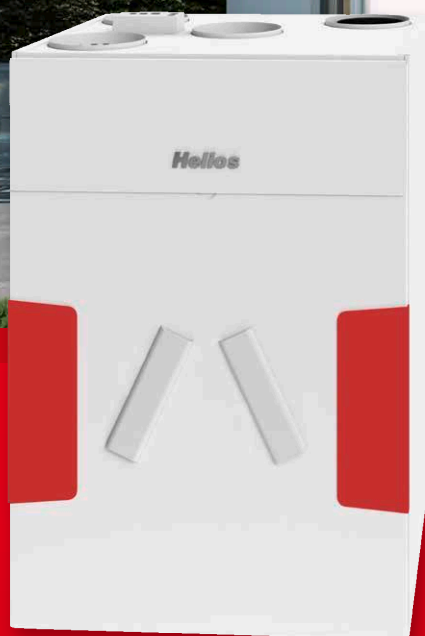


KWL EC 360 W

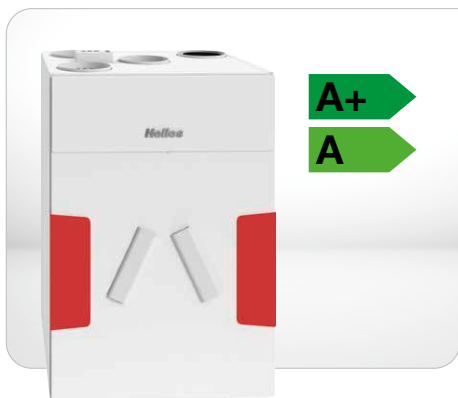
The new member of the Helios
KWL® family: **KWL EC 360 W.**



The new member of our KWL® family.

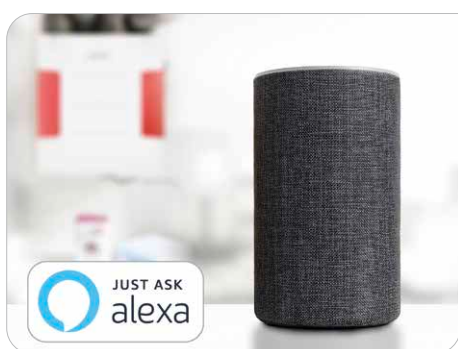


Complete package: The new KWL EC 360 W fits perfectly into the wide Helios KWL® product range.



The new KWL EC 360 W

→ Page 4



Helios easyControls with Alexa

→ Page 6



Fits perfectly: System solutions

→ Page 8

The new KWL EC 360 W is the ideal solution for single-family houses with an air flow capacity of up to 360 m³/h. **The focus is on the system concept:** You can individually respond to all of your customer requirements with the ultra-flexible air distribution system Helios FlexPipe® plus

regardless of whether you are dealing with renovations or new builds. We also have smart control concepts, since the Helios KWL® systems can be controlled by easyControls via the internet, smartphone or – completely new – with Alexa.

Looking good: The inner values.

Simple filter maintenance without opening the casing and without tools.

