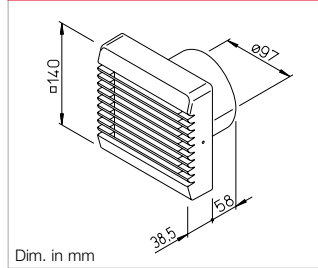


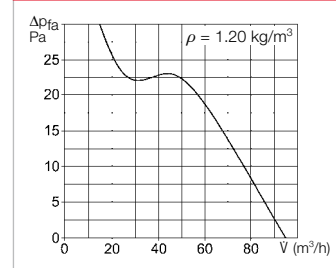
HR 90 KE



Dimensions HR 90 KE



Performance curve HR 90 KE



High-quality mini fans with electrical inner shutter.

The shutter blades behind the facade open and close completely silently and automatically when the fan is activated/deactivated. This ensures a rattle-free intake air connection when the fan is at a standstill. The design with long-life ball bearings ensures maintenance-free operation, low-noise running and it allows installation in any position.

Designed to be unobtrusive, the HR 90 KE fits in any room environment. The upward facing blades prevent viewing of the fan clogging zone. Universally applicable for the ventilation of bathrooms, WCs and other small rooms.

■ Highlights

- Smooth running and functionally reliable, even in continuous operation.
- Maintenance, relubrication and cleaning are unnecessary. The ball bearings have a lubricant supply which is adequate for their entire service life of approx. 30.000 operating hours.
- The noise-tested long-life ball bearings guarantee lifelong smooth running without any disturbing squeaking, even under the most difficult operating conditions.
- The ball bearings and motor are designed for continuous loads, constant output and lifelong functional reliability.

- Applicable in wet room zone 1 according to DIN VDE 0100-701.
- Flush-mounted installation in Rohre und Schächte mit NW 100.
- Applicable practically anywhere due to short installation depth and small dimensions.
- Attractive softline design in pleasant white.
- All casing parts made of high-quality plastic.
- Contact protection according to DIN EN ISO 13857.
- Motor with thermal overload protection, maintenance-free and radio interference-free, for continuous operation.
- Electrical supply line can be surface or flush-mounted.
- Practical quick installation due to screwless terminals for electrical connection.
- Plug claw connection for insertion in ducts 100 mm or screw fastening in larger openings.

Type	HR 90 KE	HR 90 KEZ
Ref. no.	00334	00335
Built-in turn-off delay switch ¹⁾ , Turn-off delay time approx. 2-8 min.	—	Yes ²⁾
Electrical inner shutter	Yes	Yes
Flow rate free blowing m ³ /h ³⁾	95	95
Impeller Ø mm	93	93
Speed min ⁻¹	2550	2550
Voltage / Frequency 50/60 Hz	230 V	230 V
Power consumption W	17	20
Rated current A	0.12	0.14
Sound pressure level dB(A) at 1 m	44	44
Wiring diagram no.	483	484
Protection class II, protection category	IP45	IP45
Max. air flow temperature	+40 °C	+40 °C
Weight approx. kg	0.60	0.62

¹⁾ Initiates start-up delay of approx. 1 min.

²⁾ NYM-O 3 x 1.5 mm² required.

³⁾ Calculated with outlet side duct, length 2 x D.

■ Reference

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

■ **Mini fans HR 90 KE especially for ceiling installation**

Ball bearing mounted fans are best suited for vertical installation in the ceiling. The mounting flange MF 90 (accessories) prevents the ingress of condensate into the fans from vertical pipes.



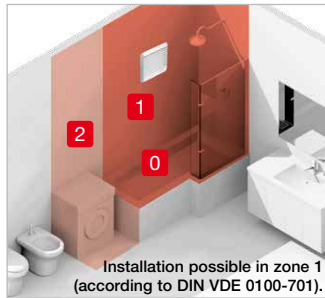
■ **Screwless installation**

HR 90 KE have screwless terminals for electrical connection. The facade can be quickly attached due to a snap-in mechanism. Side spring clips facilitate installation in ducts with NW 100.



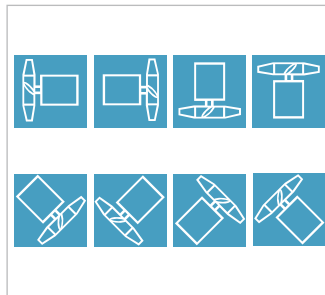
■ **Applicable in wet room zone 1**

The HR 90 KE models comply with protection category IP X5 (jet water protection) and may be used in zone 1 according to DIN VDE 0100-701.

