

DECENTRALIZED HOME VENTILATION LG 100



**COMFORT
VENTILATION**



In preparation



 **PICHLER**

Systematic ventilation.

Product description

With its flexible mounting options and connection variants the decentralized compact ventilation unit LG 100 offers an optimum solution for every situation. Depending on the design of the housing, the following installation variants are provided for selection: Installation of the ventilation unit in the exterior wall (flush-mounted approach), installation on the inner side of an exterior wall (surface-mounted approach), or installation in a suspended ceiling (ceiling approach). The flush-mounted approach can be optionally implemented as single-room or multi-room application.

With the LG 100 ventilation unit the ventilation concept can be created very flexibly and, if required, further rooms can be integrated via the KOMFLEX air duct system.

By means of small, adjustable sliding elements, the supply air and extract air volume flows that are led via the front cover of the unit can be regulated.

The used air is extracted from the living areas, and fresh, filtered outdoor air is supplied again. In this process, the high-quality enthalpy exchanger allows for efficient heat and moisture recovery and ensures a well-balanced room humidity and a pleasant room climate.

Highly efficient and low noise EC radial fans allow for extremely energy-saving and low-noise operation.

In the switched-off state, the outdoor and exhaust air openings are automatically closed mechanically.

The integrated sensors record the VOC and eCO₂ concentration of the extract air and, in automatic mode, allow for an operation depending on the room air quality.

The decentralized compact ventilation unit LG 100 is operated easily and intuitively via push button directly at the unit or via the Pichler App. To make this possible, one of the unit's standard features is the WLAN connection.

Optionally you can additionally connect an external control unit via cable connection.

Optionally: Different designs and colours of the design front available on request, standard colour RAL 9003.

Area of application

The unit is ideally suitable for the controlled home ventilation of small to medium-sized residential units. The variant variety offers the perfect solution for any mounting conditions.

For new buildings, for instance, the flush-mounted approach is especially suitable, allowing to "hide" the ventilation unit almost flush with the exterior wall.

Apart from the aeration and ventilation of the room in which the unit is installed, additional supply air and extract air rooms can be connected.

For renovations in existing buildings, we recommend the surface-mounted installation type. This type of installation only requires two core drillings (Ø 142 mm). As an alternative, the unit can also be mounted on the ceiling. A suspended ceiling of 200 mm hides the built-in frame and the pipes.

System solution for residential building

BENEFITS

- Decentralized ventilation unit with optional multi-room connections
- Flush-mounted, on-wall or ceiling variant
- Intelligent humidity control
- Silent and efficient comfort ventilation
- High acoustic insulation
- Two-stage outdoor air filtration
- Without condensate drainage by enthalpy exchangers
- Cover flaps for outdoor air/exhaust air
- VOC/eCO₂ multi-sensor for room air quality measurements integrated
- Comparison of the outdoor air quality with the room air (optional)
- Allocation of the operating & maintenance expenses by individual apartments
- Installation into the exterior wall makes it possible to dispense with risers
- No penetration of fire compartments in residential buildings
- WLAN connection
- Operation via the Pichler App



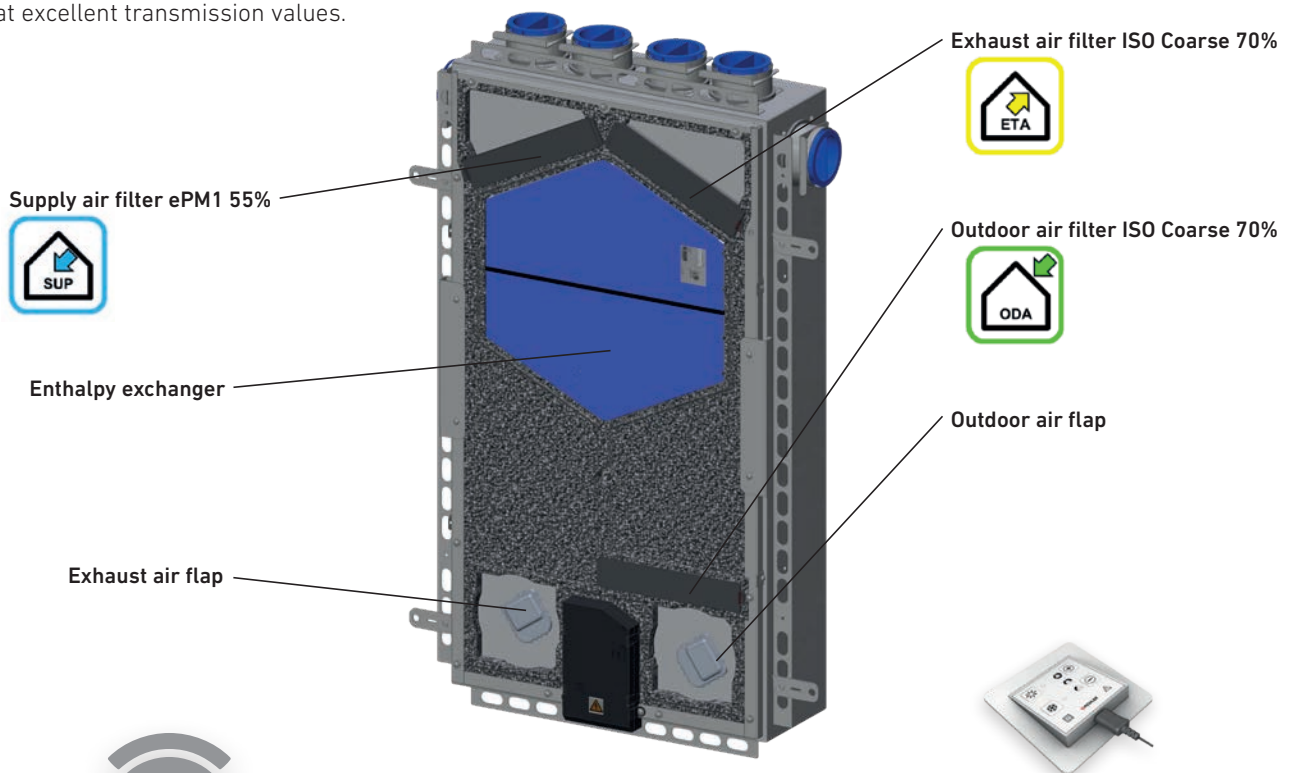
Special features

ENTHALPY EXCHANGERS

are recuperative energy exchangers not only recovering heat, but also humidity and in this way providing for a balanced room climate throughout the year. This is enabled by a special polymer membrane which allows for vapour diffusion, but at the same time prevents the formation of bacteria (hygiene-certified in compliance with VDI 6022). The enthalpy exchanger does not produce any condensate and it convinces by its long lifetime at excellent transmission values.

