

KWL® Yoga

Relaxed ventilation: Large decentralised KWL® units.



KWL[®] Yoga:

1 system.

2 versions.

3 sizes.

You have the choice of two casing variants; **KWL Yoga** and **KWL Yoga Style** with design supply air element and concealed fixings. The advanced Helios-quality technology is of course identical in both versions.



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 m³/h, various equipment versions and the exclusive Style design variant are only some of the highlights of KWL Yoga. All other advantages are presented on the following pages.

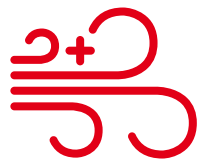


This is KWL® Yoga

- p. 03 Advantages
- p. 06 Areas of application
- p. 10 Highlights
- p. 18 The units

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

Guaranteed, automatic air exchange without the need for user intervention is especially important in public establishments. Additional effect: greater comfort without cold surfaces – a typical problem with window ventilation in the cold season. This is effectively prevented thanks to heat recovery.



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

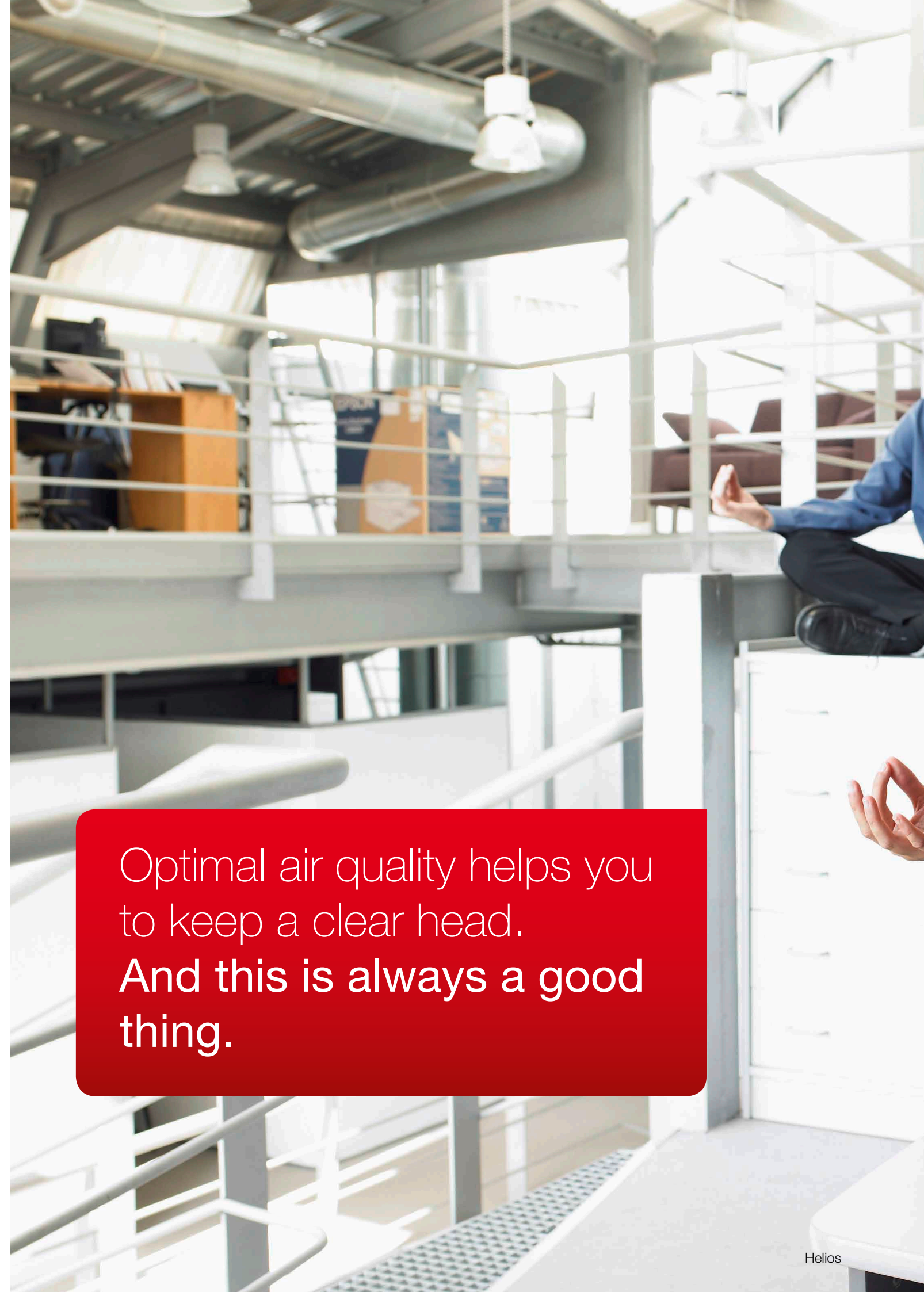
The best air quality with low CO₂ concentration promotes mental receptiveness and performance.



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.

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





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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.



