EC greenVent®

The ventilation of the future.

Helios

The professionals choice

EC greenVent

The ventilation of the future.

Page


ECgreenVent®

ECgreenVent

Energy, the topic for the future.
Efficiency, the demand of our time.

Across the globe energy is the topic of the future. Due to the rapid increase in global economic growth and the increasing population, the enormous additional demand for energy presents us with great challenges. By 2030 alone the increase in the demand for energy is expected to rise further by another 40%.

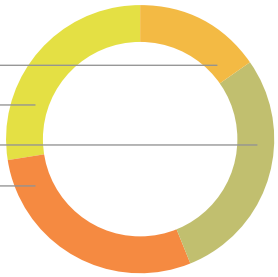
The demand for energy burdens our environment and as a consequence the pressure to move over to a more sustainable energy supply is growing.

The buzzword of the day. Energy efficiency improvement.
The most effective and most economical method for a safe and climate-friendly energy supply is to increase energy efficiency. Considering the fact that about 45% of energy is used in industry and trade, for example in Germany (see graphic) it is obvious that these areas particularly should be targeted.

Until a few years ago the optimisation of heating was almost exclusively the focus point, primarily in non-residential buildings and all building control technologies including ventilation, cooling and illumination.

Distribution of final energy consumption in Germany 2008 among various sectors of consumption

15,5 % business, trade, service
28,5 % traffic
28,7 % industry
27,3 % household



source: Bundesministerium für Verkehr, Bau- und Wohnungswesen

Fans use
410 TWh
in Europe every year.

through Eco-Design Directive targeted reduction in electricity consumption
34 TWh

Ventilation. Great potential saving.
Special attention must be paid to ventilation: according to the EU commission the energy consumption of fans at present is about 410 TWh in Europe every year. This number offers great potential for making a contribution to the achievement of the Eco-Design Directive. This seeks to save about 16 million tons of CO_2 per year and reduce the current consumption by 34 TWh.

Helios has taken up this need of the moment as one of the leading European fan manufacturers and offers a complete EC-program already today. **By use of electronically commutated fan motors, energy savings of over 50 % can be achieved during speed control.**

ECgreenVent

Small principle. Big effect.

The main component of a fan today is still an AC-motor. This runs according to the number of pole pairs and mains frequency (in general 50 Hz) and the resulting static rotating field of the slip.

Example for a 2-pole motor, 50 Hz:
50 Hz x 60 sec./pole pair. – 5 % slip
= 2850 R.P.M.

In contrast, the rotating field at the EC-motor becomes brushless by constant electronic switching and adapting to the required operating conditions.

Permanent magnets form the magnetic poles, the frequency is thereby not of importance. According to the desired speed the motor winding with a fixed switching frequency is alternately supplied with energy. Thus a continuous, almost linear regulation is possible over the entire speed range (fig. 2).

From the use of modern, energy efficient EC drive technology clearly higher fan efficiencies (fig. 3) are the result, since almost no losses occur in the EC-motor by iron, copper and slip. In addition, EC-fans operate wearless and maintenance-free and are characterised by a noiseless run. The disturbing motor humming of AC-motors when controlled does not occur.

fig. 1 **Energy consumption within the control range**

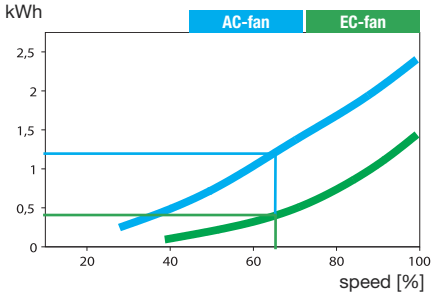


fig. 2 **Speed control**

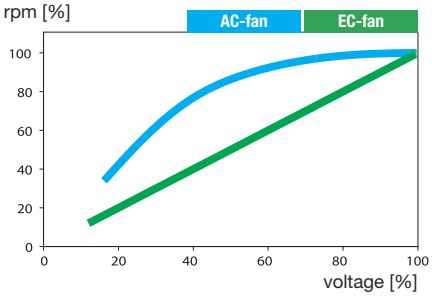
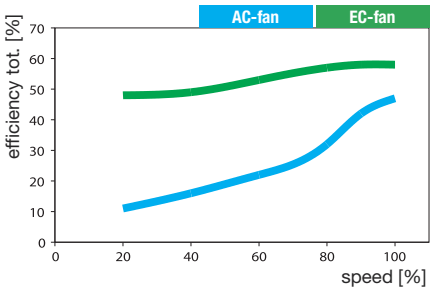


fig. 3 **Efficiency**

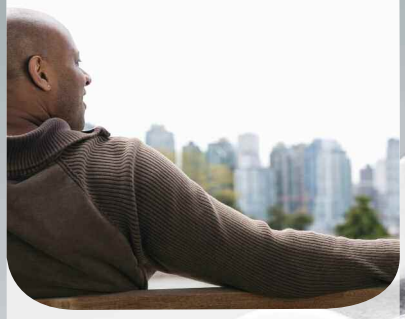


All important: EC-energy saving and reduction of operating costs
Thanks to the energy efficient EC-technology energy savings of over 50 % are achieved in the speed controlled operation. The saving is 30 % in the rating, i.e. at nominal speed.
Since fans are to a large extent speed adjusted operated, the operating cost can be reduced to the half by use of EC-fans (fig. 1). In addition there are lower capital costs for speed regulation.

Clearly superior: EC-technology within the range of speed regulation
The clear advantages of EC-technology become obvious during the speed control. While AC-fans are often speed controlled with cost-intensive transformer or phase angle firing controllers, EC-fans get along with more economical solutions. Since the required control components are already contained in EC-motor electronics, merely a control signal (speed potentiometer) is needed.

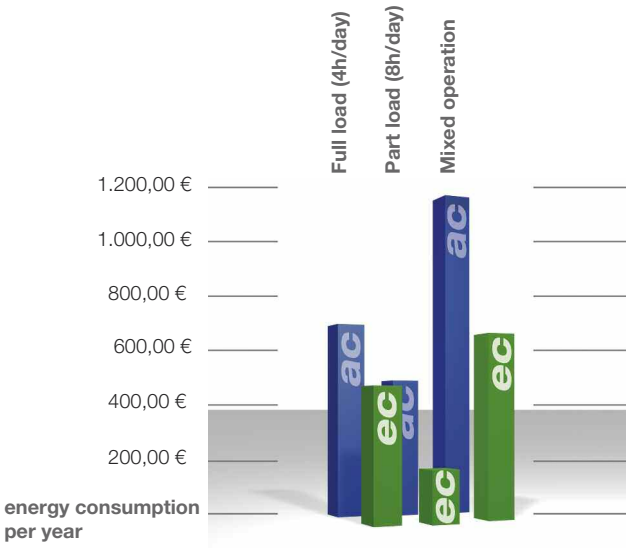
Spectacular: Difference in efficiency
With AC-motors, as is widely known, efficiency losses must be accepted, which substantially result from the slip losses in the speed control range (fig. 3). These disadvantages do not exist with EC-motors. The motor losses remain almost invariably small over the entire speed control range.

EC-motors are brushless direct current motors with shunt characteristic, which were developed specifically for use in ventilation and climate technical systems.



ECgreenVent

This brings it to the point.



Advantages of the EC-technology

+ Highest motor efficiencies, especially during speed control.
+ Up to 30 % energy saving at full-load operation and over 50 % during speed control.
+ Exceeds the requirements of the EuP directive 2015 (Energy using Products).
+ Amortization within shortest time.
+ Continuous, almost linear control mode.
+ Via speed potentiometer simply and economically controllable from 0-100 %.
+ Integrated regulation electronics (0-10 V signal) saves lossy, expensive solutions like transformer or phase angle control.
+ Integrated electronic temperature control.
+ Noiseless, smooth operation without magnetisation humming.
+ Universally applicable in broad voltage range as well as in 50 Hz and 60 Hz networks.

	ac Type GBD 710/6/6	**ec** Type GBD EC 710	
Operating mode (OM 1)	**Full load 100 %**	**Full load 100 %**	**Saving**
Power consumption W	1.930	1.295	
Operating hours p.a. (at 4hrs/day)	1.470	1.470	
Energy consumption kWh/a	2.837	1.904	933 kWh/a
Power costs p.a. (0,2369 Euro/kWh)	672,11	451,06	221 Euro p.a.
Savings in % p.a.			**33%**
Operating mode (OM 2)	**Part load 50 % (140V)**	**Part load 50 % (5V)**	
Power consumption W	700	260	
Operating hours p.a. (at 8hrs/day)	2.920	2.920	
Energy consumption kWh/a	2.044	759	1.285 kWh/a
Power costs p.a. (0,2369 Euro/kWh)	484,22	179,80	304 Euro p.a.
Savings in % p.a.			**63%**
Mixed operation (OM 1 + OM 2)	**Mixed operation**	**Mixed operation**	
Energy consumption kWh/a	4.881	2.663	2.218 kWh/a
Power costs p.a. (0,2369 Euro/kWh)	1.156,33	630,86	525 Euro p.a.
Savings in % p.a.			**45%**

Headword Amortisation

The EC-motor is particularly suitable for installations requiring long periods of operation due to the high efficiency and reduced operating cost. If the economic control solution as well as the lower installation expenditure is taken into consideration during the energy payback calculation the higher intial costs, then result in a shorter payback period.

Two examples of many.

The complete EC-fan program of Helios covers 60 types in 11 type series with capacity ranges from 250 to 16 000 m³/h. Depending on type the EC- box-, inline duct-, inline rectangular- and roof fans achieve savings from 40 to 70 % during speed control compared to conventional AC-fans.

ECgreen Vent 70% saving* * with speed control

ECgreen Vent 65% saving* * with speed control

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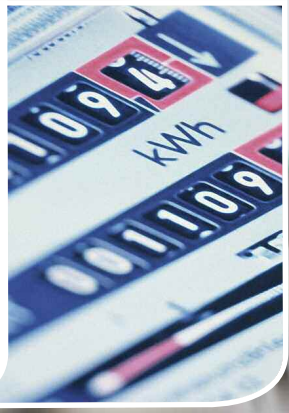
Cost minimising and sustainability is a management issue.

In the future purchase and operating costs must be calculated closely for fans and controllers in the industry.

Clever business companies have already recognised the possible savings which the innovative EC-technology offers. Due to the most efficient operation the payback period for the investment costs for EC-fans is relatively short.

The energy consumption is effectively lowered and thus an active contribution to environmental protection is made. The more flexible drive of the EC-technology matches the trend of the increasing networking of the building services engineering.



GigaBoxes with energy-saving drive technology are real, multifunctional options that offer almost unlimited flexibility in various applications.

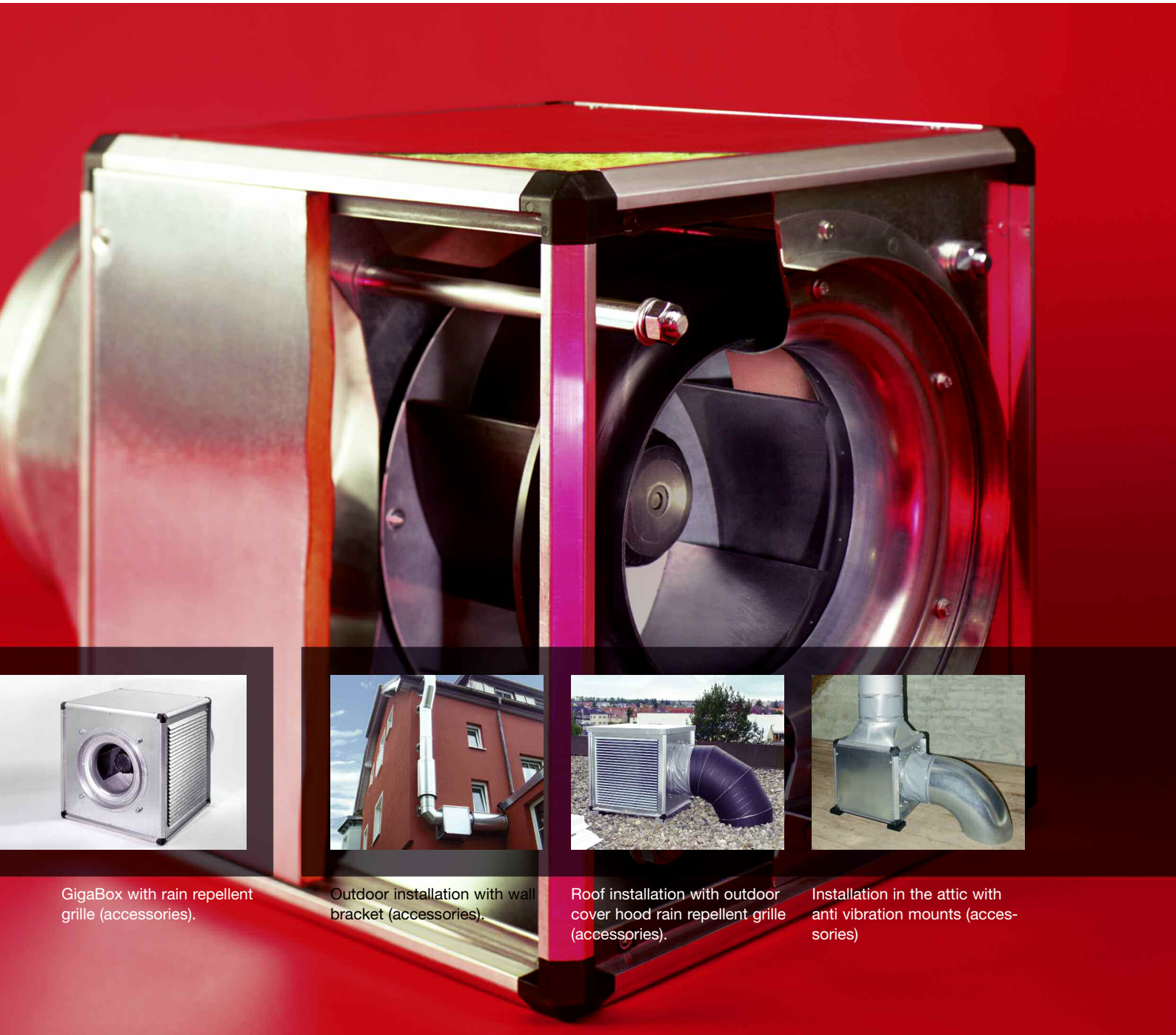
- Compact frame construction and assembly-friendly accessories make a variable and thus optimal adaptation possible by simply repositioning the casing panels to the structural conditions.
- With five possible discharge directions this gives design flexibilty to suit all site conditions.
- All types have integrated crane hooks for easier positioning as standard.
- They are particularly suitable for medium to higher air flow volumes against high resistances in ventilation systems of every type.

GigaBoxes from Helios are delivered complete with:

- Discharge adapter for low-loss discharge.
- Flexible sleeves to reduce vibration transmission and for the connection to ducts.

The GigaBox EC-models are available with air flow volumes from 2000 to 16 000 m³/h for duct diameters from 250 to 710 mm.

Energy-saving, speed controllable EC-external rotor motors with highest efficiencies and backward curved high output centrifugal impellers guarantees an energy-efficient operation at low noise emission.



GigaBox with rain repellent grille (accessories).

Outdoor installation with wall bracket (accessories).

Roof installation with outdoor cover hood rain repellent grille (accessories).

Installation in the attic with anti vibration mounts (accessories)

Special features of the MegaBox models include:

- ☐ Acoustically insulated high performance centrifugal fan.
- ☐ Swing out ventilaton unit for easy cleaning and maintenance.
- ☐ Energy-saving, speed controllable EC-internal rotor motor with highest efficiencies out of the air stream with thermal overload protection.
- ☐ Standard with condensate drainage and drip protection with opened door.
- ☐ High total efficiency, small energy consumption and low sound levels using free-running high performance-centrifugal impellers.
- ☐ Low cost, continuous speed control by potentiometer (accessories).

The optimised design of the centrifugal impeller, casing and motor provides the properties mentioned above and offers efficient operation with easy installation reducing costs.

The MegaBox EC-models meet the highest specification with regard to the energy efficiency. Typical applications are handling dirty, greasy, hot (up to +120° C) and humid air, against high resistances in a variety of commercial and industrial applications.

- ☐ For commercial kitchen applications to DW 172.

Excellent, sound and thermal insulation. All of the casing is double skinned and manufactured from galvanised sheet steel, acoustically lined with 30 mm thick mineral fibreboard. Non-flammable to DIN 4102.

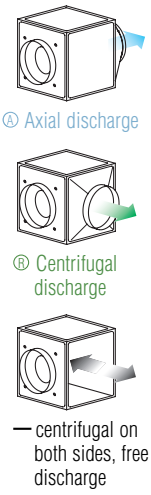
Stable mounting rails supplied with 4 anti vibration mounts for effective vibration insolation and a quiet operation.

Inner fan surface is made entirely from galvanised sheet steel and allows fast and efficient cleaning e.g. with a steam cleaner.

(similar illustration)

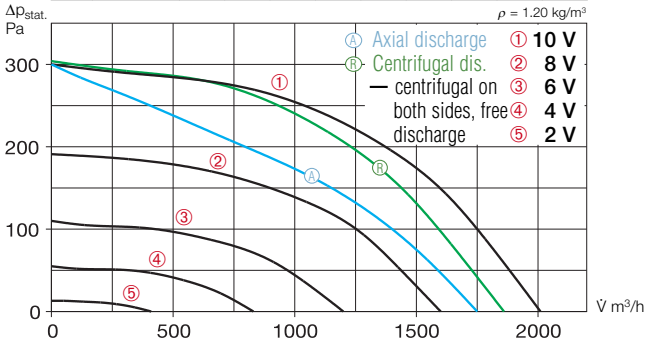
Models GB EC

Arbitrary installation position and assembly by five possible discharge directions.

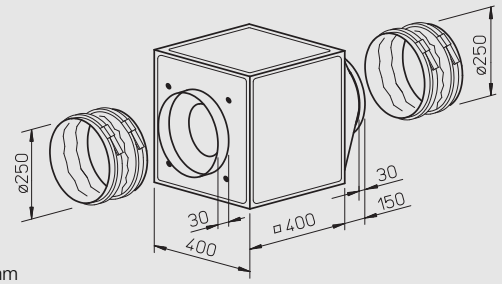


GBW EC 250

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	51	41	48	44	41	39	36	29
L_{WA}	Intake	dB(A)	63	44	54	56	58	57	52	45
L_{WA}	Extract	dB(A)	67	45	57	59	62	62	56	50



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1650	2010	120	0.79	31	0.22
8	1325	1600	70	0.46	28	0.15
6	1000	1200	35	0.25	22	0.11
4	710	830	21	0.18	17	0.09



Dim. in mm

ECgreen Vent **50% saving*** * with speed control

■ Specification

■ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

□ Impeller

Smooth running backward curved centrifugal impeller from aluminium, direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

□ Motor

Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 54. With ball bearings, maintenance-free and radio suppressed.

□ Electrical connection

Standard terminal box (IP 54) is mounted with a permanently attached cable.

□ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

□ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

□ Assembly

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.
For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
– sound level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

■ Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 250 Ref. No. 5625

External weather louvers to cover exhaust opening.
GB-WSG 250 Ref. No. 5637

Outdoor cover hood for outdoor installation.
GB-WSD 250 Ref. No. 5746

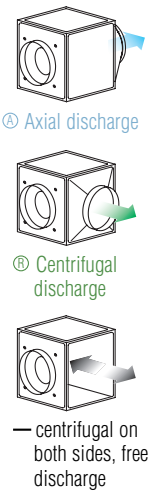
Condensate collector with condensate spigot (center) for pipe connection.
GB-KW 250 Ref. No. 5642

□ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
1 phase motor, 230 V, 50 Hz, EC-motor, protection to IP 54																
GBW EC 250	5807	250	2010	1650	31	0.17	1.05	973	55	20.0	**EUR EC**	1347	**PU 24**	1736	**PA 24**	1737

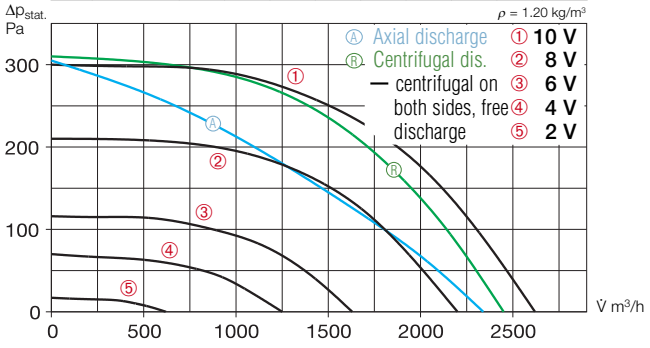
Models GB EC

Arbitrary installation position and assembly by five possible discharge directions.

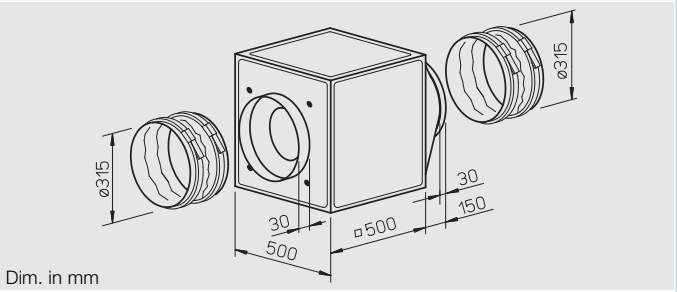


GBW EC 315

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	52	38	46	46	46	45	43	32
L_{WA}	Intake	dB(A)	64	43	56	57	58	58	54	44
L_{WA}	Extract	dB(A)	69	48	58	63	65	65	59	51



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	2620	142	0.91	32	0.20
8	1250	2200	85	0.58	29	0.14
6	930	1630	42	0.31	24	0.09
4	710	1250	25	0.19	20	0.07



Dim. in mm

ECgreen Vent **55% saving*** * with speed control

■ Specification

■ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

☐ Impeller

Smooth running backward curved centrifugal impeller out of aluminium, direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

☐ Motor

Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 54. With ball bearings, maintenance-free and radio suppressed.

☐ Electrical connection

Standard terminal box (IP 54) is mounted with a permanently attached cable.

☐ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

☐ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Assembly

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.
For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
– sound level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

■ Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 315 Ref. No. 5625

External weather louvers to cover exhaust opening.
GB-WSG 315 Ref. No. 5638

Outdoor cover hood for outdoor installation.
GB-WSD 315 Ref. No. 5747

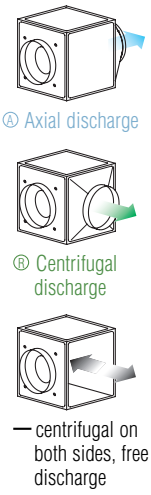
Condensate collector with condensate spigot (center) for pipe connection.
GB-KW 315 Ref. No. 5643

☐ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
1 phase motor, 230 V, 50 Hz, EC-motor, protection to IP 54																
GBW EC 315	5808	315	2620	1500	32	0.20	1.25	973	55	31.0	**EUR EC**	1347	**PU 24**	1736	**PA 24**	1737

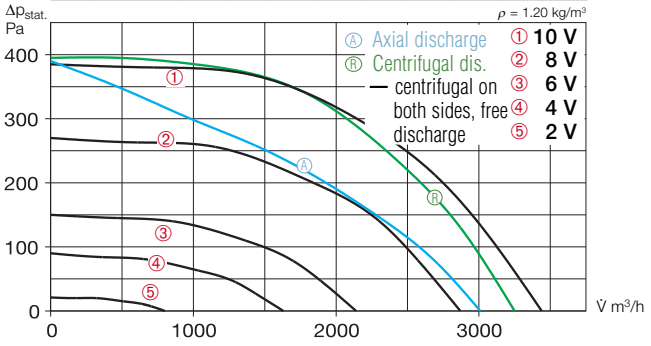
Models GB EC

Arbitrary installation position and assembly by five possible discharge directions.

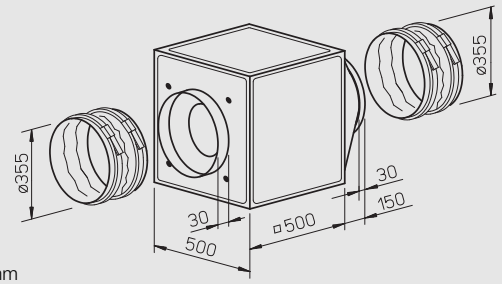


GBW EC 355

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	50	45	44	39	42	41	38	29
L_{WA}	Intake	dB(A)	69	49	63	65	62	59	55	48
L_{WA}	Extract	dB(A)	72	52	64	68	66	63	58	51



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	3440	235	1.40	30	0.25
8	1250	2870	140	0.87	27	0.17
6	930	2140	64	0.45	22	0.11
4	710	1630	34	0.26	18	0.08



Dim. in mm

ECgreen Vent **60% saving*** * with speed control

■ Specification

■ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

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Smooth running backward curved centrifugal impeller from aluminium, direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

☐ Motor

Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 54. With ball bearings, maintenance-free and radio suppressed.

☐ Electrical connection

Standard terminal box (IP 54) is mounted with a permanently attached cable.

☐ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

☐ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

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Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.
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■ Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 355 Ref. No. 5625

External weather louvers to cover exhaust opening.
GB-WSG 355 Ref. No. 5638

Outdoor cover hood for outdoor installation.
GB-WSD 355 Ref. No. 5747

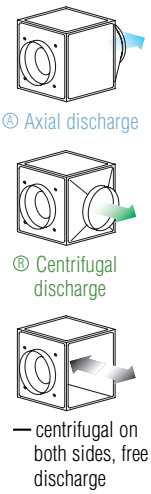
Condensate collector with condensate spigot (center) for pipe connection.
GB-KW 355 Ref. No. 5643

☐ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
1 phase motor, 230 V, 50 Hz, EC-motor, protection to IP 54																
GBW EC 355	5809	355	3440	1500	30	0.35	2.10	973	50	33.0	**EUR EC**	1347	**PU 24**	1736	**PA 24**	1737

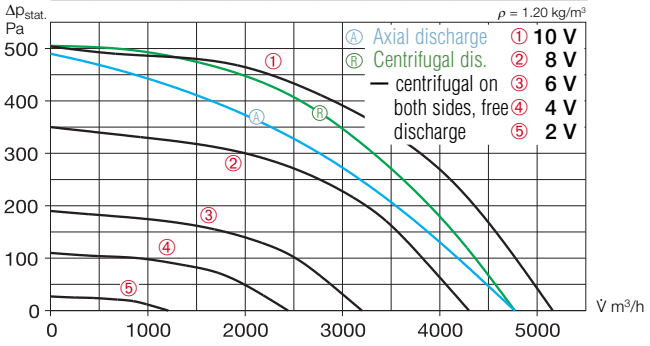
Models GB EC

Arbitrary installation position and assembly by five possible discharge directions.

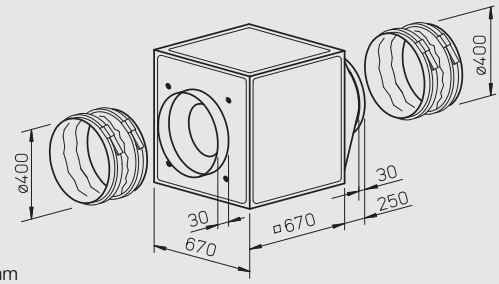


GBW EC 400

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	57	46	54	49	48	46	43	39
L_{WA}	Intake	dB(A)	72	53	64	65	66	67	59	53
L_{WA}	Extract	dB(A)	76	56	67	70	71	70	62	55



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	5160	395	2.52	37	0.28
8	1250	4300	244	1.63	34	0.21
6	930	3200	117	0.85	29	0.13
4	710	2440	63	0.49	25	0.09



Dim. in mm

ECgreen Vent **60% saving*** * with speed control

■ Specification

■ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

□ Impeller

Smooth running backward curved centrifugal impeller out of aluminium, direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 2.5 .

□ Motor

Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 54. With ball bearings, maintenance-free and radio suppressed.

□ Electrical connection

Standard terminal box (IP 54) is mounted with a permanently attached cable.

□ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

□ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

□ Assembly

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.
For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
– sound level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

■ Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 400 Ref. No. 5626

External weather louvers to cover exhaust opening.
GB-WSG 400 Ref. No. 5639

Outdoor cover hood for outdoor installation.
GB-WSD 400 Ref. No. 5748

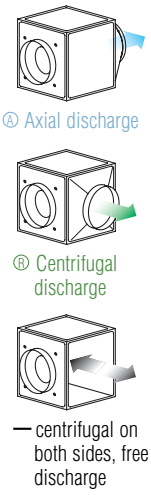
Condensate collector with condensate spigot (center) for pipe connection.
GB-KW 400 Ref. No. 5644

□ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
1 phase motor, 230 V, 50 Hz, EC-motor, protection to IP 54																
GBW EC 400	5810	400	5160	1500	37	0.62	3.70	976	50	46.0	**EUR EC**	1347	**PU 24**	1736	**PA 24**	1737

Models GB EC

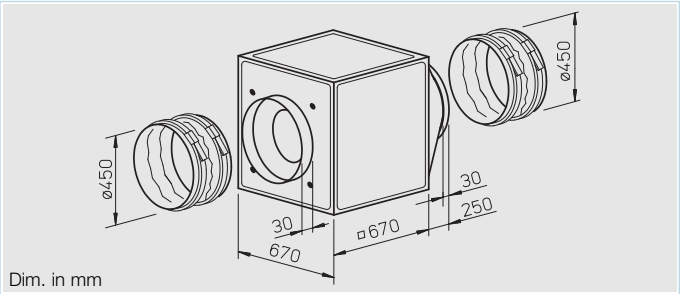
Arbitrary installation position and assembly by five possible discharge directions.



