

## 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, 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



INT



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 m <sup>3</sup> /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	0,73	0,10	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

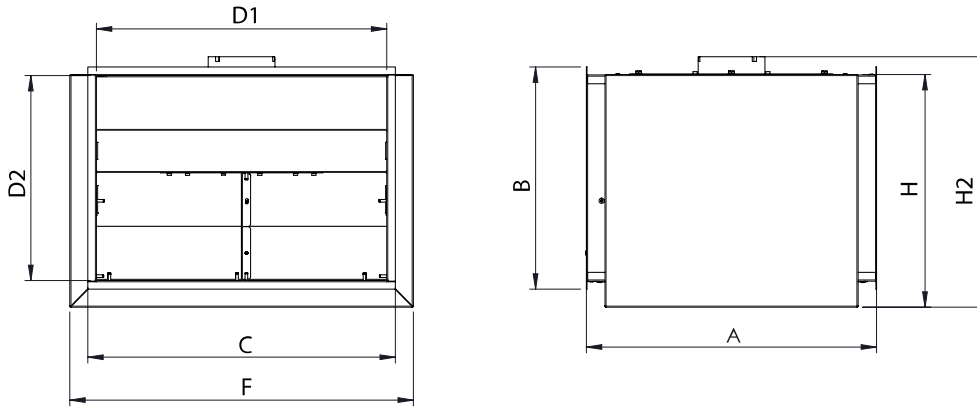
### Three-phase motor

Code	Model	R.P.M.	Rated I. A 400V	Rated power kW	Max. Airflow m <sup>3</sup> /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
SB-3 PLUS 3015 EEC	310	180	330	300	150	392	199	225
SB-3 PLUS 4020 EEC	410	230	430	400	200	492	249	274.5
SB-3 PLUS 5035 EEC	510	383	530	500	353	592	402	431
SB-3 PLUS 6040 EEC	610	430	630	600	400	693	450	491
SB-3 PLUS 7050 EEC	710	530	730	700	500	793	550	605
SB-3 PLUS 8060 EEC	910	631	830	800	601	893	651	706


## 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 N° 3**

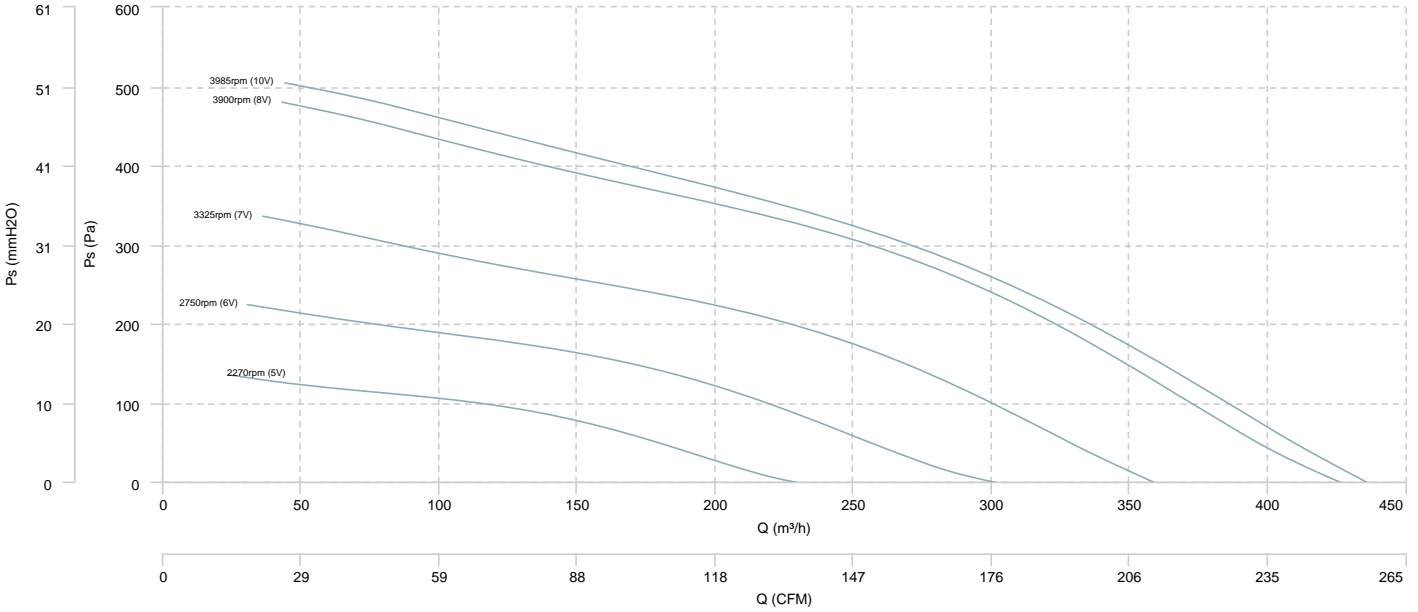
Nº	Signal Señal	Colour Color	Specification Especificación
1	L1	Black Negro	AC380V-50/60Hz
2	L2	Black Negro	AC380V-50/60Hz
3	L3	Black Negro	AC380V-50/60Hz
4	Pe	Yellow-Green Amarillo-Verde	

