

SB-3 PLUS EEC



CENTRIFUGAL FAN IN SOUNDPROOF LOW PROFILE BOX WITH RECTANGULAR FLANGES, WITH EXTERNAL ROTOR EC MOTOR

MANUFACTURING FEATURES

Inline ventilation box made of galvanized steel with rectangular connection flanges. 40mm thick rock wool insulation.

Self-cleaning impeller with back curved (backward) blades of high performance and single inlet, direct driven. Dynamically balanced to minimize noise and vibrations. Polyamide reinforced impeller for models 3015 and 4020 and aluminum plate for the rest.

High efficiency (IE4 for three phase motors and IE5 for single motors), low noise external rotor EC motor. Speed control through a 0-10V or PWM signal. Single-phase 230V 50 / 60Hz power supply for models 3015 to 6040 and three-phase 400V 50 / 60Hz for sizes 7050 and 8060. IP44 motor and class B insulation.

APPLICATIONS

Designed for duct installation, they are indicated for:

-Air renovations in bathrooms and small rooms.

-Perfect for false ceiling installation.

Working temperature range from -20°C to 60°C.

Accessories



BID



INT



**OP
SB-3**



PMR



REGC



**TEJ
SB-3**



**VIS
SB-3**

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
240150444	SB-3 PLUS 3015 EEC	3950	0,25	0,06	440	-	8	1
240190444	SB-3 PLUS 4020 EEC	3570	0,6	0,09	715	-	11,50	1
240250444	SB-3 PLUS 5035 EEC	2500	1,00	0,15	1.610	-	17	1
240310444	SB-3 PLUS 6040 EEC	2350	1,7	0,36	3.190	-	25,50	2

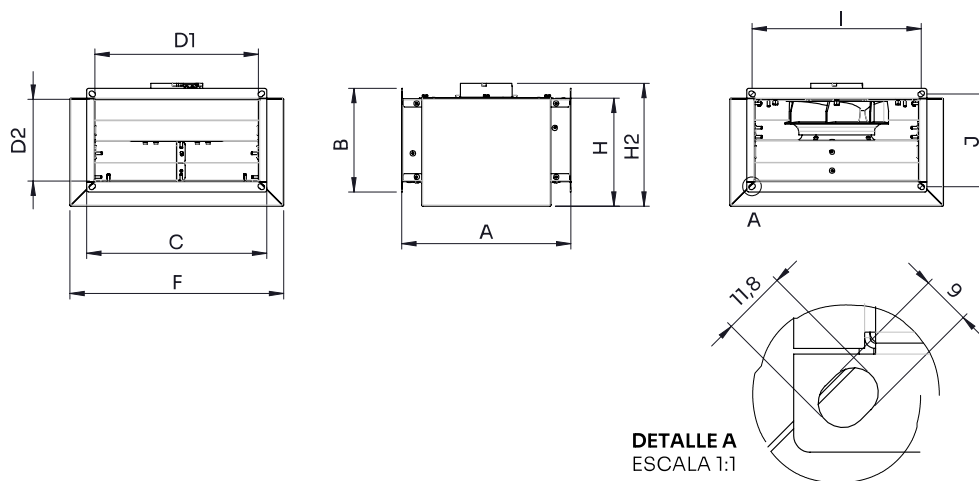
Three-phase motor

Code	Model	R.P.M.	Rated I. A 400V	Rated power kW	Max. Airflow m³/h	Sound db (A)**	Weight kg	Connect. diagram
240350444	SB-3 PLUS 7050 EEC	2100	1,63	0,99	5.070	-	42	3
240450444	SB-3 PLUS 8060 EEC	1450	1,67	1,01	7.030	-	54	3

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	D1	D2	F	H	H2	I
SB-3 PLUS 3015 EEC	310	190	330	300	150	392	199	225	310
SB-3 PLUS 4020 EEC	410	240	430	400	200	492	249	274.5	410
SB-3 PLUS 5035 EEC	510	393	530	500	353	592	402	431	510
SB-3 PLUS 6040 EEC	610	440	630	600	400	693	450	491	610
SB-3 PLUS 7050 EEC	710	540	730	700	500	793	550	605	710
SB-3 PLUS 8060 EEC	910	641	830	800	601	893	651	706	810

Model	J
SB-3 PLUS 3015 EEC	170
SB-3 PLUS 4020 EEC	220
SB-3 PLUS 5035 EEC	373
SB-3 PLUS 6040 EEC	420
SB-3 PLUS 7050 EEC	520
SB-3 PLUS 8060 EEC	621

Wiring diagram

Wiring diagram N° 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 N° 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

