

SB-3 PLUS FILTER EEC



CENTRIFUGAL FAN IN SOUNDPROOF LOW PROFILE BOX WITH RECTANGULAR FLANGES AND FILTER(S), 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 (reaction) blades of high performance and single inlet, direct driven. Dynamically balanced to minimize noise and vibration. 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.

Supplied with a filtration stage ISO COARSE 65% (G4) or 2 stages ISO COARSE 65% (G4) and ISO ePM1 65% (F7).

Easily accessible inspection and cleaning register.

Accessories



CFF



CFGF



CHEF



INT



PMR



REGC



TEJ
SB-3



VIS
SB-3

APPLICATIONS

Designed for installation in ducts, they are indicated for:

- Air renovations in bathrooms and small rooms.
- Perfect for false ceiling mounting.

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

Technical data

Single-phase motor

Code	Model	R.P.M.	Rated I. A 230V	Rated power kW	Max. Airflow m ³ /h	Sound db (A)**	Weight kg	Connect. diagram
240150444G4	SB-3 PLUS FILTER (ISO Coarse≥60%) 3015 EEC	3950	0,25	0,06	405	-	9	1
240190444G4	SB-3 PLUS FILTER (ISO Coarse≥60%) 4020 EEC	3570	0,73	0,10	660	-	13,50	1
240250444G4	SB-3 PLUS FILTER (ISO Coarse≥60%) 5035 EEC	2500	1,00	0,15	1.520	-	20	1
240310444G4	SB-3 PLUS FILTER (ISO Coarse≥60%) 6040 EEC	2350	1,7	0,36	2.970	-	29,50	2
240150444G4F7	SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 3015 EEC	3950	0,25	0,06	305	-	11	1
240190444G4F7	SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 4020 EEC	3570	0,73	0,10	530	-	17,50	1
240250444G4F7	SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 5035 EEC	2500	1,00	0,15	1.130	-	26	1
240310444G4F7	SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 6040 EEC	2350	1,7	0,36	2.450	-	37,50	2

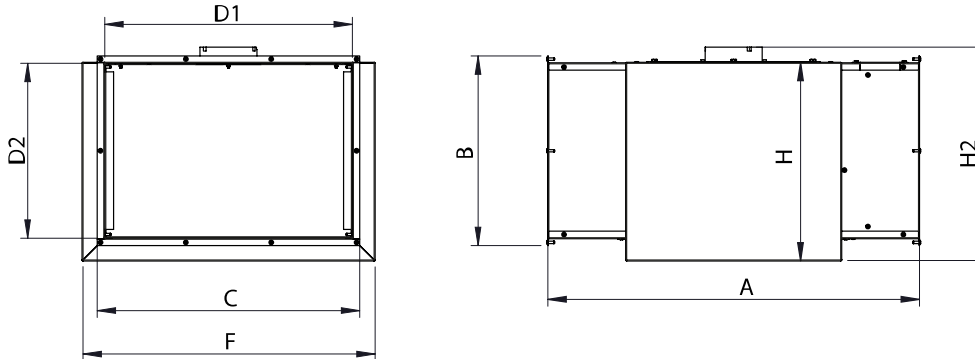
Three-phase motor

Code	Model	R.P.M.	Rated I. A 400V	Rated power kW	Max. Airflow m ³ /h	Sound db (A)**	Weight kg	Connect. diagram
240350444G4	SB-3 PLUS FILTER (ISO Coarse≥60%) 7050 EEC	2100	1,63	0,99	4.750	-	47	3
240450444G4	SB-3 PLUS FILTER (ISO Coarse≥60%) 8060 EEC	1450	1,67	1,01	6.440	-	60	3
240350444G4F7	SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 7050 EEC	2100	1,63	0,99	4.100	-	57	3
240450444G4F7	SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 8060 EEC	1450	1,67	1,01	5.440	-	72	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 FILTER (ISO Coarse \geq 60%) 3015 EEC	520	180	330	300	150	392	199	225
SB-3 PLUS FILTER (ISO Coarse \geq 60%) 4020 EEC	620	230	430	400	200	492	249	274.5
SB-3 PLUS FILTER (ISO Coarse \geq 60%) 5035 EEC	750	383	530	500	353	592	402	431
SB-3 PLUS FILTER (ISO Coarse \geq 60%) 6040 EEC	900	430	630	600	400	693	450	491
SB-3 PLUS FILTER (ISO Coarse \geq 60%) 7050 EEC	1050	530	730	700	500	793	550	605
SB-3 PLUS FILTER (ISO Coarse \geq 60%) 8060 EEC	1350	631	830	800	601	893	651	706
SB-3 PLUS FILTER (ISO Coarse \geq 60%+ePM1 \geq 50%) 3015 EEC	520	180	330	300	150	392	199	225
SB-3 PLUS FILTER (ISO Coarse \geq 60%+ePM1 \geq 50%) 4020 EEC	620	230	430	400	200	492	249	274.5
SB-3 PLUS FILTER (ISO Coarse \geq 60%+ePM1 \geq 50%) 5035 EEC	750	383	530	500	353	592	402	431
SB-3 PLUS FILTER (ISO Coarse \geq 60%+ePM1 \geq 50%) 6040 EEC	900	430	630	600	400	693	450	491
SB-3 PLUS FILTER (ISO Coarse \geq 60%+ePM1 \geq 50%) 7050 EEC	1050	530	730	700	500	793	550	605
SB-3 PLUS FILTER (ISO Coarse \geq 60%+ePM1 \geq 50%) 8060 EEC	1350	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

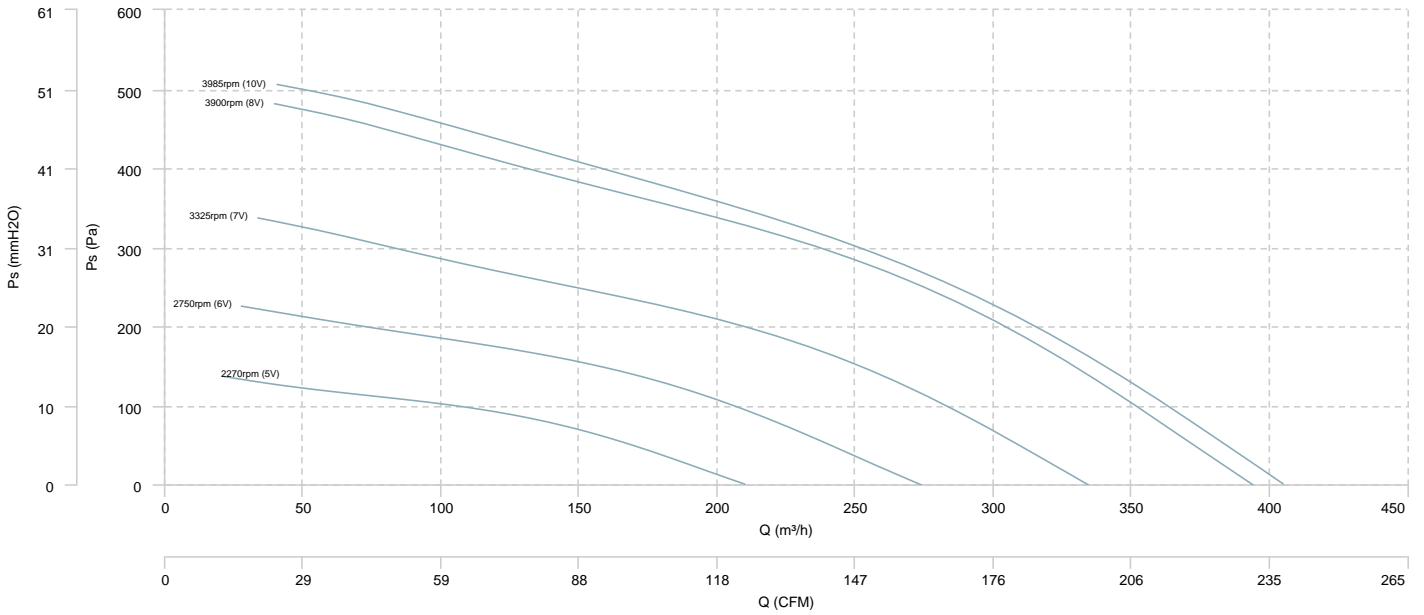
Nº	Signal Señal	Colour Color	Specification Especificación
1	L1	Black Negro	AC380V-50/60Hz
2	L2	Black Negro	AC380V-50/60Hz
3	L3	Black Negro	AC380V-50/60Hz
4	Pe	Yellow-Green Amarillo-Verde	

