# SYSTEM VENTECH LG 150



Passive House Institute

LG 150 A,

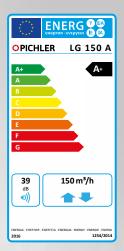
LG 150 AF

EN 13141-7:2011-01





EU Regulation 1253/2014



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





# **Product description**

The compact ventilation unit LG 150 system VENTECH consists of a compact EPP-housing with equipment cladding that is free of thermal bridges and is thermally insulated, externally powder-coated in RAL 9010, 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, air filters of quality class F7 in the

supply air and G4 in the extract air line, integrated cabled control electronics, with an optional MINI or TOUCH (optional) operating control unit and an inspection door in RAL 9010 for filter servicing.

# Area of application

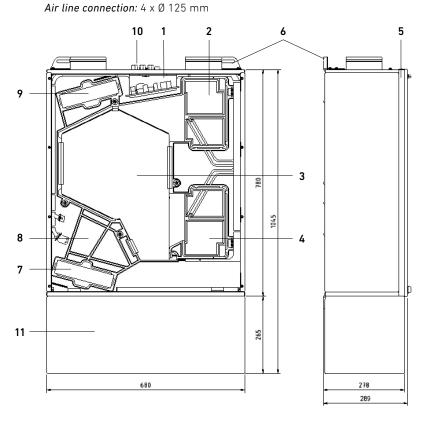
The compact ventilation unit LG 150 system VENTECH is used for the controlled mechanical supply and exhaust air ventilation of residential houses, larger residential units, offices and

similar applications. The range of use extends fundamentally to residential areas of 40 m<sup>2</sup> to approx. 120 m<sup>2</sup> that are designed as passive or low energy structures, with an adjustable air vol-

ume flow up to 150  $\text{m}^3/\text{h}$  (LG 150 A) or up to 200  $\text{m}^3/\text{h}$  for up to 160  $\text{m}^2$  (LG 150 B with high ventilation system performance).

# Layout sketch (wall-mounted or ceiling-mounted installation)

*Dimensions:* (W x H x D) 680 x 780 x 289 mm



- 1 Electronics
- 2 Supply air fan
- 3 Counterflow heat exchanger with Condensate drainage and filling level monitor (optionally with an enthalpy exchanger)
- 4 Exhaust air fan
- 5 Housing front cladding and inspection door with knurled screw closure
- 6 Mounting bracket with vibration damper
- 7 Outdoor air filter F7
- 8 Bypass flap-preheater battery
- 9 Extract air filter G4
- 10 Cable entry
- 11 Cover element (optional)

Illustration: LG 150 AWR (right-hand version incl. covery element (also applicable to LG 150 B)



# **Versions**

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

- right-hand or left-hand, depending on the location of the supply air connecting piece
- LG 150 A without an integrated PTC heater battery
- LG 150 A with an integrated electrical PTC preheater battery
- LG 150 A optionally with an enthalpy exchanger for moisture recovery
- LG 150 B with high performance ventilation system, with or without an electrical PTC heater battery being integrated into the unit
- LG 150 B optionally with an enthalpy exchanger

# **LG 150 A AND LG 150 B**

Wall-mounted version LG 150 A	Left-hand version	Right-hand version			
Item no. without an integrated PTC heater battery	08LG150AWL	08LG150AWR			
Item no. with an integrated PTC preheater battery	08LG150AWLV	08LG150AWRV			
Item no. for cover element	08LG150ABDECK265 (AUL/FOL) 08LG150ABDECK80 (ZUL/ABL)	08LG150ABDECK265 (AUL/FOL) 08LG150ABDECK80 (ZUL/ABL)			
Optionally with an enthalpy exchanger for moisture recovery	08LG150A + 08EWTLG150	08LG150A + 08EWTLG150			

Wall-mounted version LG 150 B	Left-hand version	Right-hand version
Item no. without an integrated PTC heater battery	08LG150BWL	08LG150BWR
Item no. with an integrated PTC preheater battery	08LG150BWLV	08LG150BWRV
Item no. for cover element	08LG150ABDECK265 (AUL/FOL) 08LG150ABDECK80 (ZUL/ABL)	08LG150ABDECK265 (AUL/FOL) 08LG150ABDECK80 (ZUL/ABL)
Optionally with an enthalpy exchanger for moisture recovery	08LG150B + 08EWTLG150	08LG150B + 08EWTLG150
Wall mounted	1 2 4 3	2 1

