

BD



FAN DOUBLE INLET

MANUFACTURING FEATURES:

- Galvanised steel sheet housing.
- Polyamide impeller reinforced with fibreglass in models 7/7, 9/9, 10/10 and 12/12. The impeller of the rest of models are made of galvanised steel sheet.
- Double inlet forward curved impeller in all models.
- Supplied with mounting feet (included in price). Except 15/15 which is a cubic model.
- Exclusive system Casals fixing motor and impeller fan by flexible arms silent blocks to avoid any vibration. Arms in compliance with ROHS regulations 2002/95 / EC (Restriction of Hazardous Substances in electrical and electronic equipment)
- Closed motors specially designed Casals: extruded aluminum housing, all protected inside the terminal box on the motor IP 65 protection and motor with IP54 protection and Class F insulation standard voltages: 230V 50Hz in single phase and 230/400V 50Hz three-phase.
- Single phase motors with controllable voltage speed. Three phase motors controllable using a frequency speed controller

APPLICATIONS:

Designed for assembly in equipment:

- Ventilation boxes and air handling units.
- Centrifugal heaters.
- Industrial and professional kitchen hoods. Use in supply or extraction with prior fat filtering.
- Maximum working temperature: 50°C for single phase motors and 60°C for three phase motors.

UNDER REQUEST

- Impeller made of galvanized steel sheet.
- MBI assembled

Accessories



INT



MBI



RA



REG



REGD



RI



RM



SFC

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
251100261	BD 7/7 M4 0,13kW	1370	1,55	0,13	1.940	58	9	1
251270260	BD 9/7 M4 0,35kW	1375	2,7	0,35	2.540	59	15	1
251220260	BD 9/9 M4 0,35kW	1375	2,7	0,35	2.820	60	12	1
251340260	BD 10/8 M4 0,59kW	1340	4,5	0,59	3.440	62	22	1
251320260	BD 10/10 M4 0,59kW	1340	4,5	0,59	4.010	63	22	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
251160260	BD 7/7 M6 0,04kW	885	0,6	0,04	1.080	43	9	1
251260261	BD 9/7 M6 0,13kW	940	1,3	0,13	2.060	49	14	1
251280261	BD 9/9 M6 0,13kW	940	1,3	0,13	2.250	52	15	1
251330261	BD 10/8 M6 0,21kW	945	2,1	0,21	2.630	55	17	1
251370261	BD 10/10 M6 0,21kW	945	2,1	0,21	2.870	56	15,50	1
251600261	BD 12/9 M6 0,76kW	950	6,7	0,76	5.840	58	21	1
251520261	BD 12/12 M6 0,76kW	950	6,7	0,76	6.280	59	27	1