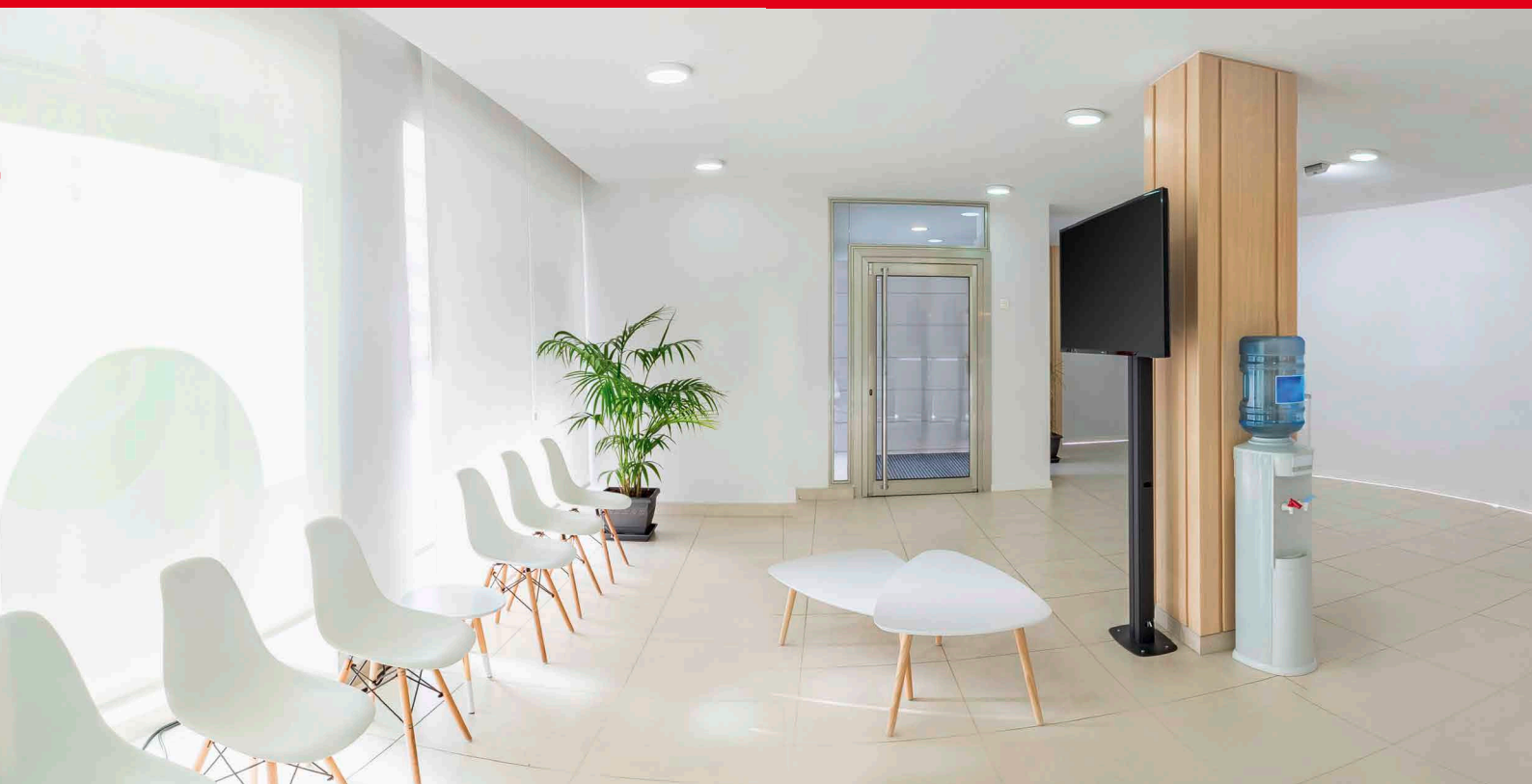


- **Fitness rooms**
- **Office facilities**
- **Commercial spaces**
- **Waiting rooms**

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.





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.

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

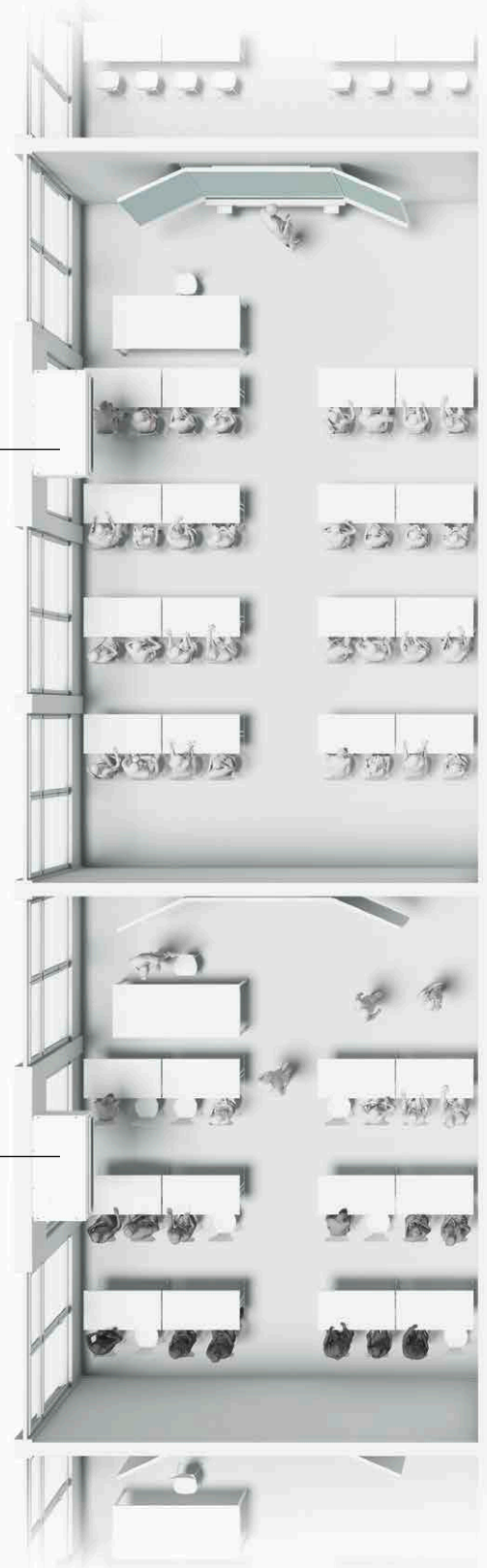
The number of people in the room varies greatly throughout the day.

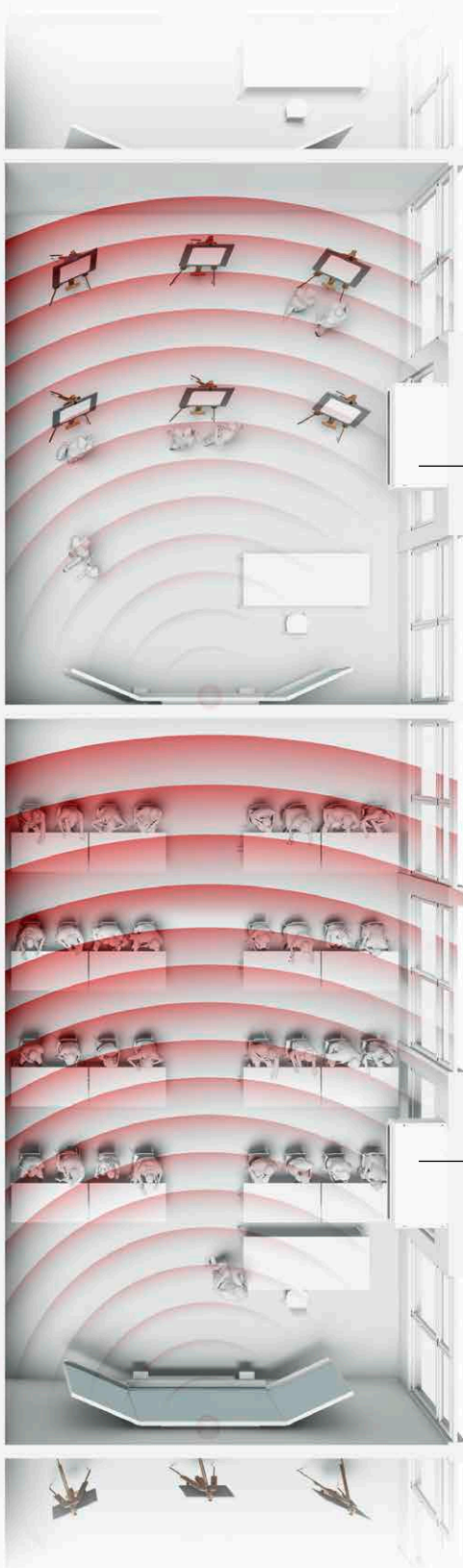
■ Control

Fully automated, demand-based operation via sensors, either CO₂, 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.

