



CO₂ CONTROL KITS

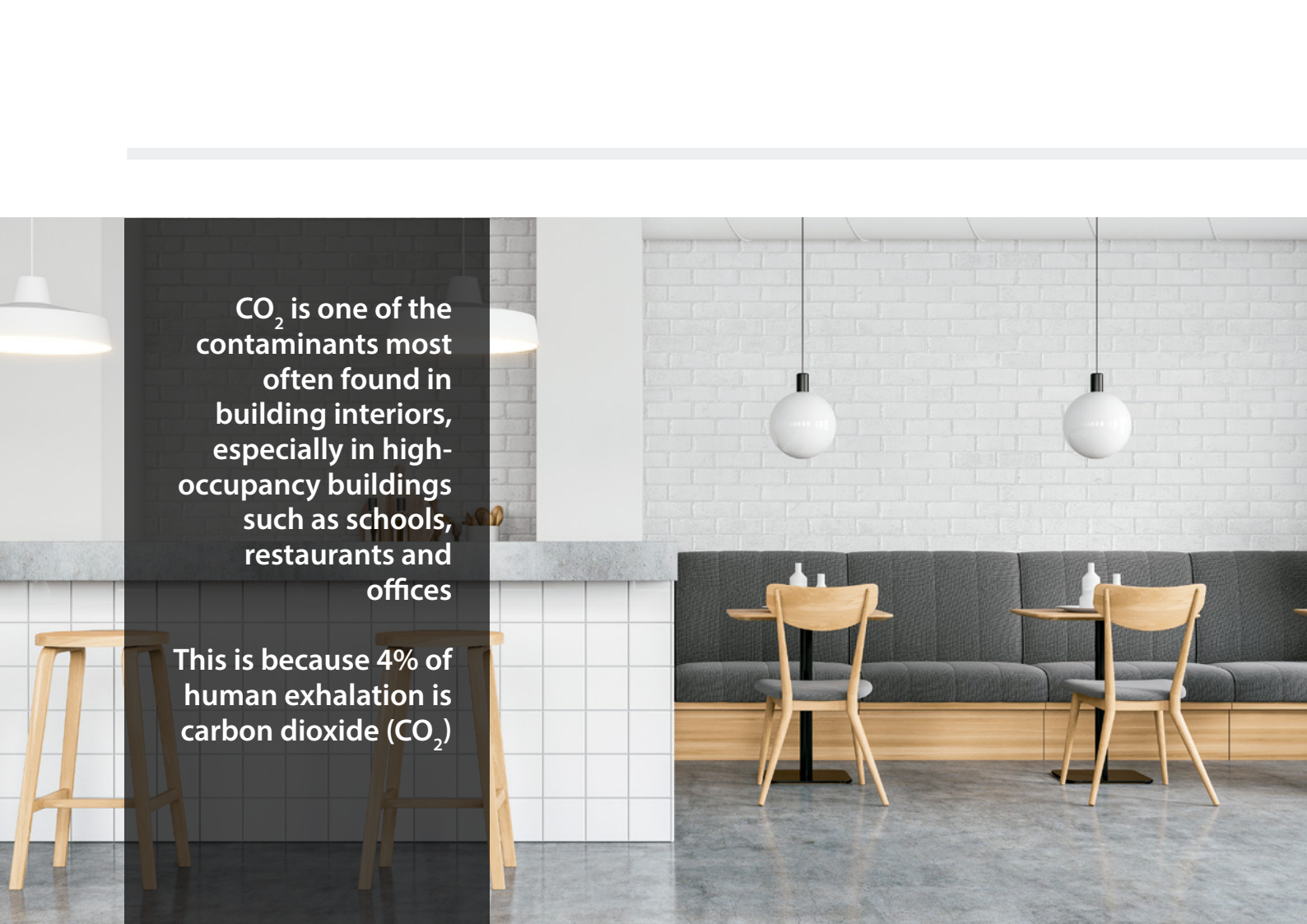
KITS FOR CONTROLLED MONITORING AND VENTILATION,
WITH REGULATION BASED ON THE CO₂ CONCENTRATION



- AUTOMATIC REGULATION BASED ON CO₂ SENSOR READING
- BUILT-IN CO₂ SENSOR
- FAN WITH EC TECHNOLOGY MOTOR
- SIMPLE VENTILATION OR WITH FILTERS



KITS WITH SMART CONTROL FOR
CO₂ REGULATION THROUGH
SIMPLE CMV VENTILATION UNITS WITH FILTERS



CO₂ is one of the contaminants most often found in building interiors, especially in high-occupancy buildings such as schools, restaurants and offices

This is because 4% of human exhalation is carbon dioxide (CO₂)

In closed environments with large volumes of people, where there is inadequate ventilation, the amount of CO₂ gradually increases. This increase in CO₂ leads to headaches, fatigue, loss of concentration and a reduction in performance. Measuring and reducing it in closed areas is **essential to maintain the good quality of the interior air**, prevent respiratory diseases and maintain a healthy environment.

The more efficient and effective way to reduce CO₂ in closed areas is to ventilate them by means of controlled mechanical ventilation systems.

BENEFITS OF CONTROLLED MECHANICAL VENTILATION

- 01. Reduction in the air-conditioning system energy consumption**, as ventilation is only used when necessary.
- 02. Reduction in the ventilation system energy consumption**, as the fan is regulated based on the CO₂ reading.
- 03. Possibility of maintaining a constant CO₂ level.**
- 04. Automation of the system**, making human intervention unnecessary.
- 05. Possibility of directing the flow to ensure the homogeneity of the interior air quality.**

The SODECA kits developed for automatic CO₂ regulation are described below.

SIMPLE
CO₂ REDUCTION KIT

This kit is appropriate for installations where indoor areas can be ventilated by **supplying external unprocessed air.**

KIT SVE/ PLUS-CO2

CO₂ reduction kit formed by a smart surface control and an in-line exhaust fan for circular ducts with a low noise level and EC Technology motor.



CO₂ REDUCTION KIT
WITH FILTERS

This kit is appropriate for installations where it is necessary **to filter the external air supplied for ventilating** an indoor area.

KIT SV/ FILTER-CO2

CO₂ reduction kit formed by a smart surface control and a series of filtering units for circular ducts with a low noise level, different filtering phases and EC Technology motor.



CAP-CO2/EC



The CAP-CO2/EC control panel is ideal for air ventilation systems fitted with EC Technology motors with the electronics built-in to the motor itself.

This control incorporates all the functions required for automatic regulation of the ventilation system, adjusting the rotational speed parameters of the fan based on the sensor reading and the objective CO₂ value.

There are **two control options**: a simple one called CAP-CO2/EC-S and another with Wi-Fi connectivity called CAP-CO2/EC-W.

CAP-CO2/EC-S

The CAP-CO2/EC-S is a wall-mounted control with the following features:



Proportional regulation based on set point and CO₂ measurement



Time programming



Built-in CO₂ sensor

CAP-CO2/EC-W

The CAP-CO2/EC-W has all the above features and is also fitted with a Wi-Fi system that permits cloud connection through the platform.



