Compliance with hygienic requirements (used materials / accessibility / cleanability) acc. to:
- VDI 6022-1
- VDI 3803-1
- DIN EN 13053

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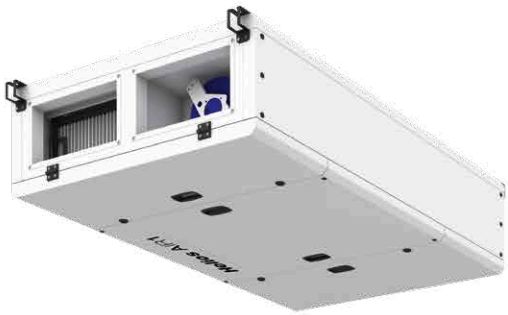
AHU N°22.06.003
Range AIR1
www.eurovent-certification.com

Helios AIR1® Catalogue 3.4

Helios AIR1®

Big solutions. From Helios.



Helios

A complete system full of great solutions for your applications.

PLAY

Learn about the many possibilities offered by Helios AIR1 on our YouTube channel.

Applications.

Configuration.

Product series.

System.

The solution, when you plan Big: **Helios AIR1®.**

Work

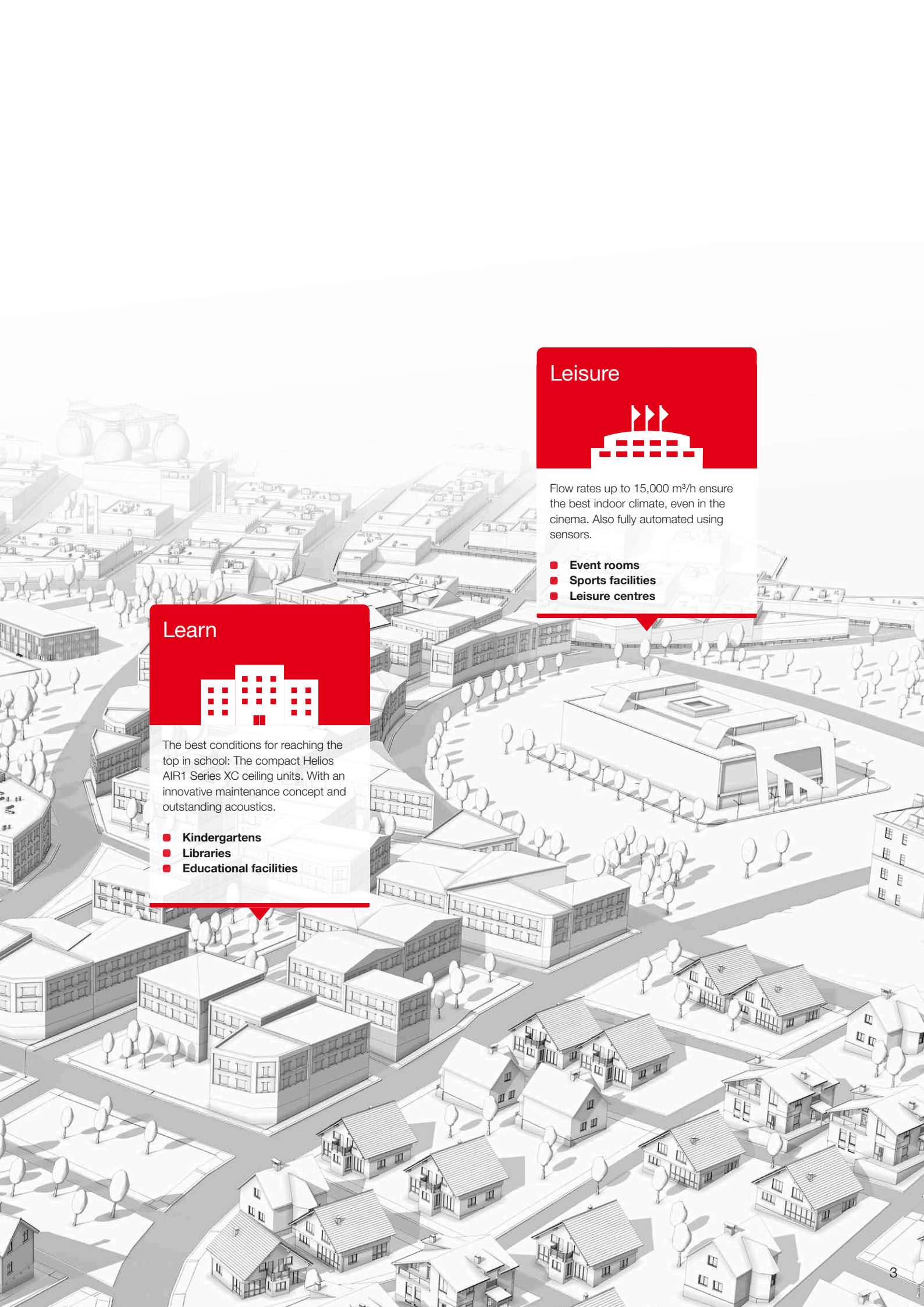
More flexibility in working life: Whether inside or outside – Helios AIR1 ventilation units are suitable for almost all installation sites. They can also be perfectly integrated in central building control systems thanks to modern interfaces.

- **Public buildings**
- **Office, commercial and retail premises**
- **Industrial buildings**

Live

Clever, central building ventilation system with heat recovery. Together with the KWL MultiZoneBox, Helios AIR1 is the energy-efficient and convenient top solution for apartment building construction.

- **Hotels**
- **Residential buildings**
- **Social facilities**



Leisure

Flow rates up to 15,000 m³/h ensure the best indoor climate, even in the cinema. Also fully automated using sensors.

- **Event rooms**
- **Sports facilities**
- **Leisure centres**

Learn

The best conditions for reaching the top in school: The compact Helios AIR1 Series XC ceiling units. With an innovative maintenance concept and outstanding acoustics.

- **Kindergartens**
- **Libraries**
- **Educational facilities**

Work

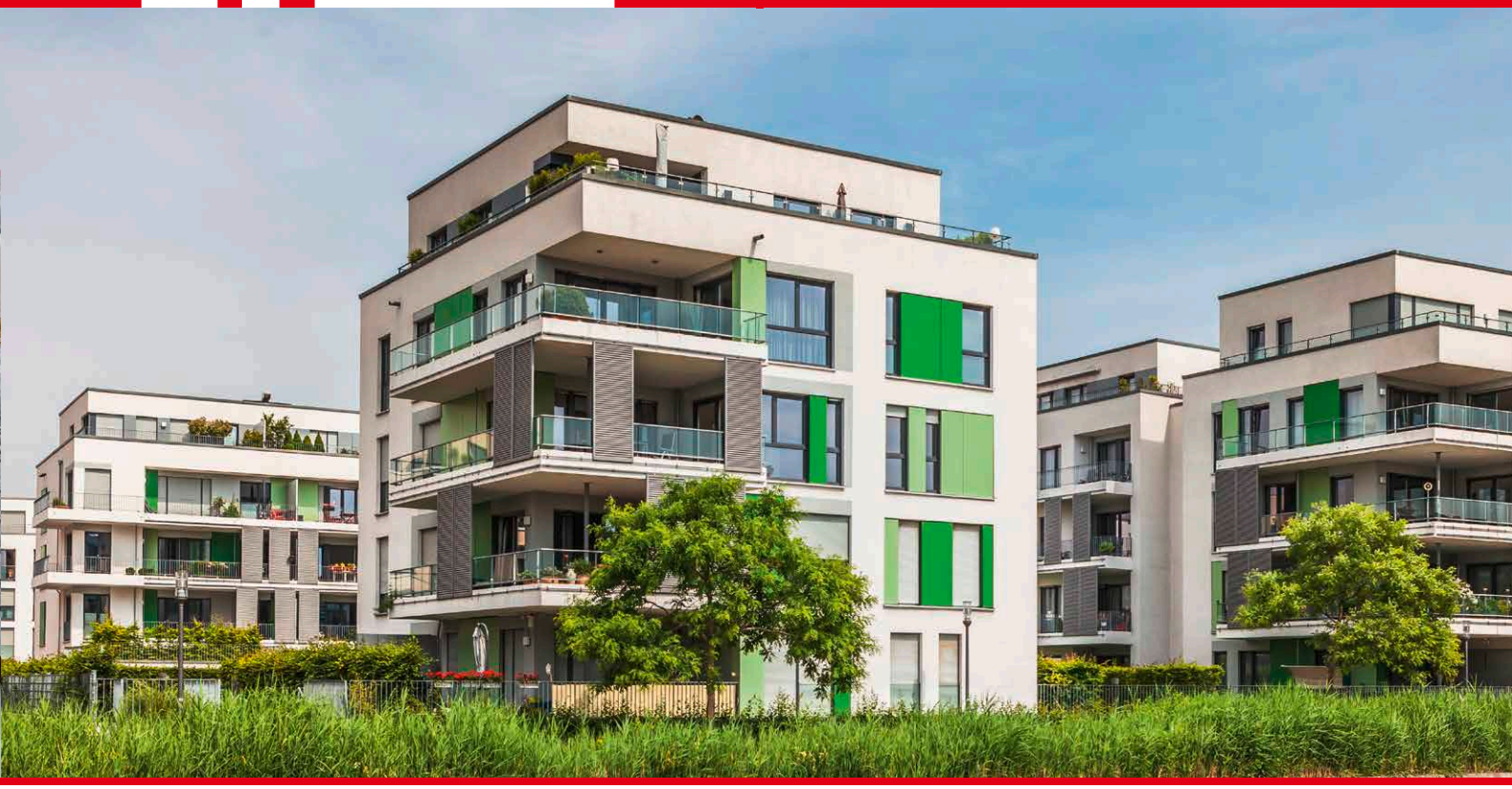
- **Offices, commercial and retail premises**
- **Public buildings**
- **Industrial buildings**

The “work” application area often brings various challenges for ventilation technology. The connection to common central building control system standards provides the necessary overview. With BACnet and ModBus, Helios AIR1 offers two widely used interfaces for integrating the ventilation systems into the building automation.

- **Residential buildings**
- **Hotels**
- **Social facilities**

Besides high indoor air quality, individuality is particularly in demand in residential complexes and apartment buildings. Helios AIR1 offers a perfectly coordinated system solution as a central ventilation unit: Individual air volume control per residential unit is ensured in combination with the KWL MultiZoneBox.

Live



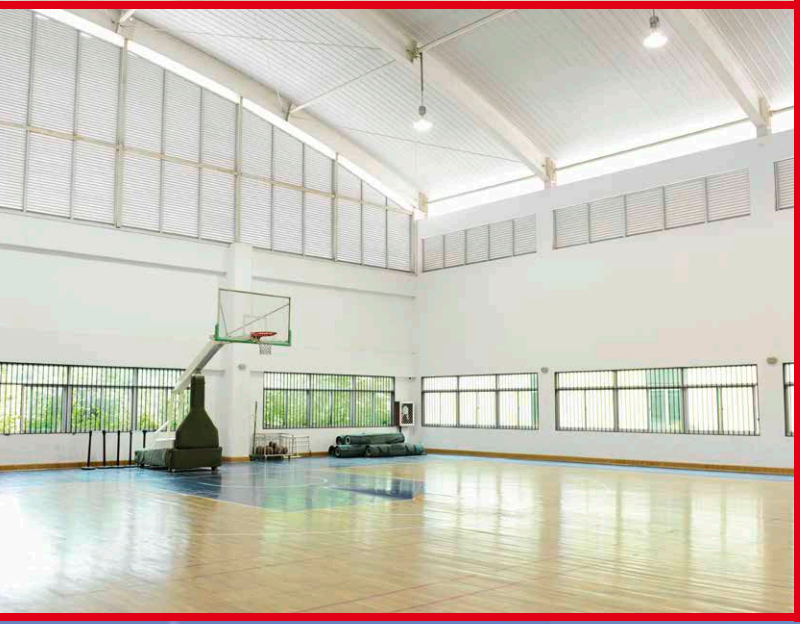
Learn

- **Schools and kindergartens**
- **Libraries**
- **Educational facilities**

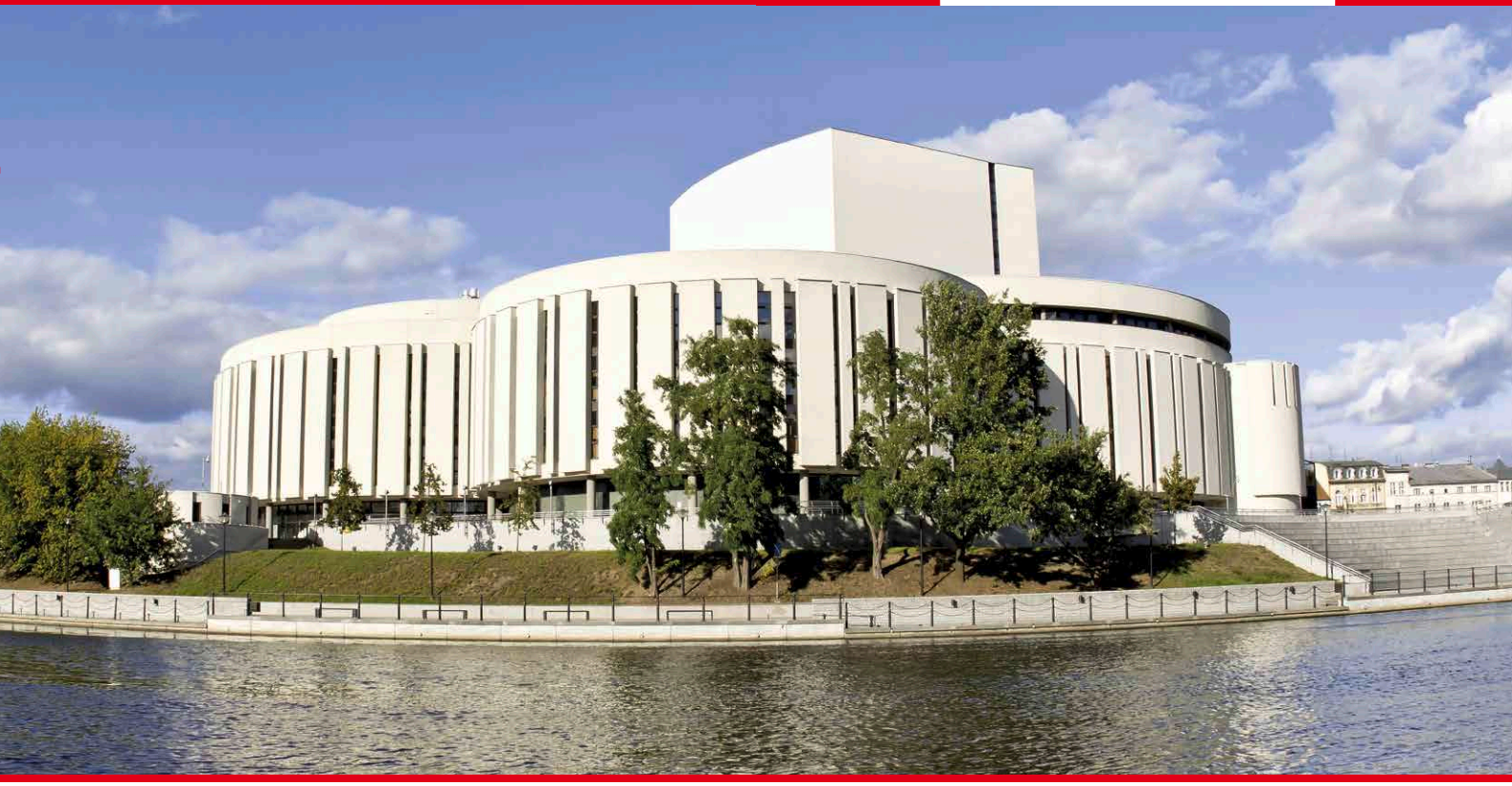
Whether it is pollen, fine dust or street noise – the reduction of harmful environmental factors is essential for a healthy indoor climate. Helios AIR1 units create ideal indoor conditions thanks to the numerous room air quality sensors, multi-stage filter concept and low-noise operation.

- **Meeting rooms**
- **Sports facilities**
- **Leisure centres**

A wellness experience with all senses: This also includes fresh and appropriately conditioned room air. Helios AIR1 always offers the right solution with wide-ranging accessory components for heating and cooling the room air. Even moisture recovery is possible thanks to rotary heat exchangers



Leisure



4

series

> 30

types

>100

configurations

Helios was
awarded:

IIf you have big plans, you will find exactly the right solution for energy-efficient ventilation with heat recovery at Helios. Our Helios AIR1 compact ventilation units offer different technical variants with **4 unit series**: For ceiling or free-standing installation, with highly efficient cross-counterflow or rotary heat exchangers, as well as for use indoors or outside.

More than **30 models in a flow rate range up to 15,000 m³/h** guarantee a suitable selection for virtually all areas of application and performance classes in the areas of living, leisure, working and learning.

The wide range of accessories with various heating and cooling options, multiple air quality sensors and a multi-level filter concept includes more than **100 configuration options.**

AIR1Select, the intuitive online software, provides the necessary overview for the simple and quick selection of your individual ventilation solution.

Helios AIR1 offers the following:

- Fast delivery of all types
- Flexible and simple installation
- Immediately ready for use due to integrated controls
- Eurovent-certified components

Online configuration **as simple as surfing the Internet.**

With Helios AIR1, you can choose the perfect solution for your application from more than 100 configuration options. In order to assist you with the selection, we have developed AIR1Select – an online configuration tool specifically for Helios AIR1 ventilation units.

AIR1Select allows the configuration of your ventilation unit with a few, self-explanatory inputs. You can save, export and retrieve your results at any time.

Simply run AIR1Select in your internet browser at:
www.AIR1Select.com

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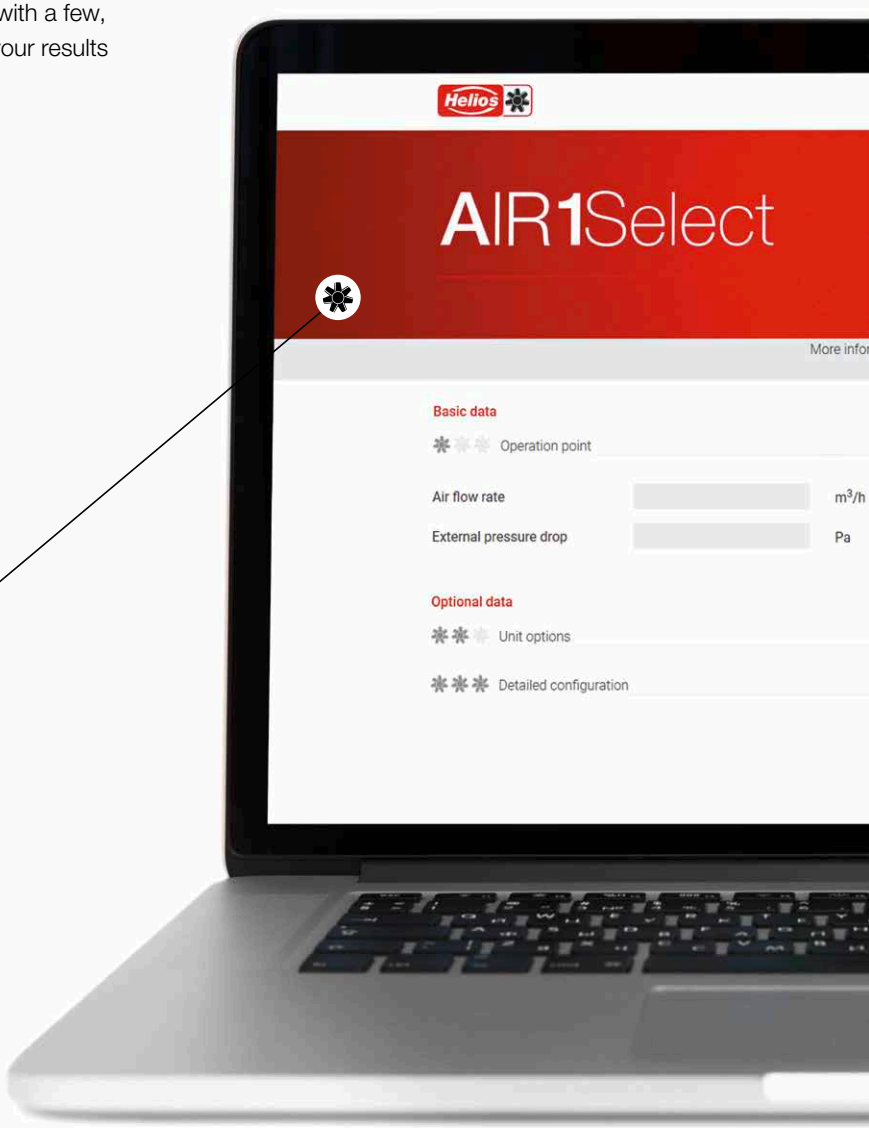


Simply precise!
Professional software has never been this uncomplicated:

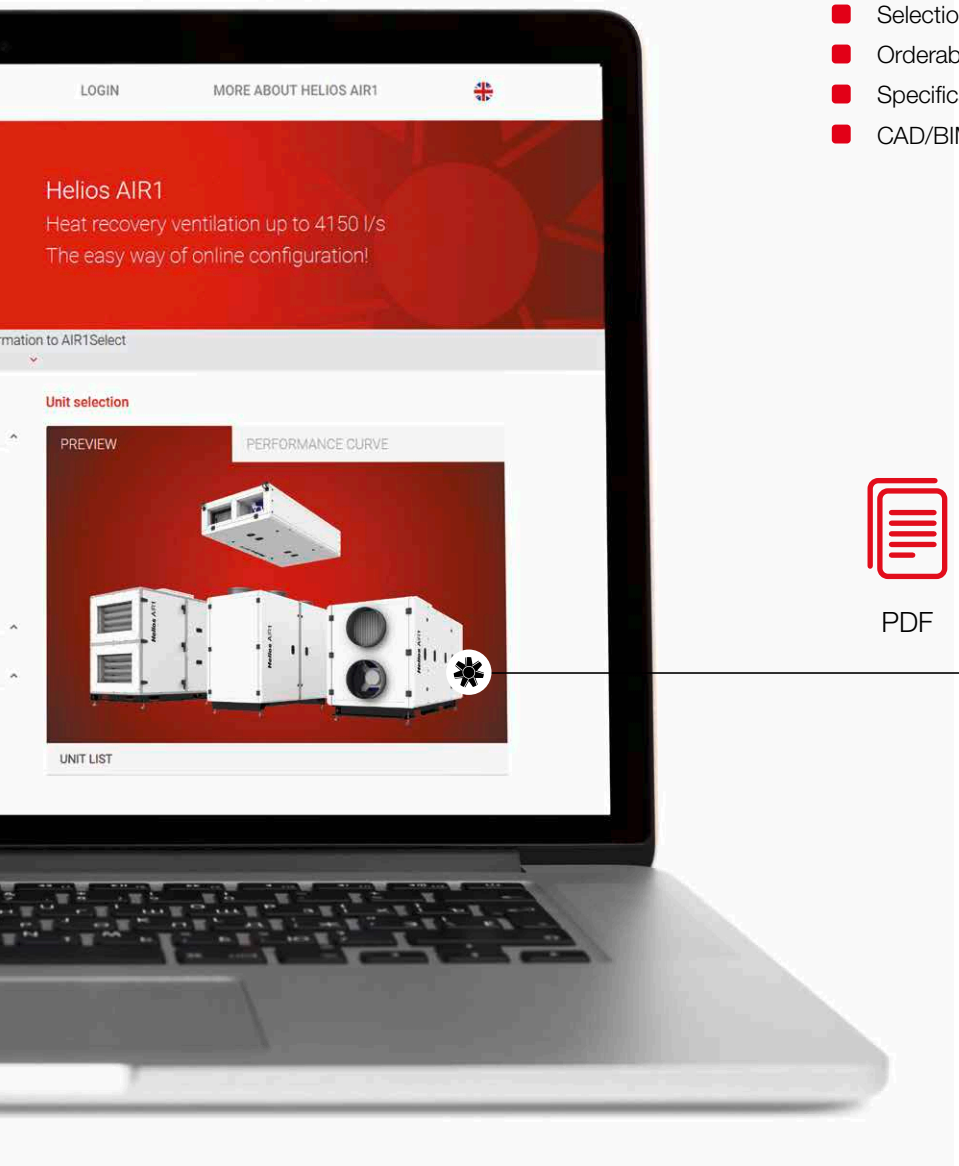
- Intuitive and modern user interface.
- From the Cloud: Always up to date and available everywhere.
- Runs in browser: Optimised for PC, laptop and tablet.
- Advanced user management including team functions.

Make it count!

Just a few inputs and your calculation results will appear clearly arranged on the screen. All project-specific results can be saved, printed and exported in various data formats. AIR1Select also assists you with the quick and secure selection of optional accessory components.

AIR1Select offers the following:

- Detailed calculation results and diagrams
- Selection of accessory components.
- Orderable material lists.
- Specification texts in Word format.
- CAD/BIM data for direct import into your system.



PDF BIM LV

The fastest way to a customised ventilation unit.

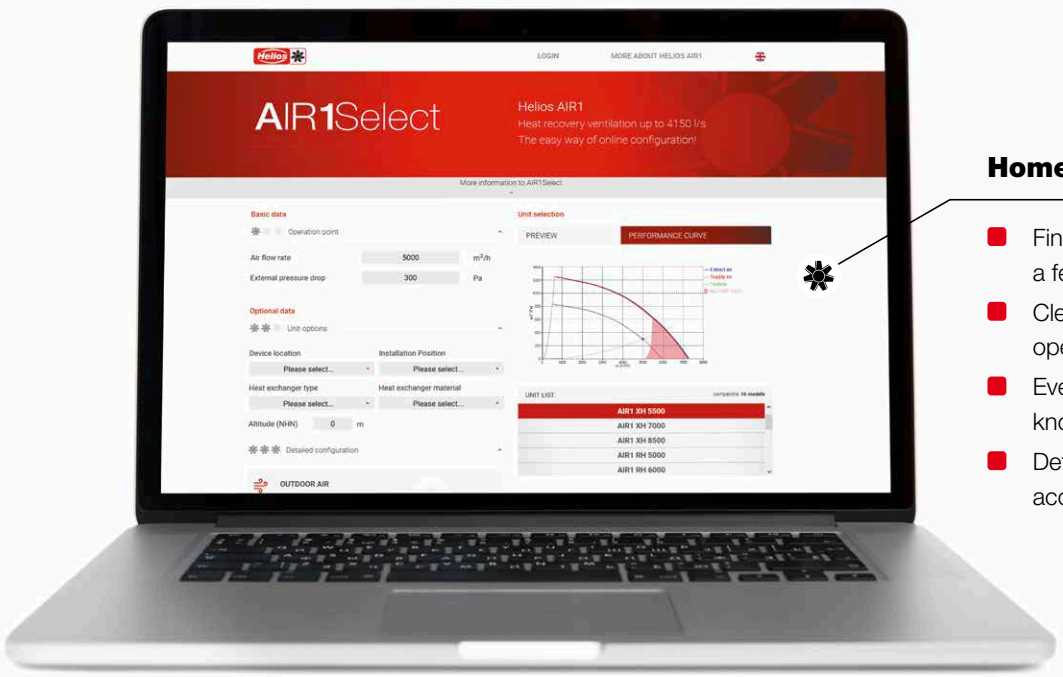
Very little basic data is required to configure your Helios AIR1 ventilation unit.
AIR1Select subsequently provides results including detailed calculation results at a glance – simple, secure and in record-setting speed.

Intuitive and high-performance

- Cloud-based online software – always up-to-date and available everywhere.
- Modern operating concept for perfect results in the shortest possible time.
- Comprehensive range of matching accessory components.

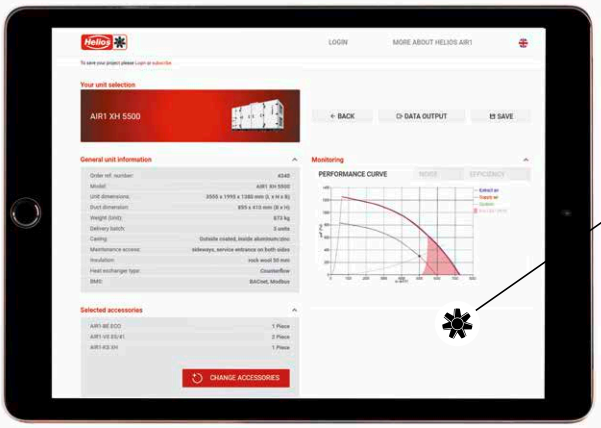
Everything from a single source

- Detailed calculation results and diagrams.
- Project-specific material lists, also with price information upon registration.
- Specification texts for your Helios AIR1 unit and the selected accessories.



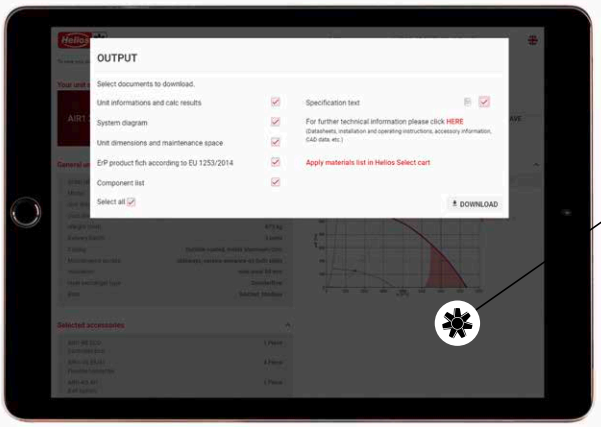
Homepage

- Find the right unit with just a few details.
- Clear design and intuitive operation.
- Everything you need to know is directly accessible.
- Detailed information can be accessed at any time.



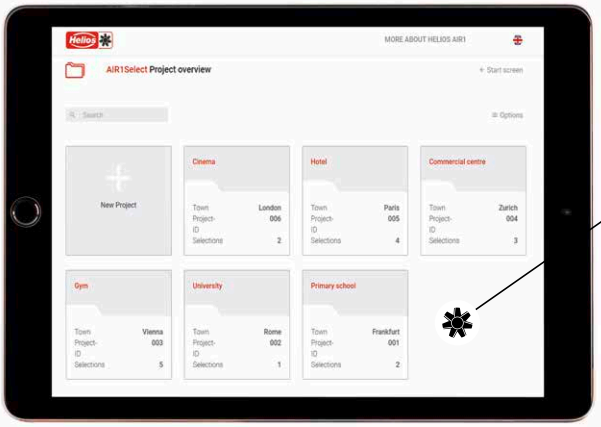
Results

- All data at a glance in compact form.
- Detailed calculation results for unit and accessories.
- Clear ventilation diagrams.
- Large amount of additional information, such as dimensional drawings, maintenance areas and ERP product data sheet.
- Individual material list.



Data output

- Free compilation of selected informations.
- Dynamic generation of content for units and accessories.
- Incl. ERP data sheet, material lists, and specification texts.
- CAD/ BIM data available to download.



Project management

- Overview of all projects.
- Keyword search for quick orientation.
- Collection of a wealth of project information.
- Store multiple designs per project.
- Team function, allows multiple editors.

The **ideal solution** for every area of application.

Type	Ref, no,	Page	Unit location	Installation position	Heat exchanger	Unit dimensions (L x H x W) mm	Max. air volume ERP m³/h / stat, pressure Pa (1)
XC series		37					
AIR1 XC 500 L / R	04330 / 40115	20	Inside	Ceiling	Cross-counter-flow	1578 x 383 x 1050	580 / 200
AIR1 XC 700 L / R	04331 / 40116	22				1628 x 385 x 1225	660 / 200
AIR1 XC 1000 L / R NEW	40736 / 40735	24				1628 x 385 x 1475	900 / 200
AIR1 XC 1400 L / R	04332 / 40117	26				1753 x 425 x 1525	1,420 / 250
AIR1 XC 2200 L / R	04333 / 40118	28				1978 x 508 x 1895	2,090 / 250
AIR1 XC 3200 L / R	04334 / 40119	30				2128 x 594 x 2145	2,720 / 250
XVP series		59					
AIR1 XVP 850 NEW	40612	46	Inside	Floor-standing	Cross-counter-flow	1400 x 1596 x 785	790 / 200
AIR1 XVP 1250 NEW	40613	48				1418 x 1723 x 755	1,200 / 250
AIR1 XVP 1800 NEW	40614	50				1825 x 1864 x 885	1,510 / 250
AIR1 XVP 2500 NEW	40615	52				2000 x 2004 x 926	2,400 / 250
AIR1 XVP 3500 NEW	40616	52				2200 x 2128 x 1122	3,200 / 250
XH/XHP-Serie		88					
AIR1 XHP 750 NEW	40608	66	Inside or outside	Floor-standing	Cross-counter-flow	1869 x 1128 x 805	780 / 200
AIR1 XHP 1000 NEW	40609	68				2007 x 1178 x 866	920 / 200
AIR1 XHP 1500 NEW	40610	70				2146 x 1343 x 881	1,375 / 250
AIR1 XHP 2500 NEW	40611	72				2657 x 1580 x 872	2,300 / 250
AIR1 XH 3500	04338	74				2970 x 1644 x 1017	3,150 / 250
AIR1 XH 4500	04339	76				3515 x 2065 x 1070	4,150 / 250
AIR1 XH 5500	04340	78				3555 x 2065 x 1280	5,400 / 400
AIR1 XH 7000	04341	80				3605 x 2065 x 1580	6,700 / 400
AIR1 XH 8500	04342	82				3655 x 2065 x 1930	8,300 / 400
RH-Serie		100					
AIR1 RH 1500	04343	104	Inside or outside	Floor-standing	Con-den-sation rotor	1700 x 1365 x 810	1,600 / 250
AIR1 RH 2000	04344	106				1700 x 1465 x 910	2,100 / 250
AIR1 RH 3000	04345	108				1700 x 1575 x 1020	3,000 / 250
AIR1 RH 5000	04346	110				1845 x 1845 x 1290	5,150 / 400
AIR1 RH 6000	04347	112				2015 x 1965 x 1410	6,100 / 400
AIR1 RH 8000	04348	114				2185 x 2215 x 1660	8,000 / 400
AIR1 RH 9500	04349	116				2315 x 2315 x 1760	9,700 / 400
AIR1 RH 12000	04350	118				2450 x 2465 x 1910	13,300 / 400
AIR1 RH 15000	04351	120				2535 x 2715 x 2160	15,000 / 400
AIR1 RH 1500/SO	04352	104	Inside or outside	Floor-standing	Adsorp-tion rotor	1700 x 1365 x 810	1,520 / 250
AIR1 RH 2000/SO	04353	106				1700 x 1465 x 910	2,020 / 250
AIR1 RH 3000/SO	04354	108				1700 x 1575 x 1020	2,770 / 250
AIR1 RH 5000/SO	04355	110				1845 x 1845 x 1290	4,950 / 400
AIR1 RH 6000/SO	04356	112				2015 x 1965 x 1410	5,950 / 400
AIR1 RH 8000/SO	04357	114				2185 x 2215 x 1660	7,650 / 400
AIR1 RH 9500/SO	04358	116				2315 x 2315 x 1760	9,400 / 400
AIR1 RH 12000/SO	04359	118				2450 x 2465 x 1910	12,800 / 400
AIR1 RH 15000/SO	04360	120				2535 x 2715 x 2160	14,700 / 400

(1) The information contains guideline values. Detailled information can be found at www.AIR1Select.com

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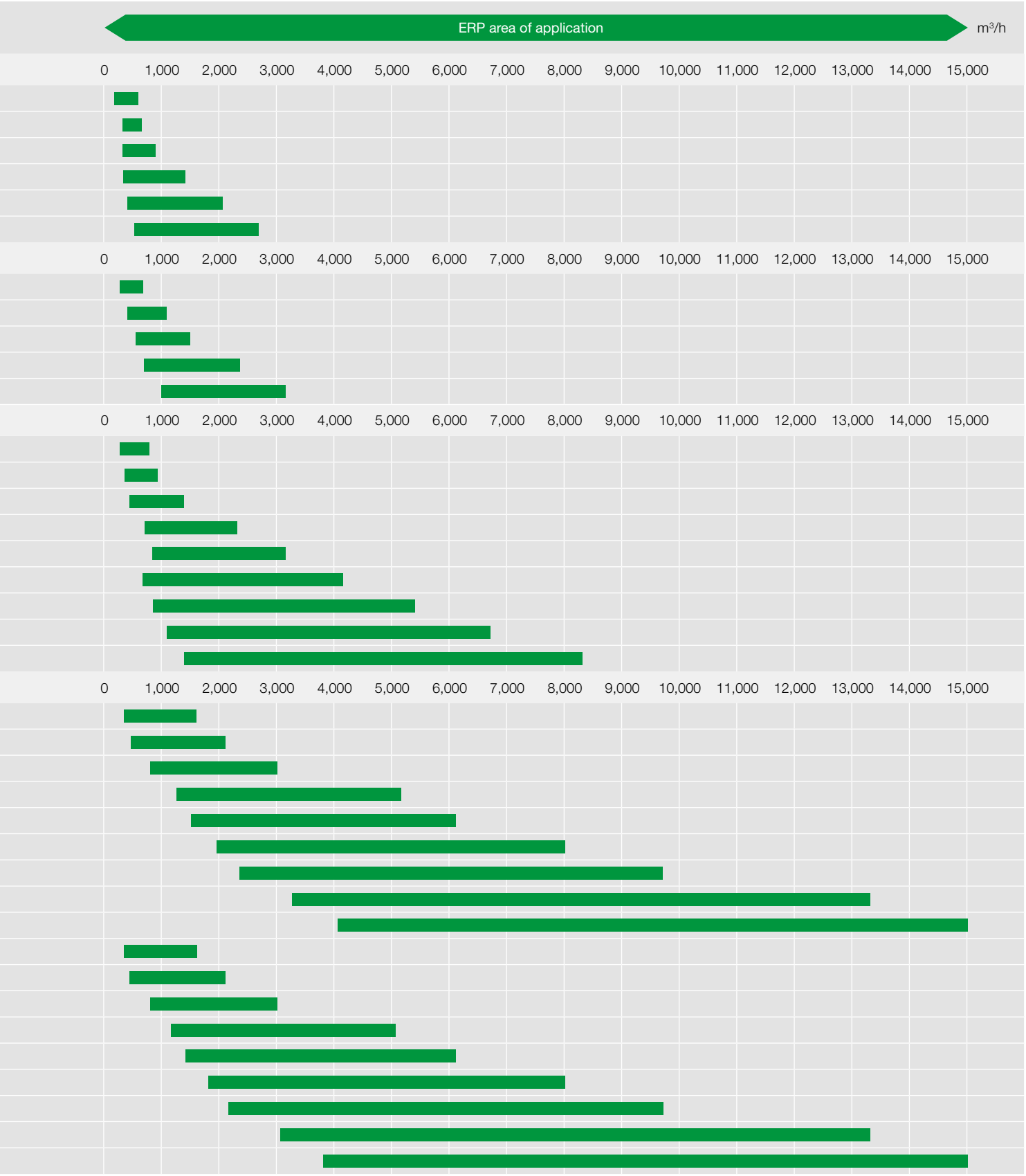


The Helios AIR1® XC series:
12 units up to 3,200 m³/h.

6 unit types
in two versions each[1]:

- **AIR1 XC 500 L / AIR1 XC 500 R**
- **AIR1 XC 700 L / AIR1 XC 700 R**
- **AIR1 XC 1000 L / AIR1 XC 1000 R**
- **AIR1 XC 1400 L / AIR1 XC 1400 R**
- **AIR1 XC 2200 L / AIR1 XC 2200 R**
- **AIR1 XC 3200 L / AIR1 XC 3200 R**

[1] L = outside-/exhaust air left
R = outside-/exhaust air right

During the development of the Helios AIR1 XC series, the focus was already on the installation situation in suspended system ceilings. The result is a **new generation of ceiling ventilation units** with an intelligent maintenance solution and extremely compact unit dimensions.

Even if space is limited, an electric or warm water auxiliary heater battery can be easily integrated into the unit. The external cooling module can be directly mounted to the supply air inlets of the unit and thus also guarantees installation in confined spaces.

Helios AIR1®

series XC

Pre-heater as standard equipment for optimal year-round operation

Compact and flat construction fits everywhere

Flexible filter maintenance on the side and below

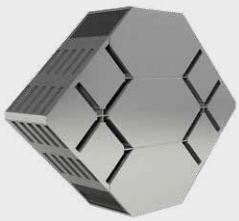
Integrable auxiliary heater register can be retrofitted at any time

Condensate tray on exhaust air and supply air side, also with condensate pump upon request

The XC series in detail.

1

2



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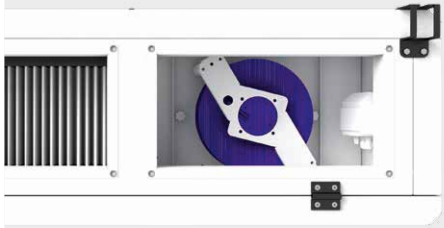

1 Casing

Compact casing in panel construction made of Aluzinc sheet steel, insulated on all sides with 50 mm mineral wool for optimal thermal and acoustic insulation. External corrosion-resistant coating on all sides of housing, RAL 7047, corrosion class C4, Aluzinc sheet steel inside. The smooth inner surface meets the hygiene requirements for optimal cleaning in consideration of the hygiene standard VDI 6022. Inspection openings on the on the underside of the unit for simple access to all unit components and optimal cleaning and maintenance. Additional inspection openings on the side for filter replacement. Stainless steel condensate tray on the exhaust air and supply air side. A corresponding condensate pump is optionally available for each unit size. The XC units are designed so that an electric or hot water auxiliary heater can be easily installed in the ventilation unit, even for retrofitting.

Housing and tightness classes according to DIN EN 1886	
Thermal insulation	T2
Thermal bridging factor	TB2
Mechanical stability	D2
Housing leakage in case of overpressure	L1
Housing leakage in case of underpressure	L1
Filter bypass leakage	F9

2 Heat exchanger

Eurovent-certified cross-counterflow plate heat exchanger made of aluminium with high thermal efficiency of up to 90 % in accordance with EN 308. The heat exchanger has high internal leak tightness and it is thus particularly suitable for applications with a risk of odour transmission. The heat exchanger module has an automatic bypass damper mechanism for summer night cooling as standard. An electrical pre-heater (standard equipment) heats the outside air at very low outside temperatures. Thus, it prevents the freezing of the heat exchanger and guarantees its safe functioning as well as optimal heat recovery for the entire heating period.

3 Fans

The vibration dampened fans are located in the unit and they consist of freewheeling, backward curved centrifugal impellers with direct drive via a variable EC motor with low energy consumption and very low noise level. The high performance plastic impeller is dynamically balanced in two levels. Variably controllable via 0 – 10 V signal. Plug-in connections to all electrical components for the simplification of maintenance work. Eurovent-certified EC-motors in class IE4 with very low SFP values and high energy efficiency.

Pipe routing

Installation-friendly connection of outside, exhaust, extract and supply air to a duct or pipe system. Adapters are optionally available as unit accessories for adaption to a round duct system.

4

5

6

7

CERTIFIED COMPONENT
Passive House Institute

TÜV SÜD
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- VDI 3803-1
- DIN EN 13053

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More info at:
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4 Control system

The ventilation unit is delivered ready for operation with a modern, all-round control system. The control system is attached to the side of the unit in a connection box for easy maintenance, factory-wired and function-tested. Two controllers are available for selection (required accessory).

Overview of control functions:

- ☐ Choice between ventilation modes Constant volume CAV, Constant pressure CAP (accessory required) or Constant speed CRPM in %.
- ☐ Multiple possible operating modes and levels.
- ☐ Automatic control via humidity or room air quality sensors (can connect up to three sensor types and maximum 18 sensors).
- ☐ Automatic operation via integrated weekly programme.
- ☐ Operating modes Free cooling (also night cooling/bypass function) and active cooling (using cooling register) possible.
- ☐ Commissioning assistant for simple, quick and faultless commissioning of the unit and matching accessories.
- ☐ Connection to the central building control system via BACnet or Modbus.
- ☐ Digital output for collective fault signal.

Further information on the Helios AIR1 control system can be found on p. 142.

5 Accessories

There are a number of accessory components available for the Helios AIR1 units. A detailed overview and the matching accessories for your Helios AIR1 unit can be found on the following product pages.

6 Air filters

Cassette filters with long service lives due to dynamic pressure monitoring. Simple filter replacement at the side or below through insert frame and quick clamp device.
Further information on the air filters and filter classes can be found on p. 39.

Overview of air filters Standard scope of delivery

	Type	Filter class
Extract air filter	ELF-AIR1 XC 500/ePM10 50%/96	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XC 700/ePM10 50%/96	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XC 1000/ePM10 50%/96	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XC 1400/ePM10 50%/96	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XC 2200/ePM10 50%/96	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XC 3200/ePM10 50%/96	ISO ePM_{10} 50% (M5)
Outside air filter	ELF-AIR1 XC 500/ePM1 55%/96	ISO ePM_{1} 55% (F7)
	ELF-AIR1 XC 700/ePM1 55%/96	ISO ePM_{1} 55% (F7)
	ELF-AIR1 XC 1000/ePM1 55%/96	ISO ePM_{1} 55% (F7)
	ELF-AIR1 XC 1400/ePM1 55%/96	ISO ePM_{1} 55% (F7)
	ELF-AIR1 XC 2200/ePM1 55%/96	ISO ePM_{1} 55% (F7)
	ELF-AIR1 XC 3200/ePM1 55%/96	ISO ePM_{1} 55% (F7)

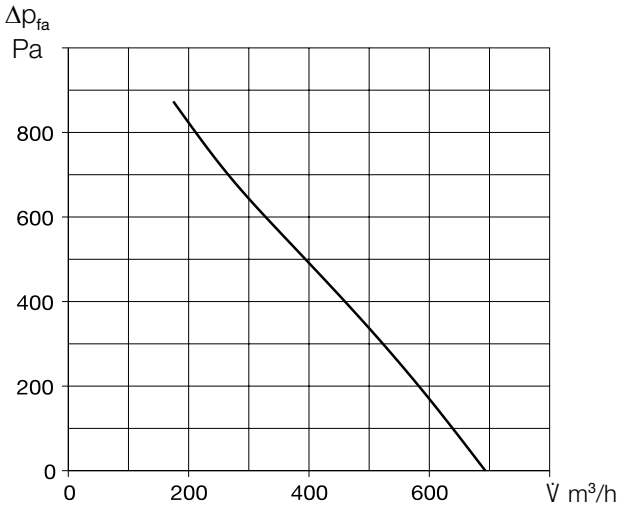
7 Certifications

The AIR1 XC series has the following certifications:

- ☐ VDI 6022 (Hygiene)-Certification
- ☐ Eurovent-Certification
- ☐ Passive house standard Certification

AIR1 XC 500

Performance curve AIR1 XC 500



Unit type

	AIR1 XC 500 L	AIR1 XC 500 R
Ref. no.	04330	40115
Heat exchanger	Cross-counterflow	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside
Installation position	Ceiling
Maintenance access	Side and underside
Min. air volume	170 m³/h
Max. air volume ERP	580 m³/h (1)
Max. air volume (free blowing)	690 m³/h
Weight, unit operational	130 kg
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	0 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	230 V 1N ~, 50 Hz
Max. output Fans	2 x 170 W
Max. output Elec. pre-heater	1,600 W
Nominal current	
– Ventilation unit	10.3 A (3)
– Electrical auxiliary heater	7 A (4)
– max. total	17.3 A
Connection (wiring diagram no.)	1312

(1) = at 200 Pa external pressure loss ERP-compliant
(2) = Other filter classes see optional accessories
(3) = includes electrical pre-heater
(4) = Optional accessory

Sound data

Sound power level L_{WA} dB(A) at 200 Pa external pressure

	200 m³/h	400 m³/h	580 m³/h
Supply air (L_{WA})	68	72	78
Extract air (L_{WA})	55	57	61
Outside air (L_{WA})	55	57	61
Exhaust air (L_{WA})	66	71	76

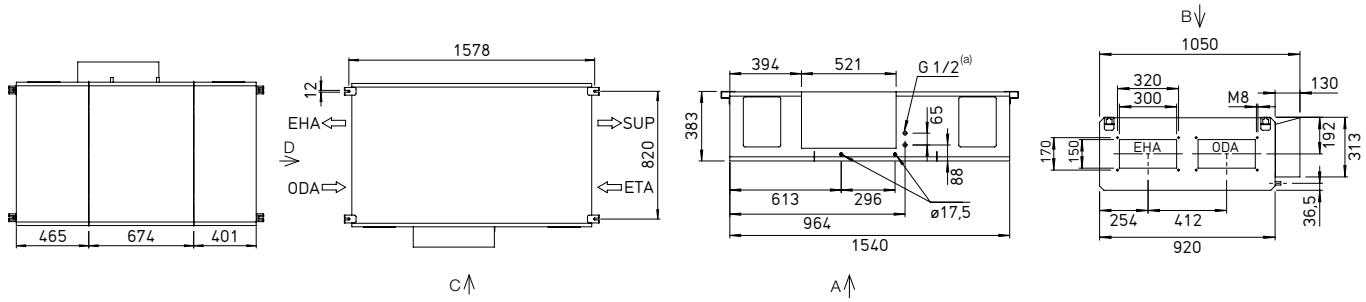
Sound pressure level L_{PA} dB(A) of sound radiated from housing

	200 m³/h	400 m³/h	580 m³/h
Housing rad. 1 m	35	37	42
Housing rad. 3 m	25	28	33
Housing rad. 5 m	21	23	28

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 XC 500 L

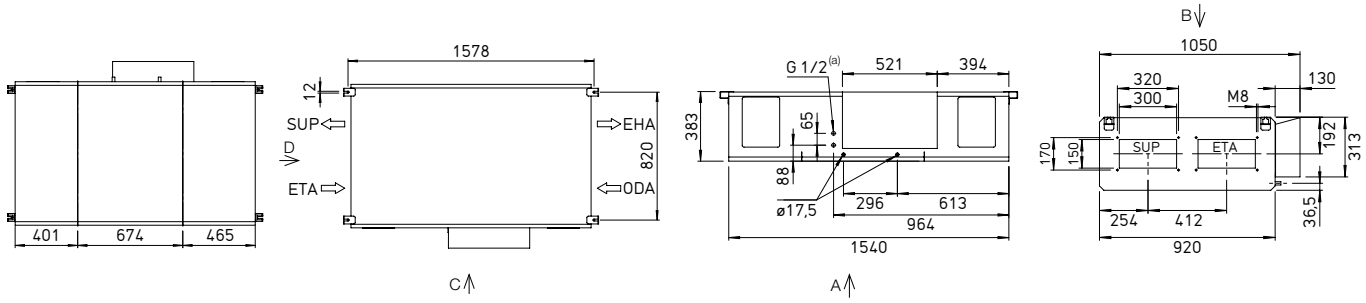
View A (from below) | View B (from above) | View C | View D



Dimensions in mm | (a) Internal thread | ODA: Outside air | EHA: Exhaust air | ETA: Extract air | SUP: Supply air

Dimensions AIR1 XC 500 R

View A (from below) | View B (from above) | View C | View D



Dimensions in mm | (a) Internal thread | ODA: Outside air | EHA: Exhaust air | ETA: Extract air | SUP: Supply air

Accessories

Heating and cooling registers		
Auxiliary heater		
AIR1-ENH XC 500 Electrical, internal	Ref. no. 03558	Page 32
AIR1-NH WW XC 500 L Hot water, internal	Ref. no. 02490	Page 32
AIR1-NH WW XC 500 R Hot water, internal	Ref. no. 40120	Page 32
Hydraulic unit for hot water heating register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 32
Cooling register		
AIR1-KR KW XC 500 L Cold water, external	Ref. no. 04185	Page 33
AIR1-KR KW XC 500 R Cold water, external	Ref. no. 40125	Page 33
AIR1-CO DX XC 500 L Change-over, external	Ref. no. 40364	Page 34
AIR1-CO DX XC 500 R Change-over, external	Ref. no. 40369	Page 34
AIR1-SM DX (1) Control module	Ref. no. 40408	Page 35

Air routing		
Multi-leaf dampers		
AIR1-JVK XC 500	Ref. no. 05421	Page 35
Flexible connector		
AIR1-VS 30/15	Ref. no. 07400	Page 36
Adapter square-round		
AIR1-ÜS XC 500	Ref. no. 04361	Page 36

(1) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

Condensate drainage		
Condensate pump		
AIR1-KP XC 500-1400	Ref. no. 06867	Page 37
Ball siphon		
AIR1-KS D for use with ceiling mounted units and cooling register	Ref. no. 07170	Page 37

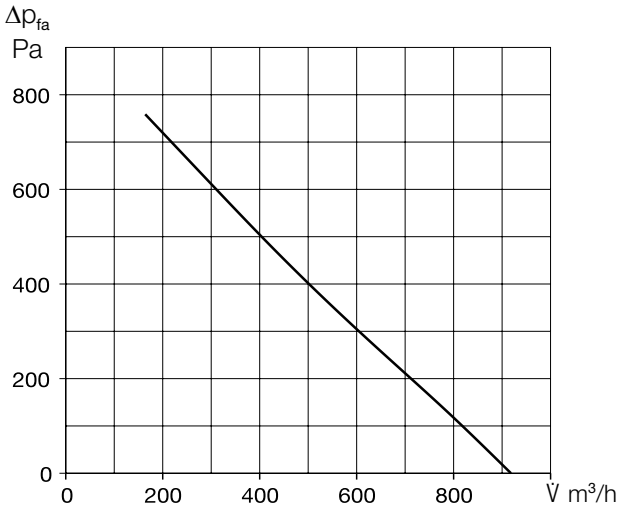
Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 37
AIR1-BE TOUCH	Ref. no. 06187	Page 38
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 38
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 38
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 38
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 38
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 38
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 38
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 39
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 38

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XC 500/ePM10 50%/96 (M5)	Ref. no. 02171	Page 39
ELF-AIR1 XC 500/ePM1 55%/96 (F7)	Ref. no. 02221	Page 39
ELF-AIR1 XC 500/ePM1 80%/96 (F9)	Ref. no. 02272	Page 39

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1 XC 700

Performance curve AIR1 XC 700



Unit type

	AIR1 XC 700 L	AIR1 XC 700 R
Ref. no.	04331	40116
Heat exchanger	Cross-counterflow	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside
Installation position	Ceiling
Maintenance access	Side and underside
Min. air volume	315 m³/h
Max. air volume ERP	660 m³/h (1)
Max. air volume (free blowing)	910 m³/h
Weight, unit operational	155 kg
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	0 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 170 W
Max. output Elec. pre-heater	2,300 W
Nominal current	
– Ventilation unit	6.4 / 3.4 / 3.7 A (3)
– Electrical auxiliary heater	3.3 / 3.3 / 3.3 A (4)
– max. total	9.7 / 6.7 / 7 A
Connection (wiring diagram no.)	1313

(1) = at 200 Pa external pressure loss ERP-compliant
(2) = Other filter classes see optional accessories
(3) = includes electrical pre-heater
(4) = Optional accessory

Sound data

Sound power level L_{WA} dB(A) at 200 Pa external pressure

	315 m³/h	500 m³/h	660 m³/h
Supply air (L_{WA})	68	69	71
Extract air (L_{WA})	57	56	57
Outside air (L_{WA})	57	56	57
Exhaust air (L_{WA})	67	67	69

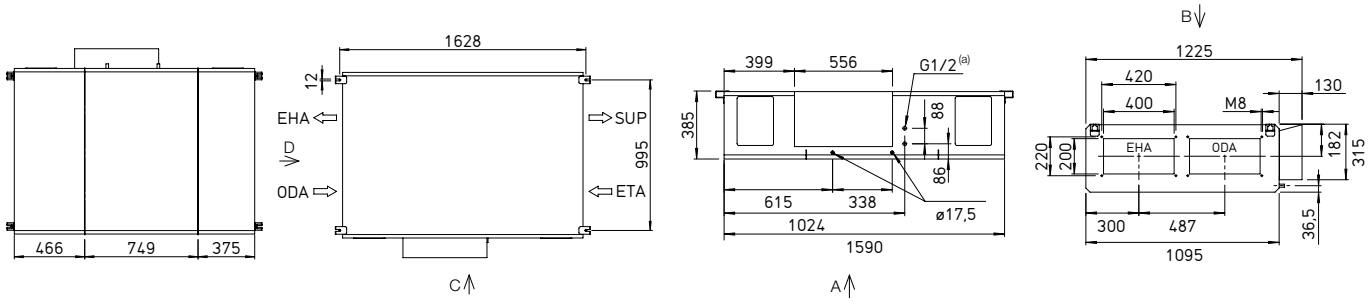
Sound pressure level L_{PA} dB(A) of sound radiated from housing

	315 m³/h	500 m³/h	660 m³/h
Housing rad. 1 m	36	36	37
Housing rad. 3 m	27	26	27
Housing rad. 5 m	22	22	23

