AIRMASTER

Datasheet AM 900

Mixing ventilation

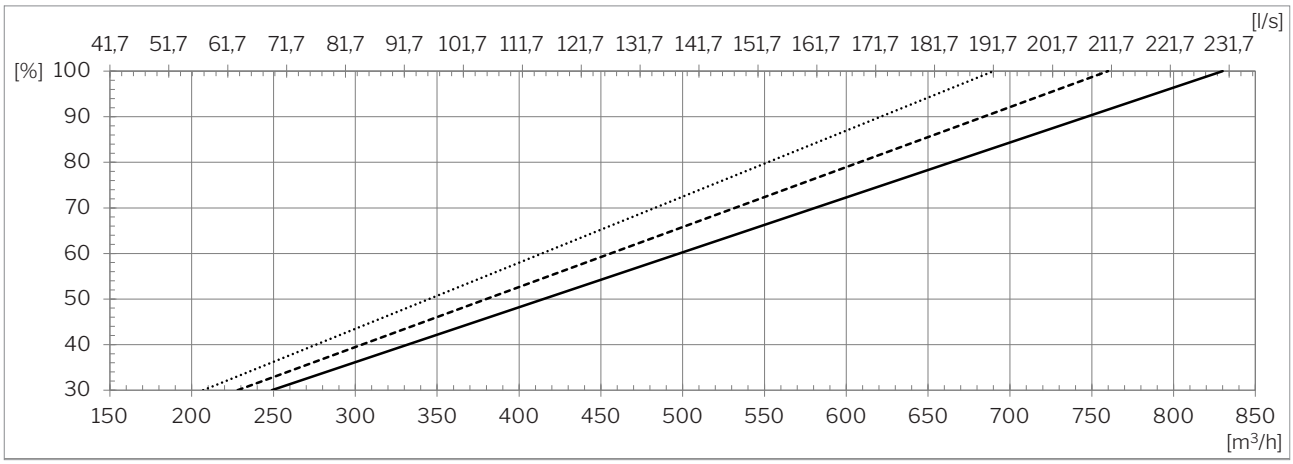
Technical data	Filter class	30 dB(A)	33 dB(A)	35 dB(A)
Maximum capacity [1]	ePM_{10} 50%	690 m^3/h	760 m^3/h	830 m^3/h
	ePM_1 55%	669 m^3/h	737 m^3/h	805 m^3/h
	ePM_1 80%	649 m^3/h	714 m^3/h	780 m^3/h
Throw (0,2 m/s) [2]		6 m	-	7.2 m
Supply air filter		ePM_{10} 50%, ePM_1 55%, or ePM_1 80%		
Extract air filter		ePM_{10} 50%		
Dimensions (BxHxD)		800 x 2323 x 602 mm		
Recommended minimum ceiling height / minimum ceiling height		2490 mm / 2400 mm[3]		
Weight, standard air handling unit, complete		180 kg		
Color casing		RAL 9010		
Counterflow heat exchanger		3 x PET (Polyetylentereftalat)		
Air leakage classification cf. EN1886/EN13141-7		Class L2 / A1		
Air leakage classification main damper, cf. EN1751		Class 3		
IP code		10		
Duct connection		Ø315 mm		
Condensate pump (Capacity ; Lifting height at 5 l/h)		10 l/h ; 6 m		
Condensate drain hose int./ext. diameter		Ø6 mm / Ø9 mm		
Supply voltage		220-240V/50Hz, ~1N+PE		
Maximum power consumption [1]		354 W		
Maximum current [1]		2,76A		
Power factor		0,56		
Maximum fuse		16 A (1 phase, type B)		
Leakage current AC / DC		≤ 6mA		
Recommended residual burrent bicuit breaker (RCCB)		Type B		

Electrical heating surfaces	Preheating surface	Comfort heating surface
Heat output	1500 W	1050 W
Nominal current	6.5 A	4.4 A
Thermal circuit breaker, manual reset	100 °C	100 °C

