



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, IP54, 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 220-240V-50Hz.  
 [Capacitor located inside the wiring terminal box].  
 Three phase 220-240/380-415V-50Hz or 380-415V-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 Ø450 to Ø800, three phase motors 2 speed, 4/8 poles.

#### 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

In standard ATEX version flameproof motors are without thermal protection.

If used with frequency inverter, flameproof motors with a PTC-type thermal protection must be specified at order.

For models TCBT/4-710 and 800mm

⊕ models 2G Exd IIB T4

⊕ 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.

⊕ models 2G Exe II T3

- ATEX - Dust

In standard ATEX version, ATEX motors for dust are without thermal protection.

If used with frequency inverter, ATEX motors for dust with a PTC-type thermal protection must be specified at order.



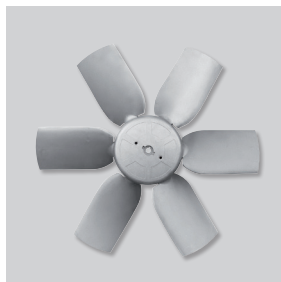
#### Corrosion resistance

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



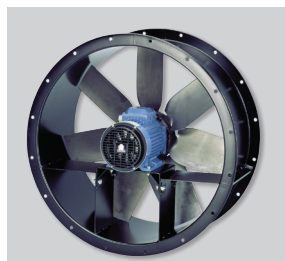
#### Terminal box

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)

For models TCBT/4-710 and 800mm  
 Suspended flammable particles and non-conductive dust:

⊕ II 3D Ex tc IIB T125°C

Conductive dust:

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

#### Specific applications



Versions

To select TCBT ATEX refer to performance curves, or Easyvent.  
 Note electrical data may vary for ATEX motors.

# CYLINDRICAL CASED AXIAL FLOW FANS

## COMPACT TCBB / TCBT Series - ALUMINIUM IMPELLERS



### 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<br>(r.p.m.) | Diameter<br>(mm) | Maximum<br>absorbed<br>power<br>(W) | Maximum<br>current<br>(A) |         | Sound<br>pressure<br>level*<br>(dB(A)) | Maximum<br>airflow<br>(m³/h) | Weight<br>(kg) | Speed<br>controller |         | Variable frequency<br>inverter |         |
|---------------------|-------------------|------------------|-------------------------------------|---------------------------|---------|----------------------------------------|------------------------------|----------------|---------------------|---------|--------------------------------|---------|
|                     |                   |                  |                                     | a 230 V                   | a 400 V |                                        |                              |                | REB                 | RMB/T   | VFTM                           | VFKB    |
| SINGLE PHASE 2 POLE |                   |                  |                                     |                           |         |                                        |                              |                |                     |         |                                |         |
| TCBB/2-250/H        | 2680              | 250              | 123                                 | 0,5                       | –       | 62                                     | 1.680                        | 8              | –                   | –       | –                              | –       |
| SINGLE PHASE 4 POLE |                   |                  |                                     |                           |         |                                        |                              |                |                     |         |                                |         |
| TCBB/4-250/H        | 1430              | 250              | 44                                  | 0,2                       | –       | 42                                     | 900                          | 8              | REB-1               | RMB-1,5 | –                              | –       |
| TCBB/4-315/H        | 1435              | 315              | 105                                 | 0,6                       | –       | 52                                     | 1.990                        | 11             | REB-1               | RMB-1,5 | –                              | –       |
| TCBB/4-355/H        | 1420              | 355              | 120                                 | 0,6                       | –       | 52                                     | 2.460                        | 13,2           | REB-2,5             | RMB-1,5 | –                              | –       |
| TCBB/4-400/H        | 1410              | 400              | 277                                 | 1,1                       | –       | 60                                     | 5.050                        | 15,5           | REB-2,5             | RMB-3,5 | –                              | –       |
| TCBB/4-450/H        | 1410              | 450              | 591                                 | 2,5                       | –       | 63                                     | 6.940                        | 21             | –                   | –       | –                              | –       |
| TCBB/4-500/H        | 1410              | 500              | 636                                 | 2,8                       | –       | 66                                     | 7.500                        | 25             | REB-5               | RMB-3,5 | –                              | –       |
| TCBB/4-560/L        | 1405              | 560              | 1289                                | 6                         | –       | 68                                     | 11.990                       | 33             | REB-10              | RMB-8   | –                              | –       |
| TCBB/4-560/H        | 1400              | 560              | 1308                                | 6                         | –       | 69                                     | 12.170                       | 34,7           | –                   | –       | –                              | –       |
| TCBB/4-630/L        | 1365              | 630              | 1707                                | 7,5                       | –       | 70                                     | 15.980                       | 40             | –                   | –       | –                              | –       |
| SINGLE PHASE 6 POLE |                   |                  |                                     |                           |         |                                        |                              |                |                     |         |                                |         |
| TCBB/6-355/H        | 880               | 355              | 92                                  | 0,4                       | –       | 46                                     | 2.160                        | 13,2           | REB-1               | RMB-1,5 | –                              | –       |
| TCBB/6-400/H        | 870               | 400              | 118                                 | 0,5                       | –       | 48                                     | 2.820                        | 15,5           | REB-1               | RMB-1,5 | –                              | –       |
| TCBB/6-500/H        | 920               | 500              | 226                                 | 1                         | –       | 57                                     | 5.250                        | 24,8           | REB-2,5             | RMB-1,5 | –                              | –       |
| TCBB/6-560/L        | 930               | 560              | 375                                 | 1,6                       | –       | 60                                     | 7.810                        | 33,5           | REB-5               | RMB-3,5 | –                              | –       |
| TCBB/6-630/L        | 920               | 630              | 514                                 | 2,1                       | –       | 60                                     | 10.410                       | 38,5           | REB-5               | RMB-8   | –                              | –       |
| TCBB/6-710/L        | 930               | 710              | 849                                 | 4,2                       | –       | 62                                     | 14.480                       | 46             | –                   | –       | –                              | –       |
| THREE PHASE 2 POLE  |                   |                  |                                     |                           |         |                                        |                              |                |                     |         |                                |         |
| TCBT/2-250/H        | 2775              | 250              | 114                                 | 0,3                       | 0,2     | 62                                     | 1.730                        | 8              | –                   | –       | TRI-0,37                       | VFKB-45 |
| THREE PHASE 4 POLE  |                   |                  |                                     |                           |         |                                        |                              |                |                     |         |                                |         |
| TCBT/4-250/H        | 1470              | 250              | 42                                  | 0,3                       | 0,2     | 42                                     | 900                          | 8              | –                   | RMT-1,5 | TRI-0,37                       | VFKB-45 |
| TCBT/4-315/H        | 1445              | 315              | 99                                  | 0,5                       | 0,3     | 51                                     | 1.950                        | 11             | –                   | RMT-1,5 | TRI-0,37                       | VFKB-45 |
| TCBT/4-355/H        | 1415              | 355              | 117                                 | 0,5                       | 0,3     | 52                                     | 2.470                        | 13,2           | –                   | RMT-1,5 | TRI-0,37                       | VFKB-45 |
| TCBT/4-400/H        | 1410              | 400              | 268                                 | 0,9                       | 0,5     | 60                                     | 4.950                        | 15,5           | –                   | RMT-1,5 | TRI-0,37                       | VFKB-45 |
| TCBT/4-450/H        | 1405              | 450              | 526                                 | 1,9                       | 1,1     | 63                                     | 6.650                        | 21             | –                   | RMT-2,5 | TRI-0,55                       | VFKB-45 |
| TCBT/4-500/H        | 1420              | 500              | 641                                 | 2,6                       | 1,5     | 66                                     | 7.590                        | 25             | –                   | RMT-2,5 | TRI-0,55                       | VFKB-45 |
| TCBT/4-560/L        | 1415              | 560              | 1184                                | 3,8                       | 2,2     | 68                                     | 12.090                       | 33             | –                   | RMT-2,5 | TRI-0,75                       | VFKB-45 |
| TCBT/4-560/H        | 1390              | 560              | 1348                                | 4,2                       | 2,4     | 69                                     | 13.370                       | 34,7           | –                   | –       | TRI-1,1                        | VFKB-45 |
| TCBT/4-630/L        | 1410              | 630              | 1768                                | 5,9                       | 3,4     | 70                                     | 16.370                       | 39             | –                   | –       | TRI-1,5                        | VFKB-45 |
| TCBT/4-630/H        | 1400              | 630              | 1940                                | 6,2                       | 3,6     | 70                                     | 17.030                       | 40             | –                   | –       | TRI-1,5                        | VFKB-45 |
| TCBT/4-710/L        | 1435              | 710              | 2175                                | 6,4                       | 3,7     | 73                                     | 20.290                       | 46             | –                   | –       | TRI-1,5                        | VFKB-45 |
| TCBT/4-710/H        | 1460              | 710              | 3441                                | 10,6                      | 6,1     | 73                                     | 26.420                       | 54             | –                   | –       | TRI-3                          | VFKB-48 |
| TCBT/4-800/L        | 1460              | 800              | 3750                                | 11,3                      | 6,5     | 76                                     | 29.950                       | 65             | –                   | –       | TRI-3                          | VFKB-48 |
| TCBT/4-800/K        | 1460              | 800              | 5177                                | –                         | 8,8     | 76                                     | 34.950                       | 68             | –                   | –       | TRI-4                          | –       |
| TCBT/4-800/G        | 1470              | 800              | 6146                                | –                         | 11,1    | 77                                     | 38.500                       | 81             | –                   | –       | TRI-5,5                        | –       |
| TCBT/4-800/H        | 1475              | 800              | 7688                                | –                         | 13      | 78                                     | 42.490                       | 89             | –                   | –       | TRI-5,5                        | –       |
| THREE PHASE 6 POLE  |                   |                  |                                     |                           |         |                                        |                              |                |                     |         |                                |         |
| TCBT/6-355/H        | 900               | 355              | 97                                  | 0,4                       | 0,2     | 47                                     | 2.250                        | 13,2           | –                   | RMT-1,5 | TRI-0,37                       | VFKB-45 |
| TCBT/6-400/H        | 860               | 400              | 116                                 | 0,4                       | 0,2     | 49                                     | 2.970                        | 15,5           | –                   | RMT-1,5 | TRI-0,37                       | VFKB-45 |
| TCBT/6-450/H        | 940               | 450              | 161                                 | 0,7                       | 0,4     | 54                                     | 4.020                        | 20,7           | –                   | RMT-1,5 | TRI-0,37                       | VFKB-45 |
| TCBT/6-500/H        | 930               | 500              | 198                                 | 0,9                       | 0,5     | 57                                     | 4.990                        | 24,8           | –                   | RMT-1,5 | TRI-0,37                       | VFKB-45 |
| TCBT/6-560/H        | 920               | 560              | 363                                 | 1,4                       | 0,8     | 60                                     | 7.630                        | 33,5           | –                   | RMT-2,5 | TRI-0,55                       | VFKB-45 |
| TCBT/6-630/L        | 915               | 630              | 595                                 | –                         | 1,3     | 60                                     | 10.940                       | 38             | –                   | RMT-2,5 | TRI-0,55                       | VFKB-45 |
| TCBT/6-630/H        | 950               | 630              | 906                                 | –                         | 2,7     | 62                                     | 13.610                       | 38,5           | –                   | RMT-5   | TRI-1,1                        | VFKB-45 |
| TCBT/6-710/L        | 910               | 710              | 967                                 | 3,5                       | 2,0     | 62                                     | 16.240                       | 46             | –                   | –       | TRI-1,1                        | VFKB-45 |
| TCBT/6-710/H        | 910               | 710              | 1378                                | 5,4                       | 3,1     | 63                                     | 19.120                       | 46             | –                   | –       | TRI-1,1                        | VFKB-45 |
| TCBT/6-800/L        | 965               | 800              | 1278                                | 4,7                       | 2,7     | 66                                     | 20.770                       | 57             | –                   | –       | TRI-1,1                        | VFKB-45 |
| TCBT/6-800/K        | 975               | 800              | 1592                                | 5,7                       | 3,3     | 66                                     | 24.090                       | 64             | –                   | –       | TRI-1,5                        | VFKB-45 |
| TCBT/6-800/G        | 975               | 800              | 1968                                | 8,0                       | 4,6     | 67                                     | 26.310                       | 68             | –                   | –       | TRI-2,2                        | VFKB-45 |
| TCBT/6-800/H        | 970               | 800              | 2345                                | 8,7                       | 5       | 68                                     | 27.910                       | 80             | –                   | –       | TRI-2,2                        | VFKB 48 |