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 XC 700 L

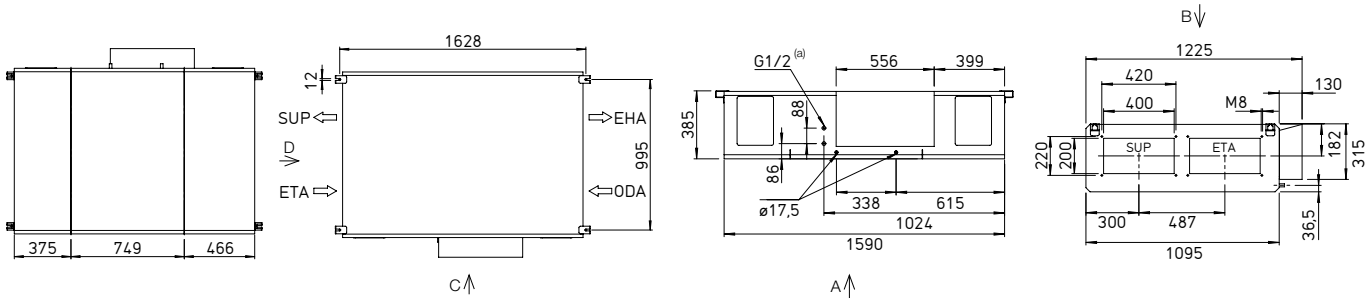
View A (from below) View B (from above) View C View D



Dimensions in mm (a) Internal thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Dimensions AIR1 XC 700 R

View A (from below) View B (from above) View C View D



Dimensions in mm (a) Internal thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Auxiliary heater		
AIR1-ENH XC 700 Electrical, internal	Ref. no. 03559	Page 32
AIR1-NH WW XC 700 L Hot water, internal	Ref. no. 03659	Page 32
AIR1-NH WW XC 700 R Hot water, internal	Ref. no. 40121	Page 32
Hydraulic unit for hot water heating register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 32
Cooling register		
AIR1-KR KW XC 700 L Cold water, external	Ref. no. 04186	Page 33
AIR1-KR KW XC 700 R Cold water, external	Ref. no. 40126	Page 33
AIR1-CO DX XC 700 L Change-over, external	Ref. no. 40365	Page 34
AIR1-CO DX XC 700 R Change-over, external	Ref. no. 40370	Page 34
AIR1-SM DX (1) Control module	Ref. no. 40408	Page 35

Air routing		
Multi-leaf dampers		
AIR1-JVK XC 700	Ref. no. 05841	Page 35
Flexible connector		
AIR1-VS 40/20	Ref. no. 07403	Page 36
Adapter square-round		
AIR1-ÜS XC 700	Ref. no. 04362	Page 36

(1) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

Condensate drainage		
Condensate pump		
AIR1-KP XC 500-1400	Ref. no. 06867	Page 37
Ball siphon		
AIR1-KS D for use with ceiling mounted units and cooling register	Ref. no. 07170	Page 37

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 37
AIR1-BE TOUCH	Ref. no. 06187	Page 38
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 38
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 38
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 38
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 38
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 38
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 38
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 39
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 38

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XC 700/ePM10 50%/96 (M5)	Ref. no. 02172	Page 39
ELF-AIR1 XC 700/ePM1 55%/96 (F7)	Ref. no. 02223	Page 39
ELF-AIR1 XC 700/ePM1 80%/96 (F9)	Ref. no. 02273	Page 39

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1 XC 1000

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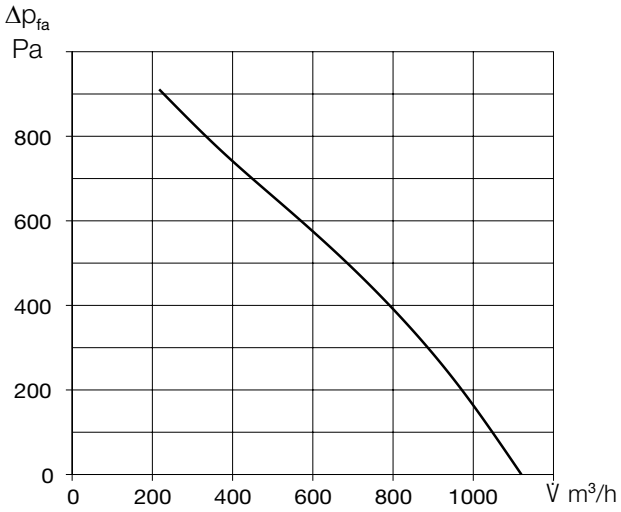
Performance curve AIR1 XC 1000



Unit type

	AIR1 XC 1000 L	AIR1 XC 1000 R
Ref. no.	40736	40735
Heat exchanger	Cross-counterflow	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside
Installation position	Ceiling
Maintenance access	Side and underside
Min. air volume	320 m³/h
Max. air volume ERP	900 m³/h (1)
Max. air volume (free blowing)	1,100 m³/h
Weight, unit operational	178 kg
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	0 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 200 W
Max. output Elec. pre-heater	3,600 W
Nominal current	
– Ventilation unit	7 / 7 / 5,5 A (3)
– Electrical auxiliary heater	5.2 / 5.2 / 5.2 A (4)
– max. total	12.2 / 12.2 / 10.7 A
Connection (wiring diagram no.)	1526

(1) = at 200 Pa external pressure loss ERP-compliant
(2) = Other filter classes see optional accessories
(3) = includes electrical pre-heater
(4) = Optional accessory

Sound data

Sound power level L_{WA} dB(A) at 200 Pa external pressure

	350 m³/h	650 m³/h	900 m³/h
Supply air (L_{WA})	68	69	77
Extract air (L_{WA})	57	56	62
Outside air (L_{WA})	57	56	62
Exhaust air (L_{WA})	67	67	75

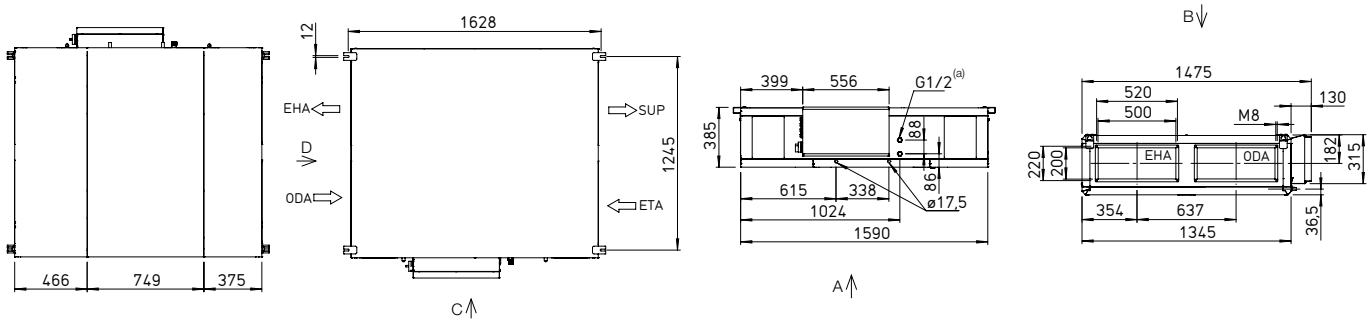
Sound pressure level L_{PA} dB(A) of sound radiated from housing

	350 m³/h	650 m³/h	900 m³/h
Housing rad. 1 m	36	36	44
Housing rad. 3 m	27	26	35
Housing rad. 5 m	22	22	30

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 XC 1000 L

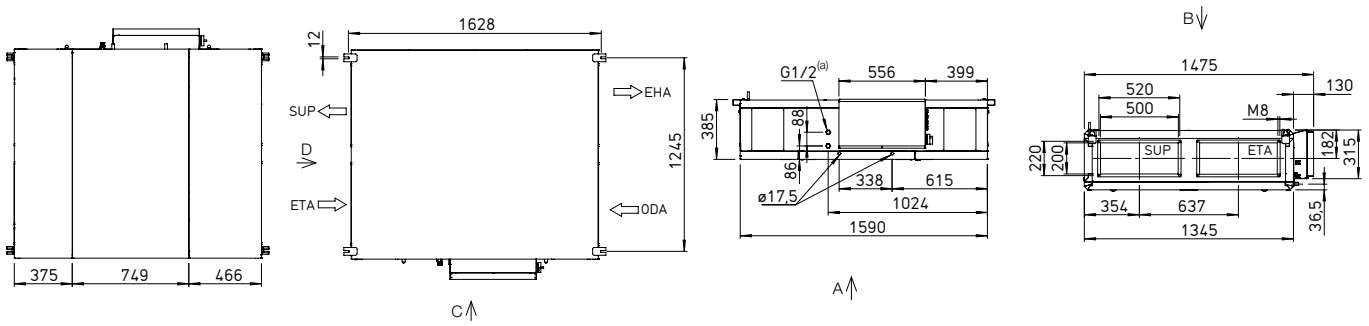
View A (from below) View B (from above) View C View D



Dimensions in mm (a) Internal thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Dimensions AIR1 XC 1000 R

View A (from below) View B (from above) View C View D



Dimensions in mm (a) Internal thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Auxiliary heater		
AIR1-ENH XC 1000 Electrical, internal	Ref. no. 40742	Page 32
AIR1-NH WW XC 1000 L Hot water, internal	Ref. no. 40743	Page 32
AIR1-NH WW XC 1000 R Hot water, internal	Ref. no. 40744	Page 32
Hydraulic unit for hot water heating register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 32
Cooling register		
AIR1-KR KW XC 1000 L Cold water, external	Ref. no. 40745	Page 33
AIR1-KR KW XC 1000 R Cold water, external	Ref. no. 40746	Page 33
AIR1-CO DX XC 1000 L Change-over, external	Ref. no. 40747	Page 34
AIR1-CO DX XC 1000 R Change-over, external	Ref. no. 40748	Page 34
AIR1-SM DX (1) Control module	Ref. no. 40408	Page 35

Air routing		
Multi-leaf dampers		
AIR1-JVK XC 1000	Ref. no. 40749	Page 35
Flexible connector		
AIR1-VS 50/20	Ref. no. 40740	Page 36
Adapter square-round		
AIR1-ÜS XC 1000	Ref. no. 40739	Page 36

(1) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

Condensate drainage		
Condensate pump		
AIR1-KP XC 500-1400	Ref. no. 06867	Page 37
Ball siphon		
AIR1-KS D for use with ceiling mounted units and cooling register	Ref. no. 07170	Page 37

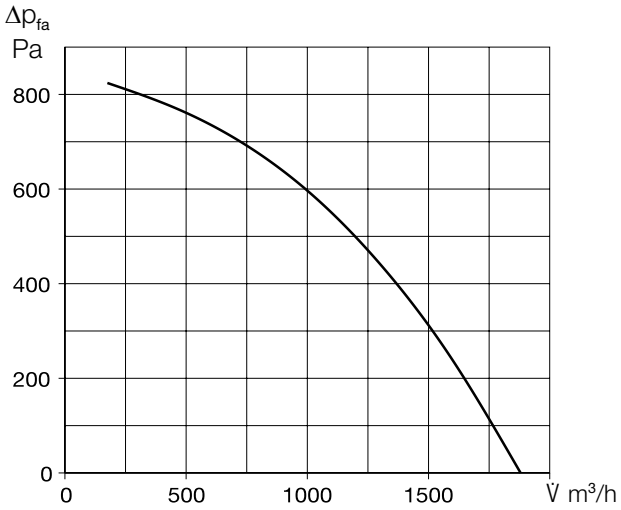
Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 37
AIR1-BE TOUCH	Ref. no. 06187	Page 38
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 38
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 38
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 38
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 38
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 38
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 38
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 39
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 38

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XC 1000/ePM10 50%/96 (M5)	Ref. no. 40737	Page 39
ELF-AIR1 XC 1000/ePM1 55%/96 (F7)	Ref. no. 40738	Page 39
ELF-AIR1 XC 1000/ePM1 80%/96 (F9)	Ref. no. 40750	Page 39

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1 XC 1400

Performance curve AIR1 XC 1400



Unit type

	AIR1 XC 1400 L	AIR1 XC 1400 R
Ref. no.	04332	40117
Heat exchanger	Cross-counterflow	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside
Installation position	Ceiling
Maintenance access	Side and underside
Min. air volume	330 m³/h
Max. air volume ERP	1,420 m³/h (1)
Max. air volume (free blowing)	1,850 m³/h
Weight, unit operational	200 kg
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	0 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 500 W
Max. output Elec. pre-heater	4,500 W
Nominal current	
– Ventilation unit	8.7 / 8.7 / 6.8 A (3)
– Electrical auxiliary heater	6.5 / 6.5 / 6.5 A (4)
– max. total	15.2 / 15.2 / 13.3 A
Connection (wiring diagram no.)	1314

(1) = at 200 Pa external pressure loss ERP-compliant
(2) = Other filter classes see optional accessories
(3) = includes electrical pre-heater
(4) = Optional accessory

Sound data

Sound power level L_{WA} dB(A) at 250 Pa external pressure

	400 m³/h	900 m³/h	1,420 m³/h
Supply air (L_{WA})	68	69	79
Extract air (L_{WA})	57	56	63
Outside air (L_{WA})	57	56	64
Exhaust air (L_{WA})	67	67	77

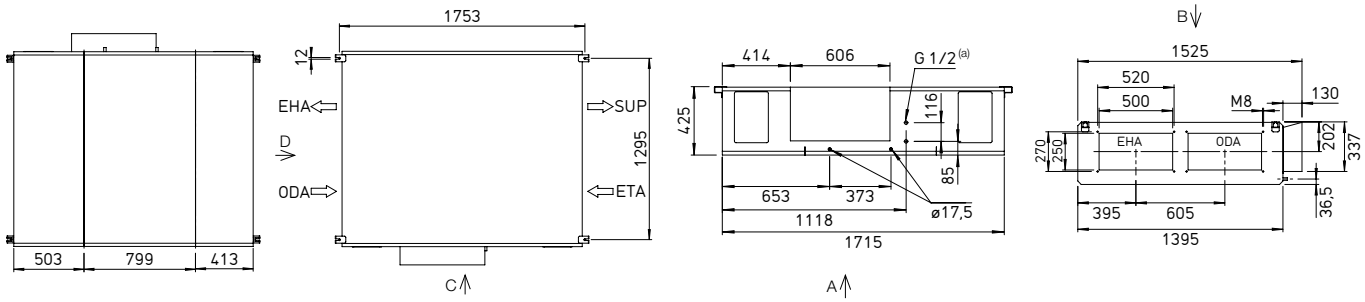
Sound pressure level L_{PA} dB(A) of sound radiated from housing

	400 m³/h	900 m³/h	1,420 m³/h
Housing rad. 1 m	36	36	45
Housing rad. 3 m	27	26	36
Housing rad. 5 m	22	22	31

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 XC 1400 L

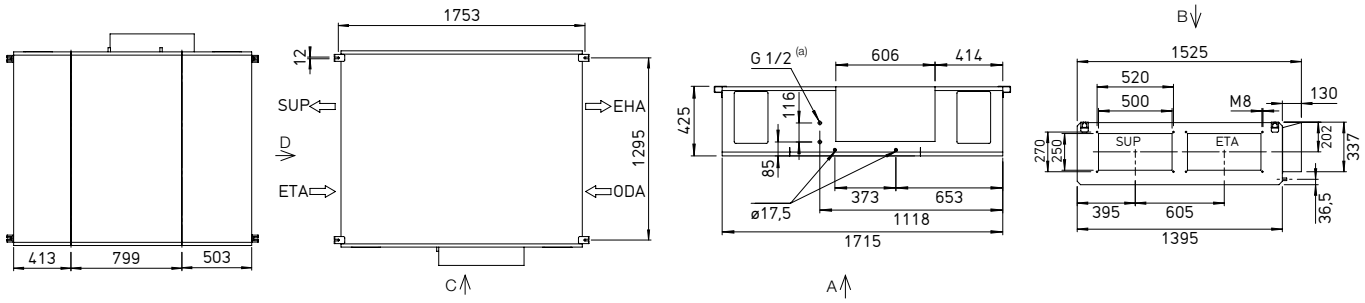
View A (from below) View B (from above) View C View D



Dimensions in mm (a) Internal thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Dimensions AIR1 XC 1400 R

View A (from below) View B (from above) View C View D



Dimensions in mm (a) Internal thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Auxiliary heater		
AIR1-ENH XC 1400 Electrical, internal	Ref. no. 03574	Page 32
AIR1-NH WW XC 1400 L Hot water, internal	Ref. no. 03661	Page 32
AIR1-NH WW XC 1400 R Hot water, internal	Ref. no. 40122	Page 32
Hydraulic unit for hot water heating register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 32
Cooling register		
AIR1-KR KW XC 1400 L Cold water, external	Ref. no. 04187	Page 33
AIR1-KR KW XC 1400 R Cold water, external	Ref. no. 40127	Page 33
AIR1-CO DX XC 1400 L Change-over, external	Ref. no. 40366	Page 34
AIR1-CO DX XC 1400 R Change-over, external	Ref. no. 40371	Page 34
AIR1-SM DX (1) Control module	Ref. no. 40408	Page 35

Air routing		
Multi-leaf dampers		
AIR1-JVK XC 1400	Ref. no. 05856	Page 35
Flexible connector		
AIR1-VS 50/25	Ref. no. 07404	Page 36
Adapter square-round		
AIR1-ÜS XC 1400	Ref. no. 04363	Page 36

(1) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

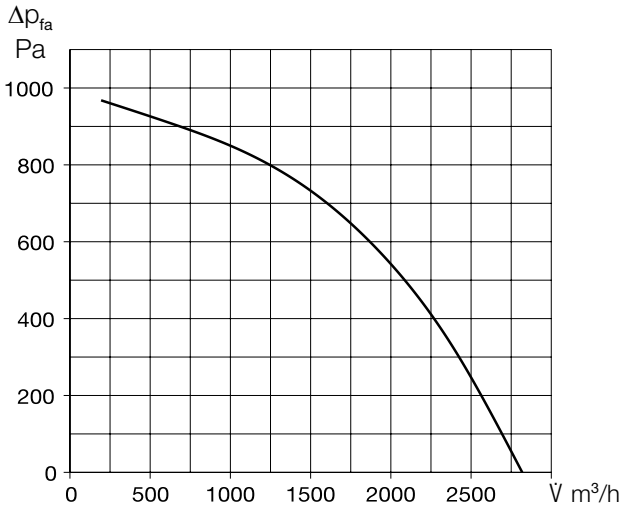
Condensate drainage		
Condensate pump		
AIR1-KP XC 500-1400	Ref. no. 06867	Page 37
Ball siphon		
AIR1-KS D for use with ceiling mounted units and cooling register	Ref. no. 07170	Page 37

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 37
AIR1-BE TOUCH	Ref. no. 06187	Page 38
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 38
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 38
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 38
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 38
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 38
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 38
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 39
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 38

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XC 1400/ePM10 50%/96 (M5)	Ref. no. 02173	Page 39
ELF-AIR1 XC 1400/ePM1 55%/96 (F7)	Ref. no. 02224	Page 39
ELF-AIR1 XC 1400/ePM1 80%/96 (F9)	Ref. no. 02274	Page 39
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.		

AIR1 XC 2200

Performance curve AIR1 XC 2200



Unit type

	AIR1 XC 2200 L	AIR1 XC 2200 R
Ref. no.	04333	40118
Heat exchanger	Cross-counterflow	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside
Installation position	Ceiling
Maintenance access	Side and underside
Min. air volume	410 m³/h
Max. air volume ERP	2,090 m³/h (1)
Max. air volume (free blowing)	2,800 m³/h
Weight, unit operational	285 kg
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	0 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 780 W
Max. output Elec. pre-heater	7,050 W
Nominal current	
– Ventilation unit	13.6 / 13.6 / 10.5 A (3)
– Electrical auxiliary heater	10.2 / 10.2 / 10.2 A (4)
– max. total	23.8 / 23.8 / 20.7 A
Connection (wiring diagram no.)	1315

(1) = at 200 Pa external pressure loss ERP-compliant
(2) = Other filter classes see optional accessories
(3) = includes electrical pre-heater
(4) = Optional accessory

Sound data

Sound power level L_{WA} dB(A) at 250 Pa external pressure

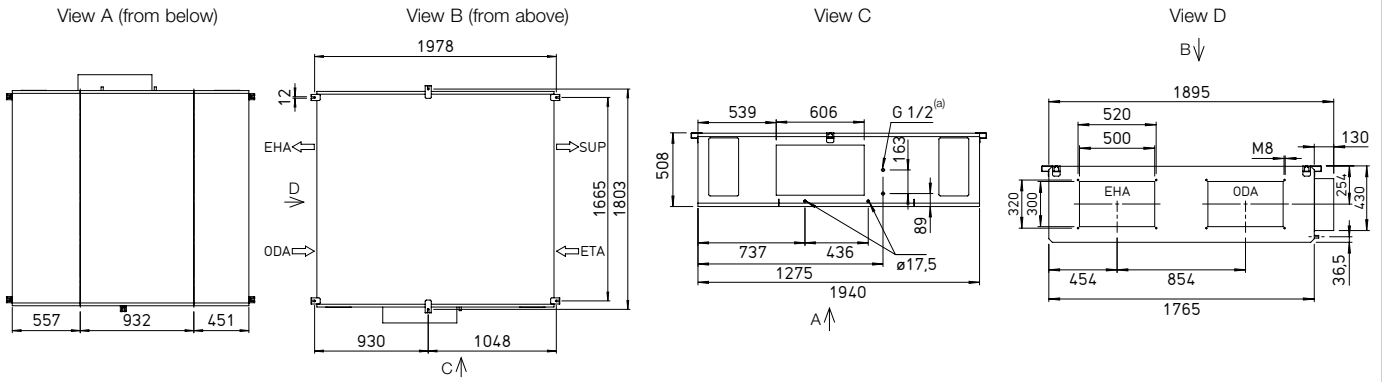
	700 m³/h	1,500 m³/h	2,090 m³/h
Supply air (L_{WA})	70	74	80
Extract air (L_{WA})	57	59	64
Outside air (L_{WA})	57	59	65
Exhaust air (L_{WA})	69	73	78

Sound pressure level L_{PA} dB(A) of sound radiated from housing

	700 m³/h	1,500 m³/h	2,090 m³/h
Housing rad. 1 m	40	41	46
Housing rad. 3 m	30	31	36
Housing rad. 5 m	26	27	32

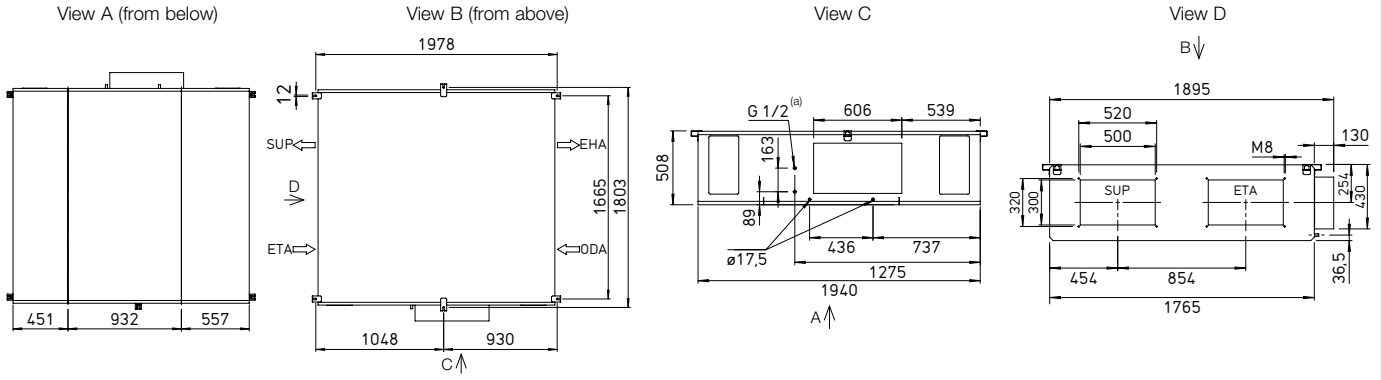
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 XC 2200 L



Dimensions in mm (a) Internal thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Dimensions AIR1 XC 2200 R



Dimensions in mm (a) Internal thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Auxiliary heater		
AIR1-ENH XC 2200 Electrical, internal	Ref. no. 03575	Page 32
AIR1-NH WW XC 2200 L Hot water, internal	Ref. no. 03662	Page 32
AIR1-NH WW XC 2200 R Hot water, internal	Ref. no. 40123	Page 32
Hydraulic unit for hot water heating register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 32
Cooling register		
AIR1-KR KW XC 2200 L Cold water, external	Ref. no. 04188	Page 33
AIR1-KR KW XC 2200 R Cold water, external	Ref. no. 40128	Page 33
AIR1-CO DX XC 2200 L Change-over, external	Ref. no. 40367	Page 34
AIR1-CO DX XC 2200 R Change-over, external	Ref. no. 40372	Page 34
AIR1-SM DX (1) Control module	Ref. no. 40408	Page 35

Air routing		
Multi-leaf dampers		
AIR1-JVK XC 2200/XVP 2500	Ref. no. 06000	Page 35
Flexible connector		
AIR1-VS 50/30	Ref. no. 07407	Page 36
Adapter square-round		
AIR1-ÜS XC 2200/XVP 2500	Ref. no. 04364	Page 36

(1) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

Condensate drainage		
Condensate pump		
AIR1-KP XC 2200-3200	Ref. no. 06868	Page 37
Ball siphon		
AIR1-KS D for use with ceiling mounted units and cooling register	Ref. no. 07170	Page 37

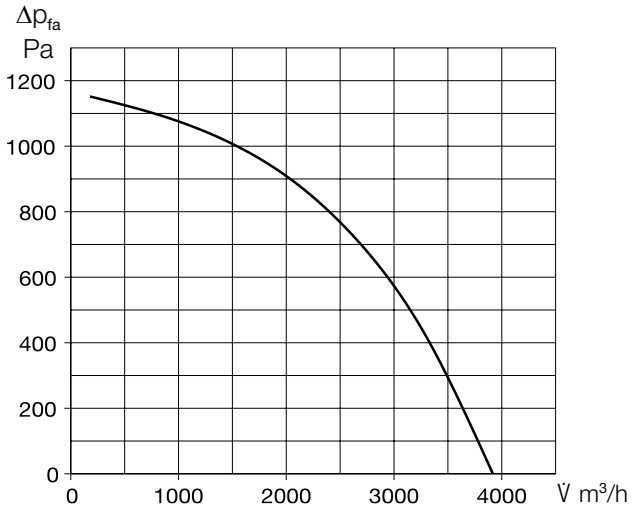
Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 37
AIR1-BE TOUCH	Ref. no. 06187	Page 38
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 38
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 38
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 38
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 38
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 38
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 38
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 39
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 38

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XC 2200/ePM10 50%/96 (M5)	Ref. no. 02174	Page 39
ELF-AIR1 XC 2200/ePM1 55%/96 (F7)	Ref. no. 02225	Page 39
ELF-AIR1 XC 2200/ePM1 80%/96 (F9)	Ref. no. 02285	Page 39

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1 XC 3200

Performance curve AIR1 XC 3200



Unit type

	AIR1 XC 3200 L	AIR1 XC 3200 R
Ref. no.	04334	40119
Heat exchanger	Cross-counterflow	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside
Installation position	Ceiling
Maintenance access	Side and underside
Min. air volume	520 m³/h
Max. air volume ERP	2,720 m³/h (1)
Max. air volume (free blowing)	3,850 m³/h
Weight, unit operational	370 kg
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	0 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 1,300 W
Max. output Elec. pre-heater	10,500 W
Nominal current	
– Ventilation unit	20.9 / 20.9 / 15.5 A (3)
– Electrical auxiliary heater	15.2 / 15.1 / 15.1 A (4)
– max. total	36.1 / 36 / 30.6 A
Connection (wiring diagram no.)	1316

(1) = at 200 Pa external pressure loss ERP-compliant
(2) = Other filter classes see optional accessories
(3) = includes electrical pre-heater
(4) = Optional accessory

Sound data

Sound power level L_{WA} dB(A) at 250 Pa external pressure

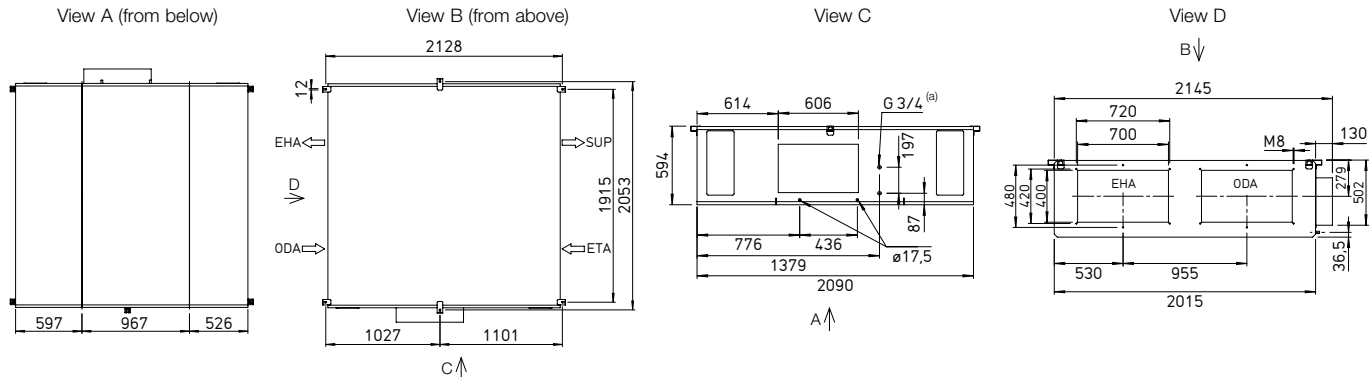
	1,000 m³/h	2,200 m³/h	2,720 m³/h
Supply air (L_{WA})	71	79	83
Extract air (L_{WA})	57	64	68
Outside air (L_{WA})	57	64	68
Exhaust air (L_{WA})	48	77	82

Sound pressure level L_{PA} dB(A) of sound radiated from housing

	1,000 m³/h	2,200 m³/h	2,720 m³/h
Housing rad. 1 m	40	46	50
Housing rad. 3 m	30	37	41
Housing rad. 5 m	26	32	36

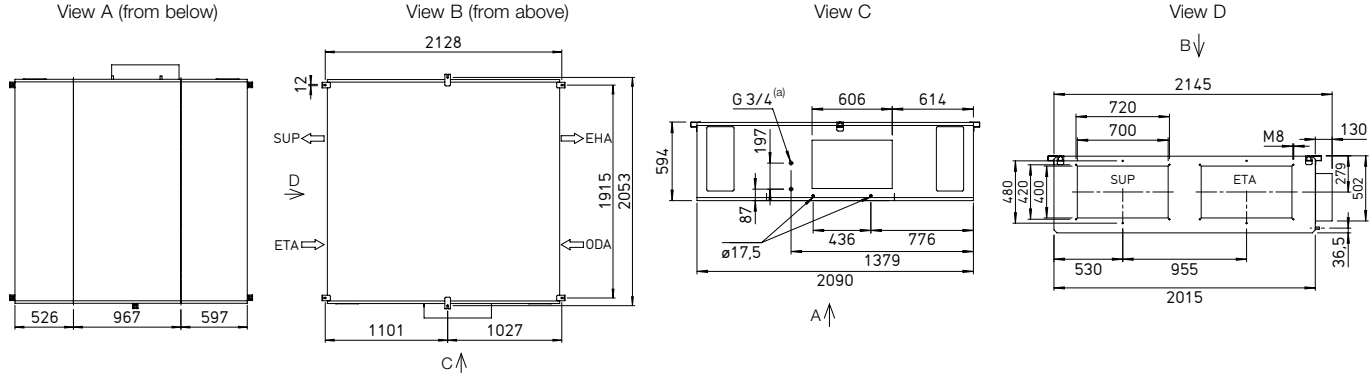
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 XC 3200 L



Dimensions in mm (a) Internal thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Dimensions AIR1 XC 3200 R



Dimensions in mm (a) Internal thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Auxiliary heater		
AIR1-ENH XC 3200 Electrical, internal	Ref. no. 02489	Page 32
AIR1-NH WW XC 3200 L Hot water, internal	Ref. no. 03663	Page 32
AIR1-NH WW XC 3200 R Hot water, internal	Ref. no. 40124	Page 32
Hydraulic unit for hot water heating register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 32
Cooling register		
AIR1-KR KW XC 3200 L Cold water, external	Ref. no. 04190	Page 33
AIR1-KR KW XC 3200 R Cold water, external	Ref. no. 40129	Page 33
AIR1-CO DX XC 3200 L Change-over, external	Ref. no. 40368	Page 34
AIR1-CO DX XC 3200 R Change-over, external	Ref. no. 40373	Page 34
AIR1-SM DX (1) Control module	Ref. no. 40408	Page 35

Air routing		
Multi-leaf dampers		
AIR1-JVK XC 3200/XVP 3500	Ref. no. 06003	Page 35
Flexible connector		
AIR1-VS 70/40	Ref. no. 07408	Page 36
Adapter square-round		
AIR1-ÜS XC 3200/XVP 3500	Ref. no. 04365	Page 36

(1) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

Condensate drainage		
Condensate pump		
AIR1-KP XC 2200-3200	Ref. no. 06868	Page 37
Ball siphon		
AIR1-KS D for use with ceiling mounted units and cooling register	Ref. no. 07170	Page 37

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 37
AIR1-BE TOUCH	Ref. no. 06187	Page 38
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 38
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 38
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 38
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 38
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 38
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 38
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 39
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 38

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XC 3200/ePM10 50%/96 (M5)	Ref. no. 02175	Page 39
ELF-AIR1 XC 3200/ePM1 55%/96 (F7)	Ref. no. 02226	Page 39
ELF-AIR1 XC 3200/ePM1 80%/96 (F9)	Ref. no. 02286	Page 39

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1-ENH XC

Electrical auxiliary heater internal

For installation in the ventilation unit. Provides demand-oriented temperature control of supply air. Mains power supply and connection to the ventilation unit control system through pre-wired plug contacts. Variable controls.

Detailed calculations / technical information: www.AIR1Select.com

Technical data

Type	Ref. no.	Heating capacity	Current consumption	Weight approx.
AIR1-ENH XC 500	03558	1.6 kW	7.0 A	1.1 kg
AIR1-ENH XC 700	03559	2.3 kW	3.3 A	1.9 kg
AIR1-ENH XC 1000	40742	3.6 kW	5.2 A	3.0 kg
AIR1-ENH XC 1400	03574	4.5 kW	6.5 A	3.0 kg
AIR1-ENH XC 2200	03575	7.1 kW	10.2 A	3.6 kg
AIR1-ENH XC 3200	02489	10.5 kW	15.2 A	6.7 kg

AIR1-NH WW XC

Hot water auxiliary heater

For installation in the ventilation unit. Provides demand-oriented temperature control of supply air. The heating elements consist of copper piping with formed aluminium fins, and copper pipe water connections for flow and return. Further accessories are required for supply air temperature control (see below; Hydraulic unit WHSH HE 24V).

Detailed calculations / technical information: www.AIR1Select.com

Technical data

Type	Ref. no.	Heating capacity (1)	Water content	Weight (without liquid)	Hydraulic unit	Ref. no.
AIR1-NH WW XC 500 L / R	02490 / 40120	3.3 kW	0.5 l	3.0 kg	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XC 700 L / R	03659 / 40121	4.5 kW	0.7 l	3.9 kg	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XC 1000 L / R	40743 / 40744	5.3 kW	0.8 l	4.0 kg	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XC 1400 L / R	03661 / 40122	8.6 kW	1.1 l	5.3 kg	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XC 2200 L / R	03662 / 40123	14.5 kW	1.8 l	7.5 kg	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XC 3200 L / R	03663 / 40124	19.3 kW	2.6 l	9.5 kg	WHSH HE 24 V (0 – 10 V)	08318

(1) at flow/return temperature 60/40°C

WHSH HE 24 V (0 – 10 V)

Hydraulic unit

Hydraulic unit for supply air temperature control by controlling the water flow rate in the heater battery. Delivered as a complete unit consisting of the hydraulic unit with 3-way valve with actuator and circulating pump, Flow / return temperature display and flexible connection hoses.
Control voltage: 24 V (0 – 10 V)
Kvs value: 5.1
Flow rate: up to 3.3 m^3/h
Connection diameter: G1 AG flat sealing (DN25, 1")

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

AIR1-KR KW XC

Cold water cooling register external

For demand-oriented temperature control (cooling) of supply air. Mounting directly to the supply air duct of the ventilation unit including fixing material is possible. Casing in robust panel construction, insulated on all sides with 50 mm mineral wool for the minimisation of heat losses. External corrosion-resistant coating of casing. Large inspection openings on both sides of unit for easy access and optimised cleaning and maintenance. Stainless steel condensate tray with condensate drain outlets. Recommended accessory: Ball siphon AIR1-KS D (Ref. no. 07170)

Detailed calculations / technical information: www.AIR1Select.com

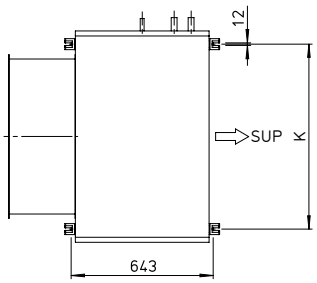
Technical data

Type	Ref. no.	Water content	Connection flow / return (1)	Weight (without liquid)	Condensate connection
AIR1-KR KW XC 500 L / R	04185 / 40125	1.2 l	G 1/2	24.0 kg	17.5 mm
AIR1-KR KW XC 700 L / R	04186 / 40126	1.3 l	G 1/2	37.0 kg	17.5 mm
AIR1-KR KW XC 1000 L / R	40745 / 40746	1.6 l	G 1/2	42.0 kg	17.5 mm
AIR1-KR KW XC 1400 L / R	04187 / 40127	2.0 l	G 1/2	43.0 kg	17.5 mm
AIR1-KR KW XC 2200 L / R	04188 / 40128	3.2 l	G 3/4	63.0 kg	17.5 mm
AIR1-KR KW XC 3200 L / R	04190 / 40129	4.4 l	G 3/4	80.0 kg	17.5 mm

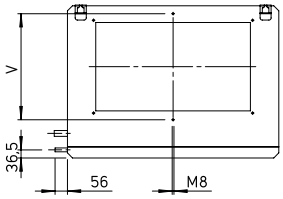
(1) External thread

Dimensions AIR1-KR KW XC L

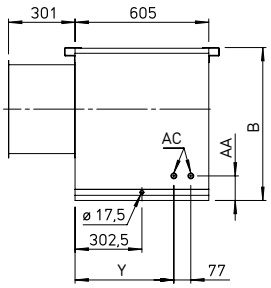
View from below



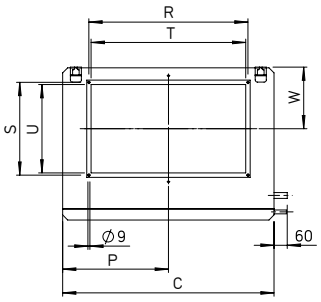
Duct connection side



Water connection side



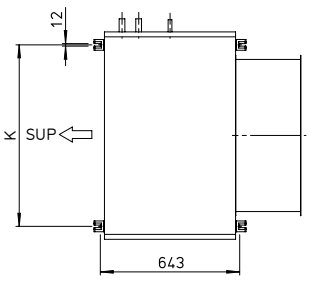
Unit connection side



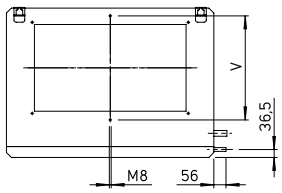
Dimensions in mm

Dimensions AIR1-KR KW XC R

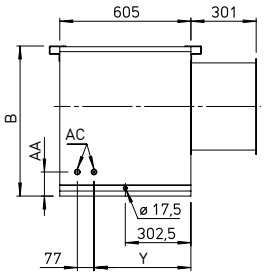
View from below



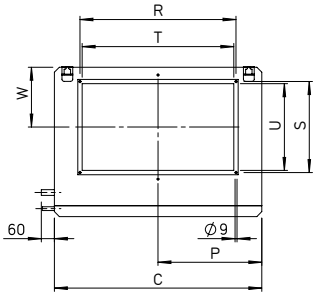
Duct connection side



Water connection side



Unit connection side



Dimensions in mm

Dimensions

Type	Ref. no.	B	C	K	P	R	S	T	U	V	W	Y	AA	AC (1)
AIR1-KR KW XC 500 L / R	04185 / 40125	437	437	317	234	320	170	300	150	-	192	467	96	G 1/2
AIR1-KR KW XC 700 L / R	04186 / 40126	490	537	417	284	420	220	400	200	-	218	467	96	G 1/2
AIR1-KR KW XC 1000 L / R	40745 / 40746	487	677	557	374	520	220	500	200	-	218	467	96	G 1/2
AIR1-KR KW XC 1400 L / R	04187 / 40127	542	677	557	374	520	270	500	250	-	243	467	96	G 1/2
AIR1-KR KW XC 2200 L / R	04188 / 40128	592	878	757	453	520	320	500	300	-	254	447	111	G 3/4
AIR1-KR KW XC 3200 L / R	04190 / 40129	692	957	837	479	720	420	700	400	480	279	447	111	G 3/4

(1) External thread

AIR1-CO DX XC

Change-over register

For temperature control (cooling/heating) of supply air. Suitable for use with common refrigerants (selection list, see www.AIR1 Select.com). Casing in robust panel construction, insulated on all sides with 50 mm mineral wool to minimise heat loss. External corrosion-resistant coating of casing. Stainless steel condensate tray with condensate drain outlets. Large inspection openings for easy access and optimised cleaning and maintenance. Condensate connection 17.5 mm.

Necessary accessories: AIR1-SM DX (Ref. no. 40408)

Recommended accessories: Ball siphon AIR1-KS D (Ref. no. 07170)

Detailed calculations / technical information: www.AIR1Select.com

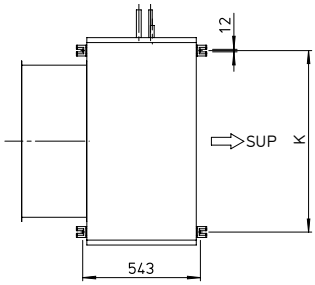
Technical data

Type	Ref. no.	Filling capacity	Ø connection outlet/inlet (1)	Weight (without liquid)	Condensate connection
AIR1-CO DX XC 500 L / R	40364 / 40369	1.0 l	12 mm / 12 mm	23.0 kg	17.5 mm
AIR1-CO DX XC 700 L / R	40365 / 40370	1.1 l	12 mm / 12 mm	36.0 kg	17.5 mm
AIR1-CO DX XC 1000 L / R	40747 / 40748	1.4 l	19 mm / 12 mm	38.0 kg	17.5 mm
AIR1-CO DX XC 1400 L / R	40366 / 40371	1.8 l	19 mm / 12 mm	43.0 kg	17.5 mm
AIR1-CO DX XC 2200 L / R	40367 / 40372	2.7 l	19 mm / 12 mm	62.0 kg	17.5 mm
AIR1-CO DX XC 3200 L / R	40368 / 40373	3.7 l	22 mm / 16 mm	79.0 kg	17.5 mm

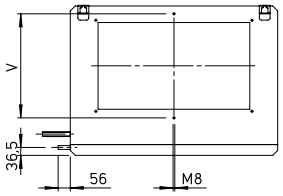
(1) inlet temperature and humidity: 30°C, 40% rH

Dimensions AIR1-CO DX XC L

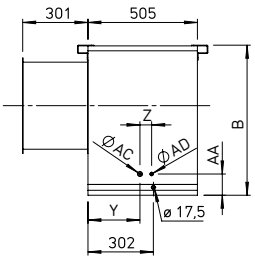
View from below



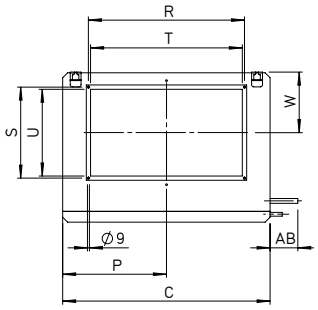
Duct connection side



Refrigerant connection side



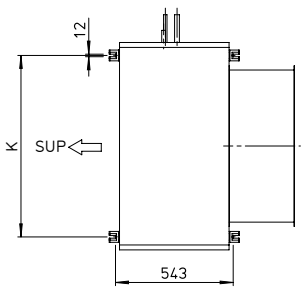
Unit connection side



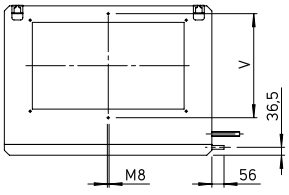
Dimensions in mm

Dimensions AIR1-CO DX XC R

View from below



View from below



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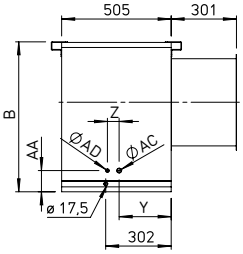
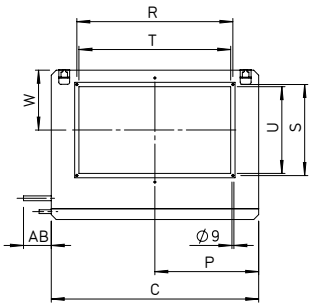


View from below



Dimensions in mm

Dimensions

Type	Ref. no.	B	C	K	P	R	S	T	U	V	W	Y	Z	AA	AB	AC	AD
AIR1-CO DX XC 500 L / R	40364 / 40369	437	437	317	234	320	170	300	150	–	192	230	60	85	106	12	12
AIR1-CO DX XC 700 L / R	40365 / 40370	490	537	417	284	420	220	400	200	–	218	240	49	89	141	12	12
AIR1-CO DX XC 1000 L / R	40747 / 40748	490	677	557	374	520	220	500	200	–	218	240	49	90	141	19	12
AIR1-CO DX XC 1400 L / R	40366 / 40371	542	677	557	374	520	270	500	250	–	243	240	49	90	141	19	12
AIR1-CO DX XC 2200 L / R	40367 / 40372	592	878	757	453	520	320	500	300	–	254	240	54	98	128	19	12
AIR1-CO DX XC 3200 L / R	40368 / 40373	692	957	837	479	720	420	700	400	480	279	240	54	98	128	22	16

AIR1-SM DX

Control module DX

For connecting the control of an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system. Various input and output signals from and to the cooling system are available. Note: Necessary accessory in connection with an AIR1-CO DX change-over register.
Dimensions (WxHxD): 205 x 255 x 112 mm

Technical data

Type	Ref. no.	Voltage	Electricity	Ambient temperature.
AIR1-SM DX	40408	230 V AC / 50 Hz	max. 0.33 A	0 to +40°C

AIR1-JVK XC

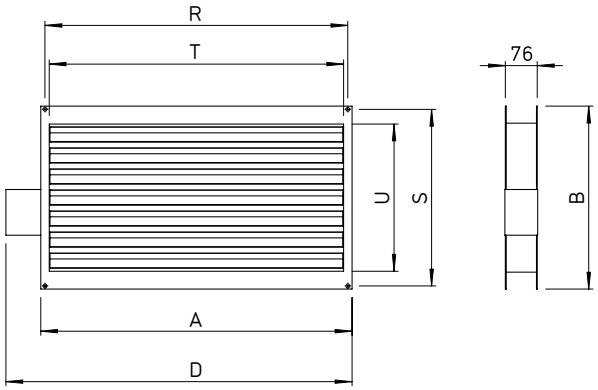
Multi-leaf damper external

Multi-leaf damper for preventing cold draughts when the fan is stationary. Framework casing with connection flange on both sides. Counter-rotating blades, with retracted sealing lip. Sealing class 2. Installation on outside of unit.

Technical data

Type	Ref. no.	Runtime (open / closed)	Weight	Ambient temperature	Protection class	Actuator type
AIR1-JVK XC 500	05421	75 s	1.6 kg	-30 to +50 °C	IP42	24 V DC. spring return
AIR1-JVK XC 700	05841	75 s	2.6 kg	-30 to +50 °C	IP42	24 V DC. spring return
AIR1-JVK XC 1000	40749	75 s	3.5 kg	-30 to +50 °C	IP42	24 V DC. spring return
AIR1-JVK XC 1400	05856	75 s	3.9 kg	-30 to +50 °C	IP42	24 V DC. spring return
AIR1-JVK XC 2200/XVP 2500	06000	75 s	4.5 kg	-30 to +50 °C	IP42	24 V DC. spring return
AIR1-JVK XC 3200/XVP 3500	06003	75 s	7.9 kg	-30 to +50 °C	IP42	24 V DC. spring return

Dimensions AIR1-JVK XC



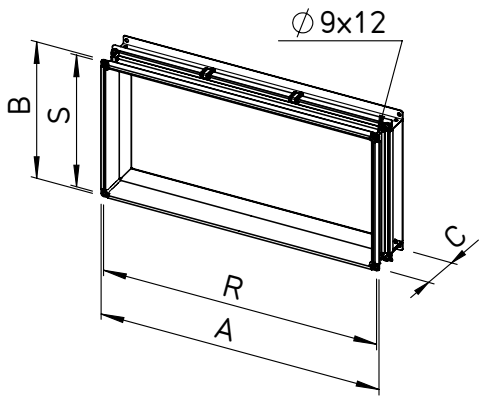
Dimensions in mm

Dimensions

Type	Ref. no.	A	B	D	R	S	T	U
AIR1-JVK XC 500	05421	340	185	432	320	170	300	100
AIR1-JVK XC 700	05841	440	235	523	420	220	400	150
AIR1-JVK XC 1000	40749	540	235	623	520	220	500	150
AIR1-JVK XC 1400	05856	540	285	623	520	270	500	200
AIR1-JVK XC 2200	06000	540	335	623	520	320	500	250
AIR1-JVK XC 3200	06003	740	435	823	720	420	700	350

AIR1-VS

Dimensions AIR1-VS



Dimensions in mm

Flexible connector

Flexible connector (uninsulated), with flange connections on both sides, for mounting between the ventilation unit and duct system. Prevents structure-borne sound transmission and bridges mounting tolerances. Elastic fabric sleeve, operating temperature range from -10 °C to +80 °C.

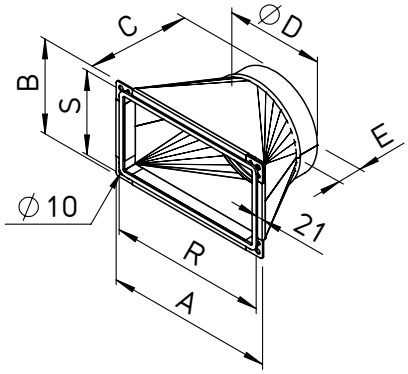
Dimensions

XC units	Type	Ref. no.	A	B	C[1)]	R	S
AIR1-XC 500	AIR1-VS 30/15	07400	338	188	145	320	170
AIR1-XC 700	AIR1-VS 40/20	07403	438	238	145	420	220
AIR1-XC 1000	AIR1-VS 50/20	40740	538	238	145	520	220
AIR1-XC 1400	AIR1-VS 50/25	07404	538	288	145	520	270
AIR1-XC 2200	AIR1-VS 50/30	07407	538	338	145	520	320
AIR1-XC 3200	AIR1-VS 70/40	07408	738	438	145	720	420

[1)] max.

AIR1-ÜS XC/XVP

Dimensions AIR1-ÜS XC/XVP



Dimensions in mm

Square-round adapter

Symmetrical adapter for connecting the ventilation unit to round air ducts/duct systems. Made of galvanised steel sheet. The pressure loss of the adapter at maximum air volume is < 10 Pa on both the intake and discharge side.

Dimensions

Type	Ref. no.	A	B	C	ØD	E	R	S
AIR1-ÜS XC 500	04361	342	192	200	200	40	320	170
AIR1-ÜS XC 700	04362	442	242	200	250	60	420	220
AIR1-ÜS XC 1000	40739	542	242	200	250	60	520	220
AIR1-ÜS XC 1400	04363	542	292	250	315	60	520	270
AIR1-ÜS XC 2200/XVP 2500	04364	542	342	250	400	80	520	320
AIR1-ÜS XC 3200/XVP 3500	04365	742	442	300	450	80	720	420

AIR1-KP XC

Condensate pump

Condensate pump for mounting directly to unit, includes fixing material. Self-priming. Thermal fuse with auto-restart. Protection class IP64.

Technical data

Type	Ref. no.	Max. flow rate	Max. recommended discharge head	Max. suction head	Voltage / frequency / output	Max. water temperature	Drain pipe ID
AIR1-KP XC 500-1400	06867	15 l/h	10 m	2 m	220-240 V 50 / 60 Hz 19 W	35 °C	6 mm
AIR1-KP XC 2200-3200	06868	40 l/h	10 m	2 m	220-240 V 50 / 60 Hz 16 W	35 °C	6 mm

AIR1-KS D

Ball siphon

Siphon for the drainage of condensate with over or underpressure in comparison to the environment. Self-filling and self-closing, with float ball as non-return valve. Screw cap for inspection purposes.
Suitable for a max. underpressure of 1,300 Pa and an max. overpressure of 600 Pa.
For use with ceiling mounted AIR1 units and cooling register.
Connection diameter 40 mm.

AIR1-KS D	Ref. no. 07170

AIR1-BE ECO

Controller Eco

Backlit display with 4 lines a 20 characters. The display menu system is operated via seven buttons. There are two LEDs on the front side: One alarm LED and one LED for the input mode. The controller is delivered with a 5 m cable as standard. Cable lengths of 10 m and 20 m are optionally available. The maximum connection length is 100 m. The controller is designed for wall mounting. Alternatively, it can also be attached to the unit casing using magnetic strips. Protection class IP30.

Technical data

Type	Ref. no.	Voltage	Power consumption	Dimensions (WxHxD)	Ambient humidity	Ambient temperature	Connection cable 10 m	Connection cable 20 m
AIR1-BE ECO	06186	24 V DC	0.24 W	115 x 95 x 25 mm	Max. 90 % RH (non-condensing)	+5 °C to +40 °C	AIR1-SL 4/10 Ref. no.: 07073	AIR1-SL 4/20 Ref. no.: 07121

AIR1-BE TOUCH

Controller Touch

Graphic user interface with intuitive menu structure and simple operation. The display has a capacitive touch function and a size of 7", incl. multi-colour colour technology. Includes stainless steel casing for simple surface-mounting to the wall. It is delivered with a 5 m cable as standard. Cable lengths of 10 m and 20 m are optionally available. The maximum connection length is 100 m. Protection class IP20.

Technical data

Type	Ref. no.	Voltage	Power consumption	Dimensions (WxHxD)	Ambient humidity	Ambient temperature	Connection cable 10 m	Connection cable 20 m
AIR1-BE TOUCH	06187	24 V DC	6 W	185 x 131 x 50 mm	Max. 90 % RH (1)	-10 °C to +60 °C	AIR1-SL 4/10 Ref. no.: 07073	AIR1-SL 4/20 Ref. no.: 07121

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

Room sensors

For measuring the CO_2, mixed gas (VOC) concentration or relative humidity and temperature. Please note the maximum number, a signal converter AIR1-SK (Ref. no. 06019) may be required.
Dimensions (W x H x D) 85 x 85 x 27 mm.

Technical data

Type	Ref. no.	Measurement range	Power consumption
AIR1/KWL-VOC 0-10V	20250	0 - 2000 ppm	0.6 W / 24 V DC
AIR1/KWL-CO2 0-10V	20251	0 - 2000 ppm oder 0 - 5000 ppm	0.6 W / 24 V DC
AIR1/KWL-FTF 0-10V	20252	0 - 100% RH (1) und 0 - 50 °C	0.6 W / 24 V DC

AIR1-CO2 K

Carbon dioxide sensor for duct installation

Sensor for measuring the carbon dioxide concentration in the air. For installation in the ventilation duct. Installation depth 40 – 180 mm.

Technical data

Type	Ref. no.	Measurement range
AIR1-CO2 K	07124	0 ... 2000 ppm

AIR1-CAP

Extension kit for CAP mode

Differential pressure transmitter for constant pressure operation of the ventilation unit. Vertical or horizontal installation possible. Protection class IP54.
Scope of delivery: Pressure transmitter, pressure hose and sensor.

Technical data

Type	Ref. no.	Voltage	Ambient humidity	Ambient temp.
AIR1-CAP	06756	24 V AC / DC ±15 %	Max. 95 % RH (1)	-25 °C to +50 °C

(1) Non-condensing

AIR1-SK

Signal converter for sensors

Signal converter for the connection of up to six AIR1 room sensors of the same sensor type. The AIR1-SK compares the connected inputs and forwards the highest input signal to the max. output. Supplied pre-installed in the appropriate terminal box incl. transformer 230 V / 24 V AC and terminal strip.
Dimensions terminal box (L x H x W): 218 x 149 x 97 mm

Technical data

Type	Ref. no.	Voltage	Power consumption	Ambient humidity	Ambient temperature	Protection class
AIR1-SK	06019	230 V, 50 Hz	max. 15 VA	Max. 90 % RH (non-condensing)	-40 °C to +50 °C	IP20 / IP66 in terminal box

ELF-AIR1 XC

Extract air filter ISO ePM_{10} 50% (M5)

Outside or extract air filter ISO ePM_1 55% (F7)
Outside air filter ISO ePM_1 80% (F9)

Spare air filter

Helios AIR1 units are supplied with the filter classes ePM1 55%/F7 (outside air) and ePM10 50%/M5 (extract air) as standard. Depending on the unit size, the air filter consists of multiple (separate) air filter inserts. This is taken into account when ordering the spare air filter.
In case of increased air quality requirements, other filter classes are available for the outside air and extract air (see table below). All air filters are pressure-loss-optimised cassette filters with large filter surfaces.

