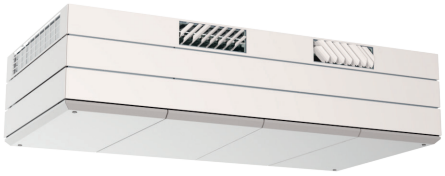
AIRMASTER

Data Sheet AM 1000



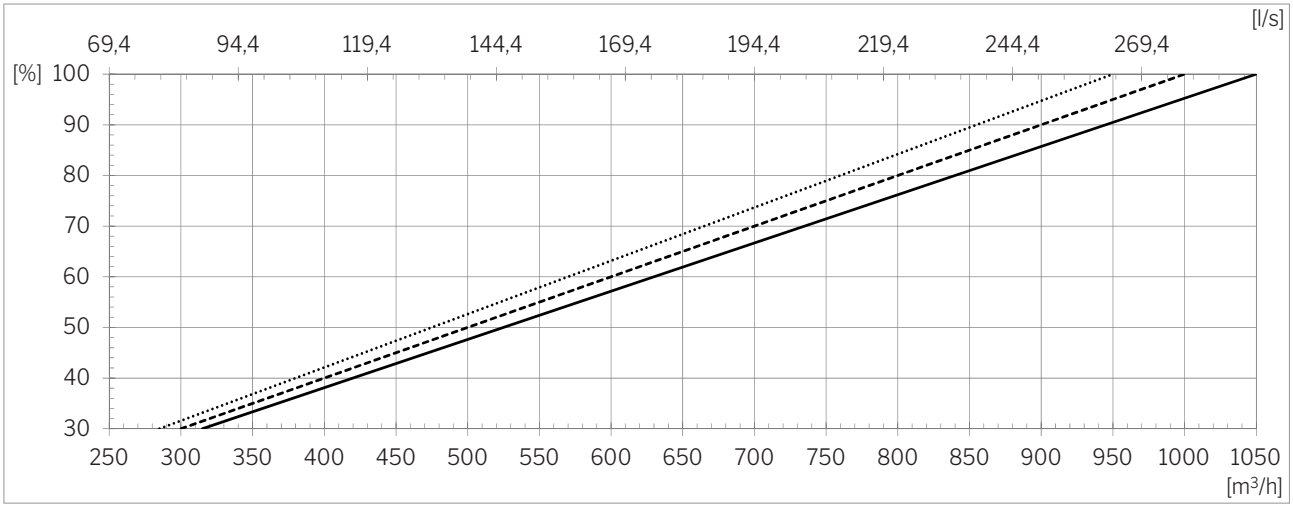
Technical data	Filter class	30 dB(A)	35 dB(A)
Maximum capacity [1]	ePM_{10} 50%	950 m^3/h	1050 m^3/h
	ePM_1 55%	926 m^3/h	1024 m^3/h
	ePM_1 80%	903 m^3/h	998 m^3/h
Throw (0,2 m/s) [2]	ePM_{10} 50%	8,0 m	9,5 m
	ePM_1 55%	7,6 m	9,1 m
	ePM_1 80%	7,2 m	8,7 m
Supply air filter		ePM_{10} 50%, ePM_1 55% or ePM_1 80%	
Extract air filter		ePM_{10} 50%	
Dimensions (WxHxD)		2325 x 561 x 1283 mm	
Weight: Standard unit complete; centre -, left -, right -, front module; service covers		301,5 kg: 131 kg; 61 kg; 36 kg; 19 kg; 35 kg	
Color, Panel / Color, Case		RAL 9010 (white) / RAL 7024 (grey)	
Counterflow heat exchanger		Aluminium	
Air leakage classification cf. EN1886/EN13141-7		Class L2 / A1	
Air leakage classification, main damper, cf. EN1751		Class 3	
IP code		10	
Duct connection[3]		Ø315 mm	
Condensate pump (capacity/lifting height at 5 l/h)		10 l/h / 6 m	
Condensate drain hose internal/external diameter		Ø6 mm / Ø9 mm	
Supply voltage: single-phase[4] ; three-phase[4]		220-240V/50Hz, ~1N+PE; 220-240V/50Hz, ~3N+PE	
Maximum power consumption		354 W	
Maximum current		2,76 A	
Power factor		0,56	
Maximum fuse		16 A (1 phase, type B) 3 x 16 A (3 phases, type B). When choosing a pre-heating surface, a 3-phase connection must be used	
Leakage current		≤ 4 mA	
Recommended residual current circuit breaker (RCCB)		Type B	

Electrical heating surfaces	Preheating surface	Comfort heating surface
Heat output	2300 W	1500 W
Nominal current	10 A	6,5 A
Thermal cutout, automatic reset	50 °C	50 °C
Thermal cutout, manual reset	100 °C	100 °C

