

BOX RL PLUS EVO



VENTILATION BOX WITH BACKWARD TURBINE

MANUFACTURING FEATURES:

- Casing with profile structure made of aluminium 30mm, nylon corners, steel sandwich panel with inner rock wool insulation of 45mm thick and 90Kg/m³ density.
- Circular inlet for duct connection. Open square outlet.
- High efficiency backward impeller with self-cleaning system in steel sheet, balanced static and dynamically in origin.
- Standard asynchronous squirrel-cage motor with IP-55 protection and Class F insulation. Standard voltages 230V for single phase motors and 230/400V 50Hz for three phase motors .

APPLICATIONS:

Designed for inline installation, they are suitable for:

- Air renewal in buildings and industries.
- Smoke extraction.

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
247259103A25	BOX RL PLUS EVO 250 M4 0,37kW EEC	2000	-	0,37	1.650	44	-	1
247310103A25	BOX RL PLUS EVO 315 M4 0,18kW	1400	1,55	0,18	2.200	41	-	1
247319103A25	BOX RL PLUS EVO 315 M4 0,37kW EEC	1400	-	0,37	2.200	41	-	1
247350103A25	BOX RL PLUS EVO 355 M4 0,25kW	1390	1,93	0,25	3.350	45	-	1
247400103A25	BOX RL PLUS EVO 400 M4 0,55kW	1440	3,98	0,55	4.960	50	-	1
247450103A25	BOX RL PLUS EVO 450 M4 1,1kW	1450	7,45	1,10	7.310	54	-	1
247500103A25	BOX RL PLUS EVO 500 M4 1,5kW	1435	9,83	1,50	9.750	57	-	1

Three-phase motor / 4 poles

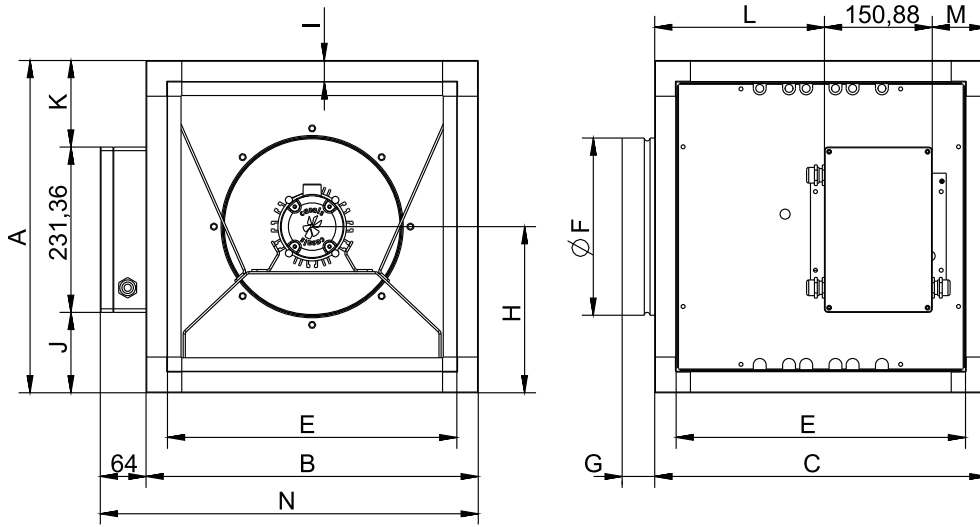
Code	Model	R.P.M.	Rated I. (A) 400V	Rated power kW	Max. Airflow m3/h	Sound db (A)**	Weight	Connect. diagram
247310106A25	BOX RL PLUS EVO 315 T4 0,18kW	1400	0,62	0,18	2.200	41	-	2
247350106A25	BOX RL PLUS EVO 355 T4 0,25kW	1390	0,79	0,25	3.350	45	-	2
247400106A25	BOX RL PLUS EVO 400 T4 0,55kW	1440	1,49	0,55	4.960	50	-	2
247450106A25	BOX RL PLUS EVO 450 T4 1,1kW	1450	2,49	1,10	7.310	54	-	2
247500106A25	BOX RL PLUS EVO 500 T4 1,5kW	1435	3,26	1,50	9.750	57	-	2
247560106A25	BOX RL PLUS EVO 560 T4 2,2kW	1440	4,64	2,20	12.650	59	-	2
247630106A25	BOX RL PLUS EVO 630 T4 4kW	1450	8,32	4	18.200	63	-	2

