PF/EC

High efficiency centrifugal fans (plug-fan type), equipped with EC Technology IE5 motor with integrated electronics

High-efficiency centrifugal Plug fans, for air treatment applications. Equipped with EC Technology IE5 motor with integrated electronics, specially designed to obtain high energy efficiency.

Fan:
- Galvanised sheet steel structure.
- Backward curved impeller made of sheet steel.
- Complete with a pressure measurement connection point for optional automatic flow and pressure control.
- Vertical execution not available for sizes 1871.

Motor:
- High efficiency EC Technology motors with integrated electronics, regulated by 0-10 V or 4-20 mA.
- IE5 efficiency motors, class F and IP55 protection.
- Single-phase 220-277 V 50/60 Hz and three-phase 380-480 V 50/60 Hz.
- Working temperature: -20 ºC +60 ºC.
- Modbus RTU and built-in alarm relay (three-phase models).

EC CONTROL:
Supplied as an optional accessory.
Control panel for ventilation systems with EC Technology motors with the electronics integrated in the motor itself.
With the following characteristics:
- CPC: Constant pressure control.
- CFC: Constant flow control.
- DAY/NIGHT: Double pressure setpoint adjustment according to time of day.
- External sensor: Compatible with temperature, humidity, air quality or CO sensor.
- Equipment preconfigured in constant pressure mode with 100 Pa set point.

Finish:
- Galvanised steel sheet.

EC TECHNOLOGY MOTOR with integrated electronics

EC CONTROL Supplied as an optional accessory

Order code

PF/EC	–	H	–	1856	–	4T	–		5.5	–	IE5
PF/EC: High efficiency centrifugal fans (plug-fan type), equipped with EC Technology IE5 motor with integrated electronics		H: Mounting with base. V: Vertical mount with spider mount.		Impeller size		Max. speed 2=3000 r/min 50/60 Hz 4=1500 r/min 50/60 Hz 6=900 r/min 50/60 Hz		T = Three-phase M = Single-phase	Motor power (HP)		IE5 motor

Technical characteristics

Model	Speed (r/min)		Maximum admissible current (A)		Installed power	Maximum flow rate	Sound pressure level[1] dB (A)	Approx. weight
	min.	max.	230V	400V	(kW)	(m^3/h)	Irradiated	(Kg)
PF/EC-925-2M-0.5-IE5	500	3000	3.30		0.37	2180	61	21
PF/EC-925-2T-0.5-IE5	500	3000		0.79	0.37	2180	61	18
PF/EC-1028-2M-1-IE5	500	3000	5.90		0.75	3255	64	24
PF/EC-1028-2T-1-IE5	500	3000		1.55	0.75	3255	64	20
PF/EC-1028-4M-0.33-IE5	200	1500	2.30		0.25	1630	49	22
PF/EC-1028-4T-0.33-IE5	200	1500		0.51	0.25	1630	49	20
PF/EC-1031-2T-2-IE5	500	3000		4.42	1.50	4540	68	24
PF/EC-1031-4M-0.33-IE5	200	1500	2.30		0.25	2270	53	23
PF/EC-1031-4T-0.33-IE5	200	1500		0.51	0.25	2270	53	22
PF/EC-1135-2T-4-IE5	400	3000		5.75	3.00	6670	71	36
PF/EC-1135-4T-0.5-IE5	200	1500		0.75	0.37	3335	56	27
PF/EC-1240-2T-5.5-IE5	500	3000		7.58	4.00	9300	75	40
PF/EC-1240-4T-0.75-IE5	200	1500		1.10	0.55	4650	60	29
PF/EC-1445-4T-1.5-IE5	200	1500		2.16	1.10	6775	64	41
PF/EC-1650-4T-3-IE5	200	1500		4.20	2.20	10290	77	54
PF/EC-1856-4T-5.5-IE5	200	1500		7.48	4.00	15480	71	65
PF/EC-1663-4T-5.5-IE5	200	1420		7.48	4.00	19770	76	75
PF/EC-1871-4T-10-IE5	200	1500		13.00	7.50	25670	85	115
PF/EC-1871-6T-5.5-IE5	200	900		7.48	4.00	16320	74	100

1 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.

Acoustic characteristics

The values given are obtained under laboratory conditions according to ISO 3744.

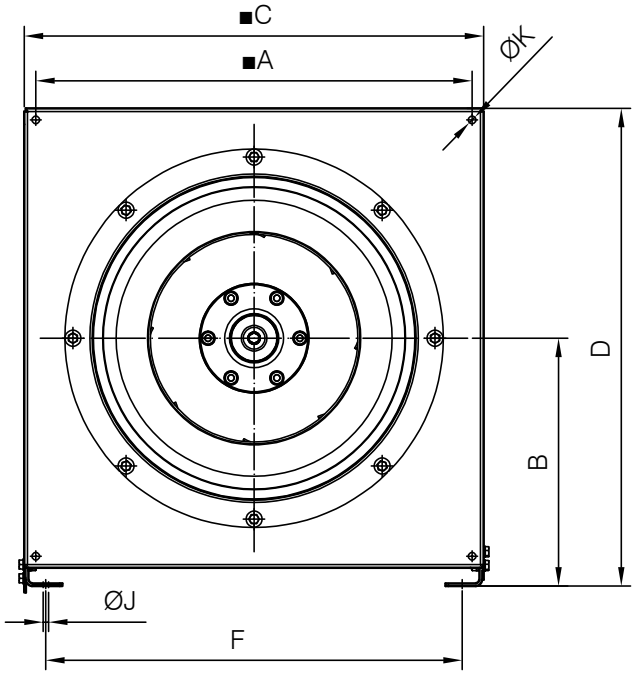
Irradiated sound power spectrum Lw(A) in dB(A) per Hz frequency band

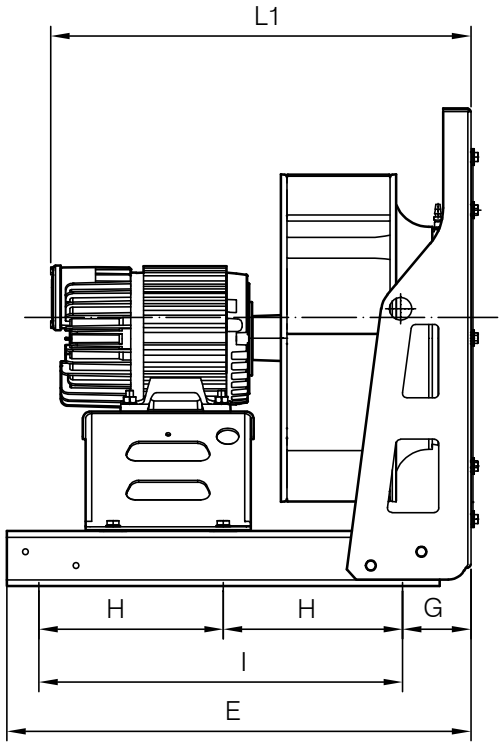
	63	125	250	500	1000	2000	4000	8000
PF/EC-925-2M/2T	50	65	63	75	72	76	78	65
PF/EC-1028-2M/2T	53	68	66	78	75	79	81	68
PF/EC-1028-4M/4T	38	53	51	63	60	64	66	53
PF/EC-1031-2T	57	72	70	82	79	83	85	72
PF/EC-1031-4M/4T	42	57	55	67	64	68	70	57
PF/EC-1135-2T	60	75	73	85	82	86	88	75
PF/EC-1135-4T	45	60	58	70	67	71	73	60
PF/EC-1240-2T	64	79	77	89	86	90	92	79

	63	125	250	500	1000	2000	4000	8000
PF/EC-1240-4T	49	64	62	74	71	75	77	64
PF/EC-1445-4T	53	68	66	78	75	79	81	68
PF/EC-1650-4T	72	82	90	92	91	93	84	74
PF/EC-1856-4T	65	74	87	83	86	87	81	67
PF/EC-1663-4T	79	84	90	92	90	87	80	72
PF/EC-1871-4T	85	86	95	98	100	101	97	84
PF/EC-1871-6T	74	75	84	87	89	90	86	73