Remote control



Wi-Fi



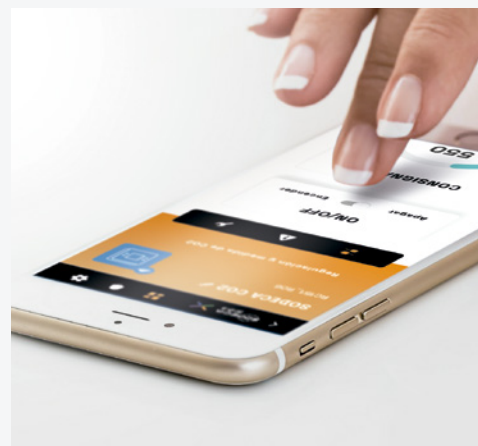
Data monitoring



Secure environment

The platform covers the extensive IoT field for monitoring data received from the equipment, as well as offering the possibility of acting with respect to said data. The ecosystem is made up of the IoT hardware, servers, cloud controls and the different user interfaces for interacting with the equipment.

All the above is developed and designed to take place in a secure environment, protected by a legal framework that provides the customer with a compact, functional and safe end product.



KIT SVE/PLUS-CO2

Simple CO₂ reduction kit



Simple CO₂ reduction kit consisting of an intelligent surface control and a series of in-line duct extractors.

Fan:

- Acoustic casing covered with sound absorbing material.
- All models equipped with a backward curved impeller.
- Standardised inlet and outlet flanges allowing for easy installation in ducts.
- Fitted with a folding inspection hatch.
- Support feet integrated into the box which facilitates its assembly.
- Linear airflow direction.

Control:

- Proportional regulation according to setpoint and CO₂ measurement.
- Time programming.
- Wall-mounted.
- Integrated CO₂ sensor.
- Power supply 230 V 50/60 Hz.
- Version W: with WiFi connectivity.

Motor:

- EC Technology external rotor motors with high efficiency and built-in variable speed drive controlled by 0-10 V signal.
- Single-phase 200-240 V 50/60 Hz, IP54 protection. Except KIT SVE/PLUS-CO2-400 model, 200-277 V 50/60 Hz. IP55 protection.
- Maximum temperature of air to be carried: -25 °C +60 °C. Except model KIT SVE/PLUS-CO2-200, -25 °C +45 °C.

Finish:

- Anti-corrosive in galvanized steel sheet.

Order code

KIT SVE/PLUS-CO2 – 100 – W

KIT SVE/PLUS-CO2: Simple CO₂ reduction kit

Nozzle diameter in mm

Control options
S: Single
W: with WiFi connectivity

Technical characteristics

Model	Speed (r/min)	Maximum admissible current (A)	Max. electric power	Maximum flow rate	Sound pressure level at 50% of max speed.*	Approx. weight (Kg)	According ErP
		230V	(kW)	(m ³ /h)	dB (A)		
KIT SVE/PLUS-CO2-100	3570	1.01	0.12	399	38	11	2018
KIT SVE/PLUS-CO2-125	3570	1.01	0.12	480	36	11	2018
KIT SVE/PLUS-CO2-150	3570	1.01	0.12	498	33	11	2018
KIT SVE/PLUS-CO2-160	3570	1.01	0.12	534	31	11	2018
KIT SVE/PLUS-CO2-200	3265	1.35	0.18	948	36	14	2018
KIT SVE/PLUS-CO2-250	2850	1.35	0.18	1187	38	14	2018
KIT SVE/PLUS-CO2-315	1920	1.35	0.18	1430	29	23	2018
KIT SVE/PLUS-CO2-350	1460	1.45	0.19	1983	35	32	2018
KIT SVE/PLUS-CO2-400	1550	2.00	0.46	2856	38	39	2018

* Irradiated sound pressure level in dB(A) at a distance of 1.5 m and at maximum flow rate.



Erp. (Energy Related Products)

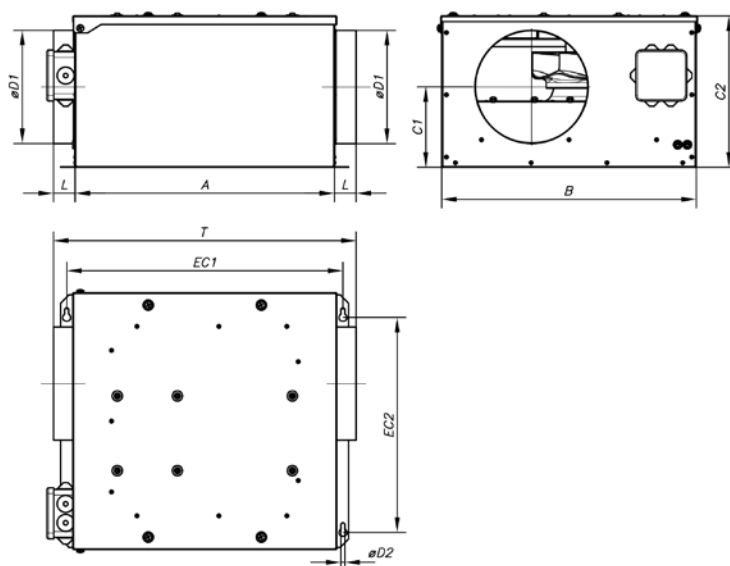
Information on Directive 2009/125/EC can be downloaded from the SODECA website or the QuickFan selector programme.

Acoustic characteristics

Sound power spectrum Lw(A) in dB(A) per Hz frequency band
Irradiated values at maximum speed and medium flow rate.

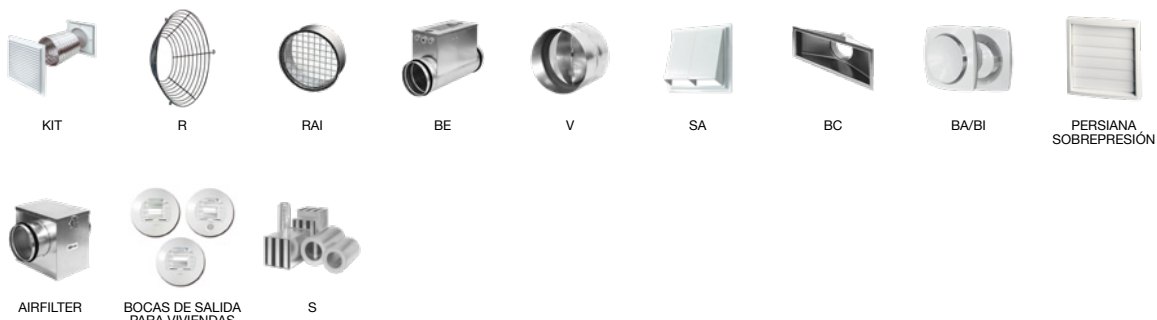
	63	125	250	500	1000	2000	4000	8000
KIT SVE/PLUS-CO2-100	38	43	45	47	49	53	47	43
KIT SVE/PLUS-CO2-125	37	43	45	48	50	53	48	44
KIT SVE/PLUS-CO2-150	32	42	41	51	44	44	44	40
KIT SVE/PLUS-CO2-160	33	43	42	47	45	46	45	41
KIT SVE/PLUS-CO2-200	50	50	43	50	44	42	45	45
KIT SVE/PLUS-CO2-250	46	44	43	45	55	35	34	30
KIT SVE/PLUS-CO2-315	30	44	33	32	44	25	24	19
KIT SVE/PLUS-CO2-350	37	50	40	42	36	29	26	14
KIT SVE/PLUS-CO2-400	37	52	41	42	34	29	27	27

