

BOX BV FILTER



BELT DRIVEN CENTRIFUGAL IN SOUNDPROOF CABINET WITH FILTER

MANUFACTURING FEATURES:

- Impellers made of polyamide reinforced with fiberglass.
- BV range fans assembled in soundproof cabinets with thermo-acoustic insulation, Bs1d0 fire class on the supply panel.
- Fan assembled on antivibration mountings.
- Supplied with motor, pulleys and belts.
- Connection gland included.
- Squirrel cage asynchronous standard motor, IP-55 protection and rated class F insulation. Standard voltages 230/400V 50Hz for three phase motors up to 4kW and 400/690V 50Hz for higher powers.

- Box with particle filter ISO Coarse $\geq$ 60% (G4) integrated. Removable filter holder frame from both sides of the box for maintenance. Washable and replaceable filter media. Optimized air intake to maximize performance.

APPLICATIONS:

Designed for inline installation, indoor or outdoor assembly, they are suitable for:

- Air renewal in buildings and industries.
- Industrial and professional kitchen hoods.
- Maximum working temperature: 60°C.

UNDER REQUEST:

- Special voltages.
- 2 Speed motors
- Impellers made of galvanised steel sheet.

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

Accessories



Technical data

Three-phase motor

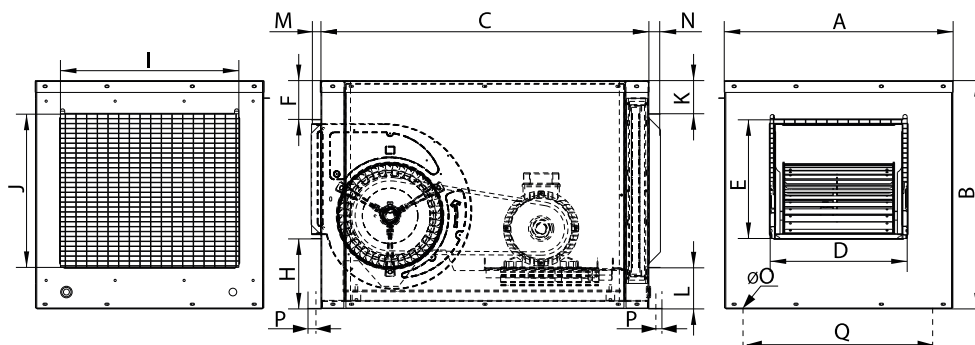
Code	Model	RPM	Min. Rated power kW	Max. Rated power kW	Max. Airflow m³/h	Sound db (A)**	Weight kg	Connect. diagram
	BOX BV FILTER 7/7	1650rpm - 2000rpm	0,37	0,75	3.170	50	32	1
	BOX BV FILTER 9/9	1200rpm - 1700rpm	0,37	1,10	4.690	53	46	1
	BOX BV FILTER 10/10	1000rpm - 1650rpm	0,37	1,50	6.150	56	48	1
	BOX BV FILTER 12/12	700rpm - 1400rpm	0,37	2,20	9.080	60	62	1

Notes:

* The motor is not included in fan weight

** 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



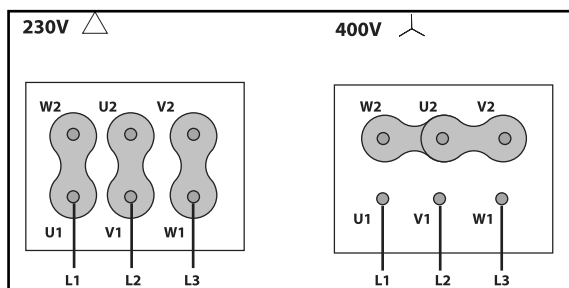
Model	A	B	C	D	E	F	H	I	J
BOX BV FILTER 7/7	450	450	698	242	216	81	151	352	309
BOX BV FILTER 9/9	535	535	768	311	268	96	169	418	359
BOX BV FILTER 10/10	580	580	798	342	299	84	195	489	421
BOX BV FILTER 12/12	650	650	868	408	349	83	216	572	495