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
247720106A25	BOX RL PLUS EVO 710 T6 2,2kW	960	5,94	2,2	17.260	57	-	2

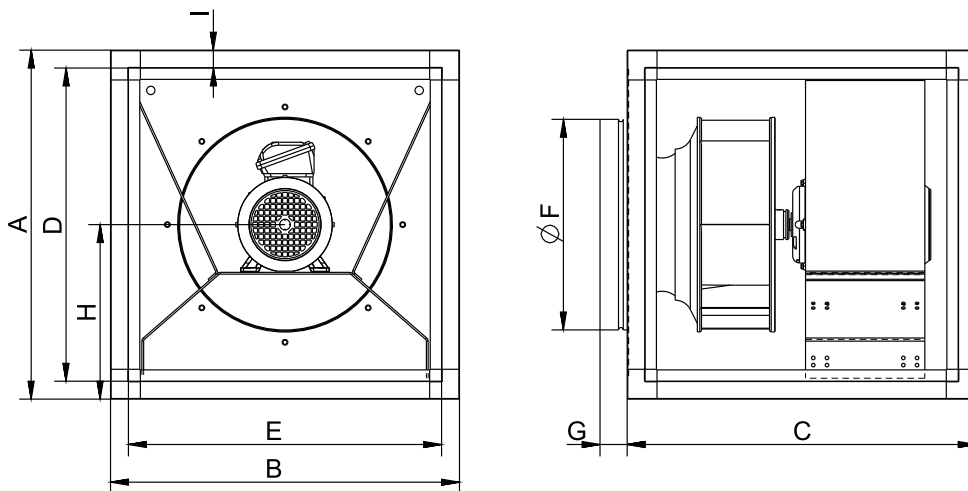
Notes:
 ** Total sound pressure level at the point of maximum flow measured in dB(A) in the suction measured in free field at a distance of 6m from the source

Dimensions



Model	A	B	C	D	E	F	G	H	I
BOX RL PLUS EVO 250 M4 0,37kW EEC	465	465	465	405	405	248	45.5	232.5	30
BOX RL PLUS EVO 315 M4 0,37kW EEC	525	525	525	465	465	298	45.5	262.5	30

Model	J	K	L	M
BOX RL PLUS EVO 250 M4 0,37kW EEC	112.5	121	238	77
BOX RL PLUS EVO 315 M4 0,37kW EEC	142.5	151	267	107



Model	A	B	C	D	E	F	G	H	I
BOX RL PLUS EVO 315 M4 0,18kW	525	525	525	465	465	298	45.5	262.5	30

Model	A	B	C	D	E	F	G	H	I
BOX RL PLUS EVO 315 T4 0,18kW	525	525	525	465	465	298	45.5	262.5	30
BOX RL PLUS EVO 355 M4 0,25kW	585	585	585	525	525	353	45.5	292.5	30
BOX RL PLUS EVO 355 T4 0,25kW	585	585	585	525	525	353	45.5	292.5	30
BOX RL PLUS EVO 400 M4 0,55kW	650	650	650	590	590	398	45.5	325	30
BOX RL PLUS EVO 400 T4 0,55kW	650	650	650	590	590	398	45.5	325	30
BOX RL PLUS EVO 450 M4 1,1kW	725	725	725	665	665	448	45.5	362.5	30
BOX RL PLUS EVO 450 T4 1,1kW	725	725	725	665	665	448	45.5	362.5	30
BOX RL PLUS EVO 500 M4 1,5kW	800	800	800	740	740	498	45.5	400	30
BOX RL PLUS EVO 500 T4 1,5kW	800	800	800	740	740	498	45.5	400	30
BOX RL PLUS EVO 560 T4 2,2kW	870	870	870	810	810	558	45.5	435	30
BOX RL PLUS EVO 630 T4 4kW	945	945	945	885	885	628	45.5	472.5	30
BOX RL PLUS EVO 710 T6 2,2kW	1020	1020	1020	960	960	708	45.5	510	30