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

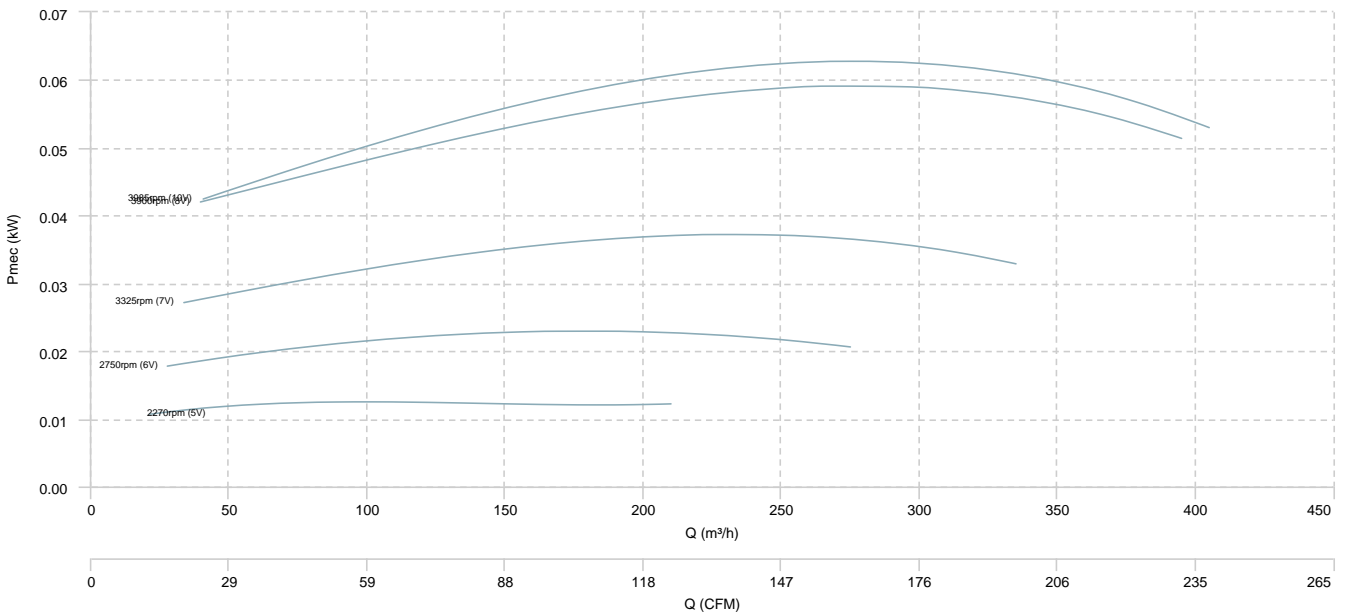
CHARACTERISCTIC CURVE

SB-3 PLUS FILTER (ISO Coarse \geq 60%) 3015 EEC

AIR FLOW - PRESSURE

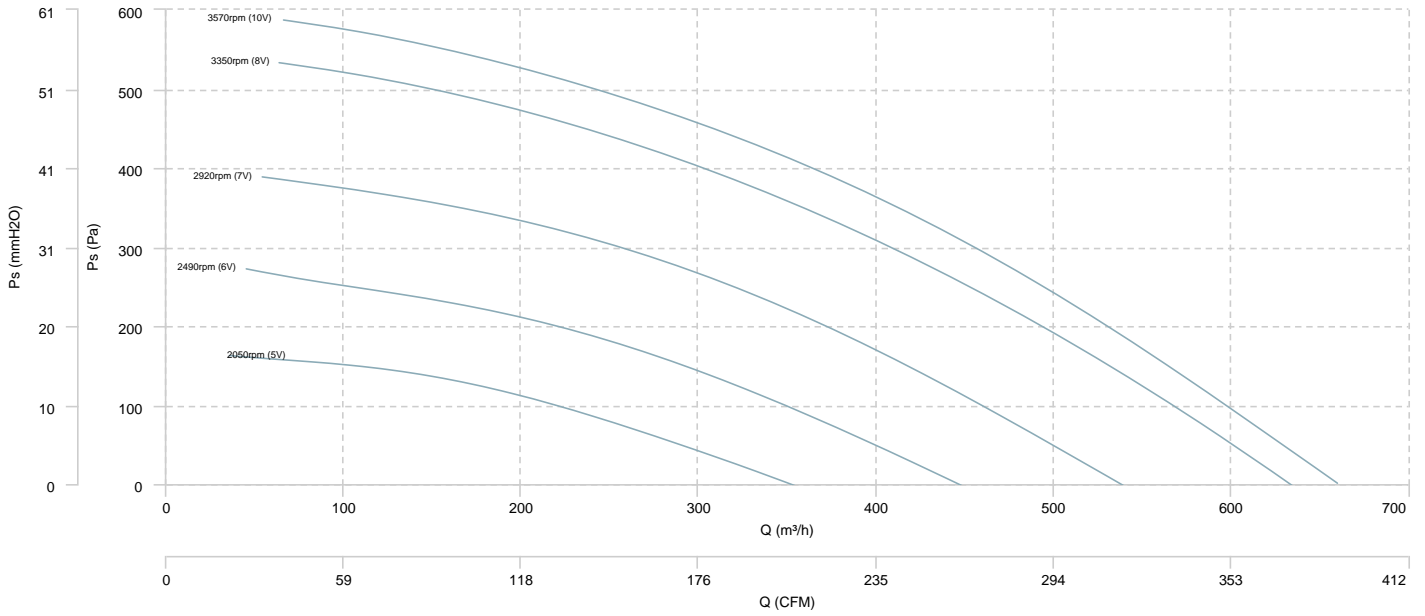


AIR FLOW - MECHANICAL POWER

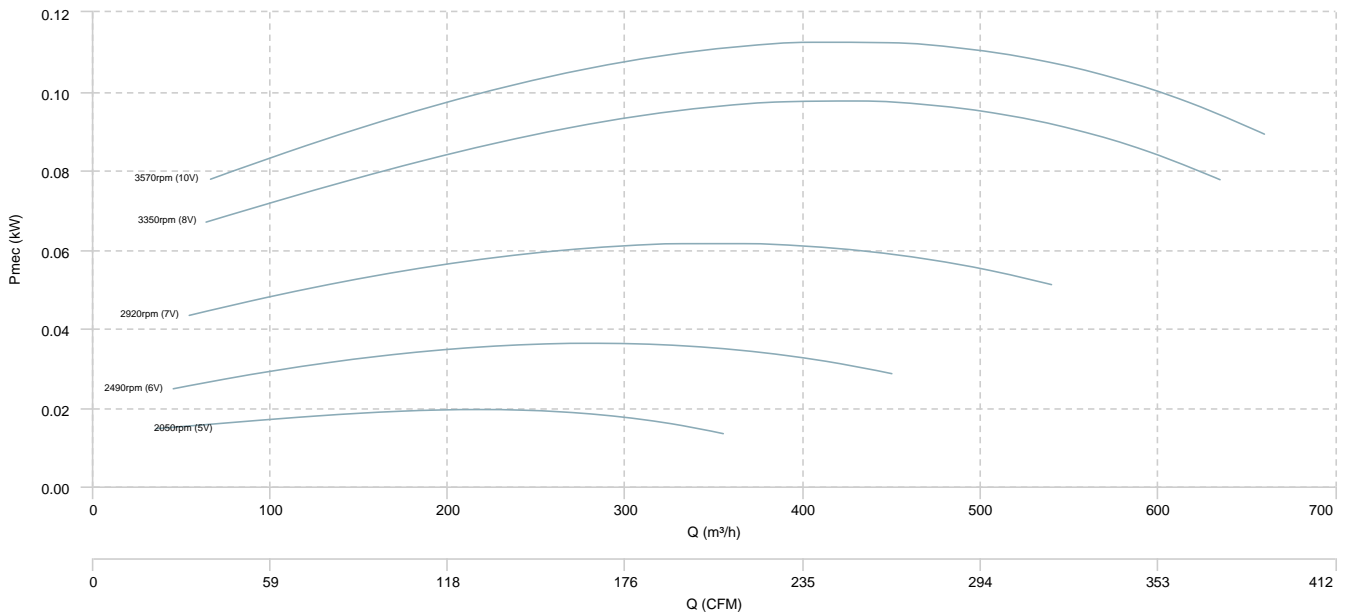


SB-3 PLUS FILTER (ISO Coarse \geq 60%) 4020 EEC

AIR FLOW - PRESSURE

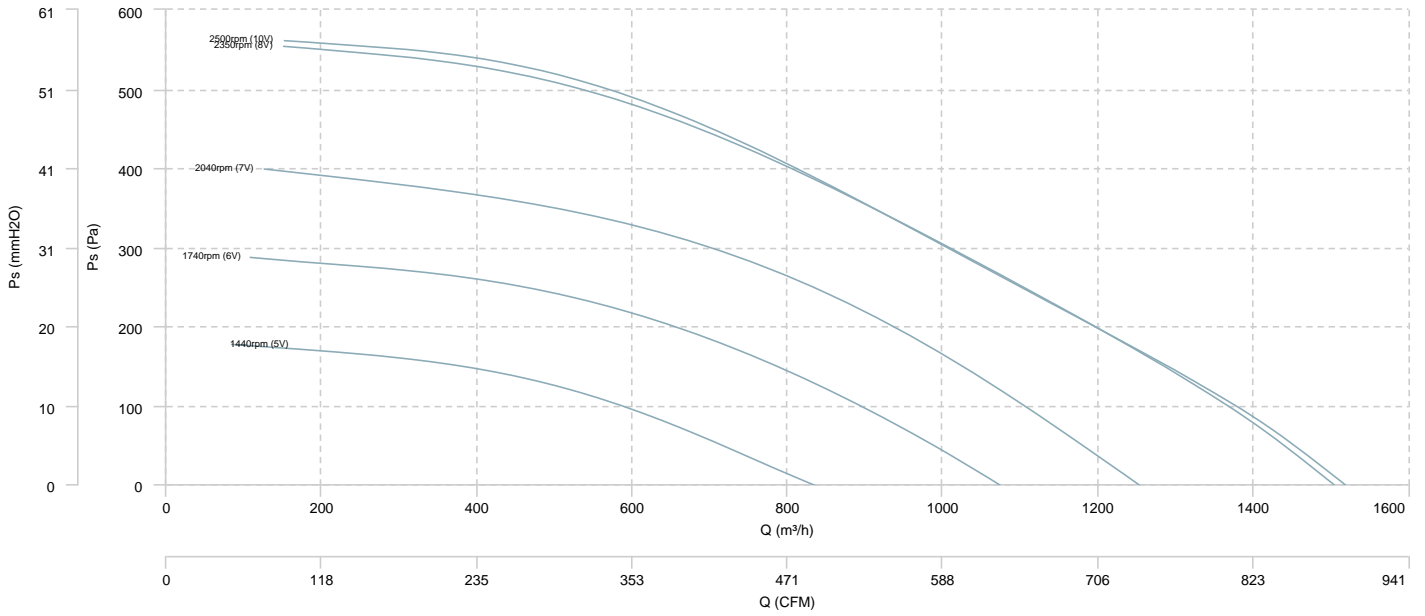


AIR FLOW - MECHANICAL POWER