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

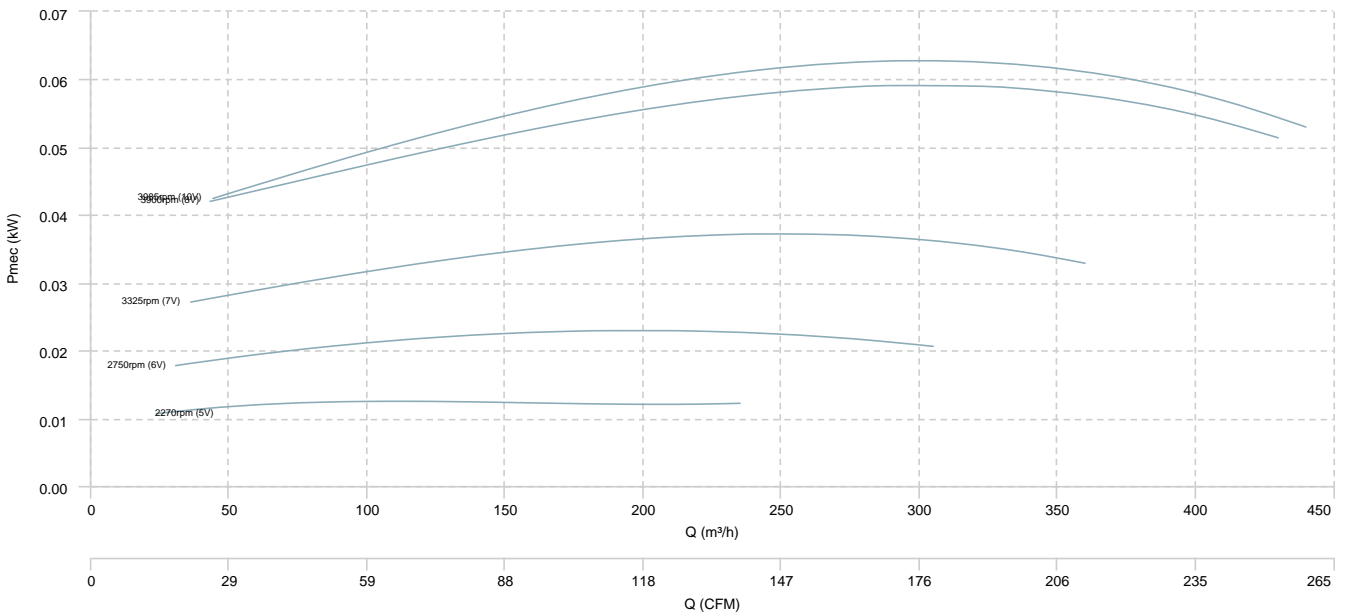
# CHARACTERISTIC CURVE

SB-3 PLUS 3015 EEC

## AIR FLOW - PRESSURE

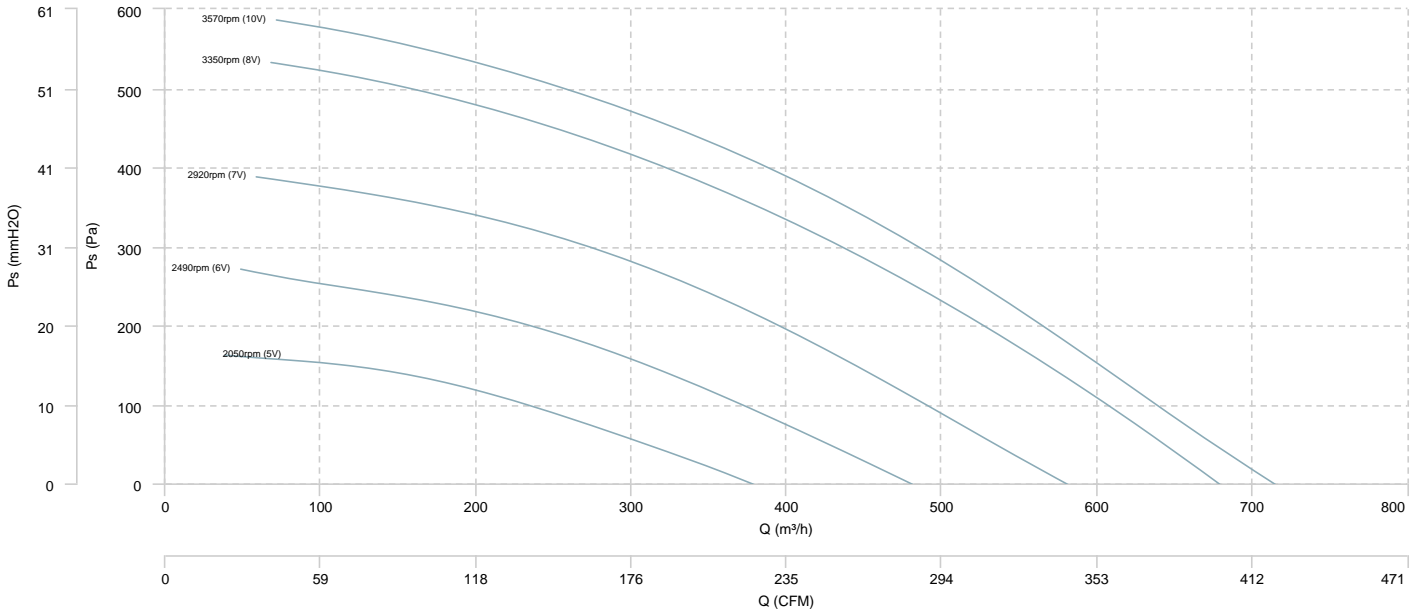


