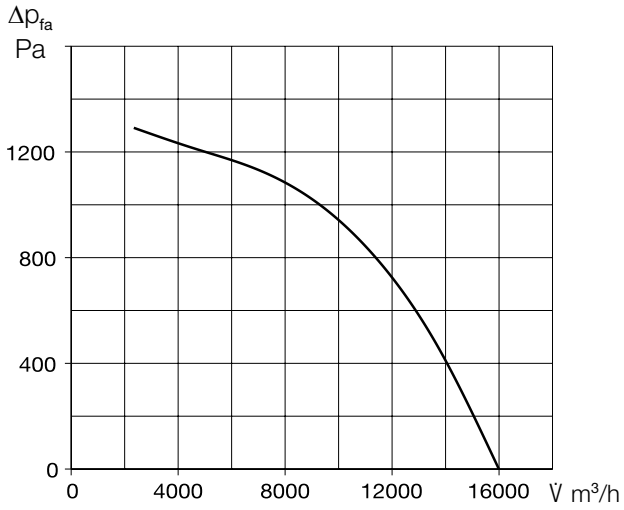
AIR1 RH 12000



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.

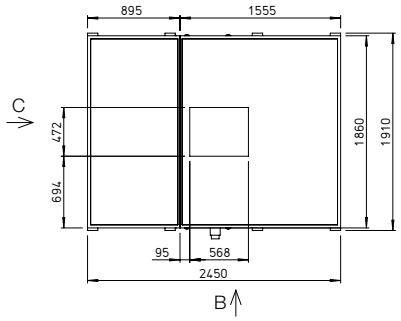
Sound data AIR1 RH 12000/SO

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

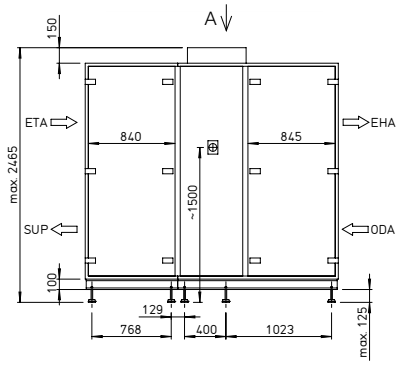
The sound power at the connectors is calculated for the simultaneous operation of both fans. The sound pressure level is determined for the simultaneous operation of both fans at distances of 1.3 and 5 m.

Dimensions AIR1 RH 12000

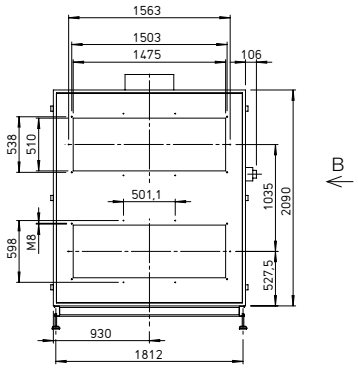
View A (from above)



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 93
Auxiliary heater		
AIR1-ENH RH 12000 Electrical, external	Ref. no. 03628	Page 95
AIR1-NH WW RH 12000 Hot water, external	Ref. no. 03831	Page 97
Hydraulic unit for hot water heater register		
WHSH HE 24 V (0 – 10 V) L	Ref. no. 06311	Page 96
Cooling register		
AIR1-KR KW RH 12000 L (1) Cold water, external	Ref. no. 04183	Page 102
AIR1-KR KW RH 12000 R (1) Cold water, external	Ref. no. 04389	Page 102
AIR1-CO DX RH 12000 L (1) Change-over, external	Ref. no. 40397	Page 108
AIR1-CO DX RH 12000 R (1) Change-over, external	Ref. no. 40406	Page 108
AIR1-SM DX (2) Control module	Ref. no. 40408	Page 110
Cooling register accessories		
AIR1-KS B for use with floor-mounted units and cooling register	Ref. no. 07169	Page 114

External installation		
Cover for external installation		
AIR1-AAD RH 12000 Weather protection cover for the unit	Ref. no. 06437	Page 117
AIR1-AAD RH 12000/ULM Weather protection cover for the unit incl. recirculation module	Ref. no. 06443	Page 117
AIR1-AAD KR KW + DX RH 12000 Weather protection cover for cooling register cold water or direct evaporator	Ref. no. 06474	Page 118
AIR1-AAD NH EL + WW RH 12000 Weather protection cover for aux. heater	Ref. no. 06449	Page 118
Terminal box heater		
AIR1-AAHK	Ref. no. 07064	Page 114
Hoods		
AIR1-AAHA RH 12000 Intake hood outside air	Ref. no. 06611	Page 115
AIR1-AAHF RH 12000 Discharge hood exhaust air	Ref. no. 06865	Page 115

(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.

Air routing		
Multi-leaf damper		
AIR1-JVK RH 12000	Ref. no. 06020	Page 111
Recirculation module		
AIR1-ULM RH 12000	Ref. no. 06170	Page 110
Flexible connector		
AIR1-VS 147/51	Ref. no. 04378	Page 113
Potential equalisation cable		
PAK M8	Ref. no. 40812	Page 113

Controls		
Controllers		
AIR1-BE ECO	Ref. no. 06186	Page 119
AIR1-BE TOUCH	Ref. no. 06187	Page 119
Controller connection cable		
AIR1-SL 4/10 10 m	Ref. no. 07073	Page 119
AIR1-SL 4/20 20 m	Ref. no. 07121	Page 119
Sensors		
AIR1/KWL-VOC 0-10V Mixed gas sensor	Ref. no. 20250	Page 119
AIR1/KWL-CO2 0-10V Carbon dioxide sensor	Ref. no. 20251	Page 119
AIR1/KWL-FTF 0-10V Humidity-temperature sensor	Ref. no. 20252	Page 119
AIR1-CO2 K Carbon dioxide sensor duct	Ref. no. 07124	Page 119
Signal converter for sensors		
AIR1-SK	Ref. no. 06019	Page 120
Extension kit for constant pressure control		
AIR1-CAP	Ref. no. 06756	Page 120
Duct smoke detector with VdS approval		
RMK	Ref. no. 04982	Page 120
Duct smoke detector with DIBt approval		
KRM	Ref. no. 40825	Page 120
KRM-MK Mounting bracket for KRM	Ref. no. 40826	Page 120
KRM-G Protective housing	Ref. no. 40847	Page 120
KRM-MKG Mounting bracket for protective housing	Ref. no. 40848	Page 120

Air filters		
Spare air filter and other filter classes		
ELF-AIR1 RH 12000/ePM10 50%/48 (M5)	Ref. no. 02201	Page 123
ELF-AIR1 RH 12000/ePM10 50%/96 (M5)	Ref. no. 02218	Page 123
ELF-AIR1 RH 12000/ePM1 55%/96 (F7)	Ref. no. 02264	Page 123
ELF-AIR1 RH 12000/ePM1 80%/96 (F9)	Ref. no. 02471	Page 123

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