Dimensions mm

Horizontal

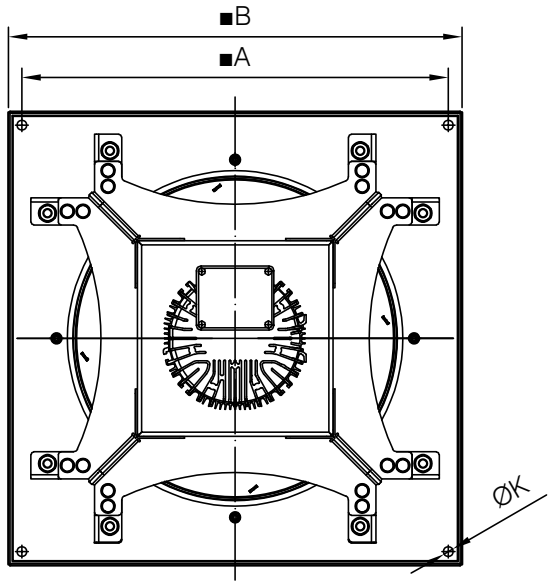


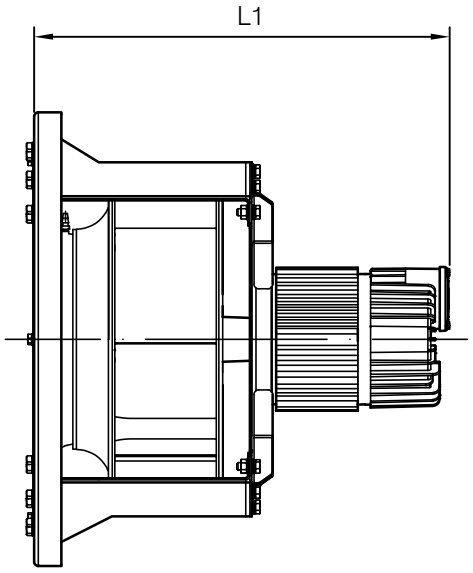


	□A	B	□C	D	E	F	G	H	I	ØJ	ØK	L1
PF/EC-H-925-2M-0.5-IE5	350	215	400	415	405	345	70	-	300	9	9	380
PF/EC-H-925-2T-0.5-IE5	350	215	400	415	405	345	70	-	300	9	9	390
PF/EC-H-1028-2M-1-IE5	375	215	400	415	405	345	70	-	300	9	9	435
PF/EC-H-1028-2T-1-IE5	375	215	400	415	405	345	70	-	300	9	9	406
PF/EC-H-1028-4M-0.33-IE5	375	215	400	415	405	345	70	-	300	9	9	395
PF/EC-H-1028-4T-0.33-IE5	375	215	400	415	405	345	70	-	300	9	9	406
PF/EC-H-1031-2T-2-IE5	375	215	400	415	505	345	70	-	400	9	9	422
PF/EC-H-1031-4M-0.33-IE5	375	215	400	415	505	345	70	-	400	9	9	411
PF/EC-H-1031-4T-0.33-IE5	375	215	400	415	505	345	70	-	400	9	9	422
PF/EC-H-1135-2T-4-IE5	475	270	500	520	505	445	70	-	400	9	9	506
PF/EC-H-1135-4T-0.5-IE5	475	270	500	520	505	445	70	-	400	9	9	458
PF/EC-H-1240-2T-5.5-IE5	475	270	500	520	505	445	70	-	400	9	9	530
PF/EC-H-1240-4T-0.75-IE5	475	270	500	520	505	445	70	-	400	9	9	495
PF/EC-H-1445-4T-1.5-IE5	580	335	630	650	605	575	70	-	500	9	9	542
PF/EC-H-1650-4T-3-IE5	600	335	630	650	705	575	70	-	600	9	9	653
PF/EC-H-1856-4T-5.5-IE5	700	430	760	810	705	705	70	-	600	9	9	688
PF/EC-H-1663-4T-5.5-IE5	700	430	760	810	805	710	70	-	700	11	9	770
PF/EC-H-1871-4T-10-IE5	800	545	960	1025	905	905	70	400	800	11	9	800
PF/EC-H-1871-6T-5.5-IE5	800	545	960	1025	905	905	70	400	800	11	9	810

