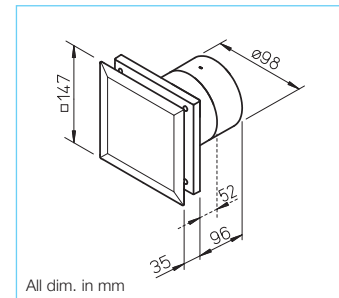
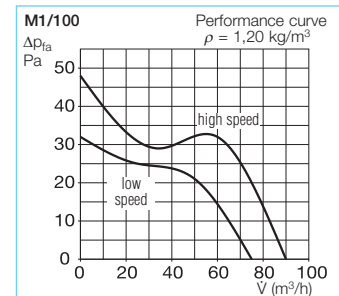


**M1/100**



All dim. in mm



■ Mini fans of highest quality. Design and performance of the MiniVent® M1/100 sets the standard for the mini fans range.

The excellent design of the MiniVent® M1/100 blends in everywhere beautifully. The compact and attractively designed fascia shields the view of the fan interior completely.

All M1/100 models are supplied with 2 speeds and with airtight back draught shutter as standard.

The noise level is extremely low due to Helios ultraSilence® technology.

Available with interval function, overrun timer or automatic function like motion sensor or humidity controlled operation. This responds with intelligent electronics and prevents development of mildew effectively.

Suitable for all ventilation applications in bathrooms, toilets and other small rooms.

■ Features

- Lowest power consumption of only 5 Watt at vol. = 75 m³/h.
- Extremely quiet due to the ultraSilence® technology; just 25 dB(A)\* at vol. = 75 m³/h.
- Pressure capacity: 60 m³/h air flow rate at 31 Pa resistance. 90 m³/h free discharge, ΔP max. 45 Pa.
- Where space is limited the guide vane of M1/100 can be simply removed. Thus reducing the installation depth to 52 from 96 mm.
- Compact dimensions for flush mounted installation in walls, shafts or ceilings with nominal dia. 100 mm.
- All components made from high quality white polymers.
- The motor design and ball bearings are selected for long-term durability, steady performance and lifelong operational reliability.
- Motor supplied with thermal overload protection, providing maintenance and trouble-free, continuous operation.
- Suitable for use in zone 1 of bathrooms according to DIN VDE 0100-701.
- The electrical supply cables to the unit may be recessed or surface mounted.
- Practical quick assembly using the push on cable connectors for the electrical connection.

| Type   | M1/100                                  | M1/100 N/C  | M1/100 F   | M1/100 P  |
|--|---|---|--|---|
| Ref. no.   | 6171                                    | 6172  | 6175   | 6174  |
| Model  | Standard model equipped with two speeds | As M1/100, with adjustable overrun and interval timer <sup>1)</sup> | As M1/100, with automatic humidity control <sup>1)4)</sup> | As M1/100, with PRI motion sensor <sup>1)</sup> |
| Run on time, min. optionally on high or low speed        | —                                       | 6, 10, 15, 21 adjustable  | 6, 12, 18, 24 adjustable <sup>3)</sup>                     | 6   |
| Interval operation, hrs. optionally on high or low speed | —                                       | 0, 8, 12, 24 adjustable   | —  | —   |
| Delayed start, approx. sec.                              | —                                       | 0, 45, 90, 120  | 0 or 45 <sup>3)</sup>                                      | —   |
| Back draught shutter, mech., remov.                      | Yes                                     | Yes   | Yes  | Yes   |
| Air flow volume (FID) m³/h                               | 90 / 75                                 | 90 / 75   | 90 / 75  | 90 / 75   |
| Impeller Ø mm  | 92                                      | 92  | 92   | 92  |
| R.P.M. min <sup>-1</sup>                                 | 2650 / 2250                             | 2650 / 2250   | 2650 / 2250  | 2650 / 2250                                     |
| Voltage/Frequency 50 Hz                                  | 230 V                                   | 230 V   | 230 V  | 230 V   |
| Power consumption W                                      | 9 / 5                                   | 9 / 5   | 9 / 5  | 9 / 5   |
| Rated current A  | 0.06 / 0.04                             | 0.06 / 0.04   | 0.06 / 0.04  | 0.06 / 0.04                                     |
| Sound pressure level dB(A) in 3 m <sup>2)</sup>          | 30 / 25                                 | 30 / 25   | 30 / 25  | 30 / 25   |
| Wiring diagram no.                                       | 915                                     | 917   | 919  | 918   |
| Electrical power supply NYM-O in mm <sup>2</sup>         | 3 x 1,5                                 | 4 x 1,5   | 4 x 1,5  | 3 x 1,5   |
| Protection cat. II, protection                           | IP 45                                   | IP 45   | IP 45  | IP 45   |
| Max. air flow temperature                                | +40 °C                                  | +40 °C  | +40 °C   | +40 °C  |
| Weight approx. kg  | 0,80                                    | 0,80  | 0,80   | 0,80  |

<sup>1)</sup> All electronic functions optionally on high or low speed - adjustable.

<sup>2)</sup> Freefield conditions.

<sup>3)</sup> With manual operation.

<sup>4)</sup> Limit value 60, 70, 80, 90% adjustable.

### Nice and clean

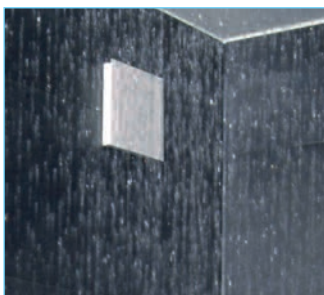
Since every fan gets dirty sooner or later, the M1 facia was designed in a way that air flows in on all sides. The design of the facia elegantly avoids the internal view of the fan opening, even when dirty.

M1 blends harmoniously into any environment. The smooth-surfaced facade always remains easy to maintain and clean.



### Intelligent humidity control

The humidity control of the M1/100 F starts the fan automatically with increase of humidity. The fan operates until the humidity is reduced below the set point. With constantly high humidity the fan changes into a defined interval operation.



### Connected at lightning speed

A generously dimensioned, circular cable storage space, the simple rotatability of the casing and the push on cable connectors assist the electrical connection enormously. Ball bearings (approx. 40 000 hours running) allow the installation in any position, also directly in the ceiling.



### Flexible installation depth

Removable guide vane reduces installation depth from 96 to 52 mm. Can be installed with or without back draught shutter.



### Suitable for use in zone 1

MiniVent® M1/100 provides protection to IP 45, insulation class II and may be used in accordance with DIN VDE 0100-701 in zone 1 bathrooms.



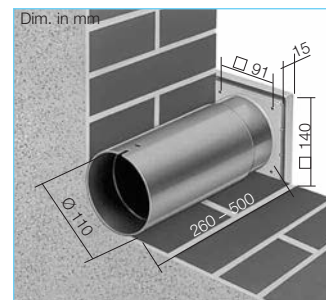
### Wall mounting kit

**Type WES 100** Ref. no. 0717

Two telescopic polymer sleeves guide the air through cavity walls and serve as wall liners.