Ceiling-mounted version LG 150 A (in final assembly min. 2 % inclined assembled)	Left-hand version	Right-hand version
Item no. without an integrated PTC heater battery	08LG150ADL	08LG150ADR
Item no. with an integrated PTC preheater battery	08LG150ADLV	08LG150ADRV
Optionally with an enthalpy exchanger for moisture recovery	08LG150A + 08EWTLG150	08LG150A + 08EWTLG150

Ceiling-mounted version LG 150 B (in final installation min. 2 % inclined assembled)	Left-hand version	Right-hand version
Item no. without an integrated PTC heater battery	08LG150BDL	08LG150BDR
Item no. with an integrated PTC preheater battery	08LG150BDLV	08LG150BDRV
Optionally with an enthalpy exchanger for moisture recovery	08LG150B + 08EWTLG150	08LG150B + 08EWTLG150
Ceiling mounted	4 3	3 4

1 Supply air 2 Extract air 3 Outdoor air 4 Exhaust air



# Technical specifications LG 150 A

# **VENTILATION UNIT**

#### Dimensions:

(W x H x D) 680 x 780 x 289 mm (310 mm with mounting bracket) EPP-Housing with equipment cladding coated in RAL 9010, 22/18 mm of thermal insulation

*Air line connection:* 4 x Ø 125 mm

Condensate connection: R 1/2" AG at the bottom

Electrical connection: 230 V/50 Hz

Fuse: 16A

Protection class: IP 20

Permitted ambient temperature for the unit:

+5 °C to +40 °C

Weight without accessories: approx. 29 kg

#### FANS

(factory setting)

Air volume flow:

Speed II: 90 m<sup>3</sup>/h Speed III: 130 m<sup>3</sup>/h

Air volume flow setting range:

30 to 150 m<sup>3</sup>/h Power consumption Standby mode: < 1,0 W The characteristic curves shown are valid for the version of the unit with an outdoor air filter of quality class F7, extract air filter of quality class G4 and the version without a PTC preheater battery.

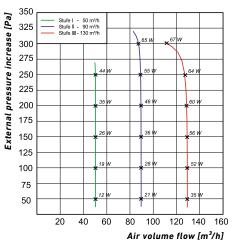
# CHARACTERISTIC CURVE OF THE EXTERNAL PRESSURE INCREASE – AIR VOLUME FLOW

The characteristic curve specifies the external pressure  $(p_{ext})$  that is available for the ducting system.

### **TOTAL WATTAGE**

The total electrical wattage specified takes into consideration the power consumption for both fans in the supply air and extract air lines and the power consumption of the control unit.

# PRESSURE VOLUME FLOW CHARACTERISTIC CURVE FOR LG 150 A



# **SOUND DATA FOR LG 150 A**

	Measuring p	point	Housing emission			Outdoor air connecting piece		Supply air connecting piece		Exhaust air connecting piece			Extract air connecting piece				
	Stufe		ı	II	III	ı	II	III	ı	II	III	ı	II	III	ı	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
100 Pa	500 Hz	i. BB	42	42	42	37	40	41	54	56	58	54	56	58	43	45	47
	1000 Hz	<u>.</u> . [	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 <sub>wa</sub> in dB (A)		42	43	44	41	43	45	58	61	62	57	60	61	44	47	48
50 Pa	Total L <sub>wa</sub> in d	IB (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



# Technical specifications LG 150 A

# PASSIVE HOUSE CERTIFIED IN ACCORDANCE WITH PHI CRITERIA

Housing seal-tightness: External leakage 0.6 %, internal leakage 0.9 %

Degree of heat provision:  $\eta_{\rm eff,\,t,WRG}$  = 86 % Comfort criterion:  $T_{\rm SAir}$  = +17.2 °C where  $T_{\rm FAir}$  = -10 °C

Flow efficiency:  $\eta_{elec.} = 0.30 \text{ Wh/m}^3$ 

Flow efficiency:  $\eta_{elec.} = 0.30 \text{ Wh/m}^3$ 



**INSPECTED ACCORDING TO DIN EN 13141-7:2011** APPROVED ACCORDING TO DIBT



# Technical specifications LG 150 AF with moisture recovery

# PASSIVE HOUSE CERTIFIED IN ACCORDANCE WITH PHI CRITERIA

Housing seal-tightness: External leakage 0.64 %, internal leakage 0.82 %Degree of heat provision:  $\eta_{\rm eff,\,t,\,WRG}$  = 83 %Average moisture ratio:  $\eta_x = 0.71$ Comfort criterion:  $T_{SAir}$ = +17.2 °C where  $T_{FAir}$ = -10 °C