Model	K	L	M	N	O	P	Q
BOX BV FILTER 7/7	60	78.5	23	27	10	17	393,5
BOX BV FILTER 9/9	77	63	23	27	10	17	478
BOX BV FILTER 10/10	69	88	23	27	10	17	522,4
BOX BV FILTER 12/12	65	83	23	27	10	17	595,4

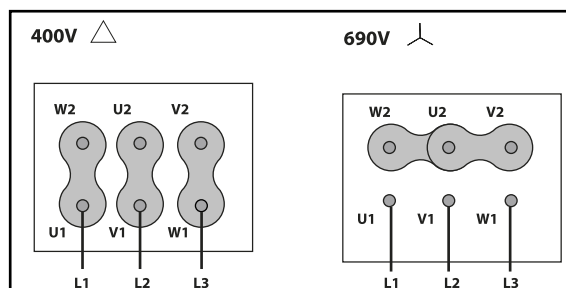
Wiring diagram

Wiring diagram N° 1

230/400V



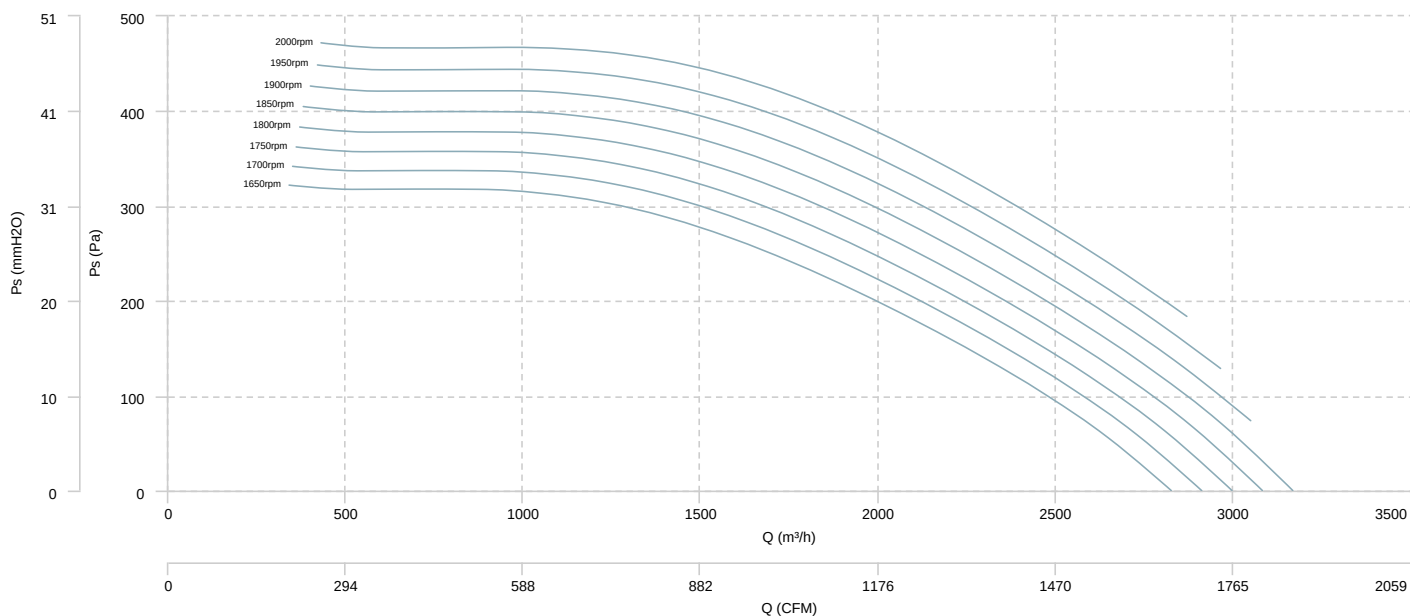
400/690V



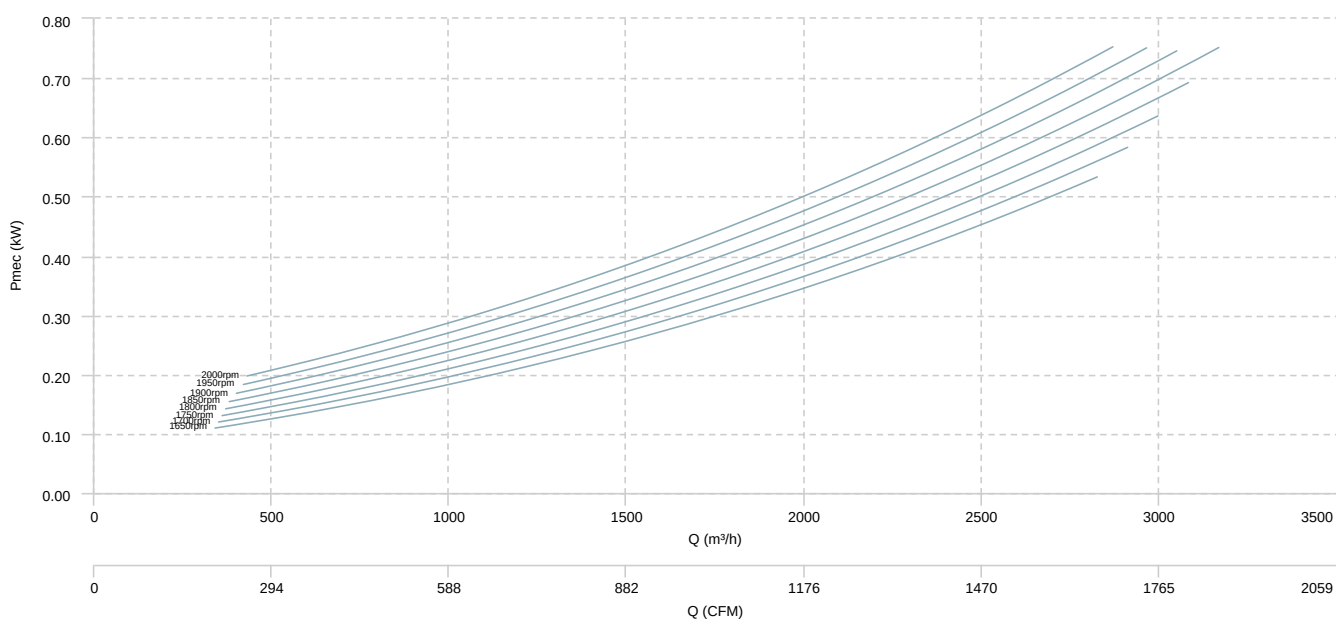
CHARACTERISCTIC CURVE

BOX BV FILTER 7/7

AIR FLOW - PRESSURE

