MAICO
VENTILATOREN

ER EC – FANS FOR WINDOWLESS BATHROOMS AND WCs

- **Flexible application options:** With three housings, a fan insert and four alternative covers, all installation situations can be realised
- **Variable:** Volumetric flow rate adjustment options via touch control element
- **Downward-compatible retrofits** for existing housings: Up to **95 % energy savings** and greater ease of use

ACCORDING TO DIN 18017-3 & DIN 1946-6

FLEXIBLE APPLICATION OPTIONS

WITH THREE HOUSINGS, A FAN INSERT AND FOUR ALTERNATIVE COVERS, ALL INSTALLATION SITUATIONS CAN BE REALISED

ER FLUSH-MOUNTED AND SURFACE-MOUNTED HOUSING

+

FAN INSERT WITH EC MOTOR

+

COVER WITH CONTROL UNIT

THE RIGHT VENTILATION SOLUTION FOR EVERY APPLICATION

THE MAICO ER PRODUCT RANGE

The ER product range as a surface-mounted or flush-mounted version is the perfect choice when it comes to the reliable removal of stale and humid air in windowless bathrooms and WCs.

With the different control variants in the covers, MAICO completely fulfils all the requirements of the housing industry in accordance with DIN 18017-3 and DIN 1946-6.

APPLICATIONS:

Installation in windowless bathrooms, WCs and open-plan kitchens

- Shower spray area (IPX5: protection against water jets from all directions)
- Multi-storey housing construction
- Office and administration buildings
- Retirement homes and care facilities
- Hotel facilities
- Prefabricated bathrooms

ACCORDING TO DIN 18017-3 & DIN 1946-6

FLUSH-MOUNTED VARIANT

SURFACE-MOUNTED VARIANT

VERY EASY TO INSTALL

ER FLUSH-MOUNTED AND SURFACE-MOUNTED HOUSING

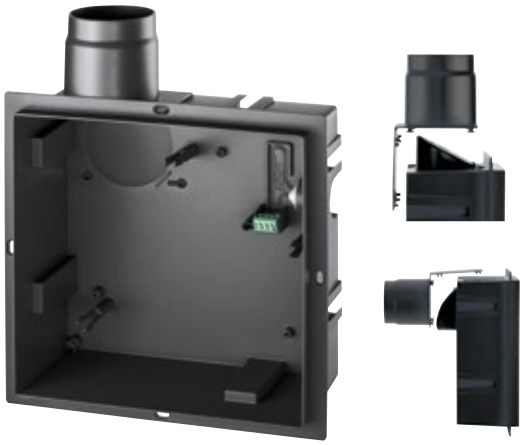
ADVANTAGES AT A GLANCE:

- The **completely sealed housing** is perfectly prepared for water jets (degree of protection IP X5 for the areas listed in 1 DIN VDE 0100-701)
- **Turning the housing** to the right or left by 90° ensures optimal connection to the ventilation duct (DN 75 / DN 80)
- The flush-mounted housing, made of **sturdy, high-strength plastic**, can be mounted in a ventilation shaft, in a wall, in a pre-wall or in the suspended ceiling
- **Easy-to-install, flush-mounted housing** with positionable side/rear connection socket
- Flat housing in an elegant, timeless design

SIMPLE INSTALLATION THANKS TO INTEGRATED MOUNTING OPTIONS, WITHOUT COMPLEX MOUNTING BRACKETS

ER GH (FLUSH-MOUNTED HOUSING)

- The locking technology allows quick, tool-free conversion of the connection socket on the rear of the housing. The blowout direction is thus to the rear (with an airstream-operated backflow preventer)
- A second connection for a toilet seat odour extraction system (extraction via flushing pipe) or via a second room connection is possible via optional accessories
- The **low installation depth** is advantageous in confined spaces



ER EC flush-mounted housing with plastic socket and backflow preventer

ER GH AP (SURFACE-MOUNTED HOUSING)

ER GH AP
Surface-mounted housing with plastic socket and backflow preventer

ER GH APB
Surface-mounted housing with metal socket and shut-off device

ONE SOLUTION FOR ANY APPLICATION

FAN INSERT WITH EC MOTOR

The energy-saving EC motor of the ER EC is pleasantly quiet. The ER EC is extremely flexible thanks to its tool-free installation and two different blow-out variants.

ADVANTAGES AT A GLANCE:

- Fan insert with quiet, robust, ball bearing mounted and **energy-saving EC motor**
- **Installation without tools**, with snap-on attachment and electrical plug connector
- Always the same fan insert for surface-mounted or flush-mounted versions

2-LEVEL FAN FOR INSTALLATION IN ER GH FLUSH-MOUNTED HOUSING AND ER GH AP/ER GH APB SURFACE-MOUNTED HOUSING

TWO BLOW-OUT VARIANTS

With side blow-out as standard or as a variant with rear blow-out. Both adapters are included in the scope of delivery and can be conveniently installed on site without tools as required.

