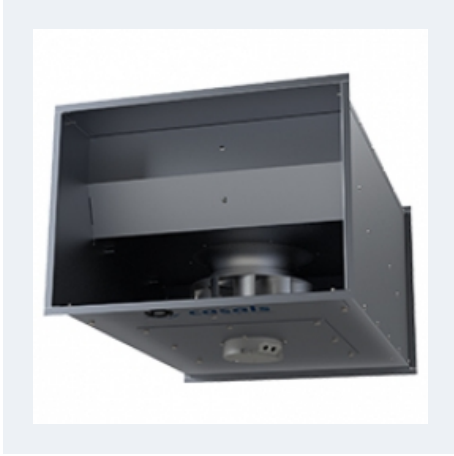


SB-3 FILTER EEC



CENTRIFUGAL FAN IN 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.

Self-cleaning impeller with back curved (reaction) blades of high performance and single inlet, direct drivne. 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.

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

(*) The data shown correspond to measurements made without the filters installed.

Accessories



**FILT.
SB-3
FILTER**



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 t	Connect. diagram
240150242G4	SB-3 G4 FILTER 3015 EEC	3950	0,25	0,06	445	-	6	1
240190242G4	SB-3 G4 FILTER 4020 EEC	3570	0,73	0,1	715	-	9,50	1
240250242G4	SB-3 G4 FILTER 5035 EEC	2500	1	0,15	1.600	-	16	1
240310242G4	SB-3 G4 FILTER 6040 EEC	2350	1,7	0,36	3.070	-	24,50	1
240150242G4F 7	SB-3 G4+F7 FILTER 3015 EEC	3950	0,25	0,06	445	-	8	1
240190242G4F 7	SB-3 G4+F7 FILTER 4020 EEC	3570	0,73	0,1	715	-	13,50	1
240250242G4F 7	SB-3 G4+F7 FILTER 5035 EEC	2500	1	0,15	1.600	-	22	1
240310242G4F 7	SB-3 G4+F7 FILTER 6040 EEC	2350	1,7	0,36	3.070	-	32,50	1

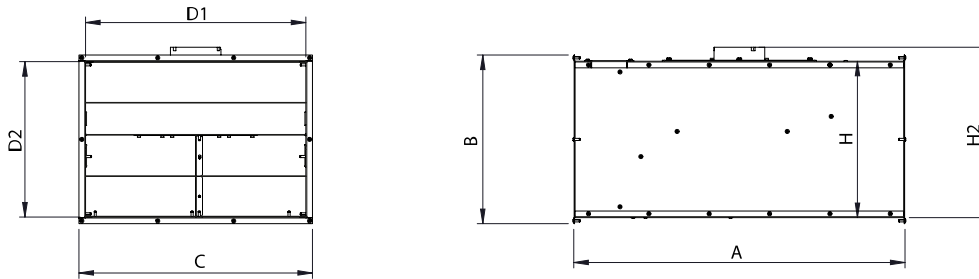
Three-phase motor

Code	Model	R.P.M.	Rated I. (A) 400V	Rated power kW	Max. Airflow w m3/h	Sound db (A)**	Weight t	Connect. diagram
240350242G4	SB-3 G4 FILTER 7050 EEC	2100	1,63	0,99	4.920	-	39	2
240450242G4	SB-3 G4 FILTER 8060 EEC	1450	1,67	1,01	6.790	-	48	2
240350242G4F 7	SB-3 G4+F7 FILTER 7050 EEC	2100	1,63	0,99	4.920	-	49	2
240450242G4F 7	SB-3 G4+F7 FILTER 8060 EEC	1450	1,67	1,01	6.790	-	60	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 G4 FILTER 3015 EEC	520	180	330	300	150	154	180
SB-3 G4 FILTER 4020 EEC	620	230	430	400	200	204	229.5
SB-3 G4 FILTER 5035 EEC	750	383	530	500	353	357	386.5
SB-3 G4 FILTER 6040 EEC	900	430	630	600	400	405	447
SB-3 G4 FILTER 7050 EEC	1050	530	730	700	500	505	560
SB-3 G4 FILTER 8060 EEC	1350	631	830	800	601	606	661
SB-3 G4+F7 FILTER 3015 EEC	520	180	330	300	150	154	180
SB-3 G4+F7 FILTER 4020 EEC	620	230	430	400	200	204	229.5
SB-3 G4+F7 FILTER 5035 EEC	750	383	530	500	353	357	386.5
SB-3 G4+F7 FILTER 6040 EEC	900	430	630	600	400	405	447
SB-3 G4+F7 FILTER 7050 EEC	1050	530	730	700	500	505	560
SB-3 G4+F7 FILTER 8060 EEC	1350	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	