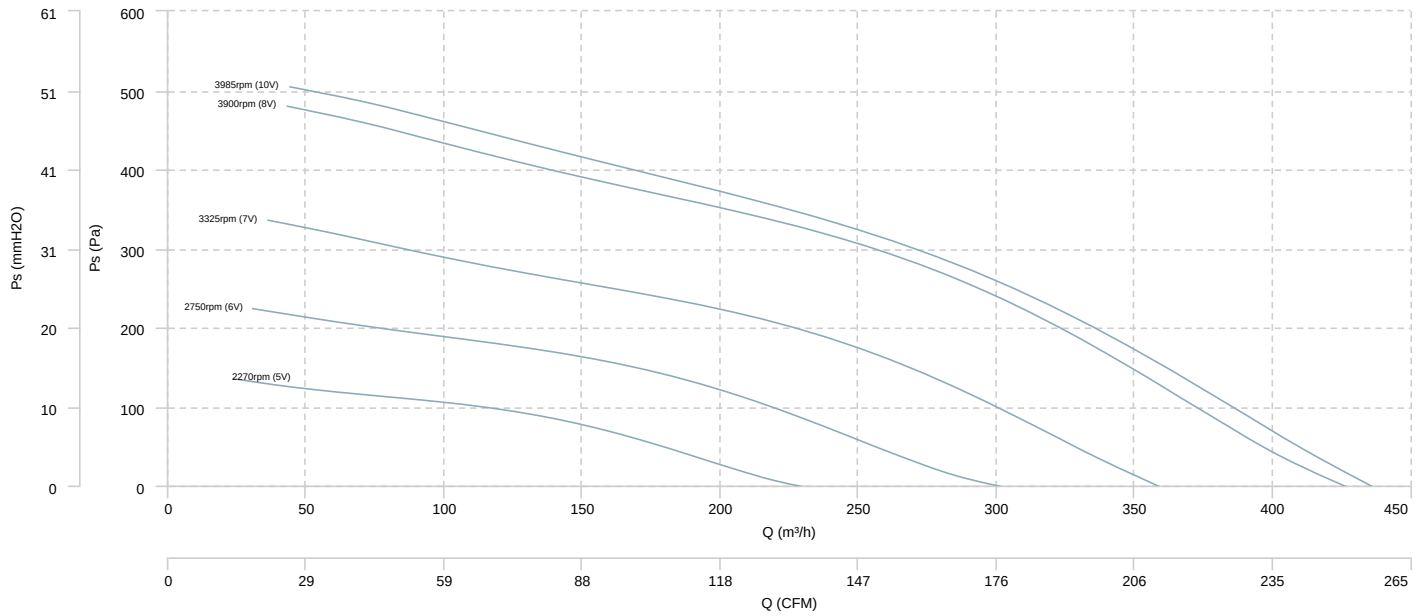
Nº	Signal Señal	Colour Color	Specification Especificación
1	L1	Black Negro	AC380V-50/60Hz
2	L2	Black Negro	AC380V-50/60Hz
3	L3	Black Negro	AC380V-50/60Hz
4	Pe	Yellow-Green Amarillo-Verde	

