

KWL YOGA Style 400



Decentralised compact ventilation units with heat recovery for the supply and extract ventilation of individual rooms, such as classrooms, recreation rooms, offices, commercial units, medical practices and many more. Equipped with highly-efficient aluminium heat exchangers and energy-saving EC motors. Automatic shutters for intake and exhaust prevent cold draughts when the fans are deactivated. The flow-optimised supply air grille allows draught-free ventilation, even in large rooms, through the optimal use of the Coanda effect. Includes a touch control element for easy operation and configuration of unit functions.

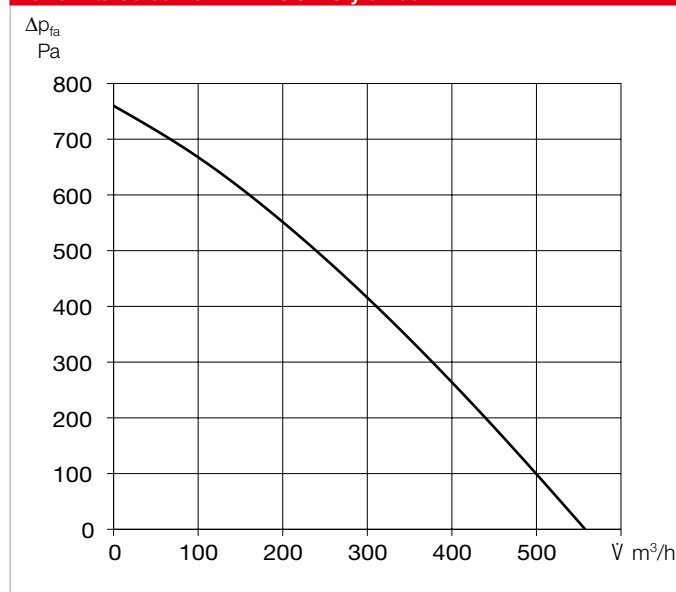
■ Casing

Made of galvanised steel sheet, the casing parts are painted white/ powder-coated. The double-walled unit casing is equipped with 40 mm thermal and sound insulation on all sides. Easy installation and maintenance due to large inspection panel.

■ Installation

Ceiling installation is carried out using the vibration-damping fastening elements included in the scope of delivery. Alternatively, combined wall-ceiling installation is possible with the wall bracket set (Ref. no. 40067).

Performance curve KWL YOGA Style 400



■ Heat exchanger

Large aluminium cross counterflow heat exchanger with up to 90 % heat recovery efficiency. Dismantling is possible in a few steps.

Note: From Q3/2023 also available with enthalpy heat exchanger

■ Fans

Two low-noise, high-performance EC fans with backward curved impellers for maximum energy efficiency.

■ Sensor system

Integrated CO₂ sensor system. Alternatively, this can be replaced by an external sensor (VOC, CO₂

or humidity) positioned in the room. KWL Yoga can also be controlled with a motion sensor (combination not possible!) instead of the sensors.