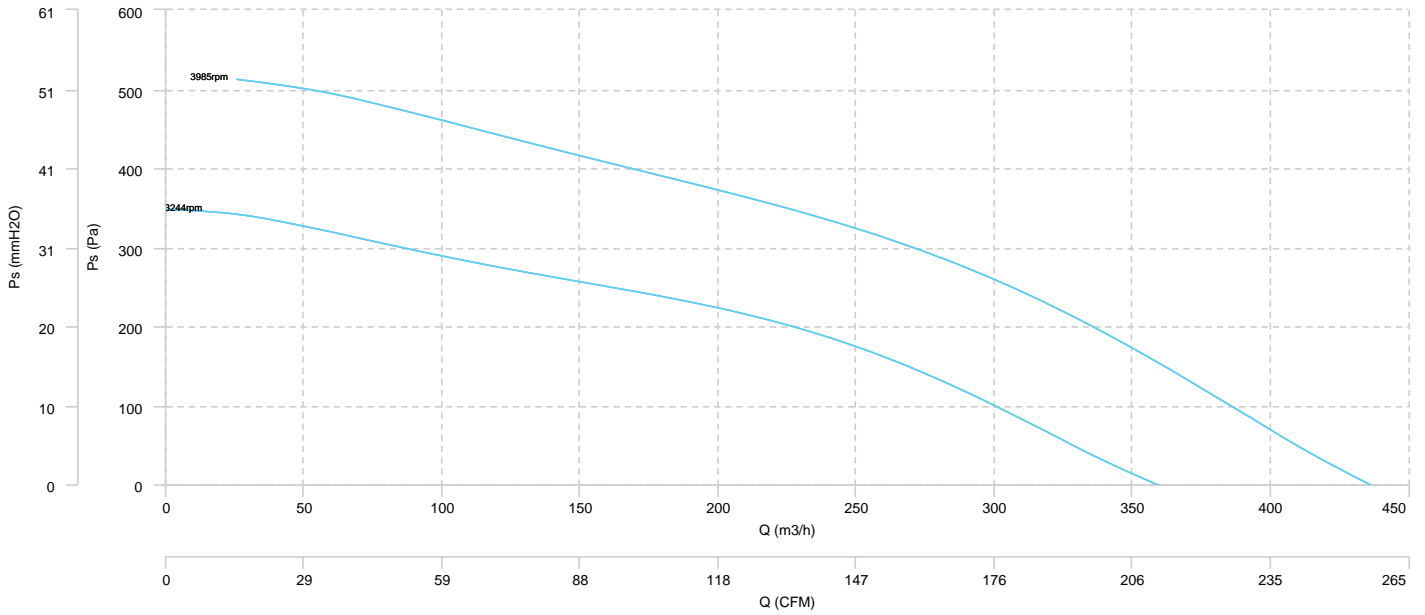
Nº	Signal Señal	Colour Color	Specification Especificación
1	Vcc	Red Rojo	DC10V
2	Vsp	Yellow Amarillo	0-10VDC/PWM
3	GND	Blue Azul	
4	FG	White Blanco	1 Pulse/R

