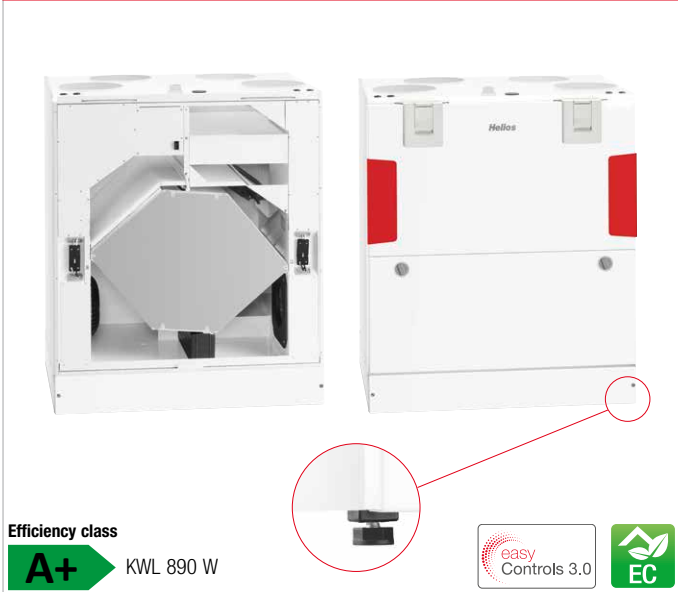


KWL 890 W



Efficiency class



KWL 890 W



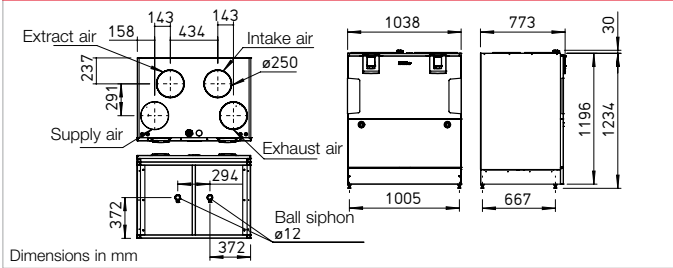
Compact unit with heat recovery for the central supply and extract ventilation of residential buildings, commercial units and practices. Perfectly prepared for modern communication and operation with the new Helios easyControls 3.0 control system incl. integrated network connection. Equipped with EC fans for low energy consumption and highly efficient aluminium or enthalpy heat exchangers for additional moisture recovery.

- **Casing**
Made of galvanised steel sheet, powder-coated in white, double-walled, with heat and sound insulation on all sides. Installation-friendly and maintenance-friendly. All elements are easily accessible through removable front panels. Adjustable feet for balancing.
- **Heat exchanger**
 Large cross counterflow heat exchanger made of aluminium, heat recovery efficiency up to 86 %.
 Type "ET" is equipped with highly efficient enthalpy heat exchanger for additional moisture recovery.
- **Fans**
Two low-noise high-performance centrifugal fans with energy-saving EC motors of the latest generation ensure the air supply and extraction.
- **Ducts**
Installation-friendly connection of intake, exhaust, extract and supply air through ducts with NW 250 mm. Direct connection

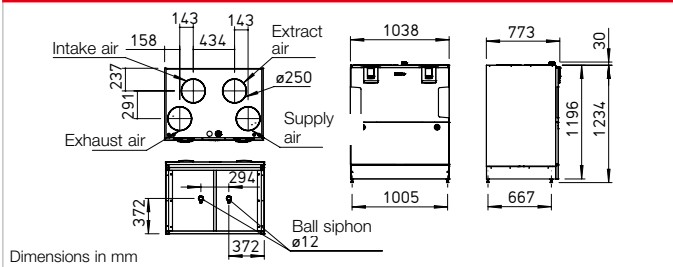
of e.g. Aluflex pipe by means of an external double nipple joint.

