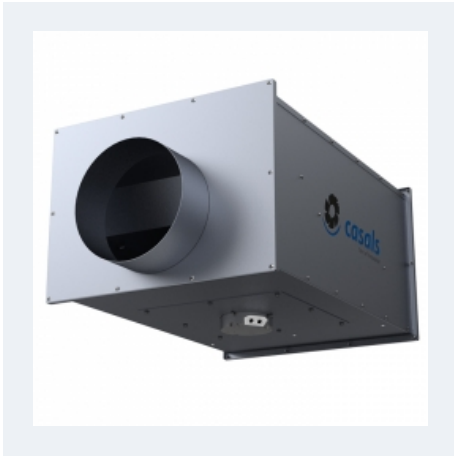


## SBC-3 EEC



### **CENTRIFUGAL FAN IN LOW PROFILE BOX WITH CIRCULAR FLANGES, WITH EXTERNAL ROTOR EC MOTOR**

#### MANUFACTURING FEATURES

Inline ventilation box made of galvanized steel with circular connection flanges. 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 125, 150 and 160 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 125 to 355 and three-phase 400V 50 / 60Hz for sizes 400 to 560. 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**

## 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
SBC3125EC	SBC-3 125 EEC	3950	0,25	0,06	340	-	6	1
SBC3150EC	SBC-3 150 EEC	3570	0,73	0,10	550	-	9,50	1
SBC3160EC	SBC-3 160 EEC	3570	0,73	0,10	605	-	9,50	1
SBC3200EC	SBC-3 200 EEC	2500	1,00	0,15	1.120	-	16	1
SBC3250EC	SBC-3 250 EEC	2500	1,00	0,15	1.410	-	16	1
SBC3315EC	SBC-3 315 EEC	2500	1,00	0,15	1.600	-	16	1
SBC3355EC	SBC-3 355 EEC	2350	1,7	0,36	2.820	-	25,50	2

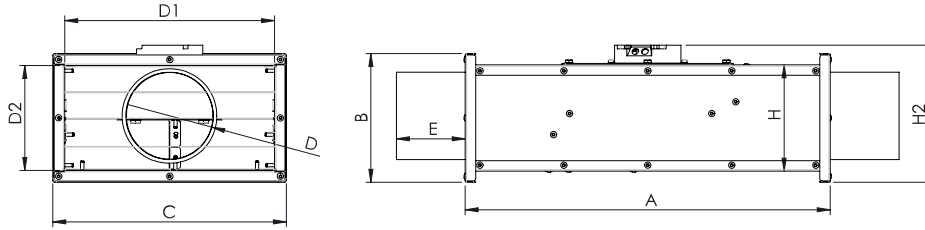
### Three-phase motor

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
SBC3400EC	SBC-3 400 EEC	2100	1,63	0,99	4.150	-	44	3
SBC3450EC	SBC-3 450 EEC	2100	1,63	0,99	5.000	-	44	3
SBC3500EC	SBC-3 500 EEC	1450	1,67	1,01	5.840	-	60	3
SBC3560EC	SBC-3 560 EEC	1450	1,67	1,01	6.210	-	60	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	D	D1	D2	E	H	H2
SBC-3 125 EEC	522	184	334	125	300	150	98	154	196
SBC-3 150 EEC	622	234	434	150	400	200	98	204	245.5
SBC-3 160 EEC	622	234	434	160	400	200	98	204	245.5
SBC-3 200 EEC	752	387	534	200	500	353	98	357	402.5
SBC-3 250 EEC	752	387	534	250	500	353	98	357	402.5
SBC-3 315 EEC	752	387	534	315	500	353	98	357	402.5
SBC-3 355 EEC	902	434	634	355	600	400	98	405	463
SBC-3 400 EEC	1052	534	734	400	700	500	98	505	576
SBC-3 450 EEC	1052	534	734	450	700	500	98	505	576
SBC-3 500 EEC	1352	635	834	500	800	601	98	606	677
SBC-3 560 EEC	1352	635	834	560	800	601	98	606	677


## 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**

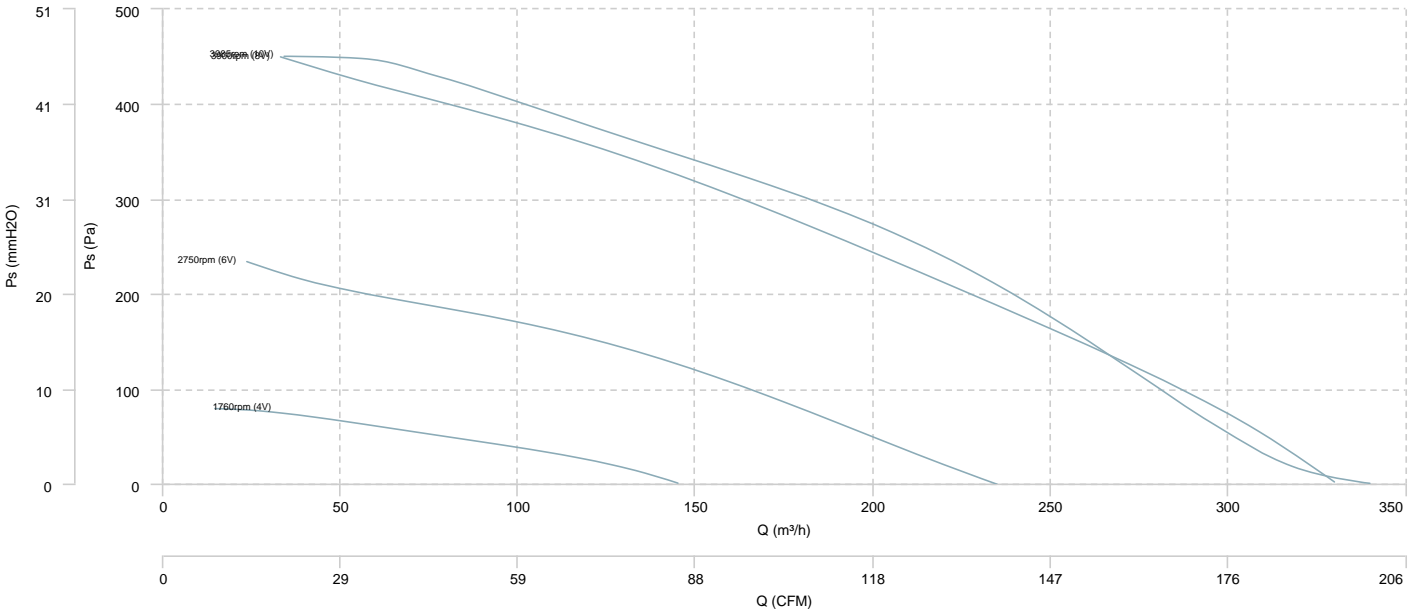
Nº	Signal Señal	Colour Color	Specification Especificación
1	L1	Black Negro	AC380V-50/60Hz
2	L2	Black Negro	AC380V-50/60Hz
3	L3	Black Negro	AC380V-50/60Hz
4	Pe	Yellow-Green Amarillo-Verde	

