

SB-3 EEC



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

MANUFACTURING FEATURES

Inline ventilation box made of galvanized steel with rectangular connection flanges.

Self-cleaning impeller with back curved (backward) 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.

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



REGC

Technical data

Single-phase motor

Code	Model	R.P.M.	Rated I. (A) 230V	Rated power kW	Max. Airflow w m3/h	Sound db (A)**	Weight	Connect. diagram
240150242	SB-3 3015 EEC	3950	0,25	0,06	445	-	5	1
240190242	SB-3 4020 EEC	3570	0,73	0,1	715	-	7,50	1
240250242	SB-3 5035 EEC	2500	1	0,15	1.600	-	13	1
240310242	SB-3 6040 EEC	2350	1,7	0,36	3.070	-	20,50	1

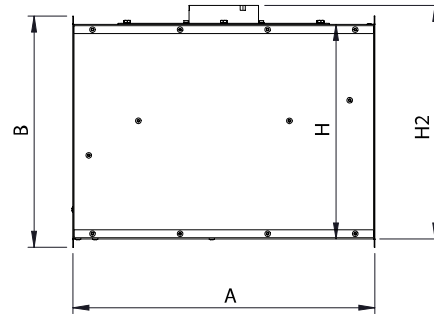
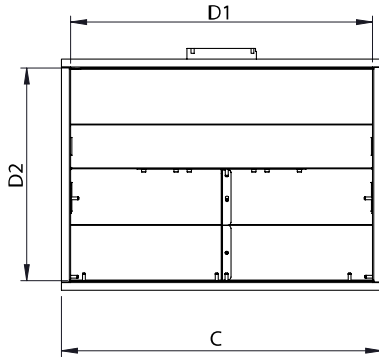
Three-phase motor

Code	Model	R.P.M.	Rated I. (A) 400V	Rated power kW	Max. Airflow w m3/h	Sound db (A)**	Weight	Connect. diagram
240350242	SB-3 7050 EEC	2100	1,63	0,99	4.920	-	34	2
240450242	SB-3 8060 EEC	1450	1,67	1,006	6.790	-	42	2

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	H	H2
SB-3 3015 EEC	300	180	330	300	150	154	180
SB-3 4020 EEC	400	230	430	400	200	204	229.5
SB-3 5035 EEC	500	383	530	500	353	357	386.5
SB-3 6040 EEC	600	430	630	600	400	405	447
SB-3 7050 EEC	700	530	730	700	500	505	560
SB-3 8060 EEC	900	631	830	800	601	606	661

Wiring diagram

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

DIAGRAM Nº 2

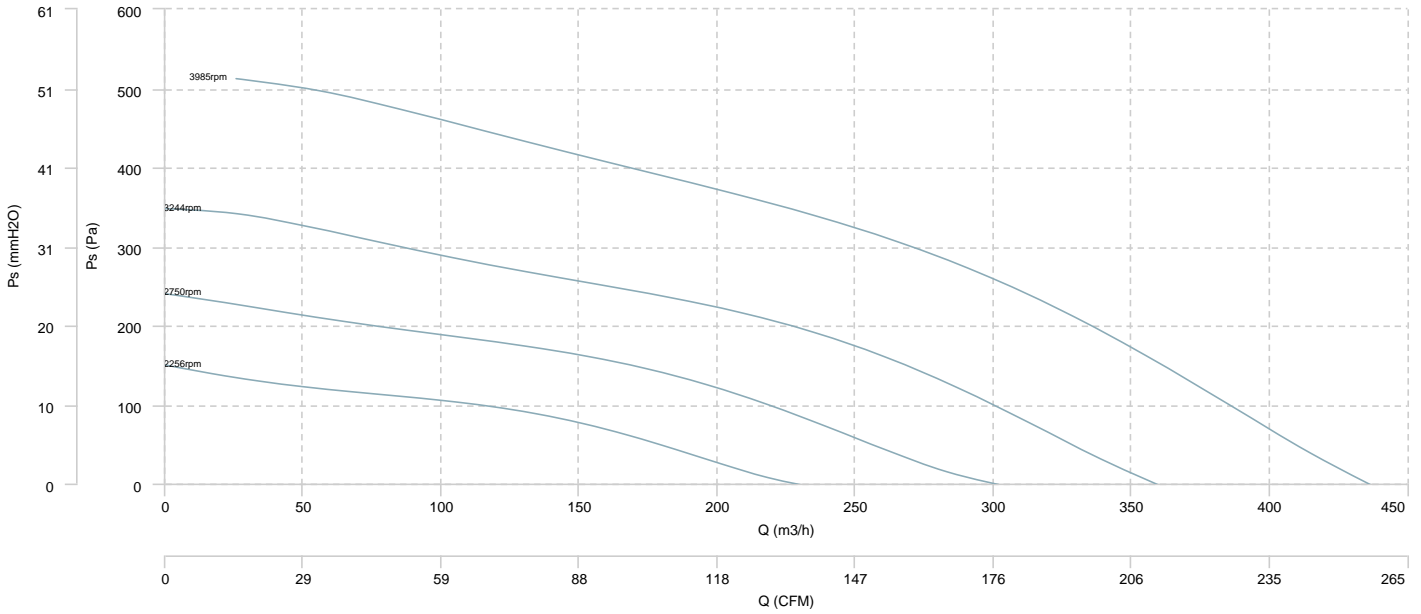
Nº	Signal Señal	Colour Color	Specification Especificación
1	L1	Black Negro	AC380V/50Hz
2	L2	Black Negro	AC380V/50Hz
3	L3	Black Negro	AC380V/50Hz
4	Pe	Yellow-Green Amarillo-Verde	