**INSPECTED ACCORDING TO DIN EN 13141-7:2011** APPROVED ACCORDING TO DIBT





# Technical specifications LG 150 B for higher air capacities

# **VENTILATION UNIT**

#### Dimensions:

(W x H x D) 680 x 780 x 289 mm (310 mm with mounting bracket) EPP-Housing with equipment cladding coated in RAL 9010, 22/18 mm of thermal insulation

Air line connection: 4 x Ø 125 mm

Condensate connection: R 1/2" AG at the bottom

Electrical connection: 230 V/50 Hz

*Fuse*: 16A

Protection class: IP 20

Permitted ambient temperature for the unit:

+5 °C to +40 °C

Weight without accessories: approx. 29 kg

#### FANS

(factory setting)

Air volume flow:

Speed I: 60 m³/h

Speed II: 110 m³/h

Speed III: 180 m³/h

Air volume flow setting range:

30 to 200 m<sup>3</sup>/h Power consumption Standby mode: < 1,0 W The characteristic curves shown are valid for the version of the unit with an outdoor air filter of quality class F7, extract air filter of quality class G4 and the version without a PTC preheater battery.

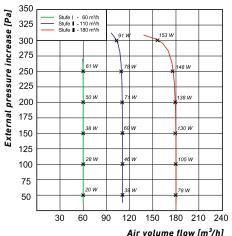
# CHARACTERISTIC CURVE OF THE EXTERNAL PRESSURE INCREASE – AIR VOLUME FLOW

The characteristic curve specifies the external pressure  $(p_{ext})$  that is available for the ducting system.

### **TOTAL WATTAGE**

The total electrical wattage specified takes into consideration the power consumption for both fans in the supply air and extract air lines and the power consumption of the control unit.

# PRESSURE VOLUME FLOW CHARACTERISTIC CURVE FOR LG 150 B



Speed		Flow efficiency: $\eta_{elek}$ [Wh/m³] With an external pressure increase of 50 Pa	Flow efficiency: $\eta_{elek}$ [Wh/m³] With an external pressure increase of 100 Pa
1	60	0,33	0,47
II	110	0,35	0,42
III	180	0,43	0,58

(values from internal test measurements)

## **SOUND DATA FOR LG 150 B**

	Measuring point		Housing emission		Outdoor air connecting piece		Supply air connecting piece		Exhaust air connecting piece			Extract air connecting piece					
	Stufe		ı	II	III	ı	II	III	ı	II	III	ı	II	III	ı	II	Ш
	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
100 Pa	500 Hz	8	40	46	50	47	44	48	59	64	66	60	63	64	41	43	47
	1000 Hz	Ë	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 <sub>wA</sub> in dB (A)		40	46	51	53	54	55	65	69	70	64	68	69	52	55	56
50 Pa	Total L <sub>wa</sub> in d	B (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 Pichler-App TOUCH control unit

# **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 MOD bus 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.

## 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 in 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 via touch display. 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  $\mathrm{CO}_2$  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, 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 in 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.
	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		Item No.
Cable operating control unit LG	Telephone wiring	40LG040340
max. installation length 100 m	J-Y(ST)Y 2x2x0,8	

# EASY OPERATION WITH THE PICHLER APP

*User-friendly:* the compact ventilation unit can be operated easily with our free smartphone app for Android, whether you are at home or out and about.

# **REMOTE ACCESS**

*Operational safety:* Remote access faciliates a prompt response with minimal effort for the Pichler customer service in the event of a malfunction.







CO<sub>2</sub> sensor

Item

Control signal

Item

Humidity sensor

# **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
Extract air filter G4	40LG050240
Outdoor air filter F7	40LG050230
Outdoor air filter F9 (pollen filter)	40LG050250

### **DEMAND-ORIENTED VENTILATION CONTROL**

 ${\rm CO}_2$  and humidity sensors for demand-oriented ventilation control. The ventilation unit will automatically increase or reduce the air volumes depending on the quality of the air in the room. The sensors are designed for flush and surface mounting.