\* Sound pressure level measured in free field conditions at a distance equivalent to three times the diameter of the impeller with a minimum of 1,5 meters.

For more information see Acoustic characteristics.

# CYLINDRICAL CASED AXIAL FLOW FANS COMPACT TCBB / TCBT Series - ALUMINIUM IMPELLERS



## REFERENCE

| 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.**
  - Ø 450 up to Ø 800 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:
- C:** Condensation drain holes on motor.
- EX:** Explosion proof and flame proof versions.

## SUPPLY VOLTAGES AND FREQUENCIES



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

\* For models allowed by speed controller RMT.

## ACOUSTIC CHARACTERISTICS

The sound levels shown in the technical characteristic chart and performance curves, 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.

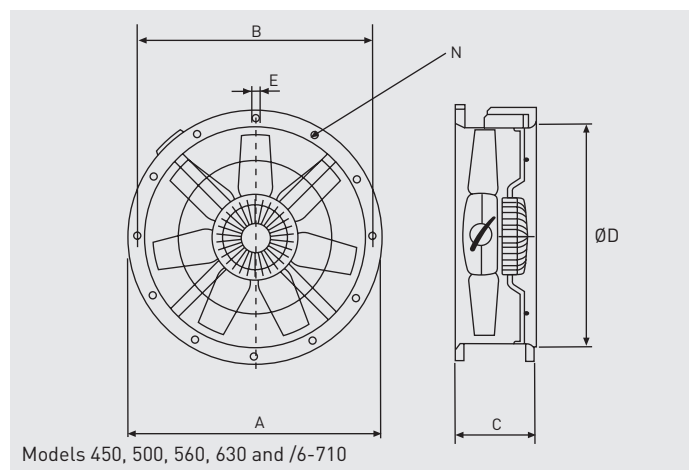
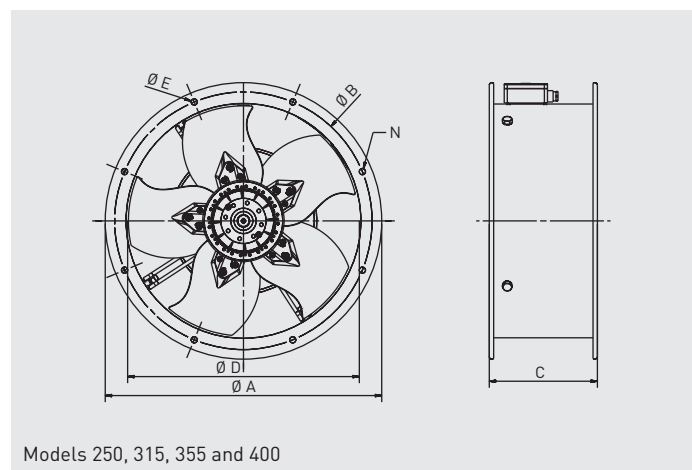
Sound power level spectrum in dB(A) at the corresponding frequency band in Hz and the point of maximum flow.

| Model    | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | LwA |
|----------|----|-----|-----|-----|------|------|------|------|-----|
| /2-250/H | 31 | 44  | 59  | 65  | 74   | 70   | 64   | 56   | 76  |

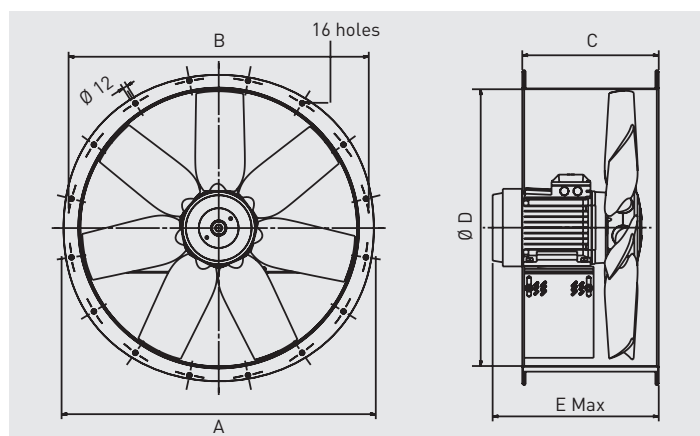
| Model    | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | LwA |
|----------|----|-----|-----|-----|------|------|------|------|-----|
| /4-250/H | 24 | 37  | 41  | 47  | 52   | 52   | 47   | 41   | 57  |
| /4-315/H | 40 | 51  | 45  | 53  | 59   | 59   | 51   | 43   | 63  |
| /4-355/H | 24 | 40  | 45  | 55  | 58   | 58   | 49   | 42   | 62  |
| /4-400/H | 46 | 53  | 59  | 66  | 69   | 69   | 66   | 58   | 74  |
| /4-450/H | 46 | 58  | 65  | 71  | 73   | 71   | 67   | 59   | 77  |
| /4-500/H | 50 | 62  | 69  | 75  | 76   | 75   | 70   | 62   | 81  |
| /4-560/L | 52 | 64  | 71  | 77  | 78   | 77   | 72   | 64   | 83  |
| /4-560/H | 53 | 65  | 72  | 78  | 79   | 78   | 73   | 65   | 84  |
| /4-630/L | 56 | 67  | 75  | 80  | 82   | 81   | 76   | 68   | 87  |
| /4-630/H | 56 | 67  | 75  | 80  | 82   | 81   | 76   | 68   | 87  |
| /4-710/L | 53 | 69  | 79  | 85  | 86   | 84   | 78   | 70   | 91  |
| /4-710/H | 60 | 72  | 79  | 85  | 86   | 85   | 80   | 72   | 91  |
| /4-800/L | 57 | 73  | 83  | 90  | 91   | 88   | 82   | 74   | 95  |
| /4-800/K | 63 | 75  | 82  | 88  | 90   | 88   | 84   | 76   | 94  |
| /4-800/G | 64 | 76  | 83  | 89  | 90   | 89   | 84   | 76   | 95  |
| /4-800/H | 66 | 77  | 84  | 90  | 92   | 91   | 86   | 78   | 96  |

| Model    | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | LwA |
|----------|----|-----|-----|-----|------|------|------|------|-----|
| /6-355/H | 31 | 42  | 49  | 55  | 57   | 55   | 51   | 43   | 61  |
| /6-400/H | 33 | 44  | 51  | 57  | 59   | 58   | 53   | 45   | 64  |
| /6-450/H | 40 | 51  | 58  | 63  | 64   | 62   | 56   | 48   | 69  |
| /6-500/H | 43 | 53  | 61  | 66  | 66   | 64   | 58   | 50   | 71  |
| /6-560/L | 46 | 57  | 64  | 69  | 70   | 67   | 61   | 53   | 74  |
| /6-560/H | 46 | 56  | 64  | 69  | 69   | 67   | 61   | 53   | 74  |
| /6-630/L | 49 | 59  | 66  | 71  | 72   | 70   | 64   | 56   | 77  |
| /6-630/H | 51 | 61  | 68  | 73  | 74   | 72   | 66   | 58   | 79  |
| /6-710/L | 52 | 62  | 69  | 75  | 75   | 73   | 67   | 59   | 80  |
| /6-710/H | 53 | 64  | 71  | 76  | 77   | 75   | 69   | 61   | 82  |
| /6-800/L | 51 | 66  | 76  | 79  | 79   | 76   | 69   | 61   | 84  |
| /6-800/K | 51 | 66  | 76  | 79  | 79   | 76   | 69   | 61   | 84  |
| /6-800/G | 56 | 67  | 74  | 79  | 80   | 78   | 72   | 64   | 85  |
| /6-800/H | 58 | 69  | 76  | 81  | 82   | 79   | 73   | 65   | 86  |