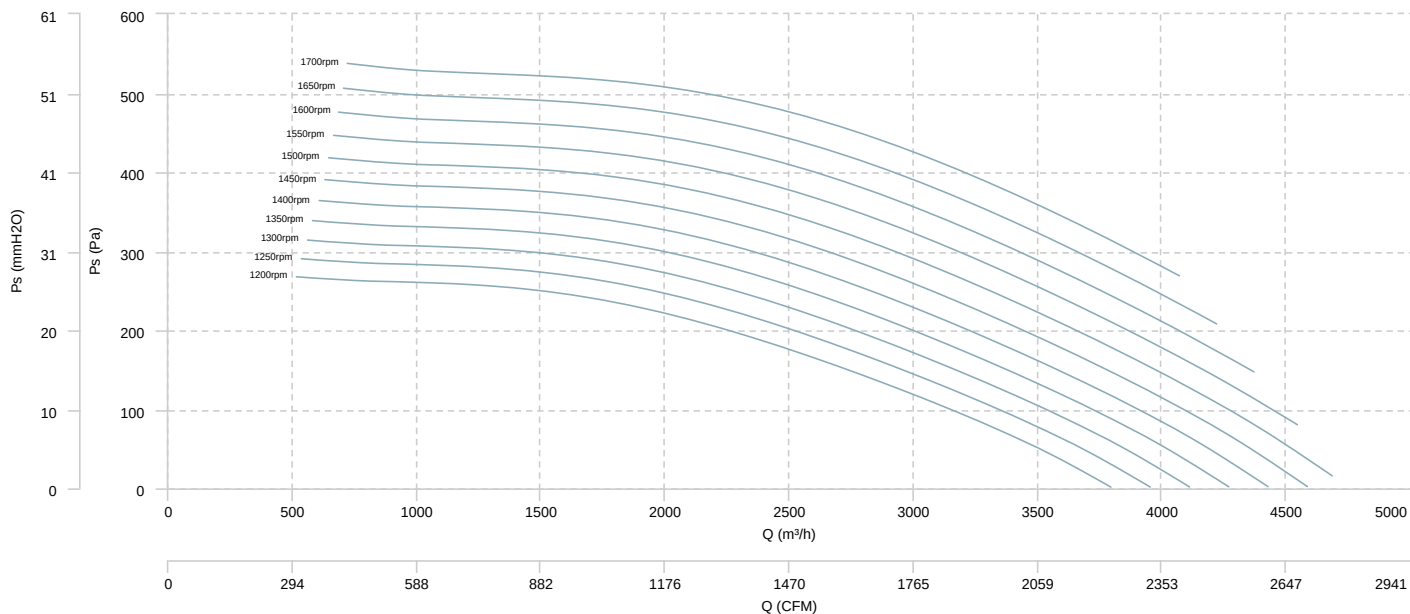


AIR FLOW - MECHANICAL POWER

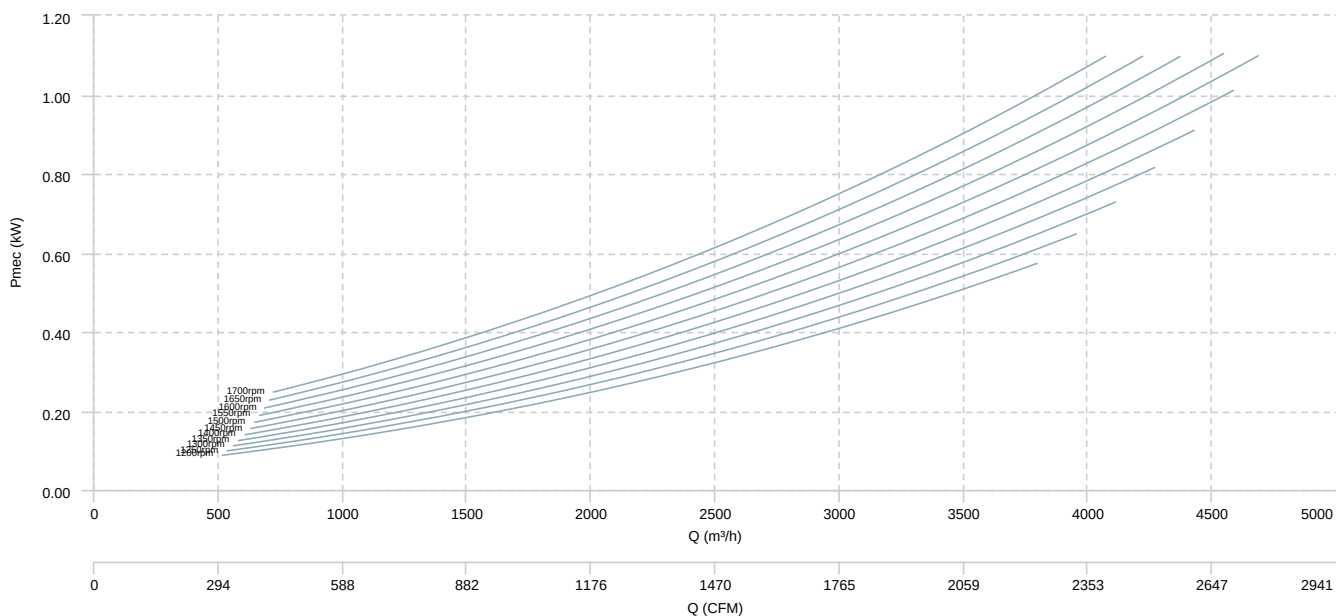


BOX BV FILTER 9/9

AIR FLOW - PRESSURE

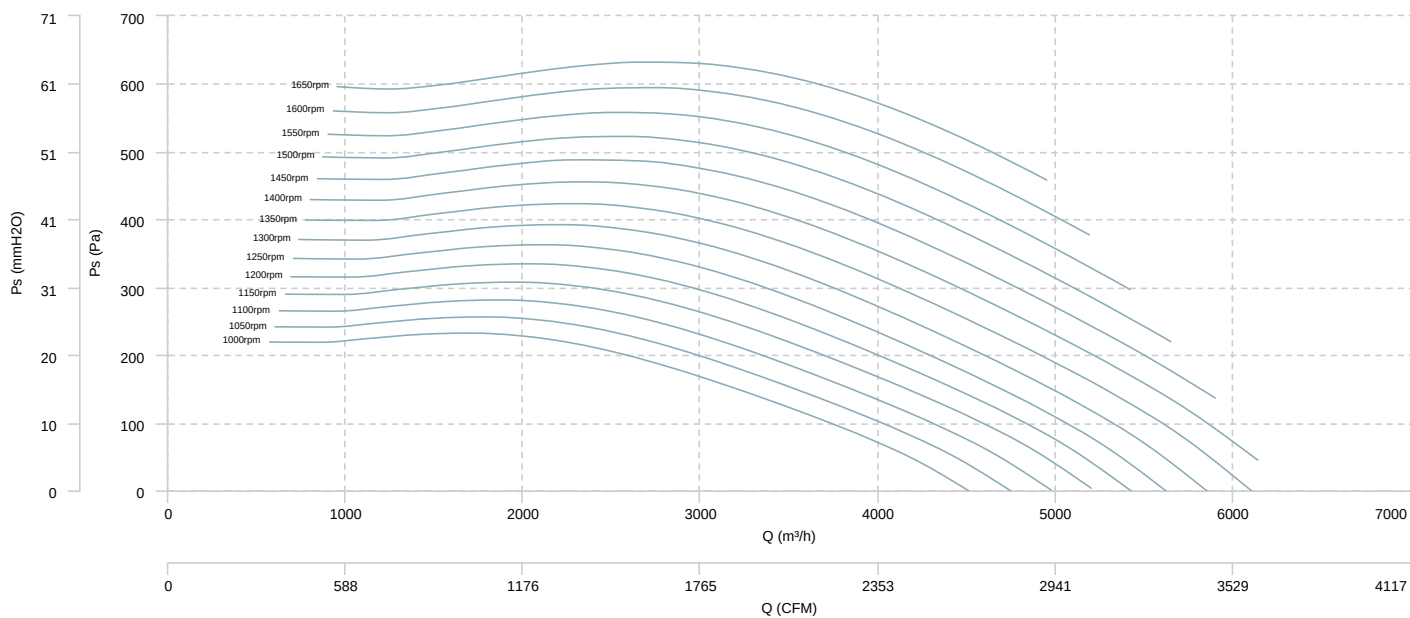


AIR FLOW - MECHANICAL POWER