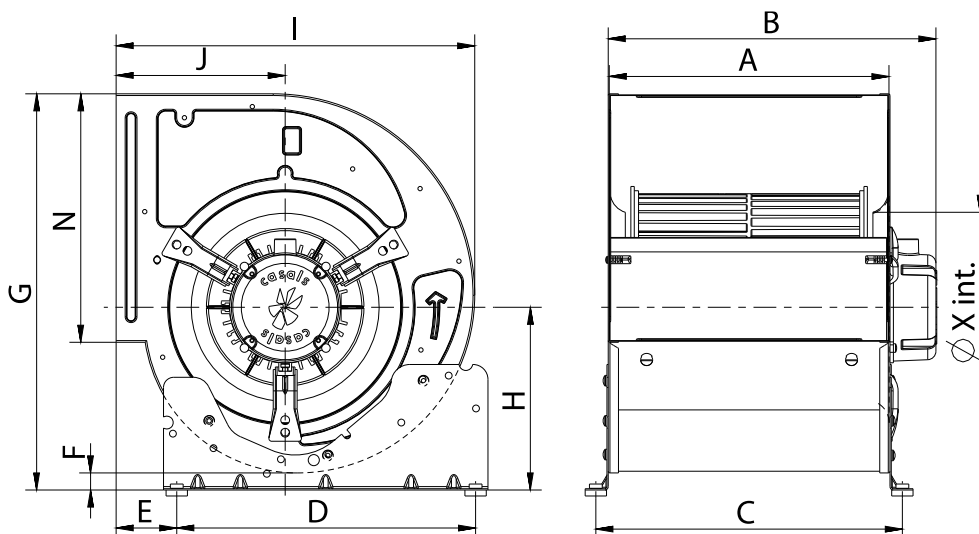
Three-phase motor / 6 poles

Code	Model	R.P.M.	Rated I. A		Rated power kW	Max. Airflow m³/h	Sound db (A)**	Weight kg	Connect. diagram
			230V	400V					
251600161	BD 12/9 T6 1,1kW	945	6,54	3,78	1,10	5.780	58	26	2
251520160	BD 12/12 T6 1,1kW	945	6,54	3,78	1,10	6.450	58	27	2
252370106	BD 15/15 T6 2,2kW	900	10,92	6,31	2,20	10.600	63	57	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

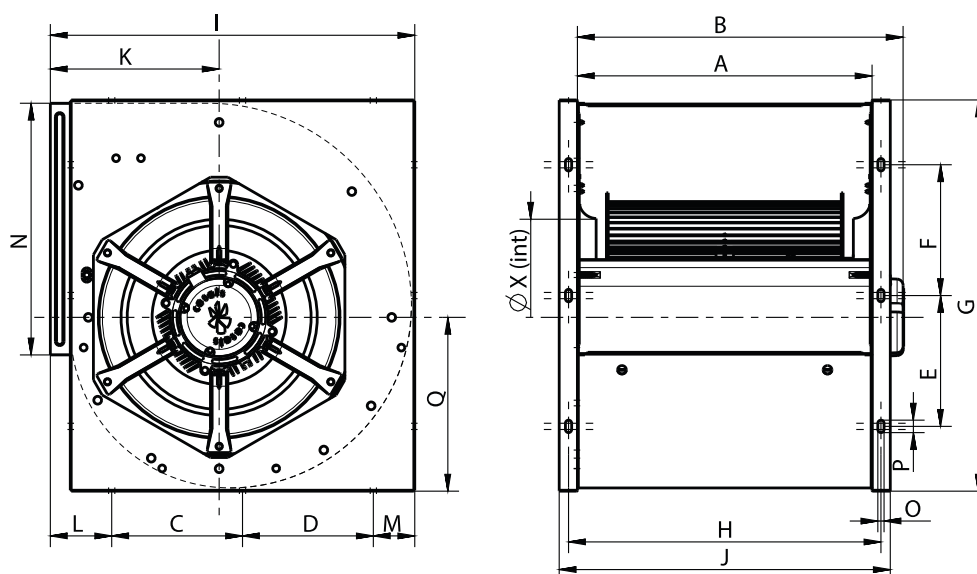
Dimensions



Model	A	B màx	C	D	E	F	G	H	I
BD 7/7 M4 0,13kW	230	302	259	245	48,5	9,5	337	150	316
BD 7/7 M6 0,04kW	230	277	259	245	48,5	9,5	337	150	316
BD 9/7 M4 0,35kW	233	287	262	245	70	19	407	191	376
BD 9/7 M6 0,13kW	233	284	262	245	70	19	407	191	376
BD 9/9 M4 0,35kW	301	354,5	330	245	70	19	407	191	376
BD 9/9 M6 0,13kW	301	352	330	245	70	19	407	191	376
BD 10/8 M4 0,59kW	265	339	294	350	70,5	20	464	214	420
BD 10/8 M6 0,21kW	265	333	294	350	70,5	20	464	214	420
BD 10/10 M4 0,59kW	329	384	359	350	70,5	20	464	214	420
BD 10/10 M6 0,21kW	329	384	359	350	70,5	20	464	214	420
BD 12/9 M6 0,76kW	310	380	339	350	77	17	536	244	490
BD 12/9 T6 1,1kW	310	380	339	350	77	17	536	244	490
BD 12/12 M6 0,76kW	396	437	425	350	77	17	536	244	490
BD 12/12 T6 1,1kW	396	437	425	350	77	17	536	244	490

