Centrifugal roof-mounted extract fans, sound-insulated and with EC Technology motor

VTA/EC

- High efficiency.
- Easy to install and maintain.
- Low noise level.
- Control for monitoring the operation of the equipment.

EC TECHNOLOGY

CE ACCORDING ErP 2018

Efficient solution for air extraction in buildings

SODECA VTA/EC centrifugal roof-mounted extract fans guarantee an efficient and quiet ventilation, optimising comfort and indoor air quality with state-of-the-art technology

Low noise level

Low noise level, for noise reduction through high quality insulating materials.

Control

With a specific alarm status controller for EC Technology motors, to monitor the operation of the equipment effectively.

Energy savings

The high-perfomance EC Technology electric motor is a key element in the reduction of electrical consumption, in addition to being easily adjustable with any 0-10V regulator.

Easy to install and to maintain

Designed for easy installation and acces for cleaning and maintenance.

Architectural integration

Designed to blend in with the building, with the option of choosing the colour of the finish.

APPLICATIONS

Shopping centres, residential buildings, offices, hotels and buildings that require efficient ventilation and minimum noise emission.

Construction aspects

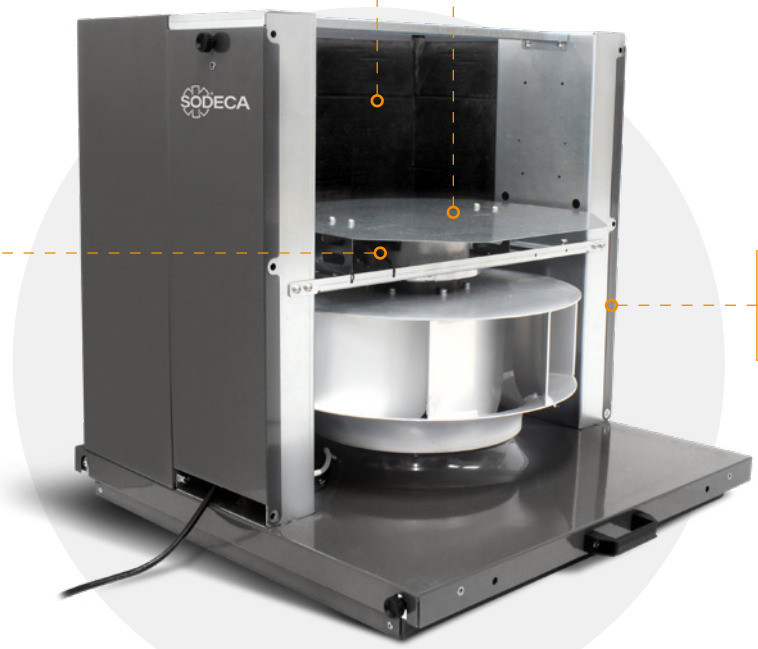
Anchorages for easy transport and installation

Galvanised steel coated with an **anti-corrosion layer** providing corrosion protection of category C5 according to the EN ISO 12944-2

Cover for **easy acces** to the junction box

Sound insulation, with a thickness of 25mm of mineral wool, placed around the entire perimeter of the casing

Motor protection to prevent the ingress of water or air



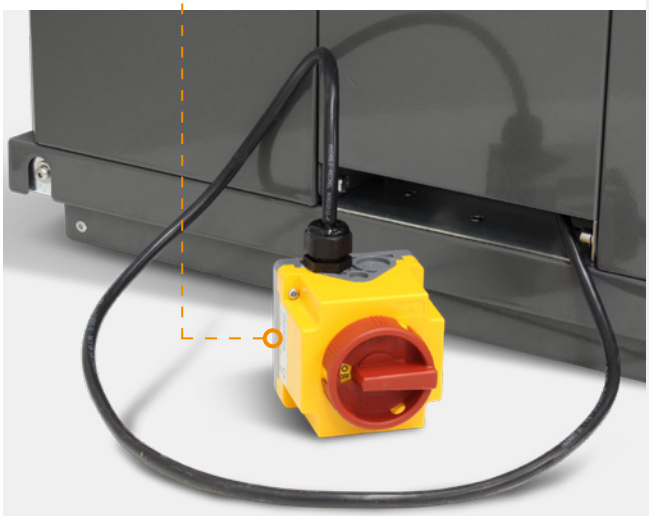
Fully **demountable** equipment

High efficiency **EC Technology** motor

Easy installation

The unit is fixed to the roof with an opening mechanism by screws.

It has a **maintenance switch**.



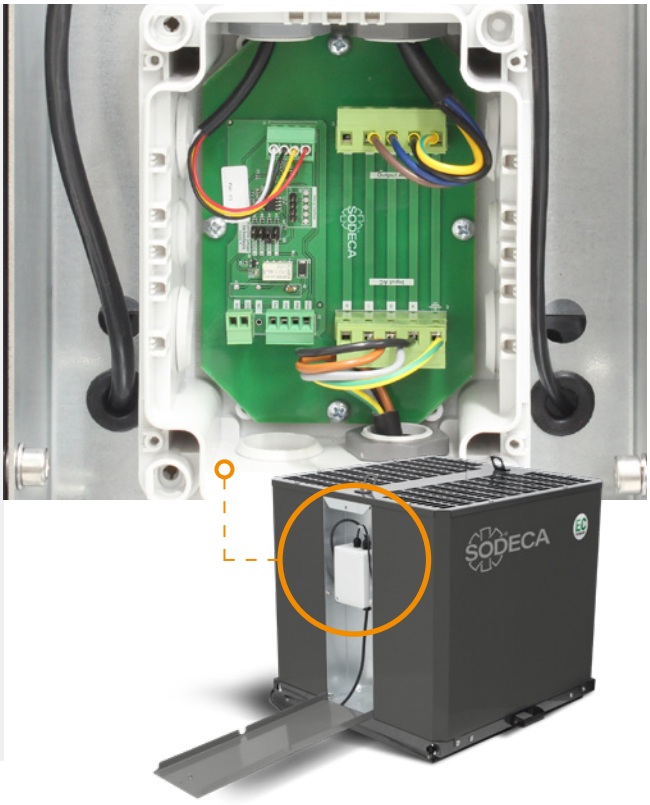
Easy maintenance

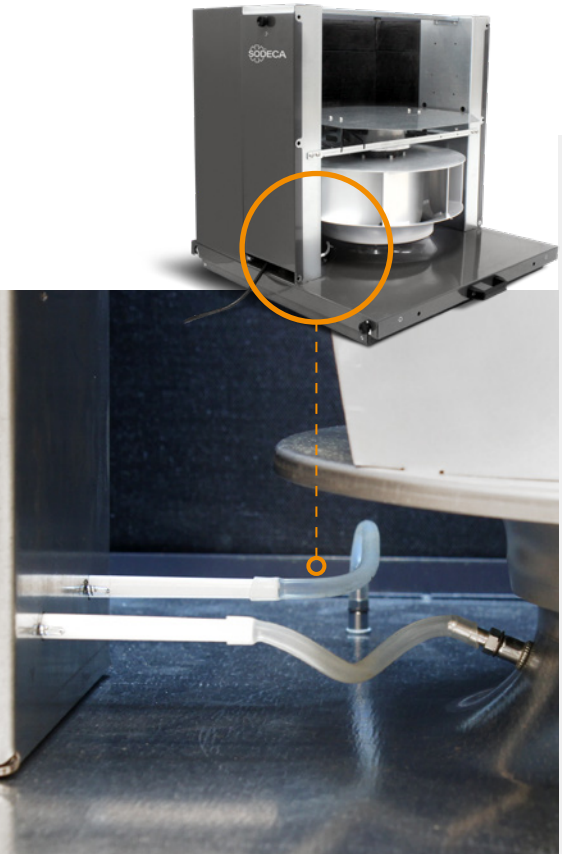
Opening mechanism with access to the suction duct and to the turbine for **maintenance and cleaning of the unit.**

Control

The equipment has a specific alarm status controller for EC Technology motors, **to monitor the operation** of the unit effectively.

This system will detect and report any equipment failure or malfunction, allowing rapid action to solve the problem.





Air flow measurement

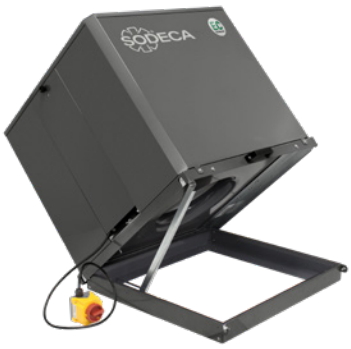
Equipped with pressure taps for **automatic control** of flow rate or constant pressure.

Accessories

The equipment can be fixed on a base if it is not possible to fix it directly to the roof.

VTA/EC

Centrifugal roof exhaust fans, sound insulated and equipped with EC Technology motor



Fan:
- Backward curved impeller in aluminum sheet, except models 190 and 250 in plastic.
- Foldable casing for ease of inspection and maintenance.
- Vertical discharge.
- Prepared with pressure taps for automatic flow or pressure control.
- Mineral wool insulation with high acoustic attenuation performance.
- Safety switch included, with 1.5 metre cable.
- Status display for all models.
- Motor cover to prevent water and snow to enter the duct.

Motor:
- EC Technology external rotor motors with integrated speed controller, controllable via PWM and 0-10 V signals.
- IP54 protection.
- Single-phase 230 V 50/60 Hz and three-phase 400 V 50/60 Hz.
- Maximum temperature of air to be carried: -25 ºC +50 ºC.