Ⓐ Axial discharge

Ⓡ Centrifugal discharge

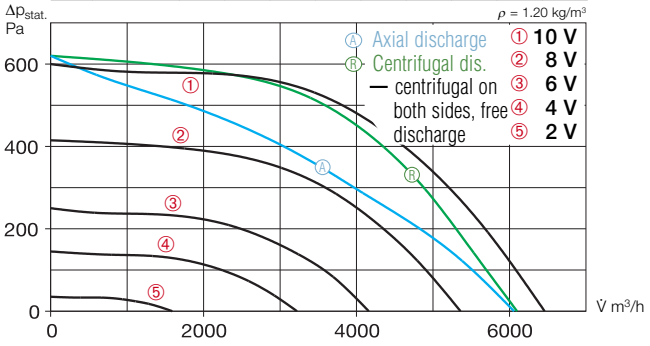
— centrifugal on both sides, free discharge



Dim. in mm

GBW EC 450

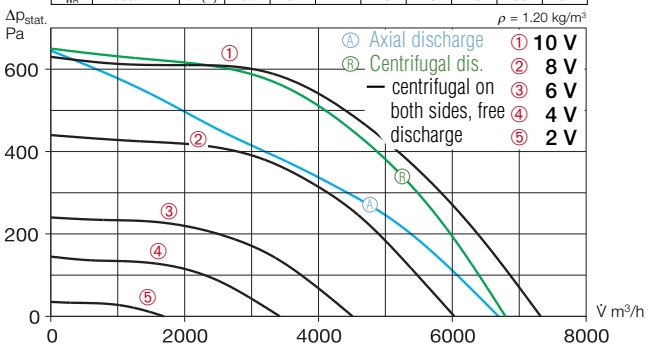
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	58	48	56	48	47	46	42	31
L_{WA}	Intake	dB(A)	75	54	66	68	70	69	64	57
L_{WA}	Extract	dB(A)	79	60	70	74	75	74	65	60



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1450	6460	614	3.71	38	0.34
8	1200	5360	363	2.35	35	0.24
6	930	4160	185	1.27	31	0.16
4	710	3220	92	0.68	26	0.10

GBD EC 450

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	59	49	57	49	48	47	43	32
L_{WA}	Intake	dB(A)	76	55	67	69	71	70	65	58
L_{WA}	Extract	dB(A)	80	61	71	75	76	75	66	61



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	7320	640	1.20	39	0.31
8	1250	6030	380	0.80	36	0.23
6	930	4510	170	0.45	31	0.14
4	710	3420	90	0.27	28	0.10

■ Specification

■ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

□ Impeller

Impeller and remaining device version see description on the opposite page.

■ Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 450 Ref. No. 5626

External weather louvers to cover exhaust opening.
GB-WSG 450 Ref. No. 5639

Outdoor cover hood for outdoor installation.
GB-WSD 450 Ref. No. 5748

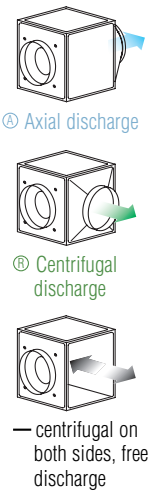
Condensate collector with condensate spigot (center) for pipe connection.
GB-KW 450 Ref. No. 5644

Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
1 phase motor, 230 V, 50 Hz, EC-motor, protection to IP 54																
GBW EC 450	5811	450	6460	1450	38	1.00	5.70	976	50	55.0	**EUR EC**	1347	**PU 24**	1736	**PA 24**	1737
3 phase motor, 400 V, 50 Hz, EC-motor, protection to IP 54																
GBD EC 450	5812	450	7320	1500	39	1.00	1.80	976	55	52.0	**EUR EC**	1347	**PU 24**	1736	**PA 24**	1737

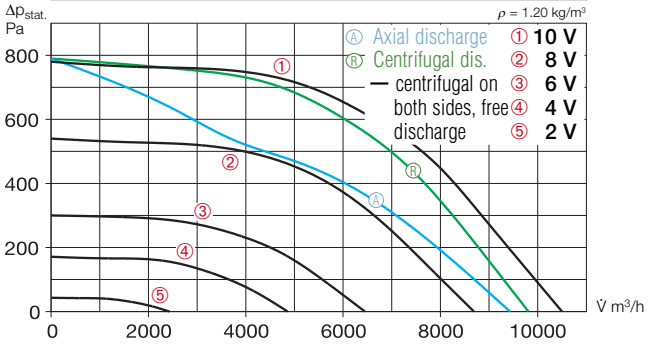
Models GB EC

Arbitrary installation position and assembly by five possible discharge directions.

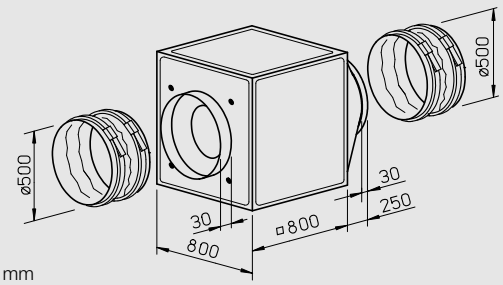


GBD EC 500

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	66	56	65	58	57	53	50	43
L_{WA}	Intake	dB(A)	79	58	70	72	74	73	68	61
L_{WA}	Extract	dB(A)	82	62	73	76	77	75	71	64



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	10500	1250	2.10	46	0.43
8	1250	8690	745	1.30	43	0.31
6	930	6450	300	0.60	38	0.17
4	710	4860	170	0.40	34	0.13



Dim. in mm

ECgreen Vent **65% saving*** * with speed control

■ Specification

■ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

☐ Impeller

Smooth running backward curved centrifugal impeller out of aluminium, direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 2.5 .

☐ Motor

Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 54. With ball bearings, maintenance-free and radio suppressed.

☐ Electrical connection

Standard terminal box (IP 54) is mounted with a permanently attached cable.

☐ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

☐ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Assembly

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.
For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

■ Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 500 Ref. No. 5626

External weather louvers to cover exhaust opening.
GB-WSG EC500 Ref. No. 5640

Outdoor cover hood for outdoor installation.
GB-WSD EC500 Ref. No. 5749

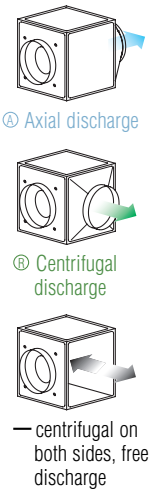
Condensate collector with condensate spigot (center) for pipe connection.
GB-KW EC500 Ref. No. 5645

☐ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
3 phase motor, 400 V, 50 Hz, EC-motor, protection to IP 54																
GBD EC 500	5813	500	10500	1500	46	1.95	3.10	976	50	79.0	**EUR EC**	1347	**PU 24**	1736	**PA 24**	1737

Models GB EC

Arbitrary installation position and assembly by five possible discharge directions.



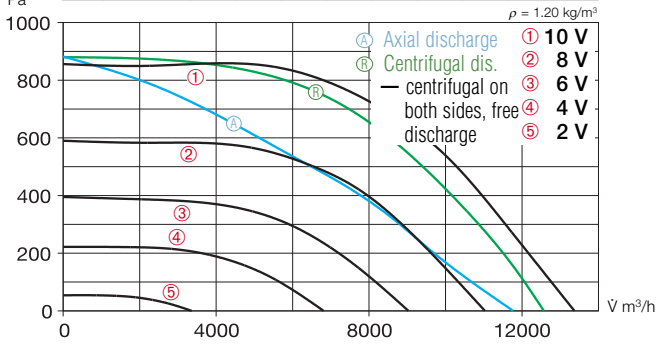
Ⓐ Axial discharge

Ⓡ Centrifugal discharge

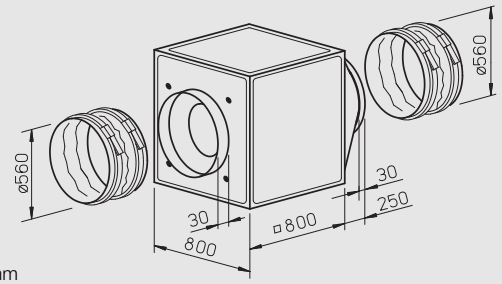
— centrifugal on both sides, free discharge

GBD EC 560

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	69	60	67	58	57	56	55	49
L_{WA}	Intake	dB(A)	79	61	71	73	74	72	66	60
L_{WA}	Extract	dB(A)	84	65	74	79	80	75	70	62



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1400	13370	1847	2.90	49	0.49
8	1150	11030	1030	1.70	46	0.34
6	930	9030	578	1.00	43	0.23
4	710	6810	281	0.55	39	0.15



Dim. in mm

ECgreen Vent **65% saving*** * with speed control

■ Specification

■ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

☐ Impeller

Smooth running backward curved centrifugal impeller from aluminium, direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 2.5 .

☐ Motor

Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 54. With ball bearings, maintenance-free and radio suppressed.

☐ Electrical connection

Standard terminal box (IP 54) is mounted with a permanently attached cable.

☐ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

☐ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Assembly

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.
For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

■ Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 560 Ref. No. 5626

External weather louvers to cover exhaust opening.
GB-WSG 560 Ref. No. 5640

Outdoor cover hood for outdoor installation.
GB-WSD 560 Ref. No. 5749

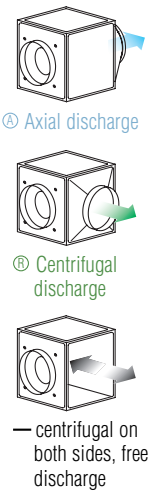
Condensate collector with condensate spigot (center) for pipe connection.
GB-KW 560 Ref. No. 5645

☐ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
3 phase motor, 400 V, 50 Hz, EC-motor, protection to IP 54																
GBD EC 560	5814	560	13370	1400	49	2.80	4.30	976	50	83.0	**EUR EC**	1347	**PU 24**	1736	**PA 24**	1737

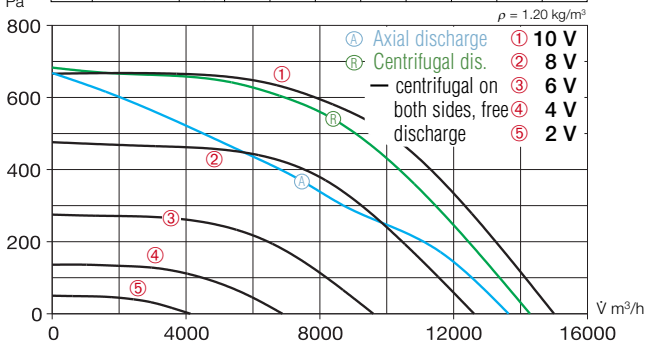
Models GB EC

Arbitrary installation position and assembly by five possible discharge directions.

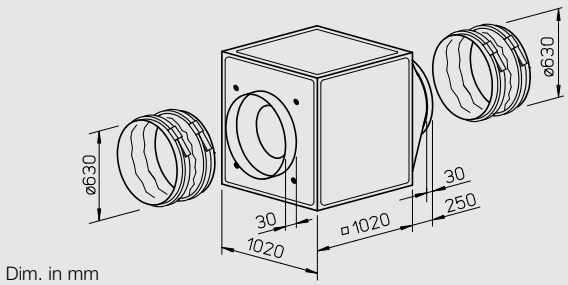


GBD EC 630

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	64	58	61	53	53	51	49	41
L_{WA}	Intake	dB(A)	80	66	71	72	74	73	72	68
L_{WA}	Extract	dB(A)	83	69	76	77	78	75	68	61



Voltage V	unimpeded n min⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1100	15000	1430	2.40	44	0.34
8	930	12610	890	1.50	42	0.25
6	710	9600	415	0.78	38	0.16
4	500	6880	170	0.36	32	0.09



Dim. in mm

ECgreen Vent **65% saving***

* with speed control

■ Specification

■ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

☐ Impeller

Smooth running backward curved centrifugal impeller from aluminium, direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 2.5 .

☐ Motor

Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 54. With ball bearings, maintenance-free and radio suppressed.

☐ Electrical connection

Standard terminal box (IP 54) is mounted with a permanently attached cable.

☐ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

☐ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Assembly

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.
For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

■ Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

External weather louvers to cover exhaust opening.
GB-WSG EC630 Ref. No. 5641

Outdoor cover hood for outdoor installation.
GB-WSD EC630 Ref. No. 5750

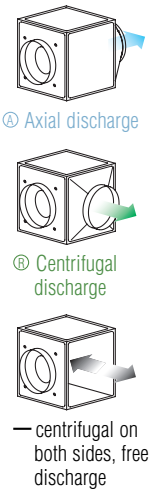
Condensate collector with condensate spigot (center) for pipe connection.
GB-KW EC630 Ref. No. 5646

☐ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
3 phase motor, 400 V, 50 Hz, EC-motor, protection to IP 54																
GBD EC 630	5815	630	15000	1100	44	2.30	3.70	976	50	116.0	**EUR EC**	1347	**PU 24**	1736	**PA 24**	1737

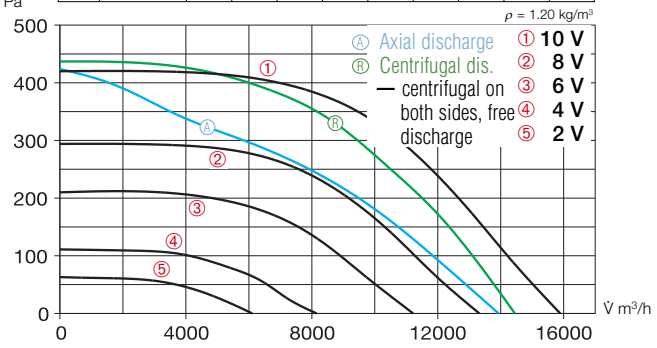
Models GB EC

Arbitrary installation position and assembly by five possible discharge directions.

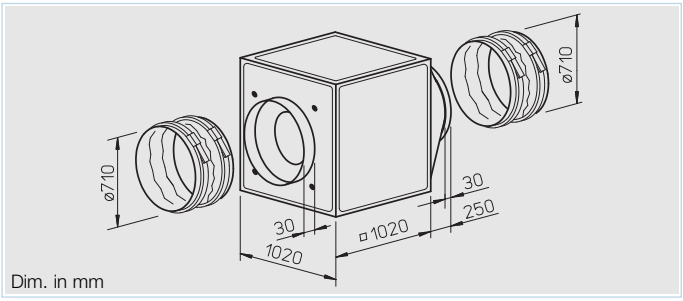


GBD EC 710

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	62	58	57	52	51	50	46	44
L_{WA}	Intake	dB(A)	73	60	64	66	68	66	61	59
L_{WA}	Extract	dB(A)	75	60	67	69	72	68	63	62



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	775	15890	935	1.50	42	0.21
8	650	13320	561	1.00	40	0.15
6	550	11220	358	0.70	38	0.12
4	400	8150	158	0.34	33	0.07



Dim. in mm

ECgreen Vent **65% saving*** * with speed control

■ Specification

■ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

☐ Impeller

Smooth running backward curved centrifugal impeller from aluminium, direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 2.5 .

☐ Motor

Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 54. With ball bearings, maintenance-free and radio suppressed.

☐ Electrical connection

Standard terminal box (IP 54) is mounted with a permanently attached cable.

☐ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

☐ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Assembly

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.
For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
– sound level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

■ Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

External weather louvers to cover exhaust opening.
GB-WSG 710 Ref. No. 5641

Outdoor cover hood for outdoor installation.
GB-WSD 710 Ref. No. 5750

Condensate collector with condensate spigot (center) for pipe connection.
GB-KW 710 Ref. No. 5646

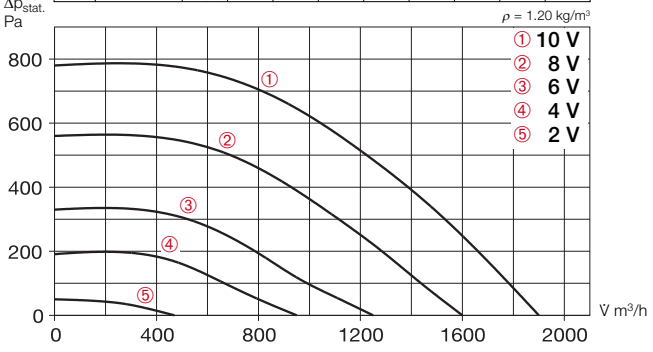
☐ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
3 phase motor, 400 V, 50 Hz, EC-motor, protection to IP 54																
GBD EC 710	5816	710	15890	775	42	1.50	2.40	976	50	119.0	**EUR EC**	1347	**PU 24**	1736	**PA 24**	1737

Models MB EC

MBW EC 250

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	64	43	52	60	56	57	52	46
L_{WA}	Intake	dB(A)	81	62	72	77	75	72	71	66
L_{WA}	Extract	dB(A)	83	62	71	79	75	76	71	65



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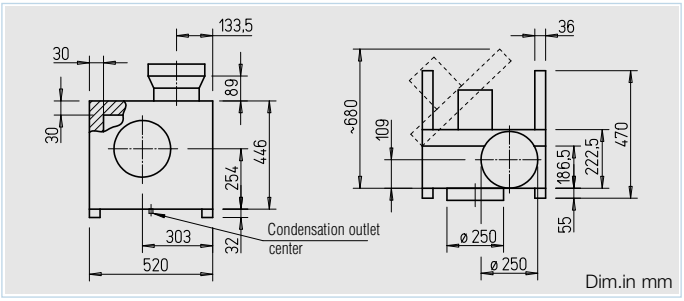
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	3000	1900	310	1.3	56	0.59
8	2600	1600	200	0.90	51	0.45
6	2000	1250	110	0.51	47	0.32
4	1500	950	70	0.4	42	0.25



ECgreen Vent **50% saving*** * with speed control

☐ Casing
Acoustically lined double skinned galvanised steel casing with 30 mm thick mineral fibreboard. Swing out motor and impeller unit, fixed with robust die-cast hinges. Intake and exhaust spigots with twin-seal rubber gasket. Condensation drain and drip protection with the door opened as standard. Easy installation with 2 sturdy mounting rails, manufactured from galvanised steel complete with anti vibration mounts.

☐ Impeller
Backward curved high output centrifugal-impeller, made from galvanised steel, mounted directly to the motor shaft. High efficiency, low noise level. Dynamically balanced to DIN ISO 1940 Pt.1 – class 6.3.

☐ Motor
Energy-saving, speed controllable EC-internal rotor motor with highest efficiency, out of the air stream, protection to IP 55. With ball bearings, maintenance-free and radio suppressed.

☐ Electrical connection
Standard terminal box (IP 55) is mounted with a permanently attached cable.

☐ Motor protection
Integrated electronic temperature monitoring for EC-motor and electronics. During exceedance of the maximum permitted temperatures an automatic speed-/performance adjustment is carried out.

☐ Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

■ Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
– sound level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 1 m (freefield conditions).

■ Accessories

Wall bracket, from galv. steel
MB-WK EC250 No. 5526

Rain repellent roof, from galv. sheet steel, mounting above the motor.
MB-WSD No. 1856

Flexible sleeve for installation between fan and ducting.
– max. temperature +70 °C
FM 250 No. 1672
– max. temperature +120 °C
FM 250 T120 No. 1655

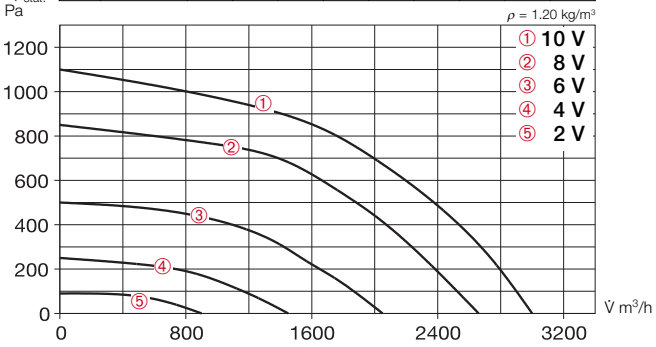
☐ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 1 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
1 phase motor, 230 V, 50 Hz, EC-motor, protection to IP 55																
MBW EC 250	5843	250	1900	3000	56	0.38	1.70	985	100	28.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

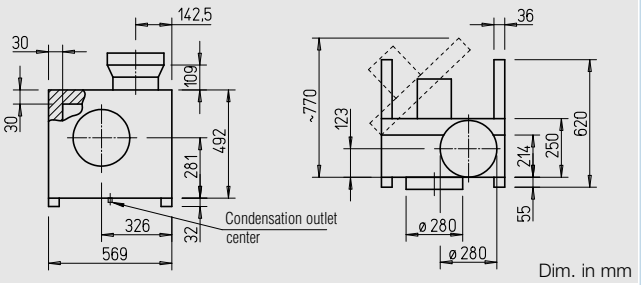
Models MB EC

MBD EC 280

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	66	56	59	61	54	56	52	42
L_{WA}	Intake	dB(A)	83	63	73	81	76	73	73	70
L_{WA}	Extract	dB(A)	88	66	78	87	79	79	70	70



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	3000	3000	620	1.2	58	0.75
8	2600	2660	450	0.9	55	0.61
6	2000	2050	230	0.5	50	0.41
4	1400	1450	100	0.3	43	0.25



ECgreen Vent **50% saving*** * with speed control

☐ Casing
Acoustically lined double skinned galvanised steel casing with 30 mm thick mineral fibreboard. Swing out motor and impeller unit, fixed with robust die-cast hinges. Intake and exhaust spigots with twin-seal rubber gasket. Condensation drain and drip protection with the door opened as standard. Easy installation with 2 sturdy mounting rails, manufactured from galvanised steel complete with anti vibration mounts.

☐ Impeller
Backward curved high output centrifugal-impeller, made from galvanised steel, mounted directly to the motor shaft. High efficiency, low noise level. Dynamically balanced to DIN ISO 1940 Pt.1 – class 6.3.

☐ Motor
Energy-saving, speed controllable EC-internal rotor motor with highest efficiency, out of the air stream, protection to IP 55. With ball bearings, maintenance-free and radio suppressed.

☐ Electrical connection
Terminal box fitted externally on the motor as standard (IP 55).

☐ Motor protection
Integrated electronic temperature monitoring for EC-motor and electronics. In the event that the maximum permitted motor temperature is exceeded an automatic speed reduction takes place, which is regulated after cooling down again on the originally set value.

☐ Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

■ Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
– sound level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 1 m (freefield conditions).

■ Accessories

Wall bracket, from galv. steel
MB-WK EC280 No. 5527

Rain repellent roof, from galv. sheet steel, mounting above the motor.
MB-WSD No. 1856

Flexible sleeve for installation between fan and ducting.
– max. temperature +70 °C
FM 280 No. 1673
– max. temperature +120 °C
FM 280 T120 No. 1656

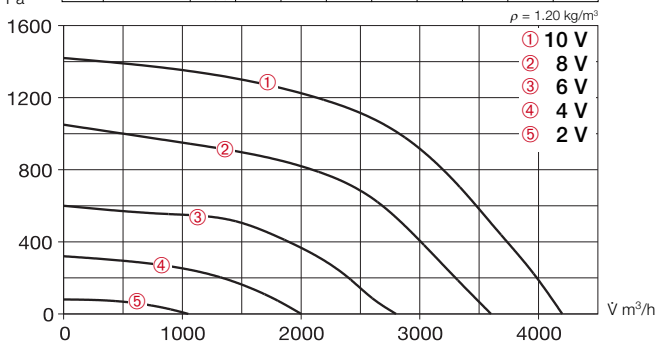
☐ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 1 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
3 phase motor, 400 V, 50 Hz, EC-motor, protection to IP 55																
MBD EC 280	5845	280	3000	3000	58	0.75	1.40	988	120	34.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

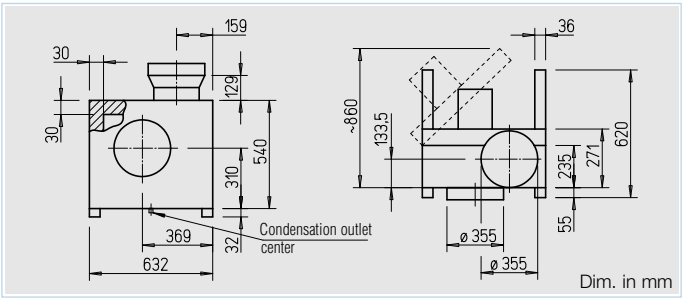
Models MB EC

MBD EC 315

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	73	50	62	72	66	65	71	57
L_{WA}	Intake	dB(A)	89	66	75	86	78	80	81	76
L_{WA}	Extract	dB(A)	93	70	82	92	86	85	81	77



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	3000	4200	1200	1,8	65	1,01
8	2600	3600	750	1,2	62	0,75
6	2000	2800	370	0,65	56	0,48
4	1400	2000	190	0,41	49	0,34



ECgreen Vent **50% saving*** * with speed control

☐ Casing
Acoustically lined double skinned galvanised steel casing with 30 mm thick mineral fibreboard. Swing out motor and impeller unit, fixed with robust die-cast hinges. Intake and exhaust spigots with twin-seal rubber gasket. Condensation drain and drip protection with the door opened as standard. Easy installation with 2 sturdy mounting rails, manufactured from galvanised steel complete with anti vibration mounts.

☐ Impeller
Backward curved high output centrifugal-impeller, made from galvanised steel, mounted directly to the motor shaft. High efficiency, low noise level. Dynamically balanced to DIN ISO 1940 Pt.1 – class 6.3.

☐ Motor
Energy-saving, speed controllable EC-internal rotor motor with highest efficiency, out of the air stream, protection to IP 55. With ball bearings, maintenance-free and radio suppressed.

☐ Electrical connection
Terminal box fitted externally on the motor as standard (IP 55).

☐ Motor protection
Integrated electronic temperature monitoring for EC-motor and electronics. In the event that the maximum permitted motor temperature is exceeded an automatic speed reduction takes place, which is regulated after cooling down again on the originally set value.

☐ Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

■ Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
– sound level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 1 m (freefield conditions).

■ Accessories

Wall bracket, from galv. steel
MB-WK EC315 No. 5527

Rain repellent roof, from galv. sheet steel, mounting above the motor.
MB-WSD No. 1856

Flexible sleeve for installation between fan and ducting.
– max. temperature +70 °C
FM 355 No. 1675
– max. temperature +120 °C
FM 355 T120 No. 1658

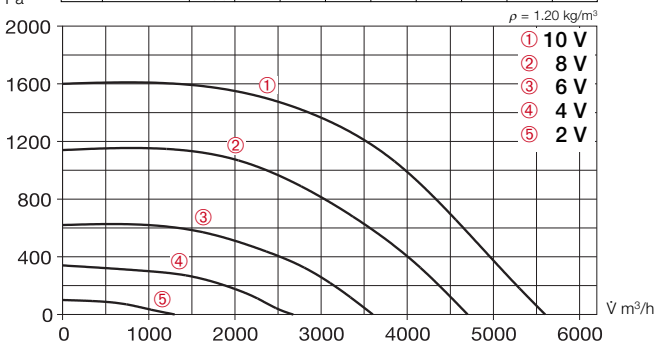
☐ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 1 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
3 phase motor, 400 V, 50 Hz, EC-motor, protection to IP 55																
MBD EC 315	5846	355	4200	3000	65	1.38	2.20	988	120	50.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

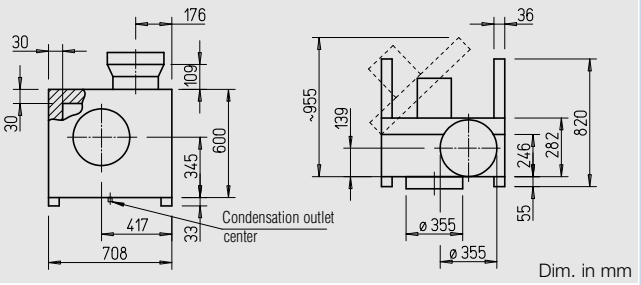
Models MB EC

MBD EC 355

Frequenz		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	73	51	65	69	67	66	60	53
L_{WA}	Intake	dB(A)	88	69	81	85	80	80	77	71
L_{WA}	Extract	dB(A)	93	71	85	89	87	86	80	73



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2800	5600	1600	2.6	65	1.05
8	2350	4700	980	1.7	61	0.75
6	1800	3600	490	0.9	57	0.48
4	1300	2600	230	0.51	50	0.31



ECgreen Vent **55% saving*** * with speed control

☐ Casing
Acoustically lined double skinned galvanised steel casing with 30 mm thick mineral fibreboard. Swing out motor and impeller unit, fixed with robust die-cast hinges. Intake and exhaust spigots with twin-seal rubber gasket. Condensation drain and drip protection with the door opened as standard. Easy installation with 2 sturdy mounting rails, manufactured from galvanised steel complete with anti vibration mounts.

☐ Impeller
Backward curved high output centrifugal-impeller, made from galvanised steel, mounted directly to the motor shaft. High efficiency, low noise level. Dynamically balanced to DIN ISO 1940 Pt.1 – class 6.3.

☐ Motor
Energy-saving, speed controllable EC-internal rotor motor with highest efficiency, out of the air stream, protection to IP 55. With ball bearings, maintenance-free and radio suppressed.

☐ Electrical connection
Terminal box fitted externally on the motor as standard (IP 55).

☐ Motor protection
Integrated electronic temperature monitoring for EC-motor and electronics. In the event that the maximum permitted motor temperature is exceeded an automatic speed reduction takes place, which is regulated after cooling down again on the originally set value.

☐ Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

■ Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
– sound level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 1 m (freefield conditions).