CHARACTERISTIC CURVE

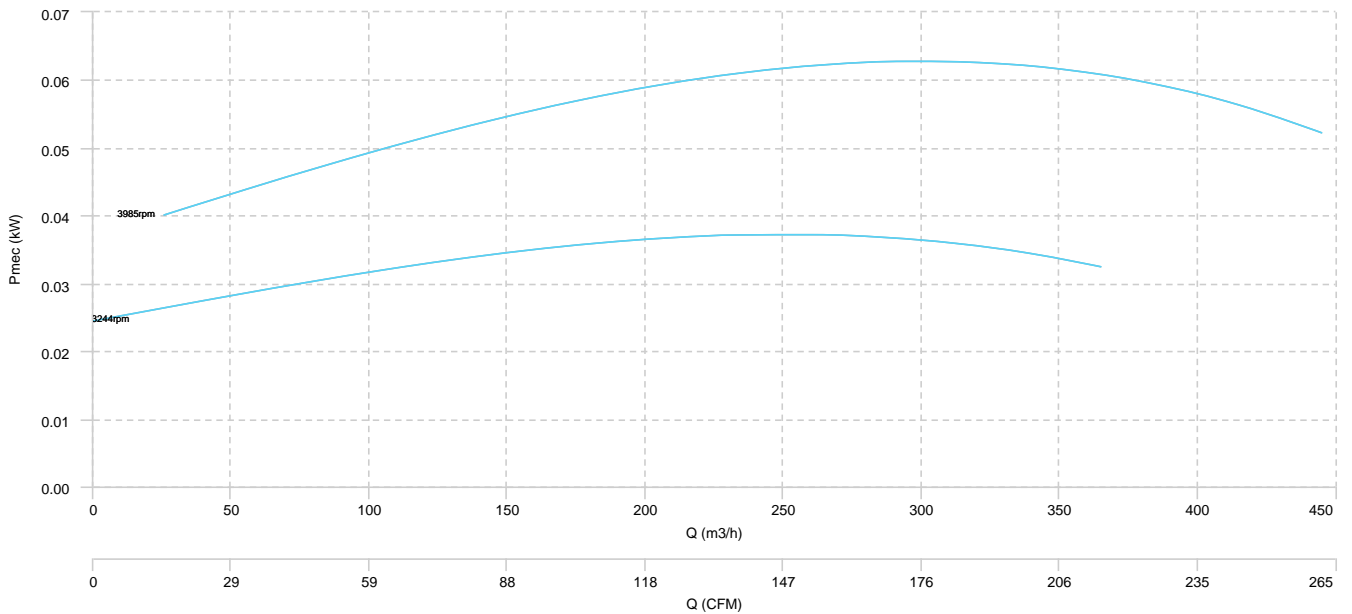
SB-3 G4 FILTER 3015 EEC

SB-3 G4+F7 FILTER 3015 EEC

AIR FLOW - PRESSURE



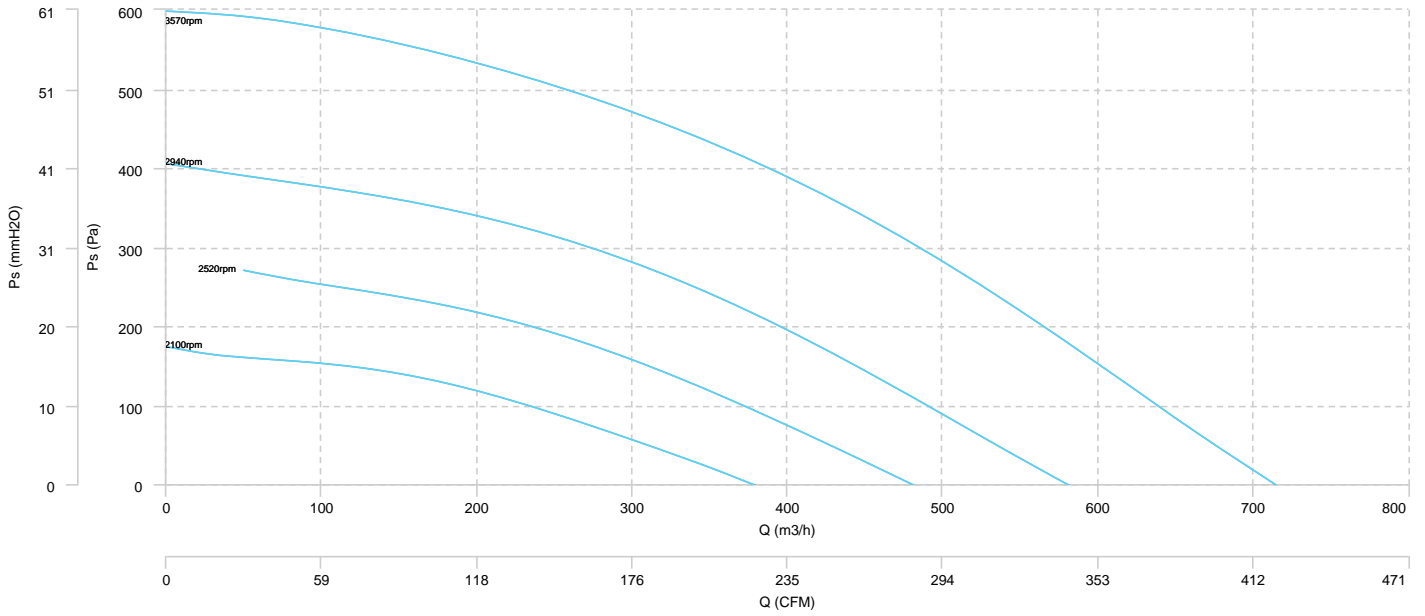
AIR FLOW - MECHANICAL POWER



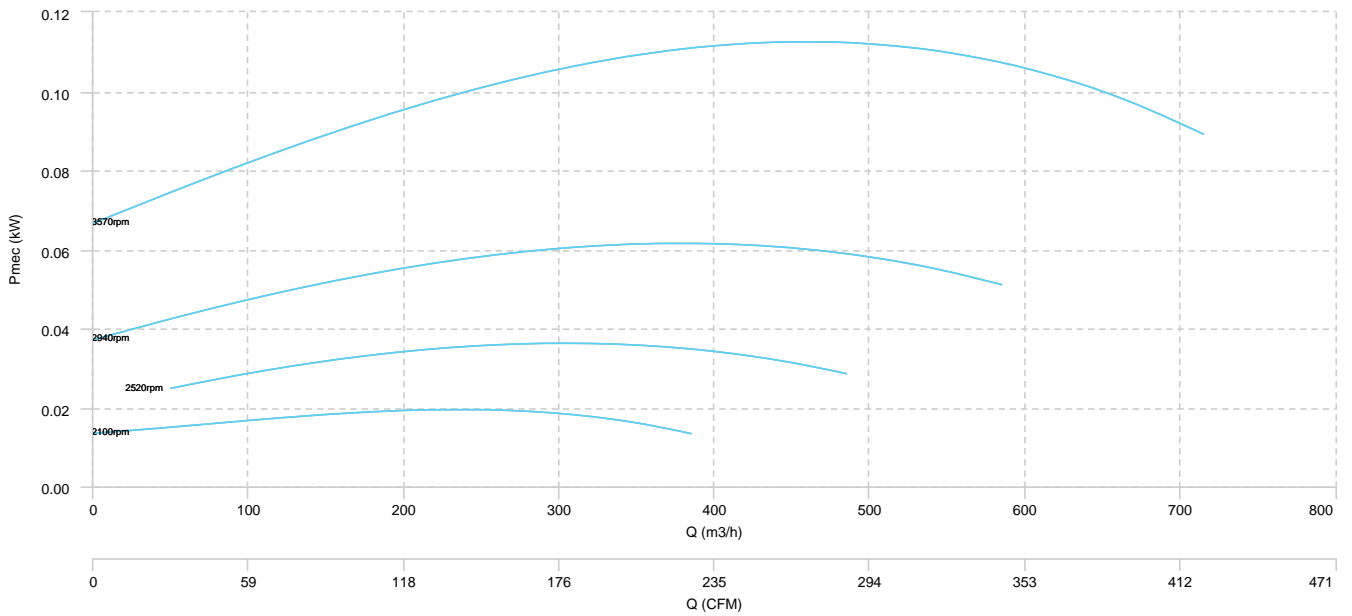
SB-3 G4 FILTER 4020 EEC

SB-3 G4+F7 FILTER 4020 EEC

AIR FLOW - PRESSURE



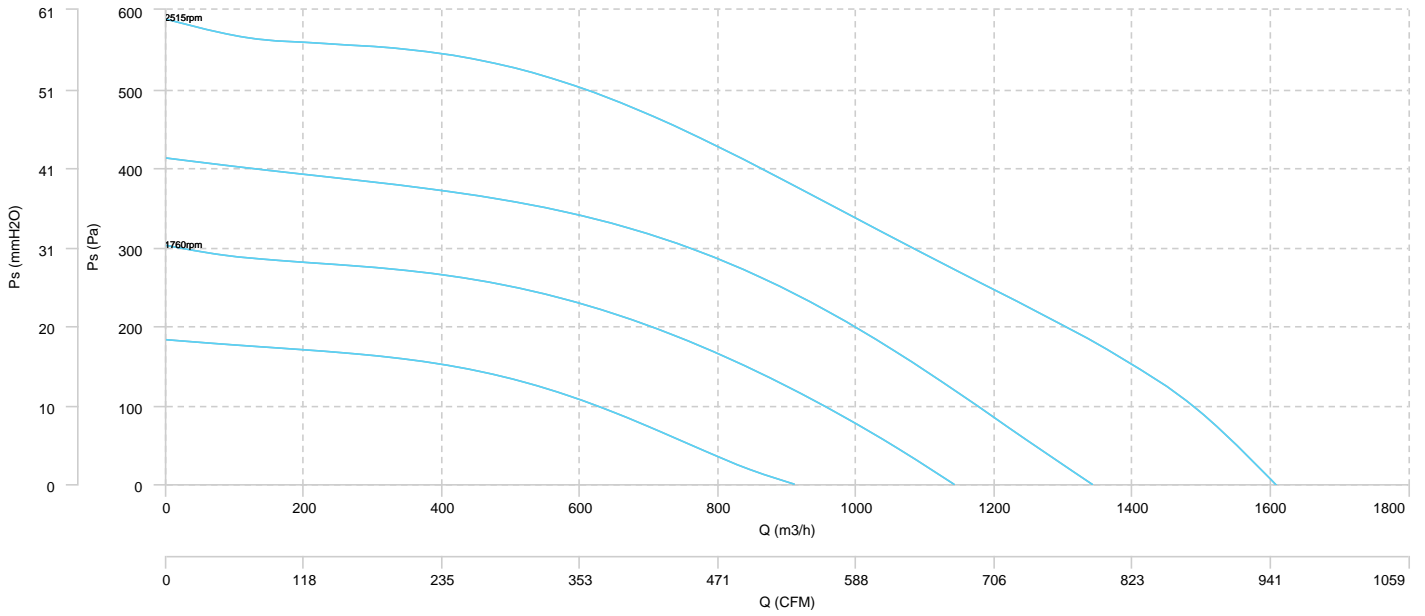
AIR FLOW - MECHANICAL POWER