Finish:
- All metal parts of the equipment are made of galvanised sheet steel.
- The parts exposed to the elements are coated with a layer of Epoxy powder primer, followed by a layer of RAL 7024 polyester powder paint. Anti-corrosion protection category C5H, according to EN ISO 12944-2.

On request:
- Any other RAL can be supplied.

Order code

VTA/EC	***–***	***310***	***–***	***M***	***/***	***L***
VTA/EC: Centrifugal roof exhaust fans, sound insulated and equipped with EC Technology motor		Size		T = Three-phase M = Single-phase		L: Low speed H: High speed

Technical characteristics

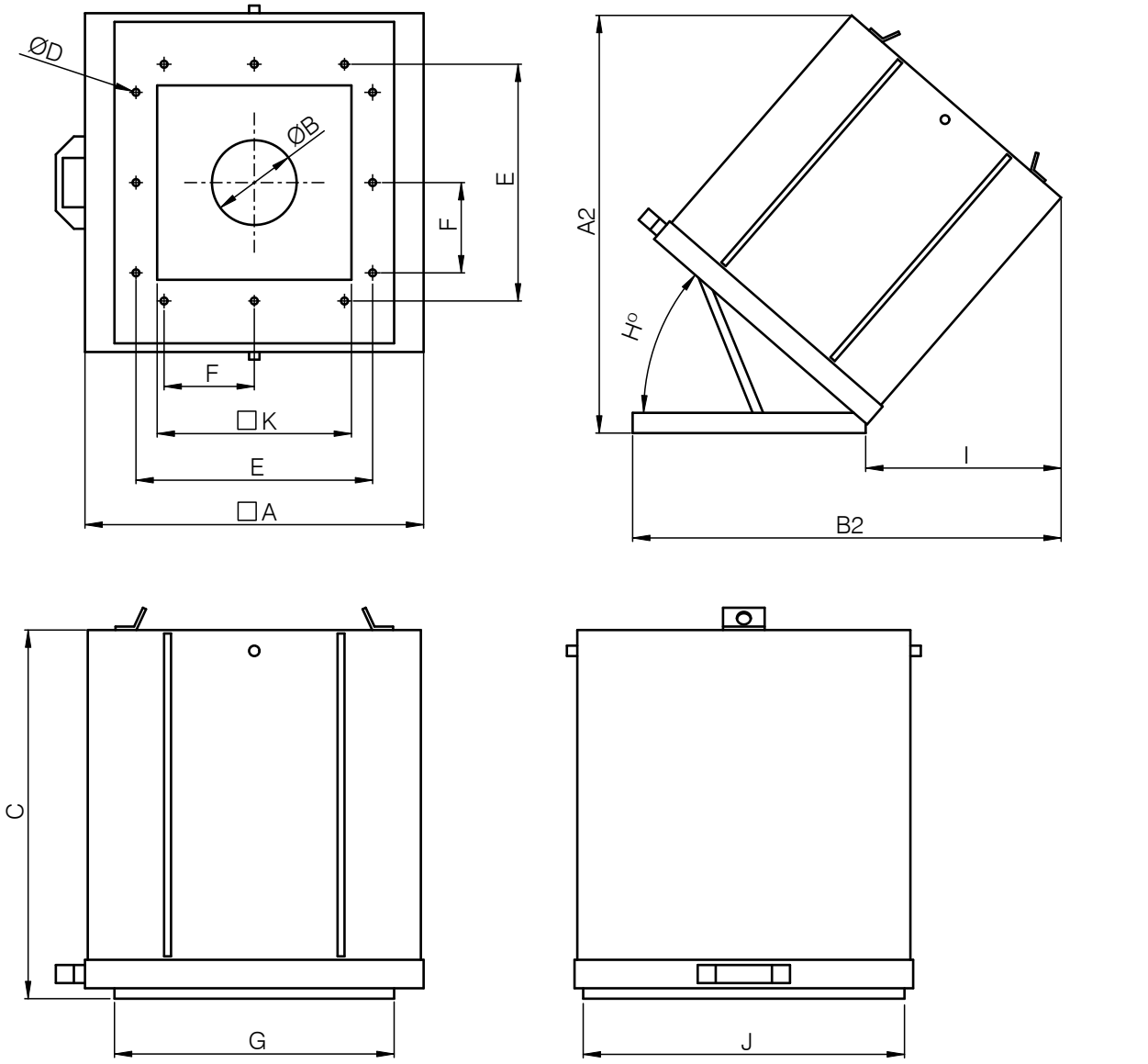
Model	Speed (r/min)	Maximum admissible current (A)		Max. electric power	Maximum flow rate	Sound pressure level at 50% of max speed.*	Approx. weight
	min.	230V	400V	(W)	(m^3/h)	dB (A)	(Kg)
VTA/EC-190-M	3540	0.97		122	675	33	18
VTA/EC-250-M	2420	0.98		129	1190	33	21
VTA/EC-310-M/L	1920	1.35		187	2110	35	31
VTA/EC-310-M/H	2320	2.00		480	2780	41	33
VTA/EC-355-M	1460	1.45		226	2605	35	30
VTA/EC-400-M/L	1680	2.00		423	3760	38	42
VTA/EC-400-M/H	1700	4.70		762	5070	45	47
VTA/EC-400-T	2000		1.68	939	5540	48	46
VTA/EC-500-T	1250		2.00	1005	7790	42	54

* Irradiated sound pressure level in dB(A) at a distance of 3 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.