Dimensions mm



	A	B	C1	C2	øD1	L	øD2	EC1	EC2	T
KIT SVE/PLUS-CO2-100	380	380	174.5	255	100	37.5	7	405	305	455
KIT SVE/PLUS-CO2-125	380	380	164.5	255	125	37.5	7	405	305	455
KIT SVE/PLUS-CO2-150	380	380	160	255	150	37.5	7	405	305	455
KIT SVE/PLUS-CO2-160	380	380	155	255	160	37.5	7	405	305	455
KIT SVE/PLUS-CO2-200	460	450	140	265	200	37.5	7	485	380	535
KIT SVE/PLUS-CO2-250	460	450	165	310	250	52.5	7	485	380	565
KIT SVE/PLUS-CO2-315	565	540	210	390	315	57.5	9	595	440	680
KIT SVE/PLUS-CO2-350	650	600	265	465	350	57.5	9	680	525	765
KIT SVE/PLUS-CO2-400	650	680	280	500	400	80	9	680	600	810

Accessories

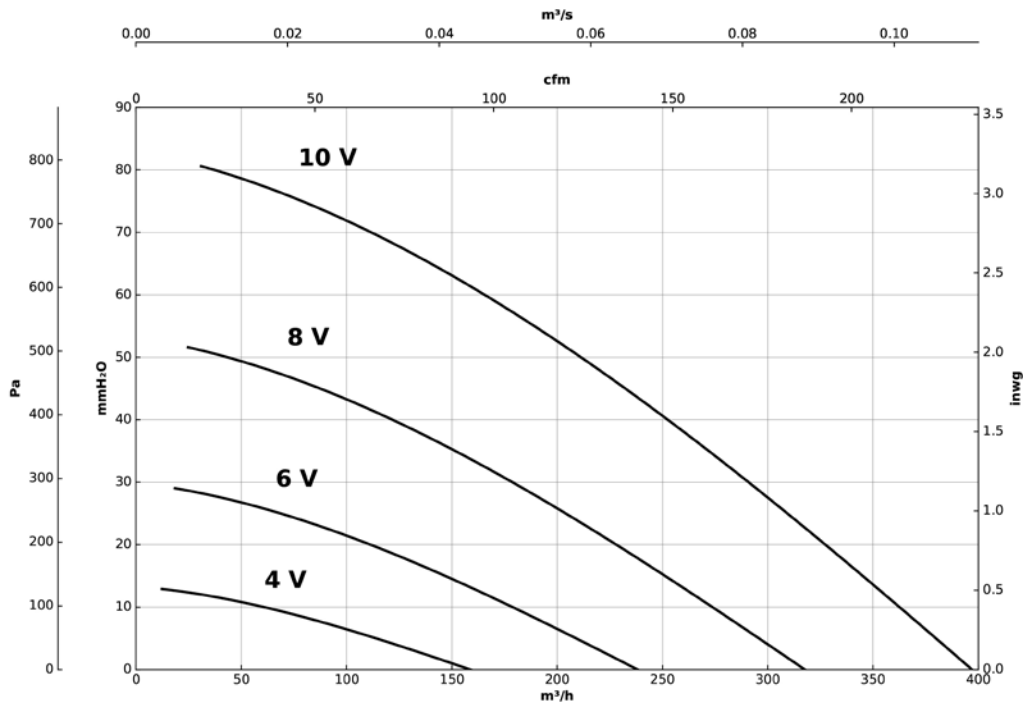


Characteristic curves

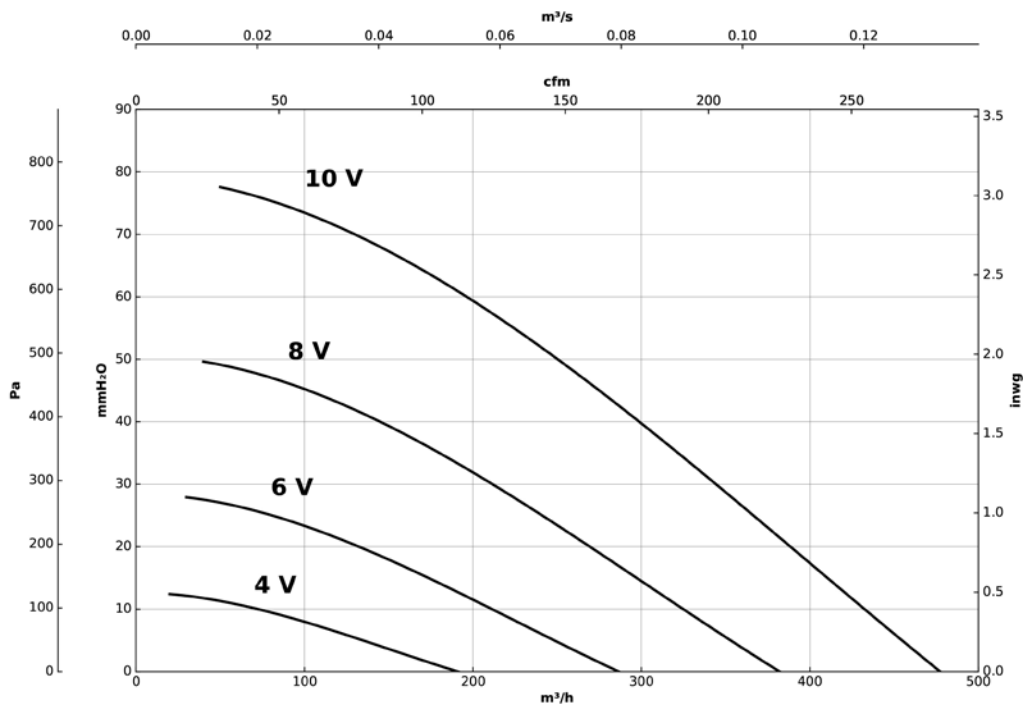
Q= Flow rate in m³/h, m³/s and cfm

Pe= Static pressure in mm H₂O, Pa and inwg

KIT SVE/PLUS-CO2-100



KIT SVE/PLUS-CO2-125

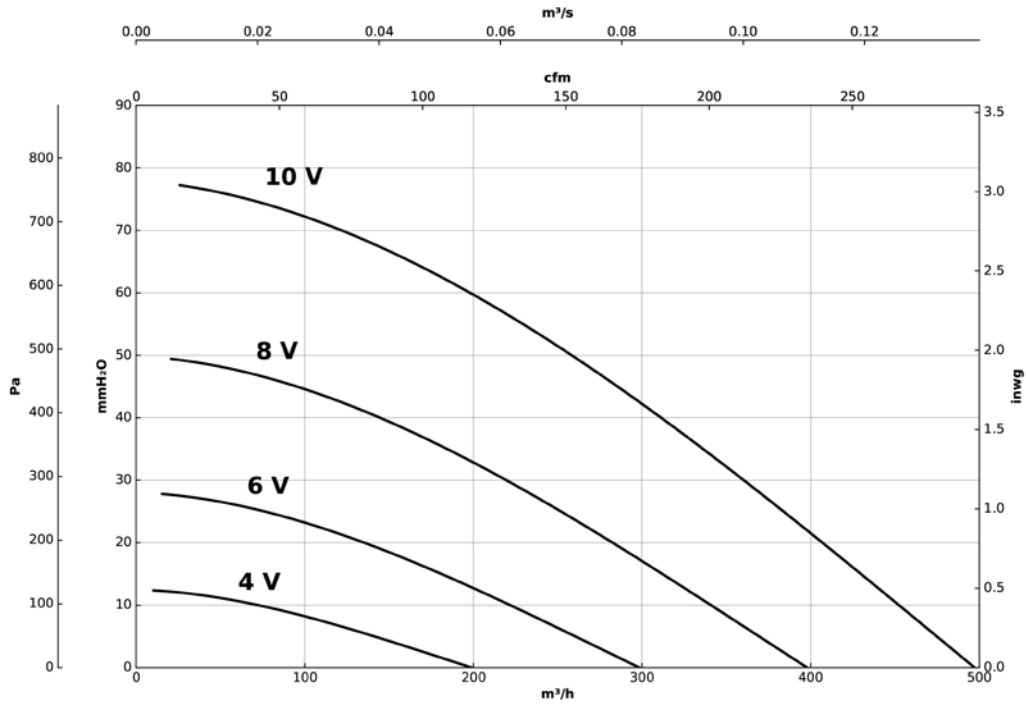


Characteristic curves

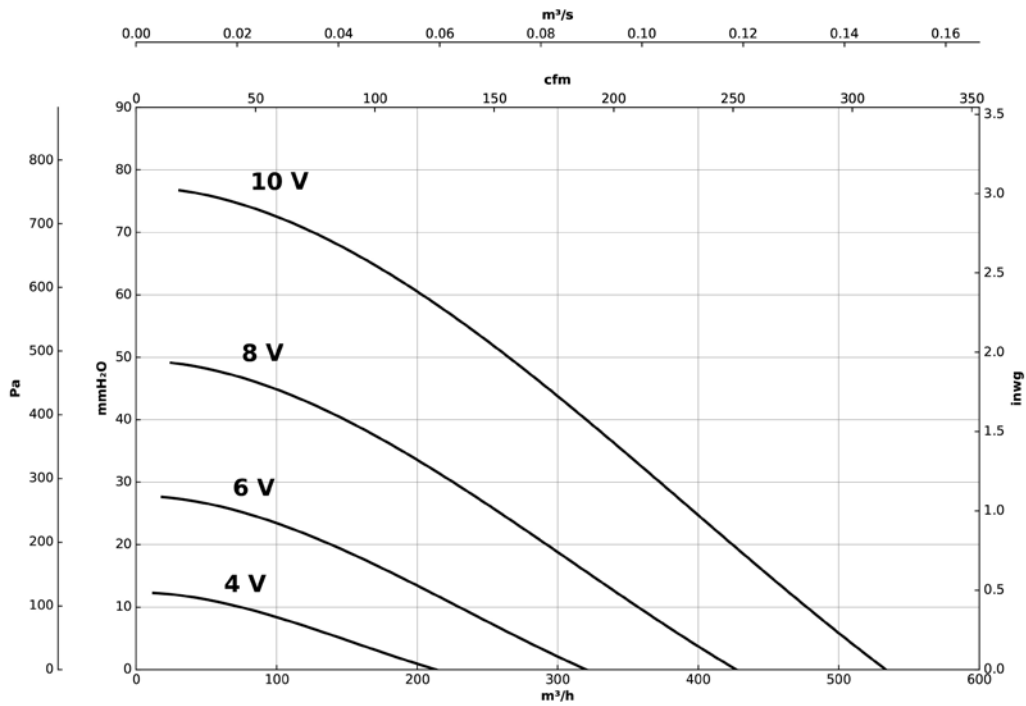
Q= Flow rate in m³/h, m³/s and cfm

Pe= Static pressure in mm H₂O, Pa and inwg

KIT SVE/PLUS-CO2-150



KIT SVE/PLUS-CO2-160

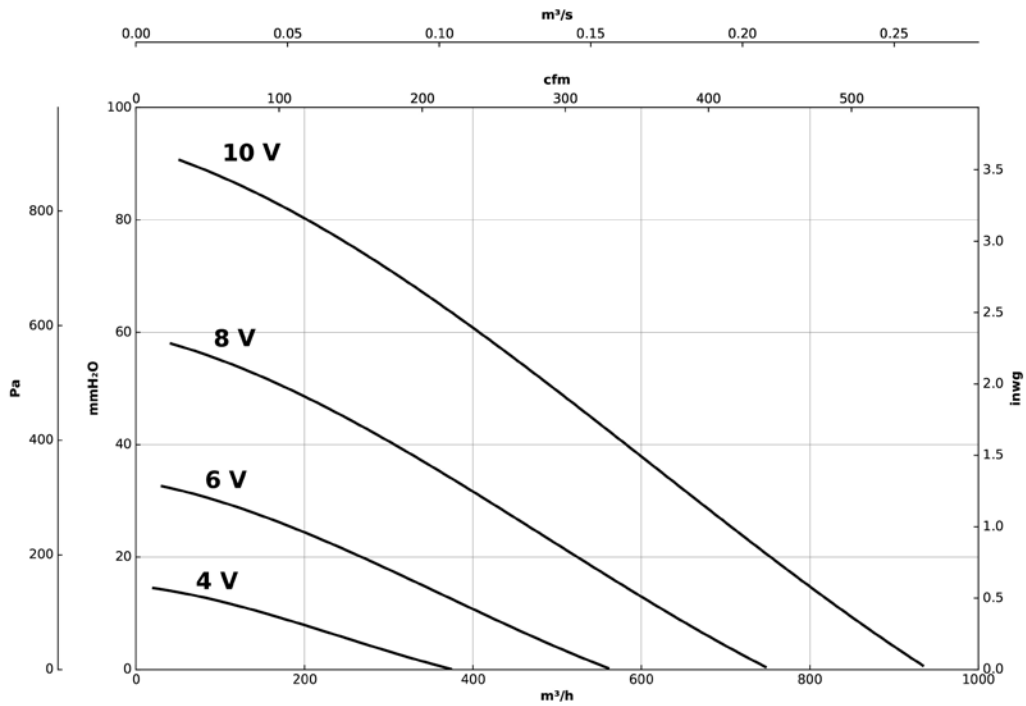


Characteristic curves

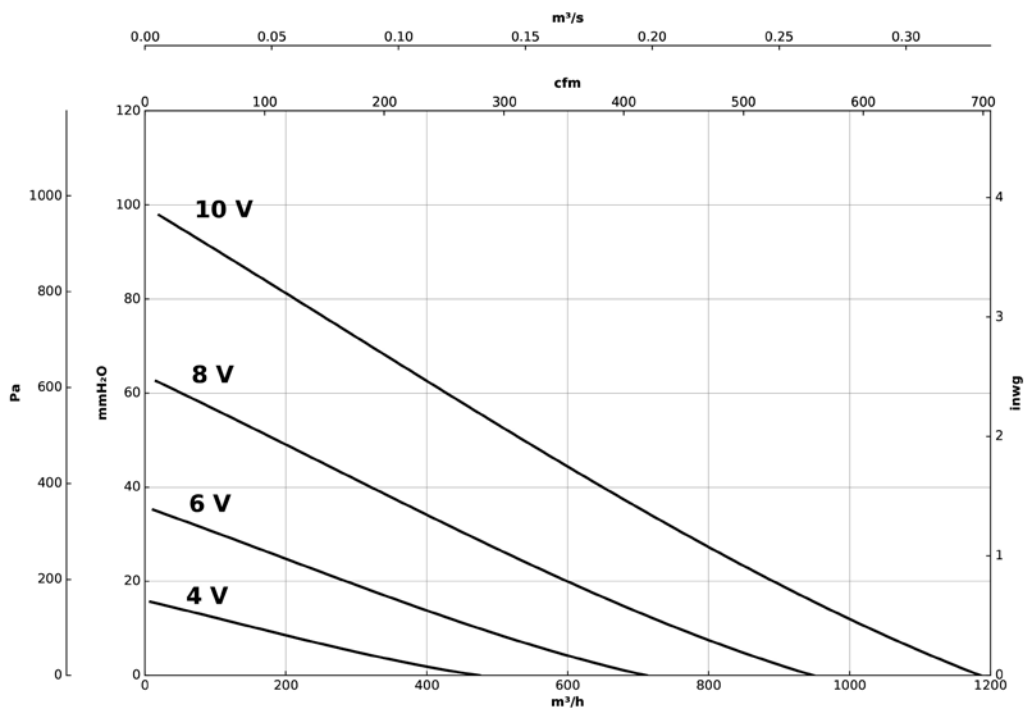
