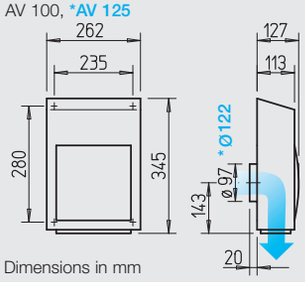
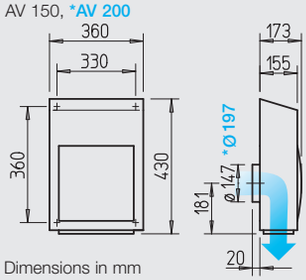
AV

AV 100, *AV 125



Dimensions in mm

AV 150, *AV 200



Dimensions in mm

Application

Designed for the external wall installation to ventilate smaller to medium-sized rooms. Suitable for use in industrial, commercial and domestic rooms.

High pressure, efficient centrifugal fans allow the connection to circular ducting and to overcome resistances of filters and system components. Perfect solution to ventilate apartment kitchens, since there is no noise of kitchen hoods. This also applies with other applications ducting, since the fan noise is transferred to the outside. Perfect for additional installation with renovation and rebuilding.

Special features

- ☐ No disturbing fan noises indoors through external wall installation.
- ☐ Simple and economic assembly by bolting in place of operative unit.
- ☐ Weather-proof casing. Tight closing air steam-operated shutters with spring reset.
- ☐ Connecting spigot according to standard duct diameter for connection to wall duct or ducting.
- ☐ Solid base plate from polymer makes an assembly on uneven surfaces possible.
- ☐ Electrical supply cables to the unit may be recessed or surface mounted.

Casing

- ☐ Weather-proof casing made from galvanised sheet steel, powder coated in alpine white.
- ☐ Bird guard and two air operated louvers with spring mechanism for closing at the extract point.

Speed control

stepless by the use of electronic controller or 5-stepped by transformer controller.

Motor

Totally enclosed motor with ball bearings, impregnated windings, insulation class F, designed for continuous operation, maintenance free and interference-free.

Motor protection

Thermal contacts fitted as standard.

Impeller

Energy-saving centrifugal impeller with backward curved blades from polymer, dynamically balanced.

☐ Information

Start-up of the fan is only permitted, if protection against accidental contact of impeller is given according to DIN EN ISO 13857.

Sound level

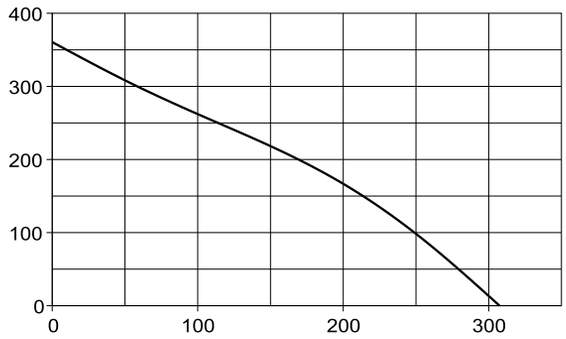
Total sound power levels and the spectrum figures in dB(A) for low and high speed are given above the performance curves. The sound emission figure is given as a sound pressure level at 3 m distance (freefield conditions) in the technical data table.

☐ Note	Page
Speed controller, switch and overrun timer	525 on

Type	Ref. no.	Connection Ø	Max. air flow volume	Max. rehza	Max. Sound press level sound emission	Voltage 50 Hz	Max. power consumption	Max. current	Wiring diagram	Max. air flow temperature	weight net approx.	5 step transformer controller		Electronical speed controller, stepless flush / surface	
		mm	V m³/h	min⁻¹	dB (A) in 3 m	Volt	W	A	No.	+ °C	kg	Type	Ref. no.	Type	Ref. no.
AV 100	2654	100	310	2710	46	230	55	0.24	937.2	60	5.0	**TSW 1,5**	1495	**ESU 1/ESA 1**	0236/0238
AV 125	2655	125	360	2470	45	230	54	0.24	937.2	60	5.0	**TSW 1,5**	1495	**ESU 1/ESA 1**	0236/0238
AV 150	2656	150	620	2520	50	230	100	0.44	937.2	55	8.3	**TSW 1,5**	1495	**ESU 1/ESA 1**	0236/0238
AV 200	2657	200	680	2530	51	230	100	0.44	937.2	55	8.3	**TSW 1,5**	1495	**ESU 1/ESA 1**	0236/0238