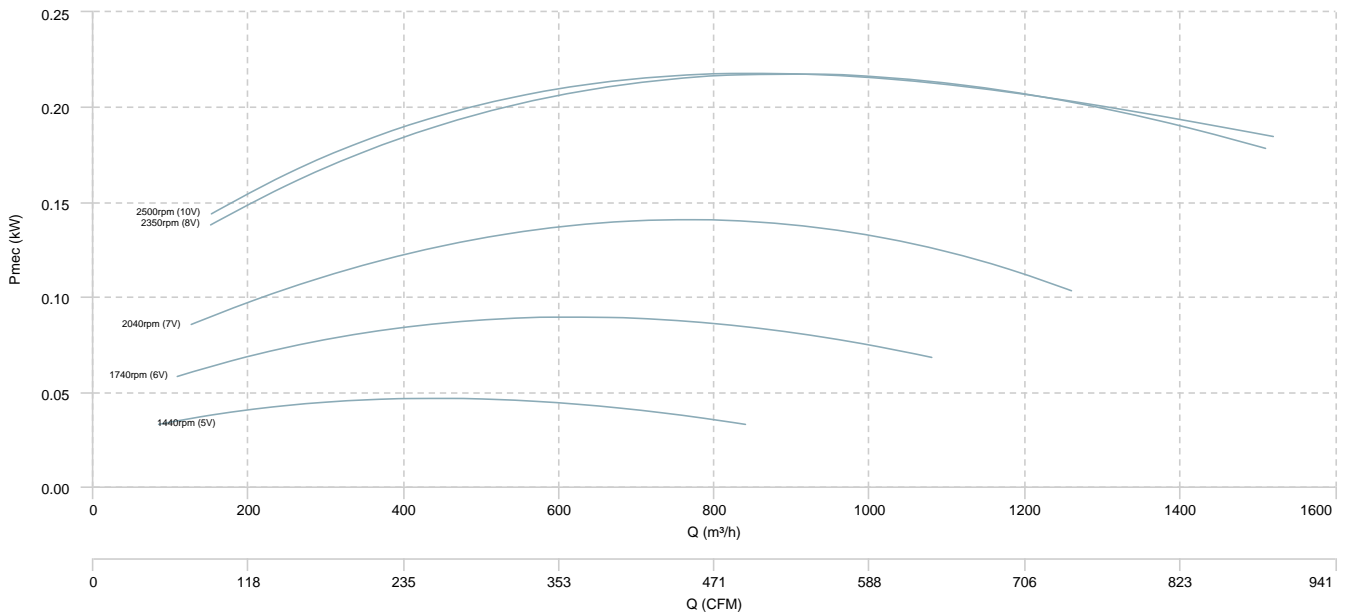


SB-3 PLUS FILTER (ISO Coarse \geq 60%) 5035 EEC

AIR FLOW - PRESSURE

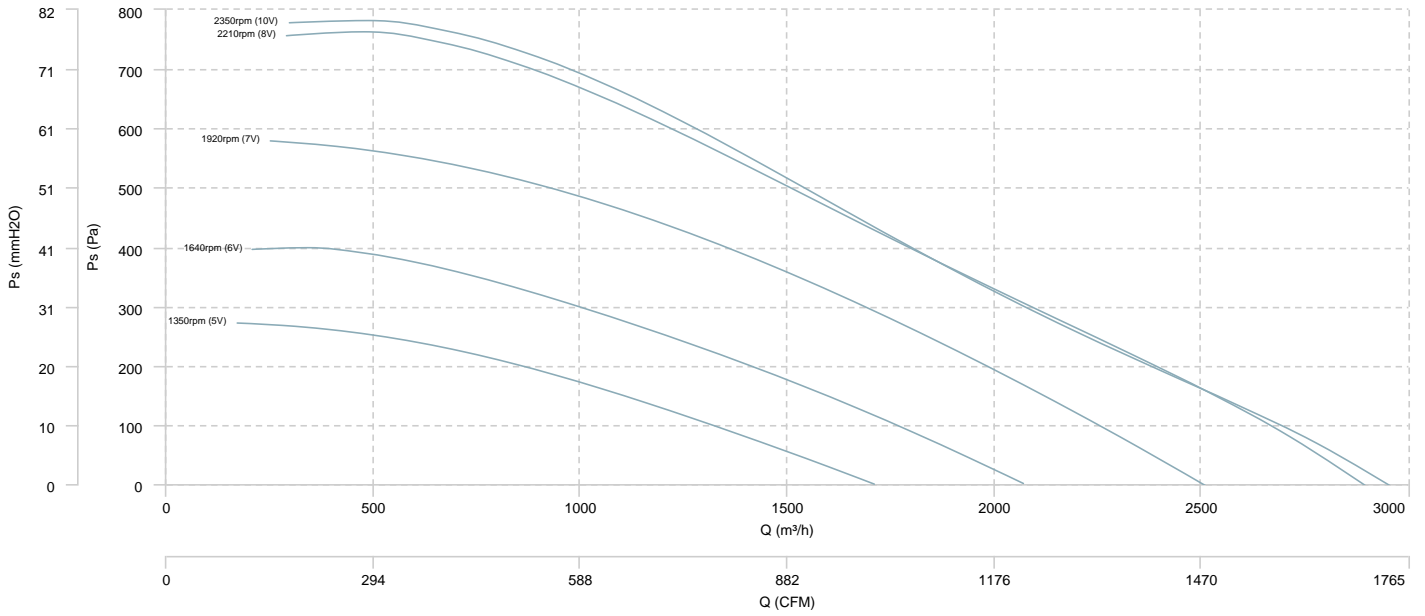


AIR FLOW - MECHANICAL POWER

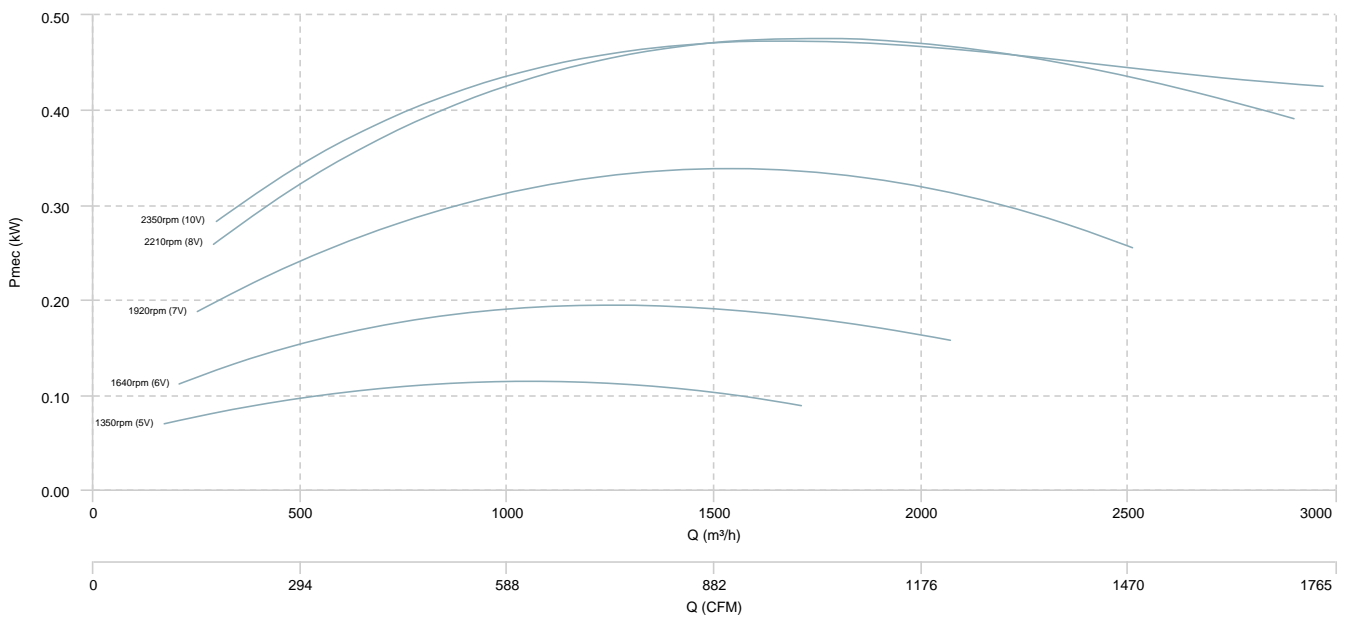


SB-3 PLUS FILTER (ISO Coarse \geq 60%) 6040 EEC

AIR FLOW - PRESSURE

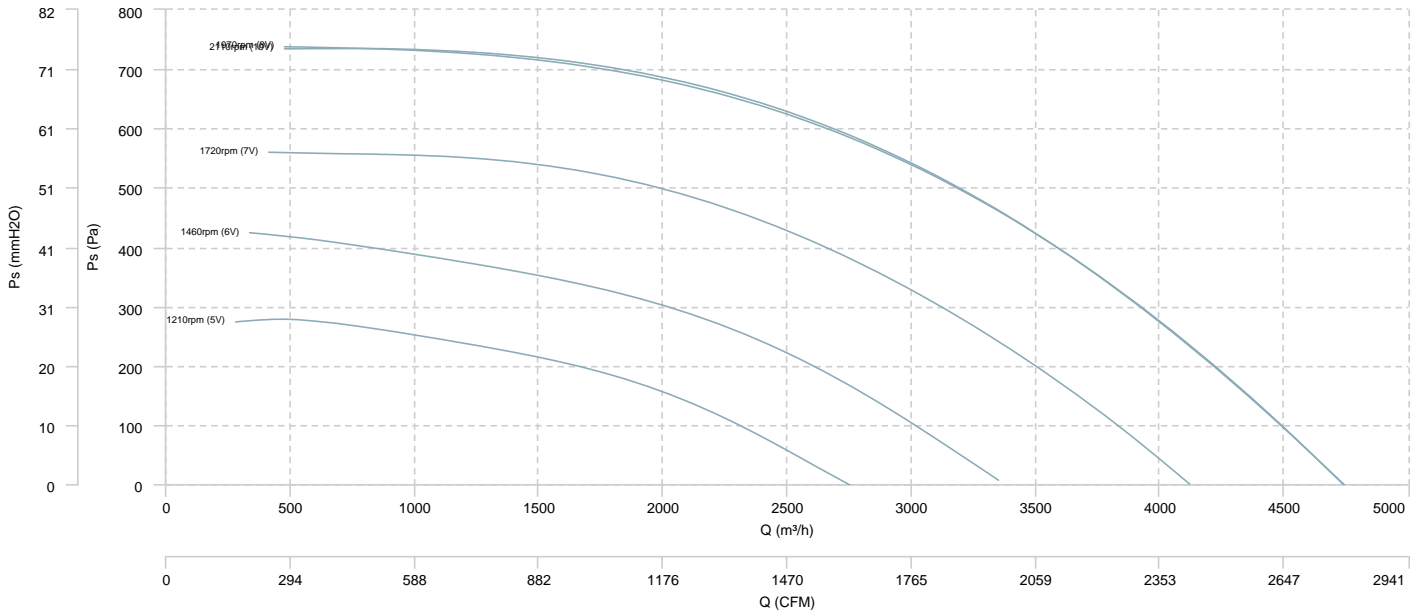


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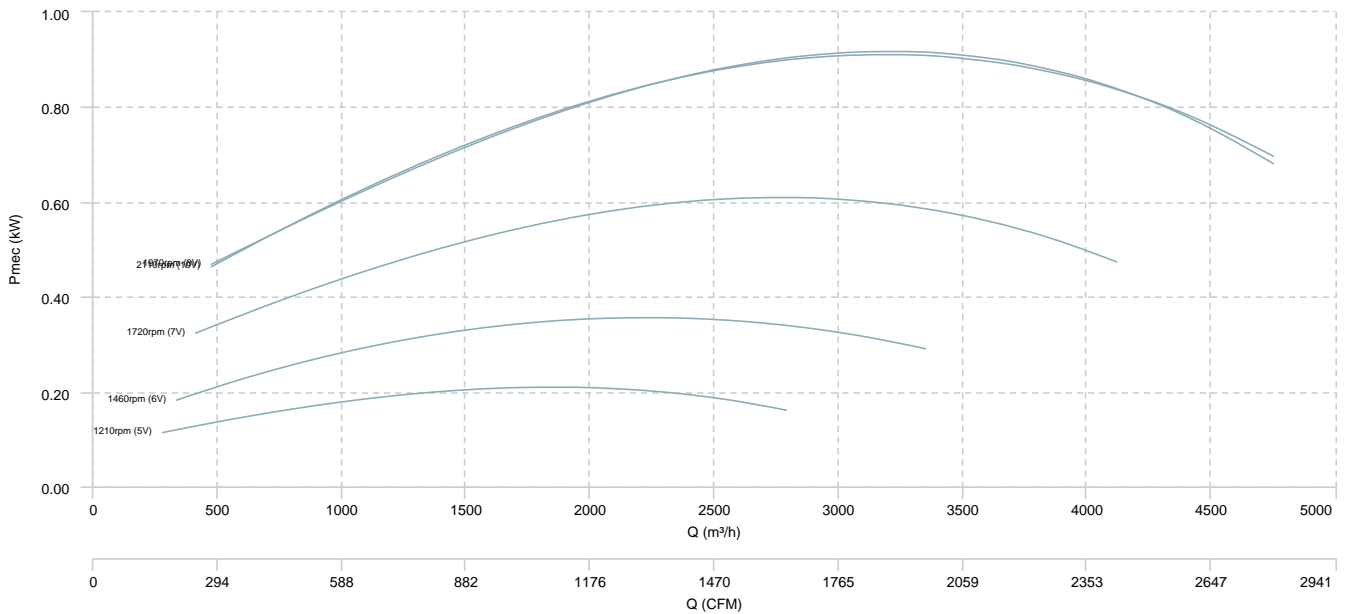