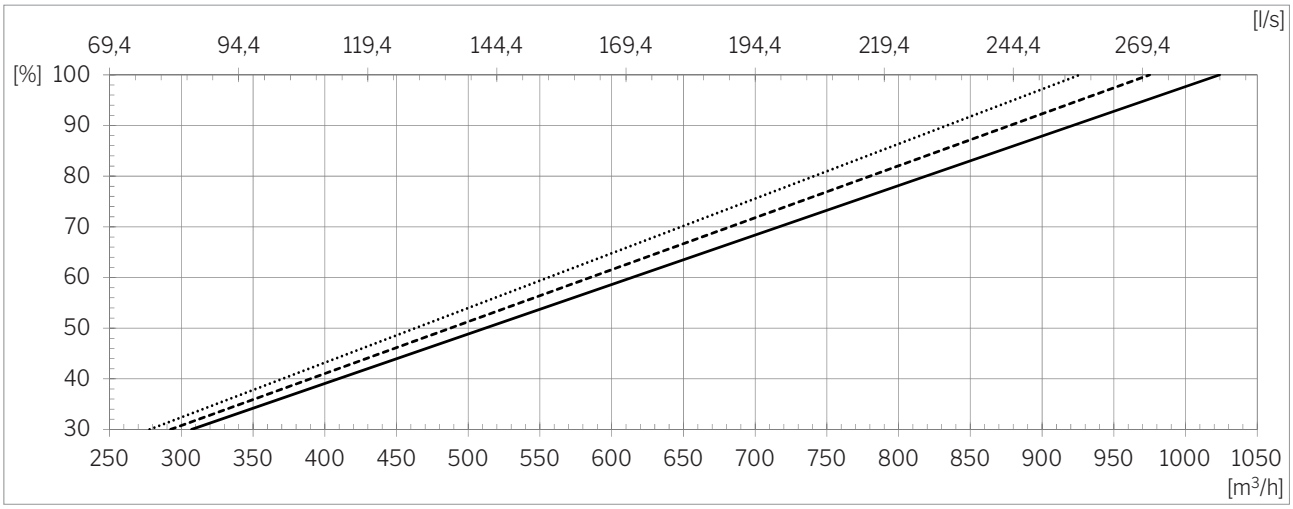
Water heating surface	
Nominel heat output[5]	2540 W
Connection dimension	1/2" (DN 15)
Materials pipes/fins	Copper/aluminum
Opening/closing time, motor valve	60 s
Maximum operating temperature	90 °C
Maximum operating pressure	5 bar

[1] All measurements were performed with an AM 1000 HH TT in normal operating mode in a standard installation, using the wall grilles Ø315 recommended by Airmaster with a room attenuation of 9 dB.
[2] The throw was measured with a 2 °C subcooled supply air. The setting is adaptable, see page 5.
[3] Horizontal supply/exhaust using Airmaster Boomerain® Ø315 or with Ø400 mm wall grilles.
[4] The supply voltage can be limited to a single-phase, connected to L1. Only for air handling units without electric heating surface or only with electric comfort heating surface.
[5] Heat output for maximum capacity at supply/exhaust temperature 60/40°C and a liquid flow of 112 l/h.

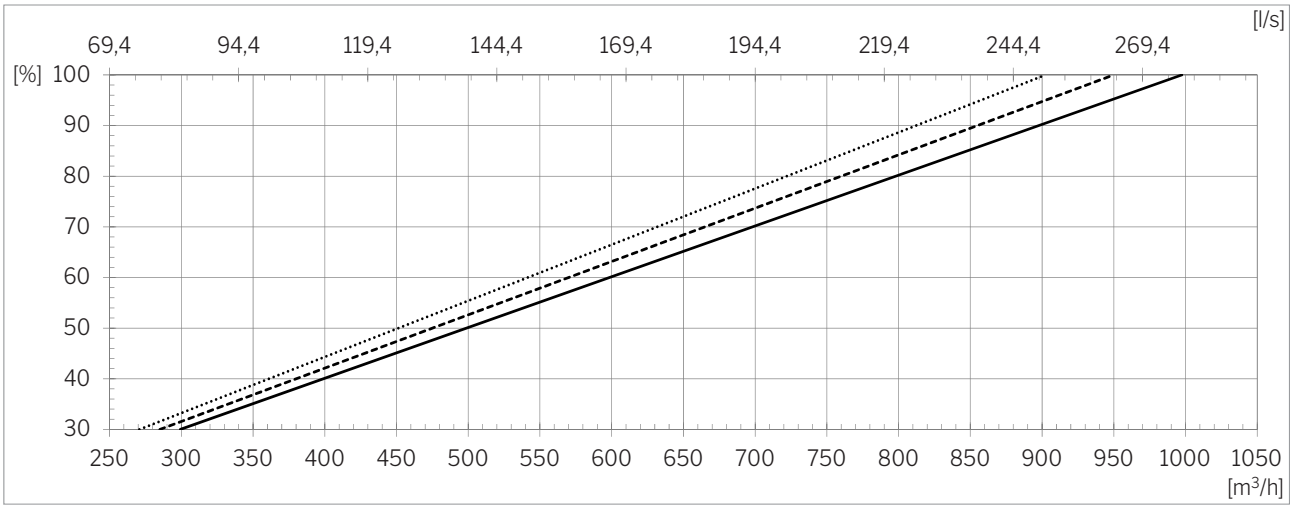
Capacity with ePM_{10} 50% / ePM_{10} 50% filters[6]