Dimensions mm

Vertical

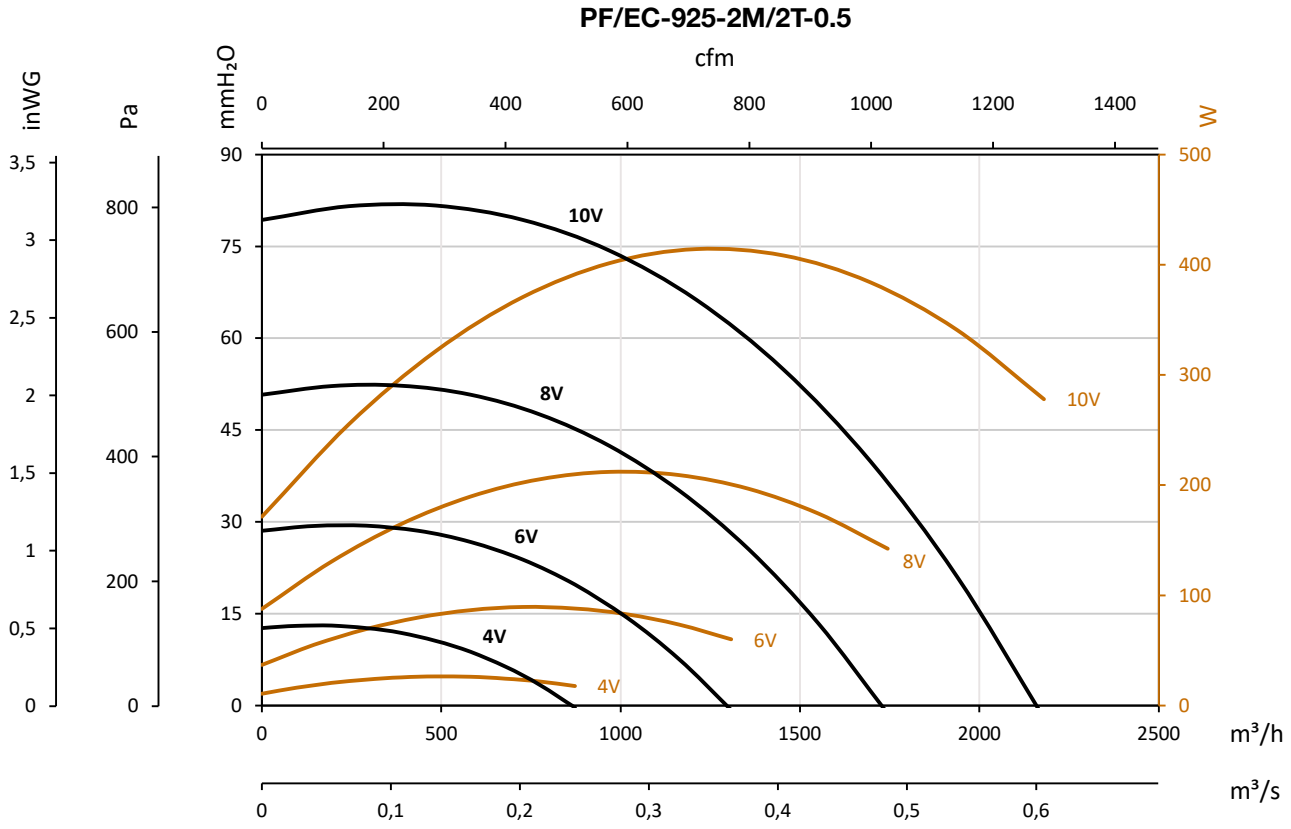


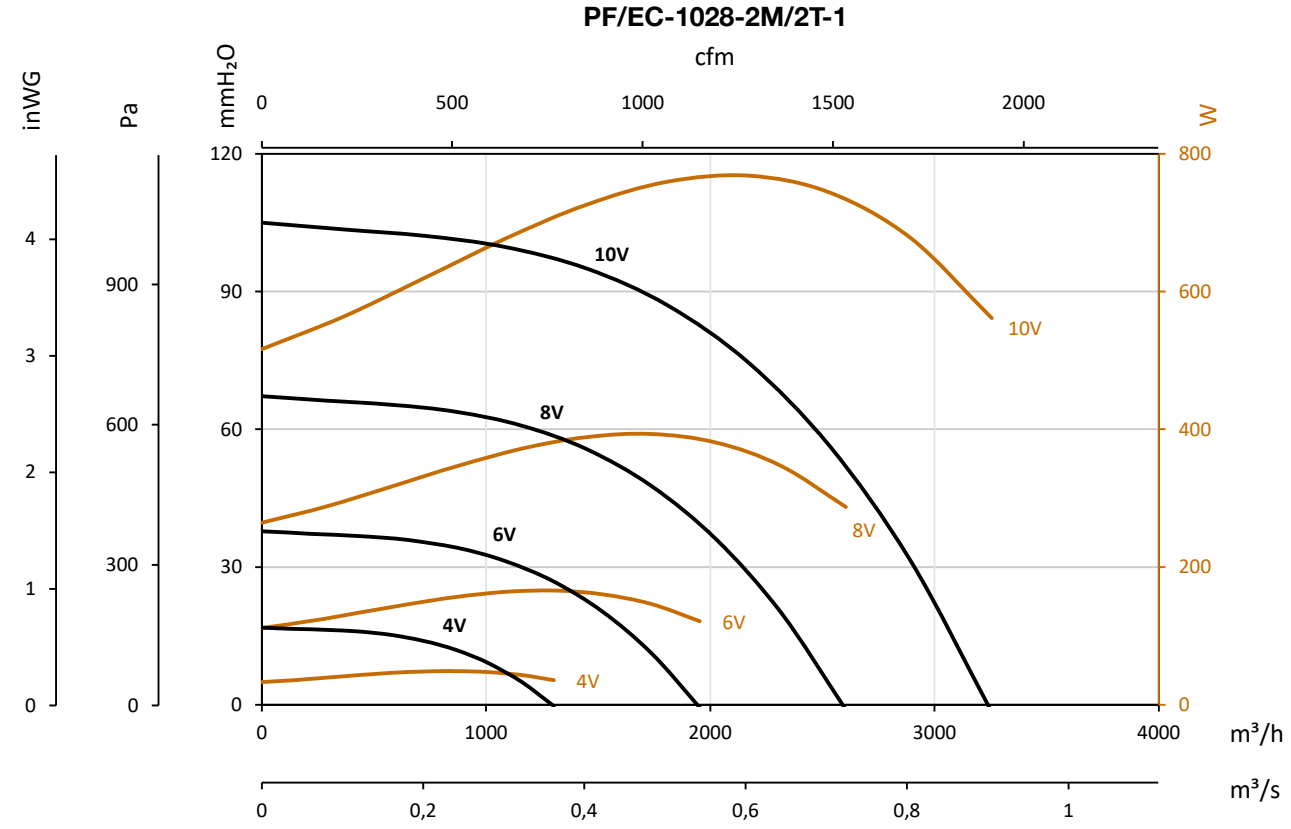


	□A	□B	ØK	L1
PF/EC-V-925-2M-0.5-IE5	367	400	11	380
PF/EC-V-925-2T-0.5-IE5	367	400	11	390
PF/EC-V-1028-2M-1-IE5	390	420	11	436
PF/EC-V-1028-2T-1-IE5	390	420	11	407
PF/EC-V-1028-4M-0.33-IE5	390	420	11	397
PF/EC-V-1028-4T-0.33-IE5	390	420	11	407
PF/EC-V-1031-2T-2-IE5	434	470	11	424
PF/EC-V-1031-4M-0.33-IE5	434	470	11	413
PF/EC-V-1031-4T-0.33-IE5	434	470	11	424
PF/EC-V-1135-2T-4-IE5	470	500	11	506
PF/EC-V-1135-4T-0.5-IE5	470	500	11	458
PF/EC-V-1240-2T-5.5-IE5	519	550	11	529
PF/EC-V-1240-4T-0.75-IE5	519	550	11	494
PF/EC-V-1445-4T-1.5-IE5	580	630	11	542
PF/EC-V-1650-4T-3-IE5	635	670	11	652
PF/EC-V-1856-4T-5.5-IE5	689	730	11	693
PF/EC-V-1663-4T-5.5-IE5	800	840	11	765

Characteristic curves

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





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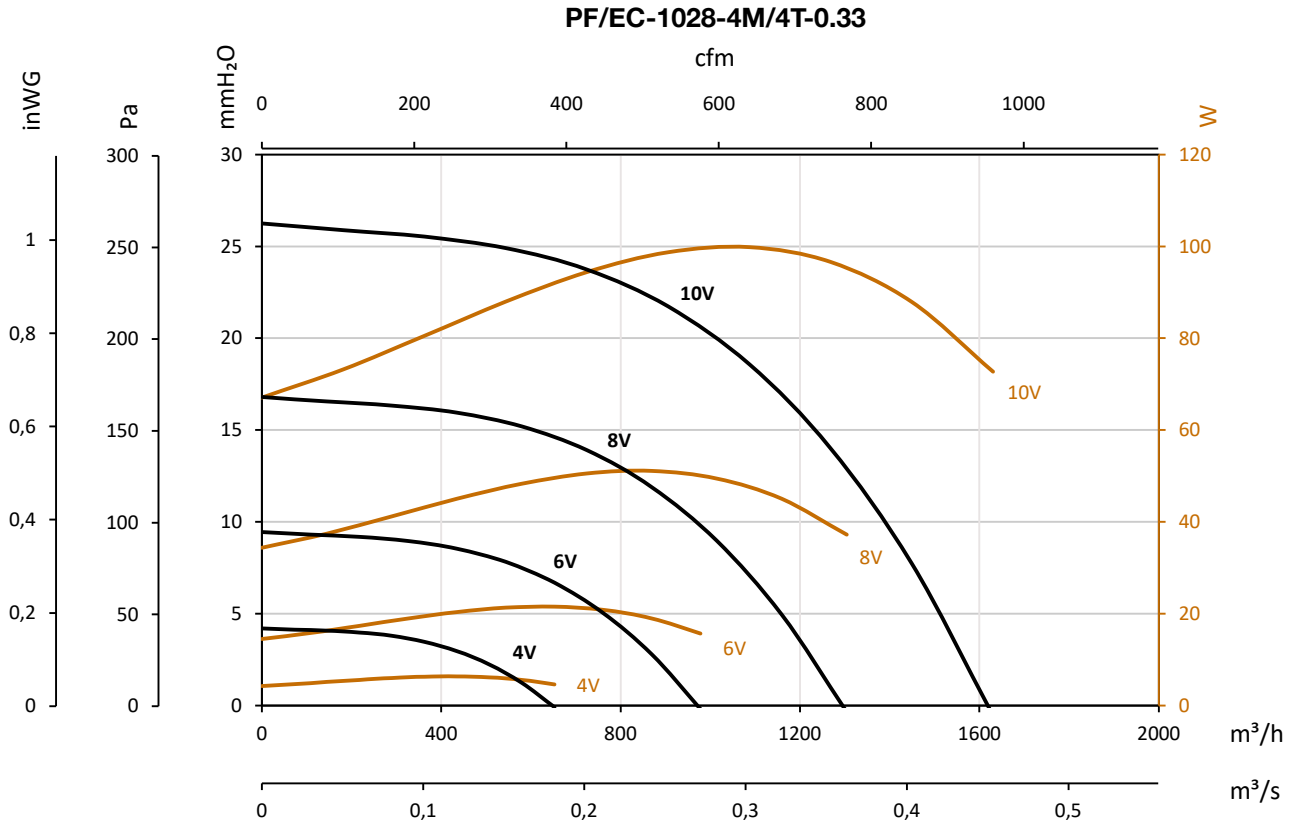