Wiring diagram

DIAGRAM N° 1

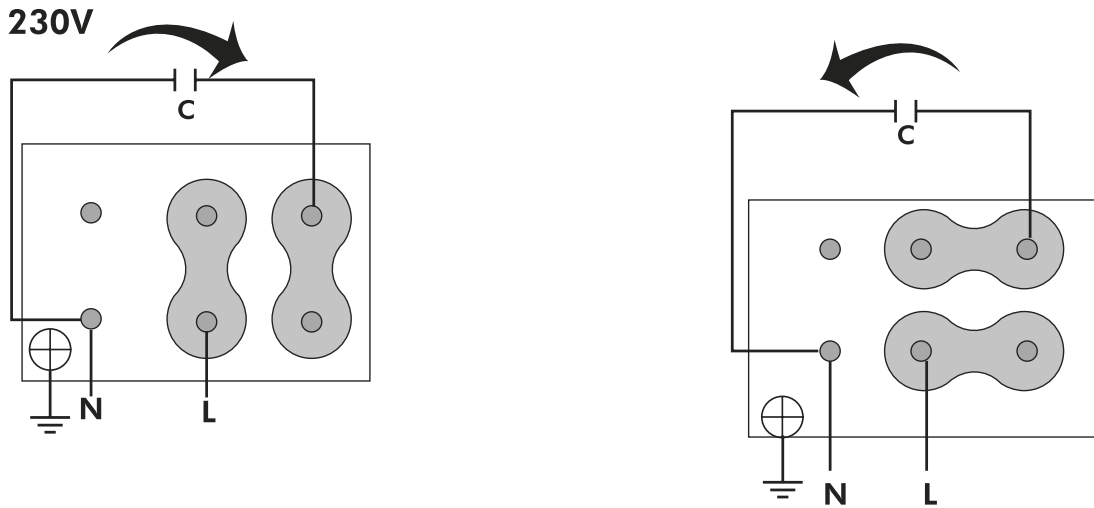
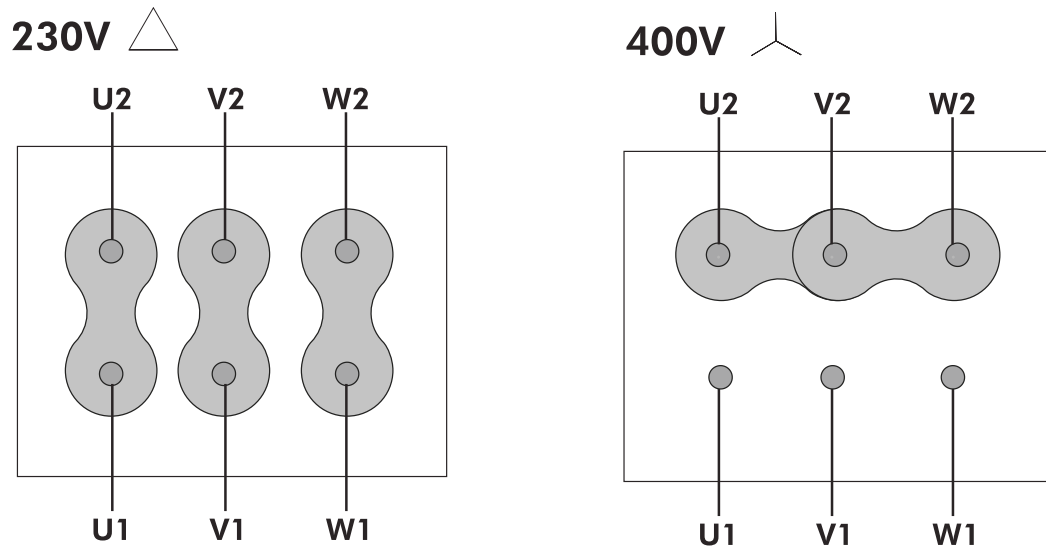