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

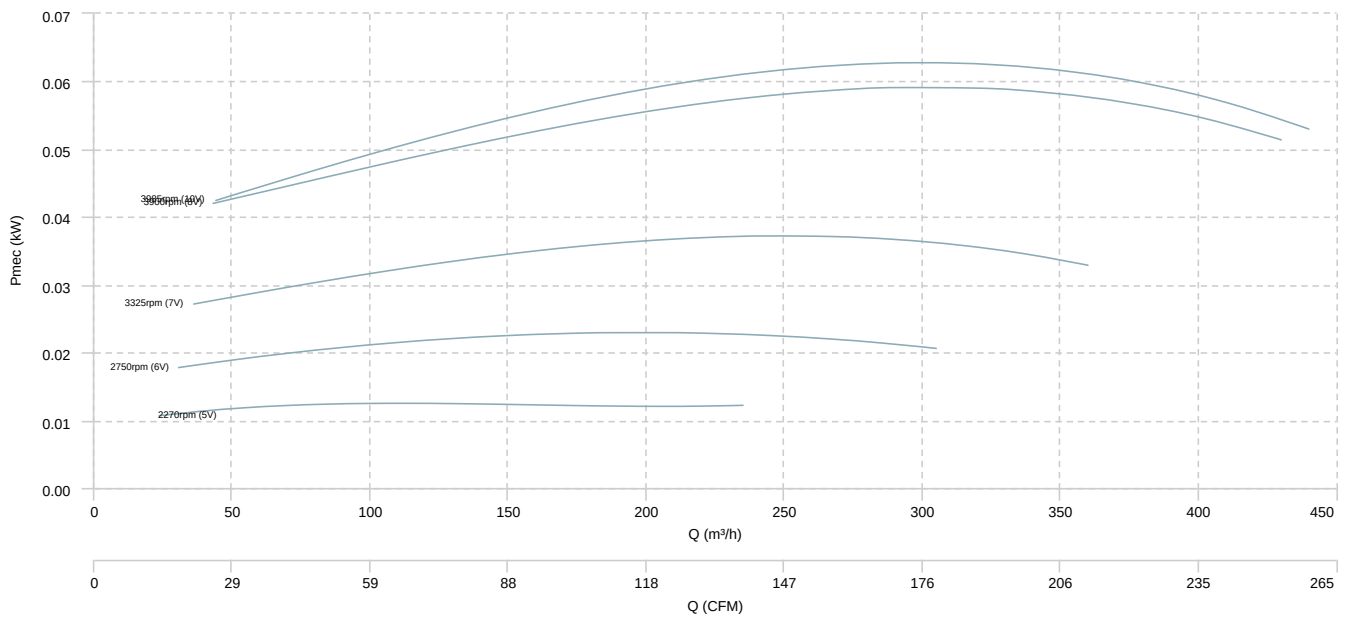
CHARACTERISCTIC CURVE

SB-3 PLUS 3015 EEC

AIR FLOW - PRESSURE

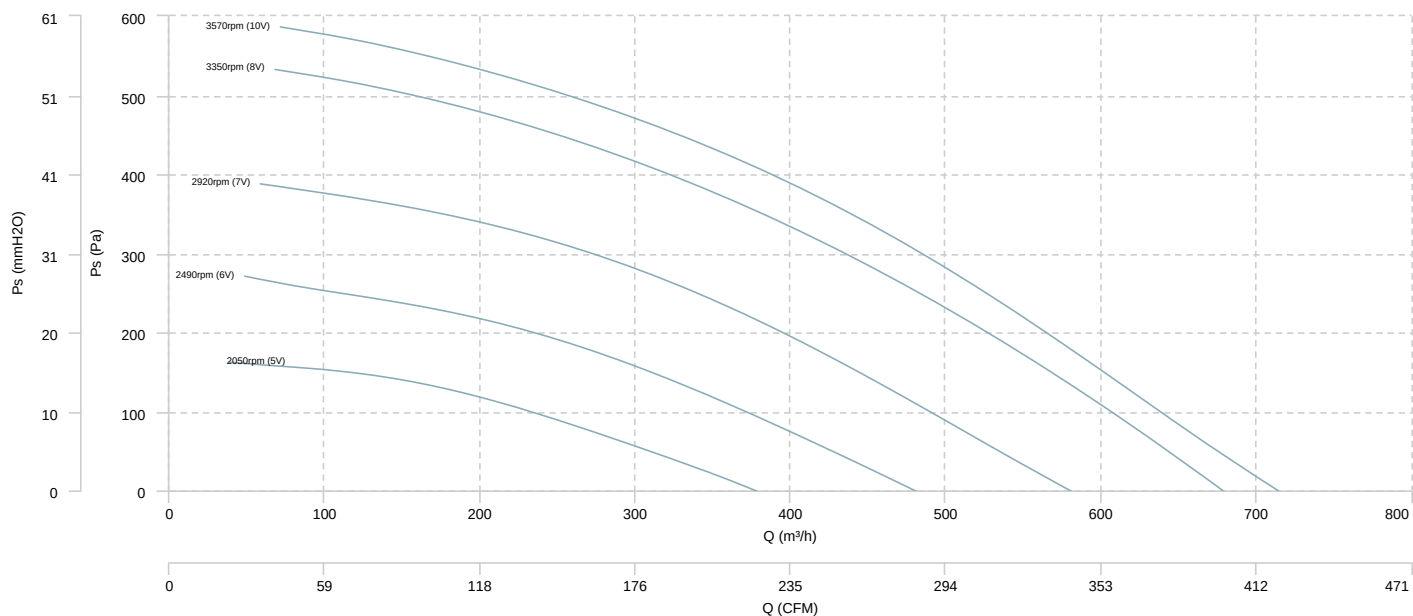


AIR FLOW - MECHANICAL POWER

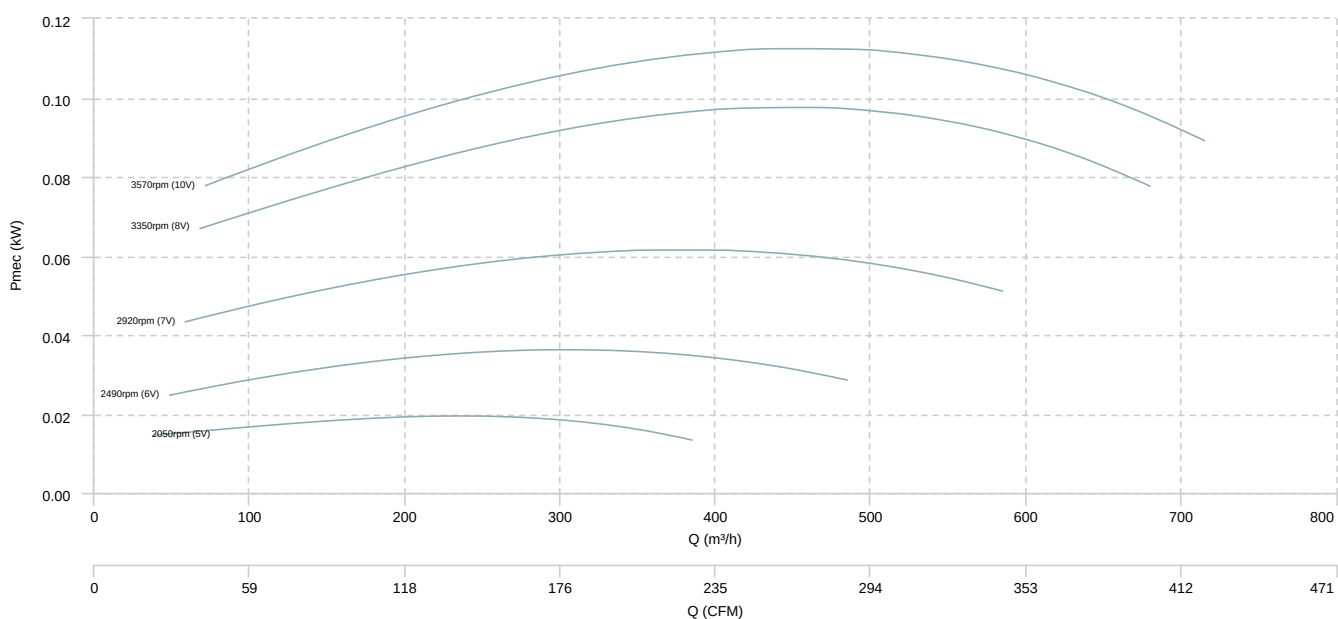


SB-3 PLUS 4020 EEC

AIR FLOW - PRESSURE

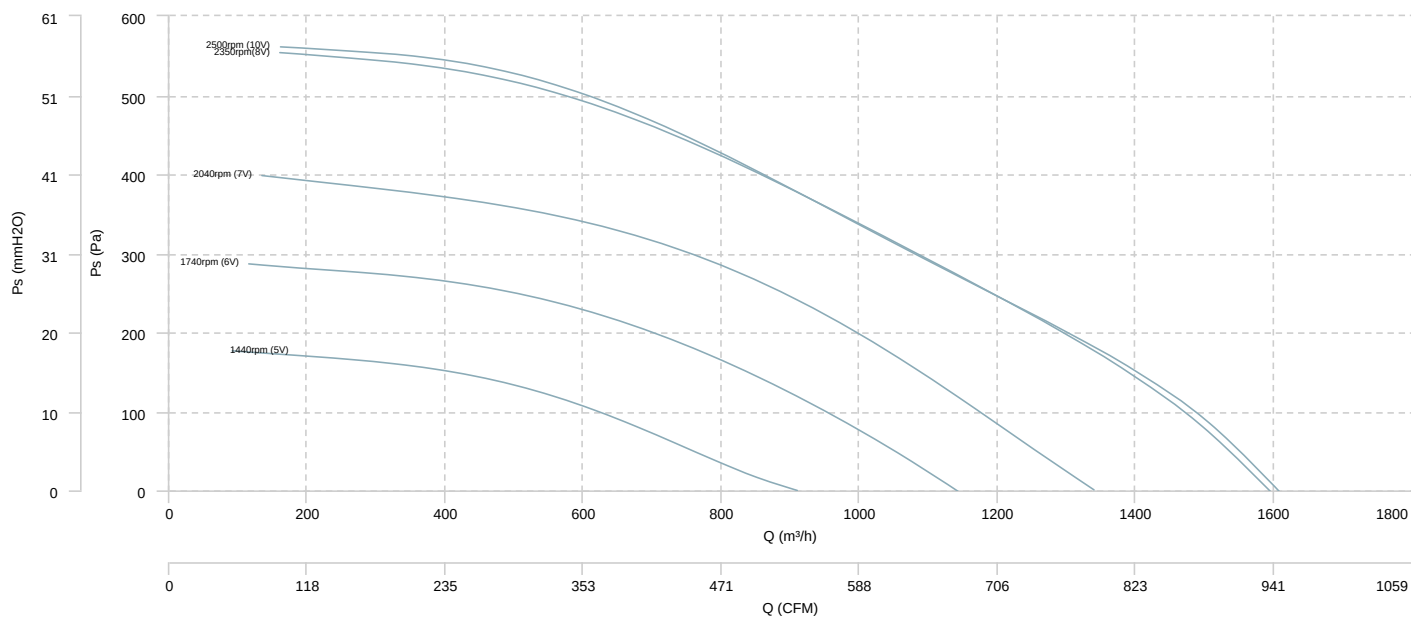


AIR FLOW - MECHANICAL POWER

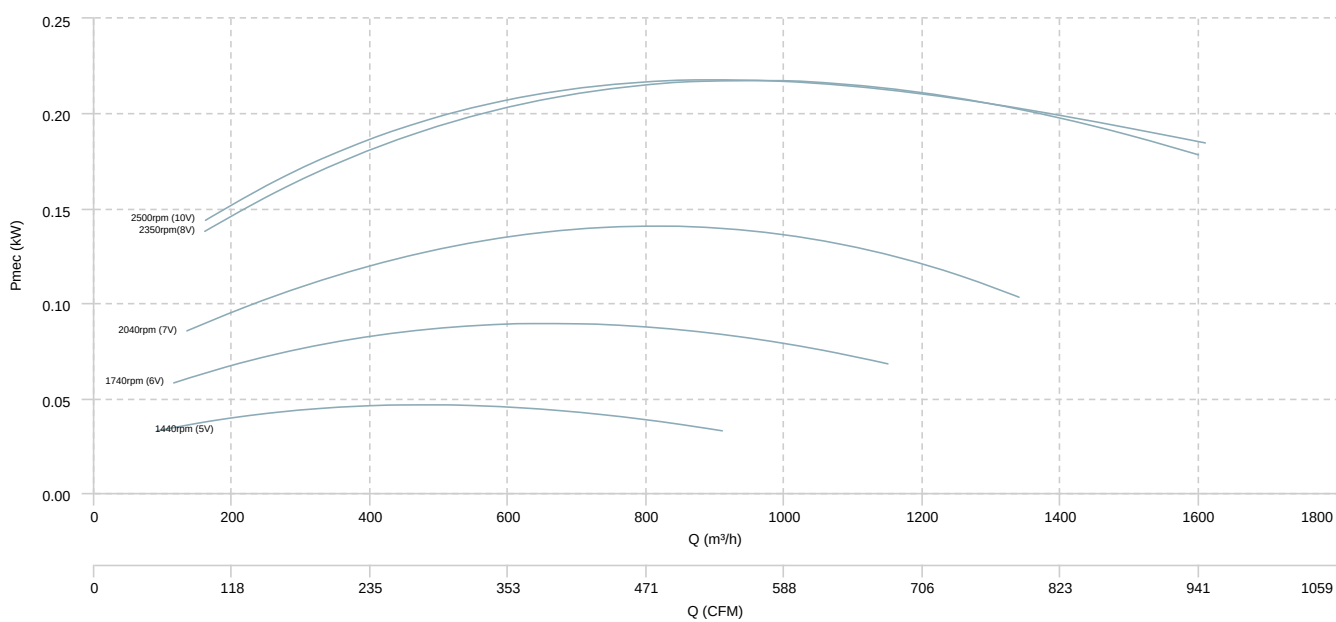


SB-3 PLUS 5035 EEC

AIR FLOW - PRESSURE

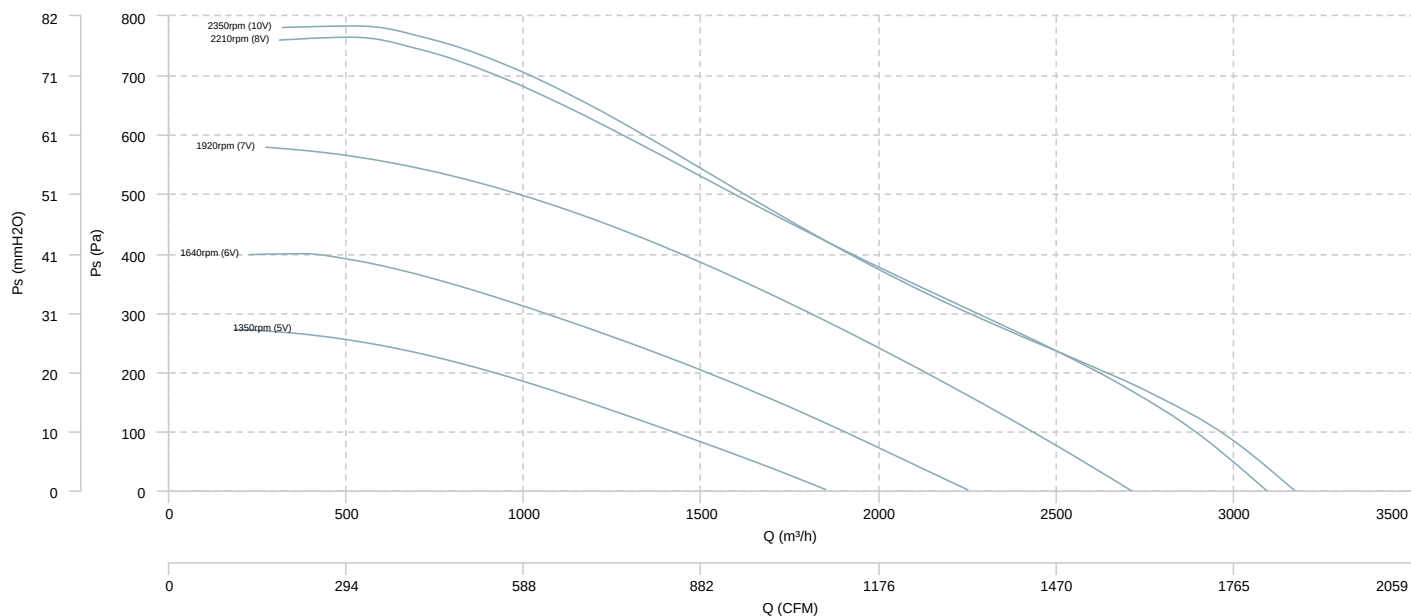


AIR FLOW - MECHANICAL POWER