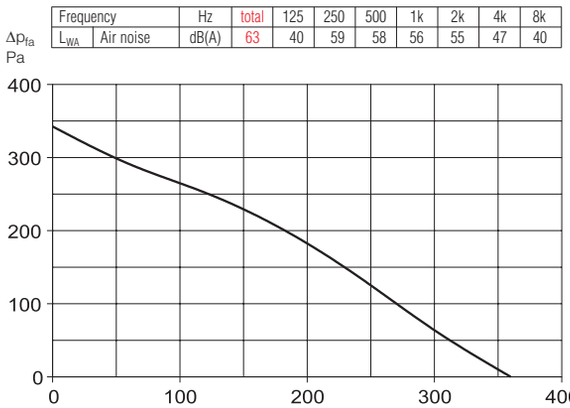
AV 100

Frequency		Hz	total	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	64	40	57	60	59	53	46	38



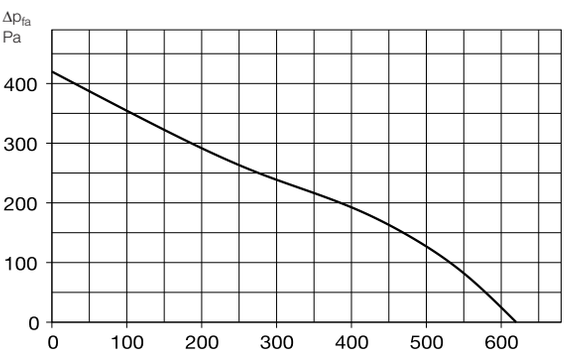
AV 125

Frequency		Hz	total	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	63	40	59	58	56	55	47	40



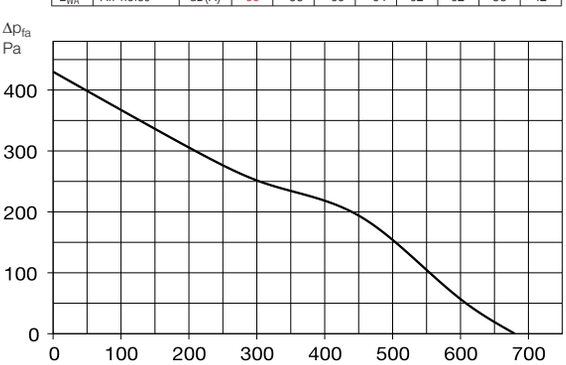
AV 150

Frequency		Hz	total	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	68	54	60	63	61	59	51	40



AV 200

Frequency		Hz	total	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	69	55	60	64	62	62	53	42



Accessories

Transformer controller

Type TSW 1,5 Ref. no. 1495

Five step transformer speed controller for surface mounting.
1. phase, 230 V.
Max. load 1,5 A

Wiring diagram no.	437.1
Dim. mm	W 154 x H 200 x D 79

Electronic speed controller

Type ESU 1 Ref. no. 0236

For flush mounting.
White polymer casing and ring.
Installation in standard gang box behind switch. Operation display via illuminated ring.
Max. load 1 A.

Minimum load	0.15 A
Protection to (installed)	IP 30
Wiring diagram no.	556.1
Dim. mm	W 80 x H 80 x D 21 protr.

Electronic speed controller

Type ESA 1 Ref. no. 0238

White polymer casing. Operation display via illuminated ring in control knob.
Max. load 1 A.

Minimum load	0.15 A
Protection to	IP 40
Wiring diagram no.	556.1
Dim. mm	W 80 x H 80 x D 65

Attractively designed small window fans with air flow volumes from 80 – 360 m³/h.

Application

In rooms and windows of all kinds in domestic applications as well as in small to mid-sized commercial rooms.

Special specifications and common details

Universal operation
Prepared for single pane, insulation and double glazed window installation as standard (HR 90 KE/FES not for hinged coupled windows).
Suitable for wall installation with wall plugs (accessories) and dowels.

Electrical internal shutter
Quietly closes tight when fan is off; maintenance free. Automatic operation together with fan.

Casing
Made from high quality, impact resistant polymer. Fan casing and outside grille in pleasant white.

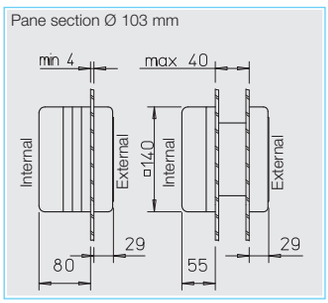
Motor
Totally enclosed motor in a splash proof casing. Maintenance free and interference-free. Maximum air flow temperature +40 °C.