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	1 Pulse/R

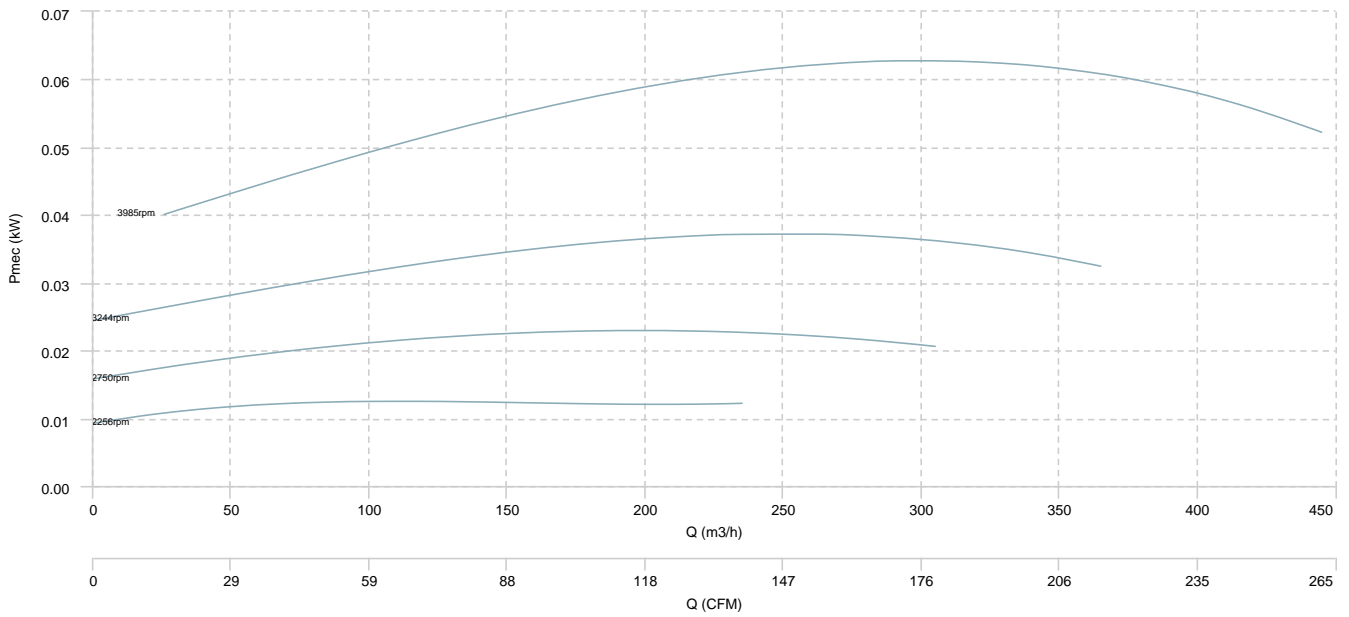
CHARACTERISCTIC CURVE

SB-3 3015 EEC

AIR FLOW - PRESSURE

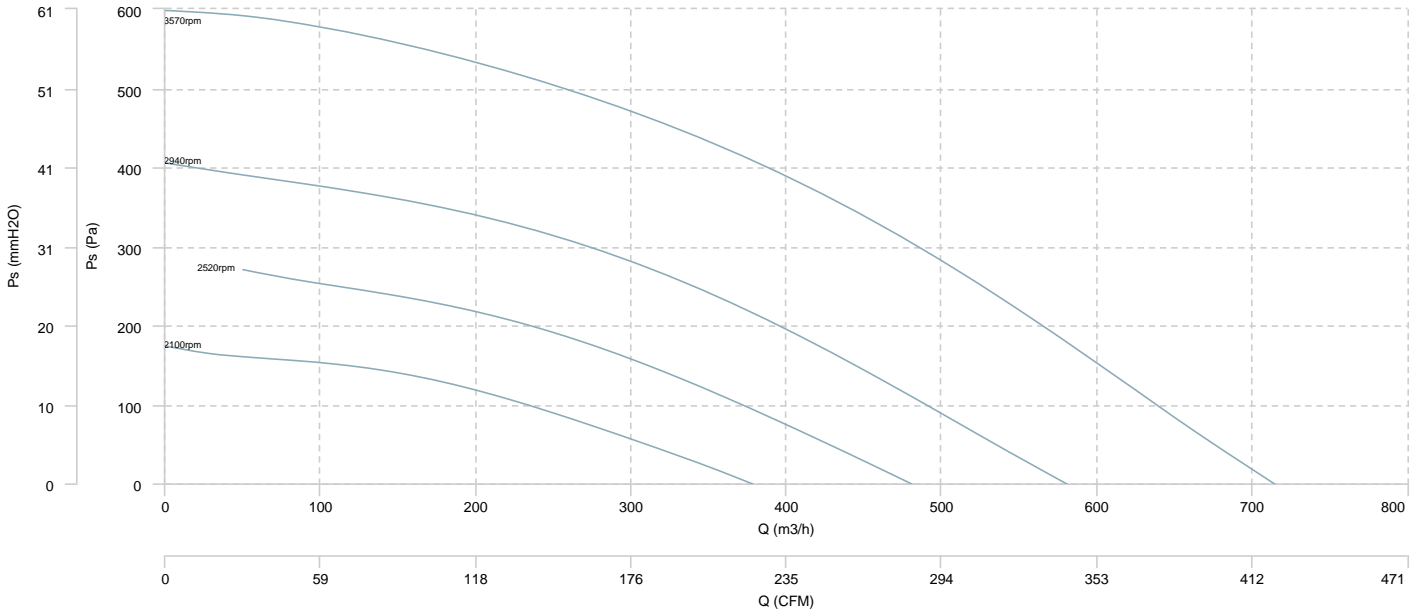


AIR FLOW - MECHANICAL POWER

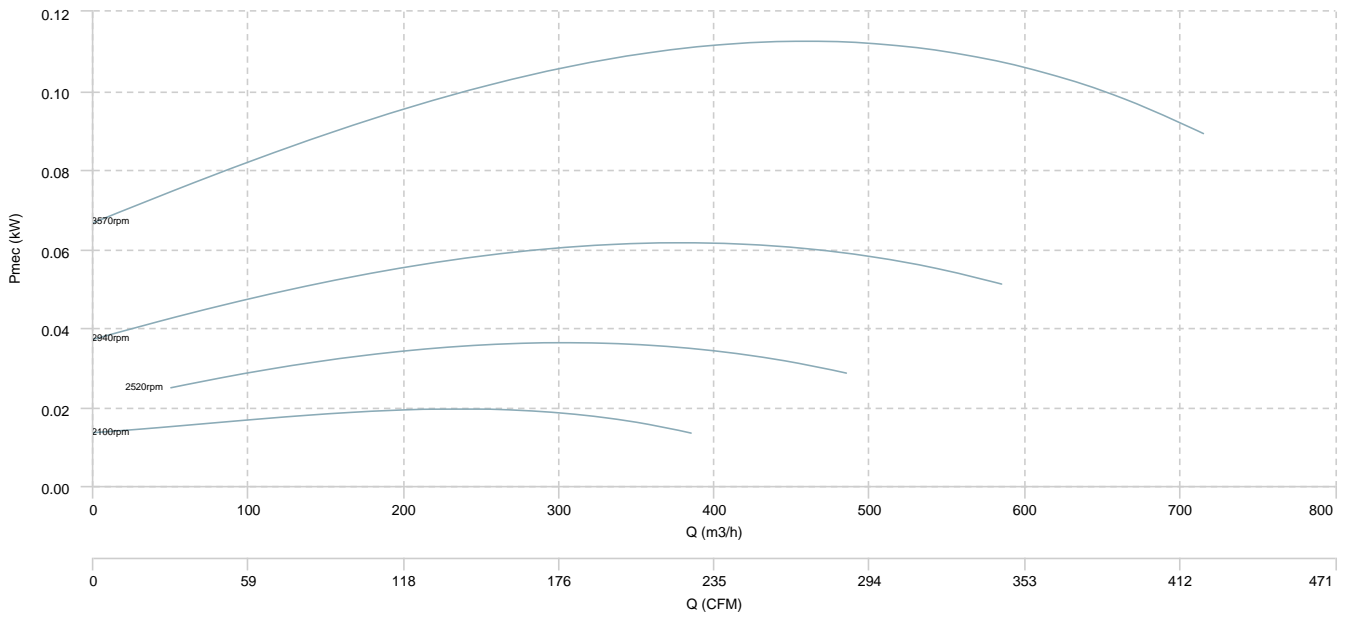


SB-3 4020 EEC

AIR FLOW - PRESSURE

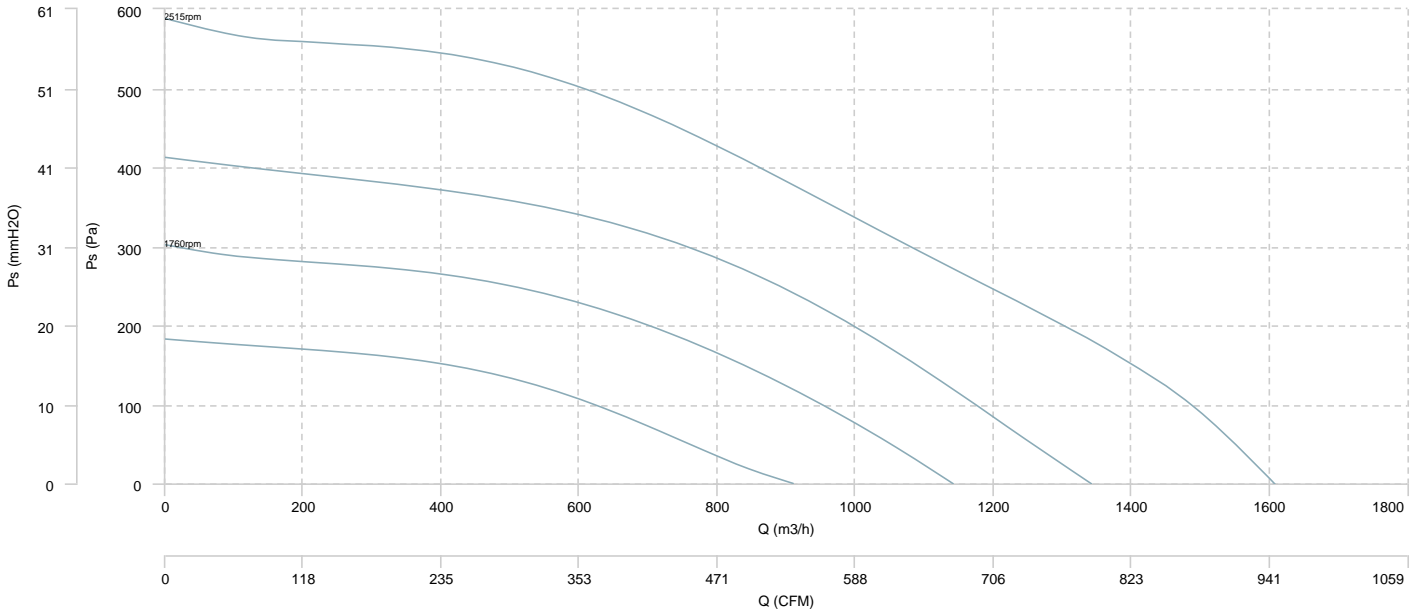