■ Accessories

Wall bracket, from galv. steel
MB-WK EC355 No. 5528

Rain repellent roof, from galv. sheet steel, mounting above the motor.
MB-WSD No. 1856

Flexible sleeve for installation between fan and ducting.
– max. temperature +70 °C
FM 355 No. 1675
– max. temperature +120 °C
FM 355 T120 No. 1658

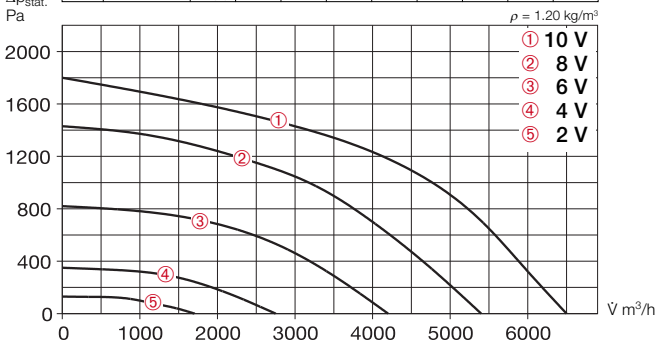
☐ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 1 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
3 phase motor, 400 V, 50 Hz, EC-motor, protection to IP 55																
MBD EC 355	5847	355	5600	2800	65	1.90	3.00	988	120	63.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

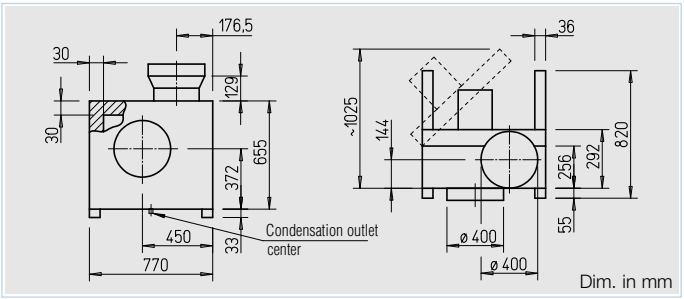
Models MB EC

MBD EC 400

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	75	55	68	70	70	68	63	57
L_{WA}	Intake	dB(A)	93	71	86	88	84	85	84	79
L_{WA}	Extract	dB(A)	95	75	88	90	90	88	83	77



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2600	6500	2400	3.7	67	1.32
8	2300	5400	1600	2.6	65	1.06
6	1800	4200	780	1.5	60	0.67
4	1200	2750	260	0.6	52	0.34



ECgreen Vent **55% saving*** * with speed control

☐ Casing
Acoustically lined double skinned galvanised steel casing with 30 mm thick mineral fibreboard. Swing out motor and impeller unit, fixed with robust die-cast hinges. Intake and exhaust spigots with twin-seal rubber gasket. Condensation drain and drip protection with the door opened as standard. Easy installation with 2 sturdy mounting rails, manufactured from galvanised steel complete with anti vibration mounts.

☐ Impeller
Backward curved high output centrifugal-impeller, made from galvanised steel, mounted directly to the motor shaft. High efficiency, low noise level. Dynamically balanced to DIN ISO 1940 Pt.1 – class 6.3.

☐ Motor
Energy-saving, speed controllable EC-internal rotor motor with highest efficiency, out of the air stream, protection to IP 55. With ball bearings, maintenance-free and radio suppressed.

☐ Electrical connection
Terminal box fitted externally on the motor as standard (IP 55).

☐ Motor protection
Integrated electronic temperature monitoring for EC-motor and electronics. In the event that the maximum permitted motor temperature is exceeded an automatic speed reduction takes place, which is regulated after cooling down again on the originally set value.

☐ Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

■ Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
– sound level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 1 m (freefield conditions).

■ Accessories

Wall bracket, from galv. steel
MB-WK EC400 No. 5528

Rain repellent roof, from galv. sheet steel, mounting above the motor.
MB-WSD No. 1856

Flexible sleeve for installation between fan and ducting.
– max. temperature +70 °C
FM 400 No. 1675
– max. temperature +120 °C
FM 400 T120 No. 1659

☐ Accessory-Details	Page
Universal control system, speed potentiometer	78 on

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 1 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
3 phase motor, 400 V, 50 Hz, EC-motor, protection to IP 55																
MBD EC 400	5848	400	6500	2600	67	2.70	4.20	988	120	72.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

Models RR EC
For medium to smaller air flow volumes against high resistances. Universal in application for domestic, commercial and industrial purposes. Made from galvanised sheet steel. 100% speed controllable.
$\dot{V}$ = 850 – 1650 m³/h.

Models SlimVent SVR EC
The exceptionally flat SlimVent centrifugal fans are ideal for spatially limited installation situations in applications for domestic, commercial and industrial purposes. The casings are only a little higher than the pipe diameter, so that an easy installation is possible in false ceilings, panelling or above and in built-in cupboards. 100% speed controllable.
$\dot{V}$ = 510 – 760 m³/h.

Models MV EC
With air flow volumes of 250 to 1000 m³/h the Helios Mixed Flow Vent is suitable for the ventilation of most small and medium size rooms.
These fans are a very compact design resulting in a powerful fan range with slim dimensions. The casing diameter is only just slightly larger than the ducting making it ideal for restricted spaces. The ability to be fitted in any position: horizontal, vertical or diagonal, makes these fans very versatile.

Revision and cleaning? No problem. Strap on, pull out fan unit. Everything is already freely available.

Energy-efficient, super-flat EC in-line fans with high efficiency.

The AcousticLine EC in-line fans guarantee ernergy-saving operation and lowest noise levels for intake and case breakout.
Universal in application for domestic, commercial and industrial purposes they are equipped with highly efficient and, at the same time, energy-efficient low noise impellers. Casing is like an internal attenuator. Lined with 50 mm thick mineral wool fibreboard which guarantees functionality at the lowest noise level.

Models SB EC
Ø 125 to 400 mm
$\dot{V}$ = 520 – 4000 m³/h

The professional solution for extract and outdoor air systems with special requirements for noise levels. With sound insulated casing for an almost noise free operation. Ideal for maintenance and cleaning through folding casing cover and fan unit.

Models SVS EC
Ø 125 to 200 mm
$\dot{V}$ = 480 – 750 m³/h

The flat SlimVent is only a little higher than the duct diameter and permits a simple and space-saving assembly in any position.
The high pressure feature permits longer duct sections and overcomes further system resistances. Due to complete mineral wool lining the lowest noise levels are obtained.

For medium to smaller air flow volumes against high resistances.

Specifically made for in-duct installation. Specially designed to be installed in-line in circular ducting. High pressure characteristic to overcome resistances of bends, filters etc. Universal in application for domestic, commercial and industrial purposes.

Special features

- ☐ Highly efficient EC motor for lowest operating costs.
- ☐ Less space required and simple site installation of the compact in line design.
- ☐ Its simplicity reduces site costs.
- ☐ Supply and exhaust air spigots fit all standard circular duct sizes.
- ☐ Power adjustment by 100% variable speed control.
- ☐ Installation in any position.
- ☐ Wide range of accessories.
- ☐ Aerodynamically optimized casing design.

Common features SVR EC and MV EC

☐ Motor

Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44 (Model MV with moisture protection). With ball bearings, maintenance-free and radiosuppressed.

☐ Motor protection

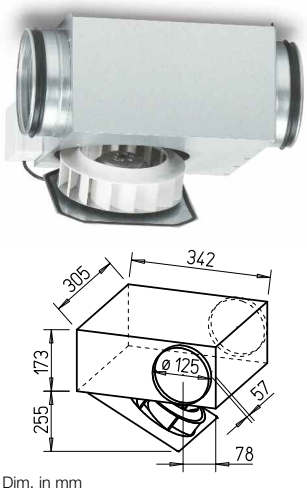
Integrated electronic temperature monitoring for EC-motor and electronics.

☐ Assembly

Can be mounted in any position – horizontal, vertical or diagonal – suitable for supply and extract ventilation by correct installation. To minimise the effective noise level it is recommended that the fan is installed as remote as possible from the ventilated space.

Models SVR EC

SlimVent – New exceptionally flat space saving miracle with swing out motor and impeller unit.



Dim. in mm

Specification SV EC

☐ Casing

Flat and robust casing from galvanised sheet steel. Spigots on intake and extract with twin-seal rubber gaskets fit into standard ducts. Particularly service friendly (cleaning) through swing out motor and impeller unit without disassembly of system components. Space for the swing out facility must be considered.

☐ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Electrical connection

Terminal box (IP 54) located on outer casing.

☐ Impeller

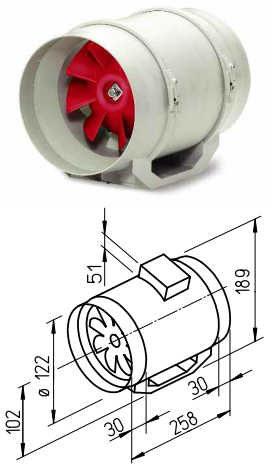
Energy-saving centrifugal impeller with backward curved blades. Dynamically balanced for low noise operation.

☐ Protection

When installed in ducting the fan is rated IP 44.

Models MV EC

Swing-out in-line fan for space-saving in-duct installation.



Dim. in mm

Specification MV EC

☐ Casing

By loosening the clips the fan section can be removed from the casing leaving the mounting bracket. All components are manufactured from impact resistant and corrosion resistant polymer. Colour: light grey.

Speed control

Standard two-speed control with external operating switch MVB (accessory).

☐ Electrical connection

The spacious terminal box (IP 44) is mounted on the casing; rotatable to any position.

☐ Impeller

Mixed flow for high volume flow and high pressure performance. Made of high-grade polymer. For quiet running dynamically balanced.

Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:

- sound level case breakout
- sound level intake
- sound level exhaust

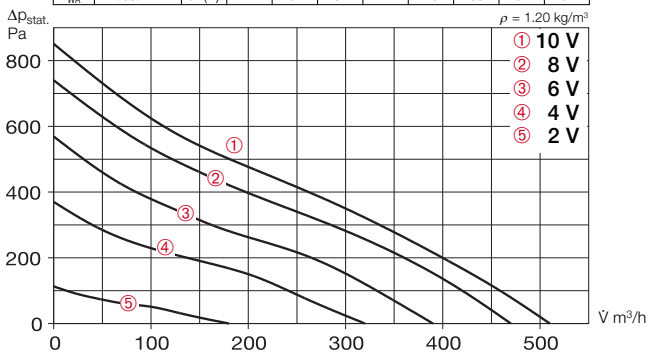
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 1 m (freefield conditions).

ECgreen Vent **50% saving*** * with speed control

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m^3/h	min^{-1}	dB(A) in 1 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
Model SVR EC, 1 Phase motor, 230 V / 1 ph. / 50 Hz, EC-motor, IP 44																
SVR EC 125	2531	125	510	3450	55	0.09	0.75	979	60	5.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
Model MV EC, 1 Phase motor, 230 V / 1 ph. / 50 Hz, EC-motor											operating switch					
MV EC 125	6032	125	250/360	1600/2040	39/42	0.010/0.017	0.10/0.17	951	60	1.8	**MVB**	6091	—	—	—	—

SVR EC 125

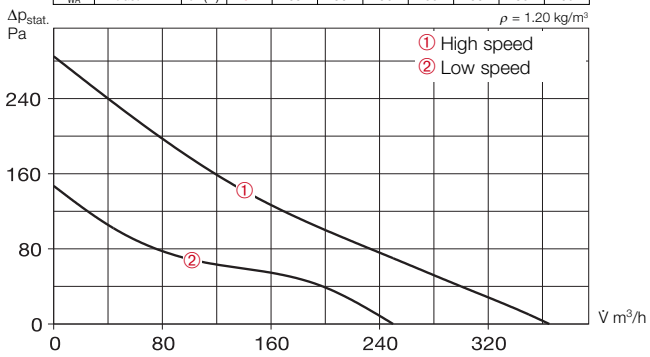
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	63	49	55	61	52	49	47	38
L_{WA}	Intake	dB(A)	74	63	65	71	63	63	61	57
L_{WA}	Extract	dB(A)	77	64	67	71	70	68	67	61



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	3400	510	92	0.73	55	0.65
8	3100	470	74	0.59	53	0.56
6	2600	390	45	0.37	49	0.42
4	2170	320	25	0.22	45	0.28

MV EC 125

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	50	30	36	42	48	41	34	27
L_{WA}	Intake	dB(A)	64	33	51	55	58	61	48	40
L_{WA}	Extract	dB(A)	64	35	53	56	60	58	50	39



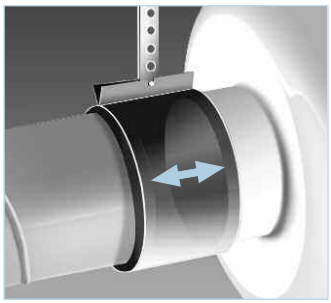
	unimpeded					
	n min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
High Speed	2040	365	15	0.13	42	0.15
Low speed	1800	250	9	0.09	39	0.13

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Grilles, flexible ducting, filters, heater batteries and attenuators, temp. regulatiog system for electro heater battery
Helios main catalogue

Accessories for SV EC

Pipe clamp connectors
BM 125 Ref. No. 5076
A quick-fix method for connecting fans to ducting, reducing vibration transmission (1 kit = 2 pieces).



Guards
SGR 125 Ref. No. 5064
For intake and exhaust installation on fan.

Accessories for MV EC

Flexible connector
FM 125 Ref. No. 1682
Supplied with two hose clips as standard; for installation between fan and duct system. Two sleeves are needed for intake and exhaust operation.

Guard for spigot connection
MVS 125 Ref. No. 6072
For intake and exhaust installation on the ventilation unit.

Accessories for both types

Gravity shutter
VK 125 Ref. No. 0857
Automatic, made from polymers, white.

Fixed grille
G 160 Ref. No. 0893
made from polymers, white.

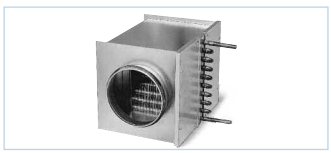
Flexible attenuator
FSD 125 Ref. No. 0677
Spigotted aluminium attenuator with 50 mm insulation. Length 1 m.

Air filter box
LFBR 125 G4 Ref. No. 8577
LFBR 125 F7 Ref. No. 8531
Air filter with large cross sectional area to be installed in-line with ducting.

Electric heater batteries
EHR-R 0.8/125 0.8 kW No. 8709
EHR-R 1.2/125 1.2 kW No. 9433
– with integrated temp. control
EHR-R 0.8/125 TR 0.8 kW No. 5293
Room or duct sensor required (TFK/TFR, accessory).

Temperature regulating system for electro heater battery
EHS Ref. No. 5002

Water heater battery
WHR 125 Ref. No. 9480
Compact unit for in-line installation.



Temperature regulating system for water heater battery
WHST 300 T38 No. 8817

For medium to smaller air flow volumes against high resistances.

Specifically made for in-duct installation. Specially designed to be installed in-line in circular ducting. High pressure characteristic to overcome resistances of bends, filters etc. Universal in application for domestic, commercial and industrial purposes.

Special features

- ☐ Highly efficient EC motor for lowest operating costs.
- ☐ Less space required and simple site installation of the compact in line design.
- ☐ Its simplicity reduces site costs.
- ☐ Supply and exhaust air spigots fit all standard circular duct sizes.
- ☐ Power adjustment by 100% variable speed control.
- ☐ Installation in any position.
- ☐ Wide range of accessories.
- ☐ Aerodynamically optimized casing design.

Common features RR EC, SVR EC and MV EC

☐ Motor

Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44 (Model MV with moisture protection). With ball bearings, maintenance-free and radiosuppressed.

☐ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

☐ Assembly

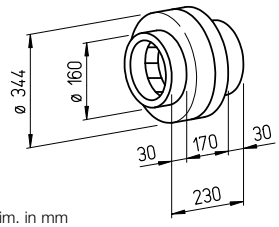
Can be mounted in any position – horizontal, vertical or diagonal – suitable for supply and extract ventilation by correct installation. To minimise the effective noise level it is recommended that the fan is installed as remote as possible from the ventilated space.

Sound level

See page 26.

Models RR EC

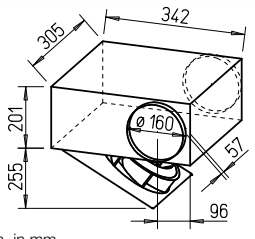
Market leading range offering an excellent value for money.



Dim. in mm

Models SVR EC

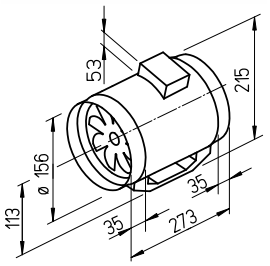
SlimVent – New exceptionally flat space saving miracle with swing out motor and impeller unit.



Dim. in mm

Models MV EC

Swing-out in-line fan for space-saving in-duct installation.



Dim. in mm

Specification RR EC

☐ Casing

Made from robust galvanised steel for harsh working conditions. Spigots on intake and exhaust fit standard ducts.

☐ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Electrical connection

Terminal box (IP 55) located on outer casing.

☐ Impeller

Backward curved centrifugal impeller made from polymers. Dynamically balanced with the motor providing low noise level and high efficiency.

☐ Protection

When installed in ducting the fan is rated IP 44.

Specification SV EC

☐ Casing

Flat and robust casing from galvanised sheet steel. Spigots on intake and extract with twin-seal rubber gaskets fit into standard ducts. Particularly service friendly (cleaning) through swing out motor and impeller unit without disassembly of system components. Space for the swing out facility must be considered.

☐ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Electrical connection

Terminal box (IP 54) located on outer casing.

☐ Impeller

Energy-saving centrifugal impeller with backward curved blades. Dynamically balanced for low noise operation.

☐ Protection

When installed in ducting the fan is rated IP 44.

Specification MV EC

☐ Casing

By loosening the clips the fan section can be removed from the casing leaving the mounting bracket. All components are manufactured from impact resistant and corrosion resistant polymer. Colour: light grey.

Speed control

Standard two-speed control with external operating switch MVB (accessory).

☐ Electrical connection

The spacious terminal box (IP 44) is mounted on the casing; rotatable to any position.

☐ Impeller

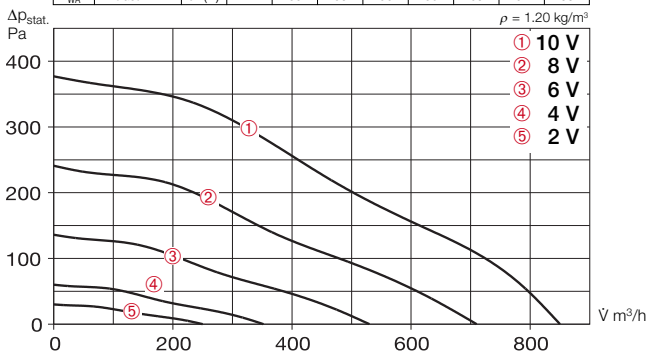
Mixed flow for high volume flow and high pressure performance. Made of high-grade polymer. For quiet running dynamically balanced.

ECgreen Vent **60% saving*** * with speed control

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V m^3/h	min^{-1}	dB(A) in 1 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Model RR EC, 1 Phase motor, 230 V / 1 ph. / 50 Hz, IP 44																
RR EC 160	5785	160	850	2500	49	0.09	0.50	979	50	3.2	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
Model SVR EC, 1 Phase motor, 230 V / 1 ph. / 50 Hz, EC-motor, IP 44																
SVR EC 160	2535	160	530	3490	53	0.09	0.73	979	60	6.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
Model MV EC, 1 Phase motor, 230 V / 1 ph. / 50 Hz, EC-motor											operating switch					
MV EC 160	6033	160	385/570	1560/2290	41/49	0.015/0.038	0.15/0.33	951	60	2.1	**MVB**	6091	—	—	—	—

RR EC 160

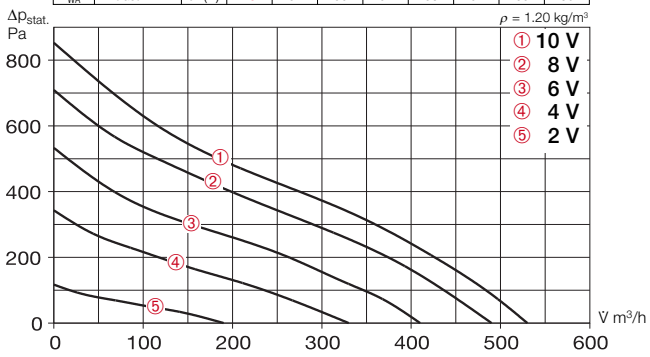
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	56	34	42	49	54	47	48	35
L_{WA}	Intake	dB(A)	73	60	64	68	69	64	64	54
L_{WA}	Extract	dB(A)	74	60	65	66	69	65	67	55



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2500	850	72	0.34	49	0.30
8	2000	710	37	0.17	44	0.19
6	1500	530	20	0.13	38	0.14
4	1000	350	10	0.10	30	0.10

SVR EC 160

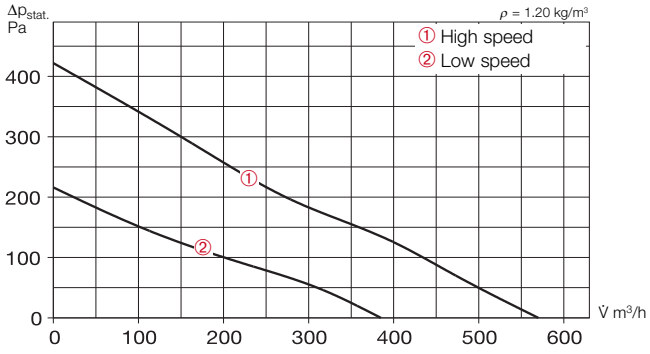
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	61	47	57	57	47	45	42	34
L_{WA}	Intake	dB(A)	72	62	65	67	62	63	62	57
L_{WA}	Extract	dB(A)	75	64	66	67	68	67	66	59



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	3270	530	88	0.72	53	0.60
8	3000	490	70	0.57	50	0.51
6	2500	410	42	0.36	47	0.37
4	2050	330	24	0.22	45	0.26

MV EC 160

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	57	37	43	49	53	51	44	28
L_{WA}	Intake	dB(A)	73	41	58	62	63	71	58	48
L_{WA}	Extract	dB(A)	71	43	60	64	64	68	59	47



	unimpeded					
	n min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
High speed	2290	570	34	0.30	49	0.21
Low speed	1560	385	14	0.12	41	0.13

Accessories for RR EC and SV EC

Pipe clamp connectors
BM 160 Ref. No. 5077
A quick-fix method for connecting fans to ducting, reducing vibration transmission (1 kit = 2 pieces).

Guards
SGR 160 Ref. No. 5069
For intake and exhaust installation on fan.

Mounting feet for RR EC
MK 4 Ref. No. 5824

Accessories for MV EC

Flexible connector
FM 160 Ref. No. 1684
Supplied with two hose clips as standard; for installation between fan and duct system. Two sleeves are needed for intake and exhaust operation.

Guard for spigot connection
MVS 160 Ref. No. 6074
For intake and exhaust installation on the ventilation unit.

Accessories for both types

Gravity shutter
VK 160 Ref. No. 0892
Automatic, made from polymers, white.

Fixed grille
G 160 Ref. No. 0893
made from polymers, white.

Flexible attenuator
FSD 160 Ref. No. 0678
Spigotted aluminium attenuator with 50 mm insulation. Length 1 m.

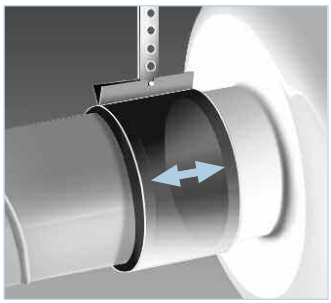
Air filter box
LFBR 160 G4 Ref. No. 8578
LFBR 160 F7 Ref. No. 8532
Air filter with large cross sectional area to be installed in-line with ducting.

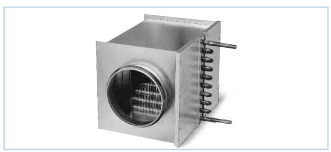
Electric heater batteries
EHR-R 1.2/160 1.2 kW No. 9434
EHR-R 2.4/160 2.4 kW No. 9435
EHR-R 5/160 5.0 kW No. 8710
– with integrated temp. control
EHR-R 2.4/160 TR 2.4 kW No. 5294
Room or duct sensor required (TFK/TFR, accessory).

Temperature regulating system for electro heater battery
EHS Ref. No. 5002

Water heater battery
WHR 160 Ref. No. 9481
Compact unit for in-line installation.

Temperature regulating system for water heater battery
WHST 300 T38 No. 8817





For medium to smaller air flow volumes against high resistances.

Specifically made for in-duct installation. Specially designed to be installed in-line in circular ducting. High pressure characteristic to overcome resistances of bends, filters etc. Universal in application for domestic, commercial and industrial purposes.

Special features

- ☐ Highly efficient EC motor for lowest operating costs.
- ☐ Less space required and simple site installation of the compact in line design.
- ☐ Its simplicity reduces site costs.
- ☐ Supply and exhaust air spigots fit all standard circular duct sizes.
- ☐ Power adjustment by 100% variable speed control.
- ☐ Installation in any position.
- ☐ Wide range of accessories.
- ☐ Aerodynamically optimized casing design.

Common features RR EC, SVR EC and MV EC

☐ Motor

Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44 (Model MV with moisture protection). With ball bearings, maintenance-free and radiosuppressed.

☐ Motor protection

Integrated electronic temperature monitoring for EC-motor and electronics.

☐ Assembly

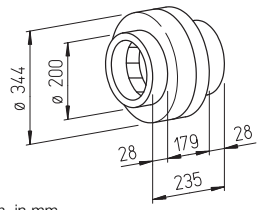
Can be mounted in any position – horizontal, vertical or diagonal – suitable for supply and extract ventilation by correct installation. To minimise the effective noise level it is recommended that the fan is installed as remote as possible from the ventilated space.

Sound level

See page 26.

Models RR EC

Market leading range offering an excellent value for money.



Dim. in mm

Specification RR EC

☐ Casing

Made from robust galvanised steel for harsh working conditions. Spigots on intake and exhaust fit standard ducts.

☐ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Electrical connection

Terminal box (IP 55) located on outer casing.

☐ Impeller

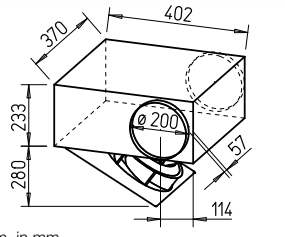
Backward curved centrifugal impeller made from polymers. Dynamically balanced with the motor providing low noise level and high efficiency.

☐ Protection

When installed in ducting the fan is rated IP 44.

Models SVR EC

SlimVent – New exceptionally flat space saving miracle with swing out motor and impeller unit.



Dim. in mm

Specification SV EC

☐ Casing

Flat and robust casing from galvanised sheet steel. Spigots on intake and extract with twin-seal rubber gaskets fit into standard ducts. Particularly service friendly (cleaning) through swing out motor and impeller unit without disassembly of system components. Space for the swing out facility must be considered.

☐ Speed control

Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Electrical connection

Terminal box (IP 54) located on outer casing.

☐ Impeller

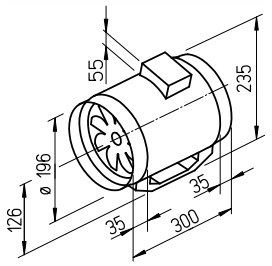
Energy-saving centrifugal impeller with backward curved blades. Dynamically balanced for low noise operation.

☐ Protection

When installed in ducting the fan is rated IP 44.

Models MV EC

Swing-out in-line fan for space-saving in-duct installation.



Dim. in mm

Specification MV EC

☐ Casing

By loosening the clips the fan section can be removed from the casing leaving the mounting bracket. All components are manufactured from impact resistant and corrosion resistant polymer. Colour: light grey.

Speed control

Standard two-speed control with external operating switch MVB (accessory).

☐ Electrical connection

The spacious terminal box (IP 44) is mounted on the casing; rotatable to any position.

☐ Impeller

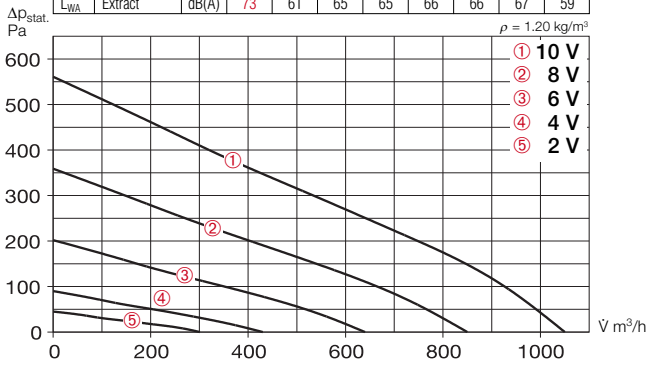
Mixed flow for high volume flow and high pressure performance. Made of high-grade polymer. For quiet running dynamically balanced.

ECgreen Vent **60% saving*** * with speed control

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 1 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Model RR EC, 1 Phase motor, 230 V / 1 ph. / 50 Hz, EC-motor, IP 44																
RR EC 200	5786	200	1050	2500	48	0.12	0.70	979	50	5.1	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
Model SVR EC, 1 Phase motor, 230 V / 1 ph. / 50 Hz, EC-motor, IP 44																
SVR EC 200	2539	200	760	3090	51	0.08	0.70	979	60	9.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
Model MV EC, 1 Phase motor, 230 V / 1 ph. / 50 Hz, EC-motor											operating switch					
MV EC 200	6034	200	750/1000	2400/2820	53/56	0.036/0.057	0.33/0.50	951	50	2.5	**MVB**	6091	—	—	—	—

RR EC 200

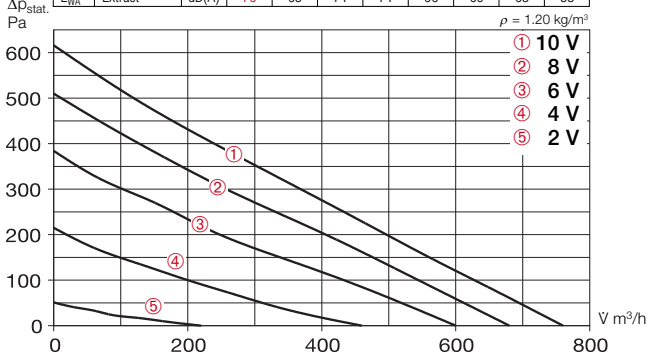
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	55	30	40	48	52	48	49	41
L_{WA}	Intake	dB(A)	73	62	66	67	66	65	64	58
L_{WA}	Extract	dB(A)	73	61	65	65	66	66	67	59



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2500	1050	107	0.52	48	0.37
8	2000	850	55	0.28	43	0.23
6	1500	640	25	0.15	37	0.15
4	1000	430	12	0.10	29	0.12

SVR EC 200

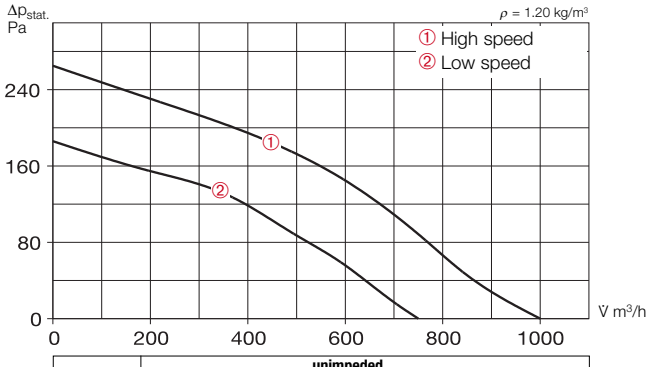
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	59	44	53	57	49	46	42	32
L_{WA}	Intake	dB(A)	74	64	69	70	61	64	60	50
L_{WA}	Extract	dB(A)	76	65	71	71	66	69	63	53



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2700	760	80	0.68	51	0.39
8	2450	680	60	0.51	48	0.32
6	2100	600	38	0.34	45	0.23
4	1500	460	20	0.17	40	0.13

MV EC 200

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	63	49	45	56	60	57	54	39
L_{WA}	Intake	dB(A)	79	52	60	69	70	77	68	59
L_{WA}	Extract	dB(A)	78	55	62	70	71	74	69	58



	unimpeded					
	n min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
High speed	2820	1000	51	0.45	56	0.18
Low speed	2400	750	32	0.28	53	0.16

Accessories for RR EC and SV EC

Pipe clamp connectors
BM 200 Ref. No. 5078
A quick-fix method for connecting fans to ducting, reducing vibration transmission (1 kit = 2 pieces).