- **Condensate connection**
Double condensate drain at the bottom; ball siphons included in delivery. On-site connection to drain pipe.
- **Air filter**
Clean outdoor air supply via ISO Coarse 75% (G4) filter and 2nd filter stage ISO ePM₁, 50% (F7). Extract air side equipped with an ISO Coarse 75% (G4) filter in front of the heat exchanger. Easy filter maintenance.
- **Summer operation**
Equipped with automatic bypass function and heat exchanger cover as standard.
- **Heat exchanger anti-frost protection**
The standard frost monitoring system automatically controls the supply air flow volume and the optionally internal electrical postheater (KWL-ENH 890 W, accessories).
- **Control system**
EasyControls 3.0 is the new, modern control system for all KWL compact units from Helios. The standard LAN interface allows the simple integration of the KWL unit in a network and the integration in Helios Cloud. The unit is optionally controlled via an external control element, on PC/laptop, tablet and Smartphone via the integrated web browser or on the move via the Cloud. Helios easyControls 3.0 is prepared for:
 The control elements KWL-BE ECO and KWL-BE Touch (optional accessories)

Dimensions KWL 890 W R



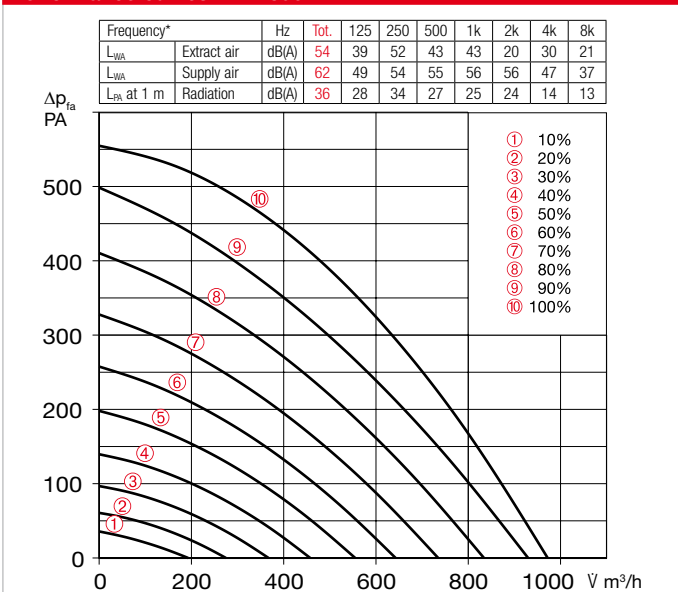
Dimensions KWL 890 W L



- The humidity- and CO₂-Sensor integrated as standard** and other optionally available external air quality sensors (KWL-CO₂ eC, -FTF eC, -VOC eC, accessories) enable automatic, demand-controlled ventilation.
- Connection to building control system via integrated Modbus interface or optional KNX module (KWL-KNX Connect, accessories).
- **Electrical connection**
Fixed connection via a mains connection cable 3 x 1.5 mm², approx. 2 m with wire end ferrules.
- **Accessories – Functional description (see right for details)**
KWL 890 W can be individually expanded with the following accessories:
 Control element ECO
– Three ventilation profiles selectable via slide switch.
– Control voltage can be measured directly on the control element.
– LED for visual indication of operating statuses, e.g. filter replacement and faults.
- Control element Touch**
Touch control element with graphic display and user-friendly menu navigation:
– Commissioning assistant.
– Selection of four ventilation profiles.
– Adjustment of an individual weekly programme.
– Adjustment of parameters for room sensors.
– Indication of e.g. filter replacement, operating statuses and error messages.
– Different access authorisations and child lock.
- Other functions (see operating instructions).
- KNX/EIB module**
For connecting the ventilation unit to the building control system via the KNX Connect module.
- Room sensors**
Room sensors, which measure the mixed gas, CO₂ concentration or relative room air humidity, are available for automatic operation and optimal air exchange.
- External post-heating**
Helios easyControls 3.0 can be used with an electric post-heating element (EHR with KWL-LTK, accessories). The autonomous operation of the warm water heating element can be controlled via an air temperature control (WHS HE, accessories) independently from Helios easyControls 3.0.

References	Page
Helios easyControls 3.0 The innovative KWL control concept	22 f.
Moisture recovery through enthalpy heat exchangers	21

Performance curves KWL 890 W



*Sound information relate to Vref. according to ERP data sheet.

Slide switch control element

KWL BE ECO Ref. no. 20246
Three-step slide switch including operation indicator, for flush-mounted installation. Function see left. Dim. mm (W x H x D) 80 x 80 x 37
Casing for surface installation
KWL APG Ref. no. 04270
Dim. mm (W x H x D) 83 x 83 x 41



Touch control element

KWL BE Touch bl (black) Ref. no. 20244
KWL BE Touch wh (white) Ref. no. 20245
With graphic display, for flush-mounted installation. Function see left. Connection of up to 6 pcs. possible (additional power supply unit may be required). Can be integrated in common switch ranges with the dimensions mm (W x H x D) 55 x 55 x 35. Dim. with frame mm (W x H x D) 88 x 88 x 35
Casing for surface installation
KWL APG Touch bl No. 40178
KWL APG Touch wh No. 40177
Dim mm (W x H x D) 85 x 85 x 25



Control line cable

KWL-SL eC 5m Ref. no. 40179
KWL-SL eC 10m Ref. no. 40180

Control line cables in 5 or 10 meters, suitable for KWL-BE ECO / Touch as well as room sensor.

