

BOX BD FILTER



CENTRIFUGAL IN SOUNDPROOF CABINET WITH FILTER

MANUFACTURING FEATURES:

- Impellers made of polyamide reinforced with fiberglass up to size 33/33 (12/12). Rest of models made of galvanized steel sheet .
- BD range fans assembled in soundproof cabinets with thermo-acoustic insulation, Bs1d0 fire class on the supply panel.
- Fan assembled on antivibration mountings.
- Connection gland included.
- Casals exclusive design closed motors with extruded aluminum housing, which make the whole set of connections protected inside the terminal box integrated in the motor with IP-65 protection. Motor with IP-54 protection and class F insulation. Standard voltages 230V 50Hz for single phase motors and 230/400V 50Hz for three phase motors.
- 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. Use in supply or extraction with prior fat filtering.
- Maximum working temperature: 50°C.

UNDER REQUEST:

- Impellers made of galvanised steel sheet.
- 3 speed fans.

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

Accessories



BAC



CFF



INT



PI



REG



REGD



SFC



TCA



TIAC



VIS

Technical data

Single-phase motor / 4 poles

Code	Model	R.P.M.	Rated I. A 230V	Rated power kW	Max. Airflow m³/h	Sound db (A)**	Weight kg	Connect. diagram
251100351STC	BOX BD FILTER 7/7 M4 0,13kW	1370	1,55	0,13	1.850	55	19	1
251220350STC	BOX BD FILTER 9/9 M4 0,35kW	1375	2,7	0,35	2.680	57	30	1
251320350STC	BOX BD FILTER 10/10 M4 0,59kW	1340	4,5	0,59	3.810	60	34	1

Single-phase motor / 6 poles

Code	Model	R.P.M.	Rated I. A 230V	Rated power kW	Max. Airflow m³/h	Sound db (A)**	Weight kg	Connect. diagram
251160350STC	BOX BD FILTER 7/7 M6 0,04kW	885	0,6	0,04	1.030	40	20	1
251280351STC	BOX BD FILTER 9/9 M6 0,13kW	940	1,3	0,13	2.130	49	28	1
251370351STC	BOX BD FILTER 10/10 M6 0,21kW	945	2,1	0,21	2.720	53	34	1
251520351STC	BOX BD FILTER 12/12 M6 0,76kW	950	6,7	0,76	5.970	56	49	1

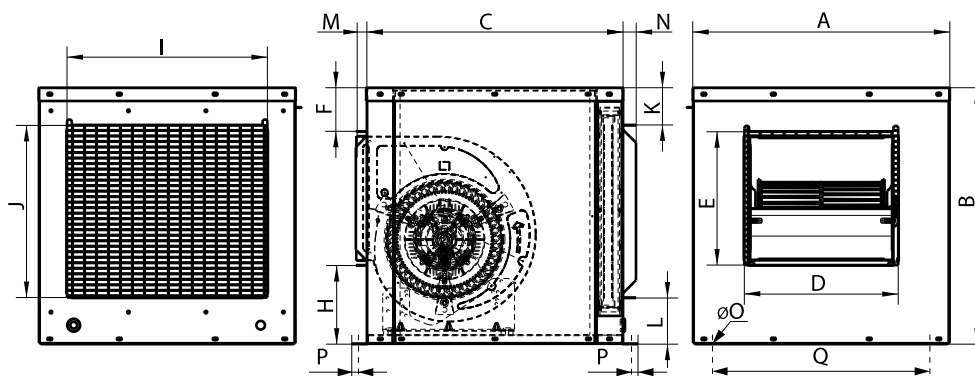
Three-phase motor / 6 poles

Code	Model	R.P.M.	Rated I. A		Rated power kW	Max. Airflow m³/h	Sound db (A)**	Weight kg	Connect. diagram
			230V	400V					
251519953STC	BOX BD FILTER 12/12 T6 1,1kW	945	6,54	3,78	1,10	6.100	55	51	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



