



Cylindrical cased axial flow fans

COMPACT TCBB / TCBT Series ALUMINIUM IMPELLERS

TCBT/4-250/H 230/400V50/60HZ
VE



ATEX versions TCBT

On request, explosion proof versions in accordance with ATEX Directive, for 3 phase models.

For ambient working temperatures:

From -20°C to +55°C:

-models TCBT/4-315 to 630mm

-models TCBT/6-355 to 710mm

From -20°C to +40°C:

-models TCBT/4-710 to 800mm

-models TCBT/6-800mm

Motors IP55 Class F

- ATEX Flameproof - Gas

For models TCBT/4-710 and 800mm

Ex models 2G Exd IIB T4

Ex models 2G Exd IIB+H2 T4 (with Ex d IIC T4 motor)

- ATEX Increased safety - Gas

Not available:

TCBT/2-250/H 400V-50Hz

TCBT/4-250/H 400V-50Hz

TCBT/6-355/H 400V-50Hz

TCBT/6-400/H 400V-50Hz

Available for TCBT/6-400/H 230/400V-50Hz and larger sizes.

Ex models 2G Exe II T3

- ATEX - Dust

For models TCBT/4-710 and 800mm

Suspended flammable particles and non-conductive dust:

Ex II 3D Ex tc IIIB T125°C

Conductive dust:

Ex II 3D Ex tc IIIC T125°C (with IP65 motor)

To select TCBT ATEX refer to performance curves, or Easyvent.

Note electrical data may vary for ATEX motors."



Range of cylindrical cased axial flow 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.
 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 single or three phase motors in 2, 4 or 6 poles.

Motors

Single phase motor (TCBB) or three phase motor (TCBT).

Models 250, 315, 355 and 400: External rotor motor, IP44, Class F, thermal protection, working temperature from -40°C to +40°C.

Models 450, 500, 560, 630 and 6/710: IP65, Class F, thermal protection, working temperature from -40°C to +70°C.

Models 4/710 and 800: IP55, Class F, working temperature from -40°C to +40°C.

All motors are speed controllable by autotransformer except models /4-560H, /4-630, 710 and T/800.

Three phase motors are speed controllable by inverter.

Electrical supplies:

Single phase 230V-50Hz.

(Capacitor located inside the wiring terminal box).

Three phase 230/400V-50Hz or 400V-50Hz.

(See characteristic chart).

Additional information

Standard air direction: form (B)

configuration

(impeller over motor).

On request

Air direction: form (A) configuration (motor over impeller).

From 450 to 800, three phase motors 2 speed, 4/8 poles.

+ Attributes



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 (except ATEX models).



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



Configuration for models /4-710 and 800.



Constructive configuration models 250, 315, 355 and 400. excepted 6-355, 6-400 and ATEX).

+ Acoustic characteristics

+ Technical characteristics

+ Supply Voltages and Frequencies



| Mains supply voltage | Motor type | Connection | Speed |
|---------------------------------------|---------------|--------------------|-------|
| SINGLE PHASE 220V-50Hz, 240V-50Hz | 230V 50Hz | See wiring diagram | High |
| THREE PHASE 220V-50Hz 240V-50Hz | 230/400V 50Hz | | High |
| | | | Low* |
| THREE PHASE 380V-50Hz 415V-50Hz | 230/400V 50Hz | | High |
| | 400V 50Hz | | High |
| | | | Low* |

* For models allowed by speed controller RMT.

+ Reference

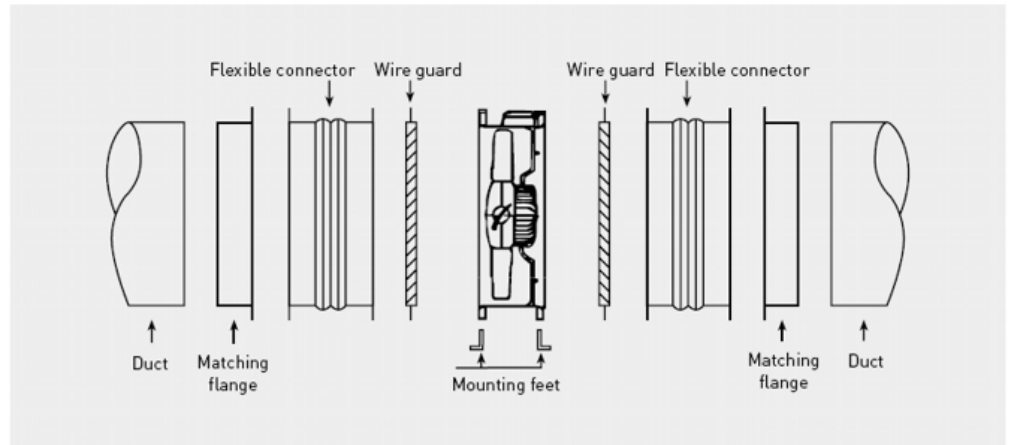
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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|----|--|----|
| T | C | B | T | / | 4 | - | 4 | 0 | 0 | / | H | - | B | 4 | 0 | 0 | V | 5 | 0 | Hz | | |
| 1 | 2 | 3 | 4 | | 5 | | 6 | | | | 7 | | 8 | 9 | | | | 10 | | | | 11 |