FILTER

A special focus is placed on the filtration of the outdoor air. The outdoor air is filtered in two stages so as to create filter change intervals that are as long as possible and nevertheless provide for a high separation efficiency. Even with a higher fine dust pollution, effective and efficient filtration is therefore ensured.



WLAN / PICHLER APP

The ventilation unit can be easily integrated into the home network and controlled via the Pichler App. Download in the Apple iOS store and Google Play store.



CONTROL

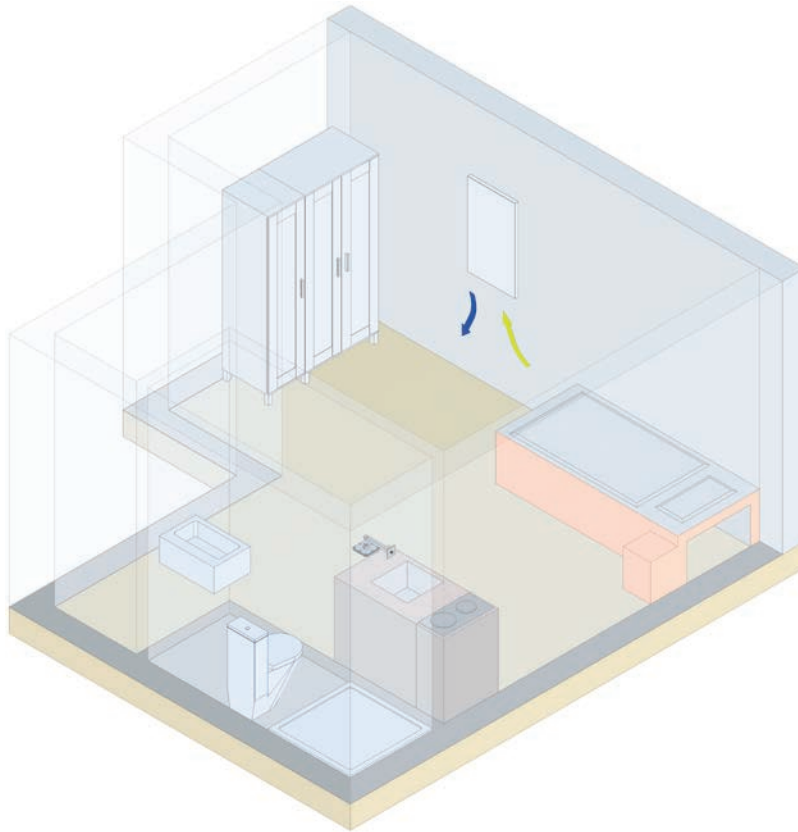
The demand-driven volume flow control is based on the continuous measurement of the room air quality. When the VOC or eCO2 concentration rises, the volume flow is automatically increased. If outdoor temperatures are very low, depending on the design either the pre-heating battery is activated or the supply air volume flow is reduced.

OPERATING CONTROL UNIT MINI (OPTIONAL)

If operation via Pichler App and by means of the push button on the unit is not sufficient (e.g. in the case of ceiling mounting), you can optionally connect the wired operating control unit MINI. It is easy to handle, makes it possible to adjust the ventilation levels and displays the operating status, a necessary filter change and possibly occurring faults. It is installed on a flush-mounted socket.



Flush-mounted fitting – single-room application (recommended operating volume flow: 25 - 60 m³/h)

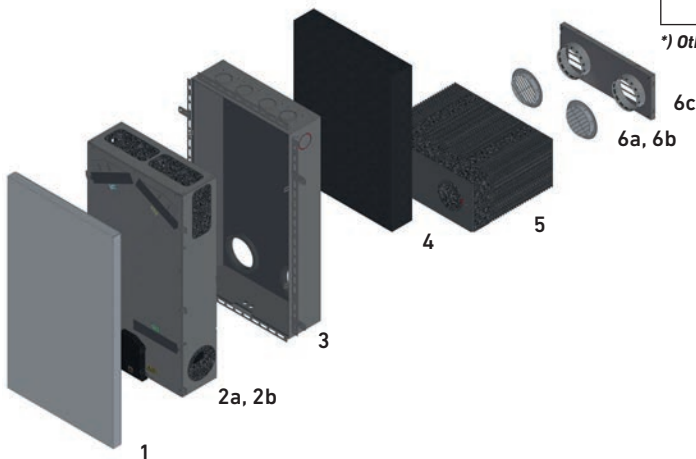


THE FOLLOWING ARTICLES ARE COMBINED FOR SINGLE-ROOM APPLICATIONS AS A STANDARD

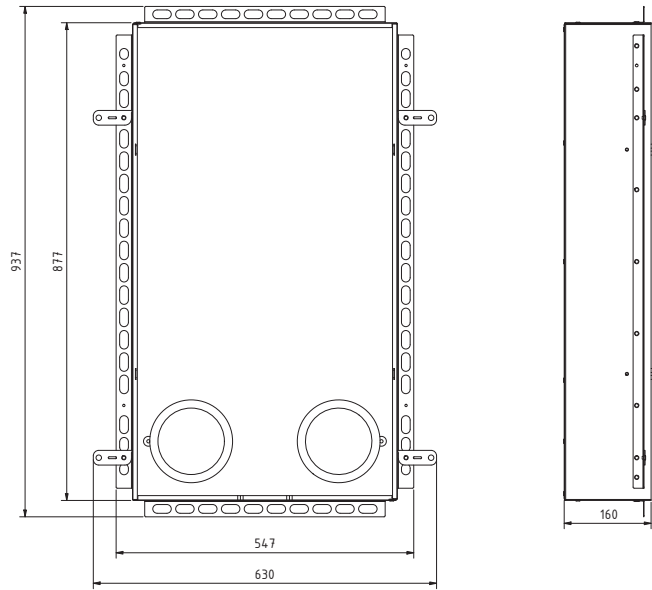
The flush-mounted housing (3), the EPS compensating insulation (4) and the EPP wall duct element (5) are already required in the shell construction phase. The remaining articles are installed at a later time in the completion phase.

