

COMPACT VENTILATION UNIT LG 150



LG 150 A,
LG 150 AF



LG 150 A,
LG 150 AF

EN 13141-7:2011
LG 150 A,
LG 150 AF,
LG 150 B,
LG 150 BF



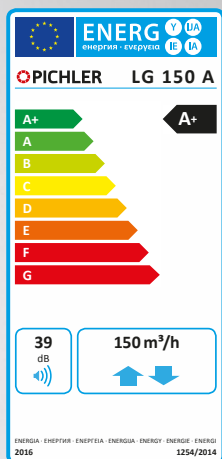
LG 150 A,
LG 150 AF



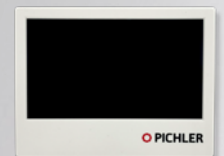
EU Regulation
1253/2014



EPREL according
to Regulation (EU)
No. 1369/2017



The specified energy efficiency is applicable when controlled to local requirements and is valid up to the specified maximum air flow volume.



PICHLER

Systematic ventilation.

Product description

The compact ventilation unit LG 150 consists of a compact EPP-housing with equipment cladding that is free of thermal bridges and is thermally insulated, externally powder-coated in RAL 9003, a high efficiency heat recovery system with an air/air

counterflow heat exchanger made of recyclable plastic with up to app. 95 % efficiency with an automatic 100 % bypass, with energy-saving radial fans with DC technology with constant volume flow control, filters ODA ISO ePM2,5 55% in the outdoor air and ETA

filters ISO Coarse 70% in the extract air, integrated cabled control electronics, with an optional MINI or TOUCH (optional) operating control unit and with an inspection door for filter servicing such as a connection to the Internet (LAN connection) via the Pichler app.

GLA function (basic ventilation active)

The ventilation units may already be supplied with the factory setting GLA (basic ventilation active) and will thus conform to the specifications of DIN 18017-3. It is not possible to switch off the ventilation unit using the control unit, the button on the unit or the Pichler app.

When the ventilation unit is operating in basic ventilation mode, the LED flashes to indicate ventilation level 1. If an additional VOC/CO₂ sensor or a humidity sensor is connected to the unit, the unit will adjust operation as necessary in accordance with the exhaust air quality.

With attached VOC/CO₂ the volume flow of the ventilation unit will be between that of basic ventilation (40 m³/h) and ventilation level 3. If the set humidity threshold is exceeded, the ventilation unit will operate in boost mode (ventilation level 3).

Area of application

The compact ventilation unit LG 150 is used for the controlled mechanical supply and exhaust air ventilation of apartments in multi-storey buildings, smaller residential units and similar applications.

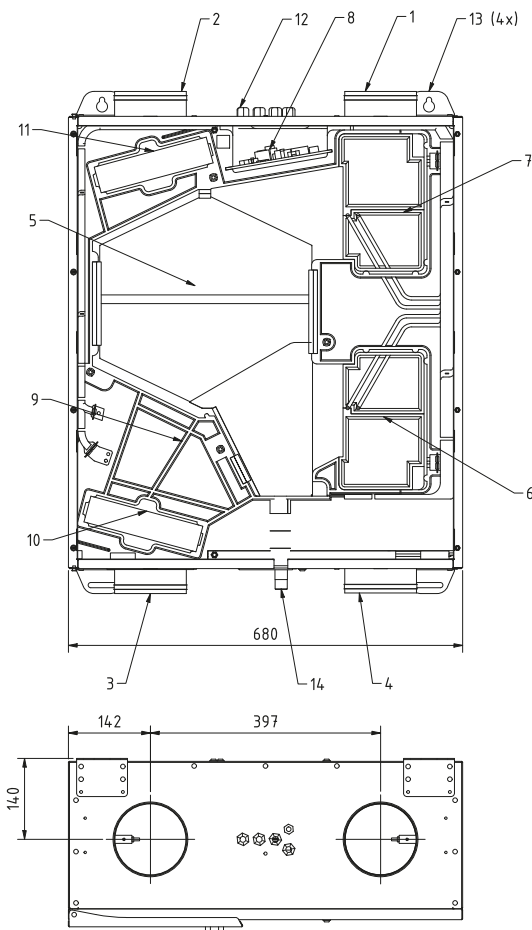
Regarding the LG 150 A the range of use extends fundamentally to residential areas of 40 m² to approx. 120 m² that are designed as passive or low energy structures, with an adjustable air volume flow up to 150 m³/h.

Regarding the LG 150 B with high ventilation system performance it extends fundamentally to residential areas to approx. 160 m² with an adjustable air volume flow up to 200 m³/h.

Layout sketch (wall-mounted or ceiling-mounted installation, right-hand-version)

Dimensions: (W x H x D) 680 x 783 x 290 mm

Air line connection: 4 x Ø 125 mm



- 1 Supply air ø 125 mm
- 2 Extract air ø 125 mm
- 3 Outdoor air ø 125 mm
- 4 Exhaust air ø 125 mm
- 5 Counterflow heat exchanger with condensate tray
- 6 Exhaust air fan
- 7 Supply air fan
- 8 Control system
- 9 Bypass flap with preheater battery (optional)
- 10 Filter ODA ISO ePM2,5 55%
- 11 Filter ETA ISO Coarse 70%
- 12 Cable inlets
- 13 Mounting bracket
- 14 Condensate outlets R1/2" AG

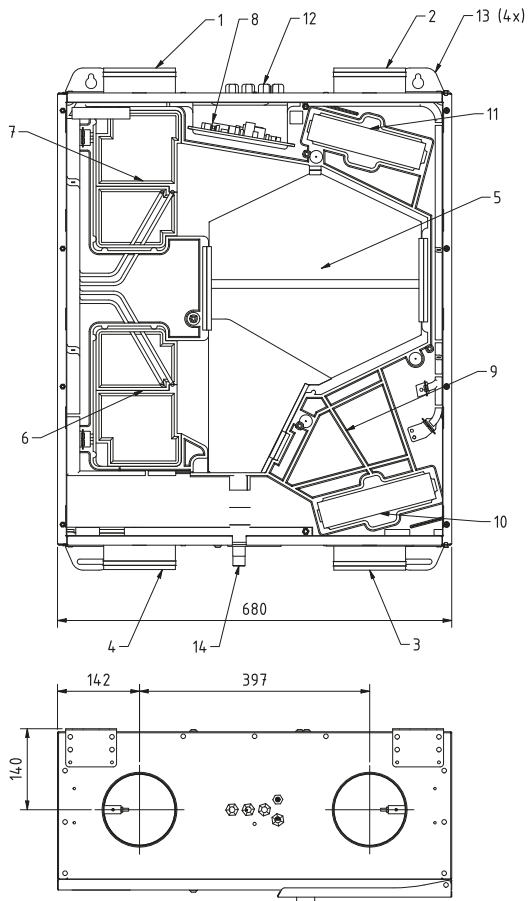
Illustration:
 LG 150 AWR (right-hand version)
 (also applicable to LG 150 B)



Layout sketch (wall-mounted or ceiling-mounted installation, left-hand-version)

Dimensions: (W x H x D) 680 x 783 x 290 mm

Air line connection: 4 x Ø 125 mm



- 1 Supply air ø 125 mm
- 2 Extract air ø 125 mm
- 3 Outdoor air ø 125 mm
- 4 Exhaust air ø 125 mm
- 5 Counterflow heat exchanger with condensate tray
- 6 Exhaust air fan
- 7 Supply air fan
- 8 Control system
- 9 Bypass flap with preheater battery (optional)
- 10 Filter ODA ISO ePM2,5 55%
- 11 Filter ETA ISO Coarse 70%
- 12 Cable inlets
- 13 Mounting bracket
- 14 Condensate outlets R1/2" AG

Illustration:
 LG 150 AWL (left-hand version)
 (also applicable to LG 150 B)



Item number key LG 150

UNIT DESIGNATION: 08LG150ADLFVGLA

ITEM NUMBER: 08LG150A D L F V GLA

| | |
|----------------------------|---|
| Additional options | |
| * | Without designation: Standard configuration |
| MINI | With MINI control unit (standard device, better warehouse availability) |
| GLA | With GLA basic ventilation mode always active (DIN18017-3) |
| Pre-heater battery | |
| * | Without designation: no pre-heater battery |
| V | With pre-heater battery |
| Heat exchanger type | |
| * | Without designation: Standard heat exchanger |
| F | Enthalpy exchanger with humidity recovery |
| Version | |
| L | Left-mounting design |
| ** | Right-mounting design |
| Mounting | |
| D | Ceiling mounting |
| W | Wall mounting |
| Device type | |
| 08LG150A | Ventilation unit LG 150 A to 150 m ³ /h |
| 08LG150B | Ventilation unit LG 150 A to 200 m ³ /h |

Versions

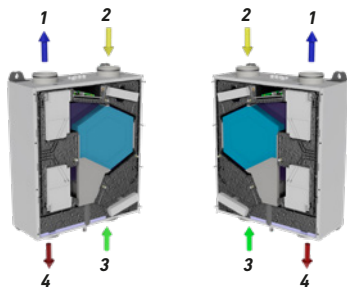
The compact ventilation unit LG 150 is available in several different versions:

- right-hand or left-hand, depending on the location of the supply air connecting piece
- with or without an integrated PTC heater battery (frost protection for the counterflow heat exchanger)
- with a standard or an enthalpy exchanger for moisture recovery

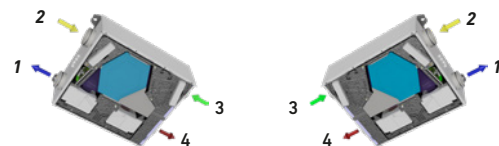
Advantages of the enthalpy exchanger:

Humidity-transferring counter flow enthalpy exchanger with selective polymer membrane for heat and moisture recovery.

- Enthalpy exchangers ensure optimal comfort within your rooms.
- During normal operation, the generation of condensate is prevented as far as possible.
- In contrast to a standard heat exchanger, the enthalpy exchanger only stops at low temperatures.
- The enthalpy exchanger prevents your rooms from drying out in winter.



