KWL® Yoga

Relaxed ventilation:
Large decentralised KWL® units.

NEW: Also available with enthalpy heat exchanger

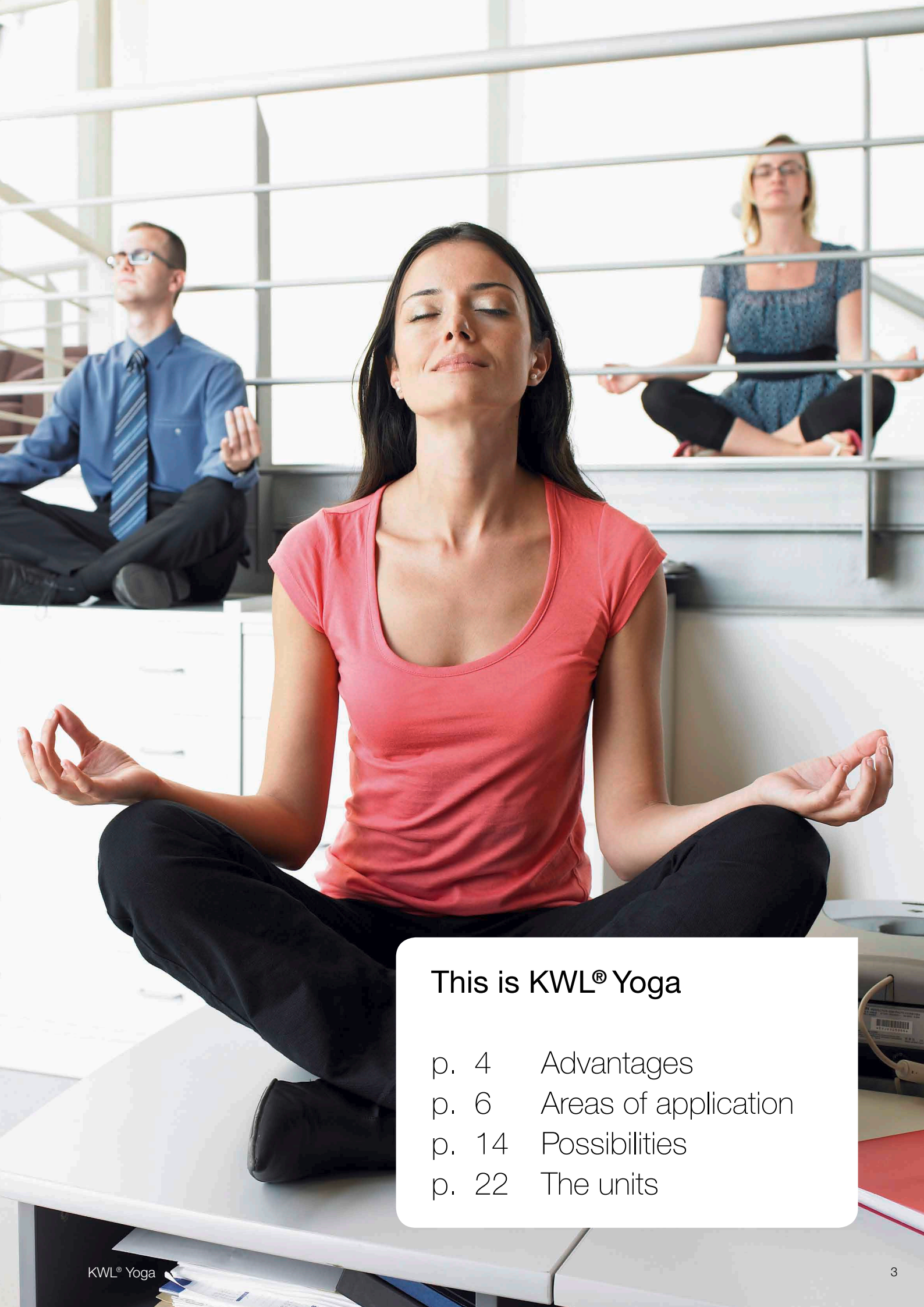
Helios

KWL® Yoga:
1 system.
2 versions.
3 sizes.

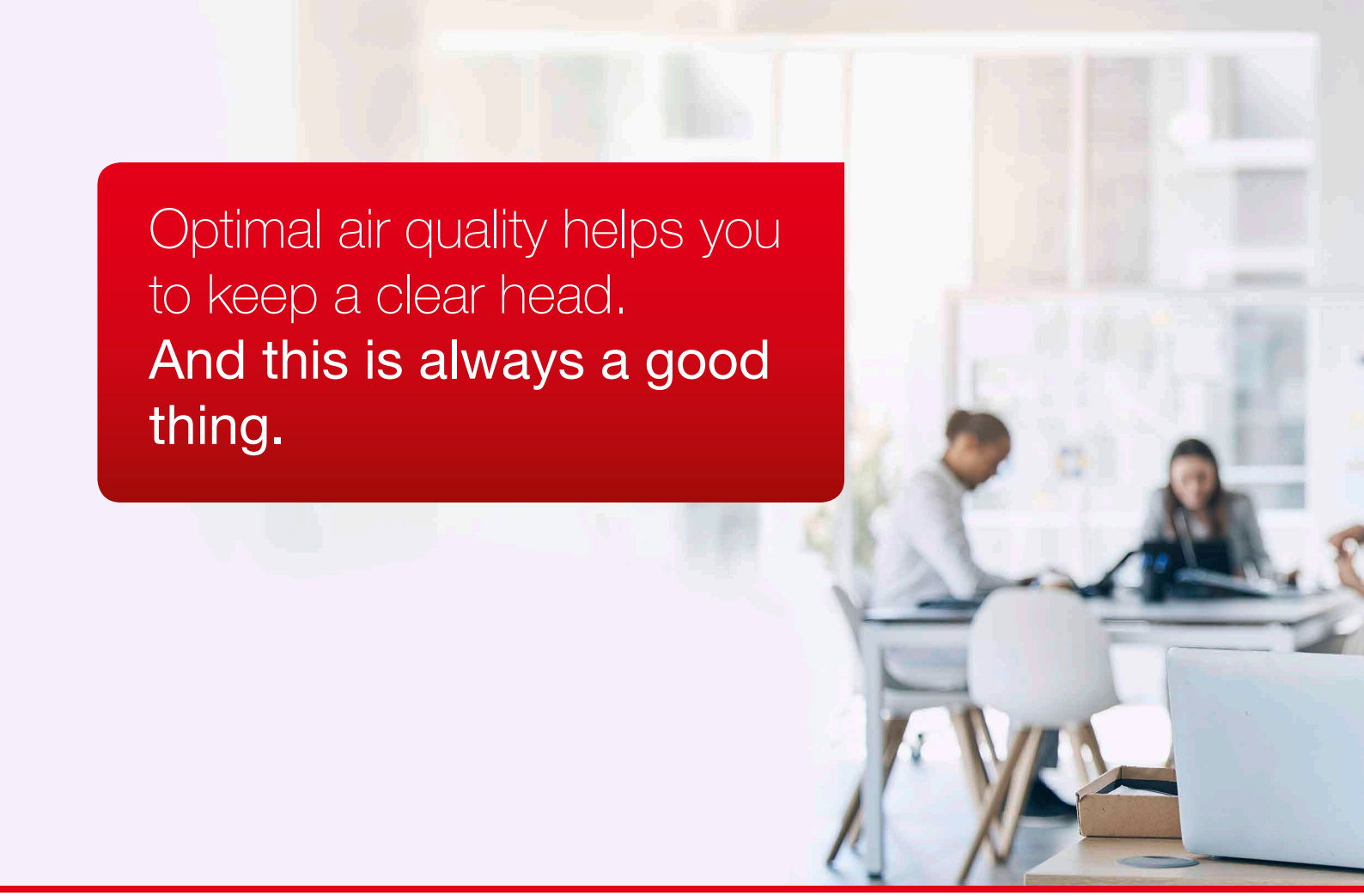
Whether **with cross-counterflow or enthalpy heat exchanger** – KWL Yoga offers the optimum solution for your individual requirements.