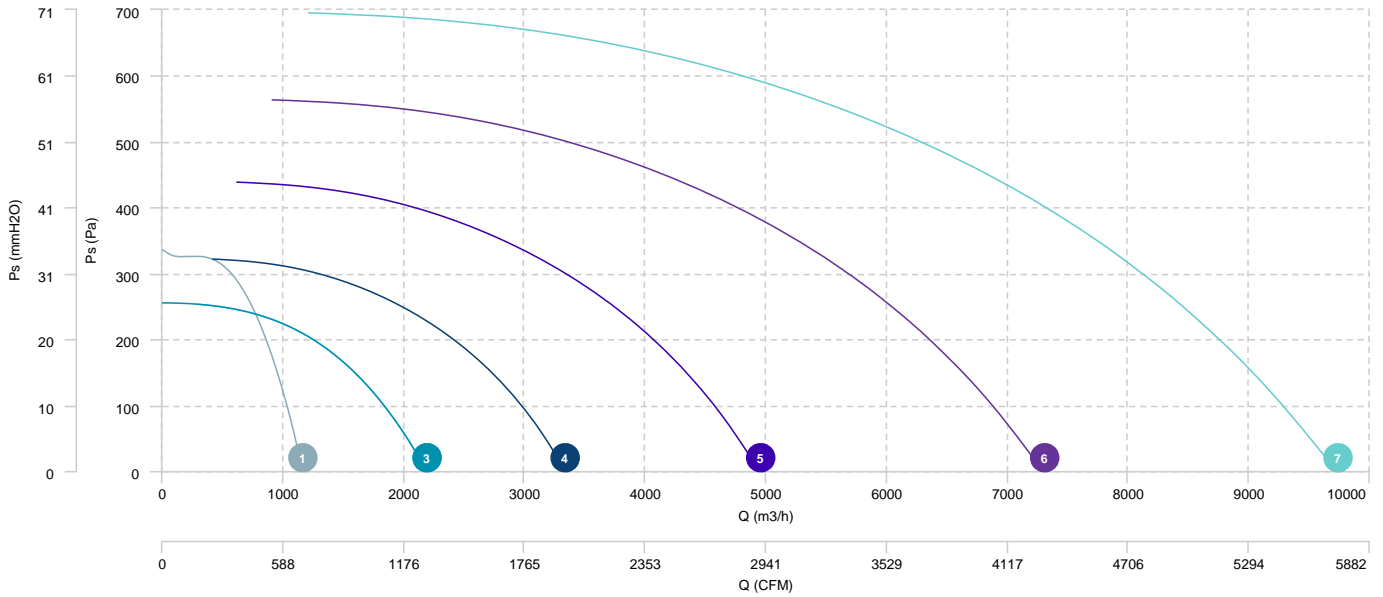
DIAGRAM N° 2



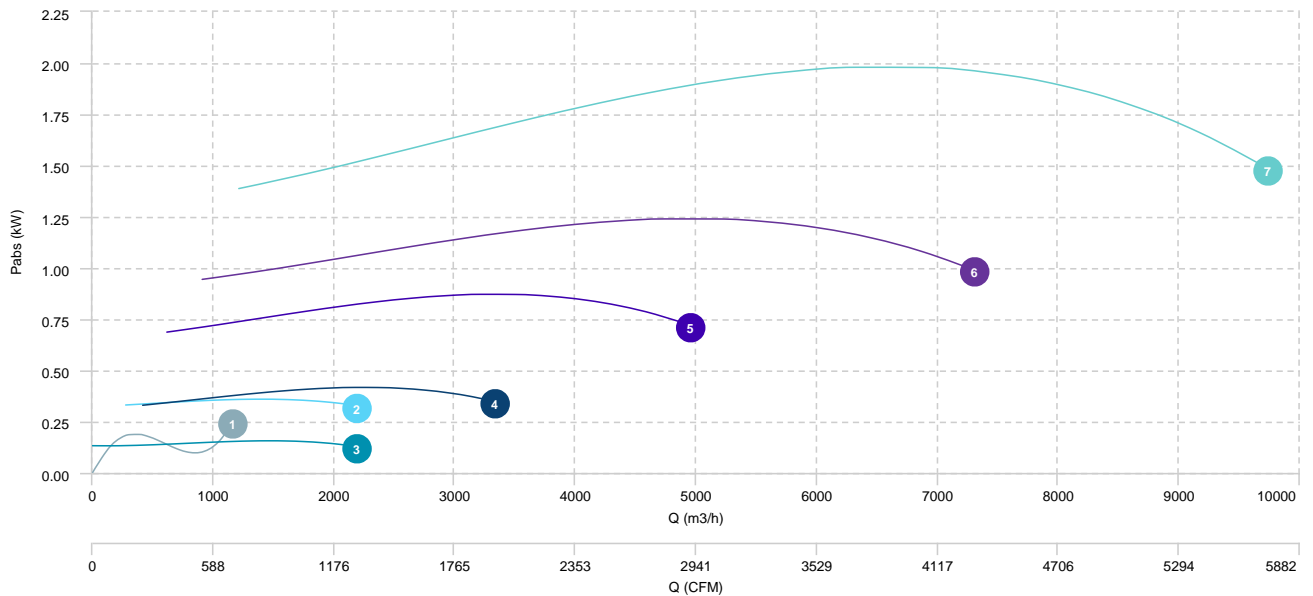
CHARACTERISTIC CURVE

1	BOX RL PLUS EVO 250 M4 0,37kW EEC	2	BOX RL PLUS EVO 315 M4 0,18kW	3	BOX RL PLUS EVO 315 M4 0,37kW EEC	4	BOX RL PLUS EVO 355 M4 0,25kW
5	BOX RL PLUS EVO 400 M4 0,55kW	6	BOX RL PLUS EVO 450 M4 1,1kW	7	BOX RL PLUS EVO 500 M4 1,5kW		