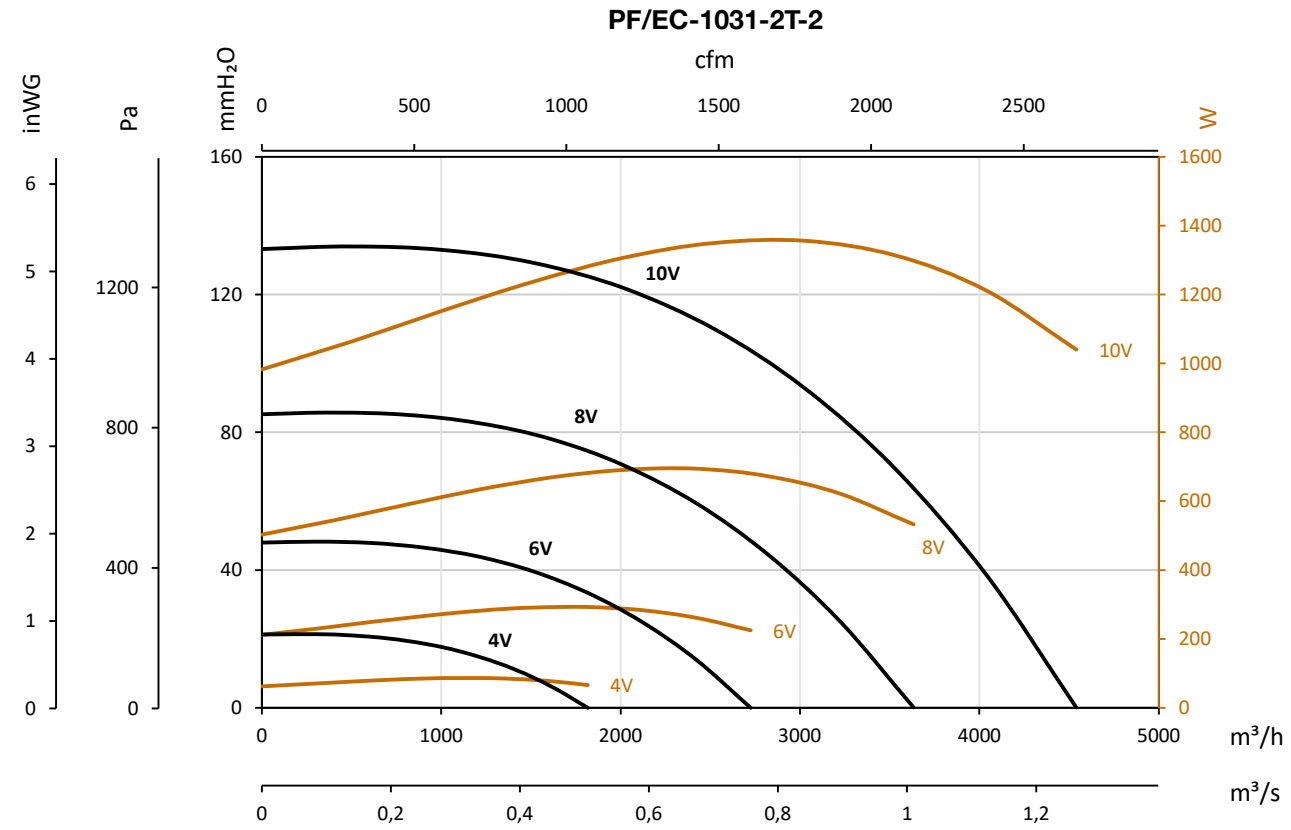

Characteristic curves

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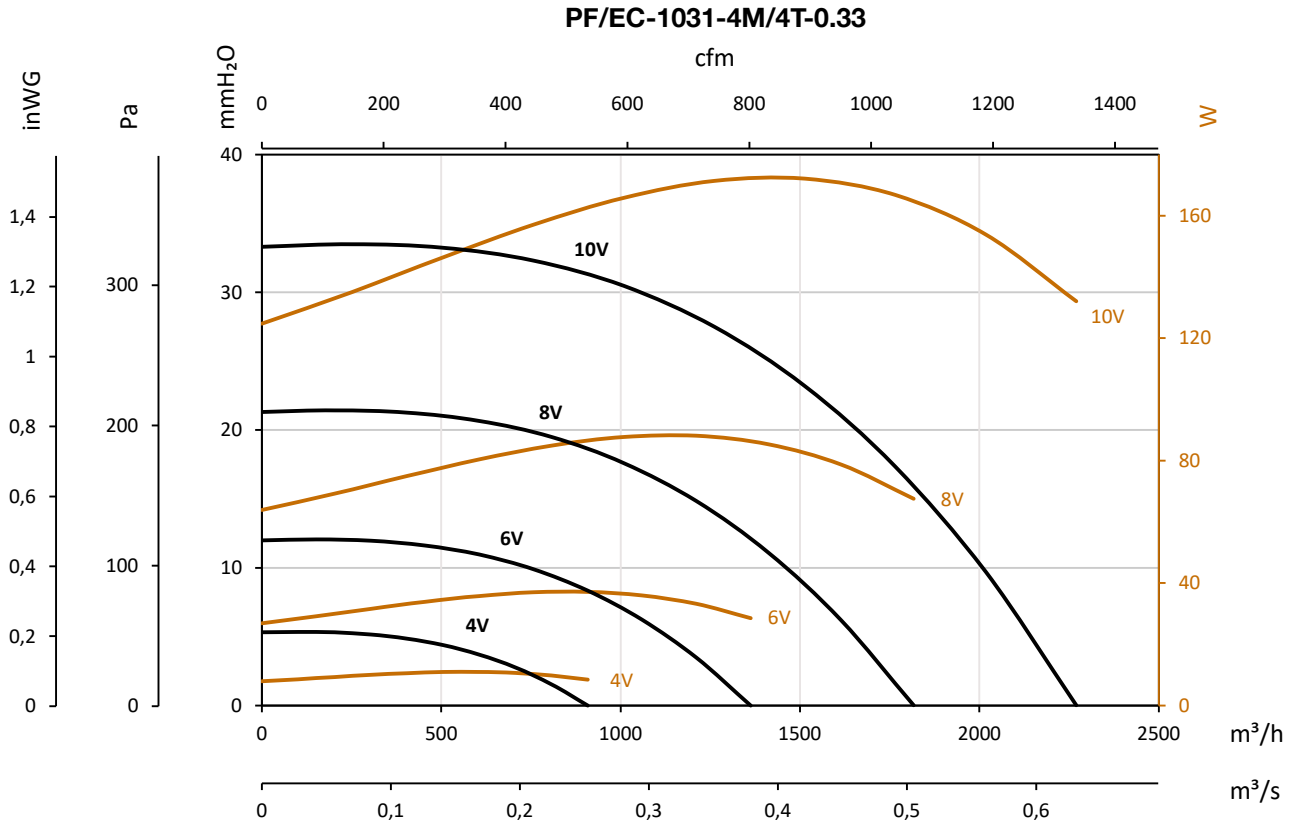

