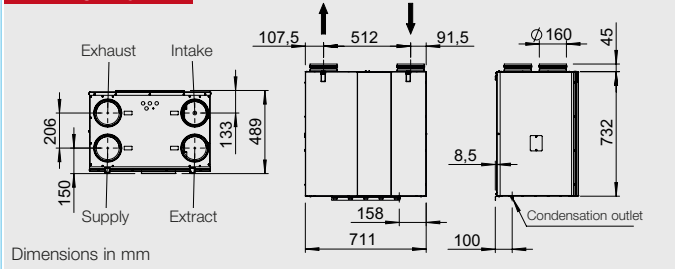


KWL EC 270 Eco and KWL EC 270 Pro

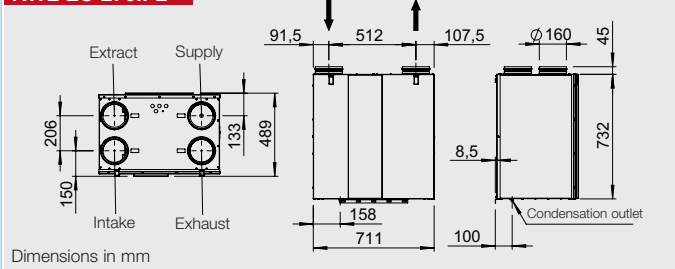
NEW!



KWL EC 270.. R



KWL EC 270.. L



Compact unit with heat recovery for central ventilation of houses and apartments built upon passive-house standards. High efficient cross counterflow heat exchanger with an efficiency of more than 90%. Latest EC motor technology with constant air flow regulation. This ensures that the adjusted air flow rate is preserved regardless of changing resistances (e.g., dirty filters) on each operating level.



- **Similarities**
- **Casing**
 - Made from galvanised sheet steel, white powder coated.
 - Interior from high quality expanded polystyrene (EPS) for maximum heat insulation.
 - Easy to install and maintain. The removable front panel allows full access.

■ **Heat exchanger**
Due to its larger surface the cross counterflow heat exchanger provides an exceptionally high efficiency. Made from polymer. Easy to remove for cleaning purposes.

■ **Fans**
Two silent high efficient centrifugal fans with energy-saving EC motors and constant flow rate regulation move the supply air and extract air continuously also on change of the pressure in the system. They are maintenance free and easily accessible through the front.

■ **Ducting**
R or L handing ensures easy and crossover-free connection of the ducting for supply and extract air using ducts with nominal diameter of 160 mm. Spigots for connection located on top of the unit.

■ **Condensation outlet**
The condensation outlet is located at the bottom of the unit. Trap and drain pipe to be connected by installer.

■ **Air filter**
Supply of cleaned outside air using a G4 filter. Superfine pollen filter F7 (always necessary for passive-houses) is also available. Extract air passes through a G4 filter before entering the heat exchanger. A G4 bypass filter is included as standard, optional F7.

■ **Frost protection**
By reduction of the supply air flow rate or by the integrated regulation of an upstream pre-heater battery (accessories)
EHR-R 1,2/160 No. 9434

An air filter is to be pre-connected to the pre-heater battery in G4 execution (accessories).
LFBR 160 G4 No. 8578

■ **Electrical connection**
Free accessible, external terminal box (IP 44) at implemented cable, approx. 1.5 m long.

KWL EC 270 Eco
The economical solution for a wide range of application with an excellent cost/performance ratio.

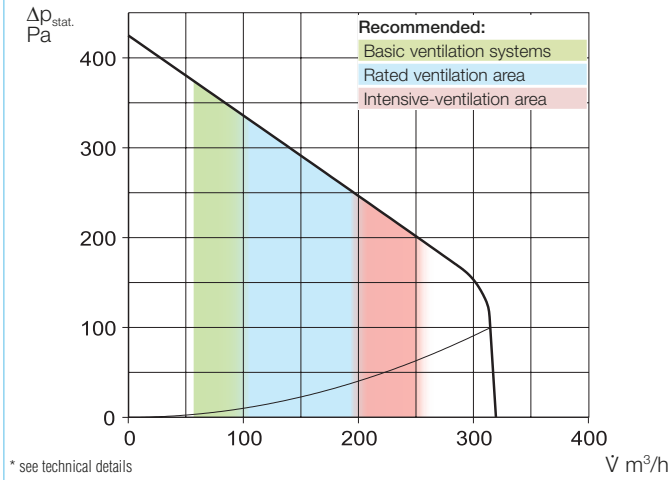
- **Speed control**
 - Three speed operation via controller, integrated in the front panel.
 - Three freely definable operating levels individually controllable via potentiometers. Adjustable speed ratio of supply/extract air.
 - Disconnection via on/off switch on site or potentiometer adjustment.
 - An LED signals operating condition, filter change, frost protection, supply air temperature lower than 5° C and error message.
 - Activation of intensive ventilation level by additional external switch on site.
- **Summer operation**
Using exchanger cover plate, adjustable switching temperature and can be deactivated.

