



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.**

All motors are speed controllable (by voltage). 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



Warehouses



Workshops



Commercial premises



Naval industry

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 ³ /h) | Weight (kg) |
|--------------|-------------------|--------------------------------------|---------------------------------------|---------------------------------------|---|----------------|
| TCBBx2/4-450 | 1370 | 1,24 | 5,40 | 74 | 6900 | 42 |
| TCBBx2/4-500 | 1300 | 1,70 | 7,30 | 76 | 9400 | 50 |
| 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 |
| TCBTx2/4-500 | 1340 | 1,75 | 3,60 | 76 | 9400 | 50 |
| TCBTx2/4-560 | 1360 | 3,12 | 5,80 | 78 | 14300 | 66 |
| TCBTx2/4-630 | 1370 | 4,20 | 8,00 | 79 | 18200 | 80 |

■ 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.

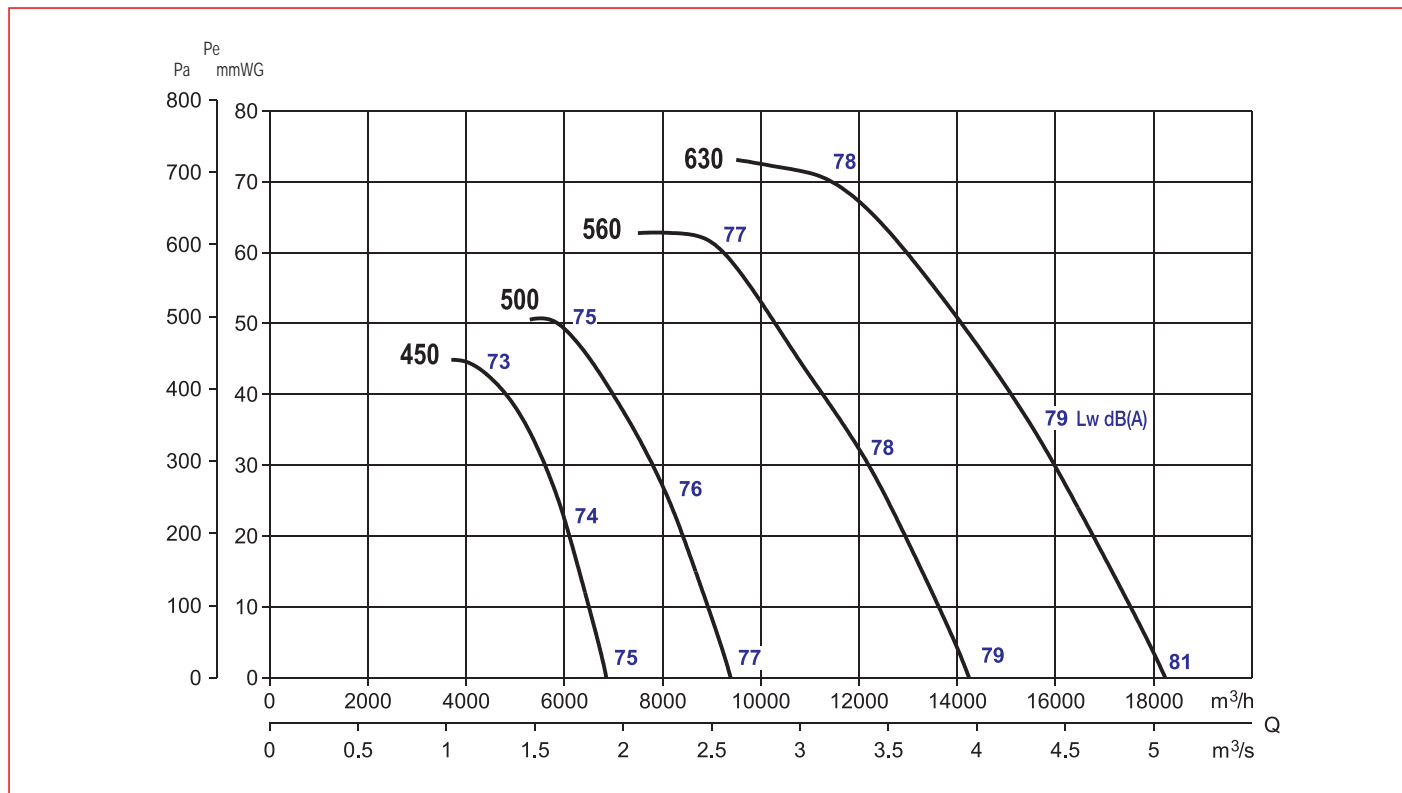
The following table shows the sound power level spectrums in dB(A) measured with the fan ducted, at both inlet and discharge sides.