Guards
SGR 200 Ref. No. 5066
For intake and exhaust installation on fan.

Mounting feet for RR EC
MK 4 Ref. No. 5824

Accessories for MV EC

Flexible connector
FM 200 Ref. No. 1670
Supplied with two hose clips as standard; for installation between fan and duct system. Two sleeves are needed for intake and exhaust operation.

Guard for spigot connection
MVS 200 Ref. No. 6075
For intake and exhaust installation on the ventilation unit.

Accessories for both types

Gravity shutter
VK 200 Ref. No. 0758
Automatic, made from polymers, white.

Backdraught shutter
RSK 200 Ref. No. 5074
Automatic, made from metal.

Flexible attenuator
FSD 200 Ref. No. 0679
Spigotted aluminium attenuator with 50 mm insulation. Length 1 m.

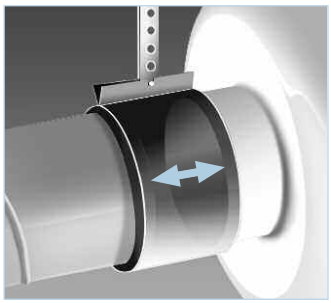
Air filter box
LFBR 200 G4 Ref. No. 8579
LFBR 200 F7 Ref. No. 8533
Air filter with large cross sectional area to be installed in-line with ducting.

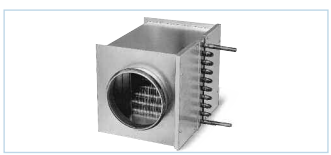
Electric heater batteries
EHR-R 1.2/200 1.2 kW No. 9436
EHR-R 2/200 2.0 kW No. 9437
EHR-R 5/200 5.0 kW No. 8711
– with integrated temp. control
EHR-R 5/200 TR 5.0 kW No. 5295
Room or duct sensor required (TFK/TFR, accessory).

Temperature regulating system for electro heater battery
EHS Ref. No. 5002

Water heater battery
WHR 200 Ref. No. 9482
Compact unit for in-line installation.

Temperature regulating system for water heater battery
WHST 300 T38 No. 8817





ECgreen Vent

50% saving*

* with speed control

For medium to smaller air flow volumes against high resistances.

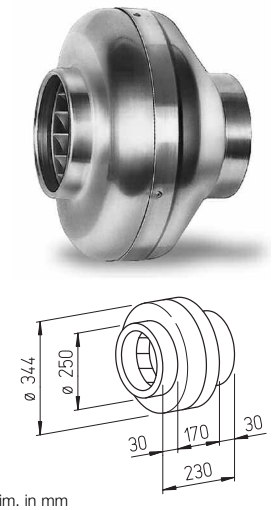
Specifically made for in-duct installation. Specially designed to be installed in-line in circular ducting. High pressure characteristic to overcome resistances of bends, filters etc. Universal in application for domestic, commercial and industrial purposes.

Special features

- ☐ Highly efficient EC motor for lowest operating costs.
- ☐ Less space required and simple site installation of the compact in line design.
- ☐ Its simplicity reduces site costs.
- ☐ Supply and exhaust air spigots fit all standard circular duct sizes.
- ☐ Power adjustment by 100% variable speed control.
- ☐ Installation in any position.
- ☐ Wide range of accessories.
- ☐ Aerodynamically optimized casing design.

Models RR EC 250

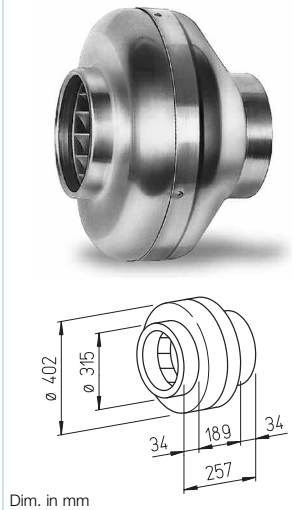
Market leading range offering an excellent value for money.



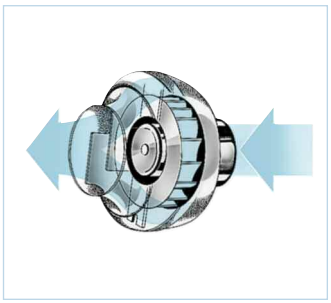
Dim. in mm

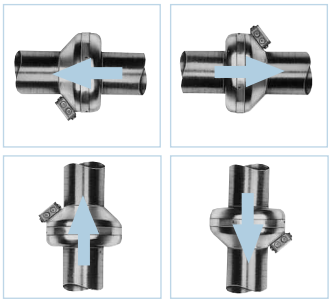
Models RR EC 315

Market leading range offering an excellent value for money.



Dim. in mm





Specification

Motor
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radiosuppressed.

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

Casing
Made from robust galvanised steel for harsh working conditions. Spigots on intake and exhaust fit standard ducts.

Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

Electrical connection
Terminal box (IP 55) located on outer casing.

Impeller
Backward curved centrifugal impeller made from polymers. Dynamically balanced with the motor providing low noise level and high efficiency.

Protection
When installed in ducting the fan is rated IP 44.

Assembly
Can be mounted in any position – horizontal, vertical or diagonal – suitable for supply and extract ventilation by correct installation. To minimise the effective noise level it is recommended that the fan is installed as remote as possible from the ventilated space.

Sound levels

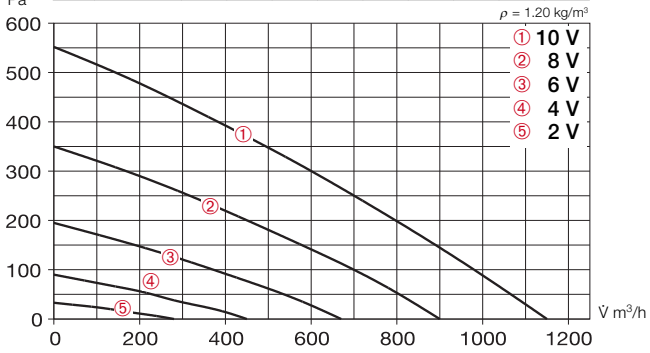
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 1 m (freefield conditions).

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 1 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
Models RR EC, 1 Phase motor, 230 V / 1 ph. / 50 Hz, IP 44																
RR EC 250	5787	250	1150	2450	49	0.14	0.73	979	50	5.3	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
RR EC 315	5788	315	1650	2500	50	0.23	1.10	979	50	6.5	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

RR EC 250

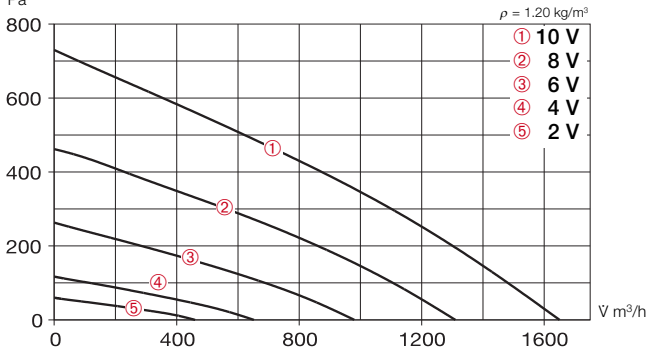
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	56	38	40	50	53	49	46	40
L_{WA}	Intake	dB(A)	75	59	66	67	69	69	66	60
L_{WA}	Extract	dB(A)	76	57	68	67	70	71	67	59



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2450	1150	111	0.54	49	0.35
8	1950	900	56	0.28	44	0.23
6	1450	670	26	0.14	38	0.14
4	980	450	14	0.10	30	0.11

RR EC 315

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	57	35	44	51	51	53	50	43
L_{WA}	Intake	dB(A)	75	60	67	66	66	72	68	66
L_{WA}	Extract	dB(A)	76	63	69	69	69	71	67	65



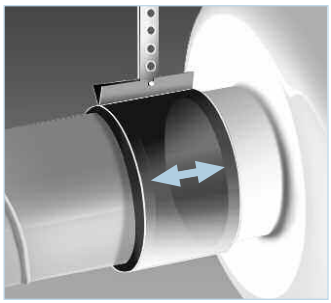
	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2500	1650	178	0.89	50	0.39
8	2000	1310	92	0.46	45	0.25
6	1500	980	40	0.20	40	0.15
4	1000	650	23	0.13	32	0.13

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Grilles, flexible ducting, filters, heater batteries and attenuators, temp. regulatiog system for electro heater battery

Helios main catalogue

Accessories



Pipe clamp connectors
BM 250 Ref. No. 5079
BM 315 Ref. No. 5080
A quick-fix method for connecting fans to ducting, reducing vibration transmission (1 kit = 2 pieces).

Mounting feet for RR EC
MK 4 Ref. No. 5824
made from galvanised steel.

Gravity shutter
VK 250 Ref. No. 0759
VK 315 Ref. No. 0760
Automatic, made from polymers, grey.

Rain repellent grille
RAG 250 Ref. No. 0751
RAG 315 Ref. No. 0752
made from polymers, grey.

Guards
SGR 250 Ref. No. 0067
SGR 315 Ref. No. 0068
For intake and exhaust installation on fan. Made from galvanised steel.

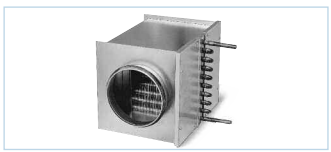
Backdraught shutter
RSK 250 Ref. No. 5673
RSK 315 Ref. No. 5674
Automatic, made from metal.

Flexible attenuator
FSD 250 Ref. No. 0680
FSD 315 Ref. No. 0681
Spigotted aluminium attenuator with 50 mm insulation. Length 1 m.

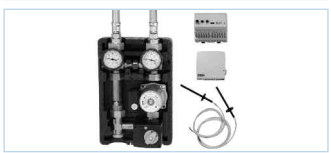
Air filter box
LFBR 250 G4 Ref. No. 8580
LFBR 250 F7 Ref. No. 8534
LFBR 315 G4 Ref. No. 8581
LFBR 315 F7 Ref. No. 8535
Air filter with large cross sectional area to be installed in-line with ducting.

Electric heater batteries
EHR-R 6/250 6.0 kW No. 8712
EHR-R 6/315 6.0 kW No. 8713
– with integrated temp. control
EHR-R 6/250 TR 6.0 kW No. 5296
EHR-R 6/315 TR 6.0 kW No. 5301
Room or duct sensor required (TFK/TFR, accessory).

Temperature regulating system for electro heater battery
EHS Ref. No. 5002



Water heater battery
WHR 250 Ref. No. 9483
WHR 315 Ref. No. 9484
Compact unit for in-line installation.

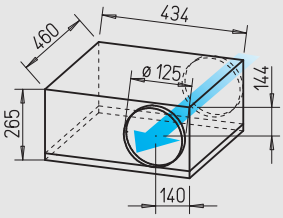


Temperature regulating system for water heater battery
WHS 1100 Ref. No. 8815

Models SilentBox® SB EC

acousticline

Virtually noise free with high air flow volumes against high resistances. Ideal for maintenance and cleaning.

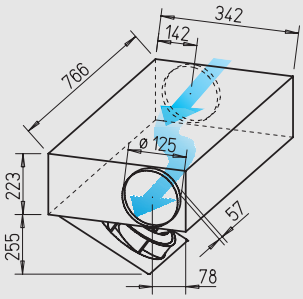


Dim. in mm

ModelsSlimVent SVS EC

acousticline

Ultra low profile. Ideal for applications with limited installation space. With sound-insulating mineral wool lining for particularly noise free operation.



Dim. in mm

■ **Similarities SilentBox® SB EC and SlimVent SVS EC**

☐ **Installation**
Installation in any position without restriction – horizontally, vertically or pitched – suitable for intake or extract. Mounting bracket included in delivery.

☐ **Motor**
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed.
Dynamically balanced for low noise operation.

☐ **Speed control**
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

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

■ **Specification SilentBox® EC**

☐ **Casing**
Like an internal attenuator. Acoustically lined with abrasive resistant 50 mm thick mineral fibreboard. Four quick release clamps permit easy access to the impeller set. Motor-impeller-unit can be pulled out, the pull-out range must be considered. Spigots on intake and exhaust twin-seal rubber gaskets fit standard ducts. All parts manufactured from galvanised sheet steel.

☐ **Impeller**
With backward curved impeller. Bell mouth shaped inlet ring to achieve optimum air flow.

☐ **Electrical connection**
Terminal box (IP 54) located on outer casing.

☐ **Protection**
With a connected pipe system IP 44.

■ **Specification SlimVent SVS EC**

☐ **Casing**
Extremely flat casing in longer design with more than 50 mm thick sound-absorbing mineral wool lining and glass fibre surface. The acoustic box which is placed in front of the fan reduces the sound level for the intake significantly. The sound level of the case breakout is reduced to a smaller extent (see sound levels in the tables above the performance curves).

☐ The swing out motor and impeller unit permits maintenance and cleaning without disassembly of system components.

☐ **Impeller**
Energy-saving centrifugal impeller with backward curved blades from high quality polymer.

☐ **Electrical connection**
Terminal box (IP 54) located on outer casing.

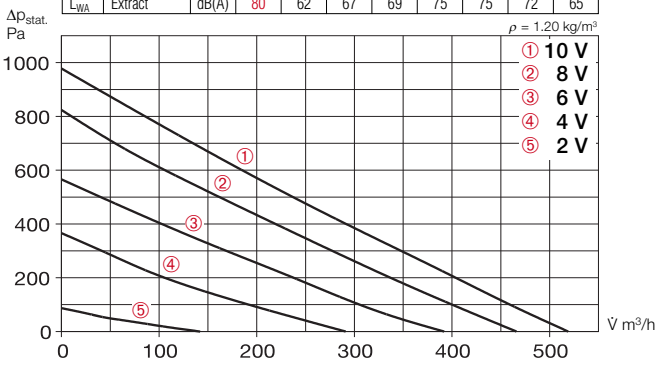
☐ **Protection**
With a connected pipe system IP 44.

ECgreen Vent **60% saving*** * with speed control

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Models SilentBox® SB EC, 1 Phase motor, 230 V, 50 Hz, EC-motor, IP 44																
SB EC 125	9624	125	520	3500	35	0.08	0.75	979	60	12.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
Models SVS EC, 1 Phase motor, 230 V, 50 Hz, EC-motor, IP 44																
SVS EC 125	2533	125	480	3590	41	0.09	0.74	979	60	10.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

SB EC 125

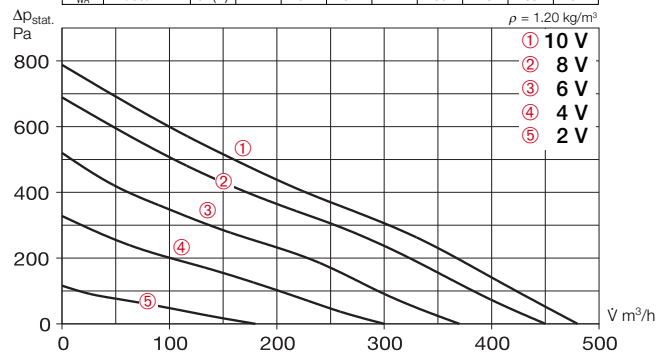
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	55	42	54	49	38	35	32	27
L_{WA}	Intake	dB(A)	58	46	50	43	42	45	43	37
L_{WA}	Extract	dB(A)	80	62	67	69	75	75	72	65



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	3280	520	85	0.73	35	0.58
8	2940	470	60	0.53	28	0.47
6	2450	390	37	0.33	27	0.34
4	1840	290	17	0.18	23	0.21

SVS EC 125

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	61	50	50	60	50	49	48	39
L_{WA}	Intake	dB(A)	59	55	52	47	40	36	35	36
L_{WA}	Extract	dB(A)	77	62	67	71	69	70	68	61



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	3250	480	88	0.74	41	0.67
8	3000	450	70	0.59	36	0.57
6	2500	370	43	0.38	33	0.42
4	2000	300	25	0.22	27	0.29

Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

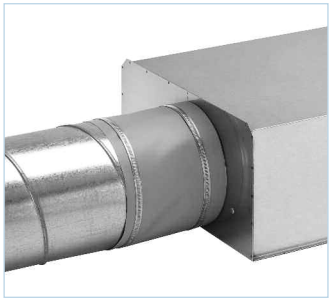
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Grilles, flexible ducting, filters, heater batteries and attenuators, temp. regulating system for electro heater battery
Helios main catalogue

Accessories

Flexible sleeve
FM 125 Ref. No. 1682
Supplied with two hose clips as standard; for installation between fan and duct system. Prevents sound and vibration transmission to ducting and corrects small site misalignments. For intake or extract two sleeves are needed for complete isolation.



Louvre shutter
VK 125 Ref. No. 0857
Wall mounted air steam operated shutter for the outlet. Made from white polymer.

Fixed grille
G 160 Ref. No. 0893
To cover or insert into circular openings of duct systems. Made from high quality impact resistant polymer.

Guard
SGR 125 Ref. No. 5064
For intake and extract installation. Made from powder-coated steel wire.

Back draught shutter
RSKK 125 Ref. No. 5107
Air stream operated, made from polymer. For in-duct installation.

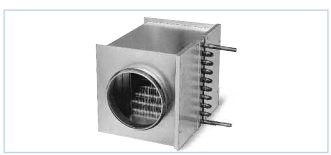
Flexible circular attenuator
FSD 125 Ref. No. 0677
Spigotted aluminium attenuator with 50 mm insulation. Length 1 m.

Spigotted circular attenuator
SRSD 125/... see page 319
Spigotted attentuator from galvanised steel with 50 mm insulation. Length 300 – 1200 mm.

Air filter box
LFBR 125 G4 Ref. No. 8577
LFBR 125 F7 Ref. No. 8531
Air filter with large surface filter area to be installed in-line with ducting.

Electric heater battery
EHR-R 0.8/125 0.8 kW No. 8709
EHR-R 1.2/125 1.2 kW No. 9433
– with integrated temp. controller
CV 12-12-1 1.2 kW No. S588
Room and/or duct sensor (TFK/TFR, accessories) necessary.

Temperature control system for electric heater battery EHR-R..
EHS Ref. No. 5002



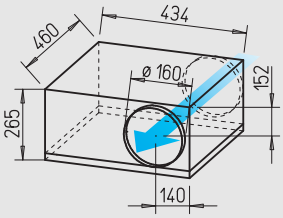
Water heater battery
WHR 125 Ref. No. 9480
Compact unit for in-line installation.

Temperature control system for water heater battery
WHST 300 T38 Ref. No. 8817

Models SilentBox® SB EC

acousticline

Virtually noise free with high air flow volumes against high resistances. Ideal for maintenance and cleaning.

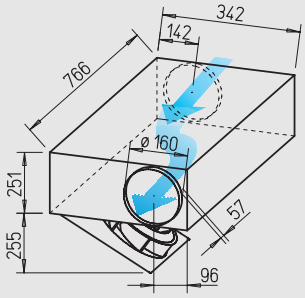


Dim. in mm

Models SlimVent SVS EC

acousticline

Ultra low profile. Ideal for applications with limited installation space. With sound-insulating mineral wool lining for particularly noise free operation.



Dim. in mm

■ **Similarities SilentBox® SB EC and SlimVent SVS EC**

☐ **Installation**
Installation in any position without restriction – horizontally, vertically or pitched – suitable for intake or extract. Mounting bracket included in delivery.

☐ **Motor**
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed.
Dynamically balanced for low noise operation.

☐ **Speed control**
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

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

■ **Specification SilentBox® EC**

☐ **Casing**
Like an internal attenuator. Acoustically lined with abrasive resistant 50 mm thick mineral fibreboard. Four quick release clamps permit easy access to the impeller set. Motor-impeller-unit can be pulled out, the pull-out range must be considered. Spigots on intake and exhaust twin-seal rubber gaskets fit standard ducts. All parts manufactured from galvanised sheet steel.

☐ **Impeller**
With backward curved impeller. Intake air flow by means of an inlet nozzle.

☐ **Electrical connection**
Terminal box (IP 54) located on outer casing.

☐ **Protection**
With a connected pipe system IP 44.

■ **Specification SlimVent SVS EC**

☐ **Casing**
Extremely flat casing in longer design with more than 50 mm thick sound-absorbing mineral wool lining and glass fibre surface. The acoustic box which is placed in front of the fan reduces the sound level for the intake significantly. The sound level of the case breakout is reduced to a smaller extent (see sound levels in the tables above the performance curves).

☐ The swing out motor and impeller unit permits maintenance and cleaning without disassembly of system components.

☐ **Impeller**
Energy-saving centrifugal impeller with backward curved blades from high quality polymer.

☐ **Electrical connection**
Terminal box (IP 54) located on outer casing.

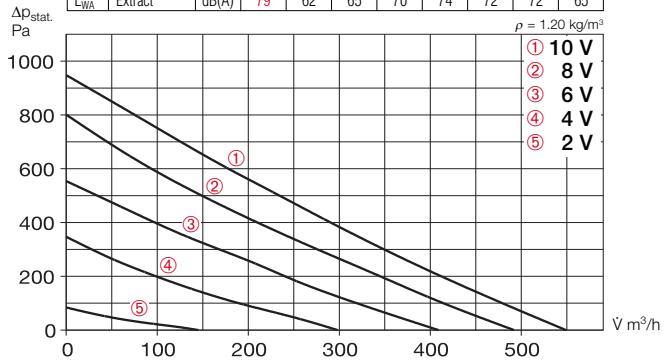
☐ **Protection**
With a connected pipe system IP 44.

ECgreen Vent **60% saving*** * with speed control

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Model SilentBox® SB EC, 1 Phase motor, 230 V, 50 Hz, EC-motor, IP 44																
SB EC 160	9625	160	550	3600	35	0.08	0.75	979	60	12.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
Model SVS EC, 1 Phase motor, 230 V, 50 Hz, ECmotor, IP 44																
SVS EC 160	2537	160	520	3560	40	0.09	0.76	979	60	11.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

SB EC 160

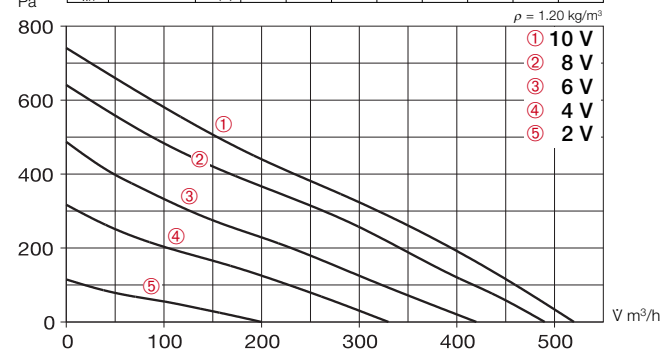
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	55	42	54	49	38	35	32	27
L_{WA}	Saugseitig	dB(A)	58	51	54	48	47	48	46	41
L_{WA}	Extract	dB(A)	79	62	65	70	74	72	72	65



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	3270	550	85	0.73	35	0.56
8	2930	490	62	0.54	28	0.45
6	2450	410	36	0.32	27	0.32
4	1830	300	17	0.19	23	0.21

SVS EC 160

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	60	43	54	59	47	45	41	34
L_{WA}	Intake	dB(A)	57	52	51	45	32	34	40	37
L_{WA}	Extract	dB(A)	75	63	66	67	67	69	67	60



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	3170	520	86	0.73	40	0.59
8	2950	490	68	0.58	35	0.49
6	2450	420	42	0.37	30	0.36
4	2000	330	25	0.22	27	0.27

Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

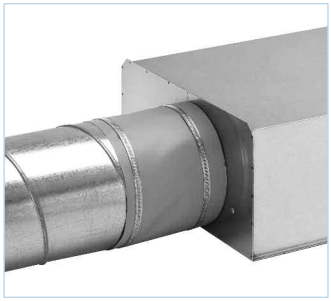
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Grilles, flexible ducting, filters, heater batteries and attenuators, temp. regulating system for electro heater battery
Helios main catalogue

Accessories

Flexible sleeve
FM 160 Ref. No. 1684
Supplied with two hose clips as standard; for installation between fan and duct system. Prevents sound and vibration transmission to ducting and corrects small site misalignments. For intake or extract two sleeves are needed for complete isolation.



Louvre shutter
VK 160 Ref. No. 0892
Wall mounted air steam operated shutter for the outlet. Made from white polymer.

Fixed grille
G 160 Ref. No. 0893
To cover or insert into circular openings of duct systems. Made from high quality impact resistant polymer.

Guard
SGR 160 Ref. No. 5069
For intake and extract installation. Made from powder-coated steel wire.

Back draught shutter
RSK 160 Ref. No. 5669
Air stream operated, made from polymer. For in-duct installation.

Flexible circular attenuator
FSD 160 Ref. No. 0678
Spigotted aluminium attenuator with 50 mm insulation. Length 1 m.

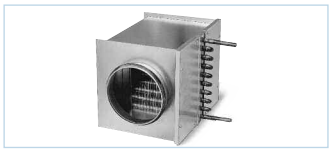
Spigotted circular attenuator
SRSD 160/... see page 319
Spigotted attentuator from galvanised steel with 50 mm insulation. Length 300 – 1200 mm.

Air filter box
LFBR 160 G4 Ref. No. 8578
LFBR 160 F7 Ref. No. 8532
Air filter with large surface filter area to be installed in-line with ducting.

Electric heater battery
EHR-R 1.2/160 1.2 kW No. 9434
EHR-R 2.4/160 2.4 kW No. 9435
EHR-R 5/160 5.0 kW No. 8710
– with integrated temp. controller
CV 16-24-1 2.4 kW No. 5294
Room and/or duct sensor (TFK/TFR, accessories) necessary.

Temperature control system for electric heater battery EHR-R..
EHS Ref. No. 5002

Water heater battery
WHR 160 Ref. No. 9481
Compact unit for in-line installation.

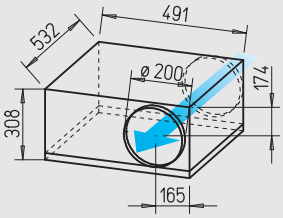


Temperature control system for water heater battery
WHST 300 T38 Ref. No. 8817

Models SilentBox® SB EC

acoustic line

Virtually noise free with high air flow volumes against high resistances. Ideal for maintenance and cleaning.

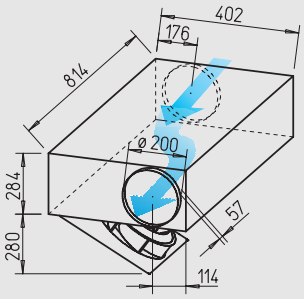


Dim. in mm

Models SlimVent SVS EC

acoustic line

Ultra low profile. Ideal for applications with limited installation space. With sound-insulating mineral wool lining for particularly noise free operation.



Dim. in mm

■ **Similarities SilentBox® SB EC and SlimVent SVS EC**

☐ **Installation**
Installation in any position without restriction – horizontally, vertically or pitched – suitable for intake or extract. Mounting bracket included.

☐ **Motor**
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed.
Dynamically balanced for low noise operation.

☐ **Speed control**
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

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

■ **Specification SilentBox® EC**

☐ **Casing**
Like an internal attenuator. Acoustically lined with abrasive resistant 50 mm thick mineral fibreboard. Four quick release clamps permit easy access to motor scroll and impeller set. Swing out motor and impeller. Space for the swing out facility must be considered. Spigots on intake and exhaust twin-seal rubber gaskets fit standard ducts. All parts manufactured from galvanised sheet steel.

☐ **Impeller**
With backward curved impeller. Intake air flow by means of an inlet nozzle.

☐ **Electrical connection**
Terminal box (IP 54) located on outer casing.

☐ **Protection**
With a connected pipe system IP 44.

■ **Specification SlimVent SVS EC**

☐ **Casing**
Extremely flat casing in longer design with more than 50 mm thick sound-absorbing mineral wool lining and glass fibre surface. The acoustic box which is placed in front of the fan reduces the sound level for the intake significantly. The sound level of the case breakout is reduced to a smaller extent (see sound levels in the tables above the performance curves).

☐ The swing out motor and impeller unit permits maintenance and cleaning without disassembly of system components.

☐ **Impeller**
Energy-saving centrifugal impeller with backward curved blades from high quality polymer.

☐ **Electrical connection**
Terminal box (IP 54) located on outer casing.