CO <sub>2</sub> Selisor	U/RCU24033U
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

0-10 V

Item number

Item number

Humidity sensor	07RHF49360
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

Demand-oriented plant operation via  ${\rm CO_2}$  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 CO, sensors
- Max 2 x RH% sensors
- 1 x CO<sub>2</sub> sensor & 1 x RH% sensor

# **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	01STR125

# **WALL ENDING**

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

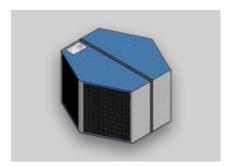
Item	Dimensions W x H x D	Item number
Wall ending	675 x 260 x 15 mm	08LG150WA15

# **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





Enthalpy exchanger

### **ENTHALPY EXCHANGER**

Humidity-transferring counterflow heat exchanger with selective polymer membrane for heat and moisture recovery.

# Advantages of the enthalpy exchanger:

- Enthalpy exchangers ensure optimal comfort within your own four walls.
- 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 walls from drying out in winter.
- No moving parts/fastenings. This means:
  - Costs can be kept low
  - Simple unit installation and maintenance

Item	Item number
Additional-cost enthalpy exchanger fitted to LG 150	08EWTLG150

# **HOT WATER RE-HEATER BATTERY**

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

Only in connection with the external supply air temperature sensor (item number: 40LG041081)

Air volume: 180 m³/h Medium: 60/40 °C Output: ca. 700 W Pipe diameter: Ø 125 mm

Dimensions: W x H x D =  $238 \times 180 \times 276$ 

Item	Item number
Hot water re-heater battery	01VBC125

### 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	Item number
0,63 m³/h	08MISCHER

### INTERNAL PTC ELECTRIC PRE-HEATER BATTERY

Frost protection for the counterflow heat exchanger. *Output*: 750 W (LG 150 A) / 900 W (LG 150 B)

Item	Item number
Electric preheater battery for right-hand version, wall-mounted or ceiling-mounted installation	08LG150A-W-RV, 08LG150A-D-RV, 08LG150B-W-RV, 08LG150B-D-RV
Electric preheater battery for left-hand version, wall-mounted or ceiling-mounted installation	08LG150A-W-LV, 08LG150A-D-LV, 08LG150B-W-LV, 08LG150B-D-LV

## **EXTERNAL SUPPLY AIR TEMPERATURE SENSOR**

NTC sensor with metal sleeve.

Item	Item number
NTC sensor, length 2 m	40LG041081

# 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.





LBE 250 with hot water heater battery (right-hand version)

# **Accessories**

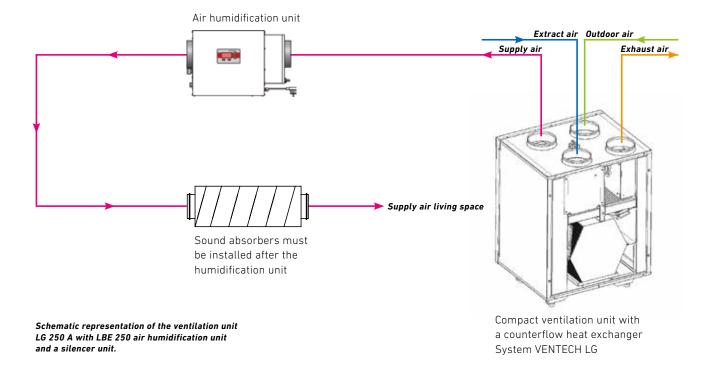
# COSINESS BY AIR HUMIDIFICATION WITH LBE 250

- Constant, optimal room air humidity and temperature, wherever you are
- Active humidification of indoor air
- No over-humidification thanks to natural evaporation
- Compact, automatic humidification unit

- Easy to use
- Hygienically harmless operation, proven through health reports
- Installed in the central ventilation system, also suitable for retrofits
- Low maintenance cost

Standing or wall- mounted installation		Air connection [mm]	Water connection [inches]	Flow [m³/h]	Weight [kg]	WxHxD	
08 LBE250 LW	Left-hand version incl. PWW Hot water preheater battery	160	3/4	250	25.0	550 x 385 x 360	
08 LBE250 RW	Right-hand version incl. PWW Hot water preheater battery	160	3/4	250	25.0	550 x 385 x 360	
08 LBE250 LE	Left-hand version incl. PTC electric pre- heater battery (1300 Watt)	160	3/4	250	25.0	510 x 385 x 360	
08 LBE250 RE	Right-hand version incl. PTC electric pre- heater battery (1300 Watt)	160	3/4	250	25.0	510x385x360	