**DIMENSIONS (mm)**

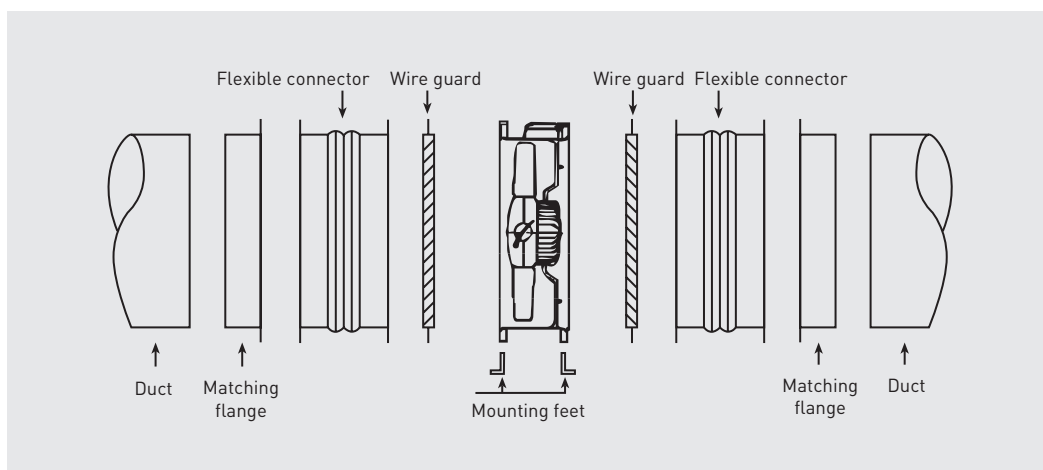
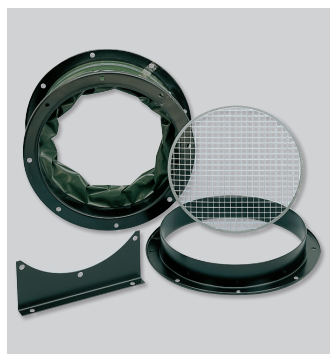


| Model         | Ø A | Ø B | C   | Ø D | Ø E | Number of holes N |
|---------------|-----|-----|-----|-----|-----|-------------------|
| 250           | 327 | 292 | 170 | 254 | 10  | 4                 |
| 315           | 386 | 355 | 170 | 315 | 10  | 8                 |
| 355           | 426 | 395 | 170 | 355 | 10  | 8                 |
| 400 (6 poles) | 487 | 450 | 170 | 400 | 12  | 8                 |
| 400 (4 poles) | 487 | 450 | 210 | 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                |
| 710 (6 poles) | 806 | 770 | 240 | 710 | 12  | 16                |



| Model           | Ø A | B   | C   | Ø D | E                       |         |         |
|-----------------|-----|-----|-----|-----|-------------------------|---------|---------|
|                 |     |     |     |     | 4 poles                 | 6 poles | 8 poles |
| 710/L (4 poles) | 806 | 770 | 380 | 710 | 415                     | –       | –       |
| 710/H (4 poles) | 806 | 770 | 380 | 710 | 444                     | –       | –       |
| 800/L           | 896 | 860 | 380 | 800 | 437                     | 408     | 383     |
| 800/K           | 896 | 860 | 380 | 800 | 448                     | 437     | 408     |
| 800/G           | 896 | 860 | 380 | 800 | 447 (5,5kW) 515 (7,5kW) | 448     | 437     |
| 800/H           | 896 | 860 | 380 | 800 | 515                     | 477     | 437     |

## 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 / TCBB 250   | DEF-250 T             | DEF-250 T             | ARO BRIDA COMPACT-250 | PIE-250       | -                          | ACOP.BRIDA-250     | ACOPEL EX 250/160 N                       |
| TCBB / TCBB 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 / TCBB 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.



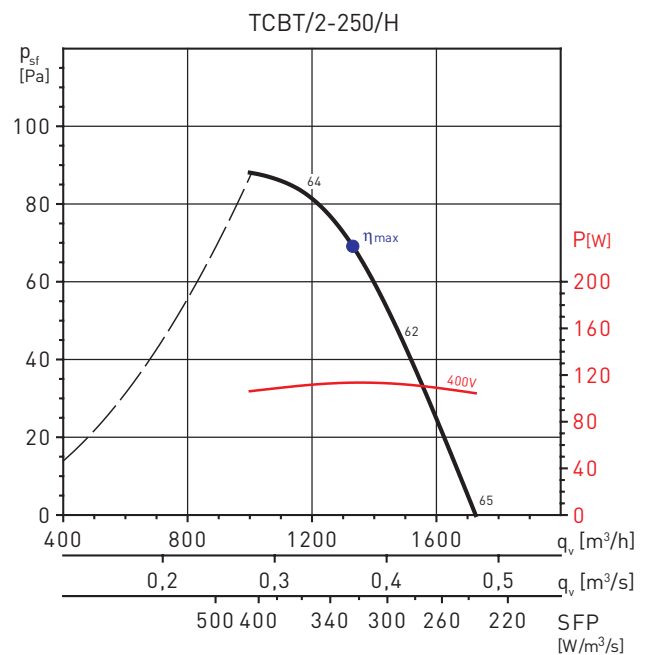
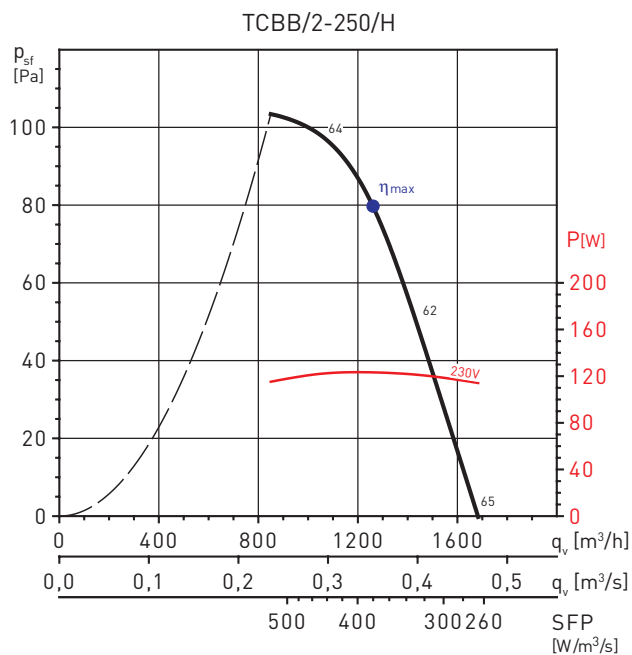
**COM D/S**  
To connect three phase fans with 400 V motor. For three phase models.

### TCBB/TCBT PERFORMANCE CURVES

- $q_v$ : Airflow in  $m^3/h$  and  $m^3/s$ .
- $p_{sf}$ : Static pressure in Pa.
- SFP: Specific fan power in  $W/m^3/s$ .
- P: Input power in W.
- Measurement category: C or D depending on the models.
- Efficiency category: Static or Total depending on the models.
- Fan tested with inlet bellmouth.
- Fan efficiency without speed control.
- Airflow data in accordance with ISO 5801.
- Sound pressure level dB(A), measured in a free field distance equal to 3 times the diameter, with a minimum of 1,5 m.

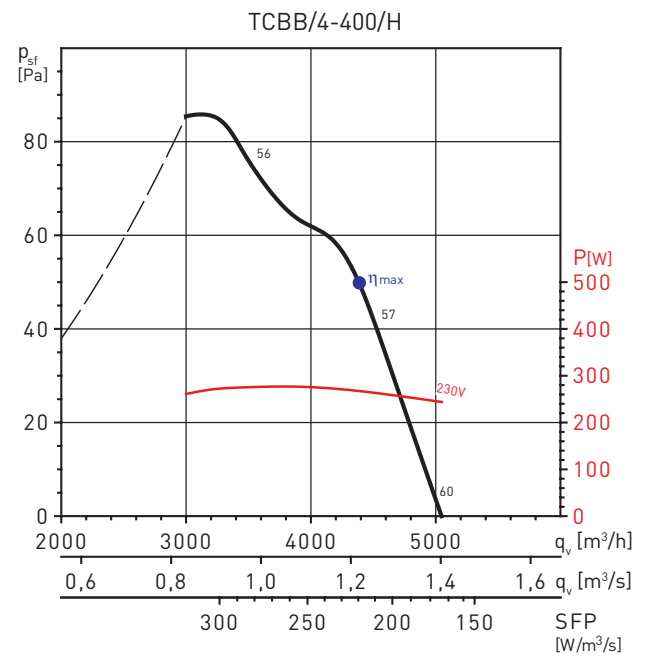
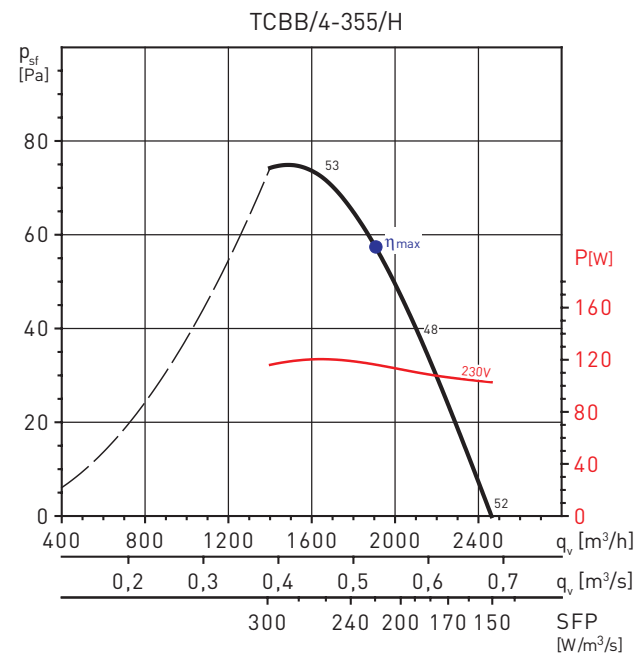
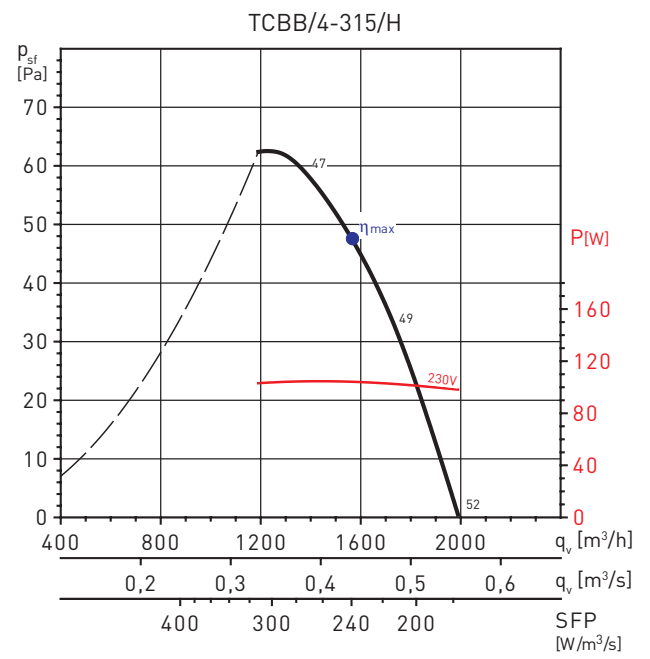
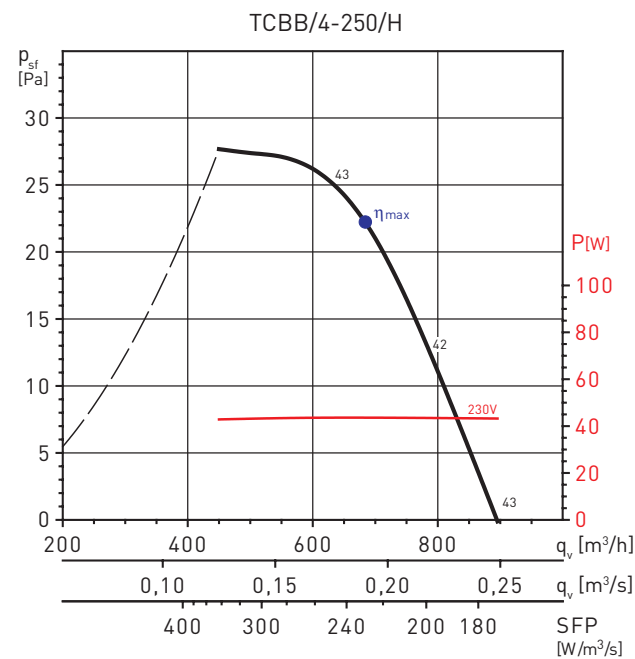
|                             |                                      |
|-----------------------------|--------------------------------------|
| <b>MC</b>                   | Measurement category                 |
| <b>EC</b>                   | Efficiency category                  |
| <b>VSD</b>                  | Speed control: supplied with the fan |
| <b>SR</b>                   | Specific ratio                       |
| <b><math>\eta</math>[%]</b> | Efficiency                           |
| <b>N</b>                    | Efficiency grade                     |
| <b>[kW]</b>                 | Absorbed power                       |
| <b>[m<sup>3</sup>/h]</b>    | Airflow                              |
| <b>[Pa]</b>                 | Static pressure                      |
| <b>[RPM]</b>                | Speed                                |