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

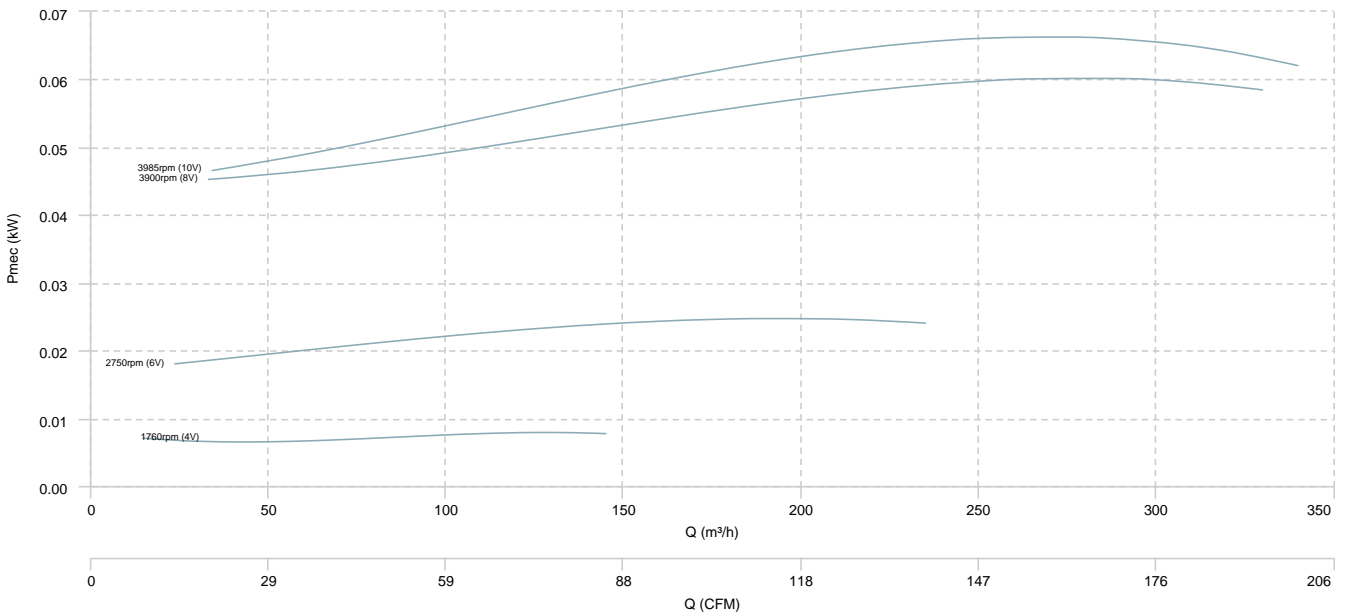
# CHARACTERISTIC CURVE

SBC-3 125 EEC

## AIR FLOW - PRESSURE

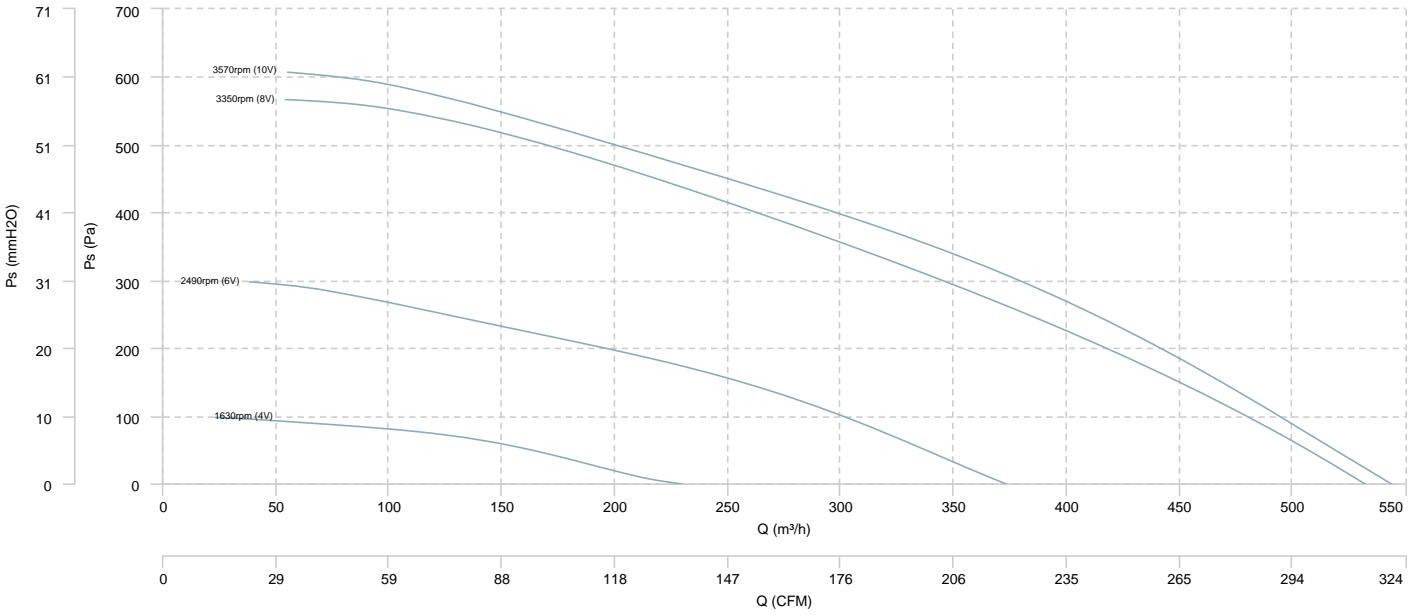


## AIR FLOW - MECHANICAL POWER

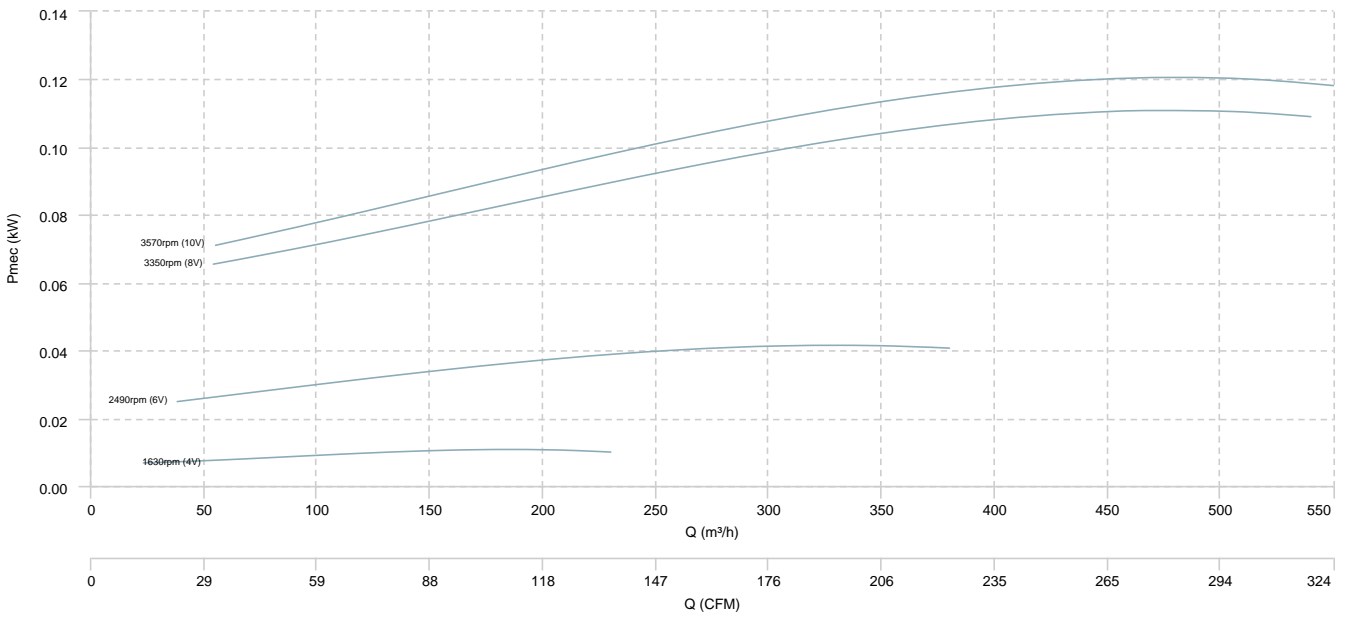


SBC-3 150 EEC

AIR FLOW - PRESSURE

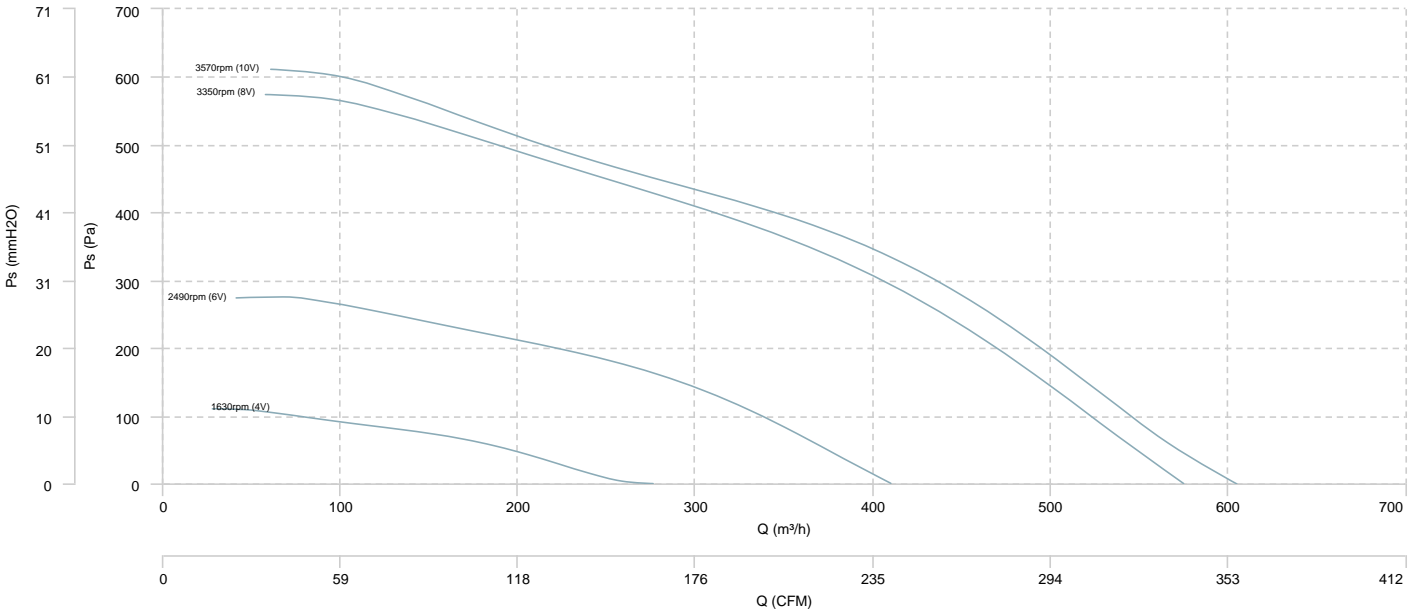


AIR FLOW - MECHANICAL POWER

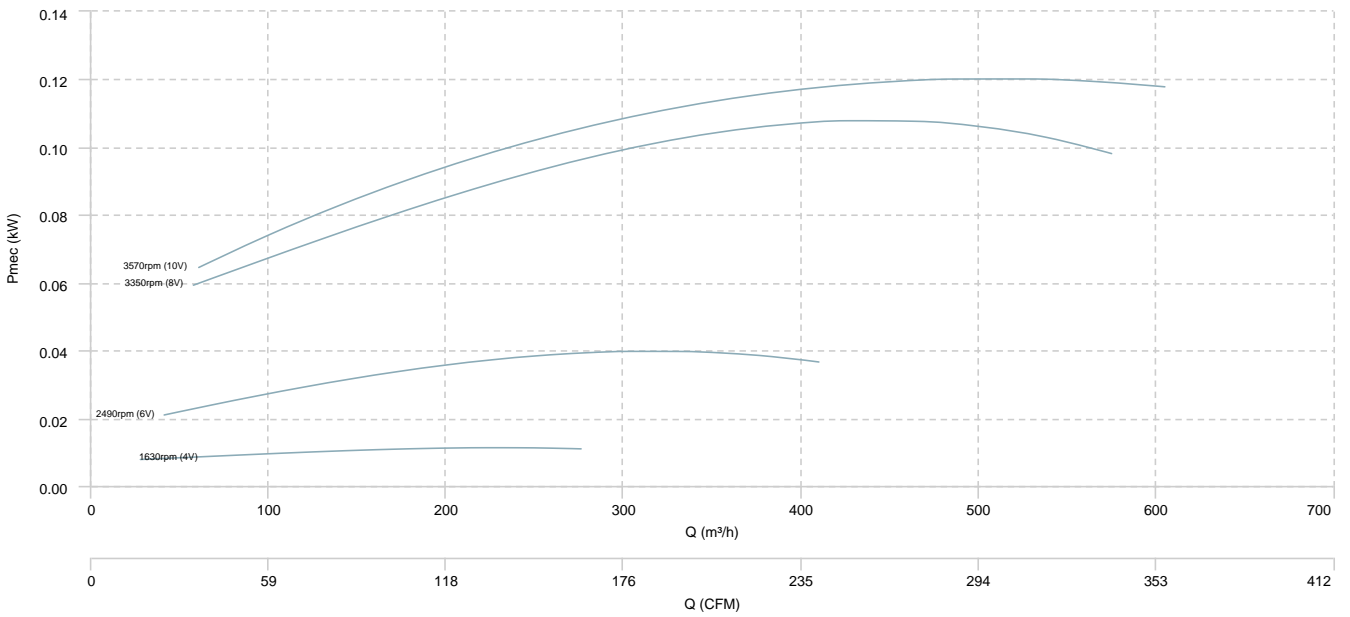


SBC-3 160 EEC

AIR FLOW - PRESSURE



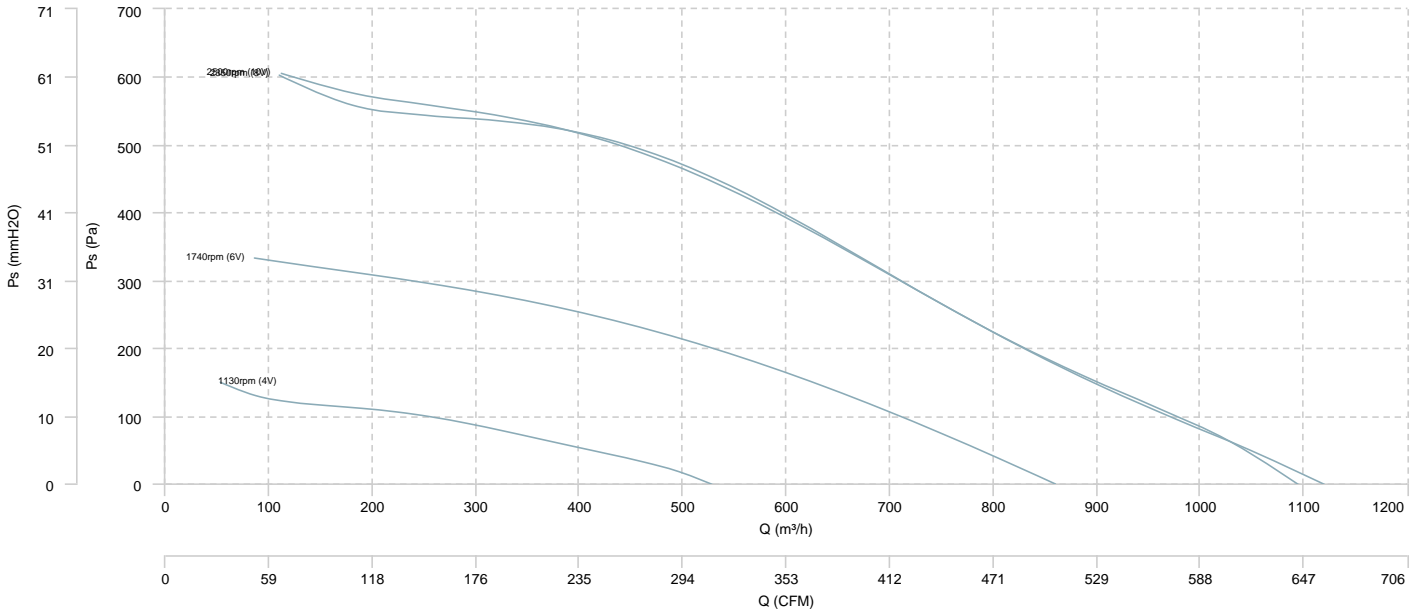
AIR FLOW - MECHANICAL POWER



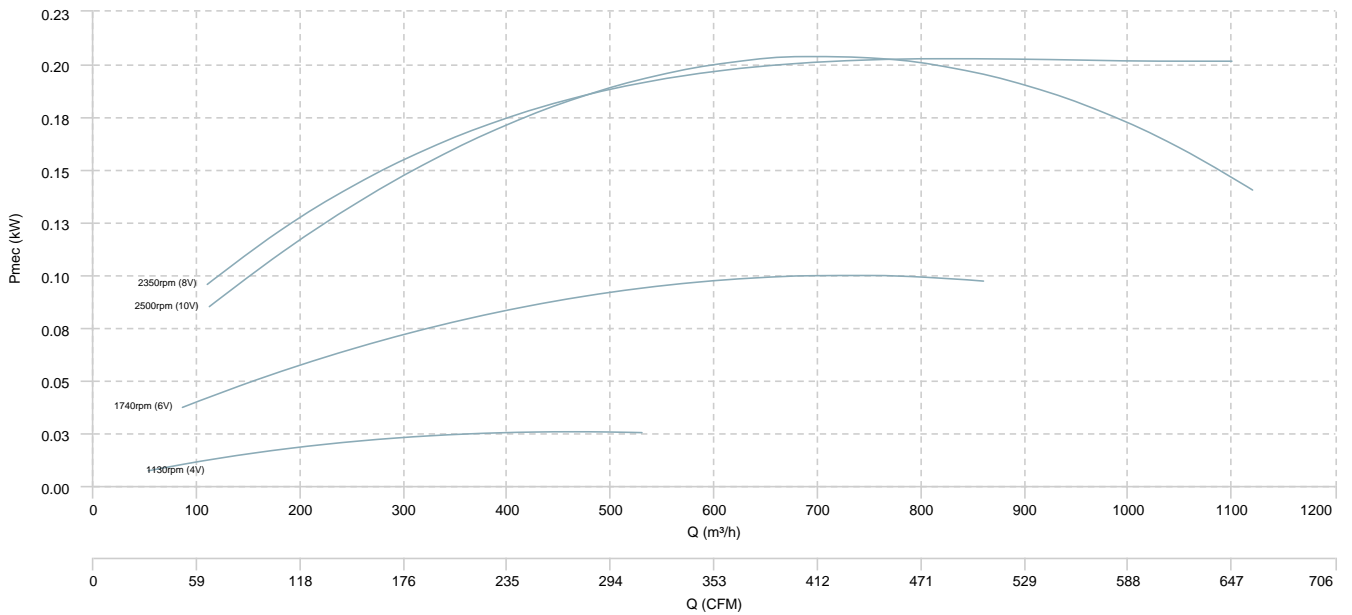