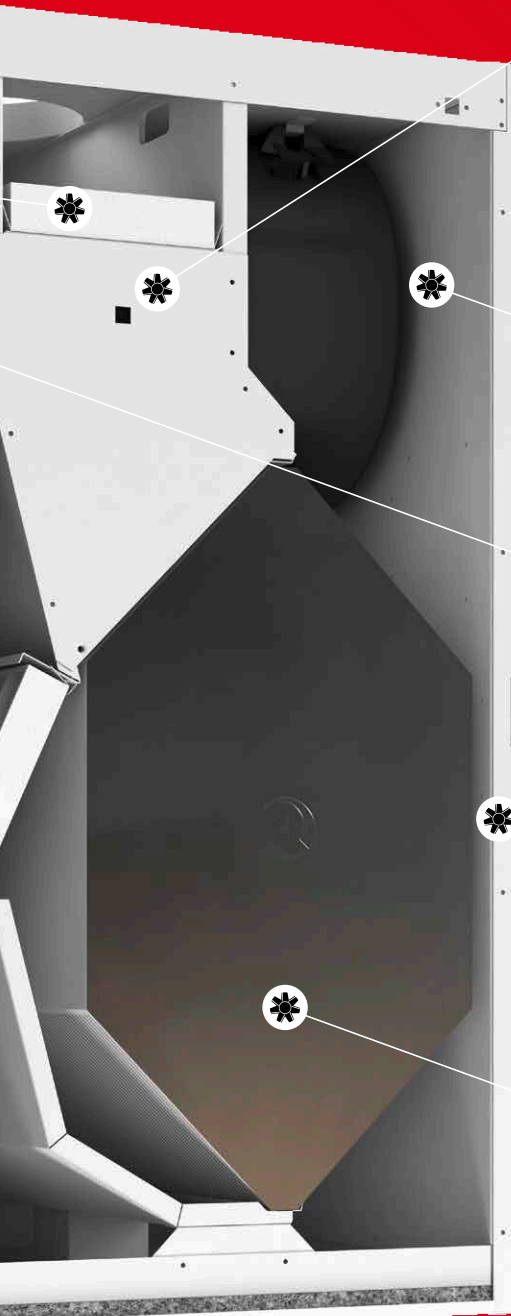


The new KWL EC 360 W has a lot to offer. In addition to the modular unit equipment, for which the entire KWL® family is known, the new unit offers numerous additional features:

- Various operating options and air quality sensors.
- Electrical pre-heating for optimal year-round comfort.
- Coarse and fine filters in various filter qualities (ISO coarse 65% (G4), ISO ePM1 50% (F7), ISO ePM2,5 60% (activated carbon)).
- 2 unit designs with highly efficient cross-counterflow heat exchangers in standard or enthalpy execution.



