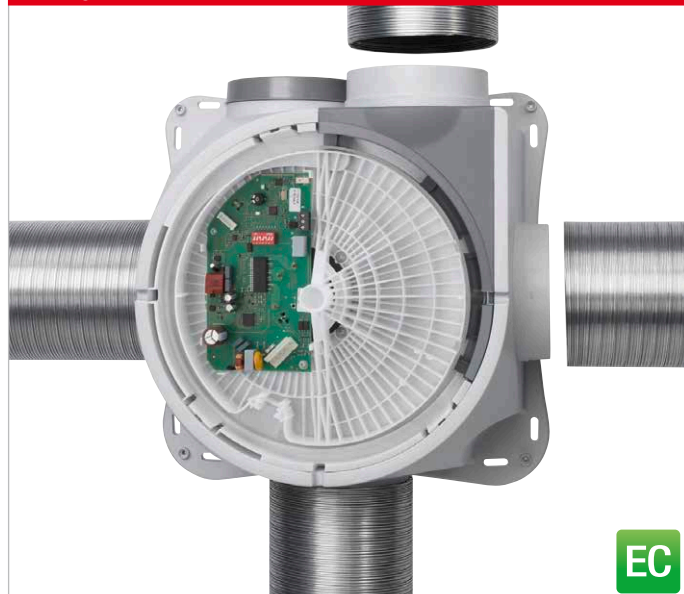
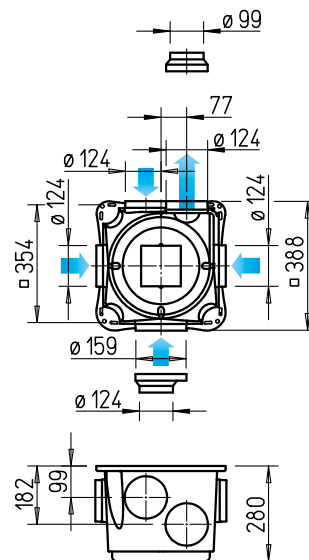


ZEB EC



Dimensions ZEB EC



Dimensions in mm

ZEB with EC technology – when equipped with a DC motor, the EC variant of the ZEB becomes the “energy-saving ventilation box”, which is ideal for use in low-energy houses. Brushless DC motors operate with extremely low losses and also with higher efficiency than conventional motors, even in control mode. This results in compelling advantages:

- Convenient, stepless speed control or 3-speed operation possible.

■ Application

- For controlled domestic ventilation according to DIN 18017-3 and DIN 1946-6.
- Ideal in low-energy houses.
- For ventilation via a shared main pipeline in single-family houses as well as apartments and multi-floor residential units.

■ Casing

- Robust casing made of impact-resistant plastic, light grey.
- The three inlet connectors and the outlet connector are designed for pipes NW 100 and 125 mm. One inlet connector is designed for pipes NW 100, 125 and 160 mm.

■ Impeller

Low-noise centrifugal impeller made of steel in an aerodynamically optimised spiral. Inlet via nozzle.

■ Motor

- DC motor, electronically commutated, with high efficiency even in control mode. Ball-bearing external rotor motor with IP30 protection for maintenance-free continuous operation.
- Motor/impeller unit can be removed with one hand for cleaning and servicing.

■ Motor protection

Provided by the integrated, electronic temperature monitoring of the EC motor and the electronics.

■ Electrical connection

- Service-friendly and connection-friendly. Supplied ready for use with wired terminal box.
- Direct connection to 230 V mains power.
- NYM-J 5 x 1,5 mm² required for three level operation.

■ Power control

Continuous fan operation via speed control with potentiometer or universal control system (accessory). The power levels are shown in the performance curve as an example.

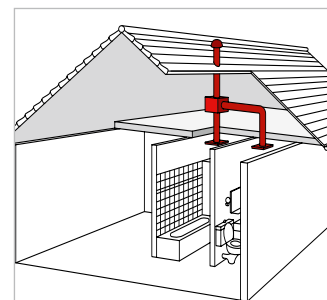
3-speed fan operation is possible using an operating switch (accessory). Several speeds can be selected using DIP switches on the drive electronics for customised power adjustment. Using the “3-speed operation” table, the appropriate DIP switch settings for three-speed operation can be selected from the air performance pairings shown (volume flow / pressure). The performance curves are shown as examples in the diagram “Performance curves for 3-speed operation”.

■ Installation

No restrictions in any position. Preferably away from the room to be ventilated for less noise.

■ Duct system

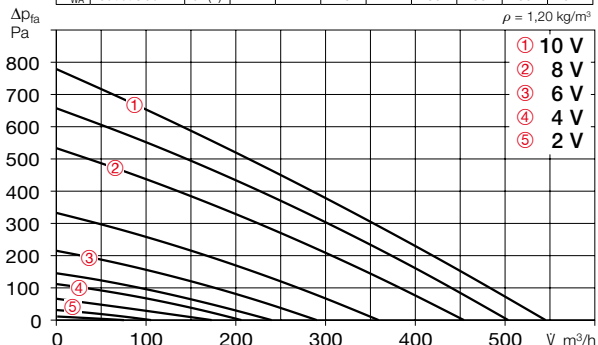
For example, rigid spiral ducts, flexible aluminium ducts or even plastic ducts can be used. However, the fire protection regulations must be observed for crossing fire sections.