### PERFORMANCE CURVES - 2 POLE MOTORS



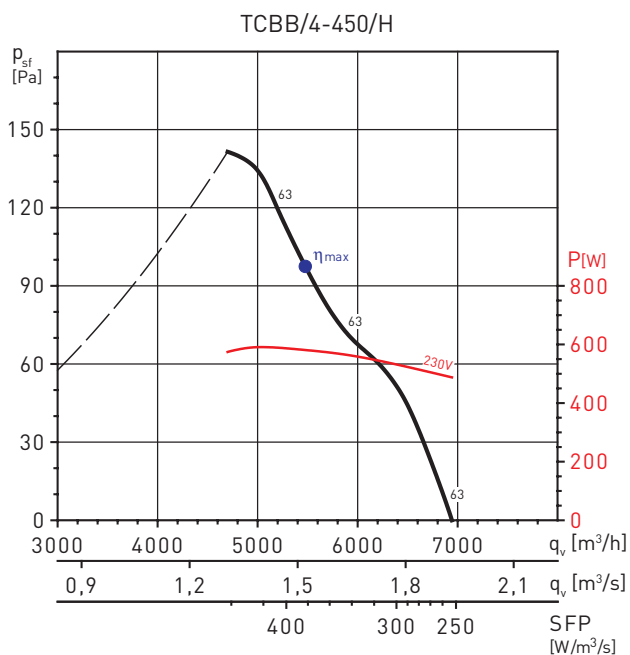


PERFORMANCE CURVES - 4 POLE MOTORS

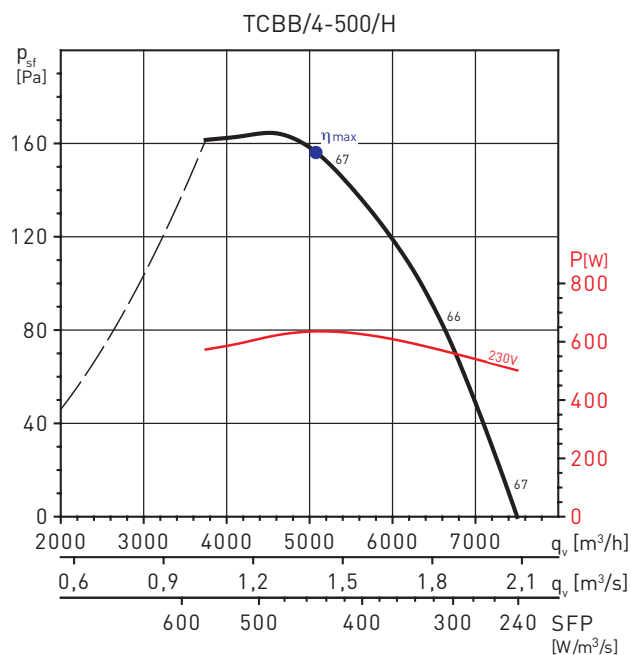


| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|-------------|------|-------|
| D  | Total | No  | 1  | 48,5       | 58,4 | 0,267 | 4386        | 106  | 1397  |

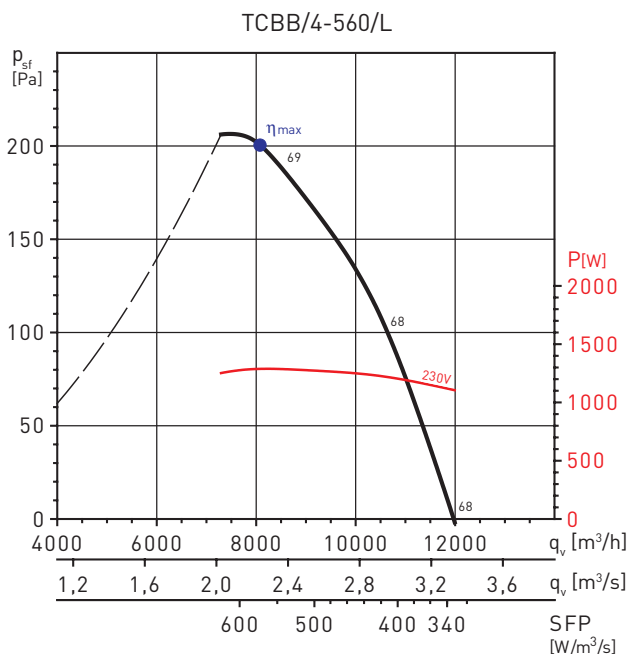
**PERFORMANCE CURVES - 4 POLE MOTORS**



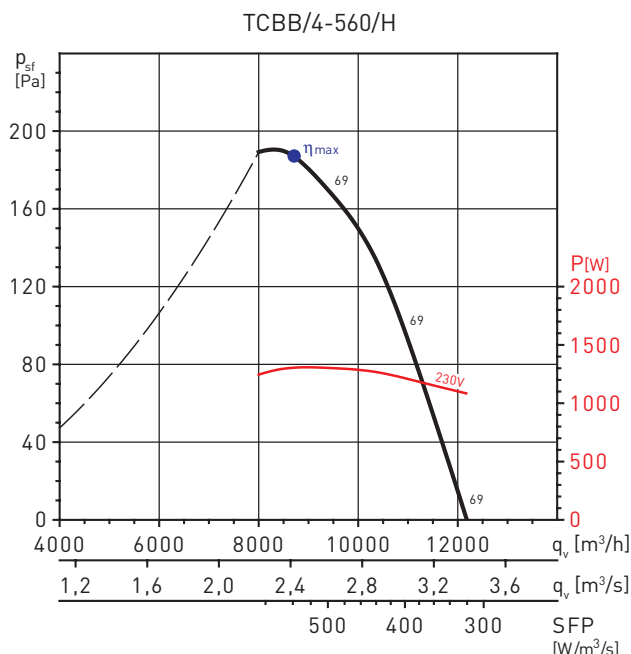
| MC | EC     | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|--------|-----|----|------------|------|-------|-------------|------|-------|
| C  | Static | No  | 1  | 32,3       | 40,1 | 0,582 | 4783        | 142  | 1368  |



| MC | EC     | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|--------|-----|----|------------|------|-------|-------------|------|-------|
| C  | Static | No  | 1  | 34,5       | 42,1 | 0,636 | 5075        | 156  | 1367  |



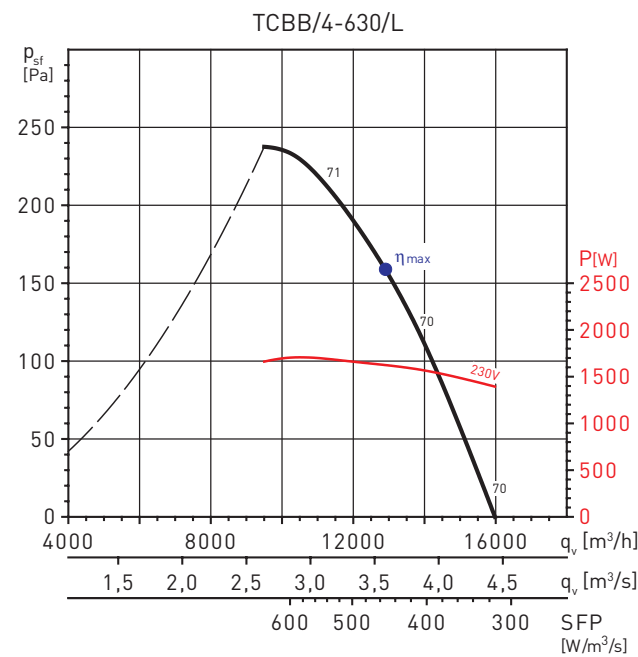
| MC | EC     | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|--------|-----|----|------------|------|-------|-------------|------|-------|
| C  | Static | No  | 1  | 34,7       | 40,3 | 1,288 | 8071        | 200  | 1382  |