Item	Item number
1 Design front, RAL 9003, other variants and colours – see page 13	08LG100UPAPDF1A
2a Compact ventilation unit LG100 without housing	08LG100UPF
2b Compact ventilation unit LG100 without housing with VHR	08LG100UPFV
3 Flush-mounted housing, single-room application	08LG100UPGERA
4 EPS compensating insulation, 100 mm	08LG100UPAGD1A
5 EPP wall duct element	08LG100UPWD
6a Plastic grille NW 170, white mountable from the inside	10DF140B
6b Plastic grille NW 155, white mountable from the outside	10TU125B
6c Outer wall element NW 125; steel sheet galvanized RAL 9003*	08LG100AWE1A

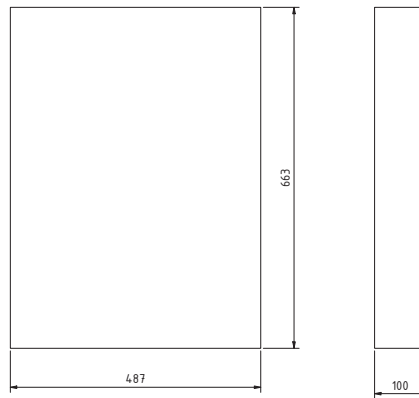
*) Other designs and colours on request



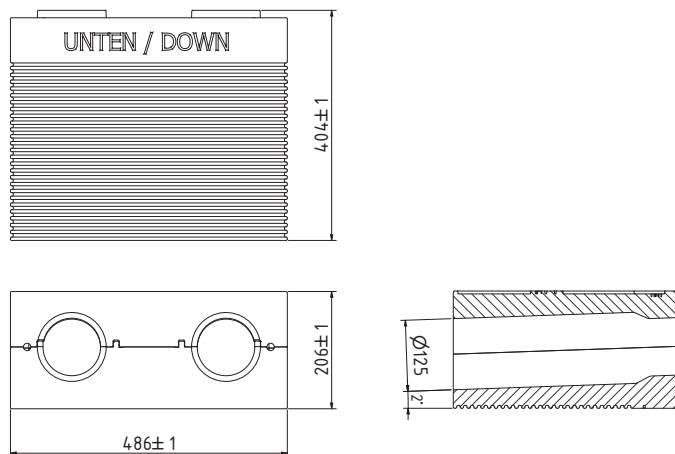
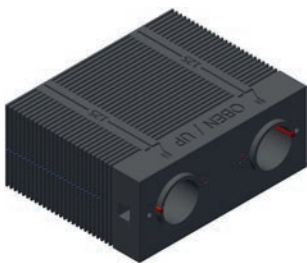
FLUSH-MOUNTED HOUSING, SINGLE-ROOM APPLICATION (3)



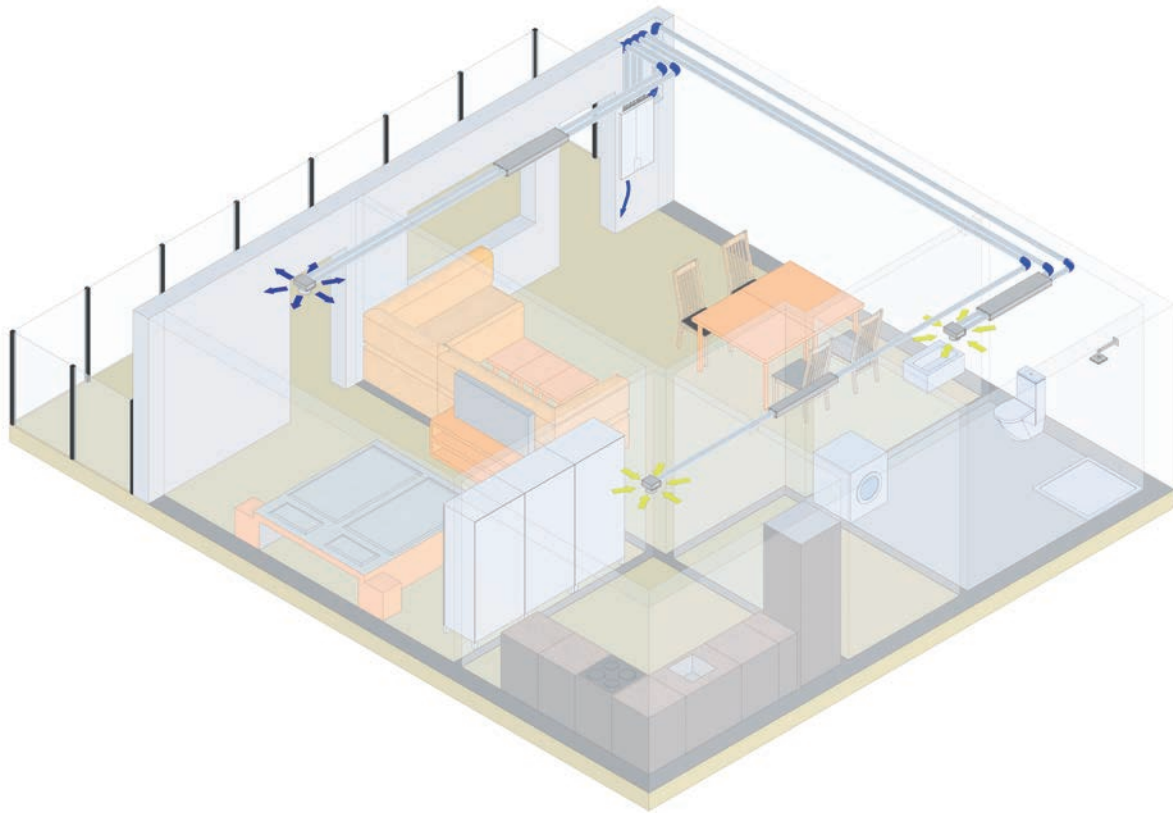
EPS COMPENSATING INSULATION (4)



