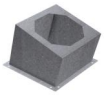
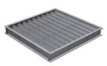
ENKELROOF EEC

Accessories


AC


BAD


BTI


CMP-H UT


INT


KV ENKEL ROOF


PMR


REGC


SIL C MINI C


SIL-C / SIL-CN

ROOF FAN WITH ABS COWL AND ELECTRONIC MOTOR

MANUFACTURING FEATURES:

- ABS protection cowl easily removable for access to motor and impeller (integrated folding system in models 500, 560 and 630). The ABS cowl is characterized by its toughness, resistance to impacts and is able to withstand extreme ambient temperatures. 100% of the ABS used in the this cowl is recycled.
- The design of the cowl with a rounded shape is specific to minimize the risk of water ingress due to rain (including rain).
- Structure in anticorrosive galvanized steel and support frame for adaptation to the roof with anti-bird protection grid.
- High-efficiency backward-curved blade impeller (IE4 for three phase motors and IE5 for single motors) with self-cleaning system. Self-cleaning system. Reinforced polyamide impeller for models 155, 190 and 220. The rest of the models in aluminum.
- EC technology uses integral electronic control to ensure that the motor always runs at optimal load and ensures efficient energy utilization. It incorporates an external rotor EC motor with high efficiency and low noise level. Speed control through a 0-10V or PWM signal. 230V 50/60Hz single-phase power supply for models 155 to 310 and 400V 50/60Hz three-phase power supply for sizes from 355 to 630. IP54 and motor class B insulation.

APPLICATIONS

Designed for deck or roof mounting, they are indicated for:

- Smoke extraction.
- Air renewal in all types of buildings and industries.
- Working temperature range from -20ºC to 60ºC for models size 155-310, -25ºC to 60ºC for 355-450 sizes, -30ºC to 50ºC for size 500 and -30ºC to 40ºC for 560 and 630 models.

UNDER REQUEST

- Fan (size between 250 and 450) with k-factor reading.

Technical data

Single-phase motor

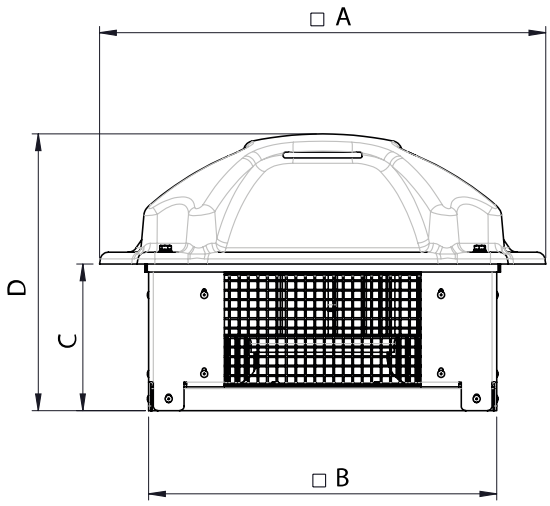
Code	Model	R.P.M.	Rated I. A 230V	Rated power kW	Max. Airflow m³/h	Sound db (A)**	Weight kg	Connect. diagram
ENKREC155	ENKELROOF 155 EEC	3950	0,25	0,06	460	-	5	1
ENKREC190	ENKELROOF 190 EEC	3570	0,6	0,09	760	-	5	1
ENKREC220	ENKELROOF 220 EEC	2600	0,6	0,08	870	-	7	1
ENKREC250	ENKELROOF 250 EEC	2500	1,00	0,15	1.640	-	9	1
ENKREC310	ENKELROOF 310 EEC	2350	1,7	0,36	3.160	-	16	2

Three-phase motor

Code	Model	R.P.M.	Rated I. A 400V	Rated power kW	Max. Airflow m³/h	Sound db (A)**	Weight kg	Connect. diagram
ENKREC355	ENKELROOF 355 EEC	2100	1,63	0,99	4.890	-	17,50	3
ENKREC450	ENKELROOF 450 EEC	1450	1,67	1,01	6.955	-	19	3
ENKREC500	ENKELROOF 500 EEC	1800	4,95	3,00	13.850	-	92	4
ENKREC560	ENKELROOF 560 EEC	1520	4,4	2,77	16.100	-	107	4
ENKREC630	ENKELROOF 630 EEC	1250	4,4	2,70	18.600	-	123	4

Notes:
** Total sound pressure level at the point of maximum flow measured in dB(A) in the suction measured in free field at a distance of 6m from the source

Dimensions



Model	A	B	C	D
ENKELROOF 155 EEC	435	341	96	211
ENKELROOF 190 EEC	435	341	86.5	206.5
ENKELROOF 220 EEC	565	441	113.5	273,5
ENKELROOF 250 EEC	565	441	185.5	305
ENKELROOF 310 EEC	765	601	194	559
ENKELROOF 355 EEC	765	601	280.5	645.5
ENKELROOF 450 EEC	765	601	337.5	702.5
ENKELROOF 500 EEC	1227	946	460.5	930.5
ENKELROOF 560 EEC	1227	946	480.5	950.5
ENKELROOF 630 EEC	1347	1046	480.5	1000.5

Wiring diagram

Wiring diagram Nº 1

Nº	Signal Señal	Colour Color	Specification Especificación
1	L	Brown Marrón	AC 220V/50Hz
2	N	Blue Azul	AC 220V/50Hz
3	Pe	Yellow-Green Amarillo-Verde	⏚

Nº	Signal Señal	Colour Color	Specification Especificación
1	GND	Blue Azul	⏚
2	Vsp	Yellow Amarillo	0-10 V/PWM
3	Vcc	Red Rojo	DC 10V
4	FG	White Blanco	1 Pulse/R

Wiring diagram Nº 2

Nº	Signal Señal	Colour Color	Specification Especificación
1	L	Brown Marrón	AC 220V-50/60 Hz
2	N	Blue Azul	AC 220V-50/60 Hz
3	Pe	Yellow-Green Amarillo-Verde	⏚

Nº	Signal Señal	Colour Color	Specification Especificación
1	GND	Blue Azul	⏚
2	Vsp	Yellow Amarillo	0-10 V/PWM
3	Vcc	Red Rojo	DC 10V
4	FG	White Blanco	12 Pulse/R

Wiring diagram Nº 3

Nº	Signal Señal	Colour Color	Specification Especificación
1	L1	Black Negro	AC380V-50/60Hz
2	L2	Black Negro	AC380V-50/60Hz
3	L3	Black Negro	AC380V-50/60Hz
4	Pe	Yellow-Green Amarillo-Verde	⏚

Nº	Signal Señal	Colour Color	Specification Especificación
1	Vcc	Red Rojo	DC10V
2	Vsp	Yellow Amarillo	0-10VDC/PWM
3	GND	Blue Azul	⏚
4	FG	White Blanco	12 Pulse/R

Wiring diagram Nº 4

Nº	Signal Señal	Colour Color	Specification Especificación
1	L1	Black Negro	AC380V-50/60Hz
2	L2	Black Negro	AC380V-50/60Hz
3	L3	Black Negro	AC380V-50/60Hz
4	Pe	Yellow-Green Amarillo-Verde	⏚