Technical data

	Type	Ref. no.	Number of air filter inserts included	Filter class
Extract air filter	ELF-AIR1 XC 500/ePM10 50%/96	02171	1	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XC 700/ePM10 50%/96	02172	1	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XC 1000/ePM10 50%/96	40737	1	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XC 1400/ePM10 50%/96	02173	1	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XC 2200/ePM10 50%/96	02174	2	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XC 3200/ePM10 50%/96	02175	2	ISO ePM_{10} 50% (M5)
Outside or extract air filter	ELF-AIR1 XC 500/ePM1 55%/96	02221	1	ISO ePM_1 55% (F7)
	ELF-AIR1 XC 700/ePM1 55%/96	02223	1	ISO ePM_1 55% (F7)
	ELF-AIR1 XC 1000/ePM1 55%/96	40738	1	ISO ePM_1 55% (F7)
	ELF-AIR1 XC 1400/ePM1 55%/96	02224	1	ISO ePM_1 55% (F7)
	ELF-AIR1 XC 2200/ePM1 55%/96	02225	2	ISO ePM_1 55% (F7)
	ELF-AIR1 XC 3200/ePM1 55%/96	02226	2	ISO ePM_1 55% (F7)
Outside air filter	ELF-AIR1 XC 500/ePM1 80%/96	02272	1	ISO ePM_1 80% (F9)
	ELF-AIR1 XC 700/ePM1 80%/96	02273	1	ISO ePM_1 80% (F9)
	ELF-AIR1 XC 1000/ePM1 80%/96	40750	1	ISO ePM_1 80% (F9)
	ELF-AIR1 XC 1400/ePM1 80%/96	02274	1	ISO ePM_1 80% (F9)
	ELF-AIR1 XC 2200/ePM1 80%/96	02285	2	ISO ePM_1 80% (F9)
	ELF-AIR1 XC 3200/ePM1 80%/96	02286	2	ISO ePM_1 80% (F9)

The Helios AIR1® XVP series: 850 up to 3,500 m³/h.

5 unit types:

- **AIR1 XVP 850**
- **AIR1 XVP 1250**
- **AIR1 XVP 1800**

with circular connection

- **AIR1 XVP 2500**
- **AIR1 XVP 3500**

with rectangular connection

Professionals know it: Utility rooms often lack space. And the transport of equipment through narrow corridors or stairwells is often a challenge.

Our new Helios AIR1 XVP series provides the ideal solution in this respect. Not only thanks to the compact dimensions, but also due to the vertical connectors on the top of the unit, the units are optimally suited for use in confined spaces. The floor-standing installation and the universal casing concept ensure that subsequent maintenance can be carried out easily and quickly in addition to the uncomplicated installation. This saves you valuable time on the construction site!

With an airflow range up to 3,500 m³/h, the XVP series is also ideally suited for various areas of application, e.g. kindergartens and educational institutions, small and medium-sized commercial units and public buildings. Doesn‘t that sound good?

Helios AIR1

series XVP

Simple electrical connection thanks to „slide system“

Vertical connection in standard connection sizes.

Designed according to guideline VDI 6022.

Plug & Play.
Simply switch on and get started.

Versatile accessory components, can be retrofitted in the unit at any time.

Modulating bypass provides cooling and frost protection.

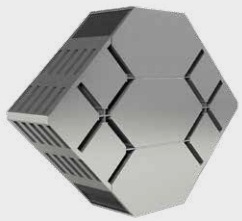
Outside air connection on the left or right.
Maintenance access on both sides.

The XVP series in detail.

1

Depth: 785 – 1122 mm

2



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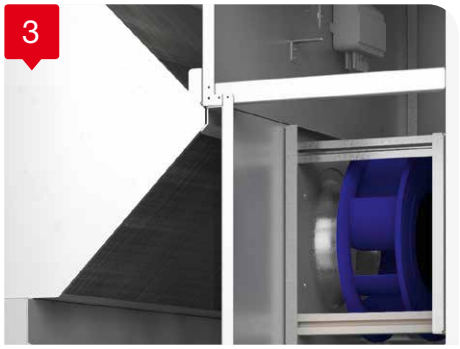


4

1 Casing

Compact casing in panel design made of Aluzink sheet metal, insulated on all sides with 50 mm mineral wool for optimal thermal and acoustic insulation. The outer shell has a corrosion-resistant coating on all sides and corresponds to corrosion class C4. The smooth inner surface meets all hygiene requirements for optimal cleaning in consideration of the German hygiene standard VDI 6022. Large inspection openings on both sides of the unit allow simple access to all unit components and provide optimal cleaning and maintenance options.

Housing and tightness classes according to DIN EN 1886	
Thermal insulation	T2
Thermal bridging factor	TB2
Mechanical stability	D2
Housing leakage in case of overpressure	L1
Housing leakage in case of underpressure	L1
Filter bypass leakage	F9

2 Heat exchanger

Eurovent-certified cross-counterflow plate heat exchanger made of aluminium with high thermal efficiency of up to 90 % in accordance with EN 308. The heat exchanger has high internal leak tightness and it is thus particularly suitable for applications with a risk of odour transmission. The heat exchanger module has an automatic bypass damper mechanism for summer night cooling as standard. The modern frost protection of the heat exchanger at very low outside temperatures can be optionally realised by an electrical pre-heater or by the modulating bypass in combination with a after-heater. Both variants efficiently prevent the freezing of the heat exchanger and guarantees its safe functioning as well as optimum heat recovery for the entire heating period.

3 Fans

The vibration dampened fans are located in the unit and they consist of freewheeling, backward curved centrifugal impellers with direct drive via a variable EC motor with low energy consumption and very low noise level. The high performance plastic impeller is dynamically balanced in two levels. Variably controllable via 0 – 10 V signal. Plug-in connections to all electrical components for the simplification of maintenance work. Eurovent-certified EC-motors in class IE4 with very low SFP values and high energy efficiency.

4 Control system

Modern and versatile control system, completely pre-wired and always optimally accessible via the innovative “slide system”.

5

6

7

The AIR XVP series has the following certifications:

- ☐ VDI 6022 (Hygiene)-Certification
- ☐ Eurovent-Certification

More info at:
www.eurovent-certification.com

Overview of control functions:

- ☐ Choice between ventilation modes Constant volume CAV, Constant pressure CAP (accessory required) or Constant speed CRPM in %.
- ☐ Multiple possible operating modes and levels.
- ☐ Automatic control via humidity or room air quality sensors (can connect up to three sensor types and maximum 18 sensors).
- ☐ Automatic operation via integrated weekly programme.
- ☐ Operating modes Free cooling (also night cooling/bypass function) and active cooling (using cooling register) possible.
- ☐ Commissioning assistant for simple, quick and faultless commissioning of the unit and matching accessories.
- ☐ Connection to the central building control system via BACnet or Modbus.
- ☐ Digital output for collective fault signal.

Further information on the Helios AIR1 control system can be found on p. 142.

5 Accessories

There are a number of accessory components available for the Helios AIR1 units. A detailed overview and the matching accessories for your Helios AIR1 unit can be found on the following product pages.

6 Pipe routing

Installation-friendly connection due to standard connection sizes and arrangement of the unit connections according to the warm and cold air side as well as suitable accessories (e.g. multi-leaf dampers) for each unit size.

6 Air filters

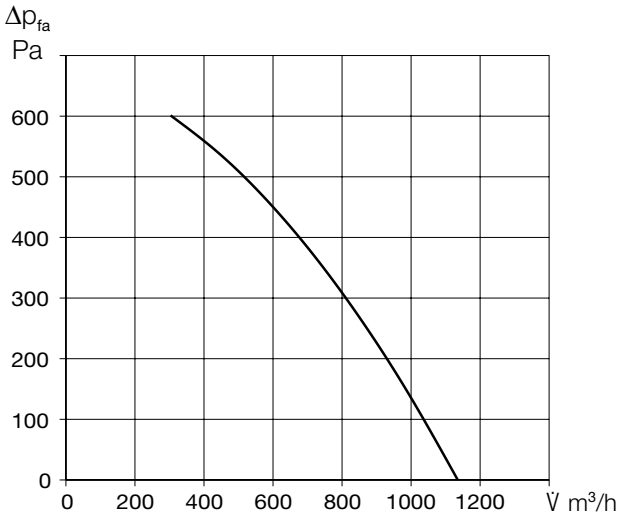
Cassette filters with long service lives due to dynamic pressure monitoring. Further information on the air filters and filter classes can be found on p. 61.

Overview of air filters Standard scope of delivery

	Type	Filter class
Extract air filter	ELF-AIR1 XVP 850 ePM10 50%/96	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XVP 1250 ePM10 50%/96	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XVP 1800 ePM10 50%/96	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XVP 2500 ePM10 50%/96	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XVP 3500 ePM10 50%/96	ISO ePM_{10} 50% (M5)
utside air filter	ELF-AIR1 XVP 850 ePM1 55%/96	ISO ePM_1 55% (F7)
	ELF-AIR1 XVP 1250 ePM1 55%/96	ISO ePM_1 55% (F7)
	ELF-AIR1 XVP 1800 ePM1 55%/96	ISO ePM_1 55% (F7)
	ELF-AIR1 XVP 2500 ePM1 55%/96	ISO ePM_1 55% (F7)
	ELF-AIR1 XVP 3500 ePM1 55%/96	ISO ePM_1 55% (F7)

AIR1 XVP 850

Performance curve AIR1 XVP 850



Unit type	
	AIR1 XVP 850
Ref. no.	40612
Heat exchanger	Cross-counterflow

Technical data			
Mechanical data			
Area of application	Inside		
Installation position	standing		
Maintenance access	both sides		
Min. air volume	270 m³/h		
Max. air volume ERP	790 m³/h (1)		
Max. air volume (free blowing)	1,150 m³/h		
Weight, unit operational	230 kg		
Housing class (DIN 1886)	T2 / TB2 / D2		
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)		
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)		
Media temperature (air)	-20 to +50 °C		
Ambient temperature (place of installation)	0 to +50 °C		
Protection class	IP31		
Electrical data			
Central building control system	BACnet, Modbus TCP/IP		
Voltage / Frequency	400 V 3N ~, 50 Hz	230 V 1N ~, 50 Hz (4)	
Max. output Fans	2 x 320 W	2 x 320 W	
Max. output Elec. pre-/post-heater	2,965 / 2.965 W (3)	2,965 W (3) (5)	
Nominal current			
– Ventilation unit	3.1 / 0 / 0 A	3.1 A	3.1 A
– Electrical pre-heater	0 / 0 / 12.9 A	12.9 A (4)	–
– Electrical auxiliary heater	0 / 12.9 / 0 A	–	12.9 A (4)
– max. total	3.1 / 12.9 / 12.9 A	16 A (4)	16 A (4)
Connection (wiring diagram no.)	1506	1506	

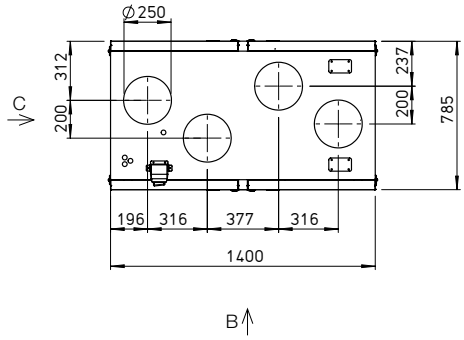
(1) = at 200 Pa external pressure loss ERP-compliant
(2) = Other filter classes see optional accessories
(3) = Optional accessory
(4) = Attention: 230 V connection of the unit is only possible without electric heater or with auxiliary heater AIR1-EVH XVP 1250-2,6 (Art. No. 40481).
(5) = Attention: Auxiliary heater AIR1-EVH XVP 1250-2,6 (Art-No. 40481) only for 230 V connection (no 400 V connection possible!).

Sound data			
Sound power level L_{WA} dB(A) at 200 Pa external pressure			
	370 m³/h	600 m³/h	790 m³/h
Supply air (L_{WA})	71	74	76
Extract air (L_{WA})	65	63	64
Outside air (L_{WA})	65	63	64
Exhaust air (L_{WA})	70	72	75
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	370 m³/h	600 m³/h	790 m³/h
Housing rad. 1 m	42	42	43
Housing rad. 3 m	33	32	34
Housing rad. 5 m	28	28	29

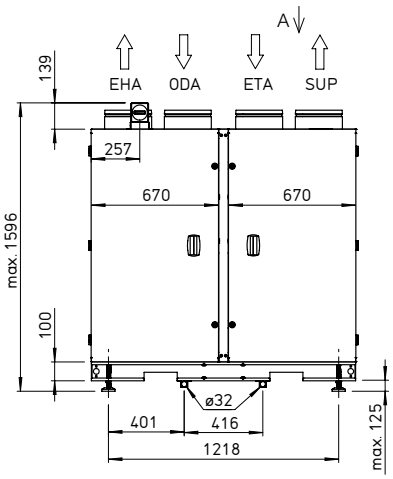
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XVP 850

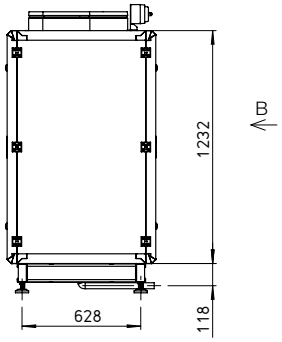
View A (from above)



View B



View C



Dimensions in mm

ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH XVP 850 Electrical, internal	Ref. no. 40473	Page 54
Auxiliary heater		
AIR1-ENH XVP 850 Electrical, internal	Ref. no. 40474	Page 54
AIR1-NH WW XVP 850 Hot water, internal	Ref. no. 40475	Page 55
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 55
Cooling register		
AIR1-KR KW XVP 850 L (1) Cold water, external	Ref. no. 40476	Page 56
AIR1-KR KW XVP 850 R (1) Cold water, external	Ref. no. 40477	Page 56
AIR1-CO DX XVP 850 L (1) Change-over, external	Ref. no. 40478	Page 57
AIR1-CO DX XVP 850 R (1) Change-over, external	Ref. no. 40479	Page 57
Cooling register accessories		
AIR1-KS D for use with ceiling mounted units and cooling register	Ref. no. 07170	Page 59

Air routing		
Motorised duct shutter		
RVMD 250/24V	Ref. no. 40246	Page 58

Condensate drainage		
Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 59

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 60
AIR1-BE TOUCH 2	Ref. no. 40751	Page 60
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 60
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 60
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 60
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 60
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 60
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 60
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 61
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 60

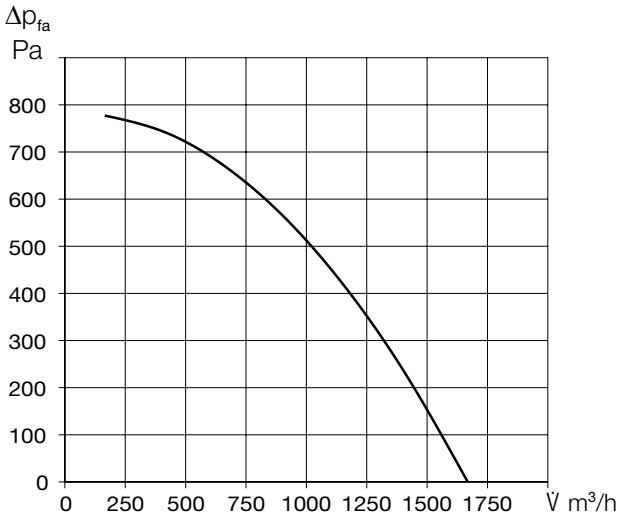
Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XVP 850 ePM10 50%/48 (M5)	Ref. no. 40515	Page 61
ELF-AIR1 XVP 850 ePM10 50%/96 (M5)	Ref. no. 40514	Page 61
ELF-AIR1 XVP 850 ePM1 55%/96 (F7)	Ref. no. 40516	Page 61
ELF-AIR1 XVP 850 ePM1 80%/96 (F9)	Ref. no. 40517	Page 61

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

AIR1 XVP 1250

Performance curve AIR1 XVP 1250



Unit type	
	AIR1 XVP 1250
Ref. no.	40613
Heat exchanger	Cross-counterflow

Technical data		
Mechanical data		
Area of application	Inside	
Installation position	standing	
Maintenance access	both sides	
Min. air volume	400 m³/h	
Max. air volume ERP	1,200 m³/h (1)	
Max. air volume (free blowing)	1,700 m³/h	
Weight, unit operational	275 kg	
Housing class (DIN 1886)	T2 / TB2 / D2	
Filter Outside air	ISO ePM₁ 55% (F7) (2)	
Filter Extract air	ISO ePM₁₀ 50% (M5) (2)	
Media temperature (air)	-20 to +50 °C	
Ambient temperature (place of installation)	0 to +50 °C	
Protection class	IP31	
Electrical data		
Central building control system	BACnet, Modbus TCP/IP	
Voltage / Frequency	400 V 3N ~, 50 Hz	230 V 1N ~, 50 Hz (4)
Max. output Fans	2 x 500 W	2 x 500 W
Max. output Elec. pre-/post-heater	3,600 / 4,520 W (3)	2,605 / – W (3)
Nominal current		
– Ventilation unit	4.7 / 0 / 0 A	4,7 A
– Electrical pre-heater	5.2 / 5.2 / 5.2 A (3)	11.3 A (3)
– Electrical auxiliary heater	6.5 / 6.5 / 6.5 A (3)	nicht zulässig
– max. total	16.4 / 11.8 / 11.8 A	16 A
Connection (wiring diagram no.)	1507	1507

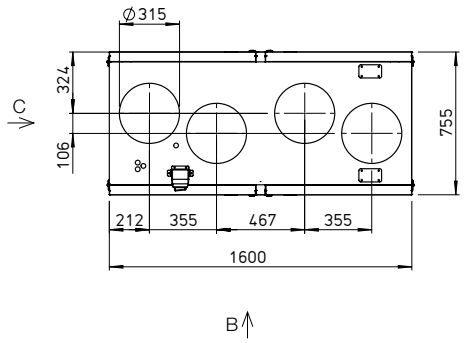
(1) = at 250 Pa external pressure loss ERP-compliant
(2) = Other filter classes see optional accessories
(3) = Optional accessory
(4) = Note: The 230 V supply of the unit is only permissible without electrical post-heating, but with preheater AIR1-EVH XVP 1250-2,6.

Sound data			
Sound power level L_{WA} dB(A) at 250 Pa external pressure			
	450 m³/h	800 m³/h	1,200 m³/h
Supply air (L_{WA})	72	74	76
Extract air (L_{WA})	63	59	59
Outside air (L_{WA})	63	59	60
Exhaust air (L_{WA})	71	73	75
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	450 m³/h	800 m³/h	1,200 m³/h
Housing rad. 1 m	42	42	45
Housing rad. 3 m	33	32	35
Housing rad. 5 m	28	28	31

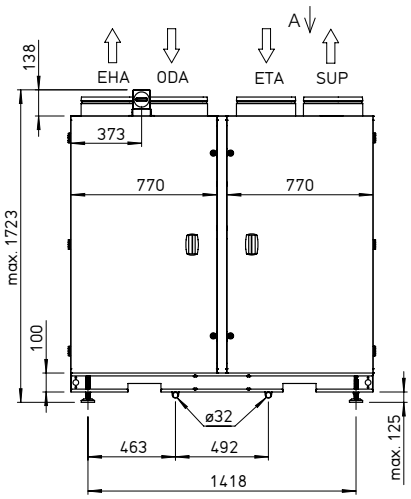
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XVP 1250

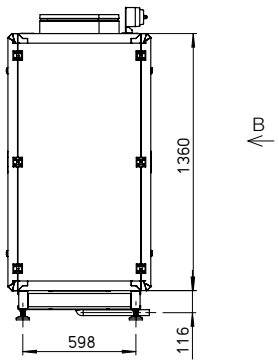
View A (from above)



View B



View C



Dimensions in mm

ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH XVP 1250-3,6 Electrical, internal	Ref. no. 40480	Page 54
AIR1-EVH XVP 1250-2,6 Electrical, internal	Ref. no. 40481	Page 54
Auxiliary heater		
AIR1-ENH XVP 1250 Electrical, internal	Ref. no. 40483	Page 54
AIR1-NH WW XVP 1250 Hot water, internal	Ref. no. 40484	Page 55
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 55
Cooling register		
AIR1-KR KW XVP 1250 L (1) Cold water, external	Ref. no. 40485	Page 56
AIR1-KR KW XVP 1250 R (1) Cold water, external	Ref. no. 40486	Page 56
AIR1-CO DX XVP 1250 L (1) Change-over, external	Ref. no. 40487	Page 57
AIR1-CO DX XVP 1250 R (1) Change-over, external	Ref. no. 40488	Page 57
Cooling register accessories		
AIR1-KS D for use with ceiling mounted units and cooling register	Ref. no. 07170	Page 59

Air routing		
Motorised duct shutter		
RVMD 315/24V	Ref. no. 40247	Page 58

Condensate drainage		
Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 59

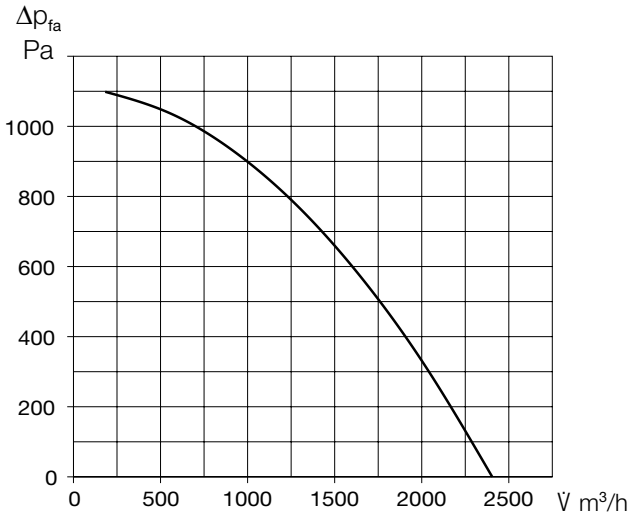
Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 60
AIR1-BE TOUCH 2	Ref. no. 40751	Page 60
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 60
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 60
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 60
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 60
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 60
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 60
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 61
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 60

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XVP 1250 ePM10 50%/48 (M5)	Ref. no. 40519	Page 61
ELF-AIR1 XVP 1250 ePM10 50%/96 (M5)	Ref. no. 40518	Page 61
ELF-AIR1 XVP 1250 ePM1 55%/96 (F7)	Ref. no. 40520	Page 61
ELF-AIR1 XVP 1250 ePM1 80%/96 (F9)	Ref. no. 40521	Page 61
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.		

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

AIR1 XVP 1800

Performance curve AIR1 XVP 1800



Unit type	
	AIR1 XVP 1800
Ref. no.	40614
Heat exchanger	Cross-counterflow

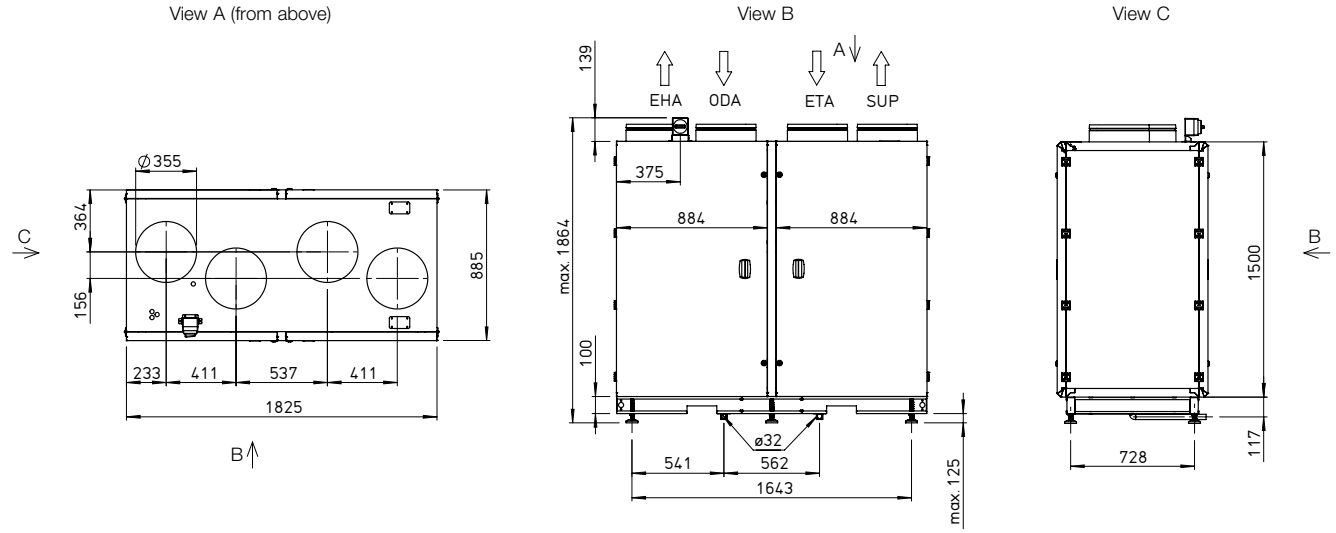
Technical data	
Mechanical data	
Area of application	Inside
Installation position	standing
Maintenance access	both sides
Min. air volume	550 m³/h
Max. air volume ERP	1,510 m³/h (1)
Max. air volume (free blowing)	2,400 m³/h
Weight, unit operational	357 kg
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM1 55% (F7) (2)
Filter Extract air	ISO ePM10 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	0 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 780 W
Max. output Elec. pre-/post-heater	6,510 / 6,510 W (3)
Nominal current	
– Ventilation unit	3.4 / 3.4 / 0.3 A
– Electrical pre-heater	9.4 / 9.4 / 9.4 A (3)
– Electrical auxiliary heater	9.4 / 9.4 / 9.4 A (3)
– max. total	22.2 / 22.2 / 19.1 A
Connection (wiring diagram no.)	1508

(1) = at 250 Pa external pressure loss ERP-compliant
(2) = Other filter classes see optional accessories
(3) = Optional accessory

Sound data			
Sound power level L_{WA} dB(A) at 250 Pa external pressure			
	650 m³/h	1,200 m³/h	1,510 m³/h
Supply air (L_{WA})	72	75	78
Extract air (L_{WA})	61	58	60
Outside air (L_{WA})	61	58	60
Exhaust air (L_{WA})	71	73	77
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	650 m³/h	1,200 m³/h	1,510 m³/h
Housing rad. 1 m	42	43	45
Housing rad. 3 m	33	33	36
Housing rad. 5 m	28	29	31

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XVP 1800



Dimensions in mm

ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH XVP 1800 Electrical, internal	Ref. no. 40489	Page 54
Auxiliary heater		
AIR1-ENH XVP 1800 Electrical, internal	Ref. no. 40490	Page 54
AIR1-NH WW XVP 1800 Hot water, internal	Ref. no. 40491	Page 55
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 55
Cooling register		
AIR1-KR KW XVP 1800 L (1) Cold water, external	Ref. no. 40492	Page 56
AIR1-KR KW XVP 1800 R (1) Cold water, external	Ref. no. 40493	Page 56
AIR1-CO DX XVP 1800 L (1) Change-over, external	Ref. no. 40494	Page 57
AIR1-CO DX XVP 1800 R (1) Change-over, external	Ref. no. 40495	Page 57
Cooling register accessories		
AIR1-KS D for use with ceiling mounted units and cooling register	Ref. no. 07170	Page 59

Air routing		
Motorised duct shutter		
RVMD 355/24V	Ref. no. 40248	Page 58

Condensate drainage		
Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 59

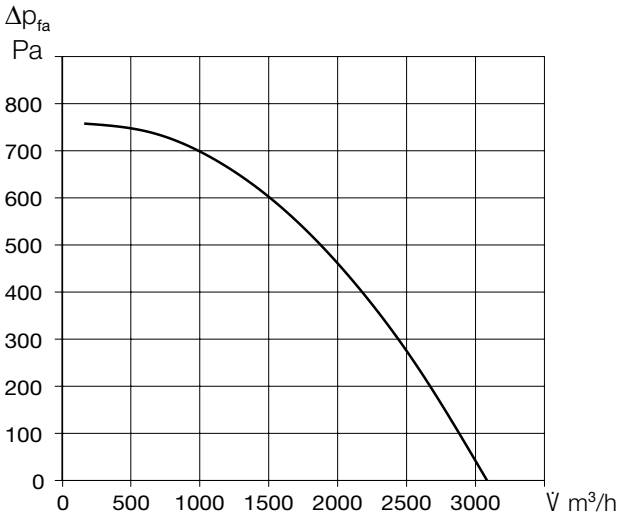
Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 60
AIR1-BE TOUCH 2	Ref. no. 40751	Page 60
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 60
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 60
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 60
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 60
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 60
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 60
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 61
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 60

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XVP 1800 ePM10 50%/48 (M5)	Ref. no. 40523	Page 61
ELF-AIR1 XVP 1800 ePM10 50%/96 (M5)	Ref. no. 40522	Page 61
ELF-AIR1 XVP 1800 ePM1 55%/96 (F7)	Ref. no. 40524	Page 61
ELF-AIR1 XVP 1800 ePM1 80%/96 (F9)	Ref. no. 40525	Page 61
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.		

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

AIR1 XVP 2500

Performance curve AIR1 XVP 2500



Unit type	
	AIR1 XVP 2500
Ref. no.	40615
Heat exchanger	Cross-counterflow

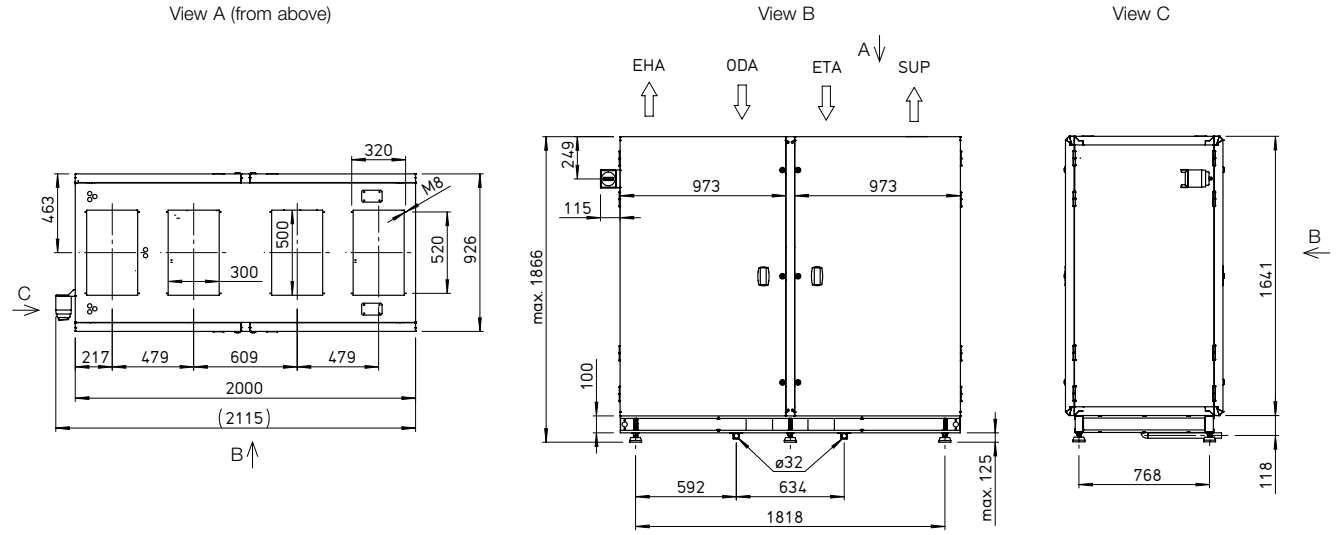
Technical data	
Mechanical data	
Area of application	Inside
Installation position	standing
Maintenance access	both sides
Min. air volume	700 m³/h
Max. air volume ERP	2,400 m³/h (1)
Max. air volume (free blowing)	3,000 m³/h
Weight, unit operational	427 kg
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM₁ 55% (F7) (2)
Filter Extract air	ISO ePM₁₀ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	0 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 780 W
Max. output Elec. pre-/post-heater	9,040 /9,040 W (3)
Nominal current	
– Ventilation unit	3.4 / 3.4 / 0.3 A
– Electrical pre-heater	13 / 13 / 13 A (3)
– Electrical auxiliary heater	13 / 13 / 13 A (3)
– max. total	29.4 / 29.4 / 26.3 A
Connection (wiring diagram no.)	1509

(1) = at 250 Pa external pressure loss ERP-compliant
(2) = Other filter classes see optional accessories
(3) = Optional accessory

Sound data			
Sound power level L_{WA} dB(A) at 250 Pa external pressure			
	880 m³/h	1,700 m³/h	2,400 m³/h
Supply air (L_{WA})	71	73	76
Extract air (L_{WA})	63	55	57
Outside air (L_{WA})	62	55	57
Exhaust air (L_{WA})	73	75	78
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	880 m³/h	1,700 m³/h	2,400 m³/h
Housing rad. 1 m	39	37	40
Housing rad. 3 m	29	28	31
Housing rad. 5 m	25	23	26

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XVP 2500



Dimensions in mm

ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH XVP 2500 Electrical, internal	Ref. no. 40496	Page 54
Auxiliary heater		
AIR1-ENH XVP 2500 Electrical, internal	Ref. no. 40497	Page 54
AIR1-NH WW XVP 2500 Hot water, internal	Ref. no. 40498	Page 55
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 55
Cooling register		
AIR1-KR KW XVP 2500 L (1) Cold water, external	Ref. no. 40499	Page 56
AIR1-KR KW XVP 2500 R (1) Cold water, external	Ref. no. 40500	Page 56
AIR1-CO DX XVP 2500 L (1) Change-over, external	Ref. no. 40505	Page 57
AIR1-CO DX XVP 2500 R (1) Change-over, external	Ref. no. 40506	Page 57
Cooling register accessories		
AIR1-KS D for use with ceiling mounted units and cooling register	Ref. no. 07170	Page 59

Air routing		
Multi-leaf damper		
AIR1-JVK XC 2200/XVP 2500	Ref. no. 06000	Page 58
Flexible connector		
AIR1-VS 50/30	Ref. no. 07407	Page 59
Square-round adapter		
AIR1-ÜS XC 2200/XVP2500	Ref. no. 04364	Page 59

Condensate drainage		
Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 59

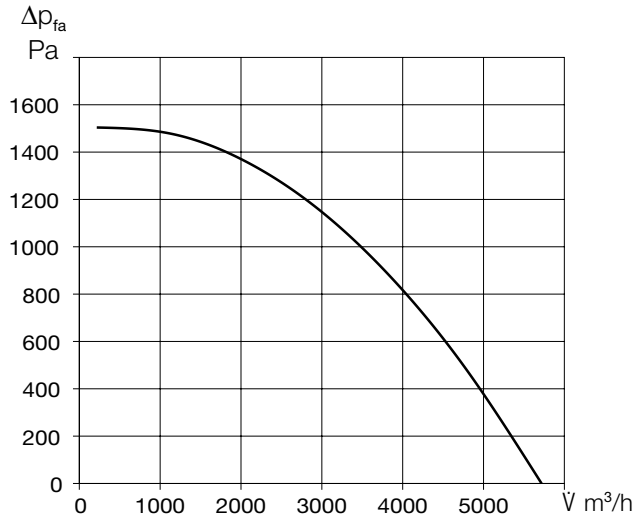
Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 60
AIR1-BE TOUCH 2	Ref. no. 40751	Page 60
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 60
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 60
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 60
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 60
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 60
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 60
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 61
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 60

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XVP 2500 ePM10 50%/48 (M5)	Ref. no. 40527	Page 61
ELF-AIR1 XVP 2500 ePM10 50%/96 (M5)	Ref. no. 40526	Page 61
ELF-AIR1 XVP 2500 ePM1 55%/96 (F7)	Ref. no. 40528	Page 61
ELF-AIR1 XVP 2500 ePM1 80%/96 (F9)	Ref. no. 40529	Page 61
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.		

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

AIR1 XVP 3500

Performance curve AIR1 XVP 3500



Unit type	
	AIR1 XVP 3500
Ref. no.	40616
Heat exchanger	Cross-counterflow

Technical data	
Mechanical data	
Area of application	Inside
Installation position	standing
Maintenance access	both sides
Min. air volume	1,000 m³/h
Max. air volume ERP	3,200 m³/h (1)
Max. air volume (free blowing)	5,500 m³/h
Weight, unit operational	512 kg
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	0 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 2,500 W
Max. output Elec. pre-/post-heater	12,650 / 12,650 W (3)
Nominal current	
– Ventilation unit	7.6 / 7.6 / 8 A
– Electrical pre-heater	18.3 / 18.3 / 18.3 A (3)
– Electrical auxiliary heater	18.3 / 18.3 / 18.3 A (3)
– max. total	44.2 / 44.2 / 44.6 A
Connection (wiring diagram no.)	1510

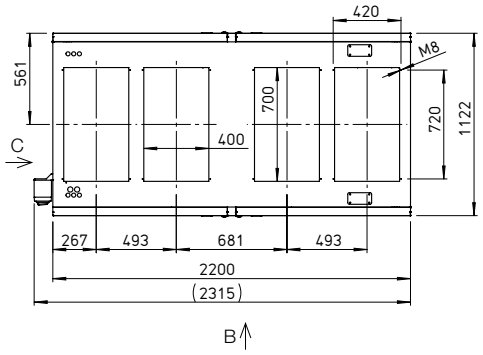
(1) = at 250 Pa external pressure loss ERP-compliant
(2) = Other filter classes see optional accessories
(3) = Optional accessory

Sound data			
Sound power level L_{WA} dB(A) at 250 Pa external pressure			
	1,250 m³/h	2,200 m³/h	3,200 m³/h
Supply air (L_{WA})	71	73	77
Extract air (L_{WA})	63	55	58
Outside air (L_{WA})	62	55	57
Exhaust air (L_{WA})	73	75	79
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	1,250 m³/h	2,200 m³/h	3,200 m³/h
Housing rad. 1 m	39	37	40
Housing rad. 3 m	29	28	31
Housing rad. 5 m	25	23	26

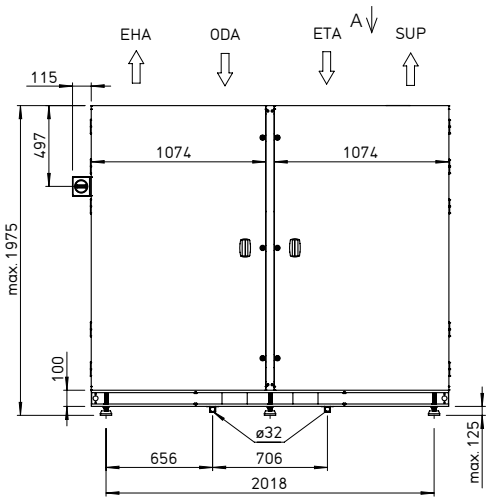
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XVP 3500

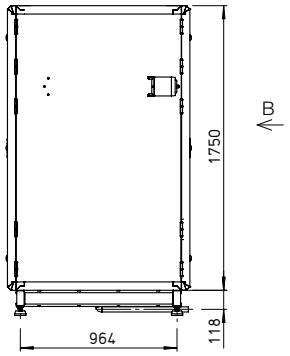
View A (from above)



View B



View C



Dimensions in mm

ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH XVP 3500 Electrical, internal	Ref. no. 40507	Page 54
Auxiliary heater		
AIR1-ENH XVP 3500 Electrical, internal	Ref. no. 40508	Page 54
AIR1-NH WW XVP 3500 Hot water, internal	Ref. no. 40509	Page 55
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 55
Cooling register		
AIR1-KR KW XVP 3500 L (1) Cold water, external	Ref. no. 40510	Page 56
AIR1-KR KW XVP 3500 R (1) Cold water, external	Ref. no. 40511	Page 56
AIR1-CO DX XVP 3500 L (1) Change-over, external	Ref. no. 40512	Page 57
AIR1-CO DX XVP 3500 R (1) Change-over, external	Ref. no. 40513	Page 57
Cooling register accessories		
AIR1-KS D for use with ceiling mounted units and cooling register	Ref. no. 07170	Page 59

Air routing		
Multi-leaf damper		
AIR1-JVK XC 3200/XVP 3500	Ref. no. 06003	Page 58
Flexible connector		
AIR1-VS 70/40	Ref. no. 07408	Page 59
Square-round adapter		
AIR1-ÜS XC 3200/XVP 3500	Ref. no. 04365	Page 59

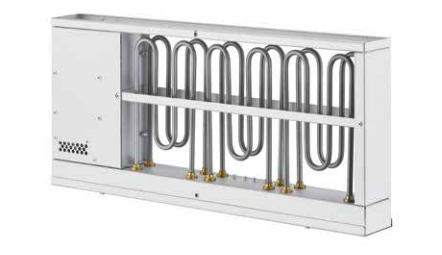
Condensate drainage		
Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 59

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 60
AIR1-BE TOUCH 2	Ref. no. 40751	Page 60
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 60
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 60
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 60
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 60
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 60
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 60
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 61
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 60

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XVP 3500 ePM10 50%/48 (M5)	Ref. no. 40531	Page 61
ELF-AIR1 XVP 3500 ePM10 50%/96 (M5)	Ref. no. 40530	Page 61
ELF-AIR1 XVP 3500 ePM1 55%/96 (F7)	Ref. no. 40532	Page 61
ELF-AIR1 XVP 3500 ePM1 80%/96 (F9)	Ref. no. 40533	Page 61
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.		

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

AIR1-EVH XVP



Electric preheating internal

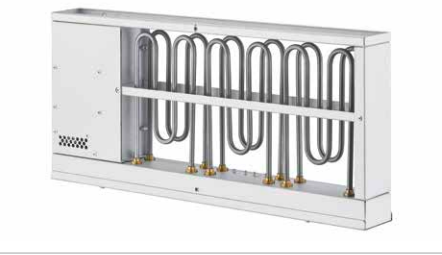
For heating the outside air at very low outdoor temperatures. For installation in the ventilation unit. Power supply and connection to the control system of the air handling unit through pre-assembled plug-in contacts. Stepless regulated.

Detailed calculations / technical information: www.AIR1Select.com

Technical data

Type	Ref. no.	Heating capacity	Current consumption	Weight
AIR1-EVH XVP 850	40473	2965 W	12.9 A	5.5 kg
AIR1-EVH XVP 1250-3,6	40480	3600 W	5.2 / 5.2 / 5.2 A	6.5 kg
AIR1-EVH XVP 1250-2,6	40481	2605 W	11.3 A	6.5 kg
AIR1-EVH XVP 1800	40489	6510 W	9.4 / 9.4 / 9.4 A	7.0 kg
AIR1-EVH XVP 2500	40496	9040 W	13 / 13 / 13 A	8.0 kg
AIR1-EVH XVP 3500	40507	12650 W	18.3 / 18.3 / 18.3 A	12.0 kg

AIR1-ENH XVP



Electrical auxiliary heater internal

For installation in the ventilation unit. Provides demand-oriented temperature control of supply air. Mains power supply and connection to the ventilation unit control system through pre-wired plug contacts. Variable controls.

Detailed calculations / technical information: www.AIR1Select.com

Technical data

Type	Ref. no.	Heating capacity	Current consumption	Weight
AIR1-ENH XVP 850	40474	2965 W	12.9 A	6.0 kg
AIR1-ENH XVP 1250	40483	4520 W	6.5 / 6.5 / 6.5 A	7.0 kg
AIR1-ENH XVP 1800	40490	6510 W	9.4 / 9.4 / 9.4 A	8.0 kg
AIR1-ENH XVP 2500	40497	9040 W	13 / 13 / 13 A	9.0 kg
AIR1-ENH XVP 3500	40508	12650 kW	18.3 / 18.3 / 18.3 A	13.0 kg

AIR1-NH WW XVP

Hot water auxiliary heater

For installation in the ventilation unit. Provides demand-oriented temperature control of supply air. The heating elements consist of copper piping with formed aluminium fins, and copper pipe water connections for flow and return. Further accessories are required for supply air temperature control (see below; Hydraulic unit WHSH HE 24V).

Detailed calculations / technical information: www.AIR1Select.com

Technical data

Type	Ref. no.	Heating capacity (1)	Water content	Weight (without liquid)	Hydraulic unit	Ref. no.
AIR1-NH WW XVP 850	40475	8.7 kW	1.4 l	6.1 kg	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XVP 1250	40484	10.3 kW	1.4 l	6.1 kg	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XVP 1800	40491	15.5 kW	2.0 l	8.7 kg	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XVP 2500	40498	19.7 kW	2.1 l	9.0 kg	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XVP 3500	40509	28.5 kW	3.5 l	13.7 kg	WHSH HE 24 V (0 – 10 V)	08318

(1) bei 60/40°C Vorlauf-/Rücklauf-Temperatur

WHSH HE 24 V (0 – 10 V)

Hydraulic unit

Hydraulic unit for supply air temperature control by controlling the water flow rate in the heater battery. Delivered as a complete unit consisting of the hydraulic unit with 3-way valve with actuator and circulating pump, Flow / return temperature display and flexible connection hoses.
Control voltage: 24 V (0 – 10 V)
Kvs value: 5.1
Flow rate: up to 3.3 m^3/h
Connection diameter: G1 AG flat sealing (DN25, 1”)

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

AIR1-KR KW XVP

Cold water cooling register external

For demand-oriented temperature control (cooling) of supply air. Casing in robust panel construction, insulated on all sides with 50 mm mineral wool for the minimisation of heat losses. External corrosion-resistant coating of casing. Large inspection openings on both sides of unit for easy access and optimised cleaning and maintenance. Stainless steel condensate tray with condensate drain outlets.
Recommended accessories: Ball siphon AIR1-KS D (Ref. no. 07170)

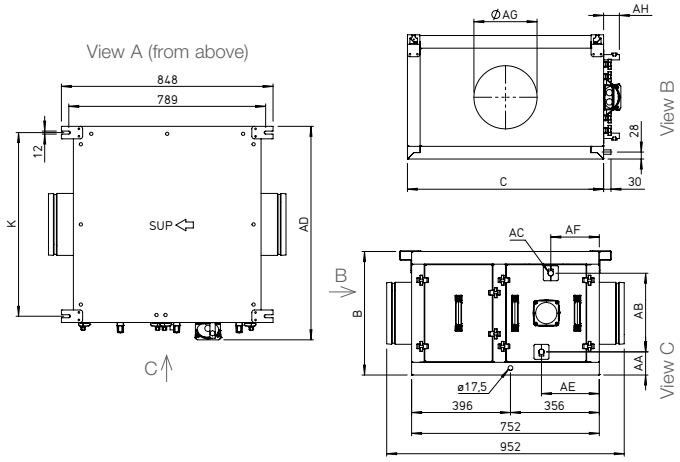
Detailed calculations / technical information: www.AIR1Select.com

Technical data

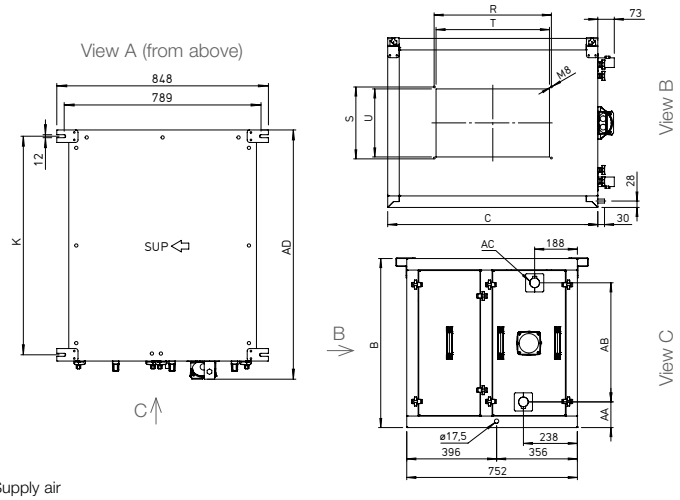
Type	Ref. no.	Water content	Connection flow / return (1)	Weight (without liquid)	Condensate connection
AIR1-KR KW XVP 850 L / R	40476 / 40477	1.7 l	G 3/4	50.0 kg	17.5 mm
AIR1-KR KW XVP 1250 L / R	40485 / 40486	2.7 l	G 1	60.0 kg	17.5 mm
AIR1-KR KW XVP 1800 L / R	40492 / 40493	2.7 l	G 1	69.0 kg	17.5 mm
AIR1-KR KW XVP 2500 L / R	40499 / 40500	4.4 l	G 1 1/4	72.0 kg	17.5 mm
AIR1-KR KW XVP 3500 L / R	40510 / 40511	6.3 l	G 1 1/2	87.0 kg	17.5 mm

Dimensions AIR1-KR KW XVP L

AIR1-KR KW XVP 850-1800 L



AIR1-KR KW XVP 2500-3500 L

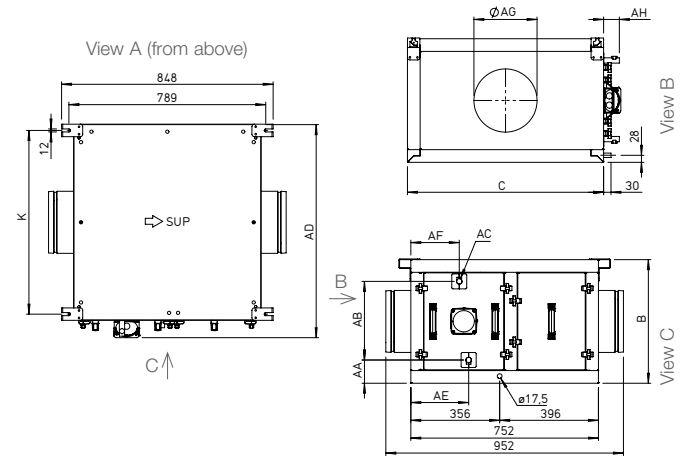


Dimensions in mm

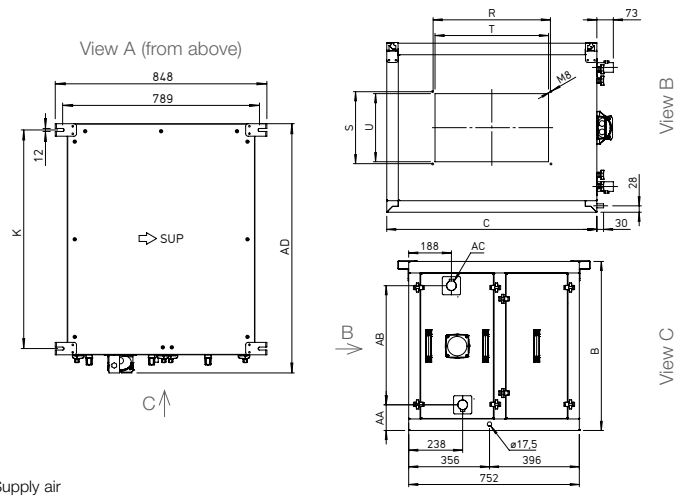
SUP: Supply air

Dimensions AIR1-KR KW XVP R

AIR1-KR KW XVP 850-1800 R



AIR1-KR KW XVP 2500-3500 R



Dimensions in mm

SUP: Supply air

Dimensions

Type	Ref. no.	B	C	K	R	S	T	U	AA	AB	AC (1)	AD	AE	AF	AG	AH
AIR1-KR KW XVP 850 L / R	40476 / 40477	495	786	736	-	-	-	-	93	315	G 3/4	855	232	194	250	63
AIR1-KR KW XVP 1250 L / R	40485 / 40486	625	756	706	-	-	-	-	98	433	G 1	825	232	193	315	68
AIR1-KR KW XVP 1800 L / R	40492 / 40493	575	886	836	-	-	-	-	99	383	G 1	955	242	184	355	68
AIR1-KR KW XVP 2500 L / R	40499 / 40500	745	926	876	520	320	500	300	113	525	G 1 1/4	999	-	-	-	-
AIR1-KR KW XVP 3500 L / R	40510 / 40511	795	1122	1072	720	420	700	400	110	575	G 1 1/2	1195	-	-	-	-

(1) External thread

AIR1-CO DX XVP

Change-over register

For temperature control (cooling/heating) of supply air. Suitable for use with common refrigerants (selection list, see www.AIR1 Select.com). Casing in robust panel construction, insulated on all sides with 50 mm mineral wool to minimise heat loss. External corrosion-resistant coating of casing. Stainless steel condensate tray with condensate drain outlets. Large inspection openings for easy access and optimised cleaning and maintenance. Condensate connection 17.5 mm. Recommended accessories: Ball siphon AIR1-KS D (Ref. no. 07170)

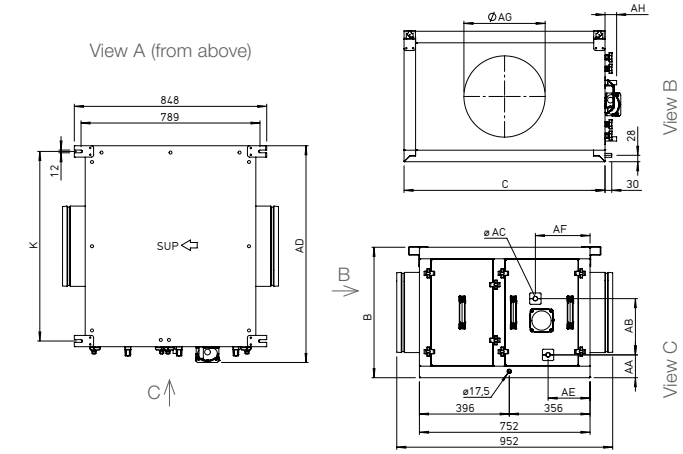
Detailed calculations / technical information: www.AIR1Select.com

Technical data

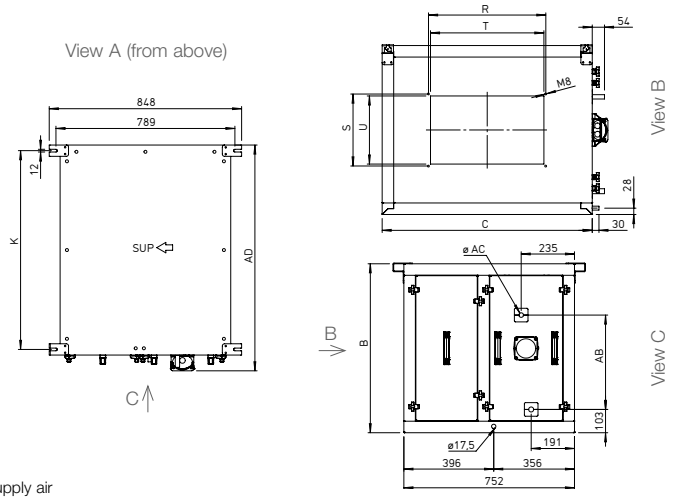
Type	Ref. no.	Filling capacity	Ø connection outlet/inlet	Weight (without liquid)	Condensate connection
AIR1-CO DX XVP 850 L / R	40478 / 40479	1.5 l	16 mm / 16 mm	55.0 kg	17.5 mm
AIR1-CO DX XVP 1250 L / R	40487 / 40488	2.2 l	19 mm / 19 mm	65.0 kg	17.5 mm
AIR1-CO DX XVP 1800 L / R	40494 / 40495	2.3 l	19 mm / 19 mm	68.0 kg	17.5 mm
AIR1-CO DX XVP 2500 L / R	40505 / 40506	3.0 l	22 mm / 22 mm	83.0 kg	17.5 mm
AIR1-CO DX XVP 3500 L / R	40512 / 40513	4.6 l	22 mm / 22 mm	98.0 kg	17.5 mm

Dimensions AIR1-CO DX XVP L

AIR1-CO DX XVP 850-1800 L



AIR1-CO DX XVP 2500-3500 L

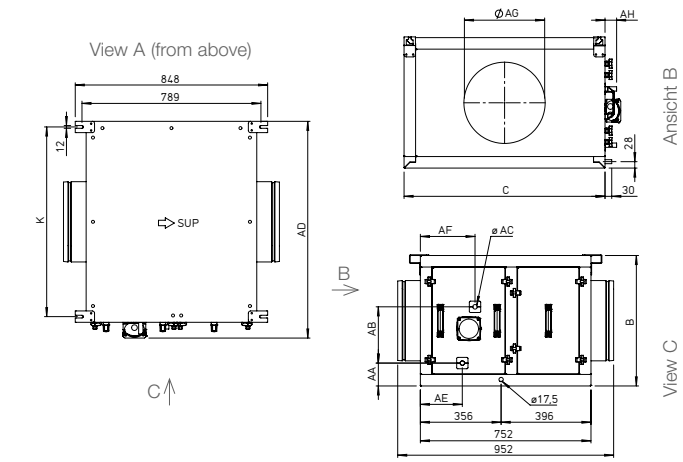


Dimensions in mm

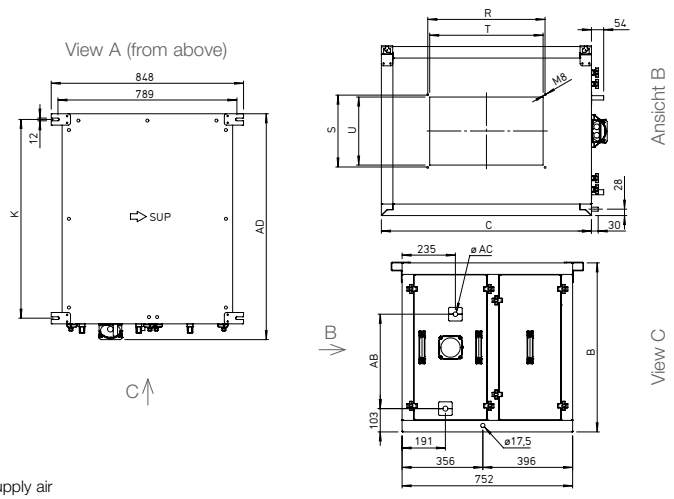
SUP: Supply air

Dimensions AIR1-CO DX XVP R

AIR1-CO DX XVP 850-1800 R



AIR1-CO DX XVP 2500-3500 R



Dimensions in mm

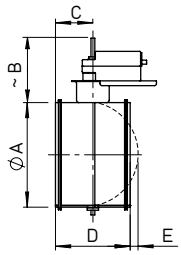
SUP: Supply air

Dimensions

Type	Ref. no.	B	C	K	R	S	T	U	AA	AB	AC	AD	AE	AF	AG	AH
AIR1-CO DX XVP 850 L / R	40478 / 40479	495	786	736	–	–	–	–	101	198	16	855	195	231	250	31
AIR1-CO DX XVP 1250 L / R	40487 / 40488	625	756	706	–	–	–	–	103	295	19	825	192	240	315	31
AIR1-CO DX XVP 1800 L / R	40494 / 40495	575	886	836	–	–	–	–	101	248	19	955	185	241	355	51
AIR1-CO DX XVP 2500 L / R	40505 / 40506	745	926	876	520	320	500	300	–	416	22	995	–	–	–	–
AIR1-CO DX XVP 3500 L / R	40512 / 40513	795	1122	1072	720	420	700	400	–	466	22	1191	–	–	–	–

RVMD

Dimensions RVMD



Dimensions in mm

Motorised duct shutter tight

Can be installed horizontally and vertically in any position and with mounted spring return motor (outside of air flow).
Cable length 0.9 m, normally closed. Corresponds to tightness class 4 to DIN EN 1751.