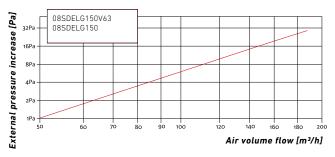
# Optional accessories sound reduction unit

Compact ventilation appliance 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 9010. The inner part is designed as diversion chamber with acoustically and flow optimized splitters. The (non combustible) splitters

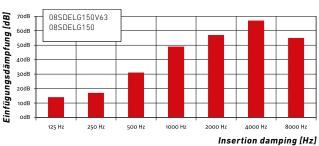
consist of high-strength, wearresistant and moisture repellent glass silk surface. With absorption elements and resonance elements for optimal sound reduction. Adapter with SYSTEM SAFE plug-in fitting. The connections are closed with dust protection caps. With fastening clips for simple wall-mounted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

# **Technical specifications**

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



# INSERTION DAMPING OF THE SOUND REDUCTION UNIT

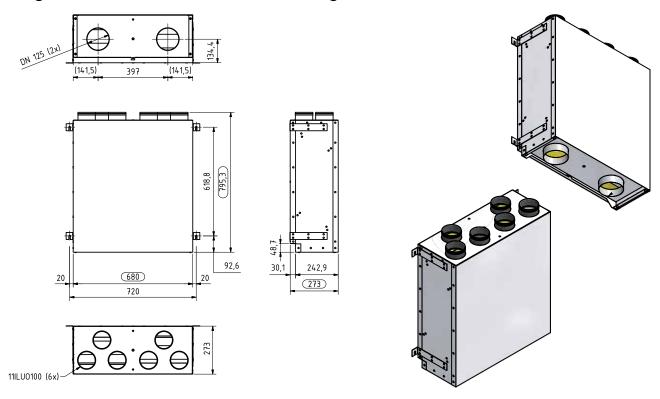


# **Versions**

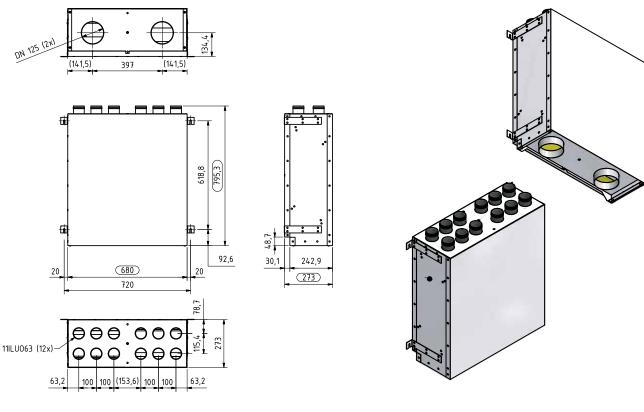
Wall-mounted or ceiling-mounted	Version
Item No. Sound reduction unit imensions (W x H x D) 680 x 795 x 273 mm with 6 connectors Ø 100 mm	08SDELG150
Item No. Sound reduction unit Dimensions (W x H x D) 680 x 795 x 273 mm with 12 connectors ø 63 mm for system Komflex	08SDELG150V63
Dimensions (W x H x D) 680 x 795 x 273 mm with 12 connectors ø 63 mm	



# Layout sketch sound reduction unit with 6 connections Ø 100, length 795 mm (wall-mounted or ceiling-mounted installation)



Layout sketch sound reduction unit with 12 connections Ø 63 for system Komflex 75 mm, length 795 mm (wall-mounted or ceiling-mounted installation)