Q= Flow rate in m³/h, m³/s and cfm

Pe= Static pressure in mm H₂O, Pa and inwg

KIT SVE/PLUS-CO2-200



KIT SVE/PLUS-CO2-250

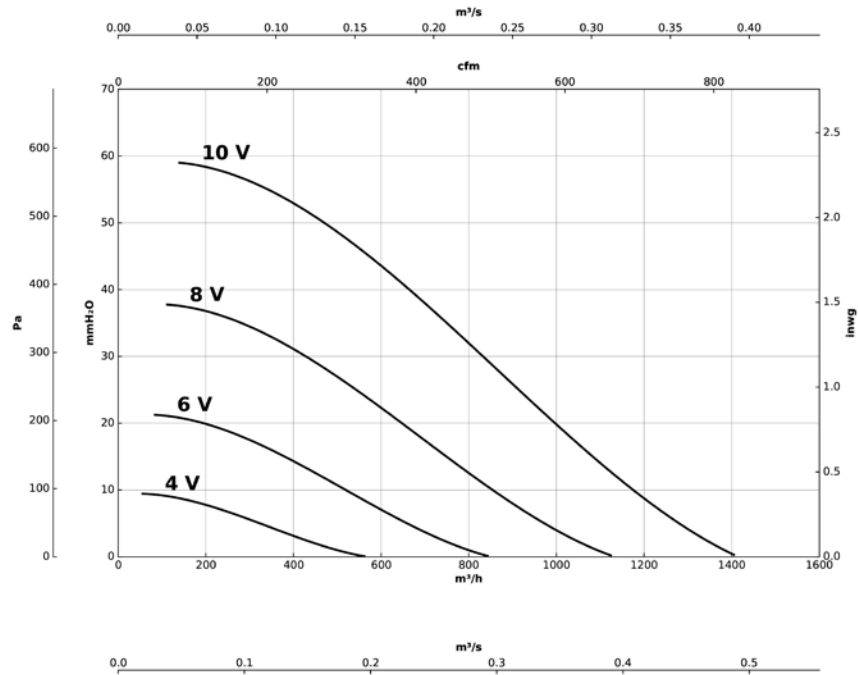


Characteristic curves

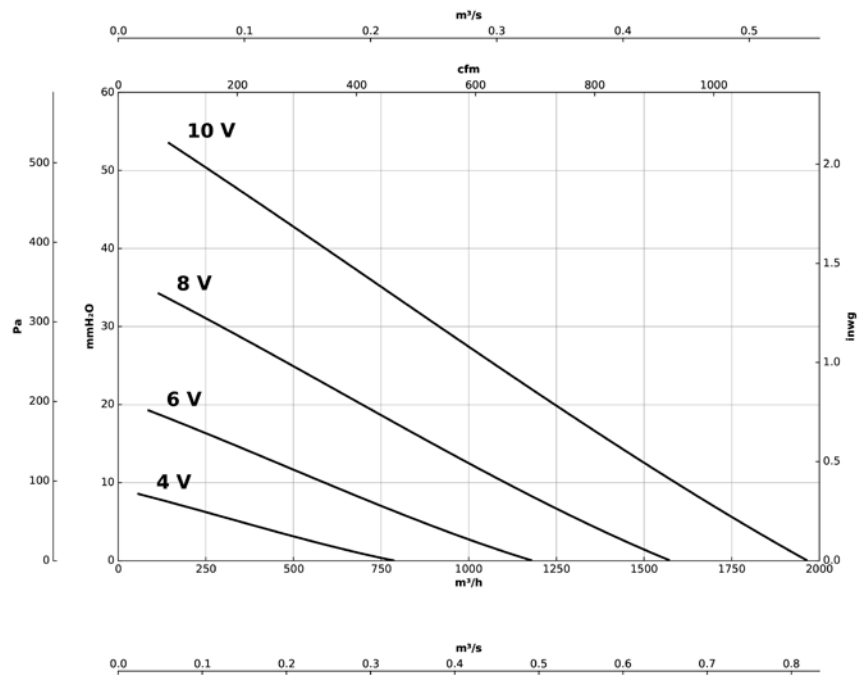
Q= Flow rate in m³/h, m³/s and cfm

Pe= Static pressure in mm H₂O, Pa and inwg

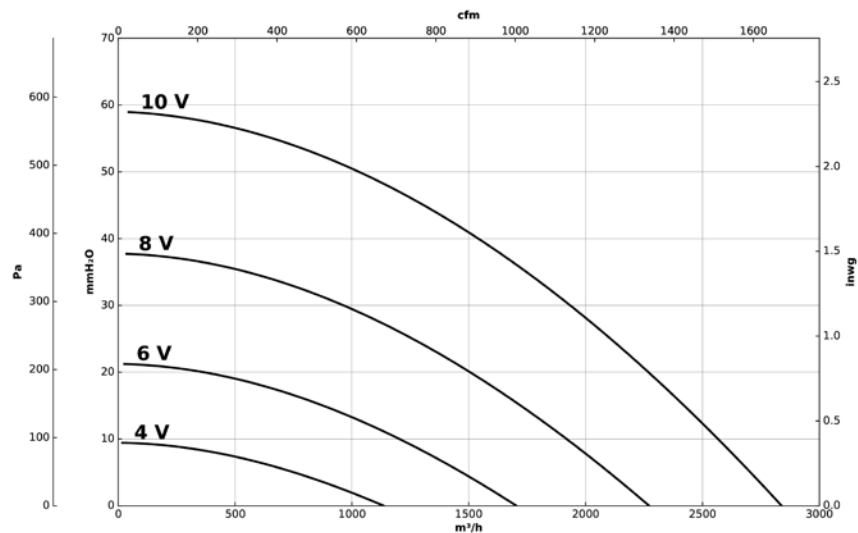
KIT SVE/PLUS-CO2-315



KIT SVE/PLUS-CO2-350



KIT SVE/PLUS-CO2-400



KIT SV/FILTER-CO2

CO₂ reduction kit with filtration



CO₂ reduction kit with filtration consisting of an intelligent surface control and a series of filtration units for circular ducts.