Technical data

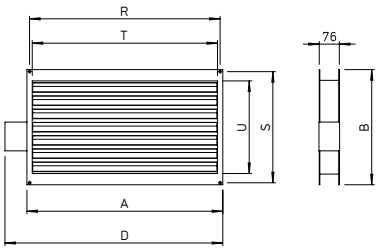
XVP units	Type	Ref. no.	Shutter opening time, approx.	Ambient temp.	Protection category	Actuator type
AIR1 XVP 850	RVMD 250/24V	40246	60 s	-32 to +55 °C	IP54	24 V DC, 24 V AC (50/60 Hz), spring return
AIR1 XVP 1250	RVMD 315/24V	40247	60 s	-32 to +55 °C	IP54	24 V DC, 24 V AC (50/60 Hz), spring return
AIR1 XVP 1800	RVMD 355/24V	40248	60 s	-32 to +55 °C	IP54	24 V DC, 24 V AC (50/60 Hz), spring return

Dimensions

XVP units	Type	Ref. no.	Ø A	B	C	D	E
AIR1 XVP 850	RVMD 250/24V	40246	250	137	79	158	44
AIR1 XVP 1250	RVMD 315/24V	40247	315	137	79	158	76
AIR1 XVP 1800	RVMD 355/24V	40248	355	137	126	251	50

AIR1-JVK XC/XVP

Dimensions AIR1-JVK XC/XVP



Dimensions in mm

Multi-leaf damper external

Multi-leaf damper for preventing cold draughts when the fan is stationary. Framework casing with connection flange on both sides.
Counter-rotating blades, with retracted sealing lip. Sealing class 2. Installation on outside of unit.

Technical data

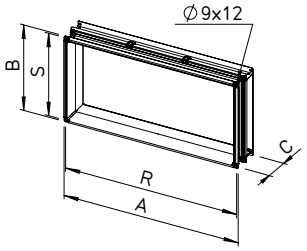
Type	Ref. no.	Runtime (open / closed)	Ambient temperature	Protection class	Actuator type
AIR1-JVK XC 2200/XVP 2500	06000	75 s	-30 bis +50 °C	IP42	24 V DC. spring return
AIR1-JVK XC 3200/XVP 3500	06003	75 s	-30 bis +50 °C	IP42	24 V DC. spring return

Dimensions

Type	Ref. no.	A	B	D	R	S	T	U
AIR1-JVK XC 2200/XVP 2500	06000	540	335	623	520	320	500	250
AIR1-JVK XC 3200/XVP 3500	06003	740	435	823	720	420	700	350

AIR1-VS

Dimensions AIR1-VS



Dimensions in mm

Flexible connector

Flexible connector (uninsulated), with flange connections on both sides, for mounting between the ventilation unit and duct system. Prevents structure-borne sound transmission and bridges mounting tolerances. Elastic fabric sleeve,
operating temperature range from -10 °C to +80 °C.
Only suitable for internal installation.

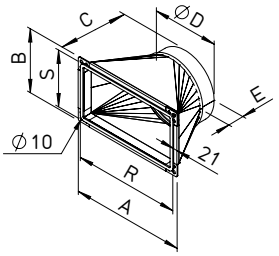
Dimensions

XVP units	Type	Ref. no.	A	B	C[1)]	R	S
AIR1 XVP 2500	AIR1-VS 50/30	07407	538	338	145	520	320
AIR1 XVP 3500	AIR1-VS 70/40	07408	738	438	145	720	420

[1)] max.

AIR1-ÜS XC/XVP

Dimensions AIR1-ÜS XC/XVP



Dimensions in mm

Square-round adapter

Symmetrical adapter for connecting the ventilation unit to round air ducts/duct systems. Made of galvanised steel sheet. The pressure loss of the adapter at maximum air volume is < 10 Pa on both the intake and discharge side.
Only suitable for internal installation.

Dimensions

Type	Ref. no.	A	B	C	ØD	E	R	S
AIR1-ÜS XC 2200/XVP 2500	04364	542	342	250	400	80	520	320
AIR1-ÜS XC 3200/XVP 3500	04365	742	442	300	450	80	720	420

AIR1-KS B

Ball siphon

Siphon for the drainage of condensate with over or underpressure in comparison to the environment. Self-filling and self-closing, with float ball as non-return valve. Screw cap for inspection purposes.
Suitable for a max. under-/overpressure of ± 600 Pa.
For use with floor mounted AIR1 units and cooling register.
Connection diameter 40 mm.

AIR1-KS B Ref. no. 07169

AIR1-KS D

Ball siphon

Siphon for the drainage of condensate with over or underpressure in comparison to the environment. Self-filling and self-closing, with float ball as non-return valve. Screw cap for inspection purposes.
Suitable for a max. underpressure of 1,300 Pa and an max. overpressure of 600 Pa.
Zur Verwendung für deckenmontierte AIR1-Geräte und Kühlregister.
Connection diameter 40 mm.

AIR1-KS D Ref. no. 07170

AIR1-BE ECO

Controller Eco

Backlit display with 4 lines a 20 characters. The display menu system is operated via seven buttons. There are two LEDs on the front side: One alarm LED and one LED for the input mode. The controller is delivered with a 5 m cable as standard. Cable lengths of 10 m and 20 m are optionally available. The maximum connection length is 100 m. The controller is designed for wall mounting. Alternatively, it can also be attached to the unit casing using magnetic strips. Protection class IP30.

Technical data

Type	Ref. no.	Voltage	Power consumption	Dimensions (WxHxD)	Ambient humidity	Ambient temperature	Connection cable 10 m	Connection cable 20 m
AIR1-BE ECO	06186	24 V DC	0.24 W	115 x 95 x 25 mm	Max. 90 % RH (Non-condensing)	+5 °C to +40 °C	AIR1-SL 4/10 Ref. no.: 07073	AIR1-SL 4/20 Ref. no.: 07121

AIR1-BE TOUCH 2

Controller Touch

Graphic user interface with intuitive menu structure and simple operation. The display has a capacitive touch function and a size of 7”, incl. multi-colour colour technology. Includes stainless steel casing for simple surface-mounting to the wall. It is delivered with a 5 m cable as standard. Cable lengths of 10 m and 20 m are optionally available. The maximum connection length is 100 m. Protection class IP20.

Technical data

Type	Ref. no.	Voltage	Power consumption	Dimensions (WxHxD)	Ambient humidity	Ambient temperature	Connection cable 10 m	Connection cable 20 m
AIR1-BE TOUCH 2	40751	24 V DC	6 W	185 x 131 x 50 mm	Max. 90 % RH (Non-condensing)	-10 °C to +60 °C	AIR1-SL 4/10 Ref. no.: 07073	AIR1-SL 4/20 Ref. no.: 07121

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

Room sensors

For measuring the CO_2, mixed gas (VOC) concentration or relative humidity and temperature. Please note the maximum number, a signal converter AIR1-SK (Ref. no. 06019) may be required. Dimensions (W x H x D) 85 x 85 x 27 mm.

Technical data

Type	Ref. no.	Measurement range	Power consumption
AIR1/KWL-VOC 0-10V	20250	0 - 2000 ppm	0.6 W / 24 V DC
AIR1/KWL-CO2 0-10V	20251	0 - 2000 ppm oder 0 - 5000 ppm	0.6 W / 24 V DC
AIR1/KWL-FTF 0-10V	20252	0 - 100% rF (1) und 0 - 50 °C	0.6 W / 24 V DC

AIR1-CO2 K

Carbon dioxide sensor for duct installation

Sensor for measuring the carbon dioxide concentration in the air. For installation in the ventilation duct. Installation depth 40 – 180 mm.

Technical data

Type	Ref. no.	Measurement range
AIR1-CO2 K	07124	0 ... 2000 ppm

AIR1-CAP

Extension kit for constant pressure control

Differential pressure transmitter for constant pressure operation of the ventilation unit. Vertical or horizontal installation possible. Protection class IP54.
Scope of delivery: Pressure transmitter, pressure hose and sensor.

Technical data

Type	Ref. no.	Voltage	Ambient humidity	Ambient temp.
AIR1-CAP	06756	24 V AC / DC ±15 %	Max. 95 % RH (1)	-25 °C to +50 °C

(1) Non-condensing

AIR1-SK

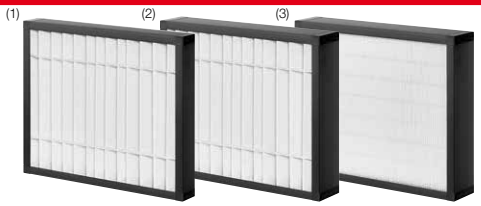
Signal converter for sensors

Signal converter for the connection of up to six AIR1 room sensors of the same sensor type. The AIR1-SK compares the connected inputs and forwards the highest input signal to the max. output. Supplied pre-installed in the appropriate terminal box incl. transformer 230 V / 24 V AC and terminal strip.
Dimensions terminal box (L x H x W): 218 x 149 x 97 mm

Technical data

Type	Ref. no.	Voltage	Power consumption	Ambient humidity	Ambient temperature	Protection class
AIR1-SK	06019	230 V, 50 Hz	max. 15 VA	Max. 90 % RH (non-condensing)	-40 °C to +50 °C	IP20 / IP66 in terminal box

ELF-AIR1 XVP



(1) Pre-filter outs. air ISO ePM$_{10}$ 50% (M5)
(2) Extract air filter ISO ePM$_{10}$ 50% (M5)
(3) Outs. or extract air filter ISO ePM$_1$ 55% (F7) Outside air filter ISO ePM$_1$ 80% (F9)

Spare air filter

Helios AIR1 units are supplied with the filter classes ePM1 55%/F7 (outside air) and ePM10 50%/M5 (extract air) as standard. Depending on the unit size, the air filter consists of multiple (separate) air filter inserts. This is taken into account when ordering the spare air filter.
In case of increased air quality requirements, other filter classes are available for the outside air and extract air (see table below). All air filters are pressure-loss-optimised cassette filters with large filter surfaces.

Technical data

	Type	Ref. no.	Number of air filter inserts included	Filterklasse
Pre-filter outside air	ELF-AIR1 XVP 850 ePM10 50%/48	40515	1	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 XVP 1250 ePM10 50%/48	40519	1	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 XVP 1800 ePM10 50%/48	40523	1	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 XVP 2500 ePM10 50%/48	40527	1	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 XVP 3500 ePM10 50%/48	40531	2	ISO ePM$_{10}$ 50% (M5)
Extract air filter (Standard filter)	ELF-AIR1 XVP 850 ePM10 50%/96	40514	1	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 XVP 1250 ePM10 50%/96	40518	1	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 XVP 1800 ePM10 50%/96	40522	1	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 XVP 2500 ePM10 50%/96	40526	1	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 XVP 3500 ePM10 50%/96	40530	2	ISO ePM$_{10}$ 50% (M5)
Outside air filter (Standard filter)	ELF-AIR1 XVP 850 ePM1 55%/96	40516	1	ISO ePM$_1$ 55% (F7)
	ELF-AIR1 XVP 1250 ePM1 55%/96	40520	1	ISO ePM$_1$ 55% (F7)
	ELF-AIR1 XVP 1800 ePM1 55%/96	40524	1	ISO ePM$_1$ 55% (F7)
	ELF-AIR1 XVP 2500 ePM1 55%/96	40528	1	ISO ePM$_1$ 55% (F7)
	ELF-AIR1 XVP 3500 ePM1 55%/96	40532	2	ISO ePM$_1$ 55% (F7)
Outside air filter (opt. in exchange with standard)	ELF-AIR1 XVP 850 ePM1 80%/96	40517	1	ISO ePM$_1$ 80% (F9)
	ELF-AIR1 XVP 1250 ePM1 80%/96	40521	1	ISO ePM$_1$ 80% (F9)
	ELF-AIR1 XVP 1800 ePM1 80%/96	40525	1	ISO ePM$_1$ 80% (F9)
	ELF-AIR1 XVP 2500 ePM1 80%/96	40529	1	ISO ePM$_1$ 80% (F9)
	ELF-AIR1 XVP 3500 ePM1 80%/96	40533	2	ISO ePM$_1$ 80% (F9)

The Helios AIR1® XH/XHP series: 9 units up to 8,500 m³/h.

9 unit types:

- **AIR1 XHP 750**
- **AIR1 XHP 1000**
- **AIR1 XHP 1500**
- **AIR1 XHP 2500**

with circular connection

- **AIR1 XH 3500**
- **AIR1 XH 4500**
- **AIR1 XH 5500**
- **AIR1 XH 7000**
- **AIR1 XH 8500**

with rectangular connection

The Helios AIR1 XH/XHP series stands for **reliable and high-performance compact ventilation units and various area of application.** The high-quality housing construction allows installation inside and outside and is modularly expandable.

The two-sided maintenance access to all unit components and the universal right or left configuration guarantee high flexibility at the construction site. The multi-level filter concept, which enables the optimal adaptation to individual circumstances and requirements, provides the perfect indoor climate.

Helios AIR1®

series XH/XHP

Multi-level filter concept

Also suitable for outdoor installation

Auxiliary heater can be optionally retrofitted in the unit at any time.

Separable casing design from 3,500 m³/h

Universal right / left configuration

Maintenance access on both sides for simple service work

Illustration corresponds to AIR1 XH 3500 with separable casing.

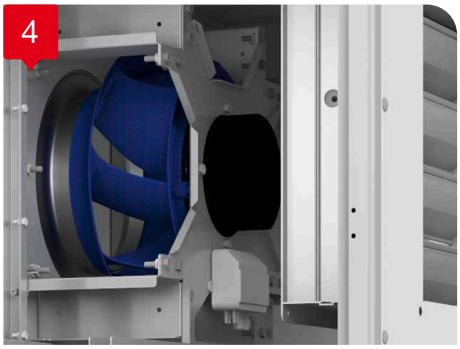
The XH/XHP series in detail.

1

2

3

4



1 Casing

Casing XHP and XH: Insulated on all sides with 50 mm mineral wool for optimum heat and sound insulation. Corrosion-resistant coating on the outside, corrosion class C4 and thus suitable for outdoor installation. Galvanized inside. The smooth inner surface meets the hygiene requirements for optimal cleaning, taking into account the German hygiene standard VDI 6022. Large inspection openings on both sides of the unit for easy access to all unit components and optimal maintenance options. Installation of electric or hot water reheating coil in the ventilation unit, even in case of retrofitting, is possible without any problems.
Casing of XHP units as one-piece compact casing in panel design.
Casing of XH units as separable casing made of robust and stable aluminium frame profiles, thermally optimized to minimize thermal bridges as well as service doors with maintenance-free hinges and lockable hand lever locks.

Housing and tightness classes according to DIN EN 1886 (XH/XHP)	
Thermal insulation	T2
Thermal bridging factor	TB2
Mechanical stability	D2
Housing leakage in case of overpressure	L1
Housing leakage in case of underpressure	L1
Filter bypass leakage	F9

Outdoor installation of unit

All units are suitable for internal and external installation. Additional accessories are mandatory for the external installation (e.g. weather protection cover, intake/discharge hoods etc.). In this respect, please see the accessory list or configure your unit with our online configuration software www.AIR1Select.com.

2 Heat exchanger

Eurovent-certified cross-counterflow plate heat exchanger made of aluminium with high thermal efficiency of up to 90 % in accordance with EN 308. The heat exchanger has high internal leak tightness and it is thus particularly suitable for applications with a risk of odour transmission. The heat exchanger module has an automatic bypass damper mechanism with a fully covered heat exchanger for summer night cooling. An electrical pre-heater (standard equipment only for XH units) heats the outside air at very low outside temperatures. Thus, it prevents the freezing of the heat exchanger and guarantees its safe functioning as well as optimal heat recovery for the entire heating period.

3 Separating the unit housing

The units can be separated to simplify transportation and for easier installation at the installation site for units above size XH 3500. Note: The units are delivered in individual modules, i.e. in multiple delivery units.

5

6

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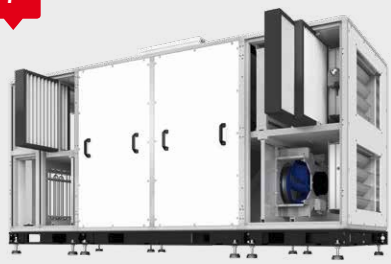


8

The AIR1 XH/XHP series has the following certifications:

- ☐ VDI 6022 (Hygiene)-Certification
- ☐ Eurovent-Certification

More info at:
www.eurovent-certification.com

4 Fans

The vibration dampened fans are located in the unit and they consist of free-wheeling, backward curved centrifugal impellers with direct drive via a variable EC motor with low energy consumption and very low noise level. The high performance plastic impeller is dynamically balanced in two levels. Variably controllable via 0 – 10 V signal. Plug-in connections to all electrical components for the simplification of maintenance work. Eurovent-certified EC-motors in class IE4 with very low SFP values and high energy efficiency.

Pipe routing

Installation-friendly connection of outside, exhaust, extract and supply air to a duct or pipe system. The floor-standing unit can be turned 180° for the installation of the air duct system, so that the outside air/exhaust air and extract air/supply air connections can be on the left or right side. Adapters are optionally available as unit accessories for adaption to a round duct system up to the unit sizes XH 3500 to 5500.

5 Control system

The ventilation unit is delivered ready for operation with a modern, all-round control system. The control system is attached on top of the unit in a connection box for easy maintenance , factory-wired and function-tested. Two controllers are available for selection (required accessory).

Overview of control functions:

- ☐ Choice between ventilation modes Constant volume CAV, Constant pressure CAP (accessory required) or Constant speed CRPM in %.
- ☐ Multiple possible operating modes and levels.
- ☐ Automatic control via humidity or room air quality sensors (can connect up to three sensor types and maximum 18 sensors).
- ☐ Automatic operation via integrated weekly programme.
- ☐ Operating modes Free cooling (also night cooling/bypass function) and active cooling (using cooling register) possible.
- ☐ Commissioning assistant for simple, quick and faultless commissioning of the unit and matching accessories.
- ☐ Connection to the central building control system via BACnet or Modbus.
- ☐ Digital output for collective fault signal.

Further information on the Helios AIR1 control system can be found on page 142.

6 Accessories

There are a number of accessory components available for the Helios AIR1 units. A detailed overview and the matching accessories for your Helios AIR1 unit can be found on the following product pages.

7 Air filters

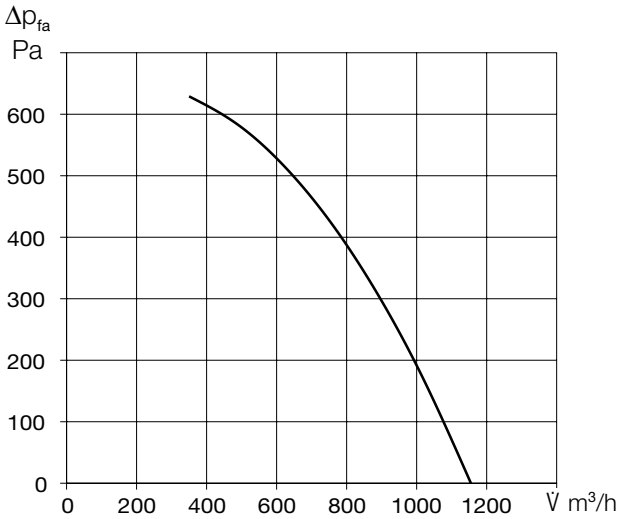
Cassette filters with long service lives due to dynamic pressure monitoring. Simple filter replacement at the side or below through insert frame and quick clamp device. A multi-level filter concept inside the unit is optional.

Further information on the air filters can be found on page 99.

AIR1 XHP 750

NEW

Performance curve AIR1 XHP 750



Unit type

	AIR1 XHP 750
Ref. no.	40608
Heat exchanger	Cross-counterflow

Technical data

Mechanical data			
Area of application	Inside/outside		
Installation position	standing		
Maintenance access	Side, both sides		
Min. air volume	270 m³/h		
Max. air volume ERP	780 m³/h (1)		
Max. air volume (free blowing)	1,150 m³/h		
Weight, unit operational	220 kg		
Delivery unit	1-part		
Unit segments	1		
Housing class (DIN 1886)	T2 / TB2 / D2		
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)		
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)		
Media temperature (air)	-20 to +50 °C		
Ambient temperature (place of installation)	-20 to +50 °C		
Protection class	IP31		
Electrical data			
Central building control system	BACnet, Modbus TCP/IP		
Voltage / Frequency	400 V 3N ~, 50 Hz	230 V 1N ~, 50 Hz (4)	
Max. output Fans	2 x 320 W	2 x 320 W	
Max. output elec. pre-/post-heater	2,700 / 2,700 W (3)	2,700 W (3)(5)	
Nominal current			
– Ventilation unit	4 / 0 / 0 A	4 A	4 A
– Electrical pre-heater	0 / 0 / 11.7 A	11.7 A (4)	–
– Electrical auxiliary heater	0 / 11.7 A / 0 A	–	11.7 A (4)
– max. total	4 / 11.7 / 11.7 A	15.7 A (4)	15.7 A (4)
Connection (wiring diagram no.)	1511	1511	

(1) = at 200 Pa external pressure loss ERP-compliant
(2) = Other filter classes see optional accessories
(3) = Optional accessories
(4) = Attention: 230 V connection of the unit is only possible without electric heater or with auxiliary heater AIR1-EVH XHP 1000-2,5 (Art.-Nr. 40572).
(5) = Attention: Auxiliary heater AIR1-EVH XHP 1000-2,5 (Art-Nr. 40572) only for 230 V connection (no 400 V connection possible!).

Sound data

Sound power level L_{WA} dB(A) at 200 Pa external pressure

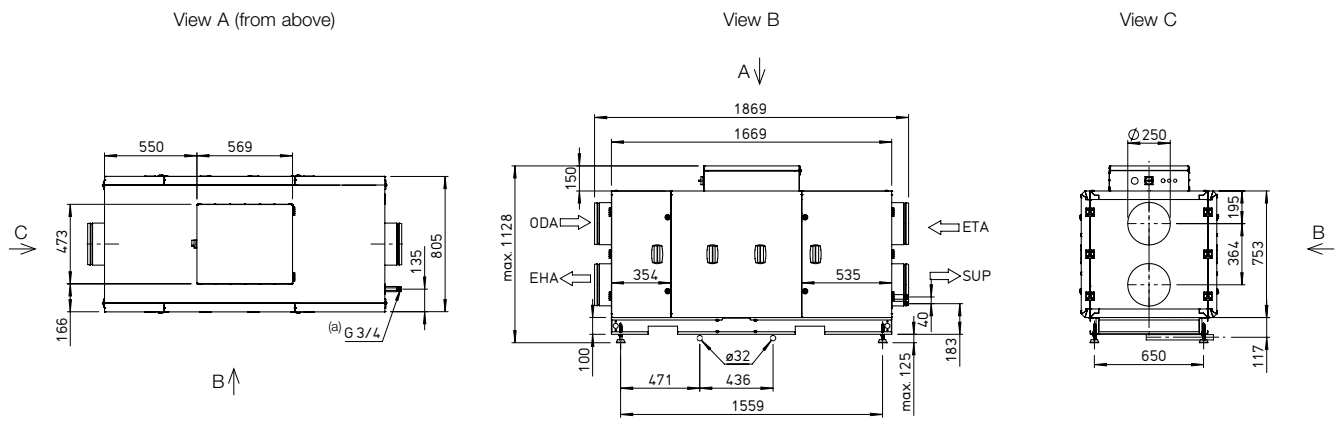
	370 m³/h	500 m³/h	780 m³/h
Supply air (L_{WA})	71	73	76
Extract air (L_{WA})	66	64	64
Outside air (L_{WA})	66	64	64
Exhaust air (L_{WA})	70	71	75

Sound pressure level L_{PA} dB(A) of sound radiated from housing

	370 m³/h	500 m³/h	780 m³/h
Housing rad. 1 m	42	42	43
Housing rad. 3 m	33	33	34
Housing rad. 5 m	28	28	29

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XHP 750



Dimensions in mm (a) External thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers

Pre-heater		
AIR1-EVH XHP 750 Electrical, internal	Ref. no. 40549	Page 84
Auxiliary heater		
AIR1-ENH XHP 750 Electrical, internal	Ref. no. 40550	Page 84
AIR1-NH WW XHP 750 Hot water, internal	Ref. no. 40551	Page 85
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 85
Cooling register		
AIR1-KR KW XHP 750 L (1) Cold water, external	Ref. no. 40552	Page 86
AIR1-KR KW XHP 750 R (1) Cold water, external	Ref. no. 40553	Page 86
AIR1-CO DX XHP 750 L (1) Change-over, external	Ref. no. 40554	Page 88
AIR1-CO DX XHP 750 R (1) Change-over, external	Ref. no. 40555	Page 88

Air routing

Motorised duct shutter		
RVMD 250/24V	Ref. no. 40246	Page 90
Recirculation kit		
AIR1-ULK XHP 750	Ref. no. 40559	Page 91

Condensate drainage

Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 92

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

External installation

Cover for external installation		
AIR1-AAD XHP 750 Weather protection cover for the unit	Ref. no. 40556	Page 93
AIR1-AAD KR KW + DX XHP 750 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 40557	Page 94
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 95

Controls

Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 97
AIR1-BE TOUCH 2	Ref. no. 40751	Page 97
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 97
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 97
Sensoren		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 97
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 97
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 97
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 98
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 98
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 98

Air filters

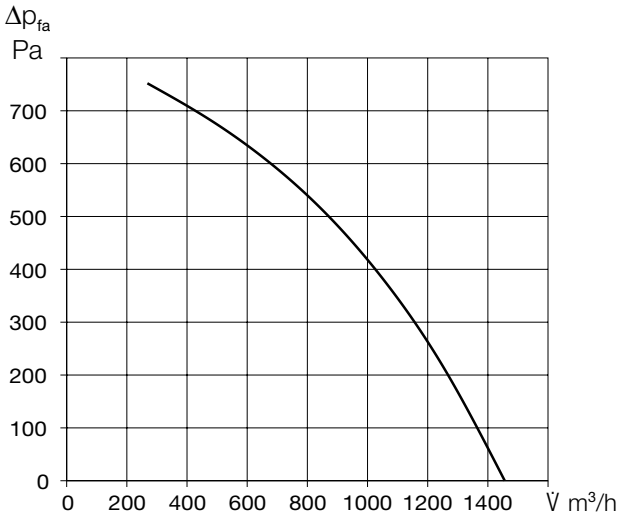
Spare air filter and other filter classes		
ELF-AIR1 XHP 750/ePM10 50%/48 (M5)	Ref. no. 40617	Page 99
ELF-AIR1 XHP 750/ePM10 50%/96 (M5)	Ref. no. 40595	Page 99
ELF-AIR1 XHP 750/ePM1 55%/96 (F7)	Ref. no. 40596	Page 99
ELF-AIR1 XHP 750/ePM1 80%/96 (F9)	Ref. no. 40597	Page 99

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1 XHP 1000

NEW

Performance curve AIR1 XHP 1000



Unit type

	AIR1 XHP 1000
Ref. no.	40609
Heat exchanger	Cross-counterflow

Technical data

Mechanical data		
Area of application	Inside/outside	
Installation position	standing	
Maintenance access	Side, both sides	
Min. air volume	350 m³/h	
Max. air volume ERP	920 m³/h (1)	
Max. air volume (free blowing)	1,450 m³/h	
Weight, unit operational	250 kg	
Delivery unit	1-part	
Unit segments	1	
Housing class (DIN 1886)	T2 / TB2 / D2	
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)	
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)	
Media temperature (air)	-20 to +50 °C	
Ambient temperature (place of installation)	-20 to +50 °C	
Protection class	IP31	
Electrical data		
Central building control system	BACnet, Modbus TCP/IP	
Voltage / Frequency	400 V 3N ~, 50 Hz	230 V 1N ~, 50 Hz (4)
Max. output Fans	2 x 500 W	2 x 500 W
Max. output elec. pre-/post-heater	3,600 / 3,600 W (3)	2,505 W (3) (4)
Nominal current		
– Ventilation unit	5.2 / 0 / 0 A	5.2 A
– Electrical pre-heater	5.2 / 5.2 / 5.2 A	10.8 A (4)
– Electrical auxiliary heater	5.2 / 5.2 / 5.2 A	not permitted
– max. total	15.6 / 10.4 / 10.4 A	16 A (4)
Connection (wiring diagram no.)	1512	1512

(1) = at 200 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = Optional accessories
(4) = Note: 230 V connection of the unit is only permissible without or with pre-heater AIR1-EVH XHP 1000-2,5 (Ref. No. 40572) and without electrical auxiliary heater.

Sound data

Sound power level L_{WA} dB(A) at 200 Pa external pressure

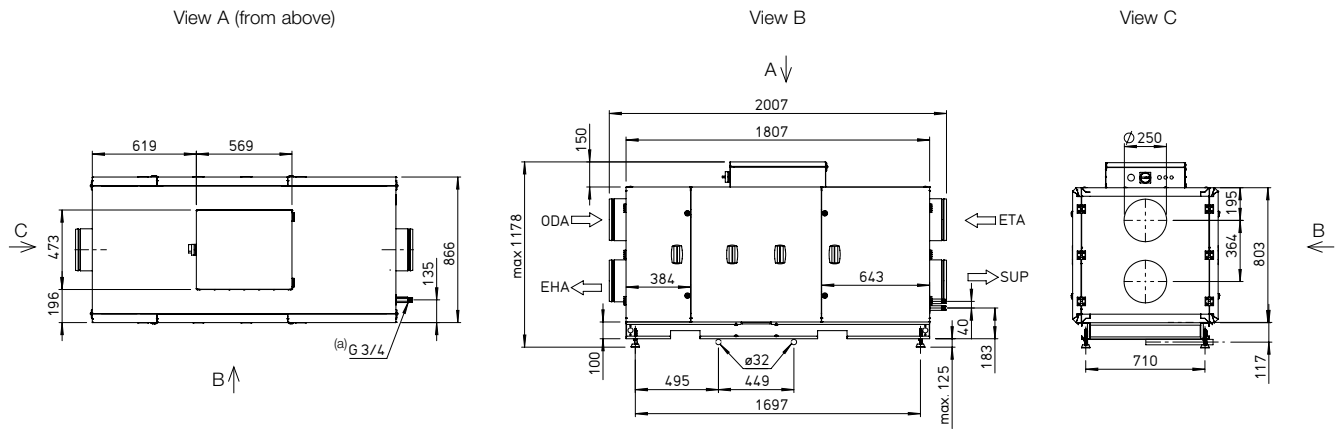
	500 m³/h	700 m³/h	920 m³/h
Supply air (L_{WA})	69	71	72
Extract air (L_{WA})	59	57	57
Outside air (L_{WA})	59	57	57
Exhaust air (L_{WA})	70	73	74

Sound pressure level L_{PA} dB(A) of sound radiated from housing

	500 m³/h	700 m³/h	920 m³/h
Housing rad. 1 m	36	38	40
Housing rad. 3 m	26	28	30
Housing rad. 5 m	22	24	26

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XHP 1000



Dimensions in mm (a) External thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH XHP 1000-3,6 Electrical, internal	Ref. no. 40560	Page 84
AIR1-EVH XHP 1000-2,5 Electrical, internal	Ref. no. 40572	Page 84
Auxiliary heater		
AIR1-ENH XHP 1000 Electrical, internal	Ref. no. 40561	Page 84
AIR1-NH WW XHP 1000 Hot water, internal	Ref. no. 40562	Page 84
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 84
Cooling register		
AIR1-KR KW XHP 1000 L (1) Cold water, external	Ref. no. 40563	Page 86
AIR1-KR KW XHP 1000 R (1) Cold water, external	Ref. no. 40564	Page 86
AIR1-CO DX XHP 1000 L (1) Change-over, external	Ref. no. 40565	Page 88
AIR1-CO DX XHP 1000 R (1) Change-over, external	Ref. no. 40566	Page 88

Air routing		
Motorised duct shutter		
RVMD 250/24V	Ref. no. 40246	Page 90
Recirculation kit		
AIR1-ULK XHP 1000	Ref. no. 40570	Page 91

Condensate drainage		
Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 92

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

External installation		
Cover for external installation		
AIR1-AAD XHP 1000 Weather protection cover for the unit	Ref. no. 40567	Page 93
AIR1-AAD KR KW + DX XHP 1000 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 40568	Page 94
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 95

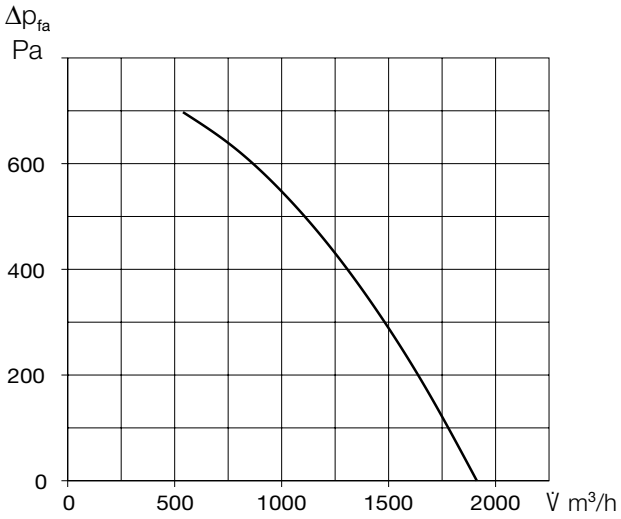
Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 97
AIR1-BE TOUCH 2	Ref. no. 40751	Page 97
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 97
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 97
Sensoren		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 97
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 97
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 97
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 98
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 98
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 98

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XHP 1000/ePM10 50%/48 (M5)	Ref. no. 40618	Page 99
ELF-AIR1 XHP 1000/ePM10 50%/96 (M5)	Ref. no. 40598	Page 99
ELF-AIR1 XHP 1000/ePM1 55%/96 (F7)	Ref. no. 40599	Page 99
ELF-AIR1 XHP 1000/ePM1 80%/96 (F9)	Ref. no. 40600	Page 99
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.		

AIR1 XHP 1500

NEW

Performance curve AIR1 XHP 1500



Unit type

	AIR1 XHP 1500
Ref. no.	40610
Heat exchanger	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	standing
Maintenance access	Side, both sides
Min. air volume	450 m³/h
Max. air volume ERP	1,375 m³/h (1)
Max. air volume (free blowing)	1,900 m³/h
Weight, unit operational	288 kg
Delivery unit	1-part
Unit segments	1
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM1 55% (F7) (2)
Filter Extract air	ISO ePM10 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 500 W
Max. output elec. pre-/post-heater	3,600 / 5,420 W (3)
Nominal current	
– Ventilation unit	0.8 / 2.2 / 2.2 A
– Electrical pre-heater	5.2 / 5.2 / 5.2 A
– Electrical auxiliary heater	7.8 / 7.8 / 7.8 A
– max. total	13.8 / 15.2 / 15.2 A
Connection (wiring diagram no.)	1513

(1) = at 250 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = Optional accessories

Sound data

Sound power level L_{WA} dB(A) at 250 Pa external pressure

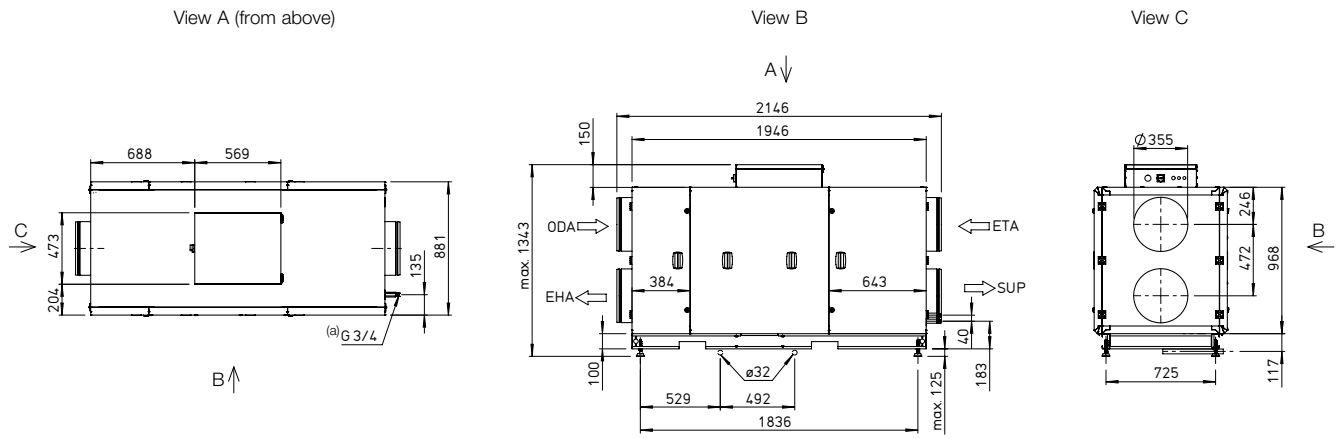
	625 m³/h	900 m³/h	1,375 m³/h
Supply air (L_{WA})	70	71	74
Extract air (L_{WA})	58	56	57
Outside air (L_{WA})	58	55	56
Exhaust air (L_{WA})	72	73	76

Sound pressure level L_{PA} dB(A) of sound radiated from housing

	625 m³/h	900 m³/h	1,375 m³/h
Housing rad. 1 m	37	38	38
Housing rad. 3 m	27	29	29
Housing rad. 5 m	23	24	24

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XHP 1500



Dimensions in mm (a) External thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers

Pre-heater		
AIR1-EVH XHP 1500 Electrical, internal	Ref. no. 40571	Page 84
Auxiliary heater		
AIR1-ENH XHP 1500 Electrical, internal	Ref. no. 40573	Page 84
AIR1-NH WW XHP 1500 Hot water, internal	Ref. no. 40575	Page 84
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 84
Cooling register		
AIR1-KR KW XHP 1500 L (1) Cold water, external	Ref. no. 40576	Page 86
AIR1-KR KW XHP 1500 R (1) Cold water, external	Ref. no. 40577	Page 86
AIR1-CO DX XHP 1500 L (1) Change-over, external	Ref. no. 40578	Page 88
AIR1-CO DX XHP 1500 R (1) Change-over, external	Ref. no. 40579	Page 88

Air routing

Motorised duct shutter		
RVMD 355/24V	Ref. no. 40248	Page 90
Recirculation kit		
AIR1-ULK XHP 1500	Ref. no. 40583	Page 91

Condensate drainage

Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 92

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

External installation

Cover for external installation		
AIR1-AAD XHP 1500 Weather protection cover for the unit	Ref. no. 40580	Page 93
AIR1-AAD KR KW + DX XHP 1500 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 40581	Page 94
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 95

Controls

Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 97
AIR1-BE TOUCH 2	Ref. no. 40751	Page 97
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 97
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 97
Sensoren		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 97
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 97
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 97
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 98
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 98
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 98

Air filters

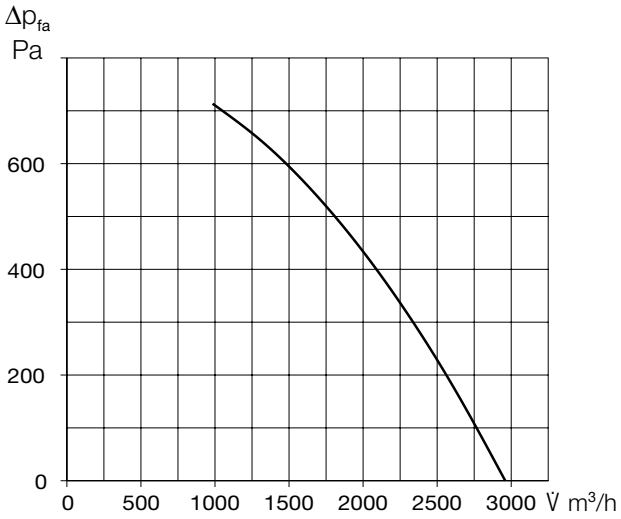
Spare air filter and other filter classes		
ELF-AIR1 XHP 1500/ePM10 50%/48 (M5)	Ref. no. 40619	Page 99
ELF-AIR1 XHP 1500/ePM10 50%/96 (M5)	Ref. no. 40601	Page 99
ELF-AIR1 XHP 1500/ePM1 55%/96 (F7)	Ref. no. 40602	Page 99
ELF-AIR1 XHP 1500/ePM1 80%/96 (F9)	Ref. no. 40603	Page 99

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1 XHP 2500

NEW

Performance curve AIR1 XHP 2500



Unit type

	AIR1 XHP 2500
Ref. no.	40611
Heat exchanger	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	standing
Maintenance access	Side, both sides
Min. air volume	700 m³/h
Max. air volume ERP	2,300 m³/h (1)
Max. air volume (free blowing)	2,900 m³/h
Weight, unit operational	389 kg
Delivery unit	1-part
Unit segments	1
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM₁ 55% (F7) (2)
Filter Extract air	ISO ePM₁₀ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 780 W
Max. output elec. pre-/post-heater	9,000 / 9,000 W (3)
Nominal current	
– Ventilation unit	0.8 / 3.4 / 3.4 A
– Electrical pre-heater	13 / 13 / 13 A
– Electrical auxiliary heater	13 / 13 / 13 A
– max. total	26.8 / 29.4 / 29.4 A
Connection (wiring diagram no.)	1514

(1) = at 250 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = Optional accessories

Sound data

Sound power level L_{WA} dB(A) at 250 Pa external pressure

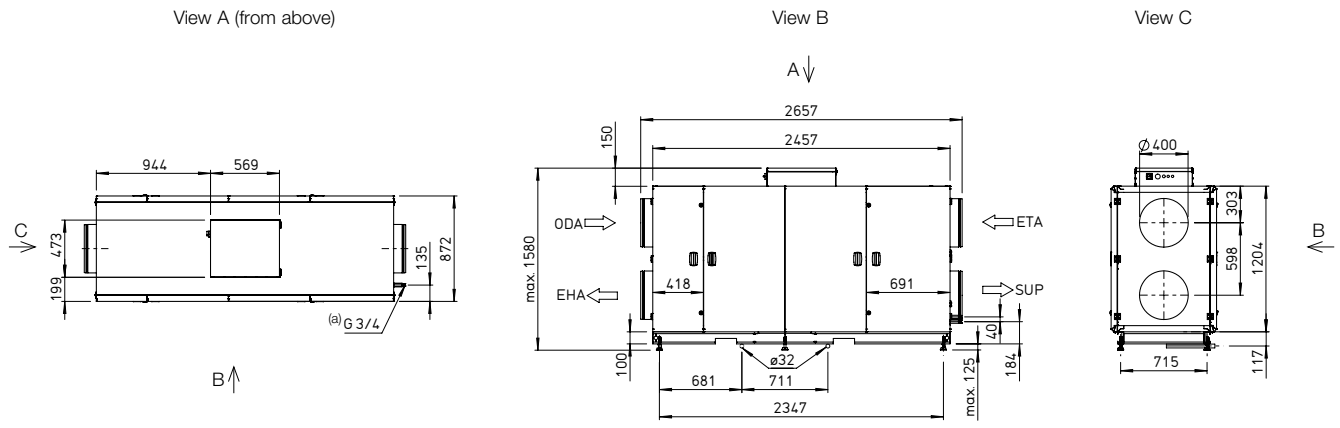
	750 m³/h	1,700 m³/h	2,300 m³/h
Supply air (L_{WA})	69	73	76
Extract air (L_{WA})	61	55	57
Outside air (L_{WA})	61	55	57
Exhaust air (L_{WA})	71	75	78

Sound pressure level L_{PA} dB(A) of sound radiated from housing

	750 m³/h	1,700 m³/h	2,300 m³/h
Housing rad. 1 m	37	37	40
Housing rad. 3 m	27	28	31
Housing rad. 5 m	23	23	26

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XHP 2500



Dimensions in mm (a) External thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH XHP 2500 Electrical, internal	Ref. no. 40584	Page 84
Auxiliary heater		
AIR1-ENH XHP 2500 Electrical, internal	Ref. no. 40585	Page 84
AIR1-NH WW XHP 2500 Hot water, internal	Ref. no. 40586	Page 84
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 84
Cooling register		
AIR1-KR KW XHP 2500 L (1) Cold water, external	Ref. no. 40587	Page 86
AIR1-KR KW XHP 2500 R (1) Cold water, external	Ref. no. 40588	Page 86
AIR1-CO DX XHP 2500 L (1) Change-over, external	Ref. no. 40589	Page 88
AIR1-CO DX XHP 2500 R (1) Change-over, external	Ref. no. 40590	Page 88

Air routing		
Motorised duct shutter		
RVMD 400/24V	Ref. no. 40249	Page 90
Recirculation kit		
AIR1-ULK XHP 2500	Ref. no. 40594	Page 91

Condensate drainage		
Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 92

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

External installation		
Cover for external installation		
AIR1-AAD XHP 2500 Weather protection cover for the unit	Ref. no. 40591	Page 93
AIR1-AAD KR KW + DX XHP 2500 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 40592	Page 94
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 95

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 97
AIR1-BE TOUCH 2	Ref. no. 40751	Page 97
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 97
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 97
Sensoren		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 97
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 97
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 97
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 98
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 98
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 98

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XHP 2500/ePM10 50%/48 (M5)	Ref. no. 40620	Page 99
ELF-AIR1 XHP 2500/ePM10 50%/96 (M5)	Ref. no. 40605	Page 99
ELF-AIR1 XHP 2500/ePM1 55%/96 (F7)	Ref. no. 40606	Page 99
ELF-AIR1 XHP 2500/ePM1 80%/96 (F9)	Ref. no. 40607	Page 99

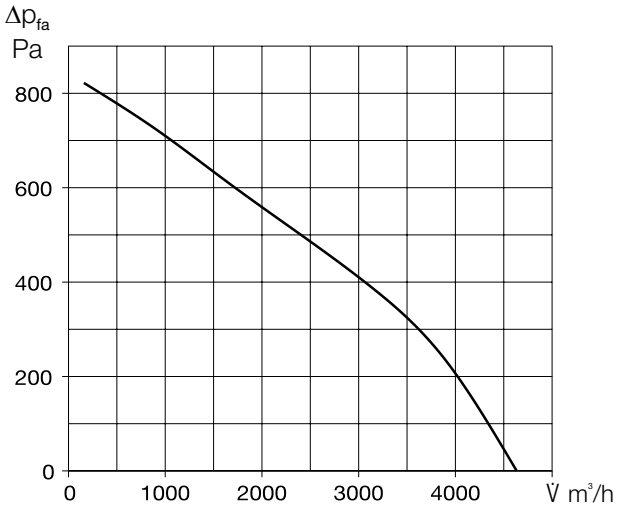
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1 XH 3500

Separable casing design

Fig. shows accessories

Performance curve AIR1 XH 3500



Unit type

	AIR1 XH 3500
Ref. no.	04338
Heat exchanger	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	standing
Maintenance access	Side, both sides
Min. air volume	825 m³/h
Max. air volume ERP	3,150 m³/h (1)
Max. air volume (free blowing)	4,650 m³/h
Weight, unit operational	687 kg
Delivery unit	3-part
Unit segments	3
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 1,500 W
Max. output elec. pre-heater	9,600 W
Nominal current	
– Ventilation unit	18.5 / 18.5 / 19.2 A (3)
– Electrical auxiliary heater	13.9 / 13.9 / 13.9 A (4)
– max. total	32.4 / 32.4 / 33.1 A
Connection (wiring diagram no.)	1329

(1) = at 250 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = includes electrical pre-heater
(4) = Optional accessories

Sound data

Sound power level L_{WA} dB(A) at 250 Pa external pressure

	1,000 m³/h	2,200 m³/h	3,150 m³/h
Supply air (L_{WA})	77	79	82
Extract air (L_{WA})	64	65	66
Outside air (L_{WA})	65	66	64
Exhaust air (L_{WA})	79	81	83

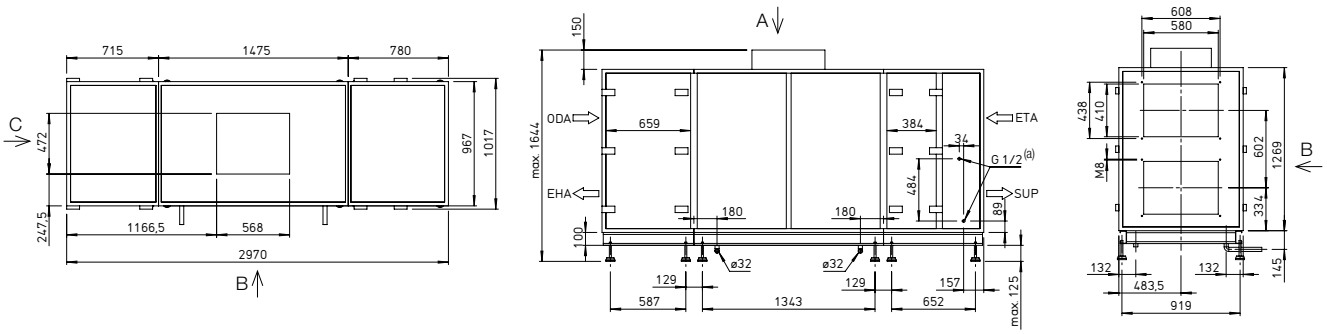
Sound pressure level L_{PA} dB(A) of sound radiated from housing

	1,000 m³/h	2,200 m³/h	3,150 m³/h
Housing rad. 1 m	42	44	45
Housing rad. 3 m	33	34	35
Housing rad. 5 m	28	30	31

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XH 3500

View A (from above) | View B | View C



Dimensions in mm | (a) External thread | ODA: Outside air | EHA: Exhaust air | ETA: Extract air | SUP: Supply air

Accessories

Heating and cooling registers

Auxiliary heater		
AIR1-ENH XH 3500 Electrical, internal	Ref. no. 03592	Page 84
AIR1-NH WW XH 3500 Hot water, internal	Ref. no. 03683	Page 85
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 85
Cooling register		
AIR1-KR KW XH 3500 L (1) Cold water, external	Ref. no. 03910	Page 86
AIR1-KR KW XH 3500 R (1) Cold water, external	Ref. no. 04268	Page 86
AIR1-CO DX XH 3500 L (1) Change-over, external	Ref. no. 04408	Page 88
AIR1-CO DX XH 3500 R (1) Change-over, external	Ref. no. 04878	Page 88
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 90

Air routing

Multi-leaf damper		
AIR1-JVK XH 3500-4500/RH 3000	Ref. no. 06009	Page 90
Recirculation kit		
AIR1-ULK XH 3500	Ref. no. 06025	Page 91
Flexible connector		
AIR1-VS 58/41	Ref. no. 04374	Page 91
Adapter square-round		
AIR1-ÜS XH 3500-4500/RH 3000	Ref. no. 04369	Page 92

Condensate drainage

Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 92

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.
(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

External installation

Cover for external installation		
AIR1-AAD XH 3500 Weather protection cover for the unit	Ref. no. 06316	Page 93
AIR1-AAD KR KW + DX XH 3500 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06462	Page 94
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 95
Hoods		
AIR1-AAHA XH 3500-4500/RH 3000 Intake hood outside air	Ref. no. 06487	Page 95
AIR1-AAHF XH 3500-4500/RH 3000 Discharge hood exhaust air	Ref. no. 06647	Page 96

Controls

Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 97
AIR1-BE TOUCH	Ref. no. 06187	Page 97
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 97
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 97
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 97
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 97
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 97
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 98
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 98
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 98

Air filters

Spare air filter and other filter classes		
ELF-AIR1 XH 3500/ePM10 50%/48 (M5)	Ref. no. 02180	Page 99
ELF-AIR1 XH 3500/ePM10 50%/96 (M5)	Ref. no. 02206	Page 99
ELF-AIR1 XH 3500/ePM1 55%/96 (F7)	Ref. no. 02230	Page 99
ELF-AIR1 XH 3500/ePM1 80%/96 (F9)	Ref. no. 02291	Page 99

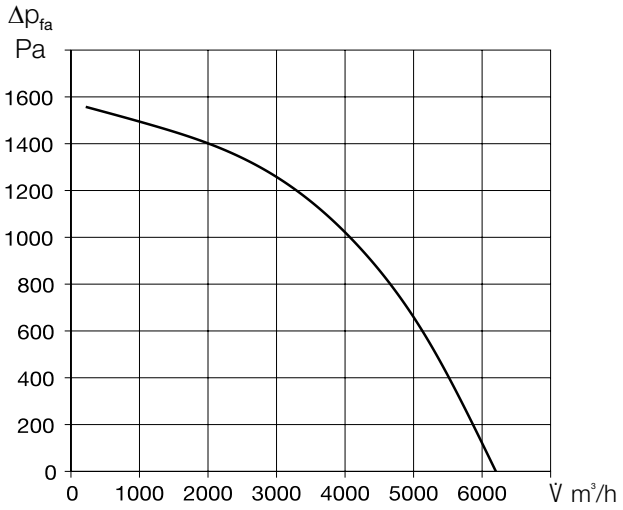
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1 XH 4500

Separable casing design

Fig. shows accessories

Performance curve AIR1 XH 4500



Unit type

	AIR1 XH 4500
Ref. no.	04339
Heat exchanger	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	standing
Maintenance access	Side, both sides
Min. air volume	665 m³/h
Max. air volume ERP	4,150 m³/h (1)
Max. air volume (free blowing)	6,100 m³/h
Weight, unit operational	750 kg
Delivery unit	3-part
Unit segments	3
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 2,500 W
Max. output elec. pre-heater	12,900 W
Nominal current	
– Ventilation unit	26.3 / 26.3 / 27 A (3)
– Electrical auxiliary heater	18.6 / 18.6 / 18.6 A (4)
– max. total	44.9 / 44.9 / 45.6 A
Connection (wiring diagram no.)	1330

(1) = at 250 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = includes electrical pre-heater
(4) = Optional accessories

Sound data

Sound power level L_{WA} dB(A) at 250 Pa external pressure

	1,300 m³/h	2,900 m³/h	4,150 m³/h
Supply air (L_{WA})	71	76	82
Extract air (L_{WA})	48	59	67
Outside air (L_{WA})	62	58	63
Exhaust air (L_{WA})	70	75	81

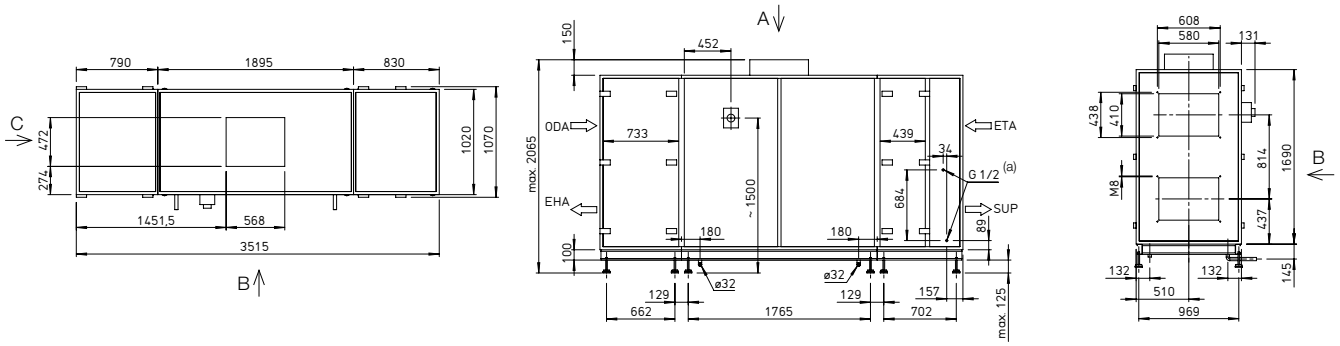
Sound pressure level L_{PA} dB(A) of sound radiated from housing