The new, decentralised ventilation units with heat recovery **KWL Yoga** offer the ideal solution for various requirements – both in new and existing buildings. Maximum performance, extremely low operating noise and flexible control options are convincing advantages for use in schools, offices and commercial facilities of any kind. The extremely compact design and simple installation without an air distribution system also make **KWL Yoga** perfect for renovation projects. Three available unit sizes for volume flows up to 400, 700 and 1000 m^3/h, various equipment versions and the decent design are only some of the highlights of KWL Yoga.

All other advantages are presented on the following pages.



This is KWL® Yoga



Optimal air quality helps you to keep a clear head.
And this is always a good thing.

The advantages of **KWL® Yoga** can be enjoyed in a relaxed atmosphere.

With fresh air, you can have a sense of wellbeing everywhere and concentrate on what matters. Whether at school or in public buildings, at work or in leisure time – KWL Yoga makes it easy to achieve the best indoor air quality.

Take a deep breath
thanks to the automatic air exchange

Ein garantierter, automatischer Luftwechsel ohne erforderlichen Nutzereingriff ist gerade in öffentlichen Einrichtungen wichtig. Weiterer Effekt: mehr Komfort ohne kalte Oberflächen – ein typisches Problem der Fensterlüftung zur kalten Jahreszeit. Dies wird dank der Wärmerückgewinnung effektiv vermieden.

Reduction of high energy costs

Incidentally, with KWL Yoga, you can significantly reduce heating costs through efficient heat recovery.

Feel good in the ideal climate

The best air quality with low CO2 concentration promotes mental receptiveness and performance. In addition, KWL Yoga with enthalpy heat exchanger offers moisture recovery, which ensures the best air quality especially in the cold season.

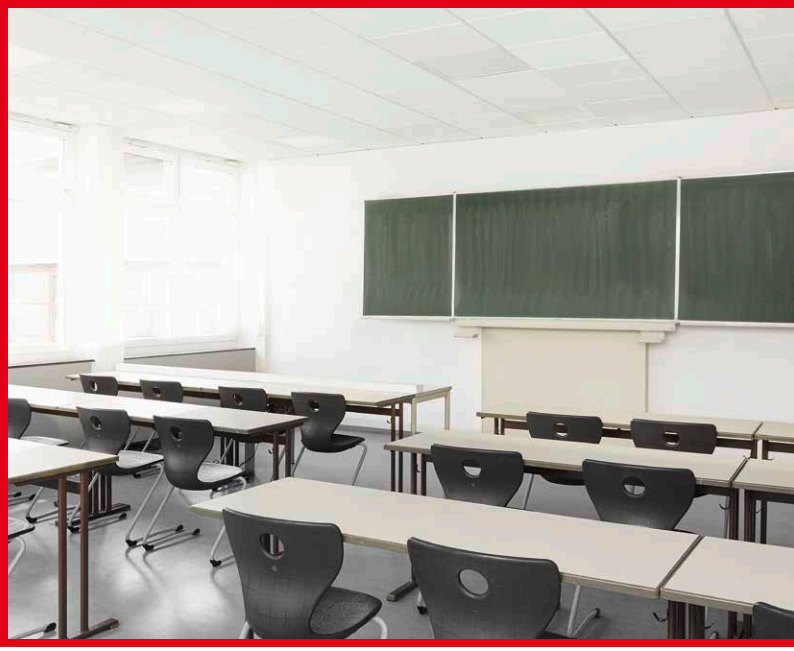
Enjoy without disturbance from outside

Since there is no need for window ventilation, there is no outdoor noise disturbance. This also results in less pollen and dust contamination in the rooms.

Best feel-good atmosphere **in commercial and public buildings ...**

- **Kindergartens**
- **Conference rooms**
- **Classrooms**

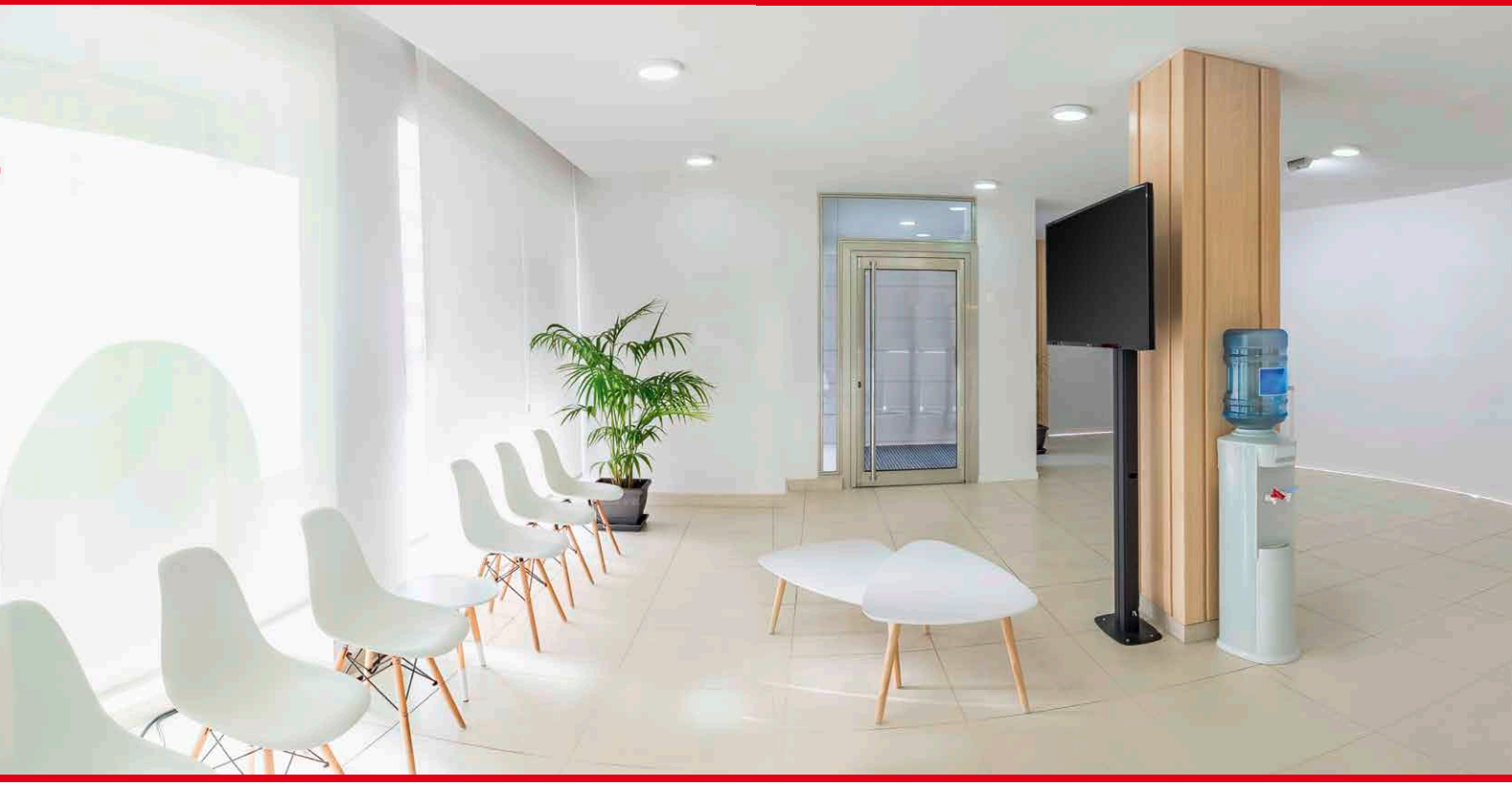
Stale air in the classroom? Air quality suffers in closed rooms. Concentration and performance decrease after just a short period of time. KWL Yoga provides draught-free, efficiently temperature-controlled and filtered fresh air. This allows optimal working conditions – even after hours in the classroom.