Model	J	N	X
BD 7/7 M4 0,13kW	153	208	158
BD 7/7 M6 0,04kW	153	208	158
BD 9/7 M4 0,35kW	184	260	202
BD 9/7 M6 0,13kW	184	260	202
BD 9/9 M4 0,35kW	184	260	202
BD 9/9 M6 0,13kW	184	260	202
BD 10/8 M4 0,59kW	198	291	220
BD 10/8 M6 0,21kW	198	291	220

Model	J	N	X
BD 10/10 M4 0,59kW	198	291	220
BD 10/10 M6 0,21kW	198	291	220
BD 12/9 M6 0,76kW	230	343,5	260
BD 12/9 T6 1,1kW	230	343,5	260
BD 12/12 M6 0,76kW	230	343,5	260
BD 12/12 T6 1,1kW	230	343,5	260



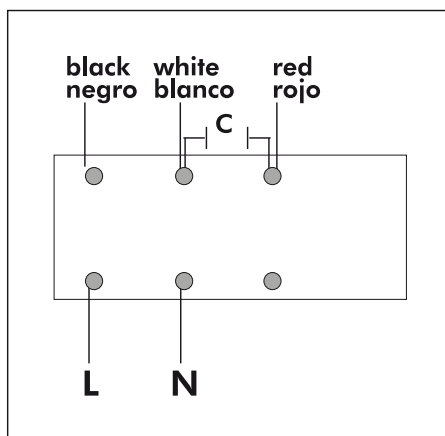
Model	A	B	C	D	E	F	G	H	I
BD 15/15 T6 2,2kW	473	522,8	210	210	210	210	628	501,5	585