	1,300 m³/h	2,900 m³/h	4,150 m³/h
Housing rad. 1 m	41	42	48
Housing rad. 3 m	31	33	39
Housing rad. 5 m	27	28	34

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XH 4500

View A (from above) | View B | View C



Dimensions in mm | (a) External thread | ODA: Outside air | EHA: Exhaust air | ETA: Extract air | SUP: Supply air

Accessories

Heating and cooling registers		
Auxiliary heater		
AIR1-ENH XH 4500 Electrical, internal	Ref. no. 03593	Page 84
AIR1-NH WW XH 4500 Hot water, internal	Ref. no. 03684	Page 85
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 85
Cooling register		
AIR1-KR KW XH 4500 L (1) Cold water, external	Ref. no. 03919	Page 86
AIR1-KR KW XH 4500 R (1) Cold water, external	Ref. no. 04278	Page 86
AIR1-CO DX XH 4500 L (1) Change-over, external	Ref. no. 04409	Page 88
AIR1-CO DX XH 4500 R (1) Change-over, external	Ref. no. 04879	Page 88
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 90

Air routing		
Multi-leaf damper		
AIR1-JVK XH 3500-4500/RH 3000	Ref. no. 06009	Page 90
Recirculation kit		
AIR1-ULK XH 4500	Ref. no. 06026	Page 91
Flexible connector		
AIR1-VS 58/41	Ref. no. 04374	Page 91
Adapter square-round		
AIR1-ÜS XH 3500-4500/RH 3000	Ref. no. 04369	Page 92

Condensate drainage		
Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 92

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.
(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

External installation		
Cover for external installation		
AIR1-AAD XH 4500 Weather protection cover for the unit	Ref. no. 06347	Page 93
AIR1-AAD KR KW + DX XH 4500 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06463	Page 94
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 95
Hoods		
AIR1-AAHA XH 3500-4500/RH 3000 Intake hood outside air	Ref. no. 06487	Page 95
AIR1-AAHF XH 3500-4500/RH 3000 Discharge hood exhaust air	Ref. no. 06647	Page 96

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 97
AIR1-BE TOUCH	Ref. no. 06187	Page 97
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 97
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 97
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 97
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 97
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 97
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 98
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 98
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 98

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XH 4500/ePM10 50%/48 (M5)	Ref. no. 02182	Page 99
ELF-AIR1 XH 4500/ePM10 50%/96 (M5)	Ref. no. 02207	Page 99
ELF-AIR1 XH 4500/ePM1 55%/96 (F7)	Ref. no. 02231	Page 99
ELF-AIR1 XH 4500/ePM1 80%/96 (F9)	Ref. no. 02292	Page 99

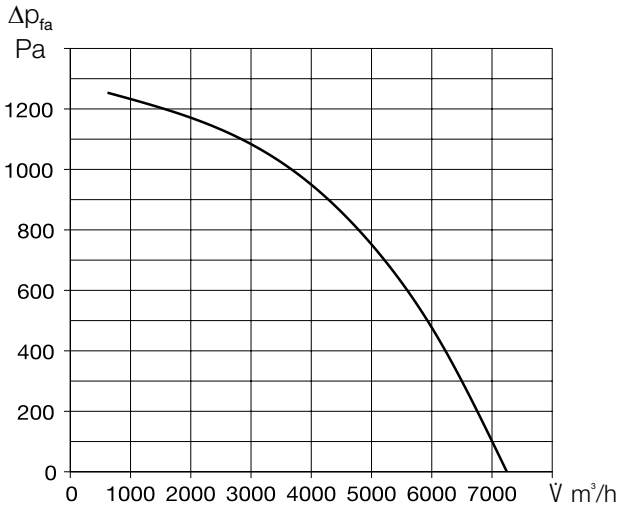
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1 XH 5500

Separable casing design

Fig. shows accessories

Performance curve AIR1 XH 5500



Unit type

	AIR1 XH 5500
Ref. no.	04340
Heat exchanger	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	standing
Maintenance access	Side, both sides
Min. air volume	845 m³/h
Max. air volume ERP	5,400 m³/h (1)
Max. air volume (free blowing)	7,200 m³/h
Weight, unit operational	873 kg
Delivery unit	3-part
Unit segments	3
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM₁ 55% (F7) (2)
Filter Extract air	ISO ePM₁₀ 50% (M5) (2)
Media temperature (air)	-20 to +40 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 2,400 W
Max. output elec. pre-heater	17,700 W
Nominal current	
– Ventilation unit	32.9 / 32.9 / 33.7 A (3)
– Electrical auxiliary heater	25.5 / 25.5 / 25.5 A (4)
– max. total	58.4 / 58.4 / 59.2 A
Connection (wiring diagram no.)	1331

(1) = at 400 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = includes electrical pre-heater
(4) = Optional accessories

Sound data

Sound power level L_{WA} dB(A) at 400 Pa external pressure

	1,800 m³/h	3,800 m³/h	5,400 m³/h
Supply air (L_{WA})	77	79	84
Extract air (L_{WA})	63	62	67
Outside air (L_{WA})	67	61	62
Exhaust air (L_{WA})	76	77	83

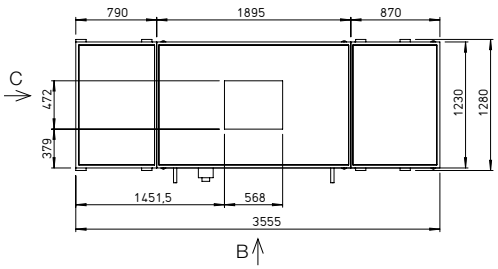
Sound pressure level L_{PA} dB(A) of sound radiated from housing

	1,800 m³/h	3,800 m³/h	5,400 m³/h
Housing rad. 1 m	46	45	50
Housing rad. 3 m	37	36	41
Housing rad. 5 m	32	31	36

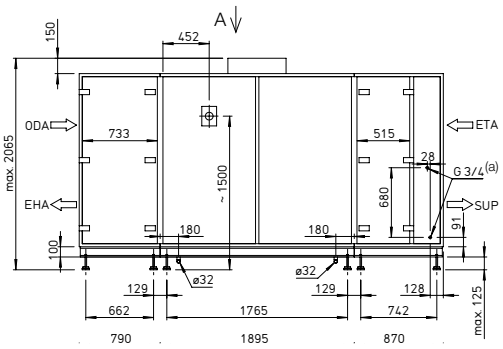
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XH 5500

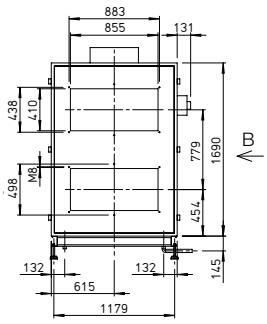
View A (from above)



View B



View C



Dimensions in mm | (a) External thread | ODA: Outside air | EHA: Exhaust air | ETA: Extract air | SUP: Supply air

Accessories

Heating and cooling registers		
Auxiliary heater		
AIR1-ENH XH 5500 Electrical, internal	Ref. no. 03595	Page 84
AIR1-NH WW XH 5500 Hot water, internal	Ref. no. 03687	Page 85
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 85
Cooling register		
AIR1-KR KW XH 5500 L (1) Cold water, external	Ref. no. 03932	Page 86
AIR1-KR KW XH 5500 R (1) Cold water, external	Ref. no. 04279	Page 86
AIR1-CO DX XH 5500 L (1) Change-over, external	Ref. no. 04410	Page 88
AIR1-CO DX XH 5500 R (1) Change-over, external	Ref. no. 04883	Page 88
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 90

Air routing		
Multi-leaf damper		
AIR1-JVK XH 5500/RH 5000-6000	Ref. no. 06010	Page 90
Recirculation kit		
AIR1-ULK XH 5500	Ref. no. 06027	Page 91
Flexible connector		
AIR1-VS 85/41	Ref. no. 04375	Page 91
Adapter square-round		
AIR1-ÜS XH 5500/RH 5000-6000	Ref. no. 04370	Page 92

Condensate drainage		
Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 92

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.
(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

External installation		
Cover for external installation		
AIR1-AAD XH 5500 Weather protection cover for the unit	Ref. no. 06349	Page 93
AIR1-AAD KR KW + DX XH 5500 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06464	Page 94
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 95
Hoods		
AIR1-AAHA XH 5500/RH 5000-6000 Intake hood outside air	Ref. no. 06496	Page 95
AIR1-AAHF XH 5500/RH 5000-6000 Discharge hood exhaust air	Ref. no. 06648	Page 96

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 97
AIR1-BE TOUCH	Ref. no. 06187	Page 97
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 97
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 97
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 97
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 97
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 97
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 98
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 98
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 98

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 XH 5500/ePM10 50%/48 (M5)	Ref. no. 02186	Page 99
ELF-AIR1 XH 5500/ePM10 50%/96 (M5)	Ref. no. 02208	Page 99
ELF-AIR1 XH 5500/ePM1 55%/96 (F7)	Ref. no. 02233	Page 99
ELF-AIR1 XH 5500/ePM1 80%/96 (F9)	Ref. no. 02293	Page 99

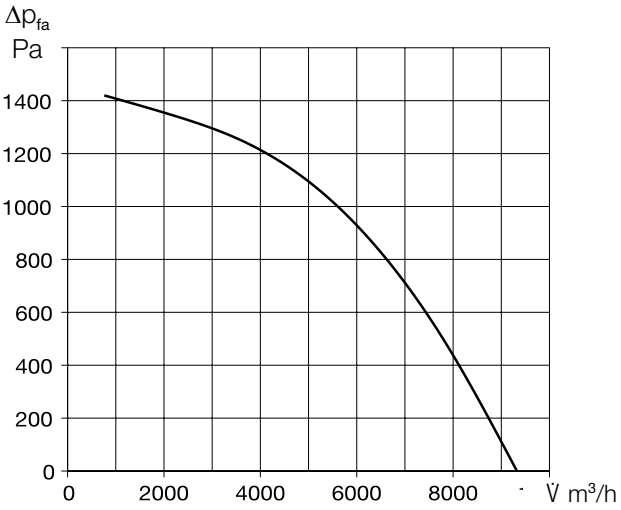
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1 XH 7000

Separable casing design

Fig. shows accessories

Performance curve AIR1 XH 7000



Unit type

	AIR1 XH 7000
Ref. no.	04341
Heat exchanger	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	standing
Maintenance access	Side, both sides
Min. air volume	1,080 m³/h
Max. air volume ERP	6,700 m³/h (1)
Max. air volume (free blowing)	9,300 m³/h
Weight, unit operational	1,080 kg
Delivery unit	3-part
Unit segments	3
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 3,600 W
Max. output elec. pre-heater	21,000 W
Nominal current	
– Ventilation unit	41.3 / 41.3 / 42.3 A (3)
– Electrical auxiliary heater	30.3 / 30.3 / 30.3 A (4)
– max. total	71.6 / 71.6 / 72.6 A
Connection (wiring diagram no.)	1332

(1) = at 400 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = includes electrical pre-heater
(4) = Optional accessories

Sound data

Sound power level L_{WA} dB(A) at 400 Pa external pressure

	2,200 m³/h	4,400 m³/h	6,700 m³/h
Supply air (L_{WA})	78	81	88
Extract air (L_{WA})	64	63	71
Outside air (L_{WA})	67	62	68
Exhaust air (L_{WA})	77	80	87

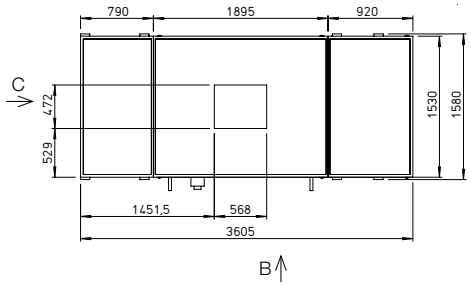
Sound pressure level L_{PA} dB(A) of sound radiated from housing

	2,200 m³/h	4,400 m³/h	6,700 m³/h
Housing rad. 1 m	47	48	55
Housing rad. 3 m	37	39	45
Housing rad. 5 m	33	34	41

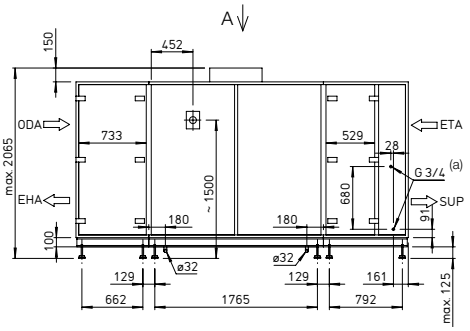
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XH 7000

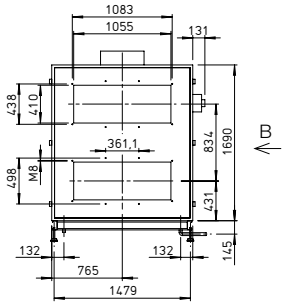
View A (from above)



View B



View C



Dimensions in mm | (a) External thread | ODA: Outside air | EHA: Exhaust air | ETA: Extract air | SUP: Supply air

Accessories

Heating and cooling registers

Auxiliary heater		
AIR1-ENH XH 7000 Electrical, internal	Ref. no. 03603	Page 84
AIR1-NH WW XH 7000 Hot water, internal	Ref. no. 03689	Page 85
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V) M	Ref. no. 06310	Page 85
Cooling register		
AIR1-KR KW XH 7000 L (1) Cold water, external	Ref. no. 03945	Page 86
AIR1-KR KW XH 7000 R (1) Cold water, external	Ref. no. 04281	Page 86
AIR1-CO DX XH 7000 L (1) Change-over, external	Ref. no. 04414	Page 88
AIR1-CO DX XH 7000 R (1) Change-over, external	Ref. no. 03123	Page 88
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 90

Air routing

Multi-leaf damper		
AIR1-JVK XH 7000/RH 8000	Ref. no. 06012	Page 90
Recirculation kit		
AIR1-ULK XH 7000	Ref. no. 06028	Page 91
Flexible connector		
AIR1-VS 105/41	Ref. no. 04376	Page 91

Condensate drainage

Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 92

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.
(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

External installation

Cover for external installation		
AIR1-AAD XH 7000 Weather protection cover for the unit	Ref. no. 06350	Page 93
AIR1-AAD KR KW + DX XH 7000 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06465	Page 94
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 95
Hoods		
AIR1-AAHA XH 7000/RH 8000 Intake hood outside air	Ref. no. 06497	Page 95
AIR1-AAHF XH 7000/RH 8000 Discharge hood exhaust air	Ref. no. 06841	Page 96

Controls

Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 97
AIR1-BE TOUCH	Ref. no. 06187	Page 97
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 97
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 97
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 97
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 97
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 97
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 98
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 98
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 98

Air filters

Spare air filter and other filter classes		
ELF-AIR1 XH 7000/ePM10 50%/48 (M5)	Ref. no. 02187	Page 99
ELF-AIR1 XH 7000/ePM10 50%/96 (M5)	Ref. no. 02209	Page 99
ELF-AIR1 XH 7000/ePM1 55%/96 (F7)	Ref. no. 02234	Page 99
ELF-AIR1 XH 7000/ePM1 80%/96 (F9)	Ref. no. 02435	Page 99

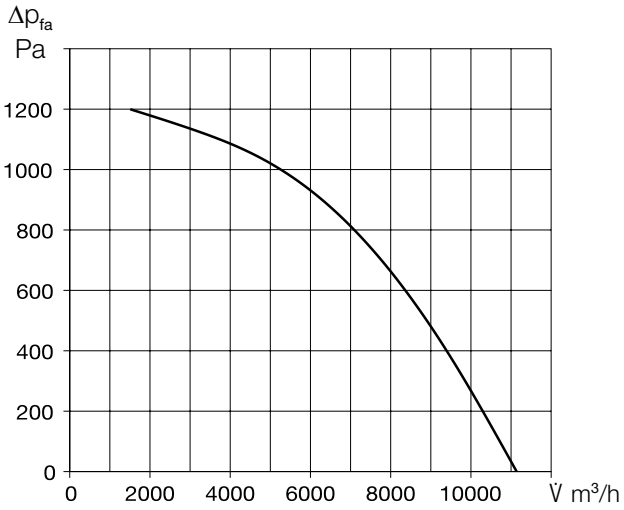
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1 XH 8500

Separable casing design

Fig. shows accessories

Performance curve AIR1 XH 8500



Unit type

	AIR1 XH 8500
Ref. no.	04342
Heat exchanger	Cross-counterflow

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	standing
Maintenance access	Side, both sides
Min. air volume	1,380 m³/h
Max. air volume ERP	8,300 m³/h (1)
Max. air volume (free blowing)	11,000 m³/h
Weight, unit operational	1,260 kg
Delivery unit	3-part
Unit segments	3
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 3,600 W
Max. output elec. pre-heater	22,000 W
Nominal current	
– Ventilation unit	42.4 / 42.4 / 43.4 A (3)
– Electrical auxiliary heater	31.8 / 31.8 / 31.8 A (4)
– max. total	74.2 / 74.2 / 75.2 A
Connection (wiring diagram no.)	1333

(1) = at 400 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = includes electrical pre-heater
(4) = Optional accessories

Sound data

Sound power level L_{WA} dB(A) at 400 Pa external pressure

	2,800 m³/h	5,800 m³/h	8,300 m³/h
Supply air (L_{WA})	78	80	87
Extract air (L_{WA})	64	65	70
Outside air (L_{WA})	67	67	67
Exhaust air (L_{WA})	76	79	85

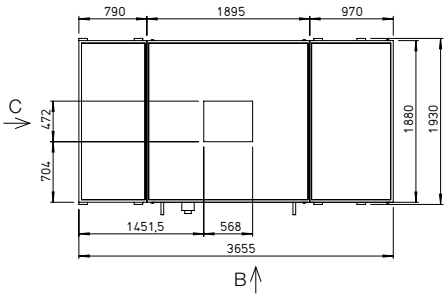
Sound pressure level L_{PA} dB(A) of sound radiated from housing

	2,800 m³/h	5,800 m³/h	8,300 m³/h
Housing rad. 1 m	47	49	53
Housing rad. 3 m	38	39	44
Housing rad. 5 m	33	35	39

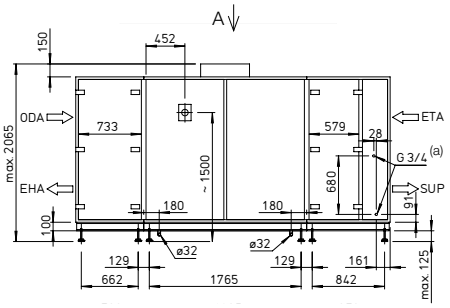
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1, 3 and 5 m.

Dimensions AIR1 XH 8500

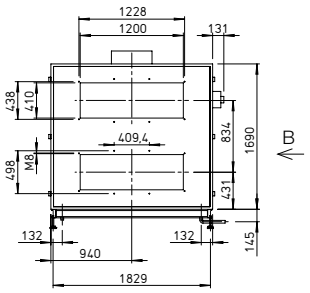
View A (from above)



View B



View C



Dimensions in mm | (a) External thread | ODA: Outside air | EHA: Exhaust air | ETA: Extract air | SUP: Supply air

Accessories

Heating and cooling registers

Auxiliary heater		
AIR1-ENH XH 8500 Electrical, internal	Ref. no. 03604	Page 84
AIR1-NH WW XH 8500 Hot water, internal	Ref. no. 03793	Page 85
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V) M	Ref. no. 06310	Page 85
Cooling register		
AIR1-KR KW XH 8500 L (1) Cold water, external	Ref. no. 03946	Page 86
AIR1-KR KW XH 8500 R (1) Cold water, external	Ref. no. 04282	Page 86
AIR1-CO DX XH 8500 L (1) Change-over, external	Ref. no. 04415	Page 88
AIR1-CO DX XH 8500 R (1) Change-over, external	Ref. no. 03052	Page 88
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 90

Air routing

Multi-leaf damper		
AIR1-JVK XH 8500/RH 9500	Ref. no. 06013	Page 90
Recirculation kit		
AIR1-ULK XH 8500	Ref. no. 06029	Page 91
Flexible connector		
AIR1-VS 120/41	Ref. no. 04377	Page 91

Condensate drainage

Ball siphon		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 92

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.
(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

External installation

Cover for external installation		
AIR1-AAD XH 8500 Weather protection cover for the unit	Ref. no. 06378	Page 93
AIR1-AAD KR KW + DX XH 8500 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06466	Page 94
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 95
Hoods		
AIR1-AAHA XH 8500/RH 9500 Intake hood outside air	Ref. no. 06499	Page 95
AIR1-AAHF XH 8500/RH 9500 Discharge hood exhaust air	Ref. no. 06864	Page 96

Controls

Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 97
AIR1-BE TOUCH	Ref. no. 06187	Page 97
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 97
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 97
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 97
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 97
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 97
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 98
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 98
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 98

Air filters

Spare air filter and other filter classes		
ELF-AIR1 XH 8500/ePM10 50%/48 (M5)	Ref. no. 02189	Page 99
ELF-AIR1 XH 8500/ePM10 50%/96 (M5)	Ref. no. 02210	Page 99
ELF-AIR1 XH 8500/ePM1 55%/96 (F7)	Ref. no. 02235	Page 99
ELF-AIR1 XH 8500/ePM1 80%/96 (F9)	Ref. no. 02334	Page 99

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1-EVH XHP

Electric preheating internal

For heating the outside air at very low outdoor temperatures. For installation in the ventilation unit. Power supply and connection to the control system of the air handling unit through pre-assembled plug-in contacts. Stepless regulated.

Detailed calculations / technical information: www.AIR1Select.com

Technical data

Type	Ref. no.	Heating capacity	Current consumption	Weight
AIR1-EVH XHP 750	40549	2.7 kW	11.7 A	2.5 kg
AIR1-EVH XHP 1000-2,5	40572	2.5 kW	10.8 A	7.0 kg
AIR1-EVH XHP 1000-3,6	40560	3.6 kW	5.2 / 5.2 / 5.2 A	7.0 kg
AIR1-EVH XHP 1500	40571	3.6 kW	5.2 / 5.2 / 5.2 A	8.0 kg
AIR1-EVH XHP 2500	40584	9.0 kW	13 / 13 / 13 A	10.0 kg

AIR1-ENH XH/XHP

Electrical auxiliary heater internal

For installation in the ventilation unit. Provides demand-oriented temperature control of supply air. Mains power supply and connection to the ventilation unit control system through pre-wired plug contacts. Variable controls.

Detailed calculations / technical information: www.AIR1Select.com

Technical data

Type	Ref. no.	Heating capacity	Current consumption	Weight
AIR1-ENH XHP 750	40550	2.7 kW	11.7 A	2.5 kg
AIR1-ENH XHP 1000	40561	3.6 kW	5.2 / 5.2 / 5.2 A	7.0 kg
AIR1-ENH XHP 1500	40573	5.4 kW	7.8 / 7.8 / 7.8 A	8.0 kg
AIR1-ENH XHP 2500	40585	9.0 kW	13 / 13 / 13 A	10.0 kg
AIR1-ENH XH 3500	03592	9.6 kW	13.9 / 13.9 / 13.9 A	12.5 kg
AIR1-ENH XH 4500	03593	12.9 kW	18.6 / 18.6 / 18.6 A	15.0 kg
AIR1-ENH XH 5500	03595	17.7 kW	25.5 / 25.5 / 25.5 A	17.0 kg
AIR1-ENH XH 7000	03603	21.0 kW	30.3 / 30.3 / 30.3 A	19.0 kg
AIR1-ENH XH 8500	03604	22.0 kW	31.8 / 31.8 / 31.8 A	20.0 kg

AIR1-NH WW XH/XHP

Hot water auxiliary heater internal

For installation in the ventilation unit. Provides demand-oriented temperature control of supply air. The heating elements consist of copper piping with formed aluminium fins, and copper pipe water connections for flow and return. Further accessories are required for supply air temperature control (see below; Hydraulic unit WHSH HE 24V on page 85).

Detailed calculations / technical information: www.AIR1Select.com

Technical data

Type	Ref. no.	Heating capacity (1)	Water content	Weight (2)	Connection flow / return (3)	Hydraulic unit	Ref. no.
AIR1-NH WW XHP 750	40551	6.2 kW	0.9 l	5.9 kg	G 3/4	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XHP 1000	40562	8.3 kW	1.2 l	6.7 kg	G 3/4	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XHP 1500	40575	13.3 kW	2.2 l	8.6 kg	G 3/4	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XHP 2500	40586	22.3 kW	2.8 l	10.8 kg	G 3/4	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XH 3500	03683	18.0 kW	2.5 l	7.7 kg	G 1/2	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XH 4500	03684	23.1 kW	3.6 l	10.2 kg	G 1/2	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XH 5500	03687	28.7 kW	4.6 l	12.5 kg	G 3/4	WHSH HE 24 V (0 – 10 V)	08318
AIR1-NH WW XH 7000	03689	35.2 kW	5.9 l	15.6 kg	G 3/4	WHSH HE 24 V (0 – 10 V) M	06310
AIR1-NH WW XH 8500	03793	45.3 kW	7.2 l	18.8 kg	G 3/4	WHSH HE 24 V (0 – 10 V) M	06310

(1) at flow/return temperature 60/40°C
(2) without liquid
(3) External thread

WHSH HE 24 V

Hydraulic unit

Hydraulic unit for supply air temperature control by controlling the water flow rate in the heater battery. Delivered as a complete unit consisting of the hydraulic unit with 3-way valve with actuator and circulating pump, Flow / return temperature display and flexible connection hoses.

Types

XH units	Type	Ref. no.	Control voltage	K_{vs} value	Flow rate	Connection diameter
AIR1 XHP 750	WHSH HE 24 V (0 – 10 V)	08318	24 V (0 – 10 V)	5.1	0.2 to 3.3 m³/h	G1 AG flat sealing (DN25, 1")
AIR1 XHP 1000	WHSH HE 24 V (0 – 10 V)	08318	24 V (0 – 10 V)	5.1	0.2 to 3.3 m³/h	G1 AG flat sealing (DN25, 1")
AIR1 XHP 1500	WHSH HE 24 V (0 – 10 V)	08318	24 V (0 – 10 V)	5.1	0.2 to 3.3 m³/h	G1 AG flat sealing (DN25, 1")
AIR1 XHP 2500	WHSH HE 24 V (0 – 10 V)	08318	24 V (0 – 10 V)	5.1	0.2 to 3.3 m³/h	G1 AG flat sealing (DN25, 1")
AIR1-XH 3500	WHSH HE 24 V (0 – 10 V)	08318	24 V (0 – 10 V)	5.1	0.2 to 3.3 m³/h	G1 AG flat sealing (DN25, 1")
AIR1-XH 4500	WHSH HE 24 V (0 – 10 V)	08318	24 V (0 – 10 V)	5.1	0.2 to 3.3 m³/h	G1 AG flat sealing (DN25, 1")
AIR1-XH 5500	WHSH HE 24 V (0 – 10 V)	08318	24 V (0 – 10 V)	5.1	0.2 to 3.3 m³/h	G1 AG flat sealing (DN25, 1")
AIR1-XH 7000	WHSH HE 24 V (0 – 10 V) M	06310	24 V (0 – 10 V)	8.1	0.0 to 4.0 m³/h	G2 AG flat sealing (DN32, 1 1/4")
AIR1-XH 8500	WHSH HE 24 V (0 – 10 V) M	06310	24 V (0 – 10 V)	8.1	0.0 to 4.0 m³/h	G2 AG flat sealing (DN32, 1 1/4")

AIR1-KR KW XHP

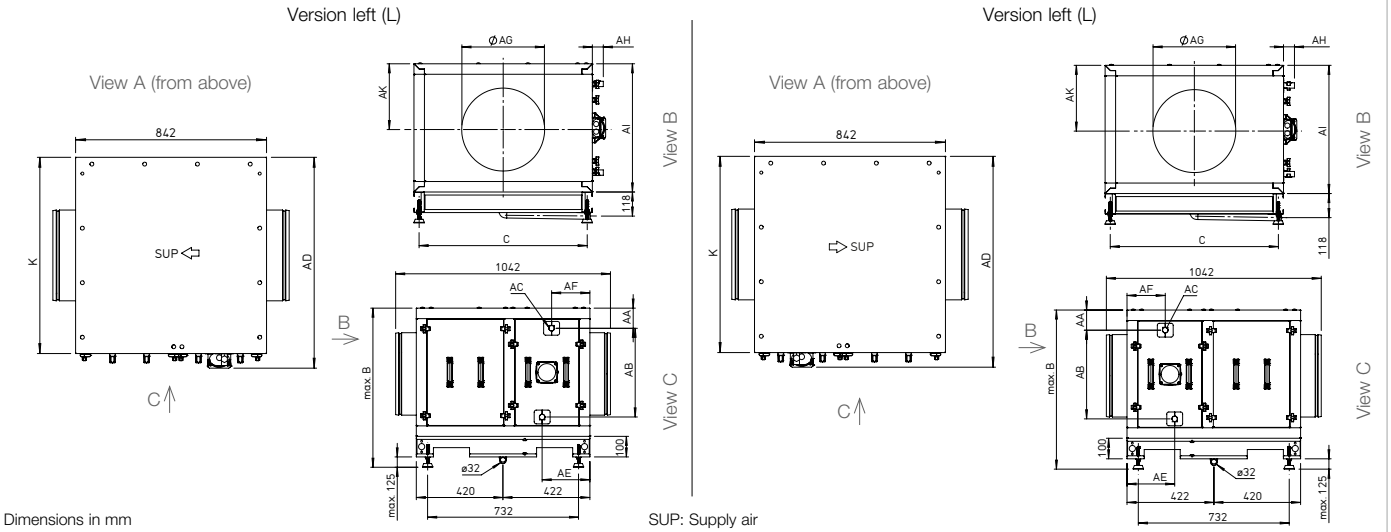
AIR1-KR KW XH

Cold water cooling register

For temperature control (cooling) of the supply air as required. Casing in robust panel construction, insulated on all sides with 50 mm mineral wool to minimize heat losses and with corrosion-resistant coating on the outside. Large inspection openings for easy access and optimal cleaning and maintenance. Stainless steel condensate drain pan with condensate drain connection. Condensate connection 32 mm. Cooling coil suitable for indoor and outdoor installation.
Notes: A weather protection roof is required for outdoor installation. Recommended accessories: Ball siphon AIR1-KS B (Art. No. 07169). For version AIR1 XH: Installation directly on the supply air duct of the ventilation unit is possible.

Detailed calculations / technical information: www.AIR1Select.com

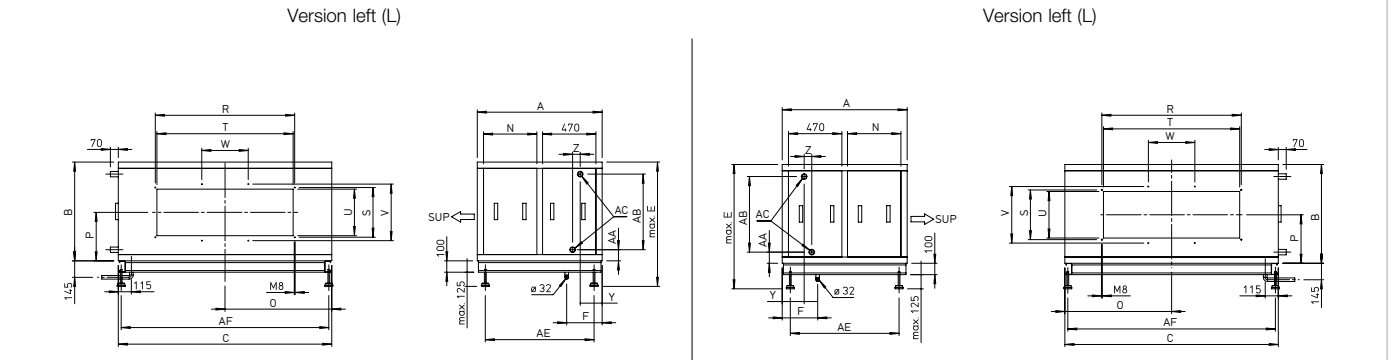
Dimensions AIR1-KR KW XHP



Dimensions in mm

SUP: Supply air

Dimensions AIR1-KR KW XH



Dimensions in mm

When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

Technical data

Type	Ref. no.	Version	Water content	Connection flow / return (1)	Weight (without liquid)
AIR1-KR KW XHP 750 L	40552	left	1.6 l	G 3/4	68.5 kg
AIR1-KR KW XHP 750 R	40553	right	1.6 l	G 3/4	68.5 kg
AIR1-KR KW XHP 1000 L	40563	left	1.9 l	G 3/4	78.9 kg
AIR1-KR KW XHP 1000 R	40564	right	1.9 l	G 3/4	78.9 kg
AIR1-KR KW XHP 1500 L	40576	left	2.5 l	G 1	89.0 kg
AIR1-KR KW XHP 1500 R	40577	right	2.5 l	G 1	89.0 kg
AIR1-KR KW XHP 2500 L	40587	left	4.4 l	G 1 3/4	97.4 kg
AIR1-KR KW XHP 2500 R	40588	right	4.4 l	G 1 3/4	97.4 kg
AIR1-KR KW XH 3500 L	03910	left	3.9 l	G 1	112.0 kg
AIR1-KR KW XH 3500 R	04268	right	3.9 l	G 1	112.0 kg
AIR1-KR KW XH 4500 L	03919	left	6.3 l	G 1 1/4	148.0 kg
AIR1-KR KW XH 4500 R	04278	right	6.3 l	G 1 1/4	148.0 kg
AIR1-KR KW XH 5500 L	03932	left	9.3 l	G 1 1/4	173.0 kg
AIR1-KR KW XH 5500 R	04279	right	9.3 l	G 1 1/4	173.0 kg
AIR1-KR KW XH 7000 L	03945	left	12.4 l	G 1 1/2	213.0 kg
AIR1-KR KW XH 7000 R	04281	right	12.4 l	G 1 1/2	213.0 kg
AIR1-KR KW XH 8500 L	03946	left	15.1 l	G 1 1/2	250.0 kg
AIR1-KR KW XH 8500 R	04282	right	15.1 l	G 1 1/2	250.0 kg

Dimensions XHP

Type	Ref. no.	B	C	K	AA	AB	AC (1)	AD	AE	AF	AG	AH	AI	AK
AIR1-KR KW XHP 750 L	40552	640	756	806	85	243	G 3/4	878	234	183	250	72	415	221
AIR1-KR KW XHP 750 R	40553	640	756	806	85	243	G 3/4	878	234	183	250	72	415	221
AIR1-KR KW XHP 1000 L	40563	684	816	866	93	274	G 3/4	931	231	186	250	32	458	214
AIR1-KR KW XHP 1000 R	40564	684	816	866	93	274	G 3/4	931	231	186	250	32	458	214
AIR1-KR KW XHP 1500 L	40576	743	831	881	95	330	G 1	946	231	186	355	57	518	268
AIR1-KR KW XHP 1500 R	40577	743	831	881	95	330	G 1	946	231	186	355	57	518	268
AIR1-KR KW XHP 2500 L	40587	847	815	865	98	430	G 1 3/4	929	231	186	400	53	622	319
AIR1-KR KW XHP 2500 R	40588	847	815	865	98	430	G 1 3/4	929	231	186	400	53	622	319

Dimensions XH

Type	Ref. no.	A	B	C	E	F	N	O	P	R	S
AIR1-KR KW XH 3500 L	03910	1100	670	967	895	312	470	484	340	608	438
AIR1-KR KW XH 3500 R	04268	1100	670	967	895	312	470	484	340	608	438
AIR1-KR KW XH 4500 L	03919	1100	870	1020	1095	312	470	510	452	608	438
AIR1-KR KW XH 4500 R	04278	1100	870	1020	1095	312	470	510	452	608	438
AIR1-KR KW XH 5500 L	03932	1100	870	1230	1095	312	470	615	452	883	438
AIR1-KR KW XH 5500 R	04279	1100	870	1230	1095	312	470	615	452	883	438
AIR1-KR KW XH 7000 L	03945	1100	870	1530	1095	312	470	765	427	1083	438
AIR1-KR KW XH 7000 R	04281	1100	870	1530	1095	312	470	765	427	1083	438
AIR1-KR KW XH 8500 L	03946	1100	870	1880	1095	312	470	940	427	1228	438
AIR1-KR KW XH 8500 R	04282	1100	870	1880	1095	312	470	940	427	1228	438

Type	Ref. no.	T	U	V	W	Y	Z	AA	AB	AC (1)	AE	AF
AIR1-KR KW XH 3500 L	03910	580	410	–	–	187	43	88	485	G 1	958	919
AIR1-KR KW XH 3500 R	04268	580	410	–	–	187	43	88	485	G 1	958	919
AIR1-KR KW XH 4500 L	03919	580	410	–	–	184	50	98	666	G 1 1/4	958	969
AIR1-KR KW XH 4500 R	04278	580	410	–	–	184	50	98	666	G 1 1/4	958	969
AIR1-KR KW XH 5500 L	03932	855	410	498	–	193	67	94	674	G 1 1/2	958	1179
AIR1-KR KW XH 5500 R	04279	855	410	498	–	193	67	94	674	G 1 1/2	958	1179
AIR1-KR KW XH 7000 L	03945	1055	410	498	361	193	67	94	674	G 1 1/2	958	1479
AIR1-KR KW XH 7000 R	04281	1055	410	498	361	193	67	94	674	G 1 1/2	958	1479
AIR1-KR KW XH 8500 L	03946	1200	410	498	409	193	67	98	666	G 1 1/2	958	1829
AIR1-KR KW XH 8500 R	04282	1200	410	498	409	193	67	98	666	G 1 1/2	958	1829

(1) External thread

AIR1-CO DX XHP

AIR1-CO DX XH

Change-over register

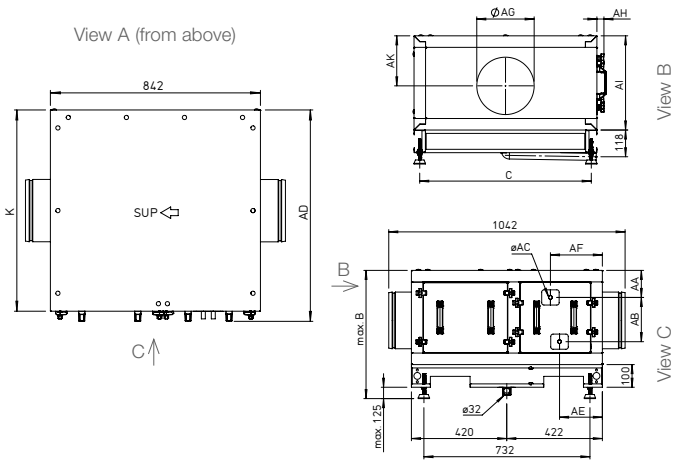
For temperature control (cooling/heating) of supply air. Mounting directly to the supply air duct of the ventilation unit is possible. Suitable for use with common refrigerants (selection list, see www.AIR1 Select.com). Casing in robust panel construction, insulated on all sides with 50 mm mineral wool to minimise heat loss. External corrosion-resistant coating of casing. Stainless steel condensate tray with condensate drain outlets. Large inspection openings for easy access and optimised cleaning and maintenance. Condensate connection 32 mm. Cooling register suitable for internal and external installation. Note: A weather protection panel is required for external installation.

Necessary accessories for all AIR1-CO DX XH..: AIR1-SM DX (Ref. no. 40408) (not required for AIR1-CO DX XHP..)
Recommended accessories: Ball siphon AIR1-KS B (Art. no. 07169)

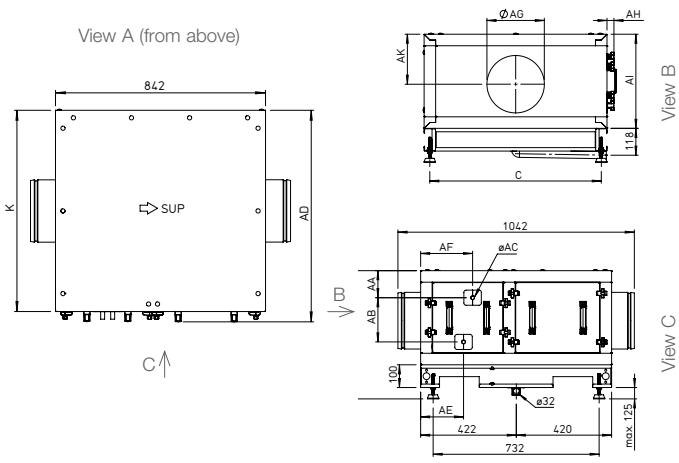
Detailed calculations / technical information: www.AIR1Select.com

Dimensions AIR1-CO DX XHP

Version left (L)



Version left (L)

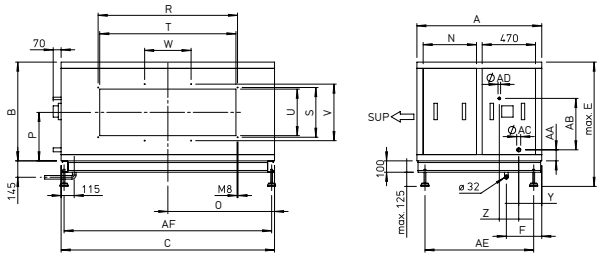


Dimensions in mm

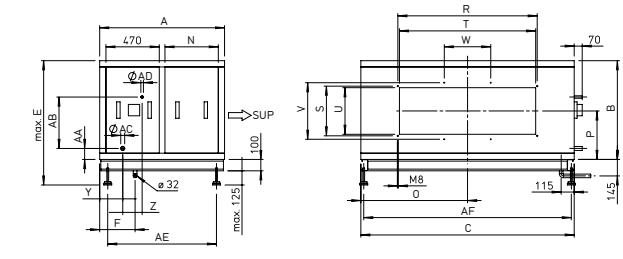
SUP: Supply air

Dimensions AIR1-CO DX XH

Version left (L)



Version left (L)



Dimensions in mm

When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

Technical data

Type	Ref. no.	Version	Weight (without liquid)	Filling capacity	Ø connection outlet	Ø connection inlet
AIR1-CO DX XHP 750 L	40554	left	68.0 kg	1.3 l	16 mm	16 mm
AIR1-CO DX XHP 750 R	40555	right	68.0 kg	1.3 l	16 mm	16 mm
AIR1-CO DX XHP 1000 L	40565	left	78.0 kg	1.6 l	16 mm	16 mm
AIR1-CO DX XHP 1000 R	40566	right	78.0 kg	1.6 l	16 mm	16 mm
AIR1-CO DX XHP 1500 L	40578	left	90.0 kg	2.8 l	19 mm	19 mm
AIR1-CO DX XHP 1500 R	40579	right	90.0 kg	2.8 l	19 mm	19 mm
AIR1-CO DX XHP 2500 L	40589	left	95.0 kg	3.6 l	28 mm	28 mm
AIR1-CO DX XHP 2500 R	40590	right	95.0 kg	3.6 l	28 mm	28 mm
AIR1-CO DX XH 3500 L	40377	left	110.0 kg	3.3 l	22 mm	16 mm
AIR1-CO DX XH 3500 R	40385	right	110.0 kg	3.3 l	22 mm	16 mm
AIR1-CO DX XH 4500 L	40378	left	145.0 kg	5.0 l	28 mm	16 mm
AIR1-CO DX XH 4500 R	40386	right	145.0 kg	5.0 l	28 mm	16 mm
AIR1-CO DX XH 5500 L	40379	left	173.0 kg	7.8 l	28 mm	22 mm
AIR1-CO DX XH 5500 R	40387	right	173.0 kg	7.8 l	28 mm	22 mm
AIR1-CO DX XH 7000 L	40380	left	211.0 kg	10.5 l	28 mm	22 mm
AIR1-CO DX XH 7000 R	40388	right	211.0 kg	10.5 l	28 mm	22 mm
AIR1-CO DX XH 8500 L	40381	left	250.0 kg	13.2 l	35 mm	22 mm
AIR1-CO DX XH 8500 R	40389	right	250.0 kg	13.2 l	35 mm	22 mm

Dimensions XHP

Type	Ref. no.	B	C	K	AA	AB	AC	AD	AE	AF	AG	AH	AI	AK
AIR1-CO DX XHP 750 L	40554	640	756	806	119	195	16	848	189	229	250	31	415	221
AIR1-CO DX XHP 750 R	40555	640	756	806	119	195	16	848	189	229	250	31	415	221
AIR1-CO DX XHP 1000 L	40565	684	816	866	106	264	16	955	180	217	250	89	458	214
AIR1-CO DX XHP 1000 R	40566	684	816	866	106	264	16	955	180	217	250	89	458	214
AIR1-CO DX XHP 1500 L	40578	743	831	881	217	197	19	950	192	233	355	69	518	268
AIR1-CO DX XHP 1500 R	40579	743	831	881	217	197	19	950	192	233	355	69	518	268
AIR1-CO DX XHP 2500 L	40589	847	815	865	198	328	28	929	183	251	400	42	622	319
AIR1-CO DX XHP 2500 R	40590	847	815	865	198	328	28	929	183	251	400	42	622	319

Dimensions XH

Type	Ref. no.	A	B	C	E	F	N	O	P	R	S	T
AIR1-CO DX XH 3500 L	40377	1100	670	967	895	312	470	484	340	608	438	580
AIR1-CO DX XH 3500 R	40385	1100	670	967	895	312	470	484	340	608	438	580
AIR1-CO DX XH 4500 L	40378	1100	870	1020	1095	312	470	510	452	608	438	580
AIR1-CO DX XH 4500 R	40386	1100	870	1020	1095	312	470	510	452	608	438	580
AIR1-CO DX XH 5500 L	40379	1100	870	1230	1095	312	470	615	452	883	438	855
AIR1-CO DX XH 5500 R	40387	1100	870	1230	1095	312	470	615	452	883	438	855
AIR1-CO DX XH 7000 L	40380	1100	870	1530	1095	312	470	765	427	1083	438	1055
AIR1-CO DX XH 7000 R	40388	1100	870	1530	1095	312	470	765	427	1083	438	1055
AIR1-CO DX XH 8500 L	40381	1100	870	1880	1095	312	470	940	427	1228	438	1200
AIR1-CO DX XH 8500 R	40389	1100	870	1880	1095	312	470	940	427	1228	438	1200

Type	Ref. no.	U	V	W	Y	Z	AA	AB	AC	AD	AE	AF
AIR1-CO DX XH 3500 L	40377	410	–	–	203	70	107	338	22	16	958	919
AIR1-CO DX XH 3500 R	40385	410	–	–	203	70	107	338	22	16	958	919
AIR1-CO DX XH 4500 L	40378	410	–	–	203	66	110	525	28	16	958	969
AIR1-CO DX XH 4500 R	40386	410	–	–	203	66	110	525	28	16	958	969
AIR1-CO DX XH 5500 L	40379	410	498	–	210	174	87	463	28	22	958	1179
AIR1-CO DX XH 5500 R	40387	410	498	–	210	174	87	463	28	22	958	1179
AIR1-CO DX XH 7000 L	40380	410	498	361	210	154	97	448	28	22	958	1479
AIR1-CO DX XH 7000 R	40388	410	498	361	210	154	97	448	28	22	958	1479
AIR1-CO DX XH 8500 L	40381	410	498	409	203	171	97	453	35	22	958	1829
AIR1-CO DX XH 8500 R	40389	410	498	409	203	171	97	453	35	22	958	1829

AIR1-SM DX

Control module DX

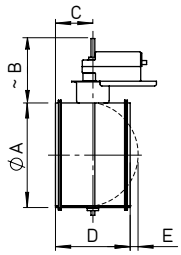
For connecting the control of an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system. Various input and output signals from and to the cooling system are available. Note: Necessary accessory in connection with an AIR1-CO DX change-over register.
Dimensions (WxHxD): 205 x 255 x 112 mm

Technical data

Type	Ref. no.	Voltage	Electricity	Ambient temperature.
AIR1-SM DX	40408	230 V AC / 50 Hz	max. 0.33 A	0 to +40°C

RVMD

Dimensions RVMD



Dimensions in mm

Motorised duct shutter tight

Can be installed horizontally and vertically in any position and with mounted spring return motor (outside of air flow).
Cable length 0,9 m, normally closed. Corresponds to tightness class 4 to DIN EN 1751.

Technical data

XHP units	Type	Ref. no.	Shutter opening time, approx.	Ambient temp.	Protection category	Actuator type
AIR1 XHP 750 / AIR1 XHP 1000	RVMD 250/24V	40246	60 s	-32 to +55 °C	IP54	24 V DC, 24 V AC (50/60 Hz), spring return
AIR1 XHP 1500	RVMD 355/24V	40248	60 s	-32 to +55 °C	IP54	24 V DC, 24 V AC (50/60 Hz), spring return
AIR1 XHP 2500	RVMD 400/24V	40249	60 s	-32 to +55 °C	IP54	24 V DC, 24 V AC (50/60 Hz), spring return

Dimensions

XHP units	Type	Ref. no.	Ø A	B	C	D	E
AIR1 XHP 750 / AIR1 XHP 1000	RVMD 250/24V	40246	250	137	79	158	44
AIR1 XHP 1500	RVMD 355/24V	40248	355	137	126	251	50
AIR1 XHP 2500	RVMD 400/24V	40249	400	137	126	251	72

AIR1-JVK XH

Multi-leaf damper internal

Multi-leaf damper for preventing cold draughts when the fan is stationary. Framework casing with connection flange on both sides. Counter-rotating blades, with retracted sealing lip. Sealing class 2. Installation inside of unit.

Technical data

Type	Ref. no.	Runtime (open / closed)	Weight	Ambient temperature	Actuator type
AIR1-JVK XH 3500-4500/RH 3000	06009	40 ... 75 s	5.0 kg	-30 to +50 °C	24 V DC. spring return
AIR1-JVK XH 5500/RH 5000-6000	06010	40 ... 75 s	6.6 kg	-30 to +50 °C	24 V DC. spring return
AIR1-JVK XH 7000/RH 8000	06012	40 ... 75 s	7.8 kg	-30 to +50 °C	24 V DC. spring return
AIR1-JVK XH 8500/RH 9500	06013	40 ... 75 s	8.6 kg	-30 to +50 °C	24 V DC. spring return

AIR1-ULK XH/XHP

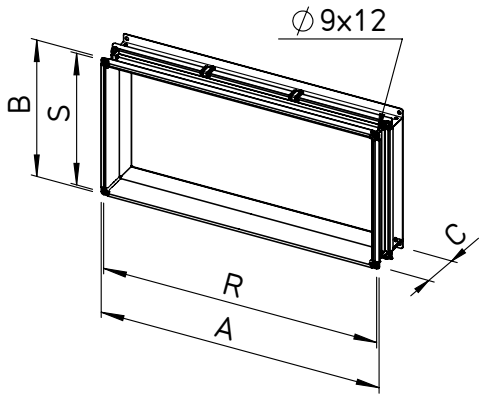
Recirculation kit

Recirculation kit for the 100 % recirculation of the extract air into the building. Multi-leaf dampers are required for recirculation operation.
The kit consists of a recirculation damper including drive. For mounting to bypass duct of ventilation unit. Plug-in connection to the mains power supply and ventilation unit control system.

Type	Ref. no.	Type	Ref. no.
AIR1-ULK XHP 750	40559	AIR1-ULK XH 3500	06025
AIR1-ULK XHP 1000	40570	AIR1-ULK XH 4500	06026
AIR1-ULK XHP 1500	40583	AIR1-ULK XH 5500	06027
AIR1-ULK XHP 2500	40594	AIR1-ULK XH 7000	06028
		AIR1-ULK XH 8500	06029

AIR1-VS

Dimensions AIR1-VS



Dimensions in mm

Flexible connector

Flexible connector (uninsulated), with flange connections on both sides, for mounting between the ventilation unit and duct system. Prevents structure-borne sound transmission and bridges mounting tolerances. Elastic fabric sleeve, operating temperature range from -10 °C to +80 °C.

Only suitable for internal installation.

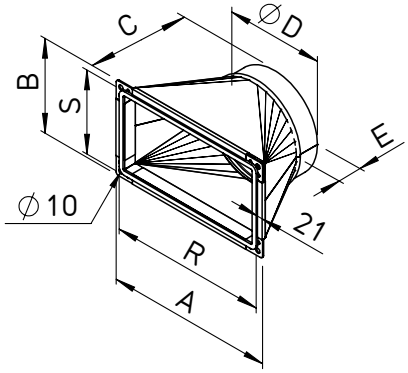
Dimensions

XH units	Type	Ref. no.	A	B	C[1)]	R	S
AIR1-XH 3500	AIR1-VS 58/41	04374	626	456	145	608.3	438.3
AIR1-XH 4500	AIR1-VS 58/41	04374	626	456	145	608.3	438.3
AIR1-XH 5500	AIR1-VS 85/41	04375	901	456	220	883.3	438.3
AIR1-XH 7000	AIR1-VS 105/41	04376	1101	456	220	1083.3	438.3
AIR1-XH 8500	AIR1-VS 120/41	04377	1246	456	220	1228.3	438.3

1) max.

AIR1-ÜS XH

Dimensions AIR1-ÜS XH



Dimensions in mm

Square-round adapter

Symmetrical adapter for connecting the ventilation unit to round air ducts/duct systems. Made of galvanised steel sheet. The pressure loss of the adapter at maximum air volume is < 10 Pa on both the intake and discharge side.

Only suitable for internal installation.

Dimensions

Type	Ref. no.	A	B	C	D	E	R	S
AIR1-ÜS XH 3500-4500/RH 3000	04369	630	460	300	500	80	608	438
AIR1-ÜS XH 5500/RH 5000-6000	04370	905	460	350	630	80	883	438

AIR1-KS B

Ball siphon

Siphon for the drainage of condensate with over or underpressure in comparison to the environment. Self-filling and self-closing, with float ball as non-return valve. Screw cap for inspection purposes.
Suitable for a max. under/overpressure of ± 600 Pa.
For use with floor mounted AIR1 units and cooling register.
Connection diameter 40 mm.

AIR1-KS B	Ref. no. 07169

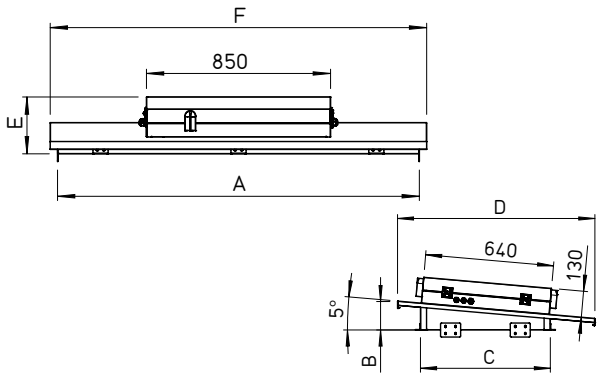
AIR1-AAD XHP

AIR1-AAD XH

Weather protection cover for the unit

Weather protection cover for the external installation of AIR1 ventilation units. Made of galvanised steel sheet, in weather-resistant design/coating.
Increases the protection class of the unit to IP54.