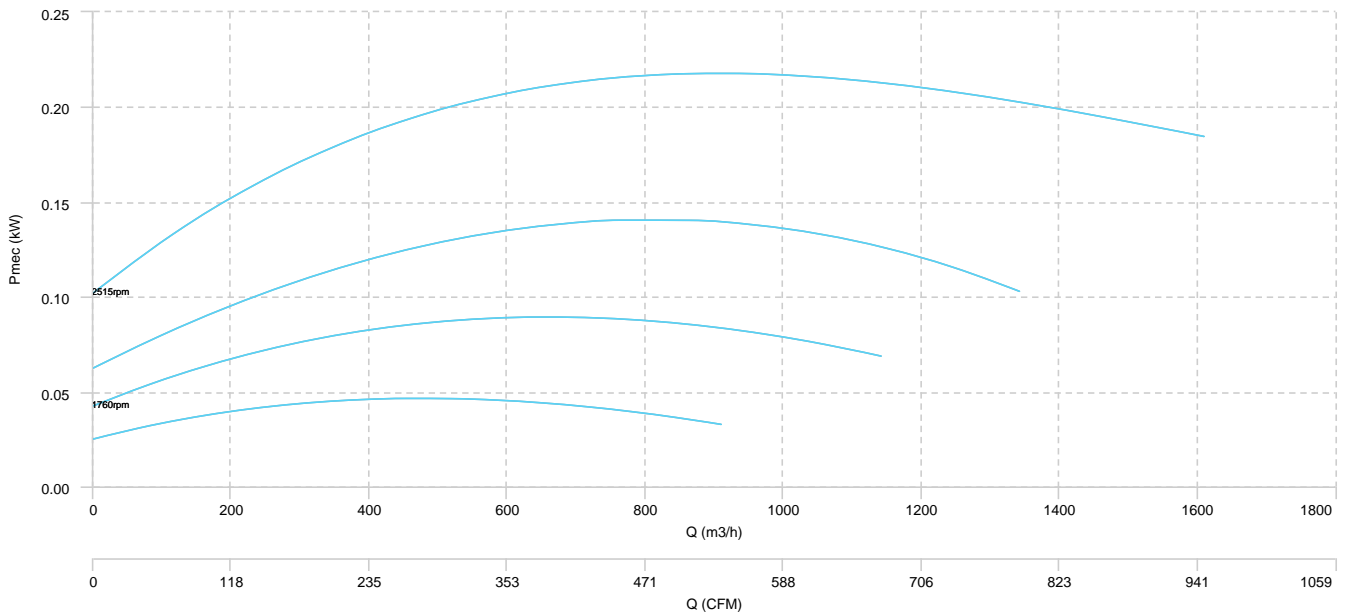
SB-3 G4 FILTER 5035 EEC

SB-3 G4+F7 FILTER 5035 EEC

AIR FLOW - PRESSURE



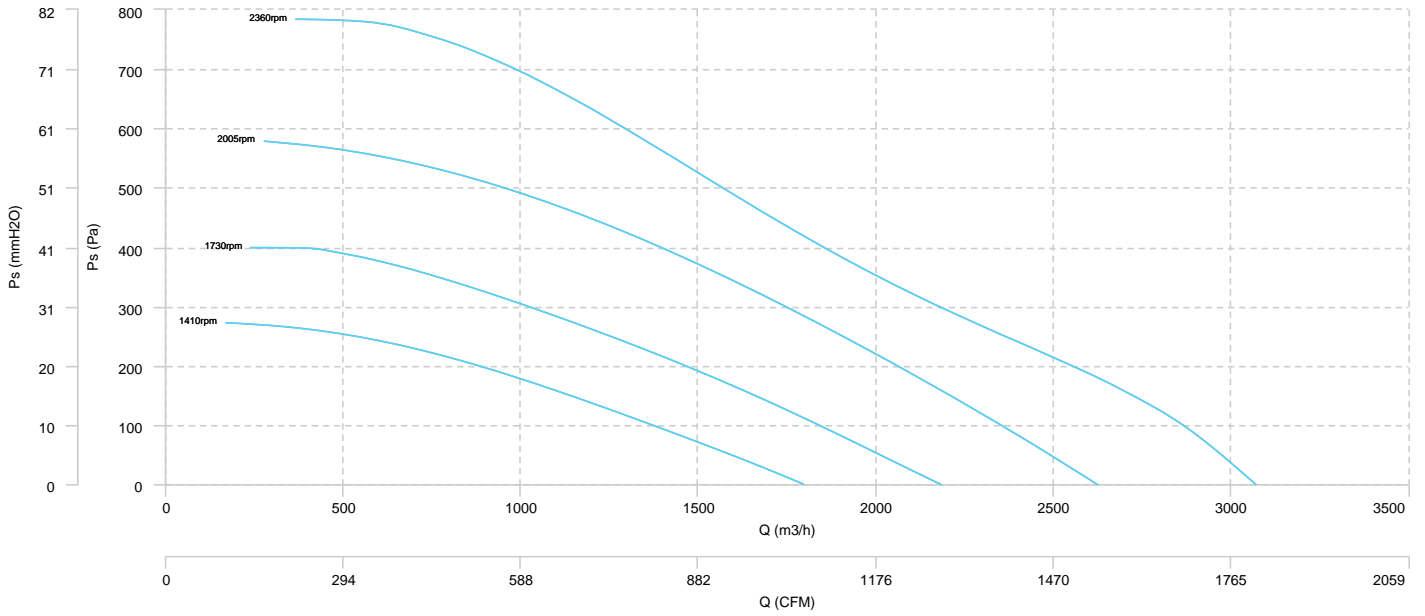
AIR FLOW - MECHANICAL POWER



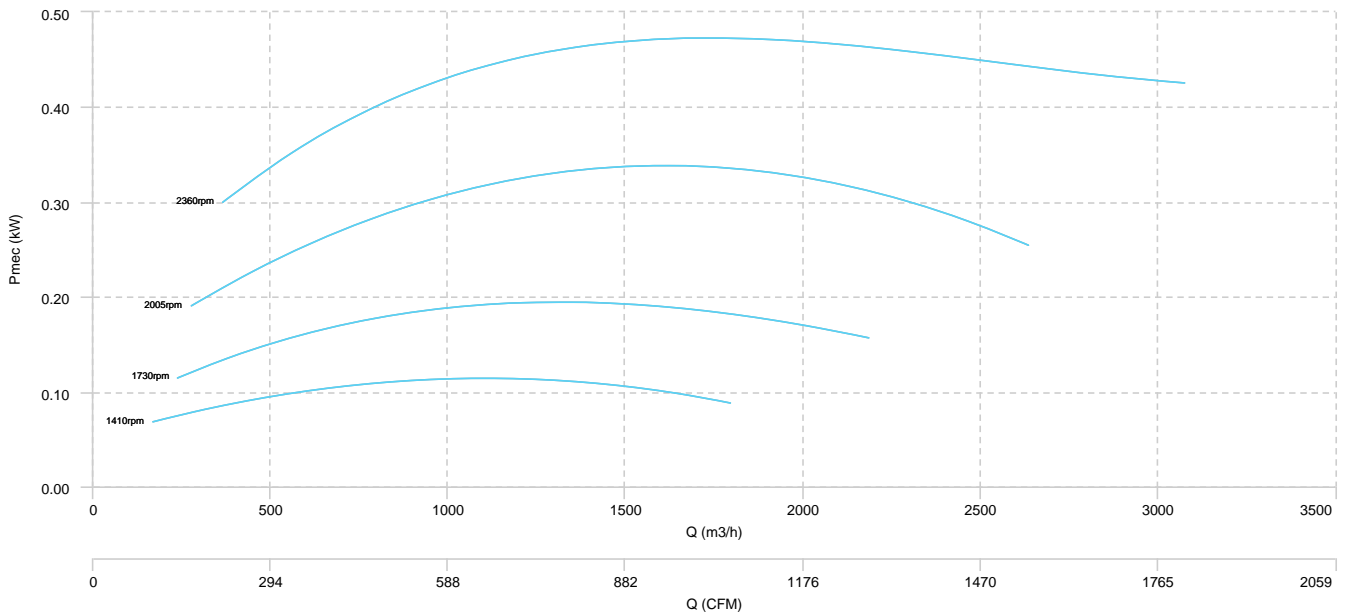
SB-3 G4 FILTER 6040 EEC

SB-3 G4+F7 FILTER 6040 EEC

AIR FLOW - PRESSURE



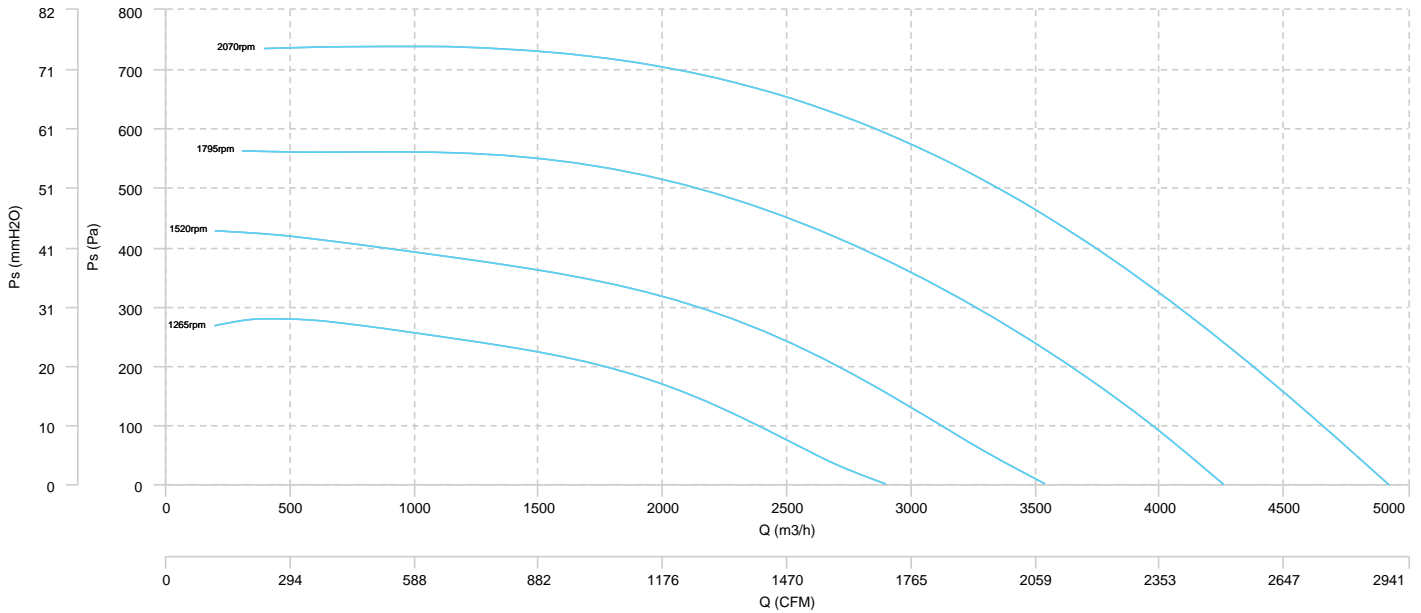
AIR FLOW - MECHANICAL POWER