AIR FLOW - PRESSURE

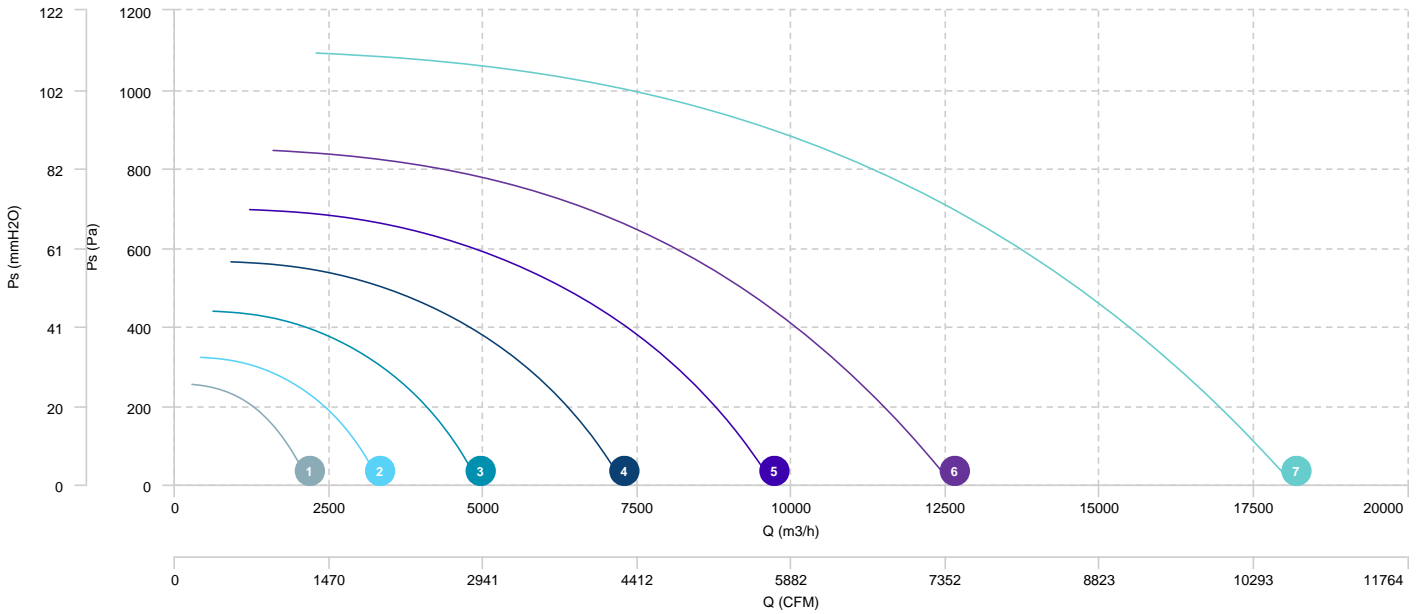


AIR FLOW - ABSORBED POWER

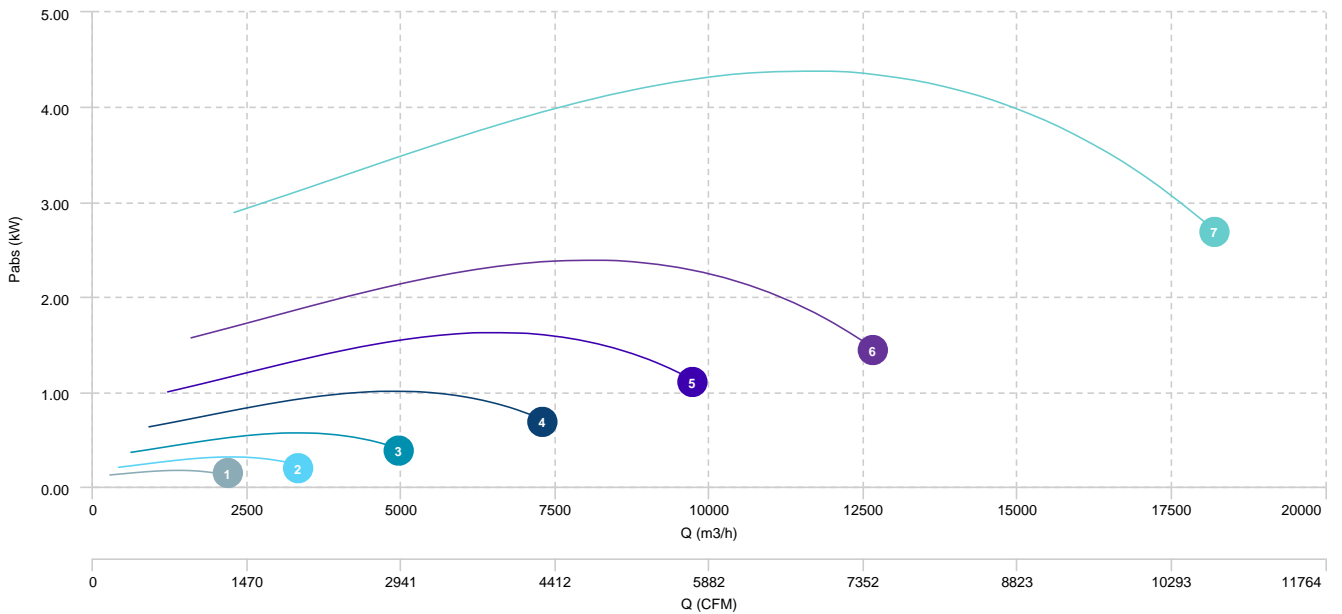


1	BOX RL PLUS EVO 315 T4 0,18kW	2	BOX RL PLUS EVO 355 T4 0,25kW	3	BOX RL PLUS EVO 400 T4 0,55kW	4	BOX RL PLUS EVO 450 T4 1,1kW
5	BOX RL PLUS EVO 500 T4 1,5kW	6	BOX RL PLUS EVO 560 T4 2,2kW	7	BOX RL PLUS EVO 630 T4 4kW		