Dimensions AIR1-AAD XHP 750 - 2500



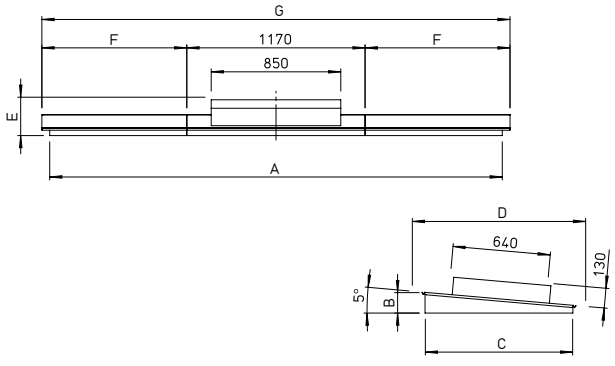
Dimensions in mm — AIR1 XHP 750 – 2500

Dimensions

Type	Ref. no.	A	B	C	D
AIR1-AAD XHP 750	40556	1667	144	698	984
AIR1-AAD XHP 1000	40567	1805	147	756	1044
AIR1-AAD XHP 1500	40580	1944	150	771	1059
AIR1-AAD XHP 2500	40591	2455	150	761	1046

Type	Ref. no.	E	F
AIR1-AAD XHP 750	40556	263	1739
AIR1-AAD XHP 1000	40567	263	1877
AIR1-AAD XHP 1500	40580	266	2014
AIR1-AAD XHP 2500	40591	266	2527

Dimensions AIR1-AAD XH 3500



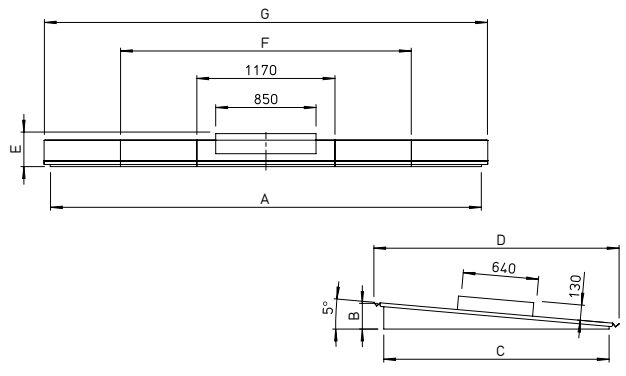
Dimensions in mm — AIR1 XH 3500

Dimensions

Type	Ref. no.	A	B	C	D
AIR1-AAD XH 3500	06316	2970	134	967	1137

Type	Ref. no.	E	F	G
AIR1-AAD XH 3500	06316	252	951	3072

Dimensions AIR1-AAD XH 4500 - 8500



Dimensions in mm — AIR1 XH 4500 – 8500

Dimensions

Type	Ref. no.	A	B	C	D
AIR1-AAD XH 4500	06347	3515	142	1050	1218
AIR1-AAD XH 5500	06349	3555	160	1260	1428
AIR1-AAD XH 7000	06350	3605	185	1560	1728
AIR1-AAD XH 8500	06378	3650	218	1910	2078

Type	Ref. no.	E	F	G
AIR1-AAD XH 4500	06347	256	2395	3620
AIR1-AAD XH 5500	06349	265	2415	3660
AIR1-AAD XH 7000	06350	278	2440	3710
AIR1-AAD XH 8500	06378	293	2463	3755

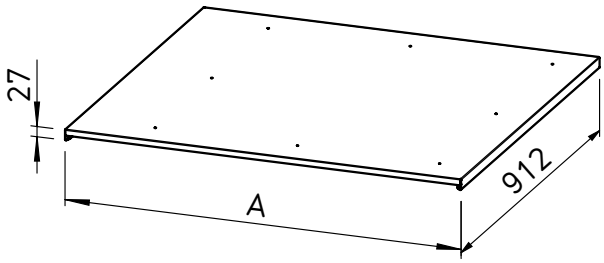
AIR1-AAD KR KW + DX XHP

AIR1-AAD KR KW + DX XH

Weather protection cover for external cold water or direct evaporator cooling registers

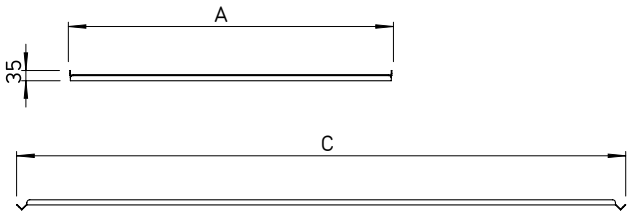
Weather protection cover for the external installation of external cold water or direct evaporator cooling registers.
Made of galvanised steel sheet, in weather-resistant design/coating. Increases the protection class of the cooling register to IP54.

Dimensions AIR1-AAD KR KW + DX XHP



Dimensions in mm

Dimensions AIR1-AAD KR KW + DX XH



Dimensions in mm

Dimensions

Type	Ref. no.	A
AIR1-AAD KR KW + DX XHP 750	40557	984
AIR1-AAD KR KW + DX XHP 1000	40568	1044
AIR1-AAD KR KW + DX XHP 1500	40581	1059
AIR1-AAD KR KW + DX XHP 2500	40592	1043

Dimensions

Type	Ref. no.	A	C
AIR1-AAD KR KW + DX XH 3500	06462	1110	1138
AIR1-AAD KR KW + DX XH 4500	06463	1110	1220
AIR1-AAD KR KW + DX XH 5500	06464	1110	1430
AIR1-AAD KR KW + DX XH 7000	06465	1110	1730
AIR1-AAD KR KW + DX XH 8500	06466	1110	2080

AIR1-AAHK

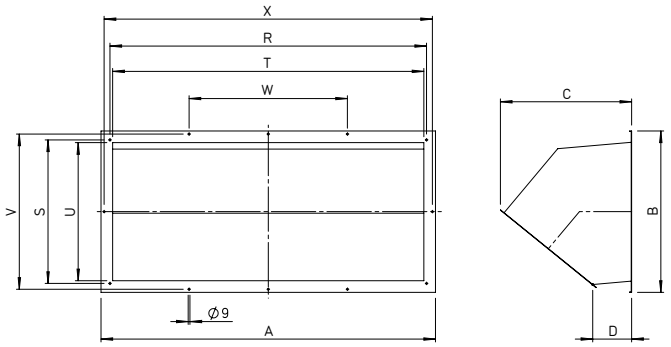
Heating element for the terminal box

Heating element for the electrical terminal box of the ventilation unit. Recommended for the external installation of AIR ventilation units in cold climate zones to prevent condensate formation and protect the control system against temperatures below 0°C. Heat output automatically controlled depending on the outside air temperature.
Max. heat output: 100 W
Supply voltage: 230 V

AIR1-AAHK	Ref. no. 07064

AIR1-AAHA XH

Dimensions AIR1-AAHA XH



Dimensions in mm

Intake hood outside air

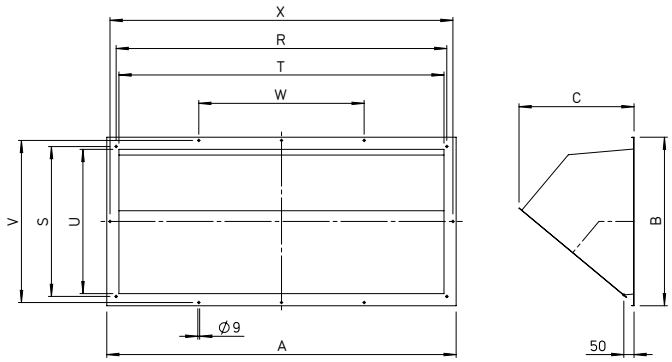
Intake hood outside air for external installation. Includes drainage tray and droplet separator. Surface with weather-resistant coating.

Dimensions

Type	Ref. no.	A	B	C	D	R	S	T	U	V	W
AIR1-AAHA XH 3500-4500/RH 3000	06487	640	470	525	200	608	438	580	410	–	–
AIR1-AAHA XH 5500/RH 5000-6000	06496	915	530	525	200	883	438	855	410	498	–
AIR1-AAHA XH 7000/RH 8000	06497	1115	530	525	200	1083	438	1055	410	498	361
AIR1-AAHA XH 8500/RH 9500	06499	1260	530	525	200	1228	438	1200	410	498	409

AIR1-AAHF XH

Dimensions AIR1-AAHF XH



Dimensions in mm

Discharge hood exhaust air

Discharge hood exhaust air for external installation. Includes protection guard. Mounting via flange connection to the unit connector. Surface with weather-resistant coating.

Dimensions

Type	Ref. no.	A	B	C	R	S	T	U	V	W
AIR1-AAHF XH 3500-4500/RH 3000	06647	640	470	375	608	438	580	410	–	–
AIR1-AAHF XH 5500/RH 5000-6000	06648	915	530	375	883	438	855	410	498	–
AIR1-AAHF XH 7000/RH 8000	06841	1115	530	375	1083	438	1055	410	498	361
AIR1-AAHF XH 8500/RH 9500	06864	1260	530	375	1228	438	1200	410	498	409

AIR1-BE ECO

Controller Eco

Backlit display with 4 lines a 20 characters. The display menu system is operated via seven buttons. There are two LEDs on the front side: One alarm LED and one LED for the input mode. The controller is delivered with a 5 m cable as standard. Cable lengths of 10 m and 20 m are optionally available. The maximum connection length is 100 m. The controller is designed for wall mounting. Alternatively, it can also be attached to the unit casing using magnetic strips. Protection class IP30.

Technical data

Type	Ref. no.	Voltage	Power consumption	Dimensions (WxHxD)	Ambient humidity	Ambient temperature	Connection cable 10 m	Connection cable 20 m
AIR1-BE ECO	06186	24 V DC	0.24 W	115 x 95 x 25 mm	Max. 90 % RH (1)	+5 °C to +40 °C	AIR1-SL 4/10 Ref. no.: 07073	AIR1-SL 4/20 Ref. no.: 07121

AIR1-BE TOUCH / AIR1-BE TOUCH 2

Controller Touch

Graphic user interface with intuitive menu structure and simple operation. The display has a capacitive touch function and a size of 7", incl. multi-colour colour technology. Includes stainless steel casing for simple surface-mounting to the wall. It is delivered with a 5 m cable as standard. Cable lengths of 10 m and 20 m are optionally available. The maximum connection length is 100 m. Protection class IP20.

Technical data

Series	Type	Ref. no.	Voltage	Power consumption	Dimensions (WxHxD)	Ambient humidity	Ambient temperature	Connection cable 10 m	Connection cable 20 m
XHP-Unit	AIR1-BE TOUCH 2	40751	24 V DC	6 W	185 x 131 x 50 mm	Max. 90 % RH (1)	-10 °C to +60 °C	AIR1-SL 4/10 Ref. no.: 07073	AIR1-SL 4/20 Ref. no.: 07121
XH-Unit	AIR1-BE TOUCH	06187	24 V DC	6 W	185 x 131 x 50 mm	Max. 90 % RH (1)	-10 °C to +60 °C	AIR1-SL 4/10 Ref. no.: 07073	AIR1-SL 4/20 Ref. no.: 07121

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

Room sensors

For measuring the CO_2, mixed gas (VOC) concentration or relative humidity and temperature. Please note the maximum number, a signal converter AIR1-SK (Ref. no. 06019) may be required.
Dimensions (W x H x D) 85 x 85 x 27 mm.

Technical data

Type	Ref. no.	Measurement range	Power consumption
AIR1/KWL-VOC 0-10V	20250	0 - 2000 ppm	0.6 W/24 V DC
AIR1/KWL-CO2 0-10V	20251	0 - 2000 ppm or 0 - 5000 ppm	0.6 W/24 V DC
AIR1/KWL-FTF 0-10V	20252	0 - 100% RH (1) and 0 - 50 °C	0.6 W/24 V DC

(1) Non-condensing

AIR1-CO2 K

Carbon dioxide sensor for duct installation

Sensor for measuring the carbon dioxide concentration in the air. For installation in the ventilation duct. Installation depth 40 – 180 mm.

Technical data

Type	Ref. no.	Measurement range
AIR1-CO2 K	07124	0 ... 2000 ppm

AIR1-SK

Signal converter for sensors

Signal converter for the connection of up to six AIR1 room sensors of the same sensor type. The AIR1-SK compares the connected inputs and forwards the highest input signal to the max. output. Supplied pre-installed in the appropriate terminal box incl. transformer 230 V / 24 V AC and terminal strip.
Dimensions terminal box (L x H x W): 218 x 149 x 97 mm

Technical data

Type	Ref. no.	Voltage	Power consumption	Ambient humidity	Ambient temperature	Protection class
AIR1-SK	06019	230 V, 50 Hz	max. 15 VA	Max. 90 % RH (Non-condensing)	-40 °C to +50 °C	IP20 / IP66 in terminal box

AIR1-CAP

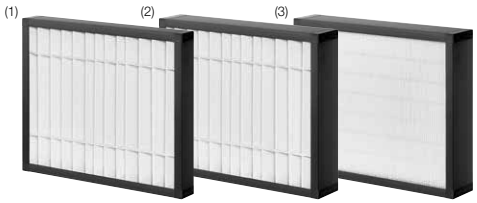
Extension kit for CAP mode

Differential pressure transmitter for constant pressure operation of the ventilation unit.
Vertical or horizontal installation possible.
Scope of delivery: Pressure transmitter, pressure hose and sensor.

Technical data

Type	Ref. no.	Voltage	Ambient humidity	Ambient temperature	Protection class
AIR1-CAP	06756	24 V AC / DC ± 15 %	Max. 95 % RH (Non-condensing)	-25 °C to +50 °C	IP54

ELF-AIR1 XH/XHP



Spare air filter

Helios AIR1 units are supplied with the filter classes ePM1 55%/F7 (outside air) and ePM10 50%/M5 (extract air) as standard. Depending on the unit size, the air filter consists of multiple (separate) air filter inserts. This is taken into account when ordering the spare air filter.

In case of increased air quality requirements, other filter classes are available for the outside air and extract air (see table below). All air filters are pressure-loss-optimised cassette filters with large filter surfaces.

Technical data

	Type	Ref. no.	Number of air filter inserts included	Filter class
Pre-filter outside air	ELF-AIR1 XHP 750/ePM10 50%/48	40617	1	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XHP 1000/ePM10 50%/48	40618	2	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XHP 1500/ePM10 50%/48	40619	2	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XHP 2500/ePM10 50%/48	40620	2	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XH 3500/ePM10 50%/48	02180	2	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XH 4500/ePM10 50%/48	02182	4	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XH 5500/ePM10 50%/48	02186	4	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XH 7000/ePM10 50%/48	02187	6	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XH 8500/ePM10 50%/48	02189	6	ISO ePM_{10} 50% (M5)
Extract air filter	ELF-AIR1 XHP 750/ePM10 50%/96	40595	1	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XHP 1000/ePM10 50%/96	40598	2	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XHP 1500/ePM10 50%/96	40601	2	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XHP 2500/ePM10 50%/96	40605	2	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XH 3500/ePM10 50%/96	02206	2	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XH 4500/ePM10 50%/96	02207	4	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XH 5500/ePM10 50%/96	02208	4	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XH 7000/ePM10 50%/96	02209	6	ISO ePM_{10} 50% (M5)
	ELF-AIR1 XH 8500/ePM10 50%/96	02210	6	ISO ePM_{10} 50% (M5)
Outside or extract air filter	ELF-AIR1 XHP 750/ePM1 55%/96	40596	1	ISO ePM_1 55% (F7)
	ELF-AIR1 XHP 1000/ePM1 55%/96	40599	2	ISO ePM_1 55% (F7)
	ELF-AIR1 XHP 1500/ePM1 55%/96	40602	2	ISO ePM_1 55% (F7)
	ELF-AIR1 XHP 2500/ePM1 55%/96	40606	2	ISO ePM_1 55% (F7)
	ELF-AIR1 XH 3500/ePM1 55%/96	02230	2	ISO ePM_1 55% (F7)
	ELF-AIR1 XH 4500/ePM1 55%/96	02231	4	ISO ePM_1 55% (F7)
	ELF-AIR1 XH 5500/ePM1 55%/96	02233	4	ISO ePM_1 55% (F7)
	ELF-AIR1 XH 7000/ePM1 55%/96	02234	6	ISO ePM_1 55% (F7)
	ELF-AIR1 XH 8500/ePM1 55%/96	02235	6	ISO ePM_1 55% (F7)
Outside air filter	ELF-AIR1 XHP 750/ePM1 80%/96	40597	1	ISO ePM_1 80% (F9)
	ELF-AIR1 XHP 1000/ePM1 80%/96	40600	2	ISO ePM_1 80% (F9)
	ELF-AIR1 XHP 1500/ePM1 80%/96	40603	2	ISO ePM_1 80% (F9)
	ELF-AIR1 XHP 2500/ePM1 80%/96	40607	2	ISO ePM_1 80% (F9)
	ELF-AIR1 XH 3500/ePM1 80%/96	02291	2	ISO ePM_1 80% (F9)
	ELF-AIR1 XH 4500/ePM1 80%/96	02292	4	ISO ePM_1 80% (F9)
	ELF-AIR1 XH 5500/ePM1 80%/96	02293	4	ISO ePM_1 80% (F9)
	ELF-AIR1 XH 7000/ePM1 80%/96	02435	6	ISO ePM_1 80% (F9)
	ELF-AIR1 XH 8500/ePM1 80%/96	02334	6	ISO ePM_1 80% (F9)

The Helios AIR1® RH series: **18 units up to 15,000 m³/h.**

9 unit type
in two versions each[1]:

- **AIR1 RH 1500 / AIR1 RH 1500/SO**
- **AIR1 RH 2000 / AIR1 RH 2000/SO**
- **AIR1 RH 3000 / AIR1 RH 3000/SO**
- **AIR1 RH 5000 / AIR1 RH 5000/SO**
- **AIR1 RH 6000 / AIR1 RH 6000/SO**
- **AIR1 RH 8000 / AIR1 RH 8000/SO**
- **AIR1 RH 9500 / AIR1 RH 9500/SO**
- **AIR1 RH 12000 / AIR1 RH 12000/SO**
- **AIR1 RH 15000 / AIR1 RH 15000/SO**

[1] RH = Heat exchanger: Condensation rotor
RH/SO = Heat exchanger: Adsorption rotor

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The ventilation units in the Helios AIR1 RH series are equipped with highly efficient rotary heat exchangers including rinsing chambers as standard. The additional moisture recovery provides an **optimal indoor climate** and **improved energy balance.**

Alternatively, an adsorption heat exchanger for maximum humidity and heat transfer can be selected in case of special requirements. Furthermore, the rotary technology allows shorter housing dimensions and thus more freedom when selecting the installation site.

Helios AIR1®

series RH

Integrated rinsing chamber as standard

Optional adsorption heat exchanger for specific requirements

Compact design

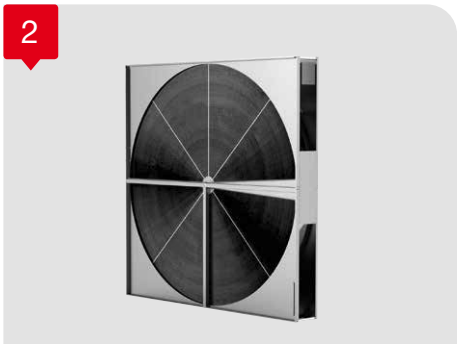
Maintenance access on both sides for simple service work

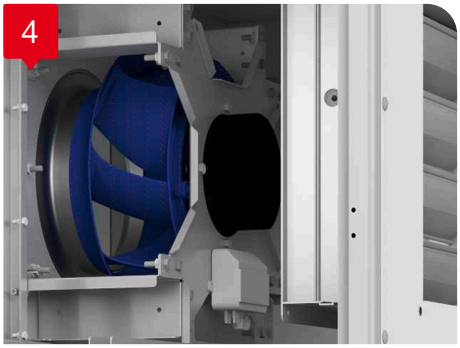
Moisture recovery with rotary heat exchanger

Separable housing construction from 5,000 m³/h

Universal right / left configuration

The RH series in detail.





1 Casing

Casing made of robust and stable aluminium frame profiles, thermally optimised to minimise thermal bridges. Double-walled panels made of Aluzinc sheet steel. Insulated on all sides with 50 mm mineral wool for optimal thermal and acoustic insulation. External corrosion-resistant coating on all sides of housing, RAL 7047, corrosion class C4 and thus suitable for external installation. Galvanised inside. The smooth inner surface meets the hygiene requirements for optimal cleaning in consideration of the hygiene standard VDI 6022. Large inspection openings on both sides of the unit for simple access to all unit components and optimal maintenance. The service doors are equipped with maintenance-free hinges and lockable lever locks. The XH units are designed so that accessories, such as electric or hot water auxiliary heaters, can be easily installed in the ventilation unit, even for retrofitting.

Housing and tightness classes according to DIN EN 1886	
Thermal insulation	T2
Thermal bridging factor	TB2
Mechanical stability	D2
Housing leakage in case of overpressure	L1
Housing leakage in case of underpressure	L1
Filter bypass leakage	F9

Outdoor installation of unit

All units are suitable for internal and external installation. Additional accessories are mandatory for the external installation (e.g. weather protection cover, intake/discharge hoods etc.). In this respect, please see the accessory list or configure your unit with our online configuration software www.AIR1Select.com.

2 Heat exchanger

Eurovent-certified rotary heat exchanger made of aluminium (condensation wheel) produced according to the latest production standards and guarantees the highest quality and high thermal efficiency. The heat exchanger is suitable for heat and cold recovery for additional humidity transfer and it guarantees freezing protection to approx. -15 °C outside air temperature. Optimal hygiene is guaranteed by an ingenious sealing system, and a rinsing chamber included in the scope of delivery. The rotor is drive by an energy-efficient step motor for the continuous and precise controlling of the rotor rotation speeds. The innovative “power belt” drive belt guarantees high wear resistance, a long service life, and simple replacement. The unit types “SO” are equipped with an adsorption rotor for the increased transfer of humidity and heat/cold with humidity retention levels up to 90 %. This heat exchanger type also has freezing protection to an outside air temperature of approx. -20 °C.

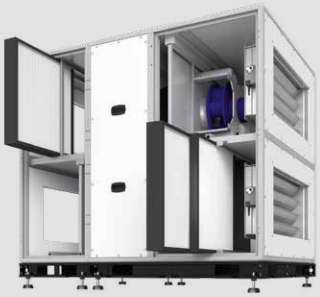
3 Separating the unit housing

The units can be separated to simplify transportation and for easier installation at the installation site for units above size RH 5000. Note: The units are delivered in individual modules, i.e. in multiple delivery units.

5

6

7



8

The AIR1 RH series has the following certifications:

- ☐ VDI 6022 (Hygiene)-Certification
- ☐ Eurovent-Certification

More info at:
www.eurovent-certification.com

4 Fans

The vibration dampened fans are located in the unit and they consist of freewheeling, backward curved centrifugal impellers with direct drive via a variable EC motor with low energy consumption and very low noise level. The high performance plastic impeller is dynamically balanced in two levels. Variably controllable via 0 – 10 V signal. Plug-in connections to all electrical components for the simplification of maintenance work. Eurovent-certified EC-motors in class IE4 with very low SFP values and high energy efficiency.

Pipe routing

Installation-friendly connection of outside, exhaust, extract and supply air to a duct or pipe system. The floor-standing unit can be turned 180° for the installation of the air duct system, so that the outside air/exhaust air and extract air/supply air connections can be on the left or right side. Adapters are optionally available as unit accessories for adaption to a round duct system up to unit size RH 6000.

5 Control system

The ventilation unit is delivered ready for operation with a modern, all-round control system. The control system is attached on top of the unit in a connection box for easy maintenance, factory-wired and function-tested. Two controllers are available for selection (required accessory).

Overview of control functions:

- ☐ Choice between ventilation modes Constant volume CAV, Constant pressure CAP (accessory required) or Constant speed CRPM in %.
- ☐ Multiple possible operating modes and levels.
- ☐ Automatic control via humidity or room air quality sensors (can connect up to three sensor types and maximum 18 sensors).
- ☐ Automatic operation via integrated weekly programme.
- ☐ Operating modes Free cooling (also night cooling/bypass function) and active cooling (using cooling register) possible.
- ☐ Commissioning assistant for simple, quick and faultless commissioning of the unit and matching accessories.
- ☐ Connection to the central building control system via BACnet or Modbus.
- ☐ Digital output for collective fault signal.

Further information on the Helios AIR1 control system can be found on page 142.

6 Accessories

There are a number of accessory components available for the Helios AIR1 units. A detailed overview and the matching accessories for your Helios AIR1 unit can be found on the following product pages.

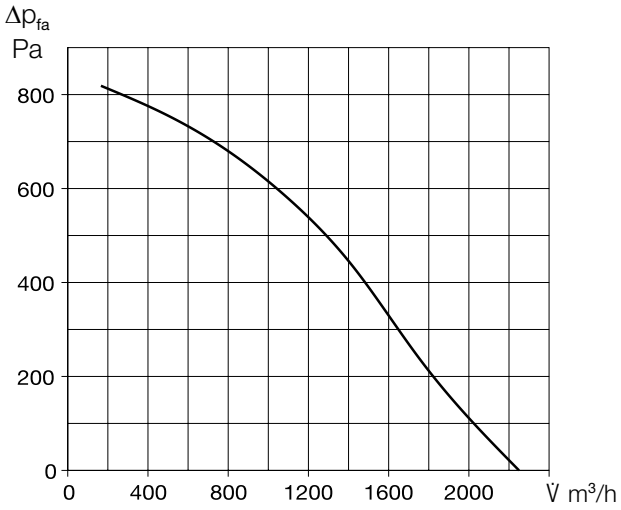
7 Air filters

Cassette filters with long service lives due to dynamic pressure monitoring. Simple filter replacement at the side or below through insert frame and quick clamp device. A multi-level filter concept inside the unit is optional. Further information on the air filters can be found on page 139.

AIR1 RH 1500

Fig. shows accessories

Performance curve AIR1 RH 1500



Unit types

	AIR1 RH 1500	AIR1 RH 1500/SO
Ref. no.	04343	04352
Heat exchanger	Condensation rotor	Adsorption rotor (4)

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	Standing
Maintenance access	Side, both sides
Min. air volume	330 m³/h
Max. air volume ERP	1,600 m³/h (1) (1,520 m³/h (5))
Max. air volume (free blowing)	2,250 m³/h
Weight, unit operational	315 kg (320 kg (5))
Delivery unit	1-part
Unit segments	1
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM₁ 55% (F7) (2)
Filter Extract air	ISO ePM₁₀ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 500 W
Nominal current	
– Ventilation unit	2.2 / 2.2 / 1.3 A
– Electrical auxiliary heater	6.1 / 6.1 / 6.1 A (3)
– max. total	8.3 / 8.3 / 7.4 A
Connection (wiring diagram no.)	1317

(1) = at 250 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = Optional accessories
(4) = with increased humidity recovery
(5) = AIR RH 1500/SO

Sound data AIR1 RH 1500

Sound power level L_{WA} dB(A) at 250 Pa external pressure			
	450 m³/h	1,200 m³/h	1,600 m³/h
Supply air (L_{WA})	71	74	77
Extract air (L_{WA})	59	60	62
Outside air (L_{WA})	62	57	59
Exhaust air (L_{WA})	69	72	76
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	450 m³/h	1,200 m³/h	1,600 m³/h
Housing rad. 1 m	41	41	44
Housing rad. 3 m	31	32	34
Housing rad. 5 m	27	27	30

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

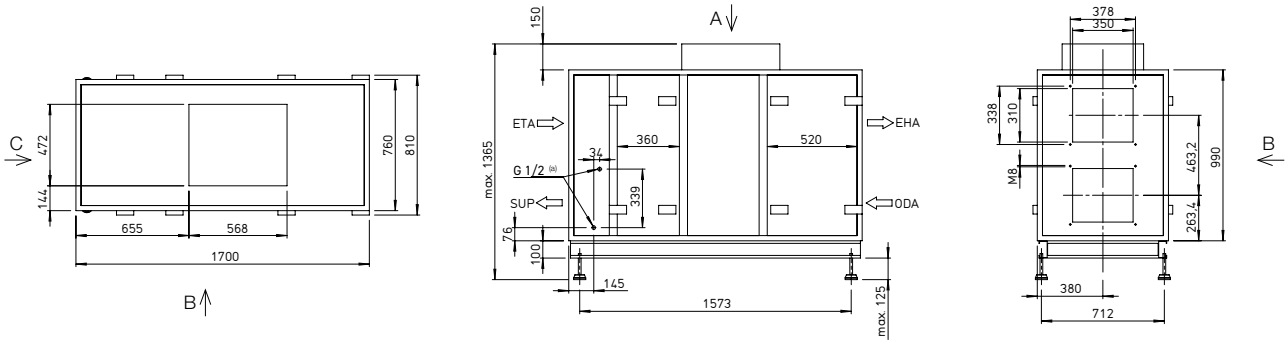
Sound data AIR1 RH 1500/SO

Sound power level L_{WA} dB(A) at 250 Pa external pressure			
	450 m³/h	1,200 m³/h	1,520 m³/h
Supply air (L_{WA})	71	74	77
Extract air (L_{WA})	59	61	62
Outside air (L_{WA})	62	58	60
Exhaust air (L_{WA})	70	73	76
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	450 m³/h	1,200 m³/h	1,520 m³/h
Housing rad. 1 m	41	42	44
Housing rad. 3 m	32	33	34
Housing rad. 5 m	27	28	30

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 RH 1500

View A (from above) View B View C



Dimensions in mm (a) Internal thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH RH 1500 Electrical, external	Ref. no. 01262	Page 122
Auxiliary heater		
AIR1-ENH RH 1500 Electrical, internal	Ref. no. 03605	Page 123
AIR1-NH WW RH 1500 Hot water, internal	Ref. no. 03805	Page 124
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 125
Cooling register		
AIR1-KR KW RH 1500 L (1) Cold water, external	Ref. no. 03958	Page 126
AIR1-KR KW RH 1500 R (1) Cold water, external	Ref. no. 04283	Page 126
AIR1-CO DX RH 1500 L (1) Change-over, external	Ref. no. 40390	Page 128
AIR1-CO DX RH 1500 R (1) Change-over, external	Ref. no. 40399	Page 128
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 130

Air routing		
Multi-leaf damper		
AIR1-JVK XH 1500/RH 1500	Ref. no. 06006	Page 130
Flexible connector		
AIR1-VS 35/31	Ref. no. 04372	Page 131
Adapter square-round		
AIR1-ÜS XH 1500/RH 1500	Ref. no. 04367	Page 131

External installation		
Cover for external installation		
AIR1-AAD RH 1500 Weather protection cover for the unit	Ref. no. 06382	Page 132
AIR1-AAD KR KW + DX RH 1500 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06467	Page 134
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 135
Hoods		
AIR1-AAHA XH 1500/RH 1500 Intake hood outside air	Ref. no. 06484	Page 135
AIR1-AAHF XH 1500/RH 1500 Discharge hood exhaust air	Ref. no. 06643	Page 136

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 137
AIR1-BE TOUCH	Ref. no. 06187	Page 137
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 137
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 137
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 137
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 137
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 137
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 138
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 138
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 138

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 RH 1500/ePM10 50%/48 (M5)	Ref. no. 02192	Page 139
ELF-AIR1 RH 1500/ePM10 50%/96 (M5)	Ref. no. 02211	Page 139
ELF-AIR1 RH 1500/ePM1 55%/96 (F7)	Ref. no. 02236	Page 139
ELF-AIR1 RH 1500/ePM1 80%/96 (F9)	Ref. no. 02374	Page 139

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

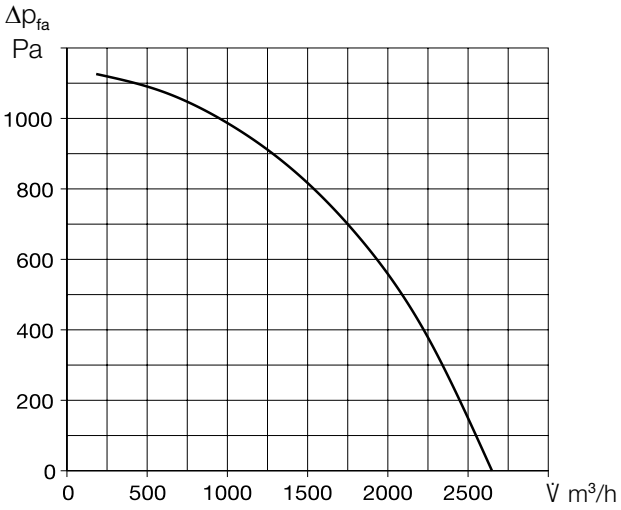
(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

AIR1 RH 2000

Fig. shows accessories

Performance curve AIR1 RH 2000



Unit types

	AIR1 RH 2000	AIR1 RH 2000/SO
Ref. no.	04344	04353
Heat exchanger	Condensation rotor	Adsorption rotor (4)

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	Standing
Maintenance access	Side, both sides
Min. air volume	330 m³/h
Max. air volume ERP	2,100 m³/h (1) (2,020 m³/h (5))
Max. air volume (free blowing)	2,650 m³/h
Weight, unit operational	361 kg (368 kg (5))
Delivery unit	1-part
Unit segments	1
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM₁ 55% (F7) (2)
Filter Extract air	ISO ePM₁₀ 50% (M5) (2)
Media temperature (air)	-20 to +40 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 780 W
Nominal current	
– Ventilation unit	3.4 / 3.4 / 1.3 A
– Electrical auxiliary heater	8.4 / 8.4 / 8.4 A (3)
– max. total	11.8 / 11.8 / 9.7 A
Connection (wiring diagram no.)	1318

(1) = at 250 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = Optional accessories
(4) = with increased humidity recovery
(5) = AIR RH 2000/SO

Sound data AIR1 RH 2000

Sound power level L_{WA} dB(A) at 250 Pa external pressure			
	600 m³/h	1,500 m³/h	2,100 m³/h
Supply air (L_{WA})	70	75	81
Extract air (L_{WA})	57	60	65
Outside air (L_{WA})	61	57	62
Exhaust air (L_{WA})	68	74	80
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	600 m³/h	1,500 m³/h	2,100 m³/h
Housing rad. 1 m	39	41	46
Housing rad. 3 m	30	32	37
Housing rad. 5 m	25	27	32

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

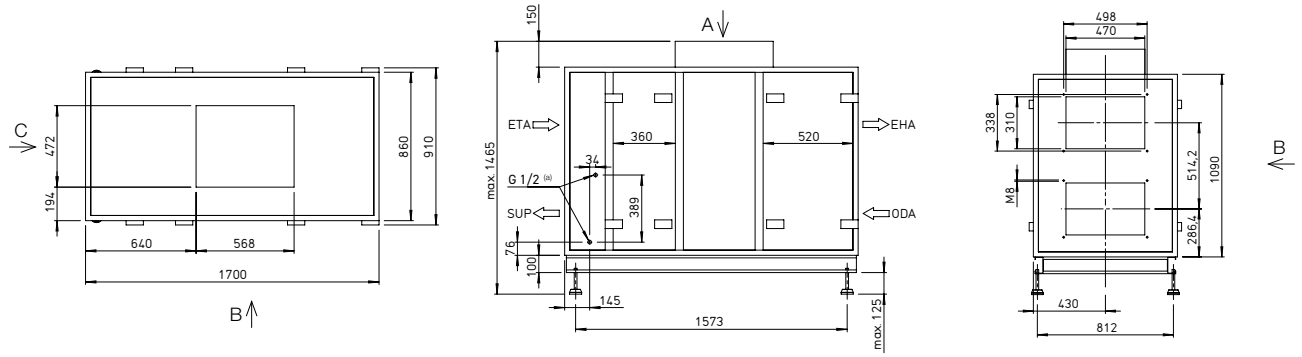
Sound data AIR1 RH 2000/SO

Sound power level L_{WA} dB(A) at 250 Pa external pressure			
	600 m³/h	1,500 m³/h	2,020 m³/h
Supply air (L_{WA})	70	76	81
Extract air (L_{WA})	57	60	64
Outside air (L_{WA})	61	57	61
Exhaust air (L_{WA})	69	74	79
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	600 m³/h	1,500 m³/h	2,020 m³/h
Housing rad. 1 m	40	42	46
Housing rad. 3 m	30	32	36
Housing rad. 5 m	26	28	32

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 RH 2000

View A (from above) | View B | View C



Dimensions in mm | (a) Internal thread | ODA: Outside air | EHA: Exhaust air | ETA: Extract air | SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH RH 2000 Electrical, external	Ref. no. 01710	Page 122
Auxiliary heater		
AIR1-ENH RH 2000 Electrical, internal	Ref. no. 03616	Page 123
AIR1-NH WW RH 2000 Hot water, internal	Ref. no. 03806	Page 124
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 125
Cooling register		
AIR1-KR KW RH 2000 L (1) Cold water, external	Ref. no. 03959	Page 126
AIR1-KR KW RH 2000 R (1) Cold water, external	Ref. no. 04285	Page 126
AIR1-CO DX RH 2000 L (1) Change-over, external	Ref. no. 40391	Page 128
AIR1-CO DX RH 2000 R (1) Change-over, external	Ref. no. 40400	Page 128
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 130

Air routing		
Multi-leaf damper		
AIR1-JVK XH 2500/RH 2000	Ref. no. 06007	Page 130
Flexible connector		
AIR1-VS 47/31	Ref. no. 04373	Page 131
Adapter square-round		
AIR1-ÜS XH 2500/RH 2000	Ref. no. 04368	Page 131

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

External installation		
Cover for external installation		
AIR1-AAD RH 2000 Weather protection cover for the unit	Ref. no. 06431	Page 132
AIR1-AAD KR KW + DX RH 2000 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06468	Page 134
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 135
Hoods		
AIR1-AAHA XH 2500/RH 2000 Intake hood outside air	Ref. no. 06539	Page 135
AIR1-AAHF XH 2500/RH 2000 Discharge hood exhaust air	Ref. no. 06646	Page 136

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 137
AIR1-BE TOUCH	Ref. no. 06187	Page 137
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 137
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 137
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 137
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 137
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 137
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 138
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 138
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 138

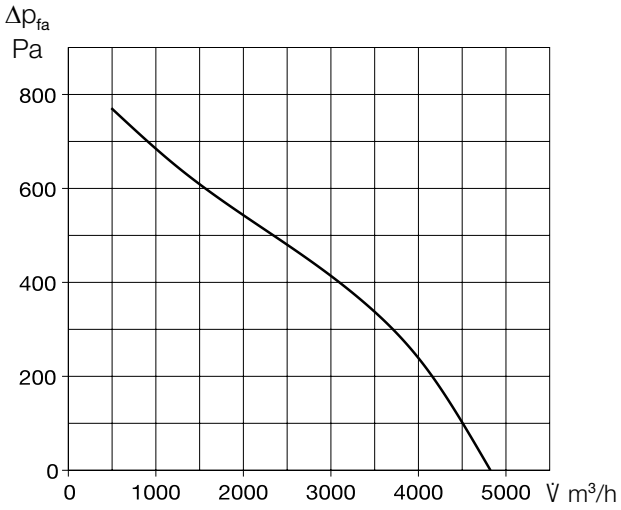
Air filters		
Spare air filter and other filter classes		
ELF-AIR1 RH 2000/ePM10 50%/48 (M5)	Ref. no. 02193	Page 139
ELF-AIR1 RH 2000/ePM10 50%/96 (M5)	Ref. no. 02212	Page 139
ELF-AIR1 RH 2000/ePM1 55%/96 (F7)	Ref. no. 02237	Page 139
ELF-AIR1 RH 2000/ePM1 80%/96 (F9)	Ref. no. 02384	Page 139

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

AIR1 RH 3000

Fig. shows accessories

Performance curve AIR1 RH 3000



Unit types

	AIR1 RH 3000	AIR1 RH 3000/SO
Ref. no.	04345	04354
Heat exchanger	Condensation rotor	Adsorption rotor (4)

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	Standing
Maintenance access	Side, both sides
Min. air volume	790 m³/h
Max. air volume ERP	3,000 m³/h (1) (2,770 m³/h (5))
Max. air volume (free blowing)	4,800 m³/h
Weight, unit operational	438 kg (450 kg (5))
Delivery unit	1-part
Unit segments	1
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM₁ 55% (F7) (2)
Filter Extract air	ISO ePM₁₀ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 1,500 W
Nominal current	
– Ventilation unit	4.6 / 4.6 / 5.8 A
– Electrical auxiliary heater	13.1 / 13.1 / 13.1 A (3)
– max. total	17.7 / 17.7 / 18.9 A
Connection (wiring diagram no.)	1319

(1) = at 250 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = Optional accessories
(4) = with increased humidity recovery
(5) = AIR RH 3000/SO

Sound data AIR1 RH 3000

Sound power level L_{WA} dB(A) at 250 Pa external pressure			
	900 m³/h	2,200 m³/h	3,000 m³/h
Supply air (L_{WA})	80	83	84
Extract air (L_{WA})	67	69	68
Outside air (L_{WA})	68	70	67
Exhaust air (L_{WA})	79	82	82
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	900 m³/h	2,200 m³/h	3,000 m³/h
Housing rad. 1 m	48	50	50
Housing rad. 3 m	39	41	40
Housing rad. 5 m	34	37	36

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

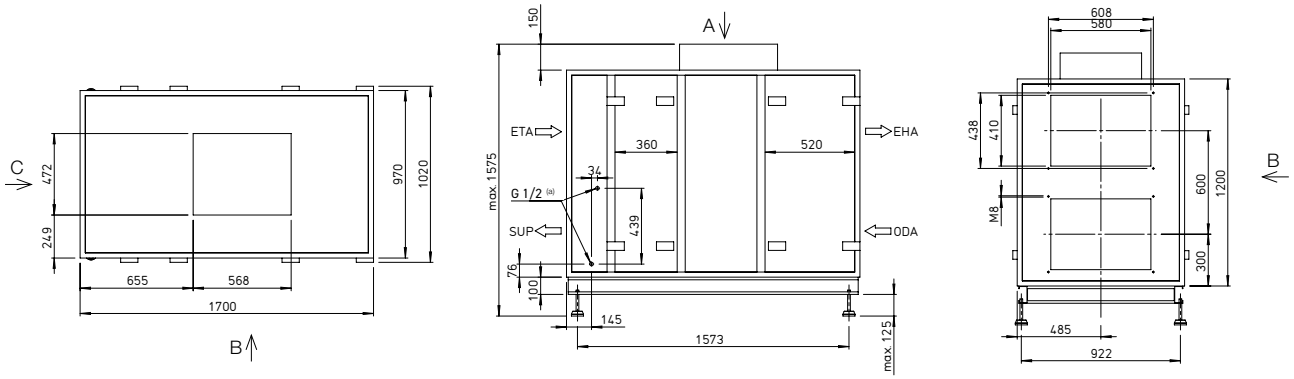
Sound data AIR1 RH 3000/SO

Sound power level L_{WA} dB(A) at 250 Pa external pressure			
	900 m³/h	2,200 m³/h	2,770 m³/h
Supply air (L_{WA})	81	85	84
Extract air (L_{WA})	67	70	68
Outside air (L_{WA})	69	72	68
Exhaust air (L_{WA})	79	83	82
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	900 m³/h	2,200 m³/h	2,770 m³/h
Housing rad. 1 m	49	52	50
Housing rad. 3 m	39	42	41
Housing rad. 5 m	35	38	36

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 RH 3000

View A (from above) View B View C



Dimensions in mm (a) Internal thread ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH RH 3000 Electrical, external	Ref. no. 01711	Page 122
Auxiliary heater		
AIR1-ENH RH 3000 Electrical, internal	Ref. no. 03617	Page 123
AIR1-NH WW RH 3000 Hot water, internal	Ref. no. 03824	Page 124
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V)	Ref. no. 08318	Page 125
Cooling register		
AIR1-KR KW RH 3000 L (1) Cold water, external	Ref. no. 03967	Page 126
AIR1-KR KW RH 3000 R (1) Cold water, external	Ref. no. 04286	Page 126
AIR1-CO DX RH 3000 L (1) Change-over, external	Ref. no. 40392	Page 128
AIR1-CO DX RH 3000 R (1) Change-over, external	Ref. no. 40401	Page 128
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 130

Air routing		
Multi-leaf damper		
AIR1-JVK XH 3500-4500/RH 3000	Ref. no. 06009	Page 130
Flexible connector		
AIR1-VS 58/41	Ref. no. 04374	Page 131
Adapter square-round		
AIR1-ÜS XH 3500-4500/RH 3000	Ref. no. 04369	Page 131

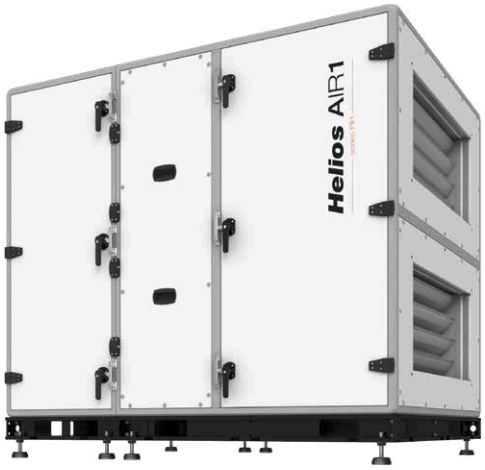
External installation		
Cover for external installation		
AIR1-AAD RH 3000 Weather protection cover for the unit	Ref. no. 06432	Page 132
AIR1-AAD KR KW + DX RH 3000 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06469	Page 134
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 135
Hoods		
AIR1-AAHA XH 3500-4500/RH 3000 Intake hood outside air	Ref. no. 06487	Page 135
AIR1-AAHF XH 3500-4500/RH 3000 Discharge hood exhaust air	Ref. no. 06647	Page 136

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 137
AIR1-BE TOUCH	Ref. no. 06187	Page 137
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 137
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 137
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 137
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 137
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 137
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 138
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 138
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 138

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 RH 3000/ePM10 50%/48 (M5)	Ref. no. 02194	Page 139
ELF-AIR1 RH 3000/ePM10 50%/96 (M5)	Ref. no. 02213	Page 139
ELF-AIR1 RH 3000/ePM1 55%/96 (F7)	Ref. no. 02238	Page 139
ELF-AIR1 RH 3000/ePM1 80%/96 (F9)	Ref. no. 02425	Page 139
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.		

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.
(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

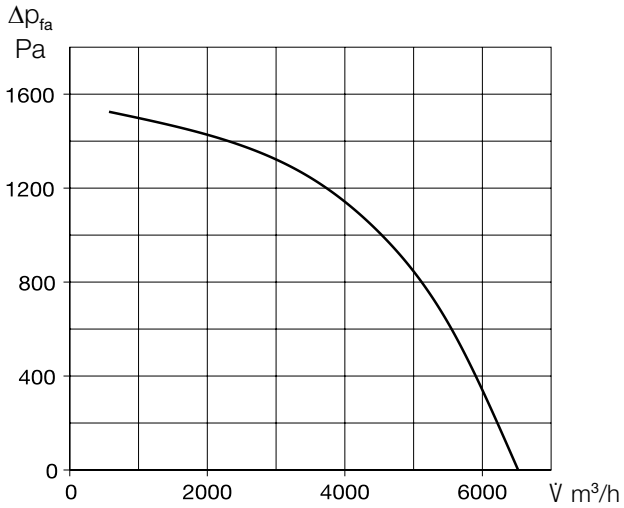
AIR1 RH 5000



Separable casing design

Fig. shows accessories

Performance curve AIR1 RH 5000



Unit types

	AIR1 RH 5000	AIR1 RH 5000/SO
Ref. no.	04346	04355
Heat exchanger	Condensation rotor	Adsorption rotor (3)

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	Standing
Maintenance access	Side, both sides
Min. air volume	665 m³/h
Max. air volume ERP	5,150 m³/h (1) (4,950 m³/h (4))
Max. air volume (free blowing)	6,500 m³/h
Weight, unit operational	629 kg (645 kg (4))
Delivery unit	2-part
Unit segments	2
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM$_1$ 55% (F7) (2)
Filter Extract air	ISO ePM$_{10}$ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 2,500 W
Nominal current	7.6 / 7.6 / 8.9 A (7.6 / 7.6 / 9.5 A (4))
Connection (wiring diagram no.)	1320

(1) = at 400 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = with increased humidity recovery
(4) = AIR RH 5000/SO

Sound data AIR1 RH 5000

Sound power level L_{WA} dB(A) at 400 Pa external pressure			
	1,500 m³/h	3,700 m³/h	5,150 m³/h
Supply air (L_{WA})	76	81	87
Extract air (L_{WA})	63	64	69
Outside air (L_{WA})	67	61	65
Exhaust air (L_{WA})	75	80	86
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	1,500 m³/h	3,700 m³/h	5,150 m³/h
Housing rad. 1 m	46	47	52
Housing rad. 3 m	36	38	42
Housing rad. 5 m	32	33	38

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

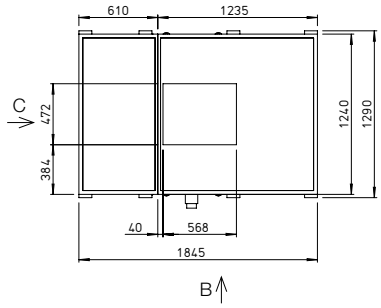
Sound data AIR1 RH 5000/SO

Sound power level L_{WA} dB(A) at 400 Pa external pressure			
	1,500 m³/h	3,700 m³/h	4,950 m³/h
Supply air (L_{WA})	77	81	86
Extract air (L_{WA})	63	65	69
Outside air (L_{WA})	67	62	65
Exhaust air (L_{WA})	75	80	85
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	1,500 m³/h	3,700 m³/h	4,950 m³/h
Housing rad. 1 m	46	47	52
Housing rad. 3 m	36	38	42
Housing rad. 5 m	32	33	38

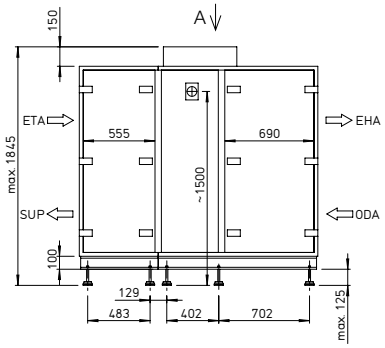
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 RH 5000

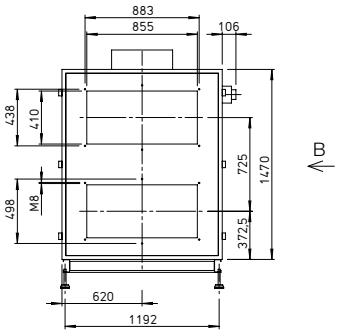
View A (from above)



View B



View C



Dimensions in mm

ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH RH 5000 Electrical, external	Ref. no. 01791	Page 122
Auxiliary heater		
AIR1-ENH RH 5000 Electrical, external	Ref. no. 03618	Page 123
AIR1-NH WW RH 5000 Hot water, external	Ref. no. 03825	Page 124
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V) M	Ref. no. 06310	Page 125
Cooling register		
AIR1-KR KW RH 5000 L (1) Cold water, external	Ref. no. 03971	Page 126
AIR1-KR KW RH 5000 R (1) Cold water, external	Ref. no. 04287	Page 126
AIR1-CO DX RH 5000 L (1) Change-over, external	Ref. no. 40393	Page 128
AIR1-CO DX RH 5000 R (1) Change-over, external	Ref. no. 40402	Page 128
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 130

Air routing		
Multi-leaf damper		
AIR1-JVK XH 5500/RH 5000-6000	Ref. no. 06010	Page 130
Recirculation module		
AIR1-ULM RH 5000	Ref. no. 06040	Page 130
Flexible connector		
AIR1-VS 85/41	Ref. no. 04375	Page 131
Adapter square-round		
AIR1-ÜS XH 5500/RH 5000-6000	Ref. no. 04370	Page 131

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 RH 5000/ePM10 50%/48 (M5)	Ref. no. 02196	Page 139
ELF-AIR1 RH 5000/ePM10 50%/96 (M5)	Ref. no. 02214	Page 139
ELF-AIR1 RH 5000/ePM1 55%/96 (F7)	Ref. no. 02239	Page 139
ELF-AIR1 RH 5000/ePM1 80%/96 (F9)	Ref. no. 02446	Page 139

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

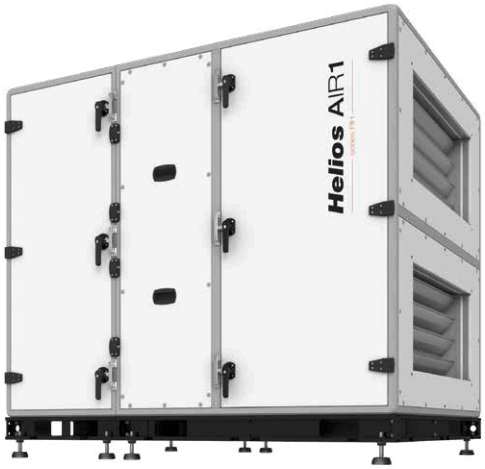
External installation		
Cover for external installation		
AIR1-AAD RH 5000 Weather protection cover for the unit	Ref. no. 06433	Page 132
AIR1-AAD RH 5000/ULM Weather protection cover for the unit incl. recirculation module	Ref. no. 06439	Page 133
AIR1-AAD KR KW + DX RH 5000 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06470	Page 134
AIR1-AAD NH EL + WW RH 5000 Weather protection cover for aux. heater	Ref. no. 06445	Page 134
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 135
Hoods		
AIR1-AAHA XH 5500/RH 5000-6000 Intake hood outside air	Ref. no. 06496	Page 135
AIR1-AAHF XH 5500/RH 5000-6000 Discharge hood exhaust air	Ref. no. 06648	Page 136

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 137
AIR1-BE TOUCH	Ref. no. 06187	Page 137
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 137
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 137
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 137
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 137
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 137
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 138
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 138
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 138

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

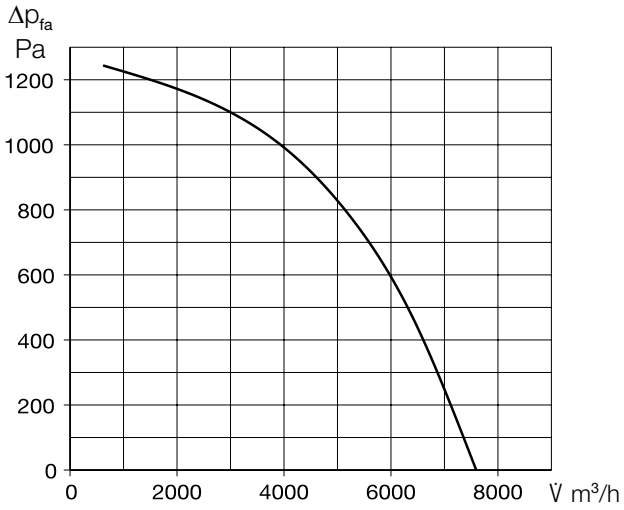
AIR1 RH 6000



Separable casing design

Fig. shows accessories

Performance curve AIR1 RH 6000



Unit types

	AIR1 RH 6000	AIR1 RH 6000/SO
Ref. no.	04347	04356
Heat exchanger	Condensation rotor	Adsorption rotor (3)

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	Standing
Maintenance access	Side, both sides
Min. air volume	845 m³/h
Max. air volume ERP	6,100 m³/h (1) (5,950 m³/h (4))
Max. air volume (free blowing)	7,600 m³/h
Weight, unit operational	775 kg (787 kg (4))
Delivery unit	2-part
Unit segments	2
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM₁ 55% (F7) (2)
Filter Extract air	ISO ePM₁₀ 50% (M5) (2)
Media temperature (air)	-20 to +40 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 2,400 W
Nominal current	7.3 / 7.3 / 8.8 A (7.3 / 7.3 / 9.3 A (4))
Connection (wiring diagram no.)	1321

(1) = at 400 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = with increased humidity recovery
(4) = AIR RH 6000/SO

Sound data AIR1 RH 6000

Sound power level L_{WA} dB(A) at 400 Pa external pressure

	1,900 m³/h	4,400 m³/h	6,100 m³/h
Supply air (L_{WA})	77	80	87
Extract air (L_{WA})	63	64	70
Outside air (L_{WA})	67	61	66
Exhaust air (L_{WA})	76	79	85

Sound pressure level L_{PA} dB(A) of sound radiated from housing

	1,900 m³/h	4,400 m³/h	6,100 m³/h
Housing rad. 1 m	46	47	53
Housing rad. 3 m	37	37	44
Housing rad. 5 m	32	33	39

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Sound data AIR1 RH 6000/SO

Sound power level L_{WA} dB(A) at 400 Pa external pressure

	1,900 m³/h	4,400 m³/h	5,950 m³/h
Supply air (L_{WA})	77	81	86
Extract air (L_{WA})	64	64	70
Outside air (L_{WA})	67	61	65
Exhaust air (L_{WA})	76	79	85

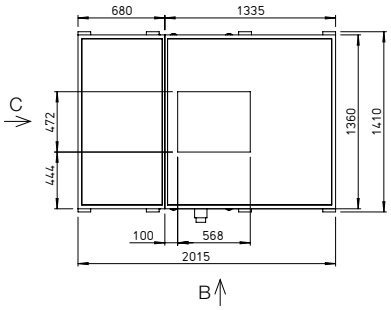
Sound pressure level L_{PA} dB(A) of sound radiated from housing

	1,900 m³/h	4,400 m³/h	5,950 m³/h
Housing rad. 1 m	47	47	53
Housing rad. 3 m	37	38	43
Housing rad. 5 m	33	33	39

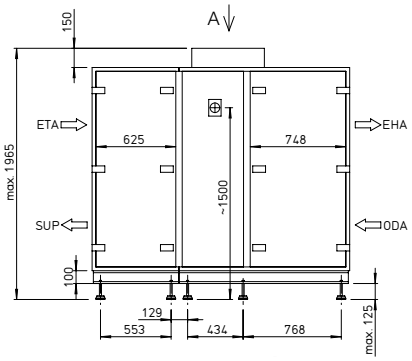
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 RH 6000

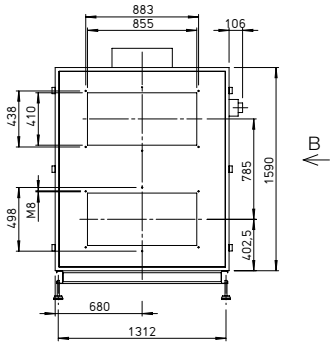
View A (from above)



View B



View C



Dimensions in mm ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH RH 6000 Electrical, external	Ref. no. 01792	Page 122
Auxiliary heater		
AIR1-ENH RH 6000 Electrical, external	Ref. no. 03625	Page 123
AIR1-NH WW RH 6000 Hot water, external	Ref. no. 03826	Page 124
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V) M	Ref. no. 06310	Page 125
Cooling register		
AIR1-KR KW RH 6000 L (1) Cold water, external	Ref. no. 03976	Page 126
AIR1-KR KW RH 6000 R (1) Cold water, external	Ref. no. 04288	Page 126
AIR1-CO DX RH 6000 L (1) Change-over, external	Ref. no. 40394	Page 128
AIR1-CO DX RH 6000 R (1) Change-over, external	Ref. no. 40403	Page 128
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 130