Water heating surface	
Nominal heat output [4]	2345 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

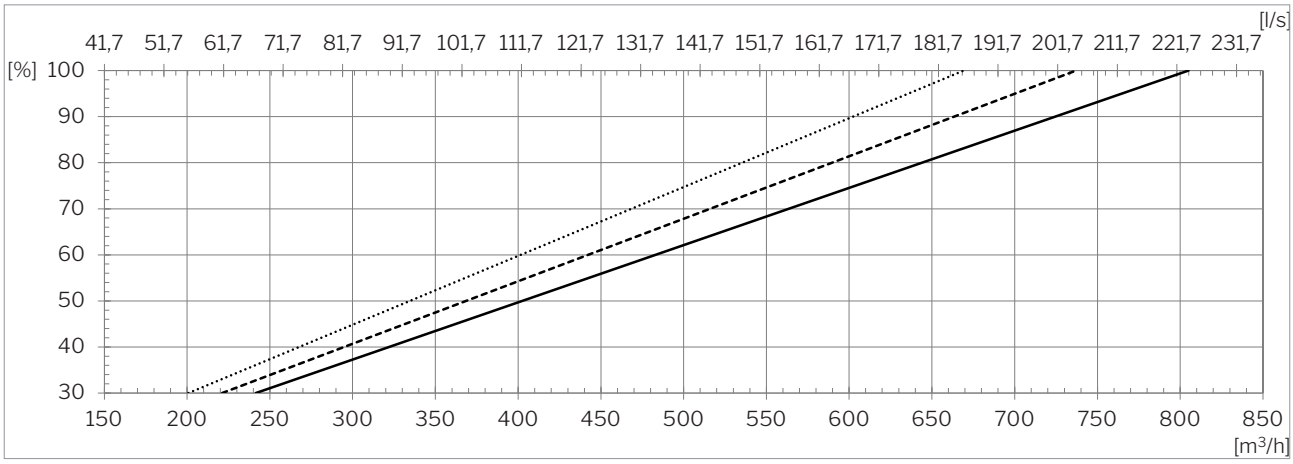
[1] All measurements were performed in normal operating mode in a standard installation using the facade grills recommended by Airmaster: Airmaster Boomerain® Ø315.
[2] Throw was measured with filter class: supply air ePM_{10} 50% | Extract air ePM_{10} 50%
[3] With horizontal connections (intake and return) and blowing in at the front (door)
[4] Heat output for maximum capacity at 35 dB(A), delivery/return temperature 60/40°C and a liquid flow of 111 l/h.

Capacity with ePM_{10} 50% / ePM_{10} 50% filters [5]



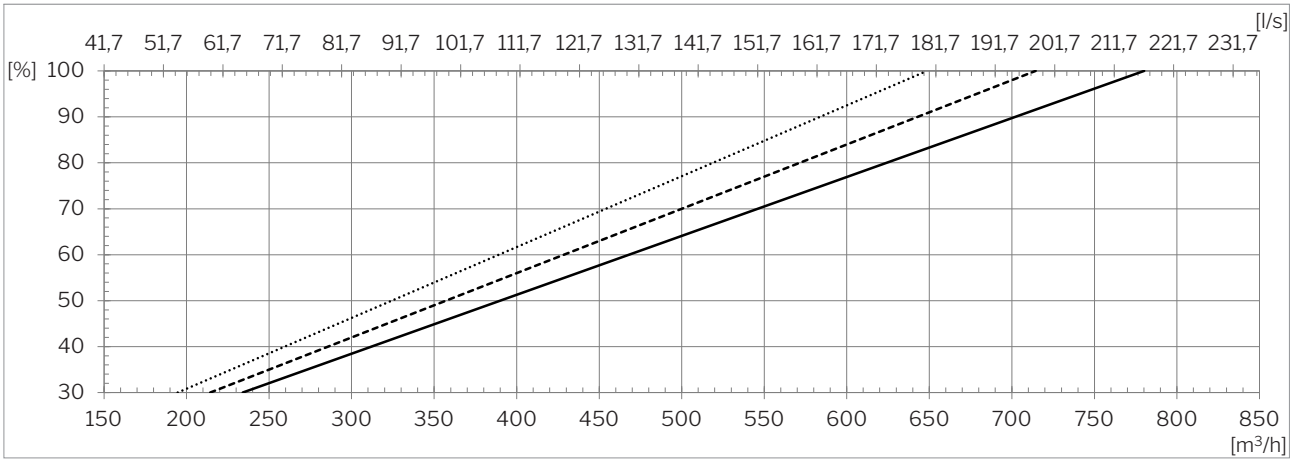
30 dB(A) 33 dB(A) 35 dB(A)