Capacity with ePM_1 55% / ePM_{10} 50% filters[6]

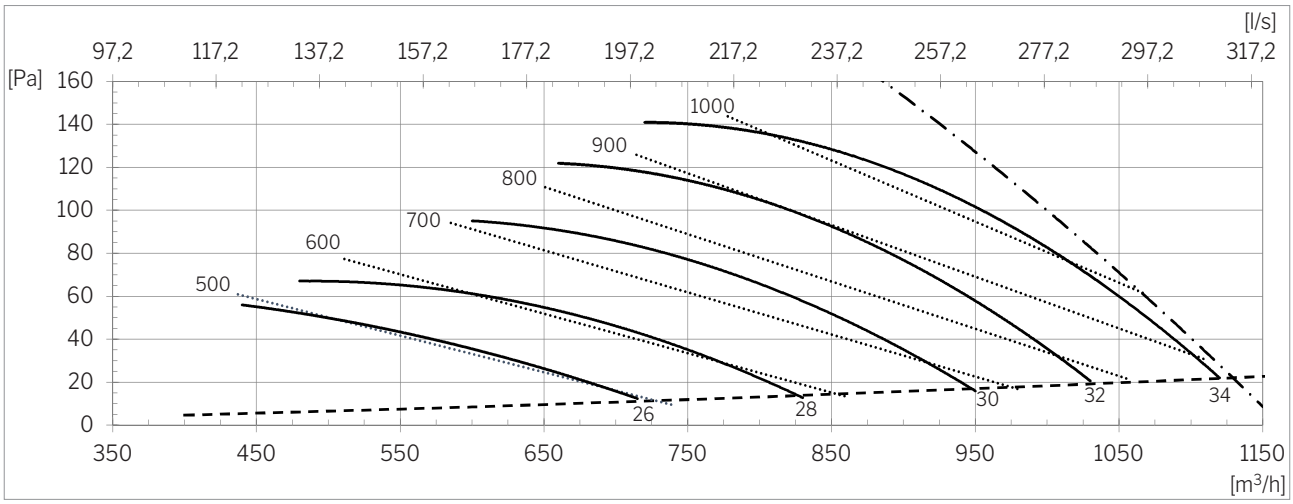


Capacity with ePM_1 80% / ePM_{10} 50% filters[6]

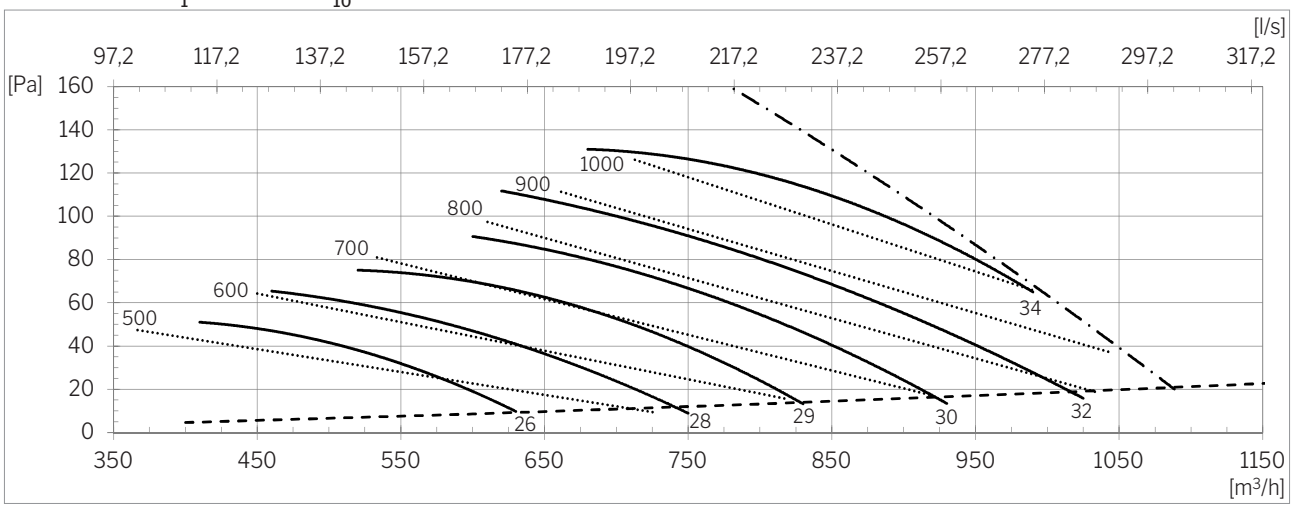


[6] All measurements were performed with an AM 1000 HH TT in normal operating mode in a standard installation, using the wall grilles Ø315 recommended by Airmaster with room attenuation of 9 dB.