## SBC-3 200 EEC

### AIR FLOW - PRESSURE

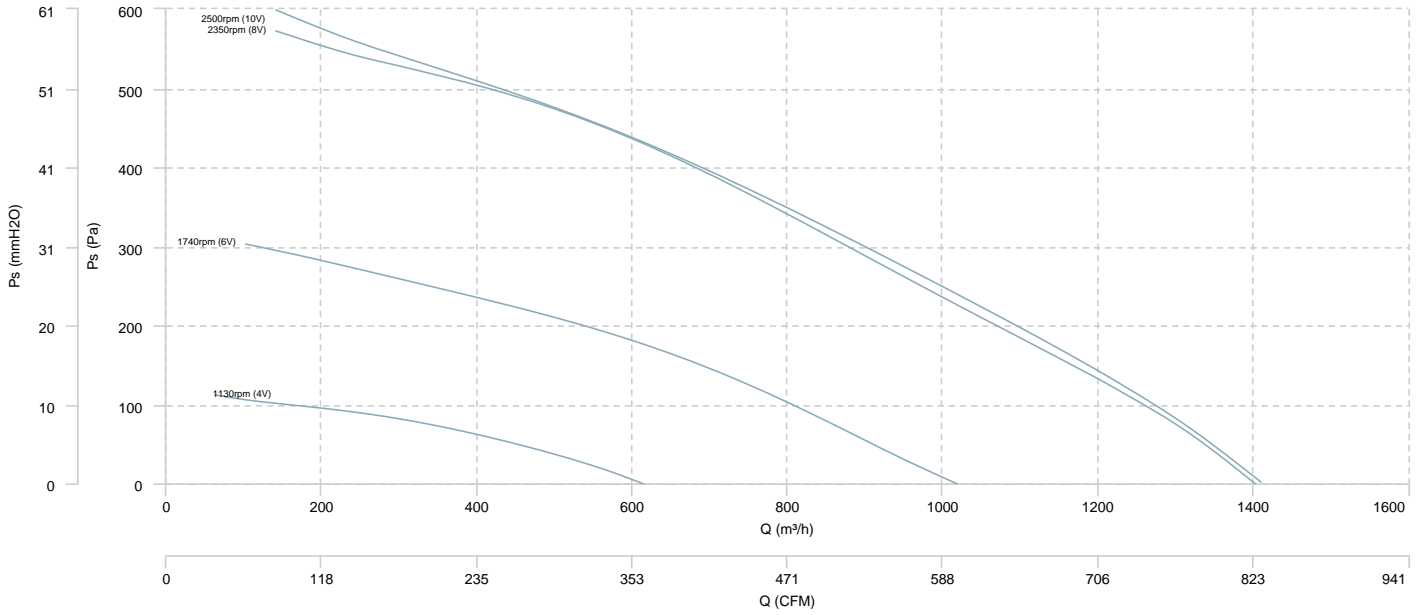


### AIR FLOW - MECHANICAL POWER

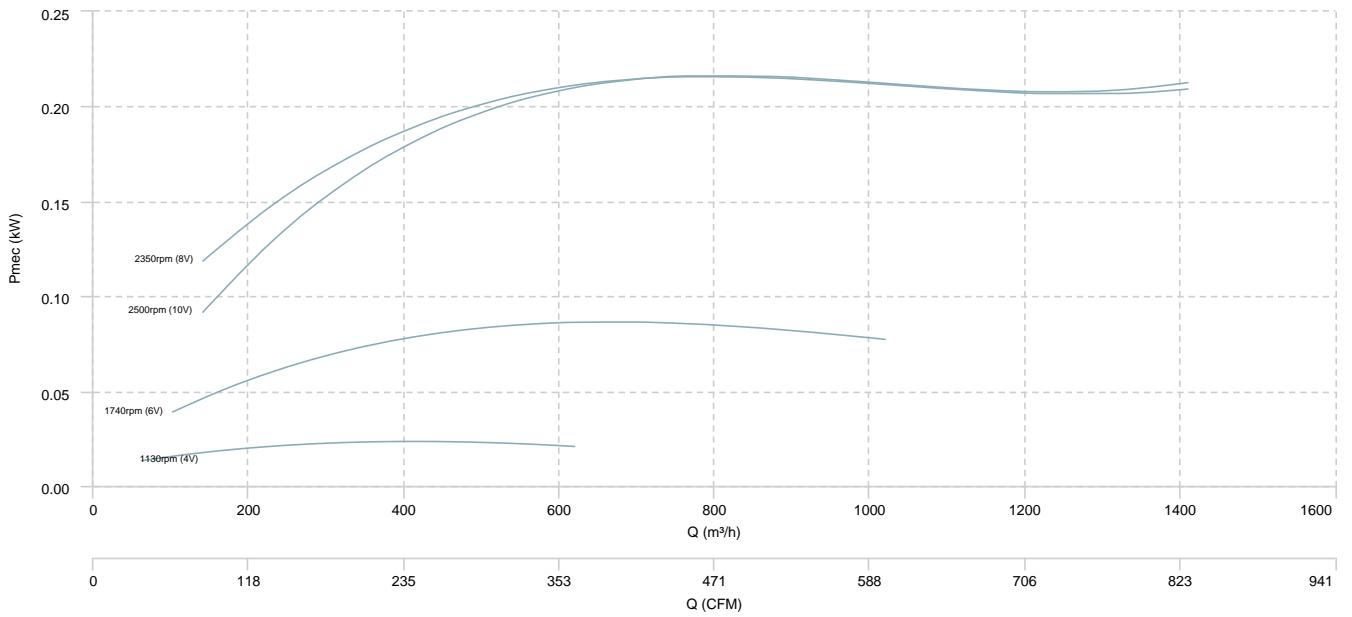


## SBC-3 250 EEC

### AIR FLOW - PRESSURE

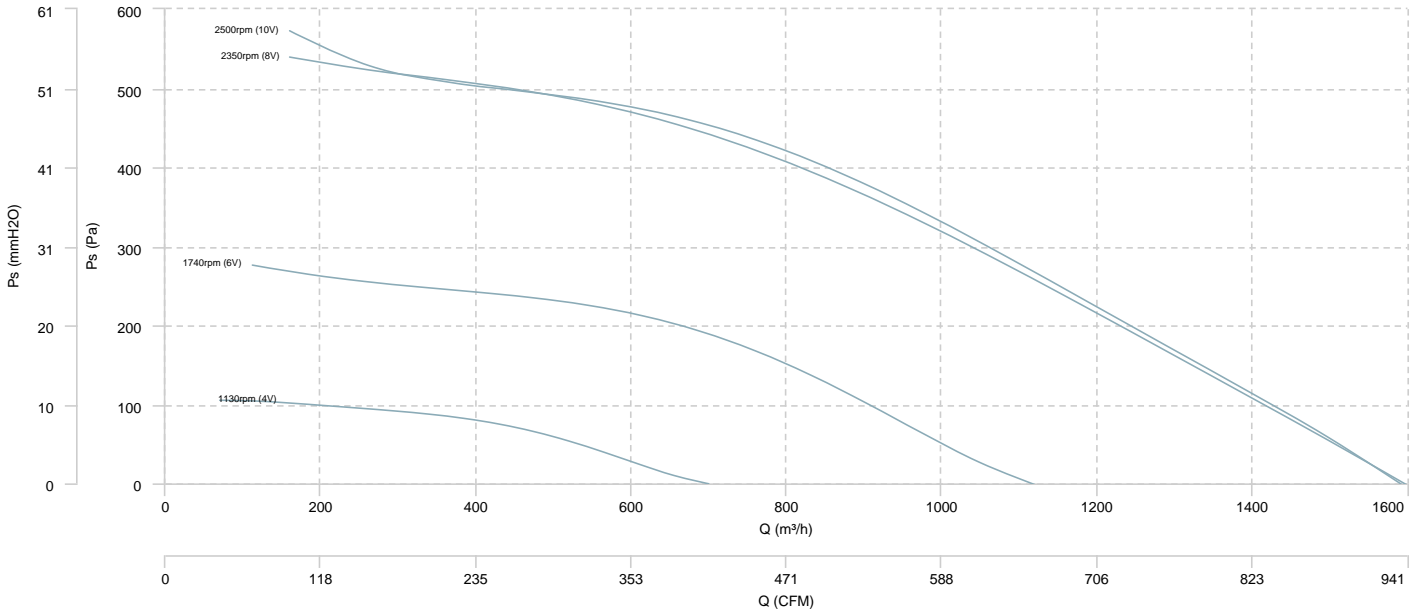


### AIR FLOW - MECHANICAL POWER

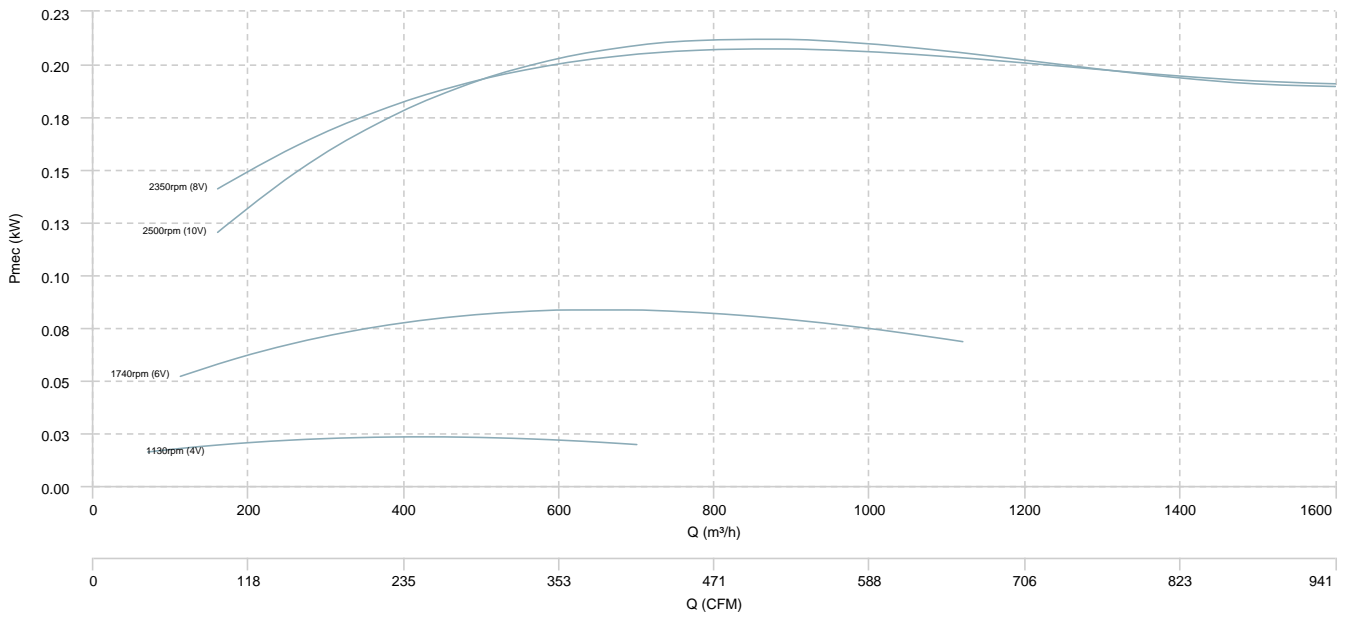


## SBC-3 315 EEC

### AIR FLOW - PRESSURE

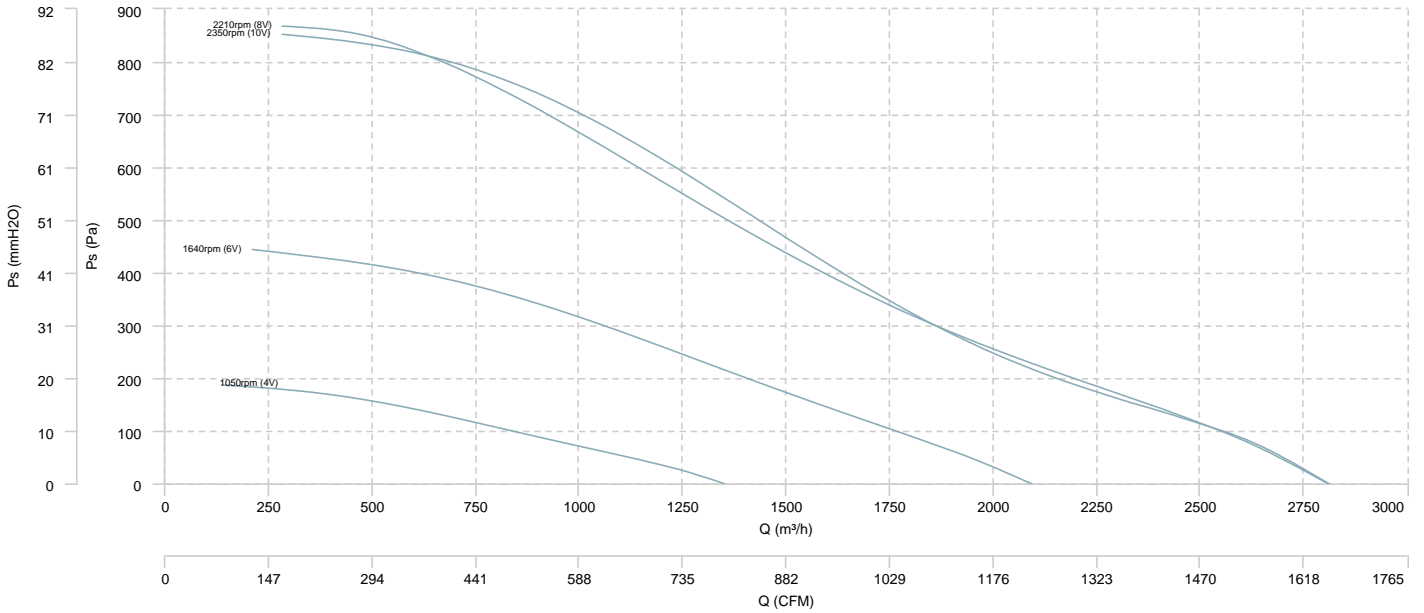


### AIR FLOW - MECHANICAL POWER

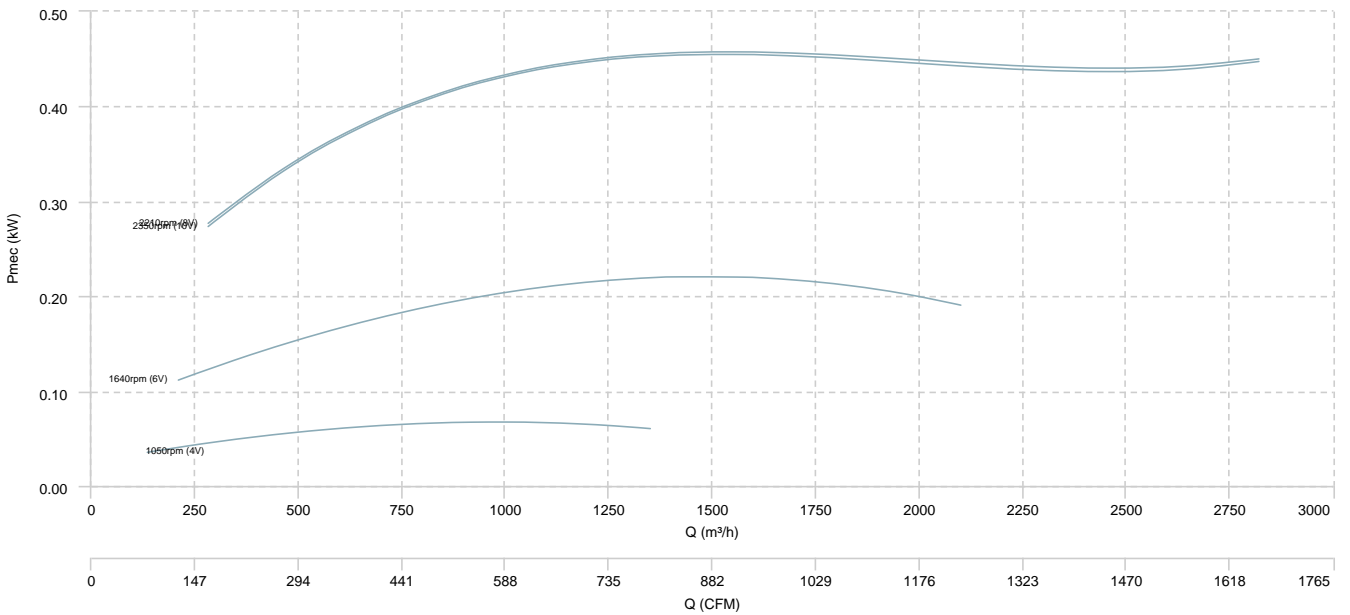


SBC-3 355 EEC

## AIR FLOW - PRESSURE

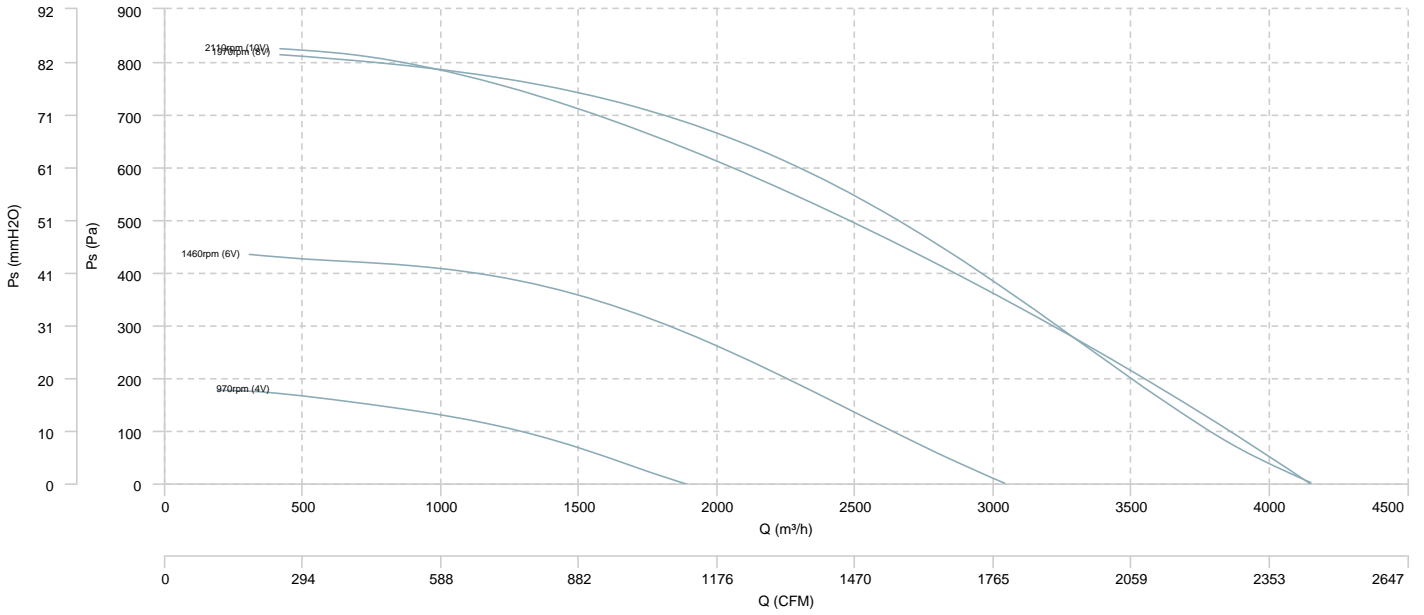


## AIR FLOW - MECHANICAL POWER

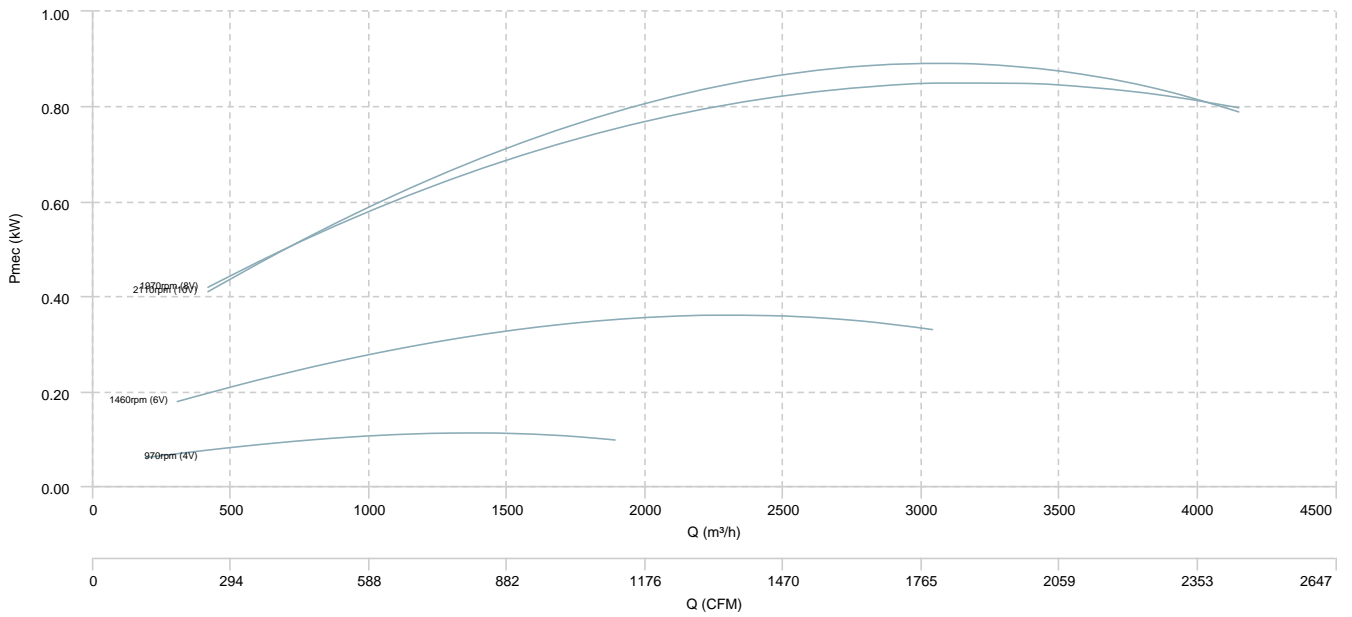


