

BOX BD CA



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.
- Fan assembled on antivibration mountings.
- Connection gland included.
- Closed motors specially designed by Casals with extruded aluminum housing, which make the whole connection is protected within the integrated terminal box on the motor. Motor with IP55 protection and Class F insulation standard voltages: 230V 50Hz in single phase and 230/400V 50Hz three-phase.

Accessories



BAC



**F-BOX
BD/BV
CA**



INT



PI



REG



**REG
VMC**



REGD



SFC



TCA



TIAC



VIS

BOX with integrated G4 filter. Removable filter frame from both sides of the box for better maintenance. Replaceable and washable filtering foam. Optimized suctioning air inlet to maximize the performance of the fan.

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: 50°C.

UNDER REQUEST:

- LG0 position.
- Impellers made of galvanized steel sheet.
- 3 speed fans.

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	Connect. diagram
-	BOX BD CA 7/7 M4 0,12kW	1370	1,5	0,12	1.725	50	19	1
-	BOX BD CA 7/7 M4 0,13kW	1370	1,55	0,13	1.850	55	19	1
-	BOX BD CA 9/9 M4 0,35kW	1375	2,7	0,35	2.670	57	30	1
-	BOX BD CA 10/10 M4 0,59kW	1340	4,5	0,59	3.800	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	Connect. diagram
-	BOX BD CA 7/7 M6 0,04kW	885	0,6	0,04	1.030	40	20	1
-	BOX BD CA 9/9 M6 0,12kW	925	1,2	0,12	2.050	50	28	1
-	BOX BD CA 9/9 M6 0,13kW	940	1,3	0,13	2.130	49	28	1
-	BOX BD CA 10/10 M6 0,19kW	880	2,1	0,19	2.870	56	32	1
-	BOX BD CA 10/10 M6 0,21kW	945	2,1	0,21	2.720	53	34	1
-	BOX BD CA 12/12 M6 0,76kW	950	6,7	0,76	5.960	56	49	1
-	BOX BD CA 12/12 M6 0,79kW	945	6,2	0,79	6.210	63	49	1

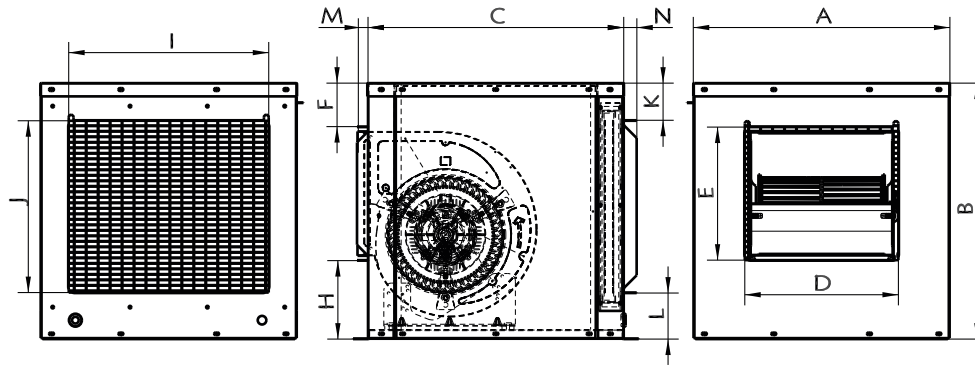
Three-phase motor / 6 poles

Code	Model	R.P.M.	Rated I. (A) 400V	Rated power kW	Max. Airflow m3/h	Sound db (A)**	Weight	Connect. diagram
-	BOX BD CA 12/12 T6 1,1kW	945	3,78	1,10	6.130	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 CA 7/7 M4 0,12kW	450	450	450	252	226	76	146	352	309
BOX BD CA 7/7 M4 0,13kW	450	450	450	252	226	76	146	352	309
BOX BD CA 7/7 M6 0,04kW	450	450	450	252	226	76	146	352	309
BOX BD CA 9/9 M4 0,35kW	535	535	535	321	278	91	164	418	359
BOX BD CA 9/9 M6 0,12kW	535	535	535	321	278	91	164	418	359
BOX BD CA 9/9 M6 0,13kW	535	535	535	321	278	91	164	418	359
BOX BD CA 10/10 M4 0,59kW	580	580	580	352	309	79	190	489	421
BOX BD CA 10/10 M6 0,19kW	580	580	580	352	309	79	190	489	421
BOX BD CA 10/10 M6 0,21kW	580	580	580	352	309	79	190	489	421
BOX BD CA 12/12 M6 0,76kW	650	650	650	418	359	78	211	576	495
BOX BD CA 12/12 M6 0,79kW	650	650	650	418	359	78	211	576	495
BOX BD CA 12/12 T6 1,1kW	650	650	650	418	359	78	211	576	495