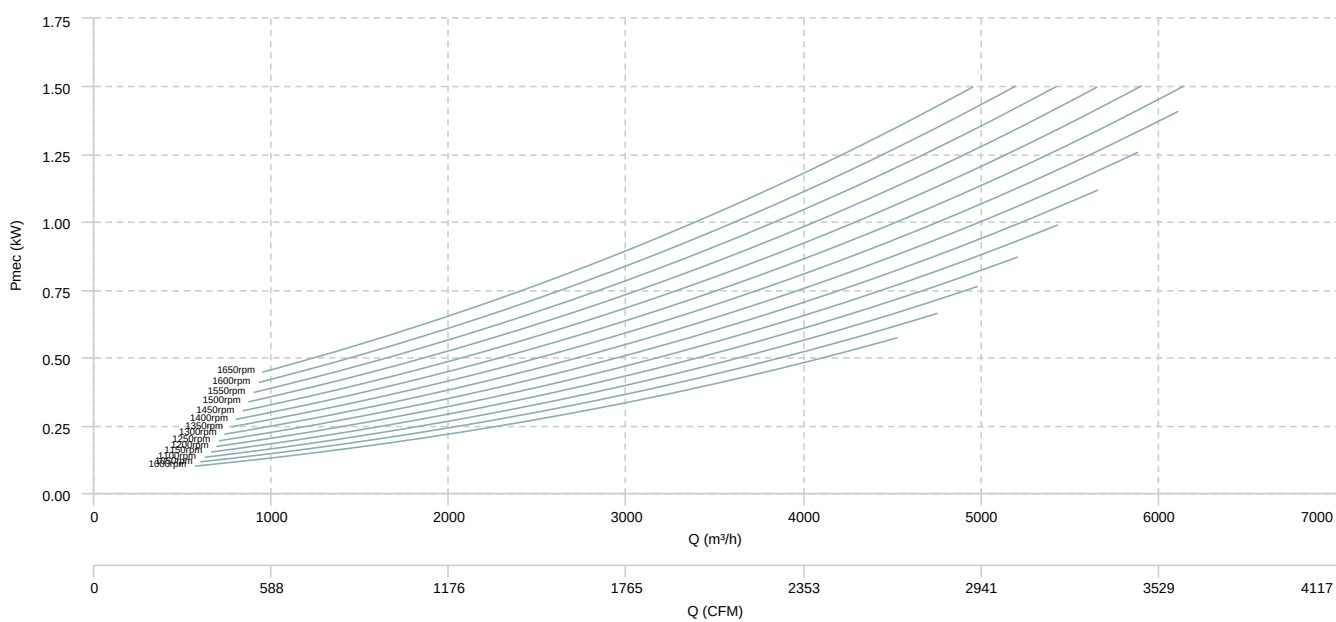


BOX BV FILTER 10/10

AIR FLOW - PRESSURE

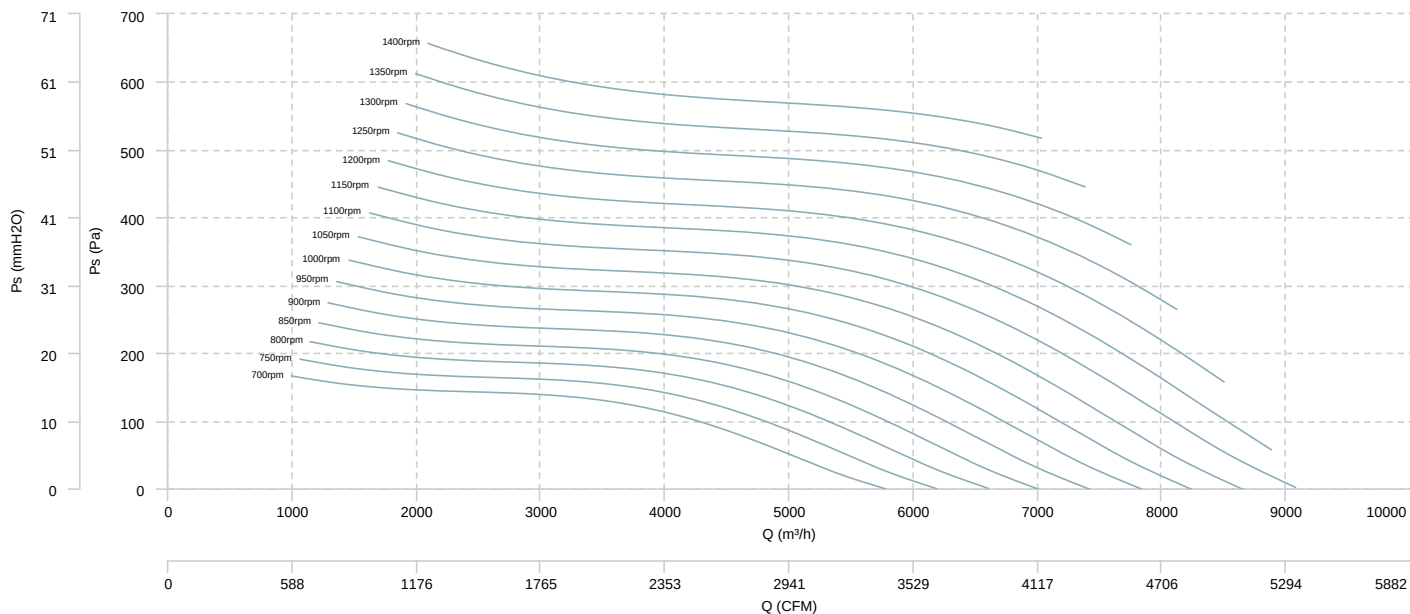


AIR FLOW - MECHANICAL POWER

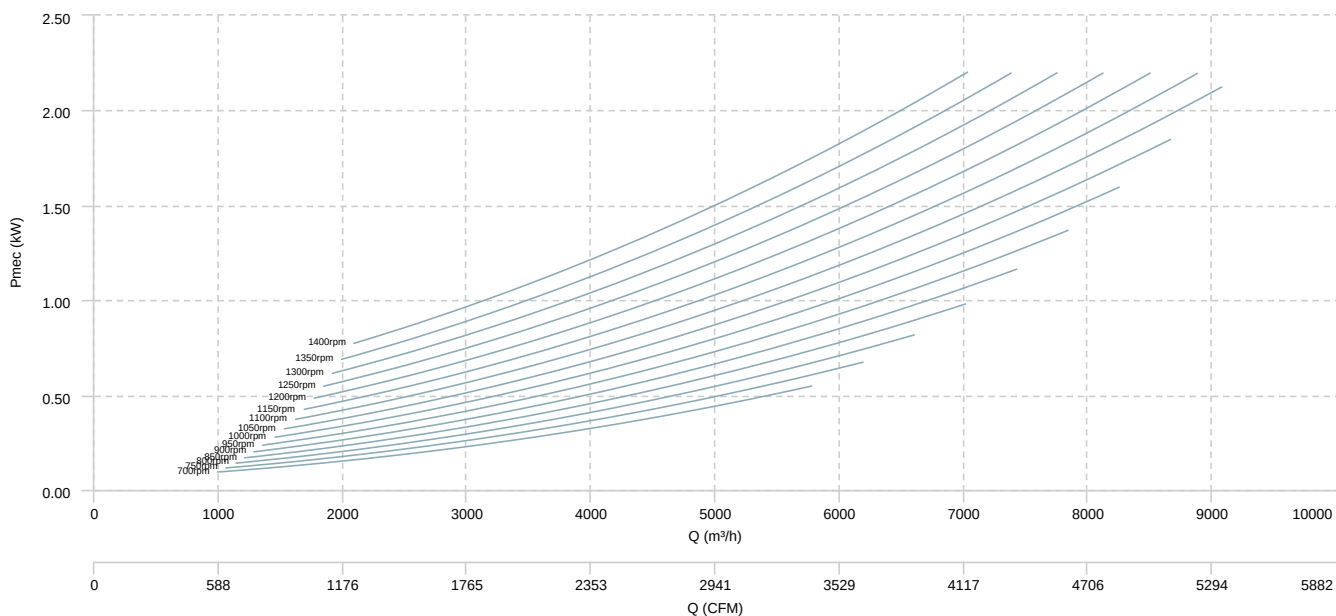


BOX BV FILTER 12/12

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
BOX BV FILTER 7/7 (1650rpm)	Inlet	55	57	61	60	68	67	58	53	72
BOX BV FILTER 9/9 (1200rpm)	Inlet	55	57	61	60	68	67	58	53	72
BOX BV FILTER 10/10 (1000rpm)	Inlet	55	57	61	60	68	67	58	52	71
BOX BV FILTER 12/12 (700rpm)	Inlet	55	57	60	61	66	66	56	50	71

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	Centrifugal fan radial or forward blades
Installation category	A
Efficiency category	Static
The fan has to be installed with FSC	No

