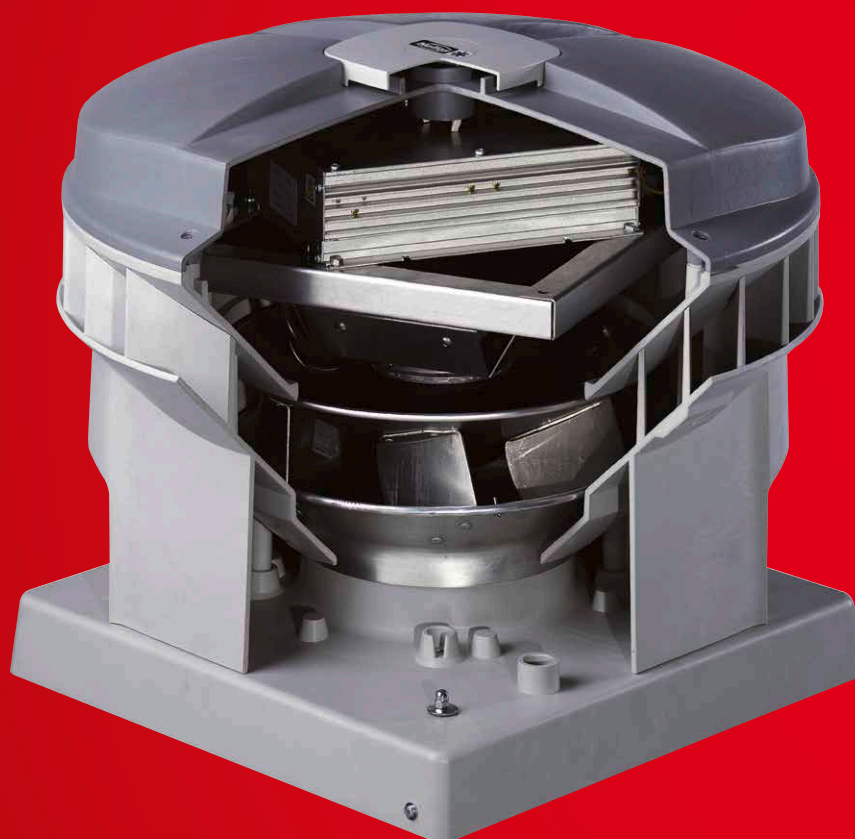


# Central ventilation system ZLS-DV EC according to the German standard DIN 18017-3.



**ZLS-DV EC is the ideal central ventilation system for multi-floor construction in accordance with DIN 18017-3.**

Humid, contaminated air is extracted in line with requirements. The integrated pressure-regulated control system in the fan simultaneously ensures

that a predetermined under-pressure is maintained. The planned volume flow therefore always remains the same in all other rooms.

Energy-saving EC technology with the highest level of efficiency, even in control mode, and up to 45 % energy savings over conventional motors.

#### ■ Extract air

The roof fan is connected to the central extract air shaft. The stale air from wet rooms and kitchens flows out of the extract air elements with usage-oriented functionality. The automatic, continuously variable power adjustment takes place via the integrated pressure sensor.