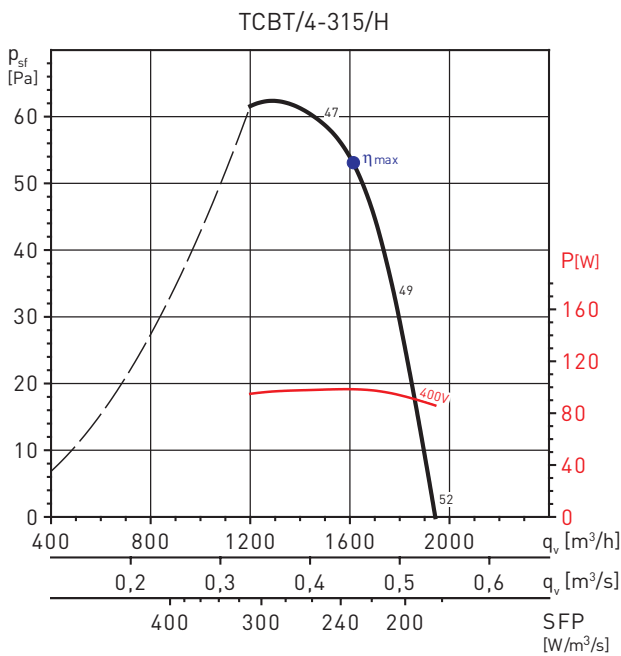
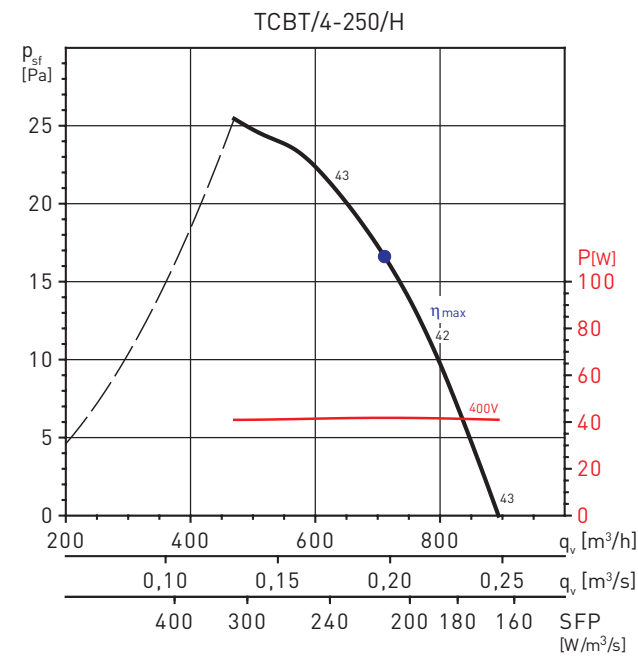
| MC | EC     | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|--------|-----|----|------------|------|-------|-------------|------|-------|
| C  | Static | No  | 1  | 34,6       | 40,2 | 1,305 | 8700        | 187  | 1370  |



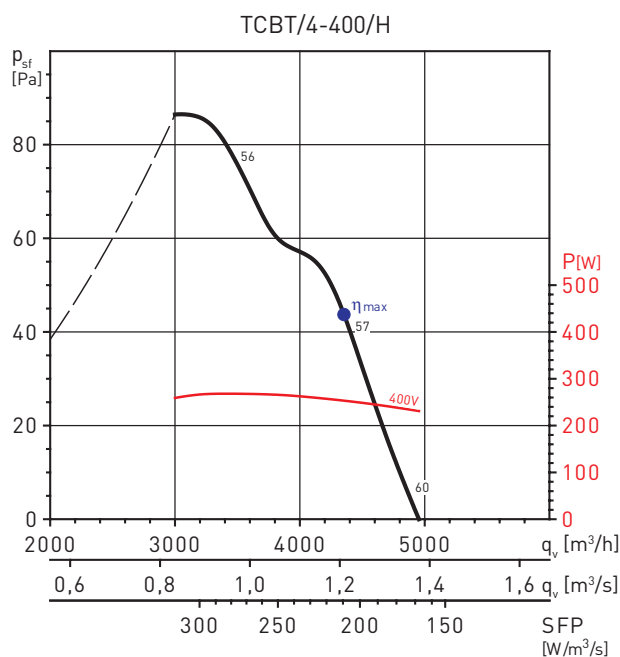
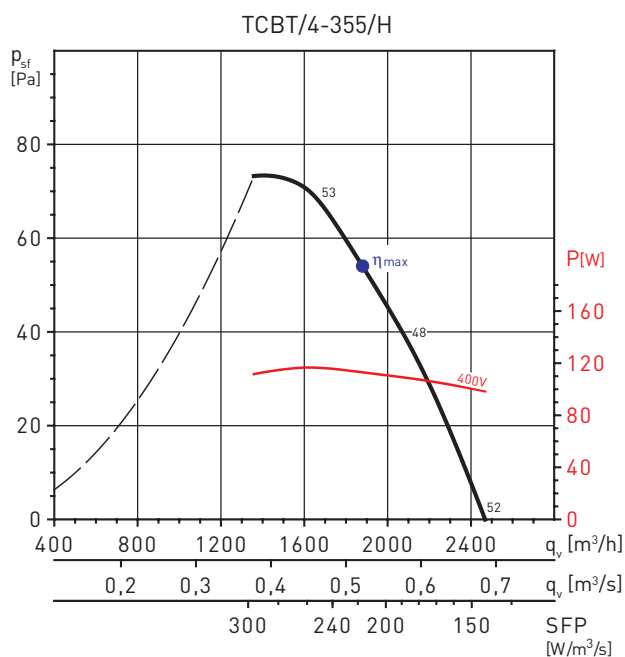
PERFORMANCE CURVES - 4 POLE MOTORS



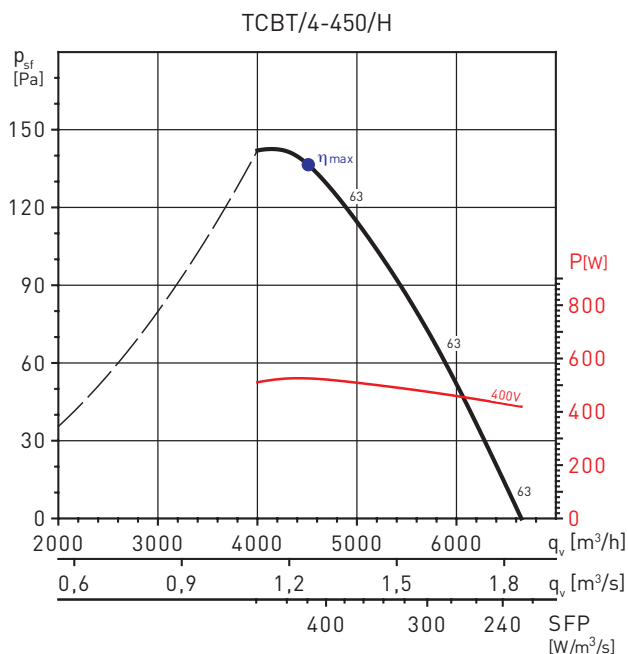
| MC | EC    | VSD | SR | η[%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 53,4 | 58,4 | 1,624 | 12.896 | 241  | 1332  |



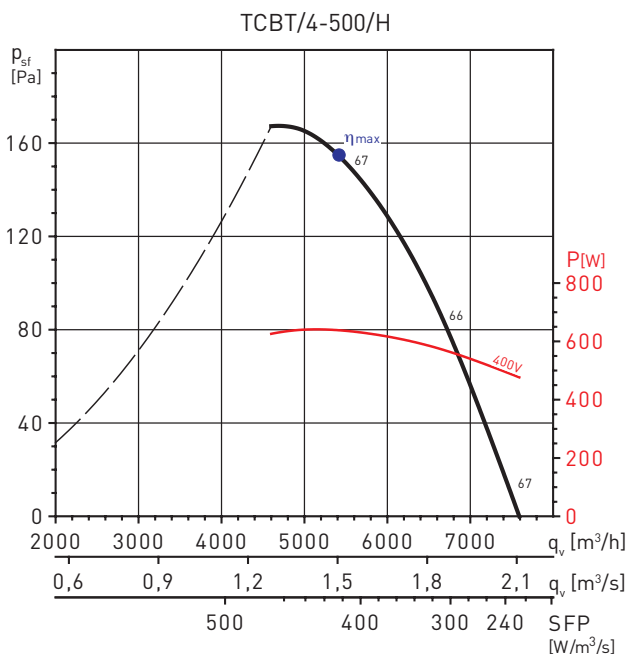
**PERFORMANCE CURVES - 4 POLE MOTORS**



| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|-------------|------|-------|
| D  | Total | No  | 1  | 47,9       | 58,0 | 0,255 | 4281        | 103  | 1391  |



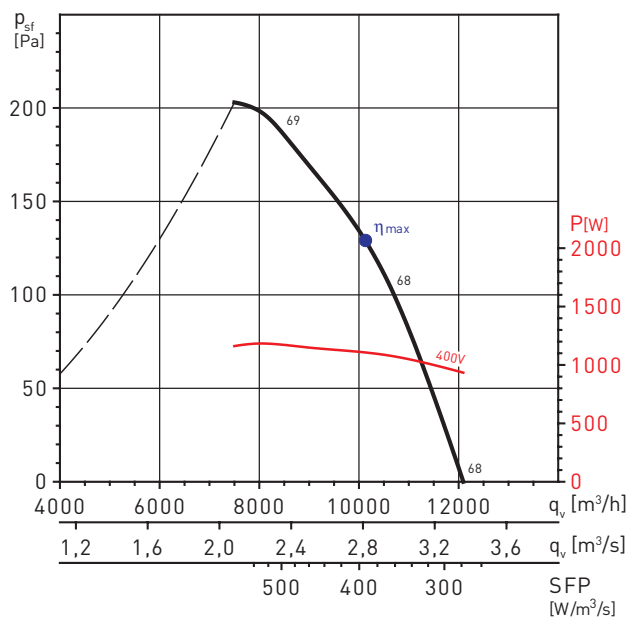
| MC | EC     | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|--------|-----|----|------------|------|-------|-------------|------|-------|
| C  | Static | No  | 1  | 32,4       | 40,5 | 0,526 | 4510        | 136  | 1374  |



| MC | EC     | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|--------|-----|----|------------|------|-------|-------------|------|-------|
| C  | Static | No  | 1  | 36,3       | 43,9 | 0,638 | 5409        | 155  | 1381  |