SB-3 PLUS FILTER (ISO Coarse \geq 60%) 7050 EEC

AIR FLOW - PRESSURE

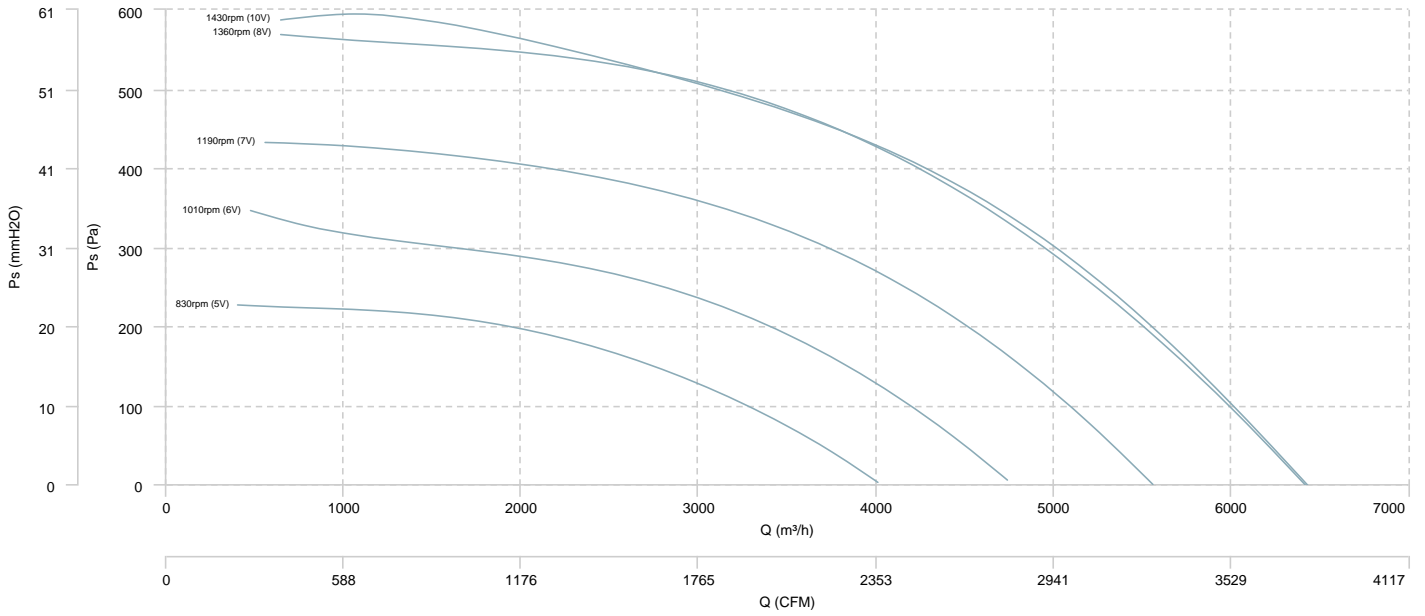


AIR FLOW - MECHANICAL POWER

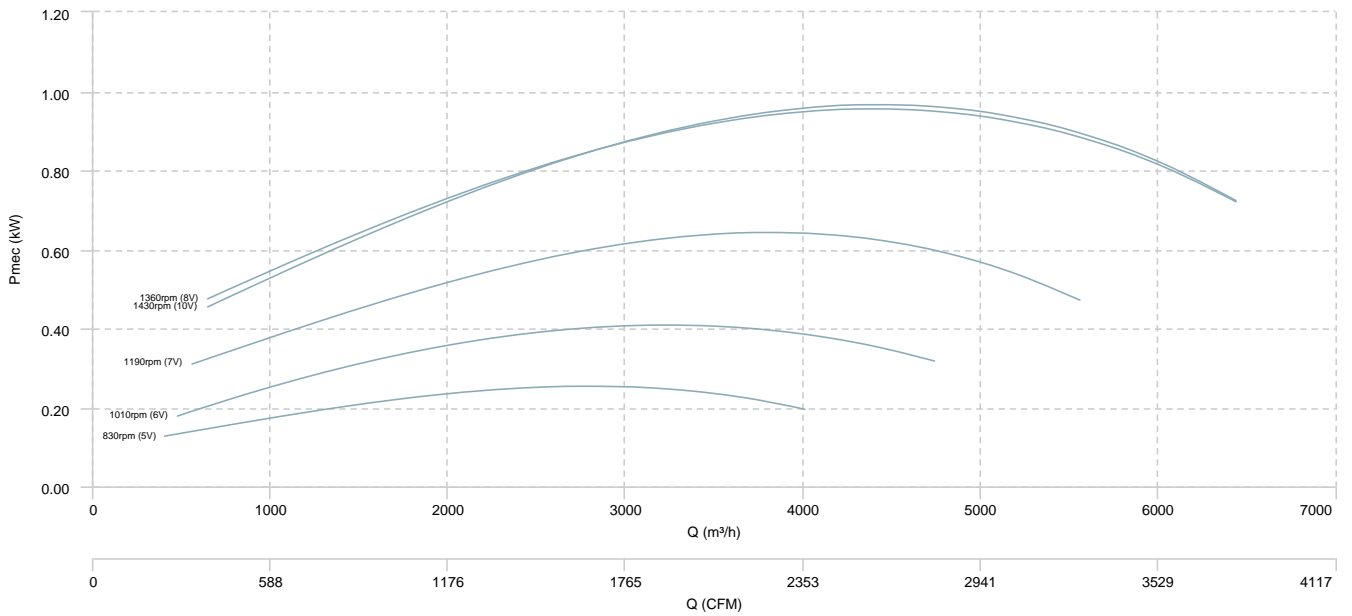


SB-3 PLUS FILTER (ISO Coarse \geq 60%) 8060 EEC

AIR FLOW - PRESSURE

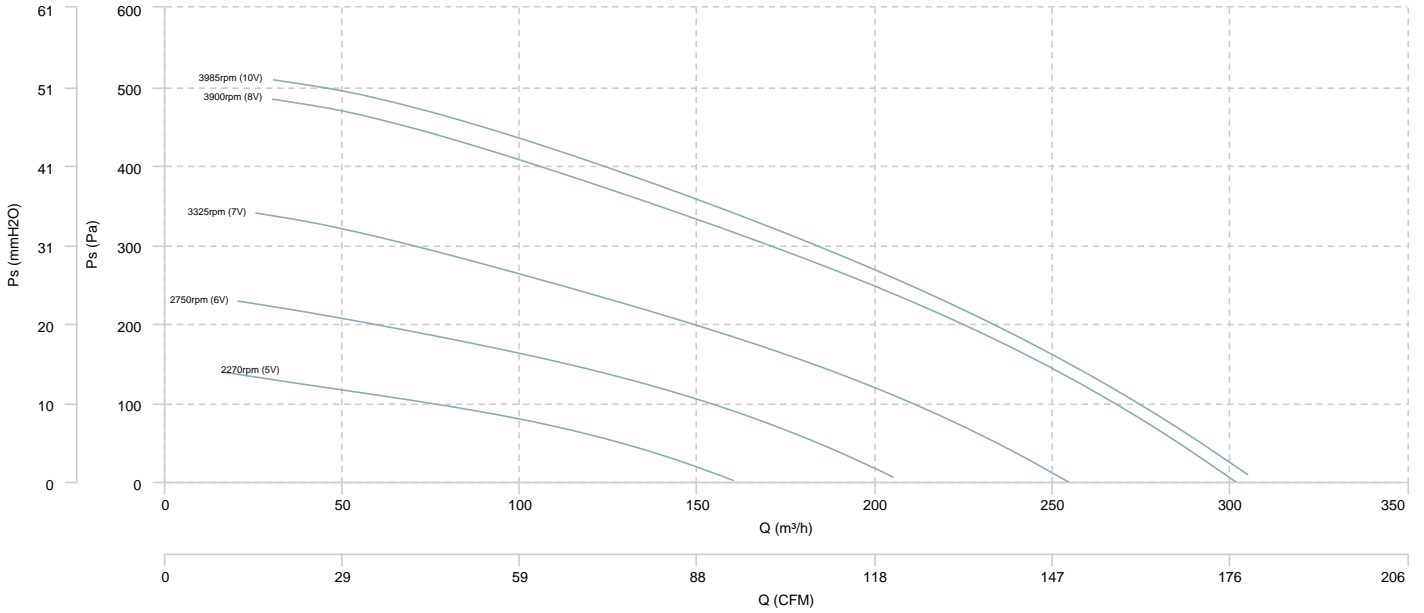


AIR FLOW - MECHANICAL POWER

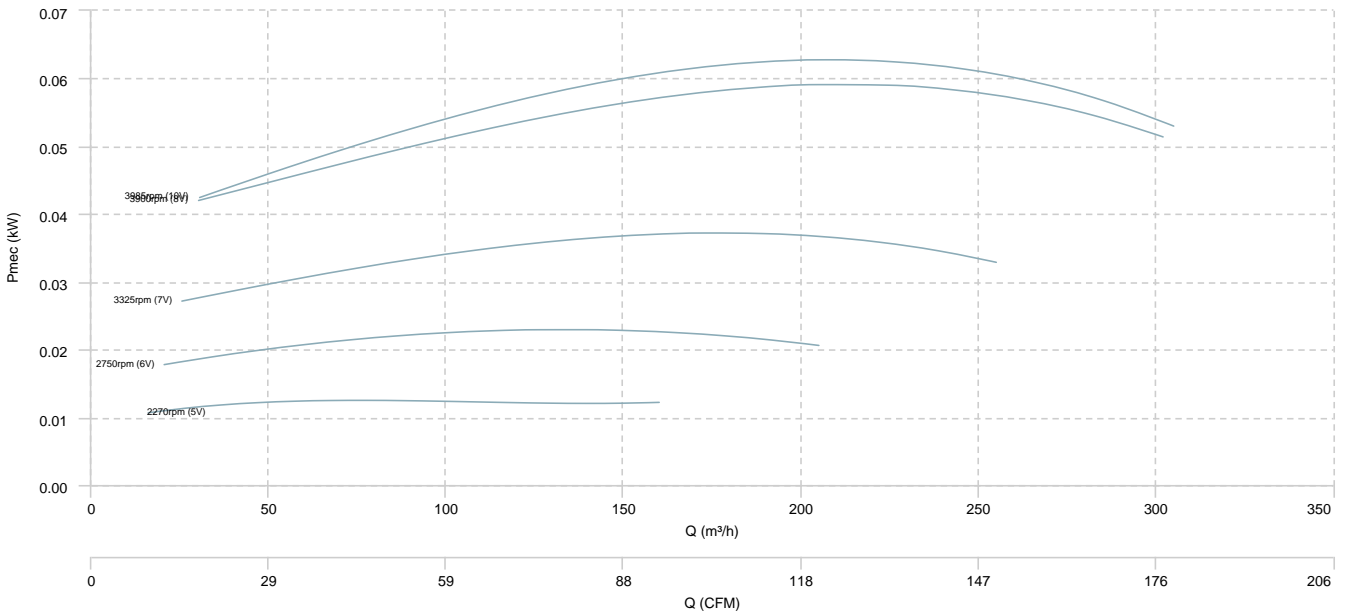


SB-3 PLUS FILTER (ISO
Coarse \geq 60%+ePM1 \geq 50%
) 3015 EEC

AIR FLOW - PRESSURE

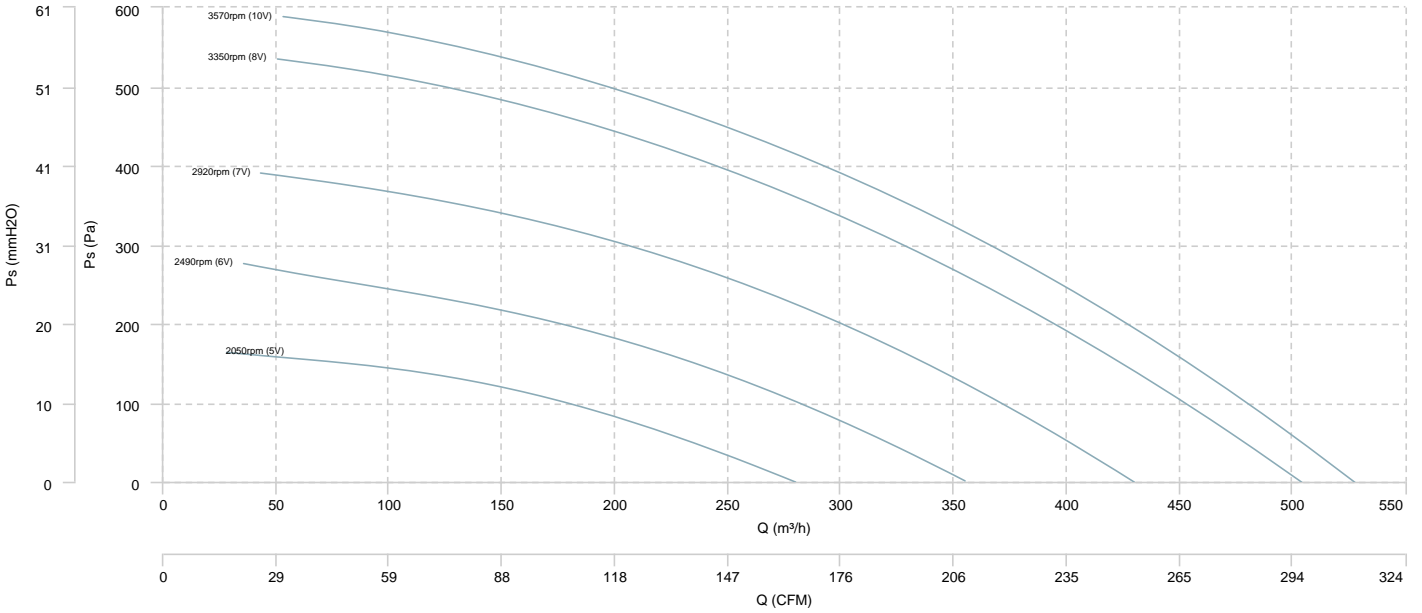


AIR FLOW - MECHANICAL POWER

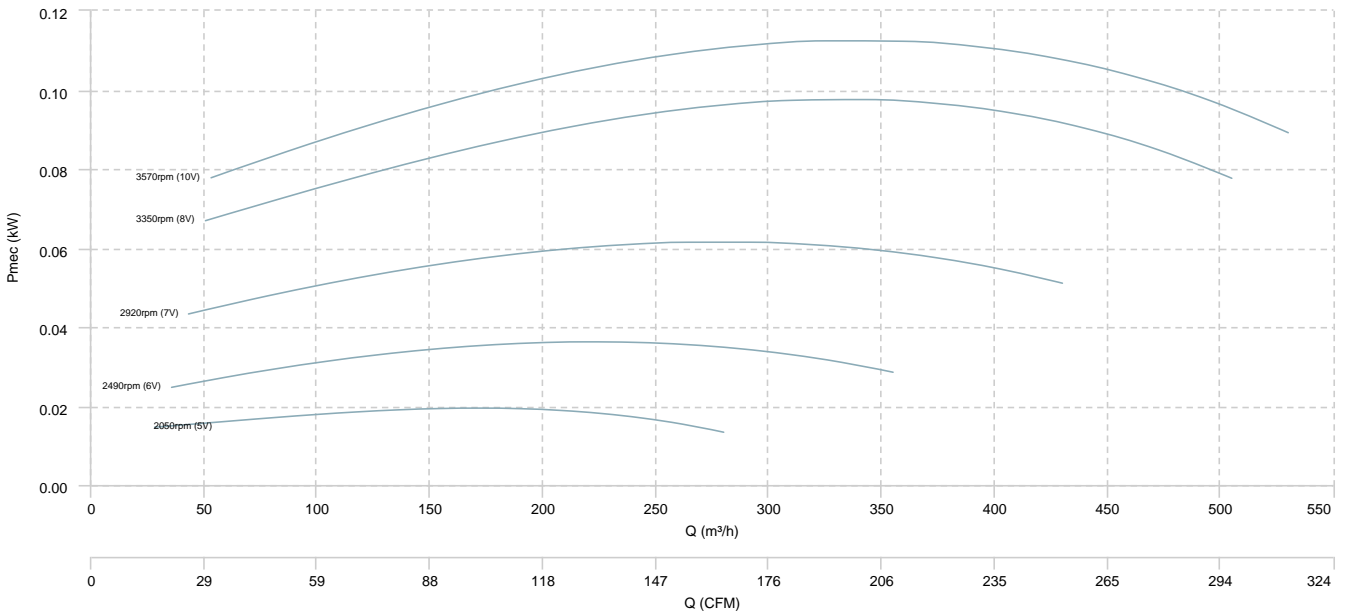


SB-3 PLUS FILTER (ISO
Coarse \geq 60%+ePM1 \geq 50%
) 4020 EEC

AIR FLOW - PRESSURE

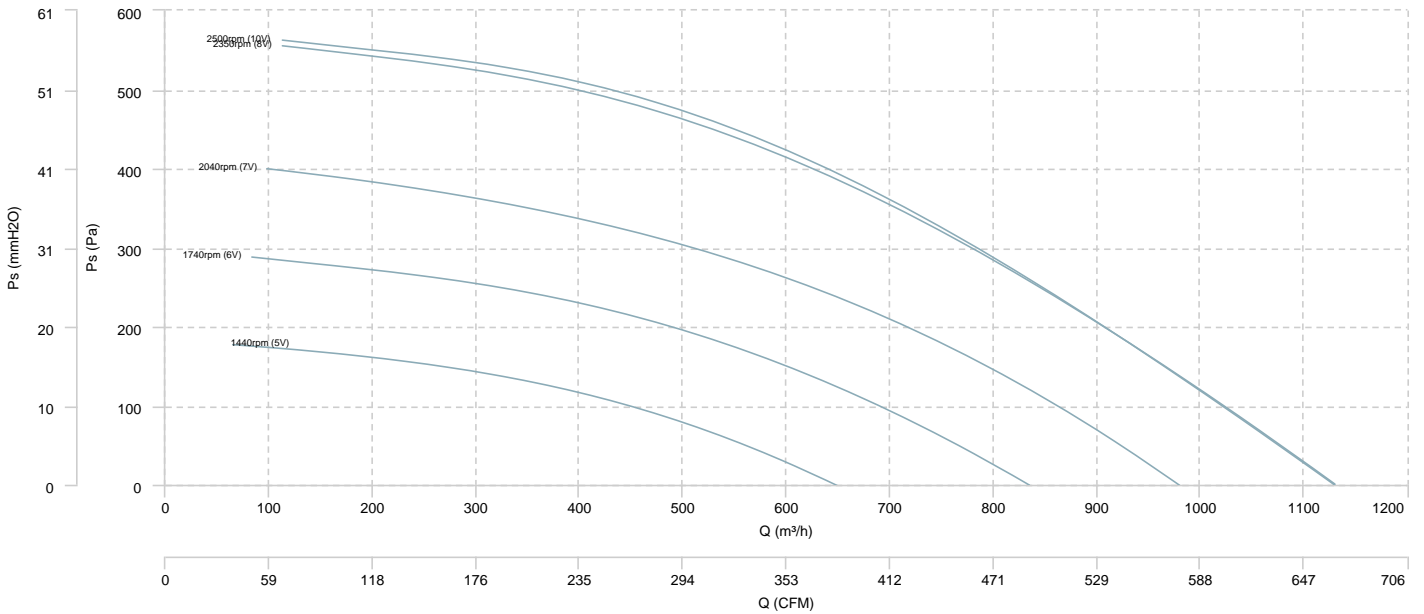


AIR FLOW - MECHANICAL POWER

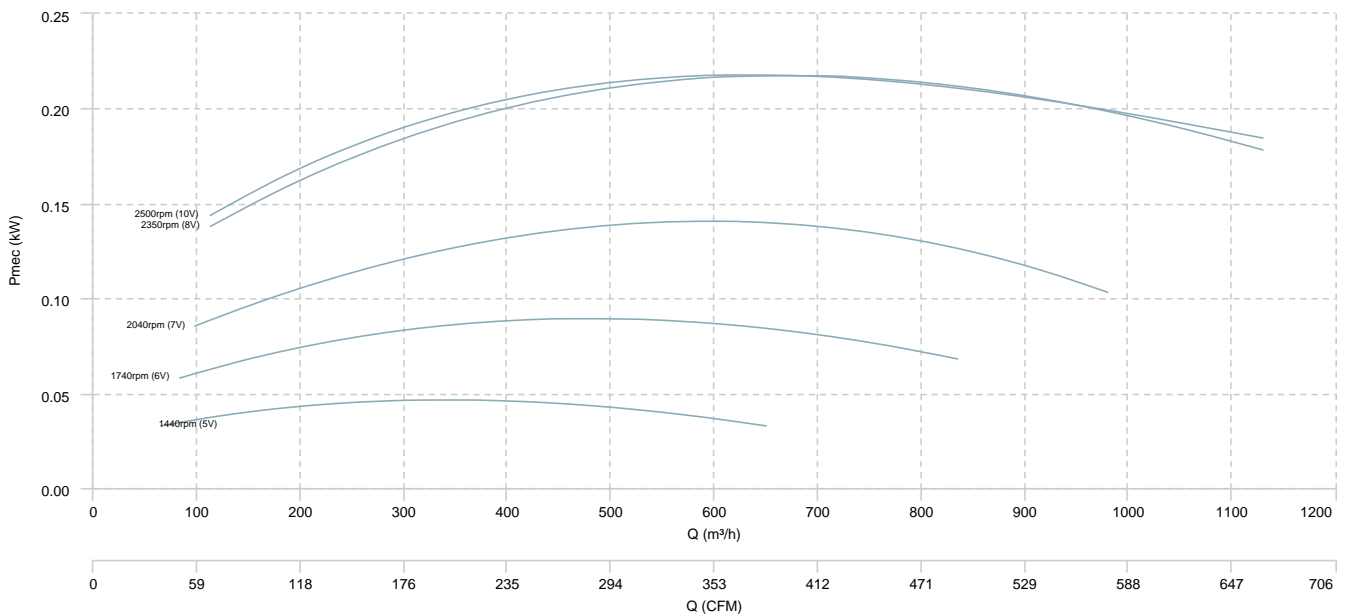


SB-3 PLUS FILTER (ISO
Coarse \geq 60%+ePM1 \geq 50%
) 5035 EEC

AIR FLOW - PRESSURE

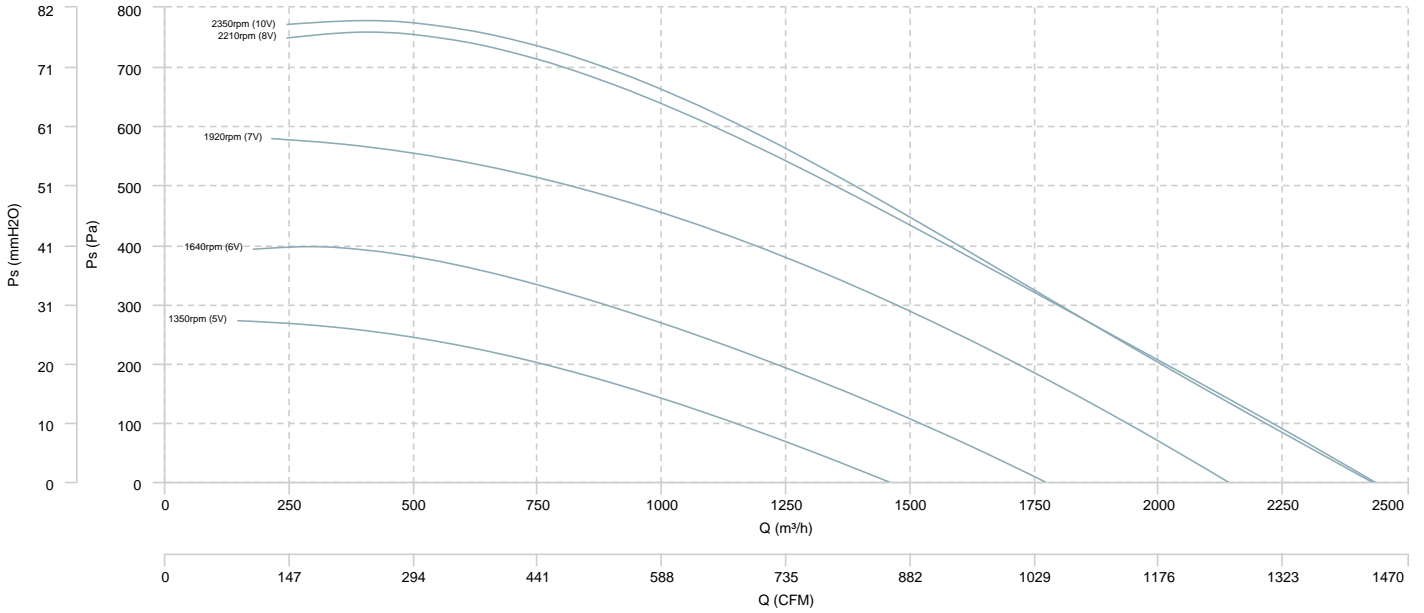


AIR FLOW - MECHANICAL POWER

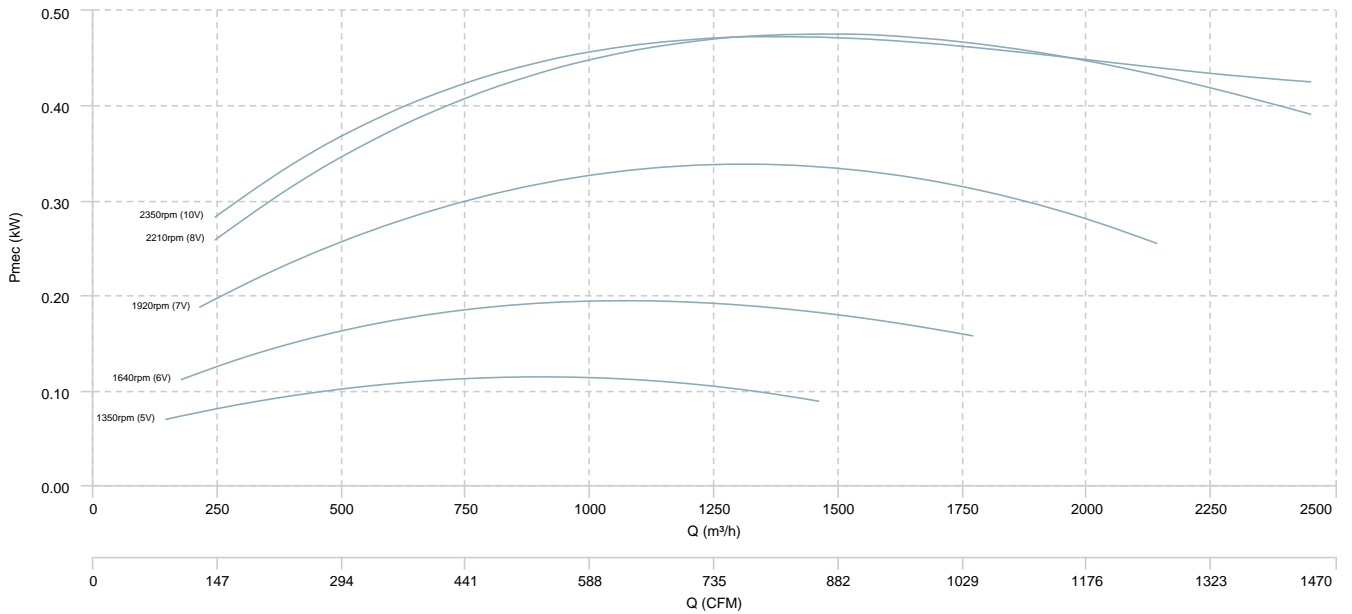


SB-3 PLUS FILTER (ISO
Coarse \geq 60%+ePM1 \geq 50%
) 6040 EEC

AIR FLOW - PRESSURE

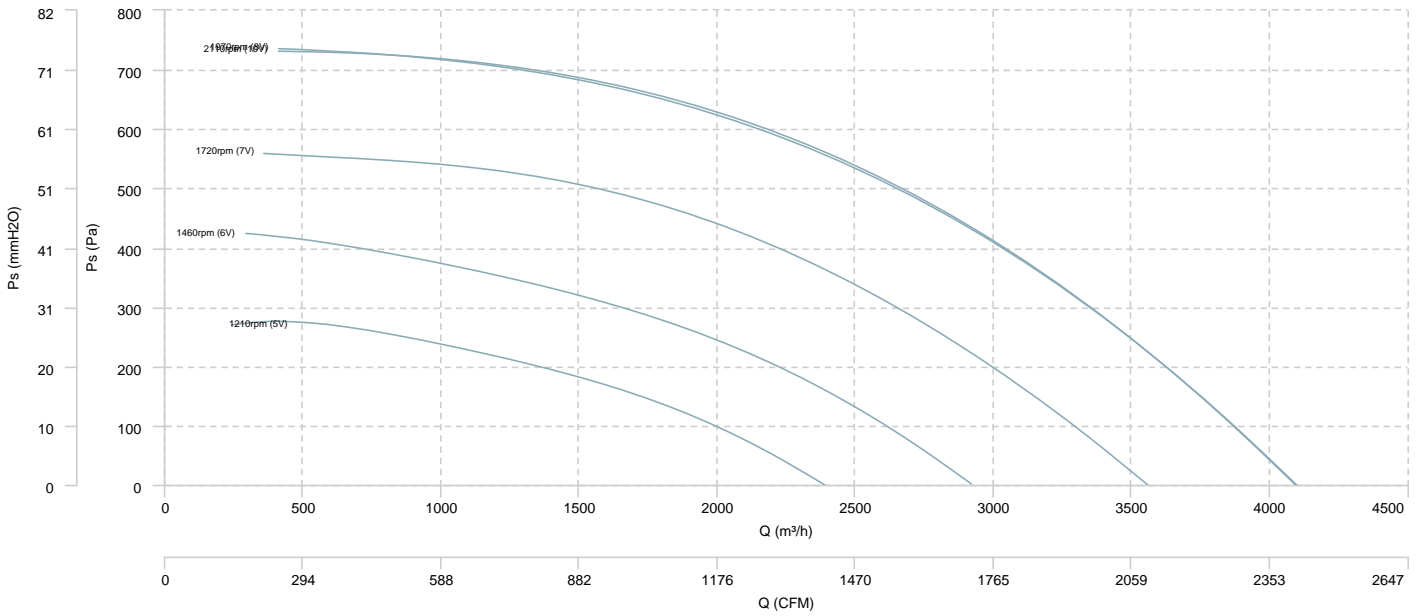


AIR FLOW - MECHANICAL POWER

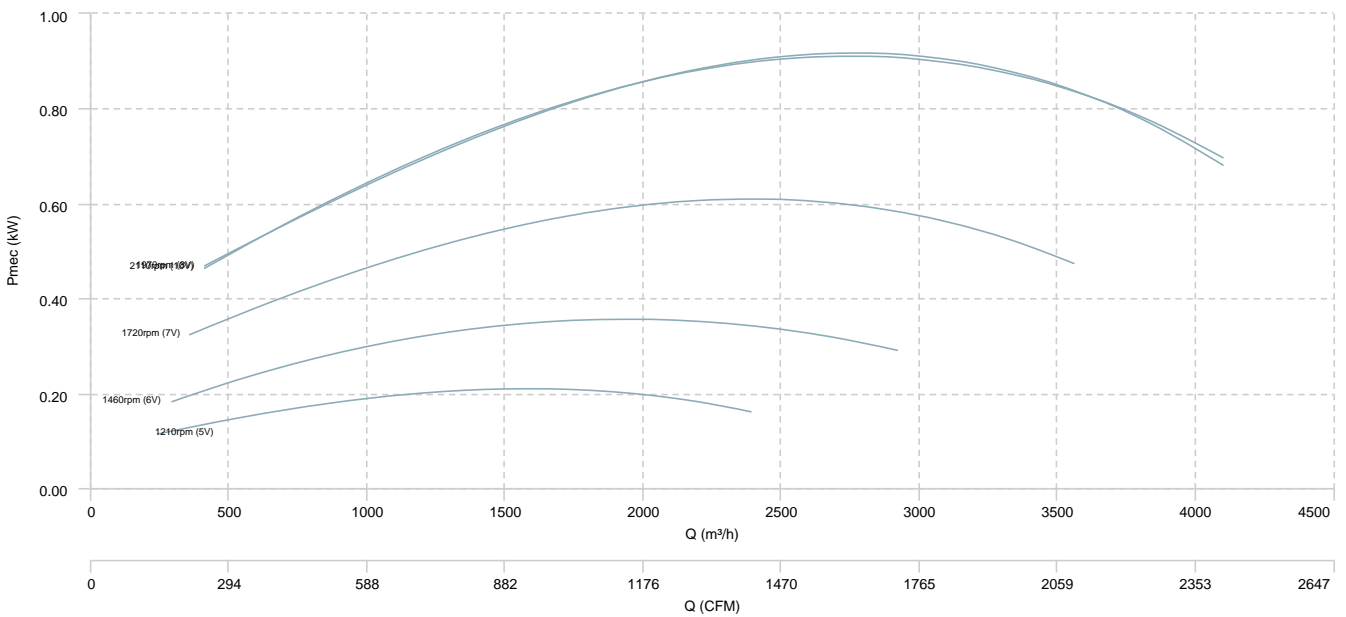


SB-3 PLUS FILTER (ISO
