

BOX BD



CENTRIFUGAL IN SOUNDPROOF CABINET

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 pannel.
- 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 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.

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:

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

Accessories



BAC



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
251100551	BOX BD 7/7 M4 0,13kW	1370	1,55	0,13	1.850	55	19	1
251220550	BOX BD 9/9 M4 0,35kW	1375	2,7	0,35	2.680	57	30	1
251320550	BOX BD 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
251160550	BOX BD 7/7 M6 0,04kW	885	0,6	0,04	1.030	40	20	1
251280551	BOX BD 9/9 M6 0,13kW	940	1,3	0,13	2.130	49	28	1
251370551	BOX BD 10/10 M6 0,21kW	945	2,1	0,21	2.720	53	34	1
251520551	BOX BD 12/12 M6 0,76kW	950	6,7	0,76	5.970	56	49	1

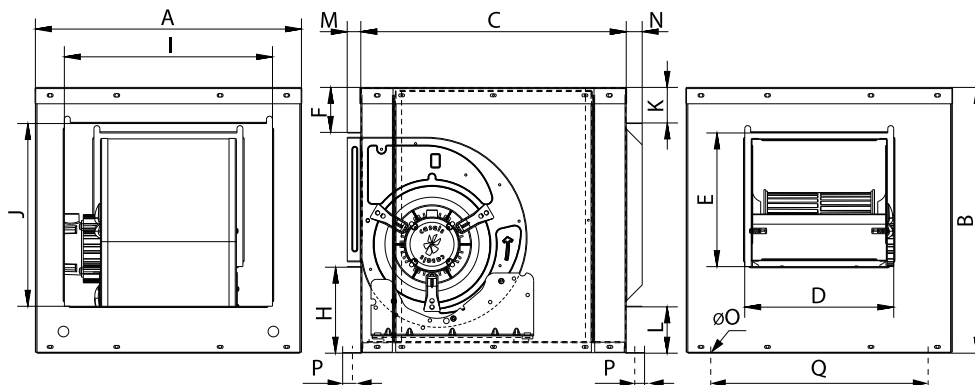
Three-phase motor / 6 poles

Code	Model	R.P.M.	Rated I. A		Rated power kW	Max. Airflow m³/h	Sound db (A)**	Weight kg	Connect. diagram
			230V	400V					
251520153	BOX BD 12/12 T6 1,1kW	945	6,54	3,78	1,10	6.100	55	51	2
252370157	BOX BD 15/15 T6 2,2kW	900	10,92	6,31	2,20	10.460	60	71	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



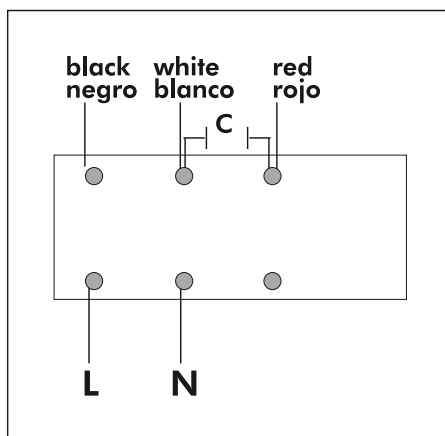
Model	A	B	C	D	E	F	H	I	J
BOX BD 7/7 M4 0,13kW	450	450	450	242	216	81	150	352	309
BOX BD 7/7 M6 0,04kW	450	450	450	242	216	81	150	352	309
BOX BD 9/9 M4 0,35kW	535	535	535	311	268	96	169	418	359
BOX BD 9/9 M6 0,13kW	535	535	535	311	268	96	169	418	359
BOX BD 10/10 M4 0,59kW	580	580	580	342	298	84	195	493	421
BOX BD 10/10 M6 0,21kW	580	580	580	342	298	84	195	493	421
BOX BD 12/12 M6 0,76kW	650	650	650	408	349	83	216	576	500
BOX BD 12/12 T6 1,1kW	650	650	650	408	349	83	216	576	500
BOX BD 15/15 T6 2,2kW	775	775	775	483	411	118	244	650	650

