Technical Fiche
EMKA Classphere 2H

VMC DF ventilation, intelligent heat recovery unit.

Description.

The Classphere 2H unit is a controlled mechanical ventilation system with double flow and high thermal efficiency, it has an automated ventilation technology that stabilizes and equalizes the flow of the two centrifugal fans at a preset flow rate that adapts to the characteristics of the environment, controlling the levels of temperature, relative humidity and CO_2 measured by the unit's sensors, offering precise flow control, optimal air quality, acoustic comfort and reduced electrical consumption.

Characteristics.

- ✓ Automated ventilation technology.
- ✓ Flow balancing system.
- ✓ Configuration and self-regulation of the relative humidity comfort zone.
- ✓ Configuration and self-regulation of particles per million CO_2 in the environment.
- ✓ Control and self-regulation of temperature.

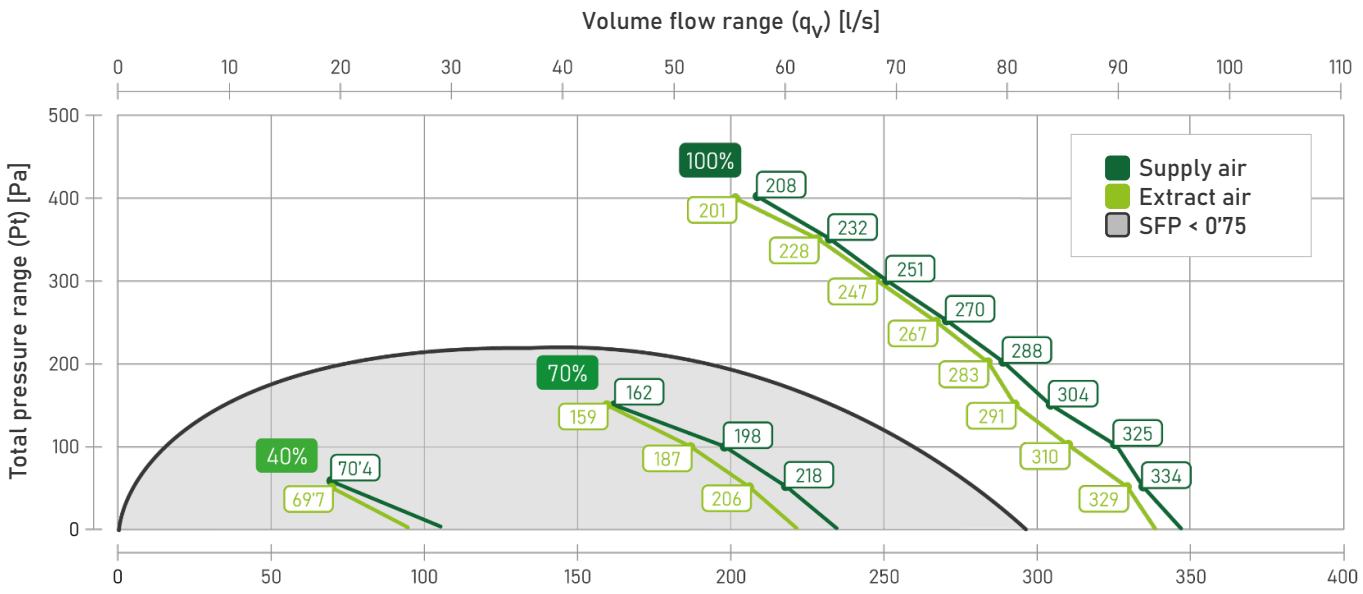
Technical specifications.

EMKA Classphere 2H		EN 60335 – 2 – 30 EN 60335 – 2 – 80	
Rated voltage:	230 V / 50/60 Hz	Fan type:	EC centrifugal
Rated power:	150 W / 0'8 A	Maximum fan power:	2 x 96 W / 0'8 A
Maximum power:	1550 W / 6'8 A	Filter class:	F7 ePM1 ≥ 50%
Maximum electrical resistance power:	1400 W / 6 A (Specific for cold weather)	Type of recuperator of heat:	Molecular sieve (Adsorption)
Standby power:	6 W	Dimensions (L x H x D):	1040 x 427 x 433 mm
Fuse type:	T 6'3 mA / 250 V	Tube connection:	Ø 160 mm
Energy efficiency:	A	Weight:	54 Kg