AIR FLOW - PRESSURE

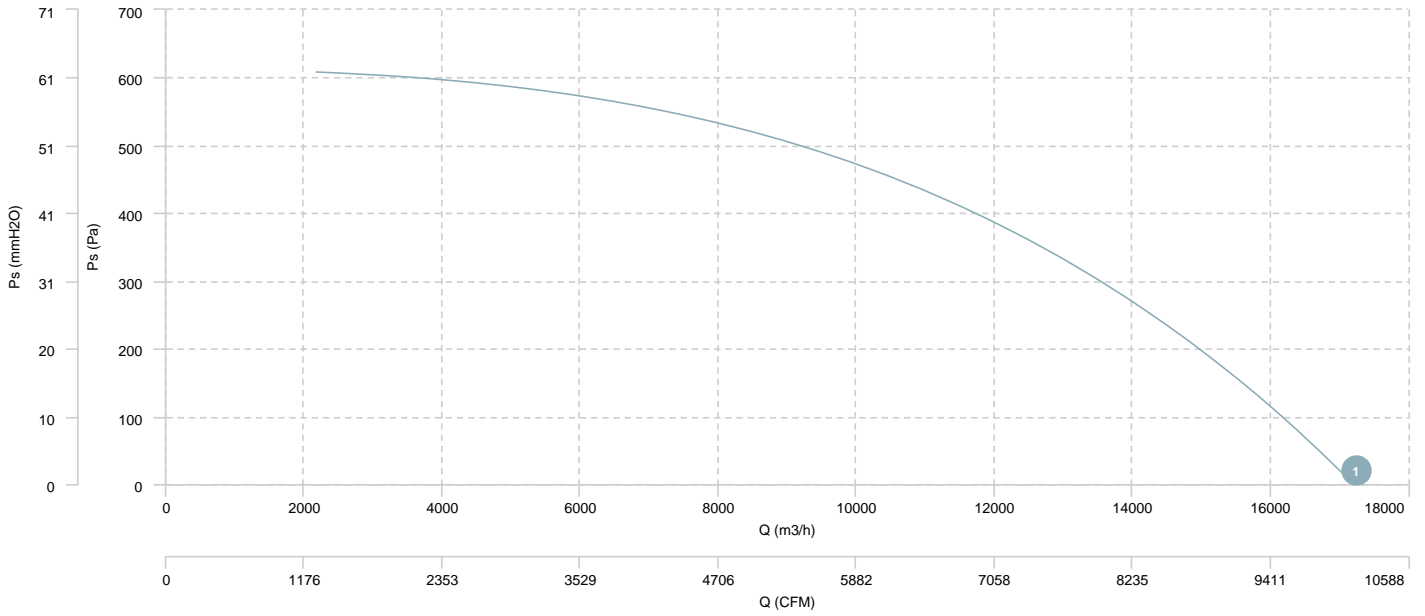


AIR FLOW - ABSORBED POWER

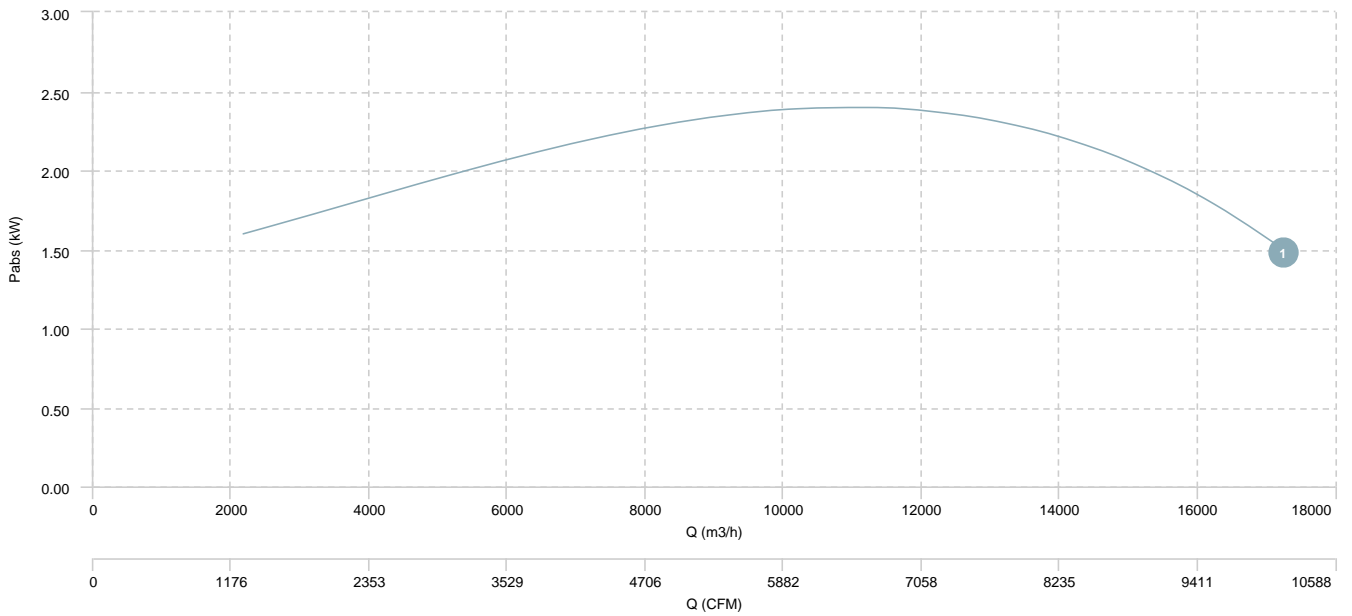


1 BOX RL PLUS EVO 710 T6
2,2kW

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 RL PLUS EVO 250 M4 0,37kW EEC (2000 RPM)	Inlet	48	56	60	63	65	63	60	57	70
BOX RL PLUS EVO 315 M4 0,18kW (1400 RPM)	Inlet	48	56	60	63	65	63	60	57	67
BOX RL PLUS EVO 315 M4 0,37kW EEC (1400 RPM)	Inlet	48	56	60	63	65	63	60	57	67
BOX RL PLUS EVO 315 T4 0,18kW (1400 RPM)	Inlet	48	56	60	63	65	63	60	57	67
BOX RL PLUS EVO 355 M4 0,25kW (1390 RPM)	Inlet	48	56	60	63	65	63	60	57	71
BOX RL PLUS EVO 355 T4 0,25kW (1390 RPM)	Inlet	48	56	60	63	65	63	60	57	71
BOX RL PLUS EVO 400 M4 0,55kW (1440 RPM)	Inlet	48	56	60	63	65	63	60	57	76
BOX RL PLUS EVO 400 T4 0,55kW (1440 RPM)	Inlet	48	56	60	63	65	63	60	57	76
BOX RL PLUS EVO 450 M4 1,1kW (1450 RPM)	Inlet	48	56	60	63	65	63	60	57	80
BOX RL PLUS EVO 450 T4 1,1kW (1450 RPM)	Inlet	48	56	60	63	65	63	60	57	80
BOX RL PLUS EVO 500 M4 1,5kW (1450 RPM)	Inlet	48	56	60	63	65	63	60	57	83