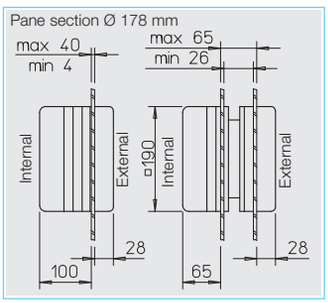
Installation
Unit construction allows a fast installation with only a few fixings giving quick installation and easy servicing.

Accessory details	Page
Speed controllers, switches and overrun timer	525 on

HR 90 KE/FES

HVR 150/FES





Specification HR 90 KE/FES

- Elegant, small window fan for all rooms. The innovative design effectively prevents the view of the interior zone of the fan.
- For installation in single panes and double glazed windows with a thickness of 4 – 40 mm. The variable distances can be compensated for using a combination of the supplied frames.
- Wall termination through a flat rain repellent grille.
- Controlled by built-in pull cord or by on/off switch installed locally
- Integrated operation display.
- Protection to IP 45.

Specification HVR 150/FES

- Powerful window fans for small to mid-sized private and commercial rooms.
- For installation in single pane and double glazed windows (double glazed windows can be opened unhindered) as well as thin panellings with a thickness of 4 – 40 mm. The variable distances can be compensated for using a combination of the supplied frames.
- Wall termination through a flat rain repellent grille.
- Controlled by built-in pull cord or by on/off switch installed locally.
- Optical operation display.
- Protection to IP 44.

Delivery range			
Technical data	**HR 90 KE/FES**	**HVR 150/2 E/FES**	**HVR 150/2 RE/FES**
Ref. no.	0334 / 0462	0285 / 0463	0286 / 0463
Built-in electric shutter	Yes	Yes	Yes
Air flow reversible	Extraction	Extraction	DSEL 2 [2] Ref. no. 1306
Window hole Ø mm	103 mm	178 mm	178 mm
Air flow volume (FID) m³/h	80	260	360
Impeller Ø mm	93 mm	140 mm	140 mm
Voltage 230 V, 50 Hz, Power consumption W	17	35	50
Current A	0.12	0.15	0.25
R.P.M. min⁻¹	2550	1800	2600
Sound pressure/sound power level in dB(A) [1]	44 / 51	58 / 65	64 / 71
Weight approx. kg	1.0	1.9	2.0
Wiring diagram no.	483	283	284
Accessories			
Double glazed installation for separable windows	—	included	included
Ref. no.	—	—	—
Wall installation, using wall tube 260 – 500 mm	TWH 90	TWH 150	TWH 150
Ref. no.	6352	6354	6354
Speed controller flush/surface	—	ESU 1 / ESA 1	ESU 1 / ESA 1
Ref. no.	—	0236 / 0238	0236 / 0238
Speed controller with included reversing switch	—	—	BSX
for intake and extraction Ref. no.	—	—	0240

[1] Distance at 1 m in freefield conditions

[2] NYM-O 3 x 1.5 mm² cable required for reverse operation

Quiet window fans for operation in domestic, commercial and industrial applications. The GX range with quiet performance and safe for continuous operation. Fan and grille in white. Pleasant design, for use in every room of the house and facia.

Application
For ventilation of mid-size to large rooms of every kind in temperature ranges from –40 °C to +40 °C.

Special specifications
Universal operation
For installation in single pane, insulation and double glazing windows. Even suitable for installation in thin panel walls or solid walls.

Shutter operation
The shutter behind the fascia closes tightly and is quiet in operation. With an option that allows a permanent opening (passive ventilation in summer) even when fan is switched off. Shutter operates automatically with fan operation.

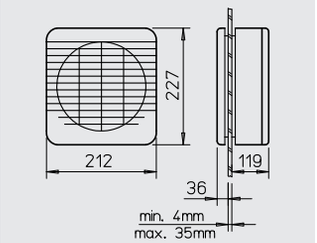
Casing
Made from high quality, white impact resistant polymer in a pleasant design.
Fascia and impeller can be removed for cleaning (using soapy water) easily with one hand. The power supply will cut off automatically).

Motor
Totally enclosed, splash proof otor (IP 44) with thermal overload protection. Maintenance free and interference-free. Maximum air flow temperature +40 °C. Speed controllable by speed controller (accessory).