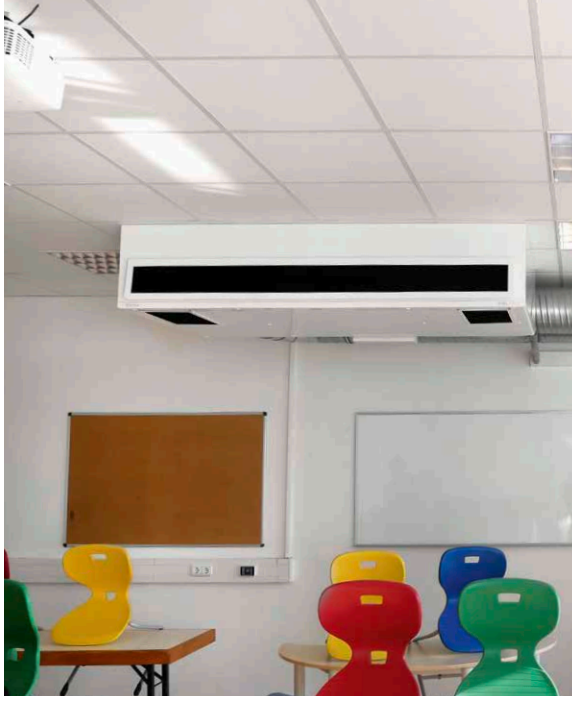
- **Fitness rooms**
- **Office facilities**
- **Commercial spaces**
- **Waiting rooms**

Optimal air conditions at work in an open-plan office, when working out in the fitness centre, or in the waiting room of a medical practice. With KWL Yoga, this is possible thanks to the decentralised functionality with minimal installation work and space requirements. It is also ideal for subsequently and substantially improving the air quality in individual rooms.

… rapidly deployable **in new buildings and renovations.**



Humboldt gymnasium, Gifhorn, Germany



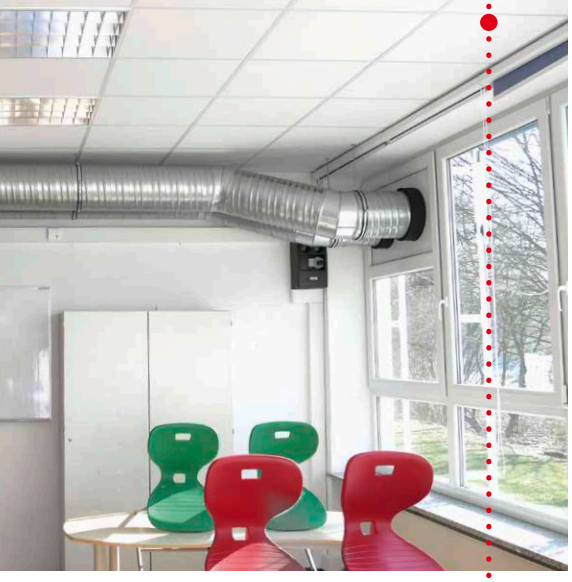
KWL® Yoga in practice

BEST OF SHK AWARD

PRODUKT DES JAHRES 2021

haustec.de

Primary and secondary school, Kemnath, Germany



Evangelical Youth Welfare, Fribourg, Germany

Easily back into shape.
KWL® Yoga for building renovation.

YOUR ADVANTAGES

Lightning-speed and space-saving.
The often expensive laying of air ducts in renovations is no longer required with KWL Yoga. The complete unit construction also ensures extremely low space requirements.

Virtually invisible.
The decentralised KWL Yoga units can be integrated in suspended ceiling systems up to the supply air grille. This saves space and room height.

Simple: Plug & Play.
The units are preconfigured and delivered to the site in one piece. There is no need to install additional components. This simplifies the installation process and also saves time and money.

Hardly noticeable.
The rapid, straightforward installation of KWL Yoga makes it easy to complete the installation process, even while school and business activities are ongoing.

Individual and comfortable.
Every room can be individually ventilated. Our multiple sensors and technical equipment help to make the optimal choice for the respective deployment location.


Humidity in balance

100 % perfect air humidity – quite automatically: KWL® Yoga with enthalpy heat exchanger.

Too dry air in winter and too sticky air in summer?

Not with KWL Yoga! The units with enthalpy heat exchangers offer maximum comfort thanks to efficient and hygienic moisture recovery. Ideal room humidity and an optimal feel-good climate are ensured in both the cold and warm seasons.

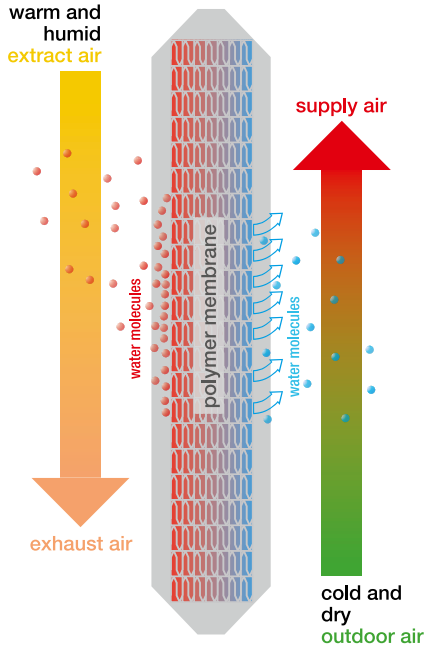
While in winter a large part of the humidity from the extract air is transferred to the fresh supply air flow, thus effectively preventing the room air from becoming too dry, in summer the humidity transfer works in exactly the opposite way. Especially on sticky days, the heat exchanger removes part of the humidity from the outside air and transfers it directly to the exhaust air side. This prevents it from entering the room.