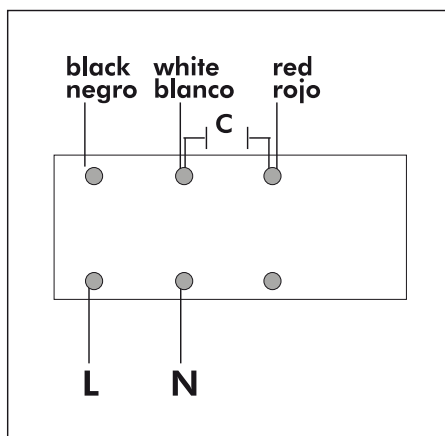
Model	A	B	C	D	E	F	H	I	J
BOX BD FILTER 7/7 M4 0,13kW	450	450	450	242	216	81	151	352	309
BOX BD FILTER 7/7 M6 0,04kW	450	450	450	242	216	81	151	352	309
BOX BD FILTER 9/9 M4 0,35kW	535	535	535	311	268	96	169	418	359
BOX BD FILTER 9/9 M6 0,13kW	535	535	535	311	268	96	169	418	359
BOX BD FILTER 10/10 M4 0,59kW	580	580	580	342	299	84	195	489	421
BOX BD FILTER 10/10 M6 0,21kW	580	580	580	342	299	84	195	489	421
BOX BD FILTER 12/12 M6 0,76kW	650	650	650	408	349	83	216	576	495
BOX BD FILTER 12/12 T6 1,1kW	650	650	650	408	349	83	216	576	495

Model	K	L	M	N	O	P	Q
BOX BD FILTER 7/7 M4 0,13kW	60	78.5	23	27	10	17	393,5
BOX BD FILTER 7/7 M6 0,04kW	60	78.5	23	27	10	17	393,5
BOX BD FILTER 9/9 M4 0,35kW	77	96	23	27	10	17	478,5
BOX BD FILTER 9/9 M6 0,13kW	77	96	23	27	10	17	478,5
BOX BD FILTER 10/10 M4 0,59kW	69	88	23	27	10	17	522,4
BOX BD FILTER 10/10 M6 0,21kW	69	88	23	27	10	17	522,4
BOX BD FILTER 12/12 M6 0,76kW	65	83	23	27	10	17	592,4
BOX BD FILTER 12/12 T6 1,1kW	65	83	23	27	10	17	592,4