Outside wall termination possible in two ways:

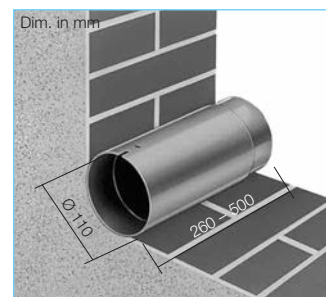
- Three bladed automatic back draught louvre shutter.
- Fixed grille. All parts made of high quality polymer.



### Telescopic wall sleeve

**Type TWH 100** Ref. no. 6352

As WES, however without back draught louvre shutter and grille.



### Operation switch 0-1-2 for standard model

**Type MVB** Ref. no. 6091

Two speed and on/off switch.

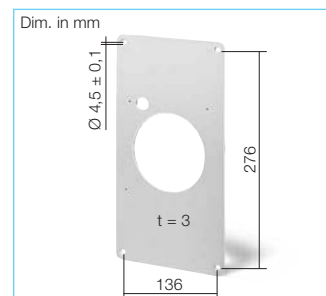
Current 3 A (ind.)  
Voltage 230 V, 1~, 50/60 Hz  
Protection to IP 30  
Installation in standard gang boxes  
Dimensions mm W 80 x H 80 x D 15  
Weight approx. 0.1 kg



### Mounting plate

**MBR 90/160/300** Ref. no. 0281

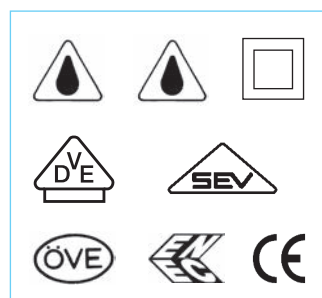
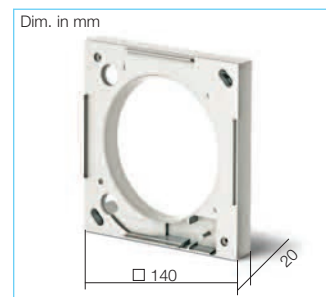
Made from high quality, impact resistant polymer. Colour: white. Ideal for refurbishment of old housing. Easy installation of all M1-models in existing rectangular shaft openings. To make the plate almost invisible it can be painted or wallpapered.



### Spacer frame

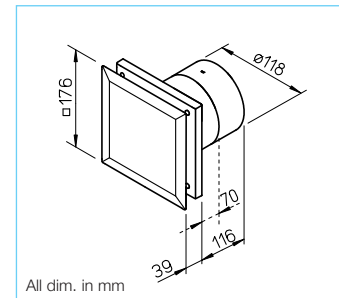
**Type MF 100** Ref. no. 6188

To reduce the installation depth in thin walls, narrow duct and tight 90° bends. Also suitable for the assembly of a pull cord switch (accessories). More MF 100 can be put on top of each other, if necessary.

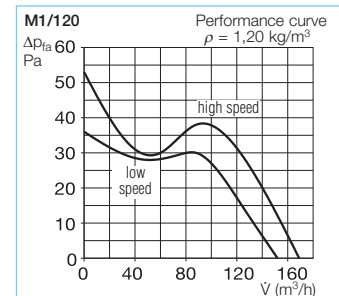


| Accessory details                          | Page   |
|--|--------|
| Flexible ducting, roof outlets and grilles | 487 on |
| Air intakes                                | 512 on |

**M1/120**



All dim. in mm



■ Mini fans of highest quality. Design and performance of the MiniVent® M1/120 sets the standard for the mini fans range.

The excellent design of the MiniVent® M1/120 blends in everywhere beautifully. The compact and attractively designed fascia shields the view of the fan interior completely.

All M1/120 models are supplied with 2 speeds and with airtight back draught shutter as standard.

The noise level is extremely low due to Helios ultraSilence® technology.

Available with interval function, overrun timer or automatic function like motion sensor or humidity controlled operation. This responds with intelligent electronics and prevents development of mildew effectively.

Suitable for the ventilation of small to medium-sized rooms in private, commercial and industrial areas.

■ Features

- Lowest power consumption of only 10 Watt at vol. = 150 m³/h.
- Extremely quiet due to the ultraSilence® technology; just 32 dB(A)\* at vol. = 150 m³/h.
- Pressure capacity: 120 m³/h air flow rate at 31 Pa resistance. 170 m³/h free discharge, ΔP max. 53 Pa.
- Where space is limited the guide vane of M1/120 can be simply removed. Thus reducing the installation depth to 116 from 70 mm.
- Compact dimensions for flush mounted installation in walls, shafts or ceilings with nominal dia. 120/125 mm.
- All components made from high quality white polymers.
- The motor design and ball bearings are selected for long-term durability, steady performance and lifelong operational reliability.
- Motor supplied with thermal overload protection, providing maintenance and trouble-free, continuous operation.
- Suitable for use in zone 1 of bathrooms according to DIN VDE 0100-701.
- The electrical supply cables to the unit may be recessed or surface mounted.
- Practical quick assembly using the push on cable connectors for the electrical connection.

| Type   | M1/120                                  | M1/120 N/C  | M1/120 F   | M1/120 P  |
|--|---|---|--|---|
| Ref. no.   | 6360                                    | 6361  | 6364   | 6363  |
| Model  | Standard model equipped with two speeds | As M1/120, with adjustable overrun and interval timer <sup>1)</sup> | As M1/120, with automatic humidity control <sup>1)4)</sup> | As M1/120, with PIR motion sensor <sup>1)</sup> |
| Run on time, min. optionally on high or low speed        | —                                       | 6, 10, 15, 21 adjustable  | 6, 12, 18, 24 adjustable <sup>3)</sup>                     | 6   |
| Interval operation, hrs. optionally on high or low speed | —                                       | 0, 8, 12, 24 adjustable   | —  | —   |
| Delayed start, approx. sec.                              | —                                       | 0, 45, 90, 120  | 0 or 45 <sup>3)</sup>                                      | —   |
| Back draught shutter, mech., remov.                      | Yes                                     | Yes   | Yes  | Yes   |
| Air flow volume (FID) m³/h                               | 170 / 150                               | 170 / 150   | 170 / 150  | 170 / 150                                       |
| Impeller Ø mm  | 111                                     | 111   | 111  | 111   |
| R.P.M. min <sup>-1</sup>                                 | 2350 / 2050                             | 2350 / 2050   | 2350 / 2050  | 2350 / 2050                                     |
| Voltage/Frequency 50 Hz                                  | 230 V                                   | 230 V   | 230 V  | 230 V   |
| Power consumption W                                      | 13 / 10                                 | 13 / 10   | 13 / 10  | 13 / 10   |
| Rated current A  | 0,09 / 0,08                             | 0,09 / 0,08   | 0,09 / 0,08  | 0,09 / 0,08                                     |
| Sound pressure level dB(A) in 3 m <sup>2)</sup>          | 36 / 32                                 | 36 / 32   | 36 / 32  | 36 / 32   |
| Wiring diagram no.                                       | 915                                     | 917   | 919  | 918   |
| Electrical power supply NYM-O in mm <sup>2</sup>         | 3 x 1.5                                 | 4 x 1.5   | 4 x 1.5  | 3 x 1.5   |
| Protection cat. II, protection                           | IP 45                                   | IP 45   | IP 45  | IP 45   |
| Max. air flow temperature                                | +40 °C                                  | +40 °C  | +40 °C   | +40 °C  |
| Weight approx. kg  | 1,05                                    | 1,05  | 1,05   | 1,05  |

<sup>1)</sup> All electronic functions optionally on high or low speed - adjustable.