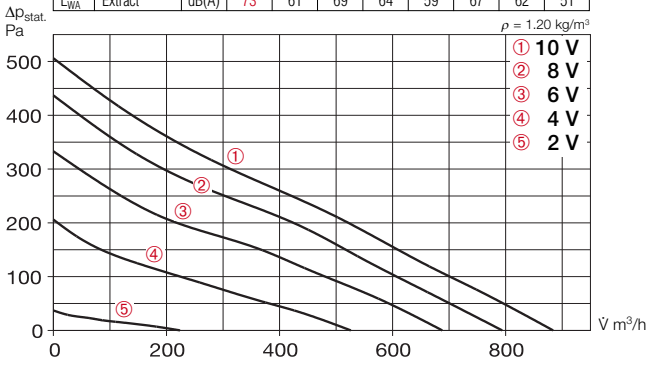
☐ **Protection**
With a connected pipe system IP 44.

ECgreen Vent **65% saving*** * with speed control

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Model SilentBox® SB EC, 1 Phase motor, 230 V, 50 Hz, EC-motor, IP 44																
SB EC 200	9626	200	880	2800	38	0.08	0.72	979	60	16.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
Model SVS EC, 1 Phase motor, 230 V, 50 Hz, EC-motor, IP 44																
SVS EC 200	2541	200	750	2930	38	0.08	0.71	979	60	15.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

SB EC 200

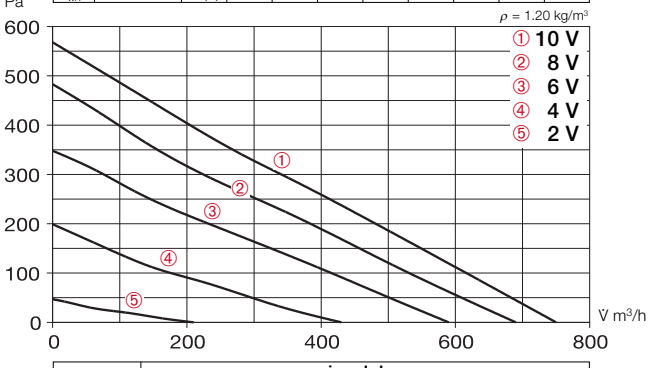
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	58	42	57	52	39	33	29	26
L_{WA}	Intake	dB(A)	66	60	63	54	45	48	43	37
L_{WA}	Extract	dB(A)	73	61	69	64	59	67	62	51



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2720	880	81	0.71	38	0.33
8	2530	790	61	0.55	34	0.27
6	2170	690	40	0.34	30	0.21
4	1640	530	19	0.18	24	0.13

SVS EC 200

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	58	39	52	56	46	46	43	33
L_{WA}	Intake	dB(A)	63	59	58	48	36	39	42	31
L_{WA}	Extract	dB(A)	76	65	71	70	66	68	65	53



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2700	750	82	0.69	38	0.39
8	2450	690	60	0.51	36	0.31
6	2100	590	40	0.36	31	0.24
4	1550	430	20	0.19	25	0.15

Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

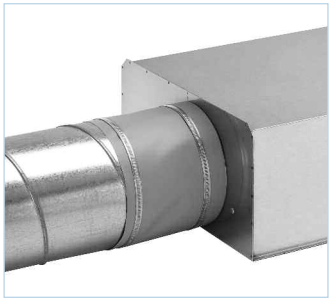
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Grilles, flexible ducting, filters, heater batteries and attenuators, temp. regulating system for electro heater battery
Helios main catalogue

Accessories

Flexible sleeve
FM 200 Ref. No. 1670
Supplied with two hose clips as standard; for installation between fan and duct system. Prevents sound and vibration transmission to ducting and corrects small site misalignments. For intake or extract two sleeves are needed for complete isolation.



Louvre shutter
VK 200 Ref. No. 0758
Wall mounted air steam operated shutter for the outlet. Made from white polymer.

Rain repellent grille
RAG 200 Ref. No. 0750
Made from polymer, light-grey.

Guard
SGR 200 Ref. No. 5066
For intake and extract installation. Made from powder-coated steel wire.

Back draught shutter
RSK 200 Ref. No. 5074
Air stream operated, made from polymer. For in-duct installation.

Flexible circular attenuator
FSD 200 Ref. No. 0679
Spigotted aluminium attenuator with 50 mm insulation. Length 1 m.

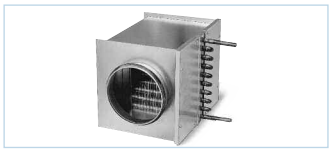
Spigotted circular attenuator
SRSD 200/... see page 319
Spigotted attentuator from galvanised steel with 50 mm insulation. Length 300 – 1200 mm.

Air filter box
LFBR 200 G4 Ref. No. 8579
LFBR 200 F7 Ref. No. 8533
Air filter with large surface filter area to be installed in-line with ducting.

Electric heater battery
EHR-R 1.2/200 1.2 kW No. 9436
EHR-R 2/200 2.0 kW No. 9437
EHR-R 5/200 5.0 kW No. 8711
– with integrated temp. controller
CV 20-21-1 2.1 kW No. S579
Room and/or duct sensor (TFK/TFR, accessories) necessary.

Temperature control system for electric heater battery EHR-R..
EHS Ref. No. 5002

Water heater battery
WHR 200 Ref. No. 9482
Compact unit for in-line installation.

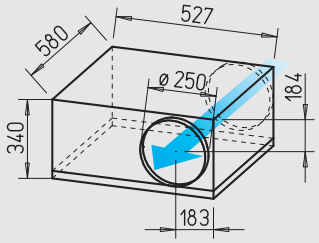


Temperature control system for water heater battery
WHST 300 T38 Ref. No. 8817

Models SilentBox® SB EC

acousticline

Virtually noise free with high air flow volumes against high resistances. Ideal for maintenance and cleaning.



Dim. in mm

ECgreen Vent 65% saving*
* with speed control

■ Specification

☐ Casing
Like an internal attenuator. Acoustically lined with abrasive resistant 50 mm thick mineral fibreboard. Four quick release clamps permit easy access to motor scroll and impeller set. Swing out motor and impeller. Space for the swing out facility must be considered. Spigots on intake and exhaust twin-seal rubber gaskets fit standard ducts. All parts manufactured from galvanised sheet steel.

☐ Impeller
With backward curved impeller. Intake air flow by means of an inlet nozzle.

☐ Motor
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed.
Dynamically balanced for low noise operation.

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

☐ Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Electrical connection
Terminal box (IP 54) located on outer casing.

☐ Protection
With a connected pipe system IP 44.

☐ Installation
Installation in any position without restriction – horizontally, vertically or pitched – suitable for intake or extract. Mounting bracket included.

■ Sound levels

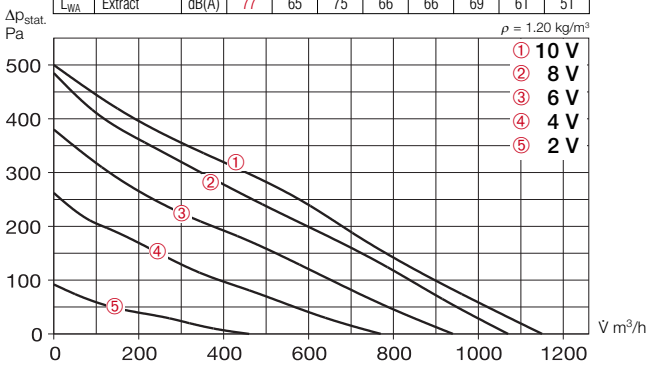
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Model SilentBox® SB EC, 1 Phase motor, 230 V, 50 Hz, EC-motor, IP 44																
SB EC 250	9627	250	1150	2500	38	0.12	1.00	979	60	17.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

SB EC 250

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	58	58	55	52	44	35	30	25
L_{WA}	Intake	dB(A)	68	61	67	53	49	46	46	35
L_{WA}	Extract	dB(A)	77	65	75	66	66	69	61	51



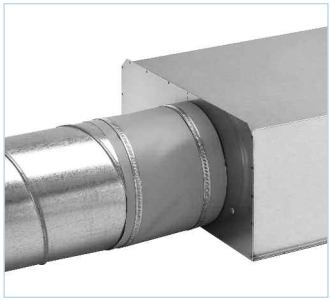
	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2570	1150	118	0.96	38	0.37
8	2410	1070	97	0.81	37	0.33
6	2110	940	64	0.56	36	0.25
4	1700	770	35	0.32	31	0.16

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Grilles, flexible ducting, filters, heater batteries and attenuators, temp. regulating system for electro heater battery
Helios main catalogue

Accessories

Flexible sleeve
FM 250 Ref. No. 1672
Supplied with two hose clips as standard; for installation between fan and duct system. Prevents sound and vibration transmission to ducting and corrects small site misalignments. For intake or extract two sleeves are needed for complete isolation.



Louvre shutter
VK 250 Ref. No. 0759
Wall mounted air steam operated shutter for the outlet. Made from white polymer.

Rain repellent grille
RAG 250 Ref. No. 0751
Made from polymer, light-grey.

Guard
SGR 250 Ref. No. 5067
For intake and extract installation. Made from powder-coated steel wire.

Back draught shutter
RSK 250 Ref. No. 5673
Air stream operated, made from polymer. For in-duct installation.

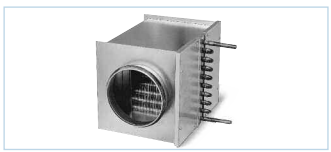
Flexible circular attenuator
FSD 250 Ref. No. 0680
Spigotted aluminium attenuator with 50 mm insulation. Length 1 m.

Spigotted circular attenuator
SRSD 250/... see page 319
Spigotted attentuator from galvanised steel with 50 mm insulation. Length 300 – 1200 mm.

Air filter box
LFBR 250 G4 Ref. No. 8580
LFBR 250 F7 Ref. No. 8534
Air filter with large surface filter area to be installed in-line with ducting.

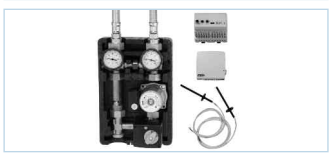
Electric heater battery
EHR-R 6/250 6.0 kW No. 8712
– with integrated temp. controller
CV 25-60-3 6.0 kW No. 5296
Room and/or duct sensor (TFK/TFR, accessories) necessary.

Temperature control system for electric heater battery EHR-R..
EHS Ref. No. 5002



Water heater battery
WHR 250 Ref. No. 9483
Compact unit for in-line installation.

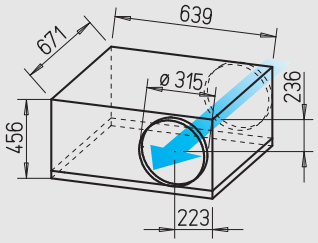
Temperature control system for water heater battery
WHS 1100 Ref. No. 8815



Models SilentBox® SB EC

acousticline

Virtually noise free with high air flow volumes against high resistances. Ideal for maintenance and cleaning.



Dim. in mm

ECgreen Vent 70% saving*
* with speed control

Specification

Casing
Like an internal attenuator. Acoustically lined with abrasive resistant 50 mm thick mineral fibreboard. Four quick release clamps permit easy access to motor scroll and impeller set. Swing out motor and impeller. Space for the swing out facility must be considered. Spigots on intake and exhaust twin-seal rubber gaskets fit standard ducts. All parts manufactured from galvanised sheet steel.

Impeller
With backward curved impeller. Intake air flow by means of an inlet nozzle.

Motor
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed.
Dynamically balanced for low noise operation.

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

Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

Electrical connection
Terminal box (IP 54) is supplied with a 60 cm long electric cable.

Protection
With a connected pipe system IP 44.

Installation
Installation in any position without restriction – horizontally, vertically or pitched – suitable for intake or extract. Mounting bracket included.

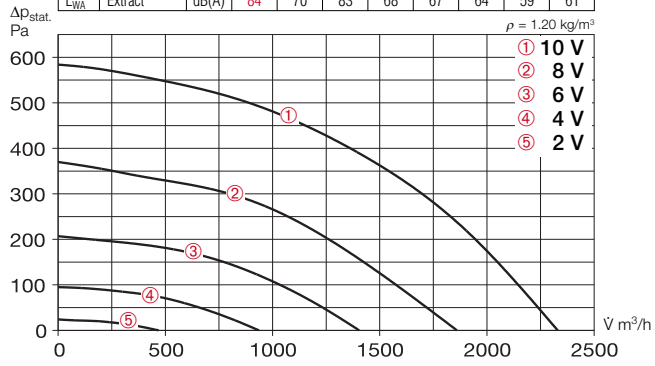
Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Model SilentBox® SB EC, 1 Phase motor, 230 V, 50 Hz, EC-motor, IP 44																
SB EC 315	9628	315	2330	2020	43	0.36	1.65	982	60	34.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

SB EC 315

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	63	52	63	47	41	33	28	26
L_{WA}	Intake	dB(A)	75	66	75	53	49	48	45	47
L_{WA}	Extract	dB(A)	84	70	83	68	67	64	59	61



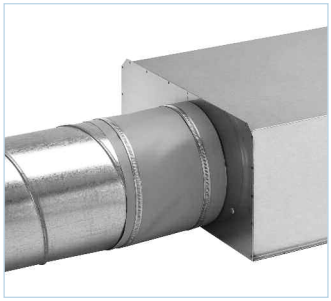
	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2020	2330	306	1.40	43	0.47
8	1600	1860	155	0.73	37	0.29
6	1200	1430	70	0.36	29	0.18
4	800	940	25	0.15	20	0.09

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Grilles, flexible ducting, filters, heater batteries and attenuators, temp. regulating system for electro heater battery
Helios main catalogue

Accessories

Flexible sleeve
FM 315 Ref. No. 1674
Supplied with two hose clips as standard; for installation between fan and duct system. Prevents sound and vibration transmission to ducting and corrects small site misalignments. For intake or extract two sleeves are needed for complete isolation.



Louvre shutter
VK 315 Ref. No. 0760
Wall mounted air steam operated shutter for the outlet. Made from white polymer.

Rain repellent grille
RAG 315 Ref. No. 0752
Made from polymer, light-grey.

Guard
SGR 315 Ref. No. 5068
For intake and extract installation. Made from powder-coated steel wire.

Back draught shutter
RSK 315 Ref. No. 5674
Air stream operated, made from polymer. For in-duct installation.

Flexible circular attenuator
FSD 315 Ref. No. 0681
Spigotted aluminium attenuator with 50 mm insulation. Length 1 m.

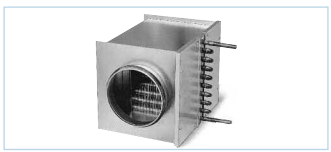
Spigotted circular attenuator
SRSD 315/... see page 319
Spigotted attentuator from galvanised steel with 50 mm insulation. Length 300 – 1200 mm.

Air filter box
LFBR 315 G4 Ref. No. 8581
LFBR 315 F7 Ref. No. 8535
Air filter with large surface filter area to be installed in-line with ducting.

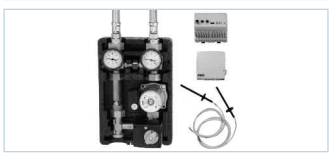
Electric heater battery
EHR-R 6/315 6.0 kW No. 8713
– with integrated temp. controller
CV 31-60-3 6.0 kW No. S589
Room and/or duct sensor (TFK/TFR, accessories) necessary.

Temperature control system for electric heater battery EHR-R..
EHS Ref. No. 5002

Water heater battery
WHR 315 Ref. No. 9484
Compact unit for in-line installation.



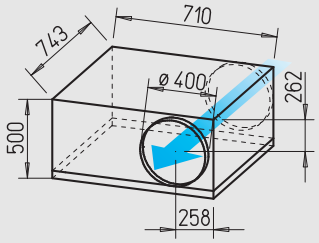
Temperature control system for water heater battery
WHS 1100 Ref. No. 8815



Models SilentBox® SB EC

acousticline

Virtually noise free with high air flow volumes against high resistances. Ideal for maintenance and cleaning.



Dim. in mm

ECgreen Vent 65% saving*
* with speed control

Specification

Casing
Like an internal attenuator. Acoustically lined with abrasive resistant 50 mm thick mineral fibreboard. Four quick release clamps permit easy access to motor scroll and impeller set. Swing out motor and impeller. Space for the swing out facility must be considered. Spigots on intake and exhaust twin-seal rubber gaskets fit standard ducts. All parts manufactured from galvanised sheet steel.

Impeller
With backward curved impeller. Intake air flow by means of an inlet nozzle.

Motor
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed.
Dynamically balanced for low noise operation.

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

Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

Electrical connection
Terminal box (IP 54) is supplied with a 60 cm long electric cable.

Protection
With a connected pipe system IP 44.

Installation
Installation in any position without restriction – horizontally, vertically or pitched – suitable for intake or extract. Mounting bracket included.

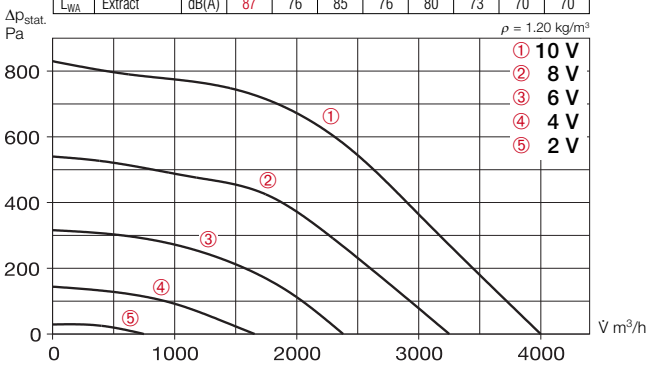
Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Model SilentBox® SB EC, 1 Phase motor, 230 V, 50 Hz, EC-motor, IP 44																
SB EC 400	9629	400	4000	2200	49	0.84	3.70	982	60	44.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

SB EC 400

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	69	58	69	55	46	39	37	28
L_{WA}	Intake	dB(A)	79	73	77	66	61	53	51	53
L_{WA}	Extract	dB(A)	87	76	85	76	80	73	70	70



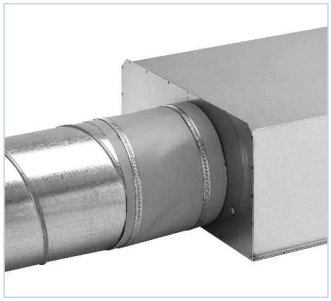
	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2200	4000	743	3.30	49	0.67
8	1760	3250	392	1.81	47	0.43
6	1350	2430	183	0.87	38	0.27
4	900	1680	65	0.32	29	0.14

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Grilles, flexible ducting, filters, heater batteries and attenuators, temp. regulating system for electro heater battery
Helios main catalogue

Accessories

Flexible sleeve
FM 400 Ref. No. 1676
Supplied with two hose clips as standard; for installation between fan and duct system. Prevents sound and vibration transmission to ducting and corrects small site misalignments. For intake or extract two sleeves are needed for complete isolation.



Louvre shutter
VK 400 Ref. No. 0762
Wall mounted air steam operated shutter for the outlet. Made from white polymer.

Rain repellent grille
RAG 400 Ref. No. 0754
Made from polymer, light-grey.

Back draught shutter
RSK 400 Ref. No. 5651
Air stream operated, made from polymer. For in-duct installation.

Flexible circular attenuator
FSD 400 Ref. No. 0683
Spigotted aluminium attenuator with 50 mm insulation. Length 1 m.

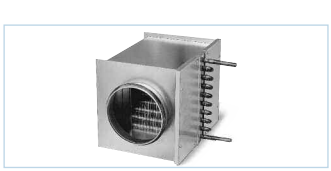
Spigotted circular attenuator
SRSD 400/... see page 319
Spigotted attentuator from galvanised steel with 50 mm insulation. Length 300 – 1200 mm.

Air filter box
LFBR 400 G4 Ref. No. 8582
LFBR 400 F7 Ref. No. 8537
Air filter with large surface filter area to be installed in-line with ducting.

Electric heater battery
EHR-R 9/400 9.0 kW No. 8657
– with integrated temp. controller
CV 40-120-3 9.0 kW No. S591
Room and/or duct sensor (TFK/TFR, accessories) necessary.

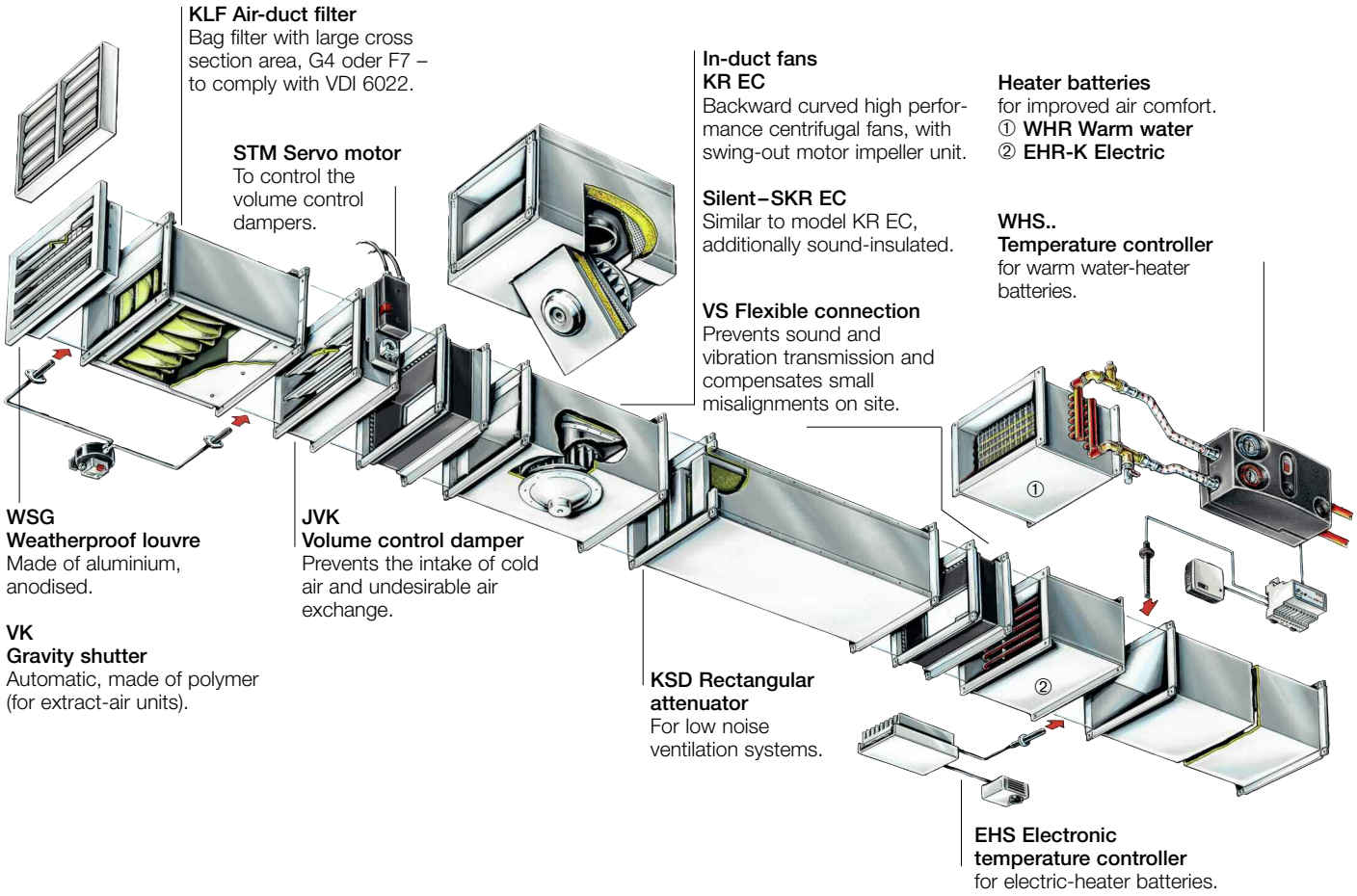
Temperature control system for electric heater battery EHR-R..
EHSD 16 Ref. No. 5003

Water heater battery
WHR 400 Ref. No. 9524



Temperature control system for water heater battery
WHS 1100 Ref. No. 8815

Concrete Advantages:
- Highly efficient EC motor for lowest operating costs.
- The components are available in every size and every performance level.
- All the components are compatible with each other and fit exactly together.
- Short installation time, simple design und rational procurement.



Perfectly convenient system solutions from the leading supplier.
With energy-saving EC-drive technology.

Two models:

All with swing-out motor impeller unit.
Simplifies maintenance and cleaning.
Complies with the hygiene requirements of VDI 6022.

Model KR EC
With backward curved centrifugal impeller.
$\dot{V}$ = 530 – 14 100 m³/h

EC-rectangular fan in proven swing-out version. High performance centrifugal impellers with high efficiency. Uncritical in extraction of polluted air. For universal use in commercial and industrial applications.

from page 48

Model SKR EC
Sound insulated for noise-critical applications.
$\dot{V}$ = 2840 – 14 100 m³/h

Silent rectangular fans for applications with specific noise level requirements. Extensive product range. Extremely low noise levels with 50 mm thick case insulation by rock wool. Abrasion resistant lining.

from page 54

acousticline by Helios.
Ventilation cannot be more quiet.

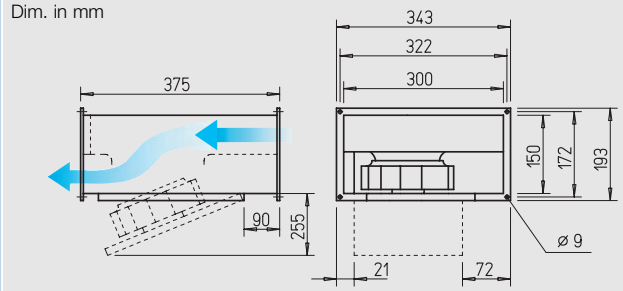
ECgreen Vent 50% saving*
* with speed control

Models KR EC

Suitable for polluted air.

(fig. similar)

Dim. in mm



Rectangular EC centrifugal fan with backward curved impeller and swing-out motor impeller unit.

- Highly efficient EC-motor for lowest operating costs.
- High performance with high efficiency impellers.
- Use in extract and fresh air systems for conveying higher air flow volume.
- Suitable for extraction of polluted air.

Special features

- ☐ High pressure and high volume specific centrifugal fan with high efficiency.
- ☐ Particulary easy to service (cleaning) thanks to the swing-out motor impeller unit.
- ☐ For cleaning, easy access and therefore suitable for extraction of polluted air.
- ☐ Compact design, less space requirement and straight through-flow.

Specification

☐ Casing
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.

☐ Impeller
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.

☐ Motor
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed. Motor and impeller are dynamically balanced.

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

☐ Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Electrical connection
Terminal box (IP 54) fitted to flying lead.

☐ Installation
Installation in any position. Allowance must be made for the motor swing out access.

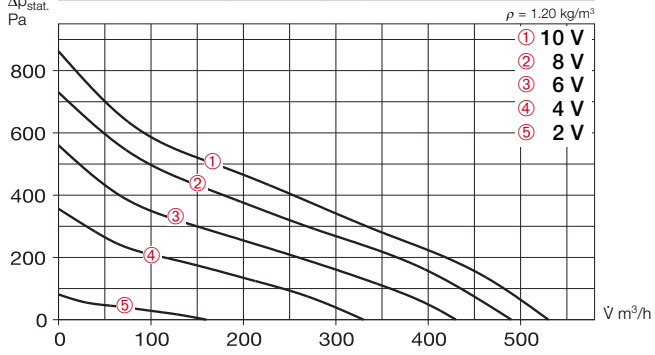
■ Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
– sound level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Note	Page
Modul. system components	46

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Single Phase, 230 V, 50 Hz, EC-motor, protection to IP 44															
KRW EC 180/30/15	8168	530	3400	44	0.09	0.73	979	60	6.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

KRW EC 180/30/15

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	64	42	54	61	57	51	48	45
L_{WA}	Intake	dB(A)	75	64	70	71	66	62	64	56
L_{WA}	Extract	dB(A)	78	66	70	72	72	69	68	61



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	3400	530	90	0.75	44	0.61
8	3150	490	73	0.61	42	0.54
6	2670	430	45	0.38	39	0.38
4	2140	330	25	0.22	35	0.26

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Shutters, grilles and louvres, heater batteries and attenuators, temp. regulating system for electro heater battery
Helios main catalogue

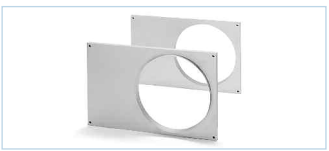
Accessories

Gravity shutter
VK 30/15 Ref. No. 0735
Air stream operated louvres, light grey polymer.

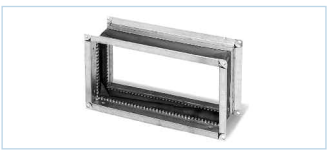
External louvre
WSG 30/15 Ref. No. 0108
Heavy duty construction made from profile anodised aluminium extrusion.

Vol. control damper for ducting
JVK 30/15 Ref. No. 6927
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.

Circular spigot
FSK 30/15 Ref. No. 0831
For cost effective adaption of rectangular fans into circular ducting systems with ø 160 mm.



Flexible connectors
VS 30/15 Ref. No. 6928
Flexible in-duct connector with flanges on both sides.



Matching flange
GF 30/15 Ref. No. 6918
Flange frames made of galvanised steel for connection to ducting.

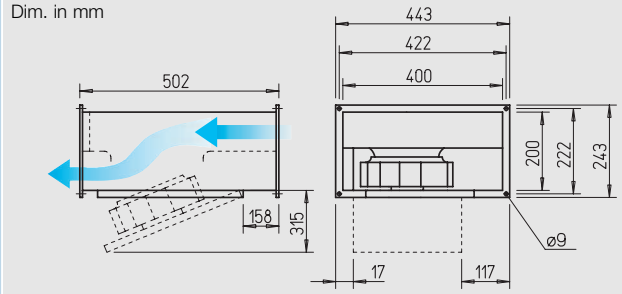
ECgreen Vent 50% saving*
* with speed control

Models KR EC

Suitable for polluted air.

(fig. similar)

Dim. in mm



Rectangular EC centrifugal fan with backward curved impeller and swing-out motor impeller unit.

- Highly efficient EC-motor for lowest operating costs.
- High performance with high efficiency impellers.
- Use in extract and fresh air systems for conveying higher air flow volume.
- Suitable for extraction of polluted air.