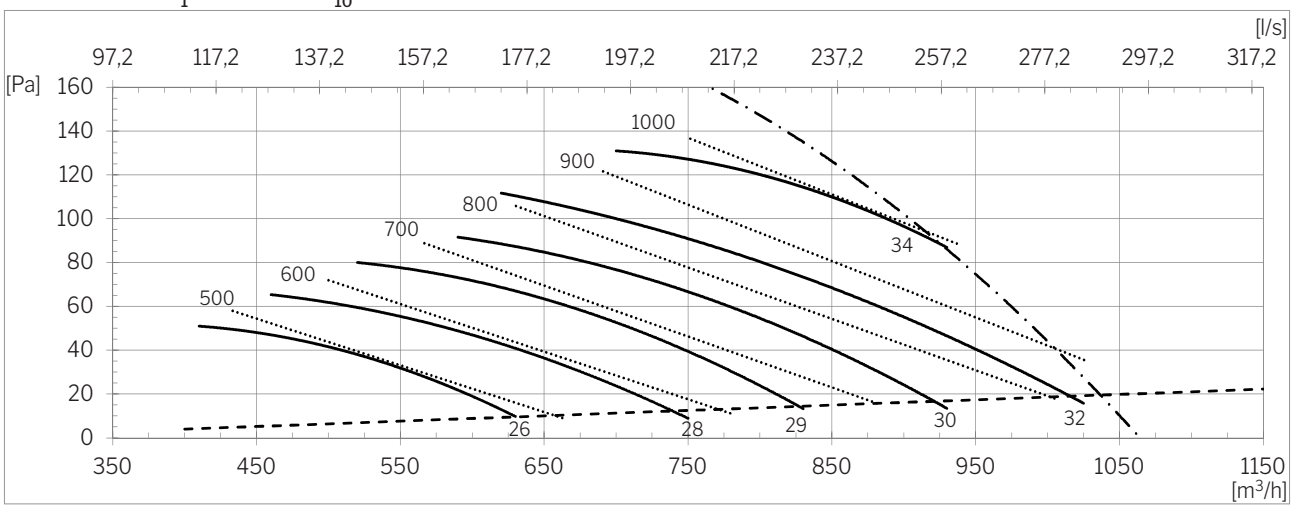
SFP with ePM_{10} 50% / ePM_{10} 50% filters[7]



SFP with ePM_1 55% / ePM_{10} 50% filters[7]



SFP with ePM_1 80% / ePM_{10} 50% filters[7]



[7] All measurements were performed with an AM 1000 HH TT in normal operating mode in a standard installation, using the wall grilles Ø315 recommended by Airmaster with room attenuation of 9 dB.

[8] Sound pressure level $L_{pA,eq}$ was measured at a height of 1.2 m with a horizontal clearance from the unit of 1 m at a room attenuation of 9 dB.

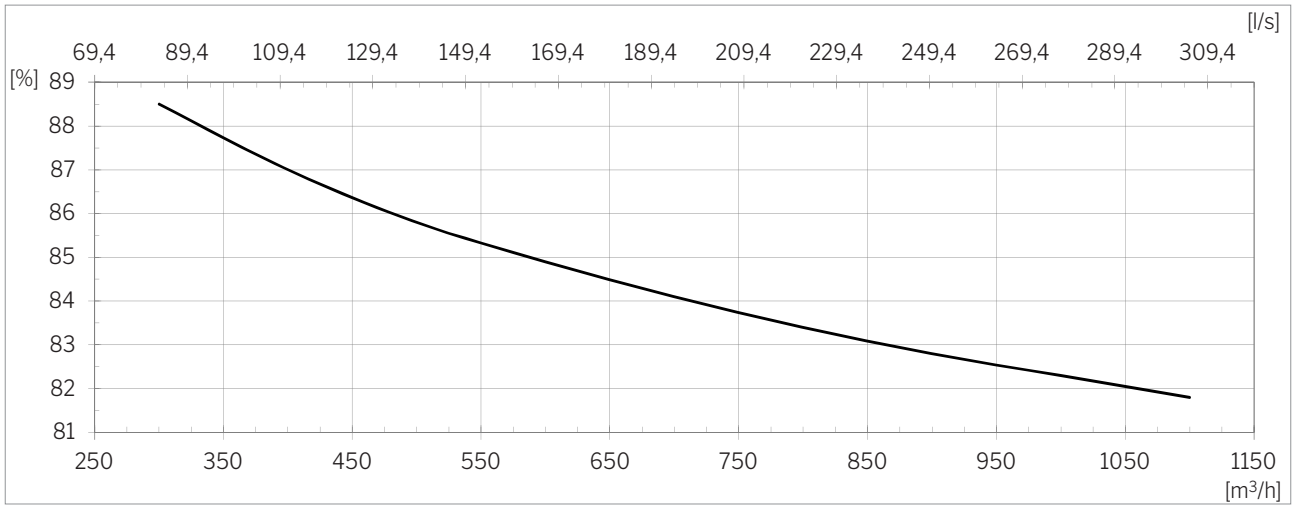
Sound power level, LWA [dB(A)], acc. ISO 9614-1

Data is for the entire unit (including top) at a flow of 950 m³/h with ePM_{10} 50% / ePM_{10} 50% filters and Ø315 wall grille. A simplified calculation model that assumes a point source may result in an over-estimation of the sound pressure for AM 1000, especially if absorbent surfaces are located close to the unit.