Wall-mounting version LG 150: left-sided and right-sided designs



Ceiling-mounting version LG 150: left-sided and right-sided designs



1 Supply air



2 Extract air



3 Outdoor air



4 Exhaust air





Technical specifications

| Unit type | LG 150 A (V) | LG 150 AF (V) | LG 150 B (V) | LG 150 BF (V) |
|--|----------------------------|----------------------------|----------------------------|----------------------------|
| Heat exchanger | Standard | Enthalpy exchanger | Standard | Enthalpy exchanger |
| Air volume flow min. – max. (adjustable in 5 m ³ /h intervals) | 30 – 150 m ³ /h | 30 – 150 m ³ /h | 30 – 200 m ³ /h | 30 – 200 m ³ /h |

| Characteristic values as per EN13141-7:2010 | | | | |
|---|------------------------|------------------------|------------------------|------------------------|
| Temperature ratio $\eta_{e,SU}^1$ | 92,4 % | 84,2 % | 92,5 % | 83,4 % |
| Temperature ratio $\eta_{e,EX}^1$ | 79,4 % | 71,5 % | 79,4 % | 66,5 % |
| Specific power input SPI | 0,25 Wh/m ³ | 0,24 Wh/m ³ | 0,41 Wh/m ³ | 0,36 Wh/m ³ |
| External leakage | < 1,05 % | < 1,05 % | < 0,87 % | < 2,06 % |
| Internal leakage | < 0,86 % | < 0,76 % | < 0,71 % | < 0,63 % |

| Characteristic values based on PHI criteria | | | | |
|--|----------------------------|------|---|---|
| Application range based on PHI | 80 – 111 m ³ /h | | – | |
| Heat recovery efficiency $\eta_{eff,heat rec}$ | 86 % | 83 % | – | – |
| Application range based on PHI | – | | – | |
| Moisture recovery 2 | – | 71 % | – | – |
| Electricity efficiency η_{elec} | 0,30 Wh/m ³ | | – | |
| Power consumption in standby mode | < 1,0 W | | | |

| Classification of air filters in accordance with EN ISO 16890 | |
|---|-----------------|
|  ODA filter (outdoor air) | ISO ePM2,5 55 % |
|  ETA filter (extract air) | ISO Coarse 70 % |

| Operating conditions | |
|---|---------------|
| Permissible ambient temperature (installation location) | +5 to +40 °C |
| Permissible operating temperature (outdoor air) | -15 to +35 °C |

| Electrical system | |
|--------------------------------------|-------------------------------|
| Electrical connection | 230 V / 1 ~ / 50 Hz / 13 A |
| IP classification | IP20 with connected air ducts |
| Max. power without preheater battery | 168 W |
| Max. power with preheater battery | 918 W |

| Materials | |
|--------------------|--|
| Inner part | EPP and galvanized sheet steel |
| Housing | Galvanised sheet steel powder-coated in RAL 9003 |
| Heat exchanger | Polystyrene |
| Enthalpy exchanger | Polymer membrane |

| Housing | |
|-------------------------------------|------------------------------|
| Air line connections | 4 x Ø 125 mm |
| Condensate drain | R 1/2" external thread below |
| Dimensions (W x H x D) | 680 x 783 x 290 mm |
| Weight without optional accessories | approx. 30 kg |

¹ with 70 % of the max. volume flow

STANDARD SETTINGS OF INDIVIDUAL VENTILATION LEVELS

| Ventilation level | Volume flow [m ³ /h] | |
|-------------------------|---------------------------------|--------------------------------------|
| | Standard configuration | GLA basic ventilation active version |
| 0 – Standby | 0 | Not available |
| 0 – Basic ventilation | Not available | 40 |
| 1 – Reduced ventilation | 40 (50)* | 60 (70)* |
| 2 – Normal ventilation | 90 (110)* | |
| 3 – Boost ventilation | 130 (180)* | |

* Applicable to LG 150 B variants



External pressure boost characteristics – air flow rate

The characteristic curves shown are valid for the device version with outdoor air filter class ISO ePM2.5 55% and extract air filter class ISO Coarse 70%, as well as the design with the PTC preheater battery. The characteristic indicates the external

pressure (p_{ext}) available for the duct system. The specified total electrical output takes into account the power consumption for the two fans in the supply and extract air as well as the power consumption of the control.

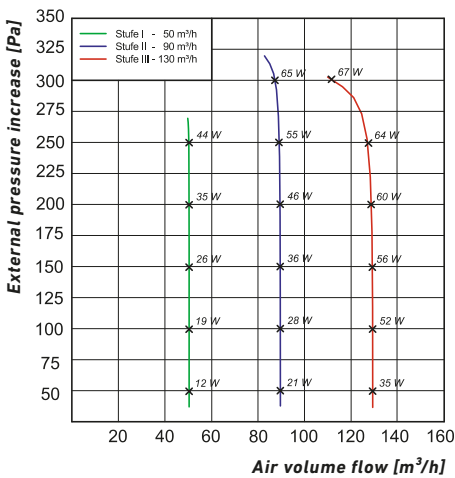
MAXIMUM OPERATING POINT

Volume flow: 150 m³/h
Ext. pressure: 200 Pa

CHARACTERISTICS ACCORDING TO EN13141-7

Nominal air volume flow: 105 m³/h
Housing tightness: external leakage 0.6% and internal leakage 0.7%
Temperature ratio on the supply air side with standard exchanger: 92.4%
Temperature ratio on the supply air side with enthalpy exchanger: 84.2%
Humidity ratio on the supply air side with enthalpy exchanger: 61.7%
Specific input power: 0.25 Wh/m³

PRESSURE VOLUME FLOW CHARACTERISTIC CURVE FOR LG 150 A



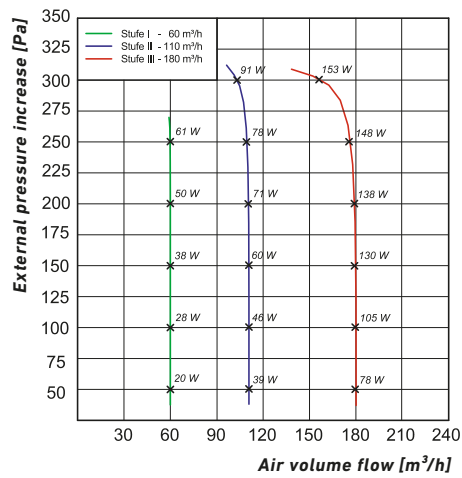
MAXIMUM OPERATING POINT

Volume flow: 200 m³/h
Ext. pressure: 200 Pa

CHARACTERISTICS ACCORDING TO EN13141-7

Nominal air volume flow: 125 m³/h
Housing tightness: external leakage 1.3% and internal leakage 0.4%
Temperature ratio on the supply air side with standard exchanger: 90.9%
Temperature ratio on the supply air side with enthalpy exchanger: 83.4%
Humidity ratio on the supply air side with enthalpy exchanger: 56.9%
Specific input power: 0.38 Wh/m³

PRESSURE VOLUME FLOW CHARACTERISTIC CURVE FOR LG 150 B



ACOUSTIC SPECIFICATIONS

| LG 150 A | Measuring point | Housing emission | | | Outdoor air connecting piece | | | Supply air connecting piece | | | Exhaust air connecting piece | | | Extract air connecting piece | | |
|---------------------------------|---------------------------------|------------------|-----|-----|------------------------------|----|-----|-----------------------------|----|-----|------------------------------|----|-----|------------------------------|----|-----|
| 100 Pa | Speed | I | II | III | I | II | III | I | II | III | I | II | III | I | II | III |
| | 63 Hz | 51 | 48 | 47 | 62 | 64 | 66 | 64 | 66 | 68 | 62 | 64 | 66 | 63 | 65 | 67 |
| | 125 Hz | 44 | 46 | 45 | 44 | 47 | 49 | 57 | 60 | 61 | 55 | 58 | 59 | 43 | 46 | 48 |
| | 250 Hz | 41 | 42 | 43 | 43 | 46 | 48 | 57 | 60 | 61 | 58 | 61 | 62 | 48 | 51 | 52 |
| | 500 Hz | 42 | 42 | 42 | 37 | 40 | 41 | 54 | 56 | 58 | 54 | 56 | 58 | 43 | 45 | 47 |
| | 1000 Hz | 37 | 39 | 39 | 31 | 33 | 35 | 55 | 58 | 60 | 54 | 56 | 58 | 34 | 37 | 38 |
| | 2000 Hz | <20 | 22 | 37 | 23 | 26 | 28 | 47 | 50 | 52 | 45 | 48 | 49 | 25 | 28 | 29 |
| | 4000 Hz | <20 | <20 | 21 | 15 | 17 | 19 | 39 | 42 | 43 | 36 | 39 | 41 | 16 | 18 | 20 |
| | 8000 Hz | <20 | <20 | <20 | 17 | 20 | 22 | 31 | 33 | 35 | 28 | 31 | 32 | 18 | 20 | 22 |
| Total L _{WA} in dB (A) | | 42 | 43 | 44 | 41 | 43 | 45 | 58 | 61 | 62 | 57 | 60 | 61 | 44 | 47 | 48 |
| 50 Pa | Total L _{WA} in dB (A) | 36 | 38 | 43 | 36 | 38 | 40 | 53 | 56 | 57 | 52 | 54 | 56 | 39 | 42 | 43 |

(with an external pressure increase of 100 Pa and 50 Pa)