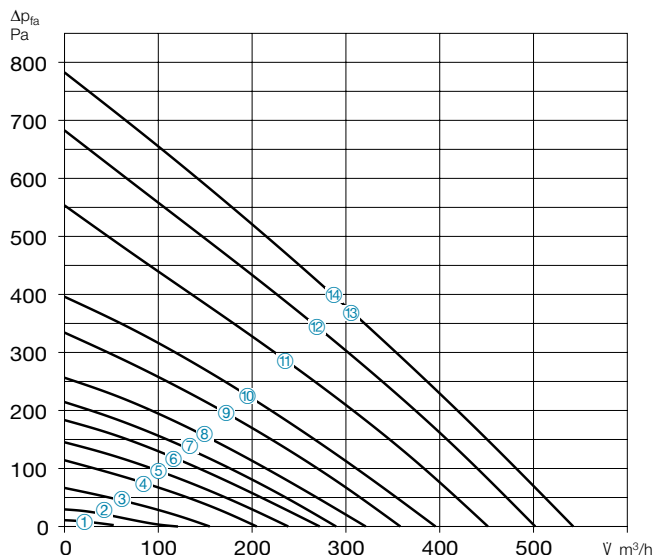
Type	Ref. no.	Connection Ø	Flow rate free blowing	Rated speed	Case-rad. sound pressure	Power consumption	Current con- sumption	Wiring dia- gram	Max. air flow temp.	Weight net aprx.	Universal control system		Speed potentiometer			
											Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
		mm	l m³/h	min⁻¹	dB(A) in 4m	kW	A	No.	+ °C	kg	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP30																
ZEB EC	01457	100	550	3950	40	0.079	0.34	1487	40	4.2	EUR EC ^{1) 2)}	01347	PU 10 ¹⁾	01734	PA 10 ¹⁾	01735

Performance curves 0-10 V control

Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Radiation	dB(A)	60	54	60	60	52	49	42	35
L _{WA} Inlet side	dB(A)	68	73	68	59	59	53	45	
L _{WA} Outlet side	dB(A)	74	77	73	74	65	66	60	51



Free blowing						
Voltage V	n min ⁻¹	V m ³ /h	P W	I A	Lp dB(A)	SFP kW/m ³ /s
10	3950	550	70	0,60	40	0,46
8	3230	450	45	0,40	36	0,36
6	2080	290	15	0,15	27	0,19
4	1500	210	10	0,10	20	0,17

Performance curves 3-speed operation


DIP switch setting	3-speed operation		
	Low m ³ /h / Pa	Medium m ³ /h / Pa	High m ³ /h / Pa
1	75 / 38 ③	100 / 67 ④	150 / 150 ⑧
2	30 / 2 ①	125 / 46 ④	225 / 150 ⑨
3	30 / 2 ①	150 / 54 ⑤	250 / 150 ⑩
4	50 / 6 ①	175 / 74 ⑥	250 / 150 ⑩
5	50 / 5 ①	175 / 61 ⑥	275 / 150 ⑩
6	100 / 24 ③	175 / 74 ⑥	275 / 182 ⑩
7	30 / 1 ①	175 / 51 ⑤	300 / 150 ⑪
8	75 / 9 ②	200 / 67 ⑦	325 / 176 ⑪
9	75 / 8 ②	200 / 57 ⑦	350 / 174 ⑪
10	100 / 11 ②	250 / 67 ⑧	400 / 171 ⑫
11	50 / 3 ①	225 / 61 ⑦	420 / 211 ⑬
12	75 / 5 ②	250 / 59 ⑧	425 / 169 ⑬
13	30 / 1 ①	225 / 42 ⑥	450 / 168 ⑭
14	75 / 5 ②	250 / 52 ⑧	450 / 168 ⑭

①-⑭ These values refer to the "3-speed operation" performance curves.

Accessories
Speed potentiometer

For direct control/setpoint setting for EC fans with potentiometer input.

PU 10 Ref. no. 01734

For flush-mounting.

Dim. mm (WxHxD) 80 x 80 x 21

PA 10 Ref. no. 01735

For surface-mounting.

Dim. mm (WxHxD) 80 x 80 x 65

Three level switch 10 V / 0-10 V

For three level control of EC fans or frequency converters, with a 0-10 V DC control input.

For surface and flush-mounted installation.

Dim. mm (WxH) 80 x 80

SU-3 10/SA-3 10 no. 04266/04267

Electronic control system

For continuously variable control or regulation of single phase and three-phase EC fans.

Dim. mm (WxHxD) 223 x 200 x 131

EUR EC Ref. no. 01347

Three level speed and operating switch with 0 position.

Convenient flush-mounted speed switch. Room light not switchable in parallel. Installation in flush-mounted switch box (depth min. 55 mm).

Dim. mm (WxHxD) 80 x 80 x 23

DSZ Ref. no. 01598

Weekly timer

Digital timer with LCD display for autom. control of operating mode, can be programmed for every day of the week. For surface and flush-mounted installation.

Dim. mm (WxHxD) 84 x 84 x 40

WSUP Ref. no. 09990

For switch cabinet installation (2 space units required).

Dim. mm (WxHxD) 36 x 90 x 63

WSUP-S Ref. no. 09577

Accessory details Page

Flexible ventilation ducts, roof outlets, shutters and ventilation grilles	563 ff.
Extract air elements	576 ff.
Intake air elements	588 ff.
Fire protection elements for use in multi-fl. const.	592 ff.
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