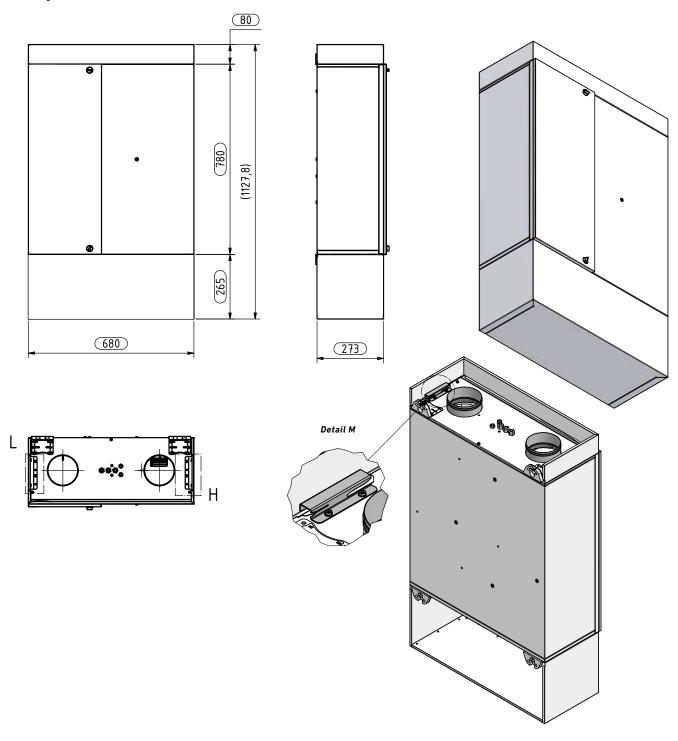




# Optional accessories cover element

For optical veneering in the region of the air line connectors of the comfort ventilation unit with outside air and exhaust air or extract air and supply air, towards the wall or the ceiling. Dimensionally stable construction of the cover made from galvanized steel, powder-coated in RAL 9010.

# Layout sketch





# Optional flush-mounted accessory kit

For providing the whole comfort ventilation unit, including the air connection parts, with optical panelling behind a drywall. Manufactured of galvanised steel sheet, powder-coated in RAL 9010.

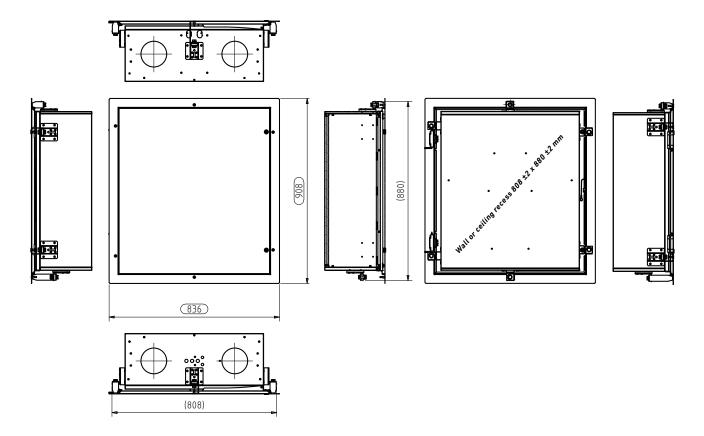
# Heat exchanger:

If the flush-mounted kit is used, generally a device version with an enthalpy exchanger is to be preferred. If devices without enthalpy exchangers are used in combination with the flush-mounted kit, accessibility for potential maintenance purposes on the siphon must be provided for on site! For ceiling installation, we solely supply devices with enthalpy heat exchangers.

### Note:

Since provisions for the installation are made on the device housing, the flush-mounted kit must be ordered together with the compact ventilation unit. The compact ventilation unit is then delivered with pre-drilled jacket sheets. The scope of supply of the flush-mounted kit furthermore includes pre-assembled mounting brackets, blind rivets, the pre-assembled inspection front incl. the frame as well as countersunk-head screws. Details with regard to the installation can be found in the mounting instructions supplied.

# **Assembly draft**





# **Versions**

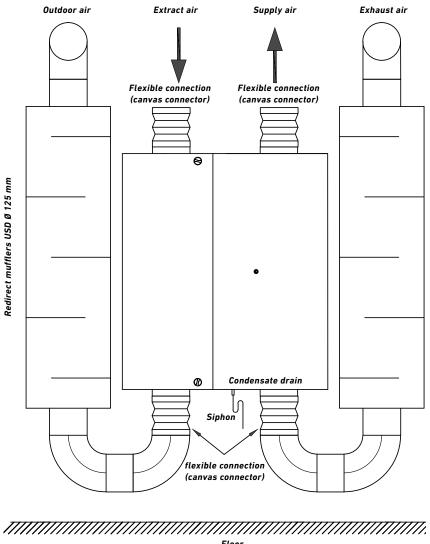
Cover element	
Item No. Cover element for LG 150 Dimensions (W x H x D) 680 x 265 x 273 mm	08LG150ABDECK265
As bezel around the external and exhaust air connection of the ventilation unit, facing the wall. Powder-coated in RAL 9010. Including 2 guide rails.	
Item No. Cover element for LG 150 Dimensions (W x H x D) 680 x 80 x 273 mm	08LG150ABDECK80
As bezel around the supply and exhaust air connection of the ventilation unit, facing the wall. Powder-coated in RAL 9010. Including 2 guide rails.	
Flush-mounted kit	
Article No. flush-mounted kit for LG 150 Dimensions: (W x H x D) 836 x 908 x 281-291 mm Wall or ceiling recess (W x H) 808 ±2 x 880 ±2 mm	08LG150UPKIT
In order to provide the whole comfort ventilation unit, including the air connection parts, with panelling behind the drywall. Powder-coated in RAL 9010.	