## AIR FLOW - MECHANICAL POWER

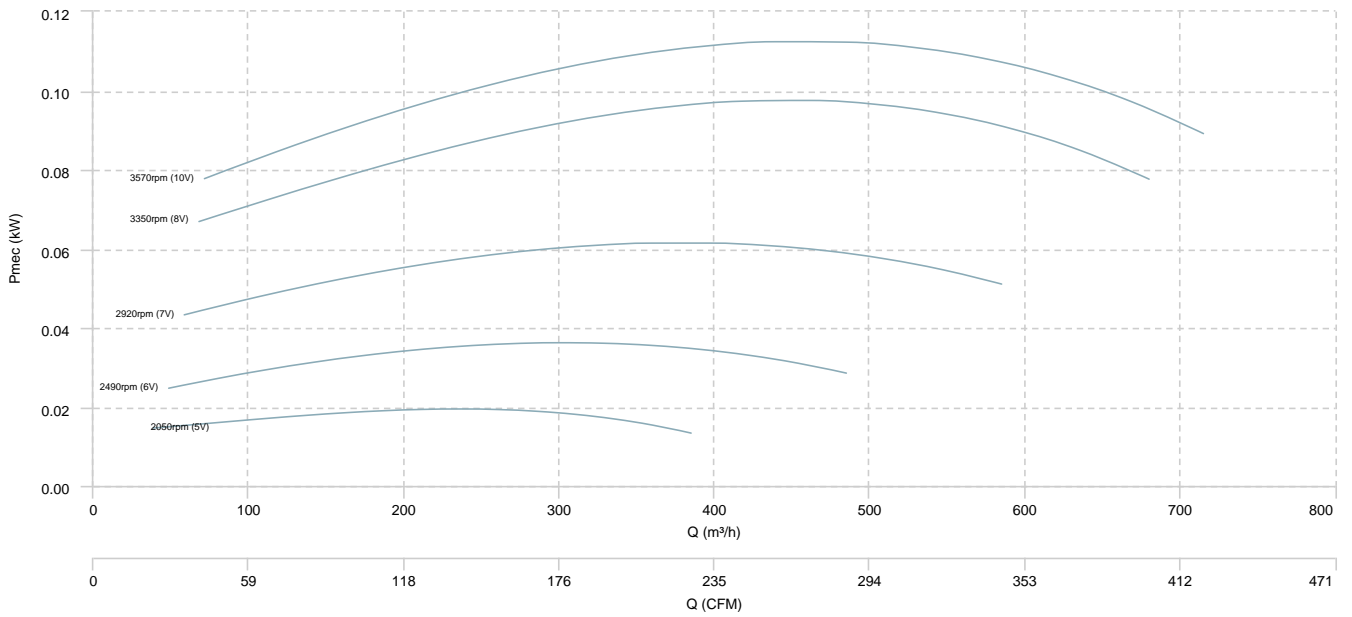


## SB-3 PLUS 4020 EEC

### AIR FLOW - PRESSURE

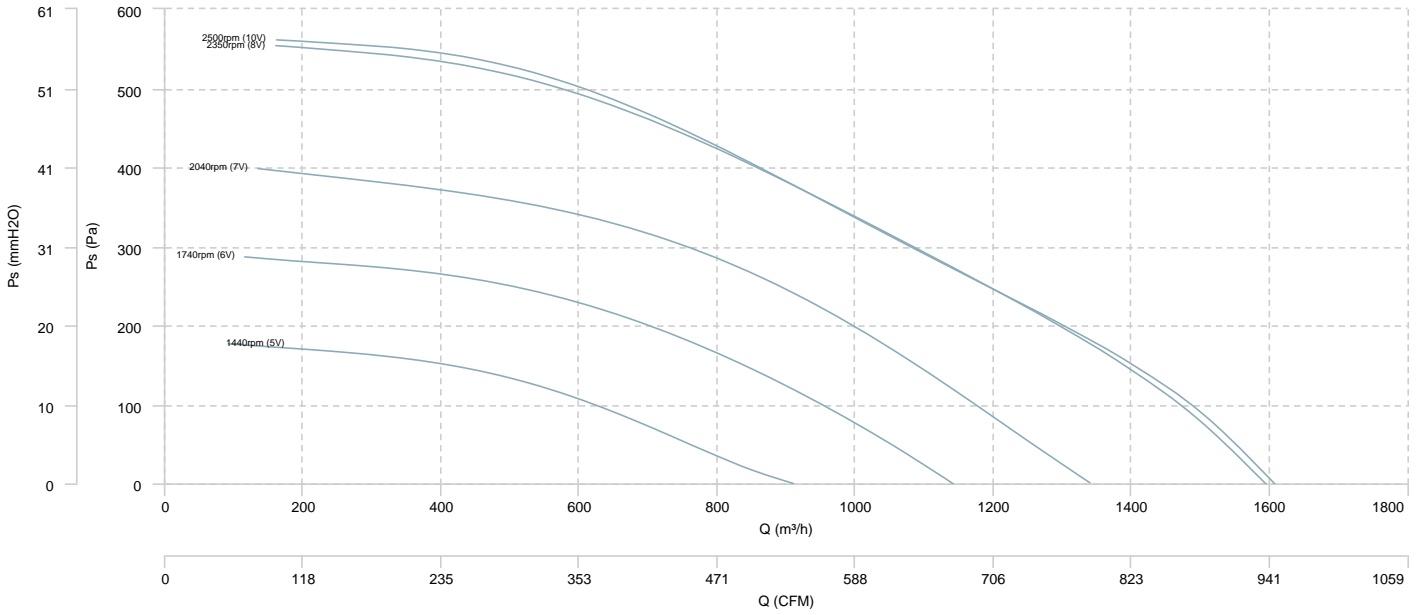


### AIR FLOW - MECHANICAL POWER

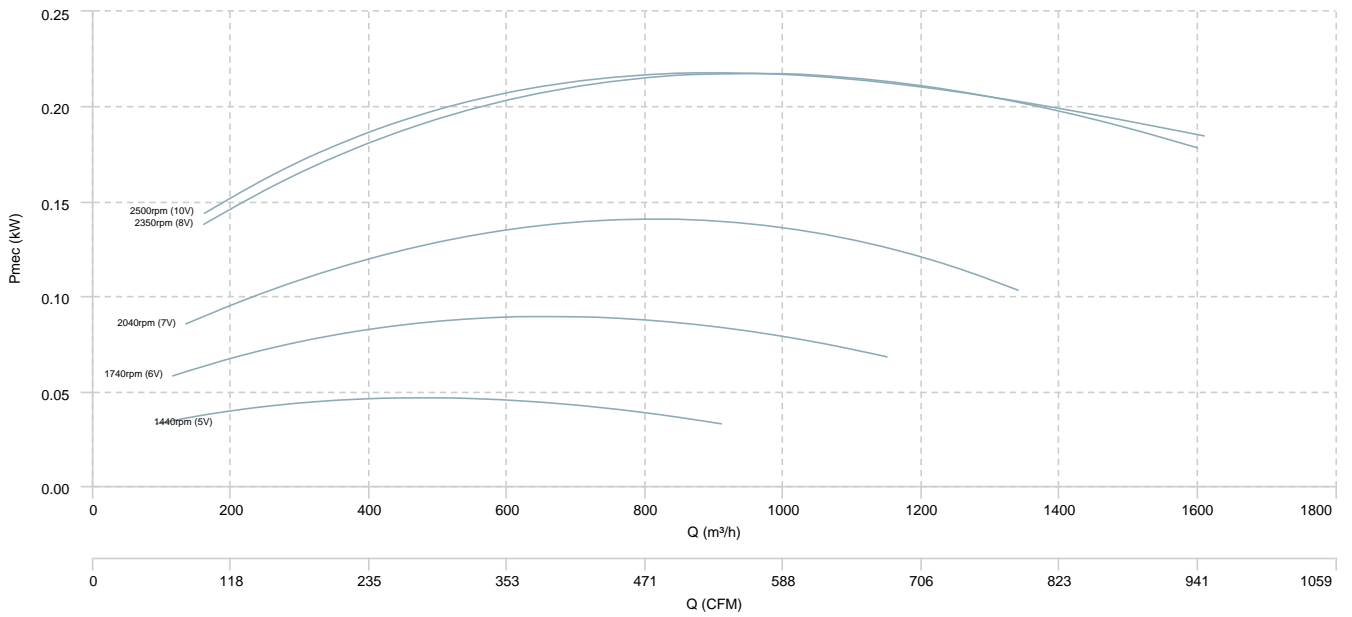