easyControls: Convenient operation via classic control element, mobile devices, BMS or fully automated. New addition: All ventilation units with easyControls can also be controlled via the digital voice assistant Alexa.



Best hygiene properties: the smooth, fully powder-coated inner surface effectively prevents deposits.

Quiet – as standard. Exclusively in this unit class: the integrated silencer ensures remarkable acoustic performance in combination with the sound-absorbing casing design!

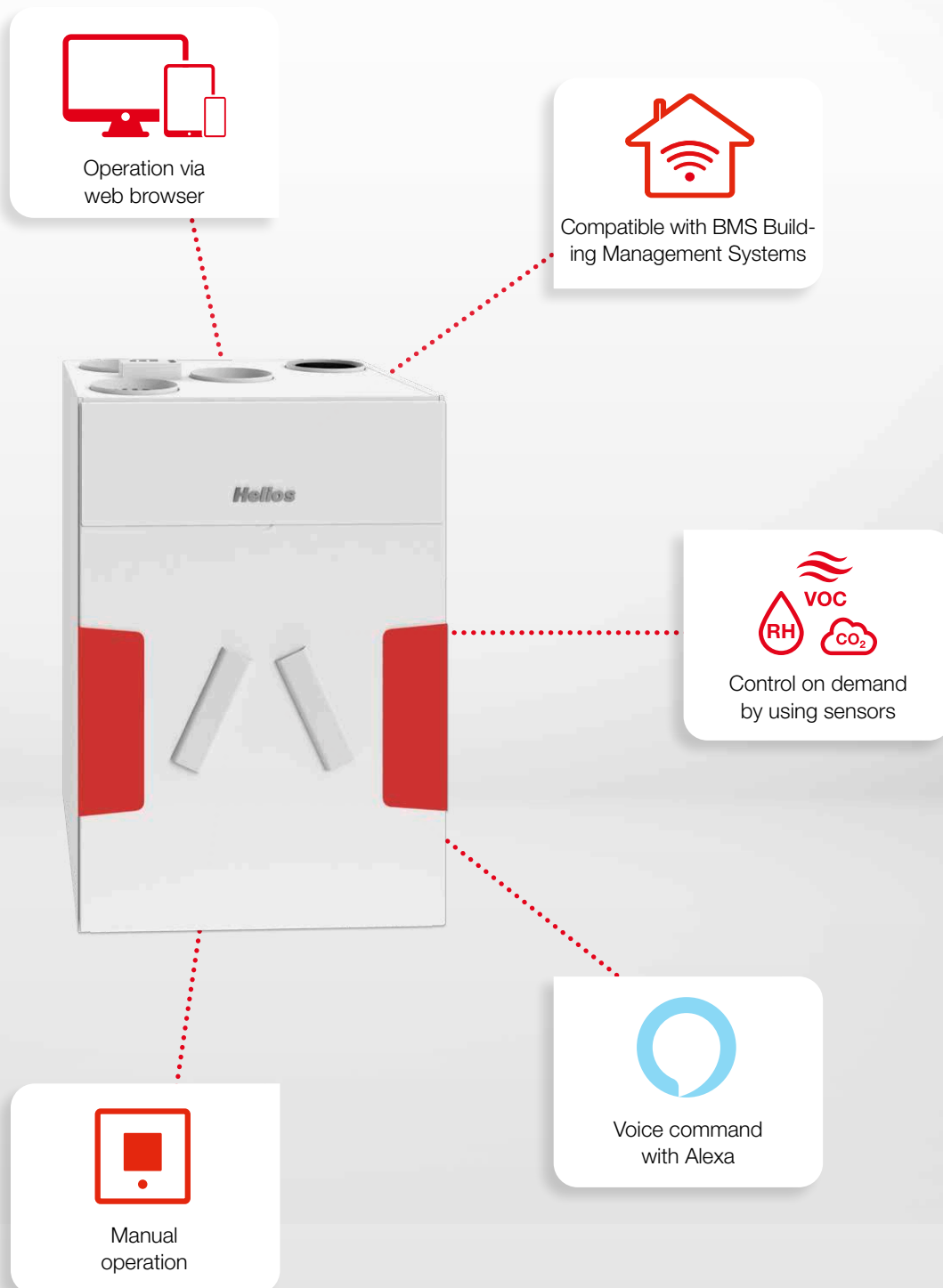
Universal casing concept for left-side or right-side connection.