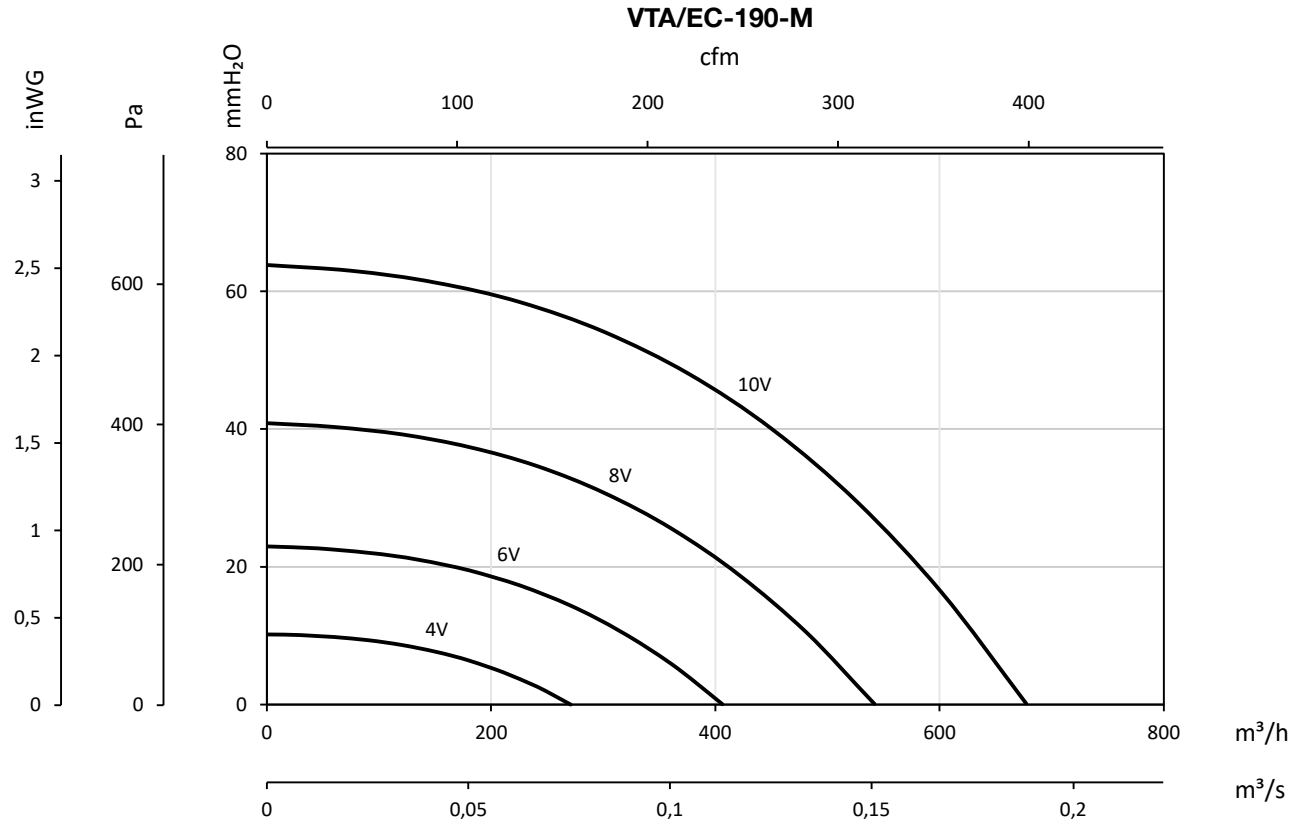
Dimensions mm

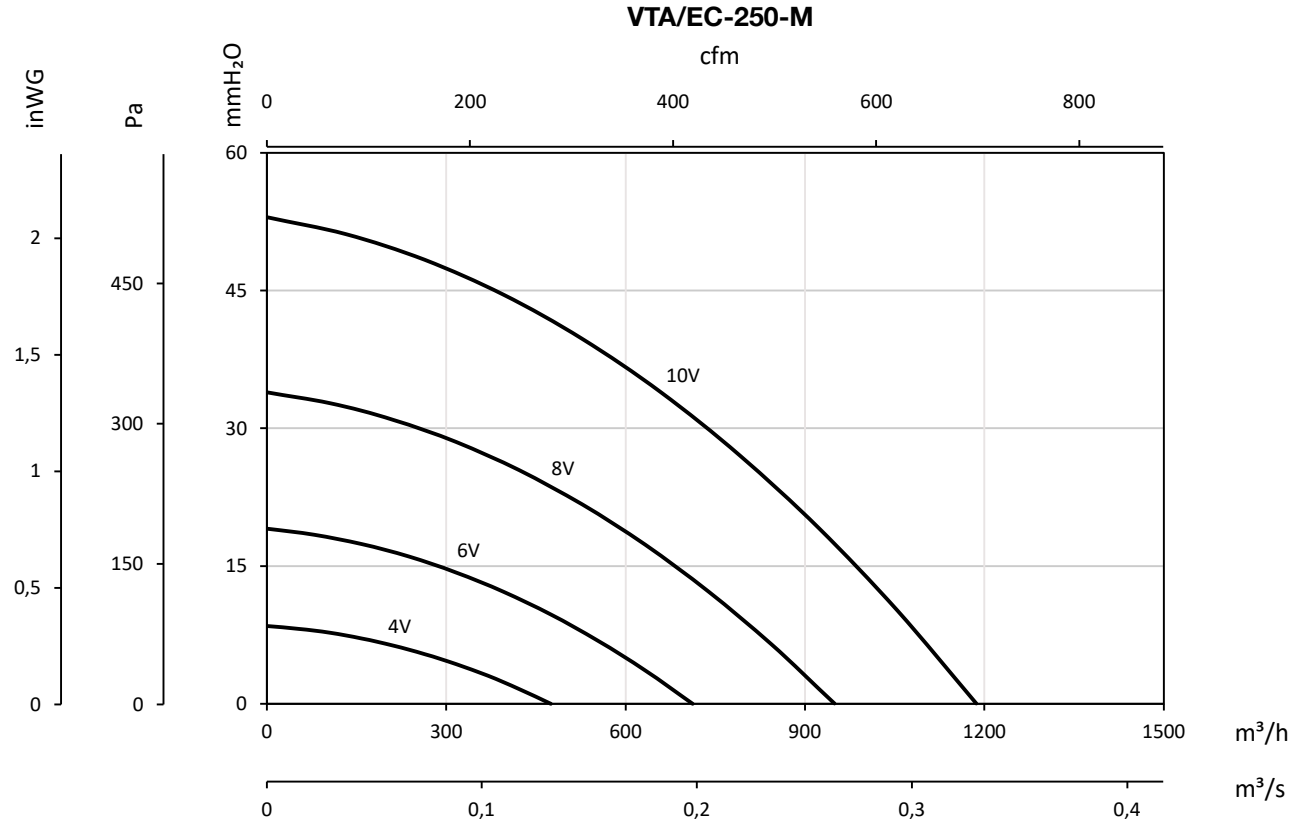


	A	ØB	C	D	E	F	G	J	Hº	I	K	A2	B2
VTA/EC-190-M	488	122	551	10	341	130	403	463	41	358	280	728	789
VTA/EC-250-M	488	162	551	10	341	130	403	463	41	358	280	728	789
VTA/EC-310-M/L	598	202	602	10	448	154	510	570	43	405	384	839.5	944
VTA/EC-310-M/H	598	202	602	10	448	154	510	570	43	405	384	839.5	944
VTA/EC-355-M	598	236	602	10	448	154	510	570	43	405	384	839.5	944
VTA/EC-400-M/L	688	253	727	10	538	217	600	660	44	500	475	992	1128
VTA/EC-400-M/H	688	253	727	10	538	217	600	660	44	500	475	992	1128
VTA/EC-400-T	688	253	727	10	538	217	600	660	44	500	475	992	1128
VTA/EC-500-T	778	323	751	10	628	264	690	750	47	541	564	1073	1258