Remark: Tolerances ± 2 dB for acoustic data

| LG 150 B | Measuring point | Housing emission | | | Outdoor air connecting piece | | | Supply air connecting piece | | | Exhaust air connecting piece | | | Extract air connecting piece | | |
|---------------------------------|---------------------------------|------------------|-----|-----|------------------------------|----|-----|-----------------------------|----|-----|------------------------------|----|-----|------------------------------|----|-----|
| 100 Pa | Speed | I | II | III | I | II | III | I | II | III | I | II | III | I | II | III |
| | 63 Hz | 55 | 56 | 56 | 77 | 78 | 77 | 82 | 83 | 84 | 80 | 82 | 83 | 75 | 79 | 78 |
| | 125 Hz | 50 | 54 | 57 | 55 | 58 | 62 | 71 | 79 | 79 | 72 | 75 | 76 | 55 | 59 | 63 |
| | 250 Hz | 37 | 44 | 52 | 55 | 56 | 60 | 67 | 70 | 73 | 65 | 68 | 70 | 55 | 56 | 59 |
| | 500 Hz | 40 | 46 | 50 | 47 | 44 | 48 | 59 | 64 | 66 | 60 | 63 | 64 | 41 | 43 | 47 |
| | 1000 Hz | 33 | 37 | 44 | 37 | 38 | 41 | 59 | 61 | 63 | 56 | 61 | 62 | 36 | 38 | 41 |
| | 2000 Hz | 27 | 33 | 41 | 25 | 27 | 32 | 49 | 55 | 59 | 47 | 55 | 58 | 20 | 26 | 31 |
| | 4000 Hz | <20 | 23 | 30 | 17 | 18 | 24 | 42 | 50 | 54 | 41 | 50 | 53 | 18 | 19 | 24 |
| | 8000 Hz | <20 | <20 | <20 | 20 | 19 | 19 | 38 | 45 | 49 | 34 | 45 | 48 | 20 | 17 | 19 |
| Total L _{WA} in dB (A) | | 40 | 46 | 51 | 53 | 54 | 55 | 65 | 69 | 70 | 64 | 68 | 69 | 52 | 55 | 56 |
| 50 Pa | Total L _{WA} in dB (A) | 34 | 40 | 51 | 47 | 48 | 49 | 59 | 63 | 64 | 58 | 61 | 63 | 46 | 49 | 50 |

(with an external pressure increase of 100 Pa and 50 Pa)

Remark: Tolerances ± 2 dB for acoustic data

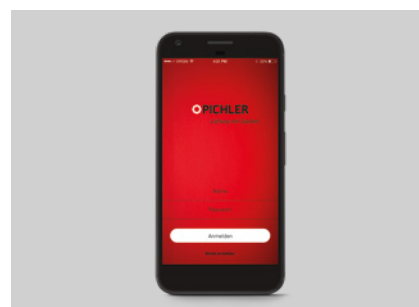




MINI control unit



TOUCH control unit



Pichler-App

Operation

BYPASS FOR HEAT EXCHANGER

The 100% bypass is controlled as a function of the preset room temperature, the measured extract air temperature and the outdoor air temperature. As a result the heat exchanger can be circumvented in the summer and the cold outdoor air blown out either directly or via the earth collector into the living space.

CONTROL UNIT

The controller allows scalable configurations from low-cost to high-end. Further options comprise linking to an external building control system via Modbus RTU and sensors to monitor room air quality.

The settings on the ventilation unit are made via an operating control unit, which is supplied complete with the ventilation unit. For the purpose of triggering an operating the ventilation unit the operating control unit MINI or TOUCH (optional) can be selected.

Optionally, a gateway for the KNX bus system is also available.

MINI

The operating control unit MINI is for the purpose of activating the ventilation unit. It is easy to operate and allows setting of the fan speeds, switching between summer and winter modes and the setting of a basic volume flow, etc. Furthermore, operation, filter changes and any faults are displayed. The operating control unit USB interface is part of the standard configuration. Installation is on a flush-mounted box (not included in delivery).

TOUCH OPERATING CONTROL UNIT

The operating control unit with a 4.3" colour-touch-display is used to control the ventilation unit. Operation is simple and intuitive. The most important settings and readings are very easy to make. The user-friendly handling provides for automatic or manual setting of the ventilation levels. In Automatic mode, the system is controlled by programmable time programmes, closed-loop humidity or CO₂ controls and works in a fully automated fashion, whereas in manual mode ventilation levels may, for instance, be individually increased (boost ventilation). Further functions are the changeover function between summer and winter operation as well as the setting for the

volume flows. The operating mode, temperatures, a required filter change and possible faults are displayed in plain text. The operating control unit also has an integrated temperature sensor, which can be used as a room temperature sensor when needed. Installation is on a flush-mounted box (not included in delivery).

Advantages of controlling:

- Easy display of current operating settings
- Individually adjustable air volumes
- Time and weekly programs (TOUCH only)

CONTROL UNIT DIMENSIONS

| Item | Dimensions | Item No. |
|--|-------------------------------|----------------|
| STANDARD: operating control unit MINI for LG 150/250 | w x h x d 80 x 80 x 19 mm | 08LGMINI150200 |
| OPTIONAL: operating control unit TOUCH for LG 150/250 | w x h x d 110 x 84 x 25 mm | 08LG150250TC |

CABLE

| Item | Type | Item No. |
|---|------------------|------------|
| Cable LG control unit max. installation length 100 m | J-Y(ST)Y 2x2x0,8 | 40LG040340 |

EASY OPERATION WITH THE PICHLER APP

User-friendly: the compact ventilation unit can be operated easily with our free smartphone app for Android and iOS, whether you are at home or out and about (Gateway required, details on request).



REMOTE ACCESS / PICHLER CONNECT

Operational safety: Remote access facilitates a prompt response with minimal effort for the Pichler customer service in the event of a malfunction (Gateway required, details on request).



CO₂ sensor

Humidity sensor

Humidity and CO₂ sensor

Demand-oriented ventilation control

CO₂ humidity and room temperature sensors for needs-based ventilation control. The ventilation units increase or reduce airflow automatically in accordance with room air quality. A maximum of two sensors may be attached to a ventilation unit. A sensor in a surface-mounted housing is suitable for wall-mounting. When GLA basic ventilation mode is active, the basic ventilation necessary to prevent excessive humidity is always operational in accordance with the specifications of **DIN18017-3** and it is not possible to switch this off using the control unit. Depending on optional extras, needs-based ventilation is ensured by one of the attached sensors.

CO₂ SENSOR

Colour: white

Dimensions: W x H x D = 85 x 85 x 35 mm

Ambient temperature: 10-50°C

Measuring range: 0-2000 ppm

Sensor supply voltage: 24V AC/DC

Control signal: 0-10 V

| Item | Item number |
|------------------------|-------------|
| CO ₂ sensor | 07RCO248330 |

HUMIDITY SENSOR

Colour: white

Dimensions: W x H x D = 85 x 85 x 35 mm

Ambient temperature: 0-60°C (no condensation)

Measuring range: 0-100% RH

Sensor supply voltage: 24V AC/DC

Control signal: 0-10 V

| Item | Item number |
|-----------------|-------------|
| Humidity sensor | 07RHF49360 |

Demand-oriented plant operation via CO₂ and/or humidity control is only possible in Automatic mode and must be activated via the PC software.

Assignment of the ventilation levels, the ppm and humidity values can be changed using the PC software.

The following combinations of sensors can be used:

- Max 2 x CO₂ sensors
- Max 2 x RH% sensors
- 1 x CO₂ sensor & 1 x RH% sensor

HUMIDITY AND CO₂ SENSOR

Humidity and CO₂ sensor, suitable for surface or flush mounting, for on-demand control of the volume flow, configuration adjustable via DIP switches.

Material housing: plastic ABS similar to RAL 9010

Dimensions: W x H x D = 80 x 105 x 24 mm

Protection class: IP 30 according to IEC 529

Power supply: 24 V AC/DC

Humidity measurement range: 0 - 100 % RH

Measurement accuracy: ± 3% (from 20-80% RH)

Output signal: 0-10V

Carbon dioxide sensor: optical sensor (NOIR)

Measuring range CO₂: 0 - 2000 ppm

Measuring accuracy: ± 30 ppm / ± 5 % of measured value

Output signal: 0-10V/ OC 24V 50mA

| Item | Item number |
|-------------------------------------|-------------|
| Humidity and CO ₂ sensor | 07RCO2TRH |

HUMIDITY AND VOC SENSOR

Humidity and VOC sensor, suitable for duct mounting, for on-demand control of the volume flow, configuration adjustable via DIP switches.

Material housing: plastic ABS similar to RAL 9010

Dimensions: W x H x D = 80 x 105 x 24 mm

Installation length: IL = 160 mm

Protection class: IP40 according to IEC 529

Power supply: 24 V DC

Humidity measurement range: 0 - 100 % RH

Measurement accuracy: ± 3% (from 20-80% RH)

Output signal: 0 - 10 V

Air quality sensor: VOC Sensor (Metal oxide)

Air quality output signal:

1V = clean air

10V = polluted air

| Item | Item number |
|-------------------------|-------------|
| Humidity and VOC sensor | 07KVOCTRH |





Modbus/KNX Gateway



Modbus/NABTO Gateway

MODBUS/KNX GATEWAY

The Modbus/KNX gateway provides for the connection of a ventilation unit to a KNX bus system. In this case, the gateway serves as a connective link between the two bus systems. Note that the gateway always acts as the master for the Modbus. On the KNX side, however, it responds like a standard KNX TP-1 unit. This makes it possible to centrally control and monitor the ventilation unit using a KNX system.

A "Config Tool" (a DCA or Device Configuration App) is provided to facilitate configuration of the ETS. With this, it is possible to adopt any existing configurations for the gateway.