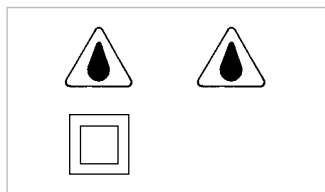


■ **Installation in any position**

HR 90 KE is equipped with electrical inner shutter and high-quality long-life ball bearings as standard. This allows wall and ceiling installation in any position – vertical, horizontal or diagonal.



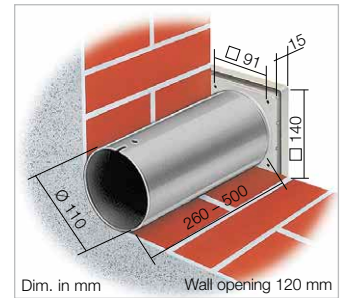
■ **Test marks**



Wall mounting kit

WES 90 Ref. no. 00717

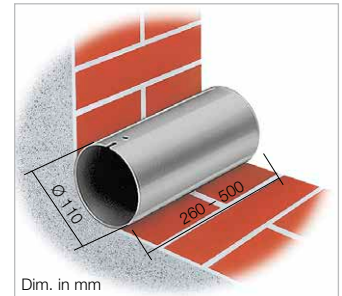
Two telescoping plastic ducts serve as the wall/feed duct; for flush-mounted installation. External wall connection possible in two ways:
a) Frame with three blades as an automatic shutter.
b) Use of the frame with fixed grille. All parts made of high-quality plastic.



Telescopic wall sleeve

TWH 90 Ref. no. 06352

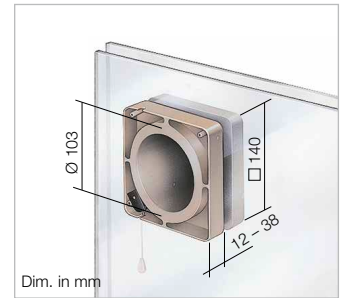
Like WES, but without shutter and grille.



Window mounting kit

FES 90 Ref. no. 00462

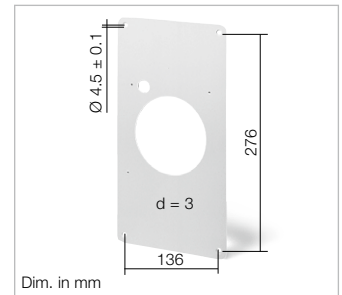
For the installation of HR 90 KE models in single and double glazed windows, thin walls and panels. Possible pane / wall thickness 1 to 40 mm. External cover with flat rain-repellent grille just 29 mm thick. Drawcord operation. Protection category IP20.



Mounting panel

MBR 90/160/300 Ref. no. 00281

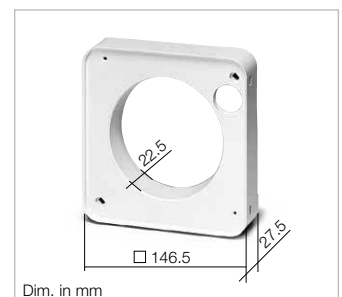
Made of high-quality, impact-resistant plastic, colour: alpine white. Ideal for use in renovations. HR 90 KE models can be easily installed in existing, rectangular shaft openings with the mounting panel. The panel can be fully painted or wallpapered in order to hide it.



Mounting flange

MF 90 Ref. no. 00819

Areas of application:
1. Required for ceiling installation. MF prevents the ingress of condensate into the fan from vertical extract air ducts.
2. For the simple installation of connection cables in case of an inconvenient wall outlet, because the fan is raised from the wall by 23 mm.
3. For the simple installation of the fan in narrow shafts. In case of 90° bend with a short duct connection, the MF reduces the installation depth of the fan.
4. In case of installation in thin walls, the installation depth of the fan can be reduced as follows: To 35 mm with 1 mounting flange. To 7 mm with 2 mounting flanges. Colour: Alpine white.



■ **Accessory details Page**

Flexible ventilation ducts, roof outlets and ventilation grilles	561 ff.
Intake air elements	586 ff.
Speed controllers, controllers & turn-off delay switches	599 ff.