



## CONTRARROTATING CASED AXIAL FANS

### TCBBx2 / TCBTx2 Series



Range of cylindrical cased axial fans fitted with aluminium impellers and manufactured from high grade rolled galvanised steel and protected against **corrosion by cataforesis primer and black polyester paint finish.**

Fited with **2 contrarrotating complementary impellers** manufactured from die-cast aluminium. All models are supplied with pre-wired wiring junction box located on the outside of the fan casing for easy wiring access. Available with single or three phase 4 poles motors.

#### Motors

All the motors are **IP65**, Class F insulation (1), equipped with **thermal protection.**

Single phase motors are variable voltage (for TCBBX2/4-630, only if the ambient temperature is up to 40 ° C).

Three phase motors suitable for inverter control.

Electrical supplies:

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

Three phase 400V-50Hz

(1) Working temperatures from -40°C up to 70°C.

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



#### Contra rotating: High pressure



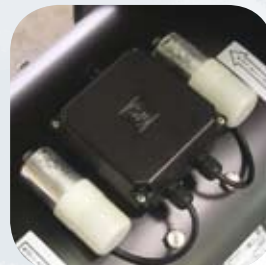
**Contrarrotating system** with two complementary impellers **allowing the duplication of the pressure** with the same air volume

#### 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





## ■ Technical characteristics

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.

Model	Speed (r.p.m.)	Maximum absorbed power (kW)	Maximum absorbed current (A)	Sound pressure level (dB(A))	Maximum air volume (m <sup>3</sup> /h)	Weight (kg)	Speed controller*
TCBBx2/4-450	1370	1,24	5,40	74	6900	42	RMB-8
TCBBx2/4-500	1150	1,40	6,20	76	9400	50	RMB-8
TCBBx2/4-560	1340	3,25	15,50	78	14300	66	-
TCBBx2/4-630	1280	3,90	19,00	79	18200	80	-
TCBTx2/4-450	1400	1,25	3,40	74	6900	42	RMT-5
TCBTx2/4-500	1340	1,75	3,60	76	9400	50	RMT-5
TCBTx2/4-560	1360	3,12	5,80	78	14300	66	VFTM TRI 4
TCBTx2/4-630	1370	4,20	8,00	79	18200	80	VFTM TRI 5,5

\* Three phase speed controllers (RMT) or inverter control (VFTM) are suitable for 400V.

## ■ 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.

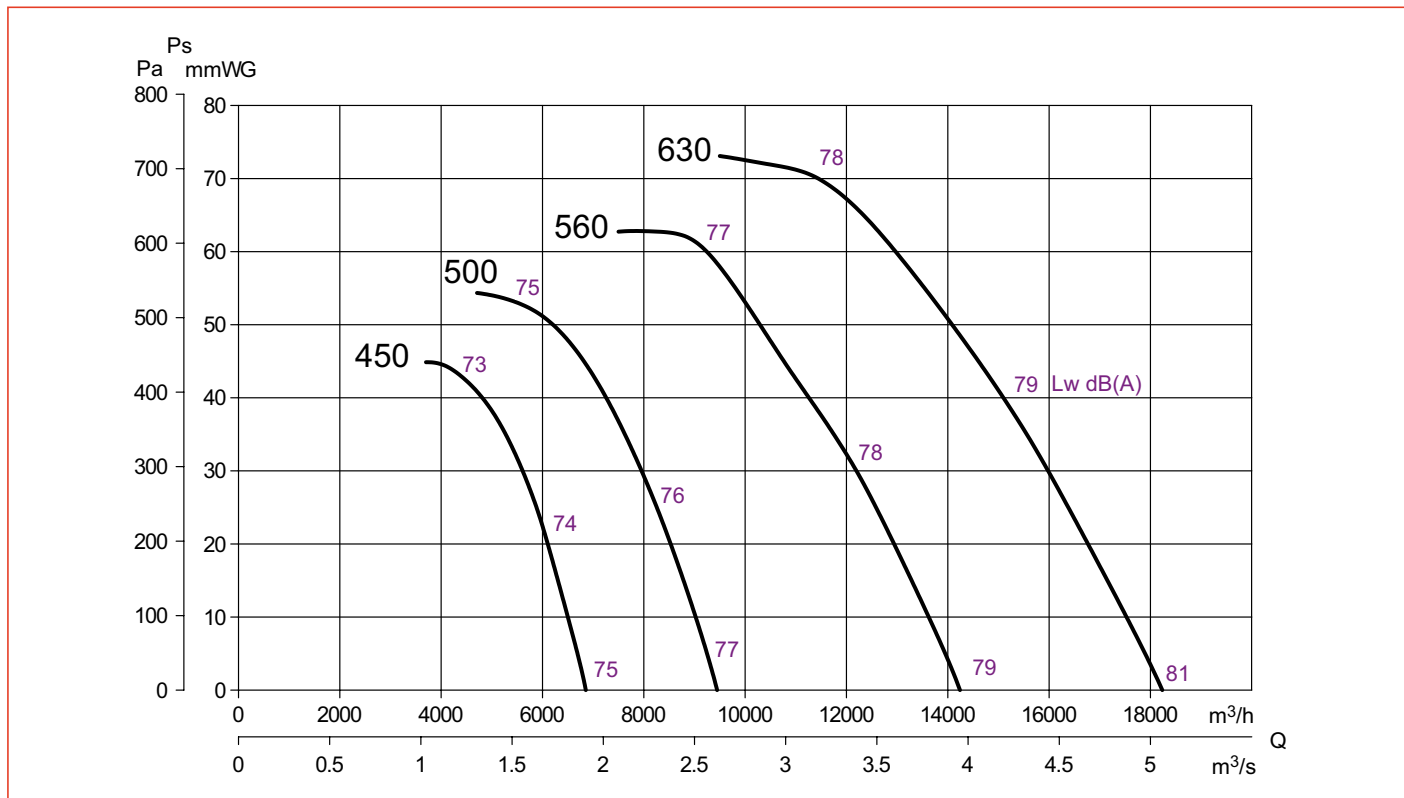
The following table shows the sound power level spectrums in dB(A) measured with the fan ducted, at both inlet and discharge sides.