■ Efficient mix of fresh air and room air

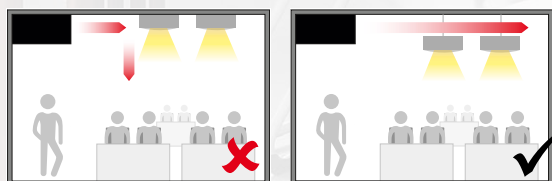
KWL Yoga is mounted directly below the ceiling and it moves the air horizontally from there into the room. This ensures optimal room air quality after a short period of operation in combination with the optimised unit construction.

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.

The units in the KWL Yoga Style series achieve the maximum Coanda effect. 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.





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 energy balance also stands out thanks to the economical EC motors.



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.

Modern and attractive design in two versions – optimised for the best possible air flow through the room.

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.



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.



The various KWL[®] Yoga control modes



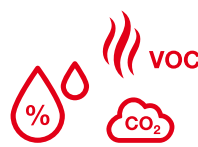
Manual via controller
Operation via freely definable volume flow.



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:

- CO₂ (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.





The right version for any requirement.



KWL Yoga

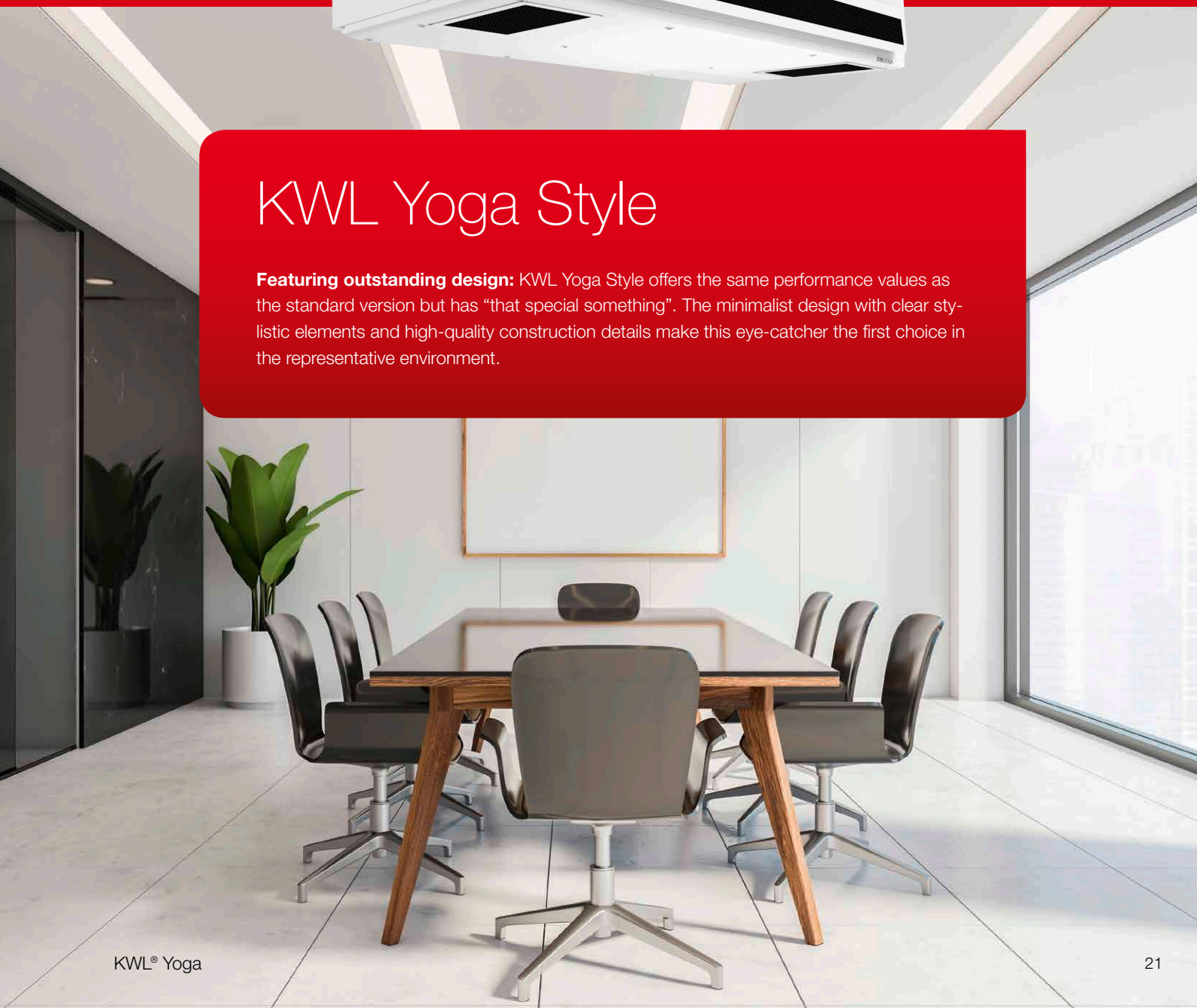
The straightforward fresh air supplier: KWL Yoga is not only fast mounted, it is also installed with minimum effort and then ensures a healthy room climate without any user intervention. The three carefully tuned unit sizes with numerous comfort options make it easy to select the perfect configuration for your project.

- p. 22 up to 400 m³/h
- p. 24 up to 700 m³/h
- p. 26 up to 1000 m³/h
- p. 28 Accessories



KWL Yoga Style

Featuring outstanding design: KWL Yoga Style offers the same performance values as the standard version but has “that special something”. The minimalist design with clear stylistic elements and high-quality construction details make this eye-catcher the first choice in the representative environment.



KWL YOGA / 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, all casing parts are painted white/powder-coated inside and outside. 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.