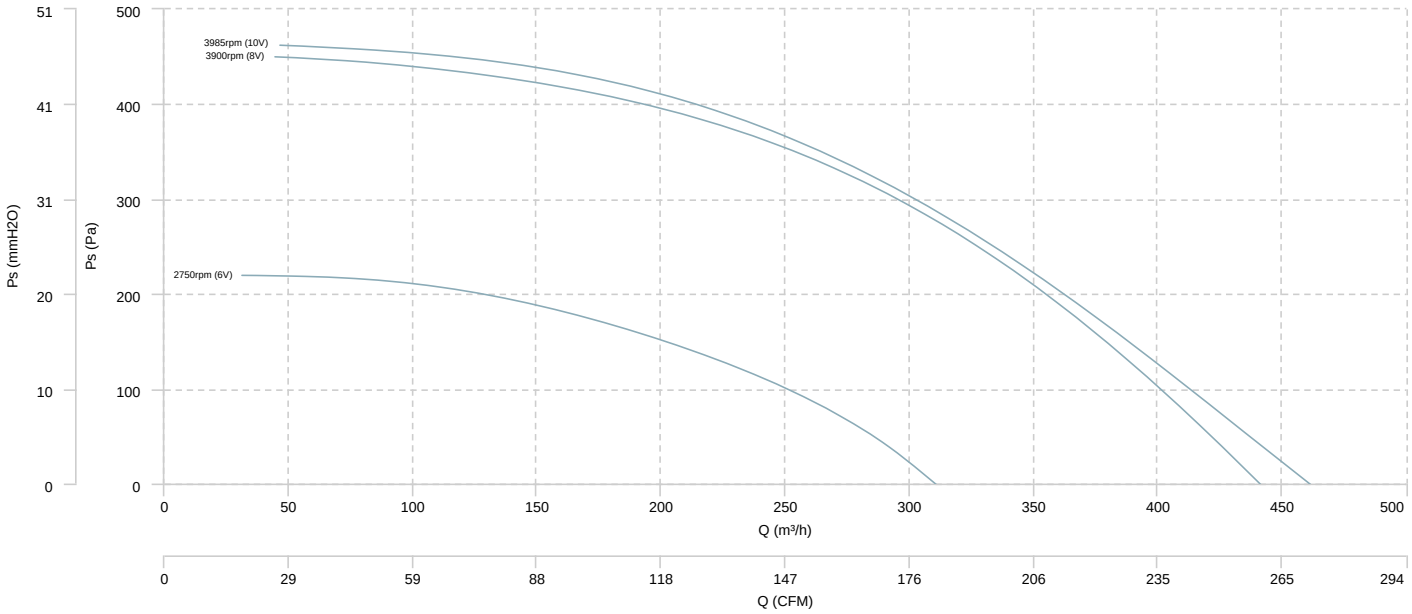
Nº	Signal Señal	Colour Color	Specification Especificación
1	Vcc	Red Rojo	DC10V
2	Vsp	Yellow Amarillo	0-10VDC/PWM
3	GND	Blue Azul	⏚
4	FG	White Blanco	12 Pulse/R

Nº	Signal Señal	Colour Color	Specification Especificación
1	NO	Brown Marrón	NO
2	COM	Black Negro	COM
3	NC	Orange Naranja	NC