Model	K	L	M	N
BOX BD CA 7/7 M4 0,12kW	60	78.5	23	27
BOX BD CA 7/7 M4 0,13kW	60	78.5	23	27
BOX BD CA 7/7 M6 0,04kW	60	78.5	23	27
BOX BD CA 9/9 M4 0,35kW	77	96	23	27
BOX BD CA 9/9 M6 0,12kW	77	96	23	27
BOX BD CA 9/9 M6 0,13kW	77	96	23	27
BOX BD CA 10/10 M4 0,59kW	69	88	23	27
BOX BD CA 10/10 M6 0,19kW	69	88	23	27
BOX BD CA 10/10 M6 0,21kW	69	88	23	27
BOX BD CA 12/12 M6 0,76kW	65	83	23	27
BOX BD CA 12/12 M6 0,79kW	65	83	23	27
BOX BD CA 12/12 T6 1,1kW	65	83	23	27

Wiring diagram

DIAGRAM Nº 1

**SINGLE PHASE MOTOR
MOTOR MONOFÁSICO**

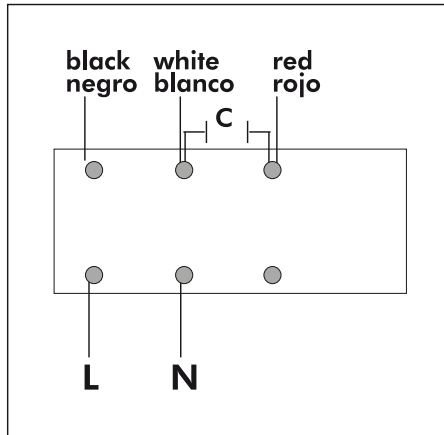
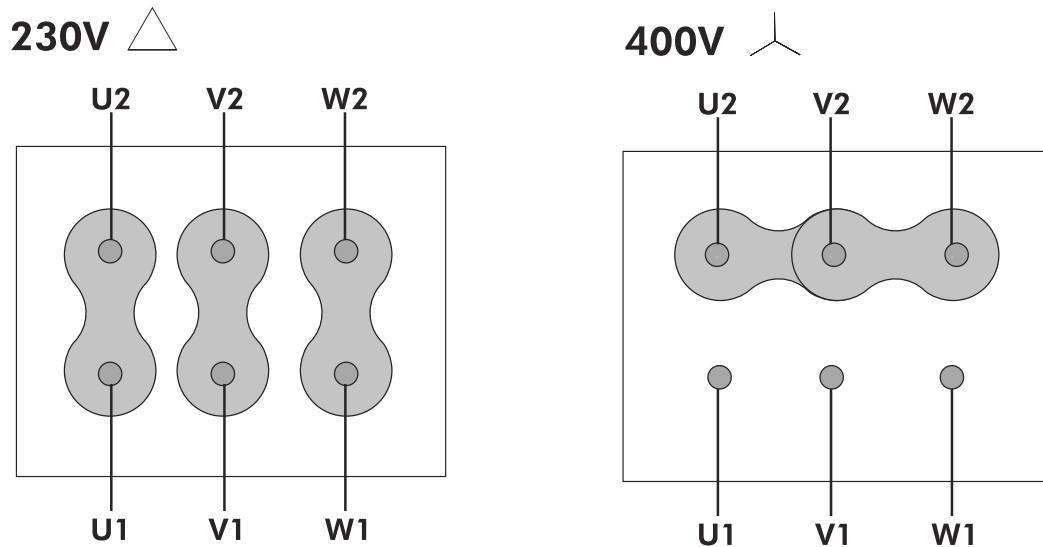