<sup>2)</sup> Freefield conditions.

<sup>3)</sup> With manual operation.

<sup>4)</sup> Limit value 60, 70, 80, 90% adjustable.

### Nice and clean

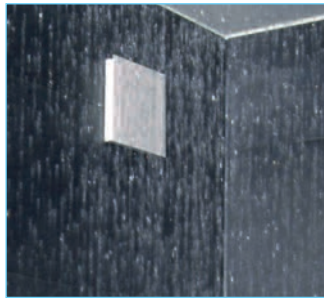
Since every fan gets dirty sooner or later, the M1 fascia was designed in a way that air flows in on all sides. The design of the fascia elegantly avoids the internal view of the fan opening, even when dirty.

M1 blends harmoniously into any environment. The smooth-surfaced facade always remains easy to maintain and clean.



### Intelligent humidity control

The humidity control of the M1/120 F starts the fan automatically with increase of humidity. The fan operates until the humidity is reduced below the set point. With constantly high humidity the fan changes into a defined interval operation.



### Connected at lightning speed

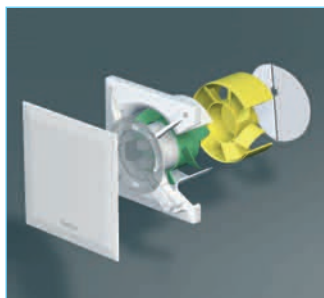
A generously dimensioned, circular cable storage space, the simple rotatability of the casing and the push on cable connectors assist the electrical connection enormously.

Ball bearings (approx. 40 000 hours running) allow the installation in any position, also directly in the ceiling.



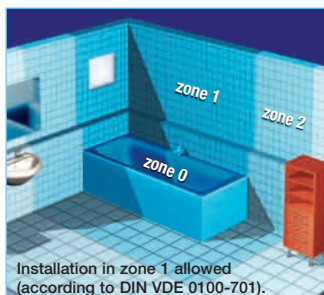
### Flexible installation depth

Removable guide vane reduces installation depth from 116 to 70 mm. Can be installed with or without back draught shutter.



### Suitable for use in zone 1

MiniVent® M1/120 provides protection to IP 45, insulation class II and may be used in accordance with DIN VDE 0100-701 in zone 1 bathrooms.

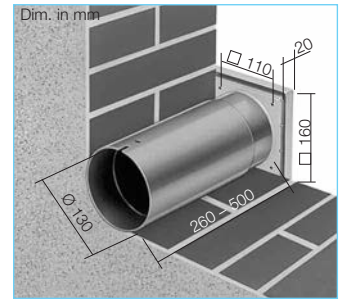


Installation in zone 1 allowed (according to DIN VDE 0100-701).

### Wall mounting kit

**Type WES 120** Ref. no. 0486

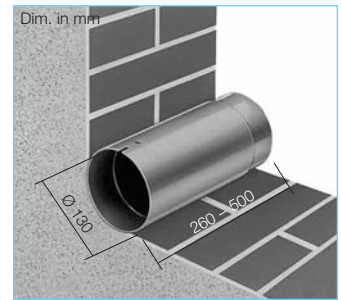
Two telescopic polymer sleeves guide the air through cavity walls and serve as wall liners. Outside wall termination is carried out by application of three bladed automatic back draught louvre shutter.



### Telescopic wall sleeve

**Type TWH 120** Ref. no. 6353

As WES, however without back draught louvre shutter.

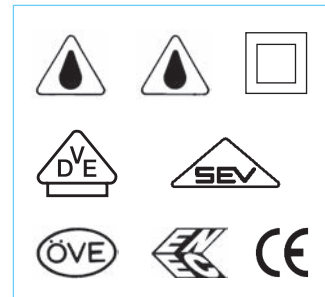


### Operation switch 0-1-2 for standard model

**Type MVB** Ref. no. 6091

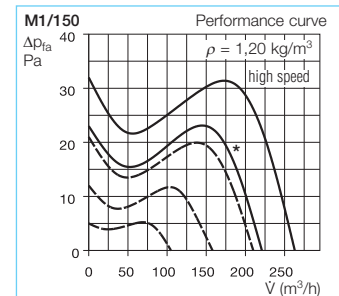
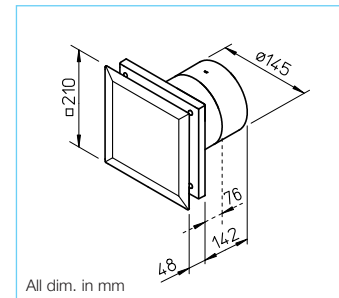
Two speed and on/off switch.

Current 3 A (ind.)  
Voltage 230 V, 1~, 50/60 Hz  
Protection to IP 30  
Installation in standard gang boxes  
Dimensions mm W 80 x H 80 x D 15  
Weight approx. 0.1 kg



| Accessory details                          | Page   |
|--|--------|
| Flexible ducting, roof outlets and grilles | 487 on |
| Air intakes                                | 512 on |

M1/150



■ Mini fans of highest quality. Design and performance of the MiniVent® M1/120 sets the standard for the mini fans range.

The excellent design of the MiniVent® M1/120 blends in everywhere beautifully. The compact and attractively designed fascia shields the view of the fan interior completely.

All M1/150 models are supplied with highly efficient EC motor technology, with 2 speeds and with airtight back draught shutter as standard.

The noise level is extremely low due to Helios ultraSilence® technology.

stepless speed regulation. This responds with intelligent electronics and prevents development of mildew effectively. Suitable for the ventilation of small to medium-sized rooms in private, commercial and industrial areas.

■ Features

- Lowest power consumption of only 6 Watt at vol. = 220 m³/h.
- Extremely quiet due to the ultraSilence® technology; just 35 dB(A)\* at vol. = 220 m³/h.
- Pressure capacity: 180 m³/h air flow rate at 31 Pa resistance. 260 m³/h free discharge, ΔP max. 33 Pa.
- Where space is limited the guide vane of M1/150 can be simply removed. Thus reducing the installation depth to 142 from 76 mm.
- Compact dimensions for flush mounted installation in walls, shafts or ceilings with nominal dia. 150/160 mm.
- All components made from high quality white polymers.
- The motor design and ball bearings are selected for long-term durability, steady performance and lifelong operational reliability.
- Motor supplied with thermal overload protection, providing maintenance and trouble-free, continuous operation.
- Suitable for use in zone 1 of bathrooms according to DIN VDE 0100-701.
- The electrical supply cables to the unit may be recessed or surface mounted.
- Practical quick assembly using the push on cable connectors for the electrical connection.
- The 0-10 V Type has various applications due to the combination with CO<sub>2</sub>, VOC or temperature sensors. Furthermore, the min./max. speed is fully adjustable and stepless regulation is possible with a potentiometer. The unit can also be controlled with the three-step switch or steplessly via universal control systems or electronic differential pressure/temperature controllers. A potential-free relay output is available as standard for the connection of an electrical cover flap.