Model	K	L	M	N	O	P	Q
BOX BD 7/7 M4 0,13kW	60	78	23	27	10	17	393,5
BOX BD 7/7 M6 0,04kW	60	78	23	27	10	17	393,5
BOX BD 9/9 M4 0,35kW	78	96	23	27	10	17	478,5
BOX BD 9/9 M6 0,13kW	78	96	23	27	10	17	478,5
BOX BD 10/10 M4 0,59kW	69	88	23	27	10	17	522,4
BOX BD 10/10 M6 0,21kW	69	88	23	27	10	17	522,4
BOX BD 12/12 M6 0,76kW	65	83	23	27	10	17	592,4
BOX BD 12/12 T6 1,1kW	65	83	23	27	10	17	592,4
BOX BD 15/15 T6 2,2kW	52	71	23	27	12	17	715,4

Wiring diagram

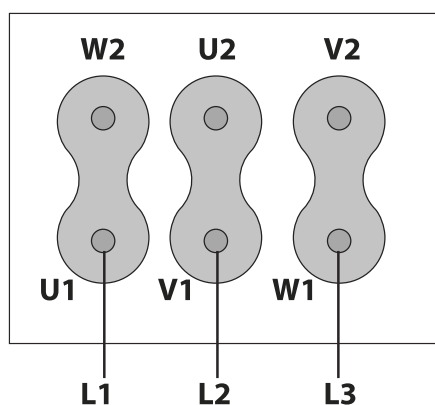