EPP WALL DUCT ELEMENT (5)



Flush-mounted fitting – multi-room application (recommended operating volume flow: 25 - 80 m³/h)

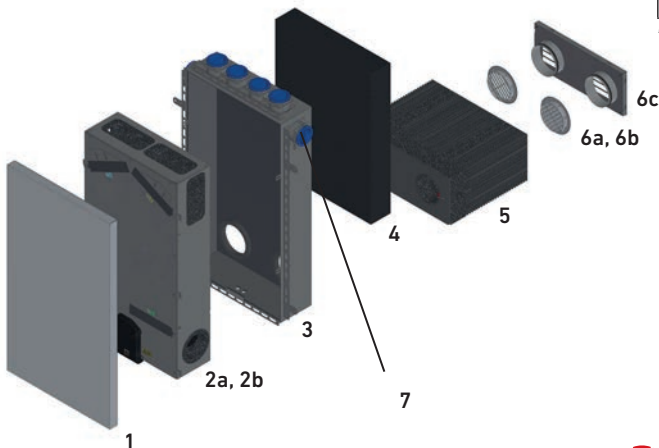


THE FOLLOWING ARTICLES ARE COMBINED FOR MULTI-ROOM APPLICATIONS AS A STANDARD

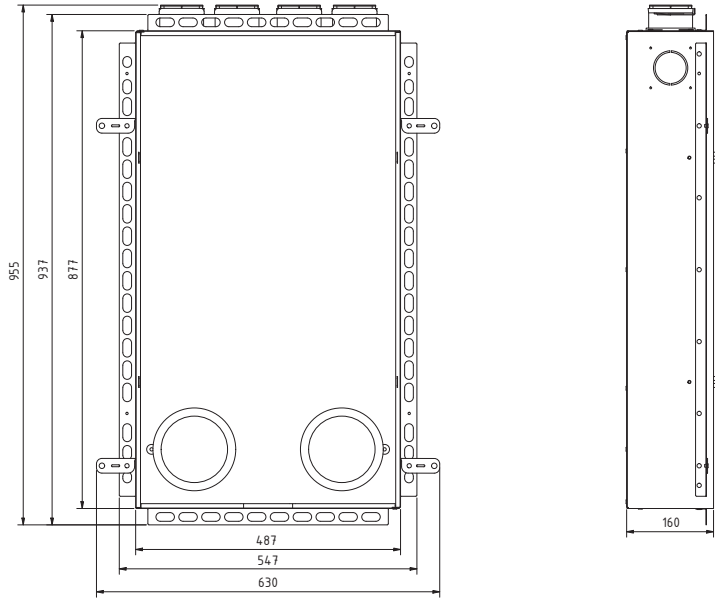
The flush-mounted housing (3), the EPS compensating insulation (4) and the EPP wall duct element (5) are already required in the shell construction phase. The remaining articles are installed at a later time in the completion phase.

Item	Item number
1 Design front, RAL 9003, other variants and colours – see page 13	08LG100UPAPDF1A
2a Compact ventilation unit LG100 without housing	08LG100UPF
2b Compact ventilation unit LG100 without housing with VHR	08LG100UPFV
3 Flush-mounted housing, multi-room application	08LG100UPGMRA
4 EPS compensating insulation, 100 mm	08LG100UPAGD1A
5 EPP wall duct element	08LG100UPWD
6a Plastic grille NW 170, white mountable from the inside	10DF140B
6b Plastic grille NW 155, white mountable from the outside	10TU125B
6c Outer wall element NW 125; steel sheet galvanized RAL 9003*	08LG100AWE1A
7 Expansion set multi-room application	08LG100UPESETA

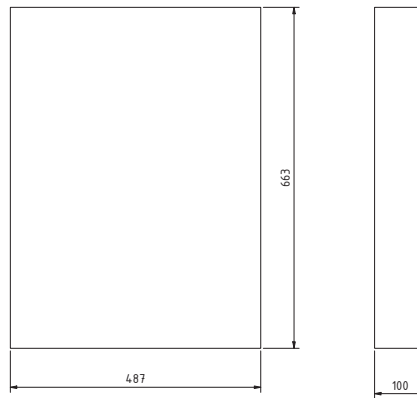
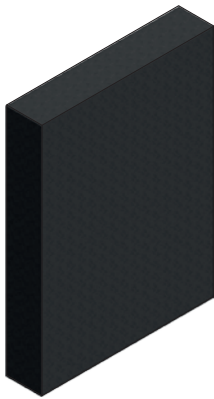
**) Other designs and colours on request*