SBC-3 400 EEC

## AIR FLOW - PRESSURE

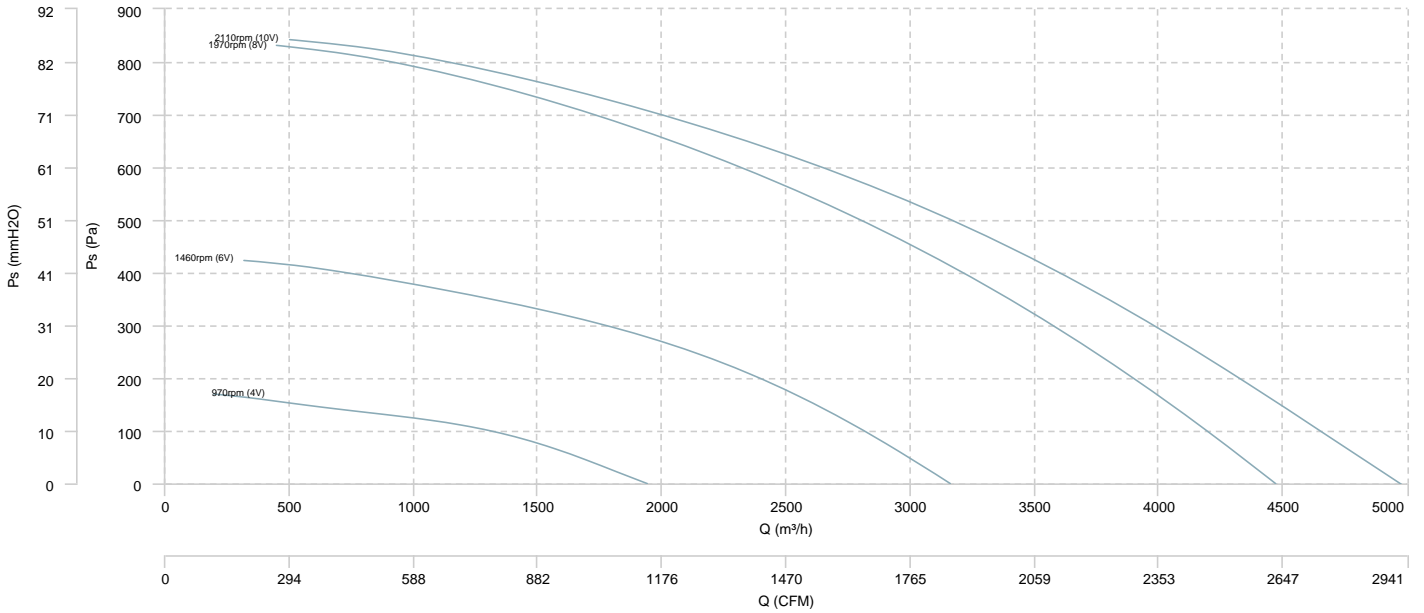


## AIR FLOW - MECHANICAL POWER

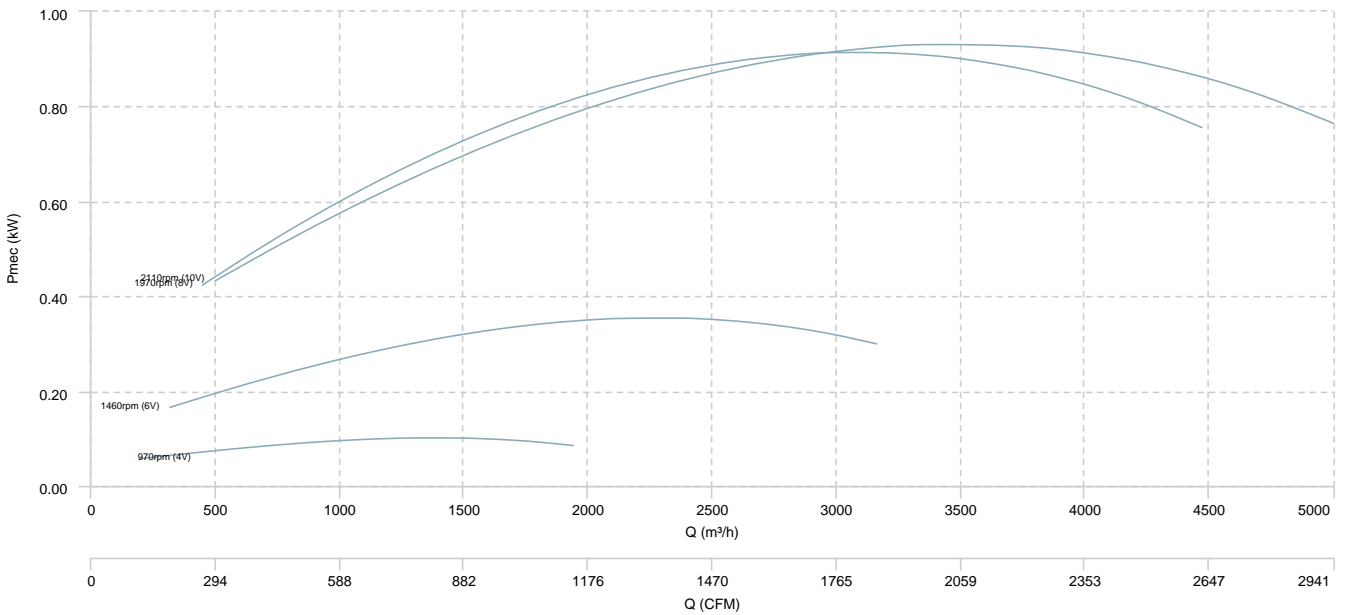


SBC-3 450 EEC

## AIR FLOW - PRESSURE

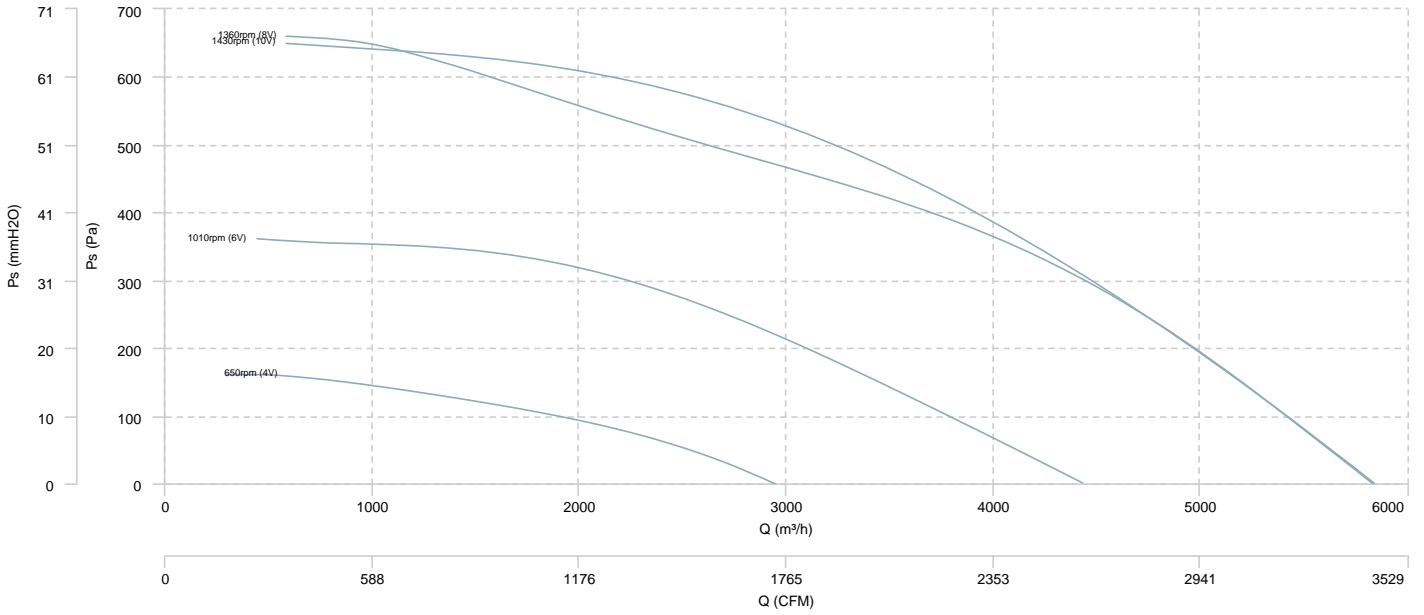


## AIR FLOW - MECHANICAL POWER

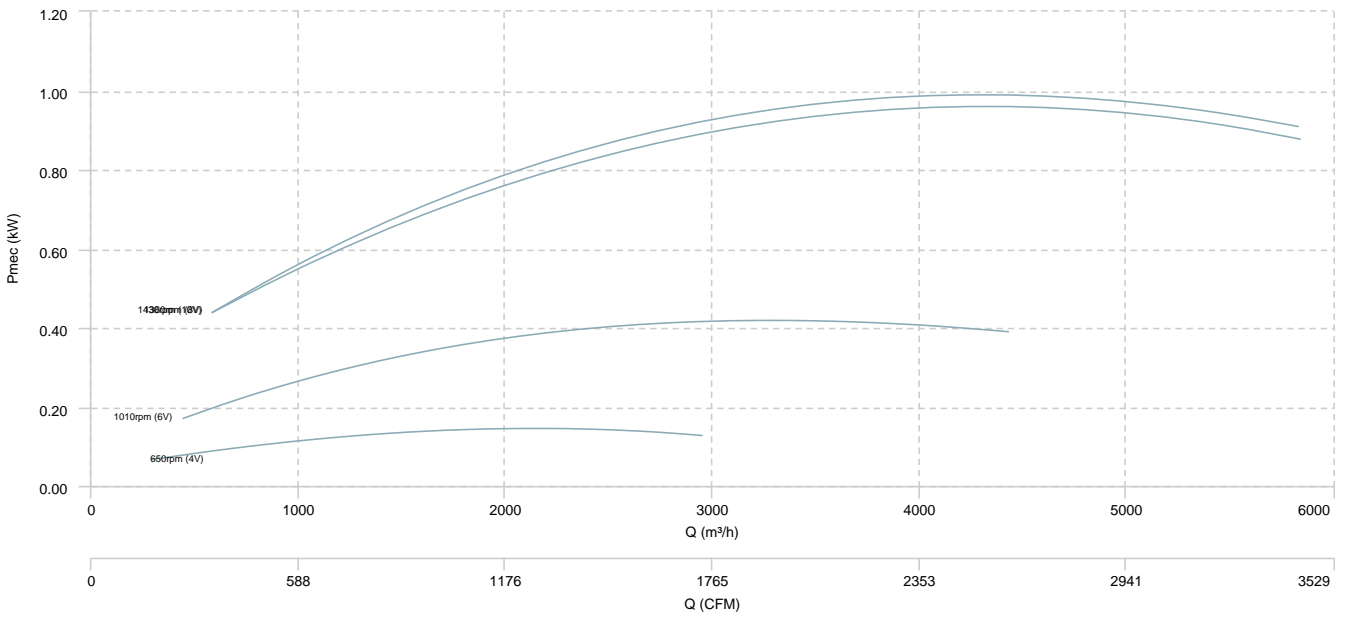


SBC-3 500 EEC

AIR FLOW - PRESSURE

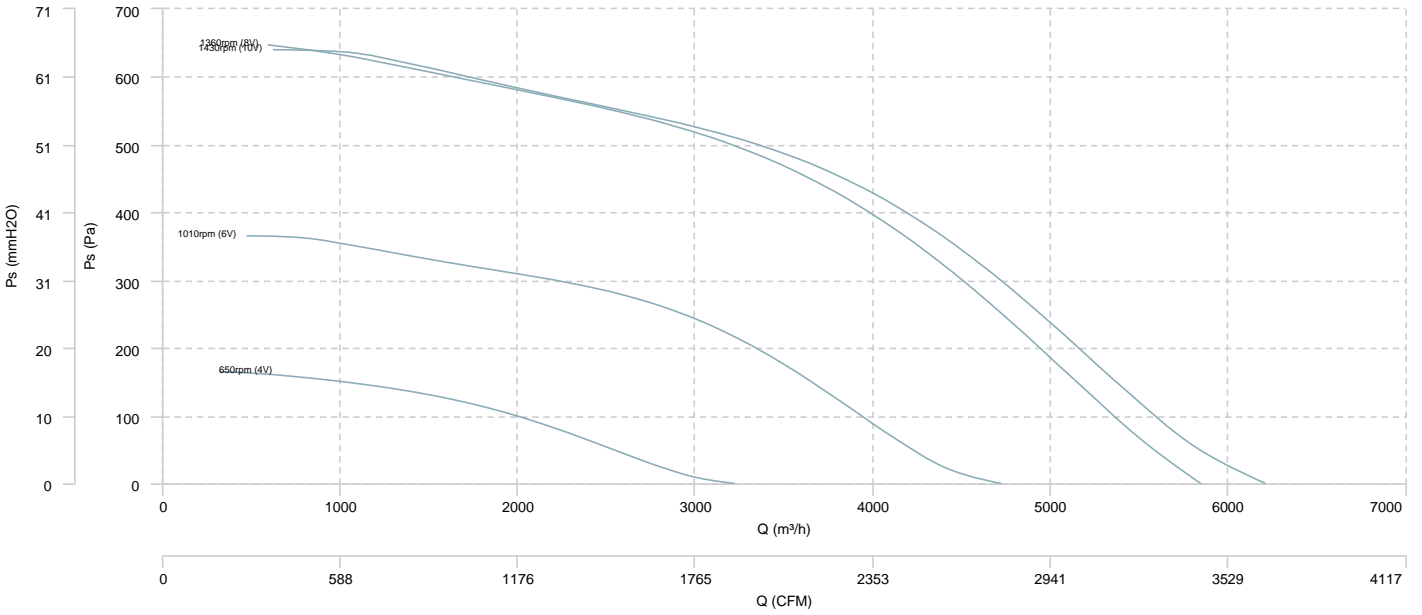


AIR FLOW - MECHANICAL POWER

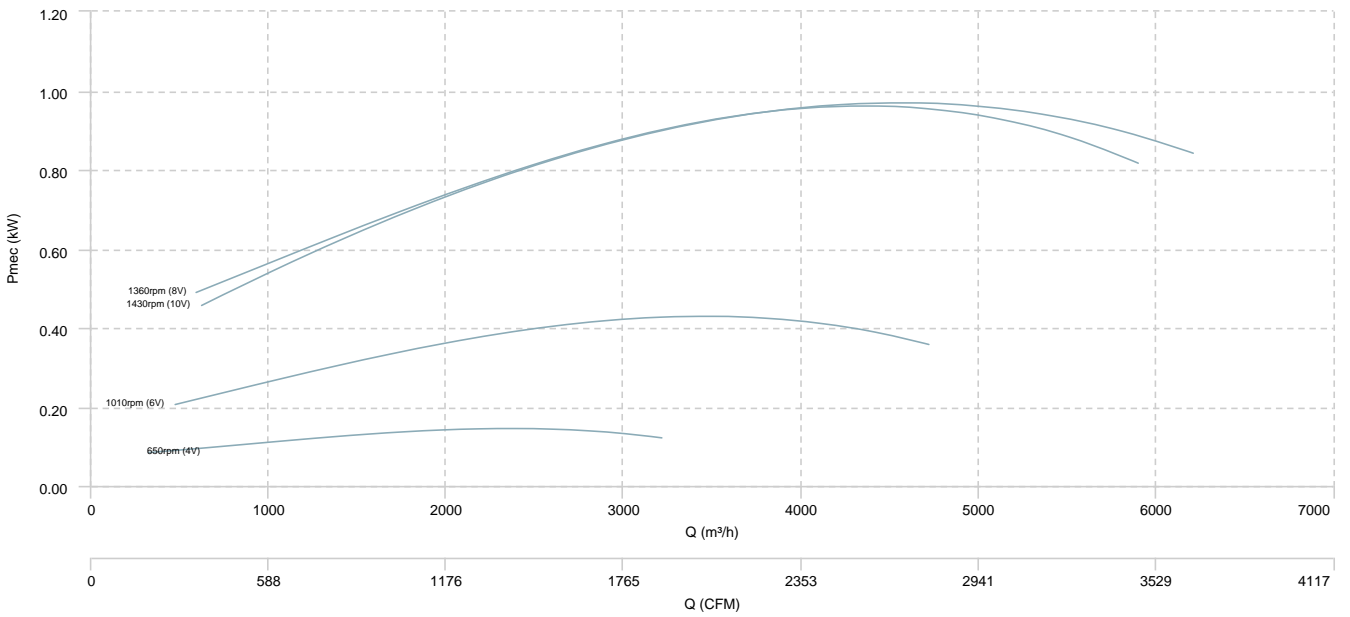


SBC-3 560 EEC

## 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
SBC-3 125 EEC (2270rpm (5V))	Radiated	-	25	15	32	44	49	54	44	55