Capacity with ePM_1 55% / ePM_{10} 50% filters [5]



30 dB(A) 33 dB(A) 35 dB(A)

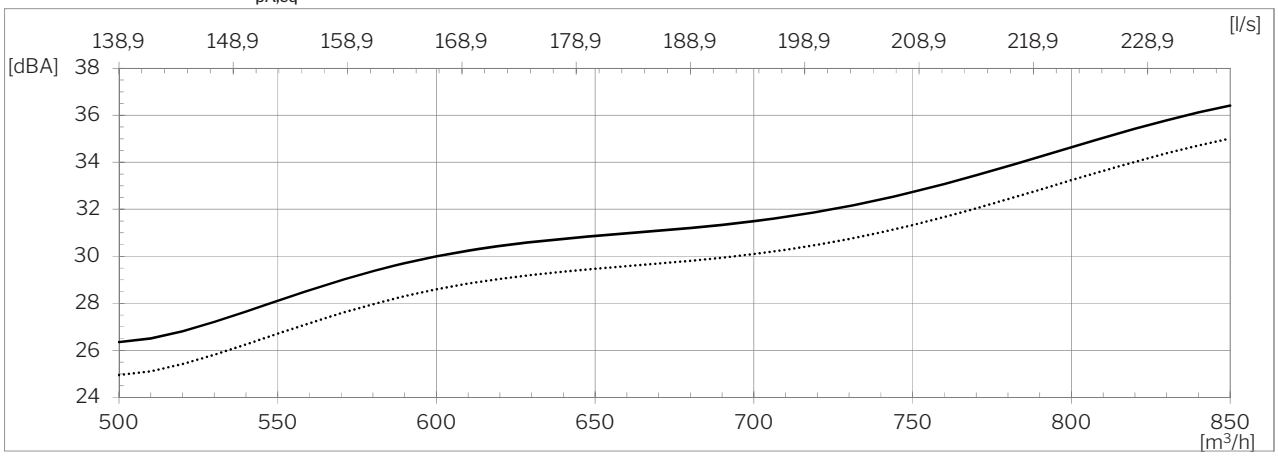
Capacity with ePM_1 80% / ePM_{10} 50% filters [5]



30 dB(A) 33 dB(A) 35 dB(A)

[5] All measurements were performed in normal operating mode in a standard installation using the facade grills recommended by Airmaster: Airmaster Boomerain® Ø315.