Installation
Unit construction, with only a few fixings giving quick installation and easy servicing.

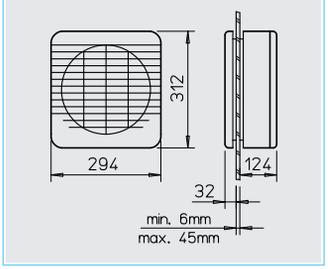
GX 150

Pane section Ø 184 mm



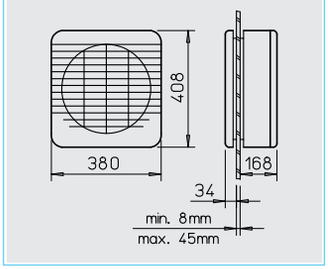
GX 225

Pane section Ø 257 mm



GX 300

Pane section Ø 324 mm



Specification GX 150
- Sophisticated fan for smaller sized rooms.
- For installation in single pane and double glazed windows, using an accessory for fixed and separable double glazed windows.
- Flat, external rain guard does not obstruct blinds or shutters.
- Service and installation friendly. Casing parts on the room side can be removed for cleaning without tools.
- Shutter function can be switched on for passive ventilation (without fan operation).
- Speed controllable by speed controller (accessory).

Specification GX 225
- Medium performance class fan with high comfort and integrated switch that allows following operations without changing the wiring:
  – Extraction
  – Input ventilation or
  – Reversed operation through external on/off switch/speed controller (accessory).
- Shutter function can be switched on for passive ventilation (without fan operation).
- Controllable by on/off switch (to be installed on site) or by on/off switch/speed controller (accessory). Automatic shutter operation with fan operation.
- Flat rain guard does not obstruct blinds or shutters.
- Service and installation friendly. Casing parts on the room side can be removed for cleaning without tools.

Specification GX 300
- Powerful fan for ventilation and extraction of larger rooms in an attractive soft line design. Suits any room in the house.
- Integrated switch that allows following operations without changing the wiring:
  – Extraction
  – Input ventilation or
  – Reversed operation through external on/off switch/speed controller (accessory).
- Controllable by on/off switch (to be installed on site) or by on/off switch/speed controller (accessory). Automatic shutter operation with fan operation.
- Static ventilation, installation and outer cover see GX 225.
- Unit construction, with only a few fixings giving quick installation and easy servicing.

Accessory details	Page
Speed controllers, switches and overrun timers	525 on

CE

Model range			
Technical data	**GX 150**	**GX 225**	**GX 300**
Ref. no.	1483	1484	1485
Built-in electric shutter	Yes	Yes	Yes
Reversed operation	No	Yes	Yes
Window hole Ø mm	184 mm	257 mm	324 mm
Air flow volume free discharge m³/h	250	670	1650
Impeller Ø mm	150	225	300
Power consumption Watt	37	45	125
Voltage, 50 Hz	230 V	230 V	230 V
Current A	0.3	0.3	0.7
R.P.M. min⁻¹	1250	1250	1250
Sound pressure[1]/power dB(A)	45/52	54/61	61/68
Weight approx. kg	2.5	4.0	7.0
Wiring diagram no.	508	538	538

[1] in 1m freefield conditions [2] with reversing switch [3] with 2 speeds and reversing switch

Window fan accessories			
Type	**GX 150**	**GX 225**	**GX 300**
Installation kit - double glazed windows			
– for fixed windows	DR 150[4]	DR 225[4]	DR 300[4]
Ref. no.	5114	5115	5116
Wall kit			
– worm drive clips, 50 cm long	SB 50/2	SB 50/3	SB 50/4
Ref. no.	1385	1386	1387
– using wall tube	KR 150[5]	WER 225/250[6]	WER 300[7]
Ref. no.	5091	0369	0469
Electronic speed controller flush/surface	ESU 1/ESA 1	ESU 1/ESA 1	ESU 1/ESA 1
Ref. no.	0236/0238	0236/0238	0236/0238
Electronic speed controller[2] surface	—	BSX	BSX
Ref. no.	—	0240	0240
On/off switch[2] flush	—	DSEL 2	DSEL 2
Ref. no.	—	1306	1306
On/off switch[3] surface	—	FR 22/30	FR 22/30
Ref. no.	—	0998	0998

