

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.

## Heat exchanger

Large aluminium cross counterflow heat exchanger with up to 90% heat recovery efficiency. Dismantling is possible in a few steps. Types "ET" are equipped with highly efficient enthalpy heat exchanger for additional humidity recovery of up to 50%.

#### Fans

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

### Sensor system

Integrated  $CO_2$  sensor system. Alternatively, this can be replaced by an external sensor (VOC,  $CO_2$  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.

## Air filter, VDI-certified

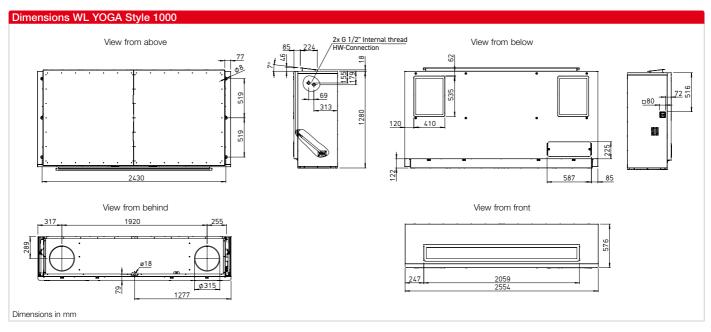
Clean intake air flow via ISO  $ePM_1$  60% filter (F7). Two filters for extract air: ISO Coarse 60% (G4); optionally available: ISO  $ePM_{10}$  60% (M5).

### Summer operation

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

	Without electrical preheater/	Without electrical preheater/	Without electrical preheater/	With electrical preheater/	With electrical preheater/with
	without electrical after-heater	with electrical after-heater	with warm water after-heater	without after-heater	electrical after-heater
	KWL YOGA Style 1000 Ref. no. 40032	KWL YOGA Style 1000 EN Ref. no. 40034	KWL YOGA Style 1000 WW Ref. no. 40036	KWL YOGA Style 1000 EV Ref. no. 40203	KWL YOGA Style 1000 EV/EN Ref. no. 40040
	KWL YOGA Style 1000 ET Ref. no. 40679	KWL YOGA Style 1000 EN ET Ref. no. 40680	KWL YOGA Style 1000 WW ET Ref. no. 40681	KWL YOGA Style 1000 EV ET Ref. no. 40682	KWL YOGA Style 1000 EV/EN ET Ref. no. 40683
Intake/exhaust air connector diameter	315	315	315	315	315
Air volume V m3/h (Min Max.)	410 - 1480	410 - 1480	410 - 1480	410 - 1480	410 - 1480
Radiation L <sub>PA</sub> dB(A) in 1 m / 3 m (at 0 Pa) - 410 m <sup>3</sup> /h - 800 m <sup>3</sup> /h - 1000 m <sup>3</sup> /h - 1480 m <sup>3</sup> /h	24 / 18 30 / 24 34 / 28 42 / 36	24/18 30/24 34/28 42/36	24/18 30/24 34/28 42/36	24 / 18 30 / 24 34 / 28 42 / 36	24 / 18 30 / 24 34 / 28 42 / 36
Maximum power consumption total (incl. control) W	900	3900	900	2900	6900
Rated current total (incl. control) A	4.0	8.3	4.0	12.7	12.7
Voltage / frequency	1~, 230 V, 50 Hz	3~, 400 V, 50 Hz	1~, 230 V, 50 Hz	1~, 230 V, 50 Hz	3~, 400 V, 50 Hz
Protection category IP	20	20	20	20	20
Temperature operating range °C	-10 to +40	-10 to +40	-10 to +40	-17 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	267	270	270	270	273
Wiring diagram no.	1500	1500	1500	1500	1500





# 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 postheating (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 WHSH HE 24 V (0-10V), (accessories) is recommended for controlling the warm water heating element.

# With electrical preheater/ with warm water after-heater KWL YOGA Style 1000 EV/WW Ref. no. 40205 KWL YOGA Style 1000 EV/WW ET Ref. no. 40684 315 410 - 1480 24 / 18 30 / 24 34 / 28 42 / 36 2900 12.7 1~, 230 V, 50 Hz 20 -17 to +40 +5 to +40 273 1500

### Power control

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

- Demand-oriented ventilation, optionally with CO<sub>2</sub>, 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 **CO<sub>2</sub> sensor** for measuring the CO<sub>2</sub> 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
Hydraulic unit

WHSH HE 24V (0-10V) No. 08318 Facade grille, circular

**FGR 315** Ref. no. 40182

## Filter, VDI-certified

Spare air filter (extract air)\*
ISO Coarse 60% (G4). Unit = 1 pc.
ELF-KWL YOGA 1000/VDI/Coarse 60%
Ref. no. 40689

Spare air filter (extract air)\*
ISO ePM<sub>10</sub> 60% (M5). Unit = 1 pc.
ELF-KWL Y0GA 1000/VDI/ePM10 60%
Ref. no. 40692

Spare air filter (intake air) ISO ePM $_1$  60% (F7). Unit = 1 pc. ELF-KWL Y0GA 1000/VDI/ePM1 60% Ref. no. 40695

\*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.