■ Air flow

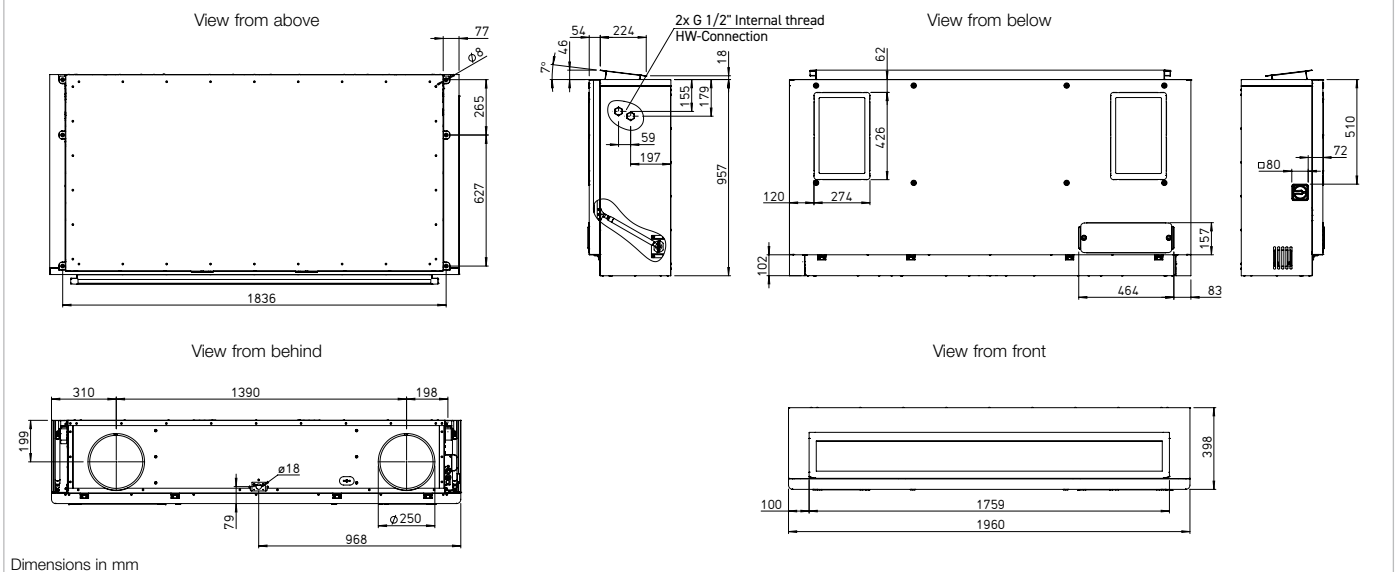
Supply air on front side, two extract air openings on the underside of the unit. Intake and exhaust air connectors are equipped with spring-loaded shutters.

■ Condensate connection

Condensate connection horizontal (wall side), optionally via ball siphon in surface-mounted or flush-mounted design or via condensate pump.

	Without electrical preheater/ without electrical after-heater	Without electrical preheater/ with electrical after-heater	Without electrical preheater/ with warm water after-heater	With electrical preheater/ without after-heater	With electrical preheater/ with electrical after-heater	
	KWL YOGA Style 400 Ref. no. 40008	KWL YOGA Style 400 EN Ref. no. 40010	KWL YOGA Style 400 WW Ref. no. 40012	KWL YOGA Style 400 EV Ref. no. 40014	KWL YOGA Style 400 EV/EN Ref. no. 40016	
Intake/exhaust air connector diameter	250	250	250	250	250	
Air volume V m³/h (Min. - Max.)	150 - 560	150 - 560	150 - 560	150 - 560	150 - 560	
Radiation L _{PA} dB(A) in 1 m / 3 m (at 0 Pa)						
- 150 m³/h	26 / 20	26 / 20	26 / 20	26 / 20	26 / 20	
- 200 m³/h	28 / 22	28 / 22	28 / 22	28 / 22	28 / 22	
- 300 m³/h	31 / 25	31 / 25	31 / 25	31 / 25	31 / 25	
- 560 m³/h	38 / 32	38 / 32	38 / 32	38 / 32	38 / 32	
Maximum power consumption W						
- fans	2 x 170	2 x 170	2 x 170	2 x 170	2 x 170	
- el. preheater / after-heater	--- / ---	--- / 1500	--- / ---	1500 / ---	1500 / 1500	
- total (incl. control)	350	1850	350	1850	3350	
Rated current A						
- fans	2 x 1.20	2 x 1.20	2 x 1.20	2 x 1.20	2 x 1.20	
- el. preheater / after-heater	--- / ---	--- / 6.53	--- / ---	6.53 / ---	6.53 / 6.53	
- total (incl. control)	2.45	8.98	2.45	8.98	15.51	
Voltage / frequency	1~, 230 V, 50 Hz	1~, 230 V, 50 Hz	1~, 230 V, 50 Hz	1~, 230 V, 50 Hz	1~, 230 V, 50 Hz	
Protection category IP	20	20	20	20	20	
Temperature operating range °C	-10 to+40	-10 to+40	-10 to+40	-20 to+40	-20 to+40	
Installation temperature °C	+5 to+40	+5 to+40	+5 to+40	+5 to+40	+5 to+40	
Weight approx. kg	167	169	169	169	171	
Wiring diagram no.	1500	1500	1500	1500	1500	

Dimensions KWL YOGA Style 400



■ Air filter, VDI-certified

Clean intake air flow via ISO ePM₁ 60% filter (F7). Two filters for extract air: ISO Coarse 60% (G4); optionally available: ISO ePM₁₀ 60% (M5).