Model	J	K	L	M	N	O	P	Q	X
BD 15/15 T6 2,2kW	531,5	271	98,5	66,5	404	10	20	279	315

Wiring diagram

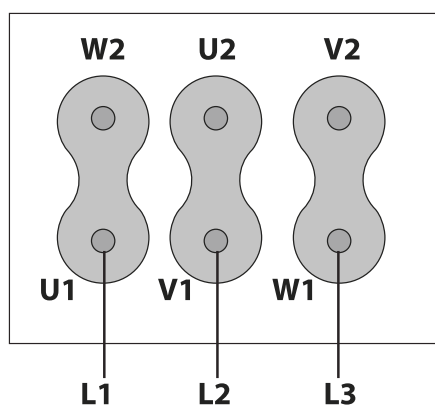
Wiring diagram Nº 1

SINGLE PHASE MOTOR MOTOR MONOFÁSICO

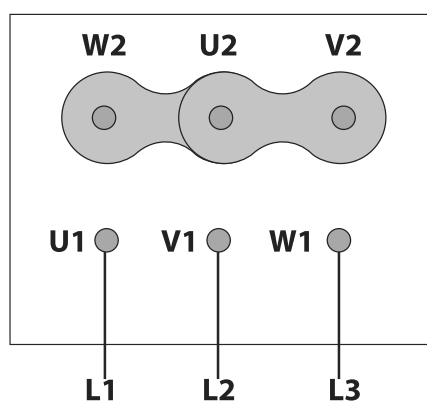


Wiring diagram Nº 2