Wiring diagram

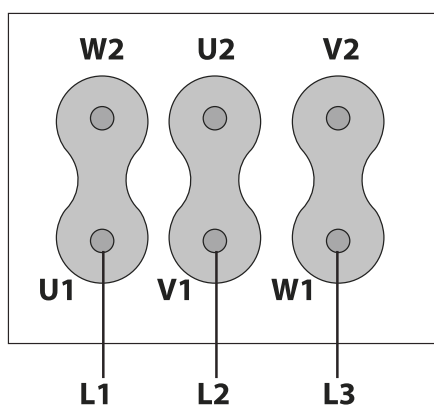
Wiring diagram Nº 1

SINGLE PHASE MOTOR MOTOR MONOFÁSICO

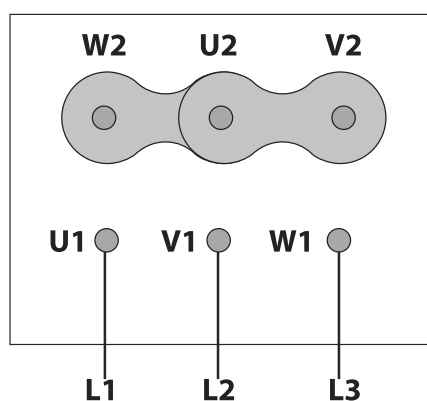


Wiring diagram Nº 2

230V 



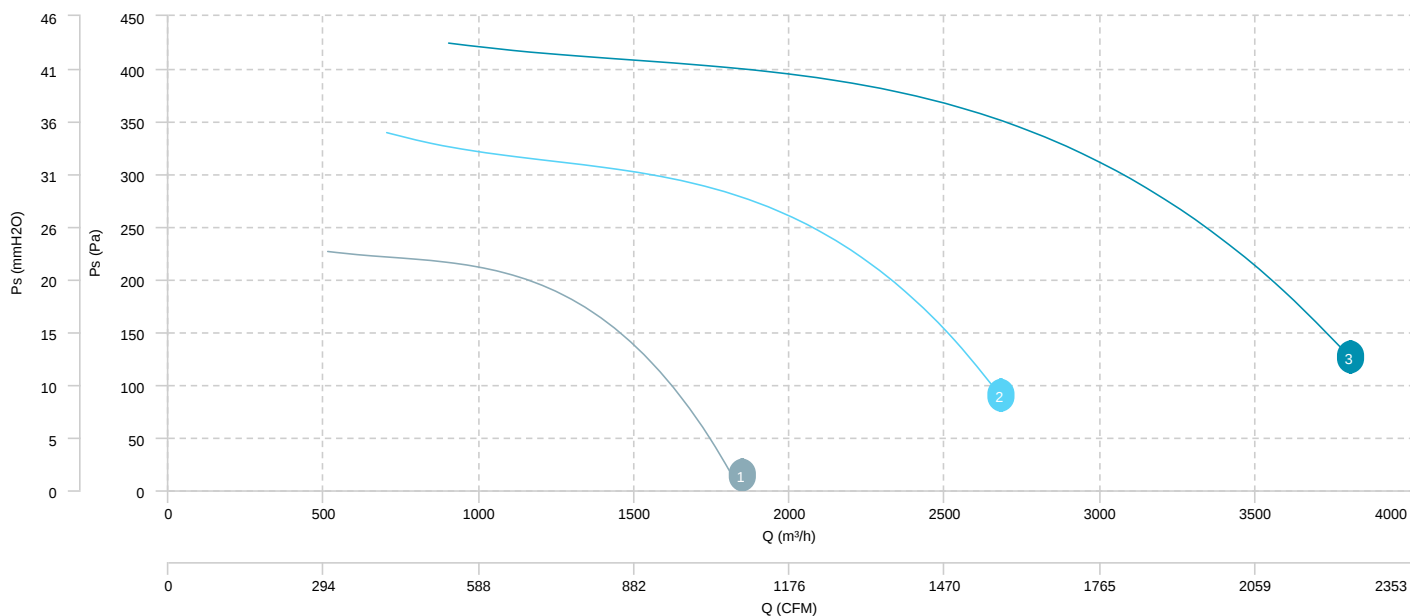
400V 



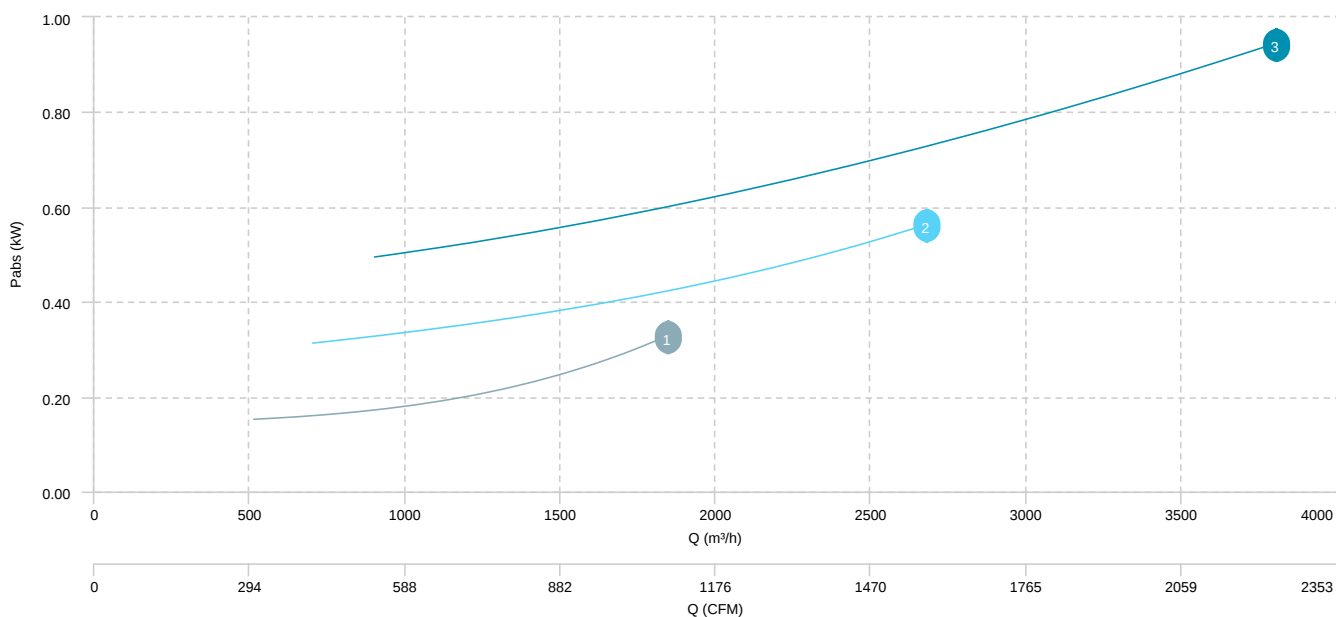
CHARACTERISCTIC CURVE

- | | | | | | |
|---|------------------------------|---|------------------------------|---|-------------------------------|
| 1 | BOX BD FILTER 7/7 M4 0, 13kW | 2 | BOX BD FILTER 9/9 M4 0, 35kW | 3 | BOX BD FILTER 10/10 M4 0,59kW |
|---|------------------------------|---|------------------------------|---|-------------------------------|