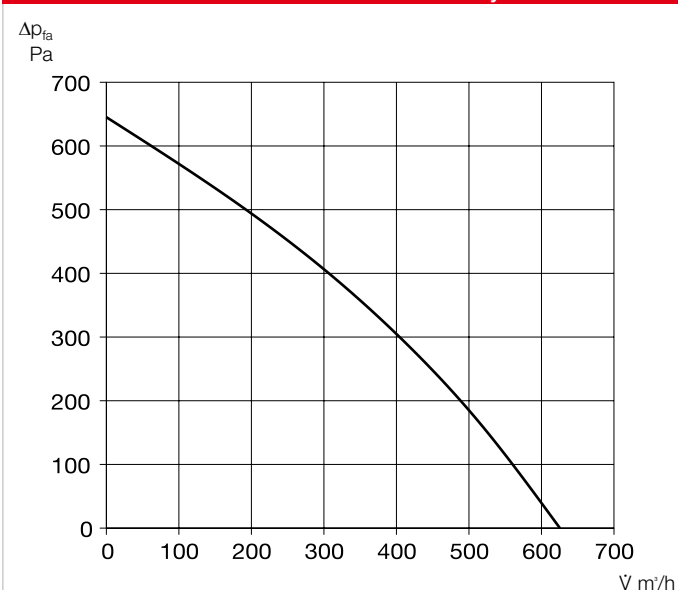
■ Installation

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).

■ Heat exchanger

Large aluminium cross counterflow heat exchanger with up to 90% heat

Characteristic curve KWL YOGA / KWL YOGA Style 400



recovery efficiency. Dismantling is possible in a few steps.

■ 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 ext-

ract air openings on the underside of the unit. Intake and exhaust air connectors are equipped with spring-loaded shutters.

■ Condensate connection

Condensate drain at the bottom (wall side), optionally via ball siphon in surface-mounted or flush-mounted design or via condensate pump.

■ Air filter

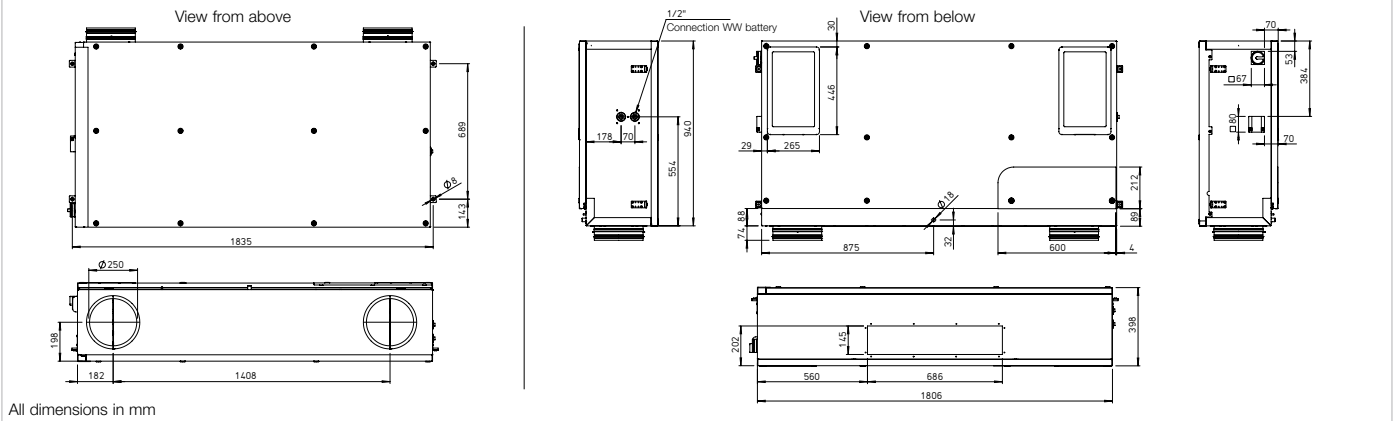
Clean intake air flow via ISO ePM1 60% filter (F7). Two bag filters for extract air: ISO Coarse 60% (G4); optionally available: ISO ePM10 60% (M5).

■ Summer operation

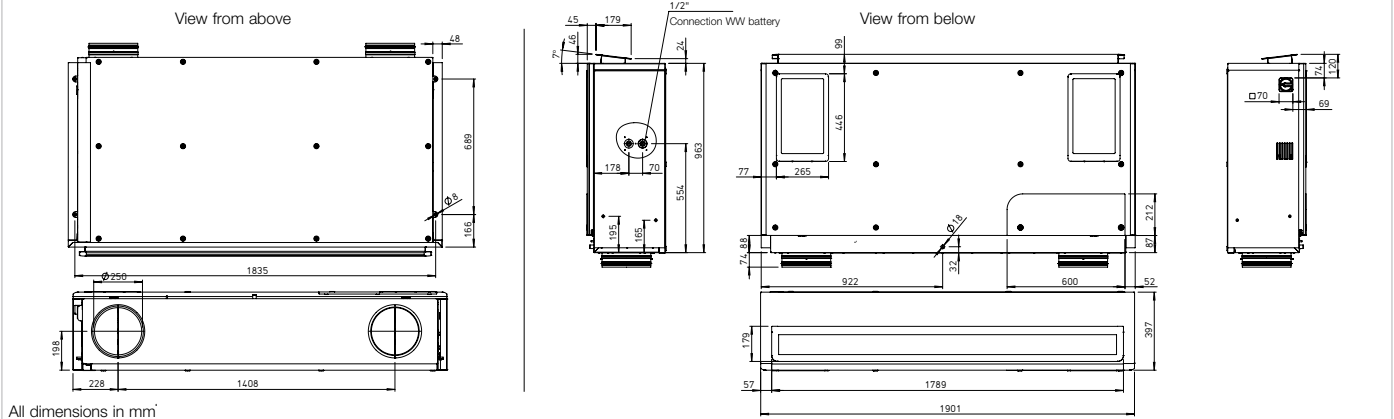
Equipped with automatic bypass function (bypassing the heat exch-

	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 400 Ref. no. 40007	KWL YOGA 400 EN Ref. no. 40009	KWL YOGA 400 WW Ref. no. 40011	KWL YOGA 400 EV Ref. no. 40013	KWL YOGA 400 EV/EN Ref. no. 40015	
	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 Vm³/h (Min. - Max.)	169 - 625	169 - 625	169 - 625	169 - 625	169 - 625	
Radiation L _{pa} dB(A) in 1 m / 3 m (at 0 Pa)						
– 169 m³/h	27 / 20	27 / 20	27 / 20	27 / 20	27 / 20	
– 316 m³/h	31 / 24	31 / 24	31 / 24	31 / 24	31 / 24	
– 415 m³/h	35 / 29	35 / 29	35 / 29	35 / 29	35 / 29	
– 625 m³/h	45 / 38	45 / 38	45 / 38	45 / 38	45 / 38	
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	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	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	82 (KWL YOGA Style: 92)	83 (KWL YOGA Style: 93)	85 (KWL YOGA Style: 95)	83 (KWL YOGA Style: 93)	84 (KWL YOGA Style: 94)	
Wiring diagram no.	1384	1384	1384	1384	1384	

Dimensions KWL YOGA 400



Dimensions KWL YOGA Style 400



anger 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.