SBC-3 150 EEC (1630rpm (4V))	Radiated	-	5	12	27	40	48	51	44	53
SBC-3 160 EEC (1630rpm (4V))	Radiated	-	5	12	27	40	48	51	44	53
SBC-3 200 EEC (1130rpm (4V))	Radiated	-	3	17	41	48	51	50	42	55
SBC-3 250 EEC (1130rpm (4V))	Radiated	-	3	17	41	48	51	50	42	55
SBC-3 315 EEC (1440rpm (5V))	Radiated	-	9	23	47	54	57	56	48	61
SBC-3 355 EEC (1050rpm (4V))	Radiated	-	1	20	36	46	47	42	34	50
SBC-3 400 EEC (970rpm (4V))	Radiated	-	16	32	49	54	56	50	42	59
SBC-3 450 EEC (970rpm (4V))	Radiated	-	16	32	49	54	56	50	42	59
SBC-3 500 EEC (650rpm (4V))	Radiated	-	18	34	38	48	50	43	33	52
SBC-3 560 EEC (650rpm (4V))	Radiated	-	18	34	38	48	50	43	33	52

**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)
SBC-3 200 EEC (2350rpm (8V))	0,15	-	33,82	0,19	508,93	464,74	4.5	1.392,57
SBC-3 200 EEC (2500rpm (10V))	0,15	-	33,84	0,19	481,35	475,86	4.26	1.392,57
SBC-3 250 EEC (2350rpm (8V))	0,15	-	35,84	0,22	747,69	367,59	4.23	1.015,84
SBC-3 250 EEC (2500rpm (10V))	0,15	-	36,40	0,22	765,47	365,13	4.33	1.015,84
SBC-3 315 EEC (2350rpm (8V))	0,15	-	43,94	0,21	872,89	377,19	3.11	848,27
SBC-3 315 EEC (2500rpm (10V))	0,15	-	44,45	0,21	898,58	379,98	3.2	848,27
SBC-3 355 EEC (1640rpm (6V))	0,36	-	43,52	0,20	944,65	329,99	2.65	1.353,26