AIR FLOW - PRESSURE



AIR FLOW - ABSORBED POWER



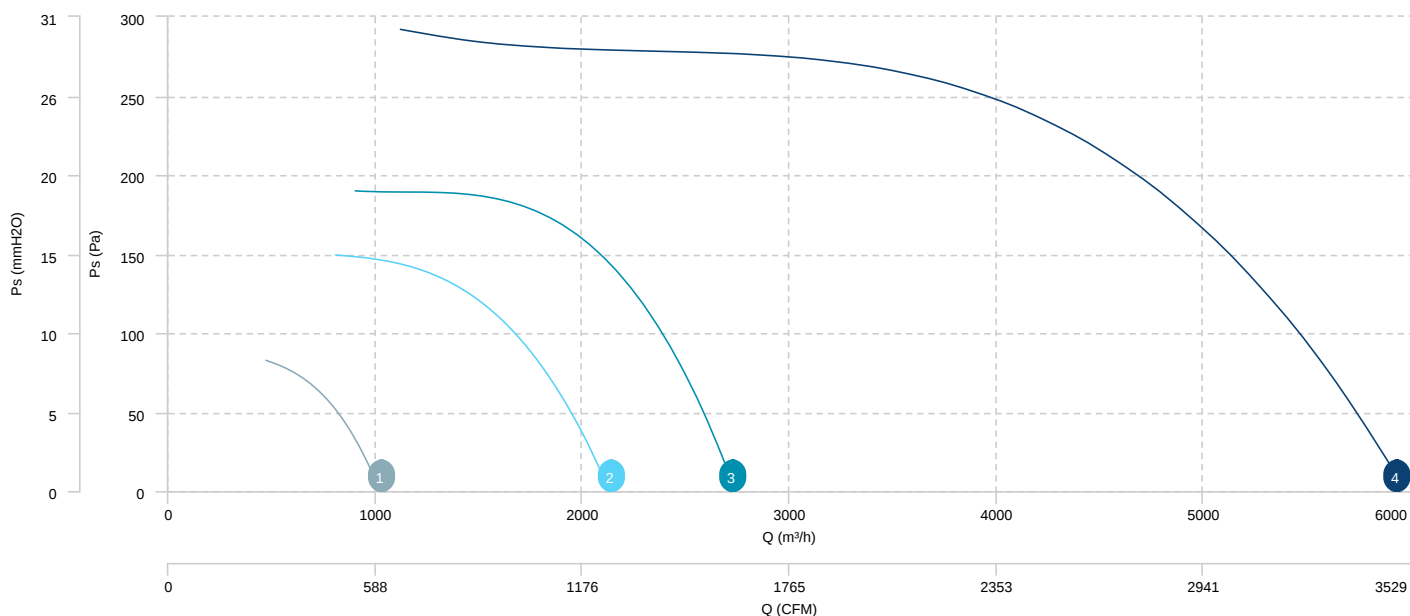
1 BOX BD FILTER 7/7 M6 0,04kW

2 BOX BD FILTER 9/9 M6 0,13kW

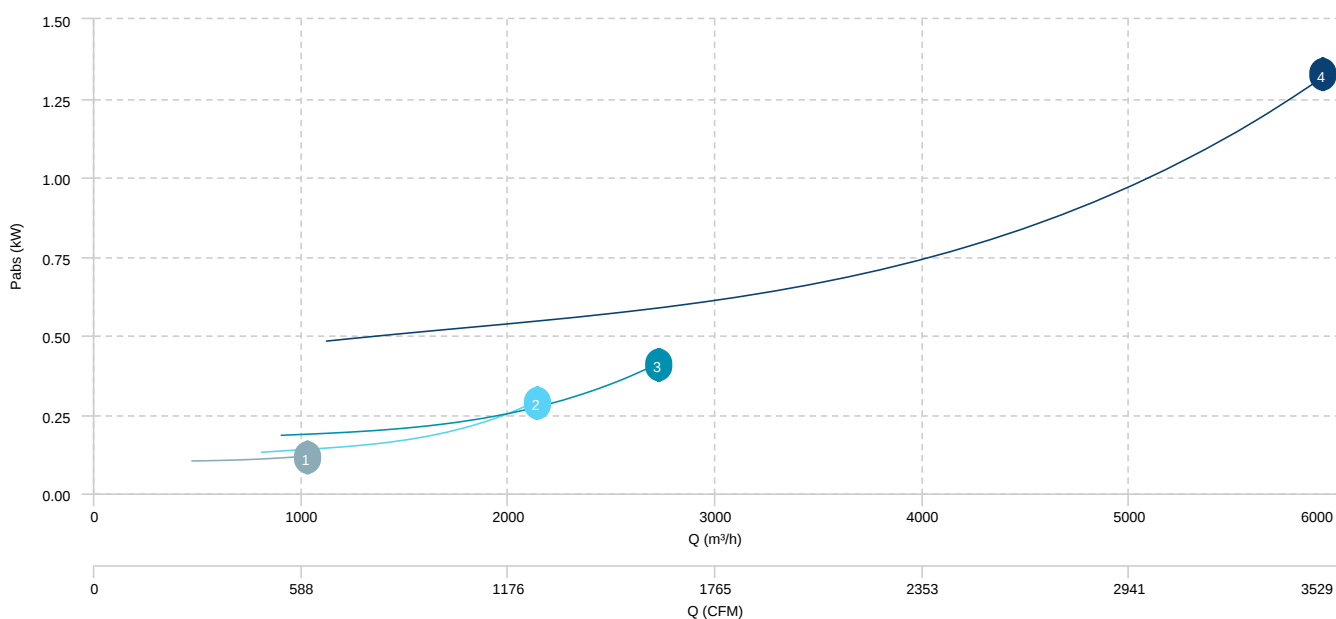
3 BOX BD FILTER 10/10 M6 0,21kW

4 BOX BD FILTER 12/12 M6 0,76kW

AIR FLOW - PRESSURE

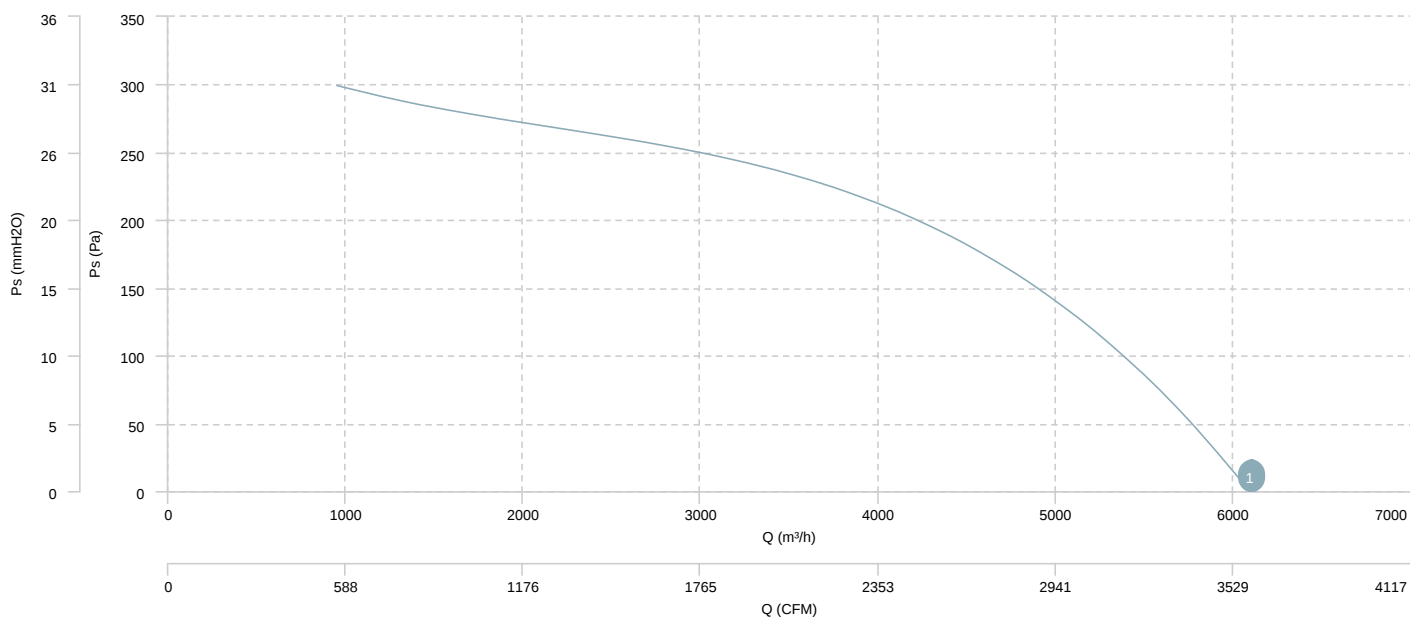


AIR FLOW - ABSORBED POWER

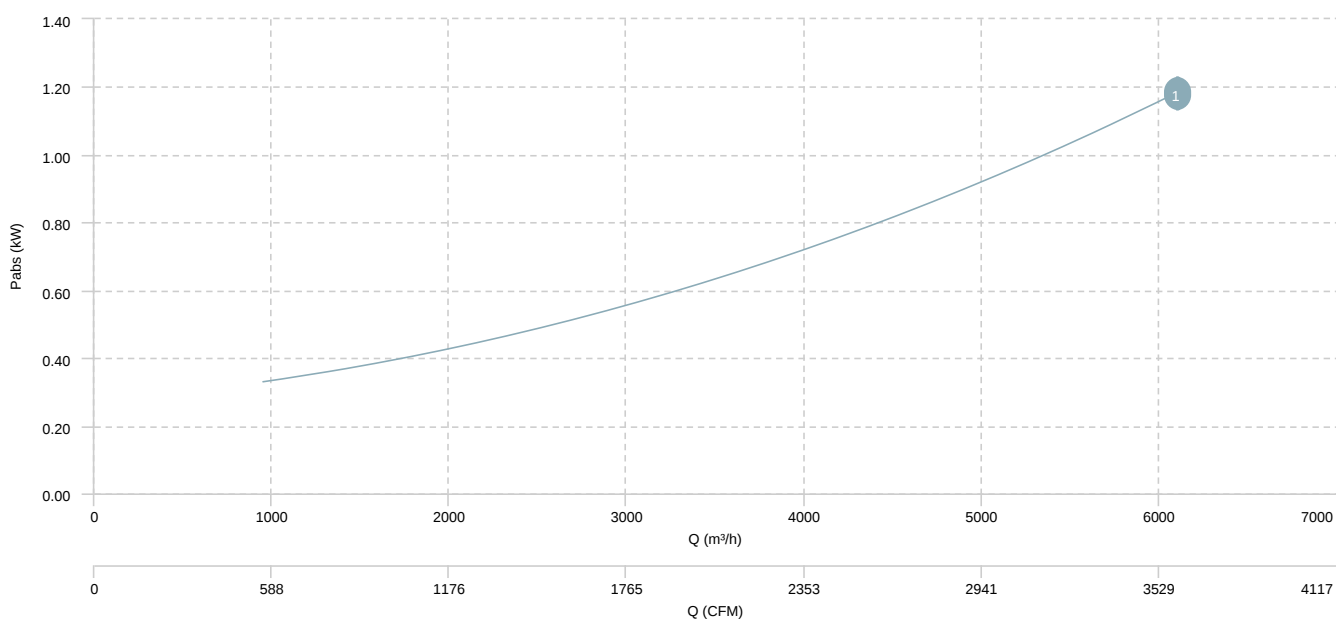


1 BOX BD FILTER 12/12 T6
1,1kW

AIR FLOW - PRESSURE



AIR FLOW - ABSORBED POWER



Sound data

Sound / 4 poles