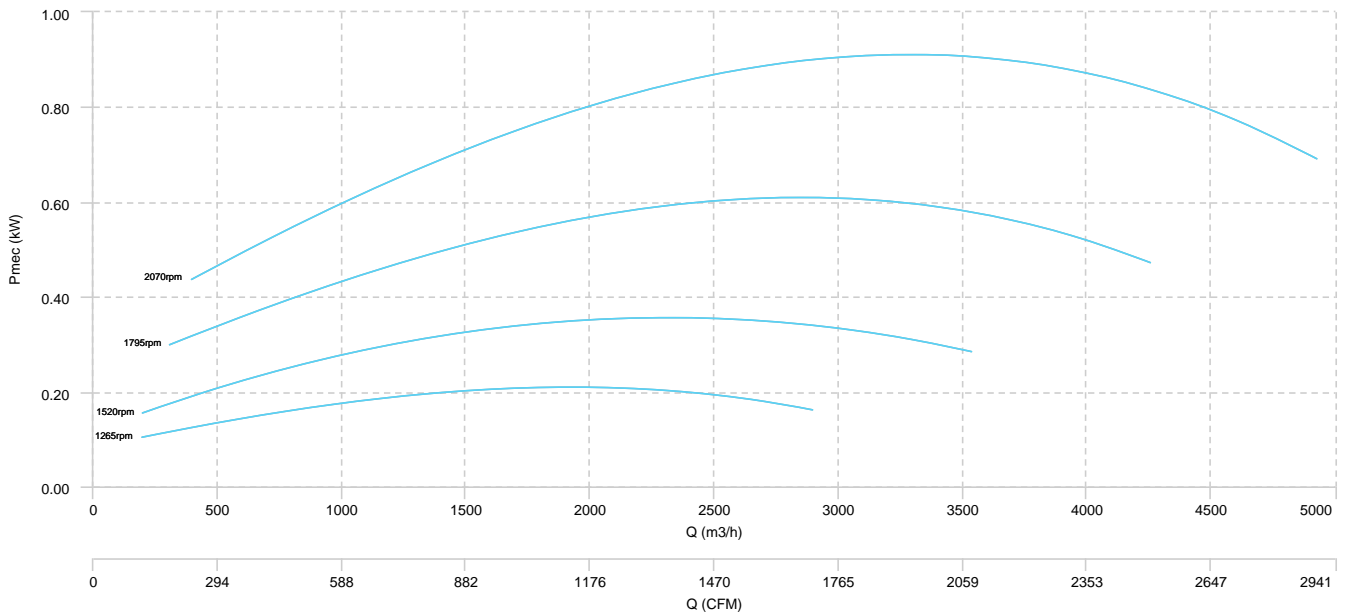
SB-3 G4 FILTER 7050 EEC

SB-3 G4+F7 FILTER 7050 EEC

AIR FLOW - PRESSURE



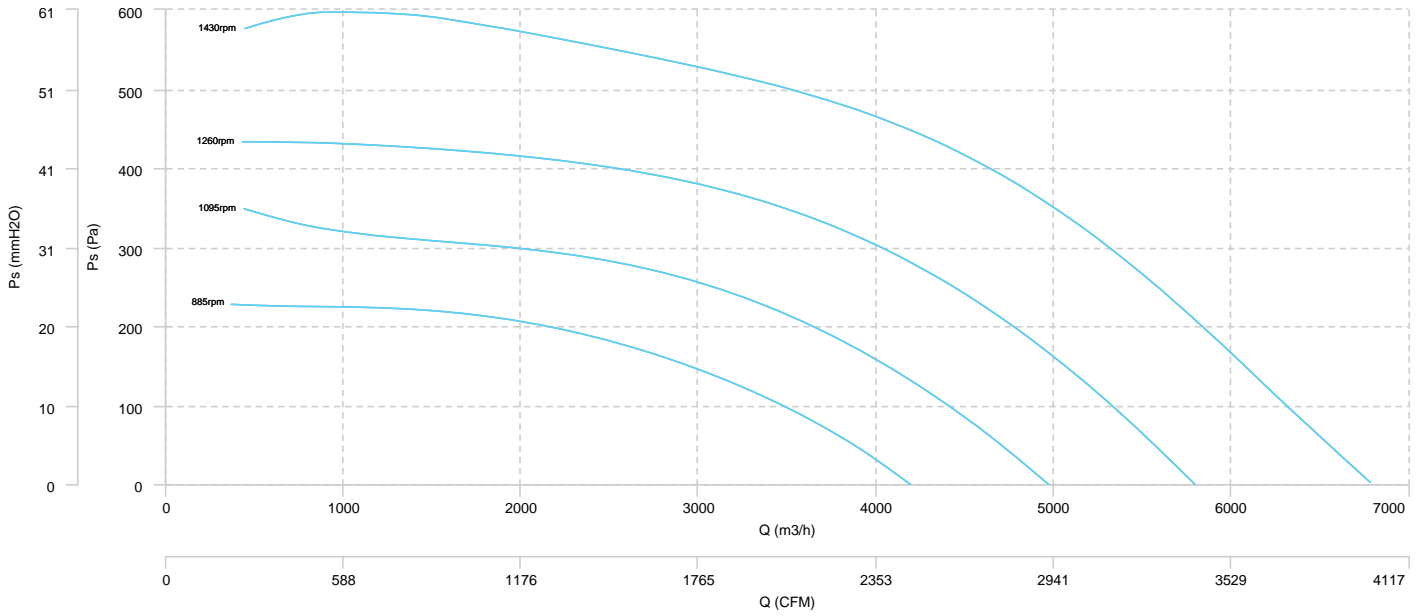
AIR FLOW - MECHANICAL POWER



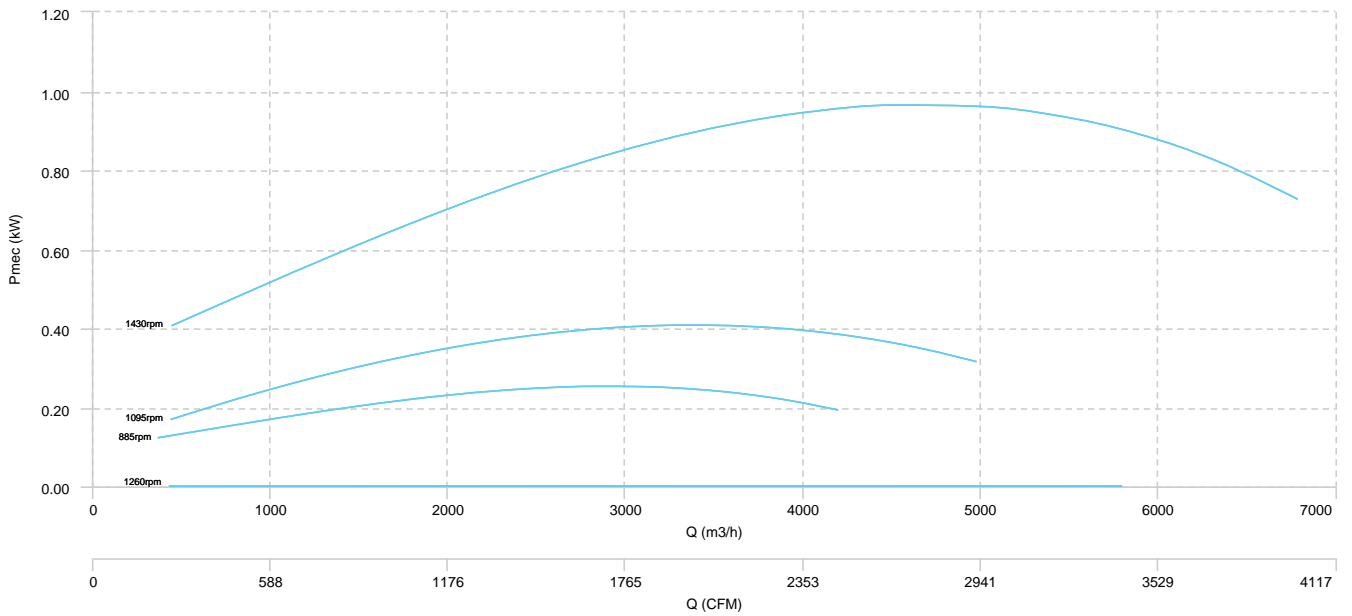
SB-3 G4 FILTER 8060 EEC

SB-3 G4+F7 FILTER 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 G4 FILTER 3015 EEC (7 RPM)	Radiated	37	27	44	56	61	66	56	49	68