SYSTEM VENTECH LG 150

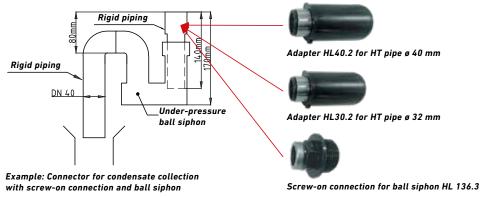
# Mounting examples

# WALL-MOUNTED INSTALLATION IN A TERRACED HOUSE - BASEMENT



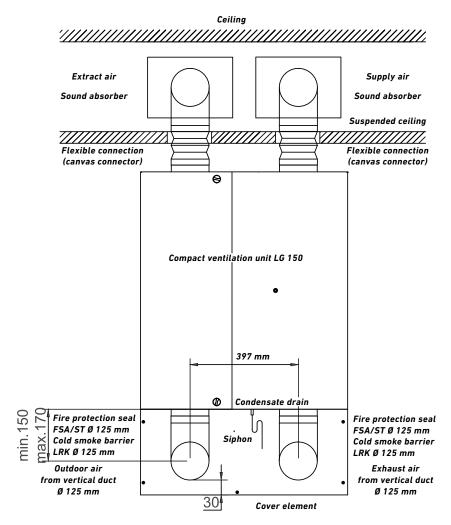


# **DETAIL CONDENSATE CONNECTION WALL**





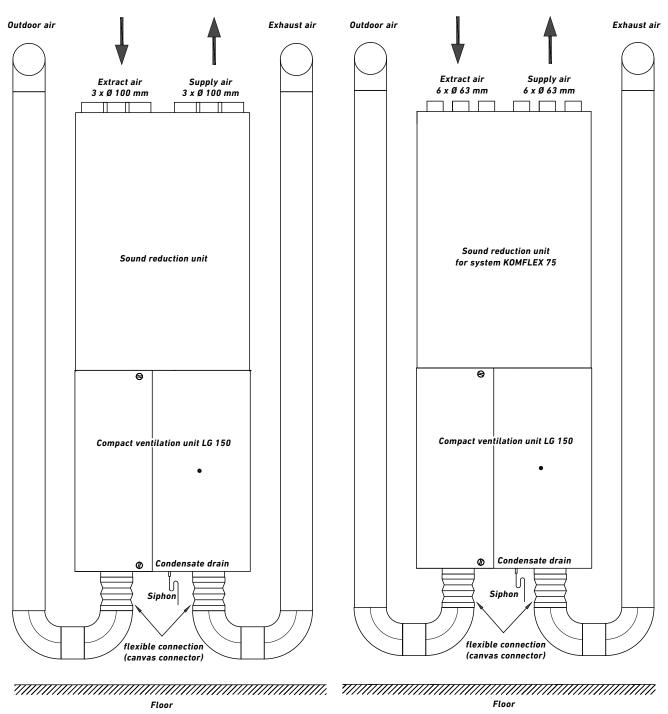
# WALL-MOUNTED INSTALLATION ABOVE THE TOILET TANK IN MULTI-STORY BUILDINGS



**DETAIL CONDENSATE CONNECTION WALL SEE PAGE 17** 



# WALL-MOUNTED INSTALLATION IN THE STORAGE ROOM IN MULTI-STORY BUILDINGS

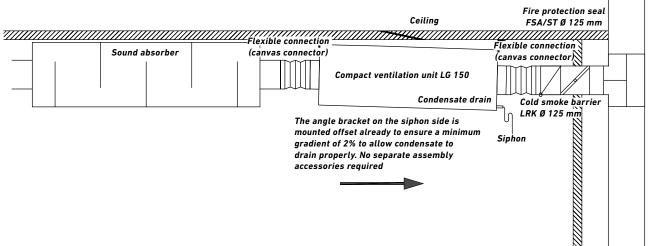


**DETAIL CONDENSATE CONNECTION WALL SEE PAGE 17** 

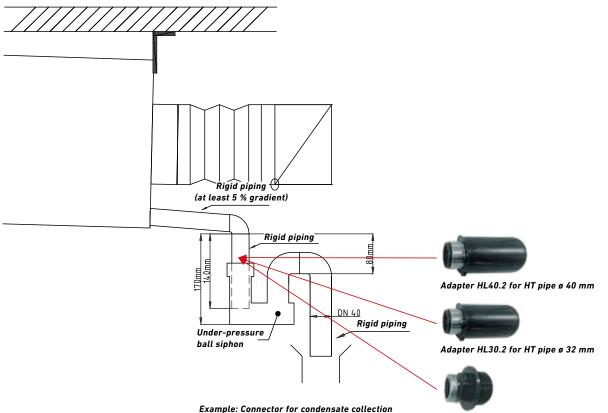


# CEILING-MOUNTED INSTALLATION IN THE STORAGE ROOM/TOILET IN MULTI-STORY BUILDINGS

Exhaust air standpipe Outdoor air standpipe



## **DETAIL CONDENSATE CONNECTION CEILING**



Example: Connector for condensate collection with screw-on connection and ball siphon

Screw-on connection for ball siphon HL 136.3



# 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.

#### 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

### **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: 150 m<sup>3</sup>/h The specified energy efficiency is applicable when controlled to local requirements and is valid up to the specified maximum air volume flow.

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

Maximum air volume flow: 180 m<sup>3</sup>/h The specified energy efficiency is applicable when controlled to local requirements and is valid up to the specified maximum air volume flow.

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

Maximum air volume flow: 180 m<sup>3</sup>/h The specified energy efficiency is applicable when controlled to local requirements and 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			
ventilation unit LG 150	A/AF	В	BF	A/AF	В	BF	A/AF	В	BF	A/AF	В	BF
LG + operating control unit MINI	Α	Α	В	-	-	_	-	-	-	-	-	-
LG + operating control unit MINI + 1 x CO <sub>2</sub> sensor*	-	-	-	-	-	-	Α	Α	Α	-	-	-
LG + operating control unit MINI + 1 x RH sensor*	-	-	-	-	-	-	Α	Α	Α	-	-	-