| Model | Air volume m ³ /h | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Global |
|---------------|------------------------------|----|-----|-----|-----|------|------|------|------|--------|
| 450 Inlet | 6.600 | 46 | 73 | 85 | 82 | 85 | 79 | 72 | 64 | 90 |
| | 5.850 | 46 | 73 | 84 | 81 | 83 | 79 | 71 | 64 | 88 |
| | 4.300 | 58 | 70 | 80 | 80 | 83 | 79 | 71 | 64 | 87 |
| 450 Discharge | 6.600 | 63 | 75 | 86 | 85 | 87 | 82 | 74 | 67 | 92 |
| | 5.850 | 53 | 73 | 85 | 84 | 87 | 81 | 74 | 67 | 91 |
| | 4.300 | 58 | 70 | 82 | 83 | 86 | 82 | 74 | 67 | 90 |
| 500 Inlet | 9.000 | 48 | 78 | 87 | 85 | 87 | 81 | 74 | 67 | 92 |
| | 7.500 | 52 | 76 | 85 | 85 | 85 | 80 | 73 | 65 | 90 |
| | 6.000 | 60 | 73 | 83 | 82 | 85 | 80 | 73 | 66 | 89 |
| 500 Discharge | 9.000 | 65 | 76 | 87 | 88 | 90 | 84 | 77 | 70 | 94 |
| | 7.500 | 62 | 75 | 86 | 87 | 88 | 83 | 76 | 69 | 92 |
| | 6.000 | 59 | 72 | 86 | 85 | 88 | 83 | 76 | 69 | 92 |
| 560 Inlet | 13.720 | 50 | 85 | 87 | 88 | 91 | 85 | 78 | 73 | 95 |
| | 10.800 | 57 | 79 | 83 | 86 | 89 | 84 | 78 | 72 | 93 |
| | 9.000 | 63 | 79 | 81 | 86 | 89 | 84 | 78 | 72 | 92 |
| 560 Discharge | 13.720 | 74 | 86 | 85 | 91 | 94 | 88 | 81 | 75 | 97 |
| | 10.800 | 70 | 82 | 84 | 88 | 92 | 87 | 81 | 74 | 95 |
| | 9.000 | 74 | 81 | 85 | 89 | 92 | 87 | 81 | 74 | 95 |
| 630 Inlet | 17.500 | 51 | 85 | 91 | 89 | 93 | 87 | 80 | 74 | 97 |
| | 15.600 | 55 | 85 | 85 | 88 | 91 | 86 | 80 | 73 | 95 |
| | 12.000 | 64 | 80 | 84 | 88 | 90 | 86 | 80 | 73 | 94 |
| 630 Discharge | 17.500 | 73 | 87 | 88 | 93 | 95 | 89 | 83 | 77 | 99 |
| | 15.600 | 71 | 87 | 86 | 91 | 94 | 89 | 83 | 76 | 98 |
| | 12.000 | 67 | 84 | 86 | 90 | 94 | 89 | 84 | 76 | 97 |

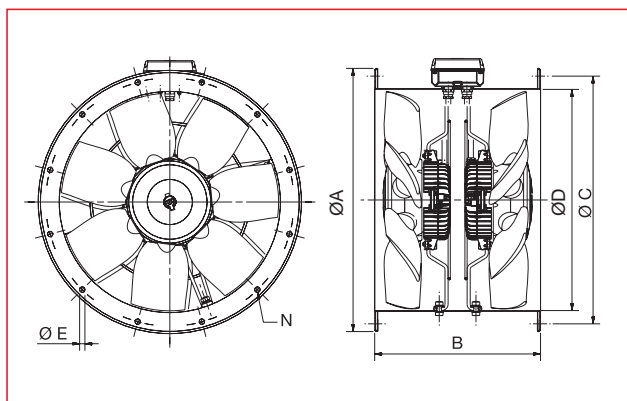


Performance curves

- Q = Air volume in, m³/hr and m³/s.
- Pe = Static pressure in mmWG and Pa.
- Dry air at 20°C 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.



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 | 550 | 500 | 12 | 12 |
| 560 | 655 | 520 | 620 | 560 | 12 | 12 |
| 630 | 725 | 520 | 660 | 630 | 12 | 12 |

Mounting accessories