82<sup>f</sup>

#### ■ Intake air

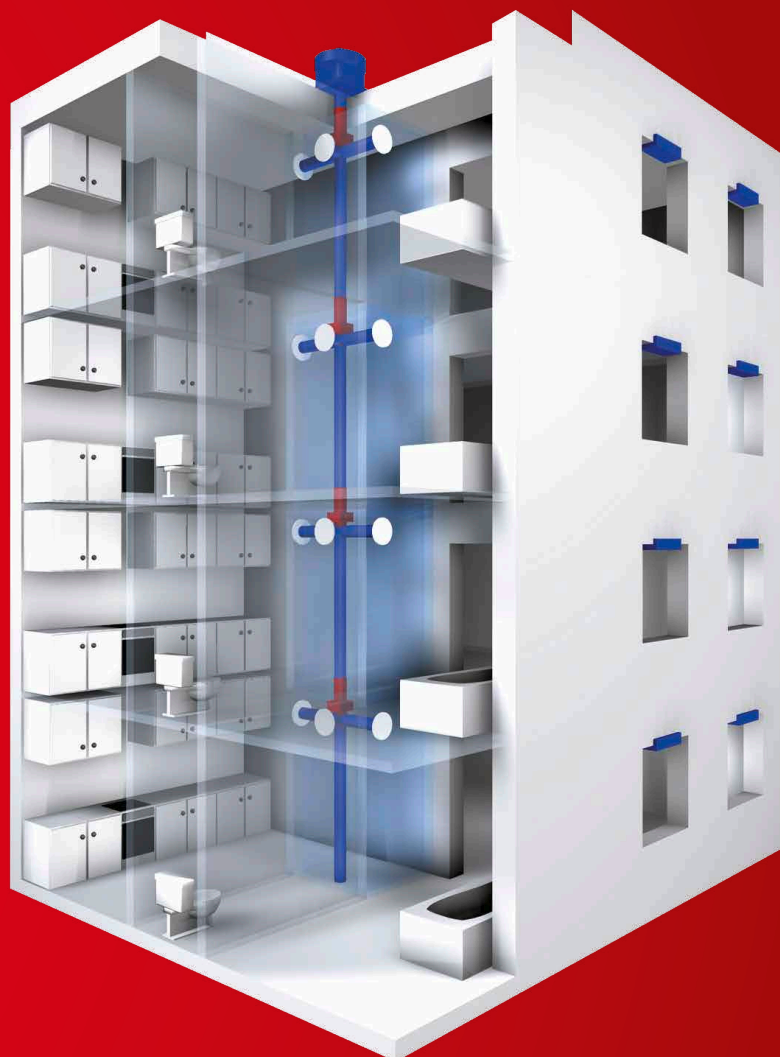
Draught-free intake air is supplied to the living rooms and bedrooms via automatic elements for window or wall installation.

84<sup>f</sup>

#### ■ Fire protection

The spread of fire to other floors is prevented according to the structural requirements in the classified or non-classified shaft.

85



## DV EC



**Extremely weather-resistant EC roof fan in plastic design for an extensive range of applications, diagonal outlet.**

## Common features

## DV EC Pro und DV EC Eco

## ■ Casing

Aerodynamically designed plastic casing made of grey polypropylene with diagonal air outlet direction. Air flow temperatures from -30 to +60 °C.

## ■ Impeller

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

## ■ Drive

Energy-efficient EC external rotor motor in protection category IP54. Optimised efficiency even with speed control for low operating costs. Continuously variable speed control. Maintenance-free and radio interference-free, ball bearing mounted.

## ■ Motor protection

Integrated electronic temperature monitoring system for EC motor and electronics.

## ■ Electrical connection

Standard operating switch (protection category IP65) mounted on the outside of the casing. Connection voltage 1~, 230 V, 50 Hz.

## ■ Installation

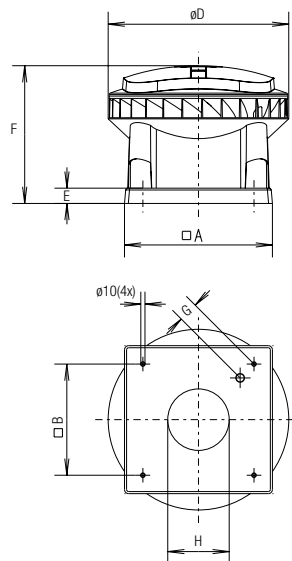
Horizontal alignment on the roof. In case of sloping roofs, a corresponding base formation must be used to prevent water ingress. A range of accessories facilitates the installation of the fan in the building duct system.

## ■ Noise

The total level and range are specified above the performance diagram for:

- Inlet side sound power
  - Outlet side sound power.
- The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table and the table below the performance curve.

## Dimensions DV EC



Dimensions in mm

## PRO

## Description DV EC Pro

## ■ Power control

- Ideal as a central extract air fan for multi-floor residential construction in accordance with DIN 18017-3.
- When combined with other components (accessories), a complete central ventilation system in accordance with DIN 18017-3 can be created with demand-driven ventilation.
- Integrated pressure control for constant volume flow control in the connected rooms through automatic speed adjustment at almost constantly high efficiency.
- Integrated pressure sensor 0–300 Pa.
- Short amortisation period due to high energy saving.
- Operating data setting at the 4 potentiometers integrated in the control system to set the desired operating point on site.
- Integrated serial bus interface (RS 485) for connection to a PC/laptop in connection 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	708	863
E	60	60	60
F	473	540	601
G	44	48	64
H	196	241	302