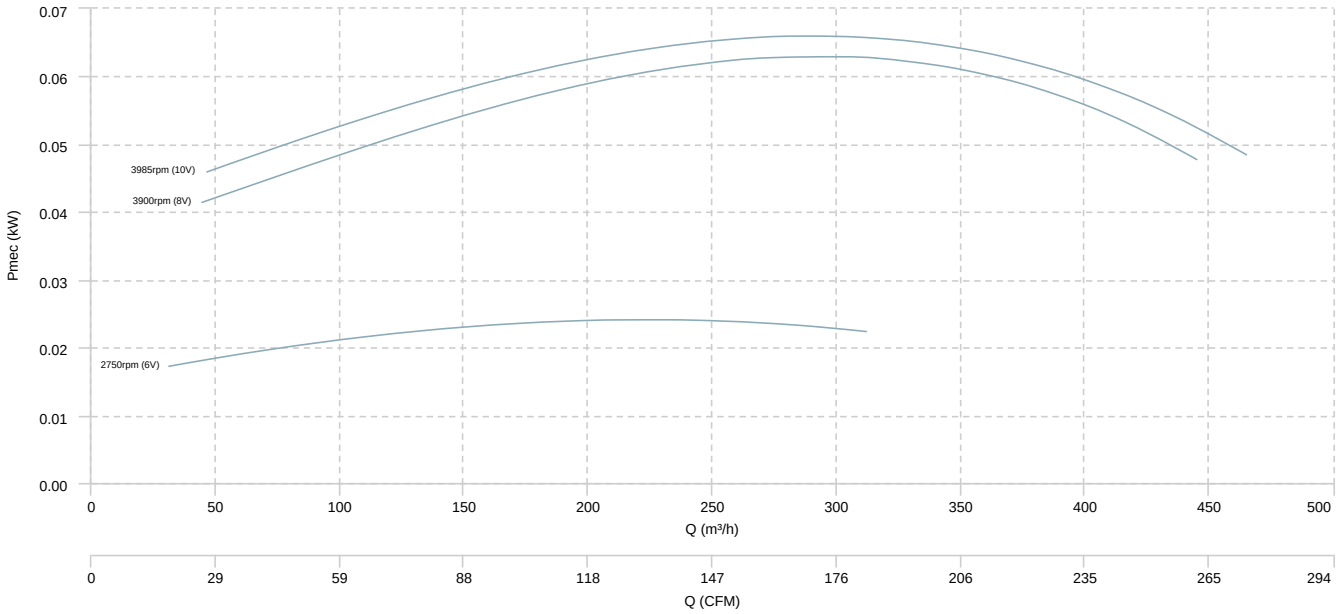
CHARACTERISCTIC CURVE

ENKELROOF 155 EEC

AIR FLOW - PRESSURE

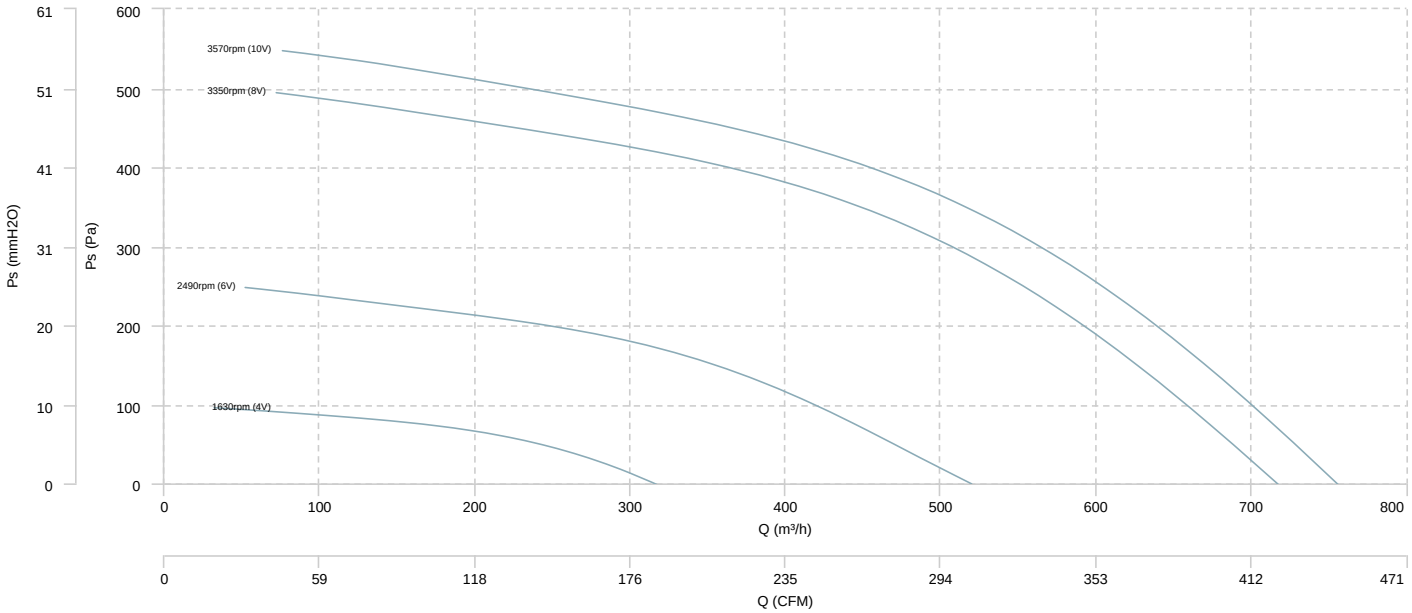


AIR FLOW - MECHANICAL POWER

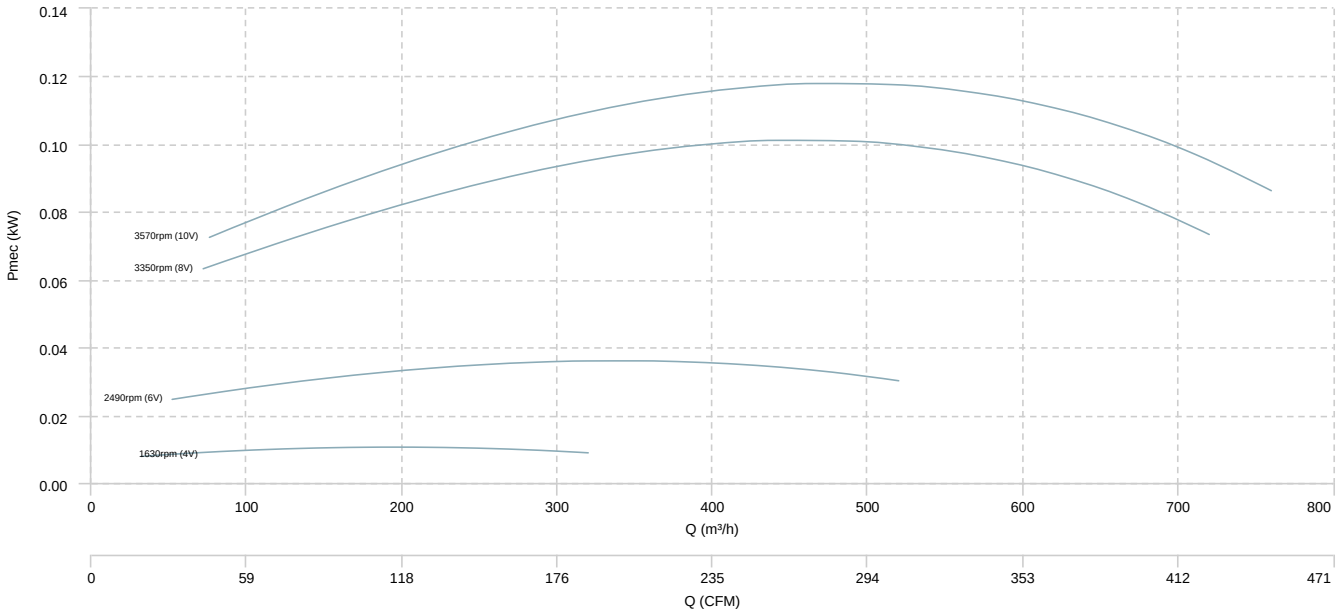


ENKELROOF 190 EEC

AIR FLOW - PRESSURE

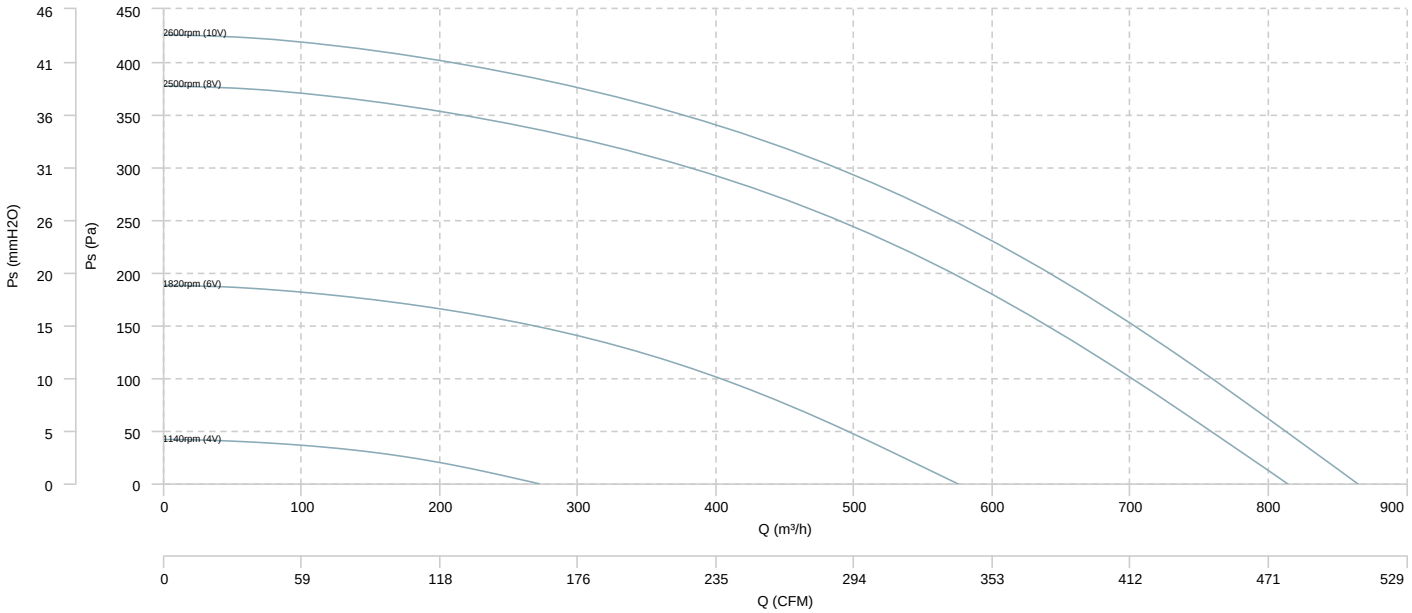


AIR FLOW - MECHANICAL POWER

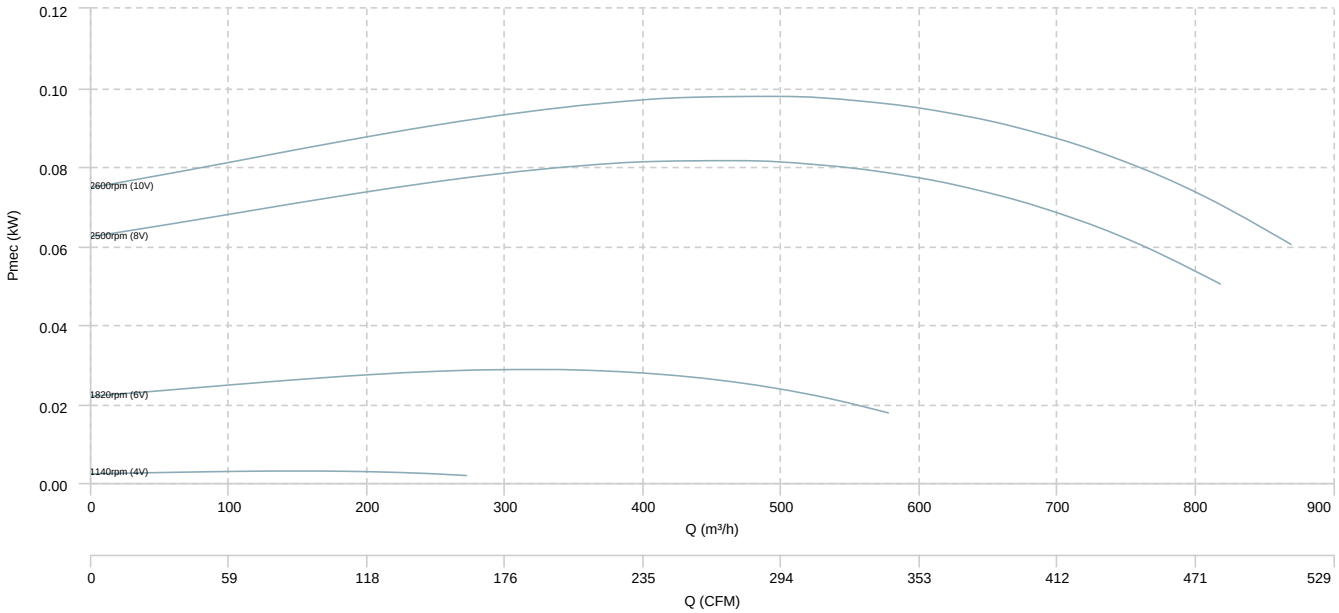


ENKELROOF 220 EEC

AIR FLOW - PRESSURE