FOUR COVERS WITH CONTROL FUNCTIONS TO CHOOSE FROM

With the standard model, the comfort model and the two barrier-free models with humidity or motion sensor, the ER EC can be used in all areas of application.

ER-A standard model:

- Full load operation with start delay of: approx. 60 sec. and overrun time approx. 15 min.
- Volumetric flow at a base load of: 30 m^3/h
- Volumetric flow at a full load of: 60 m^3/h

ER-AK comfort model:

- Control with time module
- Full load operation with adjustable start delay: 0 / 30 / 60 / 90 / 120 sec. and overrun time of 0 / 3 / 6 / 15 / 24 / 30 min.
- Adjustable interval operation: 0 / 1 / 2 / 4 / 6 / 12 h, duration of air extraction 10 min.
- Adjustable volumetric flow at a base load of: 20 / 30 / 40 / 60 / 100 m^3/h
- Adjustable volumetric flow at a full load of: 20 / 30 / 40 / 60 / 100 m^3/h

BARRIER-FREE PRODUCT

ER-AH model with humidity sensor:

- Control by means of humidity sensor and time module
- Full load operation with adjustable start delay: 0 / 30 / 60 / 90 / 120 sec. and overrun time of 0 / 3 / 6 / 15 / 24 / 30 min.
- Adjustable interval operation: 0 / 1 / 2 / 4 / 6 / 12 h, duration of air extraction 10 min.
- Intelligent humidity control; fan monitors and extracts air automatically
- Adjustable volumetric flow at a base load of: 20 / 30 / 40 m^3/h
- Adjustable volumetric flow at a full load of: 40 / 60 / 100 m^3/h

BARRIER-FREE PRODUCT

ER-AB model with motion sensor:

- Control by means of motion detector and time module
- Full load operation with adjustable start delay: 0 / 30 / 60 / 90 / 120 sec. and overrun time of 0 / 3 / 6 / 15 / 24 / 30 min.
- Adjustable interval operation: 0 / 1 / 2 / 4 / 6 / 12 h, duration of air extraction 10 min.
- Full load level after motion is detected (range of motion sensor: 5 m)
- Adjustable volumetric flow at a base load of: 20 / 30 / 40 / 60 / 100 m^3/h
- Adjustable volumetric flow at a full load of: 20 / 30 / 40 / 60 / 100 m^3/h

ADDITIONAL OPTIONS BY REPLACING THE COVERS

The control and operating unit is located in the cover. Since the cover can be easily replaced, another controller can be installed with ease at a later date. You can choose between the four variants mentioned. A different controller can be installed at a later point in time by replacing the cover. Simple and practical if, for example, the air extraction variant with motion sensor is required later.

OUR YOUTUBE TUTORIAL SHOWS HOW EASY IT IS TO REPLACE THE COVERS.

ADVANTAGES AT A GLANCE:

- Perfect shape: The **flat cover with an elegant design** fits any ambience, is rotatable by 5° and can thus be optimally aligned. Colour: Traffic white (similar to RAL 9016)
- Absolutely **user-friendly**: The **filter change indicator** with reset function enables proper hygienic operation. The filter can be replaced without tools.
- **Integrated control/operating unit:** The integrated touch control element in the ER-AK, ER-AH and ER-AB variants can be used to make further customised settings, such as start delay, overrun time, interval or volumetric flow rates. The touch field can also be locked to prevent unauthorised adjustment.

THE PARAMETERS FOR THE VOLUMETRIC FLOWS, START DELAY, OVERRUN TIME AND INTERVAL TIME CAN BE SET VERY EASILY.

INNOVATIVE HUMIDITY CONTROL USING THE EXAMPLE OF ER-AH

- Manual setting of a humidity limit value not necessary.
- The unit stores the humidity measured during installation as a reference value.
- If the humidity value falls below the reference value, the current value is saved as the new reference value; lower limit 45 % rel. humidity.
- If the air humidity rises rapidly above the current reference value, the fan is adjusted upwards in a continuously variable manner; maximum flow rate at 100 %, relative humidity at 40, 60 or 100 m^3/h, depending on the full load setting on the touch field; if the air humidity falls below the reference value, overrun operation starts according to the set overrun time.
- The fan can also be switched to full load with an optional switch. After switch-off, the fan continues to run at full load according to the set overrun time, then base load or switch-off.
- During operation without base load, the fan starts up every 2 minutes for 30 seconds at 20 m^3/h, to record the current humidity value.

DOWNWARDS COMPATIBLE WITH THE ER 17 PREDECESSOR MODEL

REPLACEMENT OF EXISTING ER 17 FANS

ER EC RF 17 IN EXISTING HOUSING VENTILATION ACCORDING TO DIN 18017-3

Saving energy thanks to modernised ventilation: Installing a new **ER EC RF 17** fan insert kit and covers not only saves energy, but also allows innovative control to be realised.