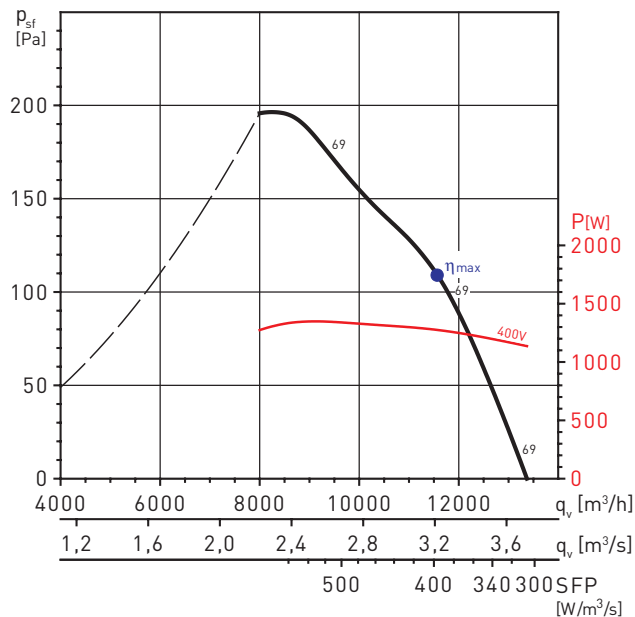
PERFORMANCE CURVES - 4 POLE MOTORS

TCBT/4-560/L



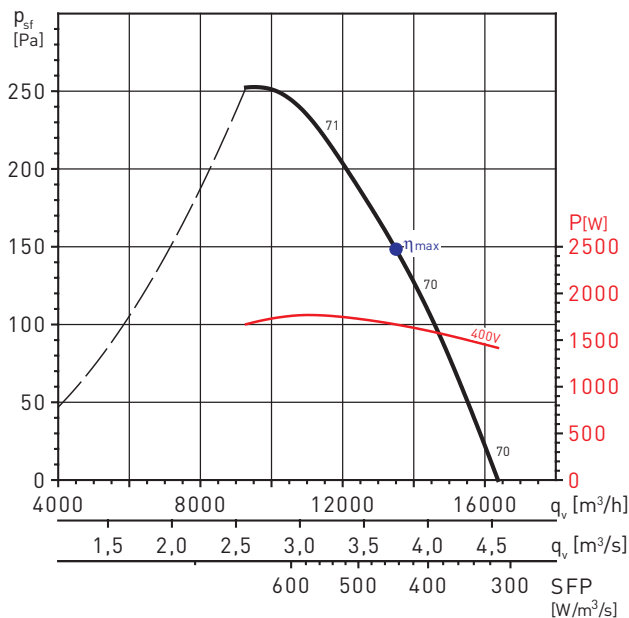
| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 53,2       | 59,3 | 1,107 | 10127  | 208  | 1390  |

TCBT/4-560/H



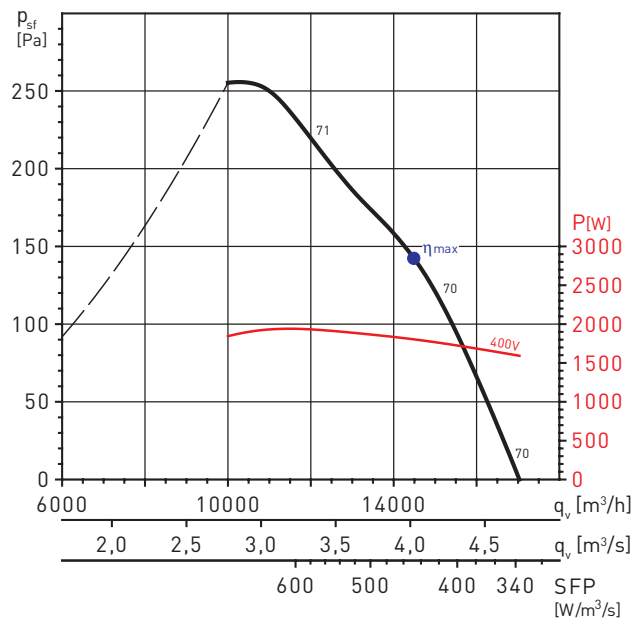
| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 53,4       | 59,1 | 1,275 | 11576  | 212  | 1372  |

TCBT/4-630/L



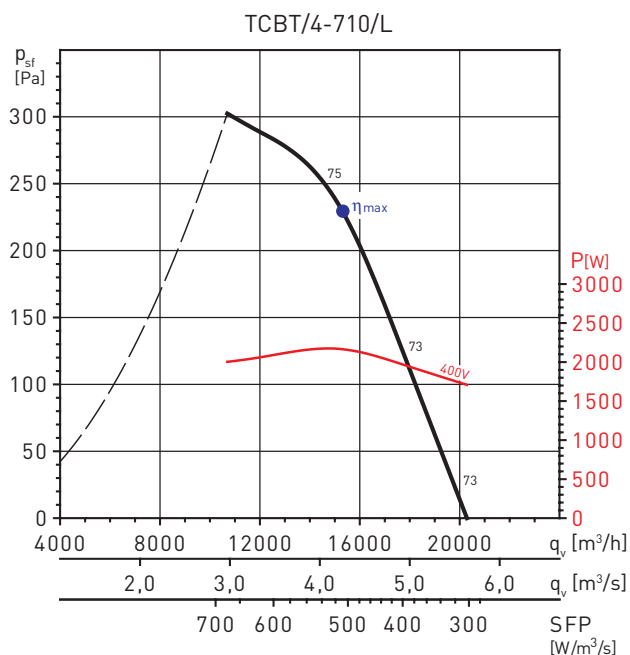
| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 53,4       | 58,3 | 1,667 | 13505  | 236  | 1390  |

TCBT/4-630/H

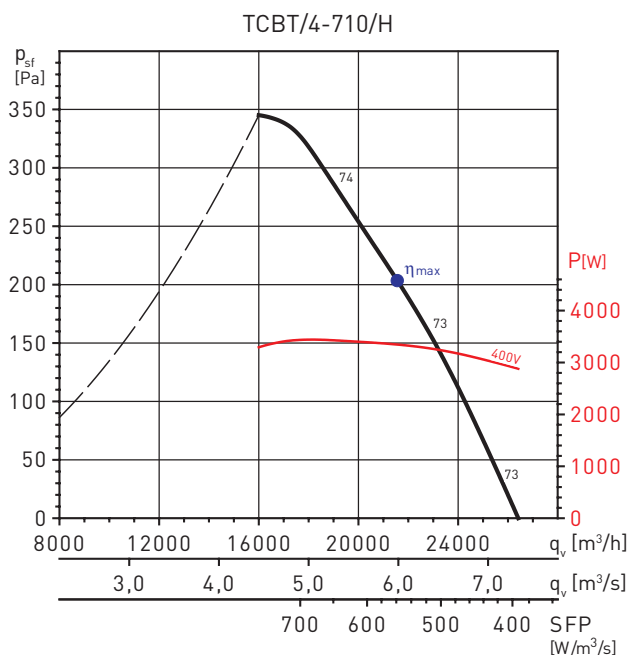


| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 54,4       | 59,1 | 1,804 | 14481  | 244  | 1383  |

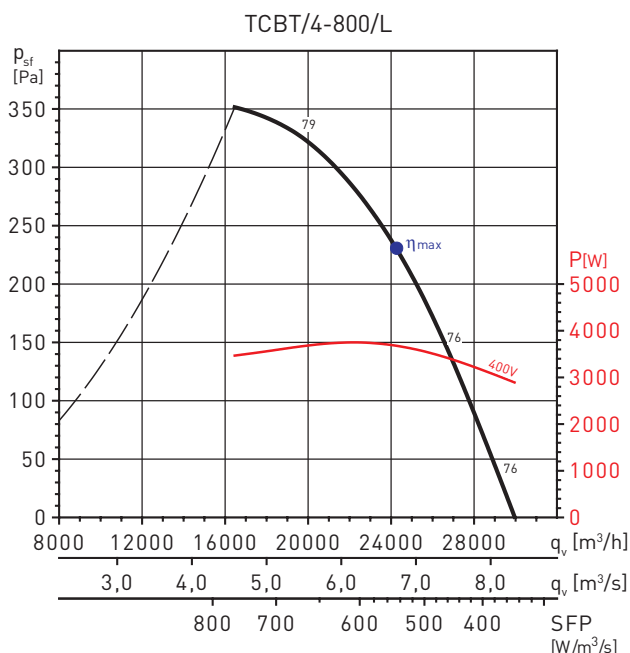
**PERFORMANCE CURVES - 4 POLE MOTORS**



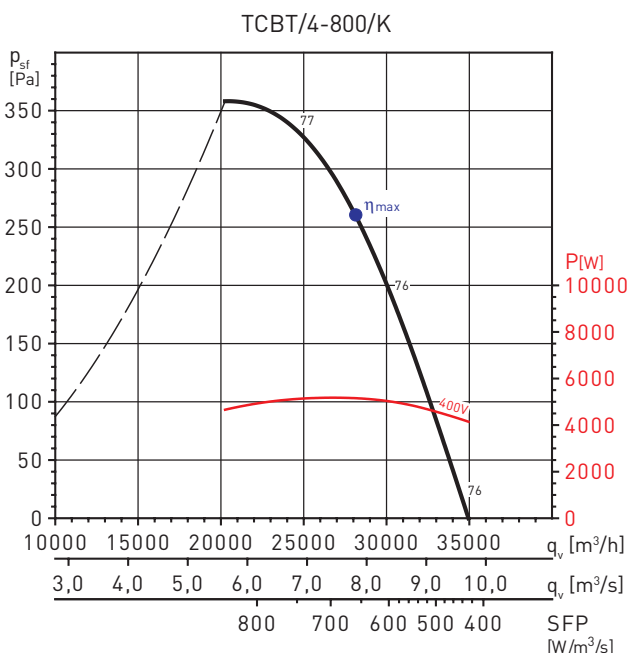
| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 58,7       | 62,9 | 2,166 | 15306  | 299  | 1414  |



| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 61,4       | 64,4 | 3,346 | 21563  | 341  | 1451  |



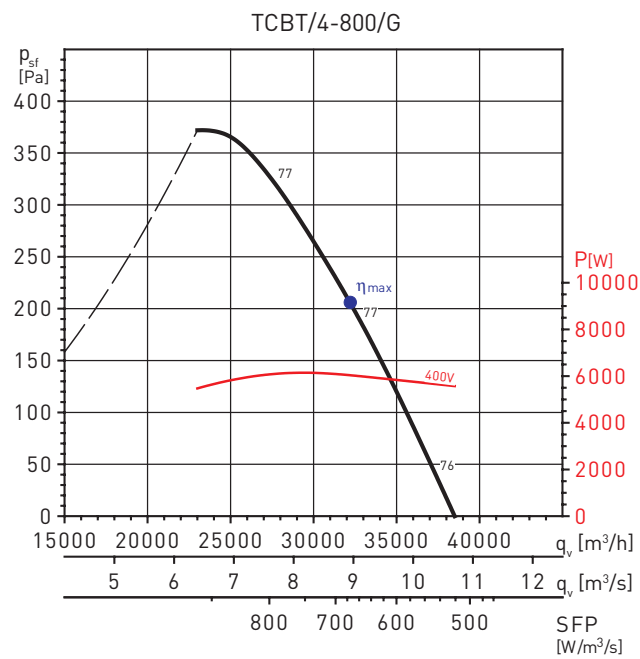
| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 62,4       | 65,2 | 3,678 | 24248  | 339  | 1445  |