230V 



400V 



CHARACTERISTIC CURVE

1 BD 7/7 M4 0,13kW

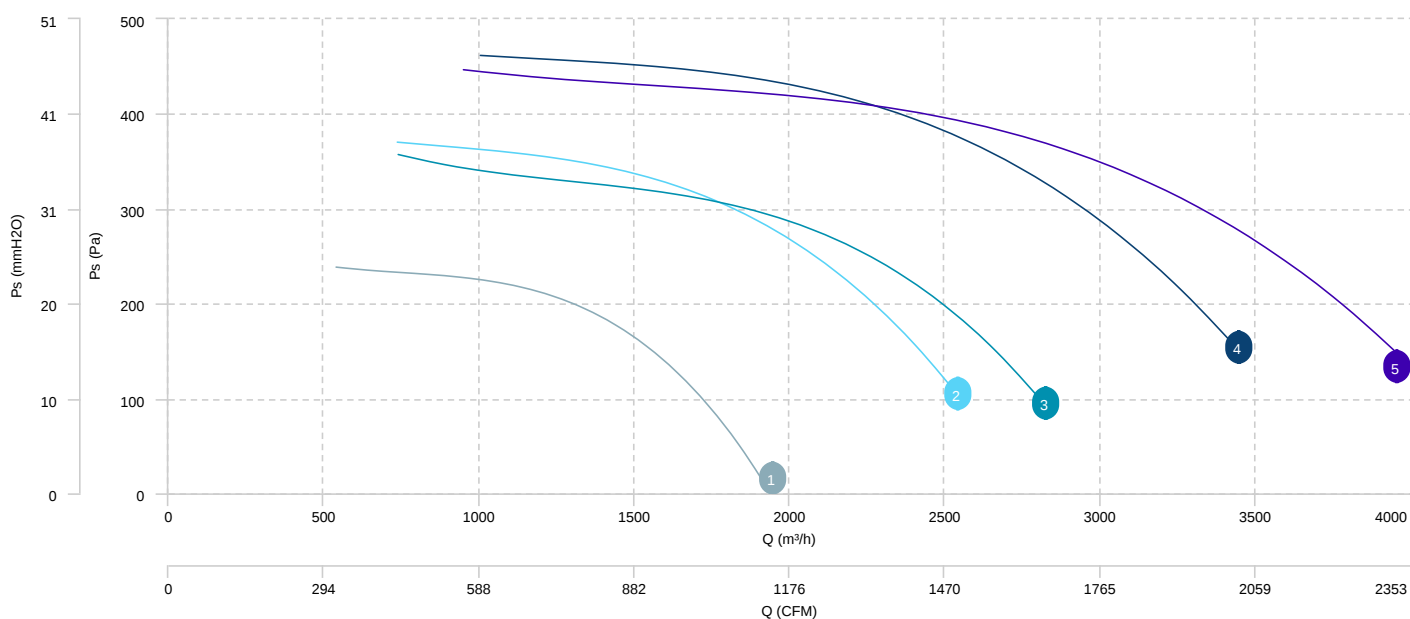
2 BD 9/7 M4 0,35kW

3 BD 9/9 M4 0,35kW

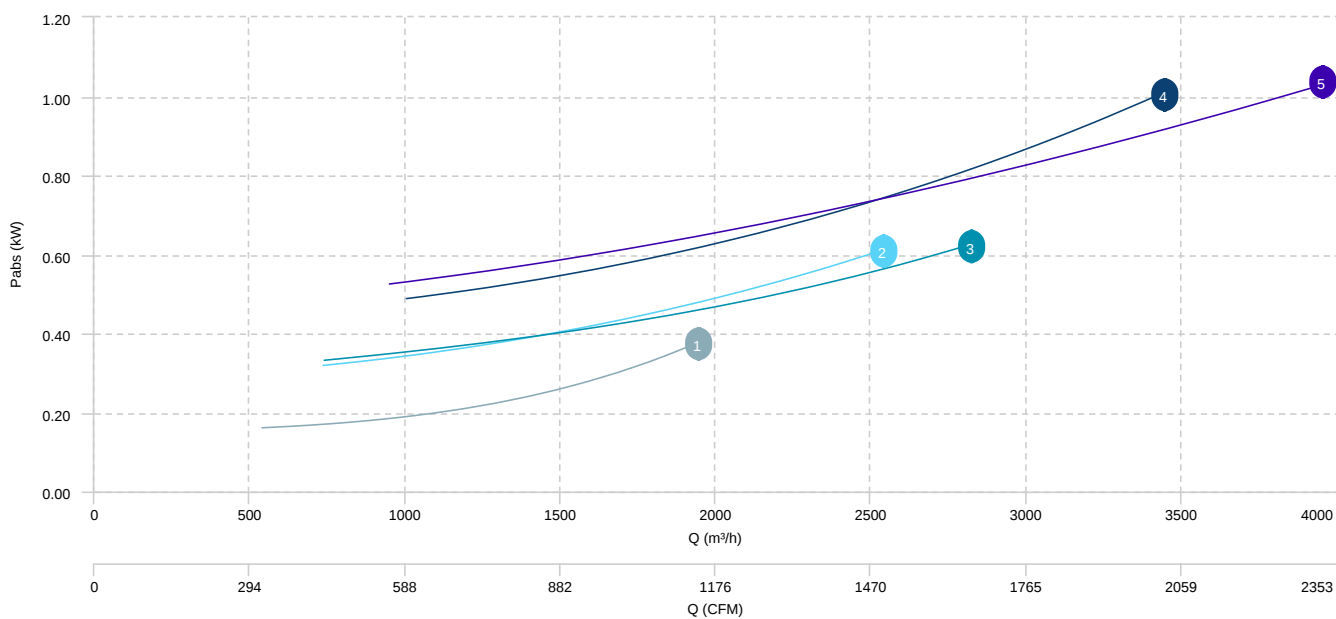
4 BD 10/8 M4 0,59kW

5 BD 10/10 M4 0,59kW

AIR FLOW - PRESSURE