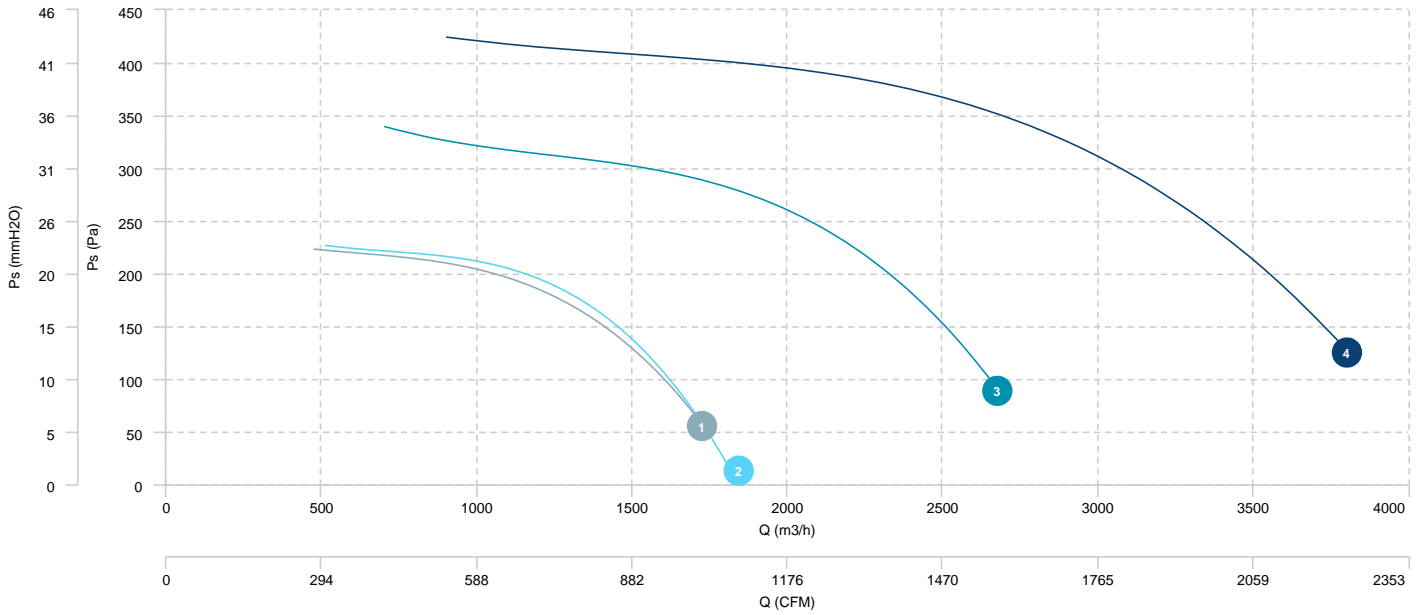
DIAGRAM Nº 2



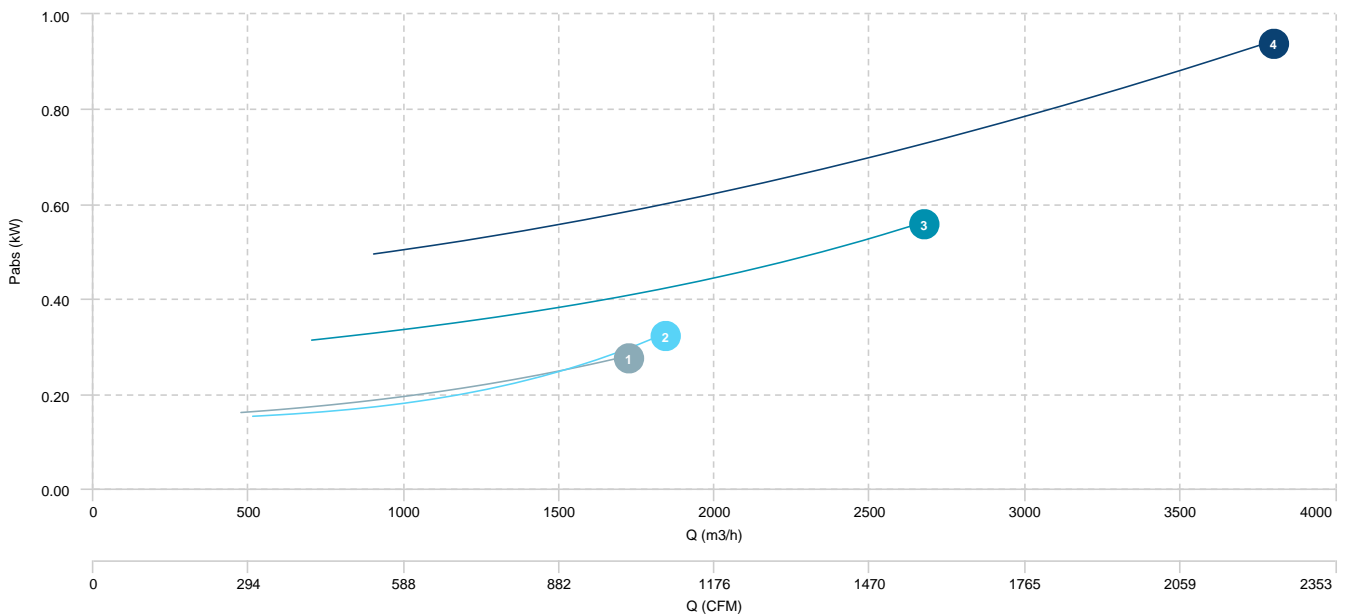
CHARACTERISTIC CURVE

- 1 BOX BD CA 7/7 M4 0,12kW
- 2 BOX BD CA 7/7 M4 0,13kW