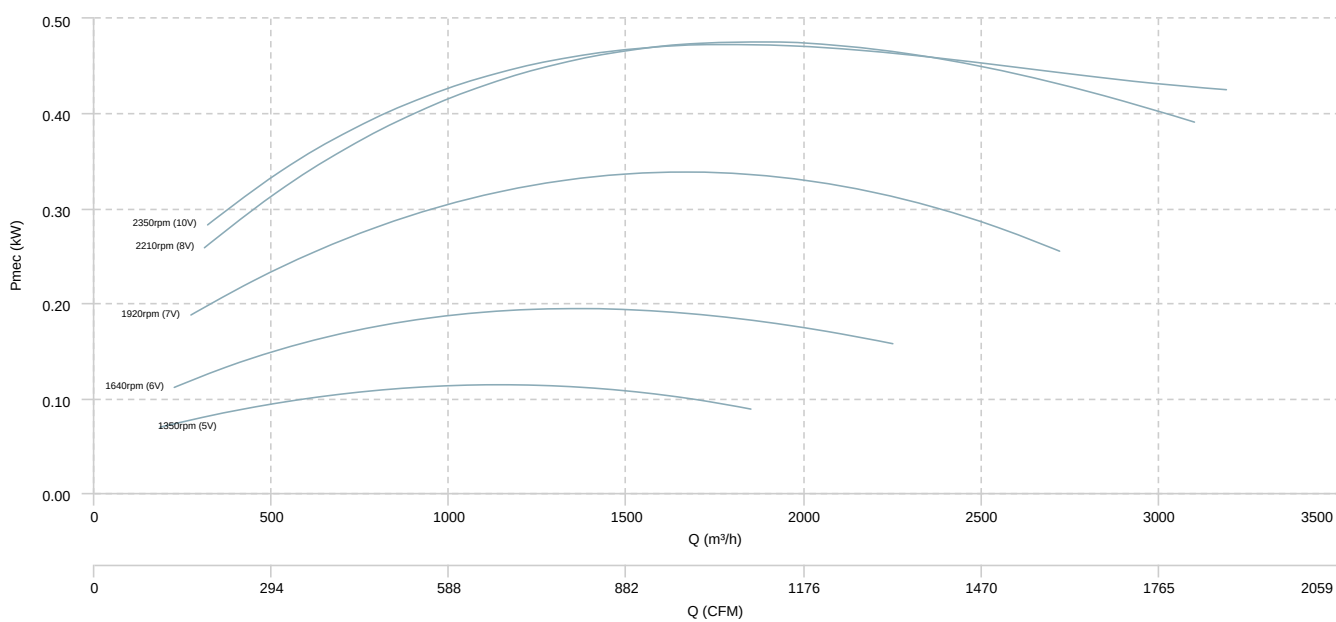


SB-3 PLUS 6040 EEC

AIR FLOW - PRESSURE

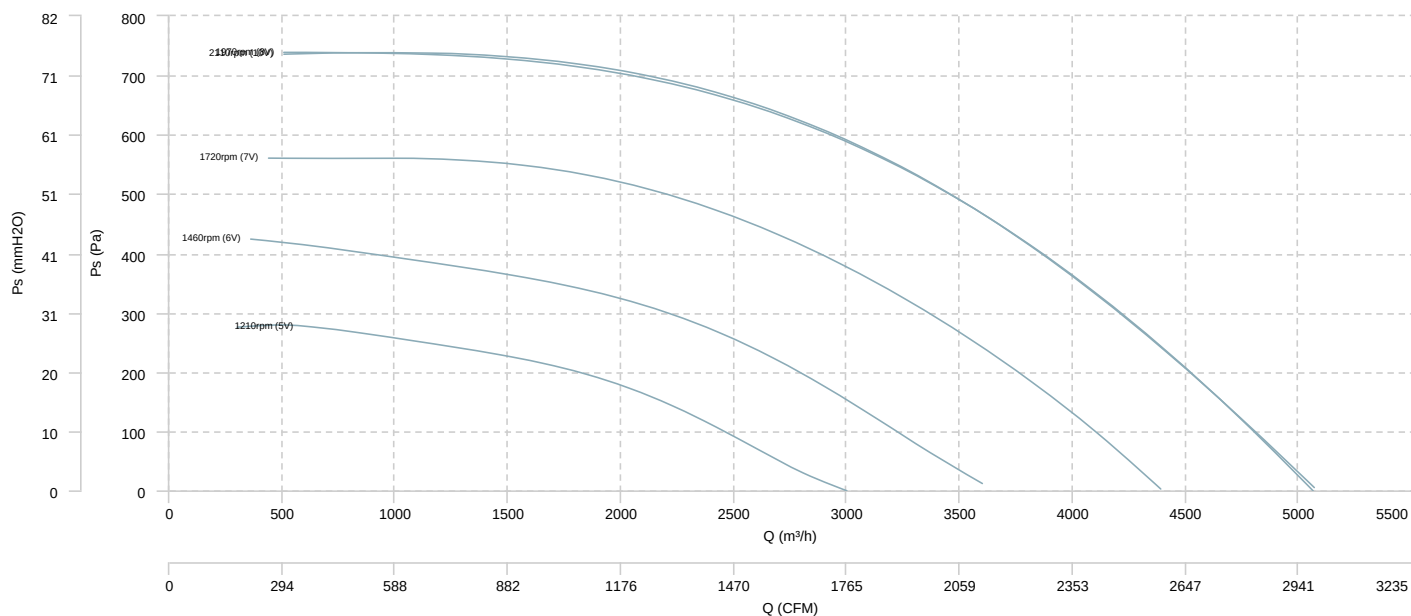


AIR FLOW - MECHANICAL POWER

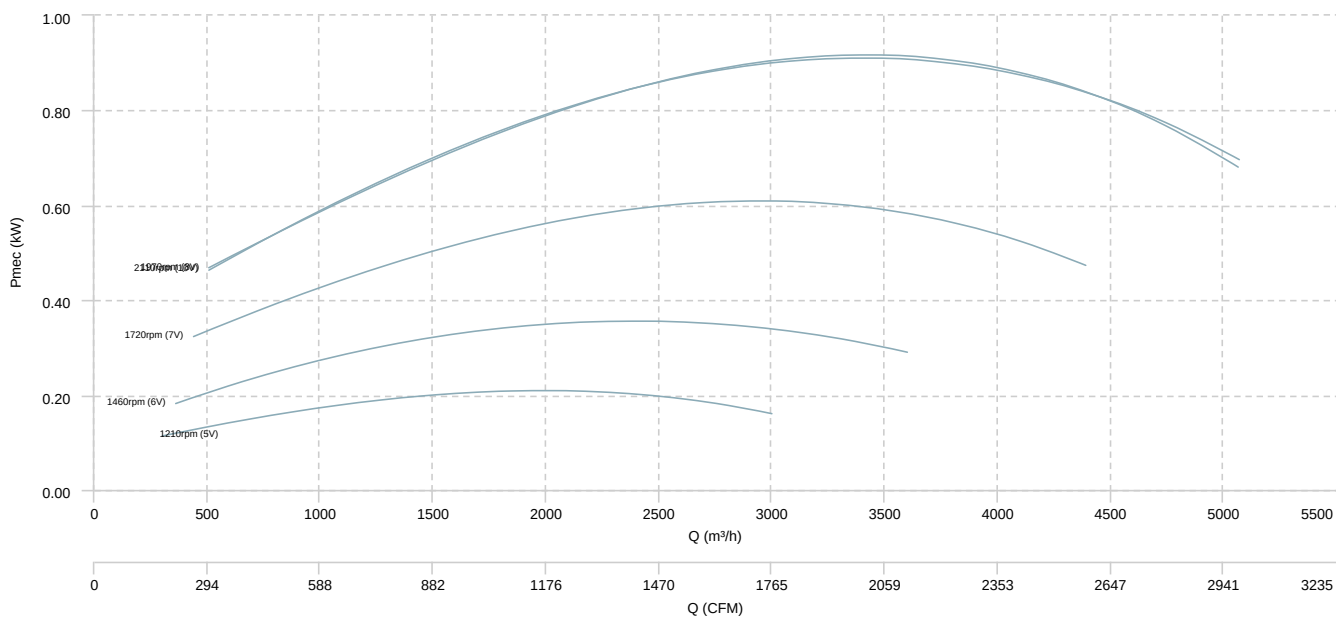


SB-3 PLUS 7050 EEC

AIR FLOW - PRESSURE

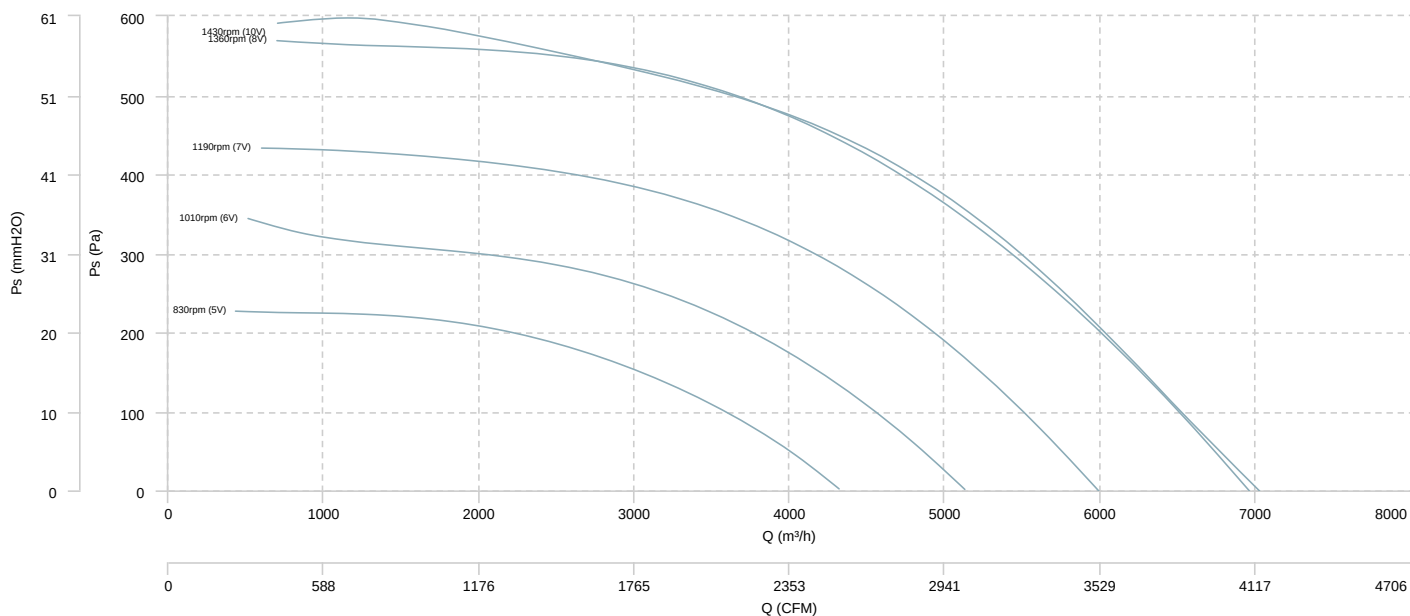


AIR FLOW - MECHANICAL POWER

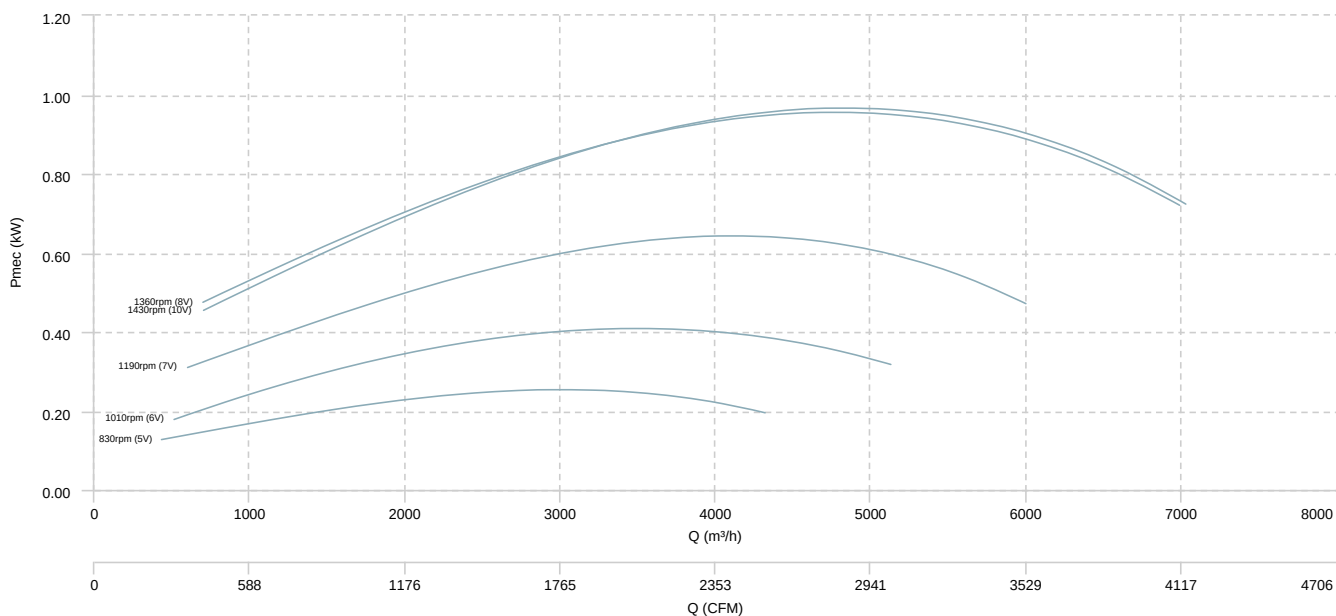


SB-3 PLUS 8060 EEC

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
SB-3 PLUS 3015 EEC (1760rpm (4V))	Radiated	20	10	27	39	44	49	39	32	51