Coarse \geq 60%+ePM1 \geq 50%
) 7050 EEC

AIR FLOW - PRESSURE

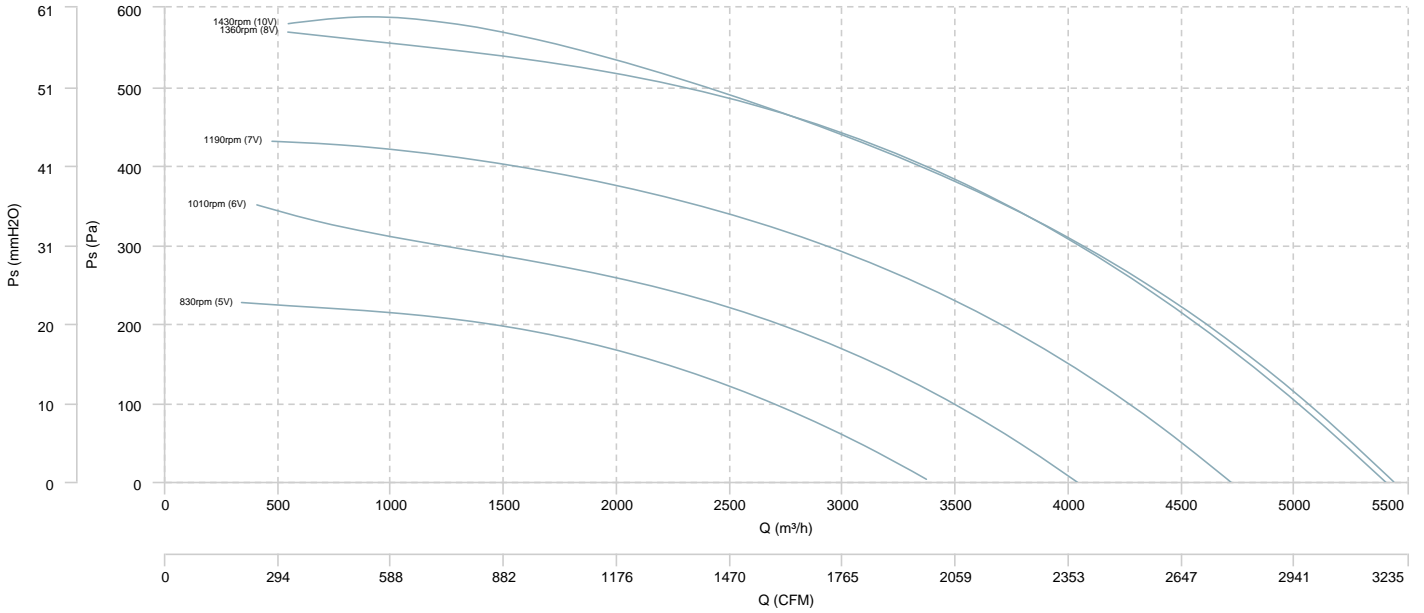


AIR FLOW - MECHANICAL POWER

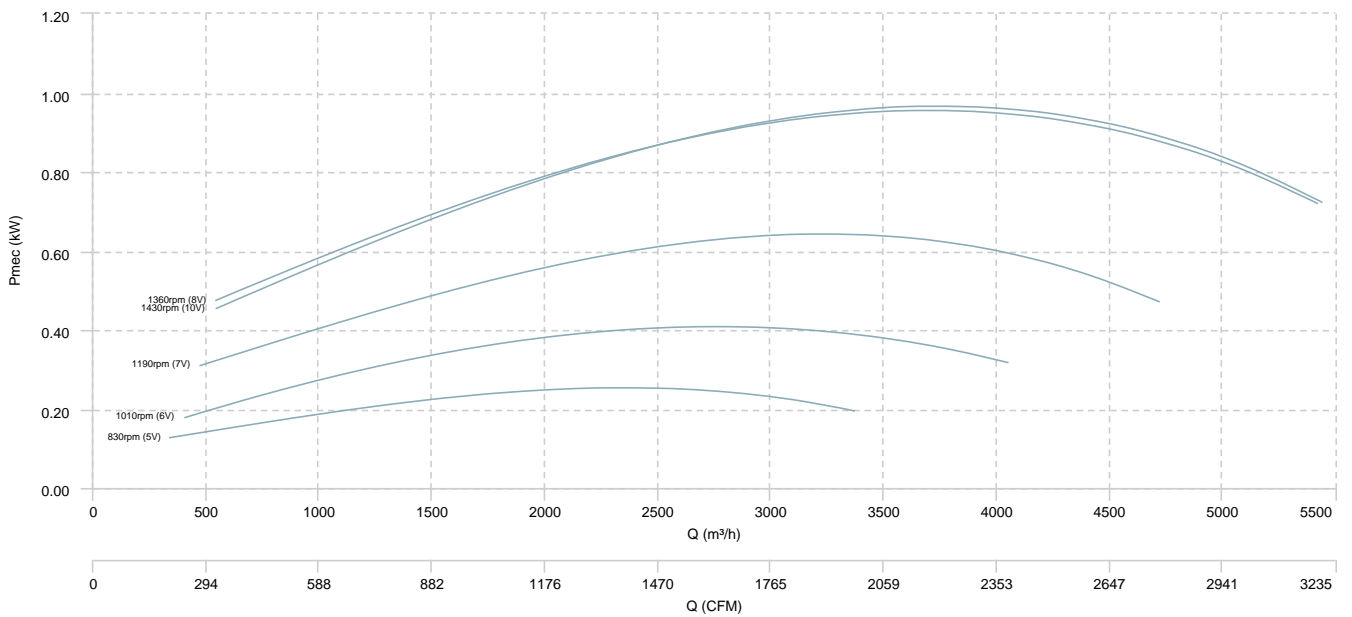


SB-3 PLUS FILTER (ISO
Coarse \geq 60%+ePM1 \geq 50%
) 8060 EEC

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 FILTER (ISO Coarse≥60%) 3015 EEC (1760rpm (4V))	Radiated	-	17	7	24	36	41	46	36	48
SB-3 PLUS FILTER (ISO Coarse≥60%) 4020 EEC (1630rpm (4V))	Radiated	-	3	10	25	38	46	49	42	51
SB-3 PLUS FILTER (ISO Coarse≥60%) 5035 EEC (1130rpm (4V))	Radiated	-	1	15	39	46	49	48	40	53
SB-3 PLUS FILTER (ISO Coarse≥60%) 6040 EEC (1050rpm (4V))	Radiated	-	-	18	34	44	45	40	32	48
SB-3 PLUS FILTER (ISO Coarse≥60%) 7050 EEC (970rpm (4V))	Radiated	-	14	30	47	52	54	48	40	57
SB-3 PLUS FILTER (ISO Coarse≥60%) 8060 EEC (650rpm (4V))	Radiated	-	16	32	36	46	48	41	31	50
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 3015 EEC (1760rpm (4V))	Radiated	-	17	7	24	36	41	46	36	48
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 4020 EEC (1630rpm (4V))	Radiated	-	3	10	25	38	46	49	42	51
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 5035 EEC (1130rpm (4V))	Radiated	-	1	15	39	46	49	48	40	53