ENERGY SAVINGS UP TO 95 %

EXISTING ER 17 FAN WITH COMPONENTS

Existing housing
UPB 17
UP 17

Previous fan **ER** 17/60 or 17/100 with covers

MODERNISE YOUR VENTILATION SYSTEM WITH THESE NEW COMPONENTS:

Fan insert kit
ER EC RF 17

Covers with different control variants

THE PERFECT COMBINATION:
THE NEW FAN FITS PERFECTLY INTO THE EXISTING FLUSH-MOUNTED HOUSING

Existing housing
UPB 17
UP 17

Fan insert kit
ER EC RF 17
Article no. 0093.0614

Covers with integrated control
ER A Standard Art. no. 0084.0361
ER AK Comfort Art. no. 0084.0362
ER AH Humidity Art. no. 0084.0363
ER AB Movement Art. no. 0084.0364

DOWNWARD COMPATIBLE WITH THE ER 60/ ER 100 PREDECESSOR MODEL

REPLACEMENT OF EXISTING 60/ ER 100 FANS

ER RPK IN EXISTING HOUSING VENTILATION ACCORDING TO DIN 18017-3

The **ER-RPK** replacement kit for the **ER EC** fan enables installation in the existing **ER-UP/G, ER-UPD** and **ER-UPB** housings. The DC motor of the new fan is not only energy-saving, but can also be individually controlled in conjunction with a new cover.

ENERGY SAVINGS UP TO 80 %

EXISTING ER 60 / ER 100 FAN WITH THE HOUSINGS

Existing housing
ER-UP/G, ER-UPD and **ER-UPB**

Previous fan with **ER 60 / ER 100** cover

MODERNISE YOUR VENTILATION SYSTEM WITH THESE NEW COMPONENTS:

Replacement kit **ER-RPK**

ER EC **fan**

Covers with different control variants

THE PERFECT COMBINATION:
THE NEW FAN FITS PERFECTLY INTO THE EXISTING FLUSH-MOUNTED HOUSING

Existing housing
ER-UP/G, ER-UPD
and **ER-UPB**

+

Replacement kit
ER-RPK
Art. no. 0093.1563

+

Fan
ER EC
Art. no. 0084.0360

+

Covers with integrated control

ER A Standard	Art. no. 0084.0361
ER AK Comfort	Art. no. 0084.0362
ER AH Humidity	Art. no. 0084.0363
ER AB Movement	Art. no. 0084.0364

TECHNICAL DATA

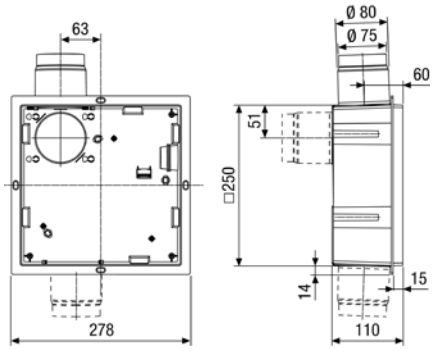
Article	Article no.	Model	Air volume	Start delay	Overrun time	Interval time[1]	Sound pressure level[2]	Sound power levels L_{WA7}	Power consumption
			m³/h	approx. sec	approx. min	h	dB(A)	dB(A)	W
ER EC fan insert									
ER EC	**0084.0360**	dependent on control in cover							
Covers with control									
ER-A	**0084.0361**	Standard	Base load 30 Full load 60	60	15	0/1/2/4/6/12	26 36	30 40	3 6
ER-AK	**0084.0362**	Comfort with time module	Base load 20/**30**/40/60/100 Full load 20/30/40/**60**/100	0/30/60/90/120	0/3/6/15/24/30	0/1/2/4/6/12	22/**26**/31/ **36**/45	26/**30**/35/ **40**/49	2/**3**/4/ **6**/14
ER-AH	**0084.0363**	Humidity control with time module	Base load 20/**30**/40 Full load 40/**60**/100	0/30/60/90/120	0/3/6/15/24/30	0/1/2/4/6/12	22/**26**/31/ **36**/45	26/**30**/35/ **40**/49	2/**3**/4/ **6**/14
ER-AB	**0084.0364**	Motion detector with time module	Base load 20/**30**/40/60/100 Full load 20/30/40/**60**/100	0/30/60/90/120	0/3/6/15/24/30	0/1/2/4/6/12	22/**26**/31/ **36**/45	26/**30**/35/ **40**/49	2/**3**/4/ **6**/14
Flush-mounted housing									
ER-GH	**0084.0350**	Material: high-strength plastic							
The following applies to all unit configurations:									
Filter class G2, filter contamination indicator, degree of protection IP X5, maximum airstream temperature 40° 230 V, 50 Hz, mains cable 5x1.5 mm²									

