
\* with speed control

**Extremely weather-resistant,** polymer EC roof fan for an extensive area of application, diagonal discharge.

**Similarities**  
DV EC Pro and DV EC Eco

**Casing**  
Aerodynamically designed casing from high-quality polypropylene in grey with diagonal air discharge. Air flow temperatures from -30 to +60 °C.

**Impeller**  
Diagonal impeller made from aluminium, the motor-impeller unit is dynamically balanced for low noise operation.

**Motor**  
Energy-efficient EC external rotor motor protected to IP 54. Optimised level of efficiency for speed control for low operating costs. Steplessly speed controllable. Maintenance-free and interference-free, ball bearing mounted.

**Motor protection**  
Integrated electronic temperature monitoring for EC motor and electronics.

**Electrical connection**  
Standard external terminal box (protection class IP 65) on casing. Connection voltage 1 ph., 230 V, 50 Hz.

**Installation**  
Horizontal installation on the roof. In case of pitched roofs, a suitable base must be provided to prevent water entry. Extensive accessories facilitate the assembly of the fan to the ducting system in the building.

**Sound levels**  
Total sound power levels and the spectrum figures in dB(A) are given for:  
- Sound power intake  
- Sound power exhaust  
You can also find sound pressure levels at 4 m (free field conditions) in the table below and below the performance curve.

**Specification**  
DV EC Pro

- Speed control**
  - Ideal as central exhaust air fan for multi-storey building according to DIN 18017-3.
  - In connection with other components (accessories), a complete central ventilation system can be developed according to DIN 18017-3 with demand-driven ventilation.
  - Integrated pressure control for air flow volume stabilisation in the connected rooms by automatic speed adaptation with almost constantly good level of efficiency.
  - Integrated pressure sensor 0-300 Pa.
  - Short pay back time due to high energy conservation.
  - Four potentiometers integrated in the control permit an adjustment to the operating data. The desired operating point can be set directly on site.
  - Integrate serial Bus port (RS 485) for connection of a PC/laptop in combination with the interface (accessories).

Dimensions in mm

Type	DV EC 200	DV EC 250	DV EC 400
□ A	460	580	665
□ B	330	450	535
Ø D	575	706	863
E	60	60	60
F	473	540	601
G	44	46	64
H	196	241	302

**Specification**  
DV EC Eco

- Speed control**
    - Stepless speed control with a speed-potentiometer PU/PA 10 (accessories, see table below).
    - In connection with the universal control system EUR EC or electronic pressure/temperature controllers EDR/VETR (accessories, see table below), the fan can be used for stepless differential pressure, differential temperature or flow velocity regulation.
- For example, the performance levels are shown in the performance curves.

Type	Ref. no.	Maximum R.P.M. approx.	Air flow volume (FID)	Sound pressure case breakout	Power consumption at maximum R.P.M.		Wiring diagram	max. air flow temperature	Weight net approx.	Timer / Universal control system		Speed-potentiometer surface			
					kW	A				Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
<b>Type DV EC Pro, 1 ph. motor, 230 V, 50/60 Hz, EC motor, IP 54</b>											Timer				
DV EC 200 Pro	8385	1810	2010	52	0.18	1.38	863.1	60	17.0	ZLS-ZU 31	8388	—	—	—	—
DV EC 250 Pro	8386	1640	3700	60	0.41	1.78	863.1	60	23.0	ZLS-ZU 31	8388	—	—	—	—
DV EC 400 A Pro	8387	1020	4070	51	0.30	1.33	863.1	60	33.0	ZLS-ZU 31	8388	—	—	—	—
DV EC 400 B Pro	8389	1425	5650	65	0.75	3.32	863.1	60	35.0	ZLS-ZU 31	8388	—	—	—	—
<b>Type DV EC Eco, 1 ph. motor, 230 V, 50/60 Hz, EC motor, IP 54</b>											Control system				
DV EC 200 Eco	8320	1810	2010	52	0.18	1.38	991	60	17.0	EUR EC <sup>1) 2)</sup>	1347	PU 10 <sup>3)</sup>	1734	PA 10 <sup>3)</sup>	1735
DV EC 250 Eco	8322	1640	3700	60	0.41	1.78	991	60	23.0	EUR EC <sup>1) 2)</sup>	1347	PU 10 <sup>3)</sup>	1734	PA 10 <sup>3)</sup>	1735
DV EC 400 A Eco	8324	1020	4070	51	0.30	1.33	991	60	33.0	EUR EC <sup>1) 2)</sup>	1347	PU 10 <sup>3)</sup>	1734	PA 10 <sup>3)</sup>	1735
DV EC 400 B Eco	8326	1425	5650	65	0.75	3.32	991	60	35.0	EUR EC <sup>1) 2)</sup>	1347	PU 10 <sup>3)</sup>	1734	PA 10 <sup>3)</sup>	1735