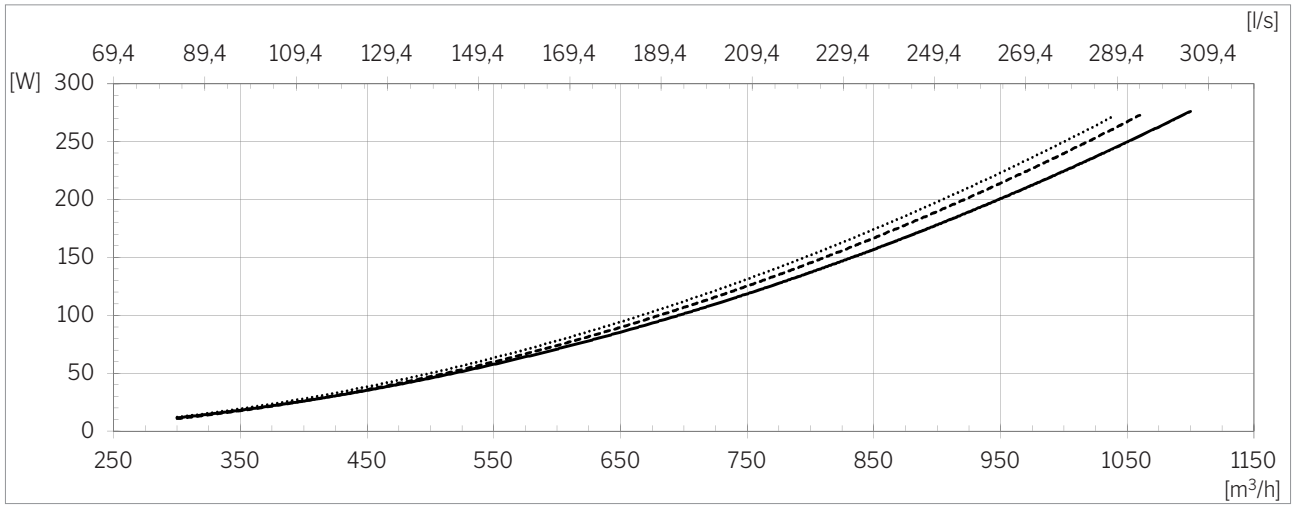
Frequency [Hz]	63	125	250	500	1000	2000	4000	8000	Total
L_{WA} [dB(A)]	31,2	38,3	38,2	36,7	31,6	23,4	14,1	7,7	43,2

Temperature efficiency, acc. to EN 308

EN 308 conditions: Balanced operation; Room air: 25 °C, 28 % RH; Outdoor air: 5 °C, 50 % RH.



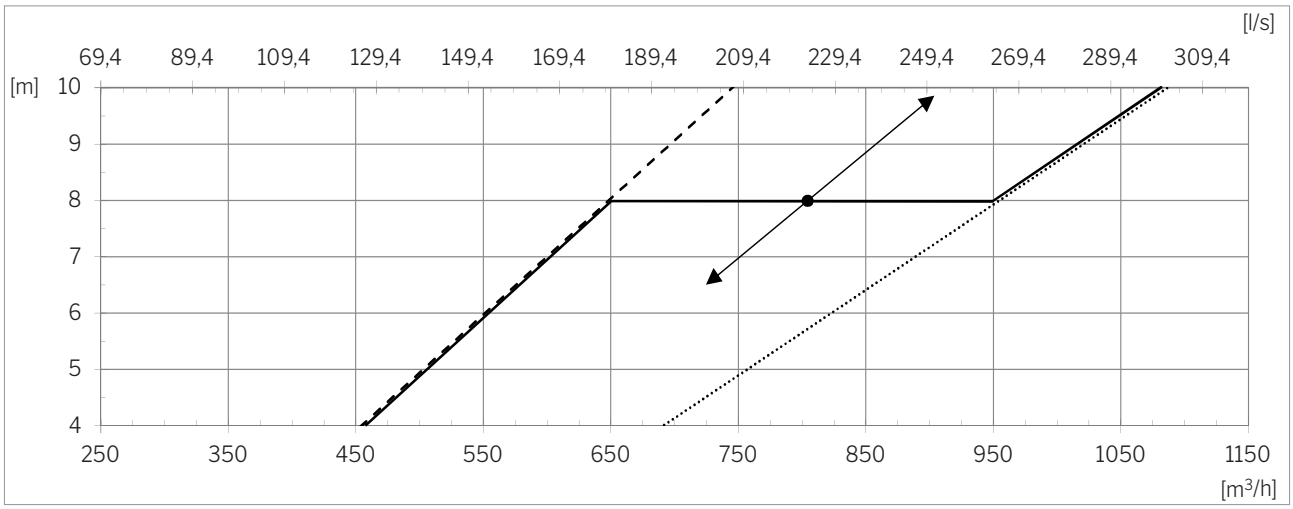
Power consumption[9]



····· ePM_1 80% / ePM_{10} 50% - - - - ePM_1 55% / ePM_{10} 50% —— ePM_{10} 50% / ePM_{10} 50%