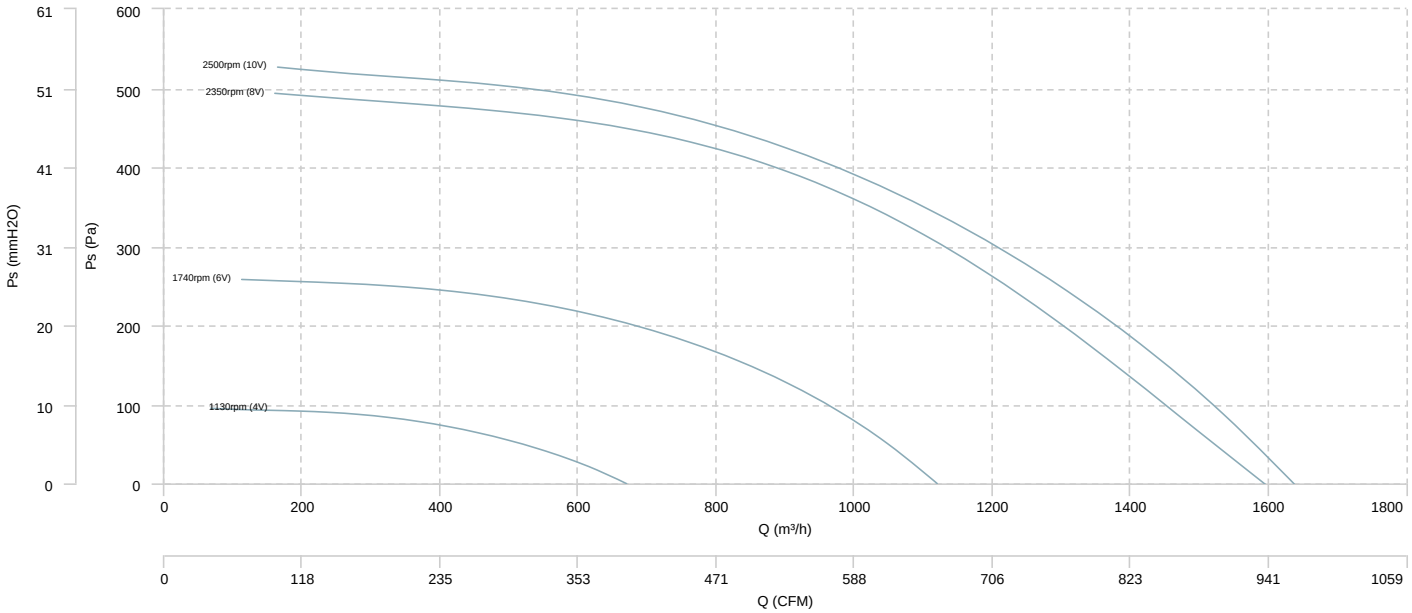


AIR FLOW - MECHANICAL POWER

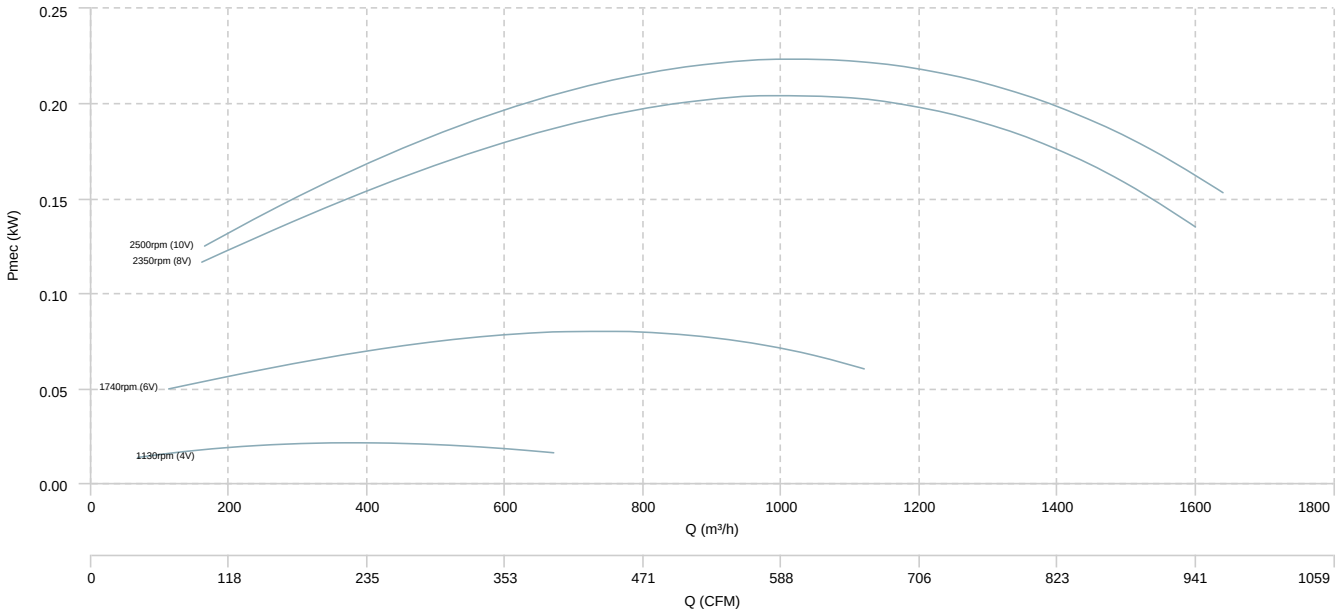


ENKELROOF 250 EEC

AIR FLOW - PRESSURE

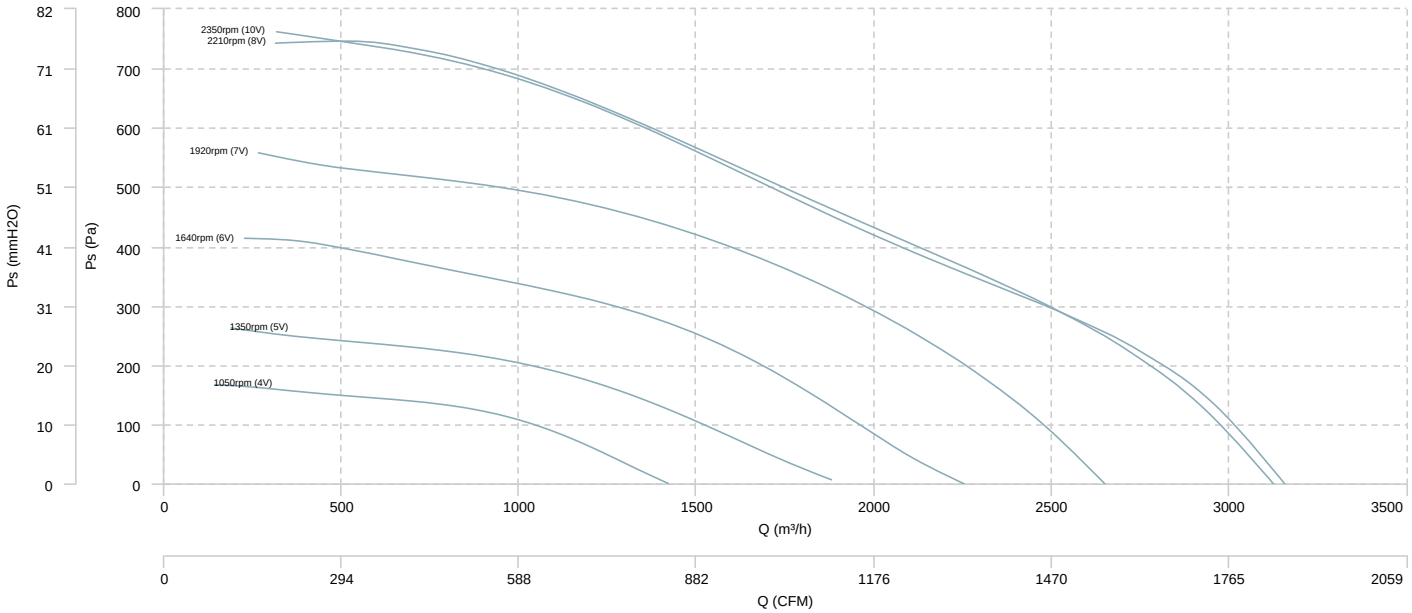


AIR FLOW - MECHANICAL POWER

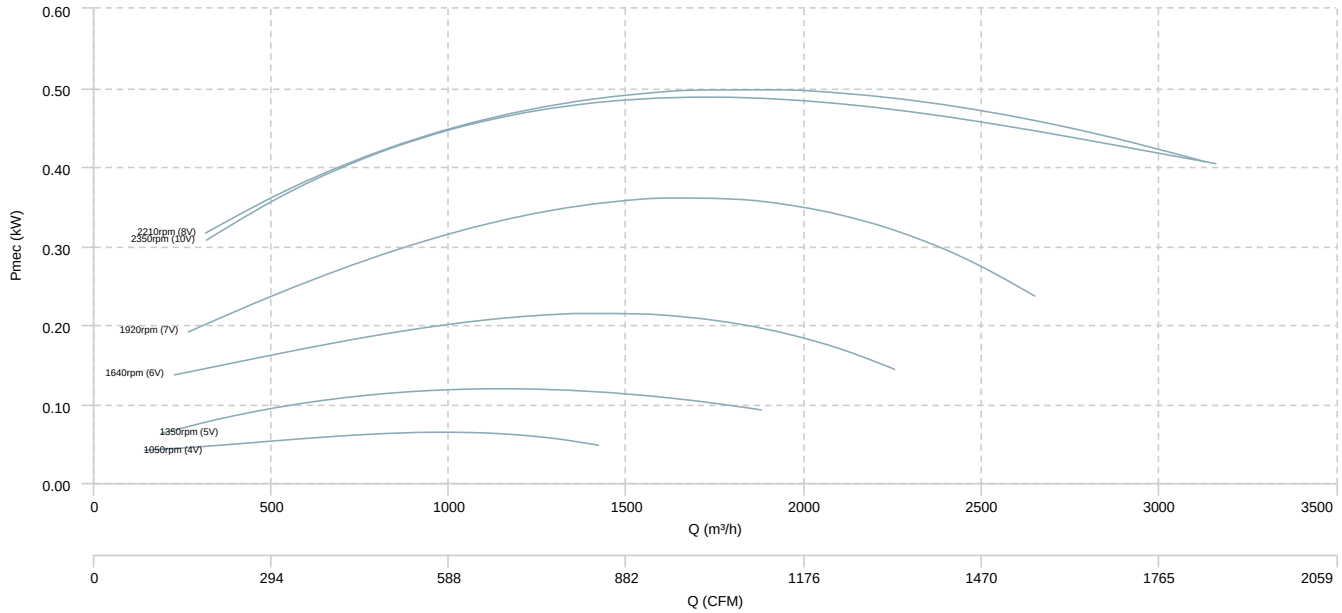


ENKELROOF 310 EEC

AIR FLOW - PRESSURE

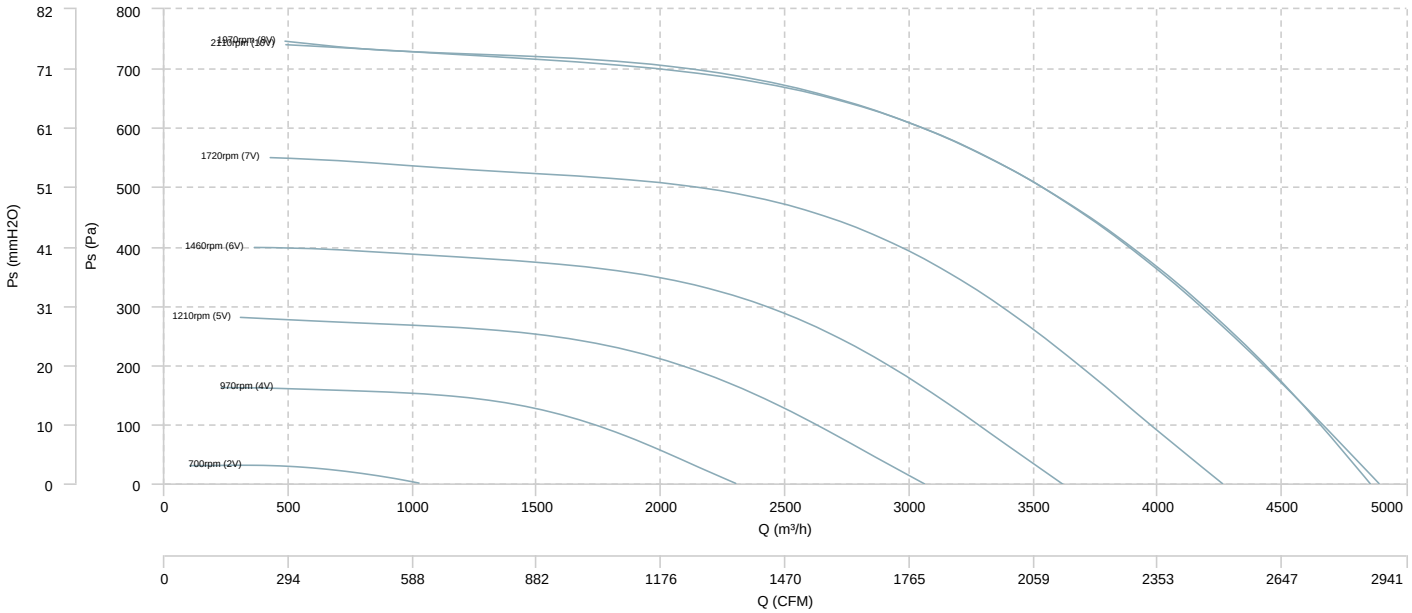


AIR FLOW - MECHANICAL POWER

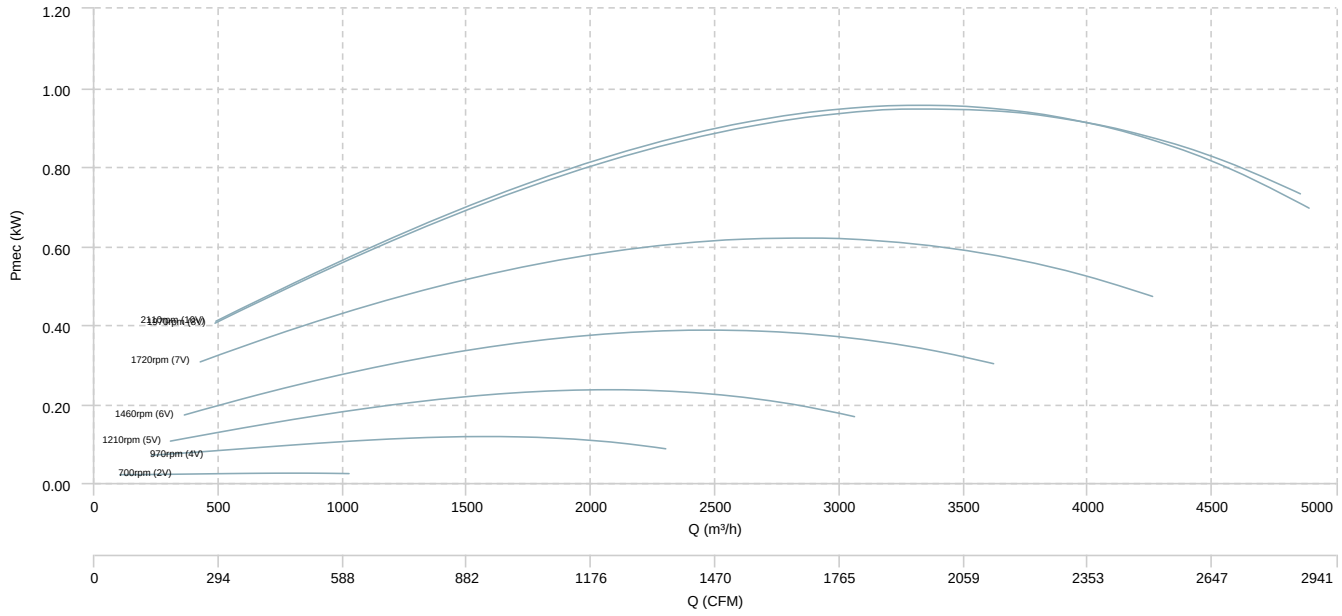


ENKELROOF 355 EEC

AIR FLOW - PRESSURE