The result:
Best air quality – all year long.

Advantages of the enthalpy heat exchanger:

- The humidity is increased in winter and reduced in summer.
- The best hygiene properties are confirmed by VDI 6022 certification.
- Easy cleaning of the heat exchanger with water possible.
- Lower freezing point due to elimination of condensation (depending on room temperature and humidity).

Functional principle in winter:



The membrane of the heat exchanger ensures the heat transfer from the extract air to the supply air. In addition, it offers the advantage that it is permeable to moisture. Important here: Air pollutants such as bacteria, viruses, mould spores or other contaminants (e.g. odours) cannot pass through the membrane.

The moisture contained in the warm extract air collects as water vapour on the membrane of the heat exchanger. Due to the special properties of this polymer membrane, the water vapour can now pass over to the supply air side. There it is absorbed by the air flow and returned into the building. This ensures that permanently preheated and clean supply air flows efficiently and without contamination into the living spaces.

Decentralised ventilation ensures **the best solution for any room situation.**

Decentralised ventilation units are installed directly at the deployment site. The installation costs are reduced to a minimum since there is no need to install air distribution systems. Furthermore, rooms are only ventilated if there is a need – which results in higher energy efficiency.

With the numerous operating options and advanced automatic modes, KWL Yoga maximises this savings effect and simultaneously ensures maximum levels of comfort and air quality – without any user intervention:

WEEKLY AND DAILY PROGRAMMES

- **Room situation**
  The room is evenly utilised on a daily basis at defined times.

- **Control**
  Operation is controlled by freely configurable weekly and daily programmes.

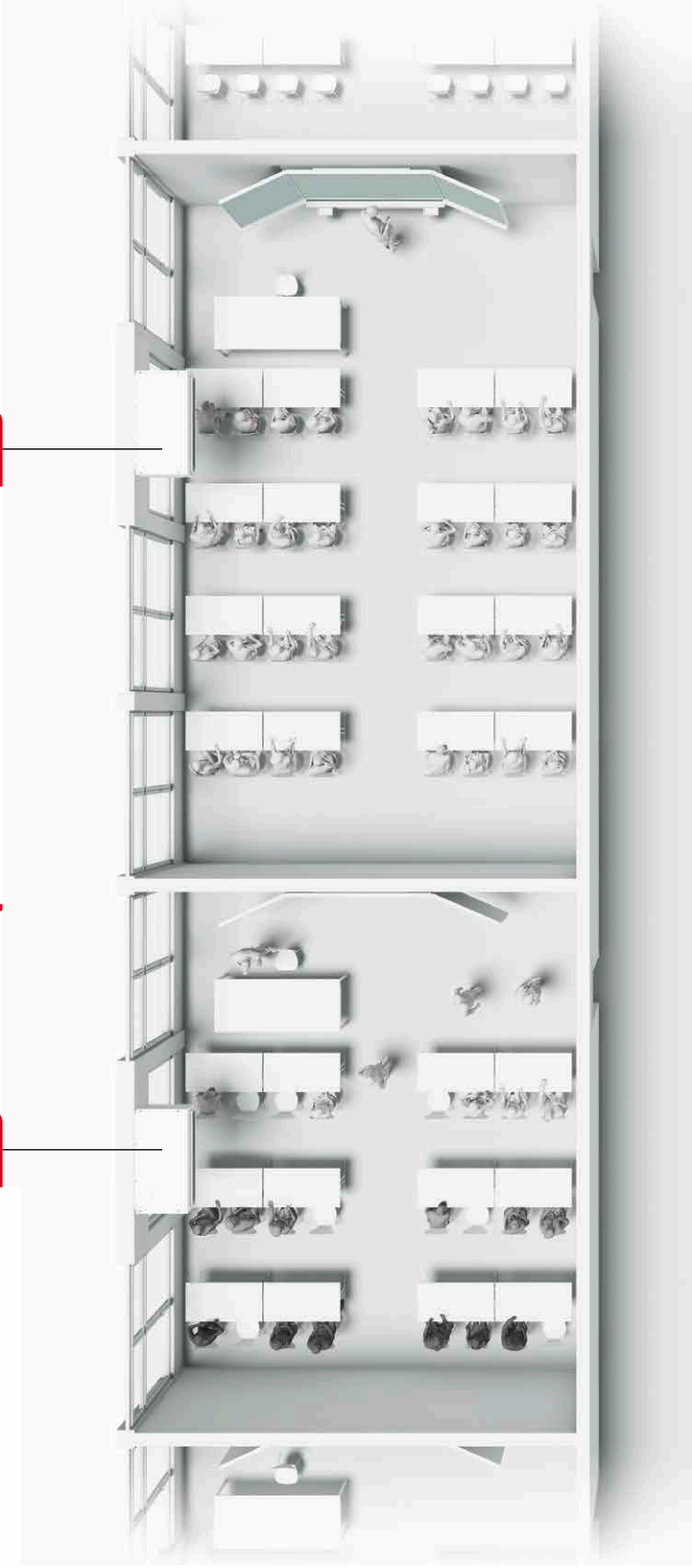
- **Advantage**
  KWL Yoga runs at the set times with the individually pre-defined output.

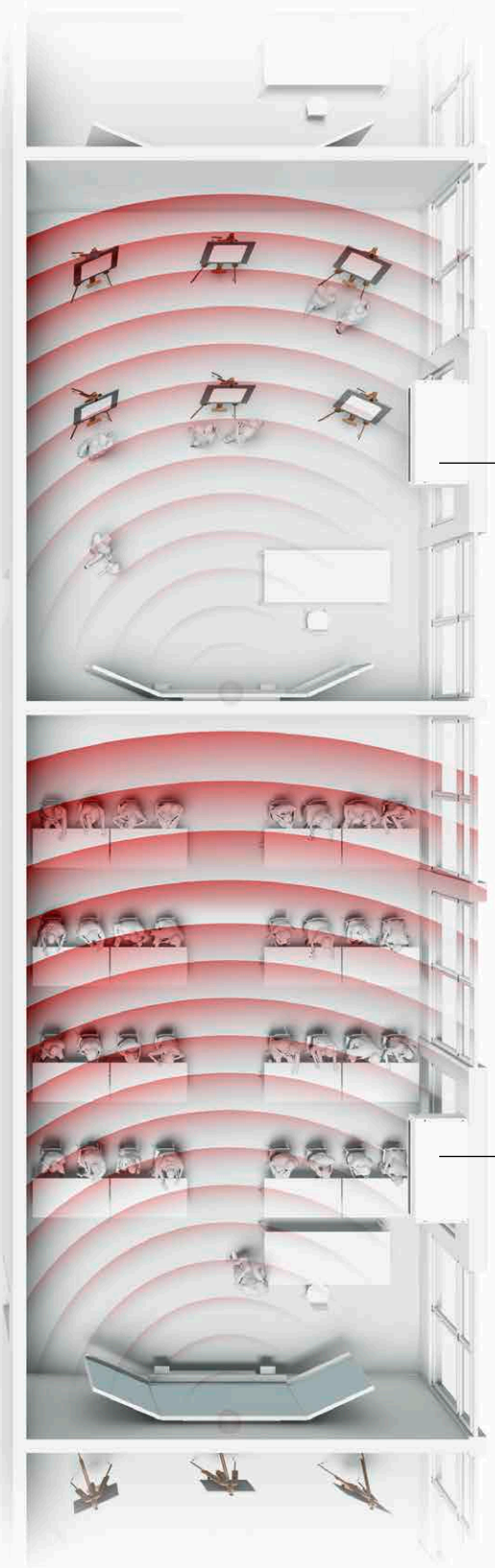
AUTOMATIC MODE VIA SENSORS

- **Room situation**
  The number of people in the room varies greatly throughout the day.

