



## 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



# 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 CON-  
TROL 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<sup>3</sup>/h
- ▶ Volumetric flow at a full load of: 60 m<sup>3</sup>/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<sup>3</sup>/h
- ▶ Adjustable volumetric flow at a full load of: 20 / 30 / 40 / 60 / 100 m<sup>3</sup>/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<sup>3</sup>/h
- ▶ Adjustable volumetric flow at a full load of: 40 / 60 / 100 m<sup>3</sup>/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<sup>3</sup>/h
- ▶ Adjustable volumetric flow at a full load of: 20 / 30 / 40 / 60 / 100 m<sup>3</sup>/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<sup>3</sup>/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<sup>3</sup>/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**

until ca.  
**1996**



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

from ca.  
**1996**

### 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 m <sup>3</sup> /h	Start delay approx. sec	Overrun time approx. min	Interval time <sup>1)</sup> h	Sound pressure level <sup>2)</sup> dB(A)	Sound power levels L <sub>WA7</sub> dB(A)	Power consumption W
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## 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
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:

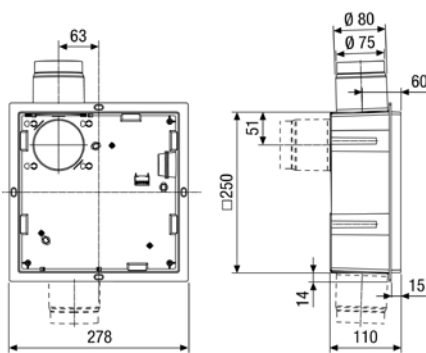
Filter class G2, filter contamination indicator, degree of protection IP X5, maximum airstream temperature 40° 230 V, 50 Hz, mains cable 5x1.5 mm<sup>2</sup>

<sup>1)</sup> Unit runs at intervals of x hours, for 10 minutes at a time

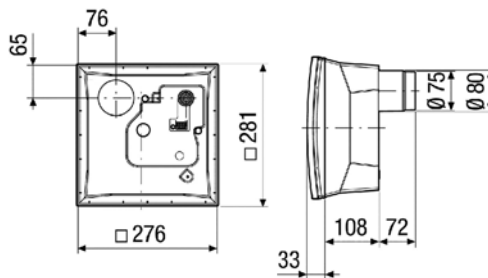
<sup>2)</sup> Specification according to DIN 18017-3 with an equivalent absorption area of A<sub>1</sub> = 10 m<sup>2</sup>

## DIMENSIONS (mm)

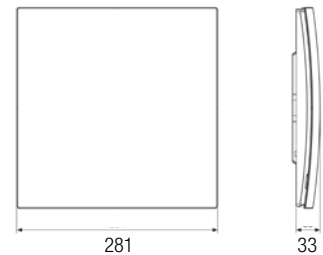
### FLUSH-MOUNTED HOUSING



### SURFACE-MOUNTED HOUSING

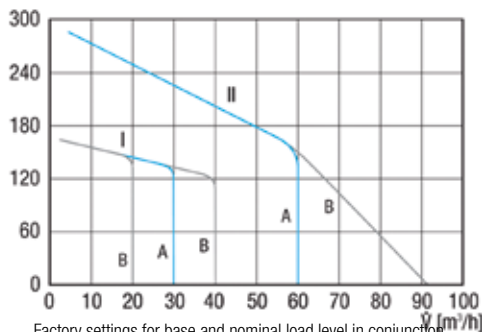


### COVER



## CHARACTERISTIC CURVES

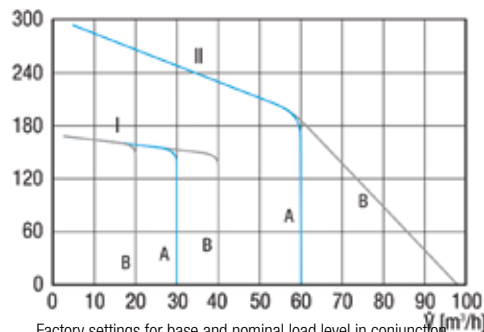
### REAR BLOW-OUT



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