AIR FLOW - MECHANICAL POWER

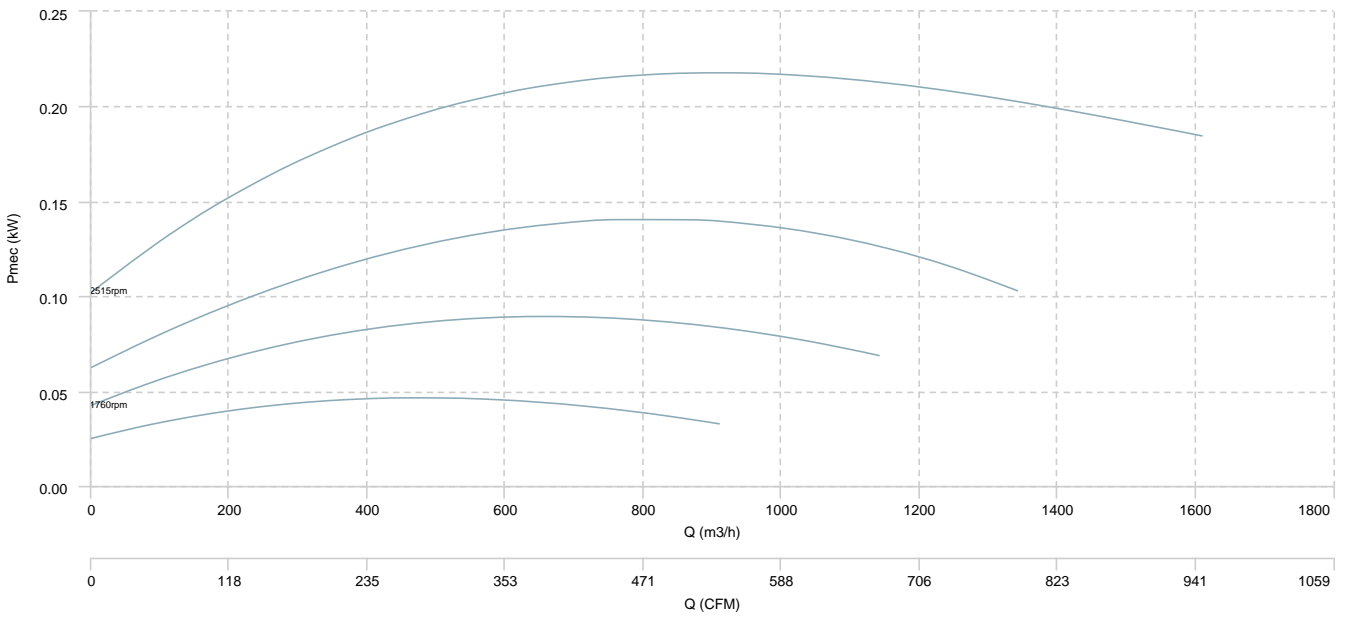


SB-3 5035 EEC

AIR FLOW - PRESSURE

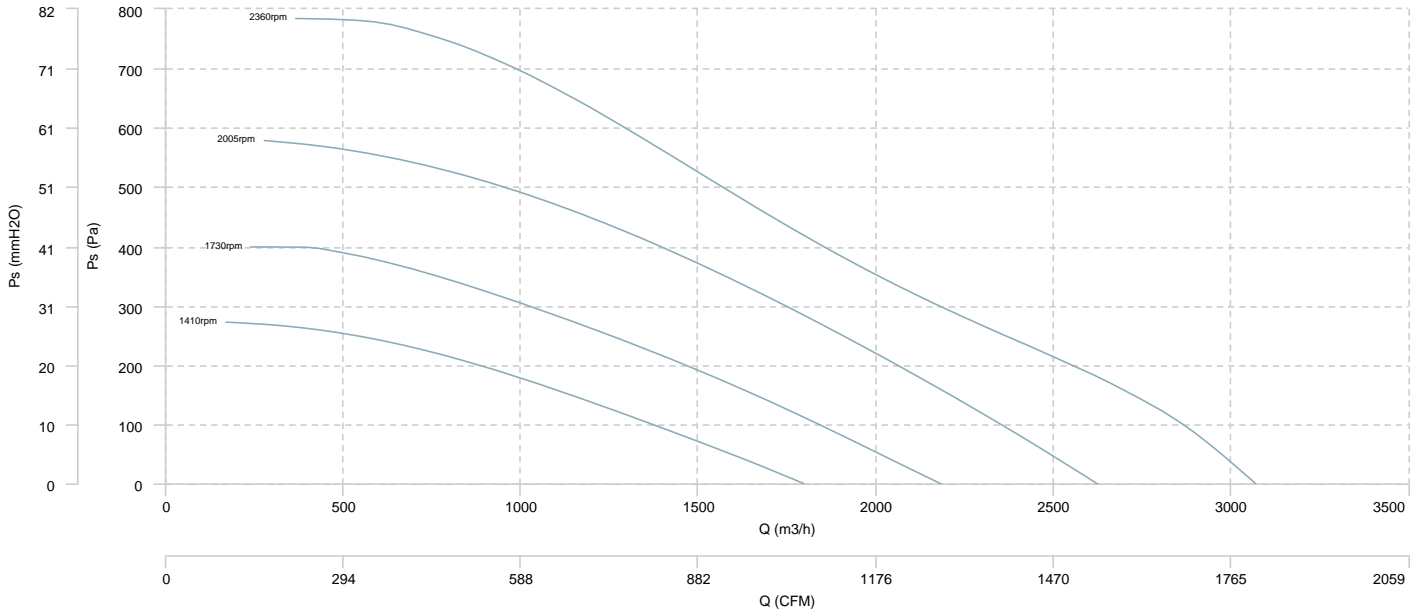


AIR FLOW - MECHANICAL POWER

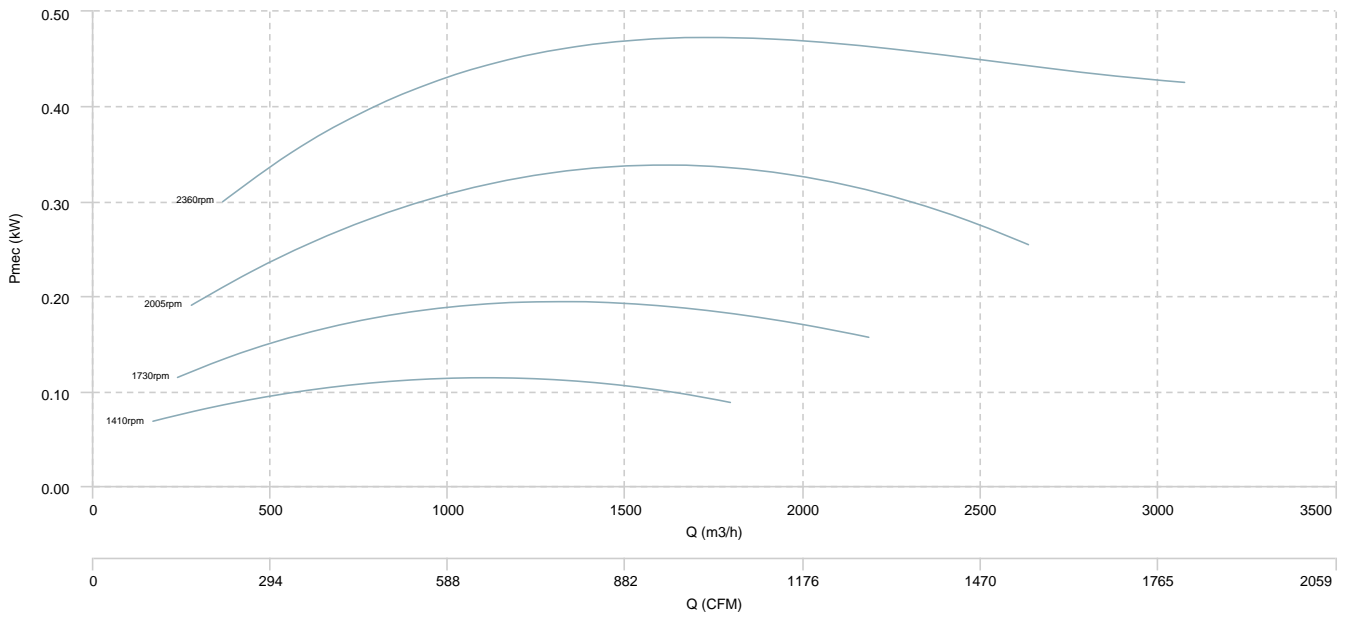


SB-3 6040 EEC

AIR FLOW - PRESSURE

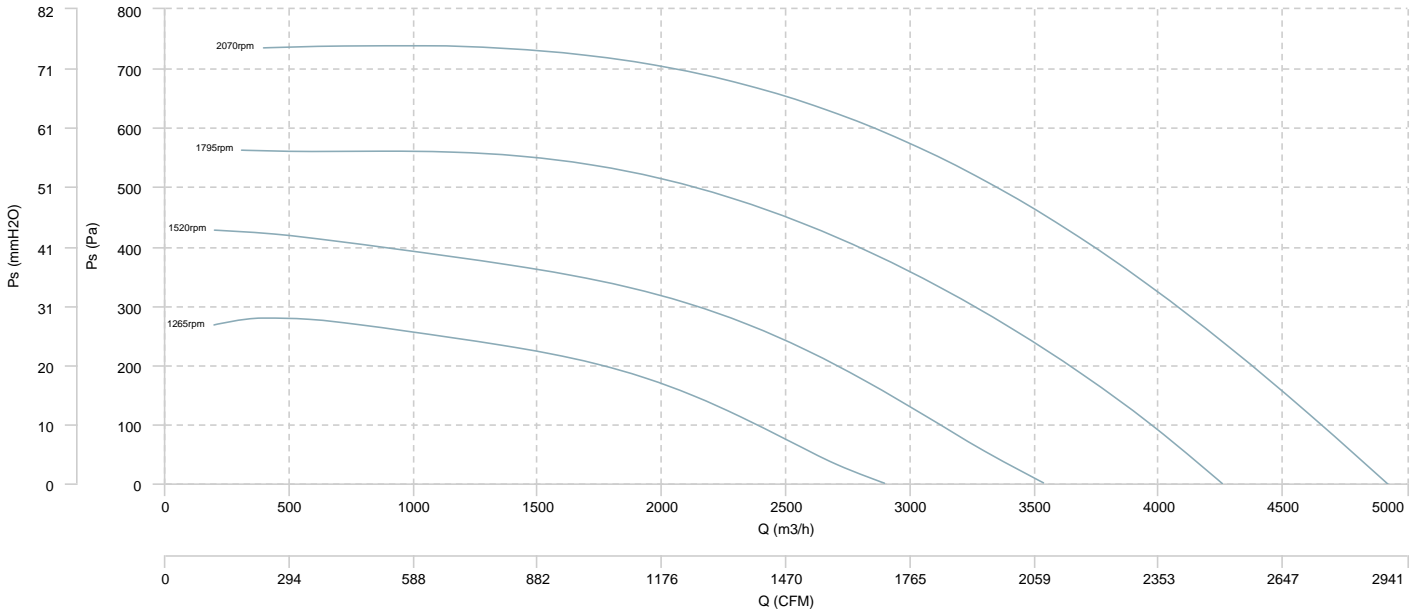


AIR FLOW - MECHANICAL POWER

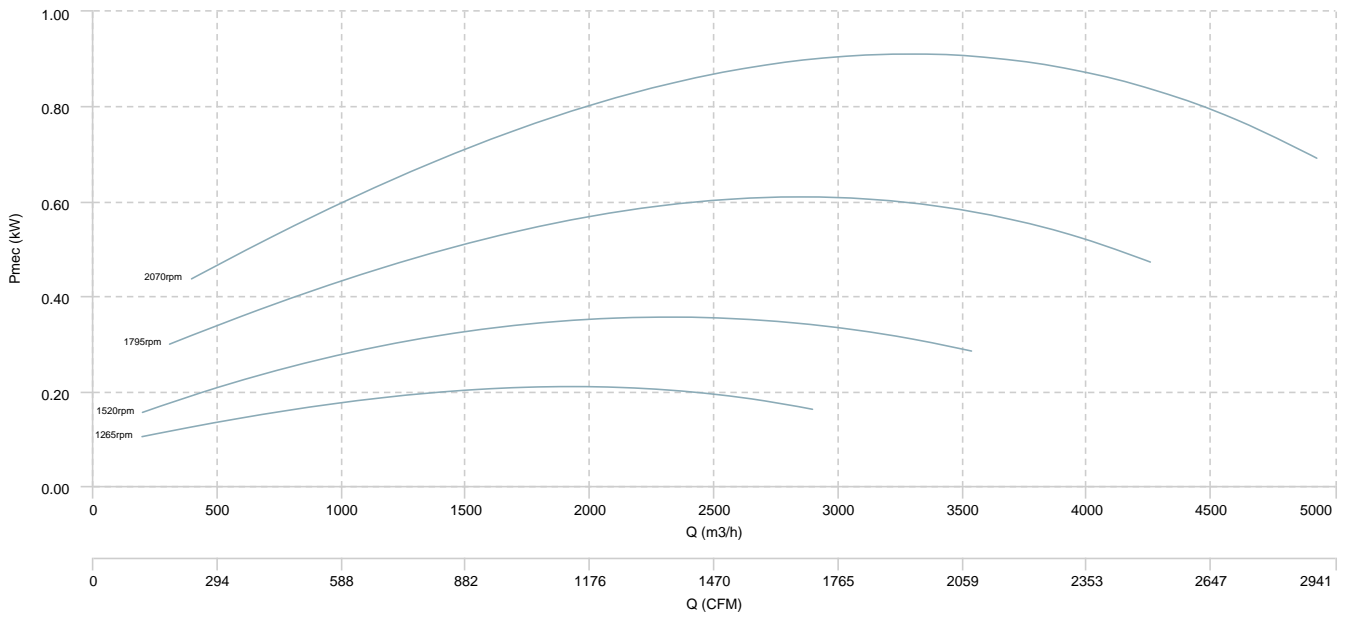