Dimensions: L x W x D = 18 x 100 x 60 mm

Weight: approx. 50 g

Mounting: Top hat rail DIN serial mounting 1TE

Permissible ambient temperature: -5 to 45 °C

Permissible storage temperature: -25 to 70 °C

Permissible rel. humidity: 5 – 93 % non-condensing

Protection class: IP 20

Power supply: KNX bus, approx. 8 mA

Interfaces: EIA-485, KNX-TP1

| Item | Item number |
|--------------------|-------------|
| Modbus/KNX-Gateway | 08KNXGAC |

MODBUS/NABTO GATEWAY




Serves to connect the compact ventilation unit with the Internet and furthermore with the Pichler app. When using the gateway the Modbus RTU connection of the building control system is dispensed with.

| Item | Item number |
|----------------------|----------------|
| Modbus/NABTO Gateway | 08GATEWAYNABTO |

Accessories

SPARE FILTER

will ensure perfect hygiene and air quality given regular replacement, also proper functionality and efficient operation of the equipment.

| Item | Item number |
|--|-------------|
|  Filter ETA ISO Coarse 70% (extract air) | 40LG050240 |
|  Filter ODA ISO ePM2,5 55% (outdoor air, default) | 40LG050230 |
|  Filter ODA ISO ePM1 80 % (outdoor air, pollen filter) | 40LG050250 |

FLEXIBLE CONNECTION

Made of laminated and highly tear-resistant fabric and with double-sided sleeves made of galvanized sheet steel. With diameter: 125 mm, socket size, elongated length 150 mm.

| Item | Item number |
|---------------------|-------------|
| flexible connection | 01STR0125 |

WALL ENDING

Serves to provide for the thermal bridge-free insulation of outdoor air and exhaust air ducts towards the wall. Self-adhesive.

| Item | Dimensions W x H x D | Item number |
|-------------|----------------------|-------------|
| Wall ending | 675 x 160 x 22 mm | 08LG150WA15 |

DEVICE SIPHON

Serves to provide for the hygienic, proper and spatial separation of the condensate inlet in the on-site siphon.

| Item | Item number |
|---|-----------------|
| Device siphon | 40LG030620 |
| PVC screw joint: ½ inch to 1 ¼ inch | 08REDPVC11412 |
| Connector HL40.2 for HT pipe ø 40 mm, made from PE | 08UEGSHL40R12PE |
| Connector HL30.2 for HT pipe ø 32 mm, made from PE | 08UEGSHL30R12PE |





External supply air temperature sensor



EPE bend for outdoor and exhaust air

CONDENSATE PUMP

Condensate pump for condensate that is collected below the sewer or that cannot reach the sewer or building drain via a natural gradient. The pump system is ready-to-use and consists of a collection tank, a pump with accessible hydraulics, and two float switches.

Technical specifications:

Max. pump capacity: 588 l/h

Max. delivery head: 5.5 m

475 l/h pump capacity at 2 m delivery head

Electrical connection with Schuko plug

Motor power: 75 W

Rated current: 0.65 A / Connection voltage 230V

Dimensions: W x H x D = 259 x 183 x 165 mm ~ 4.1 kg

| Item | Item number |
|--|-------------|
| Condensate pump for automatic extraction of condensate | 02CONLIFT1 |

EXTERNAL SUPPLY AIR TEMPERATURE SENSOR

NTC sensor with metal sleeve.

| Item | Item number |
|------------------------|-------------|
| NTC sensor, length 2 m | 40LG041920 |

HOT WATER RE-HEATER BATTERY

Hot water reheater battery for supply air reheating, for pipe installation, \varnothing 125 mm, with accessories.

Only in connection with the external supply air temperature sensor (item number: 40LG041920).

Air volume: 180 m³/h

Medium: 60/40 °C

Output: ca. 700 W

Pipe diameter: \varnothing 125 mm

Dimensions: W x H x D = 238 x 180 x 276

| Item | Item number |
|-----------------------------|-------------|
| Hot water re-heater battery | 01VBC125 |

ELECTRICAL PTC REHEATER FOR SUPPLY AIR REHEATING

Housing of galvanised steel, connections with lip seal. For reheating the supply air for pipe installation \varnothing 125 mm. Only in connection with a temperature sensor (item number: 40LG041920).

Power: 900 W with Solid State Relay (SSR)

Protection class: IP44

Pipe diameter: \varnothing 125 mm

Dimensions: W x H x D = 150 x 196 x 276 mm

| Item | Item number |
|--|-------------|
| Electrical PTC reheater for supply air reheating | 08GEPTC125A |

3-WAY MOTOR CONTROL VALVE

Three-way control ball valve for the continuous closed-loop control of cold and warm water with a mounted closed-loop control actuator.

Belimo drive: TR 230-3

Drive voltage: 230 V AC

Control signal: 3-point

Control ball valve: R3015

Mounting position: optional

KVS-Value: 0,63 m³/h

| Item | Item number |
|---------------------------|-------------|
| 3-Way Motor control valve | 08MISCHER |

COMPLETE PROGRAM FOR AIR DISTRIBUTION SYSTEMS

We offer a complete program of air distribution systems, such as Komflex (round or oval). Details of our air distribution program can be found in the technical documentation.

EPE BEND FOR OUTDOOR AND EXHAUST AIR

Flexible, segmented, insulated bend. Low pressure drop due to smooth inner surface. Pliable, non-porous, airtight, extremely light, easy to shorten, easy disassembly for maintenance, prevention of condensate formation, corrosion-free.

Diameter: 125 mm

Angle: 90°

Material: EPE

Density: 30 kg/m³

Classification in accordance with EN 13501: E

Thermal coefficient: 0.048 W/mK (EN 12667)

Temperature range: -30 °C to +60 °C

Wall thickness: 16 mm

Air tightness: D (EN 12237) = ATC 2 (EN 16798)

Zeta: 0.88

| Item | Item number |
|--|----------------|
| Expanded polyethylene (EPE) bend for outdoor air and exhaust air | 08EPEB1259016L |



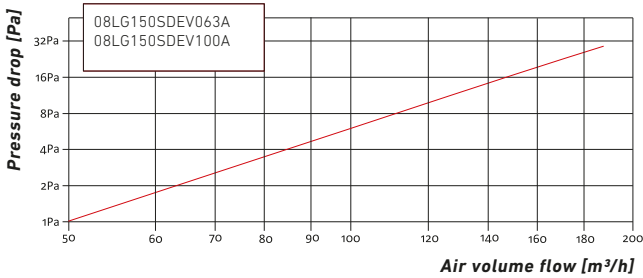
Sound reduction unit

Compact sound reduction unit for direct mounting to the comfort ventilation unit with efficient especially acoustically shaped diversion splitters installed, galvanised steel sheet outer housing, powder-coated in RAL 9003. The inner part is designed as diversion chamber with acoustically and flow optimized splitters. The splitters are non combustible and

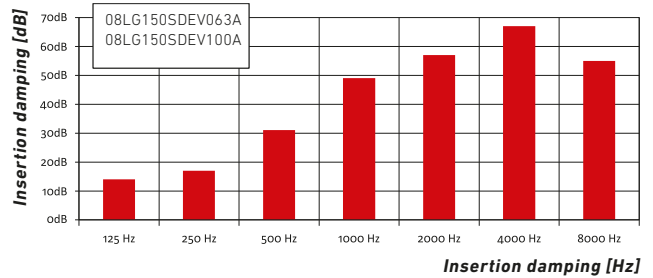
consist of high-strength, wearresistant and moisture repellent glass silk surface. With absorption elements and resonance elements for optimal sound reduction. Adapter with SYSTEM SAFE plug-in fitting. The connections are closed with dust protection caps. With fastening clips for simple wall-mounted or ceilingmounted installation.