- 1 - T: Cylindrical cased axial flow fan.
 - 2 - C: Series designation.
 - 3 - Impeller type:
B: Ø 250 - Ø 400 Fixed blade impeller manufactured from aluminium sheet.
Ø 450 - Ø 800 Adjustable blade aluminium impeller.
 - 4 - Supply type:
B: Single phase.
T: Three phase.
 - 5 - Number of poles:
2: [approx. 2800 rpm - 50 Hz]
4: [approx. 1400 rpm - 50 Hz]
6: [approx. 900 rpm - 50 Hz]
 - 6 - Nominal diameter of fan in mm.
 - 7 - Pitch angle.
 - 8 - Direction of air:
A: Motor over Impeller.
B: Impeller over Motor.
 - 9 - Voltage:
230 V (single phase).
230/400 V (three phase).
400 V (three phase).
 - 10 - Frequency of service: 50 Hz
60 Hz
 - 11 - Special versions:
2 V: Two speed motors.
4/8 poles of motor for models:
- Ø 450 up to Ø 800 mm.
 - 6/12 poles of motor for models from Ø 710 up to Ø 800 mm.
 - C: Condensation drain holes on motor.
 - EX: Explosion proof and flame proof versions.

+ Dimensions

+ Curves

+ Mounting Accessories



| Model | Wire guard | | Matching flange | Mounting feet | Bellmouth protection guard | Flexible connector | Flexible connector explosion proof [ATEX] |
|-------------------|-----------------------|-----------------------|-----------------------|---------------|----------------------------|--------------------|---|
| | Inlet (impeller side) | Outlet (motor side) | | | | | |
| TCBB / TCBT 250 | DEF-250 T | DEF-250 T | ARO BRIDA COMPACT-250 | PIE-250 | - | ACOP.BRIDA-250 | ACOPEL EX 250/160 N |
| TCBB / TCBT 315 | DEF-315 T | DEF-315 T | ARO BRIDA COMPACT-315 | PIE-315 | EMB-315 T | ACOP.BRIDA-315 | ACOPEL EX 315/160 N |
| TCBB / TCBT 355 | DEF-355 T | DEF-355 T | ARO BRIDA COMPACT-355 | PIE-355 | EMB-355 T | ACOP.BRIDA-355 | ACOPEL EX 355/160 N |
| TCBB / TCBT 400 | DEF-400 T | DEF-400 T | ARO BRIDA COMPACT-400 | PIE-400 | EMB-400 T | ACOP.BRIDA-400 | ACOPEL EX 400/160 N |
| TCBB / TCBT 450 | DEF-450 T | DEF-450 T | ARO BRIDA COMPACT-450 | PIE-450 | EMB-450 T | ACOP.BRIDA-450 | ACOPEL EX 450/160 N |
| TCBB / TCBT 500 | DEF-500 T | DEF-500 T | ARO BRIDA COMPACT-500 | PIE-500 | EMB-500 T | ACOP.BRIDA-500 | ACOPEL EX 500/160 N |
| TCBB / TCBT 560 | DEF-560 T | DEF-560 T | ARO BRIDA COMPACT-560 | PIE-560 | EMB-560 T | ACOP.BRIDA-560 | ACOPEL EX 560/160 N |
| TCBB / TCBT 630 | DEF-630 T | DEF-630 T | ARO BRIDA COMPACT-630 | PIE-630 | EMB-630 T | ACOP.BRIDA-630 | ACOPEL EX 630/160 N |
| TCBT 4-710/H | DEF-710 T | DEF-710/H-T DESCARGA | ARO BRIDA COMPACT-710 | PIE-710 | EMB-710 T | ACOP.BRIDA-710 | ACOPEL EX 710/160 N |
| TCBT 4-710/L | DEF-710 T | DEF-710/L-T DESCARGA | ARO BRIDA COMPACT-710 | PIE-710 | EMB-710 T | ACOP.BRIDA-710 | ACOPEL EX 710/160 N |
| TCBB / TCBT 6-710 | DEF-710 T | DEF-710 T | ARO BRIDA COMPACT-710 | PIE-710 | EMB-710 T | ACOP.BRIDA-710 | ACOPEL EX 710/160 N |
| TCBT 800 | DEF-800 T | DEF.DES.TGT/THGT-800* | ARO BRIDA COMPACT-800 | PIE-800 | EMB-800 T | ACOP.BRIDA-800 | ACOPEL EX 800/160 N |

* For more information see Mounting accessories.

+ Electrical Accessories



REB-1N / REB-2,5N
Single phase
electronic speed
controllers.



REB-5
REB-10
Single phase
electronic speed
controllers.



RMB/RMT
Single and three
phase auto
transformer speed
controllers.



VFTM TRI IP54
Adjustable frequency
drive for three phase
motors from 0,37 to
15 kW, 230V or 400V.



VFKB IP65
Adjustable
frequency
drives for three
phase motors from
0,37 to 4 kW 230V
or 400V.



COM D/S
To connect three
phase fans with 400V
motor. For three
phase models.