With electrical preheater/ with warm water after-heater
KWL YOGA 400 EV/WW Ref. no. 40017
KWL YOGA Style 400 EV/WW Ref. no. 40018
250
169 - 625
27 / 20
31 / 24
35 / 29
45 / 38
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
86 (KWL YOGA Style: 96)
1384

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:

- Freely definable operating levels within the entire performance diagram.
- Demand-oriented ventilation, optionally with CO₂, VOC, or humidity sensor (1 sensor can be connected).
- Initial commissioning (automatic determination of system characteristic curve).
- External shutter control.
- 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)

Electrical connection

After opening the inspection cover, the easily accessible terminal box is located in the side 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.

KWL-CO2 Ref. no. 04272

Humidity-temperature sensor for measuring the relative air humidity.

KWL-FTF Ref. no. 04273

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

KWL-VOC Ref. no. 04274

Installation accessories

Flush-mounted/wall-mounted siphon

KWL-KS WE Ref. no. 40064

Ball-tube siphon

KWL-KS Ref. no. 40065

Condensate pump

KWL-KP Ref. no. 40066

Wall bracket console set for combined wall-ceiling installation.

KWL YOGA-WH Ref. no. 40067

Hydraulic unit

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

Filter

Spare air filter (extract air)

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

ELF-KWL YOGA 400/Coarse 60%

Ref. no. 40068

Spare air filter (extract air)

ISO ePM 10 60% (M5). Unit =

1 pc.

ELF-KWL YOGA 400/ePM 10 60%

Ref. no. 40071

Note: 2 extract air filters are required per unit.

Spare air filter (intake air)

ISO ePM1 60% (F7). Unit = 1 pc.

ELF-KWL YOGA 400/ePM1 60%

Ref. no. 40074

Important note

Further information on accessories can be found on page 28.

KWL YOGA / KWL YOGA Style 700



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, all casing parts are painted white/powder-coated inside and outside. 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.

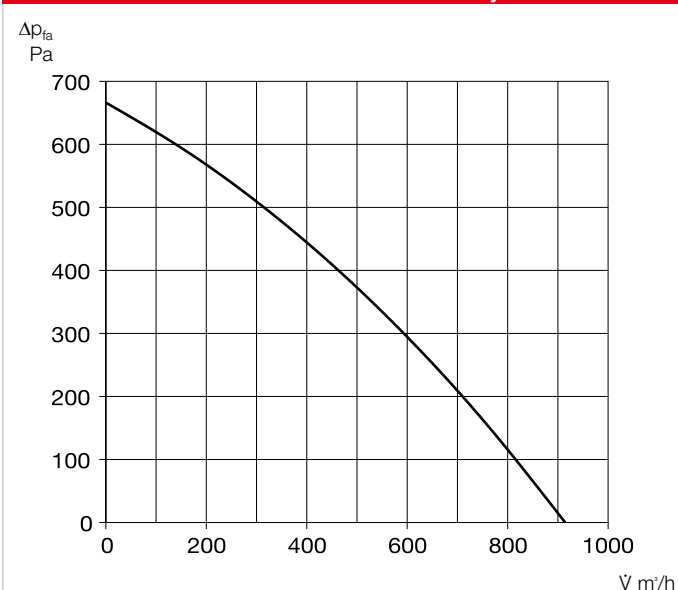
■ Installation

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).

■ Heat exchanger

Large aluminium cross counterflow heat exchanger with up to 90% heat

Characteristic curve KWL YOGA / KWL YOGA Style 700



recovery efficiency. Dismantling is possible in a few steps.

■ 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 ext-

ract air openings on the underside of the unit. Intake and exhaust air connectors are equipped with spring-loaded shutters.

■ Condensate connection

Condensate drain at the bottom (wall side), optionally via ball siphon in surface-mounted or flush-mounted design or via condensate pump.

■ Air filter

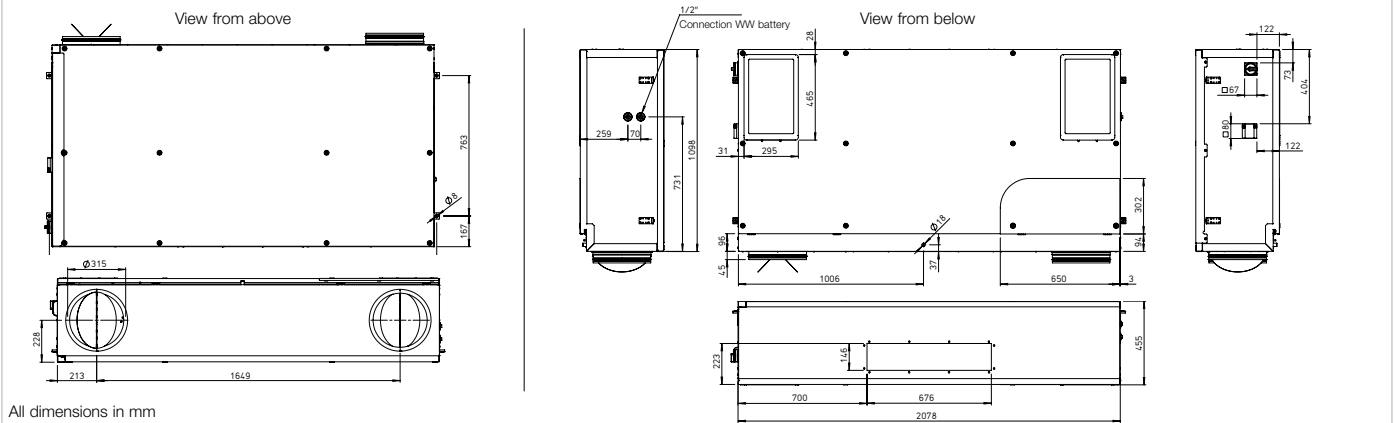
Clean intake air flow via ISO ePM1 60% filter (F7). Two bag filters for extract air: ISO Coarse 60% (G4); optionally available: ISO ePM10 60% (M5).