Technical specifications

PRESSURE DROP OF THE SOUND REDUCTION UNIT DEPENDING ON THE VOLUME FLOW



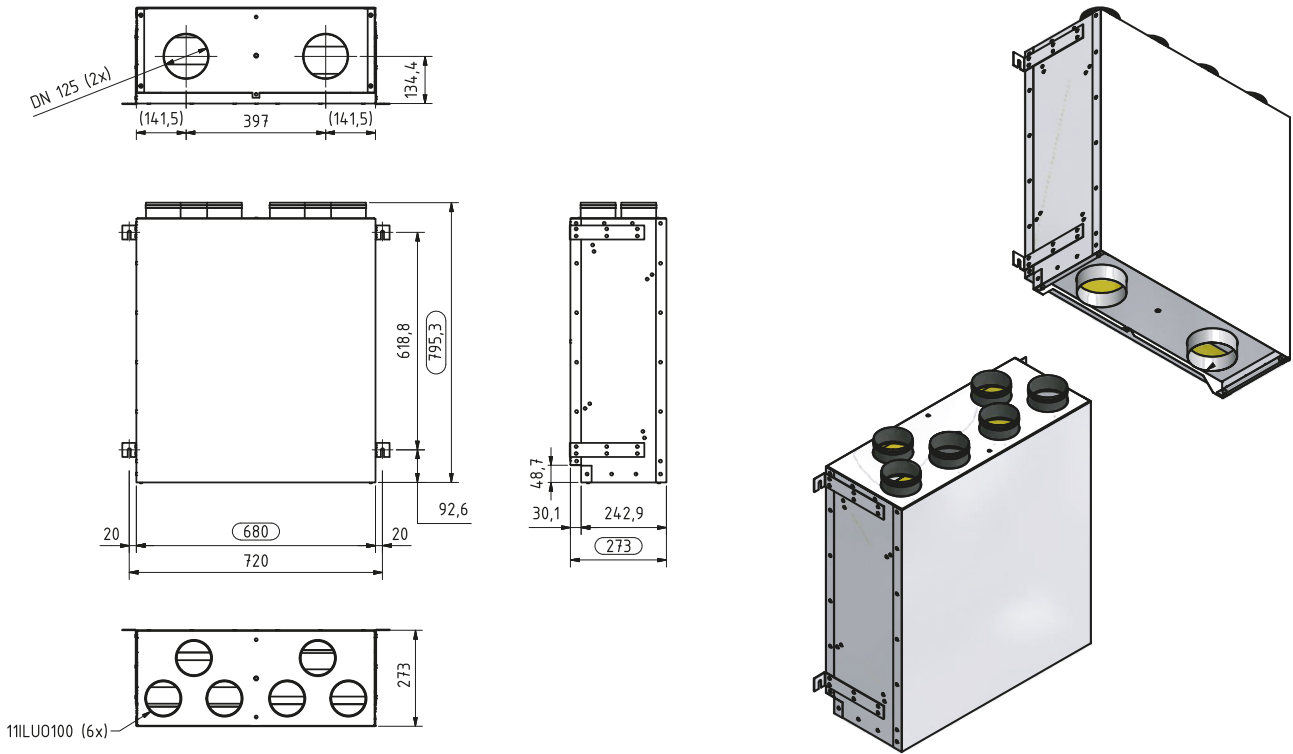
INSERTION DAMPING OF THE SOUND REDUCTION UNIT



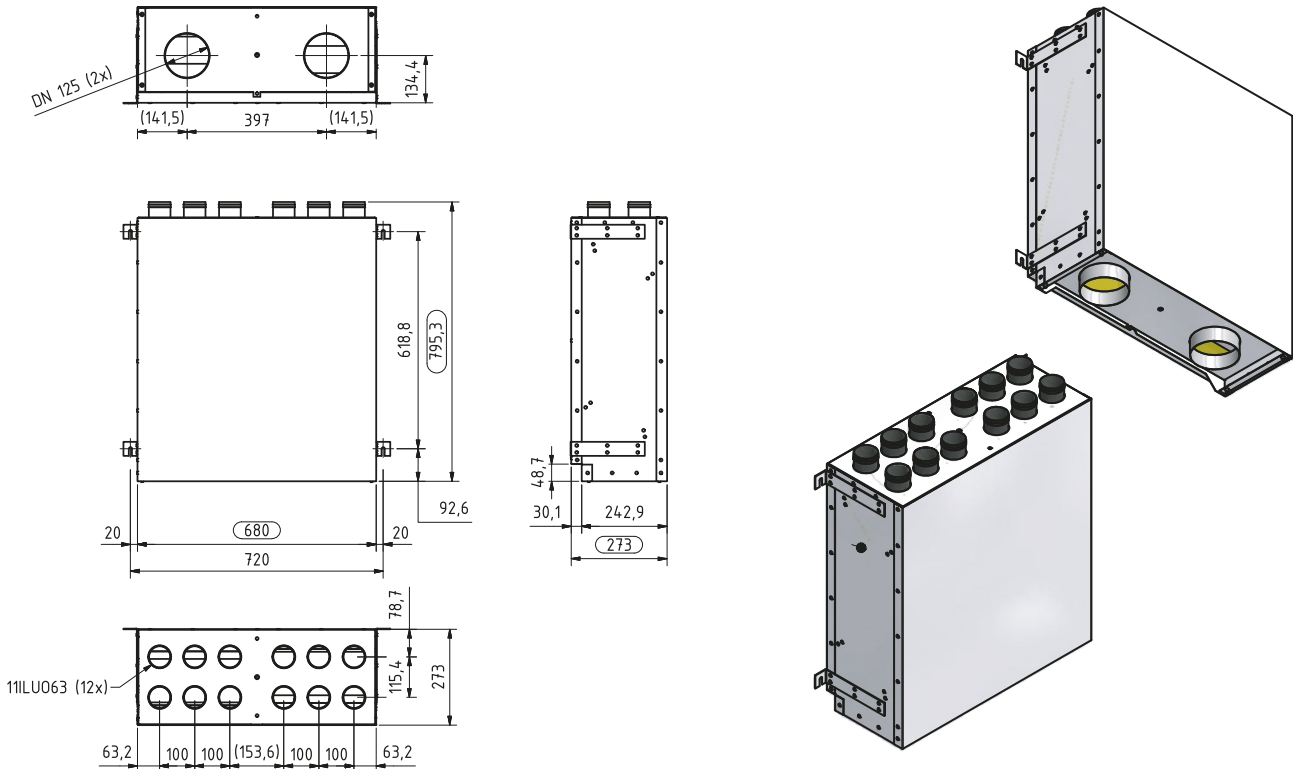
| Item | Item number |
|---|-----------------|
| Sound reduction unit for wall-mounted or ceiling-mounted installation Dimensions (W x H x D) 680 x 795 x 273 mm with 6 connectors ø 100 mm | 08LG150SDEV100A |
| Sound reduction unit for wall-mounted or ceiling-mounted installation Dimensions (W x H x D) 680 x 795 x 273 mm with 12 connectors ø 63 mm for system Komflex | 08LG150SDEV063A |



Layout sketch sound reduction unit with 6 connections Ø 100, (wall-mounted or ceiling-mounted installation)



Layout sketch sound reduction unit with 12 connections Ø 63 for system Komflex 75 mm, (wall-mounted or ceiling-mounted installation)



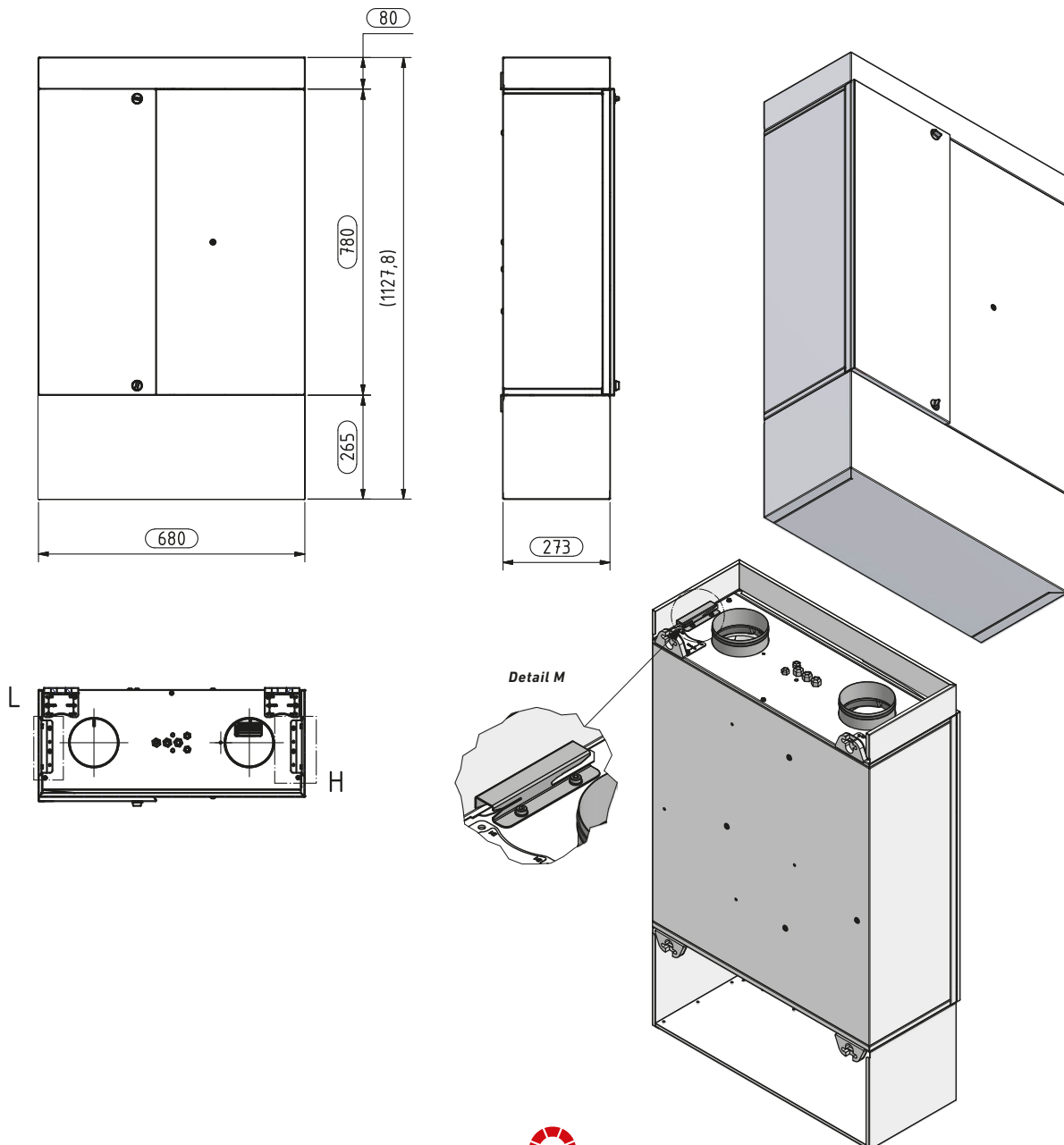
Cover element

Used for optical veneering of the air line connectors of the comfort ventilation unit towards the wall or the ceiling.

Including 2 guide rails. Dimensionally stable construction of the cover made from galvanized steel, powder-coated in RAL 9003.

| Item | Item number |
|--|-----------------|
| Cover element for LG 150 Dimensions (W x H x D) 680 x 265 x 273 mm As bezel around the external and outdoor air connection of the ventilation unit, facing the wall. Powder-coated in RAL 9003. Including 2 guide rails. | 08LG150ABDE265A |
| Cover element for LG 150 Dimensions (W x H x D) 680 x 80 x 273 mm As bezel around the supply and extract air connection of the ventilation unit, facing the wall or the ceiling. Powder-coated in RAL 9003. Including 2 guide rails. | 08LG150ABDE080A |

Layout sketch (wall-mounted installation)



Flush-mounted set (ceiling-mounted installation)

The flush-mounted set is integrated flush into the suspended/intermediate ceiling, the inspection front of the ceiling providing for the maintenance-friendly access to the ventilation unit installed above. This provides for full panelling of the LG 150 compact ventilation unit incl. the air ducts by a suspended/intermediate ceiling.

The kit consists of:

a pre-assembled frame incl. door leaf.
Fitting material for connecting the flush-mounted set to the concrete ceiling is not included in the scope of supply.

Material: sheet steel, galvanised

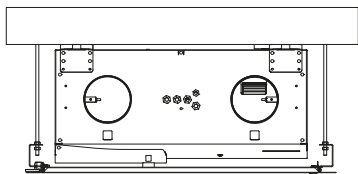
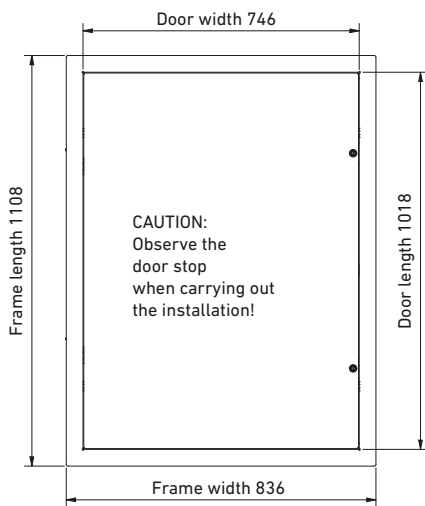
Colour: powder-coated in RAL 9003