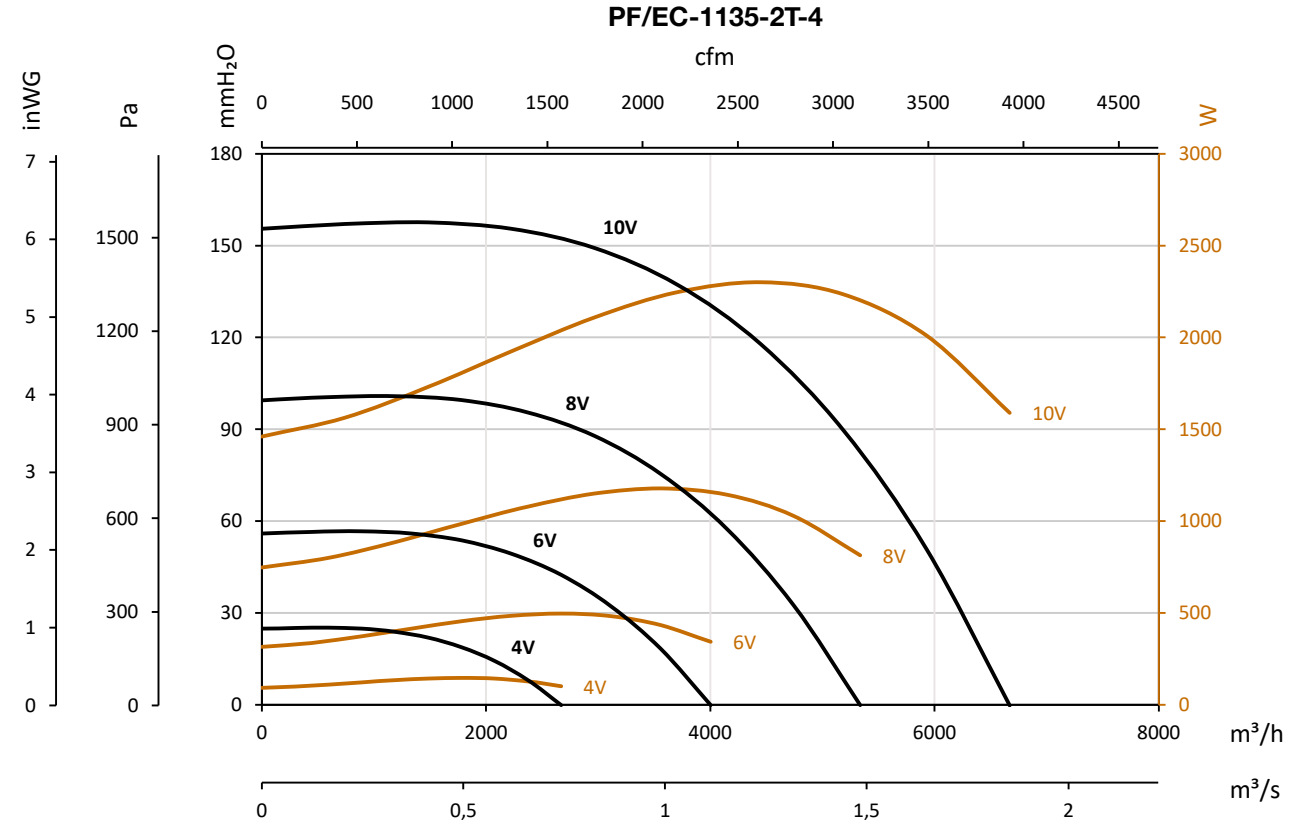

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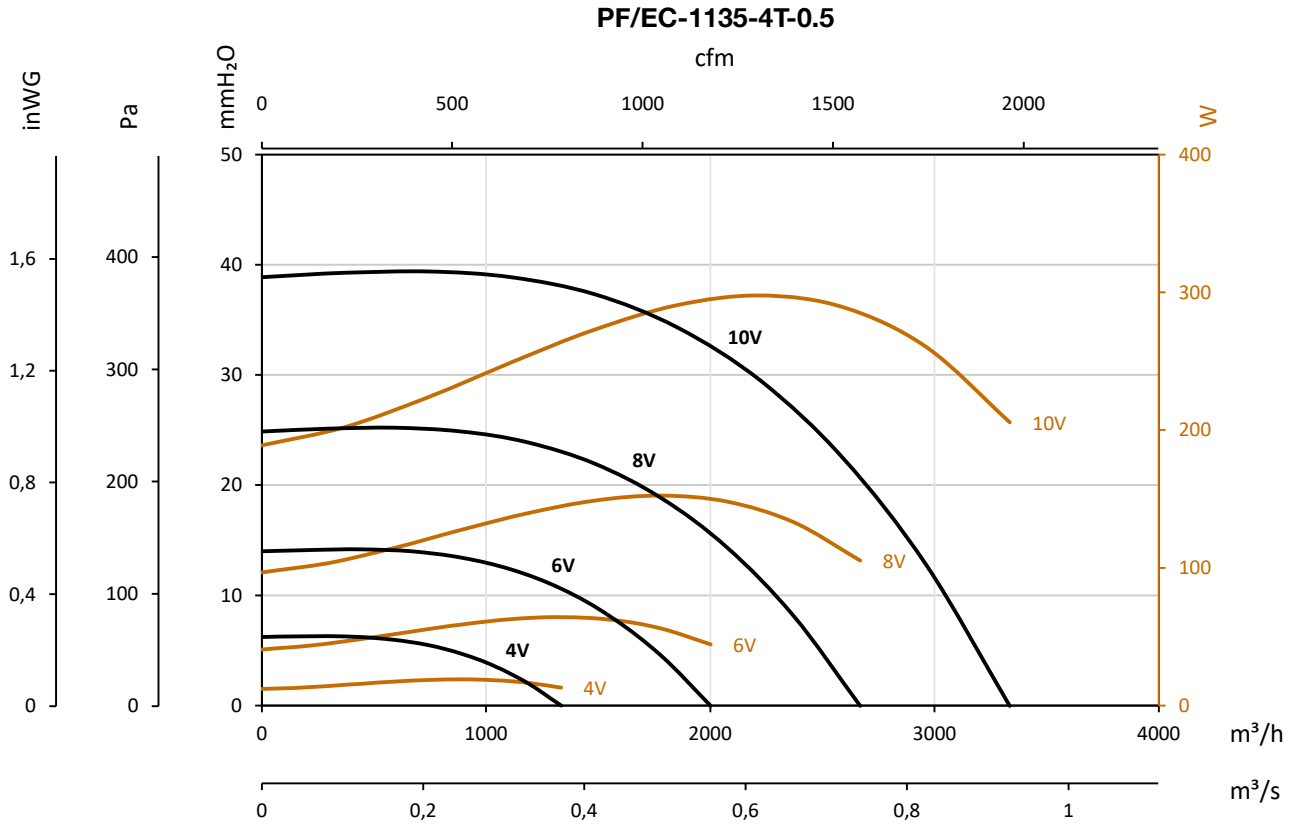