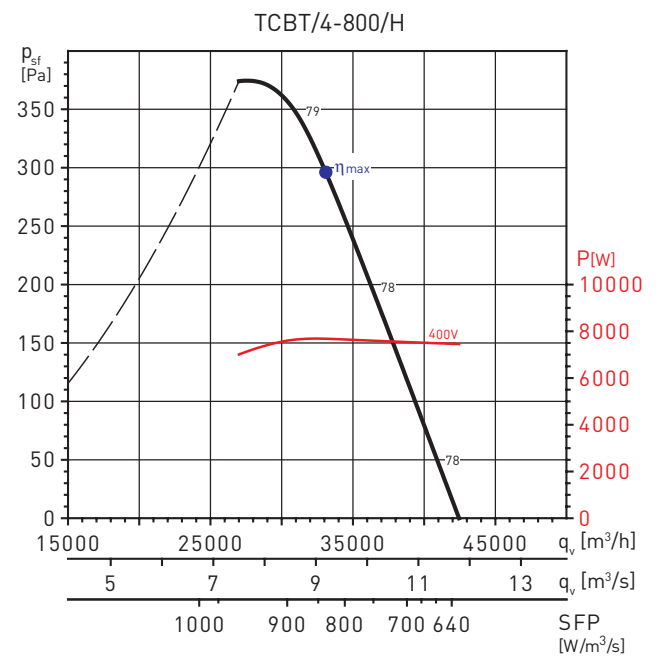
| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 61,6       | 63,4 | 5,156 | 28120  | 406  | 1445  |



PERFORMANCE CURVES - 4 POLE MOTORS

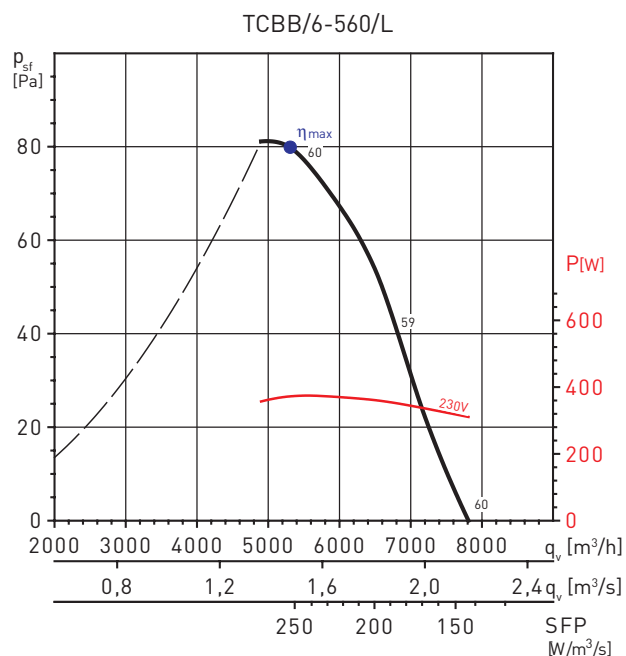
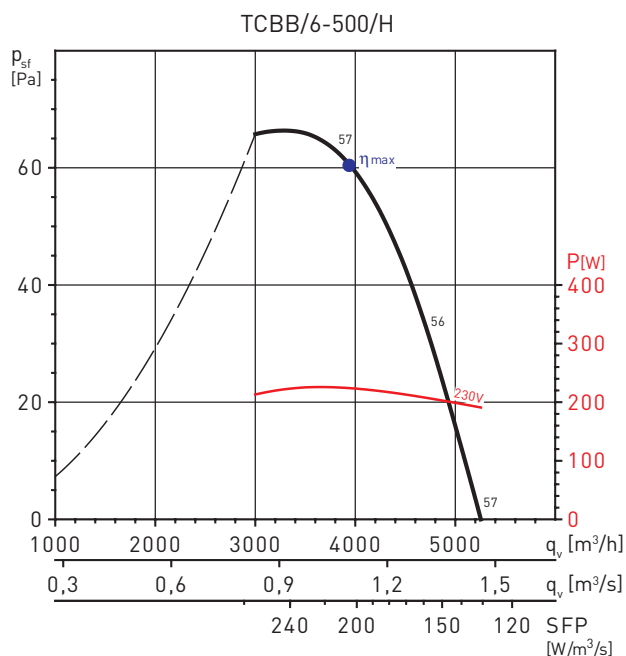
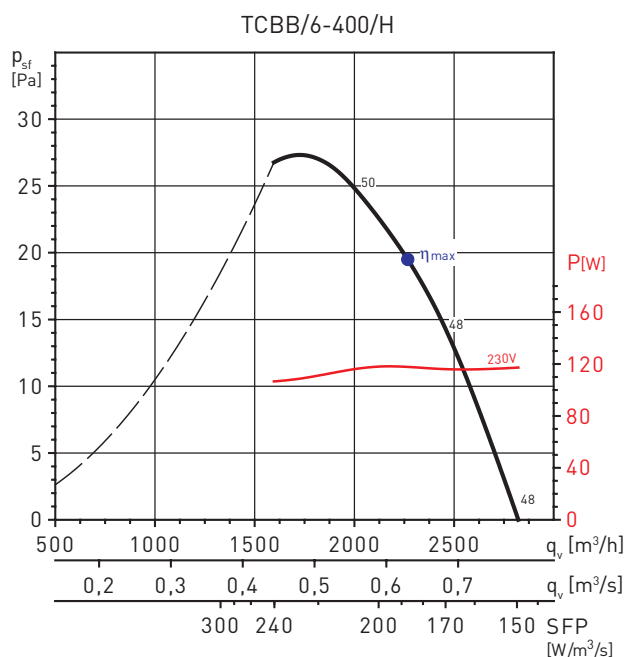
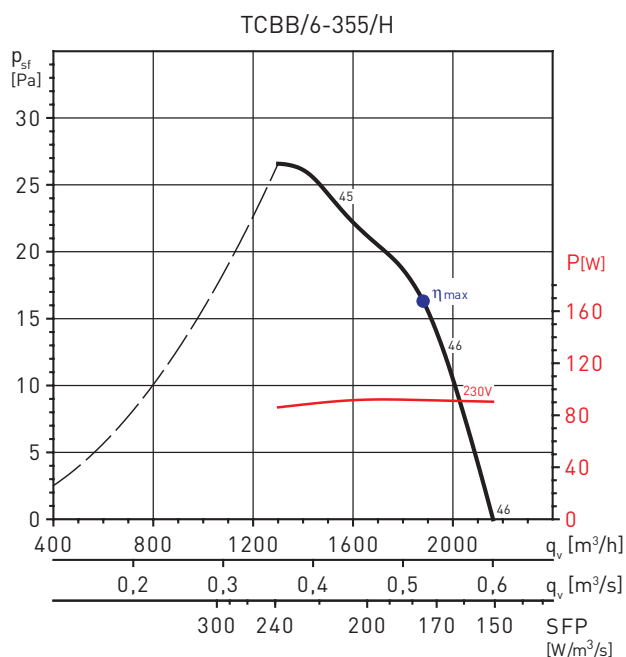


| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|-------------|------|-------|
| D  | Total | No  | 1  | 58,9       | 60,3 | 6,038 | 32195       | 397  | 1460  |



| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|-------------|------|-------|
| D  | Total | No  | 1  | 59,6       | 60,3 | 7,682 | 33100       | 498  | 1468  |

**PERFORMANCE CURVES - 6 POLE MOTORS**

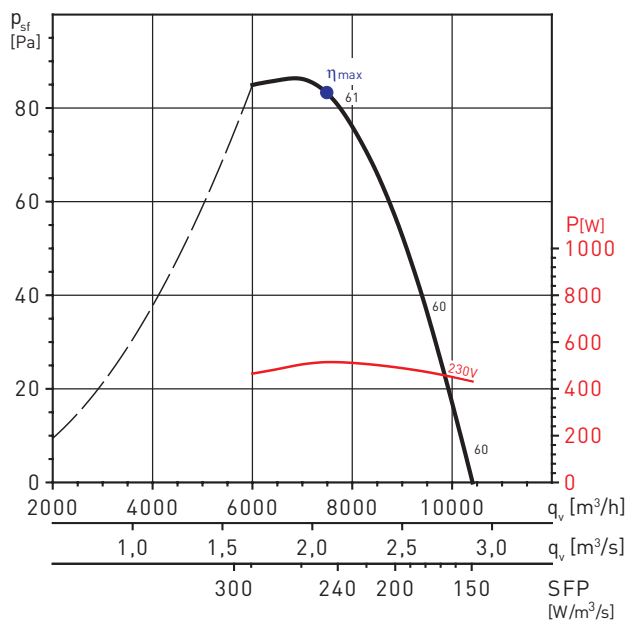


| MC | EC     | VSD | SR | η[%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|--------|-----|----|------|------|-------|--------|------|-------|
| C  | Static | No  | 1  | 29,6 | 40,0 | 0,224 | 3945   | 61   | 886   |

| MC | EC     | VSD | SR | η[%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|--------|-----|----|------|------|-------|--------|------|-------|
| C  | Static | No  | 1  | 31,6 | 40,6 | 0,372 | 5306   | 80   | 894   |