- 3 BOX BD CA 9/9 M4 0,35kW
- 4 BOX BD CA 10/10 M4 0,59kW

AIR FLOW - PRESSURE

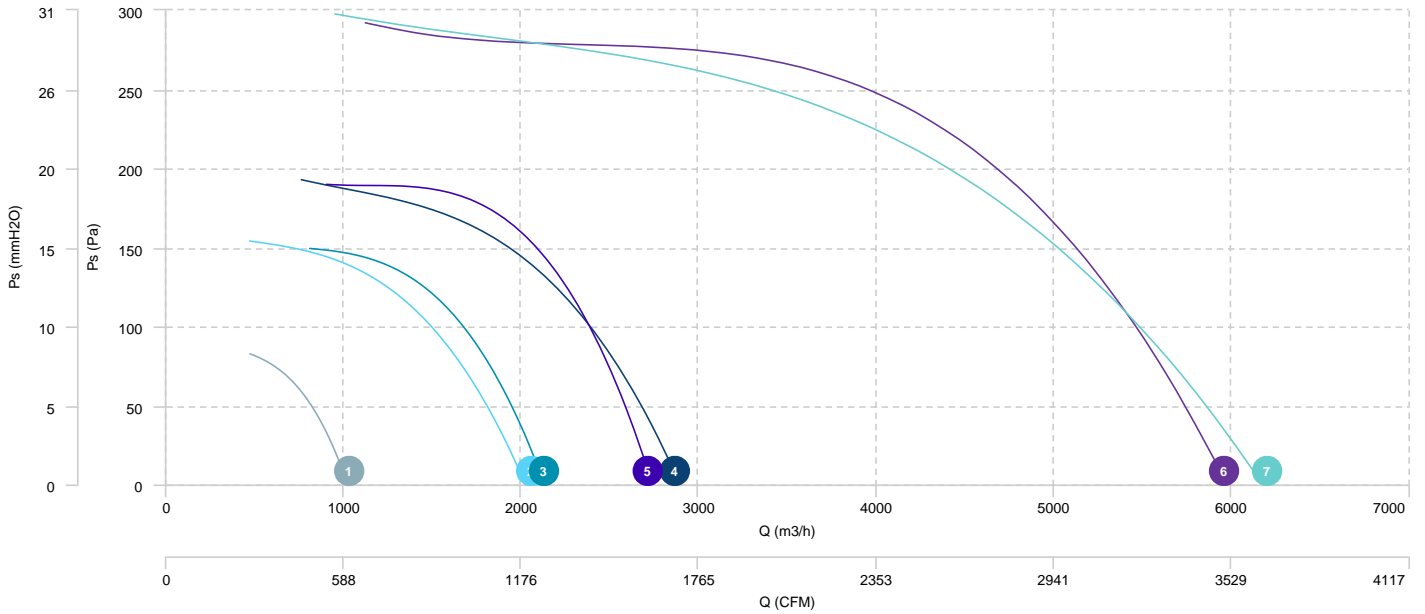


AIR FLOW - ABSORBED POWER

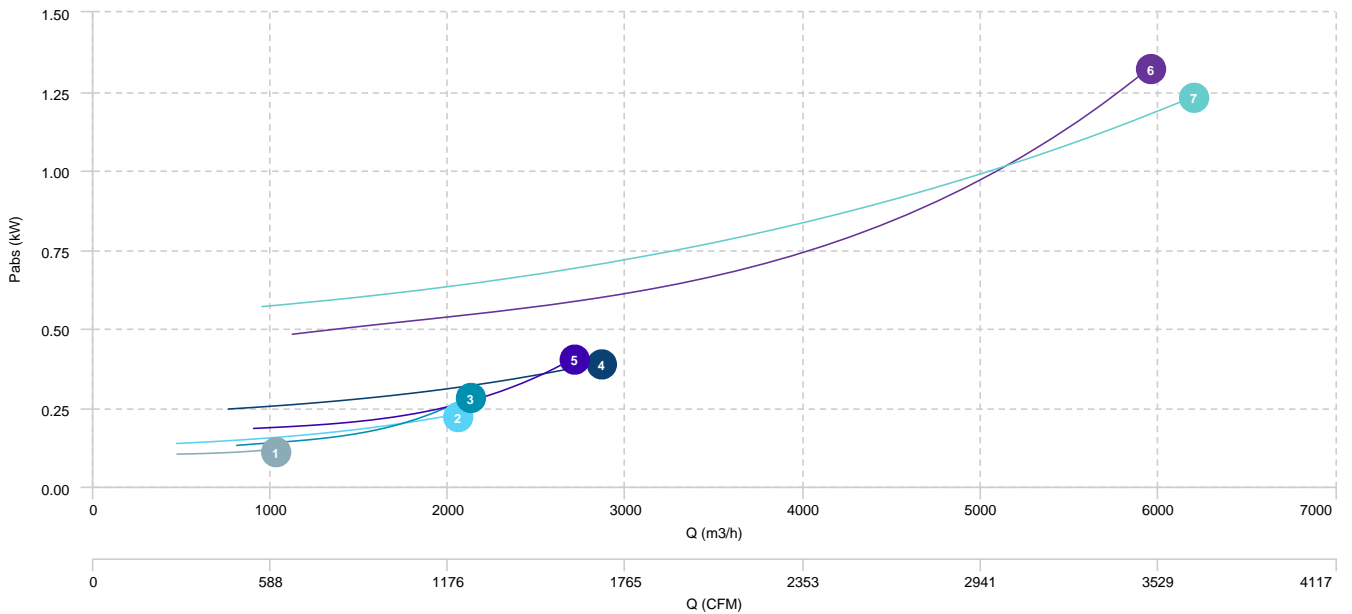


1	BOX BD CA 7/7 M6 0,04kW	2	BOX BD CA 9/9 M6 0,12kW	3	BOX BD CA 9/9 M6 0,13kW	4	BOX BD CA 10/10 M6 0, 19kW
5	BOX BD CA 10/10 M6 0, 21kW	6	BOX BD CA 12/12 M6 0, 76kW	7	BOX BD CA 12/12 M6 0, 79kW		