## ECO

## Description DV EC Eco

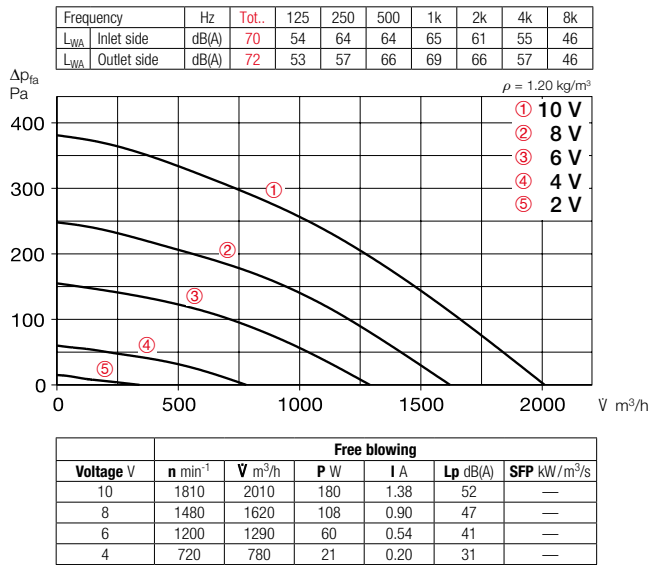
## ■ Power control

- Continuously variable speed control with speed potentiometer PU/PA 10 (accessories, see type table).
  - When combined with the universal control system EUR EC or electronic pressure/temperature controllers EDR/ETR (accessories, see type table), the fan can be used for the continuously variable control of differential pressure, differential temperature or flow velocity.
- Performance levels are shown in the performance curve as an example.

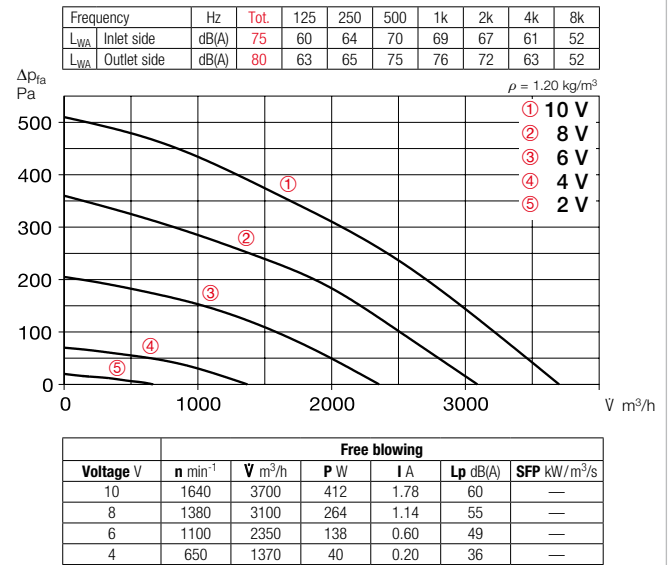
Type	Ref. no.	Maximum speed approx.	Flow rate free blowing	Noise sound pressure	Power consumption at maximum speed		Wiring diagram	max. air flow temperature	Weight net approx.	Timer / Universal control system	Speed potentiometer				
											Flush-mounted		Surface-mounted		
		min <sup>-1</sup>	ℳ m <sup>3</sup> /h	dB(A) at 4 m	kW	A	No.	+ °C	kg	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
PRO Type DV EC Pro, single phase alternating current, 230 V, 50/60 Hz, EC motor, IP54										Timer					
DV EC 200 Pro	08385	1810	2010	52	0.18	1.38	863.1	60	17.0	ZLS-ZU 31	08388	—	—	—	—
DV EC 250 Pro	08386	1640	3700	60	0.41	1.78	863.1	60	23.0	ZLS-ZU 31	08388	—	—	—	—
DV EC 400 A Pro	08387	1020	4070	51	0.30	1.33	863.1	60	33.0	ZLS-ZU 31	08388	—	—	—	—
DV EC 400 B Pro	08389	1425	5650	65	0.75	3.32	863.1	60	35.0	ZLS-ZU 31	08388	—	—	—	—
ECO Type DV EC Eco, single phase alternating current, 230 V, 50/60 Hz, EC motor, IP54										Control system					
DV EC 200 Eco	08320	1810	2010	52	0.18	1.38	991	60	17.0	EUR EC <sup>1)2)</sup>	01347	PU 10 <sup>3)</sup>	01734	PA 10 <sup>3)</sup>	01735
DV EC 250 Eco	08322	1640	3700	60	0.41	1.78	991	60	23.0	EUR EC <sup>1)2)</sup>	01347	PU 10 <sup>3)</sup>	01734	PA 10 <sup>3)</sup>	01735
DV EC 400 A Eco	08324	1020	4070	51	0.30	1.33	991	60	33.0	EUR EC <sup>1)2)</sup>	01347	PU 10 <sup>3)</sup>	01734	PA 10 <sup>3)</sup>	01735
DV EC 400 B Eco	08326	1425	5650	65	0.75	3.32	991	60	35.0	EUR EC <sup>1)2)</sup>	01347	PU 10 <sup>3)</sup>	01734	PA 10 <sup>3)</sup>	01735