■ Special features

☐ High pressure and high volume specific centrifugal fan with high efficiency.

☐ Particulary easy to service (cleaning) thanks to the swing-out motor impeller unit.

☐ For cleaning, easy access and therefore suitable for extraction of polluted air.

☐ Compact design, less space requirement and straight through-flow.

■ Specification

☐ Casing
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.

☐ Impeller
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.

☐ Motor
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed. Motor and impeller are dynamically balanced.

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

☐ Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Electrical connection
Terminal box (IP 54) fitted to flying lead.

☐ Installation
Installation in any position. Allowance must be made for the motor swing out access.

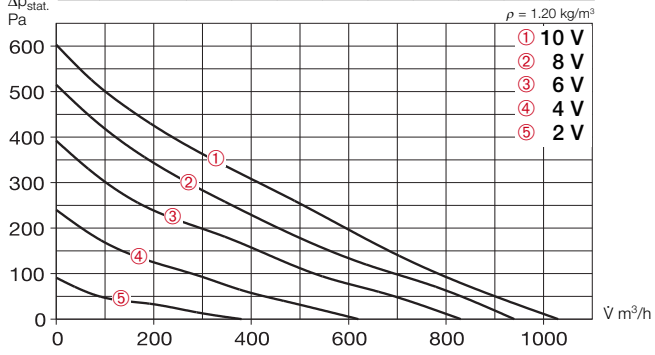
■ Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
– sound level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

☐ Note	Page
Modul. system components	46

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Single Phase, 1~, 230 V, 50 Hz, EC-motor, protection to IP 44															
KRW EC 225/40/20	8169	1030	2750	46	0.08	0.71	979	60	10	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

KRW EC 225/40/20

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	65	44	62	61	57	51	45	37
L_{WA}	Intake	dB(A)	78	68	76	69	65	61	60	50
L_{WA}	Extract	dB(A)	81	70	77	75	71	69	64	55



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2780	1030	85	0.73	46	0.29
8	2530	940	66	0.56	44	0.25
6	2180	830	41	0.37	41	0.18
4	1620	620	20	0.17	34	0.11

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Shutters, grilles and louvres, heater batteries and attenuators, temp. regulating system for electro heater battery
Helios main catalogue

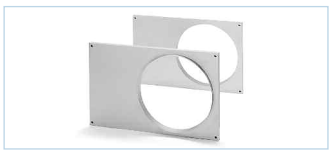
Accessories

Gravity shutter
VK 40/20 Ref. No. 0874
Air stream operated louvres, light grey polymer.

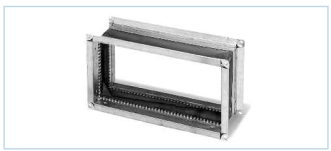
External louvre
WSG 40/20 Ref. No. 0109
Heavy duty construction madefrom profile anodised aluminiun.

Vol. control damper for ducting
JVK 40/20 Ref. No. 6910
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.

Circular spigot
FSK 40/20 Ref. No. 0832
For cost effective adaption of rectangular fans into circular ducting systems with ø 200 mm.

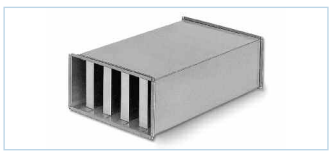


Flexible connectors
VS 40/20 Ref. No. 5694
Flexible in-duct connector with flanges on both sides.



Matching flange
GF 40/20 Ref. No. 6919
Flange frames made of galvanised steel for connection to ducting.

Rectangular attenuator
KSD 40/20 Ref. No. 8728
For in-duct installation on intake or exhaust side.

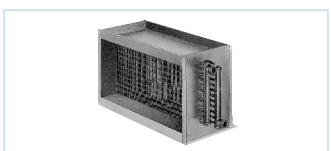


Air-duct filter
KLF 40/20 G4 Ref. No. 8720
KLF 40/20 F7 Ref. No. 8644
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.

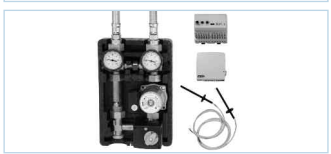
Electric heater battery
EHR-K 6/40/20 Ref. No. 8702
EHR-K 15/40/20 Ref. No. 8703
Heating elements enclosed in a galvanised steel casing with connecting flanges on both sides.

Temperature control system for electric heater battery
EHSD 16 Ref. No. 5003

LPHW heater battery
WHR 2/40/20 Ref. No. 8782
WHR 4/40/20 Ref. No. 8783
For in-duct installation.



Temperature control system for LPHW heater battery
WHS 1100 Ref. No. 8815



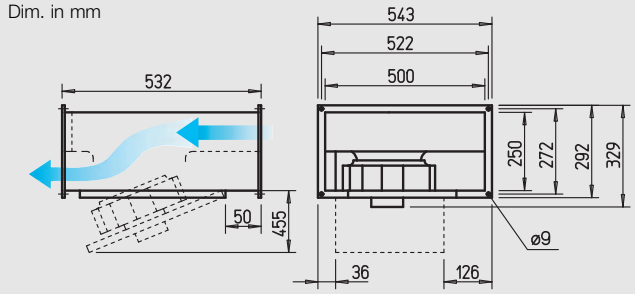
ECgreen Vent 55% saving*
* with speed control

Models KR EC

Suitable for polluted air.

(fig. similar)

Dim. in mm



Rectangular EC centrifugal fan with backward curved impeller and swing-out motor impeller unit.

- Highly efficient EC-motor for lowest operating costs.
- High performance with high efficiency impellers.
- Use in extract and fresh air systems for conveying higher air flow volume.
- Suitable for extraction of polluted air.

Special features

- ☐ High pressure and high volume specific centrifugal fan with high efficiency.
- ☐ Particulary easy to service (cleaning) thanks to the swing-out motor impeller unit.
- ☐ For cleaning, easy access and therefore suitable for extraction of polluted air.
- ☐ Compact design, less space requirement and straight through-flow.

Specification

☐ Casing
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.

☐ Impeller
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.

☐ Motor
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed. Motor and impeller are dynamically balanced.

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

☐ Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Electrical connection
Terminal box (IP 54) fitted to flying lead.

☐ Installation
Installation in any position. Allowance must be made for the motor swing out access.

Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

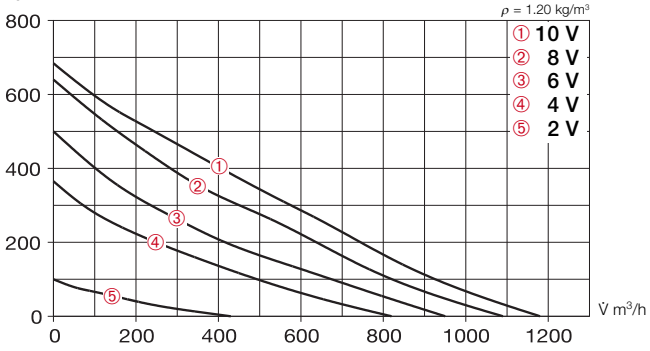
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Note	Page
Modul. system components	46

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Single phase, 230 V, 50 Hz, EC-motor, protection to IP 44															
KRW EC 315/50/25	8170	1180	2270	47	0.32	1.50	982	60	15.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

KRW EC 315/50/25

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	67	50	66	59	58	51	46	39
L_{WA}	Intake	dB(A)	79	69	78	70	65	62	61	54
L_{WA}	Extract	dB(A)	83	69	81	77	72	70	66	60



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2500	1180	112	0.91	47	0.34
8	2340	1090	92	0.74	46	0.30
6	2040	950	60	0.49	43	0.22
4	1710	820	36	0.29	39	0.16

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Shutters, grilles and louvres, heater batteries and attenuators, temp. regulating system for electro heater battery
Helios main catalogue

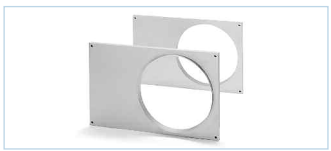
Accessories

Gravity shutter
VK 50/25 Ref. No. 0875
Air stream operated louvres, light grey polymer.

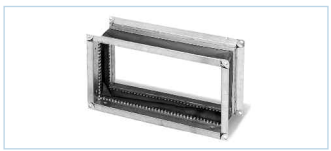
External louvre
WSG 50/25 Ref. No. 0110
Heavy duty construction made from profile anodised aluminium.

Vol. control damper for ducting
JVK 50/25 Ref. No. 6911
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.

Circular spigot
FSK 50/25 Ref. No. 0833
For cost effective adaption of rectangular fans into circular ducting systems with ø 250 mm.



Flexible connectors
VS 50/25 Ref. No. 5695
Flexible in-duct connector with flanges on both sides.



Matching flange
GF 50/25 Ref. No. 6920
Flange frames made of galvanised steel for connection to ducting.

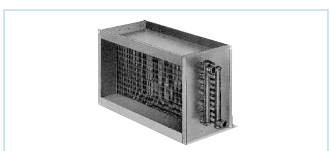
Rectangular attenuator
KSD 50/25-30 Ref. No. 8729
For in-duct installation on intake or exhaust side.

Air-duct filter
KLF 50/25-30 G4 Ref. No. 8721
KLF 50/25-30 F7 Ref. No. 8645
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.

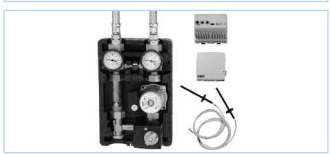
Electric heater battery
EHR-K 8/50/25-30 Ref. No. 8704
EHR-K 24/50/25-30 Ref. No. 8705
Heating elements enclosed in a galvanised steel casing with connecting flanges on both sides.

Temperature control system for electric heater battery
EHSD 16 Ref. No. 5003

LPHW heater battery
WHR 2/50/25-30 Ref. No. 8784
WHR 4/50/25-30 Ref. No. 8785
For in-duct installation.



Temperature control system for LPHW heater battery
WHS 1100 Ref. No. 8815
WHS 2200 Ref. No. 8816

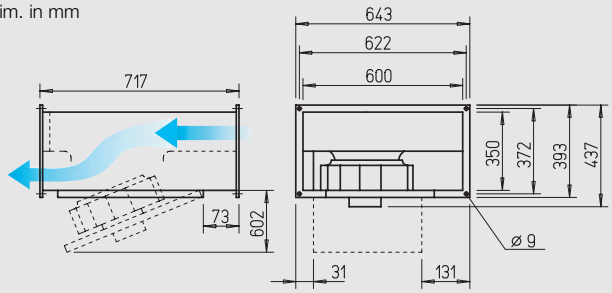


Models KR EC

Suitable for polluted air.

(fig. similar)

Dim. in mm



Sound insulated models SKR EC

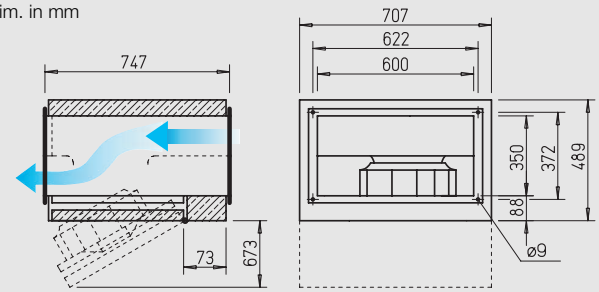
acousticline

Lowest sound levels for intake and case breakout at higher power density.

Use in extract and fresh air systems with specific requirements for low noise levels.

(fig. similar)

Dim. in mm



■ Features of model KR EC and model SKR EC

- ☐ Highly efficient EC-motor for lowest operating costs.
- ☐ High pressure and high volume with high efficiency centrifugal fan.
- ☐ Particularly easy to service (cleaning) thanks to the swing-out motor impeller unit.
- ☐ For cleaning, easy access and therefore suitable for extraction of polluted air.
- ☐ Straight through-flow.
- ☐ Compact design, convenient installation.

■ Special features of model SKR EC

- ☐ Lowest sound levels for intake and case breakout at higher power density.

■ Specification

☐ **Casing KR EC**
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.

☐ **Casing SKR EC**
As above, but with additional sound insulation with 50 mm thick mineral fibre board, inside lined with a sound deadening perforated plate.

☐ **Common features of model KR EC and model SKR EC**

☐ **Impeller**
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.

☐ **Motor**
Energy-saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed. Motor and impeller are dynamically balanced.

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

☐ **Speed control**
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ **Electrical connection**
Terminal box (IP 54) fitted to flying lead.

☐ **Installation**
Installation in any position. Allowance must be made for the motor swing out access.

■ Sound levels

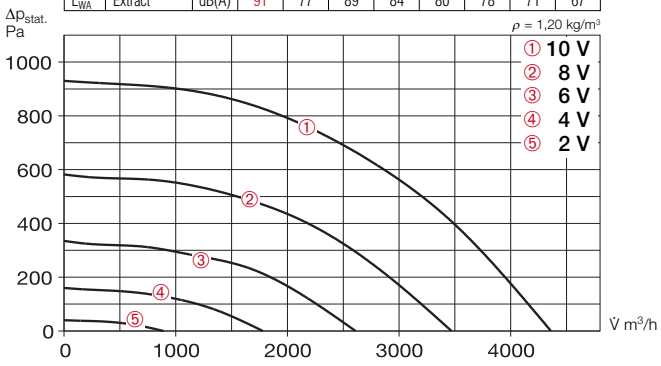
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Single phase, 230 V, 50 Hz, EC-motor, protection to IP 44															
KRW EC 400/60/35	8172	4360	2200	54	0.91	4.00	982	60	29.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
Sound insulated model SKR EC – single phase, 230 V, 50 Hz, EC-motor, protection to IP 44															
SKRW EC 400/60/35	8177	4360	2200	46	0.91	4.00	982	60	55.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

KRW EC 400/60/35

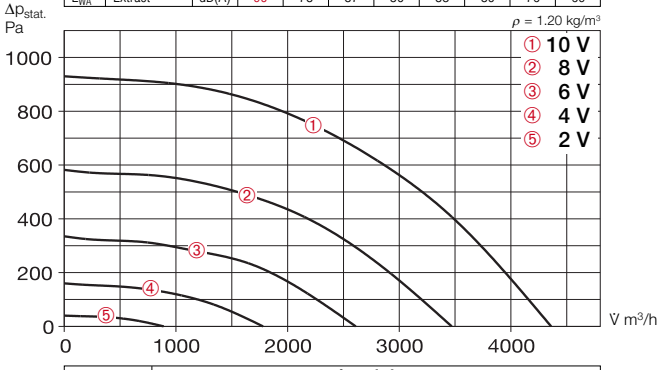
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	74	59	73	65	63	57	52	48
L_{WA}	Intake	dB(A)	87	76	85	76	72	71	66	62
L_{WA}	Extract	dB(A)	91	77	89	84	80	78	71	67



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2200	4360	650	2.88	54	0.54
8	1750	3470	330	1.50	49	0.34
6	1350	2610	150	0.70	44	0.21
4	900	1780	65	0.30	36	0. 12

SKRW EC 400/60/35

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	66	56	62	60	60	58	53	45
L_{WA}	Intake	dB(A)	82	72	80	68	69	71	66	60
L_{WA}	Extract	dB(A)	90	78	87	80	83	80	76	69



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2200	4360	650	2.88	46	0.54
8	1750	3470	330	1.50	41	0.34
6	1350	2610	150	0.70	35	0.21
4	900	1780	65	0.30	27	0.12

Accessory **Page**

Accessory-details 55
Shutters, grilles and louvres, heater batteries and attenuators, temp. regulating system for electro heater battery
Helios main catalogue

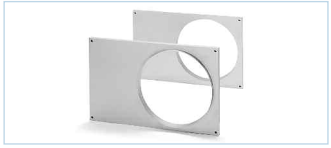
Accessories

Gravity shutter
VK 60/35 Ref. No. 0878
Air stream operated louvres, light grey polymer.

External louvre
WSG 60/35 Ref. No. 0113
Heavy duty construction made from anodised aluminium profile section.

Vol. control damper for ducting
JVK 60/35 Ref. No. 6914
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.

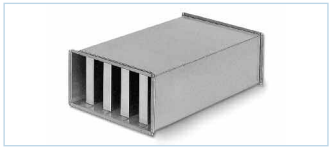
Circular spigot
FSK 60/35 Ref. No. 0835
For cost effective adaption of rectangular fans into circular ducting systems with ø 355 mm.



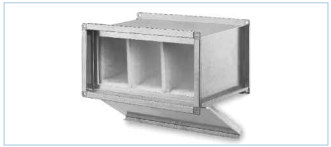
Flexible connectors
VS 60/35 Ref. No. 5698
Flexible in-duct connector with flanges on both sides.

Matching flange
GF 60/35 Ref. No. 6923
Flange frames made of galvanised steel for connection to ducting.

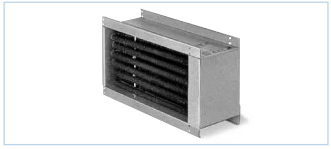
Rectangular attenuator
KSD 60/30-35 Ref. No. 8730
For in-duct installation on intake or exhaust side.



Air-duct filter
KLF 60/30-35 G4 Ref. No. 8722
KLF 60/30-35 F7 Ref. No. 8646
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.

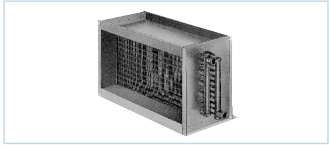


Electric heater battery
EHR-K 15/60/30-35 Ref. No. 8706
EHR-K 30/60/30-35 Ref. No. 8707
Heating elements enclosed in a galvanised steel casing with connecting flanges on both sides.



Temperature control system for electric heater battery
EHSD 16 Ref. No. 5003

LPHW heater battery
WHR 2/60/30-35 Ref. No. 8786
WHR 4/60/30-35 Ref. No. 8787
For in-duct installation.



Temperature control system for LPHW heater battery
WHS 2200[1] Ref. No. 8816

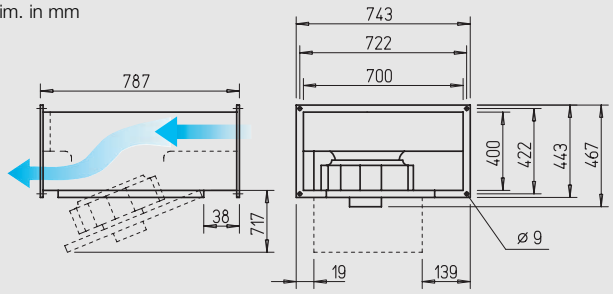
[1] In model WHR 4/60/30-35 the heat output is reduced to 2200 l/h.

Models KR EC

Suitable for polluted air.

(fig. similar)

Dim. in mm



Sound insulated models SKR EC

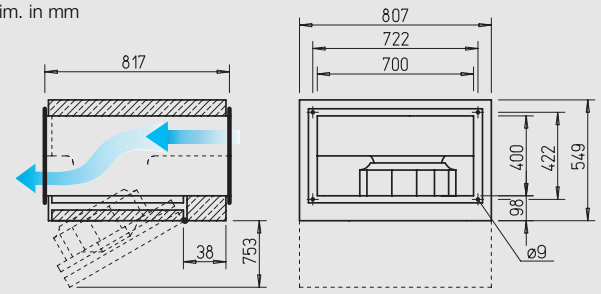
acousticline

Lowest sound levels for intake and case breakout at higher power density.

Use in extract and fresh air systems with specific requirements for low noise levels.

(fig. similar)

Dim. in mm



■ Features of model KR EC and model SKR EC

- ☐ Highly efficient EC-motor for lowest operating costs.
- ☐ High pressure and high volume with high efficiency centrifugal fan.
- ☐ Particularly easy to service (cleaning) thanks to the swing-out motor impeller unit.
- ☐ For cleaning, easy access and therefore suitable for extraction of polluted air.
- ☐ Straight through-flow.
- ☐ Compact design, convenient installation.

■ Special features of model SKR EC

- ☐ Lowest sound levels for intake and case breakout at higher power density.

■ Specification

☐ Casing KR EC
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.

☐ Casing SKR EC
As above, but with additional sound insulation with 50 mm thick mineral fibre board, inside lined with a sound deadening perforated plate.

☐ Common features of model KR EC and model SKR EC

☐ Impeller
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.

☐ Motor
Energy-saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed. Motor and impeller are dynamically balanced.

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

☐ Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Electrical connection
Terminal box (IP 54) fitted to flying lead.

☐ Installation
Installation in any position. Allowance must be made for the motor swing out access.

■ Sound levels

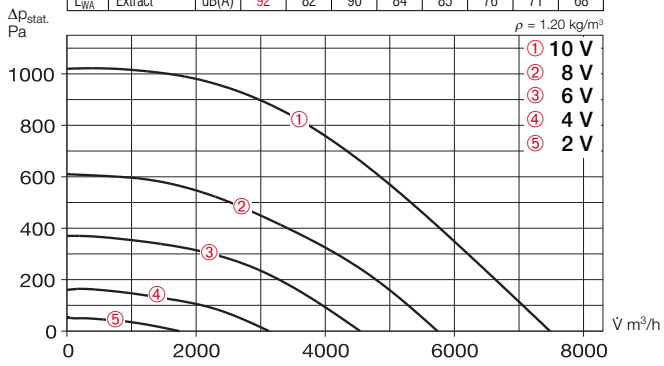
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
3-phase alternating current motor, 400 V, 50 Hz, EC-motor, protection to IP 44															
KRD EC 450/70/40	8173	7480	2300	55	1.50	2.30	1005	60	40.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
Sound insulated model SKR EC – 3-phase alternating current model, 400 V, 50 Hz, EC-motor, protection to IP 44															
SKRD EC 450/70/40	8178	7480	2300	46	1.50	2.30	1005	60	64.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

KRD EC 450/70/40

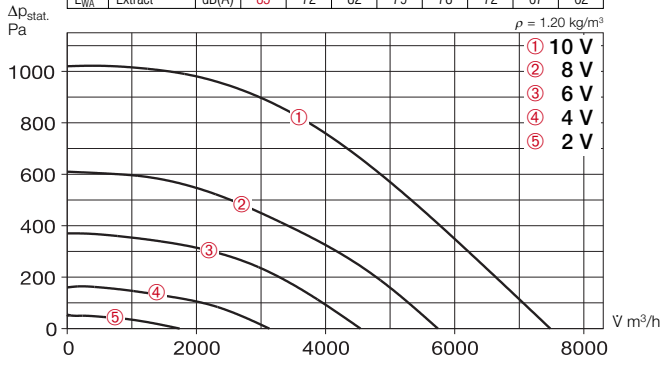
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	75	63	73	70	63	54	49	45
L_{WA}	Intake	dB(A)	88	79	86	78	78	73	67	63
L_{WA}	Extract	dB(A)	92	82	90	84	85	76	71	68



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1800	7480	1060	1.65	55	0.51
8	1440	5740	480	0.77	49	0.31
6	1080	4540	250	0.44	44	0.20
4	720	3130	85	0.20	36	0.10

SKRD EC 450/70/40

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	66	52	64	61	55	48	40	34
L_{WA}	Intake	dB(A)	77	67	74	72	67	64	58	54
L_{WA}	Extract	dB(A)	85	72	82	79	78	72	67	62



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1800	7480	1060	1.65	46	0.51
8	1440	5740	480	0.77	42	0.31
6	1080	4540	250	0.44	36	0.20
4	720	3130	85	0.20	28	0.10

ECgreen Vent **60% saving*** * with speed control

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Shutters, grilles and louvres, heater batteries and attenuators, temp. regulating system for electro heater battery
Helios main catalogue

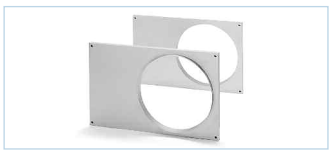
Accessories

Gravity shutter
VK 70/40 Ref. No. 0879
Air stream operated louvres, light grey polymer.

External louvre
WSG 70/40 Ref. No. 0114
Heavy duty construction made from anodised aluminium profile section.

Vol. control damper for ducting
JVK 70/40 Ref. No. 6915
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.

Circular spigot
FSK 70/40 Ref. No. 0840
For cost effective adaption of rectangular fans into circular ducting systems with ø 400 mm.

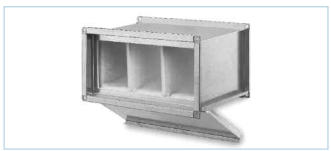


Flexible connectors
VS 70/40 Ref. No. 5699
Flexible in-duct connector with flanges on both sides.

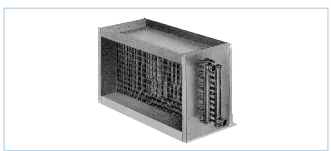
Matching flange
GF 70/40 Ref. No. 6924
Flange frames made of galvanised steel for connection to ducting.

Rectangular attenuator
KSD 70/40 Ref. No. 8731
For in-duct installation on intake or exhaust side.

Air-duct filter
KLF 70/40 G4 Ref. No. 8723
KLF 70/40 F7 Ref. No. 8647
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.

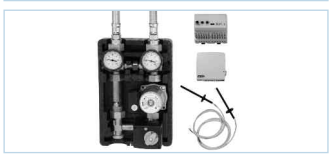


LPHW heater battery
WHR 2/70/40 Ref. No. 8788
WHR 4/70/40 Ref. No. 8789
For in-duct installation.



Temperature control system for LPHW heater battery
WHS 2200[1)] Ref. No. 8816

1) In model WHR 4/70/40 the heat output is reduced to 2200 l/h.

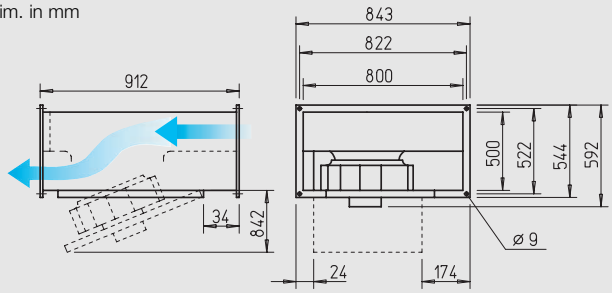


Models KR EC

Suitable for polluted air.

(fig. similar)

Dim. in mm



Sound insulated models SKR EC

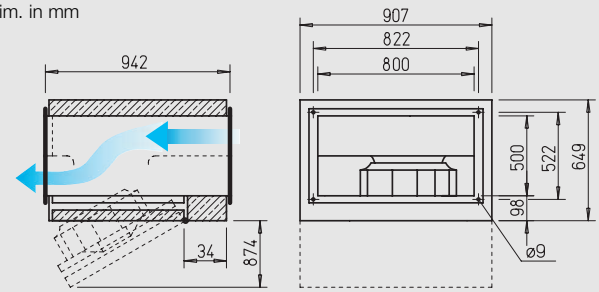
acousticline

Lowest sound levels for intake and case breakout at higher power density.

Use in extract and fresh air systems with specific requirements for low noise levels.

(fig. similar)

Dim. in mm



■ Features of model KR EC and model SKR EC

- ☐ Highly efficient EC-motor for lowest operating costs.
- ☐ High pressure and high volume with high efficiency centrifugal fan.
- ☐ Particularly easy to service (cleaning) thanks to the swing-out motor impeller unit.
- ☐ For cleaning, easy access and therefore suitable for extraction of polluted air.
- ☐ Straight through-flow.
- ☐ Compact design, convenient installation.

■ Special features of model SKR EC

- ☐ Lowest sound levels for intake and case breakout at higher power density.

■ Specification

☐ Casing KR EC
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.

☐ Casing SKR EC
As above, but with additional sound insulation with 50 mm thick mineral fibre board, inside lined with a sound deadening perforated plate.

☐ Common features of model KR EC and model SKR EC

☐ Impeller
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.

☐ Motor
Energy-saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed. Motor and impeller are dynamically balanced.

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

☐ Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Electrical connection
Terminal box (IP 54) fitted to flying lead.

☐ Installation
Installation in any position. Allowance must be made for the motor swing out access.

■ Sound levels

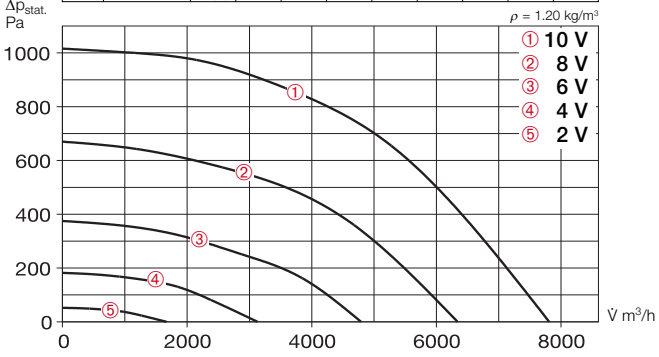
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
3-phase alternating current motor, 400 V, 50 Hz, EC-motor, protection to IP 44															
KRD EC 500/80/50	8174	7920	1800	55	1.54	2.40	1005	60	52.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
Sound insulated model SKR EC – 3-phase alternating current model, 400 V, 50 Hz, EC-motor, protection to IP 44															
SKRD EC 500/80/50	8179	7920	1800	50	1.54	2.40	1005	60	75.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

KRD EC 500/80/50

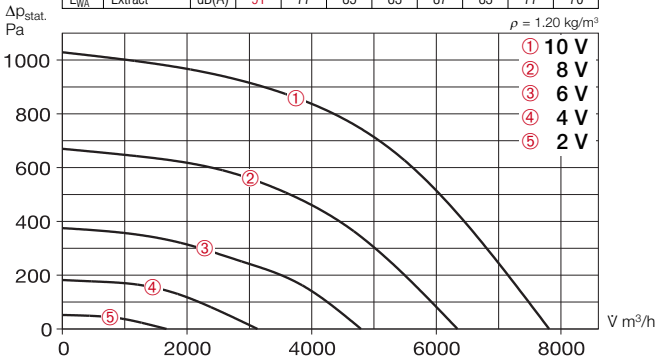
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	75	65	73	67	62	53	47	46
L_{WA}	Intake	dB(A)	86	79	83	74	77	75	71	68
L_{WA}	Extract	dB(A)	92	82	90	82	84	80	76	71



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1800	7810	975	1.54	55	0.45
8	1450	6340	510	0.84	51	0.29
6	1080	4780	220	0.39	45	0.16
4	750	3130	80	0.22	37	0.09

SKRD EC 500/80/50

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	69	58	65	63	63	59	51	44
L_{WA}	Intake	dB(A)	80	71	74	68	75	74	69	61
L_{WA}	Extract	dB(A)	91	77	85	83	87	83	77	70



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1800	7810	975	1.54	49	0.45
8	1450	6340	510	0.84	44	0.29
6	1080	4780	220	0.39	38	0.16
4	750	3130	80	0.22	30	0.09

ECgreen Vent **65% saving*** * with speed control

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Shutters, grilles and louvres, heater batteries and attenuators, temp. regulating system for electro heater battery

Helios main catalogue

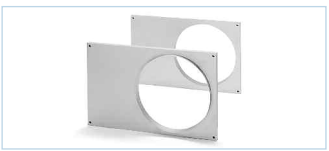
Accessories

Gravity shutter
VK 80/50 Ref. No. 0880
Air stream operated louvres, light grey polymer

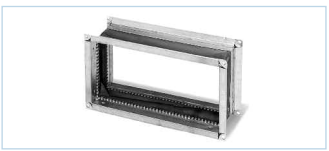
External louvre
WSG 80/50 Ref. No. 0115
Heavy duty construction made from anodised aluminium profile section.