| Type  | M1/150                                  | M1/150 N/C  | M1/150 F  | M1/150 0-10 V         |
|---|---|---|---|-----------------------|
| Ref. no.  | 6041                                    | 6042  | 6043  | 6044                  |
| Model   | Standard model equipped with two speeds | As M1/150, with adjustable overrun and Interval timer <sup>1)</sup> | As M1/150, with automatic humidity control <sup>1) 4)</sup> | Stepless control      |
| Run on time, min. optionally on high, low or both speeds        | —                                       | 6, 10, 15, 21 adjustable  | 6, 10, 15, 21 adjustable <sup>3)</sup>                      | 6                     |
| Interval operation, hrs. optionally on high, low or both speeds | —                                       | 0, 8, 12, 24 adjustable   | —   | —                     |
| Delayed start, approx. sec.                                     | —                                       | 0, 45, 90, 120  | 0, 45, 90, 120 <sup>3)</sup>                                | —                     |
| Internal shutter, removable                                     | Yes                                     | Yes   | Yes   | Yes                   |
| Air flow volume m³/h free discharge                             | 260 / 220                               | 260 / 220   | 260 / 220   | 260-50                |
| Impeller Ø mm   | 137                                     | 137   | 137   | 137                   |
| R.P.M. min <sup>-1</sup>  | 1900 / 1600                             | 1900 / 1600   | 1900 / 1600   | 1900-980              |
| Voltage / Frequency 50 Hz                                       | 230 V                                   | 230 V   | 230 V   | 230 V                 |
| Power consumption W   | 8 / 4.5                                 | 8 / 5   | 9 / 6   | 9 / min. 3.5          |
| Rated current A   | 0,08 / 0,06                             | 0,10 / 0,09   | 0,08 / 0,06   | 0,08 / min. 0,035     |
| Sound pressure level dB(A) in 3 m <sup>2)</sup>                 | 39 / 35                                 | 39 / 35   | 39 / 35   | max. 39               |
| Wiring diagram no.  | 1080                                    | 1081  | 1082  | 1083                  |
| Electrical power supply NYM-O in mm <sup>2</sup>                | 3 x 1.5                                 | 4 x 1.5   | 4 x 1.5   | 2 x 1.5 <sup>5)</sup> |
| Elec. power supply (control) LiYY in mm <sup>2</sup>            | —                                       | —   | —   | 3 x 0.34              |
| Protection cat. II, protection class                            | IP 45                                   | IP 45   | IP 45   | IP 45                 |
| Max. air flow temperature                                       | +40 °C                                  | +40 °C  | +40 °C  | +40 °C                |
| Weight approx. kg   | 1.20                                    | 1.20  | 1.20  | 1.20                  |

<sup>1)</sup> All adjustable times and electronic functions optionally on high, low or both speeds - adjustable.

<sup>2)</sup> Free field conditions.

<sup>3)</sup> With manual operation.

<sup>4)</sup> Limit value from 40-90 % steplessly adjustable.

<sup>5)</sup> Additional connection cable provided for relay output.

### Nice and clean

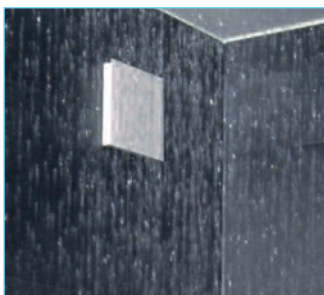
Since every fan gets dirty sooner or later, the M1 fascia was designed in a way that air flows in on all sides. The design of the fascia elegantly avoids the internal view of the fan opening, even when dirty.

M1 blends harmoniously into any environment. The smooth-surfaced facade always remains easy to maintain and clean.



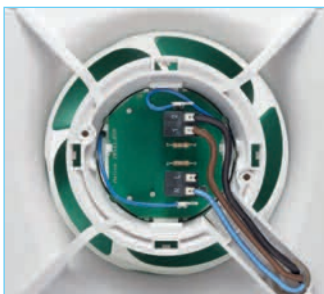
### Intelligent humidity control

The humidity control of the M1/150 F starts the fan automatically with increase of humidity. The fan operates until the humidity is reduced below the set point. With constantly high humidity the fan changes into a defined interval operation.



### Connected at lightning speed

A generously dimensioned, circular cable storage space, the simple rotatability of the casing and the push on cable connectors assist the electrical connection enormously. Ball bearings (approx. 40 000 hours running) allow the installation in any position, also directly in the ceiling.



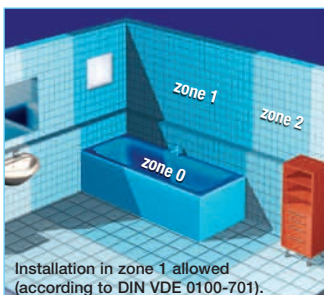
### Flexible installation depth

Removable guide vane reduces installation depth from 142 to 76 mm. Can be installed with or without back draught shutter.



### Suitable for use in zone 1

MiniVent® M1/150 provides protection to IP 45, insulation class II and may be used in accordance with DIN VDE 0100-701 in zone 1 bathrooms.



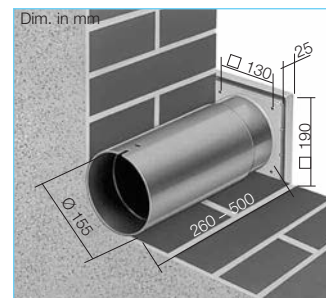
### Wall mounting kit

**Type WES 150** Ref. no. 0537

Two telescopic polymer sleeves guide the air through cavity walls and serve as wall liners.

Outside wall termination possible in two ways:

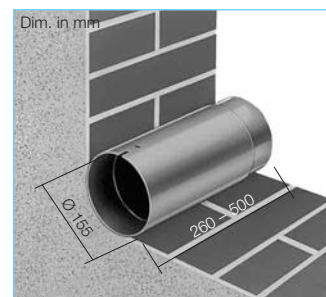
- Three bladed automatic back draught louvre shutter.
- Fixed grille. All parts made of high quality polymer.



### Telescopic wall sleeve

**Type TWH 150** Ref. no. 6354

As WES, however without back draught louvre shutter and grille.



### Operation switch 0-1-2 for standard model

**Type MVB** Ref. no. 6091

Two speed and on/off switch.

Current 3 A (ind.)  
Voltage 230 V, 1~, 50/60 Hz  
Protection to IP 30  
Installation in standard gang boxes  
Dimensions mm W 80 x H 80 x D 15  
Weight approx. 0.1 kg



### Operation switch for M1/150 N/C and M1/150 F

**Type DSEL 2** Ref. no. 1306

Two speed and on/off switch.