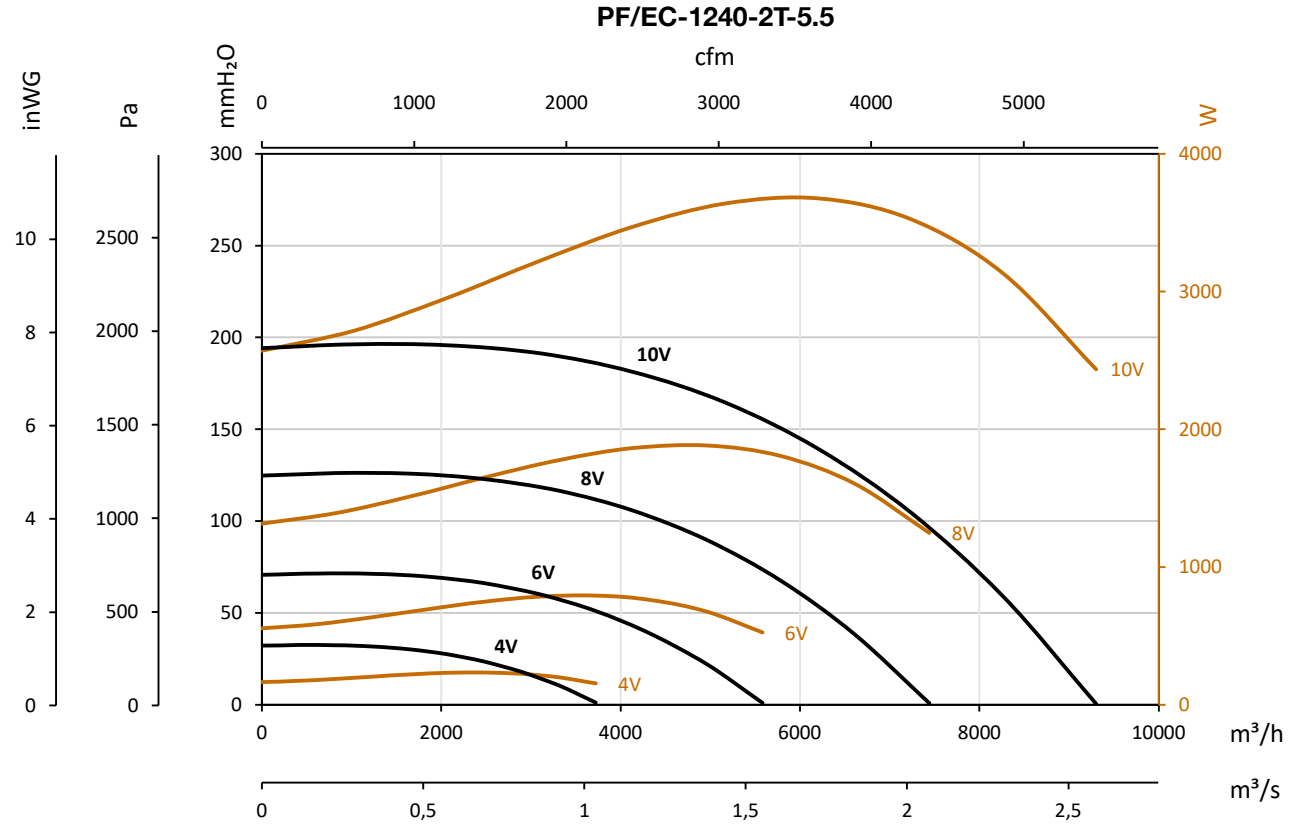

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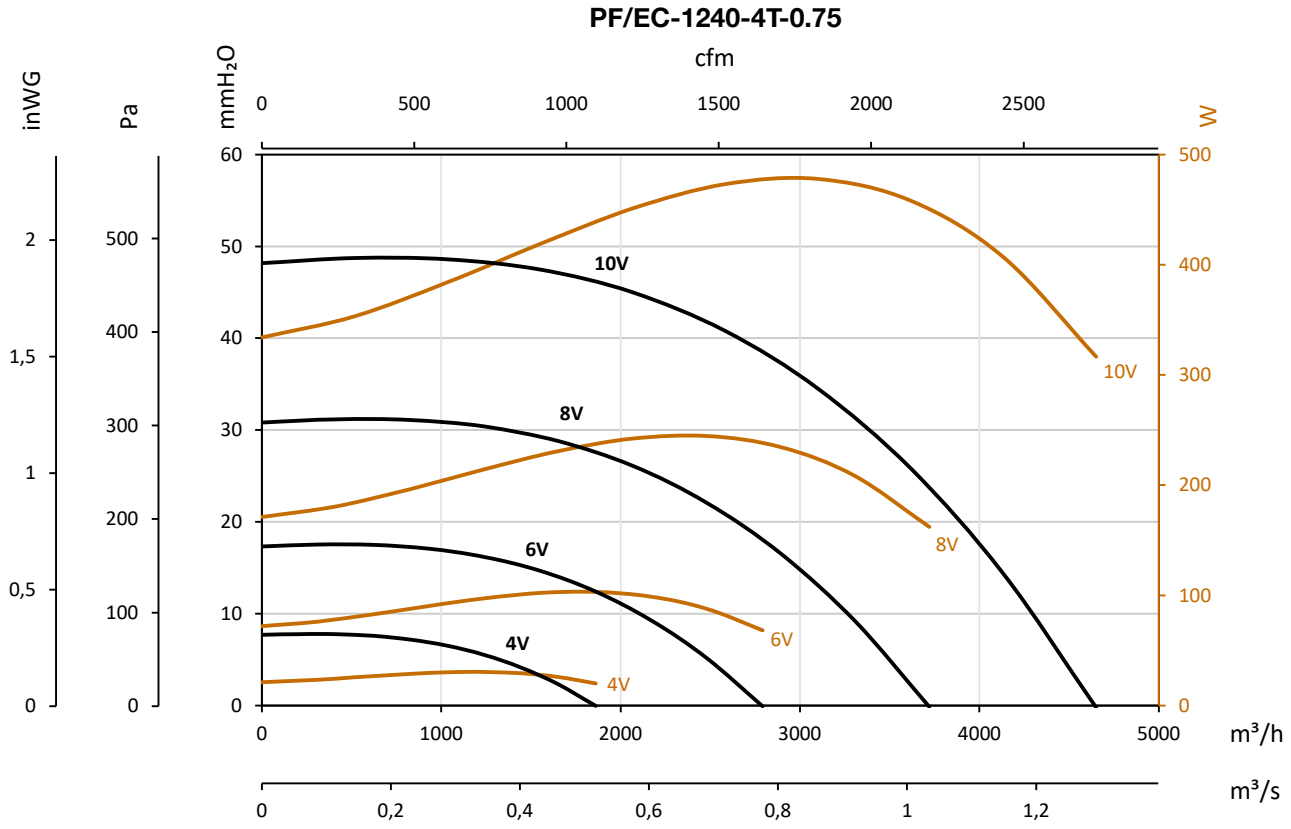

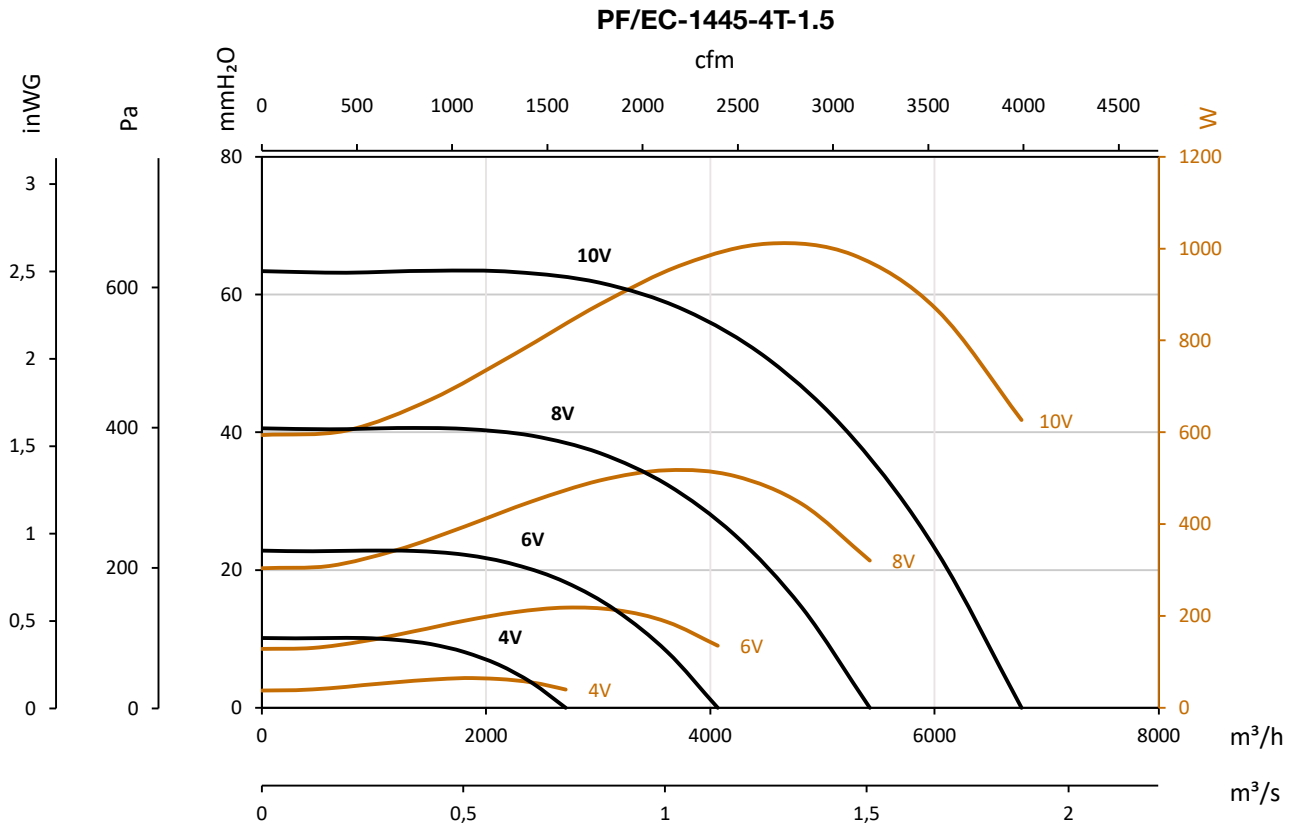

Characteristic curves

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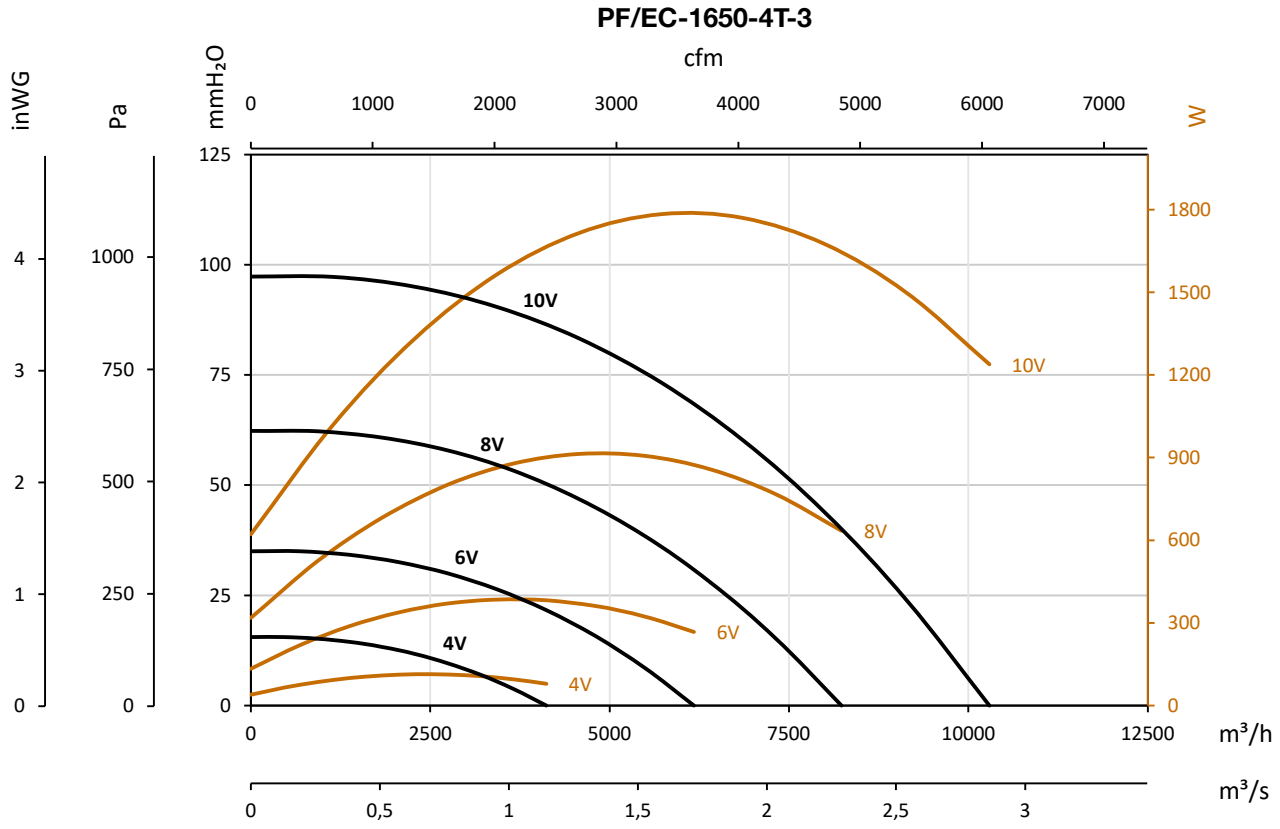