Vol. control damper for ducting
JVK 80/50 Ref. No. 6916
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.

Circular spigot
FSK 80/50 Ref. No. 0842
For cost effective adaption of rectangular fans into circular ducting systems with ø 500 mm.

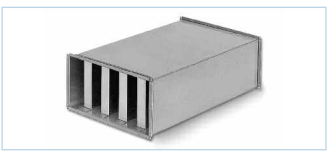


Flexible connectors
VS 80/50 Ref. No. 5700
Flexible in-duct connector with flanges on both sides.



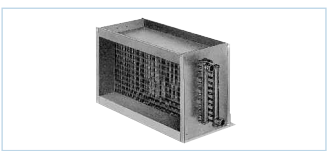
Matching flange
GF 80/50 Ref. No. 6925
Flange frames made of galvanised steel for connection to ducting.

Rectangular attenuator
KSD 80/50 Ref. No. 8732
For in-duct installation on intake or exhaust side.



Air-duct filter
KLF 80/50 G4 Ref. No. 8670
KLF 80/50 F7 Ref. No. 8654
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.

LPHW heater battery
WHR 2/80/50 Ref. No. 8795
WHR 4/80/50 Ref. No. 8796
For in-duct installation.

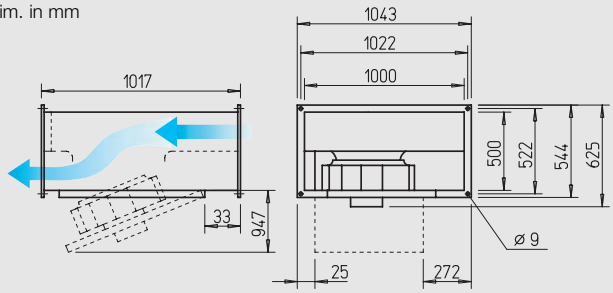


Models KR EC

Suitable for polluted air.

(fig. similar)

Dim. in mm



Sound insulated models SKR EC

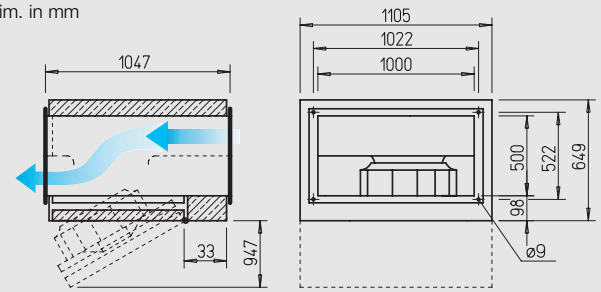
acousticline

Lowest sound levels for intake and case breakout at higher power density.

Use in extract and fresh air systems with specific requirements for low noise levels.

(fig. similar)

Dim. in mm



■ Features of model KR EC and model SKR EC

- ☐ Highly efficient EC-motor for lowest operating costs.
- ☐ High pressure and high volume with high efficiency centrifugal fan.
- ☐ Particularly easy to service (cleaning) thanks to the swing-out motor impeller unit.
- ☐ For cleaning, easy access and therefore suitable for extraction of polluted air.
- ☐ Straight through-flow.
- ☐ Compact design, convenient installation.

■ Special features of model SKR EC

- ☐ Lowest sound levels for intake and case breakout at higher power density.

■ Specification

☐ Casing KR EC
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.

☐ Casing SKR EC
As above, but with additional sound insulation with 50 mm thick mineral fibre board, inside lined with a sound deadening perforated plate.

☐ Common features of model KR EC and model SKR EC

☐ Impeller
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.

☐ Motor
Energy-saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed. Motor and impeller are dynamically balanced.

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

☐ Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

☐ Electrical connection
Terminal box (IP 54) fitted to flying lead.

☐ Installation
Installation in any position. Allowance must be made for the motor swing out access.

■ Sound levels

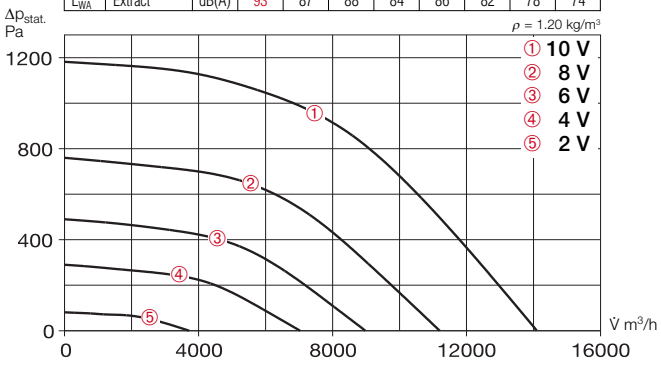
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		V̇ m^3/h	min^{-1}	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
3-phase alternating current motor, 400 V, 50 Hz, EC-motor, protection to IP 44															
KRD EC 560/100/50	8175	14100	1560	58	3.0	4.60	1005	60	77.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
Sound insulated model SKR EC – 3-phase alternating current model, 400 V, 50 Hz, EC-motor, protection to IP 44															
SKRD EC 560/100/50	8180	14100	1560	49	3.0	4.60	1005	60	121.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

KRD EC 560/100/50

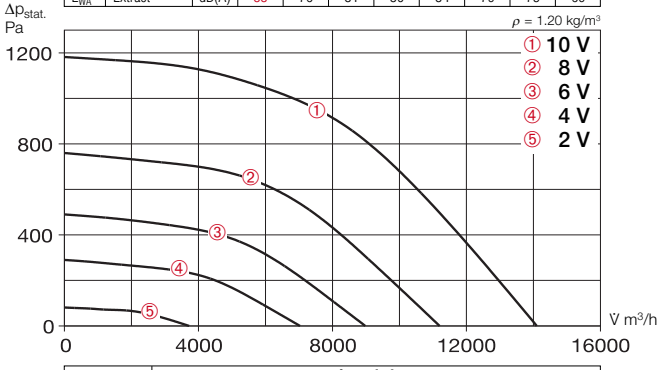
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	78	74	74	70	65	60	56	52
L_{WA}	Intake	dB(A)	88	85	80	76	78	76	71	66
L_{WA}	Extract	dB(A)	93	87	88	84	86	82	78	74



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1560	14100	1970	3.10	58	0.51
8	1250	11220	1005	1.55	53	0.32
6	1000	8980	520	0.80	48	0.21
4	750	7030	260	0.51	42	0.13

SKRD EC 560/100/50

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	69	60	65	62	61	57	49	45
L_{WA}	Intake	dB(A)	78	71	68	69	72	72	66	59
L_{WA}	Extract	dB(A)	88	76	81	80	84	79	75	69



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1560	14100	1970	3.10	49	0.51
8	1250	11220	1005	1.55	44	0.32
6	1000	8980	520	0.80	40	0.21
4	750	7030	260	0.51	34	0.13

ECgreen Vent **65% saving***

* with speed control

Accessory	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Shutters, grilles and louvres, heater batteries and attenuators, temp. regulating system for electro heater battery

Helios main catalogue

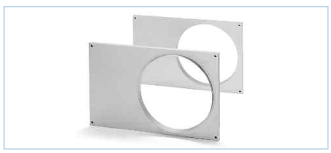
Accessories

Gravity shutter
VK 100/50 Ref. No. 0881
Air stream operated louvres, light grey polymer.

External louvre
WSG 100/50 Ref. No. 0116
Heavy duty construction made from anodised aluminium profile section.

Vol. control damper for ducting
JVK 100/50 Ref. No. 6917
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.

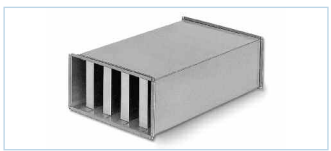
Circular spigot
FSK 100/50 Ref. No. 0843
For cost effective adaption of rectangular fans into circular ducting systems with ø 500 mm.



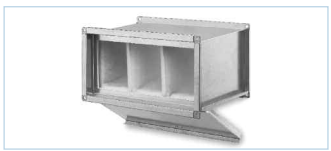
Flexible connectors
VS 100/50 Ref. No. 5701
Flexible in-duct connector with flanges on both sides.

Matching flange
GF 100/50 Ref. No. 6926
Flange frames made of galvanised steel for connection to ducting.

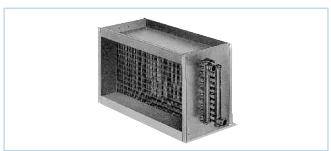
Rectangular attenuator
KSD 100/50 Ref. No. 8733
For in-duct installation on intake or exhaust side.



Air-duct filter
KLF 100/50 G4 Ref. No. 8671
KLF 100/50 F7 Ref. No. 8655
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.



LPHW heater battery
WHR 2/100/50 Ref. No. 8797
WHR 4/100/50 Ref. No. 8798
For in-duct installation.

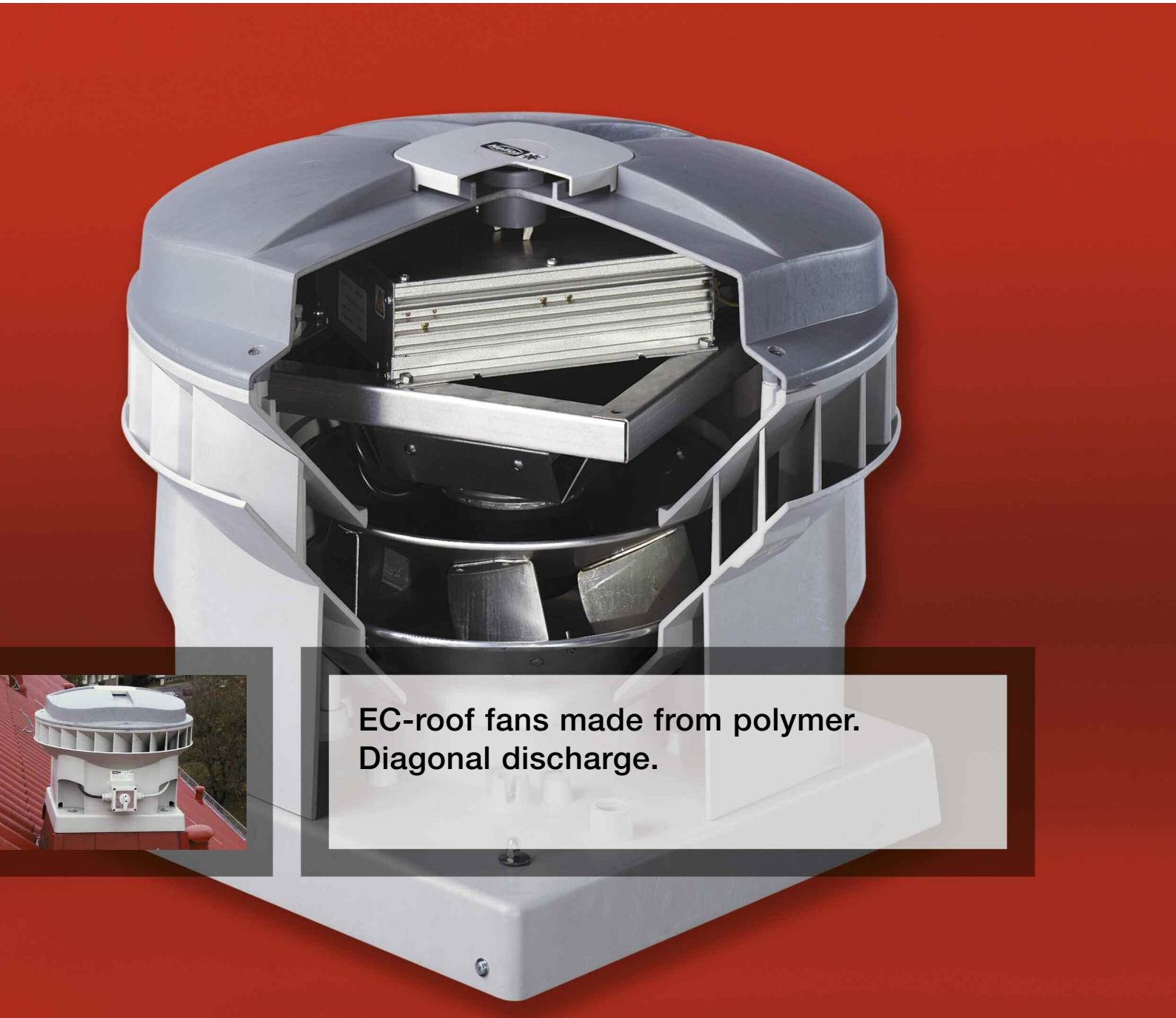


With air flow volumes from 2000 to over 5000 m³/h and maximum air flow temperature of +60 °C the DV EC-roof fans have a broad area of application. They are made from high quality polymers and are extremely weatherproof.

The extensive accessories complete the series professionally.

The series DV EC Pro impresses beside the integrated, energy-efficient, high-power EC-motor by the high quality control electronics with differential pressure sensor, which is located in the fan. With this, according to the requirements of the DIN 18017-3, the system negative pressure is kept automatic and stepless constant, so that always the regular airflow volume flows in from all connected rooms. If the ventilation of humid or polluted air in a connected room takes place according to demand (extract element AE, accessories) this has no effect on the remaining rooms. In the case of use as central ventilation system according to DIN 18017-3 the local fire protection regulations are to be considered. (Central ventilation system ZLS see Helios main catalogue.)

With **series DV EC Eco**, the energy-efficient high-power EC-motor is simple and cost-effective steplessly controllable by a 0-10 V control signal, e.g. speed potentiometer P.. 10 (accessories).



EC-roof fans made from polymer. Diagonal discharge.

The wide range of Helios EC roof fans with an extensive accessory range offers the optimum solution for every application.

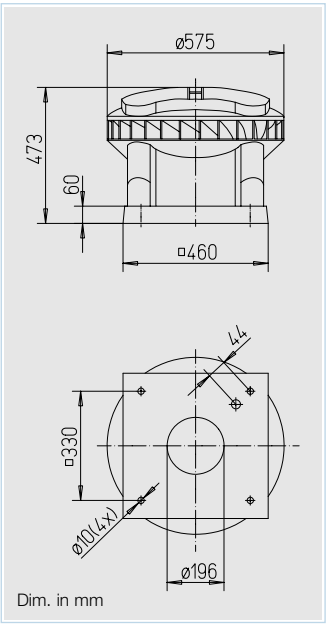
The horizontal discharging centrifugal roof fans RD EC are available with air flow volumes from 2200 to 8360 m³/h. For air flow temperatures till +40° C.
Robust, largely corrosion and weatherproof construction.

The Helios accessory is perfectly matched to the roof fans and completes the integrated total solution.

The optional purlin boxes and attenuators ø 225 to 450 mm have a hinge mechanism that results in advantages for cleaning and fitting.

EC-centrifugal roof fans made from galvanised steel. Horizontal discharge.

Models DV EC Pro | Models DV EC Eco



ECgreen Vent **40% saving*** * with speed control

■ **Extremely weather-proof diagonal exhausting EC-roof fan from polymer for an extensive area of application.**

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

☐ **Casing**
Aerodynamically designed casing from high-quality polypropylene in grey. Operating range from –30 to +60 °C.
Integrated guide vanes for optimal efficiency.

☐ **Impeller**
Mixed flow impeller from aluminium. Dynamically balanced with the motor providing a low noise level.

☐ **Motor**
Energy efficient EC-external rotor motor rated IP 54.
Optimised efficiency also with speed control for low operating costs. Stepless speed control.
With ball bearings, maintenance-free and radio suppressed.

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

☐ **Electrical connection**
Standard external terminal box (protection to IP 65) on the casing. Connection voltage single-phase, 230 V, 50 Hz.

☐ **Installation**
The roof fan must be installed horizontally.
With pitched roofs a suitable upstand must be constructed, 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 level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

■ **Specification DV EC Pro**

■ **Speed control**
☐ Ideally as central exhaust air fan for multi-storey building DIN 18017-3.
☐ In connection with further components (accessories) a complete central ventilation system can be developed according to DIN 18017-3 with ventilation according to need.
☐ Integrated pressure control for air flow volume stabilisation in the connected rooms by automatic speed adaptation with nearly consistently good efficiency.
☐ Integrated pressure sensor 0–300 Pa.
☐ Short pay back time by 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).

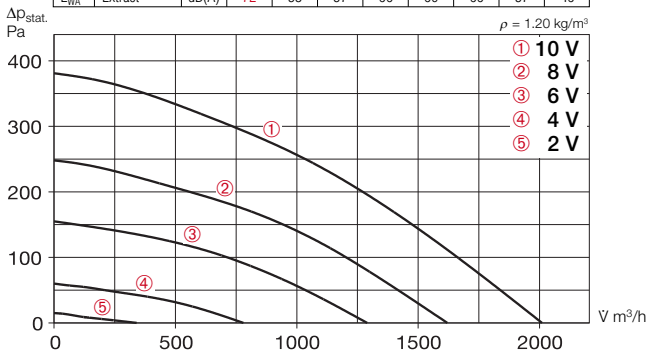
■ **Specification DV EC Eco**

■ **Speed control**
☐ Stepless speed control with a speed potentiometer P.. 10 (accessories).
☐ In connection with the universal control system EUR EC (accessories), the fan can be used for differential pressure-, differential temperature- or flow velocity regulation.

Type	Ref. No.	R.P.M.	Air flow volume (FID)	Sound pressure level case breakaout	Power consumption at maximum speed		Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potiometer flush mounted		surface mounted	
		min^{-1}	V m^3/h	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Model DV EC Pro, 1 Phase Motor 230 V, 50 Hz, EC-motor, IP 54															
DV EC 200 Pro	8385	1810	2010	52	0.18	1.38	863	60	17.0	—	—	—	—	—	—
Model DV EC Eco, 1 Phase Motor, 230 V, 50 Hz, EC-motor, IP 54															
DV EC 200 Eco	8320	1810	2010	52	0.18	1.38	991	60	17.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

DV EC 200 Pro | DV EC 200 Eco

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Intake	dB(A)	70	54	64	64	65	61	55	46
L_{WA}	Extract	dB(A)	72	53	57	66	69	66	57	46

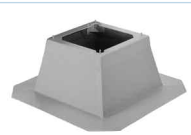


Voltage V	n min⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1810	2010	180	1.38	52	—
8	1480	1620	108	0.90	47	—
6	1200	1290	60	0.54	41	—
4	720	780	21	0.20	31	—

	Timer to the control of maximum 31 fans	
	Type	Ref. No.
	ZLS-ZU 31	8388
	—	—

Accessories for all models

Hinged base attenuator
SSD 200 Ref. No. 5290
With folding mechanism for easy revision and cleaning.



Flange connecting plate
FAP 200 Ref. No. 8382
Made from galvanised sheet steel. Makes the connection of the duct system plus accessories to the roof fans DVEC possible, if no base attenuator SSD is used.

Flat roof base
FDS 200 Ref. No. 1378
With folding mechanism for easy revision and cleaning.

Flange rings
DFR 200 Ref. No. 1201
Made from galvanised steel, for intake duct connections.

Flanged canvas connecor
DSTS 200 Ref. No. 1218
To reduce vibration transmission in intake air ducting. Flanges made from galvanised steel.

Backdraught shutter
DRVS 200 Ref. No. 2591
Automatic, made from galvanised steel, flaps made of aluminium. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up postition.

Accessories for DV EC Pro

Interface
ZLS-IF Ref. No. 8391
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.

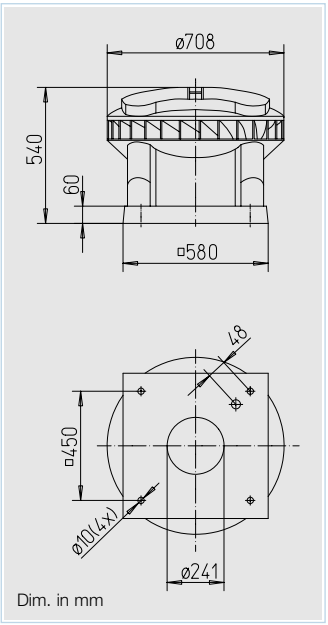
Electronic timer module
ZLS-ZU 31 Ref. No. 8388
Allows parallel operation of max. 31 DV EC roof fans. The rocker main switch activates the timer module. The day and night regulation is carried out by adjustment in the display. Main switch 230 V, 50 Hz included.

Accessories for DV EC Eco

Universal controller
EUR EC Ref. No. 1347
For stepless control or adjustment of single- and 3-phase EC-fans with an input control signal of 0–10 V DC.

Speed potentiometer
PU/PA 10 see type table
For direct control or nominal value preset of EC-fans with potentiometer input.

Models DV EC Pro | Models DV EC Eco



Dim. in mm

ECgreen Vent **40% saving*** * with speed control

■ **Extremely weather-proof diagonal exhausting EC-roof fan from polymer for an extensive area of application.**

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

☐ **Casing**
Aerodynamically designed casing from high-quality polypropylene in grey. Operating range from –30 to +60 °C.
Integrated guide vanes for optimal efficiency.

☐ **Impeller**
Mixed flow impeller from aluminium. Dynamically balanced with the motor providing a low noise level.

☐ **Motor**
Energy efficient EC-external rotor motor rated IP 54.
Optimised efficiency also with speed control for low operating costs. Stepless speed control.
With ball bearings, maintenance-free and radio suppressed.

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

☐ **Electrical connection**
Standard external terminal box (protection to IP 65) on the casing. Connection voltage single-phase, 230 V, 50 Hz.

☐ **Installation**
The roof fan must be installed horizontally.
With pitched roofs a suitable upstand must be constructed, 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 level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

■ **Specification DV EC Pro**

■ **Speed control**
☐ Ideally as central exhaust air fan for multi-storey building DIN 18017-3.
☐ In connection with further components (accessories) a complete central ventilation system can be developed according to DIN 18017-3 with ventilation according to need.
☐ Integrated pressure control for air flow volume stabilisation in the connected rooms by automatic speed adaptation with nearly consistently good efficiency.
☐ Integrated pressure sensor 0–300 Pa.
☐ Short pay back time by 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).

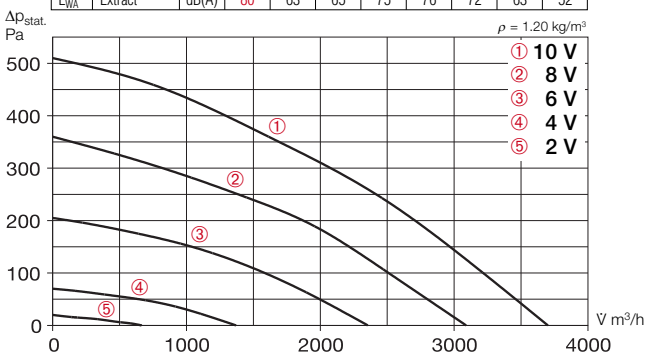
■ **Specification DV EC Eco**

■ **Speed control**
☐ Stepless speed control with a speed potentiometer P.. 10 (accessories).
☐ In connection with the universal control system EUR EC (accessories), the fan can be used for differential pressure-, differential temperature- or flow velocity regulation.

Type	Ref. No.	R.P.M.	Air flow volume (FID)	Sound pressure level case breakaout	Power consumption at maximum speed		Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potiometer flush mounted		surface mounted	
		min^{-1}	V m^3/h	dB(A) in 4 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
Model DV EC Pro, 1 Phase motor, 230 V, 50 Hz, EC-motor, IP 54															
DV EC 250 Pro	8386	1640	3700	60	0.41	1.78	863	60	23.0	—	—	—	—	—	—
Model DV EC Eco, 1 Phase motor, 230 V, 50 Hz, EC-motor, IP 54															
DV EC 250 Eco	8322	1640	3700	60	0.41	1.78	991	60	23.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

DV EC 250 Pro | DV EC 250 Eco

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Intake	dB(A)	75	60	64	70	69	67	61	52
L_{WA}	Extract	dB(A)	80	63	65	75	76	72	63	52



Voltage V	n min⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1640	3700	412	1.78	60	—
8	1380	3100	264	1.14	55	—
6	1100	2350	138	0.60	49	—
4	650	1370	40	0.20	36	—

Accessories	Page
Universal control system, speed potentiometer	78 on

Accessory-details
Roof mounting accessories
Air grilles
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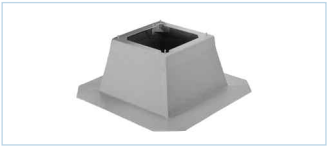
	Timer to the control of maximum 31 fans
Type	Ref. No.
ZLS-ZU 31	8388
—	—

Accessories for all models

Hinged base attenuator
SSD 250 Ref. No. 5292
With folding mechanism for easy revision and cleaning.



Flange connecting plate
FAP 250 Ref. No. 8383
Made from galvanised sheet steel. Makes the connection of the duct system plus accessories to the roof fans DVEC possible, if no base attenuator SSD is used.

Flat roof base
FDS 250 Ref. No. 1379
With folding mechanism for easy revision and cleaning.

Flange rings
FR 250 Ref. No. 1203
Made from galvanised steel, for intake duct connections.

Flanged canvas connecor
STS 250 Ref. No. 1220
To reduce vibration transmission in intake air ducting. Flanges made from galvanised steel.

Backdraught shutter
RVS 200 Ref. No. 2592
Automatic, made from galvanised steel, flaps made of aluminium. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up postition.

Accessories for DV EC Pro

Interface
ZLS-IF Ref. No. 8391
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.

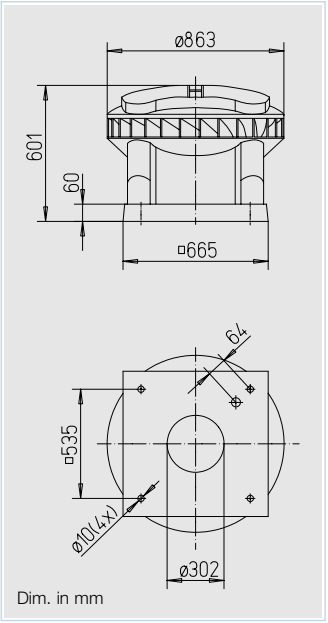
Electronic timer module
ZLS-ZU 31 Ref. No. 8388
Allows parallel operation of max. 31 DV EC roof fans. The rocker main switch activates the timer module. The day and night regulation is carried out by adjustment in the display. Main switch 230 V, 50 Hz included.

Accessories for DV EC Eco

Universal controller
EUR EC Ref. No. 1347
For stepless control or adjustment of single- and 3-phase EC-fans with an input control signal of 0–10 V DC.

Speed potentiometer
PU/PA 10 see type table
For direct control or nominal value preset of EC-fans with potentiometer input.

Models DV EC Pro | Models DV EC Eco



Dim. in mm

ECgreen Vent 45% saving*

* with speed control

■ **Extremely weather-proof diagonal exhausting EC-roof fan from polymer for an extensive area of application.**

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

☐ **Casing**
Aerodynamically designed casing from high-quality polypropylene in grey. Operating range from –30 to +60 °C.
Integrated guide vanes for optimal efficiency.

☐ **Impeller**
Mixed flow impeller from aluminium. Dynamically balanced with the motor providing a low noise level.

☐ **Motor**
Energy efficient EC-external rotor motor rated IP 54.
Optimised efficiency also with speed control for low operating costs. Stepless speed control.
With ball bearings, maintenance-free and radio suppressed.

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

☐ **Electrical connection**
Standard external terminal box (protection to IP 65) on the casing. Connection voltage single-phase, 230 V, 50 Hz.

☐ **Installation**
The roof fan must be installed horizontally.
With pitched roofs a suitable upstand must be constructed, 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 level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

■ **Specification DV EC Pro**

■ **Speed control**
☐ Ideally as central exhaust air fan for multi-storey building DIN 18017-3.
☐ In connection with further components (accessories) a complete central ventilation system can be developed according to DIN 18017-3 with ventilation according to need.
☐ Integrated pressure control for air flow volume stabilisation in the connected rooms by automatic speed adaptation with nearly consistently good efficiency.
☐ Integrated pressure sensor 0–300 Pa.
☐ Short pay back time by 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).

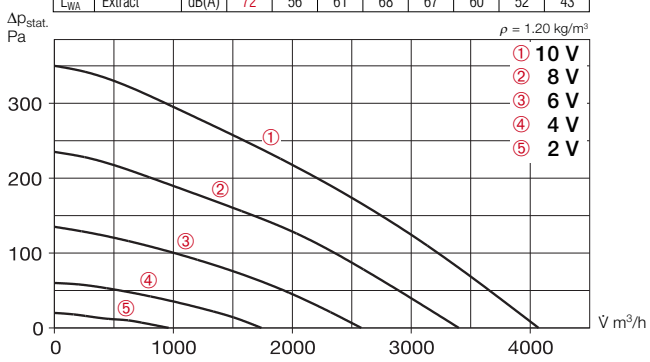
■ **Specification DV EC Eco**

■ **Speed control**
☐ Stepless speed control with a speed potentiometer P.. 10 (accessories).
☐ In connection with the universal control system EUR EC (accessories), the fan can be used for differential pressure-, differential temperature- or flow velocity regulation.