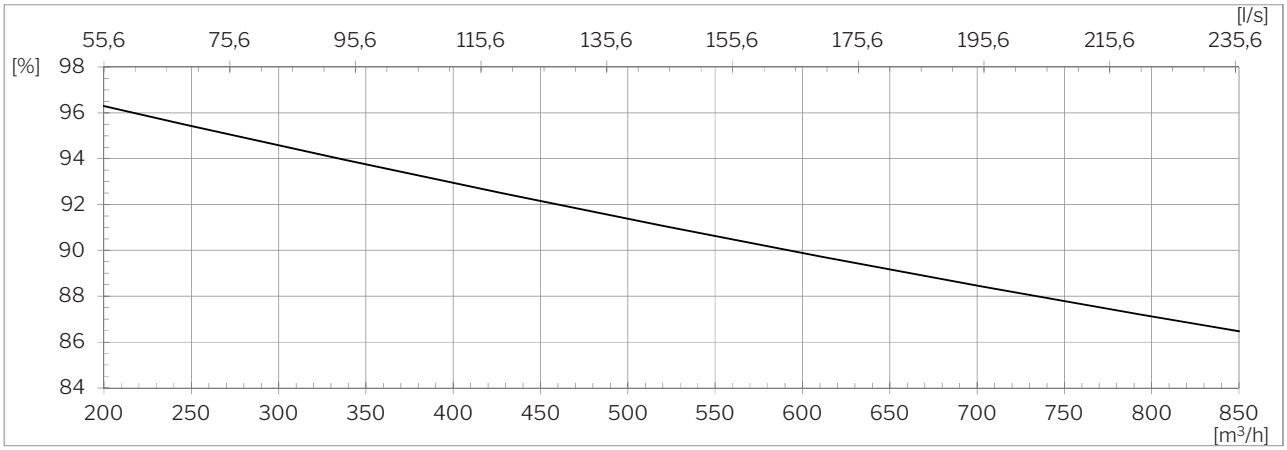
Sound pressure [6, 7] $L_{pA,eq}$ acc. Airmaster reference situation



T = 0.6 s T= 0.9 s

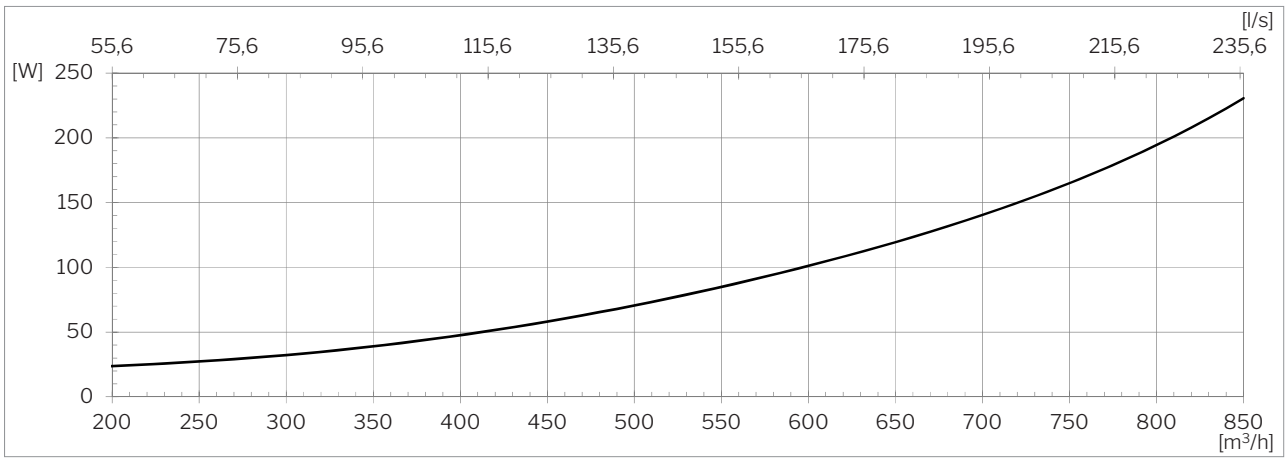
T = Reverberation time

Temperature efficiency acc. EN 308



Balanced airflow; Extraction: 25 °C, 28 % RH; Supply: 5 °C.