Characteristic curves

Q= Flow rate in m³/h, m³/s and cfm Pe= Static pressure in mm H_2O, Pa and inwg

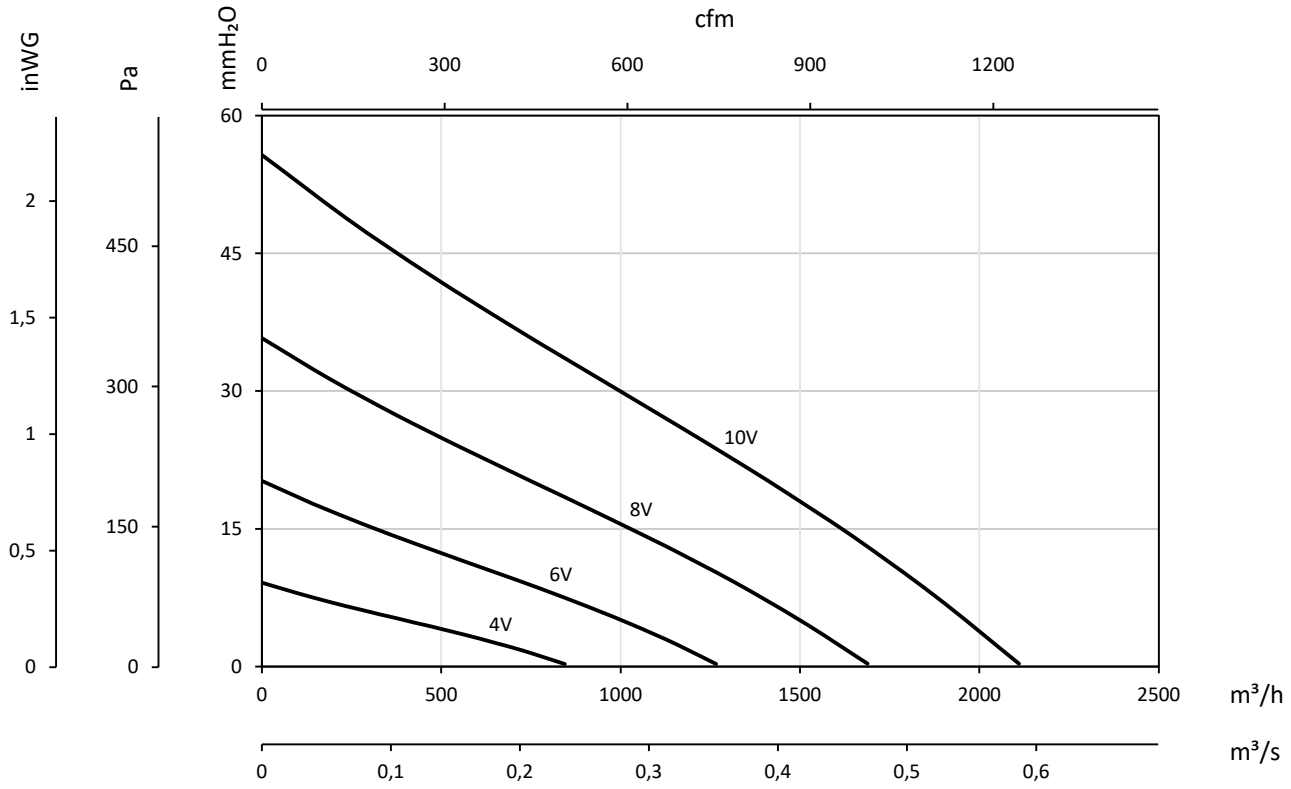




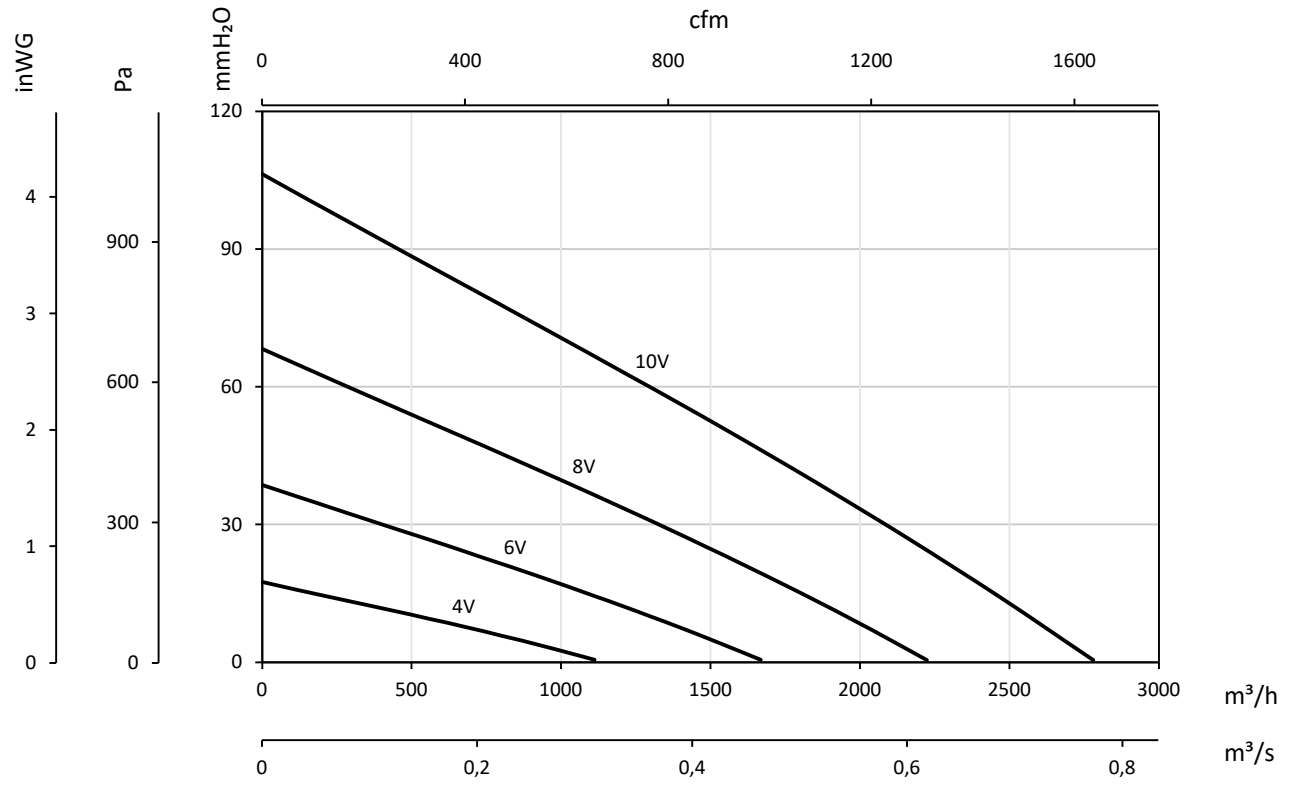
Characteristic curves

Q= Flow rate in m³/h, m³/s and cfm Pe= Static pressure in mm H_2O, Pa and inwg

VTA/EC-310-M/L

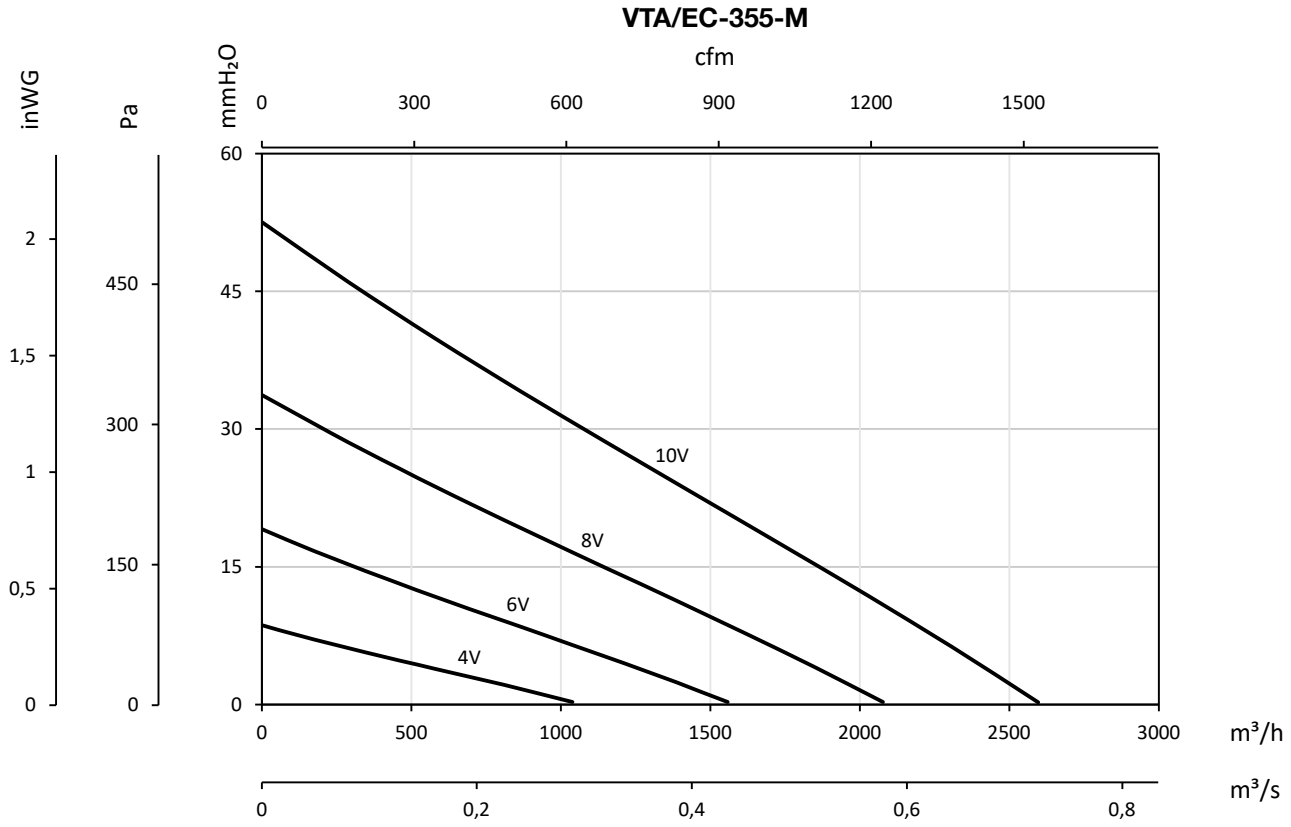


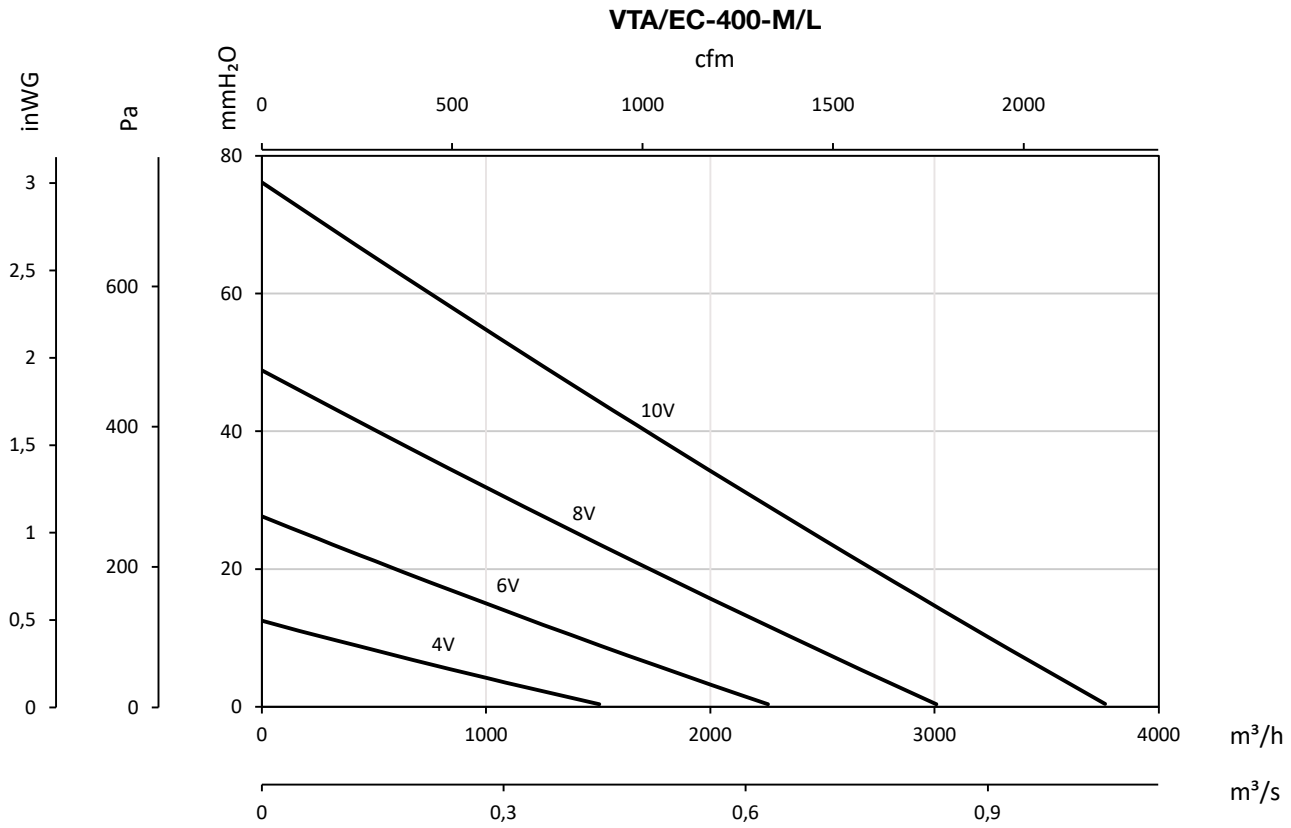
VTA/EC-310-M/H



Characteristic curves

Q= Flow rate in m³/h, m³/s and cfm Pe= Static pressure in mm H_2O, Pa and inwg

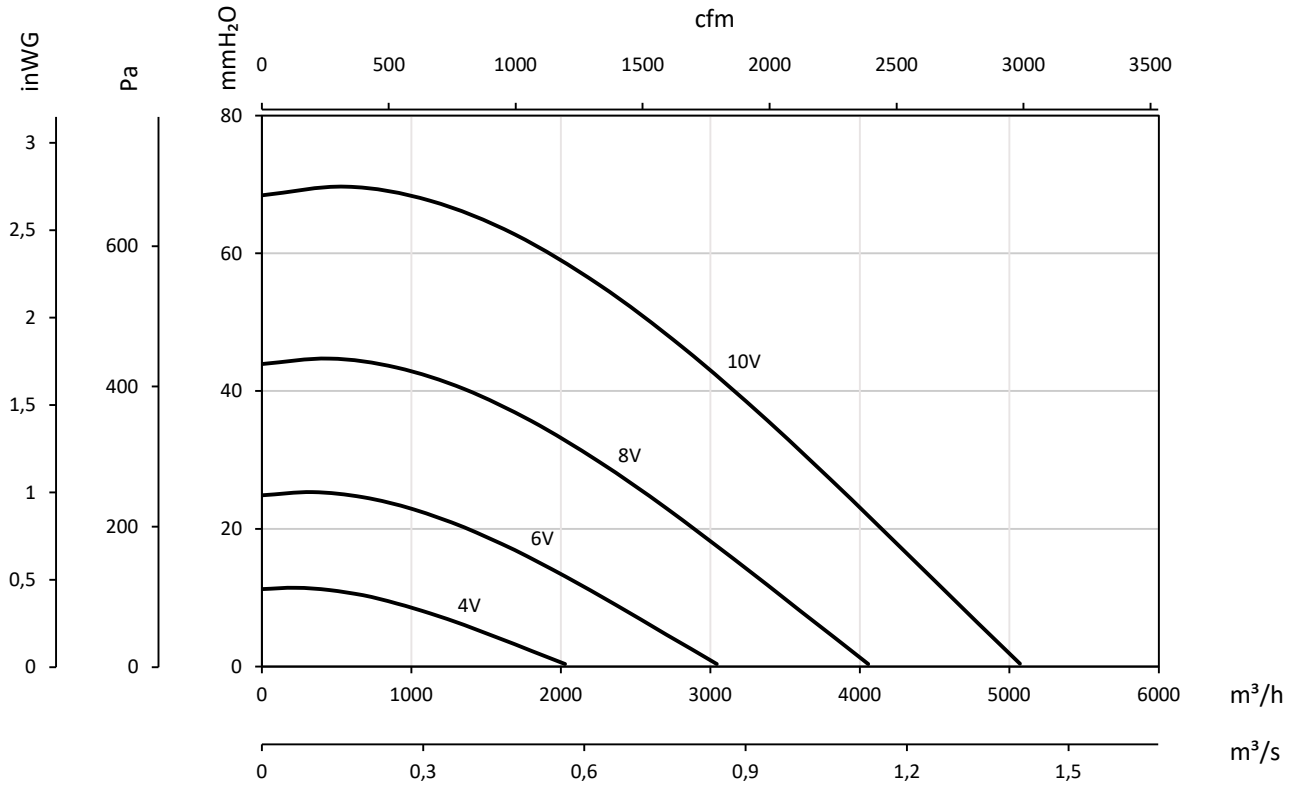




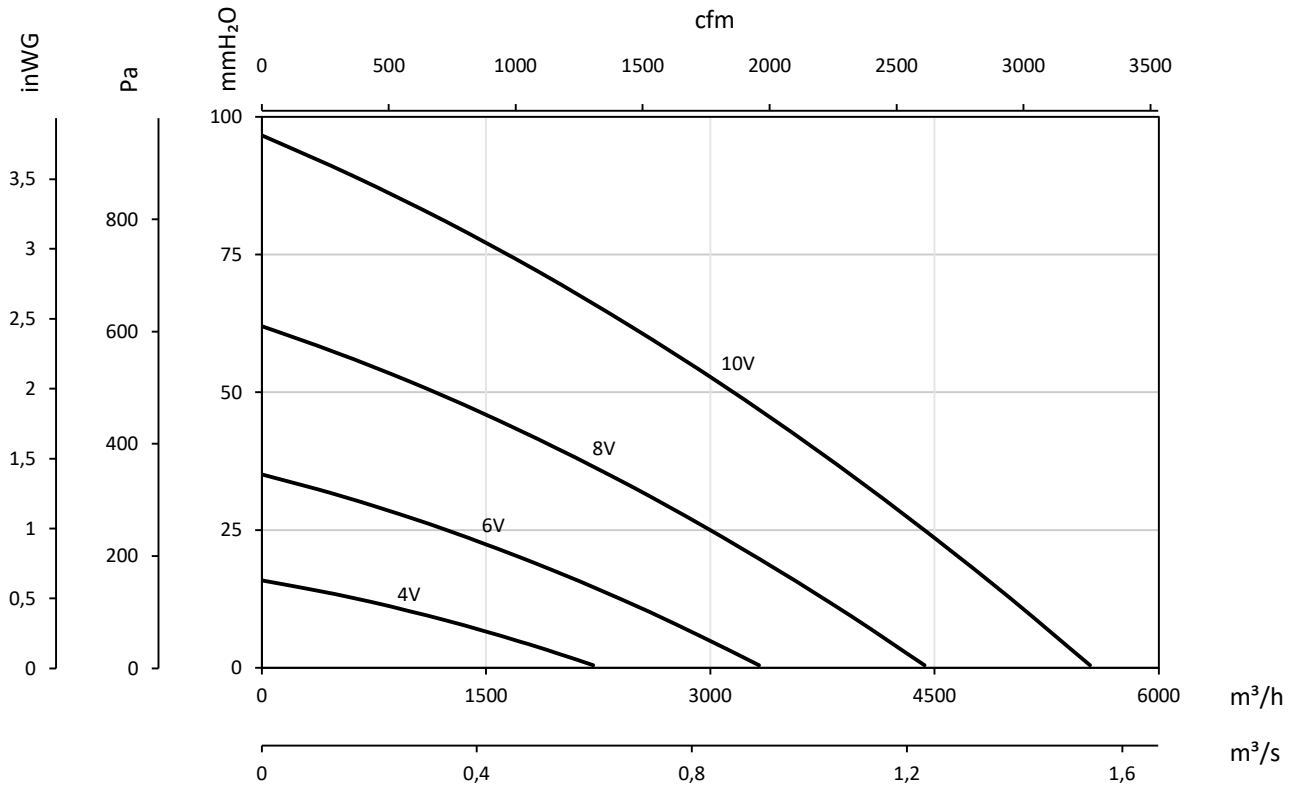
Characteristic curves