Sound power Lw dB (A)										
Model		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Total
BOX BD FILTER 7/7 M4 0,13kW	Inlet	60	62	71	73	77	76	72	62	81
BOX BD FILTER 9/9 M4 0,35kW	Inlet	62	64	73	75	79	78	74	64	83
BOX BD FILTER 10/10 M4 0,59kW	Inlet	65	67	76	78	82	81	77	67	86

Sound / 6 poles

Sound power Lw dB (A)										
Model		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Total
BOX BD FILTER 7/7 M6 0,04kW	Inlet	45	47	56	58	62	61	57	47	66
BOX BD FILTER 9/9 M6 0,13kW	Inlet	54	56	65	67	71	70	66	56	75
BOX BD FILTER 10/10 M6 0,21kW	Inlet	58	60	69	70	74	74	69	60	79
BOX BD FILTER 12/12 M6 0,76kW	Inlet	61	63	72	73	77	77	72	63	82
BOX BD FILTER 12/12 T6 1,1kW	Inlet	60	62	71	73	77	76	72	62	81

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

ERP / 6 poles

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 BD FILTER 10/10 M6 0,21kW	0,21	36,51	46,97	1.713,03	180,33	0,22	945	1,00
BOX BD FILTER 12/12 M6 0,76kW	0,76	36,78	44,24	3.479,52	266,56	0,66	950	1,00
BOX BD FILTER 12/12 T6 1,1kW	1,10	37,19	45,24	2.847,62	253,74	0,53	945	1,00