[1] Unit runs at intervals of x hours, for 10 minutes at a time

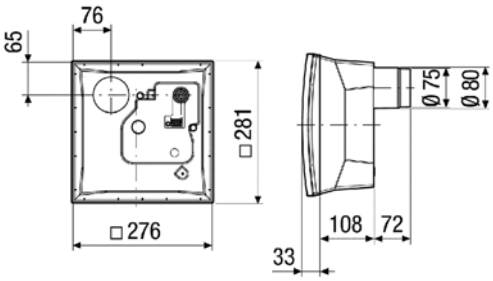
[2] Specification according to DIN 18017-3 with an equivalent absorption area of A_L = 10 m²

DIMENSIONS (mm)

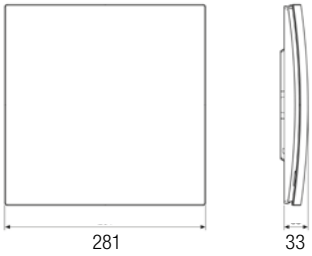
FLUSH-MOUNTED HOUSING



SURFACE-MOUNTED HOUSING

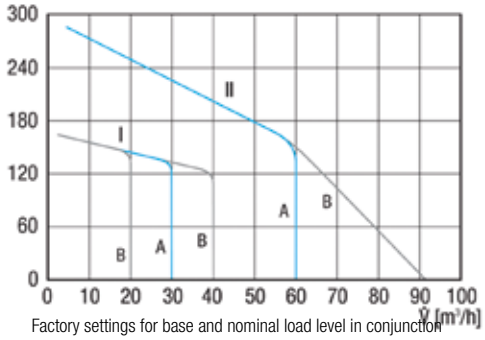


COVER



CHARACTERISTIC CURVES

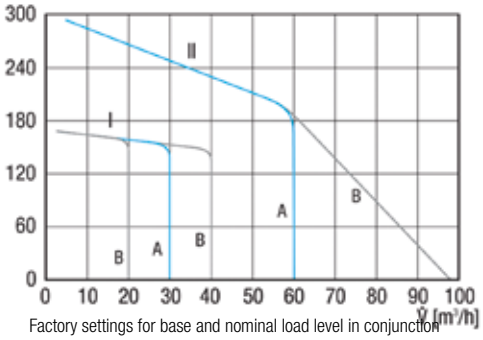
REAR BLOW-OUT



Factory settings for base and nominal load level in conjunction with ER-A cover

Alternative settings for base and nominal load levels in conjunction with ER-AK, ER-AH and ER-AB covers

SIDE BLOW-OUT



Factory settings for base and nominal load level in conjunction with ER-A cover

Alternative settings for base and nominal load levels in conjunction with ER-AK, ER-AH and ER-AB covers

COMPONENTS AND ACCESSORIES

COMPONENTS AND ACCESSORIES	ARTICLE NUMBER	PRODUCT PHOTOS
ER GH flush-mounted housing with plastic socket and backflow preventer	0084.0350	
ER GH AP surface-mounted housing with plastic socket and backflow preventer	0084.0352	
ER GH APB surface-mounted housing with metal socket and shut-off device/fire protection	0084.0353	
ER EC fan insert	0084.0360	
ER-A cover with control Standard model	0084.0361	
ER-K cover with control Comfort model	0084.0362	
ER-AH cover with control Version with humidity sensor	0084.0363	
ER-AB model with motion detector	0084.0364	
ER-MS installation kit for ER GH flush-mounted housing with hammer-head screw, nut and 90° bracket*	0093.0603	
UPM mounting support for ER GH and ER-UP flush-mounted housing*	0093.0277	
ER-AR EC cover frame for flush-mounted housings that have not been plastered deeply enough*	0093.0276	
ER-MR EC wall frames for housings that are plastered too deeply, prevents air from being drawn out of the shaft* Tutorial	0192.0765	
ER-GH VWR extension frame 40 mm for installation in pre-wall registers*	0093.1564	
ER-SE EC sound-absorbing element set for ER EC single air extraction system*	0093.1565	
ER-ZR second room connection set*	0093.1025	
ER-RPK replacement kit for ER EC fan insert for existing ER 60 or ER 100 fan inserts for downward-compatible installation in ER-UP/G, ER-UPD and ER-UPB flush-mounted housings* Tutorial	0093.1563	
ER EC RF 17*	0093.0614	
ZF EC replacement filter**	0093.0758	
ZF ECD replacement permanent filter for the cover of the ER EC fan insert, filter class G2, 2 pieces, washable** Tutorial	0093.1561	

* Accessories for flush-mounted variant **Accessories for flush-mounted and surface-mounted variant

FIND YOUR LOCAL CONTACT PERSON!

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