Model	Motor power (kW)	Maximum efficiency point data						
		Max. efficiency (%)	Efficiency grade (N) (N)	Air Flow (m³/h)	Ps (Pa)	Pabs (kW)	speed (rpm)	Specific ratio
BOX BV FILTER 9/9	0,37	34,67	44,59	1.320	255,64	0,27	1200rpm	1,00
BOX BV FILTER 9/9	0,37	35,83	45,51	1.375,13	277,39	0,30	1250rpm	1,00
BOX BV FILTER 9/9	0,37	36,90	46,34	1.429,81	300,03	0,32	1300rpm	1,00
BOX BV FILTER 9/9	0,37	37,90	47,10	1.484,95	323,55	0,35	1350rpm	1,00
BOX BV FILTER 9/9	0,37	38,83	47,79	1.539,45	347,98	0,38	1400rpm	1,00
BOX BV FILTER 9/9	0,37	39,68	48,42	1.594,31	373,28	0,42	1450rpm	1,00
BOX BV FILTER 9/9	0,37	40,50	49,02	1.647,78	399,51	0,45	1500rpm	1,00
BOX BV FILTER 9/9	0,37	41,30	49,61	1.693,07	426,89	0,49	1550rpm	1,00
BOX BV FILTER 9/9	0,55	45,59	53,92	1.739,57	455,14	0,48	1600rpm	1,00
BOX BV FILTER 9/9	0,55	45,92	54,02	1.788,99	484,19	0,52	1650rpm	1,00
BOX BV FILTER 9/9	0,55	46,15	54,03	1.840,39	514,07	0,57	1700rpm	1,00
BOX BV FILTER 10/10	0,37	36,82	46,35	1.805,80	231,46	0,31	1000rpm	1,00
BOX BV FILTER 10/10	0,37	38,18	47,40	1.898,26	255,28	0,35	1050rpm	1,00
BOX BV FILTER 10/10	0,37	39,39	48,32	1.989,91	280,24	0,39	1100rpm	1,00
BOX BV FILTER 10/10	0,37	40,53	49,16	2.083,35	306,44	0,43	1150rpm	1,00
BOX BV FILTER 10/10	0,37	41,47	49,82	2.169,59	333,43	0,48	1200rpm	1,00
BOX BV FILTER 10/10	0,55	45,87	54,18	2.254,09	361,48	0,49	1250rpm	1,00
BOX BV FILTER 10/10	0,55	46,27	54,27	2.345,89	391,08	0,54	1300rpm	1,00
BOX BV FILTER 10/10	0,55	46,57	54,28	2.440,93	422	0,61	1350rpm	1,00
BOX BV FILTER 10/10	0,55	46,77	54,19	2.521,41	454,14	0,67	1400rpm	1,00
BOX BV FILTER 10/10	0,75	47,82	55,02	2.601,16	487,30	0,73	1450rpm	1,00
BOX BV FILTER 10/10	0,75	47,88	54,80	2.701,88	521,34	0,81	1500rpm	1,00
BOX BV FILTER 10/10	0,75	47,84	54,47	2.815,10	556,12	0,90	1550rpm	1,00
BOX BV FILTER 10/10	1,10	49,10	55,50	2.939,73	592,11	0,97	1600rpm	1,00
BOX BV FILTER 10/10	1,10	49,29	55,42	3.060,53	628,86	1,08	1650rpm	1,00
BOX BV FILTER 12/12	0,37	34,49	44,07	2.215,73	166,29	0,31	750rpm	1,00
BOX BV FILTER 12/12	0,37	36,13	45,31	2.364,02	189,21	0,35	800rpm	1,00
BOX BV FILTER 12/12	0,37	37,56	46,36	2.510,01	213,58	0,41	850rpm	1,00
BOX BV FILTER 12/12	0,37	38,82	47,24	2.657,77	239,45	0,47	900rpm	1,00

Model	Motor power (kW)	Maximum efficiency point data						
		Max. efficiency (%)	Efficiency grade (N) (N)	Air Flow (m³/h)	Ps (Pa)	Pabs (kW)	speed (rpm)	Specific ratio
BOX BV FILTER 12/12	0,55	43,22	51,48	2.806,13	266,80	0,49	950rpm	1,00
BOX BV FILTER 12/12	0,55	43,62	51,49	2.952,51	295,62	0,57	1000rpm	1,00
BOX BV FILTER 12/12	0,55	43,83	51,31	3.099,96	325,92	0,66	1050rpm	1,00
BOX BV FILTER 12/12	0,75	44,83	51,98	3.251,03	357,73	0,74	1100rpm	1,00
BOX BV FILTER 12/12	0,75	44,45	51,22	3.440,34	390,42	0,85	1150rpm	1,00
BOX BV FILTER 12/12	1,10	45,18	51,62	3.656,07	424,28	0,96	1200rpm	1,00
BOX BV FILTER 12/12	1,10	45,18	51,27	3.851,48	459,95	1,10	1250rpm	1,00
BOX BV FILTER 12/12	1,10	45,13	50,90	3.988,29	497,63	1,23	1300rpm	1,00
BOX BV FILTER 12/12	1,50	45,81	51,34	4.081,16	537,44	1,34	1350rpm	1,00
BOX BV FILTER 12/12	1,50	45,81	51,10	4.143,30	579,21	1,46	1400rpm	1,00