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 6040 EEC (1050rpm (4V))	Radiated	-	-	18	34	44	45	40	32	48
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 7050 EEC (970rpm (4V))	Radiated	-	14	30	47	52	54	48	40	57
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 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 ³ /h)	Ps (Pa)	Speed (m/s)	SFP (W/m ³ /s)
SB-3 PLUS FILTER (ISO Coarse≥60%) 5035 EEC (2040rpm (7V))	0,15	-	42,98	0,14	740,83	285,72	1.18	940,14
SB-3 PLUS FILTER (ISO Coarse≥60%) 5035 EEC (2350rpm (8V))	0,15	-	42,22	0,22	835,18	385,49	1.33	940,14
SB-3 PLUS FILTER (ISO Coarse≥60%) 5035 EEC (2500rpm (10V))	0	-	42,12	0,22	833,71	388,59	1.32	940,14
SB-3 PLUS FILTER (ISO Coarse≥60%) 6040 EEC (1640rpm (6V))	0	-	45	0,19	1.096,44	276,85	1.27	1.201,05
SB-3 PLUS FILTER (ISO Coarse≥60%) 6040 EEC (1920rpm (7V))	0,36	-	45,91	0,34	1.334,47	404,42	1.54	1.201,05
SB-3 PLUS FILTER (ISO Coarse≥60%) 6040 EEC (2210rpm (8V))	0	-	46,01	0,47	1.435,67	525,34	1.66	1.201,05
SB-3 PLUS FILTER (ISO Coarse≥60%) 6040 EEC (2350rpm (10V))	0,36	-	46,51	0,47	1.401,47	554,08	1.62	1.201,05
SB-3 PLUS FILTER (ISO Coarse≥60%) 7050 EEC (1210rpm (5V))	0,99	-	45,90	0,21	1.587,85	205,87	1.26	1.179,91