SB-3 7050 EEC

AIR FLOW - PRESSURE

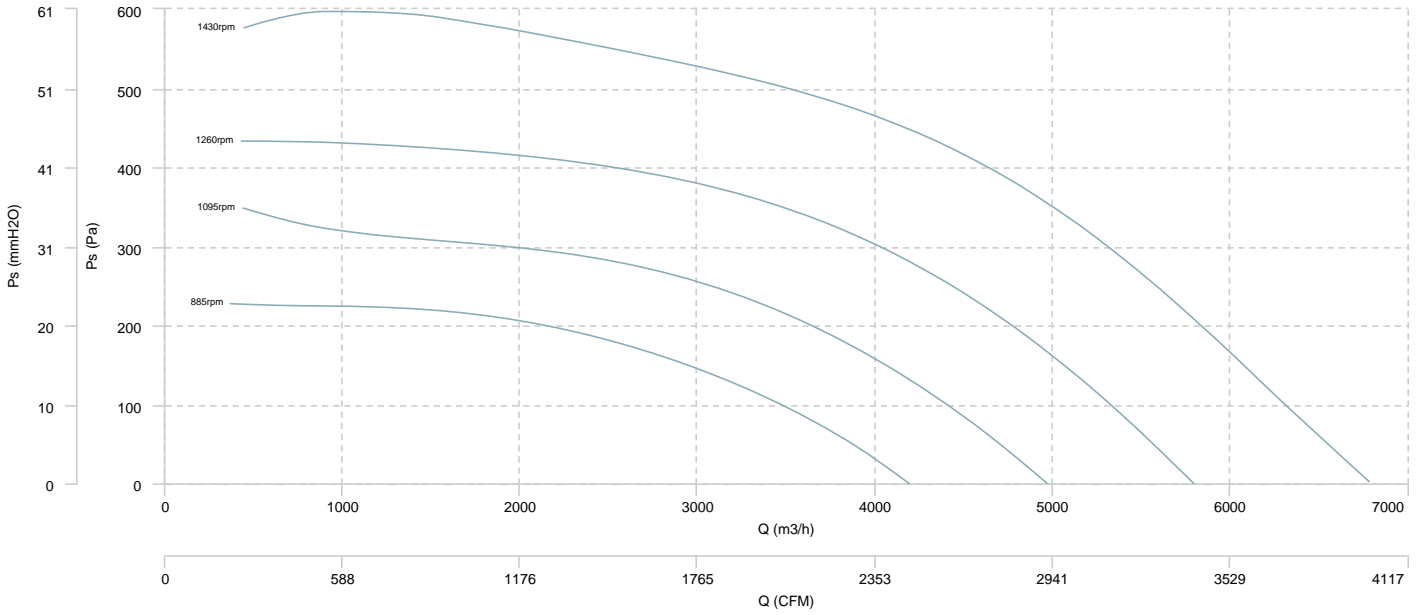


AIR FLOW - MECHANICAL POWER

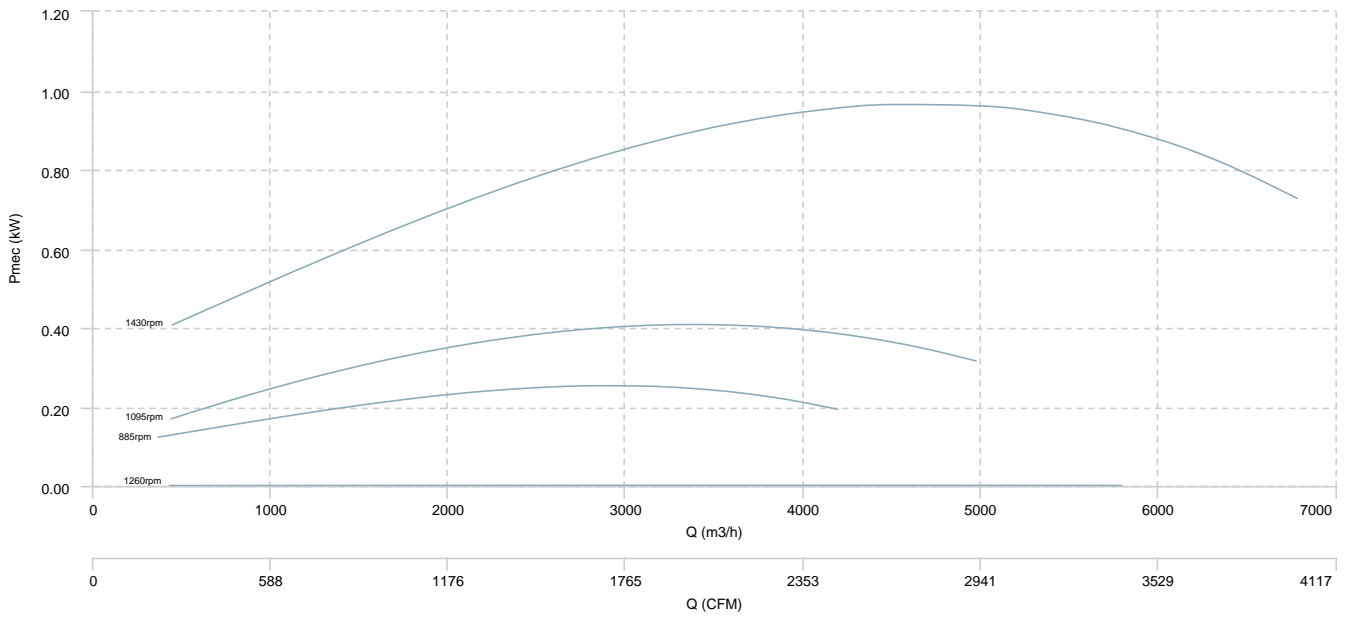


SB-3 8060 EEC

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 3015 EEC (5 RPM)	Radiated	29	19	36	48	53	58	48	41	60
SB-3 4020 EEC (5 RPM)	Radiated	14	21	36	49	57	60	53	45	63
SB-3 5035 EEC (5 RPM)	Radiated	6	20	44	51	54	53	45	31	58
