



Compact unit with heat recovery for the central supply and extract ventilation of residential buildings and apartments. 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 plastic or enthalpy heat exchangers for additional moisture recovery.

### Casing

Made of galvanised steel sheet, powder-coated in white, doublewalled, with 12 mm heat and sound insulation on all sides. Installation-friendly and maintenance-friendly. All elements are easily accessible through removeable front panels.

#### Heat exchanger

Large cross counterflow heat exchanger made of plastic, heat recovery efficiency up to 90 %.

□ Types "ET" are equipped with highly efficient enthalpy heat exchanger for additional moisture recovery.

### Fans

Two low-noise high-performance centrifugal fans with energy-saving EC motors ensure the air supply and extraction.

#### Ducts

Installation-friendly connection of intake, exhaust, extract and supply air through ducts with NW 125 mm using duct connectors (RVBD 125 K, accessories). Condensate connection Condensate drain at the bottom; ball sinhon included in delivery.

ball siphon 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 via optional ISO ePM<sub>1</sub> 50% (F7) or activated carbon filter. Extract air side equipped with an ISO Coarse 75% (G4) filter in front of the heat exchanger.

### Summer operation

Equipped with automatic bypass function and heat exchanger cover as standard.

### Heat exchanger anti-icing protection

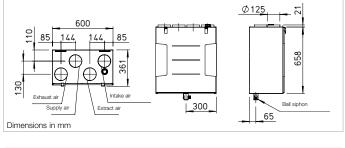
The standard frost monitoring system automatically controls the supply air flow volume and the optionally installed electrical preheater (KWL-EVH 200 W, accessories).

#### Control system

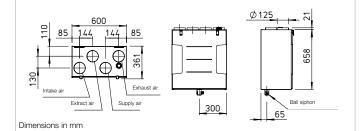
EasyControls 3.0 is the new, modern control system for all KWL compact units from Helios. The standard LAN interface allows the simple integration of the KWL unit in a network and the integration in Helios Cloud. The unit is optionally controlled via an external control element, on PC/laptop, tablet and Smartphone via the integrated web browser or on the move via the Cloud. See page 22 for functionality. Helios easyControls 3.0 is prepared for:

- The control elements KWL-BE ECO and KWL-BE Touch (optional accessories)
- The humidity sensor integrated as standard and other optionally available external air quality sensors (KWL-CO2 eC, -FTF eC,





#### **Dimensions KWL 200 W L**



-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  $3 \times 1.5 \text{ mm}^2$ , approx. 2 m with wire end ferrules.

### Accessories – Functional description (see right for details) KWL 200 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.
- Weekly timer (WSUP / WSUP-S, no. 09990 / 09577, accessories) can also be added to implement a further operating level, e.g. night mode.
- 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).

# C 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,  $CO_2$  concentration or relative room air humidity, are available for automatic operation and optimal air exchange.

#### Post-heating

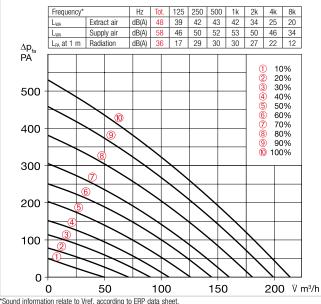
Helios easyControls 3.0 can be used with an electric post-heating element (EHR with KWL-LTK, accessories). The autonomous operation of the warm water heating element can be controlled via an air temperature control (WHS HE, accessories) independently from Helios easy-Controls 3.0.

References	Page
Helios easyControls 3.0	
The innovative KWL control concept	22 f.
control concept	221.
Moisture recovery	
through enthalpy heat	
exchangers	21



# KWL 200 W Performance data and accessories

# Performance curves KWL 200 W



Slide switch control elementKWL BE ECORef. no. 20246Three-step slide switch includingoperation indicator, for flush-mounted installation. Function see left.Dim. mm (W x H x D) 80 x 80 x 37Casing for surface installationKWL APGRef. no. 04270Dim. 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

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 plastic heat exchanger <b>Type</b> Ref. no.			With enthalpy heat exchanger <b>Type</b> Ref. no						
Right-hand version Left-hand version		200 200			0045 0046			V ET R V et l		10047 10048
Flow rate at level <sup>1) 2)</sup>	0	0	0	4	0	0	6	0	0	0
Supply air/extract air V m3/h	215	175	129	71	46	190	151	111	73	39
Power consumption fans 2xW 1)	40	26	16	8	5	40	26	16	8	5
Voltage/Frequency	1~, 230 V, 50 Hz									
Rated current A - ventilation	1.2									
- preheating	4.4									
– max. total	1.2 (5.6 incl. preheater, accessories)									
Electric preheater kW	1.0 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	37 41									

<sup>1)</sup> At 0 Pa, performance levels adjustable. <sup>2)</sup> Volume reduction by approx. 10 % when using pollen filter. <sup>3)</sup> AK = Activated carbon filter

# 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.
 Ref. no. 20247

Dim. mm (W x H x D) 98 x 98 x 33

### Electric preheater

**KWL-EVH 200 W** No. 04224 Electrical preheater for simple, plugin unit installation. For preheating the intake air at very low outdoor temperatures (heat exchanger anti-icing protection). Mandatory for passive houses. Output: 1000 W.

# Extension module

KWL-EM eCRef. no. 40155For controlling external post-heating<br/>elements.Dim. mm (WxHxD) 210x210x100

### 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 post-heating element

For additional supply air heating. EHR-R 1.2/125 Ref. no. 09433 Rectangular duct temp. sensor KWL-LTK eC (1 pc. req.) No. 40156

#### Warm water post-heating element

For additional supply air heating. WHR 125 Ref. no. 09480 Rectangular duct temp. sensor KWL-LTK eC (2 pc. req.) No. 40156 Hydraulic unit WHSH HE 24 V (0-10 V)No. 08318 Alternative:

Air temperature control WHST 300 T38 Ref. no. 08817

# Replacement air filters

- 2 pcs. ISO Coarse 75% (G4) ELF-KWL 200/4/4 No. 00021 - 1 pc. ISO ePM<sub>1</sub> 50% (F7) ELF-KWL 200/7 No. 00038 - 1 pc. ISO ePM<sub>2.5</sub> 60% (AK)<sup>3</sup>) ELF-KWL 200 AK No. 04198

# Reference

Enthalpy heat exchanger (accessories) for retrofitting: KWL-ET 200 No. 00896











Circular duct connector Connector with seal for unit connection to circular duct system with Ø 125 mm. RVBD 125 K No. 03414

Other accessories	Page					
KWL peripherals	70 ff.					
- Ground heat exchanger	94 ff.					
<ul> <li>Insulated duct system</li> </ul>	84 f.					
<ul> <li>Air distribution systems</li> </ul>	86 ff.					
<ul> <li>Control lines, etc.</li> </ul>	90 f.					
Heating element, control, vent-						
ilation grilles, ducts, roof outlets,						
extract air elements, design						
ventilation valves						
Helios standard range						