Current 3 A (ind.)  
Voltage 230 V, 1~, 50/60 Hz  
Protection to IP 30  
Installation in standard gang boxes  
Dimensions mm W 80 x H 80 x D 15  
Weight approx. 0.1 kg



### Speed-potentiometer for M1/150 0-10 V

On/off switch, stepless speed control.

**Type PU 10** Ref. no. 1734

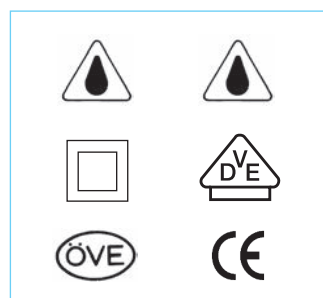
For flush mounting.

Installation in Standard UP-Dose  
Dim. mm W 80 x H 80 x D 21 protr.

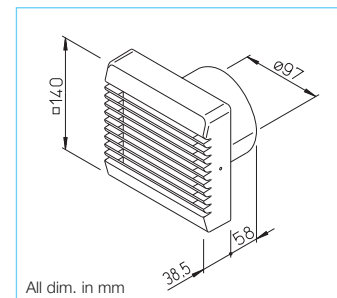
**Type PA 10** Ref. no. 1735

For surface mounting.

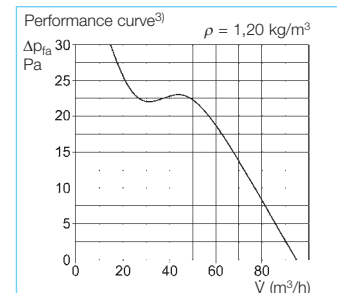
Casing Surface installation  
Dim. mm W 80 x H 80 x D 65



| Accessory details                             | Page   |
|---|--------|
| Flexible ducting, roof outlets and grilles    | 487 on |
| Air intakes                                   | 512 on |
| Universal control system, speed-potentiometer | 539 on |



All dim. in mm



■ High-quality mini fan with electric shutter. The shutter blades behind the facade open and close noiselessly and automatically when the fan is switched on/off. This ensures the vibration-free connection for outside air when the ventilator is at a standstill. The long-life ball bearings ensure maintenance-free, silent operation and allow installation in any position.

Unobtrusive, HR 90 KE blends into every room ambience. The upward-facing blades shield the view of the fan interior. Suitable for all ventilation applications in bathrooms, toilets and other small rooms.

■ Advantages of ball bearings

- Quiet and reliable performance under continuous operation.
- Acoustically tested long life ball bearings are greased for life (approx. 30 000 hours running). Maintenance, re-greasing and cleaning of bearings are not required, saving time and money.
- Even under harshest conditions, longlife ball bearings ensure that the fans will perform quietly for life.
- Ball bearings and motor are designed for long-term durability, constant performance and life-long operational safety.
- Suitable for use in zone 1 of bathrooms according to DIN VDE 0100-701.
- Flush mounting in Ø 100 mm ducting or shafts.
- Can be used practically anywhere due to small installation depth and small dimensions.
- Attractive Soft-Line Design in pleasant white.
- All components made from impact resistant polymers.
- Contact safety to DIN EN ISO 13857.
- Motor protected by automatically resetting thermal contact. Maintenance-free and interference-free. Suitable for continuous operation.
- Cable entry can be flush or on the surface.
- Easy electrical connection through screwless clamps.
- Spring clips for fixing into Ø 100 mm ducting or screw fixing in larger openings.

| Type   | HR 90 KE | HR 90 KEZ        |
|--|----------|------------------|
| Ref. no.   | 0334     | 0335             |
| Built-in overrun timer <sup>1)</sup> ,<br>Overrun timer approx. 2-8 min. |          | ja <sup>2)</sup> |
| Electric shutter   | ja       | ja               |
| Air flow volume (FID) m <sup>3</sup> /h <sup>3)</sup>                    | 95       | 95               |
| Impeller Ø mm  | 93       | 93               |
| R.P.M. min <sup>-1</sup>   | 2550     | 2550             |
| Voltage/Frequency 50/60 Hz   | 230 V    | 230 V            |
| Power consumption W  | 17       | 20               |
| Current A  | 0,12     | 0,14             |
| Sound pressure level dB(A) in 1 m  | 44       | 44               |
| Wiring diagram no.   | 483      | 484              |
| Protection class II, protection  | IP 45    | IP 45            |
| Max. air flow temperature  | +40 °C   | +40 °C           |
| Weight approx. kg  | 0,60     | 0,62             |

■ Note  
HR 90 K 12 V –  
with safety extra-low voltage  
upon request

<sup>1)</sup> delayed start of approximately 1 minute  
<sup>3)</sup> determined with extract duct, Length 2 x D

<sup>2)</sup> NYM-0 3 x 1.5 mm<sup>2</sup> required

### ■ Mini fan HR 90 KE

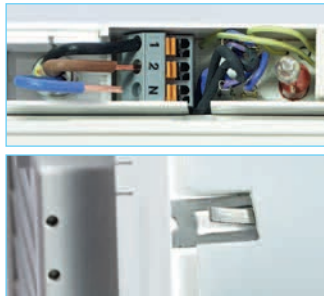
#### for ceiling installation

Fans with ball bearings are ideally suited for ceiling installation. Spacer frame MF 90 (accessory) prevents condensation from ducting entering the fan.



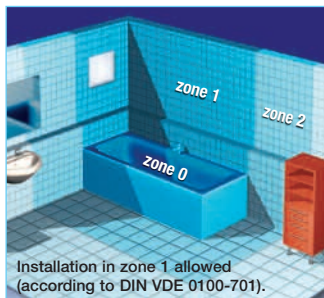
### ■ Screwless installation

HR 90 KE fans have screwless clamps for electrical connection. The fascia is fixed quickly and easily through a click in mechanism. Spring clips on the sides simplify installation into Ø 100 mm ductings.



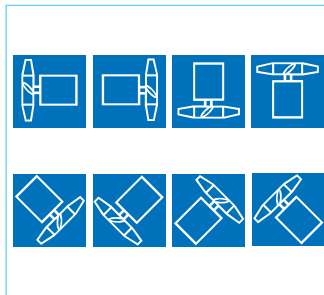
### ■ Suitable for use in zone 1

HR 90 KE models provide protection to IP X5 and may be used in accordance with DIN VDE 0100-701 in zone 1 of bathrooms.

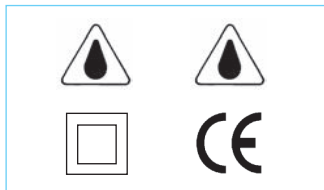


### ■ Installation in any position

HR 90 KE is equipped with electric shutter and high quality long life ball bearings. This ensures a wall and ceiling installation in any position – vertical, horizontal or any position in between.



### ■ Approvals



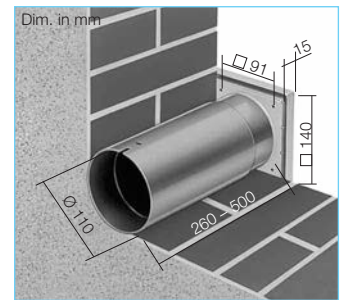
### Wall mounting kit

#### Type WES 90 Ref. no. 0717

Two telescopic sleeves guide air through cavity walls and serve as wall liners; for flush mounted installation.