Technical Data	KWL EC 270 Eco for wall mounting		
Right-hand version	KWL EC 270 Eco R		Ref. No. 9598
Left-hand version	KWL EC 270 Eco L		Ref. No. 9599
Air flow volume on speed step**	③	②	①
Supply-/Extract air flow vol. V m ³ /h	285	170	110
Sound levels dB(A) at 100 Pa *			
Supply L _{WA} (sound power level)	63	52	46
Extract L _{WA} (sound power level)	49	38	32
Case breakout L _{pA} in 1 m	43	32	27
Power fan 2 x W	68	19	10
Standby-losses	< 1 W		
Voltage/Frequency	230 V, 1 ph., 50 Hz		
Max. Amps – ventilation	1.0		
Pre-heating battery (Output) kW	1.0		
Sommer Bypass	Auto., adjustable from, with heat exchanger cover		
Wiring Diagram no.	942		
Temperature operation range	-20 °C to +40 °C		
Weight approx. in kg	32		

* Sound levels raise with increasing system pressure ** Speed steps adjustable at will.

KWL EC 270..

Frequency*	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Extract	dB(A)	49	29	43	46	36	38	33	22
L _{WA} Supply	dB(A)	63	49	56	59	57	54	48	41
L _{PA} Exhaust	dB(A)	43	30	35	41	36	33	29	25



KWL EC 270 Pro
Meets even the highest comfort demands in functionality and operator convenience. Fully automated control, power-controlled electric heater battery (accessories) and automatic bypass function. User-friendly remote controller with graphic display included.

Speed control

- The comfort controller with graphic display (included in delivery) and user-friendly menu navigation makes the following functions possible:
 - Four-speed manual operation or with digital timer.
 - Freely definable operating levels within the performance curve values
 - Boost ventilation, intensive ventilation in addition also with external switch

- Control via intelligent CO₂- and humidity sensors (accessories, in each case up to 4 controllers can be installed)
- Display of required filter change, operating state, operating hours, error messages.

- Several units can be controlled with one comfort controller.
- Several comfort controllers can be connected to one unit.
- The supply air temperature can be warmed up additionally by regulation of a power-controlled, external heater battery (EHR-R, accessories). Duct sensor (LTK 40, Ref. No. 1324) necessary.

EHR-R 2,4/160 No. 9435

Summer operation

Using exchanger cover plate, adjustable switching temperature and can be deactivated via controller.

Accessories for Pro..

Comfort controller (additional)

Display and function as described on the left. One piece KWL-BCU included in delivery. Up to 4 controllers can be connected. 3 m connecting cable included in delivery. Dim. mm (W x H x D) for flush mounting 81 x 81 x 20

KWL-BCU No. 9955

Dim. mm (W x H x D) for surface mounting 84x84x20

KWL-BCA No. 9956

CO₂-sensor

Measures CO₂ concentration and transfers data to the ventilation unit to arrange for an optimal CO₂ level in all 4 speeds. Up to 4 sensors can be plugged in. In this case, the sensor with the highest measurement is used for setting the unit.

Dim. mm (W x H x D) 95 x 97 x 30

KWL-CO₂ Ref. No. 9958

Humidity sensor

Measures the relative humidity and transfers data to the ventilation unit to arrange for optimal interior air humidity in all 4 speeds. Up to 4 sensors can be plugged in. In this case, the sensor with the highest measurement is used for setting the unit.

Dim. mm (W x H x D) 95 x 97 x 30

KWL-FF 270 Ref. No. 9953

Connecting cable

For distances > 3 m, with 2 RJ 12 plugs. For connection between controller and KWL EC.. Pro and/or between several ventilation units.

KWL-AL 10 (length 10 m) No. 9444

KWL-AL 20 (length 20 m) No. 9959

Wye junction board

To connect units, controllers and accessory components.

KWL-ALA Ref. No. 9960



Technical Data	KWL EC 270 Pro for wall mounting			
Right-hand version	KWL EC 270 Pro R			Ref. No. 9600
Left-hand version	KWL EC 270 Pro L			Ref. No. 9608
Air flow volume on speed step**	4	3	2	1
Supply-/Extract air flow vol. V̇ m³/h	285	230	170	110
Sound levels dB(A) at 100 Pa *				
Supply L _{WA} (sound power level)	63	58	52	46
Extract L _{WA} (sound power level)	49	43	38	32
Case breakout L _{PA} in 1 m	43	39	32	27
Power fan 2 x W	68	35	19	10
Standby-losses	< 1 W			
Voltage/Frequency	230 V, 1 ph., 50 Hz			
Max. Amps - ventilation	1.0			
Pre-heating battery (Output) kW	1.0			
Heating battery (Output) kW	2.0			
Summer Bypass	Auto., adjustable from, with heat exchanger cover			
Wiring Diagram no.	943			
Temperature operation range	-20 °C to +40 °C			
Weight approx. in kg	32			

* Sound levels raise with increasing system pressure ** Speed steps adjustable at will.

Other accessories Pages

KWL®-“Periphery“	100 on
- Undersoil heat exchangers	102 on
- Air distribution systems	106 on
- Insulated duct system	111
- Further overview	112
- Spare filters	113

Accessories-Details

Grilles, ducting, duct components, wall and roof terminations	361 on
Intake/extract elements	374 on

Notes

Ventilation units with enthalpy heat exchanger
 for combined heat and humidity recovery page 76

Enthalpy heat exchanger (accessories) for additional refitting
 KWL-ET 270 Ref. No. 5912