- **Control**
  Fully automated, demand-based operation via sensors, either CO_2, humidity or VOC.

- **Advantage**
  KWL Yoga constantly adjusts itself to the room conditions – for optimal air quality and efficiency at all times.





MOTION SENSOR AND WEEKLY PROGRAMME

- **Room situation**
  This room type requires basic ventilation due to intermittent use.

- **Control**
  The configurable weekly programme ensures sufficient fresh air in the room. The motion sensor helps to reduce the air output when the room is empty.

- **Advantage**
  KWL Yoga automatically adjusts itself to the room occupancy and simultaneously guarantees basic ventilation.

MOTION SENSOR

- **Room situation**
  The room is only used on an hourly basis throughout the day.

- **Control**
  Operation via motion sensor and a predefined output incl. adjustable turn-off delay.

- **Advantage**
  KWL Yoga works precisely when the room is being used. The ventilation intensity can be freely defined in advance.

The best air quality at all times **thanks to the Coanda effect.**

AUTOMATIC, FAST AND RELIABLE.

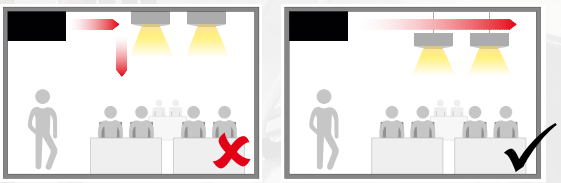
KWL Yoga is mounted directly below the ceiling and it moves the air horizontally from there into the room. This ensures optimal room air quality after a short period of operation in combination with the optimised unit construction.

With regard to the so-called Coanda effect, the incoming air initially clings to the ceiling before gently dropping in the room and mixing with the room air. This ensures an efficient mix of fresh and room air and guarantees consistently high air quality throughout the room without disturbing draughts.

Obvious advantage: The air outlet used here extends over almost the entire unit width and it moves the air upwards at a slight angle. This intensifies the fresh air mixing process and thus the rapid distribution of air in the room.

Air to the far corner

The system offers multiple installation options. It is important that, for example, lights or other equipment mounted to the ceiling do not block the air flow. This would adversely affect the desired effect.



WELL THOUGHT-OUT DETAILS: COMFORT FUNCTIONS

- **Summer ventilation**
  If desired, cool intake air can flow into the room at night independent of regular operation. For a pleasantly refreshing start to the day – particularly in the hot summer months.

- **After-heating**
  The integrated electrical or warm water after-heating element (optional) ensures that the supply air is at a pleasant temperature when it flows into the room, even at extreme minus temperatures. This provides a comfortable feel-good climate, even during the coldest winters.

- **Boost**
  KWL Yoga runs at maximum speed for a defined period using the boost function.

- **Turn-off delay**
  Define the desired turn-off delay time and ensure that the unit will continue to operate after you have left the room.

Make it
easy for yourself.

With KWL Yoga's advanced operating concept, you can fully relax and ensure good air quality. The ventilation is demand-controlled and continuously variable via sensors or different weekly and daily programmes.
There is also a modern LCD touch controller with a clear display and fully intuitive controls for the individual operations and comprehensive information on all operating states and modes. This control element offers numerous functions, such as e.g. timer, bypass control, night cooling, basic ventilation, CO2, VOC or humidity-dependent air volume control and it is also building control system-compatible and thus optimally prepared for smart ventilation.

Modbus BACnet

The various KWL® Yoga control modes

Manual via controller
Operation via freely definable volume flow.

Automatic via motion sensor
Automatic reduction of ventilation output when room is empty.

Individually configurable via weekly and daily programmes

Demand-oriented via sensors
The volume flow is continuously adjusted within freely definable limits. Options:
- CO_2 (integrated or external)
- VOC (external/mixed gas)
- Humidity (external)

Fresh air and high spirits: **KWL® Yoga brings fresh energy.**

Fresh air at work or at school promotes happiness and improves productivity. Thus, KWL Yoga simply and quietly ensures increased energy and concentration with well-balanced air quality, like a burst of freshness every day.


SUNRISE
RELEASE!

Outstanding technology
for optimal ventilation efficiency.

Many different equipment variants
meet virtually all individual requirements.

Maximum efficiency and heat recovery
With a heat recovery efficiency of up to 90 %, KWL Yoga tackles heating costs head on. The „KWL Yoga Style ET“ types offer additional moisture recovery – for even more comfort.

The new units in the KWL Yoga series ensure the best air quality in every respect and thus maximum concentration for all those working or spending their leisure time in the rooms. Both mental and physical performance are promoted by proper air quality. KWL Yoga is an all-round efficient and relaxing pleasure due to its exemplary economic efficiency and simple system controls.

Ideal acoustic features due to extremely low operating noise levels on the one hand and perfect ventilation on the other, without having to deal with exterior noise.

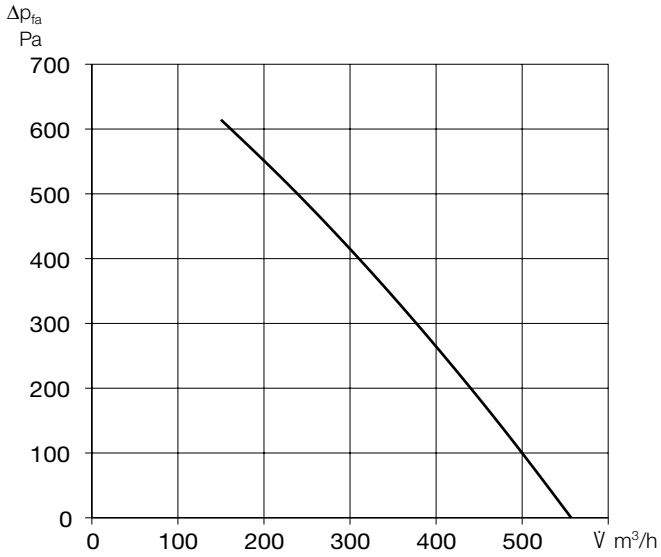
Safety thanks to the best hygiene properties
The design of the KWL Yoga units complies with the hygiene requirements of VDI 6022.