## SB-3 PLUS 5035 EEC

### AIR FLOW - PRESSURE



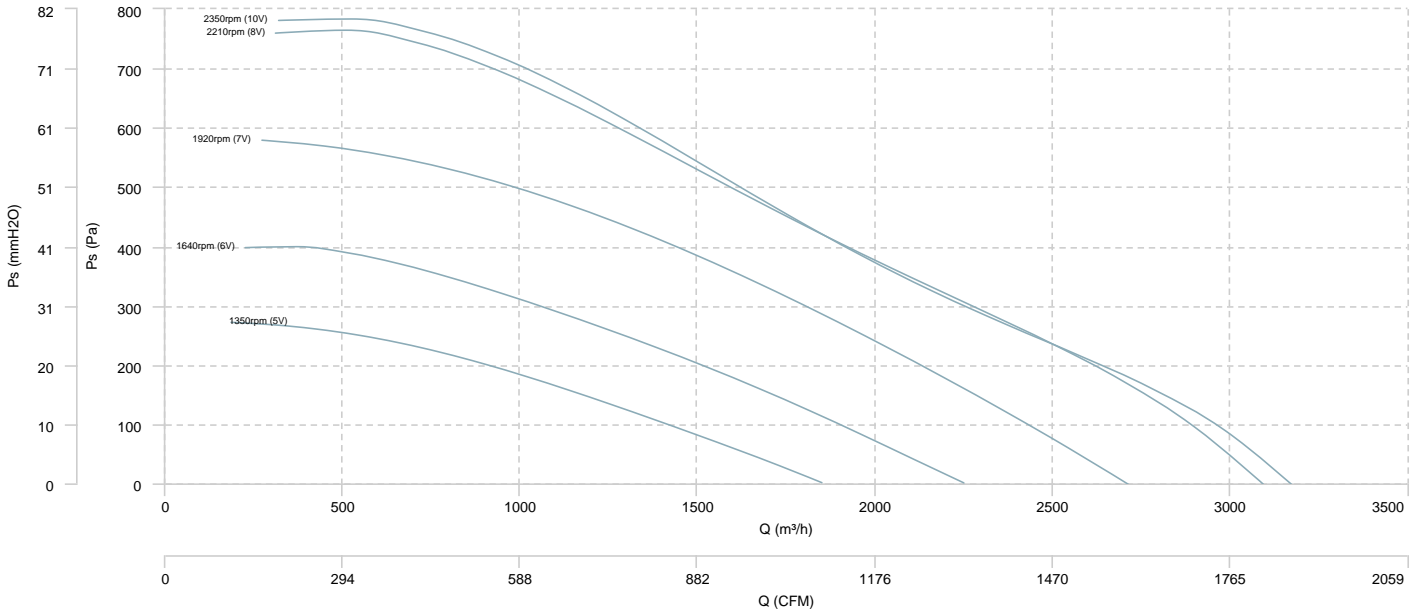
### AIR FLOW - MECHANICAL POWER



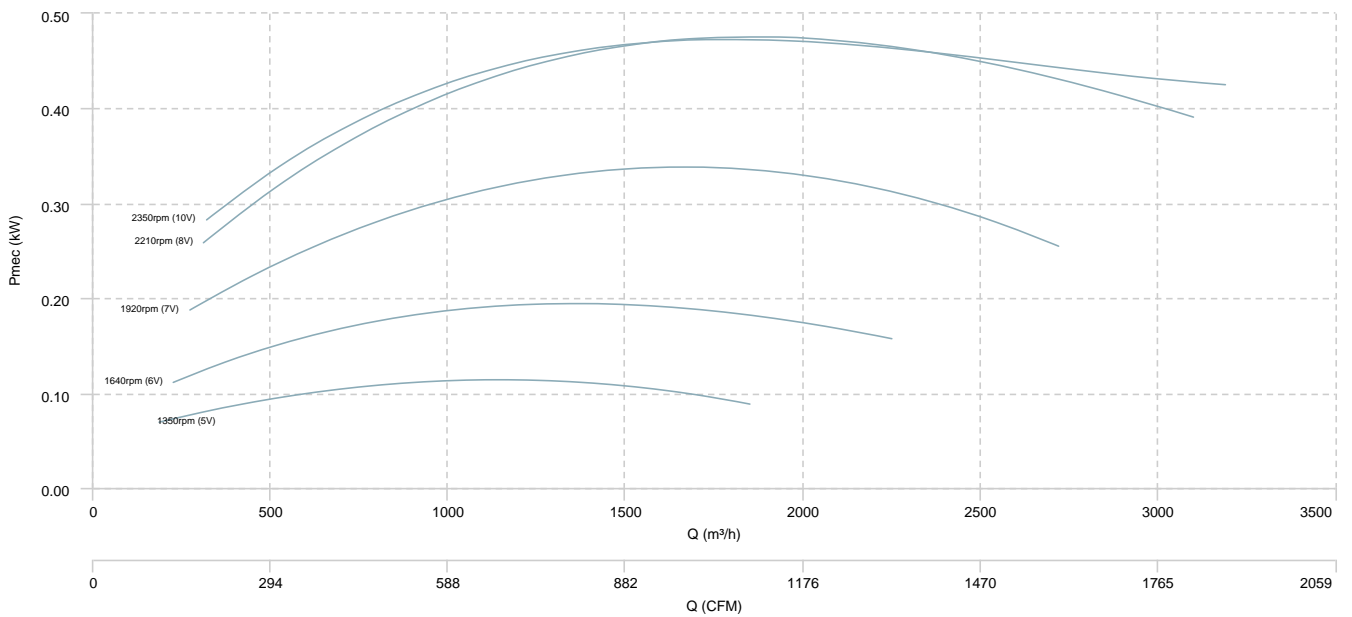


## SB-3 PLUS 6040 EEC

### AIR FLOW - PRESSURE

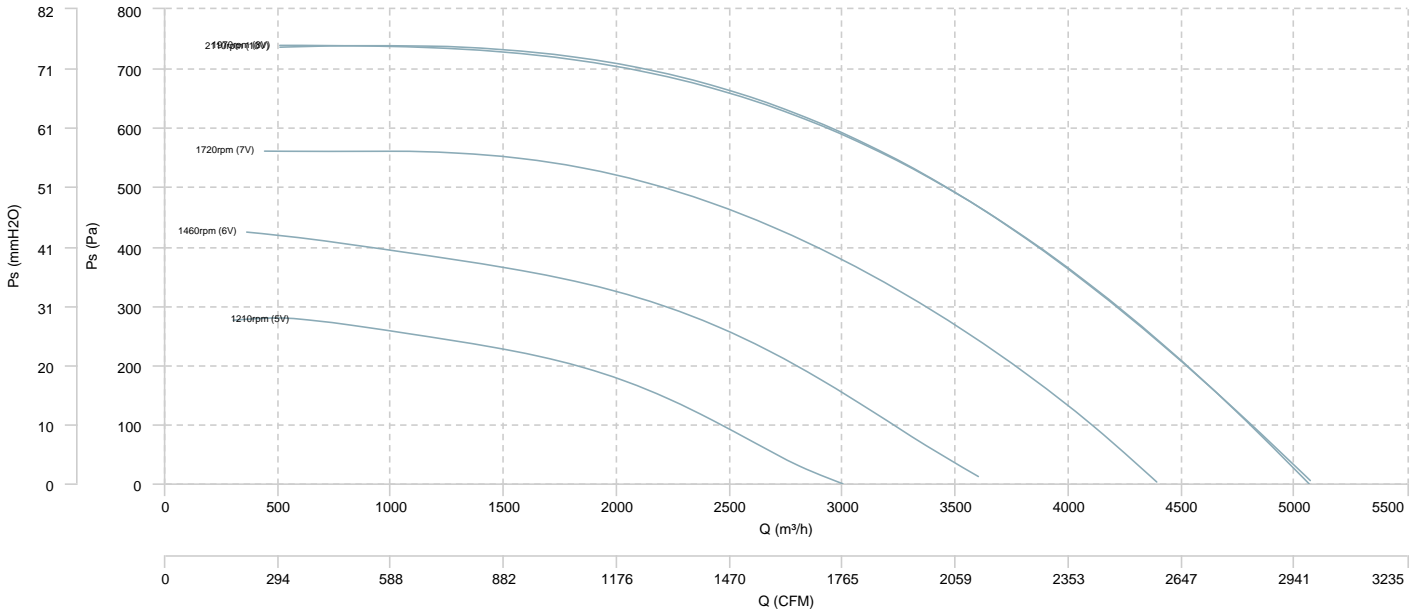