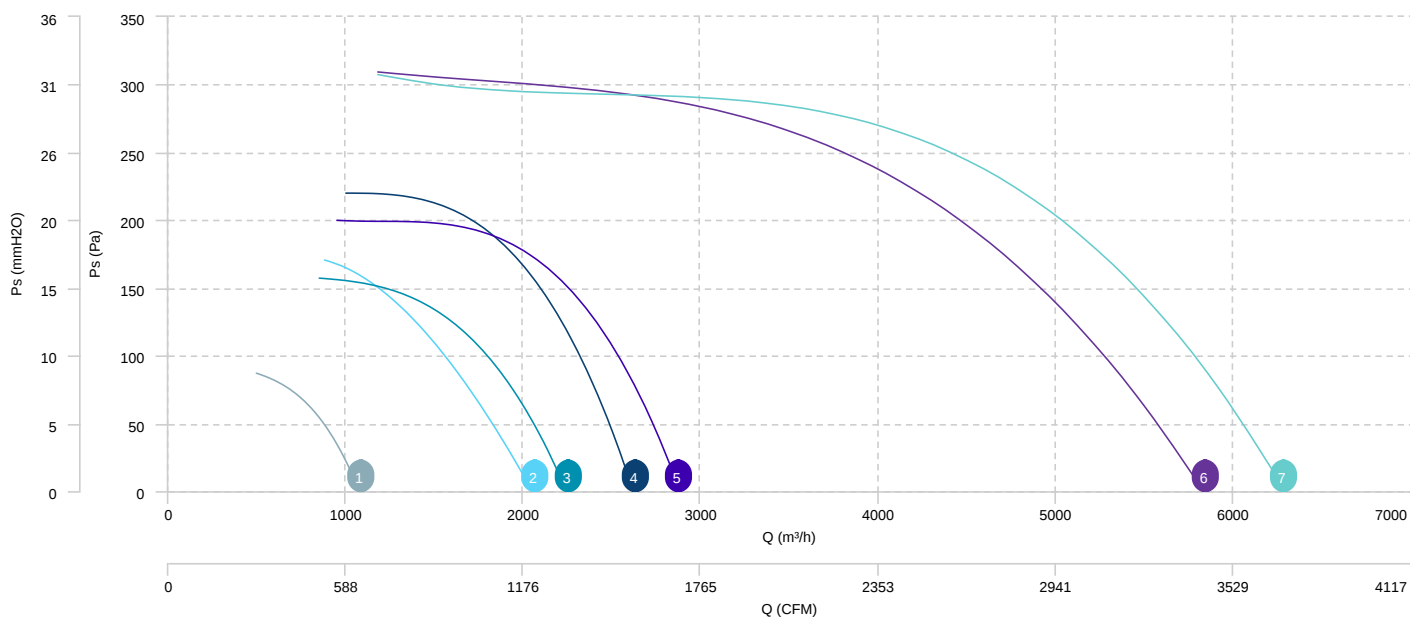


AIR FLOW - ABSORBED POWER

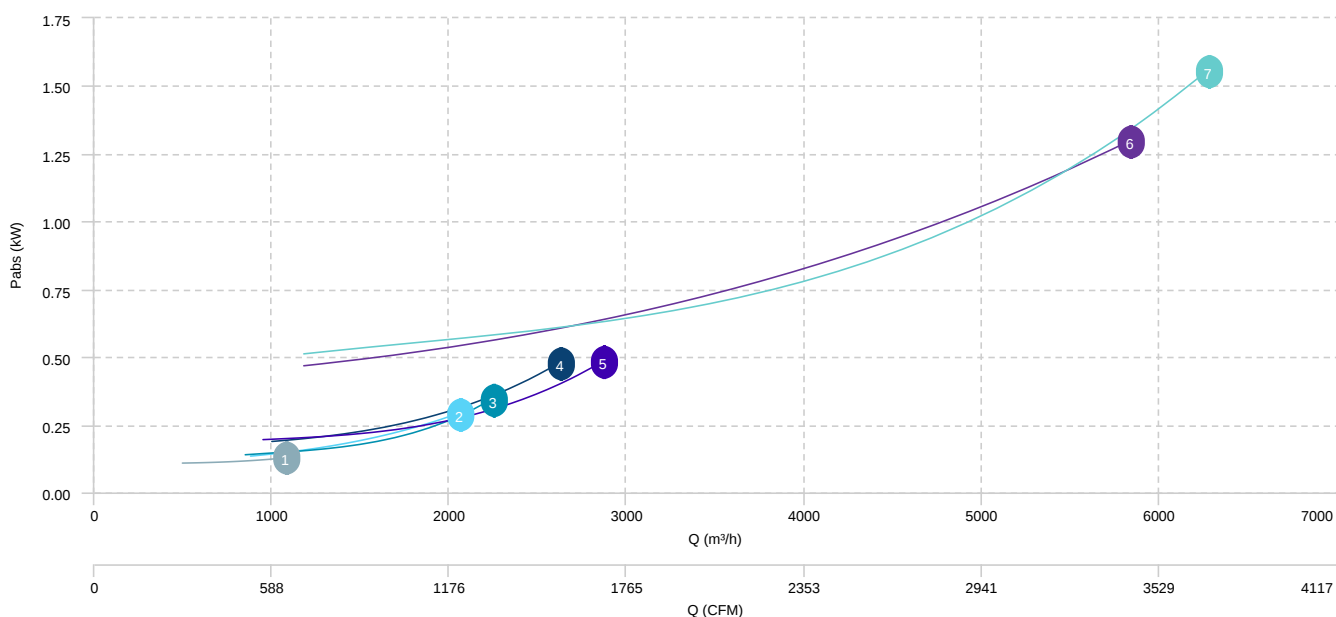


1	BD 7/7 M6 0,04kW	2	BD 9/7 M6 0,13kW	3	BD 9/9 M6 0,13kW	4	BD 10/8 M6 0,21kW
5	BD 10/10 M6 0,21kW	6	BD 12/9 M6 0,76kW	7	BD 12/12 M6 0,76kW		