Simple maintenance and reversibility through freely accessible inspection flaps on the underside of the unit. Filters can be replaced in no time thanks to the separate covers.

Technical data and accessories

KWL YOGA Style 400

Performance curve 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.

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.

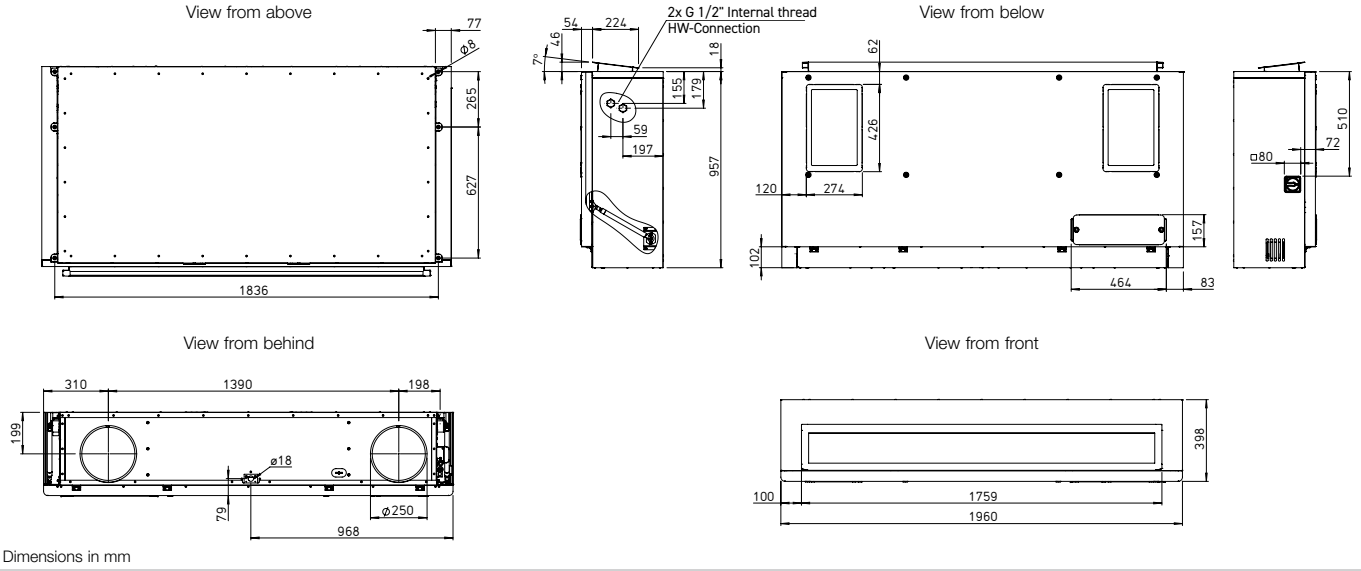
Condensate connection
Condensate connection horizontal (wall side), optionally via ball siphon in surface-mounted or flush-mounted design or via condensate pump.

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 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 ET** Ref. no. 40667	**KWL YOGA Style 400 EN** Ref. no. 40010 **KWL YOGA Style 400 EN ET** Ref. no. 40668	**KWL YOGA Style 400 WW** Ref. no. 40012 **KWL YOGA Style 400 WW ET** Ref. no. 40669	**KWL YOGA Style 400 EV** Ref. no. 40014 **KWL YOGA Style 400 EV ET** Ref. no. 40670	**KWL YOGA Style 400 EV/EN** Ref. no. 40016 **KWL YOGA Style 400 EV/EN ET** Ref. no. 40671	
Intake/exhaust air connector diameter	250	250	250	250	250	
Air volume V̇ 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 total (incl. control) W	350	1850	350	1850	3350	
Rated current total (incl. control) A	2.45	9.0	2.45	9.0	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



Dimensions in mm

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 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 400 EV/WW Ref. no. 40018 **KWL YOGA Style 400 EV/WW ET** Ref. no. 40672
	250
	150 - 560
	26 / 20 28 / 22 31 / 25 38 / 32
	1850
	9.0
	1~, 230 V, 50 Hz
	20
	-20 to+40
	+5 to+40
	171
	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_2, 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_2 sensor for measuring the CO_2 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 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 ePM_{10} 60 % (M5). Unit = 1 pc.
ELF-KWL YOGA 400/VDI/ePM10 60% Ref. no. 40690

Spare air filter (intake air)
ISO ePM_1 60 % (F7). Unit = 1 pc.
ELF-KWL YOGA 400/VDI/ePM1 60% Ref. no. 40693

*2 extract air filters are required per unit.

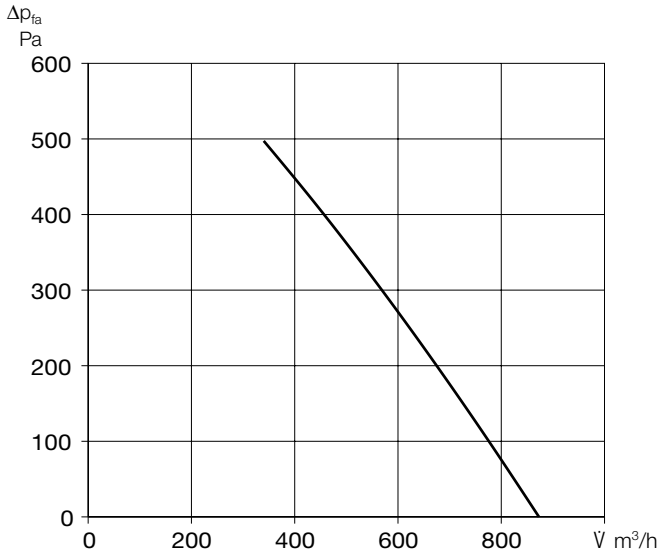
Attention: For spare air filters of older unit generations (orders before March 2023): Please contact us at export@heliosventilatoren.de

Important note

Further information on accessories can be found on page 30.