Fan:

- Acoustic casing covered with sound absorbing material.
- Standardised inlet and outlet flanges with watertight joints.
- F7 + F9 filters. Other combinations on request.
- Easy access inspection and cleaning cover with manual fasteners.
- Centrifugal fan with a backward curved impeller.
- Integrated support into the box which facilitates its assembly.
- Linear airflow direction.
- 3 pressure taps for individual control of the two filtration stages.
- Installation in any position.
- With guide slot for 48 mm prefilter.
- More efficient filter anti-by-pass adjustment.

Control:

- Proportional regulation according to setpoint and CO₂ measurement.
- Time programming.
- Wall-mounted.
- Integrated CO₂ sensor.
- Power supply 230 V 50/60 Hz.
- Version W: with WiFi connectivity.

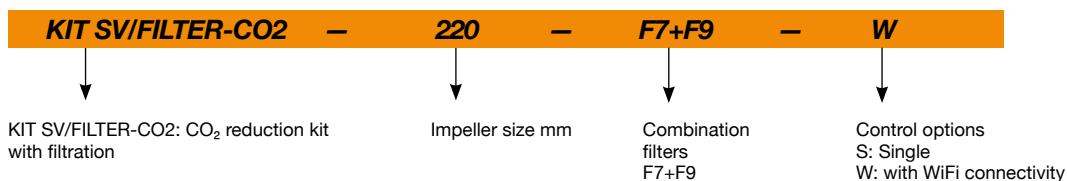
Motor:

- High efficiency external rotor EC Technology motors, adjustable via 0-10 V signal.
- Single-phase 220-240 V 50/60 Hz, IP54 protection.
- Maximum temperature of air to be carried: -25 °C +60 °C.

Finish:

- Anti-corrosive in galvanized steel sheet.

Order code



Technical characteristics

Model	Speed	Maximum admissible current (A)	Maximum power	Maximum flow rate (m ³ /h)	Sound pressure level at 50% of max speed.*	Approx. weight (Kg)	According ErP
	(r/min)	230V	(kW)	F7+F9	dB (A)		
KIT SV/FILTER-CO2-150	3540	0.97	0.12	527	38	14	2018
KIT SV/FILTER-CO2-200	3265	1.35	0.18	734	45	17	2018
KIT SV/FILTER-CO2-250	2850	1.35	0.18	850	49	19	2018
KIT SV/FILTER-CO2-315	2320	2.00	0.45	1806	52	34	2018
KIT SV/FILTER-CO2-350	1460	1.45	0.19	1382	42	39	2018
KIT SV/FILTER-CO2-400	1700	4.70	0.75	3024	52	66	2018

* Irradiated sound pressure level in dB(A) at a distance of 1 m.



Erp. (Energy Related Products)

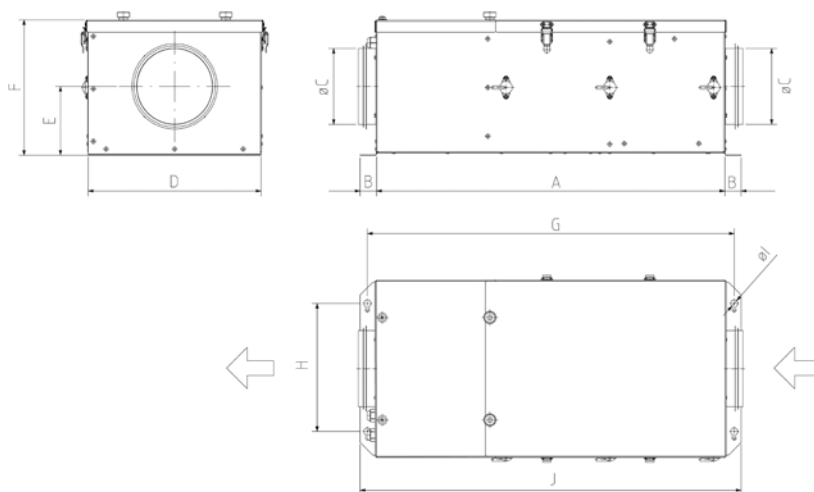
Information on Directive 2009/125/EC can be downloaded from the SODECA website or the QuickFan selector programme.

Acoustic characteristics

Sound power spectrum $L_w(A)$ in dB(A) per Hz frequency band
Irradiated values at maximum speed and medium flow rate.

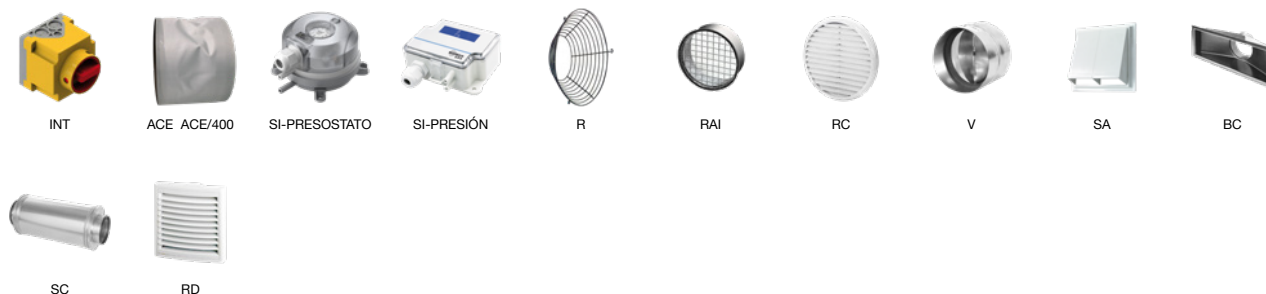
	63	125	250	500	1000	2000	4000	8000
KIT SV/FILTER-CO2-150	56	52	56	54	48	43	39	33
KIT SV/FILTER-CO2-200	63	59	63	61	55	50	46	40
KIT SV/FILTER-CO2-250	67	63	67	65	59	54	50	44
KIT SV/FILTER-CO2-315	69	66	70	67	61	57	53	47
KIT SV/FILTER-CO2-350	59	56	60	58	53	50	47	41
KIT SV/FILTER-CO2-400	70	66	70	68	62	57	53	47

Dimensions mm



	A	B	ØC	D	E	F	G	H	ØI	J
KIT SV/FILTER-CO2-150	680	34.5	150	340	134.5	262.5	715	250	14	750
KIT SV/FILTER-CO2-200	700	38.5	200	395	152	300	735	290	14	780
KIT SV/FILTER-CO2-250	750	48.5	250	420	162	323	785	335	14	850
KIT SV/FILTER-CO2-315	830	58	310	520	202	404	865	435	14	950
KIT SV/FILTER-CO2-350	920	56	350	610	223.5	446	955	525	14	1030
KIT SV/FILTER-CO2-400	1000	60.5	400	670	251.5	505.5	1030	575	14	1120