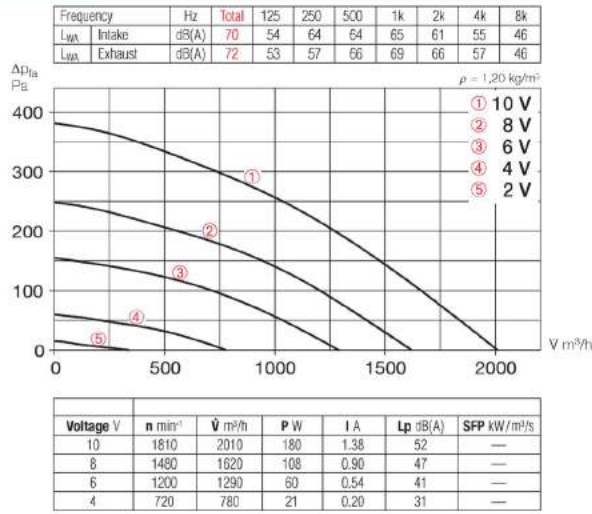
<sup>1)</sup> can normally be connected

<sup>2)</sup> alternative electronic pressure/temp. controller (EDR/VETR, No. 1437/1438) in connection with power supply NG24, No. 1439, see Accessories

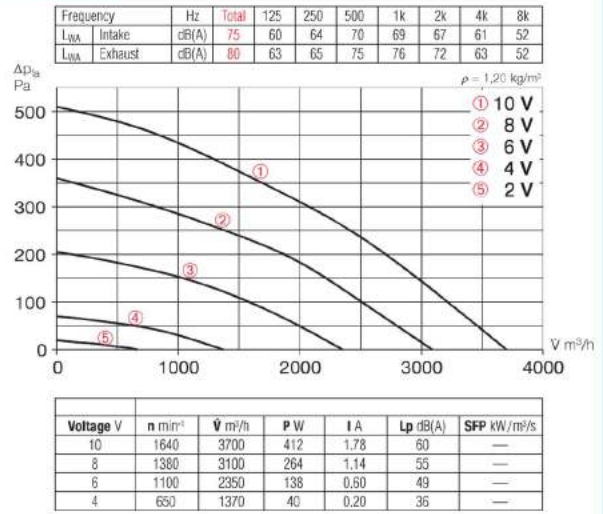
<sup>3)</sup> without LED power supply



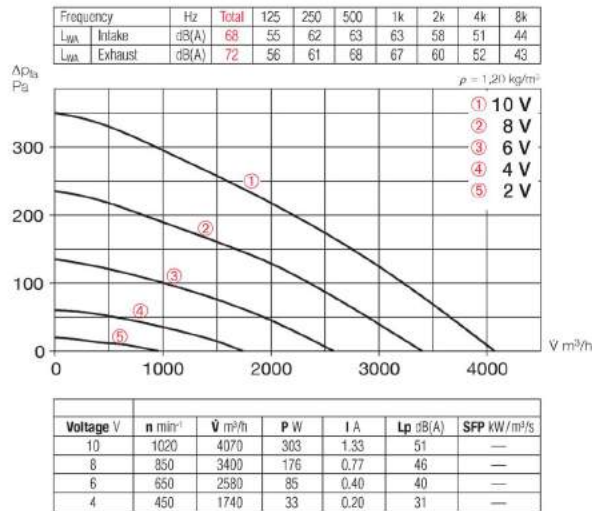
### DV EC 200



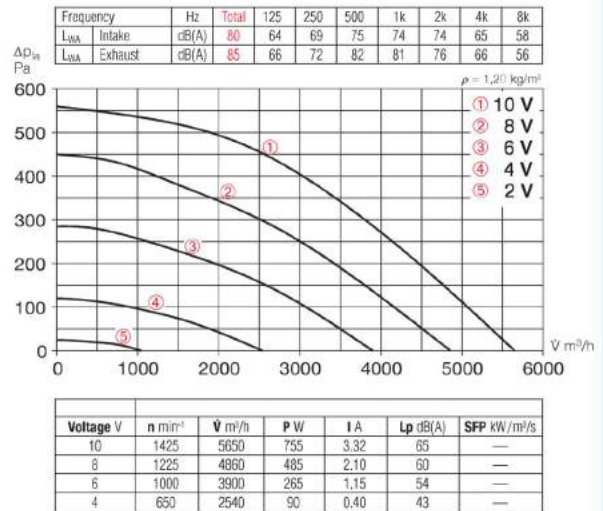
### DV EC 250



### DV EC 400 A



### DV EC 400 B



**Extract air**



**AE**  
Ready-to-install extract air element with polymer mounting ring.  
To be inserted into ducting with diam. 125 mm. With demand-based and standard ventilation stages, electrical, humidity, motion and time controlled for use pursuant to the following table.  
Types AE and AE GB with self-regulating air flow volume stabilisation. Humidity controlled types AE Hygro or type AE FV with filter and air flow volume control are preferable for kitchens and bathrooms.  
**Adapter filter element VFE**  
For installation in front of AE, if room air is polluted and greasy. See product page for details.

- Fire protection shutters for extract air elements AE



- Cold smoke shutter KAK



- Noise reduction element SVE (also suitable for supply air)



**Overflow**



**Intake air elements**

- Installation in wall openings



**ZL**  
Universal supply air unit and thermostatic valve for controlled air intake regulation.  
See intake air element product pages for detailed descriptions.

- Installation in window frames



**ALEF**  
Intake air element with air flow volume control and limiter. See intake air element product pages for detailed descriptions. Ideally suitable for retrofitting and new construction.

Bathroom		Toilet		Kitchen	
Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
<b>Extract air element</b> with self-regulating air flow volume stabilisation * Air flow volume in m³/h					
<b>AE 45*</b>	2031	<b>AE 30*</b>	2030	<b>AE 75*</b>	2033