■ Summer operation

Equipped with automatic bypass function (bypassing the heat exchanger to use the cool night air for controlling the room temperature) as standard.

■ Heat exchanger frost protection

The standard frost monitoring automatically regulates the supply air flow and the built-in electrical preheater, depending on the selected equipment.

■ After-heater

Unit variants with integrated post-heating (warm water or electrical after-heater) ensure the comfortable and energy-efficient post-heating of supply air. The target supply air temperature is set on the control element. The use of hydraulic unit type WSH HE 24 V (0-10V), (accessories) is recommended for controlling the warm water heating element.

■ Power control

The included comfort control element with touch functionality and easy menu navigation provide the following functions:

- ☐ Demand-oriented ventilation, optionally with CO₂, VOC, or humidity sensor (1 sensor can be connected).
- ☐ Initial commissioning (automatic determination of system characteristic curve).
- ☐ Fire alarm contact connection.
- ☐ Weekly or daily programme.
- ☐ Automatic bypass (summer operation: use of cool night air).
- ☐ Pressure monitoring of filter contamination.
- ☐ Displays required filter replacement.
- ☐ 5 password-protected function levels can be configured.
- ☐ Control via central building control system possible (ModBus RTU and ModBus TCP, BACnet)
- ☐ Including control line cable (10 m)

■ Electrical connection

After removing the left side panel, the connection box is easily accessible on the outside of the casing. The isolator/main switch is located on the outside of the unit for easy maintenance. It can be locked using a padlock to prevent unauthorised access.

■ Sensors

Infrared motion sensor for detecting the presence of people in the room.

BWM Ref. no. 08323

CO₂ sensor for measuring the CO₂ concentration.

AIR1/KWL-VOC 0-10V No. 20250

VOC sensor for measuring the mixed gas concentration (VOC).

AIR1/KWL-CO₂ 0-10V No. 20251

Humidity-temperature sensor for measuring the relative air humidity.

AIR1/KWL-FTF 0-10V No. 20252

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 for sensors.

■ Installation accessories

Flush-mounted/wall-mounted siphon

KWL-KS WE Ref. no. 40064

Ball-tube siphon

KWL-KS Ref. no. 40065

Condensate submersible pump

KWL-KP-I Ref. no. 40472

Wall bracket console set for combined wall-ceiling installation.

KWL YOGA-WH Ref. no. 40067

Hydraulic unit

WSH HE 24V (0-10V) No. 08318

Facade grille, circular

FGR 250 Ref. no. 40181

■ Filter, VDI-certified

Spare air filter (extract air)*

ISO Coarse 60% (G4). Unit = 1 pc.

ELF-KWL YOGA 400/VDI/Coarse 60%

Ref. no. 40687

Spare air filter (extract air)*

ISO ePM₁₀ 60% (M5). Unit = 1 pc.

ELF-KWL YOGA 400/VDI/ePM10 60%

Ref. no. 40690

Spare air filter (intake air)

ISO ePM₁ 60% (F7). Unit = 1 pc.

ELF-KWL YOGA 400/VDI/ePM1 60%

Ref. no. 40693

*2 extract air filters are required per unit.

Attention: For spare air filters of older unit generations (orders before March 2023): Please contact us at export@heliosventilatoren.de

■ Important note

Further information on accessories can be found on page 148.

With electrical preheater/ with warm water after-heater
KWL YOGA Style 400 EV/WW Ref. no. 40018
250
150 - 560
26 / 20
28 / 22
31 / 25
38 / 32
2 x 170
1500 / ---
1850
2 x 1.20
6.53 / ---
8.98
1~, 230 V, 50 Hz
20
-20 to+40
+5 to+40
171
1500