Q= Flow rate in m³/h, m³/s and cfm Pe= Static pressure in mm H_2O, Pa and inwg

VTA/EC-400-M/H

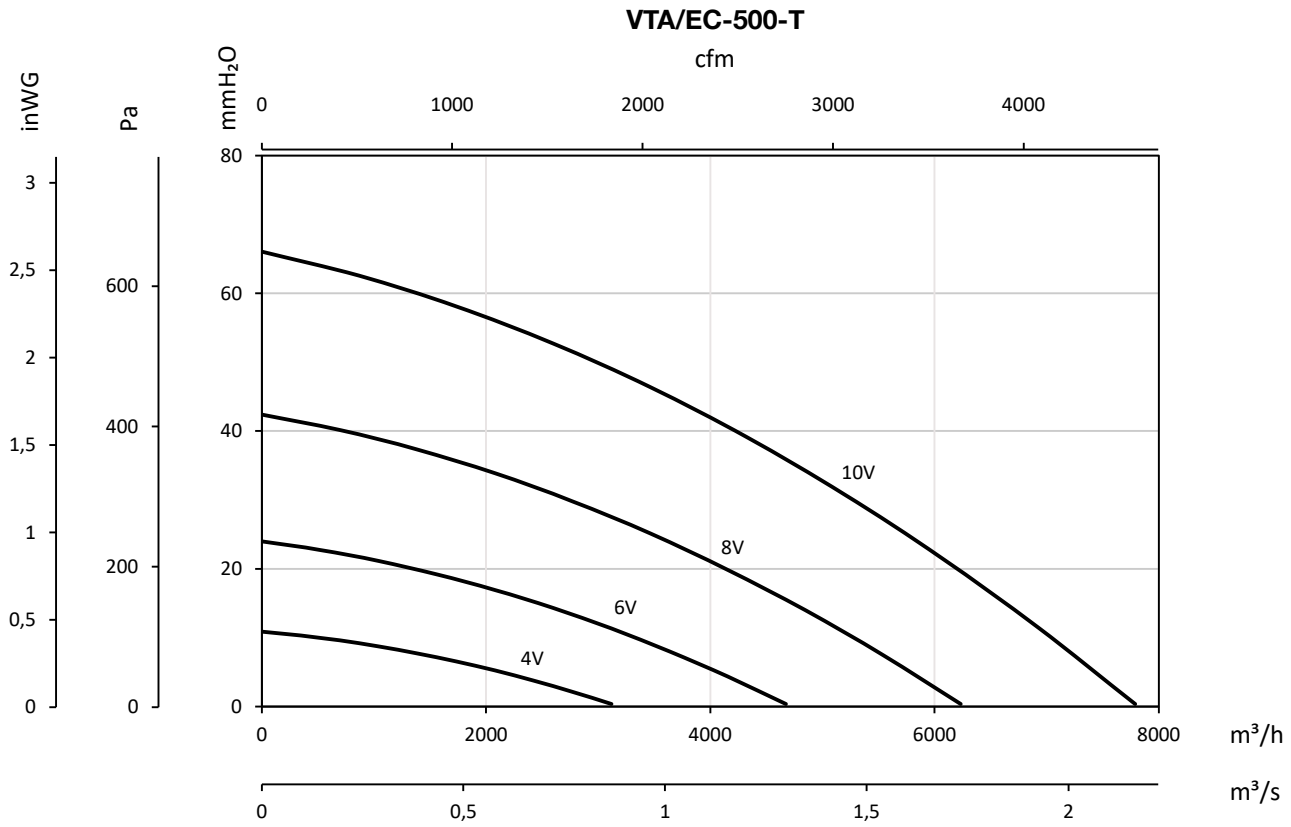


VTA/EC-400-T



Characteristic curves

Q= Flow rate in m³/h, m³/s and cfm Pe= Static pressure in mm H_2O, Pa and inwg



Pressure connection

Air flow rate ⟶ Q [m³/h]
Calibration factor ⟶ K
Difference in pressure ⟶ Δp [Pa]

$$Q = K \, x \sqrt{\Delta p}$$

	K Factor*
VTA/EC-190-M	33
VTA/EC-250-M	35
VTA/EC-310-M/L	100
VTA/EC-310-M/H	102
VTA/EC-355-M	124
VTA/EC-400-M/L	165
VTA/EC-400-M/H	154
VTA/EC-400-T	181
VTA/EC-500-T	250

* Values given for ρ = 1.2 kg/m3 and at 20 ºC.