<sup>1)</sup> Multiple EC fans can normally be connected. <sup>2)</sup> Alternative elec. pressure/temp. controller (EDR/ETR, no. 01437/01438) in combination with mains adapter NG 24, no. 01439, see accessories. <sup>3)</sup> Without LED power supply.

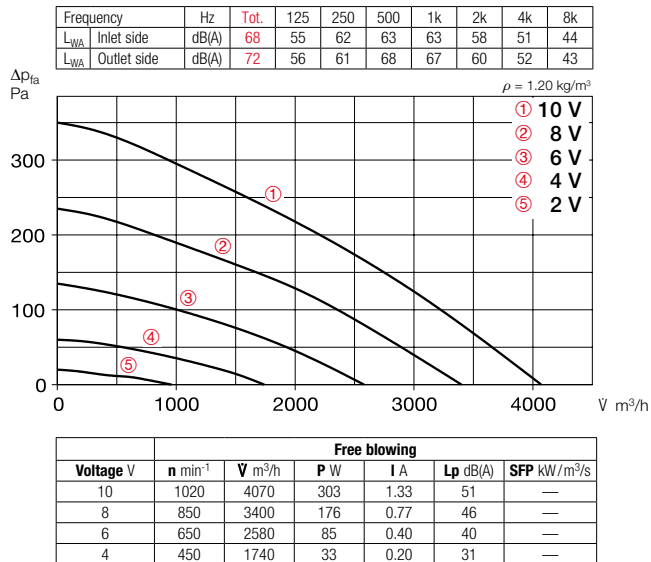
### Performance curves DV EC 200



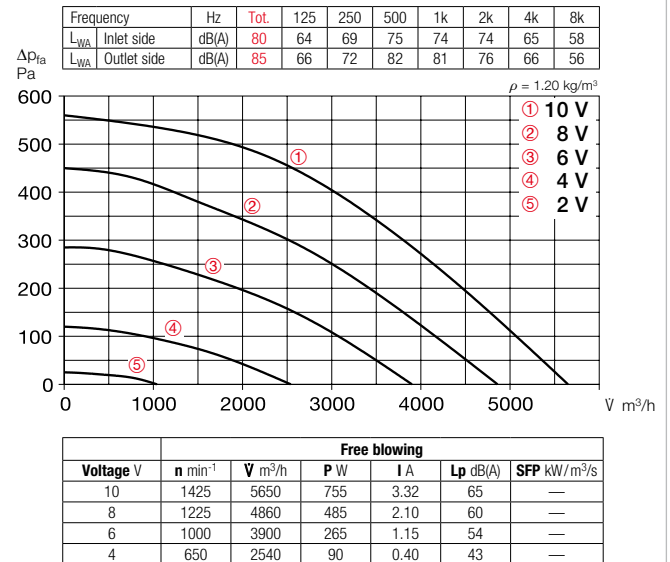
### Performance curves DV EC 250



### Performance curves DV EC 400 A



### Performance curves DV EC 400 B



■ Extract air elements



**Ready-to-install extract air elements with mounting ring made of plastic.**

For insertion in ducts with ND 125. With demand-controlled and basic ventilation level, electric, humidity, motion and time-controlled for use according to the adjacent table. Types AE and AE GB come with self-regulating constant volume flow control. Humidity-controlled types AE Hygro or type AE FV with filter and volume adjustment are preferable in kitchens and bathrooms.

**Attachment filter element VFE**

For installation in front of AE in case of greasy, contaminated room air. Details on product page.

□ In-duct fire dampers for extract air elements AE



□ Cold smoke shutters KAK



□ Sound insulation elements SVE (also suitable for supply air)



■ Overflow



■ Intake air elements  
□ Installation in wall openings



**Universally applicable automatic supply air elements and thermostat disc valves for demand-based intake air volume control.** See Intake air elements page for detailed description.