Power consumption [7]

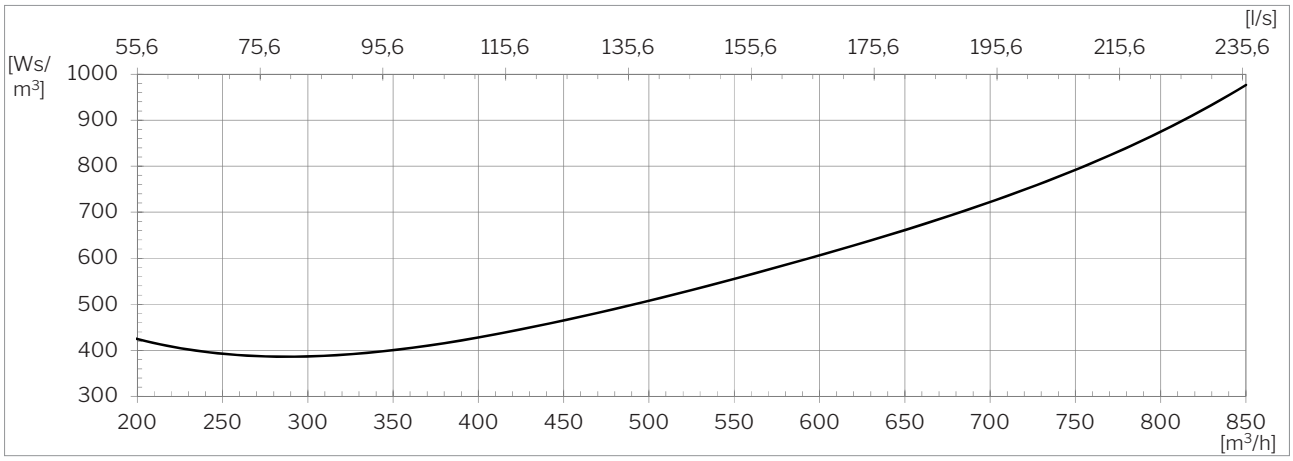


ePM_{10} 50% / ePM_{10} 50%

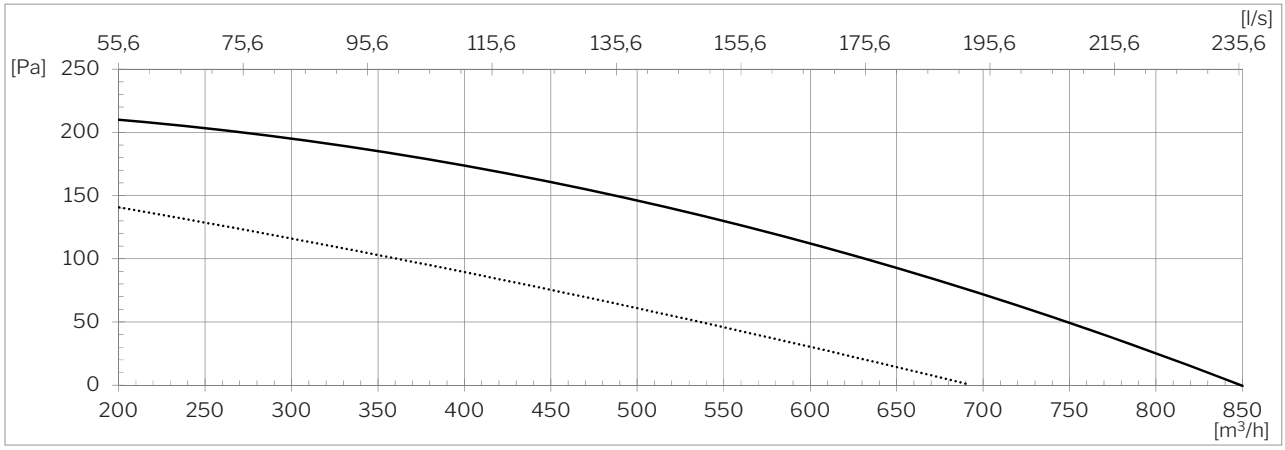
[6] Sound pressure level $L_{pA,eq}$ is measured in a height of 1.2 m with at horizontal distance of 1 m from the air handling unit in room with a size of 200 m³ and a reverberation time of T = 0.6 s, corresponding to a room attenuation of 7.5 dB.

[7] All measurements were performed in normal operating mode in a standard installation for the filter class, supply/extract air: ePM10 50% / ePM10 50%, using the facade grills recommended by Airmaster: Airmaster Boomerain® Ø315.