Type	Ref. No.	R.P.M.	Air flow volume (FID)	Sound pressure level case breakaout	Power consumption at maximum speed		Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potiometer flush mounted		surface mounted	
		min^{-1}	$\dot{V}$ m^3/h	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Model DV EC Pro, 1 Phase motor, 230 V, 50 Hz, EC-motor, IP 54															
DV EC 400 A Pro	8387	1020	4070	51	0.30	1.33	863	60	33.0	—	—	—	—	—	—
DV EC 400 B Pro	8389	1425	5650	65	0.75	3.32	863	60	35.0	—	—	—	—	—	—
Model DV EC Eco, 1 Phase motor, 230 V, 50 Hz, EC-motor, IP 54															
DV EC 400 A Eco	8324	1020	4070	51	0.30	1.33	991	60	33.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735
DV EC 400 B Eco	8326	1425	5650	65	0.75	3.32	991	60	35.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

DV EC 400 A Pro | DV EC 400 A Eco

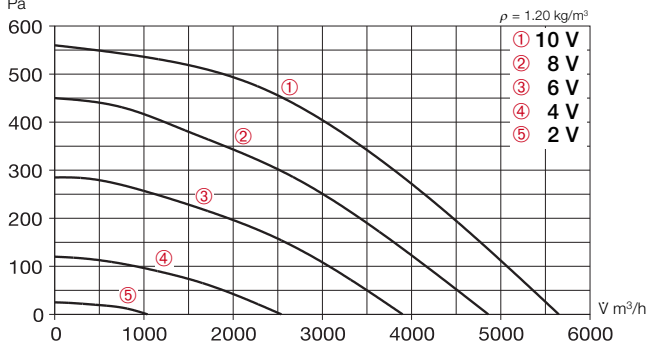
Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Intake	dB(A)	68	55	62	63	63	58	51	44
L_{WA}	Extract	dB(A)	72	56	61	68	67	60	52	43



Voltage V	n min⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1020	4070	303	1.33	51	—
8	850	3400	176	0.77	46	—
6	650	2580	85	0.40	40	—
4	450	1740	33	0.20	31	—

DV EC 400 B Pro | DV EC 400 B Eco

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Intake	dB(A)	80	64	69	75	74	74	65	58
L_{WA}	Extract	dB(A)	85	66	72	82	81	76	66	56



Voltage V	n min⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1425	5650	755	3.32	65	—
8	1225	4860	485	2.10	60	—
6	1000	3900	265	1.15	54	—
4	650	2540	90	0.40	43	—

Accessories	Page
Universal control system, speed potentiometer	78 on

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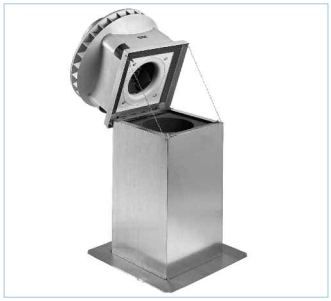
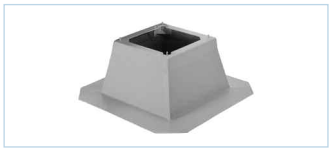
	Timer to the control of maximum 31 fans	
	Type	Ref. No.
	ZLS-ZU 31	8388
	ZLS-ZU 31	8388
	—	—
	—	—

Accessories for all models



Hinged base attenuator
SSD 400 Ref. No. 5291
With folding mechanism for easy revision and cleaning.



Flange connecting plate
FAP 400 Ref. No. 8384
Made from galvanised sheet steel. Makes the connection of the duct system plus accessories to the roof fans DVEC possible, if no base attenuator SSD is used.

Flat roof base
FDS 400 Ref. No. 1380
With folding mechanism for easy revision and cleaning.

Flange rings
FR 400 Ref. No. 1206
Made from galvanised steel, for intake duct connections.

Flanged canvas connecor
STS 400 Ref. No. 1223
To reduce vibration transmission in intake air ducting. Flanges made from galvanised steel.

Backdraught shutter
RVS 400 Ref. No. 2596
Automatic, made from galvanised steel, flaps made of aluminium. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up postition.

Accessories for DV EC Pro

Interface
ZLS-IF Ref. No. 8391
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.

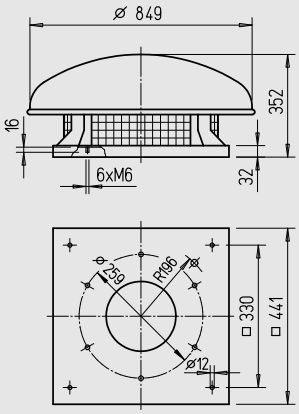
Electronic timer module
ZLS-ZU 31 Ref. No. 8388
Allows parallel operation of max. 31 DV EC roof fans. The rocker main switch activates the timer module. The day and night regulation is carried out by adjustment in the display. Main switch 230 V, 50 Hz included.

Accessories for DV EC Eco

Universal controller
EUR EC Ref. No. 1347
For stepless control or adjustment of single- and 3-phase EC-fans with an input control signal of 0–10 V DC.

Speed potentiometer
PU/PA 10 see type table
For direct control or nominal value preset of EC-fans with potentiometer input.

Models RD EC



Dim. in mm

ECgreen Vent 50% saving*
* with speed control

■ **Specification**
Centrifugal roof fan with horizontal discharge. Flat design with large overlaying rain cowl.

□ **Casing**
Base plate (with inlet cone) and other parts made of galvanised steel. Rain cowl and protection grille made of aluminium. Base plate with threaded bolt for connection of intake air accessories.

□ **Impeller**
High performance backward curved centrifugal impeller made of galvanised steel, dynamically balanced with the motor unit.

□ **Motor**
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed.

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

□ **Electrical connection**
Terminal box (protection to IP 55) located beneath rain cowl as standard.

□ **Protection grille**
On the outlet as standard, compliant with DIN EN ISO 13857.

□ **Speed control**
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

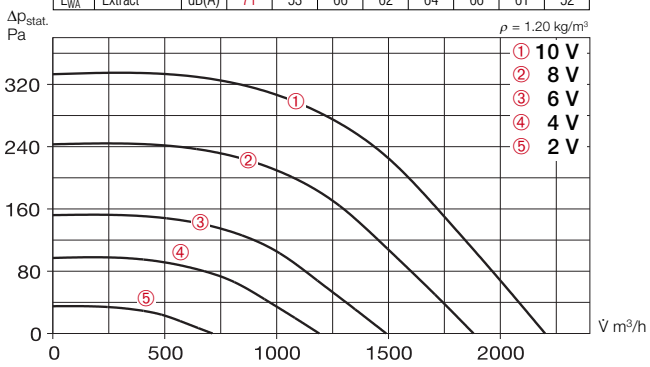
□ **Delivery**
Fully assembled, ready to connect units.

■ **Sound levels**
Total sound power levels and the spectrum figures in dB(A) are given for:
– sound level case breakout
– sound level intake
– sound level exhaust
In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m^3/h	min^{-1}	dB(A) in 4 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
1 Phase motor, 230 V, 50 Hz, EC-motor, IP 44																
RDW EC 225	1630	225	1850	2200	51	0.22	0.96	994	40	30.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

RDW EC 225

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Intake	dB(A)	71	64	69	62	61	59	56	47
L_{WA}	Extract	dB(A)	71	53	66	62	64	66	61	52



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1850	2200	165	0.79	51	0.27
8	1580	1880	105	0.51	48	0.20
6	1250	1490	55	0.27	43	0.13
4	1000	1190	32	0.17	38	0.10

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Accessories

Flange rings
FR 225 Ref. No. 1201
Made from galvanised steel, for intake duct connection.

Flanged canvas connector
STS 225 Ref. No. 1218
To reduce vibration transmission in intake air ducting. Flanges made of galvanised steel. Flexible sleeve made from galvanised steel.

Backdraught shutter
RVS 225 Ref. No. 2591
Automatic, made of galvanised steel, flaps made of aluminium. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up position.

Motorised backdraught shutter
RVM 225 Ref. No. 2575
As RVS, but with spring reversing motor, mounted outside the air flow and for vertical air flow in any direction.

Flat roof base
FDS 225 Ref. No. 1378
With folding mechanism for easy revision and cleaning.

Corrugated roof base
WDS 225 Ref. No. 1560
For EC roof fans and roof cowls on corrugated roof, slope to 25° allowed. Made from corrosion resistant glass reinforced polyester (profile No. 5).

Hinged base attenuator
SSD 225 Ref. No. 5290
With folding mechanism for easy revision and cleaning. Average attenuation is 15 dB. For intake attenuation. All metal parts made of galvanised steel.

Roof fan attenuator
HSDV 225 Ref. No. 6757
Average attenuation is 11 dB. For noise attenuation on discharge.

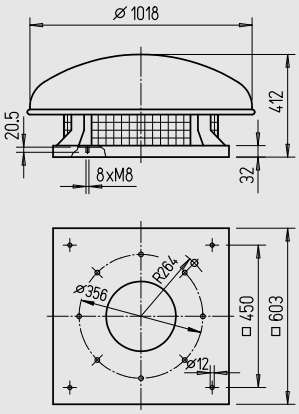
Universal controller
EUR EC Ref. No. 1347
For stepless control or adjustment of single- and 3-phase EC-fans with an input control signal of 0–10 V DC.

Speed potentiometer
PU/PA 10 see type table
For direct control or nominal value preset of EC-fans with potentiometer input.

ECgreen Vent 55% saving*

* with speed control

Models RD EC



Dim. in mm

Specification
Centrifugal roof fan with horizontal discharge. Flat design with large overlaying rain cowl.

Casing
Base plate (with inlet cone) and other parts made of galvanised steel. Rain cowl and protection grille made of aluminium. Base plate with threaded bolt for connection of intake air accessories.

Impeller
High performance backward curved centrifugal impeller made of galvanised steel, dynamically balanced with the motor unit.

Motor
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed.

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

Electrical connection
Terminal box (protection to IP 55) located beneath rain cowl as standard.

Protection grille
On the outlet as standard, compliant with DIN EN ISO 13857.

Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

Delivery
Fully assembled, ready to connect units.

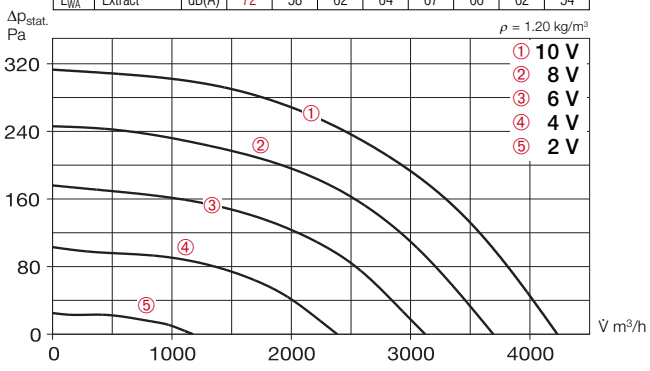
Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m^3/h	min^{-1}	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
1 Phase motor, 230 V, 50 Hz, EC-motor, IP 44																
RDW EC 315	1632	315	1260	4230	52	0.40	1.80	994	40	40.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

RDW EC 315

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Intake	dB(A)	70	63	64	62	62	59	59	52
L_{WA}	Extract	dB(A)	72	58	62	64	67	66	62	54



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1260	4230	310	1.50	52	0.26
8	1100	3690	210	1.02	49	0.21
6	930	3120	130	0.64	45	0.15
4	710	2380	60	0.33	40	0.10

Accessories **Page**

Universal control system, speed potentiometer 78 on

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Accessories

Flange rings
FR 315 Ref. No. 1204
Made from galvanised steel, for intake duct connection.

Flanged canvas connector
STS 315 Ref. No. 1221
To reduce vibration transmission in intake air ducting. Flanges made of galvanised steel. Flexible sleeve made from galvanised steel.

Backdraught shutter
RVS 315 Ref. No. 2594
Automatic, made of galvanised steel, flaps made of aluminium. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up position.

Motorised backdraught shutter
RVM 315 Ref. No. 2578
As RVS, but with spring reversing motor, mounted outside the air flow and for vertical air flow in any direction.

Flat roof base
FDS 315 Ref. No. 1379
With folding mechanism for easy revision and cleaning.

Corrugated roof base
WDS 315 Ref. No. 1561
For EC roof fans and roof cowls on corrugated roof, slope to 25° allowed. Made from corrosion resistant glass reinforced polyester (profile No. 5).

Hinged base attenuator
SSD 315 Ref. No. 5292
With folding mechanism for easy revision and cleaning. Average attenuation is 15 dB. For intake attenuation. All metal parts made of galvanised steel.

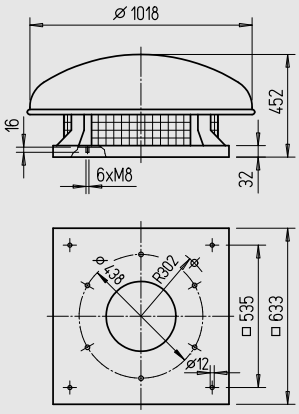
Roof fan attenuator
HSDV 315 Ref. No. 6758
Average attenuation is 11 dB. For noise attenuation on discharge.

Universal controller
EUR EC Ref. No. 1347
For stepless control or adjustment of single- and 3-phase EC-fans with an input control signal of 0–10 V DC.

Speed potentiometer
PU/PA 10 see type table
For direct control or nominal value preset of EC-fans with potentiometer input.

ECgreen Vent 60% saving* * with speed control

Models RD EC



Dim. in mm

Specification
Centrifugal roof fan with horizontal discharge. Flat design with large overlaying rain cowl.

Casing
Base plate (with inlet cone) and other parts made of galvanised steel. Rain cowl and protection grille made of aluminium. Base plate with threaded bolt for connection of intake air accessories.

Impeller
High performance backward curved centrifugal impeller made of galvanised steel, dynamically balanced with the motor unit.

Motor
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed.

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

Electrical connection
Terminal box (protection to IP 55) located beneath rain cowl as standard.

Protection grille
On the outlet as standard, compliant with DIN EN ISO 13857.

Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

Delivery
Fully assembled, ready to connect units.

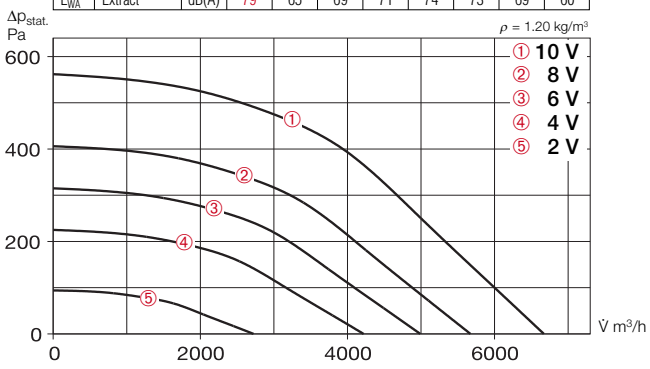
Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m^3/h	min^{-1}	dB(A) in 4 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
1 Phase motor, 230 V, 50 Hz, EC-motor, IP 44																
RDW EC 400	1634	400	1470	6670	59	1.05	4.60	994	40	45.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

RDW EC 400

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Intake	dB(A)	77	70	71	69	69	66	66	59
L_{WA}	Extract	dB(A)	79	65	69	71	74	73	69	60



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1470	6670	800	3.86	59	0.43
8	1250	5670	495	2.40	56	0.32
6	1100	4990	340	1.64	53	0.25
4	930	4220	210	1.14	50	0.18

Accessories **Page**

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Accessory-details
Roof mounting accessories
Helios main catalogue

Accessories

Flange rings
FR 400 Ref. No. 1206
Made from galvanised steel, for intake duct connection.

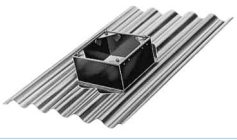
Flanged canvas connector
STS 400 Ref. No. 1223
To reduce vibration transmission in intake air ducting. Flanges made of galvanised steel. Flexible sleeve made from galvanised steel.

Backdraught shutter
RVS 400 Ref. No. 2596
Automatic, made of galvanised steel, flaps made of aluminium. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up position.

Motorised backdraught shutter
RVM 400 Ref. No. 2580
As RVS, but with spring reversing motor, mounted outside the air flow and for vertical air flow in any direction.

Flat roof base
FDS 400 Ref. No. 1380
With folding mechanism for easy revision and cleaning.

Corrugated roof base
WDS 400 Ref. No. 1562
For EC roof fans and roof cowls on corrugated roof, slope to 25° allowed. Made from corrosion resistant glass reinforced polyester (profile No. 5).



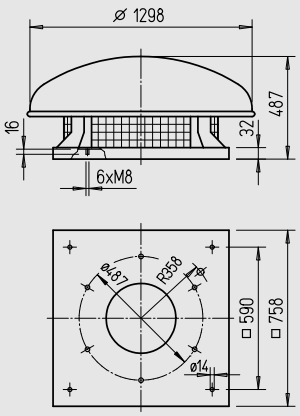
Hinged base attenuator
SSD 400 Ref. No. 5291
With folding mechanism for easy revision and cleaning. Average attenuation is 15 dB. For intake attenuation. All metal parts made of galvanised steel.

Roof fan attenuator
HSDV 400 Ref. No. 6758
Average attenuation is 11 dB. For noise attenuation on discharge.

Universal controller
EUR EC Ref. No. 1347
For stepless control or adjustment of single- and 3-phase EC-fans with an input control signal of 0–10 V DC.

Speed potentiometer
PU/PA 10 see type table
For direct control or nominal value preset of EC-fans with potentiometer input.

Models RD EC



Dim. in mm

ECgreen Vent 55% saving*

* with speed control

Specification
Centrifugal roof fan with horizontal discharge. Flat design with large overlaying rain cowl.

Casing
Base plate (with inlet cone) and other parts made of galvanised steel. Rain cowl and protection grille made of aluminium. Base plate with threaded bolt for connection of intake air accessories.

Impeller
High performance backward curved centrifugal impeller made of galvanised steel, dynamically balanced with the motor unit.

Motor
Energy saving, speed controllable EC-external rotor motors with highest efficiency, protection to IP 44. With ball bearings, maintenance-free and radio-suppressed.

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

Electrical connection
Terminal box (protection to IP 55) located beneath rain cowl as standard.

Protection grille
On the outlet as standard, compliant with DIN EN ISO 13857.

Speed control
Stepless speed control with potentiometer or stepless speed control with universal control system (see table). Duties at different speeds are exemplarily given in the performance curve.

Delivery
Fully assembled, ready to connect units.

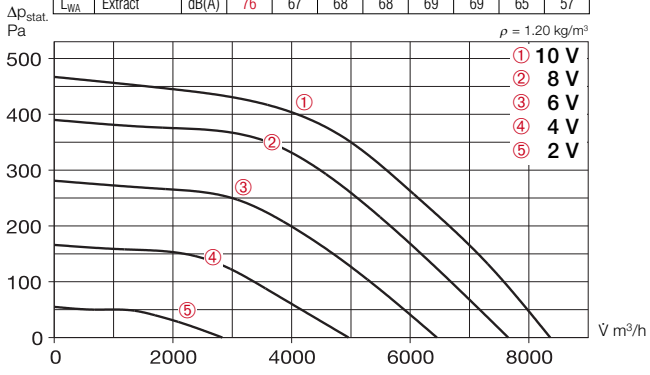
Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

In the table below as well as underneath the performance curve you can find additionally the case breakout level at 4 m (freefield conditions).

Type	Ref. No.	Connection Ø	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power	Current	Wiring diagramm	max. air flow temperature	Nominal weight (net)	universal control system		Speed potentiometer flush mounted		surface mounted	
		mm	V̇ m^3/h	min^{-1}	dB(A) in 4 m	kW	A	No.	+ °C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
1 Phase motor, 230 V, 50 Hz, EC-motor, IP 44																
RDW EC 450	1636	450	1180	8360	56	1.02	4.50	994	40	75.0	**EUR EC**	1347	**PU 10**	1734	**PA 10**	1735

RDW EC 450

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Intake	dB(A)	73	66	67	65	65	63	63	55
L_{WA}	Extract	dB(A)	76	67	68	68	69	69	65	57



	unimpeded					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1180	8360	700	3.40	56	0.30
8	1080	7650	540	2.61	54	0.26
6	910	6450	330	1.60	50	0.18
4	700	4960	160	0.87	45	0.12

Accessories **Page**

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Accessory-details
Roof mounting accessories
Helios main catalogue

Accessories

Flange rings
FR 450 Ref. No. 1207
Made from galvanised steel, for intake duct connection.

Flanged canvas connector
STS 450 Ref. No. 1224
To reduce vibration transmission in intake air ducting. Flanges made of galvanised steel. Flexible sleeve made from galvanised steel.

Backdraught shutter
RVS 450 Ref. No. 2597
Automatic, made of galvanised steel, flaps made of aluminium. To prevent cold air backdraught when the fan is not in use. For vertical air flow bottom-up position.

Motorised backdraught shutter
RVM 450 Ref. No. 2581
As RVS, but with spring reversing motor, mounted outside the air flow and for vertical air flow in any direction.

Flat roof base
FDS 450 Ref. No. 1381
With folding mechanism for easy revision and cleaning.

Corrugated roof base
WDS 450 Ref. No. 1563
For EC roof fans and roof cowls on corrugated roof, slope to 25° allowed. Made from corrosion resistant glass reinforced polyester (profile No. 5).

Hinged base attenuator
SSD 450 Ref. No. 5288
With folding mechanism for easy revision and cleaning. Average attenuation is 15 dB. For intake attenuation. All metal parts made of galvanised steel.

Roof fan attenuator
HSDV 450 Ref. No. 6760
Average attenuation is 11 dB. For noise attenuation on discharge.

Universal controller
EUR EC Ref. No. 1347
For stepless control or adjustment of single- and 3-phase EC-fans with an input control signal of 0–10 V DC.

Speed potentiometer
PU/PA 10 see type table
For direct control or nominal value preset of EC-fans with potentiometer input.

EUR EC

■ **Universal controller EUR EC Electronic control automatic with 0–10 V DC control output.**

☐ **Operation**
For stepless control or adjustment of single- and 3-phase EC-fans with an input control signal of 0–10 V DC.

☐ **Control functions**
Simple and quick start-up of parameters via integrated "start-up wizard". Depending on the connected sensor a control can be carried out according to following control variables:
- **Manual speed control**, e.g. adjustable via keyboard
- **Temperature standard** (required accessory, temperature sensor LTR 40 or LTK 40)
- **Temperature with additional functions** hard-wired, (required accessory, temperature sensor LTR 40 or LTK 40)
- **Differential temperature control** (required accessory, temperature sensor LTR 40 or LTK 40)
- **Differential pressure standard** (required accessory, differential air pressure sensor LDF 500)
- **Differential pressure with outside temperature compensation** (required accessory, differential air pressure and temperature sensor LDF 500 and LTR 40 or LTK 40). Ideally used in central extract ventilation systems according to DIN 18017 in domestic applications.
- **Air velocity** (required accessory, air velocity sensor LGF 10)

The required sensor is to be ordered as accessory separately. The control ranges are freely adjustable within the sensor's range.

The aligned output voltage according to nominal value and current value is between 0 % (35 V) to 100 % (correspond to approx. 80 V – 230 V).

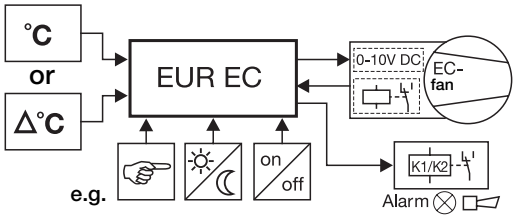
Inputs and outputs:
Outputs:
- 2 x analogue output 0–10 V control of e.g. a frequency inverter, shutter, EC-motor.
- 2 x voltage free relays, programmable, alarm, heating or status signals.

Inputs:
- 2 x sensor inputs, programmable on the particularly needed sensor type.
- 3 x digital inputs, programmable to enable, external interference, limit on/off, switching night time mode, internal/external, automatic/manual, reset, max. speed on/off.

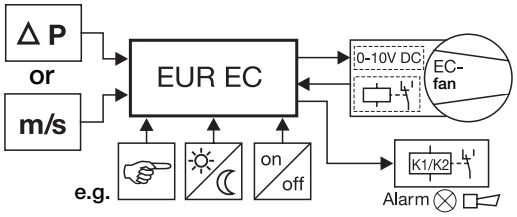
Settings
- Stepless selection of nominal values and control range.
- Min./max. power (speed) limitation.
- On/off switching of minimum air flow volume.
- Setting for a switched output e.g. for a heater via programmable relay.
- Stepless selection for alarm indication at over and under temperature, output on display or additionally on relay.
- Min. and max. shutter opening.
- Reverse control functions.
- Continuous control of ventilation dampers.
- The setting is carried out through a dirt resistant membrane keyboard.

☐ **Display**
- Multi functions LC-display
- Numerical nominal and actual value display with scale
- Symbols (alarm, heater, selection)
- Bar graph/level indicator
- Text display for menu, status and fault indications

Mode 2.03: Temperature control with additional function
Mode 2.05: Differential temperature control



Mode 4.01: Differential pressure control
Mode 6.01: Air velocity control



☐ **Casing**
Polymer, light grey, for surface mounting.
Protection to IP 54
Dim. mm W 223 x H 200 x D 115

■ **Required accessories**

LDF 500	Ref. No. 1322
Differential air pressure sensor. Range 0 – 500 Pa	
LGF 10	Ref. No. 1325
Air velocity sensor. Range 0 – 10 m/s	
LTA 40	Ref. No. 1336
Temperature sensor for outside. Range –20 to +60 °C Protection to IP 54	
LTK 40	Ref. No. 1324
Temperature sensor for in-duct installation. Range 0 to +40 °C	
LTR 40	Ref. No. 1323
Room temperature sensor. Range 0.5 to +40 °C	

EUR EC	**Ref. No. 1347**
Voltage	230 V, 1 ph., 50/60 Hz
Control output	0–10 V / max. 10 mA
Controlled output voltage	0 – 100 %
Control range temperature	0 – 40 °C
Control range pressure	0 – 500 Pa
Control range velocity	0 – 10 m/s
Permitted ambient temperature	0 to +40 °C
Weight	approx. 1.0 kg
Wiring diagram-No.	SS-1001

P.. 10 and P.. 24

P.. 10 and P.. 24
Speed potentiometer with the additional functions switch and LED.

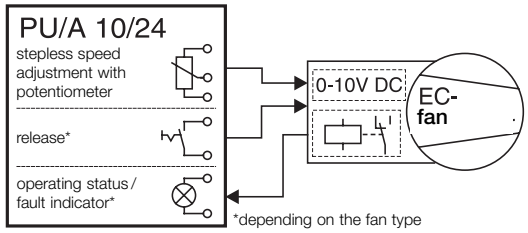
Application
For direct control or nominal value preset of EC-fans with potentiometer input. Additionally equipped with an enabling switch and LED display for the operating status (dependant on feature of fan type).

Control with potentiometer
The potentiometer is attached directly to the potentiometer input of the fan control. This has therefore a potentiometer supply of e.g. 10 V DC and an input control signal of 0-10 V DC.

Minimum voltage
In the P.. 10, P.. 24 a second potentiometer is firmly integrated. The minimum voltage is adjustable. The minimum voltage cannot be lower than 1.3 V. Thus a reliable motor start-up during lowest speed setting is guaranteed.

Enabling switch
The front knob for the potentiometer is also at the same time a push button switch. If the fan control has an enable input (e.g. 24V DC), this can be operated over the enabling switch.

Principle scheme



LED-light ring
The colour of the light ring signals the operating status of the fan. In the general duty green. According to the operating status it is changed from green (general duty) to red (fault or fan off) with fans with operational transmitting relay. Condition for this is that the fan provides a supply voltage of 24 V DC / 6 mA or 10 V DC / 6 mA.

Casing
Polymer, white.
Type PU.. for flush mounted installation
Type PA.. for surface mounted installation

Protection to IP 40
Dim. mm (fm) W 80 x H 80 x D 21 projecting
(sm) W 80 x H 80 x D 65

Technical data

Potentiometer (with min. potentiometer approx. 7.9–16.5 kOhm)	10 kOhm
With a potentiometer supply of 10 V a control voltage 0–10 V DC results. Min. voltage of 1.3–6.7 V DC adjustable.	
LED-supply voltage:	
– 10 V DC (P.. 10), min. 6 mA or	
– 24 V DC (P.. 24), min. 6 mA	
Max. ambient temperature	0 to + 40 °C
Wiring diagram	SS-1000

Product Range

Speed potentiometer – LED-supply 10 V

PU 10 Ref. No. 1734
for flush mounted installation.
PA 10 Ref. No. 1735
for surface mounted installation.

Speed potentiometer – LED-supply 24 V

PU 24 Ref. No. 1736
for flush mounted installation.
PA 24 Ref. No. 1737
for surface mounted installation.

Standard range catalogue Premium Products 2.0
offers an exceptionally large, graduated series program in all pressure and volume ranges, as well as special commissions. More than 3000 device types makes it easy to find the suitable solution, even for unusual requests and complicated operating conditions. All relevant information – technical data, dimensional drawing, performance curve, suitable accessories – comes in a compact format.

Ref. No. 95178

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With air flow volumes from 60 to 2000 m³/h the KWL-units are suitable for central or local use, for multi-storey buildings, family houses or commercial applications. There are units with high-efficient enthalpy, rotating and counter crossover heat exchangers available for vertical, horizontal or hanging installation. Versatile accessories, air ducting systems and undersoil heat exchangers complete the KWL®-program.

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Jet fans for car park ventilation
Jet fans can be used for the ventilation and smoke extraction of car parks. CE-certified according to DIN EN 12101-3 and approved by DIBt. High quality, compact and extremely powerful Jet fans from Helios come with first class service during planning, set up and operation.

The future of car park ventilation is with Helios.

Ref. No. 86985

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