□ Installation in window frames



**Intake air element with volume flow control and limitation.** See Intake air elements product page for detailed description. Ideal for retrofitting and new constructions.

Bathroom		WC		Kitchen	
Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
<b>Extract air element</b> , with self-regulating constant volume flow control					
<b>AE 45*</b>	02031	<b>AE 30*</b>	02030	<b>AE 75*</b>	02033
<b>Like above</b> , but with two volume flows (demand-controlled and basic ventilation)					
<b>AE GB 20/75*</b>	02036	<b>AE GB 15/30*</b>	02035	<b>AE GB 45/120*</b>	02038
<b>Like AE GB</b> , with additional electr. time control (without constant volume flow control)					
<b>AE GBE 30/60*</b>	02047	<b>AE GBE 15/30*</b>	02044	<b>AE GBE 45/120*</b>	02048
<b>Like AE GBE</b> , but with presence detector					
		<b>AE B 15/30*</b>	02055		
<b>Humidity-controlled extract air element</b> with variable, limited volume flow					
<b>AE Hygro 10/45*</b>	02049				
<b>Like AE Hygro</b> , with additional electrically controlled demand-controlled ventilation level					
<b>AE Hygro GBE 5/40/75*</b>	02053			<b>AE Hygro GBE 10/45/120*</b>	02054
<b>Extract air element AE FV</b> , with filter and volume adjustment					
<b>AE FV 125</b>	09478			<b>AE FV 125</b>	09478
<b>Attachment filter element VFE</b>					
– for AE / AE GBE, AE Hygro, prevents contamination of the extract air element and duct system					
				<b>VFE 70/VFE 90</b>	02552/02553

\*Volume flow in m³/h

**Fire and smoke damper.**

For insertion in spiral duct without additional wall frame or for wall installation using mounting sleeve EH (accessories).

**Cold smoke shutter** with automatic magnetic catch. Prevents the backflow of cold smoke etc. in central ventilation systems in other fire sections.

Type	Ref. no.
<b>In-duct fire damper K 90-18017</b>	
<b>BAE 125*</b>	02626
<b>In-duct fire damper K 90-4102</b>	
<b>BAK 125*</b>	02621
<b>Mounting sleeve</b> (accessory for both types)	
<b>EH 125*</b>	02640
<b>Cold smoke shutter</b>	
<b>KAK 125*</b>	04098

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

**Sound insulation elements** for simple sound insulation and volume control in central ventilation systems through duct insertion. These elements can also be used for pressure control.

**Door grilles**

Unobtrusive, sight screening ventilation grille made of break-resistant plastic for installation in door leaf.

**SVE 100** Ref. no. 08310  
ND 100 mm

**SVE 125\*** Ref. no. 08311  
ND 125 mm

**LTGW** Ref. no. 00246  
Made of plastic, white.

**LTGB** Ref. no. 00247  
Made of plastic, white.

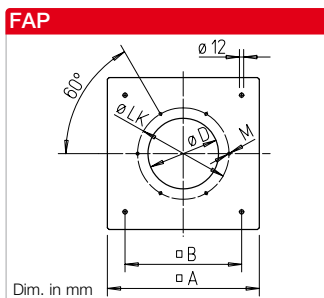
Ø 80		Ø 100		Ø 160	
Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
<b>Automatic supply air element</b> – Automatically temperature-controlled incl. thermostat disc valve, sound insulation and external grille					
<b>ZLA 80</b>	00214	<b>ZLA 100</b>	00215	<b>ZLA 160</b>	00216
<b>Supply air element</b> – Manually controllable in four levels incl. disc valve with drawcord, sound insulation and external grille					
		<b>ZLE 100</b>	00079		
<b>Thermostat disc valve</b> – For installation in existing ventilation openings					
<b>ZTV 80</b>	00078	<b>ZTV 100</b>	00073	<b>ZTV 160</b>	00074

Automatic supply air element ZLA 125 see product pages.