Technical data	With aluminium heat exchanger					With enthalpy heat exchanger				
	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
	KWL 890 W L	40721	KWL 890 W ET L	40723						
	KWL 890 W R	40722	KWL 890 W ET R	40724						
Flow rate at level 1)	⑩	⑨	⑧	⑦	⑥	⑤	④	③	②	①
Supply air/extract air V m³/h	972	834	735	555	275	996	860	668	480	295
Power consumption fans 2xW 1)	161	105	53	23	8	159	106	54	24	8
Voltage/Frequency	1~, 230 V, 50 Hz									
Rated current A – ventilation	1.4									
– postheating	12.1									
– max. total	1.4 (13.6 incl. postheater, accessories)									
Electric postheater kW	3.0 kW (accessories)									
Summer bypass	automatic (adjustable), with heat exchanger cover									
Wiring diagram no.	1433									
Temperature operating range	–20 °C to +40 °C									
Installation temperature	+5 °C to +40 °C (90% rel. humidity, non-condensing)									
Weight approx. kg	179					174				

1) At 0 Pa, performance levels adjustable.

KNX/EIB module

KWL-KNX Connect No. 20253
For integrating the ventilation unit in a KNX system. For switch cabinet installation (1 space unit required).



Room sensors

KWL-CO2 eC Ref. no. 20248
KWL-FTF eC Ref. no. 20249
KWL-VOC eC Ref. no. 20247
For measuring the CO₂, mixed gas (VOC) concentration or relative room air humidity. Please note the maximum number of sensors, additional power supply unit may be required.
Dim. mm (W x H x D) 98 x 98 x 33



Electric postheater, internal

KWL-ENH 890 W No. 40728
Electrical postheater for simple, plug-in unit installation. For postheating the supply air at very low outdoor temperatures (heat exchanger anti-icing protection). Mandatory for passive houses. Output: 3000 W.



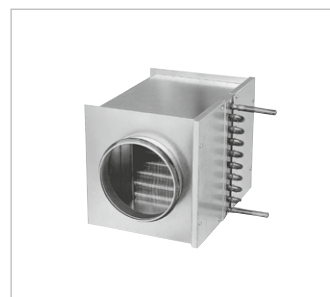
Extension module

KWL-EM eC Ref. no. 40155
For controlling external post-heating elements.
Dim. mm (W x H x D) 210 x 210 x 100



Motion detector

BWM Ref. no. 08323
Motion detector for detecting the presence of persons in the room. Surface-mounted wall installation (cable entry at top or bottom) or installation in flush-mounted box Ø 55 mm (cable entry at back).



Electric postheater, external

For additional supply air heating.
EHR-R 6/250 Ref. no. 05296



Rectangular duct temp. sensor

KWL-LTK eC (1 pc. req.) No. 40156

Warm water post-heating element

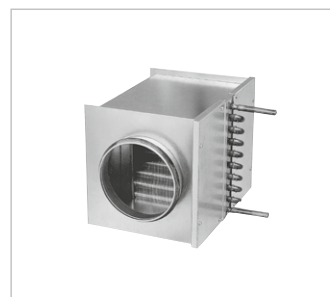
For additional supply air heating.
WHR 250 Ref. no. 09483

Rectangular duct temp. sensor

KWL-LTK eC (2 pc. req.) No. 40156

Hydraulic unit

WHS HE 24 V (0-10 V) No. 08318
Alternative:



Air temperature control

WHST 300 T38 Ref. no. 08817

Other accessories Page

KWL peripherals	70 ff.
– Ground heat exchanger	94 ff.
– Insulated duct system	84 f.
– Air distribution systems	86 ff.

Heating element, control, ventilation grilles, ducts, roof outlets, extract air elements, design ventilation valves

Helios standard range

Replacement air filters

– Filter Set (G4 + F7)
ELF-KWL 890/4/4/7 No. 40729

Reference

Enthalpy heat exchanger (accessories) for retrofitting:
KWL-ET 890 No. 40730