There are two possibilities for wall termination:

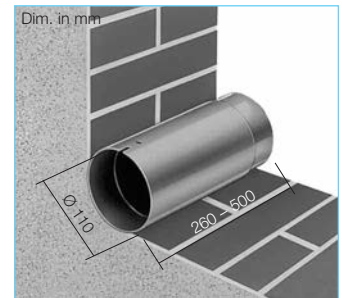
- Three bladed automatic backdraught shutter.
- Fixed grille. All parts from high-quality polymer.



### Telescopic wall sleeve

#### Type TWH 90 Ref. no. 6352

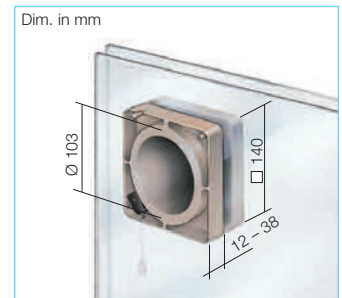
As WES, however without back draught louvre shutter and grille.



### Window kit

#### Type FES 90 Ref. no. 0462

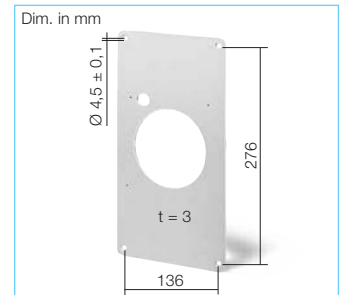
For installation of HR 90 KE models are suitable for single and double glazed windows as well as panels from 1 mm up to 40 mm thick. Outside cover only 29 mm through flat rain repellent grille. Pull cord operation.



### Mounting plate

#### MBR 90/160/300 Ref. no. 0281

From high quality, impact resistant polymer. Colour: white. Ideal for refurbishment of old housing. Easy installation of HR 90 KE models in existing rectangular shaft openings. To make the plate invisible it can be painted or wall-papered.

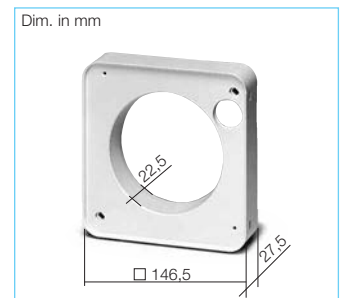


### Spacer frame

#### Type MF 90 Ref. no. 0819

Areas of application:

- Required for ceiling installation. MF prevents condensation entering the fan from vertical ductings.
- For easy installation of awkwardly placed electrical cables, because the fan will be lifted about 23 mm from the wall.
- For easy installation of the fan in tight shafts. MF reduces fan spigot protrusion e.g. tight 90° bends.
- For installation in thin walls the fan spigot protrusion can be reduced as follows:  
With 1 spacer frame to 35 mm.  
With 2 spacer frames to 7 mm.  
Colour: alpine white.

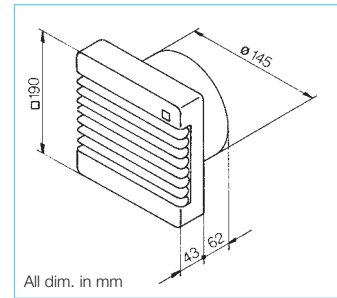


### ■ Accessory details Page

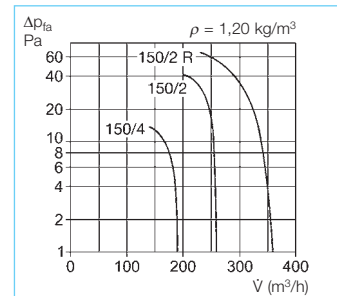
|   |        |
|---|--------|
| Flexible ducting, roof outlets and grilles    | 487 on |
| Air intakes                                   | 512 on |
| Speed controllers, switches and overrun timer | 525 on |



**HVR 150**



All dim. in mm



■ The HelioVent® fans are designed to ventilate smaller to mid-sized domestic, commercial and industrial rooms.

- The fan with ball bearings as standard guarantees
  - Installation in any position.
  - Quiet and reliable performance under continuous operation.
  - Silent and maintenance free for life.

■ **Features**

- Front grille can be removed and easily cleaned in soapy water.
- Small depth avoids possible installation difficulties.
- Suitable for wall, window and ceiling installation in any position.
- Adjustment of flow volume through stepless, electronic speed control.
- Motor protection through built-in thermal contacts.

■ **Specification**

The traditional design blends well in any room. All parts, including fan casing and impeller are made from high quality polymer. White facia. Built-in neon light indicates operation. High volume and pressure characteristic using a 8 bladed impeller and guide vanes.

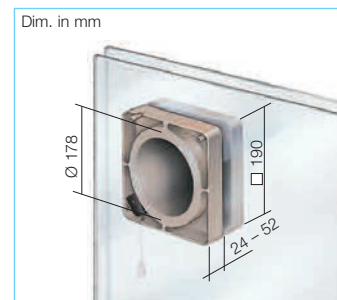
Totally enclosed, maintenance free running low noise ball bearing motor, sealed for life, interference-free, suitable for continuous operation. Installation in any position. Contact safety to DIN EN ISO 13857.

The electrical supply cables to the unit may be recessed or surface mounted.

**Window mounting kit**

**Type FES 150** Ref. no. 0463

For installation with all models, preferably models with electrical internal shutter. Suitable for single and double glazed windows as well as thin walls and panels. Wall termination through flat rain repellent grille with fixed blades. Controllable with pull cord supplied, or by a remote switch, to be installed on site.

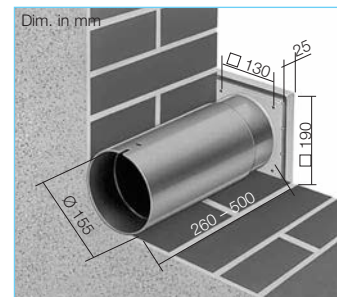


Dim. in mm

**Wall mounting kit**

**Type WES 150** Ref. no. 0537

For flush mounted wall installation; contents: Two telescopic polymer sleeves adjustable on wall thickness and wall termination that can either be mounted with a gravity shutter or on the HVR E models with a rain repellent grille. Supplied with both elements as standard.



Dim. in mm

■ **Accessory details** Page

|   |        |
|---|--------|
| Roof outlets and grilles                      | 487 on |
| Air intake                                    | 512 on |
| Speed controllers, switches and overrun timer | 525 on |

**Telescopic wall sleeve**

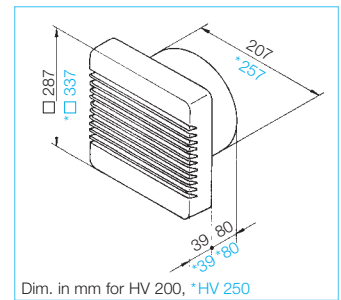
**Type TWH 150** Ref. no. 6354

As WES, however without back draught louvre shutter and grille.

