CYLINDRICAL CASED AXIAL FLOW FANS

COMPACT Series TCBB (aluminium impellers)

Range of cylindrical cased axial fans fitted with aluminium impellers and manufactured from high grade rolled galvanised steel and **protect- ed against corrosion by cataforesis primer and black polyester paint finish**.
All models are supplied with pre-wired wiring junction box located on the outside of the fan casing for easy wiring access.
Available, depending upon the model, with sin- gle phase motors with 4 poles.

Motors

All the motors are **IP65** (1), **Class F** insulation (2), equipped with thermal protection.
All motors are speed controllable by autotrans- former except /4-560, /4-630,

Electrical supplies:
Single phase 230V-50Hz. (Capacitor located inside the wiring terminal box).

(1) Working temperatures from -40ºC to 70ºC

IP65 (1)

Additional Information

Standard air direction: form (B) configuration (Impeller over Motor);

A P P L I C A T I O N S

Warehouses | Workshops | Commercial premises | Car parks

Corrosion resistance

Rolled steel casings and motor support **protected by cataforesis** primer and black **polyester paint finish**.
Stainless steel screws

Terminal box

Wiring terminal box with cable gland PG-11

Impeller dynamically balanced

Impellers are **dynamically balanced**, according to ISO 1940 standard, giving vibration free operation

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Supply voltages and frequencies

Mains supply voltage	Motor type	Connection	Speed
SINGLE PHASE 230V 50Hz	230V 50Hz	See wiring diagram	Single

Acoustic characteristics

The sound levels –NPS- shown in the technical characteristic chart, correspond to the value of sound pressure dB(A), measured in free field conditions at a distance equivalent to three times the diameter of the impeller with a minimum of 1.5 meters.
Sound power level spectrum in dB(A) at the corresponding octave band average frequencies in Hz.

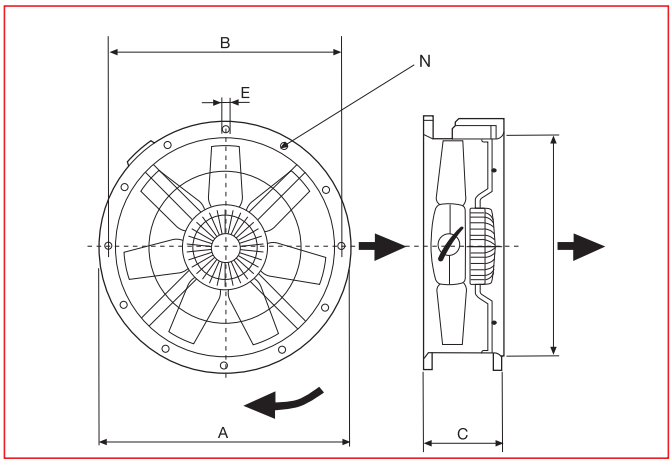
LwA ASP QMAX	63	125	250	500	1000	2000	4000	8000
4-250/H	44	50	57	58	60	59	53	42
4-315/H	37	47	57	61	66	63	57	48
4-355/H	39	59	56	65	70	66	61	52
4-400/H	41	62	58	67	74	70	66	43
4-450/H	41	57	60	69	73	71	65	55
4-500/H	44	61	64	73	76	75	68	59
4-560/L	44	60	66	75	78	76	71	62
4-560/H	46	61	67	76	80	78	72	64
4-630/L	46	60	69	78	82	80	75	67

Technical characteristics for models with ALUMINIUM impellers

Before installation check that the product electrical characteristics listed on the data plate label (Voltage, power, frequency etc) match those of the intended electrical supply.
Explosion proof types only work at an ambient temperature between -30ºC and +40ºC.

Model	Speed (r.p.m.)	Maximum power absorbed (W)	Maximum current (A) at 230 V		Sound pressure level (dB(A))	Maximum air volume (m^3/h)	Weight (kg)	Speed* controller
SINGLE PHASE 4 POLES								
TCBB/4-250/H	1330	60	0,3	–	52	1250	8,0	
TCBB/4-315/H	1300	100	0,6	–	54	2340	11,0	
TCBB/4-355/H	1225	200	1,0	–	58	3470	13,2	
TCBB/4-400/H	1200	340	1,6	–	60	5100	15,5	
TCBB/4-450/H	1370	620	2,7	–	62	7100	21,0	
TCBB/4-500/H	1300	800	3,5	–	66	9710	25,0	
TCBB/4-560/L	1300	1240	5,8	–	67	11750	33,0	
TCBB/4-560/H	1340	1680	7,7	–	69	13780	34,7	
TCBB/4-630/L	1280	1800	8,4	–	70	16100	40,0	

Dimensions (mm)



Model	ØA	ØB	C	ØD	ØE	Number of holes N
250	327	292	170	254	10	4
315	386	355	170	315	10	8
355	426	395	170	355	10	8
400	487	450	170	400	12	8
450	537	500	180	450	12	8
500	595	560	180	500	12	12
560	655	620	240	560	12	12
630	725	690	240	630	12	12

Performance curves - Series TCBB

– Q = Air volume in, m^3/hr and m^3/s.
– Pe = Static pressure in mmWG and Pa. –
Dry air at 20ºC and 760 mmHg.
– Air flow data in accordance with the following standards: UNE 100-212-89, BS 848, Part 1; AMCA 210-85 and ASHRAE 51-1985.

Performance curve characteristics for the Compact cased axial fans with plastic impellers (TCFB/T) correspond with the curves illustrated for the Compact Plate Axial fans (pages 65 to 67).

Typical fan selection:

Do not select the working point in the coloured area. To find the working point it is first necessary to plot the system resistance curve. The working point lies at the intersection between that curve and the fan performance curve.

Example: Required air volume 13.100 m^3/h at 18 mmWG
Fan working point 14.150 m^3/h at 21 mmWG