As above, but with two air flow volumes (demand-based and standard ventilation)					
<b>AE GB 20/75*</b>	2036	<b>AE GB 15/30*</b>	2035	<b>AE GB 45/120*</b>	2038
As AE GB, with additional electr. timer (without air flow volume stabilisation)					
<b>AE GBE 30/60*</b>	2047	<b>AE GBE 15/30*</b>	2044	<b>AE GBE 45/120*</b>	2048
As AE GBE, but with motion sensor					
		<b>AE B 15/30*</b>	2055		
<b>Humidity controlled extract air unit</b> with variable, limited air flow volume					
<b>AE Hygro 10/45*</b>	2049				
As AE Hygro, with additional electrically controlled demand-based ventilation stage					
<b>AE Hygro GBE 5/40/75*</b>	2053			<b>AE Hygro GBE 10/45/120*</b>	2054
<b>Extract air element AE FV</b> , with filter and air volume control					
<b>AE FV 125</b>	9478			<b>AE FV 125</b>	9478
<b>Adapter filter element VFE</b>					
- to AE / AE GBE, AE Hygro, prevents contamination of the air extract element and ducting system					
				<b>VFE 70/VFE 90</b>	2552/2553

**Fire and smoke shutter.**

Suitable for insertion into spiral ducting without additional mounting frame or wall installation with mounting sleeve EH (accessories).

**Cold smoke shutter** with magnetic closure. Prevents backflow of cold smoke into other fire areas in central ventilation system.

\* ND 125, suitable for AE above. See product pages for other ND and detailed descriptions.

Type	Ref. no.
<b>Fire protection shutter K 90-18017</b>	
<b>BAE 125*</b>	2626
<b>Fire protection shutter K 90-4102</b>	
<b>BAK 125*</b>	2621
<b>Mounting sleeve</b> (accessories for both types)	
<b>EH 125*</b>	2640
<b>Cold smoke shutter</b>	
<b>KAK 125*</b>	4098

**Noise reduction elements** for simple noise-absorption and air volume regulation in central ventilation systems through duct insertion. Also suitable for pressure regulation.

**Type SVE 100** Ref. no. 8310  
ND 100 mm

**Type SVE 125\*** Ref. no. 8311  
ND 125 mm

**Door grilles**

Discreet, screened ventilation grille made from impact-resistant polymer for door installation.