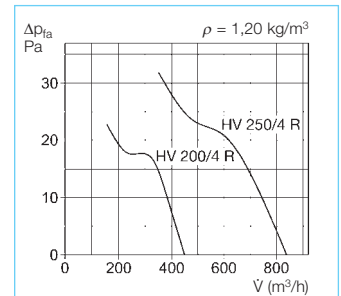
| Type                               | HVR 150/4 E    | HVR 150/2 E    | HVR 150/2 RE                             |
|------------------------------------|----------------|----------------|--|
| Ref. no.                           | 0283           | 0285           | 0286                                     |
| Built-in electric shutter          | Yes            | Yes            | Yes                                      |
| Air flow reversible                | —              | —              | <b>DSEL 2<sup>1)</sup></b> Ref. no. 1306 |
| Air flow volume (FID) m³/h         | 180            | 260            | 360                                      |
| Impeller Ø mm                      | 140            | 140            | 140                                      |
| R.P.M. min <sup>-1</sup> ca.       | 1300           | 1800           | 2600                                     |
| Voltage/Frequency                  | 230 V~ / 50 Hz | 230 V~ / 50 Hz | 230 V~ / 50 Hz                           |
| Power consumption W                | 30             | 35             | 50                                       |
| Current A                          | 0.20           | 0.15           | 0.25                                     |
| Sound pressure level dB(A) in 1 m  | 46             | 58             | 64                                       |
| Wiring diagram no.                 | 283            | 283            | 284.1                                    |
| Protection class II, protection to | IP 44          | IP 44          | IP 44                                    |
| Max. air flow temperature          | +40 °C         | +40 °C         | +40 °C                                   |
| Weight approx. kg                  | 1.2            | 1.4            | 1.5                                      |

<sup>1)</sup> NYM-O 3 x 1.5 mm<sup>2</sup> cable required for reverse operation

### HV 200 and HV 250



Dim. in mm for HV 200, \*HV 250



- **HelioVent®. The traditional design blends well in any stylish room: In living and dining room, in offices and conference rooms, restaurants or foyers.**  
Universal in operation. Reversible for ventilation and extraction. Installation in wall, ceiling or any angle.

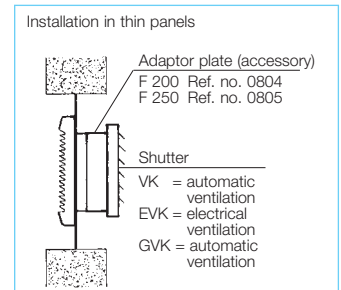
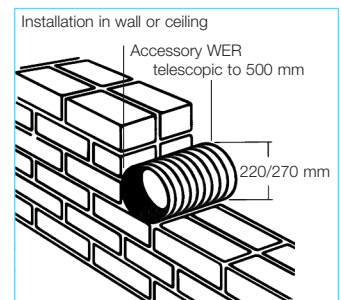
- **HelioVent® at a glance**  
Compact, quiet fan unit with clever design features:
  - HelioVent® matches every location inconspicuously.
  - No view of the fan interior if it gets dirty.
  - High air flow and low air noise through low resistances.
  - Easy to care for. Facia is removable with one hand to be cleaned easily in soapy water.

- **Installation – Connection**  
The installation is simple and done within minutes. Easy electrical connection through well-tried screwless clamps and large cable storage reduce effort to a minimum. Cable can be inserted flush or on the surface.

- **Speed control**  
Speed controllable from 0 – 100% through voltage reduction with an electronic or transformer controller.

| Accessory details                             | Page   |
|---|--------|
| Roof outlets and grilles                      | 487 on |
| Air intakes                                   | 512 on |
| Speed controllers, switches and overrun timer | 525 on |

- **Specification**
  - Facia and fan casing from high quality, impact resistant alpine white polymer.
  - Totally enclosed, powerful motor with high efficiency. Corrosion-resistant in an aluminium diecast casing, protected against dust and water (protection to IP 54). With tropical protection of windings and insulation to ISO class B.
  - Overload protection through built-in thermal contacts (self resetting).
  - Noise resistant ball bearings ensure quiet operation.
  - Large terminals (protection to IP 55) and extra cable storage make installation easier
  - Impeller specifically designed for high performance with high efficiency and quiet operation.
  - Maintenance free and interference-free.
  - Contact safety to DIN EN ISO 13857 through facia.
  - Easy installation and service.



| Type   | HV 200/4 R     | HV 250/4 R     |
|--|----------------|----------------|
| Ref. no.   | 0957           | 0958           |
| Air flow reversible  | Yes            | Yes            |
| Air flow volume (FID) m³/h   | 450            | 840            |
| Impeller Ø mm  | 200            | 250            |
| R.P.M. min⁻¹   | 1360           | 1380           |
| Voltage/Frequency  | 230 V~ / 50 Hz | 230 V~ / 50 Hz |
| Power consumption W  | 30             | 40             |
| Current A  | 0.13           | 0.20           |
| Sound pressure level dB(A) bei 15 Pa in 1 m (freefield conditions) | 52             | 55             |
| Sound power dB(A)  | 60             | 63             |
| Wiring diagram no.   | 439            | 439            |
| Protection to  | IP 54          | IP 54          |
| Max. air flow temperature  | +40 °C         | +40 °C         |
| Weight approx. kg  | 2.1            | 2.6            |

| Accessories Specification                              | Fan type      | HV 200                             | HV 250                             |
|--|---------------|------------------------------------|------------------------------------|
| Wall sleeve for flush mounted wall installation        | Type Ref. no. | <b>WER 200</b><br>0368             | <b>WER 250/225</b><br>0369         |
| Air stream operated shutter for extraction only        | Type Ref. no. | <b>VK 200</b><br>0758              | <b>VK 250</b><br>0759              |
| Twin swing shutter ventilation and extraction          | Type Ref. no. | <b>GVK 200</b><br>0370             | <b>GVK 250</b><br>0371             |
| Reversing switch ventilation and extraction            | Type Ref. no. | <b>DSEL 2<sup>1)</sup></b><br>1306 | <b>DSEL 2<sup>1)</sup></b><br>1306 |
| Reversing speed controller for stepless variable speed | Type Ref. no. | <b>BSX</b><br>0240                 | <b>BSX</b><br>0240                 |
| Electronic speed controller Flush mounting             | Type Ref. no. | <b>ESU 1</b><br>0236               | <b>ESU 1</b><br>0236               |
| Electronic speed controller Surface mounting           | Type Ref. no. | <b>ESA 1</b><br>0238               | <b>ESA 1</b><br>0238               |

1) NYM-J 4 x 1.5 mm² required for reverse operation



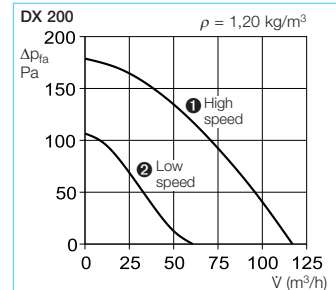
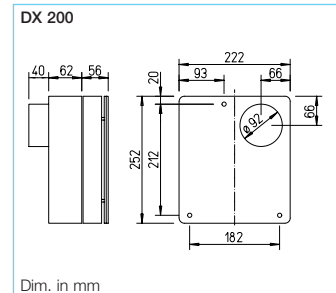
Efficiency class  
**F** DX 200

■ Attractive design with the concealed intake opening characterises the universal models DX.