SB-3 PLUS FILTER (ISO Coarse≥60%) 7050 EEC (1460rpm (6V))	0	-	48,68	0,35	1.959,19	306,50	1.55	1.179,91
SB-3 PLUS FILTER (ISO Coarse≥60%) 7050 EEC (1720rpm (7V))	0,99	-	50,68	0,60	2.368,59	448,80	1.88	1.179,91
SB-3 PLUS FILTER (ISO Coarse≥60%) 7050 EEC (1970rpm (8V))	0	-	51,39	0,90	2.728,63	588,46	2.17	1.179,91
SB-3 PLUS FILTER (ISO Coarse≥60%) 7050 EEC (2110rpm (10V))	0	-	51,70	0,90	2.732,58	591,69	2.17	1.179,91
SB-3 PLUS FILTER (ISO Coarse≥60%) 8060 EEC (830rpm (5V))	1,01	-	48,61	0,25	2.284,83	181,52	1.32	914,96
SB-3 PLUS FILTER (ISO Coarse≥60%) 8060 EEC (1010rpm (6V))	0	-	50,01	0,40	2.814,26	248,70	1.63	914,96
SB-3 PLUS FILTER (ISO Coarse≥60%) 8060 EEC (1190rpm (7V))	1,01	-	51,25	0,63	3.257,72	340,48	1.89	914,96
SB-3 PLUS FILTER (ISO Coarse≥60%) 8060 EEC (1360rpm (8V))	0	-	52,10	0,93	3.721,62	455,02	2.15	914,96
SB-3 PLUS FILTER (ISO Coarse≥60%) 8060 EEC (1430rpm (10V))	0	-	52,36	0,94	3.699,04	455,92	2.14	914,96

Model	Motor power (kW)	Maximum efficiency point data						
		Eff.Heat recovery (%)	Max. efficiency (%)	Pabs (kW)	Air Flow (m ³ /h)	Ps (Pa)	Speed (m/s)	SFP (W/m ³ /s)
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 5035 EEC (2040rpm (7V))	0,15	-	32,19	0,14	576,05	272,64	0.91	1.221,56