SB-3 PLUS 4020 EEC (1630rpm (4V))	Radiated	4	11	26	39	47	50	43	35	52
SB-3 PLUS 5035 EEC (1130rpm (4V))	Radiated	2	16	40	47	50	49	41	27	54
SB-3 PLUS 6040 EEC (1050rpm (4V))	Radiated	-	19	35	45	46	41	33	25	49
SB-3 PLUS 7050 EEC (970rpm (4V))	Radiated	15	31	48	53	55	49	41	31	58
SB-3 PLUS 8060 EEC (650rpm (4V))	Radiated	17	33	37	47	49	42	32	24	51

Notes:

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

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

erp data

ERP	
Fan type	Unit for non-residential ventilation (LOT 6)
Typology	Static
Others	Outlet and Inlet free discharge
Type of driver	-

		Maximum efficiency point data						
Model	Motor power (kW)	Eff.Heat recovery (%)	Max. efficiency (%)	Pabs (kW)	Air Flow (m³/h)	Ps (Pa)	Speed (m/s)	SFP (W/m³/s)
SB-3 PLUS 5035 EEC (2040rpm (7V))	0,15	-	45,82	0,14	782,22	290,91	1.24	850,60
SB-3 PLUS 5035 EEC (2350rpm(8V))	0,15	-	45,72	0,22	915,35	374,96	1.45	850,60
SB-3 PLUS 5035 EEC (2500rpm (10V))	0,15	-	45,67	0,22	921,55	372,29	1.46	850,60
SB-3 PLUS 6040 EEC (1640rpm (6V))	0,36	-	47,91	0,19	1.172,06	275,43	1.36	1.058,92