■ Summer operation

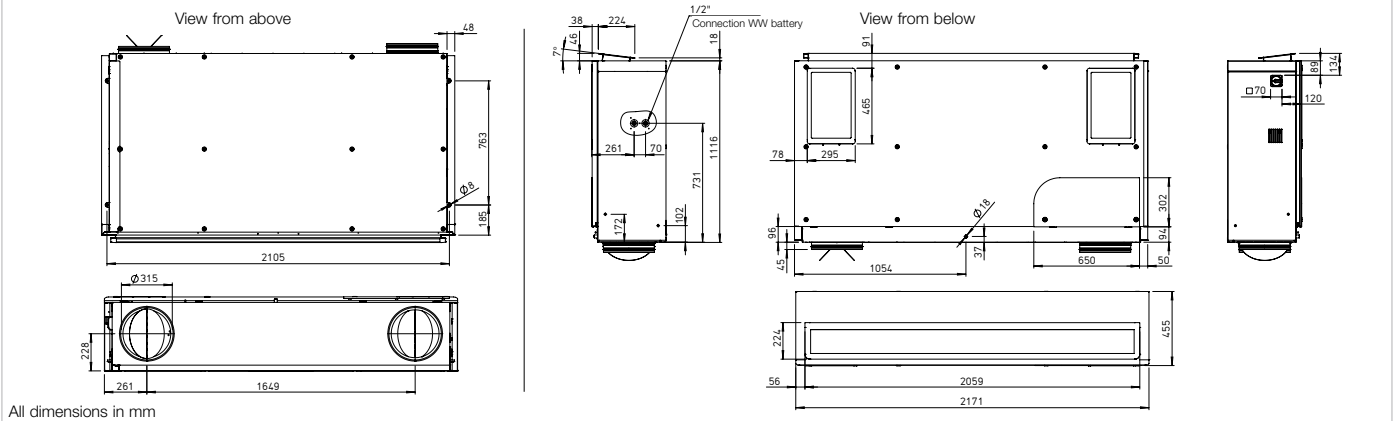
Equipped with automatic bypass function (bypassing the heat exch-

	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 700 Ref. no. 40019	KWL YOGA 700 EN Ref. no. 40021	KWL YOGA 700 WW Ref. no. 40023	KWL YOGA 700 EV Ref. no. 40025	KWL YOGA 700 EV/EN Ref. no. 40027	
	KWL YOGA Style 700 Ref. no. 40020	KWL YOGA Style 700 EN Ref. no. 40022	KWL YOGA Style 700 WW Ref. no. 40024	KWL YOGA Style 700 EV Ref. no. 40026	KWL YOGA Style 700 EV/EN Ref. no. 40028	
Intake/exhaust air connector diameter	315	315	315	315	315	
Air volume Vm³/h (Min. - Max.)	307 - 917	307 - 917	307 - 917	307 - 917	307 - 917	
Radiation L _{pa} dB(A) in 1 m / 3 m (at 0 Pa)						
– 307 m³/h	26 / 20	26 / 20	26 / 20	26 / 20	26 / 20	
– 449 m³/h	27 / 21	27 / 21	27 / 21	27 / 21	27 / 21	
– 589 m³/h	31 / 24	31 / 24	31 / 24	31 / 24	31 / 24	
– 917 m³/h	42 / 35	42 / 35	42 / 35	42 / 35	42 / 35	
Maximum power consumption W						
– fans	2 x 170	2 x 170	2 x 170	2 x 170	2 x 170	
– el. preheater / after-heater	— / —	— / 2250	— / —	2000 / —	2000 / 2250	
– total	350	2600	350	2350	4600	
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	— / —	— / 9.79	— / —	8.7 / —	8.7 / 9.79	
– total	2.45	12.24	2.45	11.15	9.79	
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	116 (KWL YOGA Style: 126)	117 (KWL YOGA Style: 127)	119 (KWL YOGA Style: 129)	117 (KWL YOGA Style: 127)	118 (KWL YOGA Style: 128)	
Wiring diagram no.	1384	1384	1384	1384	1384	

Maße KWL YOGA 700



Maße KWL YOGA Style 700



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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.

With electrical preheater/ with warm water after-heater
KWL YOGA 700 EV/WW Ref. no. 40029
KWL YOGA Style 700 EV/WW Ref. no. 40030
315
307 - 917
26 / 20
27 / 21
31 / 24
42 / 35
2 x 170
2000 / —
2350
2 x 1.20
8.7 / —
11.15
1~; 230 V, 50 Hz
20
-20 to +40
+5 to +40
120 (KWL YOGA Style: 130)
1384

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:

- Freely definable operating levels within the entire performance diagram.
- Demand-oriented ventilation, optionally with CO₂, VOC, or humidity sensor (1 sensor can be connected).
- Initial commissioning (automatic determination of system characteristic curve).
- External shutter control.
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- 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

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- Control via central building control system possible (ModBus RTU and ModBus TCP, BACnet)

Electrical connection

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CO₂ sensor for measuring the CO₂ concentration.

KWL-CO2 Ref. no. 04272

Humidity-temperature sensor for measuring the relative air humidity.

KWL-FTF Ref. no. 04273

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

KWL-VOC Ref. no. 04274

Installation accessories

Flush-mounted/wall-mounted siphon

KWL-KS WE Ref. no. 40064

Ball-tube siphon

KWL-KS Ref. no. 40065

Condensate pump

KWL-KP Ref. no. 40066

Wall bracket console set for combined wall-ceiling installation.

KWL YOGA-WH Ref. no. 40067

Hydraulic unit

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

Filter

Spare air filter (extract air)

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

ELF-KWL YOGA 700/Coarse 60%

Ref. no. 40069

Spare air filter (extract air)

ISO ePM 10 60% (M5). Unit =

1 pc.

ELF-KWL YOGA 700/ePM 10 60%

Ref. no. 40072

Note: 2 extract air filters are required per unit.

Spare air filter (intake air)

ISO ePM1 60% (F7). Unit = 1 pc.

ELF-KWL YOGA 700/ePM1 60%

Ref. no. 40075

Important note

Further information on accessories can be found on page 28.

KWL YOGA / 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, all casing parts are painted white/powder-coated inside and outside. 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.