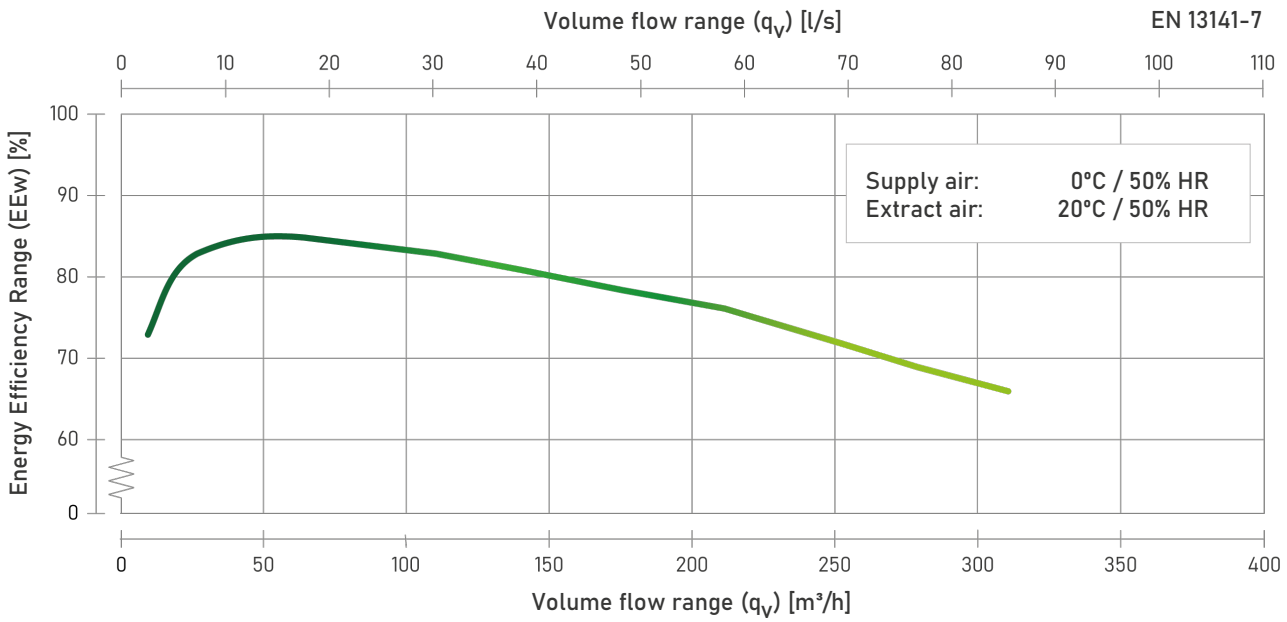
Acoustic level (L_{WA}).

EMKA Classphere 2H			UNE EN 13141-7 UNE EN ISO 3744	UNE EN ISO 3741 UNE EN ISO 5135
Static pressure:	Ventilation air flow:	Box irradiation:	Air Supply duct:	Air extract duct:
50 Pa	168 m³/h	43'4 (dB(A))	49'5 (dB(A))	35'1 (dB(A))
100 Pa	240 m³/h	55'7 (dB(A))	61'9 (dB(A))	47'2 (dB(A))

Graphic ventilation curves.



SFP: Specific fan power.



Specifications Ecodesign ErP 2018.

EMKA Classphere 2H

COMMISSION REGULATION (EU) N° 1253/2014 of 7 July 2014
COMMISSION DELEGATED REGULATION (EU) N° 1254/2014 of 11 July 2014

Supplier's name:	EMKA Manufacturing, S.L.
Model identification:	Classphere 2H

Specific energy consumption:

$SEC = t_a \cdot pef \cdot q_{net} \cdot MISC \cdot CTRL^x \cdot SPI - t_h \cdot \Delta T_h \cdot \eta_h^{-1} \cdot c_{air} \cdot (q_{ref} - q_{net} \cdot CTRL \cdot MISC \cdot (1-\eta_t)) + Q_{defr}$

SEC Average climate	-35'5 kWh/(m².a)
SEC Cold climate	-71'0 kWh/(m².a)
SEC Warm climate	-12'5 kWh/(m².a)

Declared type of unit:	Bi-directional, residential ventilation unit
Type of operation:	Variable speed
Recovery system of heat:	Regenerative (Cross-flow heat recovery)
Thermal efficiency:	77 %
Maximum flow:	290 m³/h (150 Pa)
Drive input electrical power:	169'9 W
Acoustic power level (L_{WA})	43 dB(A)
Reference airflow	0'0563 m³/s
Reference pressure diff.:	50 Pa
SPI*	0'30 W/(m³/h)
Control factor:	0'85
Control typology:	Central demand control
Maximum internal leakage	3 % (Class A2)
Maximum external leakage	0'9 % (Class A1)
Mixing rate:	Not applicable
Visual filter warning	An alarm is activated in the control, when the unit detects that the filter is clogged**
Unidirectional units:	Not applicable
Unit instructions:	www.emkamf.es

Ductless Units:

Pressure variations:	Not applicable
Tightness:	Not applicable

Annual electricity consumption:

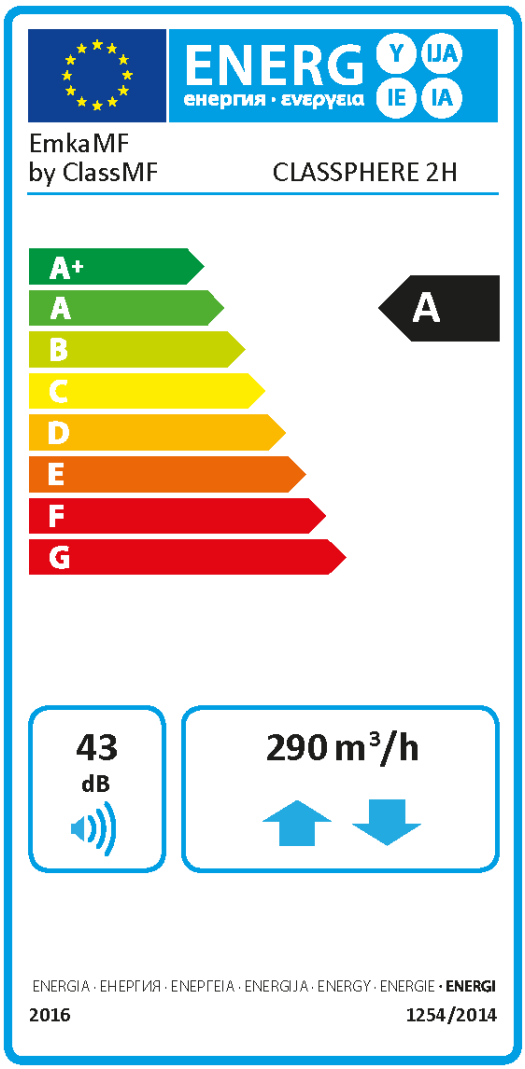
$AEC = t_a \cdot q_{net} \cdot MISC \cdot CTRL^x \cdot SPI + Q_{defr}$

AEC Average climate	317 kWh/a
AEC Cold climate	854 kWh/a
AEC Warm climate	272 kWh/a

Annual heating savings:

$AHS = t_h \cdot \Delta T_h \cdot \eta_h^{-1} \cdot c_{air} \cdot (q_{ref} - q_{net} \cdot CTRL \cdot MISC \cdot (1-\eta_t))$

AHS Average climate	4278 kWh/a
AHS Cold climate	8368 kWh/a
AHS Warm climate	1934 kWh/a



* Specific power input.

** Changing the filters regularly is important for the operation and maintenance of the unit.

Sustainability.

99% RECYCLED

Manufactured in galvanized steel and expanded polystyrene, it allows recycling up to 99% of the unit, and also helps reduce the consumption of resources and the degradation of the planet.

NO CARBON FOOTPRINT

We are committed to helping reduce the gas emissions of the greenhouse effect, collaborating to reduce the impact of climate change in the world.

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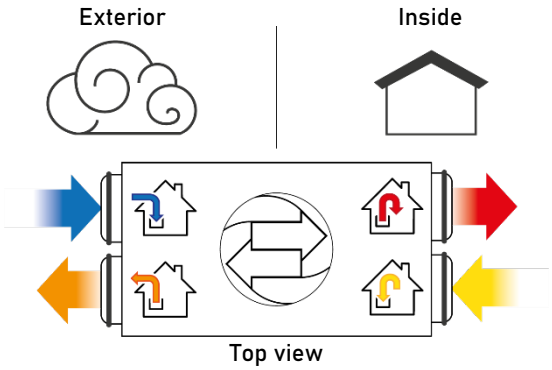
COMMISSION DELEGATED REGULATION (EU) N° 1254/2014 of 11 July 2014

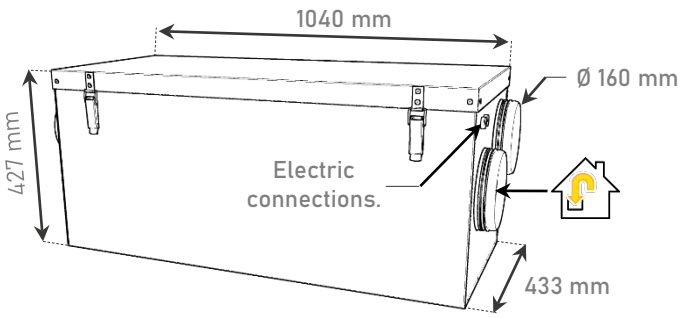
Annual electricity consumption:		Annual economic consumption:	Annual CO_2 emissions:
AEC Average climate	317 kWh/a	69'48 Euros/a	79'2 kg CO_2/kWh/a
AEC Cold climate	854 kWh/a	187'19 Euros/a	213'5 kg CO_2/kWh/a
AEC Warm climate	272 kWh/a	59'62 Euros/a	68'0 kg CO_2/kWh/a
Annual heating savings		**Annual economic savings:**	**Saving of annual CO_2 emissions:**
AHS Average climate	4278 kWh/a	937'73 Euros/a	1069'5 kg CO_2/kWh/a
AHS Cold climate	8368 kWh/a	1834'26 Euros/a	2092'0 kg CO_2/kWh/a
AHS Warm climate	1934 kWh/a	423'93 Euros/a	483'5 kg CO_2/kWh/a

Average price in the US of electricity for home consumers.
Last update: 1 Semester of 2021
€0.2192/kWh. Source: Eurostat.

Emission factor of electrical energy.
Last update April 16, 2021.
0.25kg CO2/kWh. Source: CNMC Spain.

Position identification and dimensions.





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