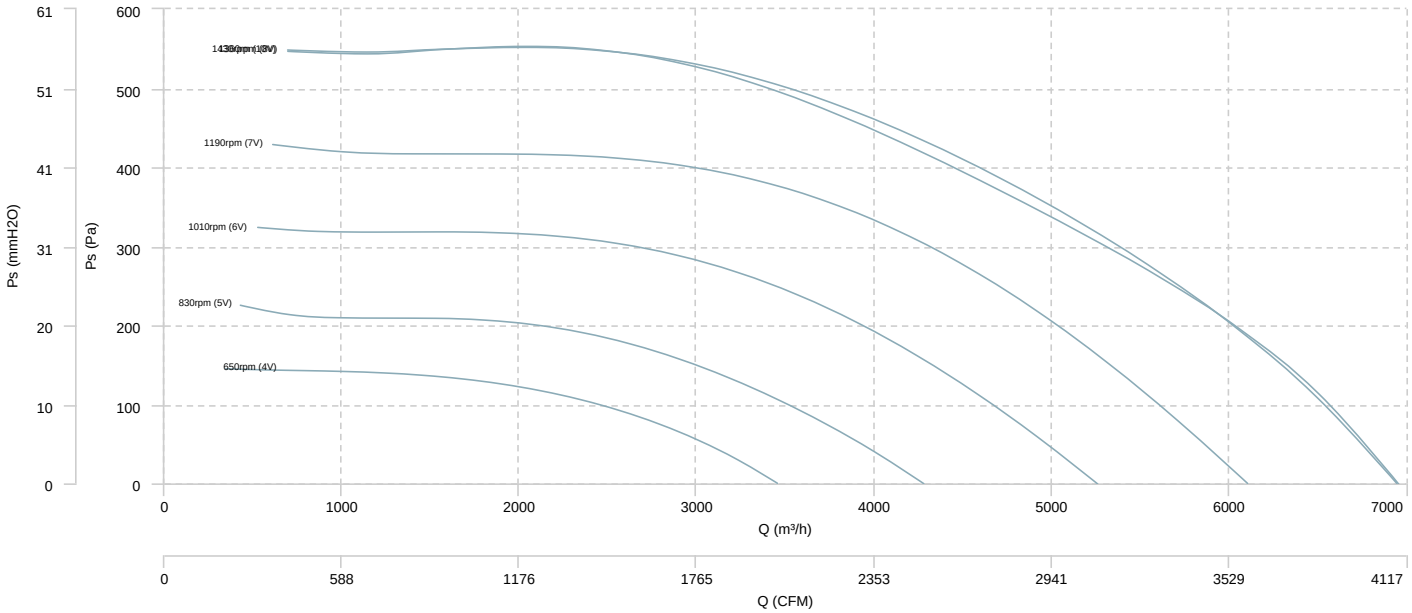


AIR FLOW - MECHANICAL POWER

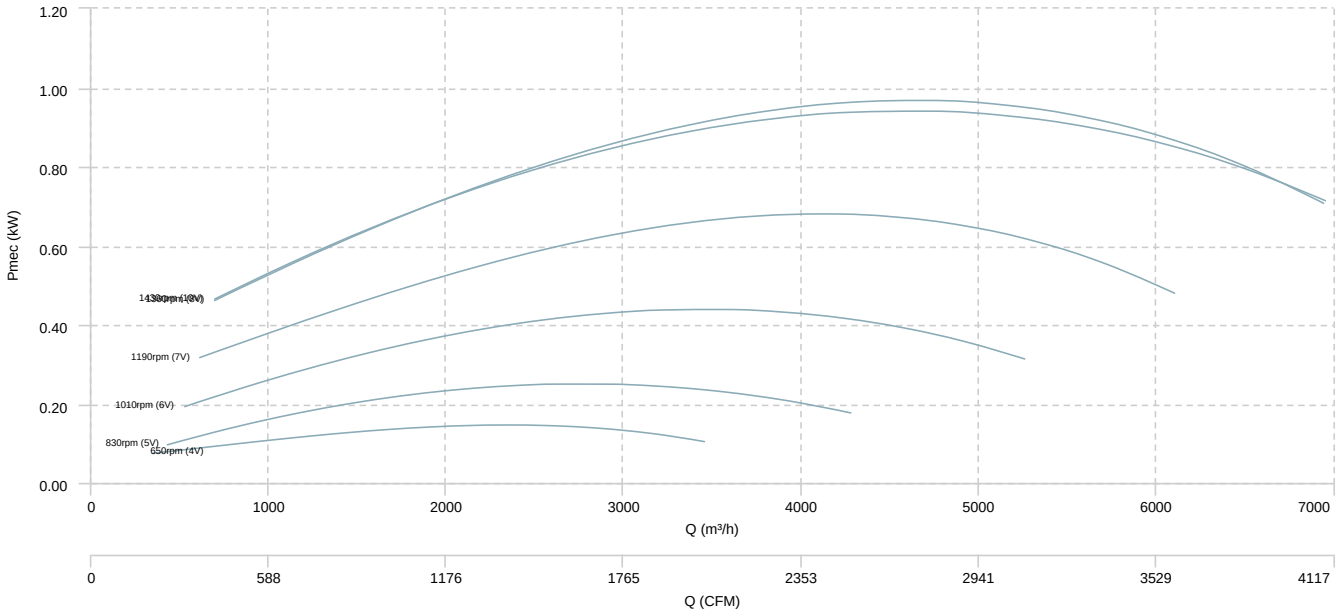


ENKELROOF 450 EEC

AIR FLOW - PRESSURE

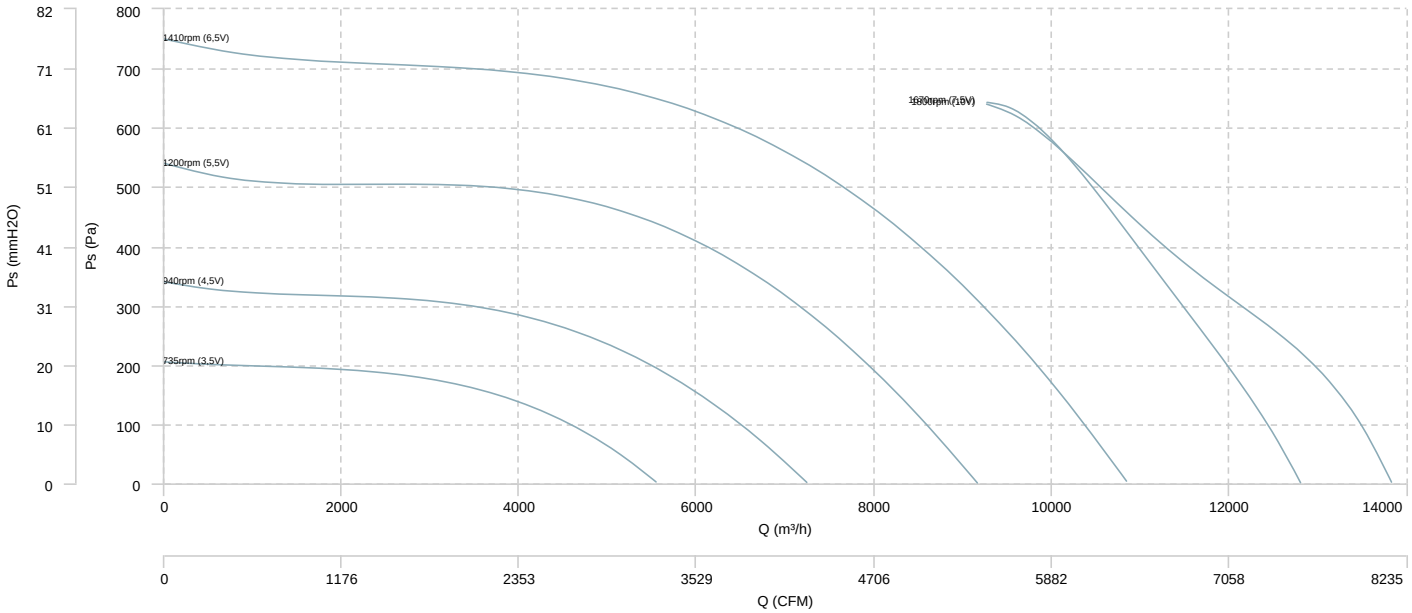


AIR FLOW - MECHANICAL POWER

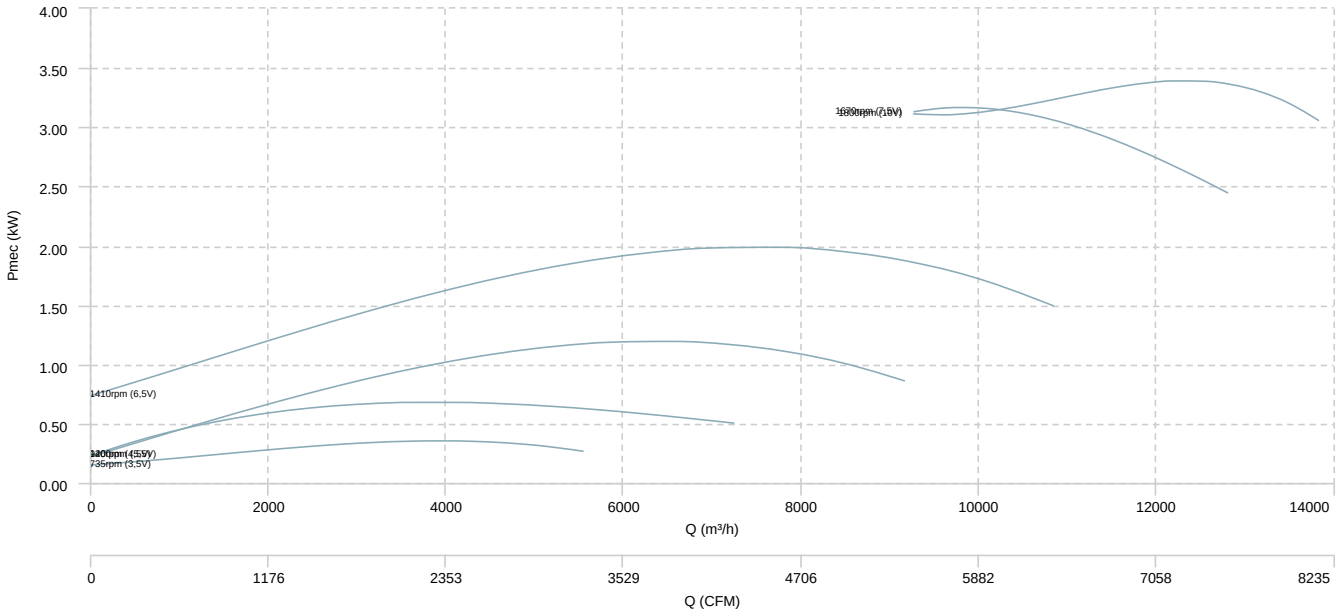


ENKELROOF 500 EEC

AIR FLOW - PRESSURE

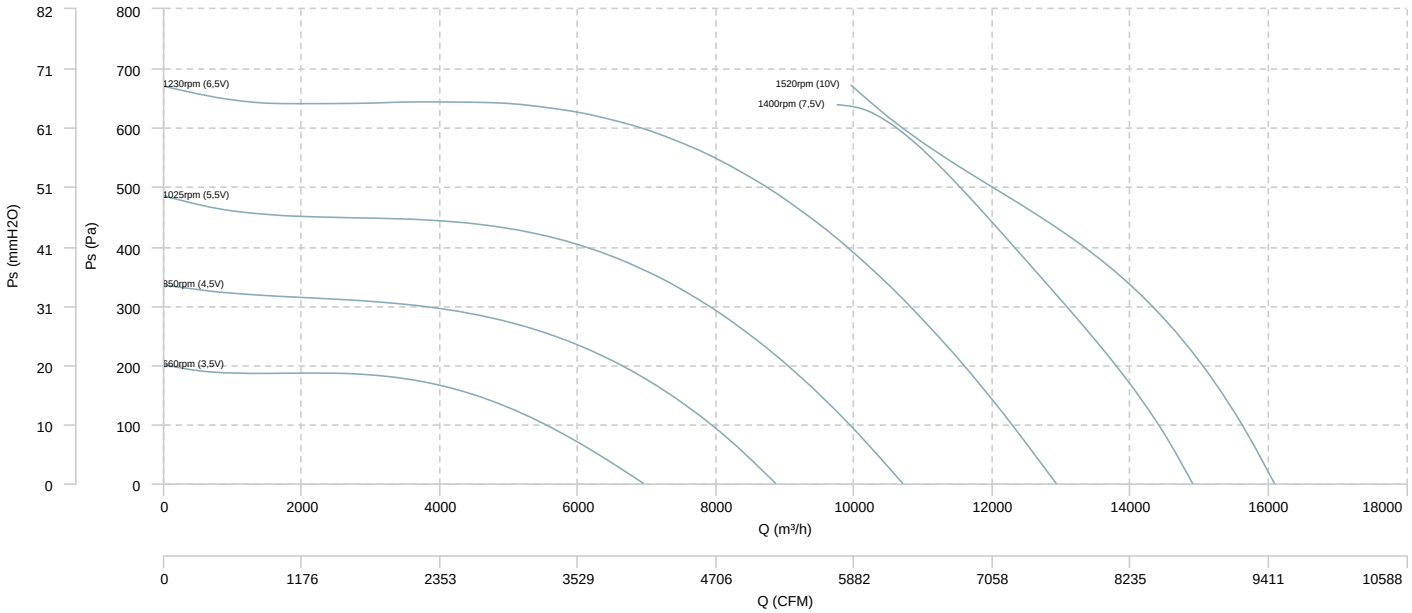


AIR FLOW - MECHANICAL POWER

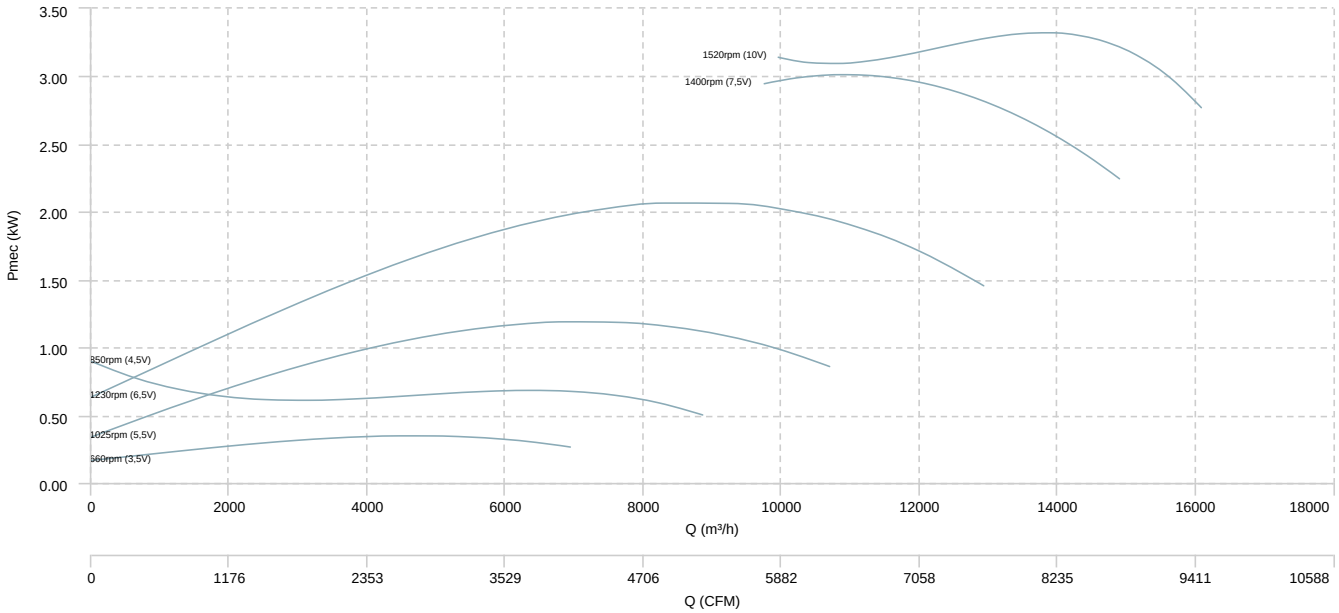