V m³/h	Type	Ref. no.	Type	Ref. no.
<b>Intake air element for installation in window frames</b> – with volume flow control and limitation				
30	<b>ALEF 30</b>	02100	<b>ALEFS 30</b>	02102
45	<b>ALEF 45</b>	02101	<b>ALEFS 45</b>	02103
<b>Intake air element for installation in window frames</b> – humidity-controlled, with volume flow control and limitation				
5/45	<b>ALEF Hygro 5/45</b>	02056	<b>ALEFS Hygro 5/45</b>	02057



### ■ Flange connection plate



### Flange connection plate FAP

Made of galvanised steel sheet. This allows the connection of the duct system and accessories to the roof fans DV EC if no base silencer SSD is used.

Type	FAP 200	FAP 250	FAP 400
Ref. no.	08382	08383	08384
□ 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
Gewicht kg	1.8	3.0	3.3

### ■ Flange, flanged flex. connector



### Compatible with roof fan:

DV EC 200		DV EC 250		DV EC 400	
Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
<b>Flange connection plate</b> – Required for duct-pipe connection					
FAP 200	08382	FAP 250	08383	FAP 400	08384
<b>Counterflange</b>					
DFR 200	01201	FR 250	01203	FR 400	01206
<b>Flanged flexible connector</b>					
DSTS 200	01218	STS 250	01220	STS 400	01223

See product pages for detailed description.

### ■ Flat roof base

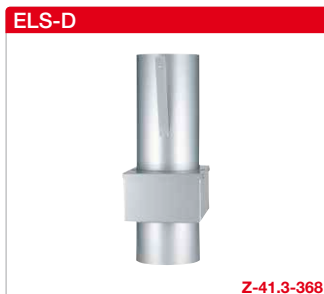


### Compatible with roof fan:

DV EC 200		DV EC 250		DV EC 400	
Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
<b>Flat roof base</b> – With swing-action device for easy inspection					
FDS 200	01378	FDS 250	01379	FDS 400	01380
<b>Base silencer</b> – With swing-action device for easy inspection					
SSD 200	05290	SSD 250	05292	SSD 400	05291

See product pages for detailed description.

### ■ Fire protection

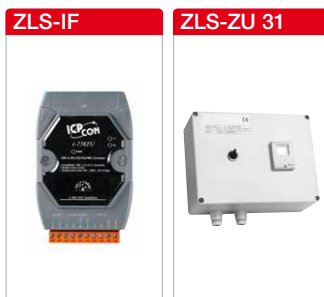


**Fire protection ceiling seal ELS-D to prevent spread of fire to other floors.** Installation in main ventilation pipe according to DIN 18017 K90. Maintenance-free. For ventilation or mixed (even with combustible pipes) installation shafts which only require cladding with 12.5 mm

plasterboard. All other parts (disc valves etc.) without fire resistance classification. Branch and connection pipes also available in Aluflex pipe. Shutter elements KAK are available to prevent the backflow of cold smoke (see left page or page 597).

ND mm main pipe	100	125	140	160	180	200
Type	ELS-D 100	ELS-D 125	ELS-D 140	ELS-D 160	ELS-D 180	ELS-D 200
Ref. no.	00270	00185	00186	00187	00188	00271

### ■ Control system



### Interface

Interface for commissioning or controlling the fan in combination with a PC/laptop. Incl. mains adapter, adapter cable and software.

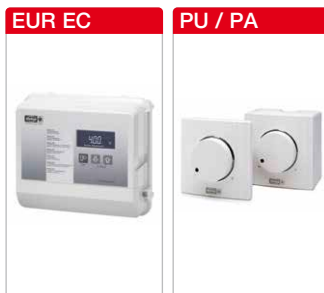
**ZLS-IF** Ref. no. 08391

### Electronic timer module with day and night switchover

Allows the parallel operation of max. 31 DV EC roof fans. The rocker switch is used to enable the DV EC fans. The day and night switchover takes place via the settings in the display. Incl. main switch. 230 V, 50 Hz.

**ZLS-ZU 31** Ref. no. 08388

Accessory details	Page
Roof install. accessories	559 f.
Ventilation grilles	561 ff.
Extract air elements	574 ff.
Intake air elements	586 ff.
Fire protection systems	590 ff.
– Ceiling seal	596 ff.
Universal control systems, electronic controllers, speed potentiometer	613 ff.



### Universal control system

For the continuously variable control or regulation of single and three-phase EC fans with a setpoint of 0–10 V DC:

**EUR EC** Ref. no. 01347

### Speed potentiometer

For the direct control/setpoint setting of EC fans with a potentiometer input.

**PU 10 (UP)** Ref. no. 01734

**PA 10 (AP)** Ref. no. 01735