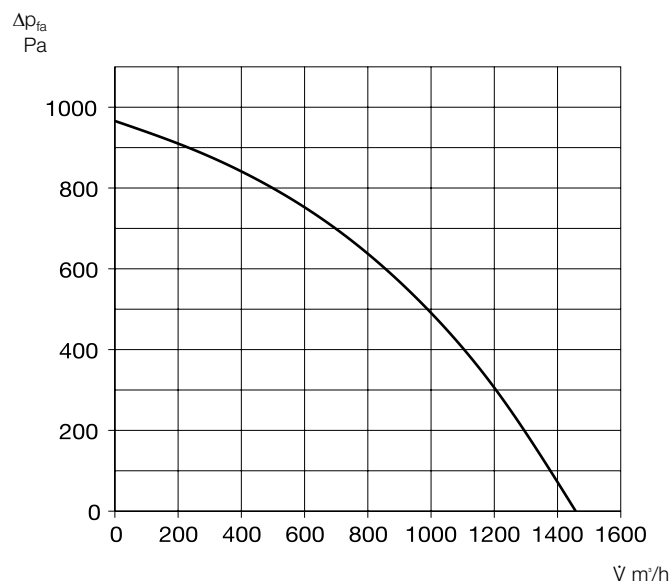
■ Installation

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).

■ Heat exchanger

Large aluminium cross counterflow heat exchanger with up to 90% heat

Characteristic curve KWL YOGA / KWL YOGA Style 1000



recovery efficiency. Dismantling is possible in a few steps.

■ 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 ext-

ract air openings on the underside of the unit. Intake and exhaust air connectors are equipped with spring-loaded shutters.

■ Condensate connection

Condensate drain at the bottom (wall side), optionally via ball siphon in surface-mounted or flush-mounted design or via condensate pump.

■ Air filter

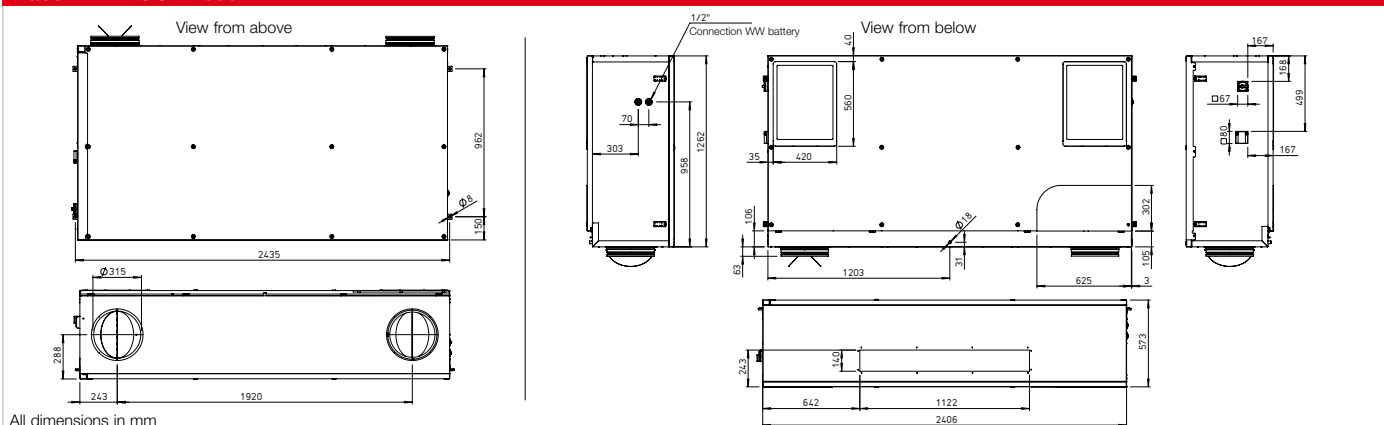
Clean intake air flow via ISO ePM1 60% filter (F7). Two bag filters for extract air: ISO Coarse 60% (G4); optionally available: ISO ePM10 60% (M5).

■ Summer operation

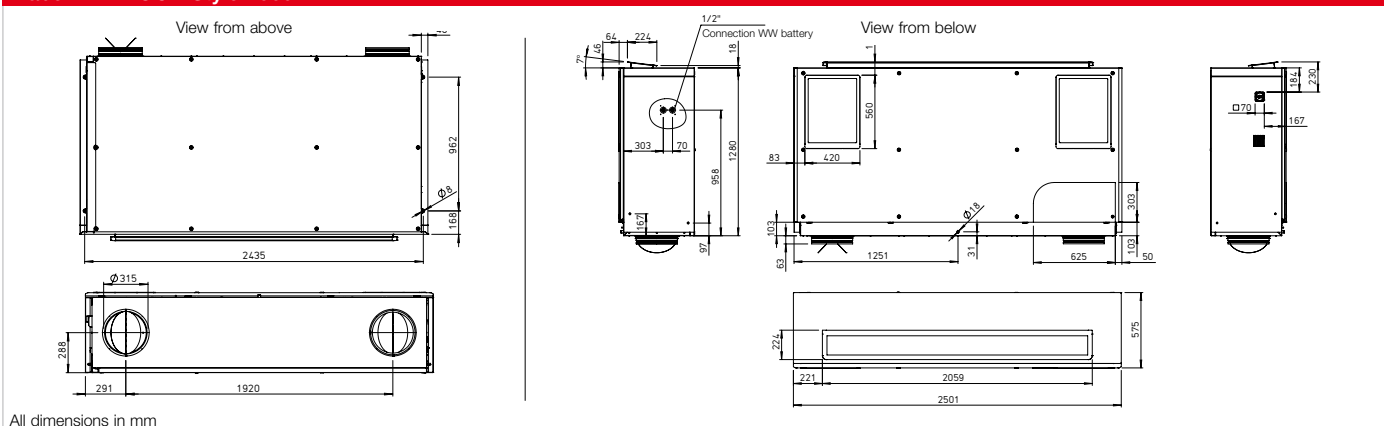
Equipped with automatic bypass function (bypassing the heat exch-