ENKELROOF 560 EEC

AIR FLOW - PRESSURE

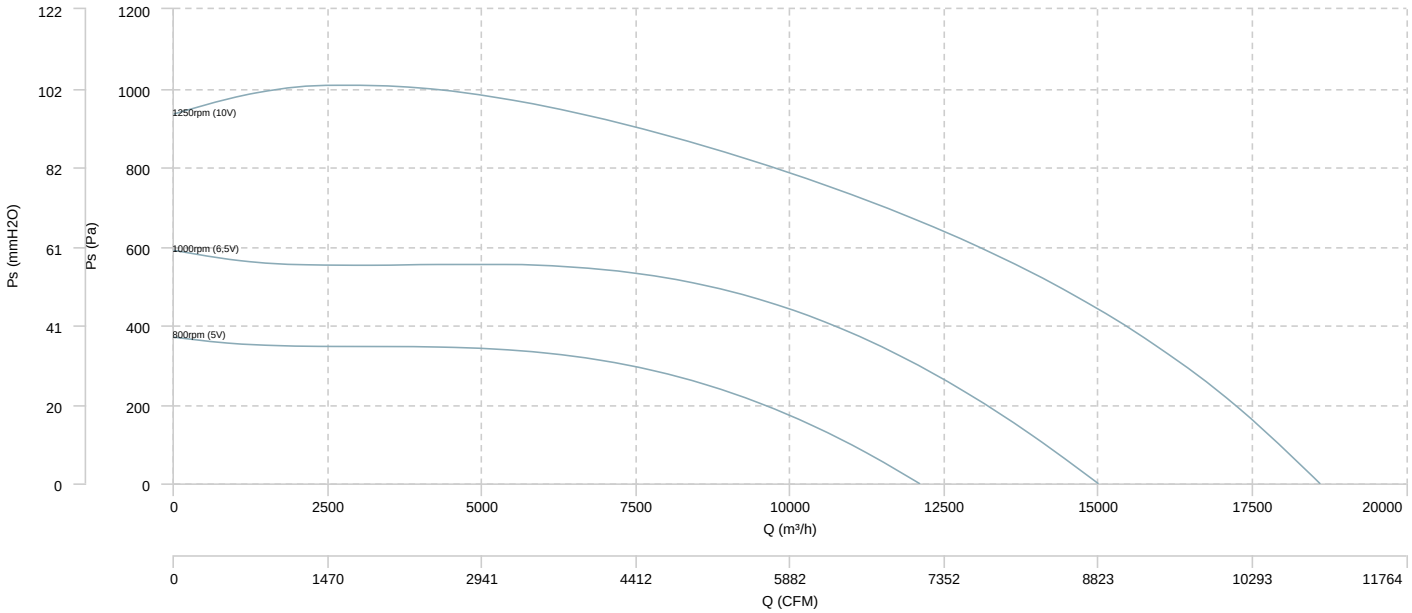


AIR FLOW - MECHANICAL POWER

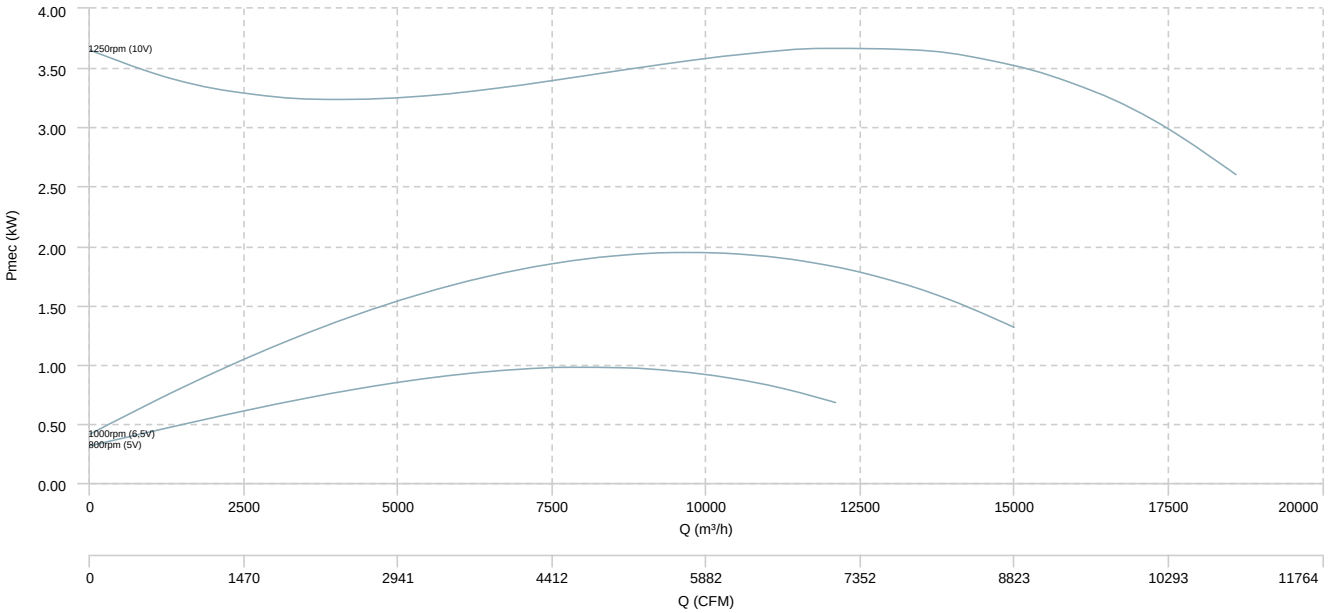


ENKELROOF 630 EEC

AIR FLOW - PRESSURE



AIR FLOW - MECHANICAL POWER



Sound data

Sound power Lw dB (A)										
Model		**63 Hz**	**125 Hz**	**250 Hz**	**500 Hz**	**1000 Hz**	**2000 Hz**	**4000 Hz**	**8000 Hz**	**Total**
ENKELROOF 155 EEC (2750rpm (6V))	Radiated	32	22	39	51	56	61	51	44	63