SBC-3 355 EEC (2210rpm (8V))	0,36	-	42,76	0,45	1.218,67	564,20	3.42	1.353,26
SBC-3 355 EEC (2350rpm (10V))	0,36	-	45,17	0,45	1.187,23	621,36	3.33	1.353,26
SBC-3 400 EEC (1460rpm (6V))	0,99	-	45,43	0,33	1.485,99	358,88	3.28	1.472,30
SBC-3 400 EEC (1970rpm (8V))	0,99	-	48	0,77	1.977,97	668,83	4.37	1.472,30
SBC-3 400 EEC (2110rpm (10V))	0,99	-	43,02	0,80	1.953,22	621,54	4.32	1.472,30
SBC-3 450 EEC (1460rpm (6V))	0,99	-	45,15	0,34	1.719,09	306,43	3	1.237,08
SBC-3 450 EEC (1970rpm (8V))	0,99	-	45,77	0,87	2.321,67	598,88	4.05	1.237,08
SBC-3 450 EEC (2110rpm (10V))	0,99	-	51,17	0,88	2.549,76	615,99	4.45	1.237,08
SBC-3 500 EEC (650rpm (4V))	1,01	-	39,19	0,14	1.601,31	116	2.27	1.055,36
SBC-3 500 EEC (1010rpm (6V))	1,01	-	47,75	0,39	2.230,45	299,90	3.16	1.055,36
SBC-3 500 EEC (1360rpm (8V))	1,01	-	44,08	0,95	3.213,85	447,54	4.55	1.055,36
SBC-3 500 EEC (1430rpm (10V))	1,01	-	49,75	0,90	3.081,96	518,10	4.36	1.055,36
SBC-3 560 EEC (650rpm (4V))	1,01	-	42,40	0,13	1.459,83	132,67	1.65	1.005,74
SBC-3 560 EEC (1010rpm (6V))	1,01	-	49,93	0,39	2.327,14	294	2.62	1.005,74
SBC-3 560 EEC (1360rpm (8V))	1,01	-	50,08	0,89	3.109,02	508,79	3.51	1.005,74
SBC-3 560 EEC (1430rpm (10V))	1,01	-	51,38	0,90	3.219,73	510,60	3.63	1.005,74