AIR FLOW - PRESSURE



AIR FLOW - ABSORBED POWER

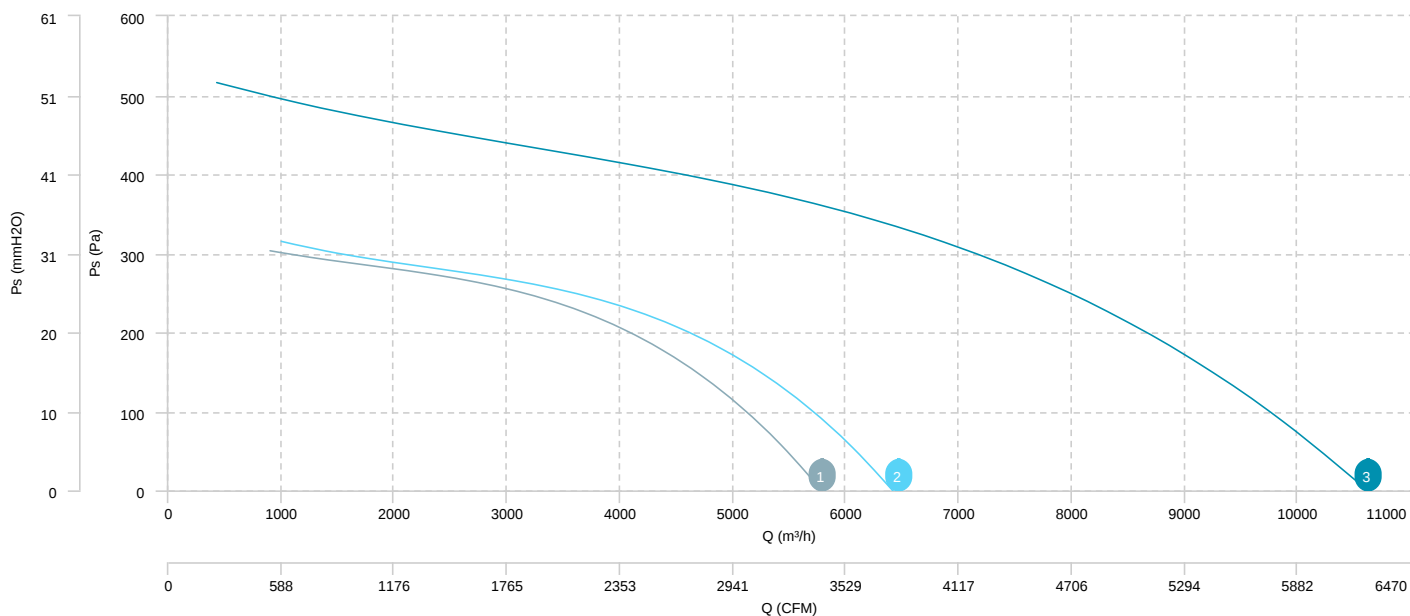


1 BD 12/9 T6 1,1kW

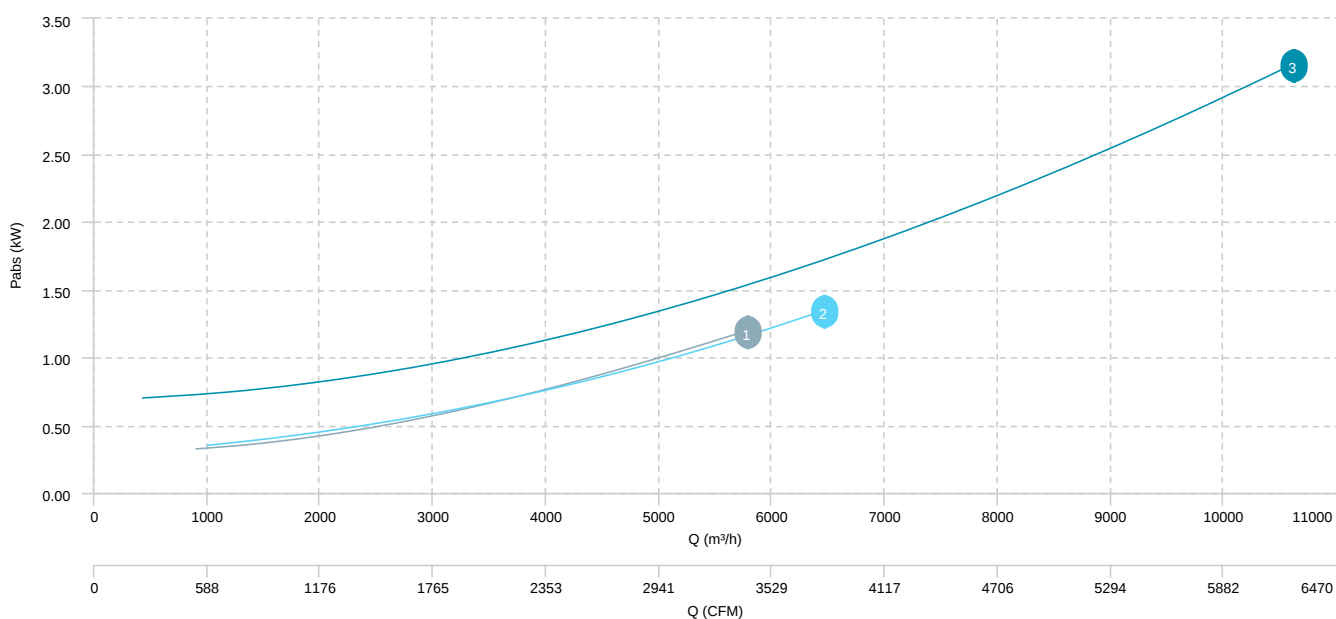
2 BD 12/12 T6 1,1kW

3 BD 15/15 T6 2,2kW

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
BD 7/7 M4 0,13kW	Inlet	63	65	74	76	80	79	75	65	84
BD 9/7 M4 0,35kW	Inlet	64	66	75	77	81	80	76	66	85
BD 9/9 M4 0,35kW	Inlet	65	67	76	78	82	81	77	67	86
BD 10/8 M4 0,59kW	Inlet	67	69	78	80	84	83	79	69	88
BD 10/10 M4 0,59kW	Inlet	68	70	79	81	85	84	80	70	89

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
BD 7/7 M6 0,04kW	Inlet	48	50	59	61	65	64	60	50	69
BD 9/7 M6 0,13kW	Inlet	54	56	65	67	71	70	66	56	75
BD 9/9 M6 0,13kW	Inlet	57	59	68	70	74	73	69	59	78
BD 10/8 M6 0,21kW	Inlet	60	62	71	73	77	76	72	62	81
BD 10/10 M6 0,21kW	Inlet	61	63	72	73	77	77	72	63	82
BD 12/9 M6 0,76kW	Inlet	63	65	74	76	80	79	75	65	84
BD 12/9 T6 1,1kW	Inlet	63	65	74	76	80	79	75	65	84
BD 12/12 M6 0,76kW	Inlet	64	66	75	76	80	80	75	66	85
BD 12/12 T6 1,1kW	Inlet	63	65	74	76	80	79	75	65	84