### AIR FLOW - MECHANICAL POWER

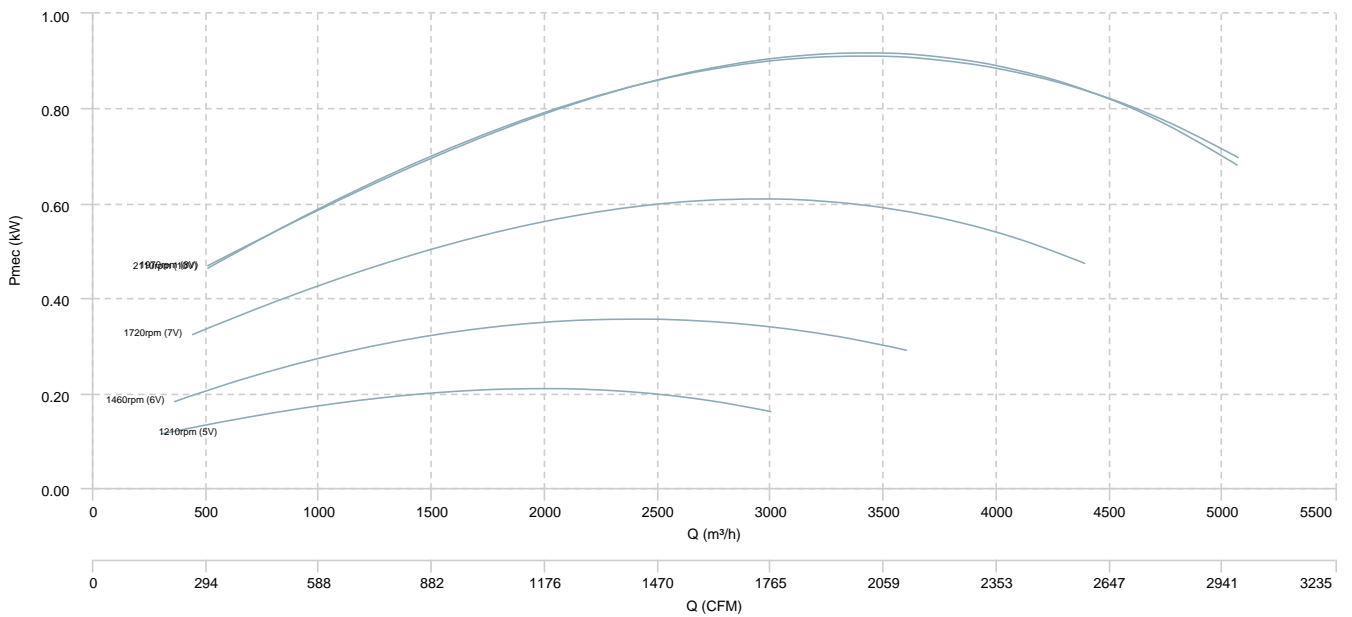


## SB-3 PLUS 7050 EEC

### AIR FLOW - PRESSURE

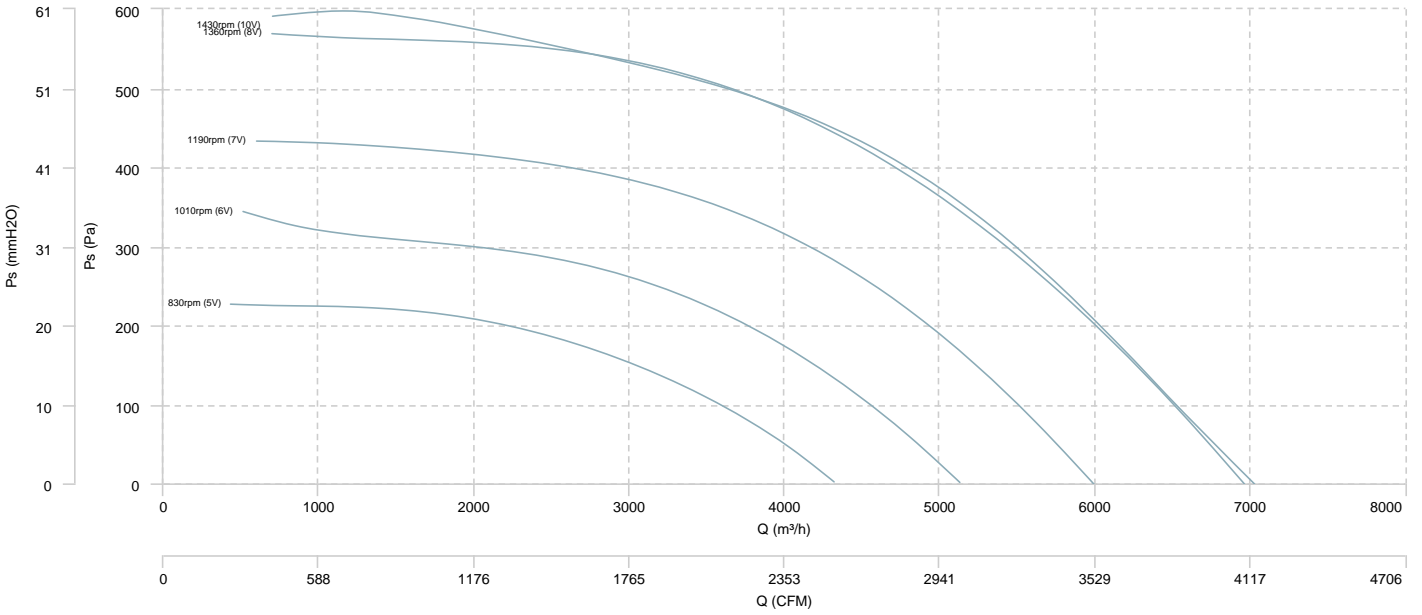


### AIR FLOW - MECHANICAL POWER

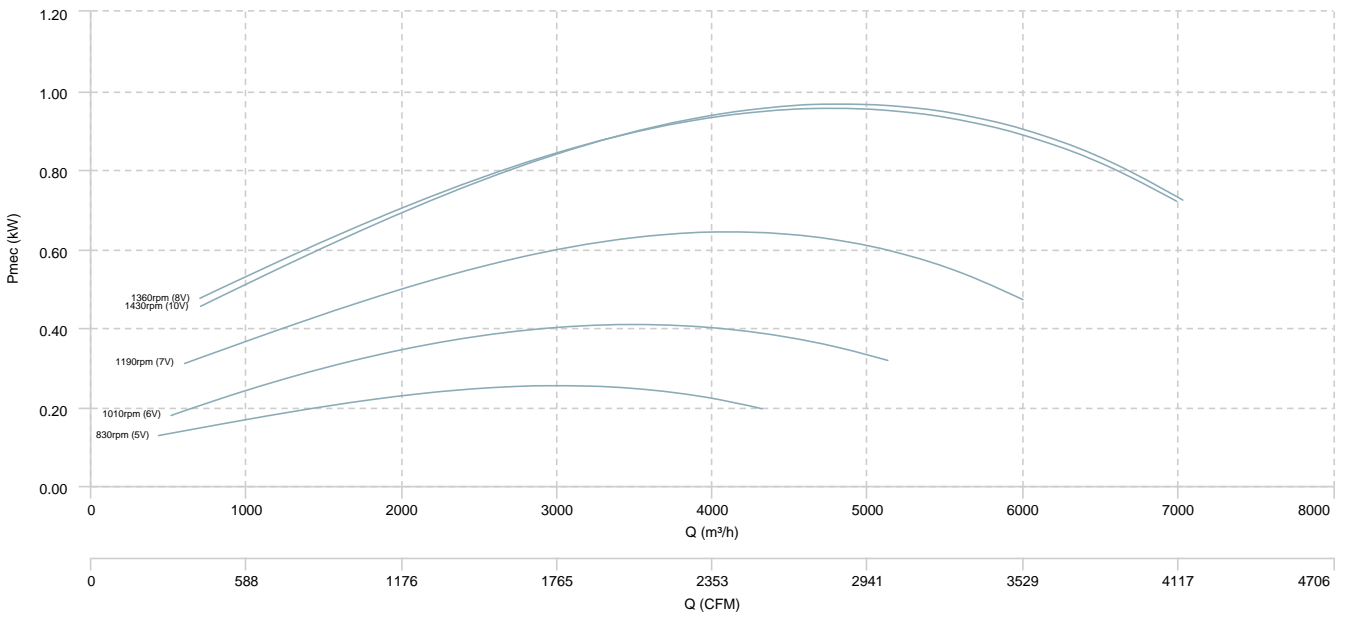


## SB-3 PLUS 8060 EEC

### 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	-	17	7	24	36	41	46	36	48
SB-3 PLUS 4020 EEC (1630rpm (4V))	Radiated	-	3	10	25	38	46	49	42	51
SB-3 PLUS 5035 EEC (1130rpm (4V))	Radiated	-	1	15	39	46	49	48	40	53
SB-3 PLUS 6040 EEC (1050rpm (4V))	Radiated	-	-	18	34	44	45	40	32	48
SB-3 PLUS 7050 EEC (970rpm (4V))	Radiated	-	14	30	47	52	54	48	40	57
SB-3 PLUS 8060 EEC (650rpm (4V))	Radiated	-	16	32	36	46	48	41	31	50

**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	-

Model	Motor power (kW)	Maximum efficiency point data						
		Eff. Heat recovery (%)	Max. efficiency (%)	Pabs (kW)	Air Flow (m <sup>3</sup> /h)	Ps (Pa)	Speed (m/s)	SFP (W/m <sup>3</sup> /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