	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 1000 Ref. no. 40031	KWL YOGA 1000 EN Ref. no. 40033	KWL YOGA 1000 WW Ref. no. 40035	KWL YOGA 1000 EV Ref. no. 40037	KWL YOGA 1000 EV/EN Ref. no. 40039	
	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. 40038	KWL YOGA Style 1000 EV/EN Ref. no. 40040	
Intake/exhaust air connector diameter	315	315	315	315	315	
Air volume Vm³/h (Min. - Max.)	499 - 1456	499 - 1456	499 - 1456	499 - 1456	499 - 1456	
Radiation L _{pa} dB(A) in 1 m / 3 m (at 0 Pa)						
– 499 m³/h	24 / 18	24 / 18	24 / 18	24 / 18	24 / 18	
– 772 m³/h	30 / 24	30 / 24	30 / 24	30 / 24	30 / 24	
– 1018 m³/h	35 / 29	35 / 29	35 / 29	35 / 29	35 / 29	
– 1456 m³/h	47 / 41	47 / 41	47 / 41	47 / 41	47 / 41	
Maximum power consumption W						
– fans	2 x 395	2 x 395	2 x 385	2 x 395	2 x 395	
– el. preheater / after-heater	— / —	— / 3000	— / —	3000 / —	3000 / 3000	
– total	800	3800	800	3800	6800	
Rated current A						
– fans	2 x 2.4	2 x 2.4	2 x 2.4	2 x 2.4	2 x 2.4	
– el. preheater / after-heater	— / —	— / 4.33	— / —	7.5 / —	7.5 / 4.33	
– total	4.85	9.18	4.85	7.5	11.83	
Voltage / frequency	1~, 230 V, 50 Hz	3~, 400 V, 50 Hz	1~, 230 V, 50 Hz	3~, 400 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	139 (KWL YOGA Style: 149)	140 (KWL YOGA Style: 150)	142 (KWL YOGA Style: 152)	140 (KWL YOGA Style: 150)	141 (KWL YOGA Style: 151)	
Wiring diagram no.	1384	1384	1384	1384	1384	

Maße KWL YOGA 1000



Maße KWL YOGA Style 1000



anger 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.

With electrical preheater/ with warm water after-heater
KWL YOGA 1000 EV/WW Ref. no. 40041
KWL YOGA Style 1000 EV/WW Ref. no. 40042
315
499 - 1456
24 / 18
30 / 24
35 / 29
47 / 41
2 x 395
3000 / —
3800
2 x 2.4
7.5 / —
7.5
3–, 400 V, 50 Hz
20
–20 to +40
+5 to +40
143 (KWL YOGA Style: 153)
1384

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 WSHH 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:

- Freely definable operating levels within the entire performance diagram.
- Demand-oriented ventilation, optionally with CO₂, VOC, or humidity sensor (1 sensor can be connected).
- Initial commissioning (automatic determination of system characteristic curve).
- External shutter control.
- 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)

Electrical connection

After opening the inspection cover, the easily accessible terminal box is located in the side 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.

KWL-CO2 Ref. no. 04272

Humidity-temperature sensor for measuring the relative air humidity.

KWL-FTF Ref. no. 04273

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

KWL-VOC Ref. no. 04274

Installation accessories

Flush-mounted/wall-mounted siphon

KWL-KS WE Ref. no. 40064

Ball-tube siphon

KWL-KS Ref. no. 40065

Condensate pump

KWL-KP Ref. no. 40066

Wall bracket console set for combined wall-ceiling installation.

KWL YOGA-WH Ref. no. 40067

Hydraulic unit

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

Filter

Spare air filter (extract air)

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

ELF-KWL YOGA 1000/Coarse 60%
Ref. no. 40070

Spare air filter (extract air)

ISO ePM 10 60% (M5). Unit = 1 pc.

ELF-KWL YOGA 1000/ePM 10 60%
Ref. no. 40073

Note: 2 extract air filters are required per unit.

Spare air filter (intake air)

ISO ePM1 60% (F7). Unit = 1 pc.

ELF-KWL YOGA 1000/ePM1 60%
Ref. no. 40076

Important note

Further information on accessories can be found on page 28.

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 – 32mm / 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

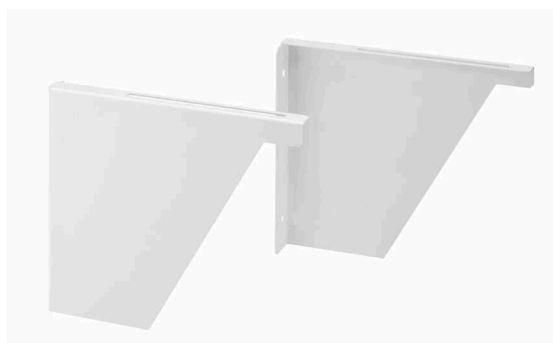
KWL-KP



■ Condensate pump

Technical data	KWL-KP Ref. no. 40066
Maximum pumping capacity	35 l/h at 0 m discharge head
Maximum recommended discharge head	15 m
Maximum suction head	2 m (self-priming)
Noise level	35 dB(A) at 1 m
Supply voltage	230 V, 0.1 A, 16 W, 50/60 Hz
Maximum water temperature	40 °C
Pressure line (inside)	6 mm
Protection category	IP21
Safety switch	Break contact 3.0 A
Weight approx. kg	0.45

KWL Yoga-WH



■ Wall bracket

Console set for combined wall-ceiling installation of KWL Yoga units. Set consists of 2 pcs. Material: steel sheet, powder-coated. Colour: white, RAL 9016.

KWL YOGA-WH Ref. no. 40067

Hydraulic unit

Controls the flow 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) No. 08318

WHSH HE 24 V (0-10V)



Room sensor

For measuring the CO₂, mixed gas (VOC) concentration or relative humidity according to set value. 0-10 V output.

Max. 1 pc. can be connected, control according to highest measured value.

Incl. control line KWL-SL 4/3

(3 m long), other lengths

(SL 4/..) see Accessories.

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

CO₂ sensor for measuring the CO₂ concentration.

KWL-CO₂ Ref. no. 04272

Humidity-temperature sensor for measuring the relative air humidity.

KWL-FTF Ref. no. 04273

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

KWL-VOC Ref. no. 04274

KWL-CO₂, KWL-FTF and KWL-VOC



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	IP 30
Electrical connection	0.14 – 1.5 mm ² (screw terminals)
Dimensions in mm (W x H x D)	85 x 85 x 27

BWM



Filter

Spare air filter (extract air)

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

ELF-KWL YOGA 400/Coarse 60%
Ref. no. 40068

ELF-KWL YOGA 700/Coarse 60%
Ref. no. 40069

ELF-KWL YOGA 1000/Coarse 60%
Ref. no. 40070

Spare air filter (extract air)

ISO ePM 10 60% (M5). Unit = 1 pc.

ELF-KWL YOGA 400/ePM 10 60%
Ref. no. 40071

ELF-KWL YOGA 700/ePM 10 60%
Ref. no. 40072

ELF-KWL YOGA 1000/ePM 10 60%
Ref. no. 40073

Spare air filter (intake air)

ISO ePM1 60% (F7). Unit = 1 pc.

ELF-KWL YOGA 400/ePM1 60%
Ref. no. 40074

ELF-KWL YOGA 700/ePM1 60%
Ref. no. 40075

ELF-KWL YOGA 1000/ePM1 60%
Ref. no. 40076

Note: Note: 2 extract air filters are required per unit.

ELF-KWL YOGA



Intake air filter

Extract air filter



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