Dimensions: W x H x D = 836 x 1108 x 76 mm

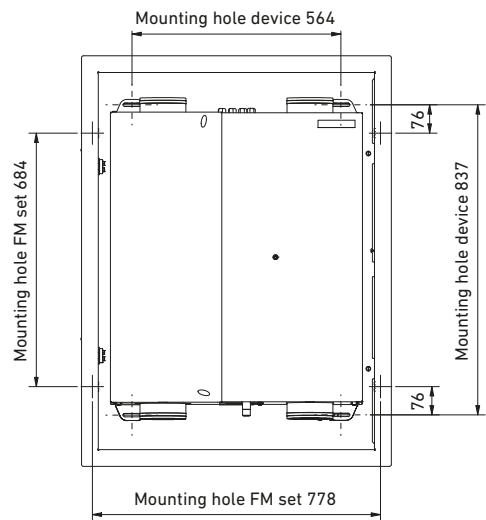
Dimensions of the ceiling recess: W x H = approx. 790 x 1065 mm

| Item | Item number |
|--|-----------------|
| Flush-mounted set for LG 150 In order to provide the whole comfort ventilation unit, including the air connection parts, with panelling behind the drywall. Powder-coated in RAL 9003. | 08LG100150REVDE |

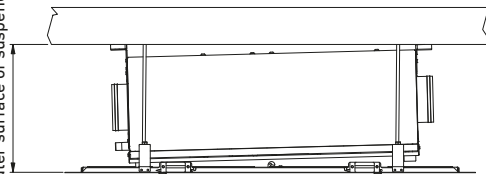
Layout sketch (ceiling-mounted installation)



View from below without door



At least 345
(Raw ceiling – outer surface of suspended ceiling)



Flush-mounted set (for Huter frame)

Flush-mounted set suitable for Huter frame:
 ASM WC/Wr.Lü.Pichlerluft (not included in the scope of supply).
 Provides for full facing of the compact ventilation unit LG 150 including air ducts in the rear wall of the toilet above the cistern. The inspection front allows for maintenance-friendly access to the device.

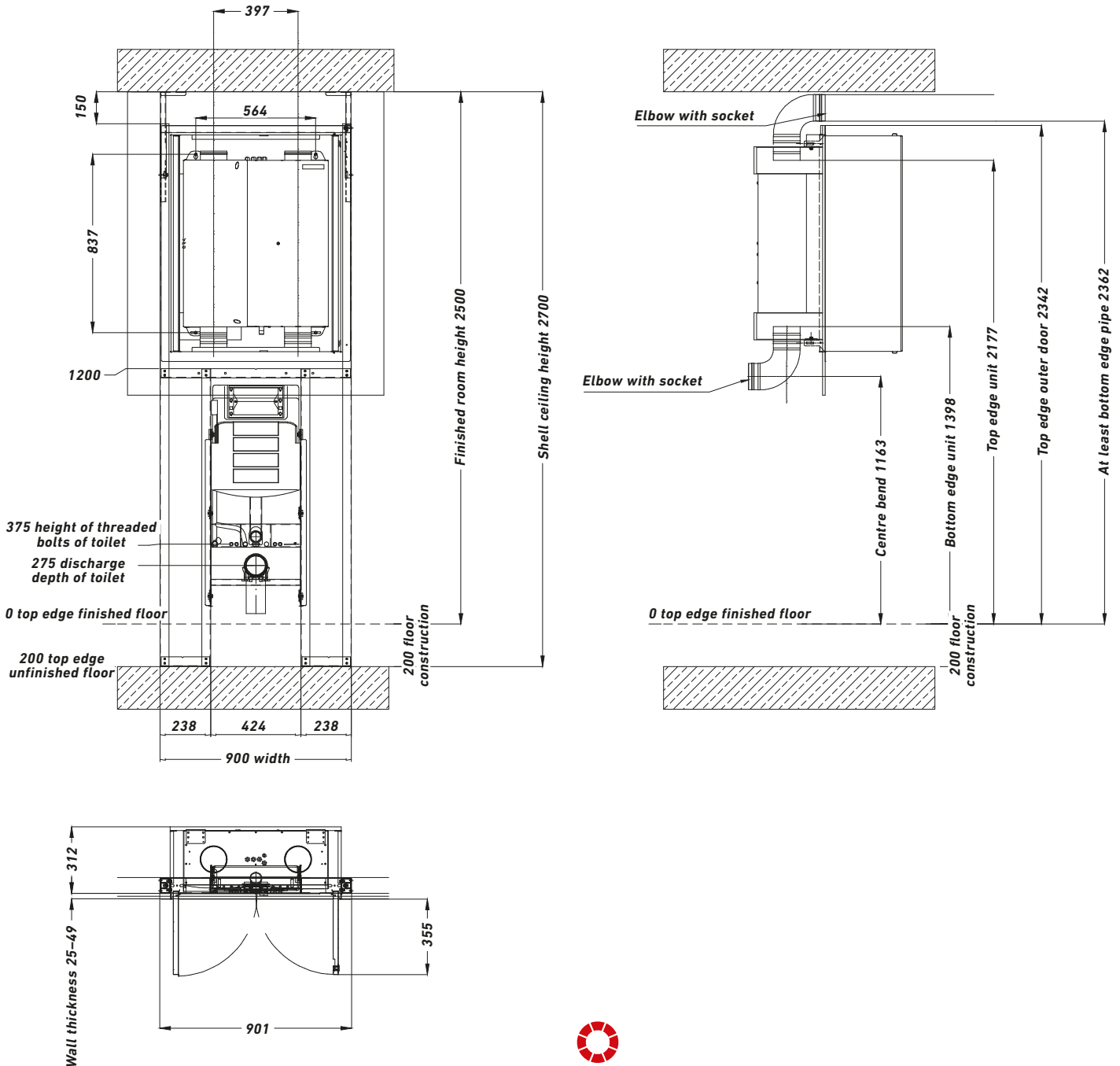
Material: sheet steel, galvanised
Colour: powder-coated in RAL 9003
Dimensions: W x H x D = 889 x 1108 x 100 mm

Required room heights:
Shell ceiling height: 2700 mm
Finished room height: 2500 mm
Room height with suspended ceiling: 2345 mm

| Item | Item number |
|-----------------------------------|-----------------|
| Flush-mounted set for Huter frame | 08LG150UPSETHUA |

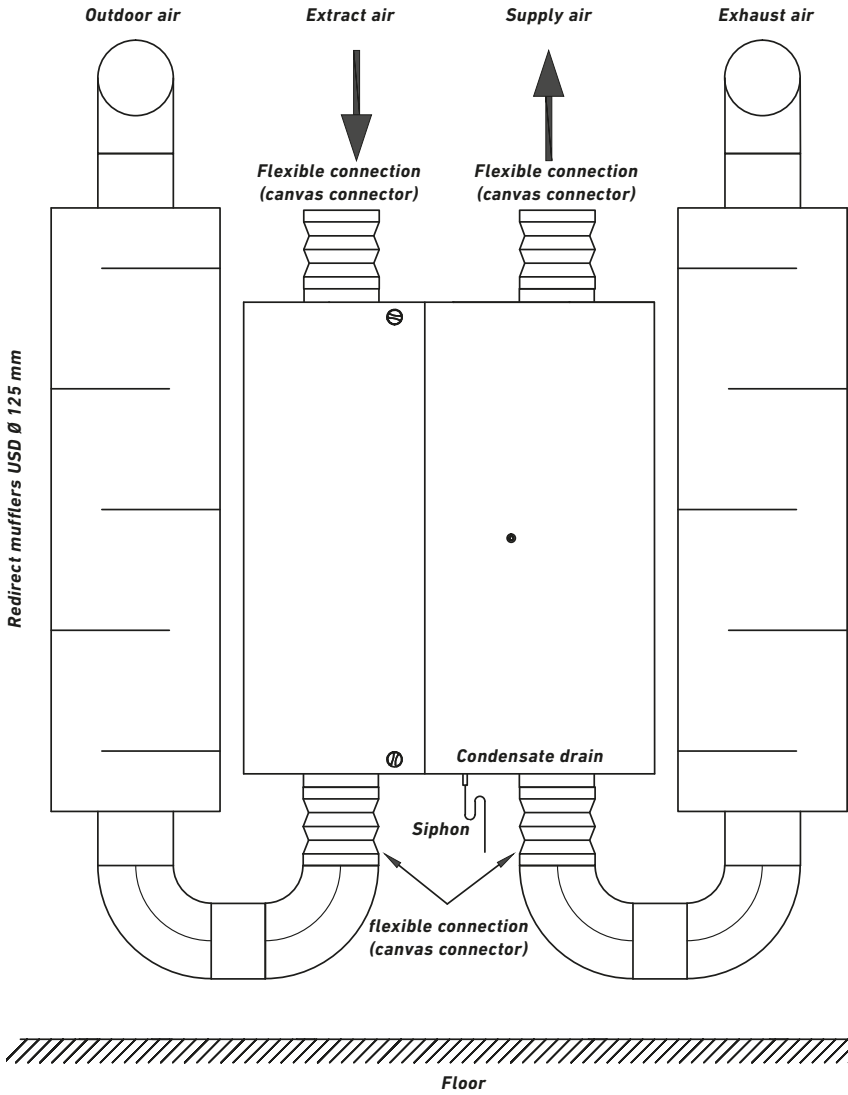
The availability of the required Huter frame (item designation: ASM WC/Wr.Lü. Pichlerluft) has to be checked at a regional or country-specific level.