SB-3 6040 EEC (5 RPM)	Radiated	21	40	56	66	67	62	54	46	71
SB-3 7050 EEC (5 RPM)	Radiated	26	42	59	64	66	60	52	42	69
SB-3 8060 EEC (5 RPM)	Radiated	28	44	48	58	60	53	43	35	63

Notes:

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

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

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 5035 EEC (RPM)	0,15	-	44,44	0,14	785,82	289,69	1.25	855,37
SB-3 5035 EEC (2515rpm RPM)	0,15	-	44,63	0,22	916,47	374,62	1.45	855,37
SB-3 6040 EEC (1730rpm RPM)	0,36	-	45,15	0,19	1.007,62	302,24	1.17	1.171,39
SB-3 6040 EEC (2005rpm RPM)	0,36	-	45,44	0,33	1.241,76	437,59	1.44	1.171,39
SB-3 6040 EEC (RPM)	0,36	-	45,65	0,47	1.460,52	526,28	1.69	1.171,39
SB-3 6040 EEC (2360rpm RPM)	0,36	-	46,46	0,47	1.434,17	548,90	1.66	1.171,39
SB-3 7050 EEC (1265rpm RPM)	0,99	-	46,79	0,21	1.653,34	209,62	1.31	1.156,78
SB-3 7050 EEC (1520rpm RPM)	0,99	-	49,93	0,35	1.963,84	320,36	1.56	1.156,78
SB-3 7050 EEC (1795rpm RPM)	0,99	-	51,28	0,60	2.413,08	462,63	1.92	1.156,78
SB-3 7050 EEC (RPM)	0,99	-	51,78	0,90	2.828,12	600,66	2.24	1.156,78
SB-3 7050 EEC (2070rpm RPM)	0,99	-	52,02	0,89	2.778,11	612,12	2.2	1.156,78
SB-3 8060 EEC (885rpm RPM)	1,006	-	50,25	0,24	2.197,90	197,26	1.27	870,99
SB-3 8060 EEC (1095rpm RPM)	1,006	-	52,02	0,40	2.823,80	266,11	1.63	870,99
SB-3 8060 EEC (RPM)	1,006	-	54,13	0,92	3.655,48	491,07	2.12	870,99
SB-3 8060 EEC (1430rpm RPM)	1,006	-	54,09	0,94	3.877,77	474,70	2.24	870,99