SFP [8]

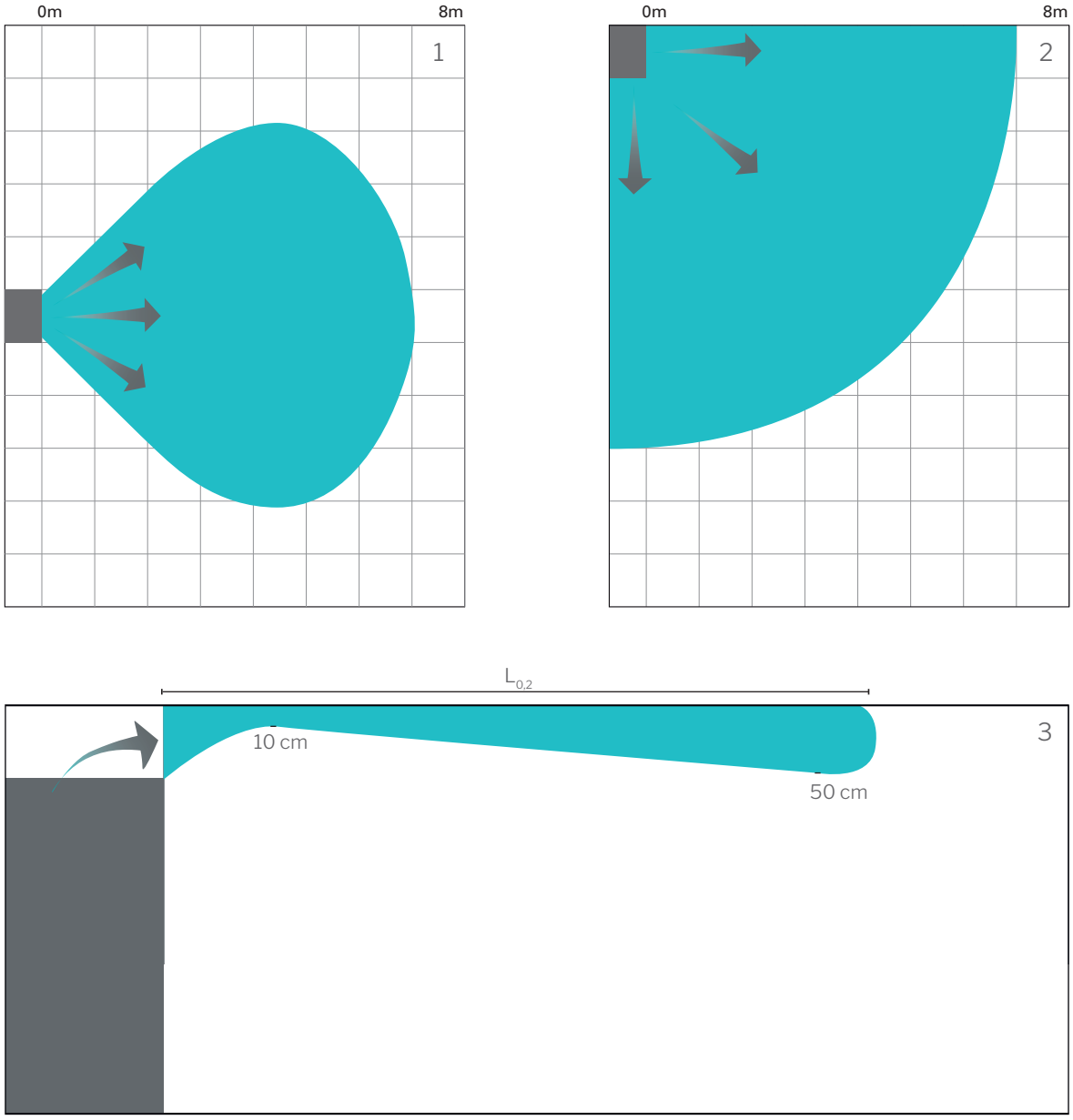


External pressure loss [8]



[8] All measurements were performed in normal operating mode in a standard installation for the filter class, supply/extract air: ePM10 50% / ePM10 50%, using the facade grills recommended by Airmaster: Airmaster Boomerain® Ø315.