AIR FLOW - PRESSURE

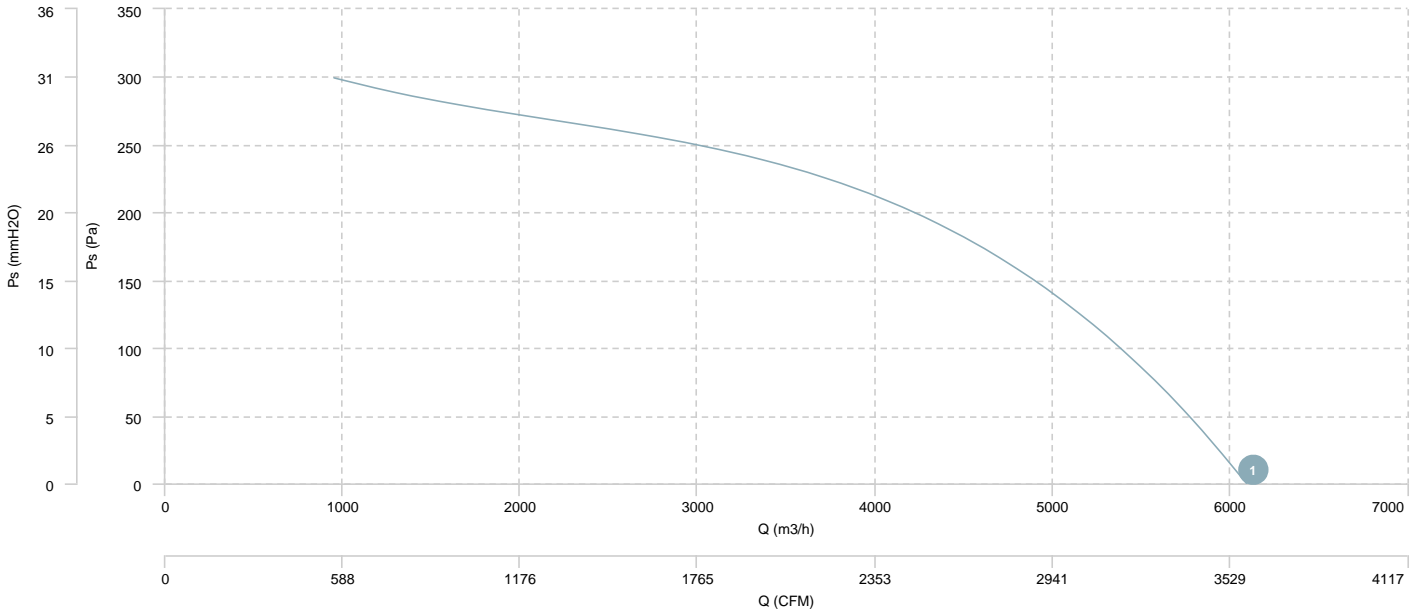


AIR FLOW - ABSORBED POWER

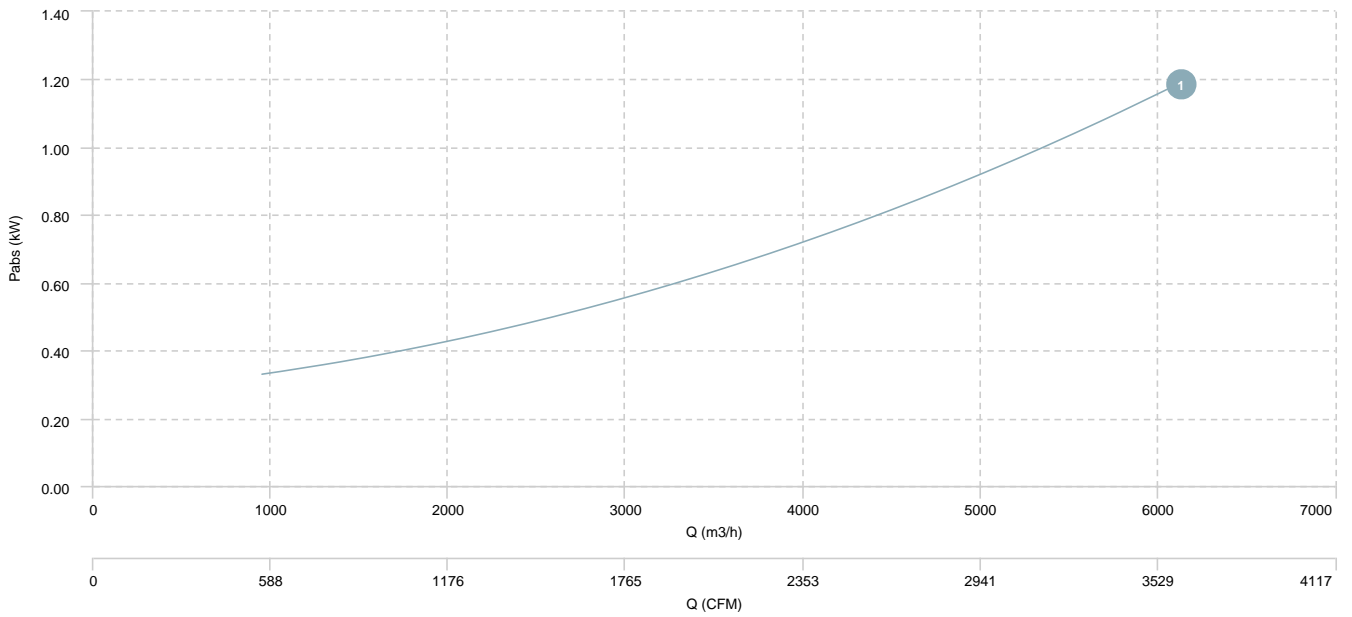


1 BOX BD CA 12/12 T6 1,1kW

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 CA 7/7 M4 0,12kW	Inlet	55	57	65	67	71	71	66	57	76
BOX BD CA 7/7 M4 0,13kW	Inlet	60	62	71	73	77	76	72	62	81
BOX BD CA 9/9 M4 0,35kW	Inlet	62	64	73	75	79	78	74	64	83
BOX BD CA 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 CA 7/7 M6 0,04kW	Inlet	45	47	56	58	62	61	57	47	66
BOX BD CA 9/9 M6 0,12kW	Inlet	55	57	65	67	71	70	66	57	76
BOX BD CA 9/9 M6 0,13kW	Inlet	54	56	65	67	71	70	66	56	75
BOX BD CA 10/10 M6 0,19kW	Inlet	61	63	71	73	77	76	72	63	82
BOX BD CA 10/10 M6 0,21kW	Inlet	58	60	69	70	74	74	69	60	79
BOX BD CA 12/12 M6 0,76kW	Inlet	61	63	72	73	77	77	72	63	82
BOX BD CA 12/12 M6 0,79kW	Inlet	68	70	78	80	84	83	79	70	89