Accessories


EC CONTROL


PVT


BTI


SI-FUENTE DE ALIMENTACIÓN


SI-PRESIÓN


CAP/EC


MTP

Acoustic characteristics

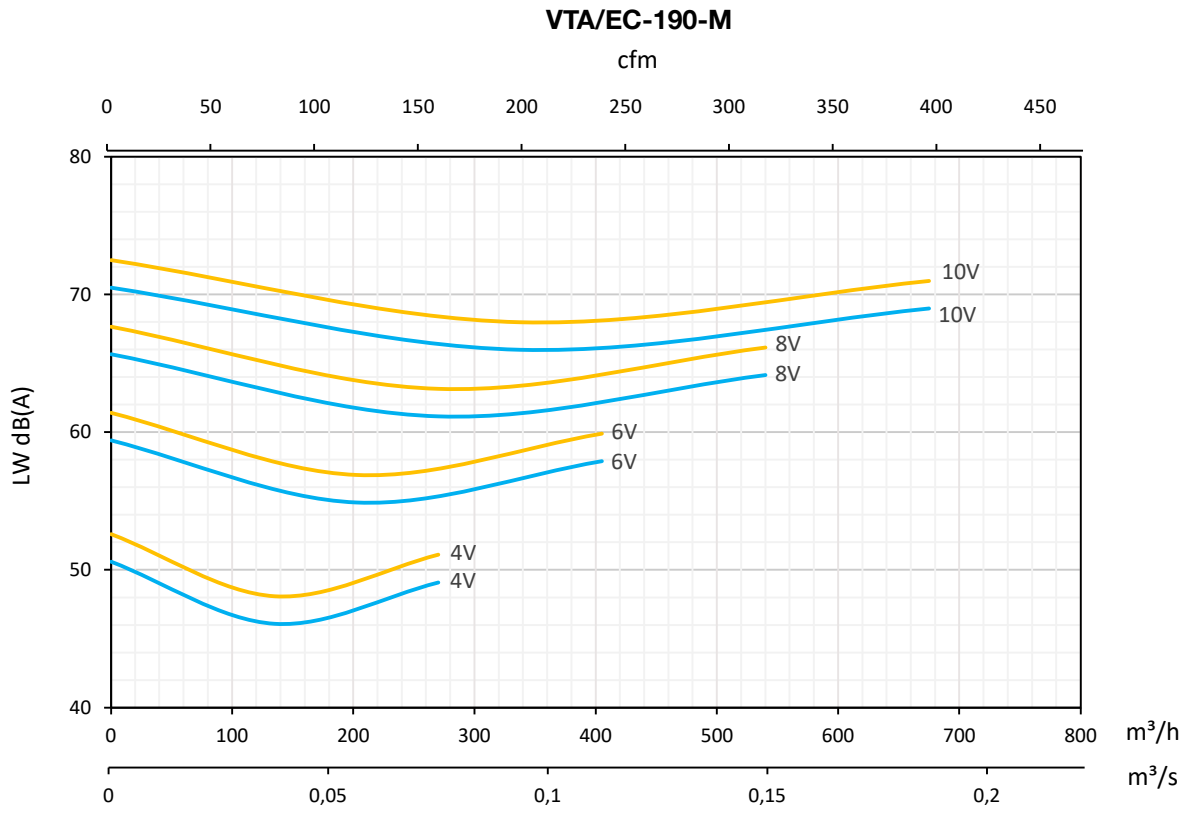
Q= Flow rate in m³/h, m³/s and cfm — Inlet — Irradiated

The total sound pressure level in the surroundings at different distances can be estimated using the following formula:

$$L_{pA} = L_{WA} - \Delta L$$

Lw = Sound power level dB (A)
ΔL = Acoustic attenuation dB

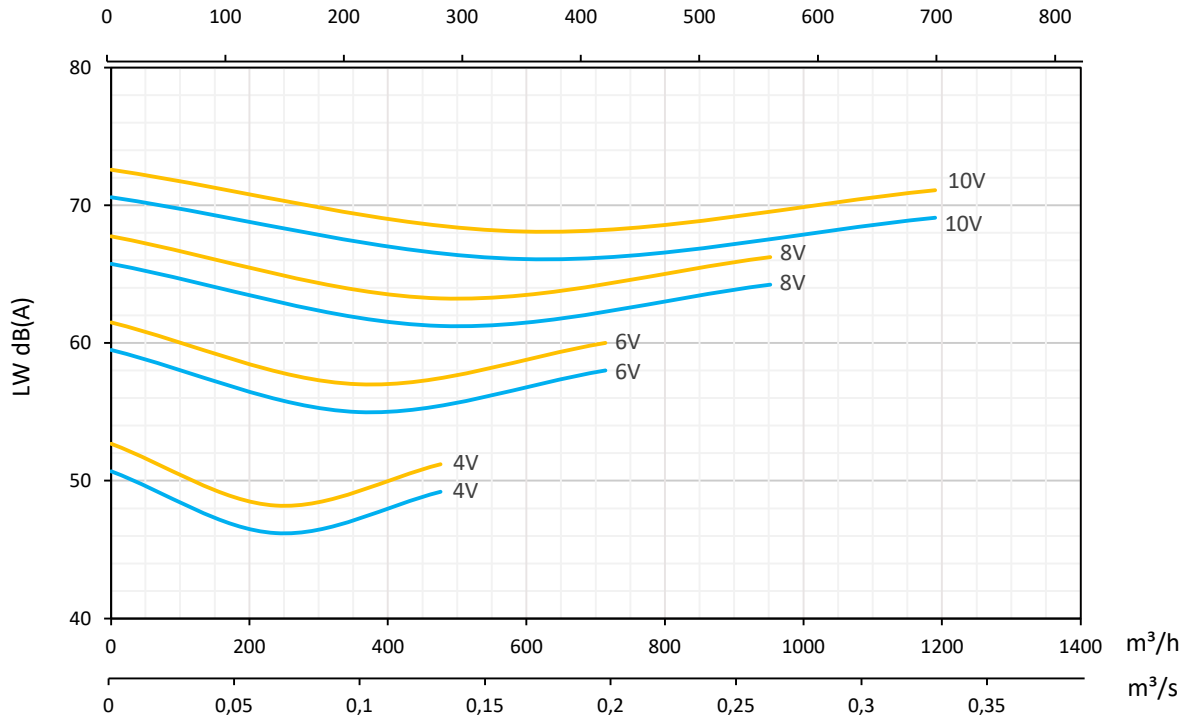
Distance (m)	1	3	10	20	30	40
Acoustic attenuation (ΔL)	11	20.5	31	37	40.5	43