SB-3 G4 FILTER 4020 EEC (5 RPM)	Radiated	14	21	36	49	57	60	53	45	63
SB-3 G4 FILTER 5035 EEC (5 RPM)	Radiated	6	20	44	51	54	53	45	31	58
SB-3 G4 FILTER 6040 EEC (5 RPM)	Radiated	21	40	56	66	67	62	54	46	71
SB-3 G4 FILTER 7050 EEC (5 RPM)	Radiated	26	42	59	64	66	60	52	42	69
SB-3 G4 FILTER 8060 EEC (5 RPM)	Radiated	28	44	48	58	60	53	43	35	63
SB-3 G4+F7 FILTER 3015 EEC (7 RPM)	Radiated	37	27	44	56	61	66	56	49	68
SB-3 G4+F7 FILTER 4020 EEC (5 RPM)	Radiated	14	21	36	49	57	60	53	45	63
SB-3 G4+F7 FILTER 5035 EEC (5 RPM)	Radiated	6	20	44	51	54	53	45	31	58
SB-3 G4+F7 FILTER 6040 EEC (5 RPM)	Radiated	21	40	56	66	67	62	54	46	71
SB-3 G4+F7 FILTER 7050 EEC (5 RPM)	Radiated	26	42	59	64	66	60	52	42	69
SB-3 G4+F7 FILTER 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:

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

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 (m3/h)	Ps (Pa)	Speed (m/s)	SFP (W/m3/s)
SB-3 G4 FILTER 5035 EEC (RPM)	0,15	-	44,44	0,14	785,82	289,69	1.25	855,37
SB-3 G4 FILTER 5035 EEC (2515rpm RPM)	0,15	-	44,63	0,22	916,47	374,62	1.45	855,37
SB-3 G4 FILTER 6040 EEC (1730rpm RPM)	0,36	-	45,15	0,19	1.007,62	302,24	1.17	1.171,39
SB-3 G4 FILTER 6040 EEC (2005rpm RPM)	0,36	-	45,44	0,33	1.241,76	437,59	1.44	1.171,39
SB-3 G4 FILTER 6040 EEC (RPM)	0,36	-	45,65	0,47	1.460,52	526,28	1.69	1.171,39
SB-3 G4 FILTER 6040 EEC (2360rpm RPM)	0,36	-	46,46	0,47	1.434,17	548,90	1.66	1.171,39
SB-3 G4 FILTER 7050 EEC (1265rpm RPM)	0,99	-	46,79	0,21	1.653,34	209,62	1.31	1.156,78
SB-3 G4 FILTER 7050 EEC (1520rpm RPM)	0,99	-	49,93	0,35	1.963,84	320,36	1.56	1.156,78
SB-3 G4 FILTER 7050 EEC (1795rpm RPM)	0,99	-	51,28	0,60	2.413,08	462,63	1.92	1.156,78
SB-3 G4 FILTER 7050 EEC (RPM)	0,99	-	51,78	0,90	2.828,12	600,66	2.24	1.156,78
SB-3 G4 FILTER 7050 EEC (2070rpm RPM)	0,99	-	52,02	0,89	2.778,11	612,12	2.2	1.156,78
SB-3 G4 FILTER 8060 EEC (885rpm RPM)	1,01	-	50,25	0,24	2.197,90	197,26	1.27	870,99
SB-3 G4 FILTER 8060 EEC (1095rpm RPM)	1,01	-	52,02	0,40	2.823,80	266,11	1.63	870,99
SB-3 G4 FILTER 8060 EEC (RPM)	1,01	-	54,13	0,92	3.655,48	491,07	2.12	870,99
SB-3 G4 FILTER 8060 EEC (1430rpm RPM)	1,01	-	54,09	0,94	3.877,77	474,70	2.24	870,99
SB-3 G4+F7 FILTER 5035 EEC (RPM)	0,15	-	44,44	0,14	785,82	289,69	1.25	855,37
SB-3 G4+F7 FILTER 5035 EEC (2515rpm RPM)	0,15	-	44,63	0,22	916,47	374,62	1.45	855,37
SB-3 G4+F7 FILTER 6040 EEC (1730rpm RPM)	0,36	-	45,15	0,19	1.007,62	302,24	1.17	1.171,39
SB-3 G4+F7 FILTER 6040 EEC (2005rpm RPM)	0,36	-	45,44	0,33	1.241,76	437,59	1.44	1.171,39
SB-3 G4+F7 FILTER 6040 EEC (RPM)	0,36	-	45,65	0,47	1.460,52	526,28	1.69	1.171,39
SB-3 G4+F7 FILTER 6040 EEC (2360rpm RPM)	0,36	-	46,46	0,47	1.434,17	548,90	1.66	1.171,39
SB-3 G4+F7 FILTER 7050 EEC (1265rpm RPM)	0,99	-	46,79	0,21	1.653,34	209,62	1.31	1.156,78
SB-3 G4+F7 FILTER 7050 EEC (1520rpm RPM)	0,99	-	49,93	0,35	1.963,84	320,36	1.56	1.156,78
SB-3 G4+F7 FILTER 7050 EEC (1795rpm RPM)	0,99	-	51,28	0,60	2.413,08	462,63	1.92	1.156,78

Model	Motor power (kW)	Maximum efficiency point data						
		Eff.Heat recovery (%)	Max. efficiency (%)	Pabs (kW)	Air Flow (m3/h)	Ps (Pa)	Speed (m/s)	SFP (W/m3/s)
SB-3 G4+F7 FILTER 7050 EEC (RPM)	0,99	-	51,78	0,90	2.828,12	600,66	2.24	1.156,78
SB-3 G4+F7 FILTER 7050 EEC (2070rpm RPM)	0,99	-	52,02	0,89	2.778,11	612,12	2.2	1.156,78
SB-3 G4+F7 FILTER 8060 EEC (885rpm RPM)	1,01	-	50,25	0,24	2.197,90	197,26	1.27	870,99
SB-3 G4+F7 FILTER 8060 EEC (1095rpm RPM)	1,01	-	52,02	0,40	2.823,80	266,11	1.63	870,99
SB-3 G4+F7 FILTER 8060 EEC (RPM)	1,01	-	54,13	0,92	3.655,48	491,07	2.12	870,99
SB-3 G4+F7 FILTER 8060 EEC (1430rpm RPM)	1,01	-	54,09	0,94	3.877,77	474,70	2.24	870,99