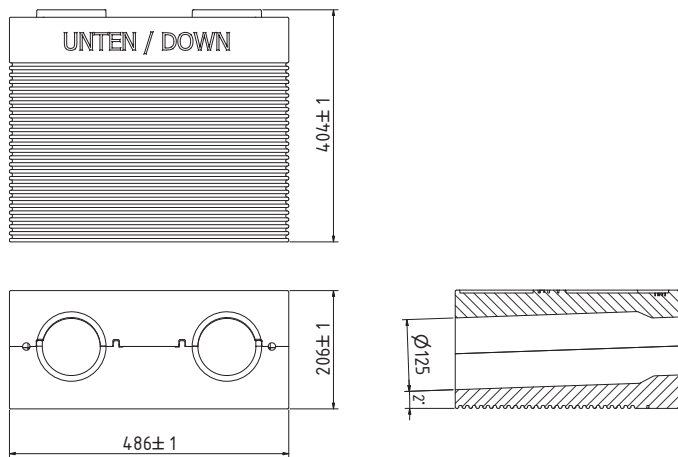
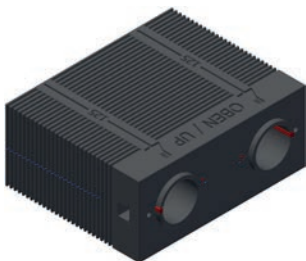
FLUSH-MOUNTED HOUSING, MULTI-ROOM APPLICATION (3)



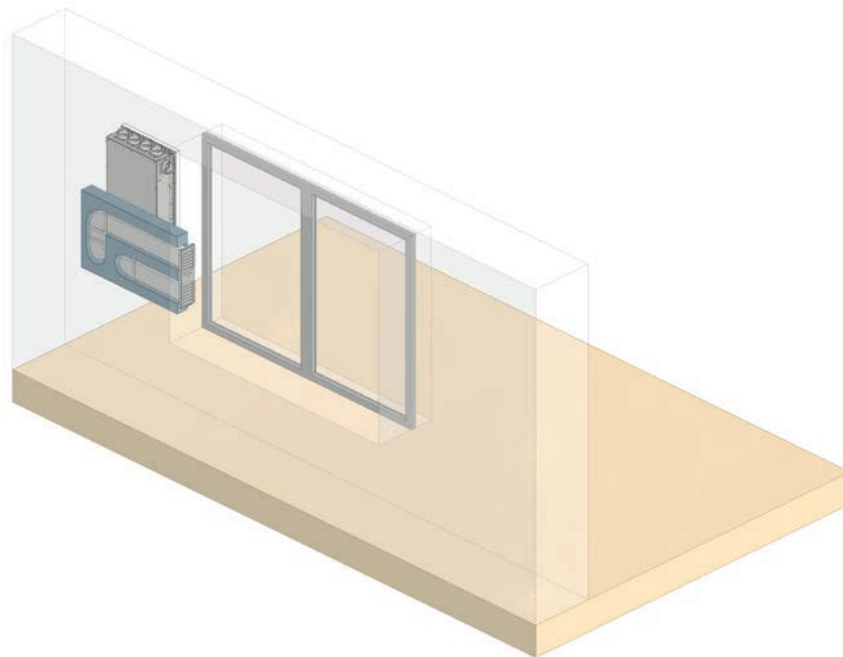
EPS COMPENSATING INSULATION (4)



EPP WALL DUCT ELEMENT (5)



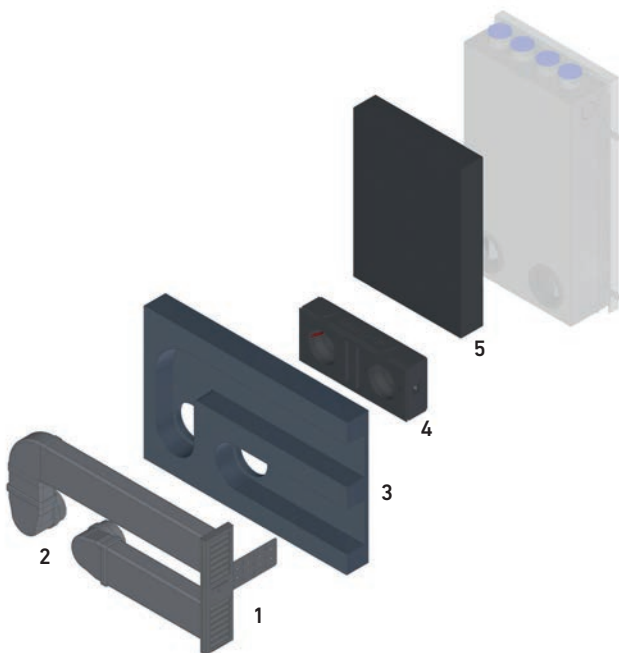
Flush-mounted fitting – window reveal connection (single-room and multi-room connection)



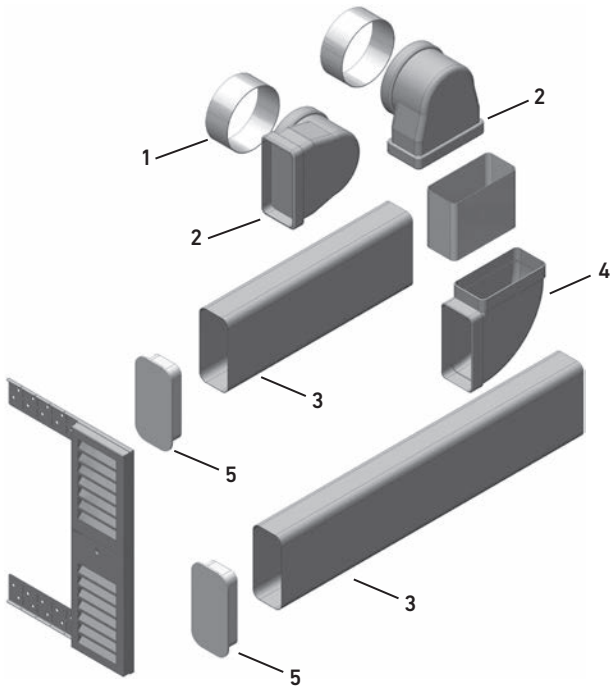
THE FOLLOWING ARTICLES ARE COMBINED FOR THE REVEAL CONNECTION AS A STANDARD

Item	Item number
1 Exterior wall element window reveal, RAL 9003*	08LG100FLAWE1A
2 Window reveal connection set	08LG100FLASETA
3 Window reveal insulation panel	08LG100FLDPA
4 EPP wall duct element	08LG100UPWD
5 EPS compensating insulation, 100 mm	08LG100UPAGD1A