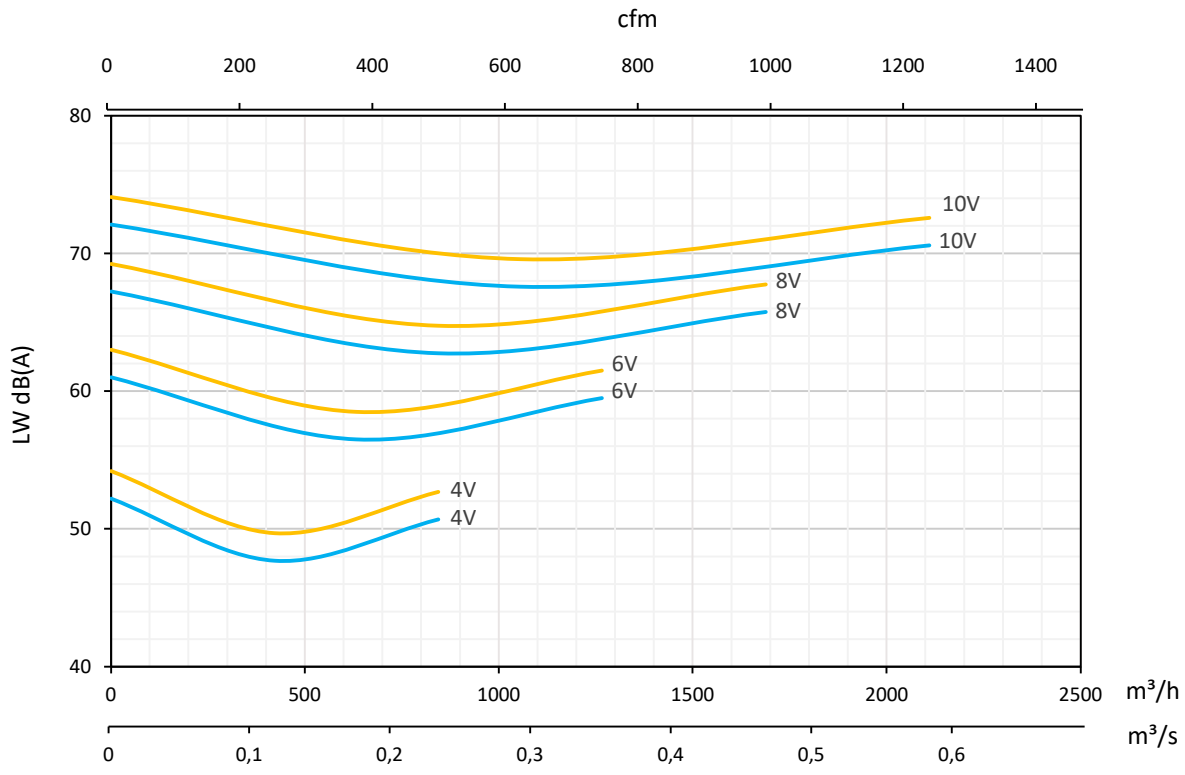
Acoustic characteristics

Q= Flow rate in m³/h, m³/s and cfm — Inlet — Irradiated

VTA/EC-250-M



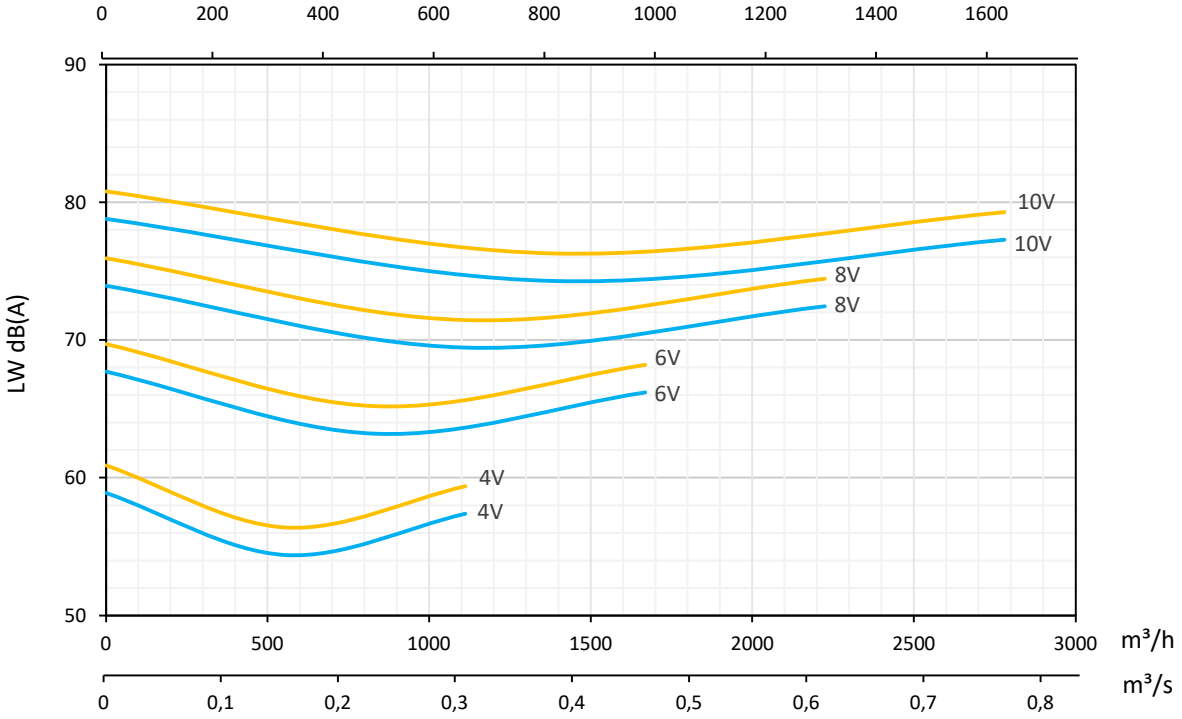
VTA/EC-310-M/L



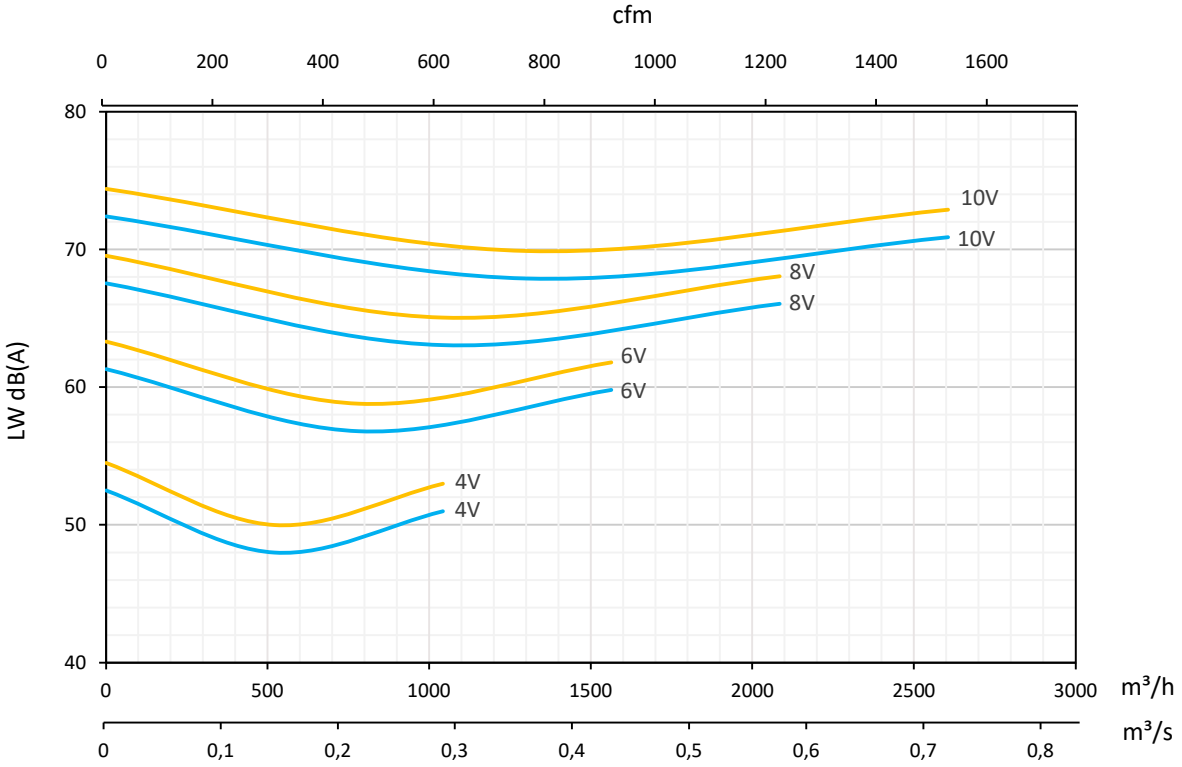
Acoustic characteristics

Q= Flow rate in m³/h, m³/s and cfm — Inlet — Irradiated

VTA/EC-310-M/H



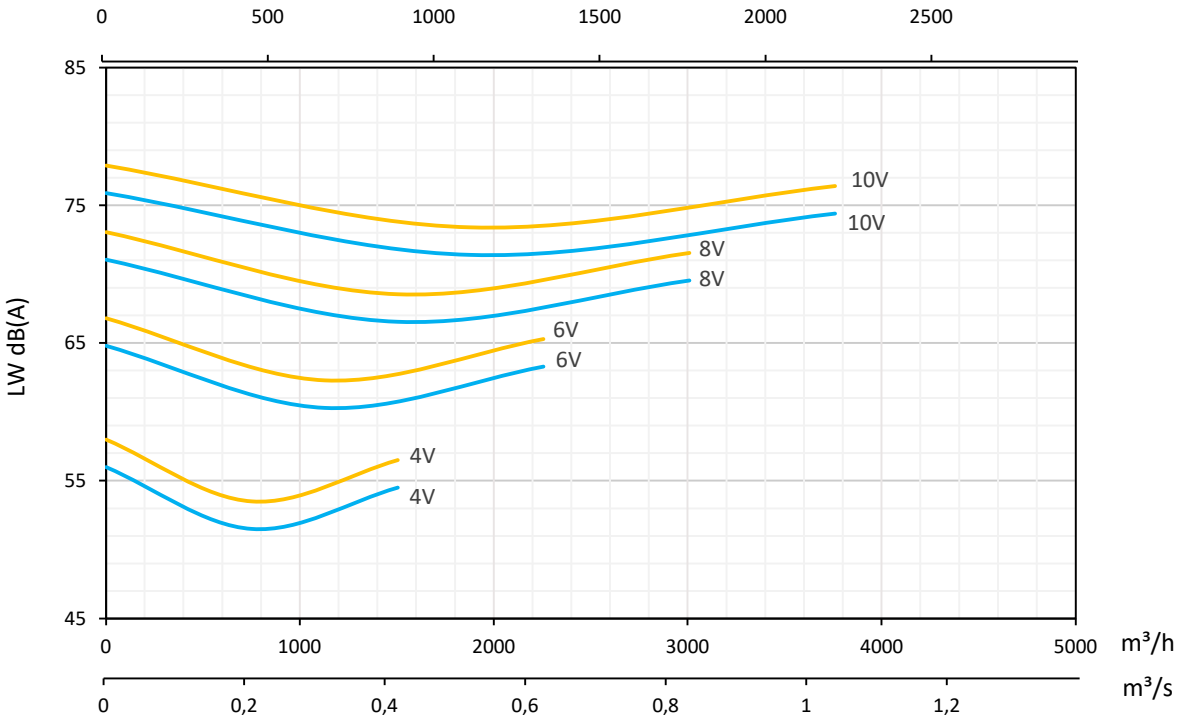
VTA/EC-355-M



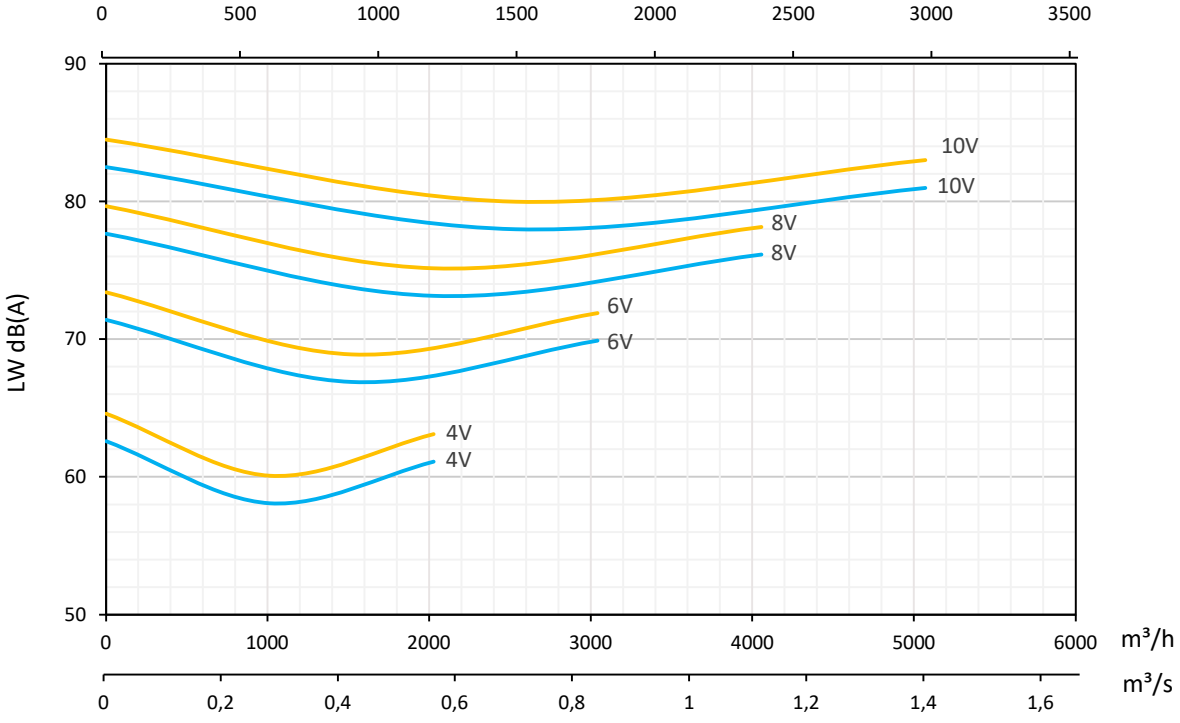
Acoustic characteristics

Q= Flow rate in m³/h, m³/s and cfm — Inlet — Irradiated

VTA/EC-400-M/L



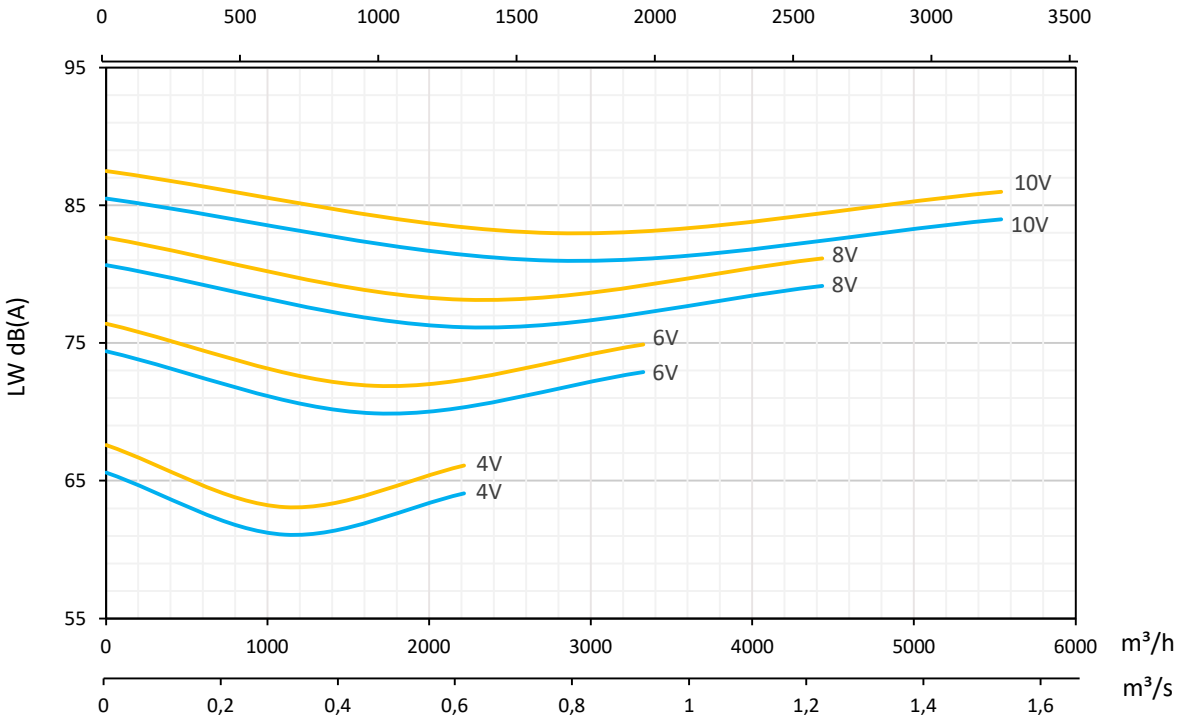
VTA/EC-400-M/H



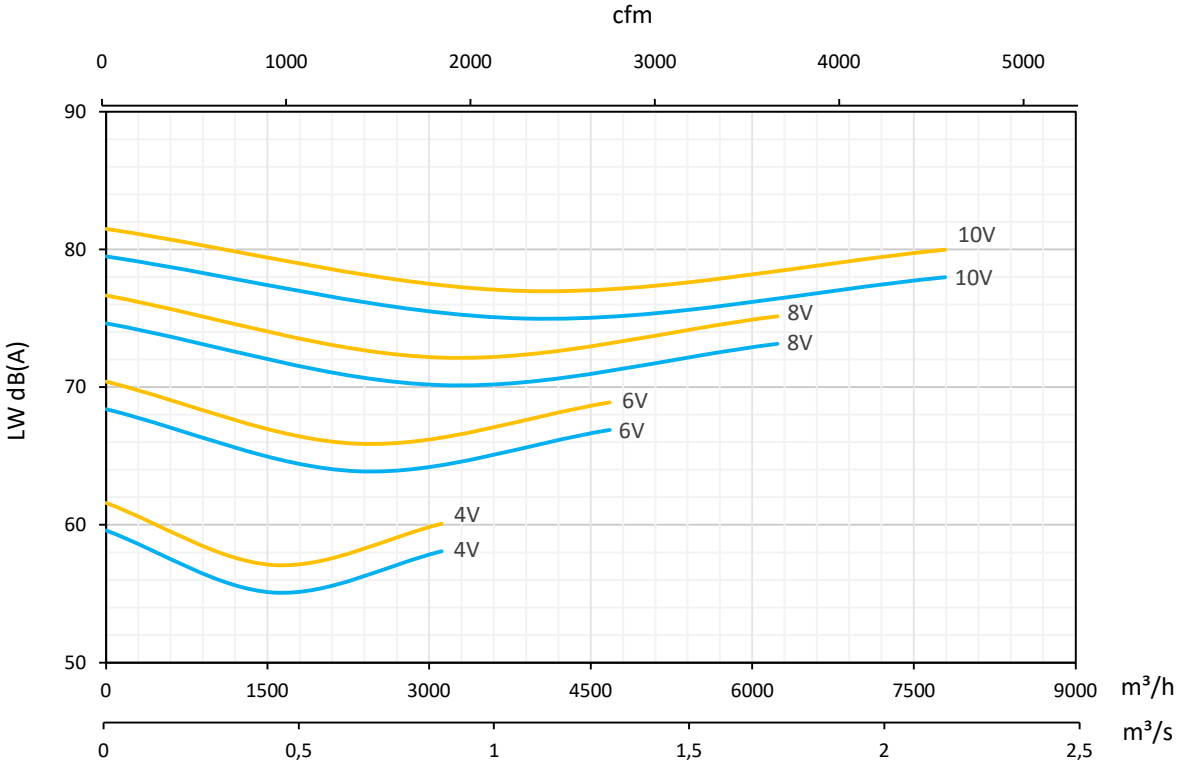
Acoustic characteristics

Q= Flow rate in m³/h, m³/s and cfm — Inlet — Irradiated

VTA/EC-400-T



VTA/EC-500-T



09/2024

SODECA Finland

FINLAND
Sodeca Finland, Oy
HUITTINEN
Sales and Warehouse
Mr. Kai Yli-Sipilä
Metsälinnankatu 26
FI-32700 Huittinen
Tel. + 358 400 320 125
orders.finland@sodeca.com

FINLAND
Sodeca Finland, Oy
VANTAA
Sales and Warehouse
Ainontie 12
FI-01630 Vantaa

Smoke Control Solutions

Mr. Antti Kontkanen
Tel. +358 400 237 434
akontkanen@sodeca.com

Mrs. Kaisa Partanen
Tel. +358 451 308 038
kpartanen@sodeca.com

Smoke extraction and industrial applications

Mr. Jaakko Tomperi
Tel. +358 451 651 333
jtomperi@sodeca.com

Mr. Jarno Pikkumäki
Tel. +358 407 723 472
jpikkumaki@sodeca.com

www.sodeca.fi

SODECA

www.sodeca.com

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