Model	Air volume m <sup>3</sup> /h	63	125	250	500	1000	2000	4000	8000	Global
450 Inlet	6600	46	73	85	82	85	79	72	64	90
	5850	46	73	84	81	83	79	71	64	88
	4300	58	70	80	80	83	79	71	64	87
450 Outlet	6600	63	75	86	85	87	82	74	67	92
	5850	53	73	85	84	87	81	74	67	91
	4300	58	70	82	83	86	82	74	67	90
500 Inlet	9000	48	78	87	85	87	81	74	67	92
	7500	52	76	85	85	85	80	73	65	90
	6000	60	73	83	82	85	80	73	66	89
500 Outlet	9000	65	76	87	88	90	84	77	70	94
	7500	62	75	86	87	88	83	76	69	92
	6000	59	72	86	85	88	83	76	69	92
560 Inlet	13720	50	85	87	88	91	85	78	73	95
	10800	57	79	83	86	89	84	78	72	93
	9000	63	79	81	86	89	84	78	72	92
560 Outlet	13720	74	86	85	91	94	88	81	75	97
	10800	70	82	84	88	92	87	81	74	95
	9000	74	81	85	89	92	87	81	74	95
630 Inlet	17500	51	85	91	89	93	87	80	74	97
	15600	55	85	85	88	91	86	80	73	95
	12000	64	80	84	88	90	86	80	73	94
630 Outlet	17500	73	87	88	93	95	89	83	77	99
	15600	71	87	86	91	94	89	83	76	98
	12000	67	84	86	90	94	89	84	76	97

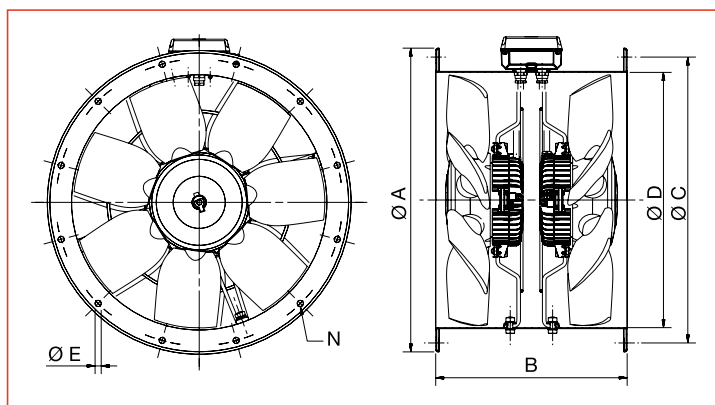


## Performance curves

- Q = Air volume in, m<sup>3</sup>/hr and m<sup>3</sup>/s.
- Ps = Static pressure in mmWG and Pa.
- Dry air at 20°C and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.



## Dimensions (mm)



Model	Ø A	B	Ø C	Ø D	Ø E	Number of holes N
450	537	375	500	450	12	8
500	595	375	560	500	12	12
560	655	520	620	560	12	12
630	725	520	690	630	12	12

## Mounting accessories