Layout sketch (flush-mounted set with Huter frame)

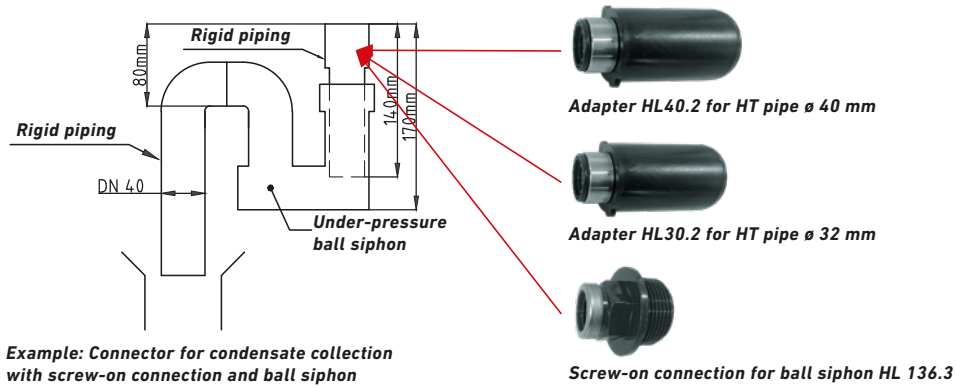


Mounting examples

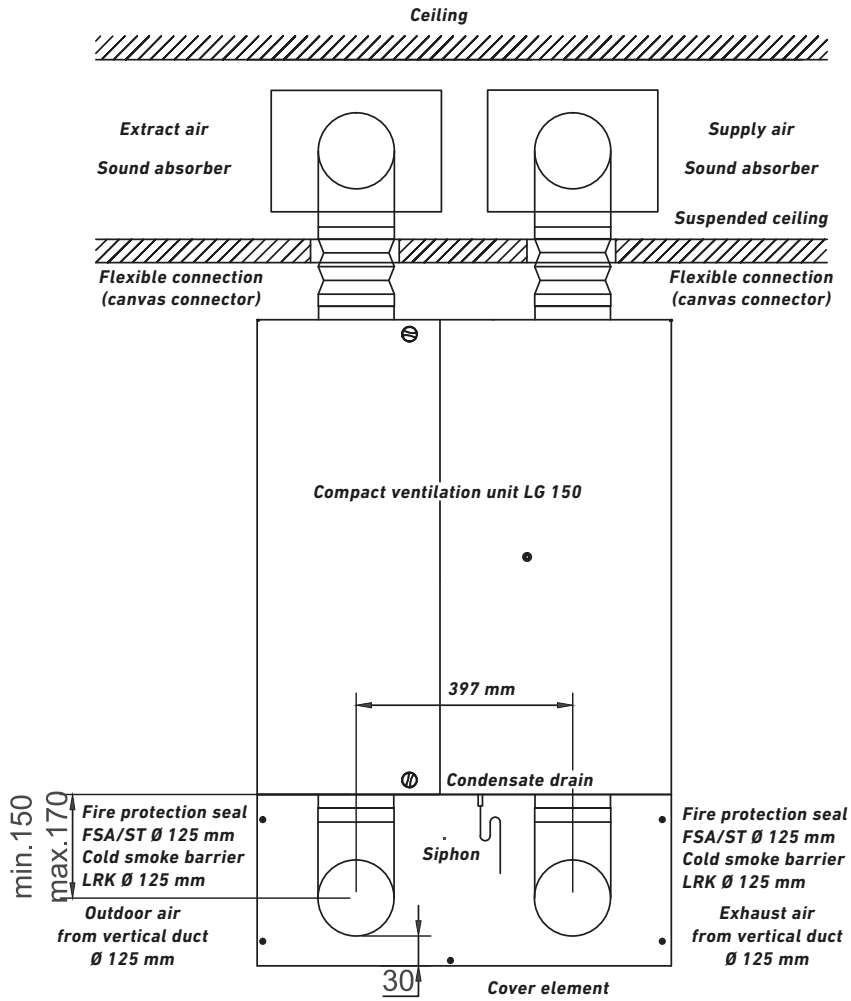
WALL-MOUNTED INSTALLATION IN A TERRACED HOUSE – BASEMENT



DETAIL CONDENSATE CONNECTION WALL



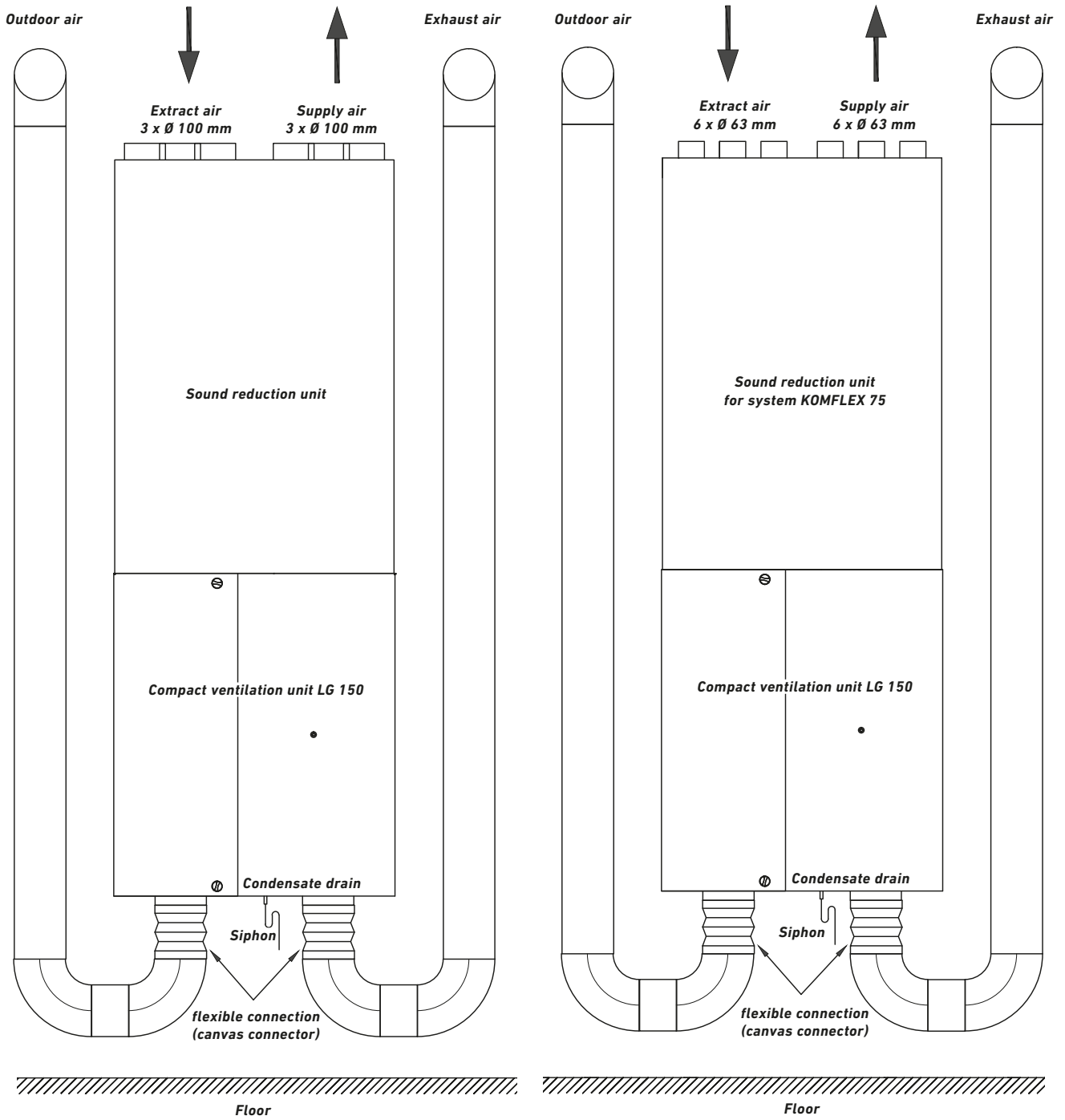
WALL-MOUNTED INSTALLATION WITH A COVER ELEMENT ABOVE THE TOILET TANK IN MULTI-STORY BUILDINGS