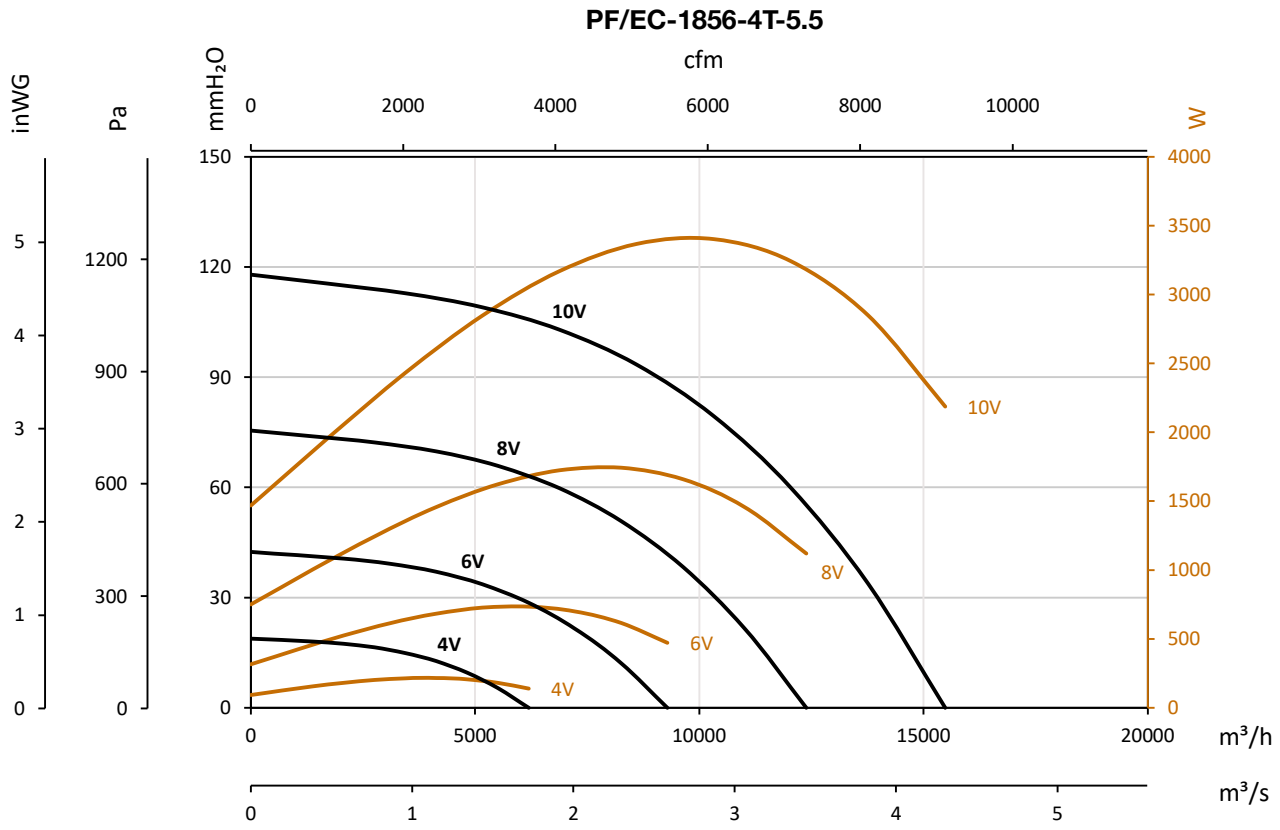

Characteristic curves

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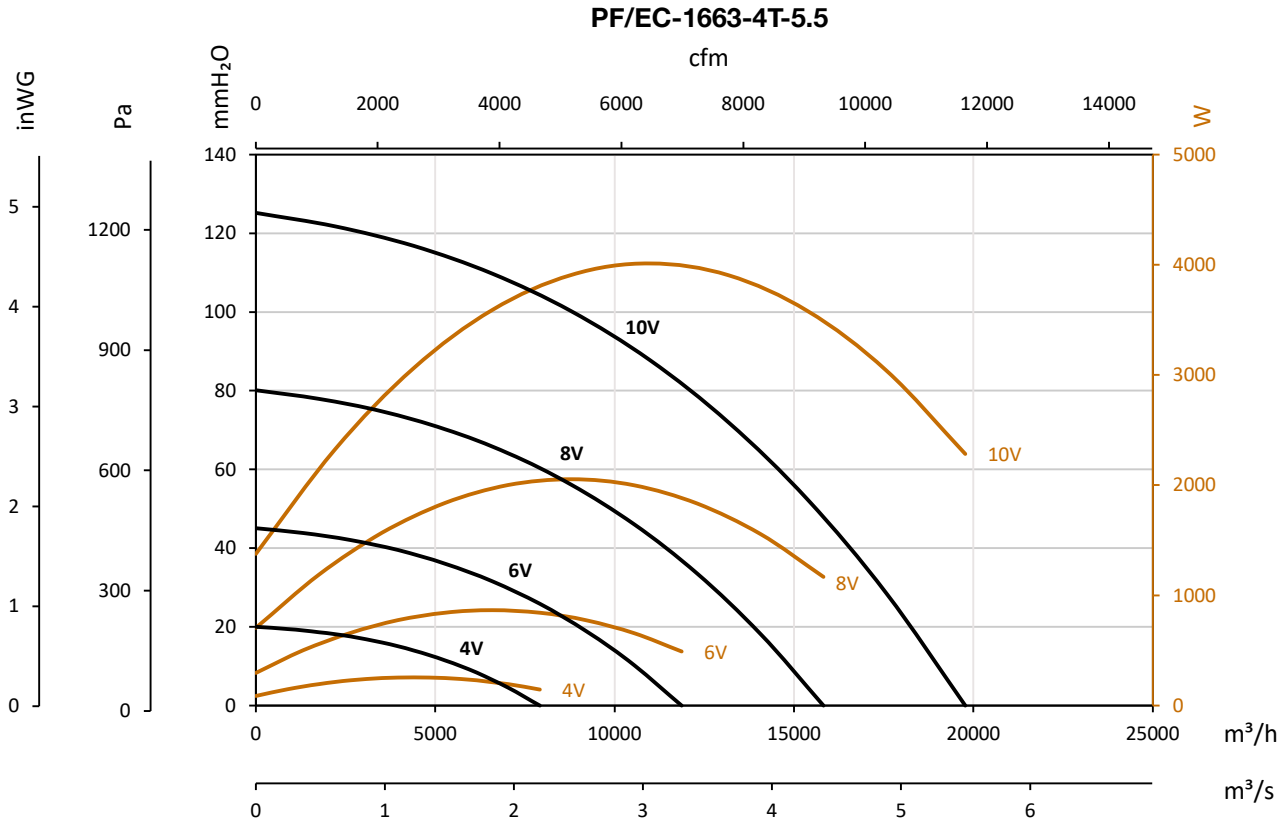