SB-3 PLUS 6040 EEC (1920rpm (7V))	0,36	-	48,98	0,33	1.427,42	402,66	1.65	1.058,92
SB-3 PLUS 6040 EEC (2210rpm (8V))	0,36	-	49,21	0,47	1.618,44	491,76	1.87	1.058,92
SB-3 PLUS 6040 EEC (2350rpm (10V))	0,36	-	49,43	0,47	1.599,45	507,30	1.85	1.058,92
SB-3 PLUS 7050 EEC (1210rpm (5V))	0,99	-	49,11	0,21	1.662,03	213,73	1.32	1.103,41
SB-3 PLUS 7050 EEC (1460rpm (6V))	0,99	-	52,51	0,35	2.078,22	315,01	1.65	1.103,41
SB-3 PLUS 7050 EEC (1720rpm (7V))	0,99	-	55,22	0,60	2.546,01	455,03	2.02	1.103,41
SB-3 PLUS 7050 EEC (1970rpm (8V))	0,99	-	56,02	0,90	2.927,83	599,87	2.32	1.103,41
SB-3 PLUS 7050 EEC (2110rpm (10V))	0,99	-	56,19	0,90	2.923,37	603,76	2.32	1.103,41
SB-3 PLUS 8060 EEC (830rpm (5V))	1,01	-	54,50	0,25	2.517,80	184,79	1.46	841,14
SB-3 PLUS 8060 EEC (1010rpm (6V))	1,01	-	56,30	0,40	3.078,86	256,53	1.78	841,14
SB-3 PLUS 8060 EEC (1190rpm (7V))	1,01	-	57,58	0,63	3.561,76	351,91	2.06	841,14
SB-3 PLUS 8060 EEC (1360rpm (8V))	1,01	-	58,30	0,94	4.061,25	468,17	2.35	841,14
SB-3 PLUS 8060 EEC (1430rpm (10V))	1,01	-	58,37	0,94	4.018,32	473,91	2.33	841,14