**) Other designs and colours on request*

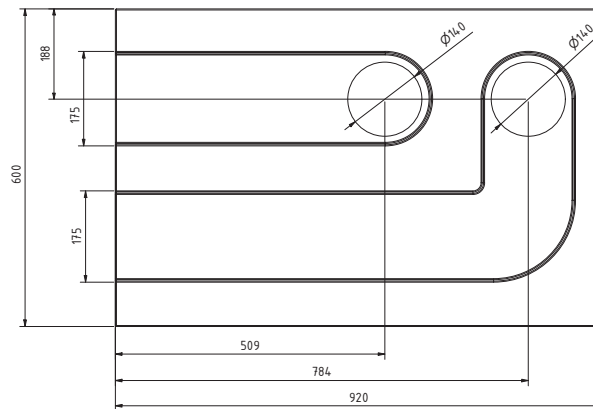
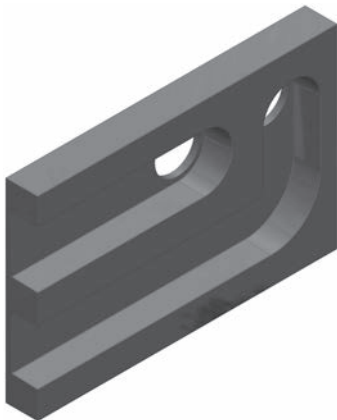


EXTERIOR WALL ELEMENT WINDOW REVEAL (1) & WINDOW REVEAL CONNECTION SET (2)

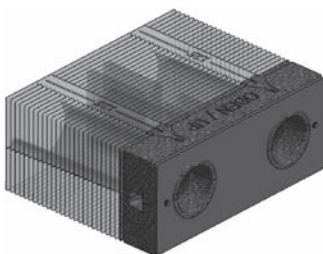


Item		Item number
1	Plastic rings \varnothing 125 mm	40LG0300063A
2	Junctions square / round	08UERV12515070
3	Flat ducts 1 m made from plastic	08K150701000
4	Bend 90° flat	08B9015070
5	Endcovers for ducts	08EP15070

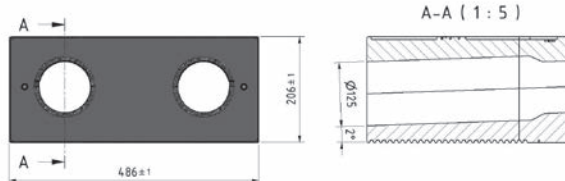
WINDOW REVEAL INSULATION PANEL (3)



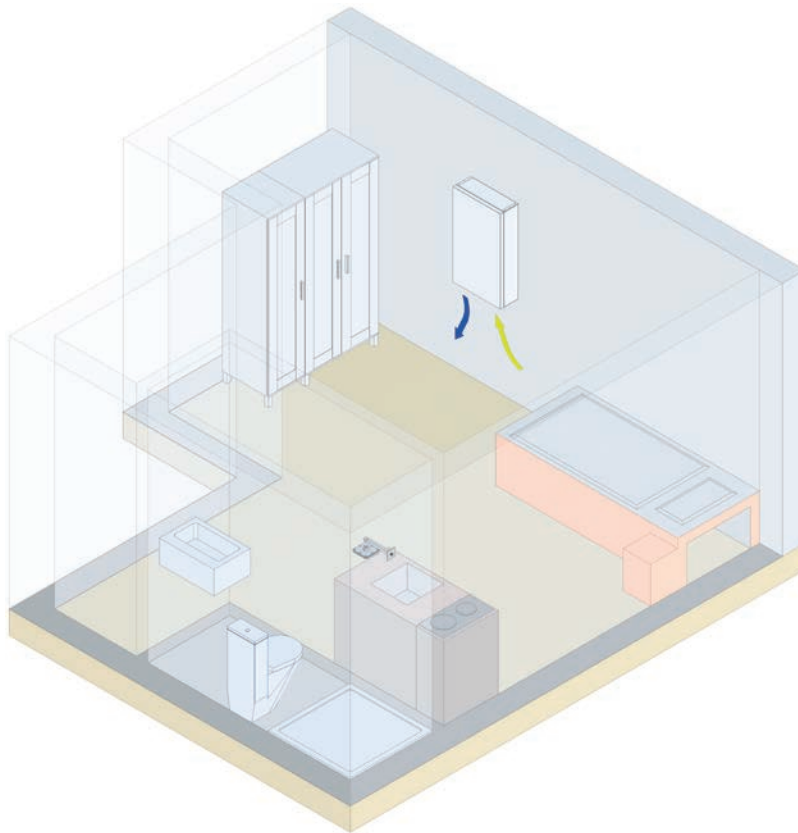
EPP WALL DUCT ELEMENT (4)



can be shortened to a minimum of 100 mm



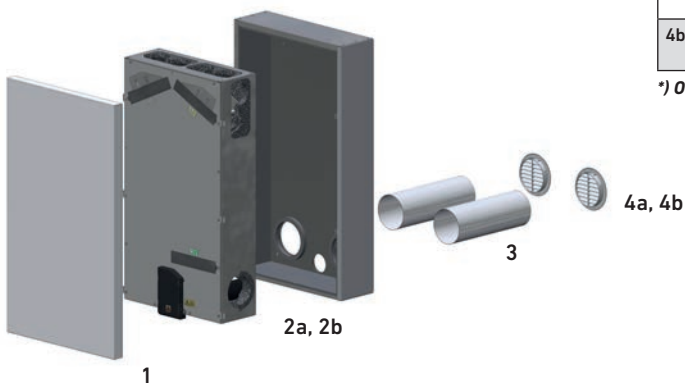
Surface-mounted installation – single-room application (recommended operating volume flow 25 – 60 m³/h)