Packed with power. The modern EC drive technology promises lowest energy consumption in combination with the highly-efficient cross counterflow heat exchangers with maximum recovery. The new KWL EC 360 W therefore reaches energy efficiency class A+*!

* with additional room sensor

Helios easyControls.

Your control concept for smart and comfortable domestic ventilation.



Helios easyControls – all options at a glance.

■ Location-independent access

Helios easyControls allows direct access to the ventilation unit via smartphone or PC – no matter where you are.

■ BMS Building Management Systems

The KWL® units can be easily integrated in building control system networks via the standard Modbus interface or an optional KNX module.

■ Easy to configure and quick to commission

Like with the controls, the benefits of the convenient interface are also evident in the system configuration and initial commissioning.

■ Direct access without a PC network:

The KWL® unit can be connected directly via LAN cable to a laptop. Then the easyControls menu can be opened in the browser.

■ Demand-controlled and energy-saving

With the aid of easyControls and the demand-controlled room sensors, the KWL® unit automatically ensures an optimal indoor environment and removes air contamination reliably and energy-efficiently.

■ Manual operation

On request, easyControls can be controlled via a step switch or a comfort control element with graphic display.

Easily control the Helios KWL® units with “Alexa”.



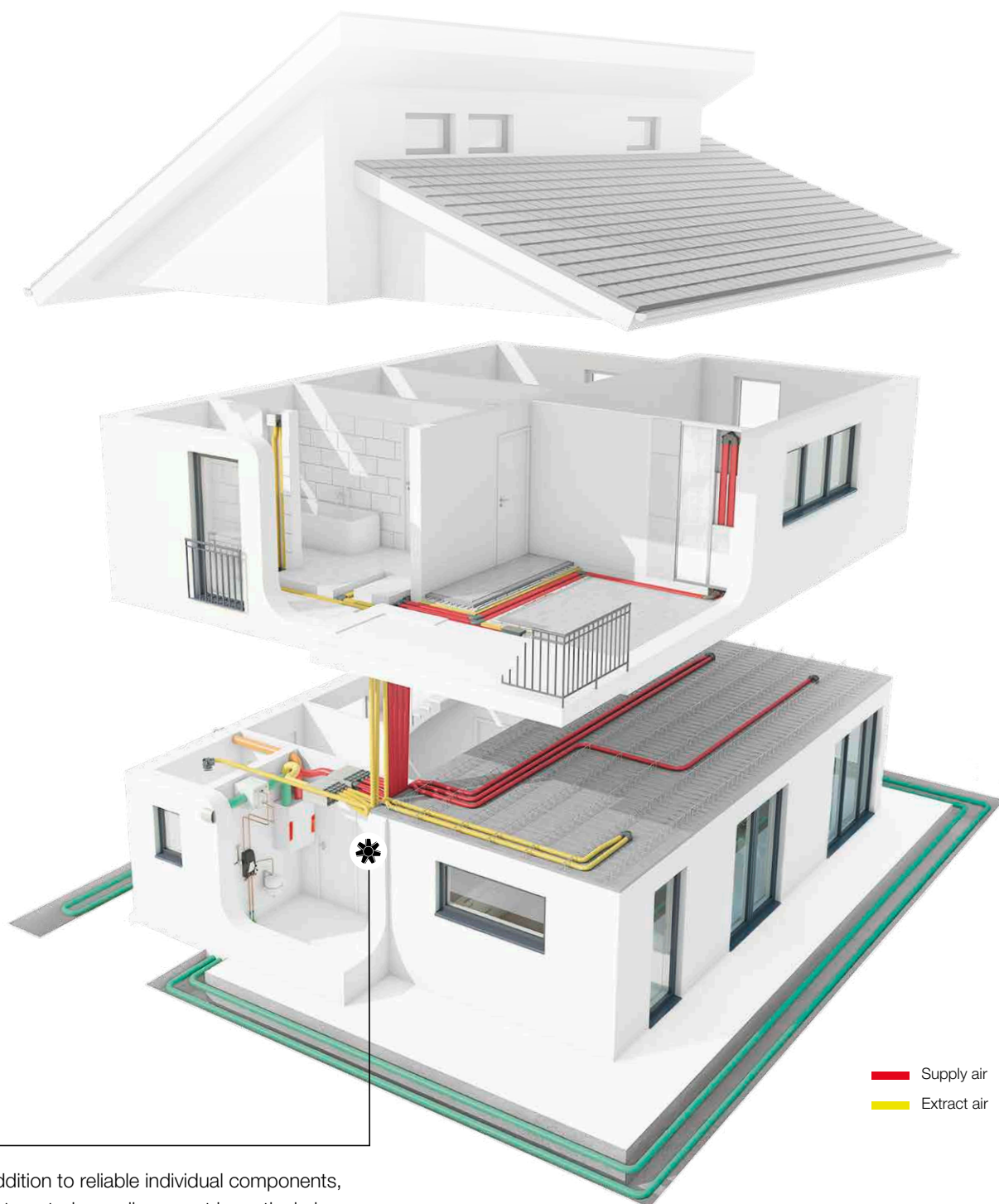
From now on, all KWL® ventilation units with the easyControls control concept can be easily controlled using Amazon's digital voice assistant “Alexa”.

Almost all basic easyControls control functions can be simply voice-activated without any special knowledge via a number of simple commands.

The “Alexa” skill:

- Change the ventilation levels easily.
- Air quality query possible at any time.
- Activate/deactivate party mode.
- ... and much more.

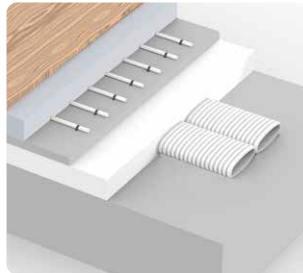
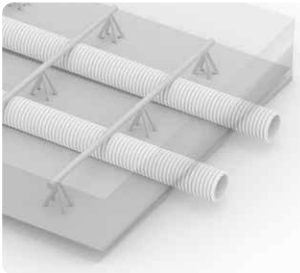
It makes sense. KWL EC 360 W and FlexPipe®*plus*.



In addition to reliable individual components, an integrated overall concept is particularly important. The new KWL EC 360 W is optimally tuned to the Helios air distribution system **flexpipe®*plus***.

Always the perfect solution with *flexpipe®plus*.

- Suitable for solid, timber or prefabricated house construction.
- Installation in concrete ceilings, on unfinished flooring, in walls or in suspended ceilings.
- Vertical and horizontal adapters allow any desired combination round/oval, oval/oval, round/round for maximum flexibility.