BOX BD CA 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 / 4 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 CA 7/7 M4 0,12kW	0,12	26,10	36,92	998,80	204,21	0,19	1370	1,00
BOX BD CA 7/7 M4 0,13kW	0,13	32,01	42,90	1.104,78	204,54	0,19	1370	1,00
BOX BD CA 9/9 M4 0,35kW	0,35	33,71	42,45	1.790,28	283,45	0,42	1375	1,00
BOX BD CA 10/10 M4 0,59kW	0,59	36,49	43,84	2.454,37	370,83	0,69	1340	1,00

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 CA 9/9 M6 0,12kW	0,12	26,09	37,36	1.219,44	126,97	0,17	925	1,00
BOX BD CA 9/9 M6 0,13kW	0,13	31,01	42,54	1.243,12	138,90	0,15	940	1,00
BOX BD CA 10/10 M6 0,19kW	0,19	26,64	36,34	1.754,04	161,86	0,29	880	1,00
BOX BD CA 10/10 M6 0,21kW	0,21	36,51	46,97	1.713,03	180,33	0,22	945	1,00
BOX BD CA 12/12 M6 0,76kW	0,76	36,78	44,24	3.479,52	266,56	0,66	950	1,00
BOX BD CA 12/12 M6 0,79kW	0,79	30,72	37,75	3.508,27	246,14	0,77	945	1,00
BOX BD CA 12/12 T6 1,1kW	1,10	37,19	45,24	2.847,62	253,74	0,53	945	1,00