Air routing		
Multi-leaf damper		
AIR1-JVK XH 5500/RH 5000-6000	Ref. no. 06010	Page 130
Recirculation module		
AIR1-ULM RH 6000	Ref. no. 06160	Page 130
Flexible connector		
AIR1-VS 85/41	Ref. no. 04375	Page 131
Adapter square-round		
AIR1-ÜS XH 5500/RH 5000-6000	Ref. no. 04370	Page 131

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 RH 6000/ePM10 50%/48 (M5)	Ref. no. 02220	Page 139
ELF-AIR1 RH 6000/ePM10 50%/96 (M5)	Ref. no. 02215	Page 139
ELF-AIR1 RH 6000/ePM1 55%/96 (F7)	Ref. no. 02240	Page 139
ELF-AIR1 RH 6000/ePM1 80%/96 (F9)	Ref. no. 02451	Page 139

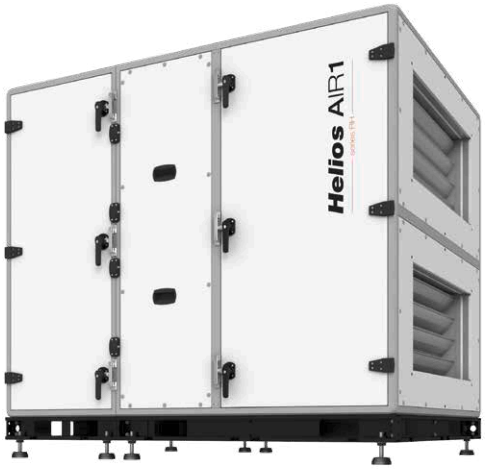
The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

External installation		
Cover for external installation		
AIR1-AAD RH 6000 Weather protection cover for the unit	Ref. no. 06434	Page 132
AIR1-AAD RH 6000/ULM Weather protection cover for the unit incl. recirculation module	Ref. no. 06440	Page 133
AIR1-AAD KR KW + DX RH 6000 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06471	Page 134
AIR1-AAD NH EL + WW RH 6000 Weather protection cover for aux. heater	Ref. no. 06446	Page 134
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 135
Hoods		
AIR1-AAHA XH 5500/RH 5000-6000 Intake hood outside air	Ref. no. 06496	Page 135
AIR1-AAHF XH 5500/RH 5000-6000 Discharge hood exhaust air	Ref. no. 06648	Page 136

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 137
AIR1-BE TOUCH	Ref. no. 06187	Page 137
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 137
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 137
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 137
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 137
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 137
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 138
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 138
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 138

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.
(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

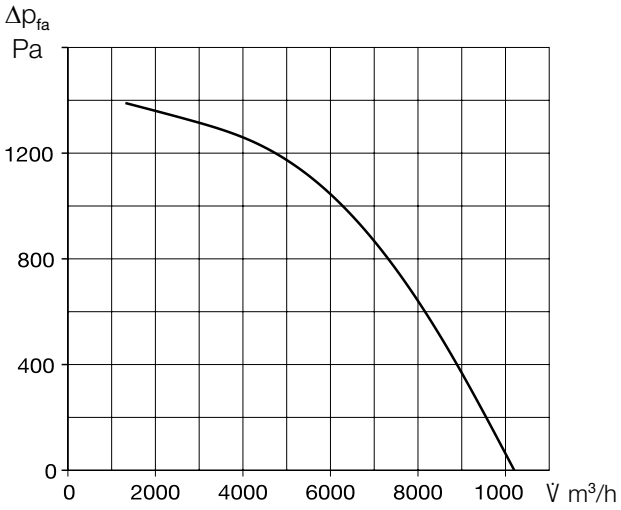
AIR1 RH 8000



Separable casing design

Fig. shows accessories

Performance curve AIR1 RH 8000



Unit types

	AIR1 RH 8000	AIR1 RH 8000/SO
Ref. no.	04348	04357
Heat exchanger	Condensation rotor	Adsorption rotor (3)

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	Standing
Maintenance access	Side, both sides
Min. air volume	1,080 m³/h
Max. air volume ERP	8,000 m³/h (1) (7,650 m³/h (4))
Max. air volume (free blowing)	10,100 m³/h
Weight, unit operational	888 kg (905 kg (4))
Delivery unit	2-part
Unit segments	2
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM₁ 55% (F7) (2)
Filter Extract air	ISO ePM₁₀ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 3,600 W
Nominal current	11 / 11 / 12.4 A (11 / 11 / 14.1 A (4))
Connection (wiring diagram no.)	1322

(1) = at 400 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = with increased humidity recovery
(4) = AIR RH 8000/SO

Sound data AIR1 RH 8000

Sound power level L_{WA} dB(A) at 400 Pa external pressure			
	2,400 m³/h	5,800 m³/h	8,000 m³/h
Supply air (L_{WA})	78	85	91
Extract air (L_{WA})	63	67	74
Outside air (L_{WA})	67	64	71
Exhaust air (L_{WA})	77	83	90
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	2,400 m³/h	5,800 m³/h	8,000 m³/h
Housing rad. 1 m	47	51	57
Housing rad. 3 m	37	41	47
Housing rad. 5 m	33	37	43

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

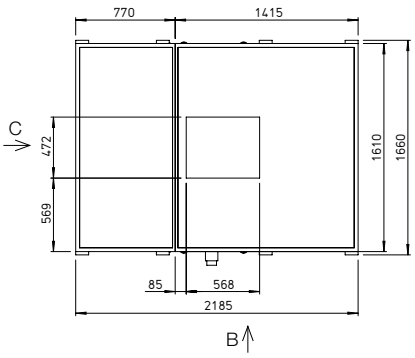
Sound data AIR1 RH 8000/SO

Sound power level L_{WA} dB(A) at 400 Pa external pressure			
	2,400 m³/h	5,800 m³/h	7,650 m³/h
Supply air (L_{WA})	78	85	91
Extract air (L_{WA})	64	67	74
Outside air (L_{WA})	67	64	71
Exhaust air (L_{WA})	77	84	89
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	2,400 m³/h	5,800 m³/h	7,650 m³/h
Housing rad. 1 m	47	51	57
Housing rad. 3 m	38	41	48
Housing rad. 5 m	33	37	43

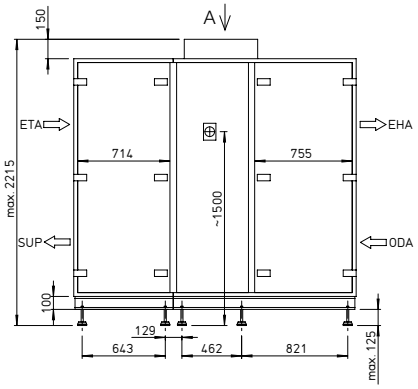
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 RH 8000

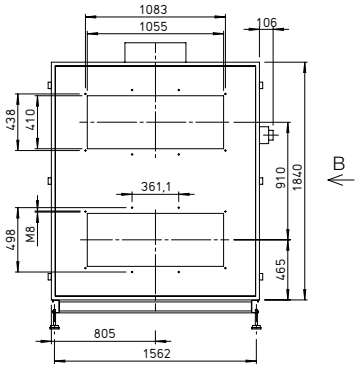
View A (from above)



View B



View C



Dimensions in mm

ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH RH 8000 Electrical, external	Ref. no. 01819	Page 122
Auxiliary heater		
AIR1-ENH RH 8000 Electrical, external	Ref. no. 03626	Page 123
AIR1-NH WW RH 8000 Hot water, external	Ref. no. 03827	Page 124
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V) M	Ref. no. 06310	Page 125
Cooling register		
AIR1-KR KW RH 8000 L (1) Cold water, external	Ref. no. 03983	Page 126
AIR1-KR KW RH 8000 R (1) Cold water, external	Ref. no. 04382	Page 126
AIR1-CO DX RH 8000 L (1) Change-over, external	Ref. no. 40395	Page 128
AIR1-CO DX RH 8000 R (1) Change-over, external	Ref. no. 40404	Page 128
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 130

Air routing		
Multi-leaf damper		
AIR1-JVK XH 7000/RH 8000	Ref. no. 06012	Page 130
Recirculation module		
AIR1-ULM RH 8000	Ref. no. 06184	Page 130
Flexible connector		
AIR1-VS 105/41	Ref. no. 04376	Page 131

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 RH 8000/ePM10 50%/48 (M5)	Ref. no. 02199	Page 139
ELF-AIR1 RH 8000/ePM10 50%/96 (M5)	Ref. no. 02216	Page 139
ELF-AIR1 RH 8000/ePM1 55%/96 (F7)	Ref. no. 02241	Page 139
ELF-AIR1 RH 8000/ePM1 80%/96 (F9)	Ref. no. 02460	Page 139

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

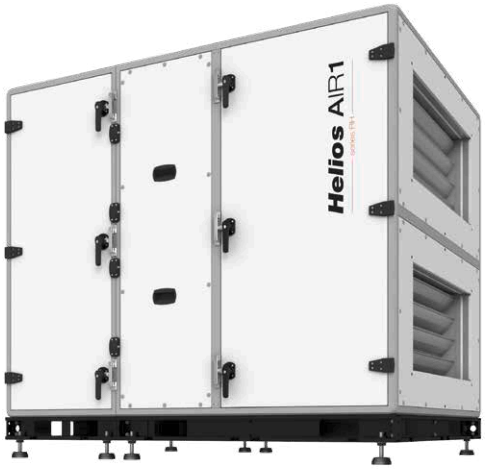
External installation		
Cover for external installation		
AIR1-AAD RH 8000 Weather protection cover for the unit	Ref. no. 06435	Page 132
AIR1-AAD RH 8000/ULM Weather protection cover for the unit incl. recirculation module	Ref. no. 06441	Page 133
AIR1-AAD KR KW + DX RH 8000 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06472	Page 134
AIR1-AAD NH EL + WW RH 8000 Weather protection cover for aux. heater	Ref. no. 06447	Page 134
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 135
Hoods		
AIR1-AAHA XH 7000/RH 8000 Intake hood outside air	Ref. no. 06497	Page 135
AIR1-AAHF XH 7000/RH 8000 Discharge hood exhaust air	Ref. no. 06841	Page 136

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 137
AIR1-BE TOUCH	Ref. no. 06187	Page 137
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 137
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 137
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 137
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 137
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 137
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 138
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 138
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 138

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

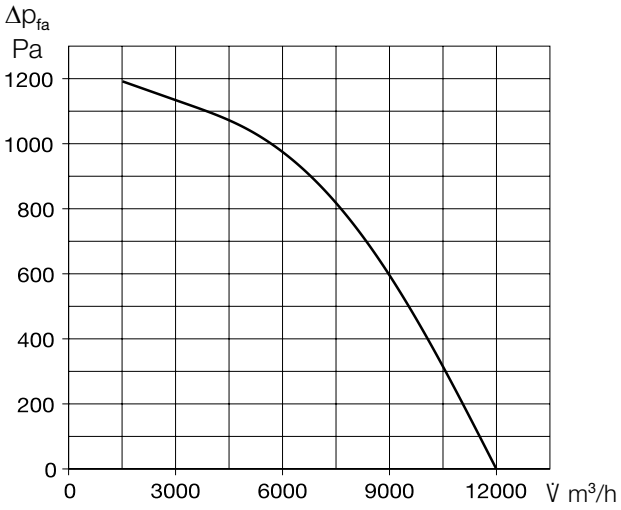
AIR1 RH 9500



Separable casing design

Fig. shows accessories

Performance curve AIR1 RH 9500



Unit types

	AIR1 RH 9500	AIR1 RH 9500/SO
Ref. no.	04349	04358
Heat exchanger	Condensation rotor	Adsorption rotor (3)

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	Standing
Maintenance access	Side, both sides
Min. air volume	1,380 m³/h
Max. air volume ERP	9,700 m³/h (1) (9,400 m³/h (4))
Max. air volume (free blowing)	12,000 m³/h
Weight, unit operational	1,085 kg (1106 kg (4))
Delivery unit	2-part
Unit segments	2
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM₁ 55% (F7) (2)
Filter Extract air	ISO ePM₁₀ 50% (M5) (2)
Media temperature (air)	-20 to +50 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 3,500 W
Nominal current	10.7 / 10.7 / 12.7 A (10.7 / 10.7 / 13.8 A (4))
Connection (wiring diagram no.)	1323

(1) = at 400 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = with increased humidity recovery
(4) = AIR RH 9500/SO

Sound data AIR1 RH 9500

Sound power level L_{WA} dB(A) at 400 Pa external pressure			
	2,900 m³/h	7,000 m³/h	9,700 m³/h
Supply air (L_{WA})	78	83	89
Extract air (L_{WA})	64	66	73
Outside air (L_{WA})	67	66	70
Exhaust air (L_{WA})	77	81	88
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	2,900 m³/h	7,000 m³/h	9,700 m³/h
Housing rad. 1 m	48	50	57
Housing rad. 3 m	38	41	47
Housing rad. 5 m	34	36	43

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

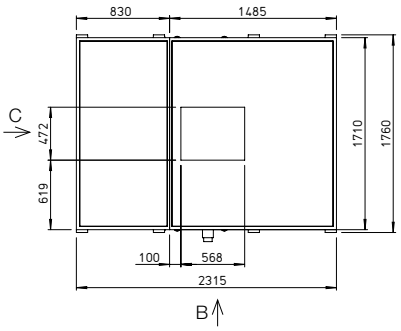
Sound data AIR1 RH 9500/SO

Sound power level L_{WA} dB(A) at 400 Pa external pressure			
	2,900 m³/h	7,000 m³/h	9,400 m³/h
Supply air (L_{WA})	78	83	89
Extract air (L_{WA})	65	67	72
Outside air (L_{WA})	68	66	68
Exhaust air (L_{WA})	77	82	88
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	2,900 m³/h	7,000 m³/h	9,400 m³/h
Housing rad. 1 m	48	50	56
Housing rad. 3 m	38	41	47
Housing rad. 5 m	34	36	42

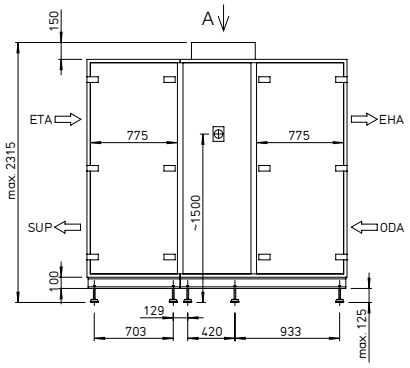
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 RH 9500

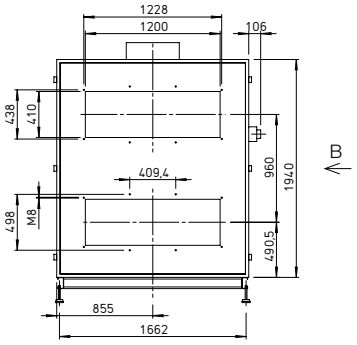
View A (from above)



View B



View C



Dimensions in mm

ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH RH 9500 Electrical, external	Ref. no. 01830	Page 122
Auxiliary heater		
AIR1-ENH RH 9500 Electrical, external	Ref. no. 03627	Page 123
AIR1-NH WW RH 9500 Hot water, external	Ref. no. 03830	Page 124
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V) L	Ref. no. 06311	Page 125
Cooling register		
AIR1-KR KW RH 9500 L (1) Cold water, external	Ref. no. 03984	Page 126
AIR1-KR KW RH 9500 R (1) Cold water, external	Ref. no. 04383	Page 126
AIR1-CO DX RH 9500 L (1) Change-over, external	Ref. no. 40396	Page 128
AIR1-CO DX RH 9500 R (1) Change-over, external	Ref. no. 40405	Page 128
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 130

Air routing		
Multi-leaf damper		
AIR1-JVK XH 8500/RH 9500	Ref. no. 06013	Page 130
Recirculation module		
AIR1-ULM RH 9500	Ref. no. 06185	Page 130
Flexible connector		
AIR1-VS 120/41	Ref. no. 04377	Page 131

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 RH 9500/ePM10 50%/48 (M5)	Ref. no. 02200	Page 139
ELF-AIR1 RH 9500/ePM10 50%/96 (M5)	Ref. no. 02217	Page 139
ELF-AIR1 RH 9500/ePM1 55%/96 (F7)	Ref. no. 02261	Page 139
ELF-AIR1 RH 9500/ePM1 80%/96 (F9)	Ref. no. 02463	Page 139

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

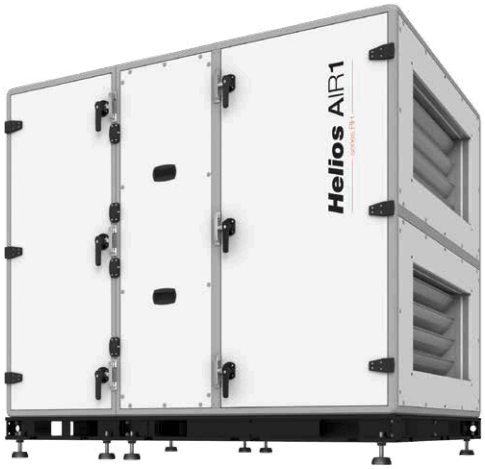
External installation		
Cover for external installation		
AIR1-AAD RH 9500 Weather protection cover for the unit	Ref. no. 06436	Page 132
AIR1-AAD RH 9500/ULM Weather protection cover for the unit incl. recirculation module	Ref. no. 06442	Page 133
AIR1-AAD KR KW + DX RH 9500 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06473	Page 134
AIR1-AAD NH EL + WW RH 9500 Weather protection cover for aux. heater	Ref. no. 06448	Page 134
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 135
Hoods		
AIR1-AAHA XH 8500/RH 9500 Intake hood outside air	Ref. no. 06499	Page 135
AIR1-AAHF XH 8500/RH 9500 Discharge hood exhaust air	Ref. no. 06864	Page 136

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 137
AIR1-BE TOUCH	Ref. no. 06187	Page 137
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 137
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 137
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 137
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 137
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 137
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 138
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 138
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 138

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

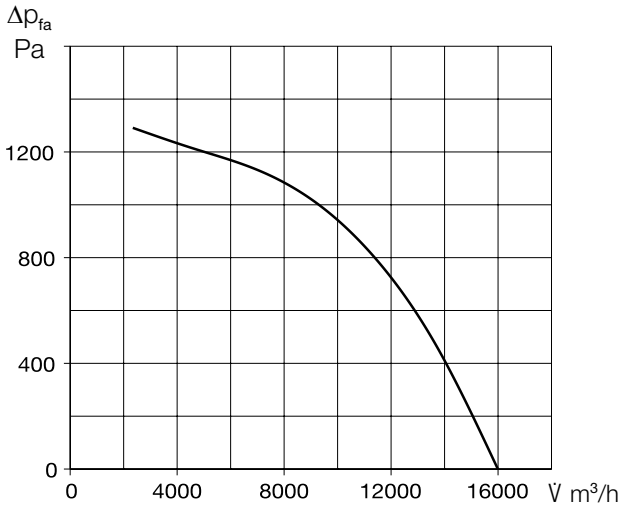
AIR1 RH 12000



Separable casing design

Fig. shows accessories

Performance curve AIR1 RH 12000



Unit types

	AIR1 RH 12000	AIR1 RH 12000/SO
Ref. no.	04350	04359
Heat exchanger	Condensation rotor	Adsorption rotor (3)

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	Standing
Maintenance access	Side, both sides
Min. air volume	1,690 m³/h
Max. air volume ERP	13,300 m³/h (1) (12,800 m³/h (4))
Max. air volume (free blowing)	16,000 m³/h
Weight, unit operational	1,160 kg (1184 kg (4))
Delivery unit	2-part
Unit segments	2
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM₁ 55% (F7) (2)
Filter Extract air	ISO ePM₁₀ 50% (M5) (2)
Media temperature (air)	-20 to +40 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 5,000 W
Nominal current	15.2 / 15.2 / 17.2 A (15.2 / 15.2 / 18.4 A (4))
Connection (wiring diagram no.)	1324

(1) = at 400 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = with increased humidity recovery
(4) = AIR RH 12000/SO

Sound data AIR1 RH 12000

Sound power level L_{WA} dB(A) at 400 Pa external pressure			
	4,000 m³/h	9,500 m³/h	13,300 m³/h
Supply air (L_{WA})	78	83	90
Extract air (L_{WA})	65	70	75
Outside air (L_{WA})	69	72	72
Exhaust air (L_{WA})	77	82	89
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	4,000 m³/h	9,500 m³/h	13,300 m³/h
Housing rad. 1 m	49	53	58
Housing rad. 3 m	39	43	49
Housing rad. 5 m	35	39	44

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

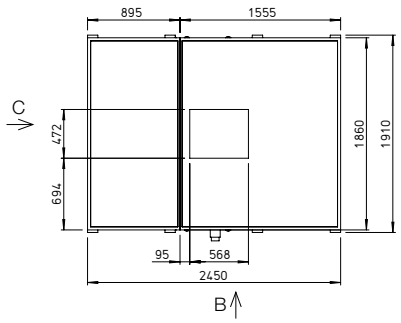
Sound data AIR1 RH 12000/SO

Sound power level L_{WA} dB(A) at 400 Pa external pressure			
	4,000 m³/h	9,500 m³/h	12,800 m³/h
Supply air (L_{WA})	79	84	89
Extract air (L_{WA})	66	70	72
Outside air (L_{WA})	69	73	71
Exhaust air (L_{WA})	77	82	88
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	4,000 m³/h	9,500 m³/h	12,800 m³/h
Housing rad. 1 m	49	53	56
Housing rad. 3 m	39	44	46
Housing rad. 5 m	35	39	42

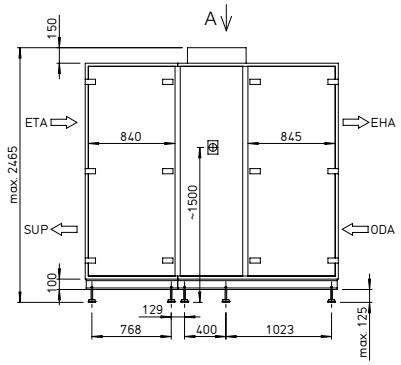
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 RH 12000

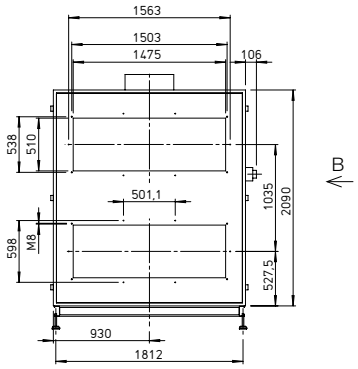
View A (from above)



View B



View C



Dimensions in mm

ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH RH 12000 Electrical, external	Ref. no. 01871	Page 122
Auxiliary heater		
AIR1-ENH RH 12000 Electrical, external	Ref. no. 03628	Page 123
AIR1-NH WW RH 12000 Hot water, external	Ref. no. 03831	Page 124
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V) L	Ref. no. 06311	Page 125
Cooling register		
AIR1-KR KW RH 12000 L (1) Cold water, external	Ref. no. 04183	Page 126
AIR1-KR KW RH 12000 R (1) Cold water, external	Ref. no. 04389	Page 126
AIR1-CO DX RH 12000 L (1) Change-over, external	Ref. no. 40397	Page 128
AIR1-CO DX RH 12000 R (1) Change-over, external	Ref. no. 40406	Page 128
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 130

Air routing		
Multi-leaf damper		
AIR1-JVK RH 12000	Ref. no. 06020	Page 130
Recirculation module		
AIR1-ULM RH 12000	Ref. no. 06170	Page 130
Flexible connector		
AIR1-VS 147/51	Ref. no. 04378	Page 131

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 RH 12000/ePM10 50%/48 (M5)	Ref. no. 02201	Page 139
ELF-AIR1 RH 12000/ePM10 50%/96 (M5)	Ref. no. 02218	Page 139
ELF-AIR1 RH 12000/ePM1 55%/96 (F7)	Ref. no. 02264	Page 139
ELF-AIR1 RH 12000/ePM1 80%/96 (F9)	Ref. no. 02471	Page 139

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

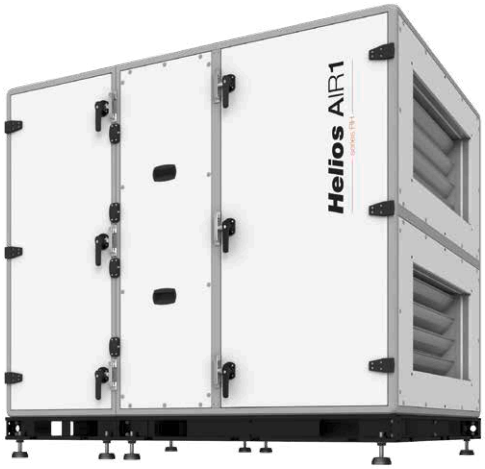
External installation		
Cover for external installation		
AIR1-AAD RH 12000 Weather protection cover for the unit	Ref. no. 06437	Page 132
AIR1-AAD RH 12000/ULM Weather protection cover for the unit incl. recirculation module	Ref. no. 06443	Page 133
AIR1-AAD KR KW + DX RH 12000 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06474	Page 134
AIR1-AAD NH EL + WW RH 12000 Weather protection cover for aux. heater	Ref. no. 06449	Page 134
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 135
Hoods		
AIR1-AAHA RH 12000 Intake hood outside air	Ref. no. 06611	Page 135
AIR1-AAHF RH 12000 Discharge hood exhaust air	Ref. no. 06865	Page 136

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 137
AIR1-BE TOUCH	Ref. no. 06187	Page 137
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 137
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 137
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 137
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 137
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 137
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 138
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 138
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 138

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

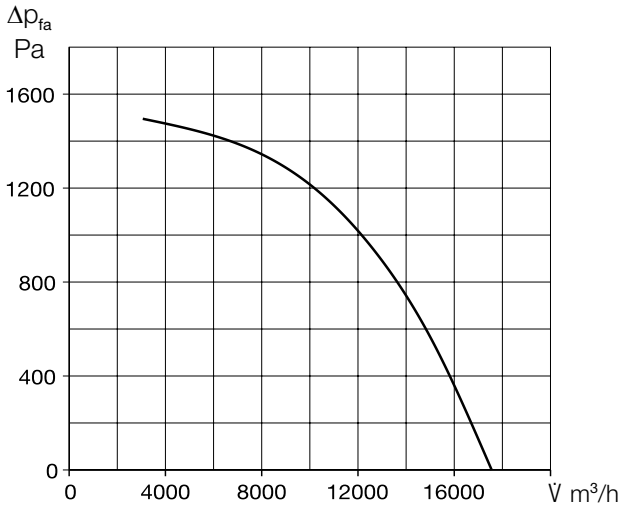
AIR1 RH 15000



Separable casing design

Fig. shows accessories

Performance curve AIR1 RH 15000



Unit types

	AIR1 RH 15000	AIR1 RH 15000/SO
Ref. no.	04351	04360
Heat exchanger	Condensation rotor	Adsorption rotor (3)

Technical data

Mechanical data	
Area of application	Inside/outside
Installation position	Standing
Maintenance access	Side, both sides
Min. air volume	1,690 m³/h
Max. air volume ERP	15,000 m³/h (1) (14,700 m³/h (4))
Max. air volume (free blowing)	17,500 m³/h
Weight, unit operational	1,500 kg (1531 kg (4))
Delivery unit	2-part
Unit segments	2
Housing class (DIN 1886)	T2 / TB2 / D2
Filter Outside air	ISO ePM₁ 55% (F7) (2)
Filter Extract air	ISO ePM₁₀ 50% (M5) (2)
Media temperature (air)	-20 to +40 °C
Ambient temperature (place of installation)	-20 to +50 °C
Protection class	IP31
Electrical data	
Central building control system	BACnet, Modbus TCP/IP
Voltage / Frequency	400 V 3N ~, 50 Hz
Max. output Fans	2 x 6,000 W
Nominal current	18.3 / 18.3 / 20.3 A (18.3 / 18.3 / 21.4 A (4))
Connection (wiring diagram no.)	1325

(1) = at 400 Pa external pressure loss ERP-compliant
(2) = other filter classes see optional accessories
(3) = with increased humidity recovery
(4) = AIR RH 15000/SO

Sound data AIR1 RH 15000

Sound power level L_{WA} dB(A) at 400 Pa external pressure			
	5,000 m³/h	10,500 m³/h	15,000 m³/h
Supply air (L_{WA})	78	85	93
Extract air (L_{WA})	64	72	78
Outside air (L_{WA})	67	74	74
Exhaust air (L_{WA})	77	84	92
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	5,000 m³/h	10,500 m³/h	15,000 m³/h
Housing rad. 1 m	47	56	61
Housing rad. 3 m	37	46	52
Housing rad. 5 m	33	42	47

The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

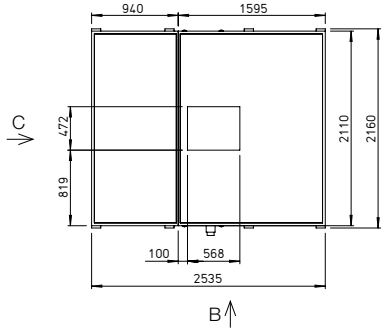
Sound data AIR1 RH 15000/SO

Sound power level L_{WA} dB(A) at 400 Pa external pressure			
	5,000 m³/h	10,500 m³/h	14,700 m³/h
Supply air (L_{WA})	79	86	93
Extract air (L_{WA})	65	72	77
Outside air (L_{WA})	68	74	74
Exhaust air (L_{WA})	77	84	92
Sound pressure level L_{PA} dB(A) of sound radiated from housing			
	5,000 m³/h	10,500 m³/h	14,700 m³/h
Housing rad. 1 m	47	56	61
Housing rad. 3 m	38	46	51
Housing rad. 5 m	33	42	47

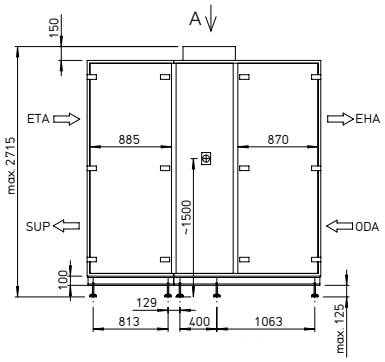
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 RH 15000

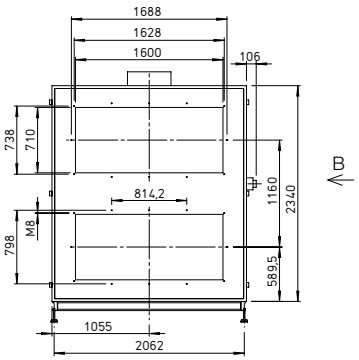
View A (from above)



View B



View C



Dimensions in mm ODA: Outside air EHA: Exhaust air ETA: Extract air SUP: Supply air

Accessories

Heating and cooling registers		
Pre-heater		
AIR1-EVH RH 15000 Electrical, external	Ref. no. 01883	Page 122
Auxiliary heater		
AIR1-ENH RH 15000 Electrical, external	Ref. no. 03642	Page 123
AIR1-NH WW RH 15000 Hot water, external	Ref. no. 03833	Page 124
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V) L	Ref. no. 06311	Page 125
Cooling register		
AIR1-KR KW RH 15000 L (1) Cold water, external	Ref. no. 04184	Page 126
AIR1-KR KW RH 15000 R (1) Cold water, external	Ref. no. 04391	Page 126
AIR1-CO DX RH 15000 L (1) Change-over, external	Ref. no. 40398	Page 128
AIR1-CO DX RH 15000 R (1) Change-over, external	Ref. no. 40407	Page 128
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 130

Air routing		
Multi-leaf damper		
AIR1-JVK RH 15000	Ref. no. 06021	Page 130
Recirculation module		
AIR1-ULM RH 15000	Ref. no. 06182	Page 130
Flexible connector		
AIR1-VS 160/71	Ref. no. 04379	Page 131

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 RH 15000/ePM10 50%/48 (M5)	Ref. no. 02202	Page 139
ELF-AIR1 RH 15000/ePM10 50%/96 (M5)	Ref. no. 02219	Page 139
ELF-AIR1 RH 15000/ePM1 55%/96 (F7)	Ref. no. 02271	Page 139
ELF-AIR1 RH 15000/ePM1 80%/96 (F9)	Ref. no. 02479	Page 139

The use of original spare air filters is mandatory to guarantee the specified technical data and air volumes.

External installation		
Cover for external installation		
AIR1-AAD RH 15000 Weather protection cover for the unit	Ref. no. 06438	Page 132
AIR1-AAD RH 15000/ULM Weather protection cover for the unit incl. recirculation module	Ref. no. 06444	Page 133
AIR1-AAD KR KW + DX RH 15000 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06482	Page 134
AIR1-AAD NH EL + WW RH 15000 Weather protection cover for aux. heater	Ref. no. 06450	Page 134
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 135
Hoods		
AIR1-AAHA RH 15000 Intake hood outside air	Ref. no. 06612	Page 135
AIR1-AAHF RH 15000 Discharge hood exhaust air	Ref. no. 06866	Page 136

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 137
AIR1-BE TOUCH	Ref. no. 06187	Page 137
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 137
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 137
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 137
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 137
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 137
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 138
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 138
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 138

(1) = When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

(2) = Necessary accessory in connection with an AIR1-CO DX change-over register for connecting an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system.

AIR1-EVH RH

Electrical pre-heater external

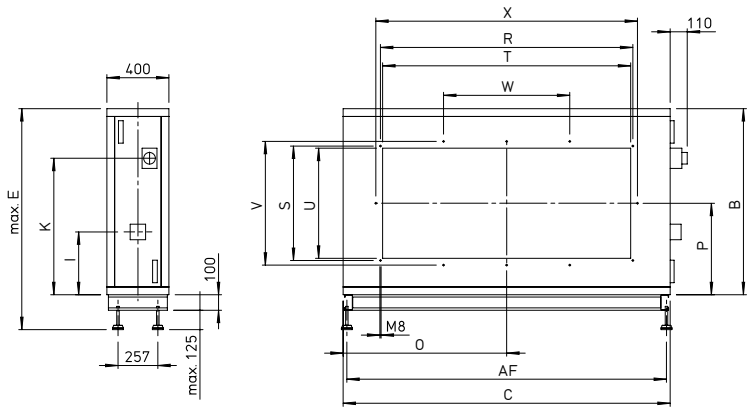
For heating the outside air at very low external temperatures. For mounting directly to the supply air duct of the ventilation unit including fixing material. Casing in robust panel construction, insulated on all sides with 50 mm mineral wool for the minimisation of heat losses. External corrosion-resistant coating of casing. Large inspection openings on both sides of unit for easy access and optimised cleaning and maintenance. Suitable for internal installation.

Detailed calculations / technical information: www.AIR1Select.com

Technical data

Type	Ref. no.	Heating capacity	Power consumption max.	Weight
AIR1-EVH RH 1500	01262	4.2 kW	6.1 A	50.0 kg
AIR1-EVH RH 2000	01710	5.8 kW	8.4 A	61.0 kg
AIR1-EVH RH 3000	01711	9.1 kW	13.1 A	77.0 kg
AIR1-EVH RH 5000	01791	15.6 kW	22.5 A	110.0 kg
AIR1-EVH RH 6000	01792	18.1 kW	26.1 A	126.0 kg
AIR1-EVH RH 8000	01819	22.0 kW	31.8 A	135.0 kg
AIR1-EVH RH 9500	01830	22.0 kW	31.8 A	150.0 kg
AIR1-EVH RH 12000	01871	22.0 kW	31.8 A	174.0 kg
AIR1-EVH RH 15000	01883	22.0 kW	31.8 A	211.0 kg

Dimensions AIR1-EVH RH



Dimensions in mm

Dimensions

Type	Ref. no.	B	C	E	I	K	O	P	R	S	T	U	V	W	X	AF
AIR1-EVH RH 1500	01262	520	760	745	160	313	380	265	378	338	350	310	–	–	–	712
AIR1-EVH RH 2000	01710	580	860	805	200	339	430	295	498	338	470	310	–	–	–	812
AIR1-EVH RH 3000	01711	640	970	856	200	380	485	300	608	438	580	410	–	–	–	922
AIR1-EVH RH 5000	01791	780	1240	1005	300	465	620	375	883	438	855	410	498	–	–	1192
AIR1-EVH RH 6000	01792	830	1360	1055	330	515	680	400	883	438	855	410	498	–	–	1312
AIR1-EVH RH 8000	01819	950	1610	1175	300	630	805	465	1083	438	1055	410	498	361	–	1562
AIR1-EVH RH 9500	01830	1000	1710	1225	300	680	855	490	1228	438	1200	410	498	409	–	1662
AIR1-EVH RH 12000	01871	1080	1860	1315	300	765	930	530	1503	538	1475	510	598	501	1563	1812
AIR1-EVH RH 15000	01883	1200	2110	1425	405	880	1055	590	1628	738	1600	710	798	814	1688	2062

AIR1-ENH RH

internal

external

Electrical auxiliary heater internal/external

For the demand-oriented temperature control of supply air.

Internal up to RH 3000: Mains power supply and connection to the ventilation unit control system through pre-wired plug contacts. Auxiliary heater for installation in the ventilation unit.

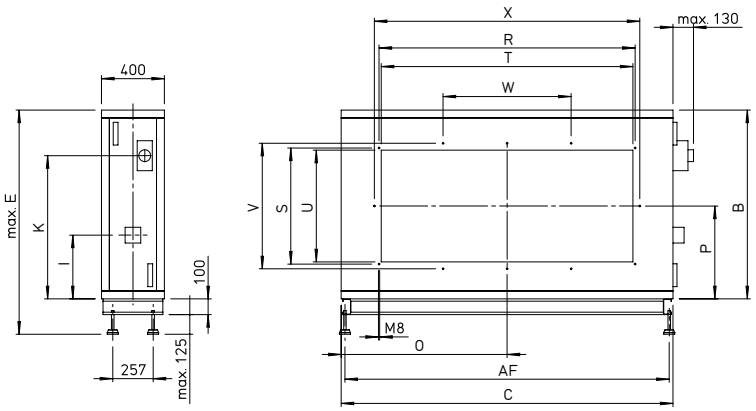
External from RH 5000: For mounting directly to the supply air duct of the ventilation unit including fixing material. Casing in robust panel construction, insulated on all sides with 50 mm mineral wool for the minimisation of heat losses. External corrosion-resistant coating of casing. Large inspection openings on both sides of unit for easy access and optimised cleaning and maintenance. Suitable for internal and external installation. Note: A weather protection cover is required for external installation.

Detailed calculations / technical information: www.AIR1Select.com

Technical data

	Type	Ref. no.	Heating capacity	Power consumption max.	Weight
internal	AIR1-ENH RH 1500	03605	4.2 kW	6.1 A	8.0 kg
	AIR1-ENH RH 2000	03616	5.8 kW	8.4 A	10.0 kg
	AIR1-ENH RH 3000	03617	9.1 kW	13.1 A	15.0 kg
external	AIR1-ENH RH 5000	03618	15.6 kW	22.5 A	110.0 kg
	AIR1-ENH RH 6000	03625	18.1 kW	26.1 A	126.0 kg
	AIR1-ENH RH 8000	03626	22.0 kW	31.8 A	135.0 kg
	AIR1-ENH RH 9500	03627	29.2 kW	42.2 A	150.0 kg
	AIR1-ENH RH 12000	03628	38.9 kW	56.2 A	174.0 kg
	AIR1-ENH RH 15000	03642	44.0 kW	63.5 A	211.0 kg

Dimensions AIR1-ENH RH



Dimensions in mm

Dimensions

	Type	Ref. no.	B	C	E	I	K	O	P	R	S	T	U	V	W	X	AF
external	AIR1-ENH RH 5000	03618	780	1240	1005	300	465	620	375	883	438	855	410	498	–	–	1192
	AIR1-ENH RH 6000	03625	830	1360	1055	330	515	680	400	883	438	855	410	498	–	–	1312
	AIR1-ENH RH 8000	03626	950	1610	1175	300	630	805	465	1083	438	1055	410	498	361	–	1562
	AIR1-ENH RH 9500	03627	1000	1710	1225	300	680	855	490	1228	438	1200	410	498	409	–	1662
	AIR1-ENH RH 12000	03628	1080	1860	1305	300	795	930	530	1503	538	1475	510	598	501	1563	1812
	AIR1-ENH RH 15000	03642	1200	2110	1425	405	910	1055	590	1628	738	1600	710	798	814	1688	2062

AIR1-NH WW RH


internal


external

Hot water auxiliary heater

For demand-oriented temperature control of supply air. Further accessories are required for supply air temperature control (Hydraulic unit WHSH HE 24 V).

Internal up to RH 3000: For installation in the ventilation unit. The heating elements consist of copper piping with formed aluminium fins, and copper pipe water connections for flow and return.

External from RH 5000: For mounting directly to the supply air duct of the ventilation unit including fixing material. Casing in robust panel construction, insulated on all sides with 50 mm mineral wool for the minimisation of heat losses. External corrosion-resistant coating of casing. Large inspection openings on both sides of unit for easy access and optimised cleaning and maintenance. For internal and external installation. Note: A weather protection cover is required for external installation.

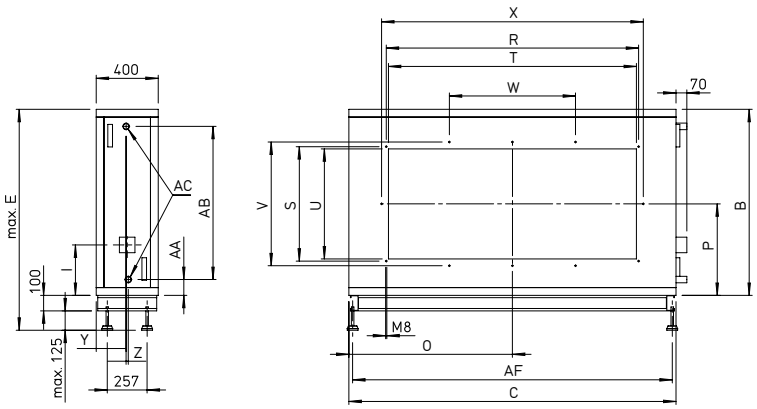
Detailed calculations / technical information: www.AIR1Select.com

Technical data

	Type	Ref. no.	Heating capacity (1)	Water content	Weight (2)	Connection flow / return (3)	Temperature control system	Ref. no.
internal	AIR1-NH WW RH 1500	03805	7.6 kW	1.3 l	4.6 kg	G 1/2	WHSH HE 24 V (0 – 10 V)	08318
	AIR1-NH WW RH 2000	03806	11.6 kW	1.7 l	5.8 kg	G 1/2	WHSH HE 24 V (0 – 10 V)	08318
	AIR1-NH WW RH 3000	03824	14.9 kW	2.2 l	7.0 kg	G 1/2	WHSH HE 24 V (0 – 10 V)	08318
external	AIR1-NH WW RH 5000	03825	24.1 kW	3.8 l	103.0 kg	G 1/2	WHSH HE 24 V (0 – 10 V) M	06310
	AIR1-NH WW RH 6000	03826	30.5 kW	4.8 l	125.0 kg	G 3/4	WHSH HE 24 V (0 – 10 V) M	06310
	AIR1-NH WW RH 8000	03827	45.2 kW	6.5 l	171.0 kg	G 3/4	WHSH HE 24 V (0 – 10 V) M	06310
	AIR1-NH WW RH 9500	03830	53.7 kW	7.7 l	195.0 kg	G 1	WHSH HE 24 V (0 – 10 V) L	06311
	AIR1-NH WW RH 12000	03831	67.1 kW	9.4 l	228.0 kg	G 1	WHSH HE 24 V (0 – 10 V) L	06311
	AIR1-NH WW RH 15000	03833	80.5 kW	12.6 l	274.0 kg	G 1 1/4	WHSH HE 24 V (0 – 10 V) L	06311

(1) at flow/return temperature 60/40°C, (2) without liquid, (3) external thread

Dimensions AIR1-NH WW RH



Dimensions in mm

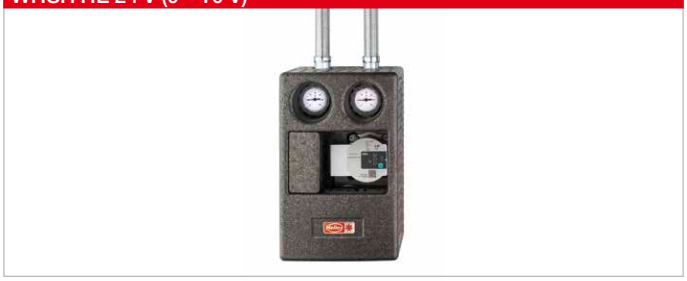
Dimensions

	Type	Ref. no.	B	C	E	I	O	P	R	S	T
external	AIR1-NH WW RH 5000	03825	780	1240	1005	300	620	375	883	438	855
	AIR1-NH WW RH 6000	03826	830	1360	1055	300	680	400	883	438	855
	AIR1-NH WW RH 8000	03827	950	1610	1175	300	805	465	1083	438	1055
	AIR1-NH WW RH 9500	03830	1000	1710	1225	300	855	490	1228	438	1200
	AIR1-NH WW RH 12000	03831	1080	1860	1305	325	930	530	1503	538	1475
	AIR1-NH WW RH 15000	03833	1200	2110	1425	325	1055	590	1628	738	1600

	Type	Ref. no.	U	V	W	X	Y	Z	AA	AB	AC (1)	AF
external	AIR1-NH WW RH 5000	03825	410	498	–	–	178	35	85	599	G 1/2	1192
	AIR1-NH WW RH 6000	03826	410	498	–	–	188	27	93	631	G 3/4	1312
	AIR1-NH WW RH 8000	03827	410	498	361	–	188	27	93	752	G 3/4	1562
	AIR1-NH WW RH 9500	03830	410	498	409	–	178	33	93	802	G 1	1662
	AIR1-NH WW RH 12000	03831	510	598	501	1563	188	23	99	876	G 1	1812
	AIR1-NH WW RH 15000	03833	710	798	814	1688	193	14	102	988	G 1 1/4	2062

(1) External thread

WHSH HE 24 V (0 – 10 V)



Hydraulic unit

Hydraulic unit for supply air temperature control by controlling the water flow rate in the heater battery. Delivered as a complete unit consisting of the hydraulic unit with 3-way valve with actuator and circulating pump, Flow / return temperature display and flexible connection hoses.

Technical data

XH units	Type	Ref. no.	Control voltage	K_{vs} value	Flow rate	Connection diameter
AIR1-RH 1500	WHSH HE 24 V (0 – 10 V)	08318	24 V (0 – 10 V)	5.1	0.2 to 3.3 m^3/h	G1 AG flat sealing (DN25, 1")
AIR1-RH 2000	WHSH HE 24 V (0 – 10 V)	08318	24 V (0 – 10 V)	5.1	0.2 to 3.3 m^3/h	G1 AG flat sealing (DN25, 1")
AIR1-RH 3000	WHSH HE 24 V (0 – 10 V)	08318	24 V (0 – 10 V)	5.1	0.2 to 3.3 m^3/h	G1 AG flat sealing (DN25, 1")
AIR1-RH 5000	WHSH HE 24 V (0 – 10 V) M	06310	24 V (0 – 10 V)	8.1	0.0 to 4.0 m^3/h	G2 AG flat sealing (DN32, 1 1/4")
AIR1-RH 6000	WHSH HE 24 V (0 – 10 V) M	06310	24 V (0 – 10 V)	8.1	0.0 to 4.0 m^3/h	G2 AG flat sealing (DN32, 1 1/4")
AIR1-RH 8000	WHSH HE 24 V (0 – 10 V) M	06310	24 V (0 – 10 V)	8.1	0.0 to 4.0 m^3/h	G2 AG flat sealing (DN32, 1 1/4")
AIR1-RH 9500	WHSH HE 24 V (0 – 10 V) L	06311	24 V (0 – 10 V)	15	0.0 to 8.0 m^3/h	G2 flat sealing (DN32, 1 1/4")
AIR1-RH 12000	WHSH HE 24 V (0 – 10 V) L	06311	24 V (0 – 10 V)	15	0.0 to 8.0 m^3/h	G2 flat sealing (DN32, 1 1/4")
AIR1-RH 15000	WHSH HE 24 V (0 – 10 V) L	06311	24 V (0 – 10 V)	15	0.0 to 8.0 m^3/h	G2 flat sealing (DN32, 1 1/4")

AIR1-KR KW RH

Cold water cooling register

For demand-oriented temperature control (cooling) of supply air. Mounting directly to the supply air duct of the ventilation unit including fixing material is possible. Casing in robust panel construction, insulated on all sides with 50 mm mineral wool for the minimisation of heat losses. External corrosion-resistant coating of casing. Large inspection openings on both sides of unit for easy access and optimised cleaning and maintenance. Stainless steel condensate tray with condensate drain outlets. Condensate connection 32 mm. Cooling register suitable for internal and external installation. Note: A weather protection cover is required for external installation.
Recommended accessory: Ball siphonAIR1-KS B (Ref. no. 07169)

Detailed calculations / technical information: www.AIR1Select.com

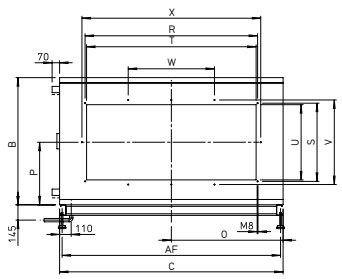
Technical data

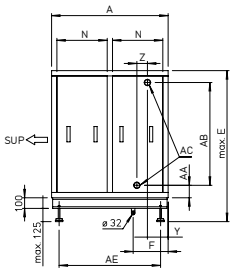
Type	Ref. no.	Version	Water content	Connection flow /return (1)	Weight (without liquid)
AIR1-KR KW RH 1500 L	03958	left	1.9 l	G 1/2	66.0 kg
AIR1-KR KW RH 1500 R	04283	right	1.9 l	G 1/2	66.0 kg
AIR1-KR KW RH 2000 L	03959	left	2.6 l	G 3/4	80.0 kg
AIR1-KR KW RH 2000 R	04285	right	2.6 l	G 3/4	80.0 kg
AIR1-KR KW RH 3000 L	03967	left	3.4 l	G 1	101.0 kg
AIR1-KR KW RH 3000 R	04286	right	3.4 l	G 1	101.0 kg
AIR1-KR KW RH 5000 L	03971	left	6.5 l	G 1 1/4	158.0 kg
AIR1-KR KW RH 5000 R	04287	right	6.5 l	G 1 1/4	158.0 kg
AIR1-KR KW RH 6000 L	03976	left	7.0 l	G 1 1/4	180.0 kg
AIR1-KR KW RH 6000 R	04288	right	7.0 l	G 1 1/4	180.0 kg
AIR1-KR KW RH 8000 L	03983	left	13.7 l	G 1 1/2	242.0 kg
AIR1-KR KW RH 8000 R	04382	right	13.7 l	G 1 1/2	242.0 kg
AIR1-KR KW RH 9500 L	03984	left	16.9 l	G 2	270.0 kg
AIR1-KR KW RH 9500 R	04383	right	16.9 l	G 2	270.0 kg
AIR1-KR KW RH 12000 L	04183	left	20.5 l	G 2	313.0 kg
AIR1-KR KW RH 12000 R	04389	right	20.5 l	G 2	313.0 kg
AIR1-KR KW RH 15000 L	04184	left	20.2 l	G 2	380.0 kg
AIR1-KR KW RH 15000 R	04391	right	20.2 l	G 2	380.0 kg

(1) External thread

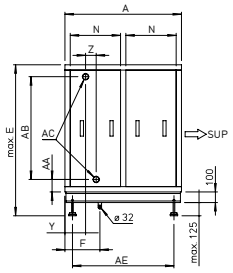
Dimensions AIR1-KR KW RH

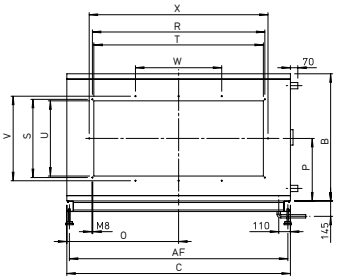
Version left (L)





Version right (R)





When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

Dimensions in mm

Dimensions

Type	Ref. no.	A	B	C	E	F	N	O	P	R	S	T
AIR1-KR KW RH 1500 L	03958	1000	520	760	745	306	425	380	265	378	338	350
AIR1-KR KW RH 1500 R	04283	1000	520	760	745	306	425	380	265	378	338	350
AIR1-KR KW RH 2000 L	03959	1000	580	860	805	306	425	430	295	498	338	470
AIR1-KR KW RH 2000 R	04285	1000	580	860	805	306	425	430	295	498	338	470
AIR1-KR KW RH 3000 L	03967	1000	640	970	865	306	425	485	300	608	438	580
AIR1-KR KW RH 3000 R	04286	1000	640	970	865	306	425	485	300	608	438	580
AIR1-KR KW RH 5000 L	03971	1100	780	1240	1005	330	475	620	375	883	438	855
AIR1-KR KW RH 5000 R	04287	1100	780	1240	1005	330	475	620	375	883	438	855
AIR1-KR KW RH 6000 L	03976	1100	830	1360	1055	330	475	680	400	883	438	855
AIR1-KR KW RH 6000 R	04288	1100	830	1360	1055	330	475	680	400	883	438	855
AIR1-KR KW RH 8000 L	03983	1100	950	1610	1175	330	475	805	465	1083	438	1055
AIR1-KR KW RH 8000 R	04382	1100	950	1610	1175	330	475	805	465	1083	438	1055
AIR1-KR KW RH 9500 L	03984	1100	1000	1710	1225	330	475	855	490	1228	438	1200
AIR1-KR KW RH 9500 R	04383	1100	1000	1710	1225	330	475	855	490	1228	438	1200
AIR1-KR KW RH 12000 L	04183	1100	1080	1860	1305	330	475	930	530	1503	538	1475
AIR1-KR KW RH 12000 R	04389	1100	1080	1860	1305	330	475	930	530	1503	538	1475
AIR1-KR KW RH 15000 L	04184	1100	1200	2110	1425	330	475	1055	590	1628	738	1600
AIR1-KR KW RH 15000 R	04391	1100	1200	2110	1425	330	475	1055	590	1628	738	1600

Type	Ref. no.	U	V	W	X	Y	Z	AA	AB	AC (1)	AE	AF
AIR1-KR KW RH 1500 L	03958	310	–	–	–	175	50	85	350	G 1/2	858	712
AIR1-KR KW RH 1500 R	04283	310	–	–	–	175	50	85	350	G 1/2	858	712
AIR1-KR KW RH 2000 L	03959	310	–	–	–	182	36	85	399	G 3/4	858	812
AIR1-KR KW RH 2000 R	04285	310	–	–	–	182	36	85	399	G 3/4	858	812
AIR1-KR KW RH 3000 L	03967	410	–	–	–	182	36	85	449	G 1	858	922
AIR1-KR KW RH 3000 R	04286	410	–	–	–	182	36	85	449	G 1	858	922
AIR1-KR KW RH 5000 L	03971	410	498	–	–	180	40	100	575	G 1 1/4	958	1192
AIR1-KR KW RH 5000 R	04287	410	498	–	–	180	40	100	575	G 1 1/4	958	1192
AIR1-KR KW RH 6000 L	03976	410	498	–	–	175	55	115	575	G 1 1/4	958	1312
AIR1-KR KW RH 6000 R	04288	410	498	–	–	175	55	115	575	G 1 1/4	958	1312
AIR1-KR KW RH 8000 L	03983	410	498	361	–	185	65	105	735	G 1 1/2	958	1562
AIR1-KR KW RH 8000 R	04382	410	498	361	–	185	65	105	735	G 1 1/2	958	1562
AIR1-KR KW RH 9500 L	03984	410	498	409	–	205	60	113	770	G 2	958	1662
AIR1-KR KW RH 9500 R	04383	410	498	409	–	205	60	113	770	G 2	958	1662
AIR1-KR KW RH 12000 L	04183	510	598	501	1563	200	70	113	850	G 2	958	1812
AIR1-KR KW RH 12000 R	04389	510	598	501	1563	200	70	113	850	G 2	958	1812
AIR1-KR KW RH 15000 L	04184	710	798	814	1688	195	100	118	970	G 2	958	2062
AIR1-KR KW RH 15000 R	04391	710	798	814	1688	195	100	118	970	G 2	958	2062

(1) External thread

AIR1-CO DX RH

Change-over register

For temperature control (cooling/heating) of supply air. Suitable for use with common refrigerants (selection list, see www.AIR1 Select.com). Casing in robust panel construction, insulated on all sides with 50 mm mineral wool to minimise heat loss. External corrosion-resistant coating of casing. Stainless steel condensate tray with condensate drain outlets. Large inspection openings for easy access and optimised cleaning and maintenance. Condensate connection 32 mm.