Accessories

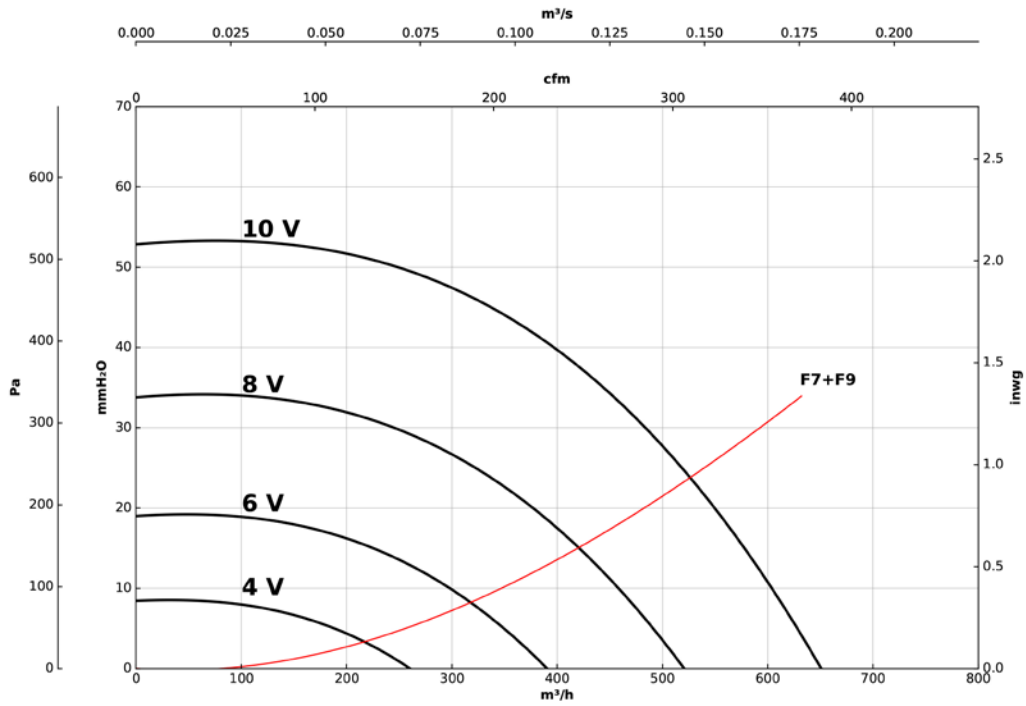


Characteristic curves

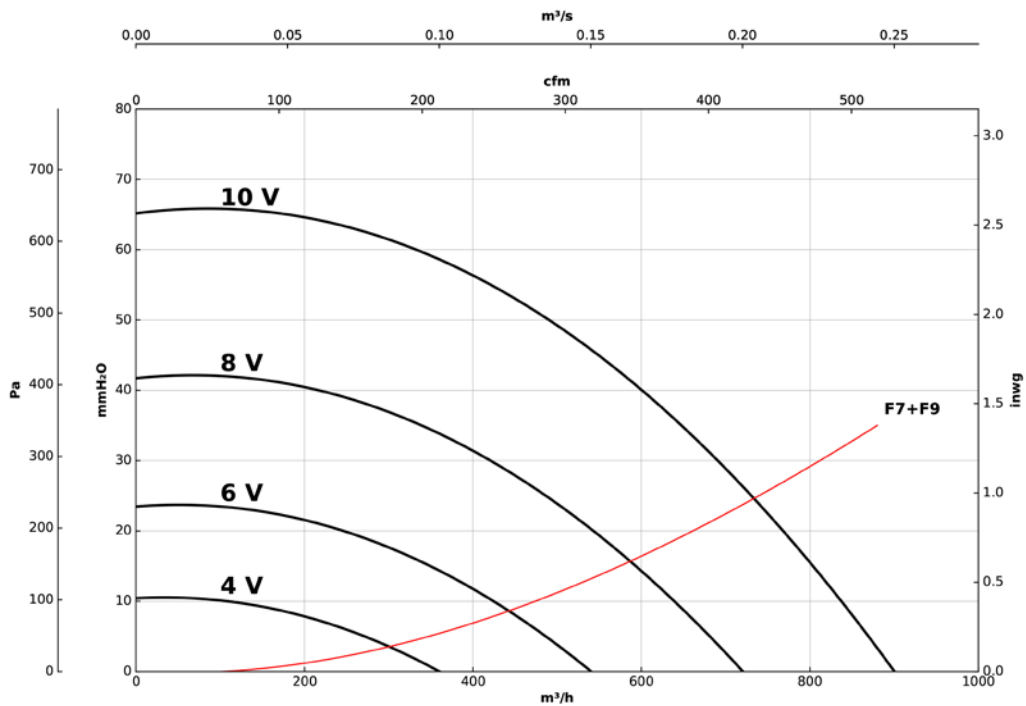
Q= Flow rate in m³/h, m³/s and cfm

Pe= Static pressure in mm H₂O, Pa and inwg

KIT SV/FILTER-CO2-150



KIT SV/FILTER-CO2-200

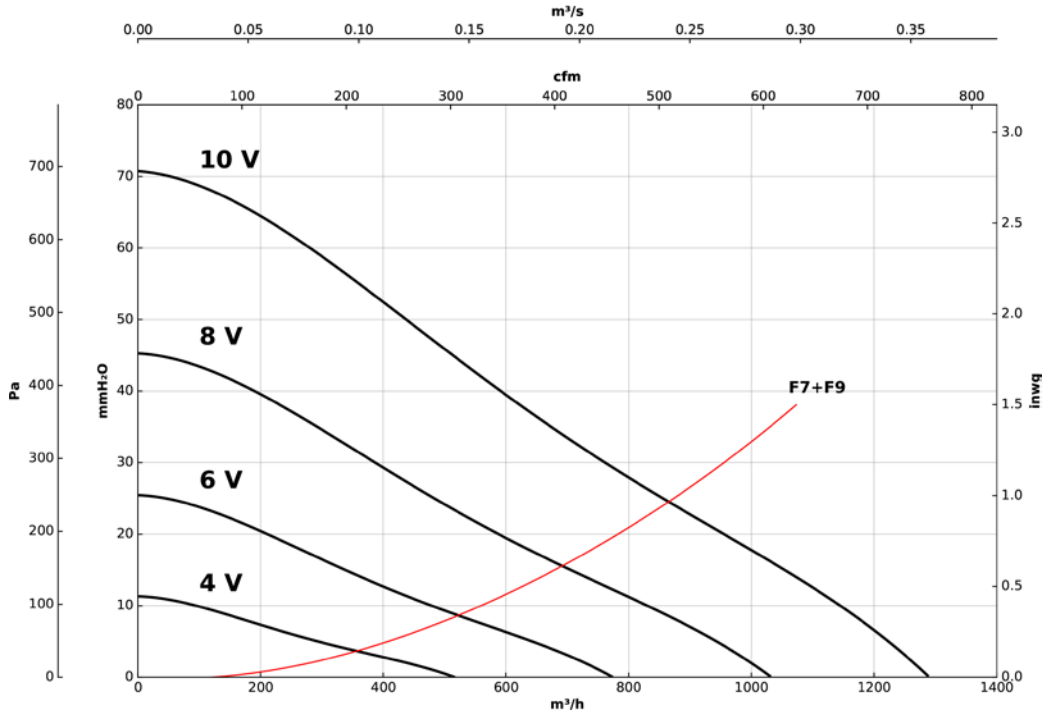


Characteristic curves

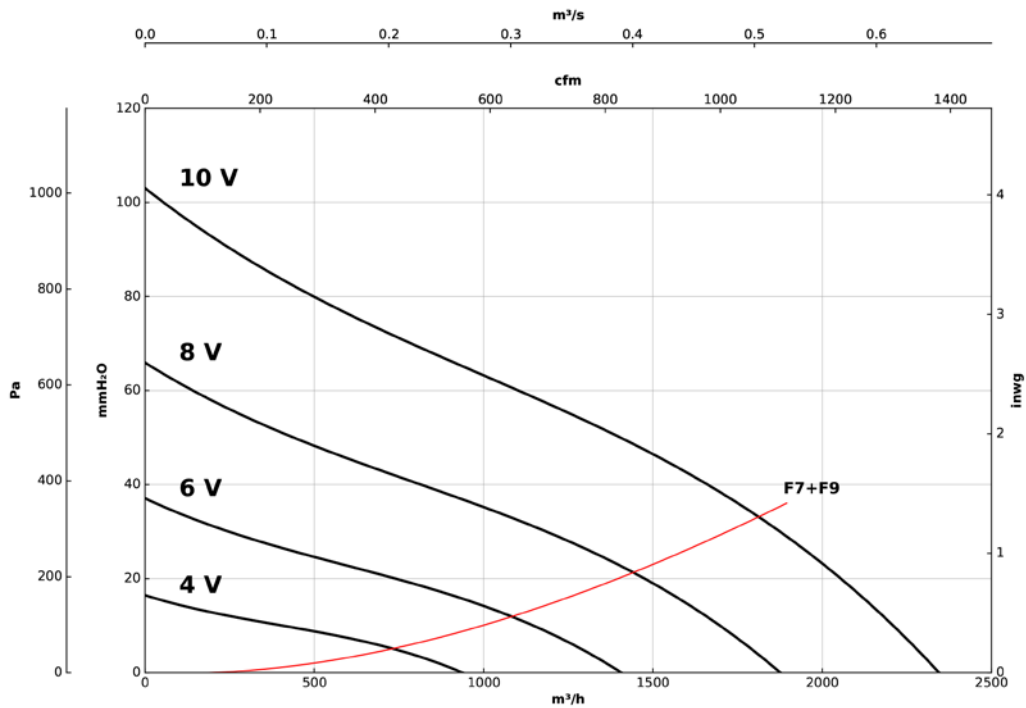
Q= Flow rate in m³/h, m³/s and cfm