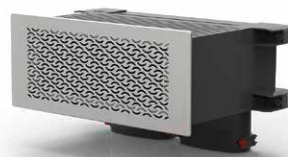


Universal, flexible and individual. The *flexpipe®plus* distribution boxes.



- The sophisticated distribution concept from Helios offers the ideal solution for all installation requirements.
- All connections to the distributors are freely selectable, whether they are on the front, offset by 90° or combined.
- Mixed installation with round and oval connectors is possible depending on the requirements.

Eye-catching with added value: The KWL® design wall grilles.



The elegant wall grilles are available in three designs (in stainless steel or signal white). They fit perfectly in any room atmosphere and provide for a pleasant draught-free supply air flow.

■ KWL EC 360 W



KWL EC 360 W

Compact unit with heat recovery for central ventilation of houses and apartments. Equipped with Helios easyControls, the innovative control concept for easiest network connection and web browser operation. Optionally with highly efficient plastic or enthalpy heat exchangers for additional humidity recovery.

With energy-saving EC motors.

■ Casing

Universal casing concept: Intake air left/right, with integrated sound insulation. Made of galvanised steel sheet with sound and heat insulation, powder-coated in white. The intake air connection can be installed on the left or right. Maintenance-friendly access to all unit components through removable front doors.

■ Heat exchanger

Large cross-counterflow heat exchanger made of plastic, heat recovery efficiency of up to 90 %. Types "ET" are equipped with high-efficiency enthalpy heat exchangers for additional humidity recovery.

■ Fans

Two low-noise high-performance centrifugal fans with energy-saving EC motors ensure the air supply and extraction. Maintenance-free, easily removeable for cleaning, if required.

■ Ducting

Installation-friendly connection of intake, exhaust, extract and supply air through ducts with NW 160 mm using duct connectors (RVBD 160 K, accessories).

■ Condensate connection

Condensate drain at the bottom; Ball siphon included in delivery. On-site connection to drain pipe.

■ Air filter

Clean intake air supply via G4 filter⁴⁾, an F7 pollen filter⁵⁾ or activated carbon filter⁶⁾ is also optionally available. The heat exchanger requires a G4 filter⁴⁾ on the extract air side. Simple filter maintenance possible without opening the unit.

■ 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 360 W, accessories).

■ Helios easyControls

The standard equipment with Helios easyControls allows simple LAN connection of the KWL® unit in a PC network. The ventilation units are conveniently controlled via the Helios easyControls menu in the web browser, via a PC/laptop on LAN or tablet/smartphone on WLAN – through a home network or on the go via the internet. Helios easyControls is prepared for:

- Manual control elements (KWL-BE, -BEC, accessories).
- Air quality sensors for extended, demand-controlled ventilation (KWL-CO₂, -FTF, -VOC, accessories).
- Connection to building control system via integrated Modbus interface or optional KNX module (KWL-KNX, accessories).

■ Electrical connection

Fixed connection via mains connection cable 3 x 1.5 mm², long with wire end ferrules. Control line for control elements, sensors, ModBus and LAN connection can be plugged into the unit from outside.

■ Accessories – Functional description

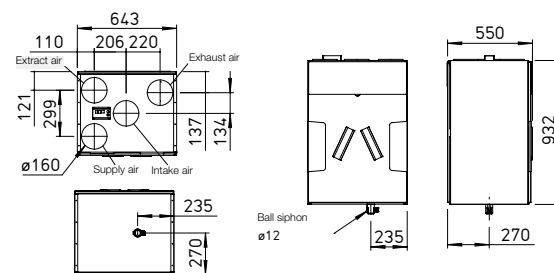
(See right for details.)

KWL EC 360 W can be individually expanded with the following accessories:

■ Slide switch control element

- Three-step operation via slide switch.
- Three freely definable operating levels within the entire performance diagram.
- The extract air fan can be operated with a difference of ± 20 % via the offset function.
- The control voltage can be measured directly on the control element.

■ KWL EC 360 W



All dimensions in mm

- 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, supply air temperature < +5 °C, errors and operation.

■ Comfort control element

Comfort control element with graphic display and user-friendly menu navigation:

- Commissioning assistant.
- Operating level selection (auto/manual, level 1-4).
- Four freely definable operating levels within the entire performance diagram.
- Weekly ventilation/heating programme adjustment.
- Adjustment of CO₂, VOC and humidity parameters.
- Indication of e.g. filter replacement, operating statuses, operating hours and error messages.
- Locking function.