ENKELROOF 190 EEC (1630rpm (4V))	Radiated	8	15	30	43	51	54	47	39	56
ENKELROOF 220 EEC (1140rpm (4V))	Radiated	7	18	37	47	53	54	46	-	57
ENKELROOF 250 EEC (1130rpm (4V))	Radiated	6	20	44	51	54	53	45	31	58
ENKELROOF 310 EEC (1050rpm (4V))	Radiated	4	23	39	49	50	45	37	29	53
ENKELROOF 355 EEC (700rpm (2V))	Radiated	11	27	44	49	51	45	37	27	55
ENKELROOF 450 EEC (650rpm (4V))	Radiated	21	37	41	51	53	46	36	28	55
ENKELROOF 500 EEC (735rpm (3, 5V))	Radiated	45	46	53	57	61	65	54	41	67
ENKELROOF 560 EEC (660rpm (3, 5V))	Radiated	40	42	45	50	55	58	42	30	61
ENKELROOF 630 EEC (800rpm (5V))	Radiated	2	28	46	65	71	68	60	50	74

Notes:
* To calculate the sound power level at different rpm from those indicated above, use the following formula:

$$\text{Lw dB(A)}_{\text{rpmA}} = \text{Lw dB(A)}_{\text{rpmB}} + 52.5 \cdot \log_{10} \frac{\text{rpmA}}{\text{rpmB}}$$