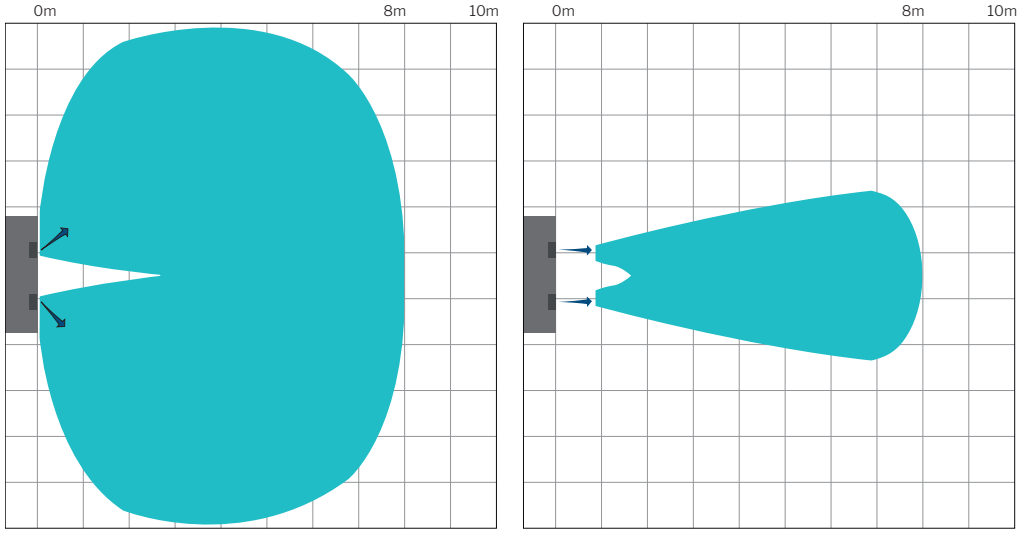
[9] All measurements were performed with an AM 1000 HH TT in normal operating mode in a standard installation, using the wall grilles Ø315 recommended by Airmaster with room attenuation of 9 dB.

Throw (0,2 m/s)[10]



---- Tight inlet diffuser opening ····· Wide inlet diffuser opening —●— Setpoint throw length[11]

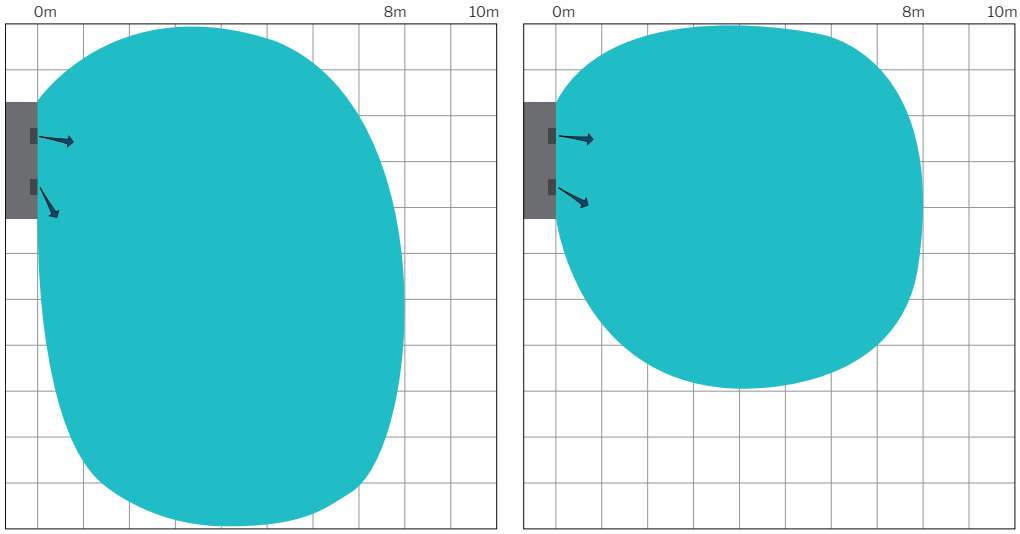
Symmetrical air distribution[12,13] with Adaptive Airflow™.