DETAIL CONDENSATE CONNECTION WALL SEE PAGE 19



WALL-MOUNTED INSTALLATION WITH A SOUND INSTALLATION UNIT IN THE STORAGE ROOM IN MULTI-STORY BUILDINGS

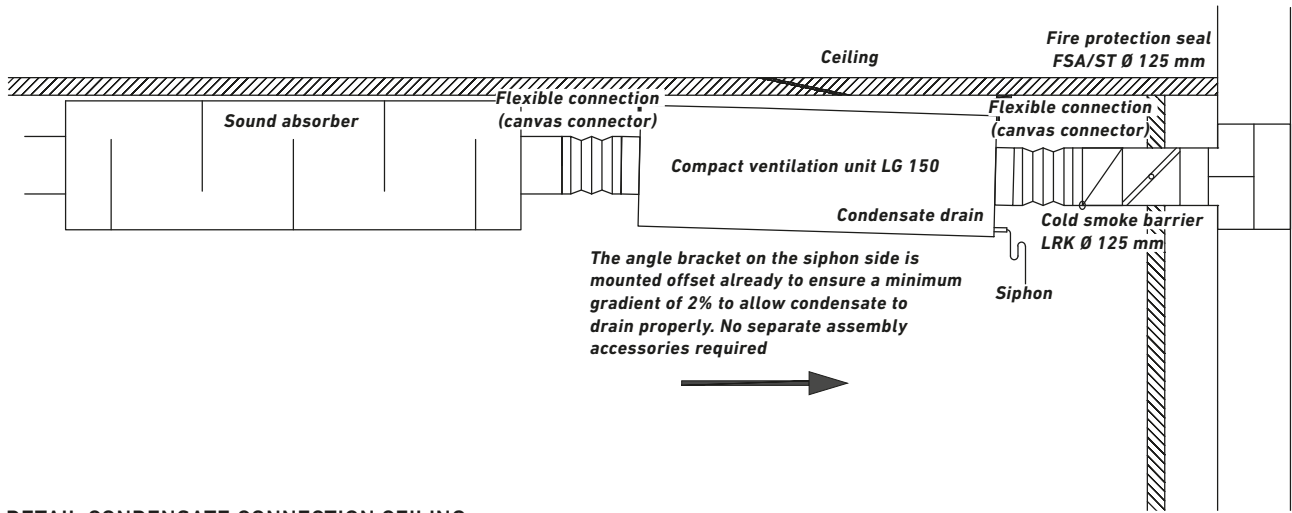


DETAIL CONDENSATE CONNECTION WALL SEE PAGE 19

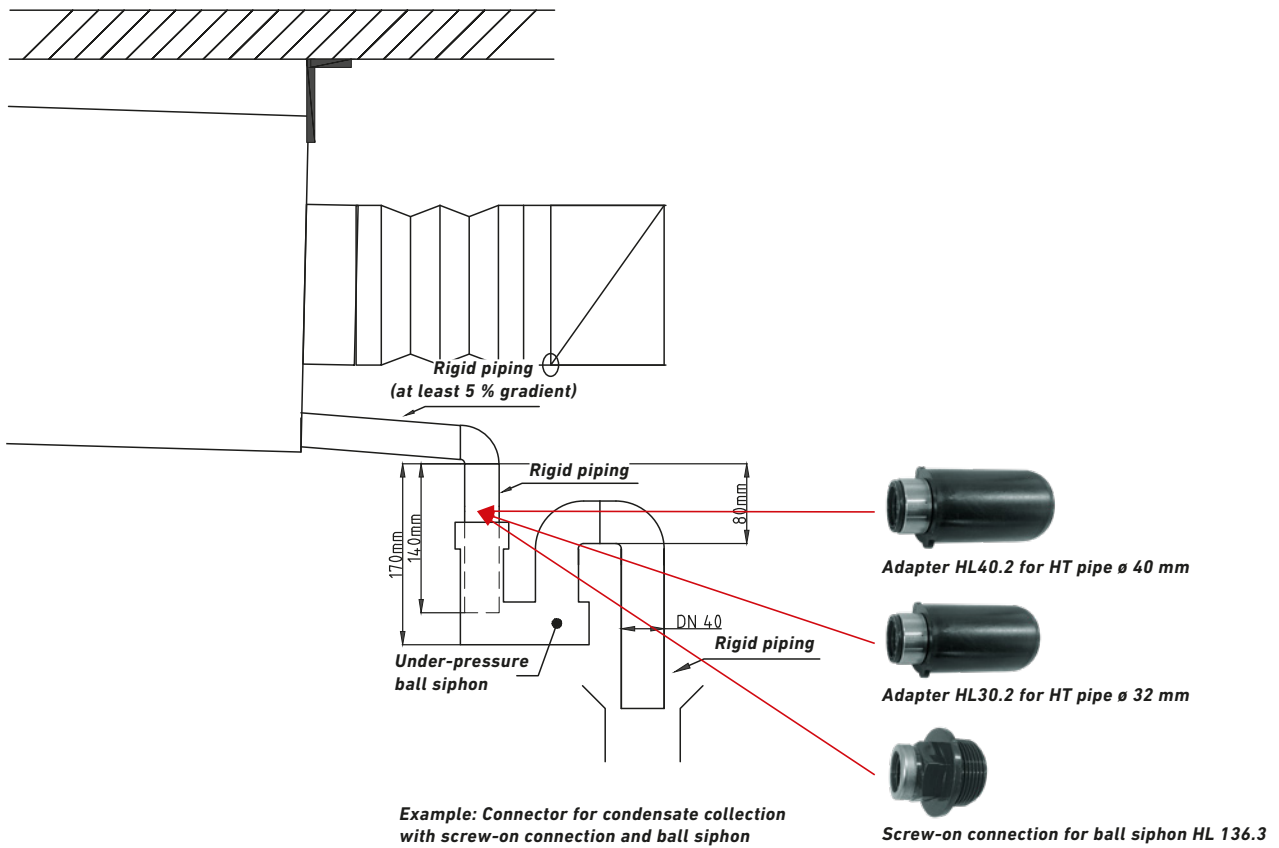


CEILING-MOUNTED INSTALLATION IN THE STORAGE ROOM/TOILET IN MULTI-STORY BUILDINGS

Exhaust air standpipe
Outdoor air standpipe



DETAIL CONDENSATE CONNECTION CEILING



Data in accordance with EU Regulations 1253/1254-2014

The Pichler ventilation unit meets the requirements of the Eco-design Directive, in accordance with the EU Regulations 1253/1254-2014, and is based on the current state of knowledge (07/07/2014).

LG 150 A/AF

Specific energy consumption:

- A+ is applicable when controlled to local requirements.
- A is applicable when controlled with a manual control, a clock control or a central demand control.

Maximum air volume flow: 150 m³/h

The specified energy efficiency is applicable is valid up to the specified maximum air volume flow.

Sound power level LWA at the reference volume flow: 39 db(A)

LG 150 B

Specific energy consumption:

- A+ is applicable when controlled to local requirements.
- A is applicable when controlled with a manual control, clock control or a central demand control

Maximum air volume flow: 180 m³/h

The specified energy efficiency is applicable is valid up to the specified maximum air volume flow.

Sound power level LWA at the reference volume flow: 45 db(A)

LG 150 BF

Specific energy consumption:

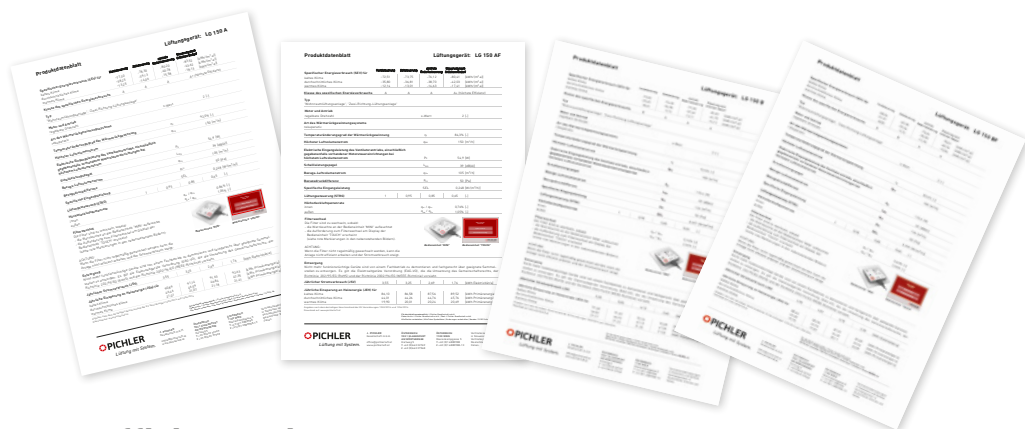
- A is applicable when controlled with a central demand control or when controlled to local requirements.
- B is applicable when controlled with a manual control or a clock control.

Maximum air volume flow: 180 m³/h

The specified energy efficiency is applicable is valid up to the specified maximum air volume flow.

Sound power level LWA at the reference volume flow: 45 db(A)

Download the product fiches on www.pichlerluft.at



Overview energy efficiency classes

| Air control options | manual control | | | clock control | | | central demand control | | | local demand control | | |
|--|----------------|---|----|---------------|---|----|------------------------|---|----|----------------------|----|----|
| | A/AF | B | BF | A/AF | B | BF | A/AF | B | BF | A/AF | B | BF |
| ventilation unit LG 150 | | | | | | | | | | | | |
| LG + operating control unit MINI | A | A | B | - | - | - | A/AF | - | - | - | - | - |
| LG + operating control unit MINI + 1 x CO ₂ sensor* | - | - | - | - | - | - | A | A | A | - | - | - |
| LG + operating control unit MINI + 1 x RH sensor* | - | - | - | - | - | - | A | A | A | - | - | - |
| LG + operating control unit MINI + 2 x CO ₂ sensor* | - | - | - | - | - | - | - | - | - | A+ | A+ | A |
| LG + operating control unit MINI + 2 x RH sensor* | - | - | - | - | - | - | - | - | - | A+ | A+ | A |
| LG + operating control unit MINI + 1 x CO ₂ + 1 x RH sensor* | - | - | - | - | - | - | - | - | - | A+ | A+ | A |
| LG + operating control unit TOUCH | - | - | - | A | A | B | - | - | - | - | - | - |
| LG + operating control unit TOUCH + 1 x CO ₂ sensor* | - | - | - | - | - | - | A | A | A | - | - | - |
| LG + operating control unit TOUCH + 1 x RH sensor* | - | - | - | - | - | - | A | A | A | - | - | - |
| LG + operating control unit TOUCH + 2 x CO ₂ sensor* | - | - | - | - | - | - | - | - | - | A+ | A+ | A |
| LG + operating control unit TOUCH + 2 x RH sensor* | - | - | - | - | - | - | - | - | - | A+ | A+ | A |
| LG + operating control unit TOUCH + 1 x CO ₂ + 1 x RH sensor* | - | - | - | - | - | - | - | - | - | A+ | A+ | A |

*see page 10, optional accessories for needs-based operation



The LG 150 at a glance!

Fans:

Energy-saving radial fans with DC technology (state-of-the-art EC motor technology) with automatic constant volume flow control

Counterflow heat exchanger:

Highly efficient heat recovery system with an air/air counterflow heat exchanger made of recyclable plastic with an automatic 100% bypass

Air volume flow:

LG 150 A of 30 to 150 m³/h

LG 150 B of 30 to 200 m³/h

with an external pressure of 50 to 250 Pa

PTC electrical preheater battery:

Optionally available as an internal version

PTC electrical reheater battery:

Optionally available as an external version

Filters:

Filter ODA ISO ePM2,5 55% in the outdoor air, filter ETA ISO Coarse 70% in the extract air

Housing:

EPP-housing with equipment cladding, powdercoated in RAL 9003

Air connections:

Left and right-hand versions of the unit. ODA/EHA/SUP/ETA: each Ø 125 mm with a double lip seal

Installation position:

Wall-mounted installation (covering ODA/EHA). Ceiling-mounted installation (in final installation min. 2 % inclined assembled)

Summer changeover:

Integrated 100% bypass flap with seal

Service – maintenance – initial startup

OUR COMPACT VENTILATION UNIT LG 150 A/AF HAS BEEN CERTIFIED BY

- Passivhausinstitut (Passive House Institute) Darmstadt

OUR COMPACT VENTILATION UNIT LG 150 A/AF HAS BEEN APPROVED BY

- DIBt – Deutsches Institut für Bautechnik

OUR LG 100 COMPACT VENTILATION UNIT IS LISTED IN THE

- EPREL – European Product Database for Energy Labelling

OUR COMPACT VENTILATION UNIT LG 150 A/AF HAS BEEN TYPE TESTED BY

- TÜV-AUSTRIA Services GmbH, Testing, Inspection and Certification Centre/Vienna

Notice:

Our product range includes units with a size up to 10,000 m³/h as well as comprehensive accessories.



Notes



**ErP 2018**

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

**EPREL according to Regulation (EU) No. 1369/2017**

In accordance with VO (EU) No. 1369/2017 – Energy Labelling, European Product Database, the ventilation unit is listed in the EPREL database.



Your partner/installer:



klimaaktiv
Partner

PASSIVHAUS
Austria

Mitglied
NETZWERK
PASSIVHAUS
www.passivhaus.at

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