Pe= Static pressure in mm H₂O, Pa and inwg

KIT SV/FILTER-CO2-250



KIT SV/FILTER-CO2-315

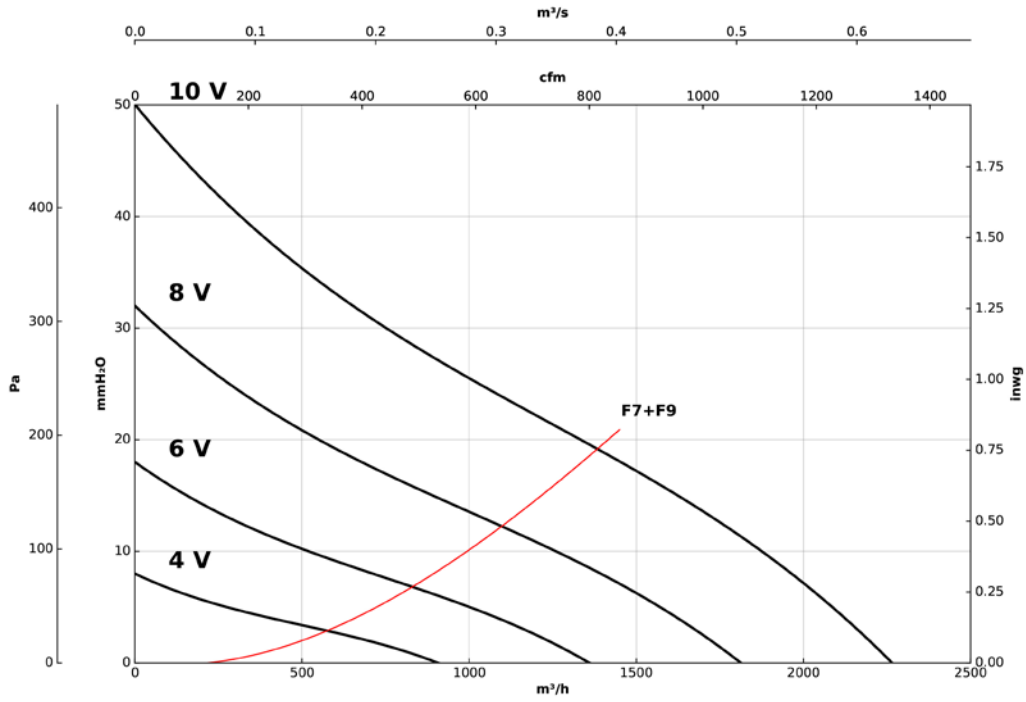


Characteristic curves

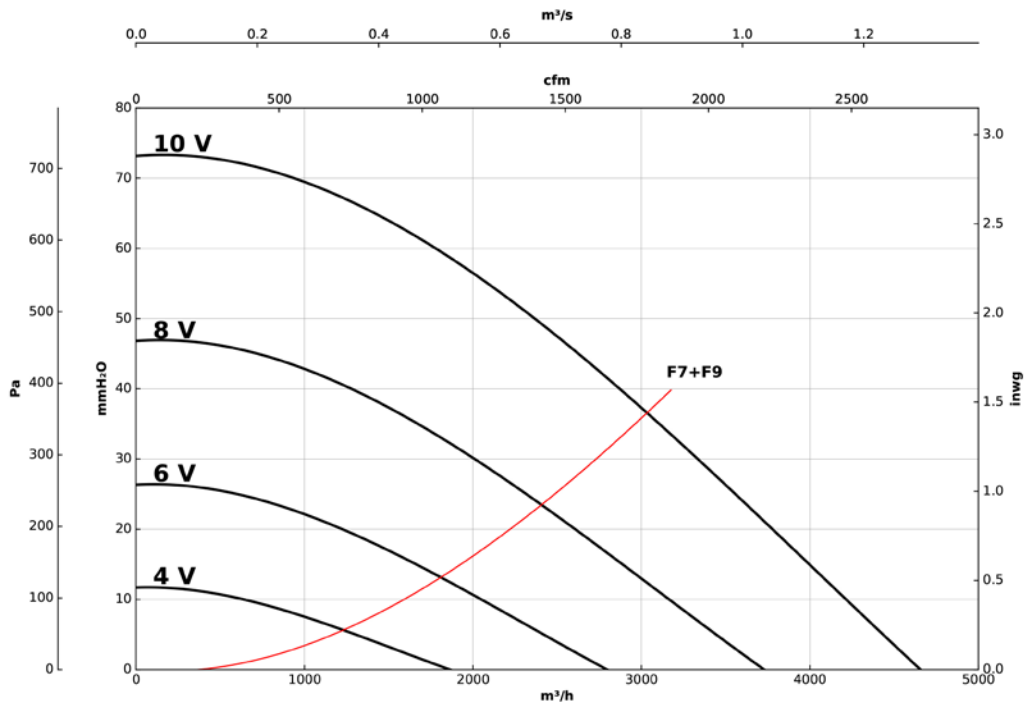
Q= Flow rate in m³/h, m³/s and cfm

Pe= Static pressure in mm H₂O, Pa and inwg

KIT SV/FILTER-CO2-350



KIT SV/FILTER-CO2-400





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