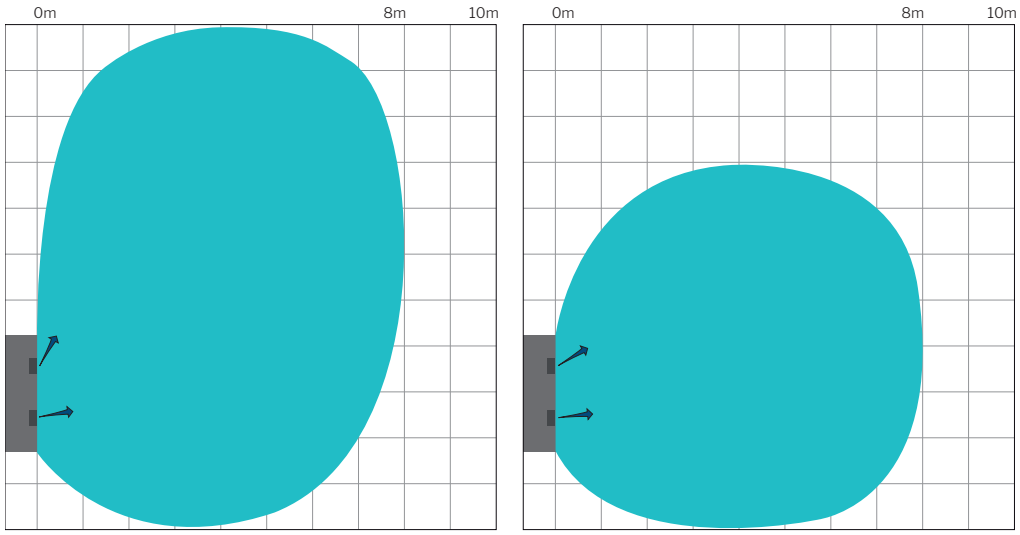
[10] The throw is measured with 2°C subcooled supply air.
[11] Set point for throw length can be adjusted using a PC with "Airlinq® Service Tool" installed.
[12] Image on the left: Maximum airflow / inlet diffuser completely open.
[13] Image on the right: Low airflow / inlet diffuser completely tightened.

Throw (0,2 m/s)[14]:

Asymmetrical air distribution[15][16] with Adaptive Airflow™ and left facing inlet air grilles.



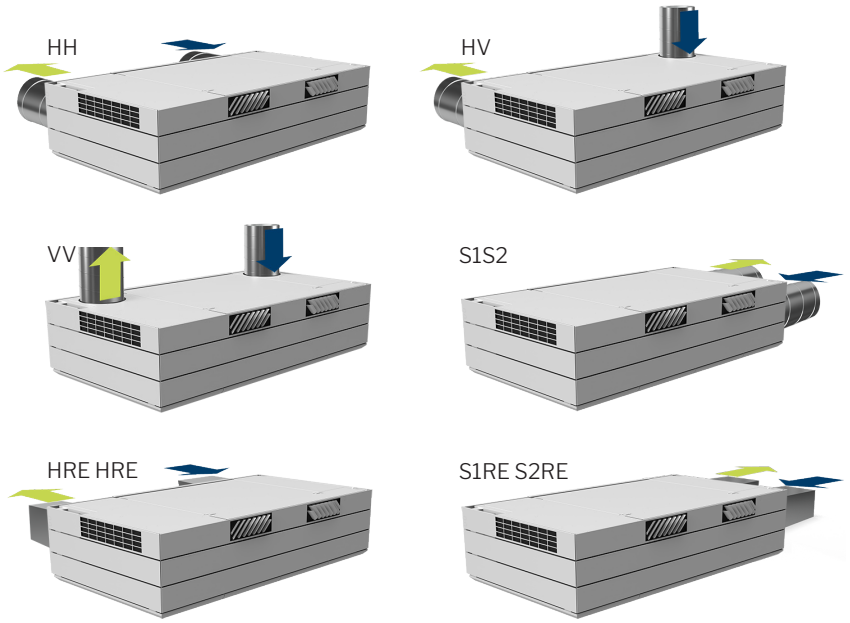
Asymmetrical air distribution[15][16] with Adaptive Airflow™ and right facing inlet air grilles.



[14] The throw is measured with 2°C subcooled inlet.
[15] Image on the left: Maximum airflow / inlet diffuser completely open.
[16] Image on the right: Low airflow / inlet diffuser completely tightened.