■ KNX/EIB module

For connecting the ventilation unit to the building control system via KNX/EIB.

■ 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.

■ Extension module

For the connection of accessories such as shutters, ground heat exchangers for intake air preheating or post-heating (optional warm water or electric heating element with max. 2.6 kW, 230 V, 50 Hz).

■ Post-heating

Depending on performance, Helios easyControls can control an electric (EHR with KWL-LTK, accessories) or warm water post-heating element (WHR with WSH and KWL-LTK, accessories) via an extension module (KWL-EM, accessories). Temperature profiles can be adjusted in the weekly programme. Autonomous operation of the warm water heating element via an air temperature control (WHST 300 T38, accessories) is also possible, independently of Helios easyControls.

■ Technical data	With plastic heat exchanger	With enthalpy heat exchanger
Type	KWL EC 360 W	KWL EC 360 W ET
Ref. no.	07349	07348
Flow rate at level ¹⁾²⁾	⑨ ... ①	⑨ ... ①
Supply air/exhaust air $\dot{V}_{m^3/h}$	410 ... n/a	410 ... n/a
Noise dB(A) ³⁾		
Supply air L_{WA} (sound power)	64 ... n/a	64 ... n/a
Extract air L_{WA} (sound power)	54 ... n/a	54 ... n/a
Radiation L_{PA} at 1 m	39 ... n/a	39 ... n/a
Power consumption	58	58
Fans 2 x W ¹⁾		
Voltage / Frequency	1~ 230 V, 50 Hz	
Rated current A		
– Ventilation	0.5	
– Preheating	6.3	
– max. total	0.5 (6.8 incl. preheating, accessories)	
Electrical preheating kW	1.5 (accessories)	
Summer bypass	automatic (adjustable), with cover	
Wiring diagram no.	1042	
Temperature operating range	–20 °C bis +45 °C	
Installation temperature	+5 °C to +45 °C (90% rel. humidity, non-condensing)	
Weight approx. kg	72	70

¹⁾ At 0 Pa, performance levels adjustable. ²⁾ Volume reduction of approx. 10% when using pollen filter.

³⁾ At 100 Pa, noise data increases with increasing system pressure.

⁴⁾ G4 = ISO coarse 65%. ⁵⁾ F7 = ISO ePM1 50%. ⁶⁾ AK = ISO ePM2.5 60%.



Slide switch control element

KWL-BE Ref. no. 04265

Three-step slide switch including operation indicator, for flush-mounted installation. Function see left. Control line SL 6/3 (3 m long) included in delivery, other lengths available (SL 6/..., accessories).

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



Comfort control element

KWL-BEC Ref. no. 04263

With graphic display, for flush-mounted installation. Function see left. Connection of up to 8 pcs. possible. Control line SL 4/3 (3 m long) included in delivery, other lengths available (SL 4/..., accessories).

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



KNX/EIB module

KWL-KNX Ref. no. 04275

For connecting the ventilation unit to a KNX/EIB building control system. For switch cabinet installation (1 space unit required).

Adapter board

KWL-RJ10 KL Ref. no. 04277

Adapter from flat ribbon cable to stranded wire or cable. For connection of KNX module and RJ10 control line.



Room sensor

KWL-CO₂ Ref. no. 04272
KWL-FTF Ref. no. 04273
KWL-VOC Ref. no. 04274

For measuring the CO₂, mixed gas (VOC) concentration or relative room air humidity. Max. 8 pcs. can be connected, control according to highest measured value. Includes control line KWL-SL 4/3 (3 m long), see Accessories for other lengths (SL 4/...).

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



Electric preheater

KWL-EVH 360 W Ref. no. 07360

Electrical preheater for simple, plug-in unit installation. For preheating the intake air at very low outdoor temperatures (heat exchanger anti-icing protection). Mandatory for passive houses. Output: 1500 W.