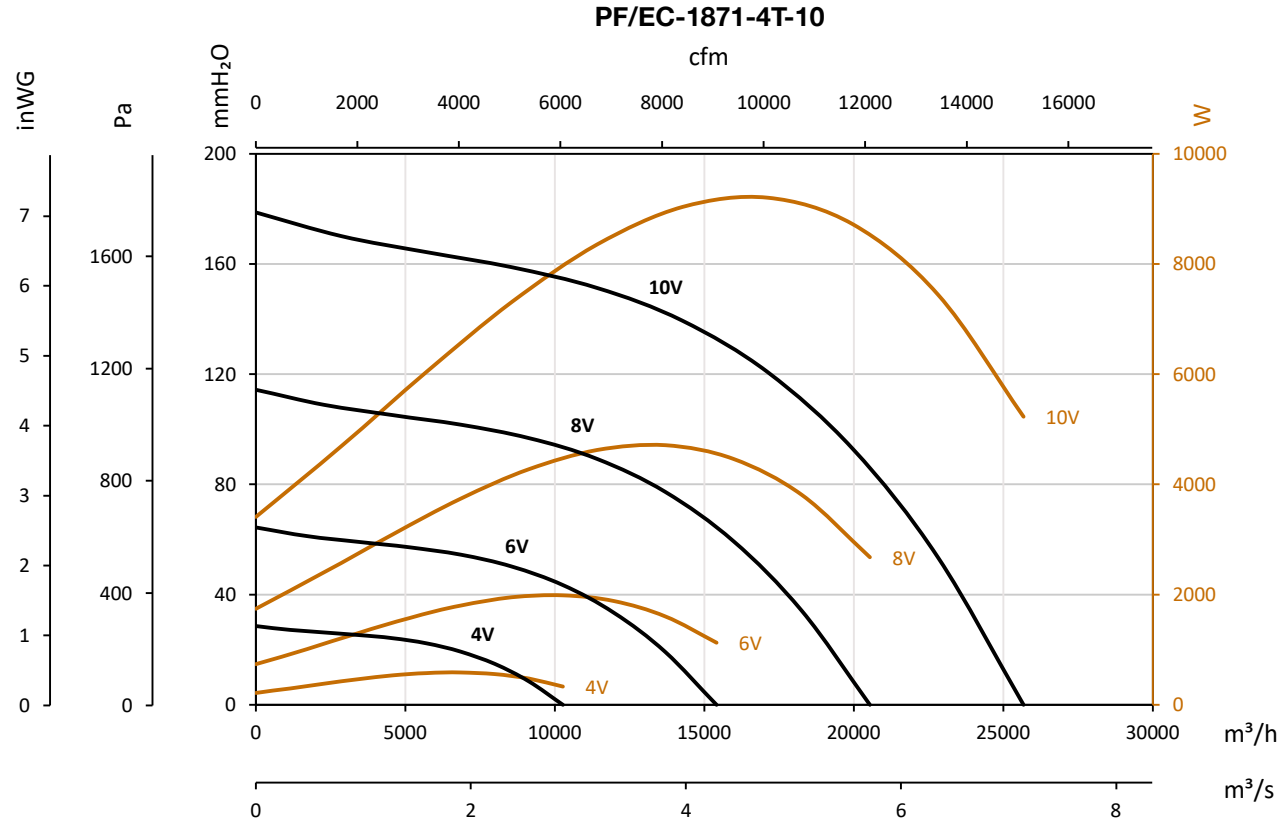

Characteristic curves

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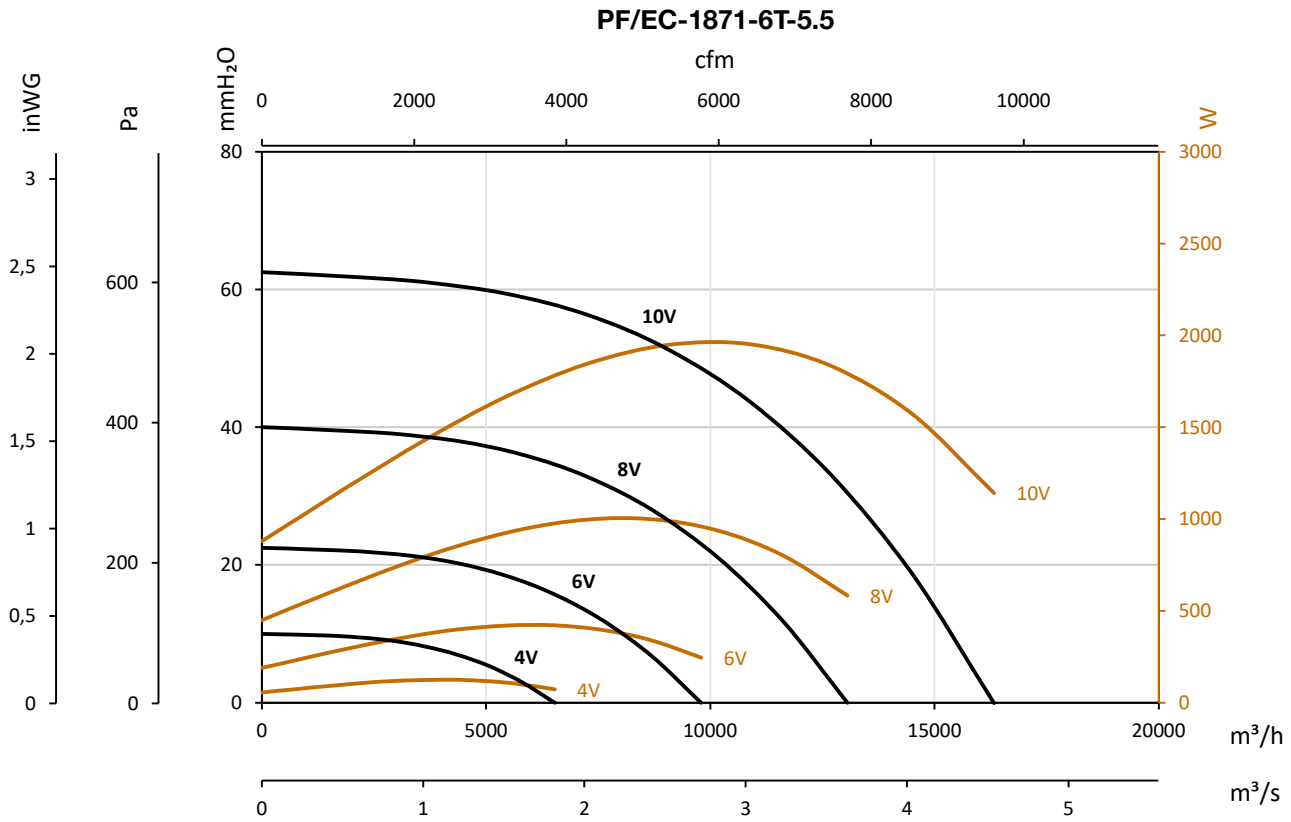


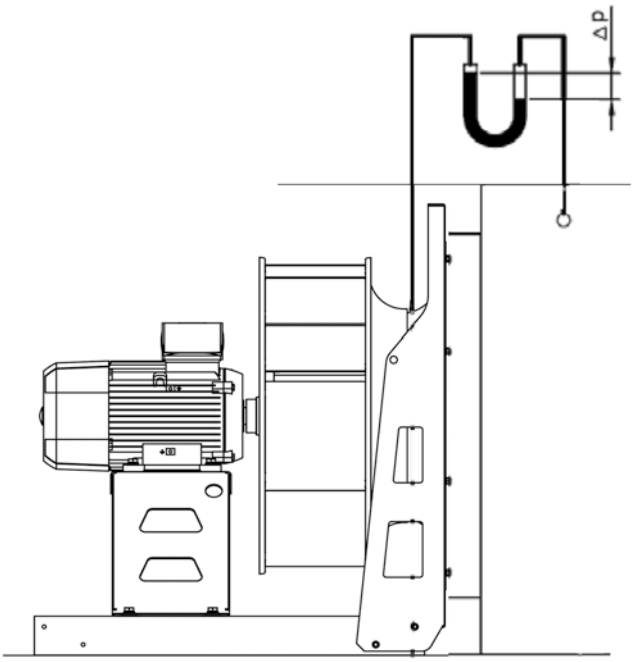
Pressure connection

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

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

	K Factor*
PF/EC-925	77
PF/EC-1028	94
PF/EC-1031	107
PF/EC-1135	143
PF/EC-1240	168
PF/EC-1445	245
PF/EC-1650	225
PF/EC-1856	310
PF/EC-1663	397
PF/EC-1871	513

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



Accessories


SI-PRESIÓN


INT


EC CONTROL


MTP


RPA


B


BD