Version overview

Exhaust and supply position

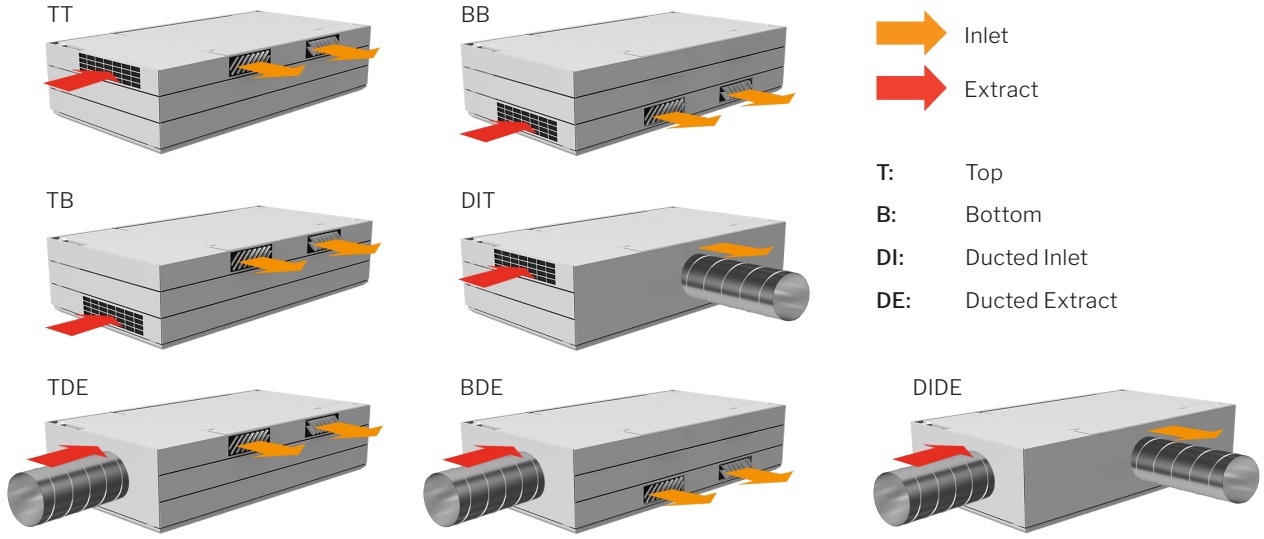


Exhaust

Supply

H: Horizontal
V: Vertical
S1: Side (towards the rear)
S2: Side (towards the front)
HRE: Horizontal - Rectangular
S1RE: Side-Rectangular (towards the rear)
S2RE: Side-Rectangular (towards the front)

Inlet and extract position



Inlet

Extract

T: Top
B: Bottom
DI: Ducted Inlet
DE: Ducted Extract

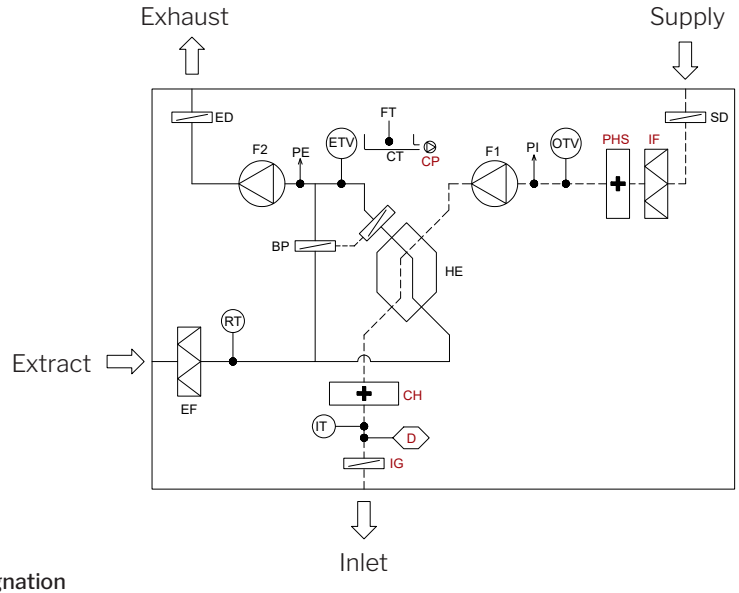
Standards and options

Counterflow heat exchanger (aluminum)	x
Enthalpy counterflow heat exchanger (polymer membrane)	o
Combination counterflow heat exchanger (polymer membrane)	o
Bypass damper	x
Supply damper (motor-controlled)	x
Exhaust damper (motor-controlled)	x
Capacitive return for motorized exhaust and supply air dampers	•
Adaptive Airflow™	•
Electric preheating surface	•
Electric comfort heating surface	•
Water comfort heating surface	•
Condensate pump	•
CO_2 sensor (integrated)	•
TVOC (integrated)	•
CO_2-/TVOC sensor (integrated)	•
PIR/motion sensor (integrated)	•
CO_2 sensor (wall mounted)	•

PIR/motion sensor (wall mounted)	•
Smoke detector[17]	•
Hygrostat (wall mounted)	o
Energy meter single-phase or three-phase	•
Outdoor air filter ePM_{10} 50%	•
Outdoor air filter ePM_1 55%	•
Outdoor air filter ePM_1 80%	o
Extract air filter ePM_{10} 50%	x
Wall-/ceiling bracket	x
Control panel, Airlinq® Viva	•
Control panel, Airlinq® Orbit	•
Airmaster Airlinq® Online	•
Airmaster Airlinq® Online API	•
Airlinq® BMS	•
MODBUS® RTU RS485 module	•
BACnet™ MS/TP module	•
BACnet™ /IP module	•
LON® module	o
KNX® module	o

X : Standard • : Optional o : Special item (not stock item)

Schematic sketch



Component designation

BP	Bypass damper (motor-controlled)	ETV	Exhaust temperature sensor	OTV	Outdoor air temperature sensor
CH	Electrical comfort heating surface (option)	FT	Float	PE	Flow meter, extract air
CP	Condensate pump (option)	F1	Outdoor air fan	PHS	Electric preheating surface (option)
CT	Condensate tray	F2	Exhaust air fan	PI	Flow meter, supply air
D	Smoke detector (option)	HE	Counterflow heat exchanger	RT	Room temperature sensor
ED	Exhaust damper (motor-controlled)	IF	Outdoor air filter (option)	OD	Supply damper (motor-controlled)
EF	Extract air filter	IG	Adaptive Airflow™ (option)		
		IT	Supply air temperature sensor		

[17] The unit's height is increased to 600 mm if the optional built-in smoke detector is chosen. See dimension drawing.