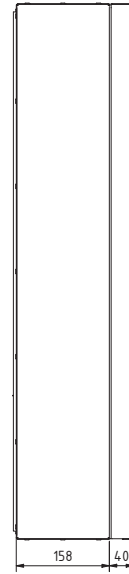
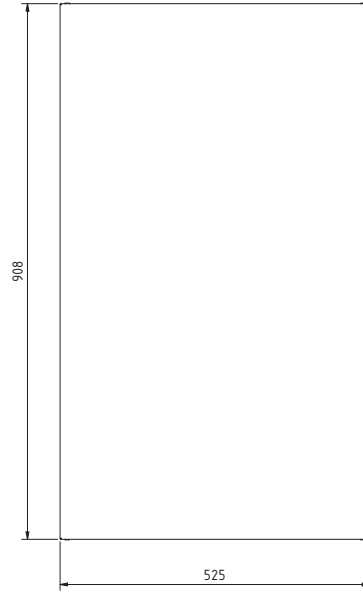
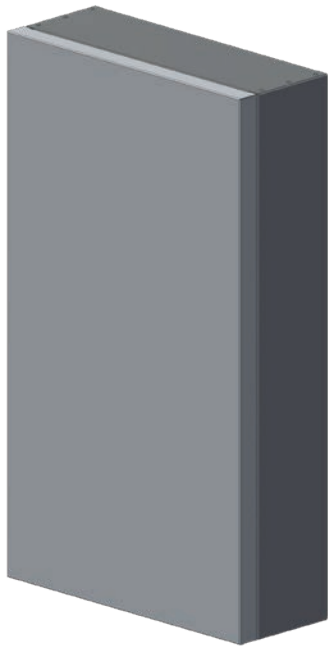
FOR SINGLE-ROOM APPLICATIONS
IN THE SURFACE-MOUNTED HOUSING,
THE FOLLOWING DESIGN VARIANTS ARE PROVIDED

Item	Item number
1 Design front, RAL 9003, other designs and colours – see page 13	08LG100UPAPDF1A
2a Compact ventilation unit LG100AP surface-mounted unit with housing	08LG100APF
2b Compact ventilation unit LG100AP surface-mounted unit with housing with VHR	08LG100APFV
3 Round tube plastics, NW 125 mm, L = 1000 mm	08R1251000
4a Plastic grille NW 170, white, mountable from the inside	10DF140B
4b Plastic grille NW 155, white, mountable from the outside	10TU125B

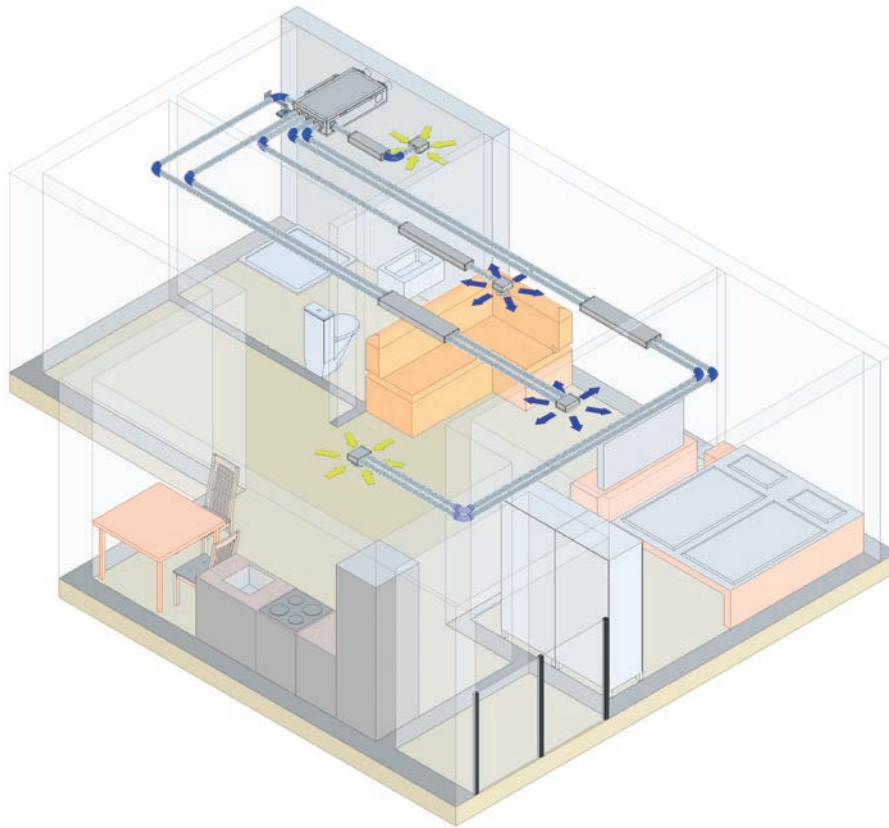
*) Other designs and colours on request



SURFACE-MOUNTED UNIT WITH HOUSING FOR SINGLE-ROOM APPLICATIONS (1, 2A/B)

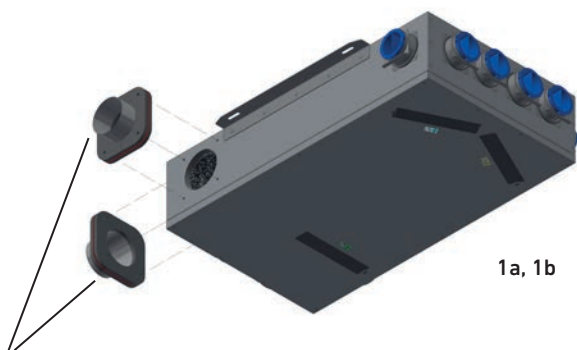


Ceiling mounting (recommended operating volume flow 25 – 80 m³/h)