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 5035 EEC (2500rpm (10V))	0	-	32,93	0,22	641,76	398,75	1.02	1.221,56
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 6040 EEC (1640rpm (6V))	0	-	39,49	0,19	949,03	281,64	1.1	1.389,83
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 6040 EEC (1920rpm (7V))	0,36	-	40,14	0,34	1.165,38	405,51	1.35	1.389,83
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 6040 EEC (2210rpm (8V))	0	-	40,68	0,47	1.212,34	556,51	1.4	1.389,83
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 6040 EEC (2350rpm (10V))	0,36	-	41,58	0,47	1.217,73	575,91	1.41	1.389,83
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 7050 EEC (1210rpm (5V))	0,99	-	38,32	0,21	1.358,32	198,99	1.08	1.373,82
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 7050 EEC (1460rpm (6V))	0	-	40,76	0,35	1.676,62	296,01	1.33	1.373,82
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 7050 EEC (1720rpm (7V))	0,99	-	42,20	0,60	2.030,04	435,23	1.61	1.373,82
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 7050 EEC (1970rpm (8V))	0	-	42,52	0,90	2.327,25	568,67	1.85	1.373,82
SB-3 PLUS FILTER (ISO Coarse≥60%+ePM1≥50%) 7050 EEC (2110rpm (10V))	0	-	42,94	0,89	2.343,90	570,29	1.86	1.373,82