BD 15/15 T6 2,2kW	Inlet	68	70	79	81	85	84	80	70	89

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
BD 7/7 M4 0,13kW	0,13	33,70	44,44	1.104,78	219,73	0,20	1370	1,00
BD 9/7 M4 0,35kW	0,35	35,36	44,16	1.515,85	336,02	0,41	1375	1,00
BD 9/9 M4 0,35kW	0,35	35,49	44,08	1.790,28	305,88	0,44	1375	1,00
BD 10/8 M4 0,59kW	0,59	38,80	46,35	2.064,92	426,79	0,64	1340	1,00
BD 10/10 M4 0,59kW	0,59	38,41	45,62	2.454,37	399,11	0,73	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
BD 9/7 M6 0,13kW	0,13	32,72	44,38	1.012,63	164,08	0,14	940	1,00
BD 9/9 M6 0,13kW	0,13	32,64	44,03	1.243,12	149,05	0,16	940	1,00
BD 10/8 M6 0,21kW	0,21	38,67	49,11	1.481,15	213,49	0,22	945	1,00
BD 10/10 M6 0,21kW	0,21	38,43	48,75	1.713,03	193,37	0,23	945	1,00
BD 12/9 M6 0,76kW	0,76	36,56	44,03	3.017,28	283,33	0,66	950	1,00
BD 12/9 T6 1,1kW	1,1	39,31	47,52	2.597,40	267,04	0,50	945	1,00
BD 12/12 M6 0,76kW	0,76	38,72	46,03	3.479,52	284,56	0,70	950	1,00
BD 12/12 T6 1,1kW	1,1	39,95	47,86	2.847,69	270,65	0,56	945	1,00
BD 15/15 T6 2,2kW	2,20	42,37	48,18	4.414,47	403,80	1,21	900	1,00