LG + operating control unit MINI + 2 x CO <sub>2</sub> sensor*	-	-	-	-	-	-	-	-	-	A+	A+	Α
LG + operating control unit MINI + 2 xRH sensor*	-	-	-	-	-	-	-	-	-	A+	A+	Α
LG + operating control unit MINI + 1 x CO <sub>2</sub> + 1 x RH sensor*	-	-	-	-	-	-	-	-	-	A+	A+	Α
LG + operating control unit TOUCH	-	-	-	Α	Α	В	-	-	-	-	-	-
LG + operating control unit TOUCH + 1 x CO <sub>2</sub> sensor*	-	-	-	-	-	-	Α	Α	Α	-	-	-
LG + operating control unit TOUCH + 1 x RH sensor*	-	-	-	-	-	-	Α	Α	Α	-	-	-
LG + operating control unit TOUCH + 2 x CO <sub>2</sub> sensor*	-	-	-	-	-	-	-	-	-	A+	A+	Α
LG + operating control unit TOUCH + 2 x RH sensor*	-	-	-	-	-	-	-	-	-	A+	A+	Α
LG + operating control unit TOUCH + 1 x CO <sub>2</sub> + 1 x RH sensor*	-	-	-	-	-	-	-	-	-	A+	A+	Α

<sup>\*</sup>see page 10, optional accessories for needs-based operation



# The LG 150 system VENTECH 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  $\rm m^3/h$  LG 150 B of 30 to 200  $\rm m^3/h$  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

#### Filter:

Outdoor air cartridge filter, quality class F7. Extract air cartridge filter, quality class G4.

### Housing:

EPP-housing with equipment cladding, powdercoated in RAL 9010

#### 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

Suitable in conjunction with the air humidifier LBE 250, System VENTECH

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

 Passivhausinstitut (Passive House Institute) Darmstadt

## OUR COMPACT VENTILATION UNIT LG 150 A/AF, SYSTEM VENTECH HAS BEEN APPROVED BY

•DIBt – Deutsches Institut für Bautechnik

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

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

#### Notice:

Our product range includes units with a size up to 10,000 m<sup>3</sup>/h as well as comprehensive accessories.



# Notes





# ErP 2018

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



Your partner/installer:







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