Necessary accessories: AIR1-SM DX (Ref. no. 40408)

Recommended accessories: Ball siphon AIR1-KS D (Ref. no. 07170)

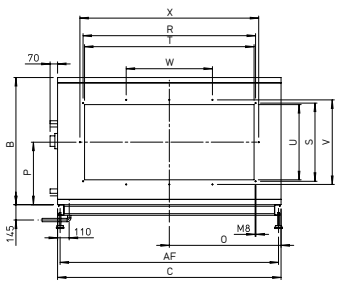
Detailed calculations / technical information: www.AIR1Select.com

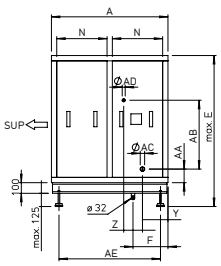
Technical data

Type	Ref. no.	Version	Weight (without liquid)	Filling capacity	Ø connection outlet	Ø connection inlet
AIR1-CO DX RH 1500 L	40390	left	65.0 kg	1.6 l	16 mm	12 mm
AIR1-CO DX RH 1500 R	40399	right	65.0 kg	1.6 l	16 mm	12 mm
AIR1-CO DX RH 2000 L	40391	left	79.0 kg	2.2 l	19 mm	12 mm
AIR1-CO DX RH 2000 R	40400	right	79.0 kg	2.2 l	19 mm	12 mm
AIR1-CO DX RH 3000 L	40392	left	100.0 kg	2.9 l	22 mm	16 mm
AIR1-CO DX RH 3000 R	40401	right	100.0 kg	2.9 l	22 mm	16 mm
AIR1-CO DX RH 5000 L	40393	left	156.0 kg	5.3 l	28 mm	16 mm
AIR1-CO DX RH 5000 R	40402	right	156.0 kg	5.3 l	28 mm	16 mm
AIR1-CO DX RH 6000 L	40394	left	180.0 kg	6.3 l	28 mm	16 mm
AIR1-CO DX RH 6000 R	40403	right	180.0 kg	6.3 l	28 mm	16 mm
AIR1-CO DX RH 8000 L	40395	left	240.0 kg	11.6 l	35 mm	22 mm
AIR1-CO DX RH 8000 R	40404	right	240.0 kg	11.6 l	35 mm	22 mm
AIR1-CO DX RH 9500 L	40396	left	265.0 kg	13.3 l	35 mm	22 mm
AIR1-CO DX RH 9500 R	40405	right	265.0 kg	13.3 l	35 mm	22 mm
AIR1-CO DX RH 12000 L	40397	left	303.0 kg	13.0 l	42 mm	22 mm
AIR1-CO DX RH 12000 R	40406	right	303.0 kg	13.0 l	42 mm	22 mm
AIR1-CO DX RH 15000 L	40398	left	380.0 kg	16.5 l	42 mm	28 mm
AIR1-CO DX RH 15000 R	40407	right	380.0 kg	16.5 l	42 mm	28 mm

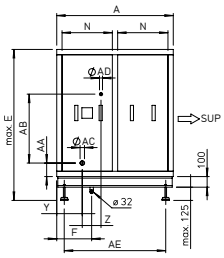
Dimensions AIR1-CO DX RH

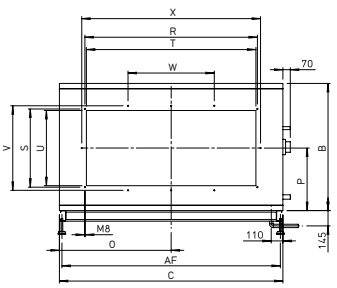
Version left (L)





Version right (R)





When looking at the cooling register from the air flow direction, the service side is on the right for the R version and on the left for the L version.

Dimensions in mm

Dimensions

Type	Ref. no.	A	B	C	E	F	N	O	P	R	S	T
AIR1-CO DX RH 1500 L	40390	1000	520	760	745	306	425	380	265	378	338	350
AIR1-CO DX RH 1500 R	40399	1000	520	760	745	306	425	380	265	378	338	350
AIR1-CO DX RH 2000 L	40391	1000	580	860	805	306	425	430	295	498	338	470
AIR1-CO DX RH 2000 R	40400	1000	580	860	805	306	425	430	295	498	338	470
AIR1-CO DX RH 3000 L	40392	1000	675	970	865	306	425	485	320	608	438	580
AIR1-CO DX RH 3000 R	40401	1000	675	970	865	306	425	485	320	608	438	580
AIR1-CO DX RH 5000 L	40393	1100	780	1240	1005	330	475	620	375	883	438	855
AIR1-CO DX RH 5000 R	40402	1100	780	1240	1005	330	475	620	375	883	438	855
AIR1-CO DX RH 6000 L	40394	1100	830	1360	1055	330	475	680	400	883	438	855
AIR1-CO DX RH 6000 R	40403	1100	830	1360	1055	330	475	680	400	883	438	855
AIR1-CO DX RH 8000 L	40395	1100	950	1610	1175	330	475	805	465	1083	438	1055
AIR1-CO DX RH 8000 R	40404	1100	950	1610	1175	330	475	805	465	1083	438	1055
AIR1-CO DX RH 9500 L	40396	1100	1000	1710	1225	330	475	855	490	1228	438	1200
AIR1-CO DX RH 9500 R	40405	1100	1000	1710	1225	330	475	855	490	1228	438	1200
AIR1-CO DX RH 12000 L	40397	1100	1080	1860	1305	330	475	930	530	1503	538	1475
AIR1-CO DX RH 12000 R	40406	1100	1080	1860	1305	330	475	930	530	1503	538	1475
AIR1-CO DX RH 15000 L	40398	1100	1200	2110	1425	330	475	1055	590	1628	738	1600
AIR1-CO DX RH 15000 R	40407	1100	1200	2110	1425	330	475	1055	590	1628	738	1600

Type	Ref. no.	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
AIR1-CO DX RH 1500 L	40390	310	–	–	–	196	74	130	170	16	12	858	712
AIR1-CO DX RH 1500 R	40399	310	–	–	–	196	74	130	170	16	12	858	712
AIR1-CO DX RH 2000 L	40391	310	–	–	–	196	59	110	240	19	12	858	812
AIR1-CO DX RH 2000 R	40400	310	–	–	–	196	59	110	240	19	12	858	812
AIR1-CO DX RH 3000 L	40392	410	498	–	–	196	69	110	290	22	16	858	922
AIR1-CO DX RH 3000 R	40401	410	498	–	–	196	69	110	290	22	16	858	922
AIR1-CO DX RH 5000 L	40393	410	498	–	–	196	64	116	432	28	16	958	1192
AIR1-CO DX RH 5000 R	40402	410	498	–	–	196	64	116	432	28	16	958	1192
AIR1-CO DX RH 6000 L	40394	410	498	–	–	196	79	121	412	28	16	958	1312
AIR1-CO DX RH 6000 R	40403	410	498	–	–	196	79	121	412	28	16	958	1312
AIR1-CO DX RH 8000 L	40395	410	498	361	–	203	177	116	492	35	22	958	1562
AIR1-CO DX RH 8000 R	40404	410	498	361	–	203	177	116	492	35	22	958	1562
AIR1-CO DX RH 9500 L	40396	410	498	409	–	220	205	116	527	35	22	958	1662
AIR1-CO DX RH 9500 R	40405	410	498	409	–	220	205	116	527	35	22	958	1662
AIR1-CO DX RH 12000 L	40397	510	598	501	1563	213	127	123	580	42	22	958	1812
AIR1-CO DX RH 12000 R	40406	510	598	501	1563	213	127	123	580	42	22	958	1812
AIR1-CO DX RH 15000 L	40398	710	798	814	1688	241	177	128	650	42	28	958	2062
AIR1-CO DX RH 15000 R	40407	710	798	814	1688	241	177	128	650	42	28	958	2062

AIR1-SM DX

Control module DX

For connecting the control of an AIR1 ventilation unit of the XC, XH and RH series to the control of an on-site cooling system. Various input and output signals from and to the cooling system are available. Note: Necessary accessory in connection with an AIR1-CO DX change-over register.
Dimensions (WxHxD): 205 x 255 x 112 mm

Technical data

Type	Ref. no.	Voltage	Electricity	Ambient temperature.
AIR1-SM DX	40408	230 V AC / 50 Hz	max. 0.33 A	0 to +40°C

AIR1-JVK XH / RH

Multi-leaf damper

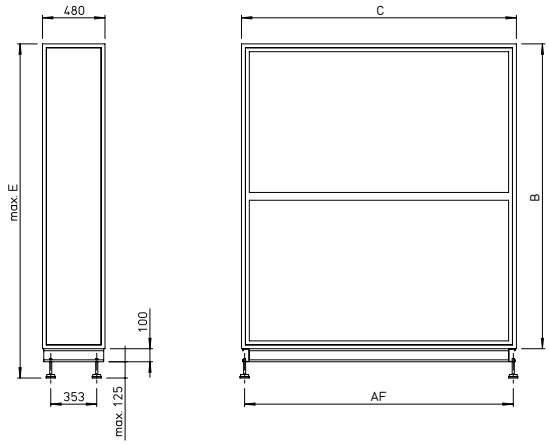
Multi-leaf damper for preventing cold draughts when the fan is stationary. Framework casing with connection flange on both sides. Counter-rotating blades, with retracted sealing lip. Sealing class 2. Installation inside of unit.

Technical data

Type	Ref. no.	Runtime (open / closed)	Weight	Ambient temperature	Actuator type
AIR1-JVK XH 1500/RH 1500	06006	40 ... 75 s	3.0 kg	-30 to +50 °C	24 V DC. spring return
AIR1-JVK XH 2500/RH 2000	06007	40 ... 75 s	4.0 kg	-30 to +50 °C	24 V DC. spring return
AIR1-JVK XH 3500-4500/RH 3000	06009	40 ... 75 s	5.0 kg	-30 to +50 °C	24 V DC. spring return
AIR1-JVK XH 5500/RH 5000-6000	06010	40 ... 75 s	6.6 kg	-30 to +50 °C	24 V DC. spring return
AIR1-JVK XH 7000/RH 8000	06012	40 ... 75 s	7.8 kg	-30 to +50 °C	24 V DC. spring return
AIR1-JVK XH 8500/RH 9500	06013	40 ... 75 s	8.6 kg	-30 to +50 °C	24 V DC. spring return
AIR1-JVK RH 12000	06020	40 ... 75 s	10.0 kg	-30 to +50 °C	24 V DC. spring return
AIR1-JVK RH 15000	06021	40 ... 75 s	13.0 kg	-30 to +50 °C	24 V DC. spring return

AIR1-ULM RH

Dimensions AIR1-ULM RH



Dimensions in mm

Recirculation module

Recirculation module for the 100 % recirculation of the extract air into the building. Multi-leaf dampers are required for recirculation operation. The module consists of a recirculation damper including drive. For mounting between the heat exchanger segment and supply air segment of the rotary heat exchanger unit.

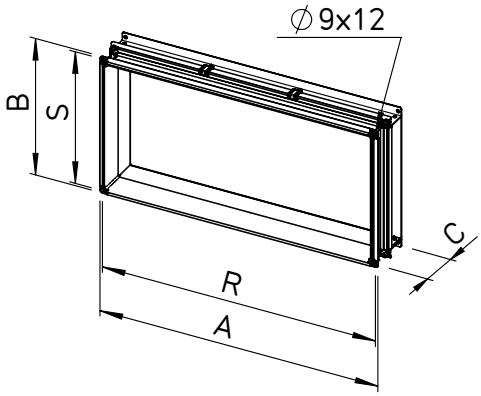
Plug-in connection to the mains power supply and ventilation unit control system.

Technical data

Type	Ref. no.	B	C	E	AF
AIR1-ULM RH 5000	06040	1470	1240	1695	1192
AIR1-ULM RH 6000	06160	1590	1360	1815	1312
AIR1-ULM RH 8000	06184	1840	1610	2065	1562
AIR1-ULM RH 9500	06185	1940	1710	2165	1662
AIR1-ULM RH 12000	06170	2090	1860	2315	1812
AIR1-ULM RH 15000	06182	2340	2110	2565	2062

AIR1-VS

Dimensions AIR1-VS



Dimensions in mm

Flexible connector

Flexible connector (uninsulated), with flange connections on both sides, for mounting between the ventilation unit and duct system. Prevents structure-borne sound transmission and bridges mounting tolerances. Elastic fabric sleeve, operating temperature range from -10 °C to +80 °C.

Only suitable for internal installation.

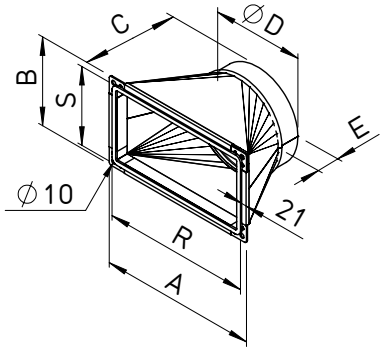
Dimensions

RH units	Type	Ref. no.	A	B	C[1)]	R	S
AIR1-RH 1500	AIR1-VS 35/31	04372	396	356	145	378.3	338.3
AIR1-RH 2000	AIR1-VS 47/31	04373	516	356	145	498.3	338.3
AIR1-RH 3000	AIR1-VS 58/41	04374	626	456	145	608.3	438.3
AIR1-RH 5000	AIR1-VS 85/41	04375	901	456	220	883.3	438.3
AIR1-RH 6000	AIR1-VS 85/41	04375	901	456	220	883.3	438.3
AIR1-RH 8000	AIR1-VS 105/41	04376	1101	456	220	1083.3	438.3
AIR1-RH 9500	AIR1-VS 120/41	04377	1246	456	220	1228.3	438.3
AIR1-RH 12000	AIR1-VS 147/51	04378	1521	556	220	1503.3	538.3
AIR1-RH 15000	AIR1-VS 160/71	04379	1646	756	220	1628.3	738.3

1) max.

AIR1-ÜS XH / RH

Dimensions AIR1-ÜS XH / RH



Dimensions in mm

Square-round adapter

Symmetrical adapter for connecting the ventilation unit to round air ducts/duct systems. Made of galvanised steel sheet. The pressure loss of the adapter at maximum air volume is < 10 Pa on both the intake and discharge side.

Only suitable for internal installation.

Dimensions

Type	Ref. no.	A	B	C	D
AIR1-ÜS XH 1500/RH 1500	04367	400	360	200	315
AIR1-ÜS XH 2500/RH 2000	04368	520	360	250	400
AIR1-ÜS XH 3500-4500/RH 3000	04369	630	460	300	500
AIR1-ÜS XH 5500/RH 5000-6000	04370	905	460	350	630

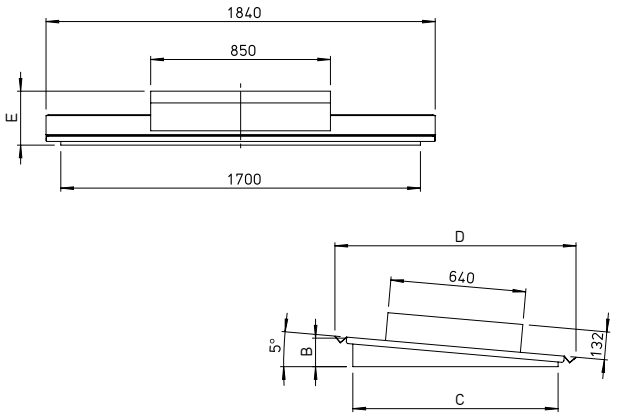
Type	Ref. no.	E	R	S
AIR1-ÜS XH 1500/RH 1500	04367	60	378	338
AIR1-ÜS XH 2500/RH 2000	04368	80	498	338
AIR1-ÜS XH 3500-4500/RH 3000	04369	80	608	438
AIR1-ÜS XH 5500/RH 5000-6000	04370	80	883	438

AIR1-AAD RH

Weather protection cover

Weather protection cover for the external installation of AIR1 ventilation units. Made of galvanised steel sheet, in weather-resistant design/coating. Increases the protection class of the unit to IP54.

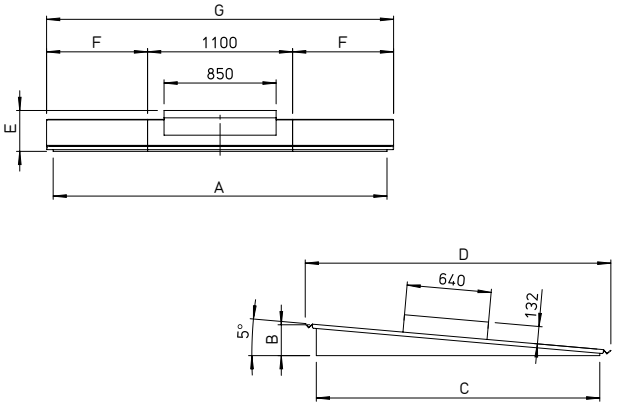
Dimensions AIR1-AAD RH 1500 / 2000 / 3000



Dimensions in mm

AIR1 RH 1500 - 3000

Dimensions AIR1-AAD RH 5000 / 6000 / 8000 / 9500 / 12000 / 15000



Dimensions in mm

AIR1 RH 5000 - 15000

Dimensions

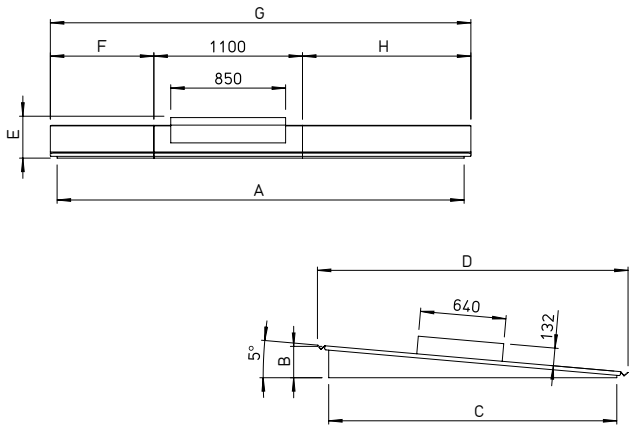
Type	Ref. no.	B	C	D	E
AIR1-AAD RH 1500	06382	115	760	930	245
AIR1-AAD RH 2000	06431	125	860	1030	250
AIR1-AAD RH 3000	06432	135	970	1140	255

Dimensions

Type	Ref. no.	A	B	C	D	E	F	G
AIR1-AAD RH 5000	06433	1842	162	1280	1448	269	423	1946
AIR1-AAD RH 6000	06434	2012	172	1400	1568	275	508	2116
AIR1-AAD RH 8000	06435	2182	194	1650	1818	285	594	2288
AIR1-AAD RH 9500	06436	2312	199	1750	1918	290	656	2412
AIR1-AAD RH 12000	06437	2448	212	1900	2068	295	724	2548
AIR1-AAD RH 15000	06438	2532	234	2150	2318	310	766	2632

AIR1-AAD RH .../ULM

Dimensions AIR1-AAD RH .../ULM



Dimensions in mm

Weather protection cover for the unit incl. recirculation module

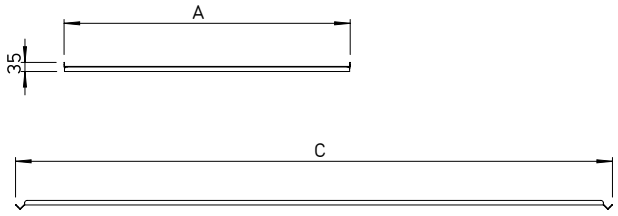
Weather protection cover for the external installation of AIR1 ventilation units with a recirculation module. Made of galvanised steel sheet, in weather-resistant design/coating. Increases the protection class of the unit to IP54.

Dimensions

Type	Ref. no.	A	B	C	D	E	F	G	H
AIR1-AAD RH 5000/ULM	06439	2322	162	1280	1448	269	423	2426	903
AIR1-AAD RH 6000/ULM	06440	2492	172	1400	1568	275	508	2596	988
AIR1-AAD RH 8000/ULM	06441	2662	194	1650	1818	285	594	2768	1074
AIR1-AAD RH 9500/ULM	06442	2792	199	1750	1918	290	656	2892	1136
AIR1-AAD RH 12000/ULM	06443	2928	212	1900	2068	295	724	3028	1204
AIR1-AAD RH 15000/ULM	06444	3012	234	2150	2318	310	766	3112	1246

AIR1-AAD KR KW + DX RH

Dimensions AIR1-AAD KR KW + DX RH



Dimensions in mm

Weather protection cover for external cold water or direct evaporator cooling registers

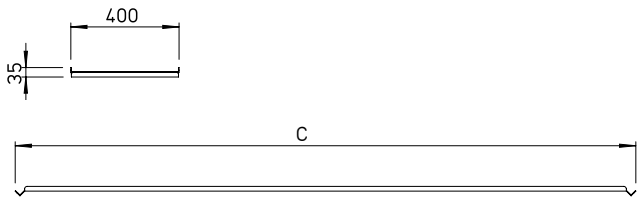
Weather protection cover for the external installation of external cold water or direct evaporator cooling registers. Made of galvanised steel sheet, in weather-resistant design/coating. Increases the protection class of the cooling register to IP54.

Dimensions

Type	Ref. no.	A	C
AIR1-AAD KR KW + DX RH 1500	06467	1000	944
AIR1-AAD KR KW + DX RH 2000	06468	1000	1044
AIR1-AAD KR KW + DX RH 3000	06469	1000	1154
AIR1-AAD KR KW + DX RH 5000	06470	1100	1424
AIR1-AAD KR KW + DX RH 6000	06471	1100	1544
AIR1-AAD KR KW + DX RH 8000	06472	1100	1794
AIR1-AAD KR KW + DX RH 9500	06473	1100	1894
AIR1-AAD KR KW + DX RH 12000	06474	1100	2044
AIR1-AAD KR KW + DX RH 15000	06482	1100	2294

AIR1-AAD NH EL + WW RH

Dimensions AIR1-AAD NH EL + WW RH



Dimensions in mm

Weather protection cover for auxiliary heater

Weather protection cover for the external installation of electrical or hot water auxiliary heater registers. Made of galvanised steel sheet, in weather-resistant design/coating. Increases the protection class of the cooling register to IP54.

Dimensions

Type	Ref. no.	C
AIR1-AAD NH EL + WW RH 5000	06445	1424
AIR1-AAD NH EL + WW RH 6000	06446	1544
AIR1-AAD NH EL + WW RH 8000	06447	1794
AIR1-AAD NH EL + WW RH 9500	06448	1894
AIR1-AAD NH EL + WW RH 12000	06449	2044
AIR1-AAD NH EL + WW RH 15000	06450	2294

AIR1-AAHK

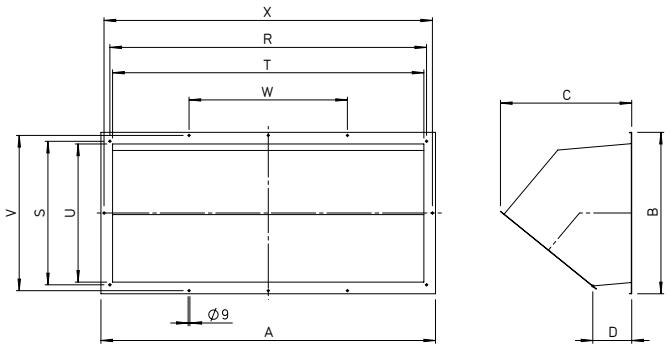
Heating element for the terminal box

Heating element for the electrical terminal box of the ventilation unit. Recommended for the external installation of AIR ventilation units in cold climate zones to prevent condensate formation and protect the control system against temperatures below 0 °C.
Heat output automatically controlled depending on the outside air temperature.
Max. heat output: 100 W
Supply voltage: 230 V

AIR1-AAHK	Ref. no. 07064

AIR1-AAHA XH / AIR1-AAHA RH

Dimensions AIR1-AAHA XH / AIR1-AAHA RH



Dimensions in mm

Intake hood outside air

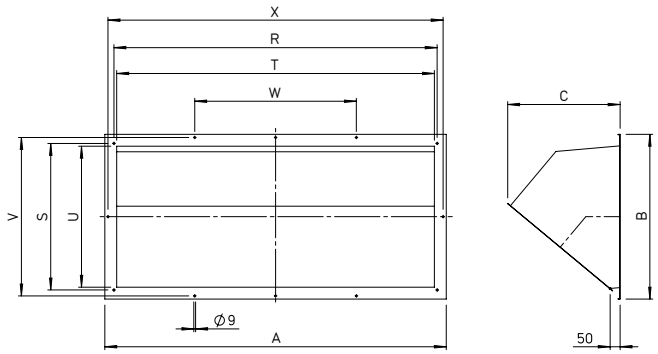
Intake hood outside air for external installation. Includes drainage tray and droplet separator. Mounting via flange connection to the unit connector. Surface with weather-resistant coating.

Dimensions

Type	Ref. no.	A	B	C	D	R	S	T	U	V	W	X
AIR1-AAHA XH 1500/RH 1500	06484	410	370	486	195	378	338	350	310	–	–	–
AIR1-AAHA XH 2500/RH 2000	06539	530	370	486	195	498	338	470	310	–	–	–
AIR1-AAHA XH 3500-4500/RH 3000	06487	640	470	525	200	608	438	580	410	–	–	–
AIR1-AAHA XH 5500/RH 5000-6000	06496	915	530	525	200	883	438	855	410	498	–	–
AIR1-AAHA XH 7000/RH 8000	06497	1115	530	525	200	1083	438	1055	410	498	361	–
AIR1-AAHA XH 8500/RH 9500	06499	1260	530	525	200	1228	438	1200	410	498	409	–
AIR1-AAHA RH 12000	06611	1595	630	575	200	1503	538	1475	510	598	501	1563
AIR1-AAHA RH 15000	06612	1720	830	675	200	1628	738	1600	710	798	814	1688

AIR1-AAHF XH / AIR1-AAHF RH

Dimensions AIR1-AAHF XH / AIR1-AAHF RH



Dimensions in mm

Discharge hood exhaust air

Discharge hood exhaust air for external installation. Includes protection guard. Mounting via flange connection to the unit connector. Surface with weather-resistant coating.

Dimensions

Type	Ref. no.	A	B	C	R	S	T	U	V	W	X
AIR1-AAHF XH 1500/RH 1500	06643	410	370	338	378	338	350	310	–	–	–
AIR1-AAHF XH 2500/RH 2000	06646	530	370	338	498	338	470	310	–	–	–
AIR1-AAHF XH 3500-4500/RH 3000	06647	640	470	375	608	438	580	410	–	–	–
AIR1-AAHF XH 5500/RH 5000-6000	06648	915	530	375	883	438	580	410	498	–	–
AIR1-AAHF XH 7000/RH 8000	06841	1115	530	375	1083	438	1055	410	498	361	–
AIR1-AAHF XH 8500/RH 9500	06864	1260	530	375	1228	438	1200	410	498	409	–
AIR1-AAHF RH 12000	06865	1595	630	415	1503	538	1475	510	598	501	1563
AIR1-AAHF RH 15000	06866	1720	830	566	1628	738	1600	710	798	814	1688

AIR1-BE ECO

Controller Eco

Backlit display with 4 lines a 20 characters. The display menu system is operated via seven buttons. There are two LEDs on the front side: One alarm LED and one LED for the input mode. The controller is delivered with a 5 m cable as standard. Cable lengths of 10 m and 20 m are optionally available. The maximum connection length is 100 m. The controller is designed for wall mounting. Alternatively, it can also be attached to the unit casing using magnetic strips. Protection class IP30.

Technical data

Type	Ref. no.	Voltage	Power consumption	Dimensions (WxHxD)	Ambient humidity	Ambient temperature	Connection cable 10 m	Connection cable 20 m
AIR1-BE ECO	06186	24 V DC	0.24 W	115 x 95 x 25 mm	Max. 90 % RH (Non-condensing)	+5 °C to +40 °C	AIR1-SL 4/10 Ref. no.: 07073	AIR1-SL 4/20 Ref. no.: 07121

AIR1-BE TOUCH

Controller Touch

Graphic user interface with intuitive menu structure and simple operation. The display has a capacitive touch function and a size of 7", incl. multi-colour colour technology. Includes stainless steel casing for simple surface-mounting to the wall. It is delivered with a 5 m cable as standard. Cable lengths of 10 m and 20 m are optionally available. The maximum connection length is 100 m. Protection class IP20.

Technical data

Type	Ref. no.	Voltage	Power consumption	Dimensions (WxHxD)	Ambient humidity	Ambient temperature	Connection cable 10 m	Connection cable 20 m
AIR1-BE TOUCH	06187	24 V DC	6 W	185 x 131 x 50 mm	Max. 90 % RH (Non-condensing)	-10 °C to +60 °C	AIR1-SL 4/10 Ref. no.: 07073	AIR1-SL 4/20 Ref. no.: 07121

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

Room sensors

For measuring the CO_2, mixed gas (VOC) concentration or relative humidity and temperature. Please note the maximum number, a signal converter AIR1-SK (Ref. no. 06019) may be required.
Dimensions (W x H x D) 85 x 85 x 27 mm.

Technical data

Type	Ref. no.	Measurement range	Power consumption
AIR1/KWL-VOC 0-10V	20250	0 - 2000 ppm	0.6 W / 24 V DC
AIR1/KWL-CO2 0-10V	20251	0 - 2000 ppm or 0 - 5000 ppm	0.6 W / 24 V DC
AIR1/KWL-FTF 0-10V	20252	0 - 100% RH (1) and 0 - 50 °C	0.6 W / 24 V DC

(1) Non-condensing

AIR1-CO2 K

Carbon dioxide sensor for duct installation

Sensor for measuring the carbon dioxide concentration in the air. For installation in the ventilation duct. Installation depth 40 – 180 mm.

Technical data

Type	Ref. no.	Measurement range
AIR1-CO2 K	07124	0 ... 2000 ppm

AIR1-SK

Signal converter for sensors

Signal converter for the connection of up to six AIR1 room sensors of the same sensor type. The AIR1-SK compares the connected inputs and forwards the highest input signal to the max. output. Supplied pre-installed in the appropriate terminal box incl. transformer 230 V / 24 V AC and terminal strip.
Dimensions terminal box (L x H x W): 218 x 149 x 97 mm

Technical data

Type	Ref. no.	Voltage	Power consumption	Ambient humidity	Ambient temperature	Protection class
AIR1-SK	06019	230 V, 50 Hz	max. 15 VA	Max. 90 % RH (Non-condensing)	-40 °C to +50 °C	IP20 / IP66 in terminal box

AIR1-CAP

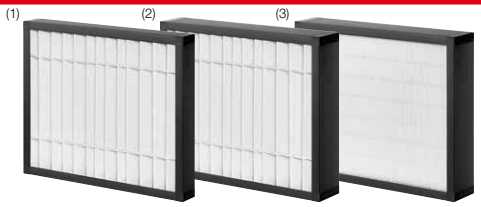
Extension kit for CAP mode

Differential pressure transmitter for constant pressure operation of the ventilation unit. Vertical or horizontal installation possible.
Scope of delivery: Pressure transmitter, pressure hose and sensor.

Technical data

Type	Ref. no.	Voltage	Ambient humidity	Ambient temperature	Protection class
AIR1-CAP	06756	24 V AC / DC ± 15 %	Max. 95 % RH (Non-condensing)	-25 °C to +50 °C	IP54

ELF-AIR1 RH



(1) Pre-filter outs. air ISO ePM$_{10}$ 50% (M5)
(2) Extract air filter ISO ePM$_{10}$ 50% (M5)
(3) Outs. or extract air filter ePM1 55% (F7) Outside air filter ISO ePM$_1$ 80% (F9)

Spare air filter

Helios AIR1 units are supplied with the filter classes ePM1 55%/F7 (outside air) and ePM10 50%/M5 (extract air) as standard. Depending on the unit size, the air filter consists of multiple (separate) air filter inserts. This is taken into account when ordering the spare air filter.

In case of increased air quality requirements, other filter classes are available for the outside air and extract air (see table below). All air filters are pressure-loss-optimised cassette filters with large filter surfaces.

Technical data

	Type	Ref. no.	Number of air filter inserts included	Filter class
Pre-filter outside air	ELF-AIR1 RH 1500/ePM10 50%/48	02192	1	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 2000/ePM10 50%/48	02193	2	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 3000/ePM10 50%/48	02194	2	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 5000/ePM10 50%/48	02196	2	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 6000/ePM10 50%/48	02220	4	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 8000/ePM10 50%/48	02199	6	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 9500/ePM10 50%/48	02200	6	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 12000/ePM10 50%/48	02201	6	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 15000/ePM10 50%/48	02202	6	ISO ePM$_{10}$ 50% (M5)
Extract air filter	ELF-AIR1 RH 1500/ePM10 50%/96	02211	1	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 2000/ePM10 50%/96	02212	2	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 3000/ePM10 50%/96	02213	2	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 5000/ePM10 50%/96	02214	2	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 6000/ePM10 50%/96	02215	4	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 8000/ePM10 50%/96	02216	6	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 9500/ePM10 50%/96	02217	6	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 12000/ePM10 50%/96	02218	6	ISO ePM$_{10}$ 50% (M5)
	ELF-AIR1 RH 15000/ePM10 50%/96	02219	6	ISO ePM$_{10}$ 50% (M5)
Outside or extract air filter	ELF-AIR1 RH 1500/ePM1 55%/96	02236	1	ISO ePM$_1$ 55% (F7)
	ELF-AIR1 RH 2000/ePM1 55%/96	02237	2	ISO ePM$_1$ 55% (F7)
	ELF-AIR1 RH 3000/ePM1 55%/96	02238	2	ISO ePM$_1$ 55% (F7)
	ELF-AIR1 RH 5000/ePM1 55%/96	02239	2	ISO ePM$_1$ 55% (F7)
	ELF-AIR1 RH 6000/ePM1 55%/96	02240	4	ISO ePM$_1$ 55% (F7)
	ELF-AIR1 RH 8000/ePM1 55%/96	02241	6	ISO ePM$_1$ 55% (F7)
	ELF-AIR1 RH 9500/ePM1 55%/96	02261	6	ISO ePM$_1$ 55% (F7)
	ELF-AIR1 RH 12000/ePM1 55%/96	02264	6	ISO ePM$_1$ 55% (F7)
	ELF-AIR1 RH 15000/ePM1 55%/96	02271	6	ISO ePM$_1$ 55% (F7)
Outside air filter	ELF-AIR1 RH 1500/ePM1 80%/96	02374	1	ISO ePM$_1$ 80% (F9)
	ELF-AIR1 RH 2000/ePM1 80%/96	02384	2	ISO ePM$_1$ 80% (F9)
	ELF-AIR1 RH 3000/ePM1 80%/96	02425	2	ISO ePM$_1$ 80% (F9)
	ELF-AIR1 RH 5000/ePM1 80%/96	02446	2	ISO ePM$_1$ 80% (F9)
	ELF-AIR1 RH 6000/ePM1 80%/96	02451	4	ISO ePM$_1$ 80% (F9)
	ELF-AIR1 RH 8000/ePM1 80%/96	02460	6	ISO ePM$_1$ 80% (F9)
	ELF-AIR1 RH 9500/ePM1 80%/96	02463	6	ISO ePM$_1$ 80% (F9)
	ELF-AIR1 RH 12000/ePM1 80%/96	02471	6	ISO ePM$_1$ 80% (F9)
	ELF-AIR1 RH 15000/ePM1 80%/96	02479	6	ISO ePM$_1$ 80% (F9)

Helios AIR1®:
more than a product.

The innovative configuration, excellent quality characteristics and clever system solutions – Helios AIR1 is more than the sum of its parts. This also includes a perfectly conceived control concept, ideally matched accessories and an A1 service offering. See for yourself.

Helios AIR1®

All set?

Quick and easy – this also applies to the Helios AIR1 control system, be it during the commissioning or operation. In this respect, there are various automatic control options using sensors and different control elements through to integration in modern central building control systems.
More information can be found on page 142.

A strong unit needs a strong partner.

Helios completes the Helios AIR1 system package with the KWL MultiZoneBox. These two perfectly coordinated solutions combine maximum efficiency with maximum individuality in multi-storey construction.
More information can be found on page 144.

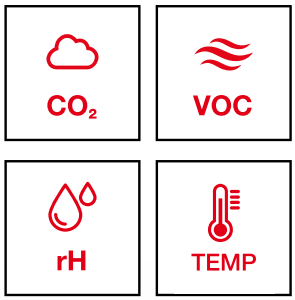
Control everything. Simply.

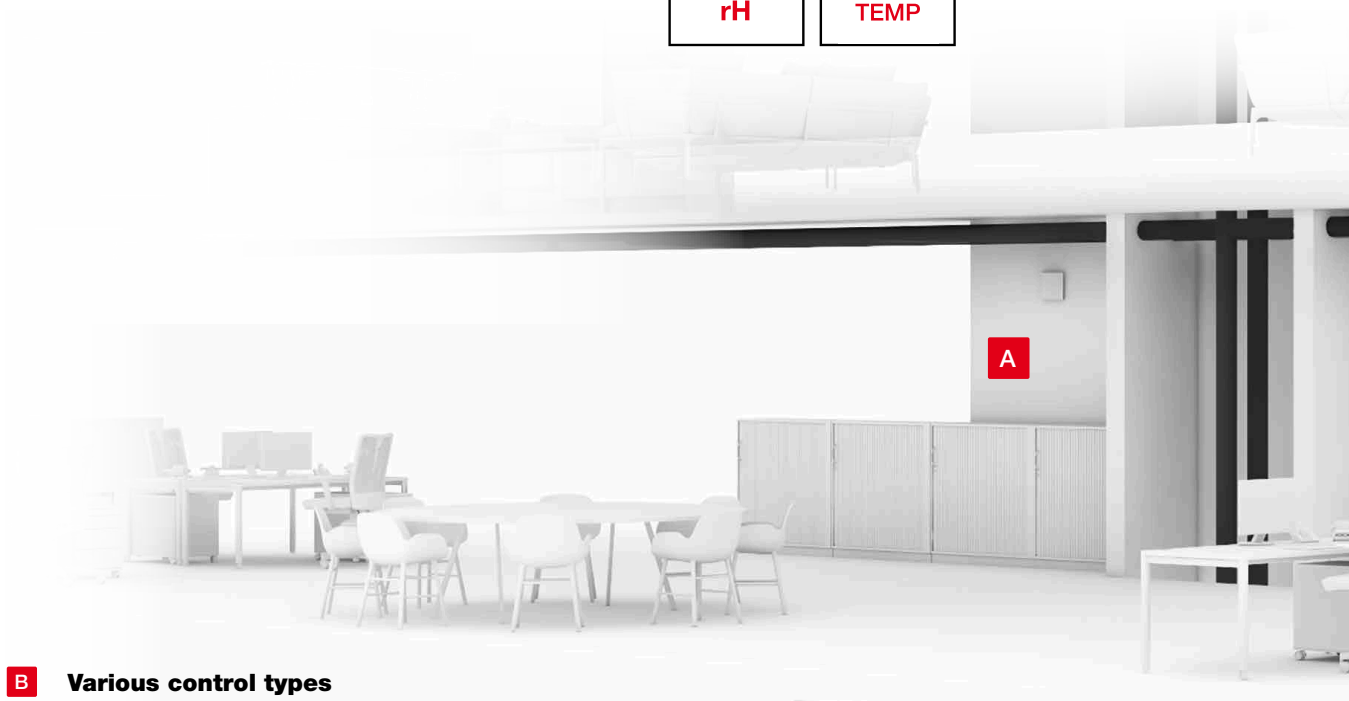
All Helios AIR1 compact ventilation units have an advanced control system, which leaves nothing to be desired. The commissioning and configuration is quick and easy due to the clever “step by step” assistant.

Modern standards, such as a high-quality touch control element and the connection to common building management systems, also guarantee extremely convenient operation. Completely automated operation using various air quality sensors is also possible. Overall, this results in a control concept that could not be more diverse, flexible and user-friendly.

A Optimal indoor climate

Whether it is a school, office or theatre hall, an optimal indoor climate is an important aspect for all ventilation applications. With the option of connecting various air quality sensors, there is the right unit for all requirements.





B Various control types

The Helios AIR1 control system has various pre-programmed functions. All control types and parameters can be simply set or changed via the external control unit.

CAV Constant flow rate	**CAP** Constant pressure	**CRPM** Constant speed	**VOD** Demand-based
TM Time	**EX** External signal	**RE** Recirculation	**TP** Temperature

C Flexible communication

Various control elements are available for communication with the Helios AIR1 ventilation units. The connection to modern building management systems is also possible with the integrated protocols BACnet and Modbus.

Control element TOUCH

The large 7” colour display is extremely user-friendly and a perfect visualisation of all important system parameters. Includes Commissioning Assistant.

Control element ECO

The control element ECO is the economical and functional solution for controlling the Helios AIR1 ventilation units. Includes Commissioning Assistant.

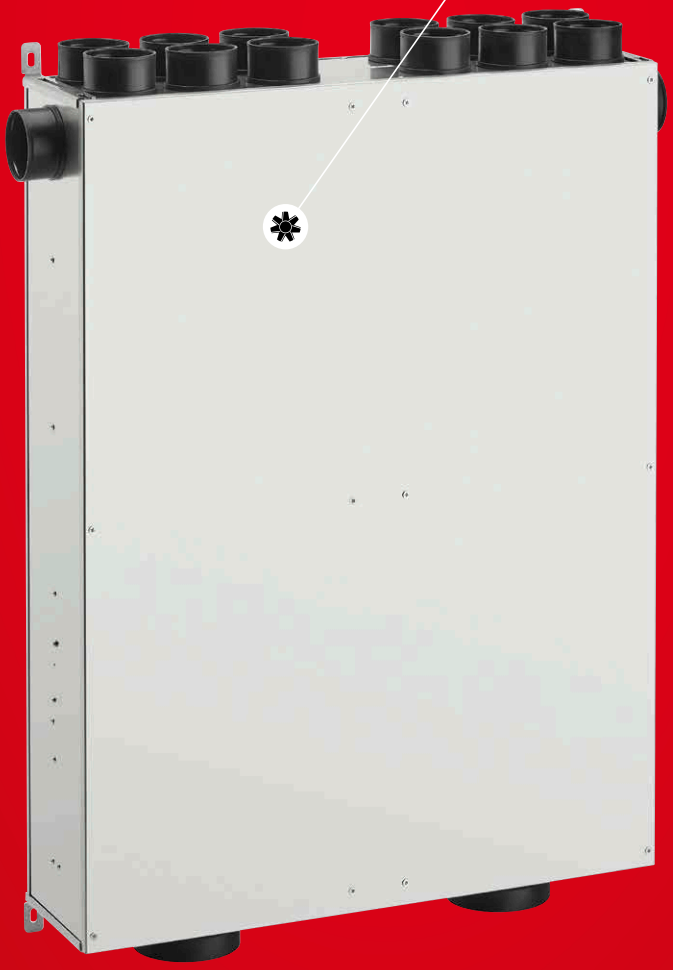
D Extended control options

With the high-performance Helios AIR1 control system, all accessory components, such as heater and cooling batteries, can also be controlled without complication. Various control scenarios for a variety of applications are available for this purpose.

ELT	HW	CW	DX
Heating electric	Heating hot water	Cooling cold water	Cooling / Heating DX

The KWL® MultiZoneBox.
The flexible partner for Helios AIR1®.

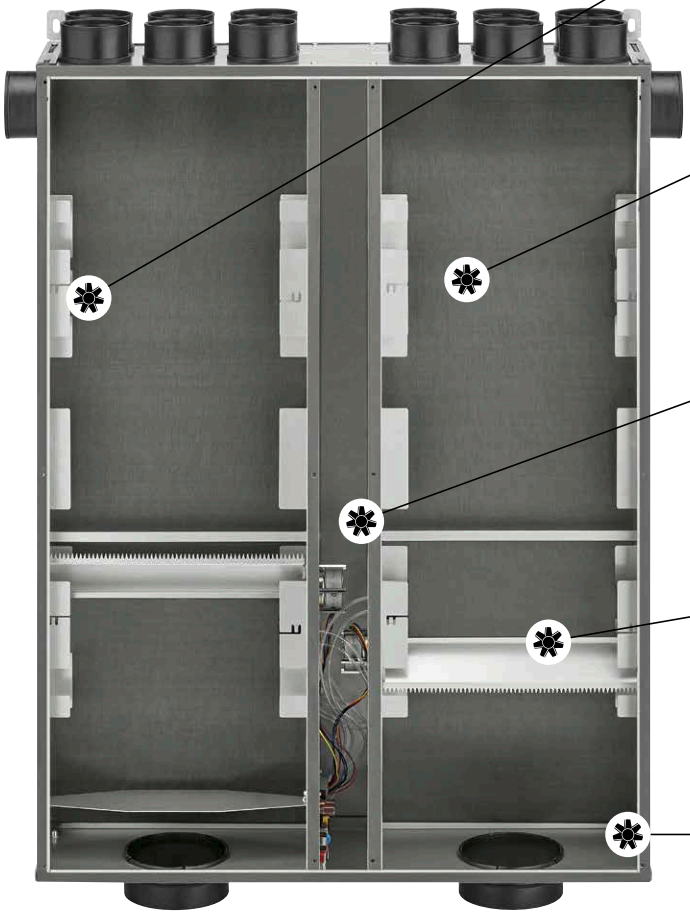
Central ventilation in multi-storey construction is now more individual than ever with the KWL MultiZoneBox



It has more potential
for multi-storey construction.

Flow rate control, sound insulation, air distribution and system control – you save on numerous individual components with the new KWL MultiZoneBox. The KWL MultiZoneBox silently ensures the appropriate supply and extract ventilation of residential and commercial units in combination with a central building ventilation unit with heat recovery.

This process is even more efficient than ever in combination with Helios AIR1: Thanks to the integrated fan-optimiser technology, the exact amount of air required for each moment is provided. This reduces the energy consumption without reducing the level of comfort.



Maintenance-free

Consumable and wear parts were completely avoided during the construction of the KWL MultiZoneBox.

Super quiet

Large scale sound insulation elements ensure silent operation. Ideal for noise-sensitive environments.

All automatic

The optional room air sensor makes the KWL MultiZoneBox a ventilation-on-demand unit.

Unique

Revolutionary technology safely ensures the pre-defined flow rate – independently and continuously.

Quick assembly

Just one single, compact box is installed, instead of numerous individual components.

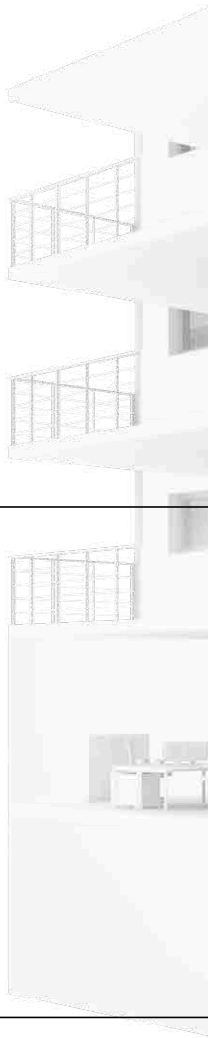
Both this and that.
More individuality for residential and commercial units.

Both classic and modern.

The KWL MultiZoneBox is compatible with all ducts. Spiral ducts can be connected as easily as the flexible plastic ducting system FlexPipe*plus*. There are no limits to the possibilities.

Both for work and at home.

The KWL MultiZoneBox guarantees reliable air distribution for almost all areas of application. Thus, it is the perfect solution for residential and commercial units – whether it is a single apartment or maisonette – an office complex or loading area, or all together.



Both now and tomorrow.

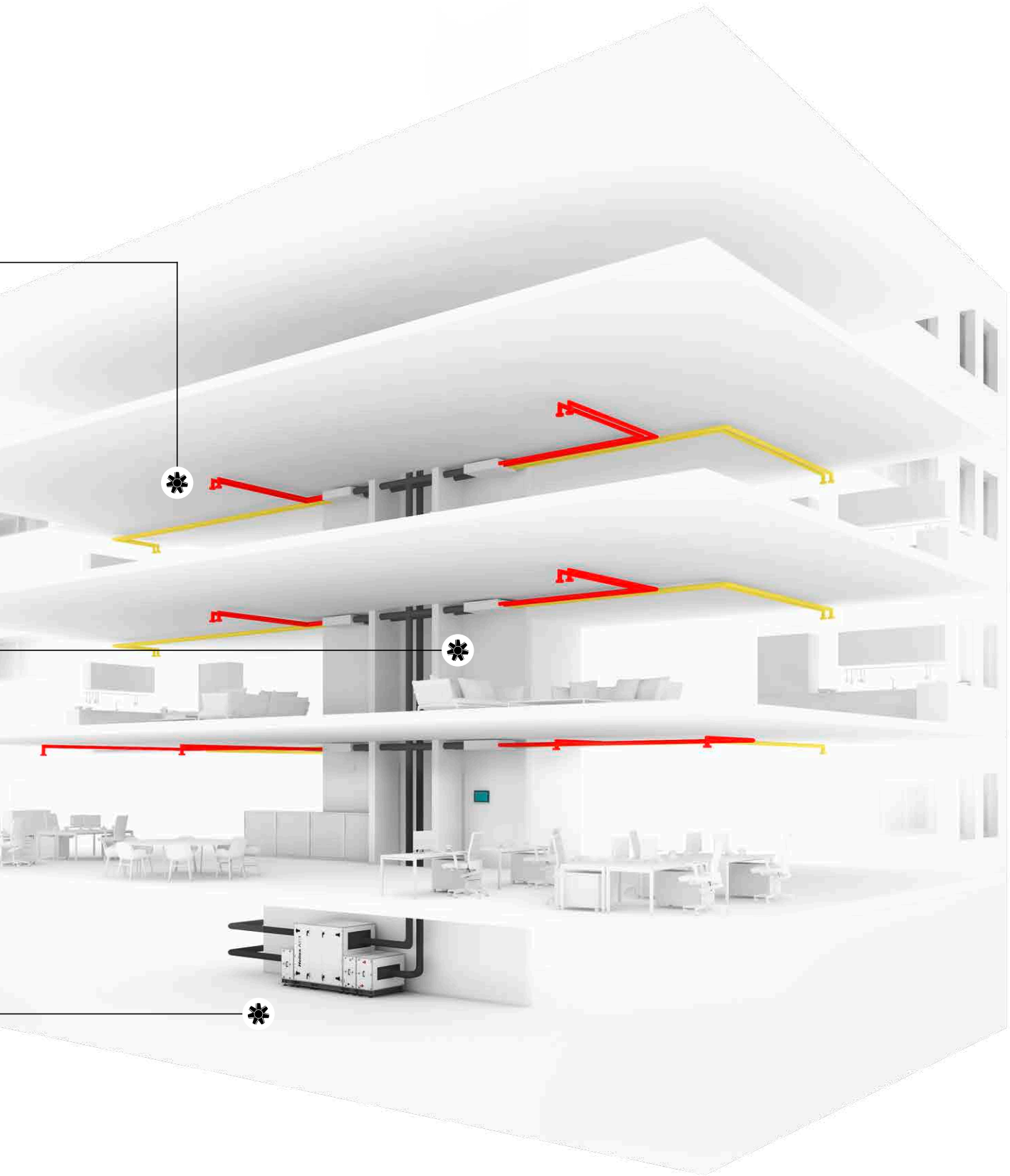
One box instead of multiple individual components reduces the planning cost in advance and saves valuable installation space. The maintenance-freedom, highest functional reliability and silent operation are convincing in practical use.

Both high-performance and demand-based.

If multiple KWL MultiZoneBoxes are used to ventilate a large unit, such as e.g. a practice, different zones can be independently supplied with different volumes of air based on demand.

Both inside and outside, above and below.

Whether the ventilation system is installed in the basement or on the roof, inside or outside – the KWL MultiZoneBox always ensures the ideal air distribution with each ventilation unit.

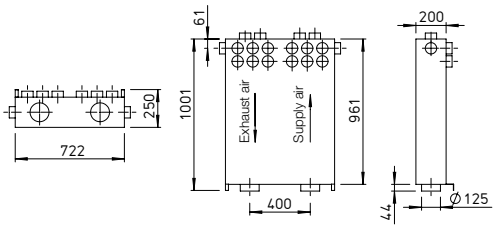


Supply air
Extract air

KWL-MZB 6+1-75/125 R90

Type	Ref. no.
KWL-MZB 6+1-75/125 R90	04050

Dimensions KWL-MZB 6+1-75/125 R90



Dimensions in mm

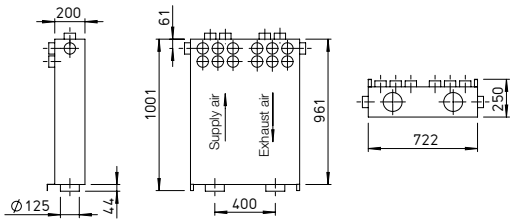
KWL MultiZoneBox Right 90 degrees

Compact unit for the connection of supply and extract air DN 125 and 2 sets of 7 single nozzles DN 75 with the supply air on the right side.

KWL-MZB 6+1-75/125 L90

Type	Ref. no.
KWL-MZB 6+1-75/125 L90	04051

Dimensions KWL-MZB 6+1-75/125 L90



Dimensions in mm

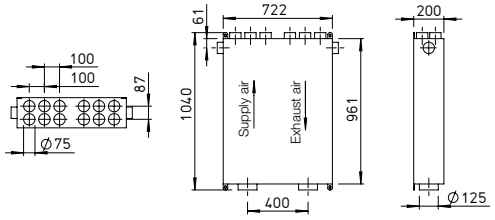
KWL MultiZoneBox Left 90 degrees

Compact unit for the connection of supply and extract air DN 125 and 2 sets of 7 single nozzles DN 75 with the supply air on the left side.

KWL-MZB 6+1-75/125*

Type	Ref. no.
KWL-MZB 6+1-75/125*	04052

Dimensions KWL-MZB 6+1-75/125*



Dimensions in mm

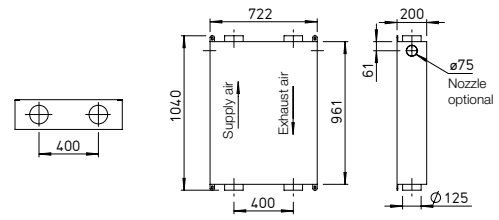
KWL MultiZoneBox Straight-through 75

Compact unit for the connection of supply and extract air DN 125 and 2 sets of 7 single nozzles DN 75.

KWL-MZB 125/125*

Type	Ref. no.
KWL-MZB 125/125*	04053

Dimensions KWL-MZB 125/125*



Dimensions in mm

KWL MultiZoneBox Straight-through 125

Box with one connection for both supply and extract air on each side DN 125.

* Supply and extract air direction optional.

Control element Touch
KWL-MZB-BET Ref. no. 04214

Touch display made of glass for controlling and configuring the boxes.
- ☐ Dimensions (WxHxD) 110x93x19 mm
- ☐ 3.9 inch display including temperature sensor, flush-mounted version.

KWL-MZB-BET

KWL-MZB-AP

Connection plate
KWL-MZB-AP Ref. no. 04217

For installation in concrete ceilings.
- ☐ Dimensions (WxHxD) 776x50x255 mm
- ☐ 2 x 6 connectors DN 75.
- ☐ For direct box connection to the duct system in the ceiling.

Control element ECO
KWL-MZB-BE Ref. no. 04213

Manual 4-step operation or automatic mode. For flush-mounted installation.
- ☐ Dimensions (WxHxD) 80x80x10 mm
- ☐ 4-step with LED, flush-mounted version.

KWL-MZB-BE

KWL-MZB-RH13

Pipe support
KWL-MZB-RH13 Ref. no. 04249

Pipe supports for **one-sided** connection of **flex***pipe*plus to the connection plate KWL-MZB-AP.
- ☐ Consists of 1 connection plate with 13 supports.

Central controller
KWL-MZB-ZR Ref. no. 04215

Central control, configuration and management of all connected boxes.
- ☐ Networking of up to 256 boxes.
- ☐ Fan optimiser function.
- ☐ Suitable switching power supply: KWL 45 SNH, No. 03001.

KWL-MZB-ZR

KWL-MZB-RH7

Pipe support
KWL-MZB-RH7 Ref. no. 04236

Pipe supports for **two-sided** connection of **flex***pipe*plus to the connection plate KWL-MZB-AP.
- ☐ Set consists of 2 connection plates each with 7 supports.

Combi-sensor
KWL-MZB-VOC-F No. 04216

Combi-sensor (air humidity and VOC) for installation in MZB.
- ☐ VOC-humidity sensor.
- ☐ Installation in KWL MultiZone-Box.

KWL-MZB-VOC-F

KWL-MZB-VSAP

Connection set
KWL-MZB-VSAP Ref. no. 04219

For ceiling installation with connection plate. Set with 12 connectors and mounting bracket.
- ☐ Includes 12 connectors for connection plate.

Humidity sensor
KWL-MZB-F Ref. no. 04250

Air humidity sensor for installation in KWL MultiZoneBox.

KWL-MZB-F

KWL-MZB-KSS

Plastic connectors DN 75
KWL-MZB-KSS Ref. no. 04253

Set consists of 2 pcs., for the optional, side connection of a ventilation duct DN 75 to KWL-MZB 125/125 (Ref. no. 04053), included in delivery for boxes 04050, 04051, 04052.

Technical data

Area of application	40-220 m³/h
Measurement accuracy	+/-10 m³/h
Voltage / frequency	230 V 1~, 50 Hz
Max. power consumption	6 Watt
Protection class	IP40
Weight	25 kg

All details for the individual types: **www.HeliosSelect.de**

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