KWL YOGA Style 700

Performance curve KWL YOGA Style 700



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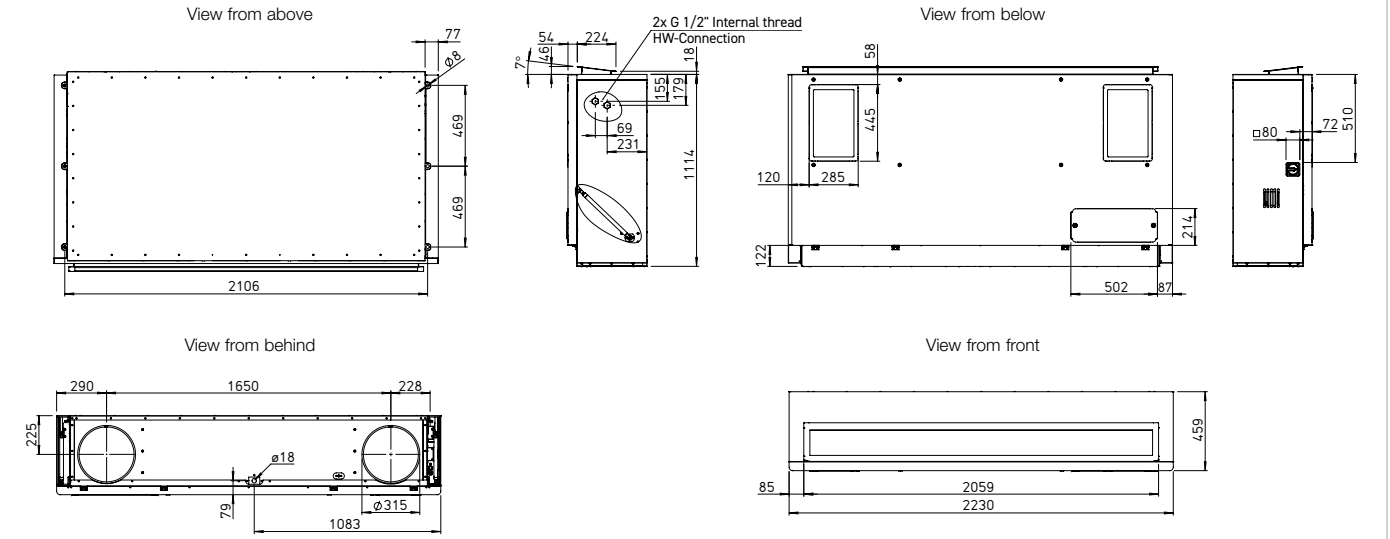
	KWL YOGA Style 700 Ref. no. 40020 **KWL YOGA Style 700 ET** Ref. no. 40673	**KWL YOGA Style 700 EN** Ref. no. 40022 **KWL YOGA Style 700 EN ET** Ref. no. 40674	**KWL YOGA Style 700 WW** Ref. no. 40024 **KWL YOGA Style 700 WW ET** Ref. no. 40675	**KWL YOGA Style 700 EV** Ref. no. 40026 **KWL YOGA Style 700 EV ET** Ref. no. 40676	**KWL YOGA Style 700 EV/EN** Ref. no. 40028 **KWL YOGA Style 700 EV/EN ET** Ref. no. 40677	
Intake/exhaust air connector diameter	315	315	315	315	315	
Air volume V̇ m³/h (Min. - Max.)	340 - 870	340 - 870	340 - 870	340 - 870	340 - 870	
Radiation L_{pA} dB(A) in 1 m / 3 m (at 0 Pa)						
– 340 m³/h	23 / 17	23 / 17	23 / 17	23 / 17	23 / 17	
– 500 m³/h	28 / 22	28 / 22	28 / 22	28 / 22	28 / 22	
– 700 m³/h	33 / 27	33 / 27	33 / 27	33 / 27	33 / 27	
– 870 m³/h	35 / 29	35 / 29	35 / 29	35 / 29	35 / 29	
Maximum power consumption total (incl. control) W	350	2600	350	2350	4600	
Rated current total (incl. control) A	2.45	12.3	2.45	11.2	9.8	
Voltage / frequency	1~, 230 V, 50 Hz	1~, 230 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	-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	200	202	202	202	204	
Wiring diagram no.	1500	1500	1500	1500	1500	

Dimensions KWL YOGA Style 700



Dimensions in mm

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 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 700 EV/WW Ref. no. 40030 **KWL YOGA Style 700 EV/WW ET** Ref. no. 40678
	315
	340 - 870
	23 / 17 28 / 22 33 / 27 35 / 29
	2350
	11.2
	1~, 230 V, 50 Hz
	20
	-20 to +40
	+5 to +40
	204
	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_2, 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_2 sensor for measuring the CO_2 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 700/VDI/Coarse 60% Ref. no. 40688

Spare air filter (extract air)*
ISO ePM_{10} 60 % (M5). Unit = 1 pc.
ELF-KWL YOGA 700/VDI/ePM10 60% Ref. no. 40691

Spare air filter (intake air)
ISO ePM_1 60 % (F7). Unit = 1 pc.
ELF-KWL YOGA 700/VDI/ePM1 60% Ref. no. 40694

*2 extract air filters are required per unit.

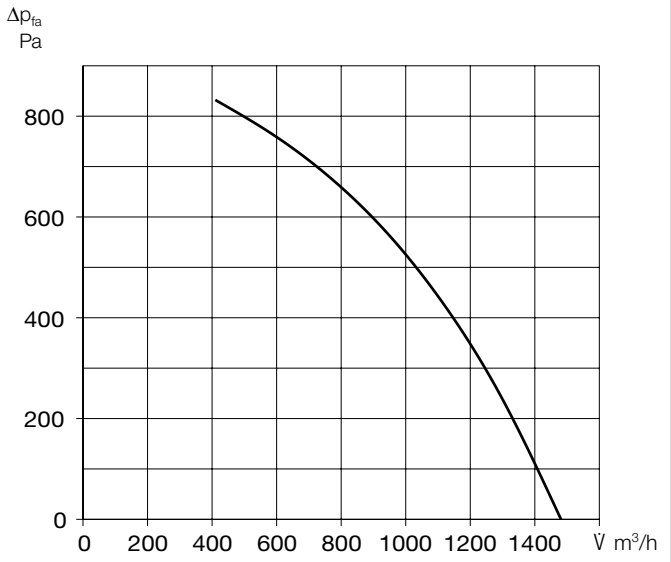
Attention: For spare air filters of older unit generations (orders before March 2023): Please contact us at export@heliosventilatoren.de

Important note

Further information on accessories can be found on page 30.

KWL YOGA Style 1000

Performance curve KWL YOGA Style 1000



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.

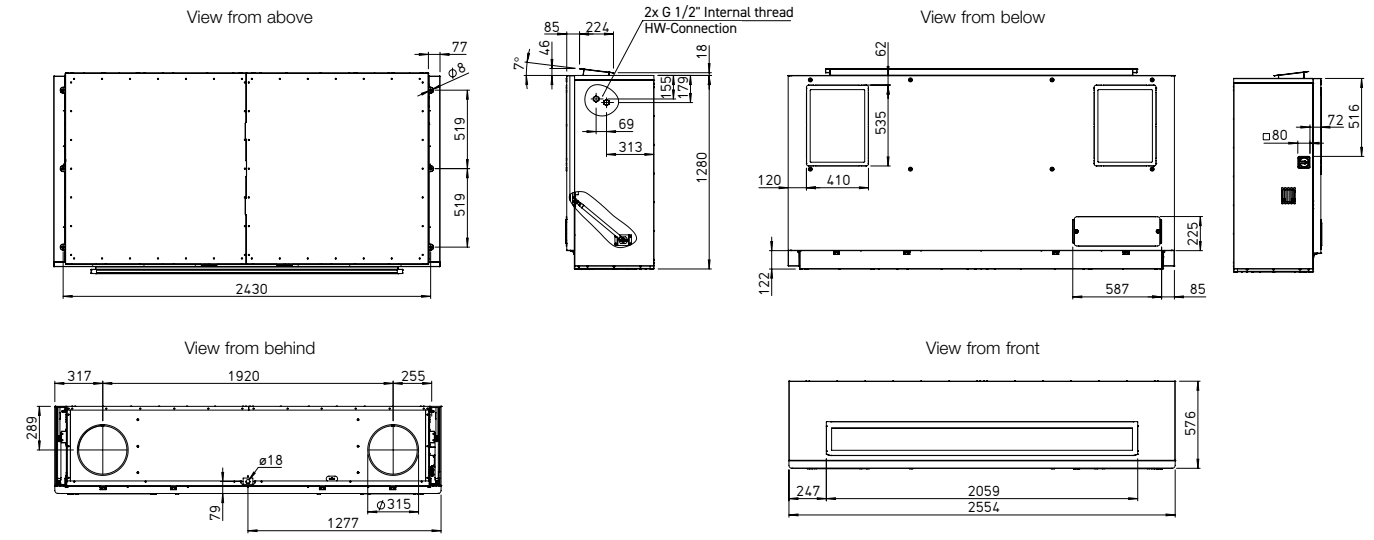
Condensate connection
Condensate connection horizontal (wall side), optionally via ball siphon in surface-mounted or flush-mounted design or via condensate pump.