This range is powerful, easy to install and suitable for ventilation of rooms in both private and commercial applications.

■ Specification

- User friendly controls allow the unit to meet individual requirements for room conditions.
- Easy installation in any position. Flush installation possible by removing the outer casing.
- Exhaust spigot suitable for connection to  $\varnothing$  100 mm ducting.
- Easily removable front for cleaning and maintenance.
- With integrated backdraught shutter.
- Maintenance free motor with thermal overload protection.



| Accessory details                              | Page   |
|--|--------|
| Flexible ducting, roof outlets and grilles     | 487 on |
| Intake air elements                            | 512 on |
| Speed controllers, switches and overrun timers | 525 on |

| Technical data   |  |
|--|--|
| Type   | DX 200   |
| Ref. no.   | 1703   |
| Operation  | Stepless through electronic actuator ESU 1 / ESA 1, Ref. no. 0236 / 0238.<br>Two speed operation possible using operation switch MVB, Ref. no. 6091. |
| <b>Air flow volume on level</b><br>free discharge $\text{m}^3/\text{h}^{1)}$ | <b>1</b> 120 <b>2</b> 60   |
| R.P.M. $\text{min}^{-1}$   | 2660   |
| Voltage/Frequency  | 230 V- / 50 Hz   |
| Power consumption W  | 33   |
| Current A  | 0.24   |
| Sound pressure level in 1 m $\text{dB(A)}^{1)}$                              | 55      42   |
| Wiring diagram no.   | 693.1  |
| Protection class   | IP X5  |
| Maximum air flow temperature   | +40 °C   |
| Weight approx. kg  | 1.7  |

<sup>1)</sup> values depend on different speed levels.

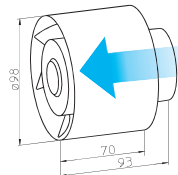
### ■ Operation

Axial fans for smaller to medium air flows against low resistances. Suitable for many applications like room ventilation, cooling, drying etc.

### ■ Installation

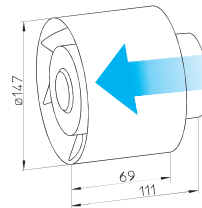
Installation in any position. Air flow direction depending on installation. Suitable for insertion in ducting. Please note that pressure drops and resistances of ducting must be considered. For higher resistances centrifugal fans should be considered. Electrical connection on motor end cap. Ensure that fan is accessible for service.

### REW 90 K



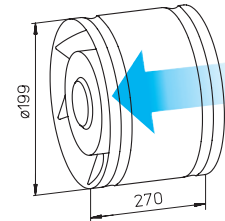
All dim. in mm

### REW 150/2



All dim. in mm

### REW 200



All dim. in mm

### ■ Specification

To be installed into ducting with nominal size  $\varnothing$  100 mm. Casing of impact resistant polymer incorporating guide vanes. High pressure profiled 5 blade impeller of polymer. Ball bearing motor with thermal overload protection, maintenance free and suitable for continuous operation. Rear-mounted terminals for electrical connection.

### ■ Specification

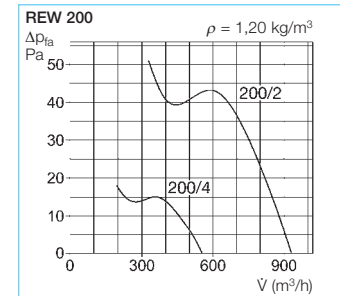
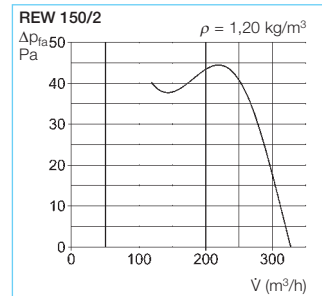
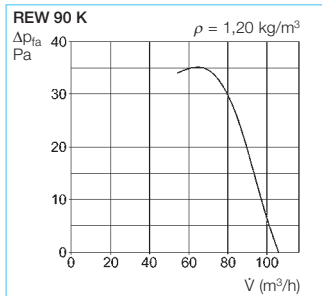
To be installed into ducting with nominal size  $\varnothing$  150 mm. Casing of impact resistant polymer incorporating guide vanes. High pressure profiled 8 blade impeller of polymer. Reversible ball bearing motor with thermal overload protection, maintenance free and suitable for continuous operation. Rear-mounted terminals for electrical connection.

### ■ Specification

To be installed into ducting with nominal size  $\varnothing$  200 mm. Casing with two stiffening rings made from galvanised steel. High pressure profiled 7 blade impeller of polymer. Enclosed reversible ball bearing motor with thermal overload protection, tropical protection of windings and interference-free, maintenance free and suitable for continuous operation with aluminium die-cast casing. Terminals in motor cap.

### ■ Accessory details Page

|   |        |
|---|--------|
| Flexible ducting, roof outlets and grilles        | 487 on |
| Air intake and extract elements and poppet valves | 500 on |
| Speed controllers, switches and overrun timers    | 525 on |



### ■ Accessories

**Speed controller with reversing switch** (for REW 150 and 200)  
Type BSX Ref. no. 0240

| Type                                    | REW 90 K       | REW 150/2                     | REW 200/4                     | REW 200/2                     |
|---|----------------|-------------------------------|-------------------------------|-------------------------------|
| Ref. no.                                | 0441           | 0440                          | 7504                          | 7505                          |
| Air flow reversible                     | no             | DSEL 2 <sup>1)</sup> No. 1306 | DSEL 2 <sup>2)</sup> No. 1306 | DSEL 2 <sup>2)</sup> No. 1306 |
| Air flow volume (FID) m <sup>3</sup> /h | 105            | 330                           | 550                           | 930                           |
| Impeller $\varnothing$ mm               | 93             | 140                           | 200                           | 200                           |
| R.P.M. min <sup>-1</sup>                | 2320           | 2100                          | 1350                          | 2280                          |
| Voltage/Frequency                       | 230 V- / 50 Hz | 230 V- / 50 Hz                | 230 V- / 50 Hz                | 230 V- / 50 Hz                |
| Power consumption W                     | 15             | 29                            | 40                            | 70                            |
| Current A                               | 0.10           | 0.13                          | 0.28                          | 0.33                          |
| Sound pressure level dB(A) in 1 m       | 45             | 56                            | 44                            | 57                            |
| Wiring diagram no.                      | 479            | 478                           | 439                           | 439                           |
| Protection to                           | IP 55          | IP 44                         | IP 54                         | IP 54                         |
| Max. air flow temperature               | +40 °C         | +40 °C                        | +50 °C                        | +50 °C                        |
| Weight approx. kg                       | 0.46           | 1.1                           | 2.0                           | 2.5                           |

<sup>1)</sup> NYM-O 3 x 1.5 mm<sup>2</sup> cable required for reverse operation

<sup>2)</sup> NYM-J 4 x 1.5 mm<sup>2</sup> cable required for reverse operation