Wiring diagram Nº 1

SINGLE PHASE MOTOR MOTOR MONOFÁSICO

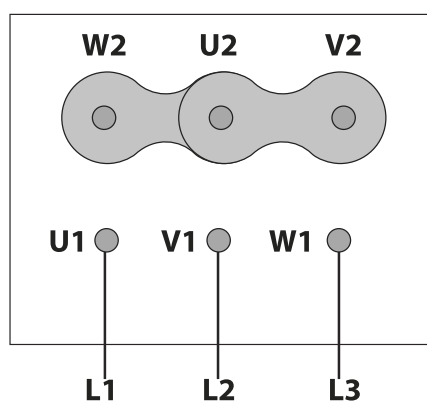


Wiring diagram Nº 2

230V 



400V 



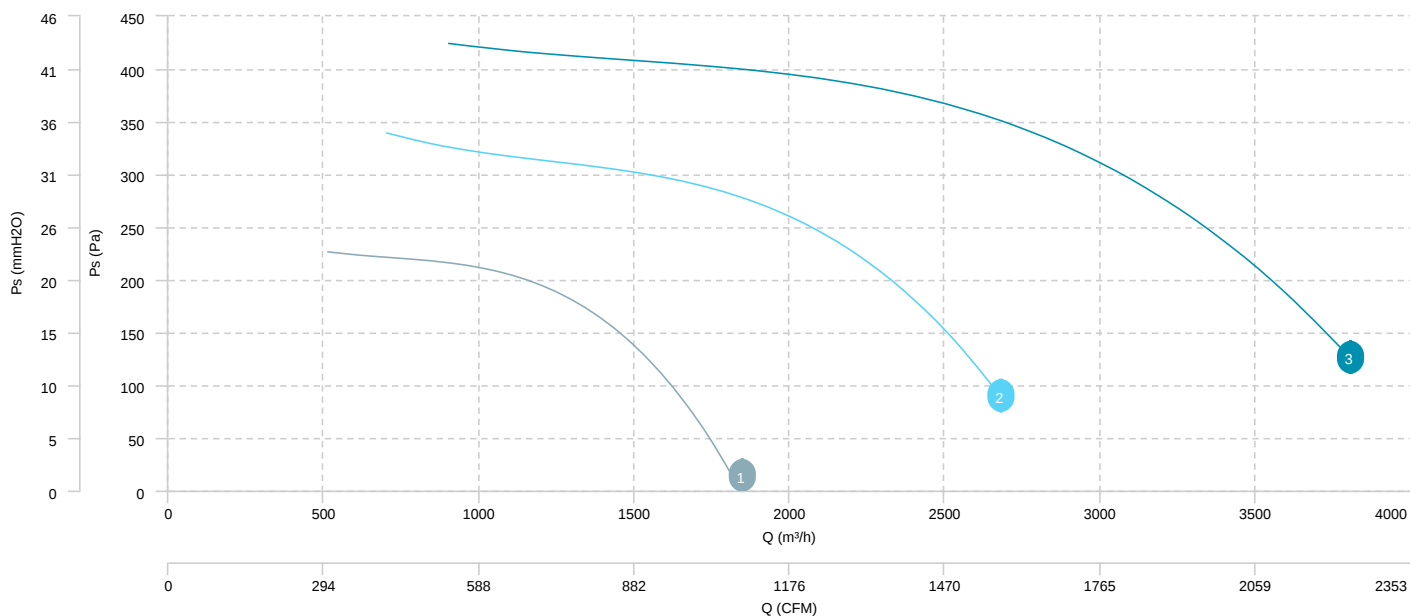
CHARACTERISCTIC CURVE

1 BOX BD 7/7 M4 0,13kW

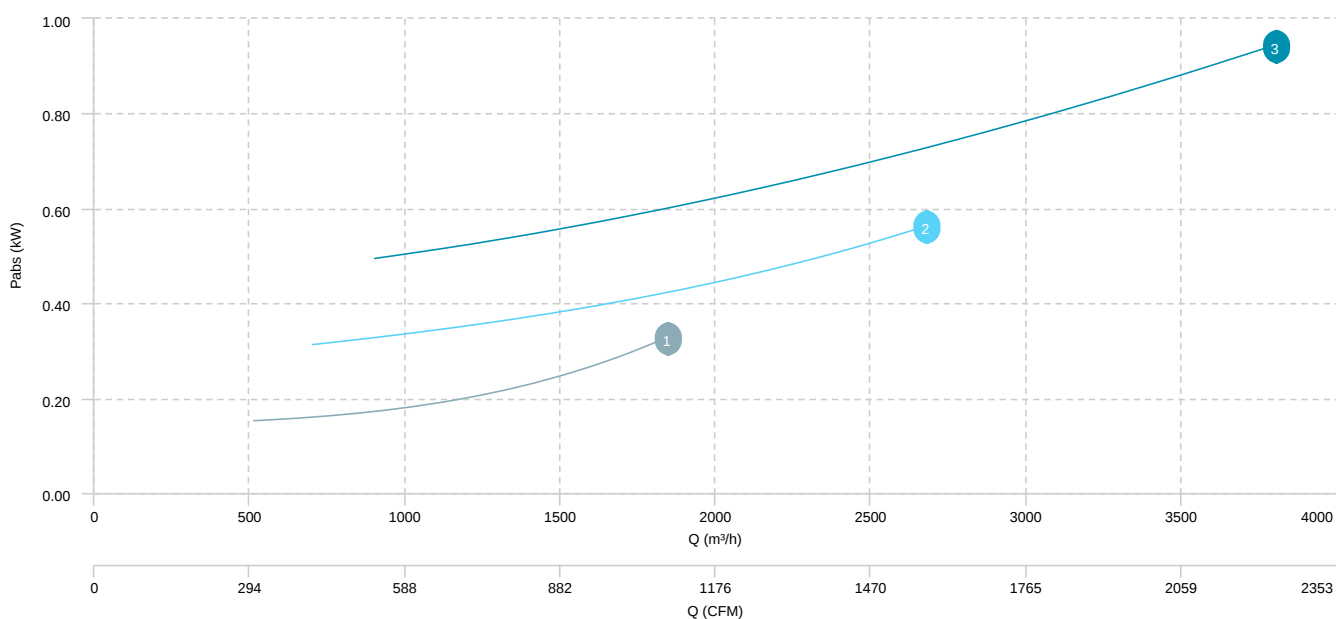
2 BOX BD 9/9 M4 0,35kW

3 BOX BD 10/10 M4 0,59kW

AIR FLOW - PRESSURE



AIR FLOW - ABSORBED POWER



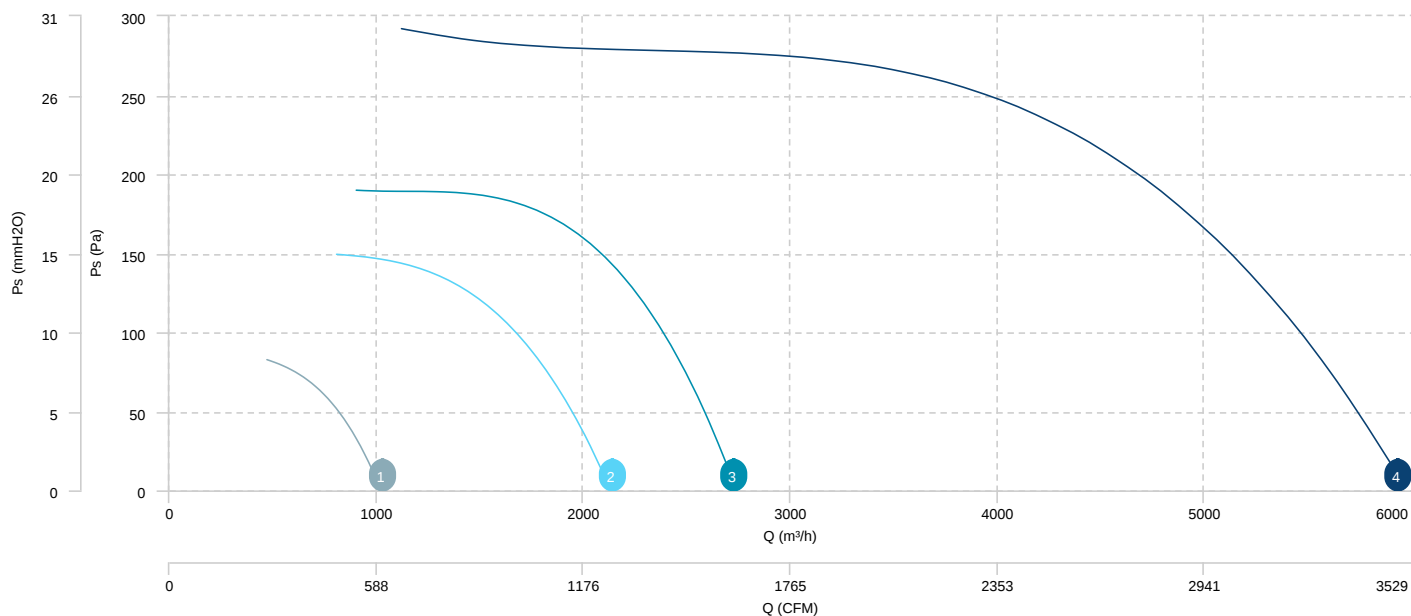
1 BOX BD 7/7 M6 0,04kW

2 BOX BD 9/9 M6 0,13kW

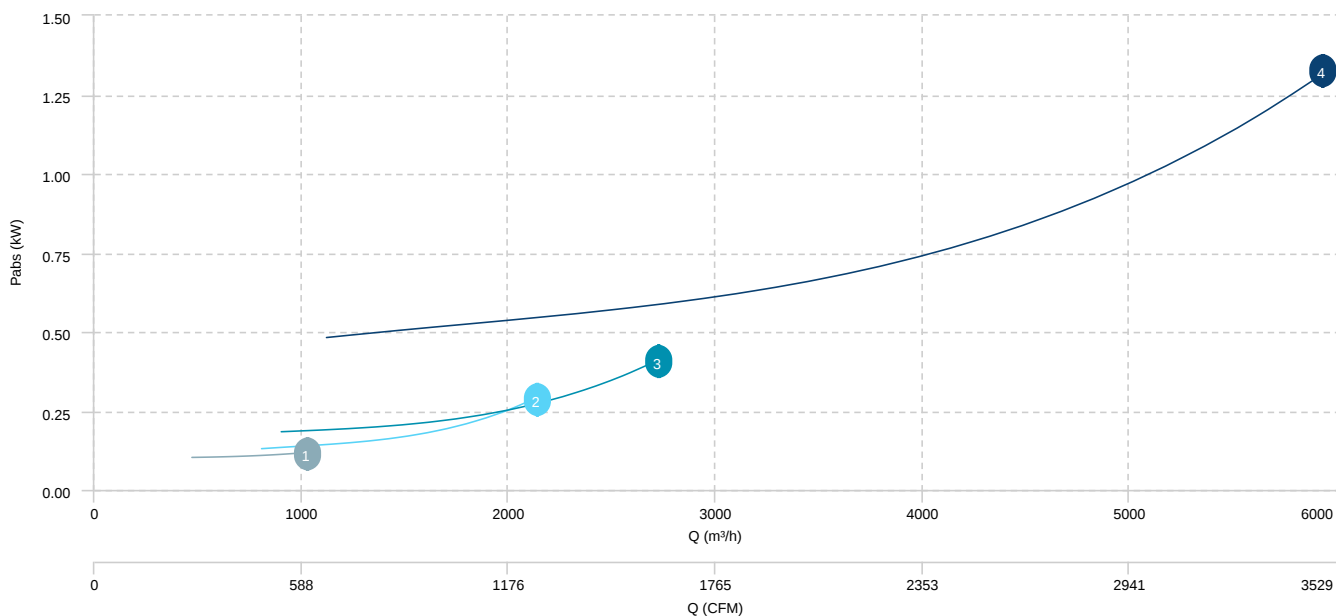