Throw [9] (0.2 m/s)



Throw illustrated for airflow rate 830 m³/h. At other volume flow rates the throw can be extrapolated:

$L_2 = L_1 \times q_2 / q_1$.

1 Spread pattern seen from above, symmetric inlet (default).
2 Spread pattern seen from above, asymmetric inlet.
3 Spread pattern seen from the side.

[9] The result applies to an undertemperature of the inlet air of 3-5 °C.

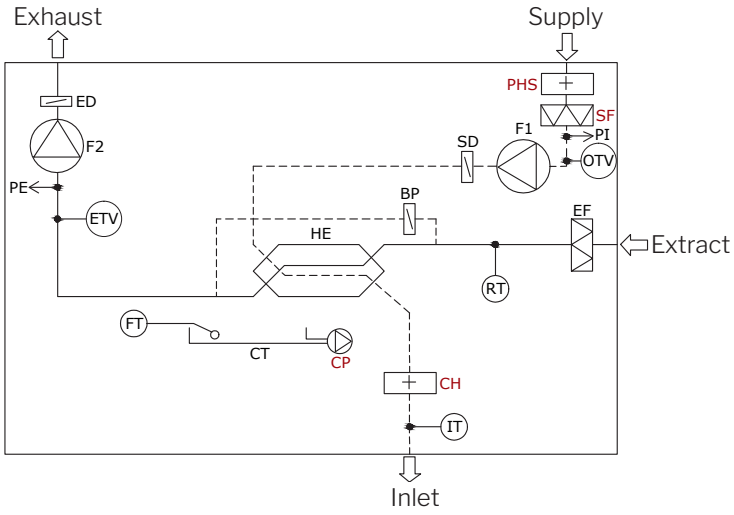
Standard and options

Counterflow heat exchanger (PET)	x
Enthalpy counterflow heat exchanger (Polymer membrane)	o
Combination counterflow heat exchanger (Polymer membrane)	o
Motor-driven bypass	x
Motor-driven supply air damper	x
Motor-driven extract air damper	x
Capacitive return for motorized exhaust and supply air dampers	•
Electric preheating surface	•
Electric comfort heating surface	•
Water heating surface	o
Condensate pump	•
PIR/motion sensor (wall-mounted)	•
CO_2-sensor (wall-mounted)	•
CO_2-sensor (built-in)	•
TVOC-sensor (built-in)	•
CO_2-/TVOC-sensor (built-in)	•
Hygrostat (wall-mounted)	o

Energy meter	•
Supply air filter ePM_{10} 50%	•
Supply air filter ePM_1 55%	•
Supply air filter ePM_1 80%	o
Extract air filter ePM_{10} 50%	x
Airlinq® Viva control panel	•
Airlinq® Orbit control panel	•
Airmaster Airlinq® Online	•
Airlinq® Online API	•
Airlinq® BMS	•
LON® module	o
KNX® module	o
MODBUS® RTU RS485 module	•
BACnet™ MS/TP module	•
BACnet™ /IP module	•

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

Schematic sketch



COMPONENT DESIGNATION

BP	Bypass damper (motor-driven)
CH	Electric comfort heating surface (option)
CP	Condensate pump (option)
CT	Condensate tray
ED	Exhaust air damper (motor-driven)
EF	Extract air filter
ETV	Exhaust temperature sensor
FT	Float
F1	Supply air fan
F2	Extract air fan
HE	Counterflow heat exchanger
IT	Inlet-air temperature sensor
OTV	Supply air temperature sensor
PE	Flow meter, extracted air
PHS	Preheating surface (option)
PI	Flow meter, supply air
RT	Room temperature sensor
SD	Supply air damper (Motor-driven)
SF	Supply air filter (option)