Extension module

KWL-EM Ref. no. 04269

For controlling external shutters and/or post-heating elements. Includes temp. sensor KWL-LTK and control line KWL-SL 4/3. Dim. mm (W x H x D) 210 x 210 x 100



Electric post-heating element

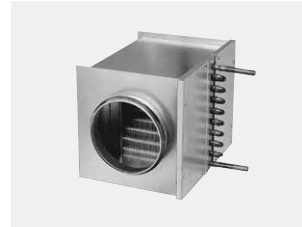
EHR-R 2,4/160 Ref. no. 09435

For additional supply air heating.

Duct temperature sensor

KWL-LTK Ref. no. 09644

Duct temperature sensor for measuring the air temperature. Measurement range 0–40 °C (1 pc. required).



Warm wat. post-heat. element

WHR 160 Ref. no. 09481

For additional supply air heating.

Duct temperature sensor

KWL-LTK Ref. no. 09644

Duct temperature sensor for measuring the air temp. Measurement range 0–40 °C. (2 pcs. required).

Hydraulic unit

WHS HE 24 V Ref. no. 08318

Hydraulic unit for supply air temperature control by controlling the flow temperature to the heating element. Consists of a hydraulic unit with pump, flexible connection hoses and 3-point-valve actuator, control voltage 24 V (0–10 V).

Alternative:

Air temperature control

WHST 300 T38 Ref. no. 08817

Valve with thermostat and remote sensor for regulating the warm water heating elements in ventilation systems. For variable control of a constant supply air or room temp., setting range 8–38 °C. Flow rate up to 300 l/h.



Replacement filter

ELF-KWL 360/4/4 Ref. no. 07371
ELF-KWL 360/7 Ref. no. 07375
ELF-KWL 360 AK Ref. no. 08129

ELF-KWL 360/4/4 consisting of 2 pcs. G4, ELF-KWL 360/7 consisting of 1 pc. F7, ELF-KWL 360 AK consisting of 1 pc. activated carbon filter.

Duct connector

RVBD 160 K Ref. no. 03415

Connector with seal for unit connection to duct system with Ø 160 mm.

Enthalpy heat exchanger

KWL-ET 360 Ref. no. 07354

Ensures a pleasant feel-good climate during all seasons through hygienic moisture and heat recovery. Accessories for subsequent retrofitting.

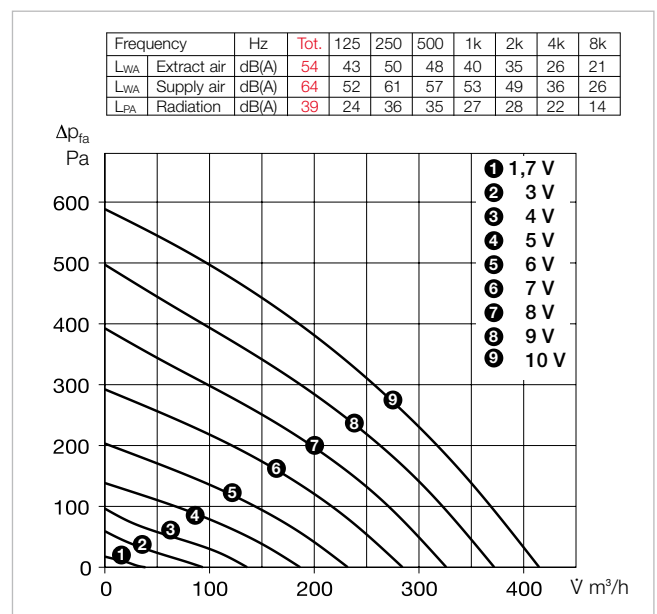
Efficiency class

A+

KWL EC 360 W with additional room sensor

A

KWL EC 360 W





Helios Ventilatoren GmbH + Co KG · Lupfenstraße 8 · 78056 Villingen-Schwenningen · Germany
Phone +49 (0) 77 20 / 606 - 0 · Fax +49 (0) 77 20 / 606 - 257 · export@heliosventilatoren.de · www.heliosventilatoren.de

KWL® is a registered trademark of Helios Ventilatoren GmbH + Co KG. Copyright ©: Helios Ventilatoren GmbH + Co KG, 78056 VS-Schwenningen, Germany.
Certified according to ISO 9001/2015. Subject to technical modifications. Illustrations and information are non-binding. Document no. 27 611.844/03.20