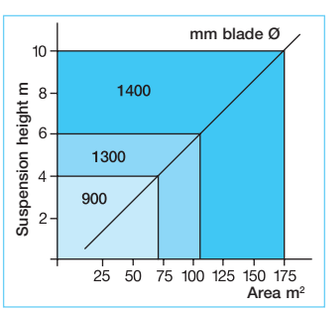
[4] Space rings for underpin 2–35 mm (1 set = 10 pcs.)
[5] 330 mm long [6] 170 – 500 mm long [7] 170 – 450 mm long

Ceiling fan

For cooling in summer, for energy saving in winter.
For versatile use e.g. to move air for cooling or energy saving in mid size to large rooms as well as reception and waiting halls, restaurants, disco's, boutiques, wholesale retail outlets, assembly plants, warehouses, tennis and sport halls as well as for industrial drying applications.

Traditionally ceiling fans are used during summer for cooling. Where there are rooms without windows and high heat emission of lamps, ceiling fans solve ventilation problems in many areas. Decorative replicas in "Casablanca" design make Helios ceiling fans an attractive addition to any room.

During the heating period, ceiling fans can be used for energy saving by returning the hot air at the top of the room to the occupied space. In high rooms like sport halls, tennis halls and other industrial halls, slow spinning ceiling fans provide a draft free equal distribution of warm air within the room. This achieves an increase in temperature at the floor level areas of approx. 25% without any additional heating.
The energy consumption is negligible. Reference projects which have been running for many years achieved an average temperature increase of 4 °C at the floor level.



Important installation information

Safety regulations ask for a minimum distance of 2.3 m from the bottom of the blades to the floor. Fans should be installed so that they do not interfere with other equipment.

Ceiling fans DVW range

Robust metal version in classic design.
- ☐ Totally enclosed motor, maintenance free and interference-free.
- ☐ Resilient mounting ensures low vibration.
- ☐ Simple installation, pre-assembled motor and fixings. Only blades need to be fixed.
- ☐ Variable suspension height through delivery of long and short pendant tube.
- ☐ Speed controllable via 5 speed transformer TSW 0.3 (accessory).
- ☐ Reversible air flow direction. Air flow direction to floor or to ceiling by wiring connection or through reversing switch (accessory DSEL 2). In case of reverse operation (upward air flow direction), minimum starting voltage of 100 V required.

Accessories for DVW and DVA

Speed controller
Type TSW 0,3 Ref. no. 3608
Five step transformer with on/off function for surface installation.

Energy saving automatic controller
Type EDTW Ref. no. 1613
Varies fan speed automatically in accordance to the temperature difference between high level and low level sensor. Specially for operation in winter for energy saving.

Ceiling fans DVA range

In typical "Casablanca" design for installation in more decorative areas.
- ☐ Casing made from brass, finished in antique brown or white. Five wooden blades with a wicker finished in nut brown or white. Maintenance free, long life, slot-vented motor with ball bearings for permanent operation.
- ☐ Resilient mounting ensures low vibration.
- ☐ Simple installation directly to ceiling or on short pendant tube (part of delivery).
- ☐ Pull cord for three speed on on/off operation. Suitable for-connection to remote speed controllers (accessory).

Fan selection

Impeller diameter, position and mounting height are important parameters during design to allow equal coverage of air flow within the room. The room height less the down rod equals the mounting height of the fan.
In relation to height and impeller diameter the diagram below shows the area covered by each fan in m^2.
The distance from the fan's centre to the wall should equal approximately 3 times the impeller diameter.
The distance from the fan's centre to the fan's centre (when using several fans) should equal approximately 6 times the impeller diameter.
We recommend operation at high speed during summer (cooling) and at low speed in winter (energy conservation).

Order and technical information

Type	DVW 90	DVW 140	DVAW 130	DVAM 130
Ref. no.	8648	8649	8650	8651
Impeller Ø mm	900	1400	1300	1300
Number of blades	3	3	5	5
Voltage / Frequency	1~, 230 V / 50 Hz	1~, 230 V / 50 Hz	1~, 230 V / 50 Hz	1~, 230 V / 50 Hz
Current A	0.26	0.30	0.29	0.29
Power consumption W	50	75	66	66
Maximum R.P.M. min^{-1}	340	270	220	220
Suspension height min./max. mm	440/565	460/585	220/360/510	220/360/510
Sound pressure level dB(A) in 4 m	35	44	29	29
Weight approx. kg	4.8	6.8	6.7	6.7