3 BOX BD 10/10 M6 0,21kW

4 BOX BD 12/12 M6 0,76kW

AIR FLOW - PRESSURE



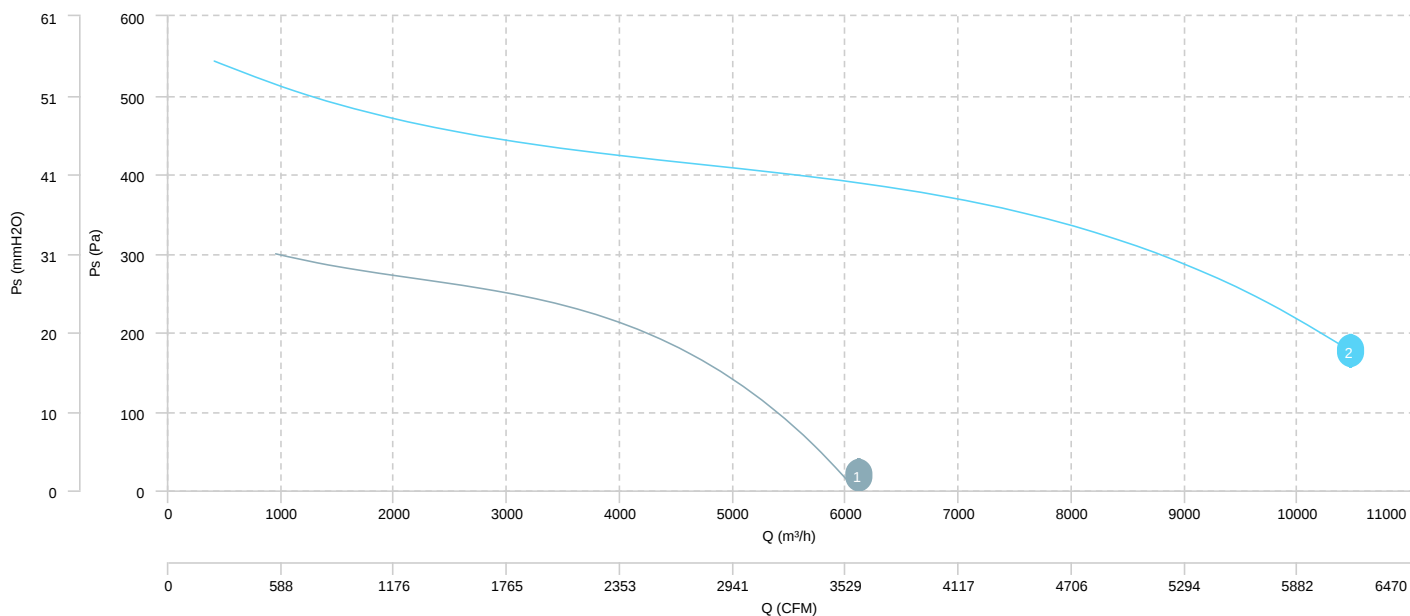
AIR FLOW - ABSORBED POWER



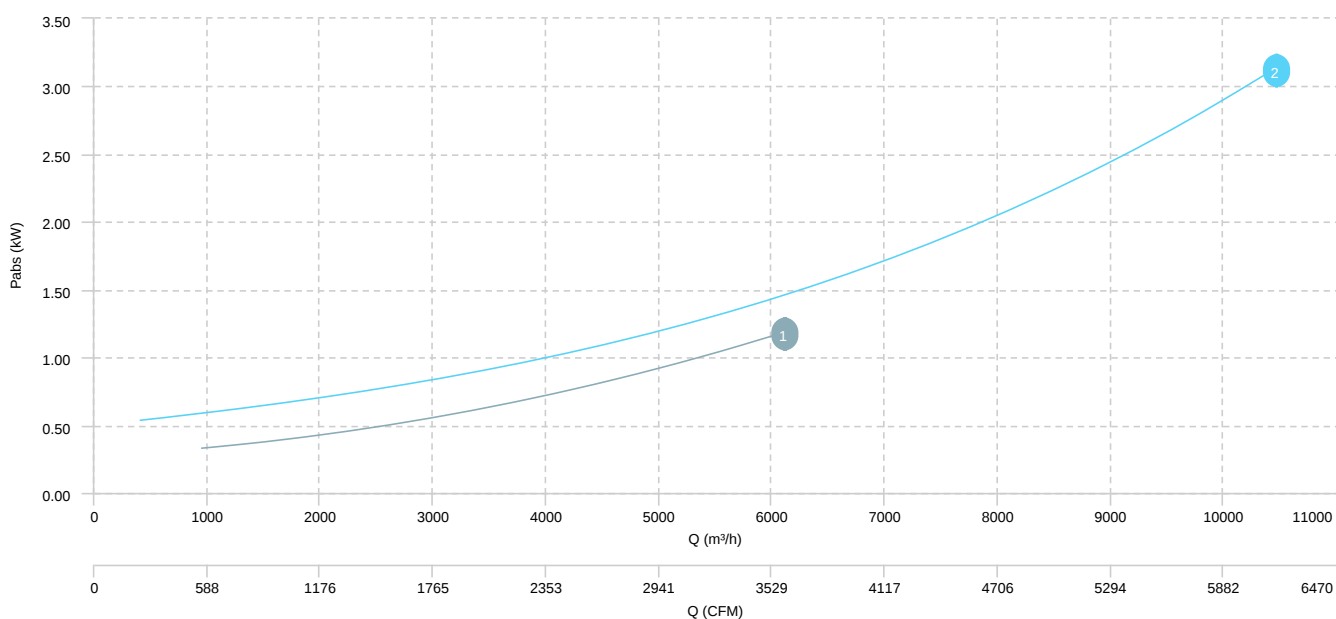
1 BOX BD 12/12 T6 1,1kW

2 BOX 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
BOX BD 7/7 M4 0,13kW	Inlet	60	62	71	73	77	76	72	62	81
BOX BD 9/9 M4 0,35kW	Inlet	62	64	73	75	79	78	74	64	83
BOX BD 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 7/7 M6 0,04kW	Inlet	45	47	56	58	62	61	57	47	66