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 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 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 V̇ m³/h (Min. - Max.)	410 - 1480	410 - 1480	410 - 1480	410 - 1480	410 - 1480	
Radiation L_{pA} dB(A) in 1 m / 3 m (at 0 Pa)						
– 410 m³/h	24 / 18	24 / 18	24 / 18	24 / 18	24 / 18	
– 800 m³/h	30 / 24	30 / 24	30 / 24	30 / 24	30 / 24	
– 1000 m³/h	34 / 28	34 / 28	34 / 28	34 / 28	34 / 28	
– 1480 m³/h	42 / 36	42 / 36	42 / 36	42 / 36	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	

Dimensions KWL YOGA Style 1000



Dimensions in mm

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 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_2, 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_2 sensor for measuring the CO_2 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_{10} 60 % (M5). Unit = 1 pc.
ELF-KWL YOGA 1000/VDI/ePM10 60% Ref. no. 40692

Spare air filter (intake air)
ISO ePM_1 60 % (F7). Unit = 1 pc.
ELF-KWL YOGA 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 30.

KWL-KS WE

Flush-mounted/wall-mounted siphon

Flush-mounted condensate siphon for ventilation units, for odourless discharge of condensate in the sewage system. Desiccation-safe and cleanable by removing siphon cartridge. Incl. plug-in seal (rubber) for Ø 20 – 32 mm. Vertical outlet connector DN32. Structural protection can be cut to installation depth. Incl. odour barrier, pursuant to EN 681, DIN 19541.

Technical data	KWL-KS WE Ref. no. 40064
Material	Polypropylene (PP) and ABS
Drainage capacity l/s	0.15
Min. - max. duct length (feed) in m	0.2 – 3.5
Minimum installation depth in mm	60
Condensate line connection	External Ø 20 – 32 mm / Internal Ø 18 mm
Dimensions (L x W x H) in mm	110 x 110 x 60
Weight approx. kg	0.25

KWL-KS

Ball-tube siphon

Ball-tube siphon for ventilation units, for odourless discharge of condensate in the sewage system. Desiccation-safe. Incl. plug-in seal (rubber) for Ø 9 – 29 mm. Horizontal outlet connector DN40.

Technical data	KWL-KS Ref. no. 40065
Material	Polypropylene (PP)
Drainage capacity l/s	0.6
Drain connection	DN40

KWL-KP-I

Condensate submersible pump

Condensate pump for unit-integrated use in ventilation units, if the condensate connection with a downward slope to a waste water pipe is not possible. The submersible pump is placed directly in the condensate pan. The maximum flow rate is 12 l/h at 0 m delivery height. 9 l/h at 5 m delivery head. Protection class: IP68. Incl. alarm circuit.

KWL-KP-I	Ref. no. 40472

WHSH HE 24 V (0-10V)

Hydraulic unit

Controls the water temperature of the PWW heater element by means of three point valve actuator 24 V (0-10 V) and thus the thermal output which is conveyed to the air. Delivered as complete unit, incl. flow/return temperature display, circulation pump and flexible connecting pipes.

WHSH HE 24V (0-10V)	Ref. no. 08318

AIR1/KWL-VOC 0-10V / -CO2 0-10V / -FTF 0-10V

Room sensor
For measuring the CO_2, mixed gas (VOC) concentration or relative humidity. Dim. mm (W x H x D) 85 x 85 x 27

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

AIR1/KWL-VOC 0-10V	Ref. no. 20250

CO_2 sensor for measuring the CO_2 concentration.

AIR1/KWL-CO2 0-10V	Ref. no. 20251

Humidity-temperature sensor for measuring the relative air humidity.

AIR1/KWL-FTF 0-10V	Ref. no. 20252

BWM

Infrared motion sensor
Motion sensor for detecting the presence of people in the room. Wall installation (surface mounted) (cable entry at top or bottom) or installation in flush-mounted box Ø 55 mm (cable entry at back).

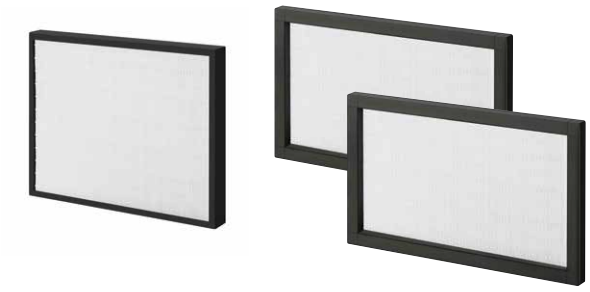
Technical data	**BWM** Ref. no. 08323
Material casing	ABS plastic, white (similar RAL 9010)
Protection class	III
Protection category	IP30
Electrical connection	0.14 – 1.5 mm² (screw terminals)
Dimensions in mm (W x H x D)	85 x 85 x 27

FGR

Facade grille, circular
For flush covering of ventilation openings on the facade. Can be used for circular outdoor and exhaust air ducts. Two holes in the pipe spigot allow secure fastening with screws, to be provided by customer.
Solid aluminium construction. Fixed blades with stainless steel wire mesh behind, mesh size 10 x 10 mm.

FGR 250	Ref. no. 40181
FGR 315	Ref. no. 40182

ELF-KWL YOGA



Intake air filter — Extract air filter*

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
ELF-KWL YOGA 700/VDI/Coarse 60%	Ref. no. 40688
ELF-KWL YOGA 1000/VDI/Coarse 60%	Ref. no. 40689

Spare air filter (extract air)* ISO ePM_{10} 60 % (M5). Unit = 1 pc.

ELF-KWL YOGA 400/VDI/ePM10 60%	Ref. no. 40690
ELF-KWL YOGA 700/VDI/ePM10 60%	Ref. no. 40691
ELF-KWL YOGA 1000/VDI/ePM10 60%	Ref. no. 40692

Spare air filter (intake air) ISO ePM_1 60 % (F7). Unit = 1 pc.

ELF-KWL YOGA 400/VDI/ePM1 60%	Ref. no. 40693
ELF-KWL YOGA 700/VDI/ePM1 60%	Ref. no. 40694
ELF-KWL YOGA 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

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