**Type LTGW** Ref. no. 0246  
Made from white polymer.

**Type LTGB** Ref. no. 0247  
Made from brown polymer

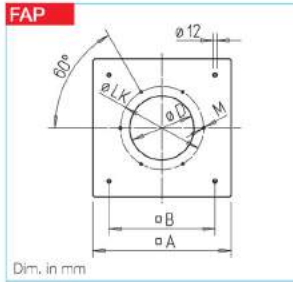
Ø 80		Ø 100		Ø 160	
Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
<b>Supply air unit</b> – Automatic temperature control incl. thermostatic valve, acoustic lining and external grille					
<b>ZLA 80</b>	0214	<b>ZLA 100</b>	0215	<b>ZLA 160</b>	0216
<b>Supply air element</b> – Manual control in four stages incl. valve plate with pull cord, sound insulation and external grille					
		<b>ZLE 100</b>	0079		
<b>Thermostatic valve</b> – For installation in existing ventilation openings					
<b>ZTV 80</b>	0078	<b>ZTV 100</b>	0073	<b>ZTV 160</b>	0074

∇					
m³/h	Type	Ref. no.	Type	Ref. no.	Type
<b>Intake air inlet element for installation in window frames</b> – with air volume control and limiter					
30	<b>ALEF 30</b>	2100		<b>ALEFS 30</b>	2102
45	<b>ALEF 45</b>	2101		<b>ALEFS 45</b>	2103
<b>Intake air inlet element for installation in window frames</b> – humidity control, with air volume control and limiter					
6/45	<b>ALEF Hygro 6/45</b>	2056		<b>ALEFS Hygro 6/45</b>	2057





### Flange connecting plate



**Flange connecting plate FAP**  
Made from galvanised sheet steel. Allows the connection of the duct system and accessories to the roof fans DV EC, if no base attenuator SSD is used.

Type	FAP 200	FAP 250	FAP 400
Ref. no.	8382	8383	8384
□ A mm	430	550	635
□ B mm	330	450	535
Ø D mm	200	250	400
Ø LK mm	259	286	438
M	M 6	M 6	M 8
Weight kg	1.8	3.0	3.3

### Flange, flanged flexible connector



Suitable for roof fan:					
DV EC 200		DV EC 250		DV EC 400	
Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
<b>Flange connecting plate</b> – necessary for duct connection					
FAP 200	8382	FAP 250	8383	FAP 400	8384
<b>Counterflange</b>					
DFR 200	1201	FR 250	1203	FR 400	1206
<b>Flanged flexible connector</b>					
DSTS 200	1218	STS 250	1220	STS 400	1223

See product pages for detailed descriptions.

### Flat roof base



Suitable for roof fan:					
DV EC 200		DV EC 250		DV EC 400	
Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
<b>Flat roof base</b> – with hinge mechanism for easy maintenance					
FDS 200	1378	FDS 250	1379	FDS 400	1380
<b>Base attenuator</b> – with hinge mechanism for easy maintenance					
SSD 200	5290	SSD 250	5292	SSD 400	5291

See product pages for detailed descriptions.

### Base attenuator

### Fire protection



**Fire damper ELS-D prevents spread of fire to other floors.** Installation in ventilation main duct to DIN 18017 K90. Maintenance free. Approved for use in ventilation shafts or mixed service shafts (even with flammable ducts) only needs to be covered with 12.5 mm plaster-

board cover. All other parts (valves etc.) do not need fire protection classification. Flexible aluminium ducting can be used for the connections. Shutters KAK are to be provided to avoid backflow of cold smoke (see left page).

ND mm main duct	100	125	140	160	180	200
Type	ELS-D 100	125	140	160	180	200
Ref. no.	0270	0185	0186	0187	0188	0271

### Control



**Interface**  
Interface for the start-up and/or control of the fan in connection with a PC/Laptop. Power supply unit, adaptor cable and software included.

Type ZLS-IF Ref. no. 8391

**Electronic timer module with day/night regulator**  
Allows parallel operation of max. 31 DV EC roof fans. The rocker main switch activates the timer module. The day and night regulation is carried out via the settings on the display.  
Incl. main switch, 230 V, 50 Hz.  
Type ZLS-ZU 31 Ref. no. 8388

Accessory details	Page
Roof installation accessories	485
Ventilation grilles	487 on
Extract air elements	500 on
Intake air elements	512 on
<b>Fire protection systems</b>	
– Fire damper	516 on
<b>Universal control systems, electronic controllers, speed-potentiometer</b>	
	539 on



**Universal control system**  
For stepless control or regulation of single or three phase EC fans with a setpoint of 0-10 V DC:

Type EUR EC Ref. no. 1347

**Speed-potentiometer**  
For direct control/setpoint setting of EC fans with potentiometer inputs.

Type PU 10 (up) Ref. no. 1734

Type PA 10 (ap) Ref. no. 1735