FOR MULTI-ROOM APPLICATION
IN THE SUSPENDED CEILING,
THE FOLLOWING DESIGN VARIANTS ARE PROVIDED

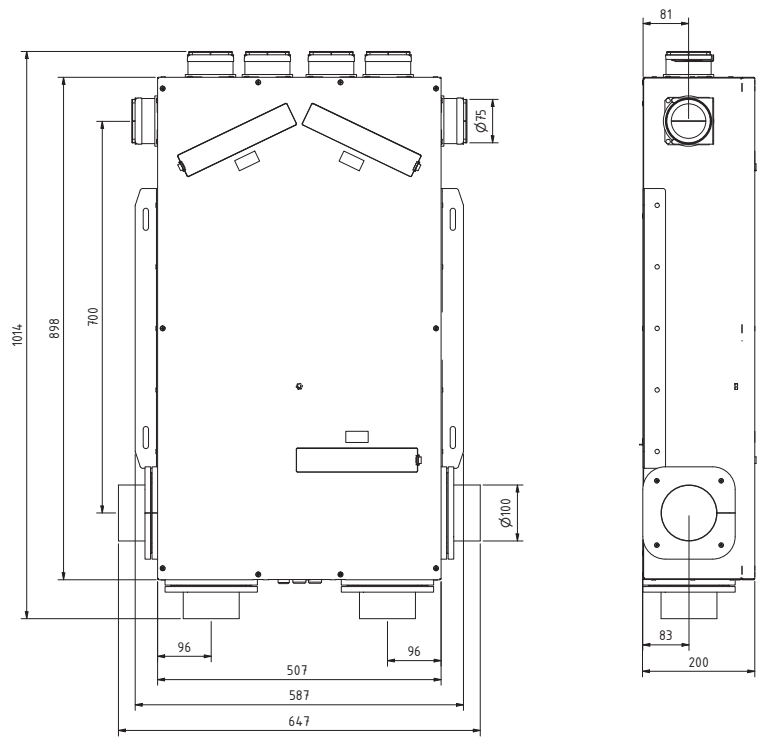
	Item	Item number
1a	Compact ventilation unit LG100DE ceiling unit	08LG100DEF
1b	Compact ventilation unit LG100DE ceiling unit with VHR	08LG100DEFV
2	Operating control unit MINI LG100	08LGMINI100



Variable connection: at the side, at the rear



CEILING UNIT FOR MULTI-ROOM APPLICATION (1A/B)



Technical specifications




UNIT TYPE LG 100

System	Decentralized ventilation unit
Air volume flow min – max	20 – 80 m ³ /h
Ventilation stages	1 – 2 – 3 and auto (demand-based with sensors)
Heat exchanger	Enthalpy counterflow heat exchanger
Fans	EC radial fans
Temperature ratio $\eta_{\theta, \text{SU}}$, EN13141-8	85%
Humidity transfer	60%
Specific input power SEL with ref.vol.flow (56 m ³ /h)	0.35 W/m ³ /h
Volume flow-constant operation	yes
Condensate drainage	not required ¹⁾

CONTROL

Minimum operating temperature (outdoor air) with / without preheating battery	-15°C / -5°C
VOC & eCO ₂ multi-sensor for demand-driven control	yes
Humidity control	yes

CLASSIFICATION OF AIR FILTERS IN ACCORDANCE WITH EN ISO 16890

 ODA pre-filter (outdoor air)	Coarse 70%
 SUP fine filter (supply air)	ePM1 55%
 ETA filter (extract air)	Coarse 70%

SOUND LEVELS

Level of acoustic insulation standby / operation	57 dB(A) / 55 dB(A) flush-mounted approach 55 dB(A) / 55 dB(A) on-wall approach
Sound pressure level in the room at a distance of 1 m ²⁾	23 dB(A) at 30 m ³ /h 25 dB(A) at 40 m ³ /h 30 dB(A) at 60 m ³ /h and multi-room solution

ELECTRICAL SYSTEM

Electrical connection	230 V / 1 ~ / 50 Hz / 16 A
Electrical power consumption ventilation unit	8 – 40 watts
Electrical power consumption pre-heating battery	280 watts

MATERIALS

Inner part	EPP and galvanised sheet steel
Design front	Galvanized sheet steel, in RAL 9003 with matt coating

DIMENSIONS

Flush-mounted housing W x H x D	487 x 877 x 160 mm
Design front inside W x H x D	525 x 908 x 38 mm
Surface-mounted unit incl. design front W x H x D	525 x 908 x 200 mm
Ceiling unit incl. design front W x H x D	510 x 903 x 200 mm

WALL DUCT ELEMENT WDE100

Material	EPP
Connection diameter	100 / 125 mm
Exterior wall thickness	390 – 540 mm

¹⁾ If used as intended as ventilation unit for living spaces (room air humidity up to 60 % RH)

²⁾ Preliminary values of the flush-mounted approach



Design front variants

The standard front of the LG 100 is classic white in RAL 9003. With different design fronts, architecturally appealing solutions can be implemented. By their individual design possibilities, the variants allow for integration into modern architecture.

All fronts can be used as magnetic boards. Additionally, the glass variants can also be written on using whiteboard pens.

	Item	Item number
1	Design front, galvanized sheet steel in RAL 9003 with matt coating	08LG100UPAPDF1A
2	Design front, prisms film	08LG100UPAPDF2A
3	Design front, line-art film	08LG100UPAPDF3A
4	Design front, glass white	08LG100UPAPDF4A
5	Design front, glass grey	08LG100UPAPDF5A



1) RAL 9003 matt



2) Prisms



3) Line-art



4) Glass white



5) Glass grey

LG 100 at a glance!

- Decentralized ventilation unit with optional multi-room connections
- Moisture protection and comfort ventilation with heat recovery
- Flush-mounted, surface-mounted or ceiling installation
- Two-stage outdoor air filtration
- Without condensate drainage by enthalpy exchangers
- Silent and efficient
- VOC/eCO₂ multi-sensor for room air quality measurements integrated
- Operation via the Pichler App
- High acoustic insulation
- Intelligent moisture control
- Comparison of the outdoor air quality with the room air





ErP 2018

Fulfills the requirements of the Ecodesign Directive, in accordance with EU Regulation 1253/2014.



Your partner/installer:



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