BOX BD 9/9 M6 0,13kW	Inlet	54	56	65	67	71	70	66	56	75
BOX BD 10/10 M6 0,21kW	Inlet	58	60	69	70	74	74	69	60	79
BOX BD 12/12 M6 0,76kW	Inlet	61	63	72	73	77	77	72	63	82
BOX BD 12/12 T6 1,1kW	Inlet	60	62	71	73	77	76	72	62	81
BOX BD 15/15 T6 2,2kW	Inlet	65	67	76	78	82	81	77	67	86

erp data

ERP	
Fan type	Unit for non-residential ventilation (LOT 6)
Typology	Unidirectional
Others	None
Type of driver	-

ERP / 4 poles

		Maximum efficiency point data						
Model	Motor power (kW)	Eff.Heat recovery (%)	Max. efficiency (%)	Pabs (kW)	Air Flow (m³/h)	Ps (Pa)	Speed (m/s)	SFP (W/m³/s)
BOX BD 7/7 M4 0,13kW	0,13	-	32,01	0,19	1.104,78	204,54	5.3	618,38

ERP / 6 poles

		Maximum efficiency point data						
Model	Motor power (kW)	Eff.Heat recovery (%)	Max. efficiency (%)	Pabs (kW)	Air Flow (m³/h)	Ps (Pa)	Speed (m/s)	SFP (W/m³/s)
BOX BD 9/9 M6 0,13kW	0,13	-	31,01	0,15	1.243,12	138,90	3.82	433,15
BOX BD 10/10 M6 0,21kW	0,21	-	36,51	0,22	1.713,03	180,33	4.32	465,94
BOX BD 15/15 T6 2,2kW	2,20	-	46,74	1,18	4.932,80	409,21	6.54	861,45