BOX RL PLUS EVO 500 T4 1,5kW (1450 RPM)	Inlet	48	56	60	63	65	63	60	57	83
BOX RL PLUS EVO 560 T4 2,2kW (1435 RPM)	Inlet	48	56	60	63	65	63	60	57	85
BOX RL PLUS EVO 630 T4 4kW (1450 RPM)	Inlet	48	56	60	63	65	63	60	57	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
BOX RL PLUS EVO 710 T6 2,2kW (960 RPM)	Inlet	48	56	60	63	65	63	60	57	83

Notes:

* To calculate the sound power level at different rpm from those indicated above, use the following formula:

$$Lw\ dB(A)_{rpmA} = Lw\ dB(A)_{rpmB} + 52.5 \cdot \log_{10} \frac{rpmA}{rpmB}$$



erp data

ERP

Fan type	Unit for non-residential ventilation (LOT 6)
Typology	Static
Others	Outlet and Inlet free discharge
Type of driver	None

ERP / 4 poles

Model	Motor power (kW)	Maximum efficiency point data						
		Eff.Heat recovery (%)	Max. efficiency (%)	Pabs (kW)	Air Flow (m3/h)	Ps (Pa)	Speed (m/s)	SFP (W/m3/s)
BOX RL PLUS EVO 315 M4 0,37kW EEC (1400 RPM)	0,37	-	46,18	0,16	1.314,30	191,59	4.68	426,26
BOX RL PLUS EVO 315 T4 0,18kW (1400 RPM)	0,18	-	42,97	0,17	1.343,55	187,83	4.79	456,41
BOX RL PLUS EVO 355 T4 0,25kW (1390 RPM)	0,25	-	46,98	0,31	2.038,52	244,07	5.72	547,40
BOX RL PLUS EVO 400 T4 0,55kW (1440 RPM)	0,55	-	52,43	0,56	3.016,53	332,88	6.67	670,25
BOX RL PLUS EVO 450 M4 1,1kW (1450 RPM)	1,10	-	45,57	1,23	4.489,36	423,82	7.84	989,45
BOX RL PLUS EVO 450 T4 1,1kW (1450 RPM)	1,10	-	55,92	1	4.440,49	427,84	7.76	808,32
BOX RL PLUS EVO 500 M4 1,5kW (1450 RPM)	1,50	-	47,30	1,97	5.946,17	526,44	8.41	1.190,87
BOX RL PLUS EVO 500 T4 1,5kW (1450 RPM)	1,50	-	57,07	1,61	5.915,32	528,77	8.37	979,86
BOX RL PLUS EVO 560 T4 2,2kW (1435 RPM)	2,20	-	59,52	2,38	7.722,40	628,84	8.71	1.111,27
BOX RL PLUS EVO 630 T4 4kW (1450 RPM)	4	-	60,30	4,38	11.123,51	811,64	9.91	1.416,59

ERP / 6 poles

Model	Motor power (kW)	Maximum efficiency point data						
		Eff.Heat recovery (%)	Max. efficiency (%)	Pabs (kW)	Air Flow (m3/h)	Ps (Pa)	Speed (m/s)	SFP (W/m3/s)
BOX RL PLUS EVO 710 T6 2,2kW (960 RPM)	2,20	-	58,06	2,40	10.544,24	451,69	7.4	817,97