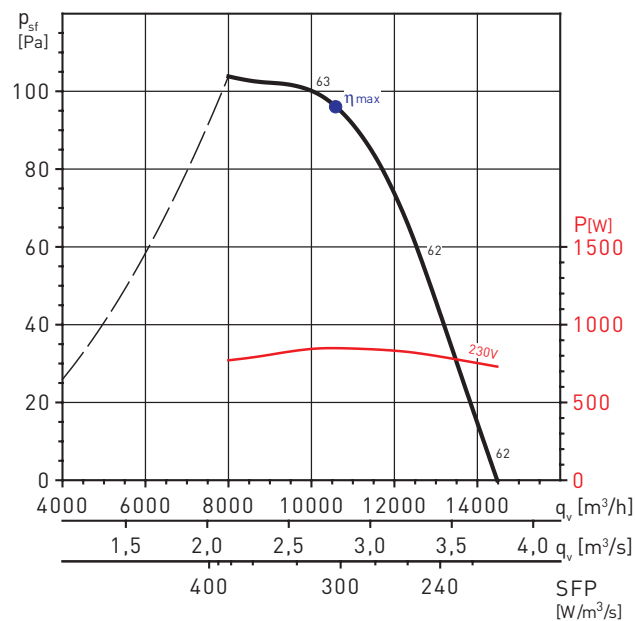
**PERFORMANCE CURVES - 6 POLE MOTORS**

TCBB/6-630/L



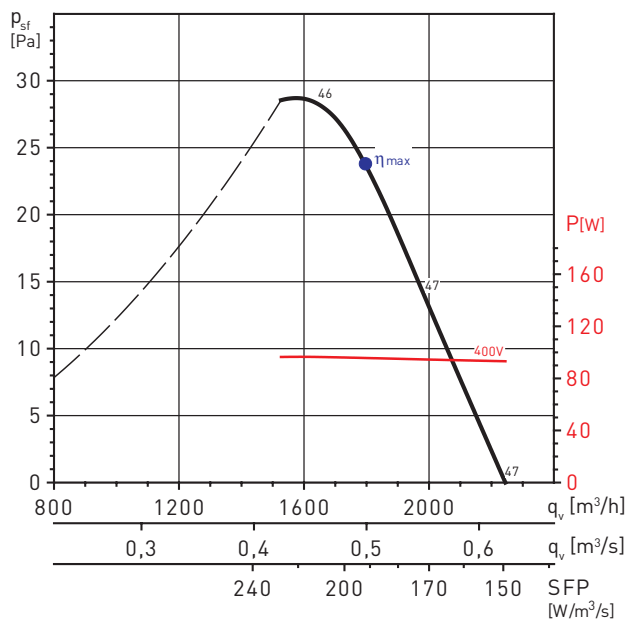
| MC | EC     | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|--------|-----|----|------------|------|-------|--------|------|-------|
| C  | Static | No  | 1  | 33,7       | 41,9 | 0,514 | 7499   | 83   | 889   |

TCBB/6-710/L

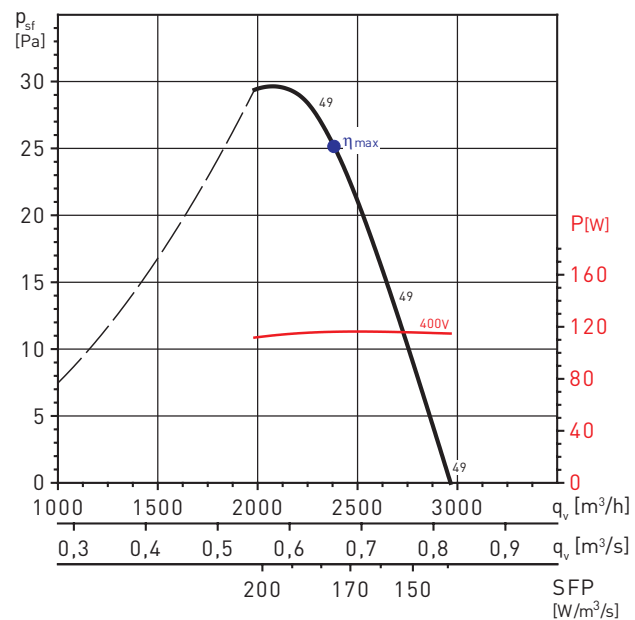


| MC | EC     | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|--------|-----|----|------------|------|-------|--------|------|-------|
| C  | Static | No  | 1  | 33,3       | 40,1 | 0,849 | 10587  | 96   | 901   |

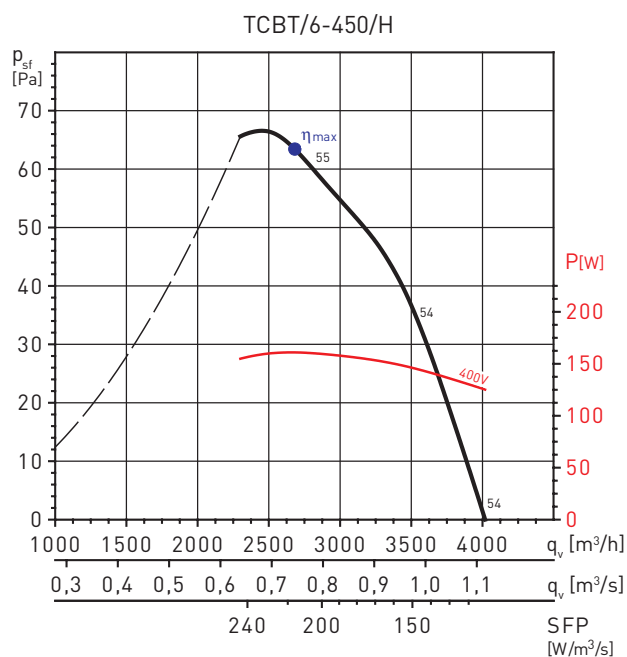
TCBT/6-355/H



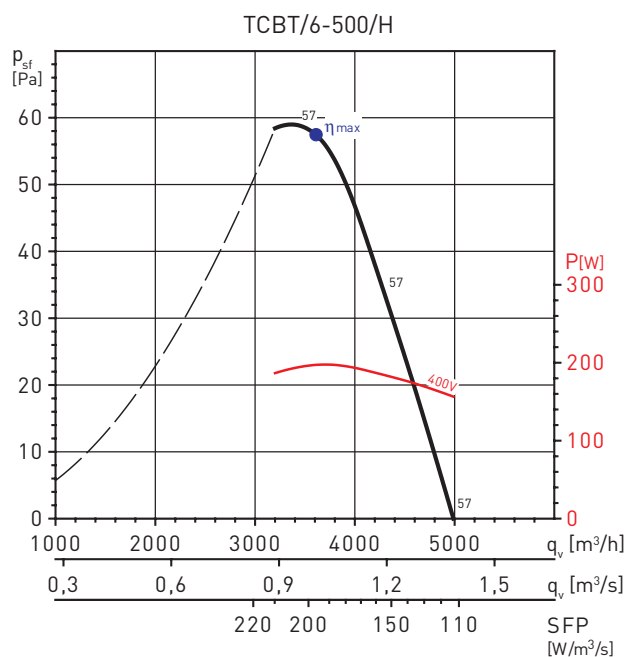
TCBT/6-400/H



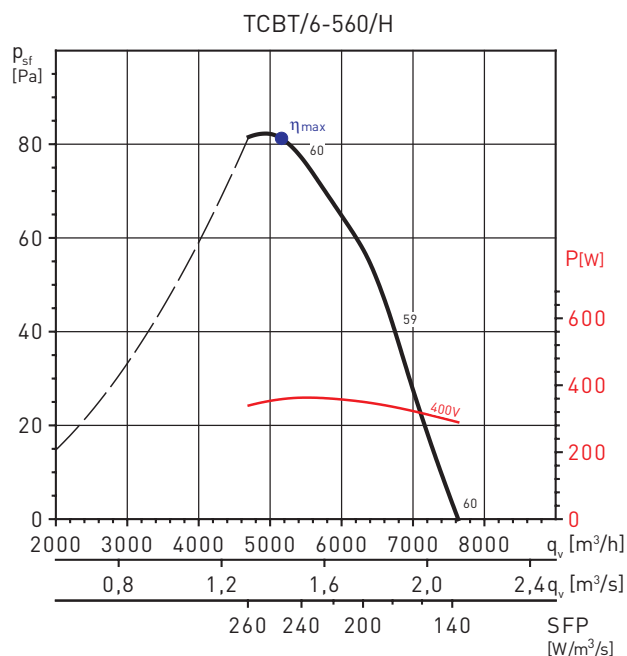
**PERFORMANCE CURVES - 6 POLE MOTORS**



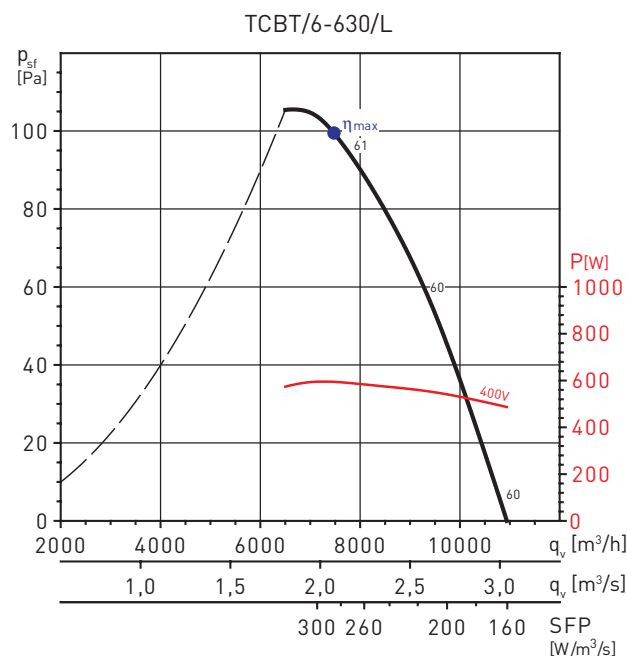
| MC | EC     | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|--------|-----|----|------------|------|-------|-------------|------|-------|
| C  | Static | No  | 1  | 29,1       | 40,4 | 0,161 | 2684        | 63   | 911   |



| MC | EC     | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|--------|-----|----|------------|------|-------|-------------|------|-------|
| C  | Static | No  | 1  | 29,2       | 40,0 | 0,197 | 3608        | 58   | 899   |



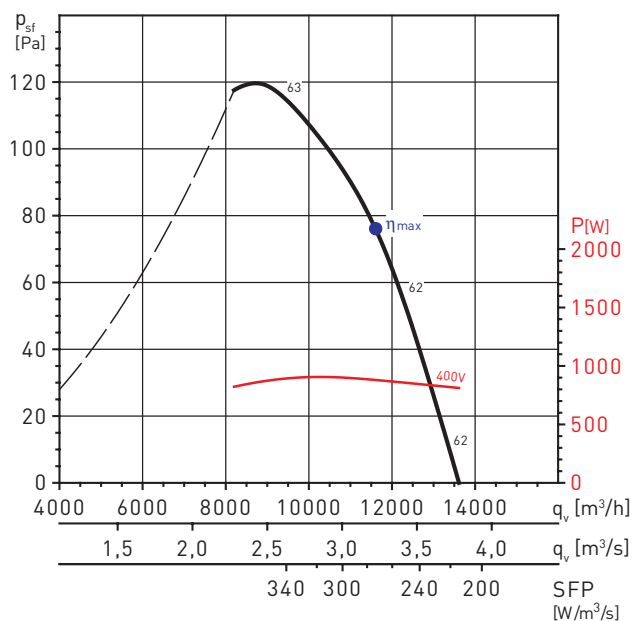
| MC | EC     | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|--------|-----|----|------------|------|-------|-------------|------|-------|
| C  | Static | No  | 1  | 32,5       | 41,6 | 0,359 | 5164        | 81   | 895   |



| MC | EC     | VSD | SR | $\eta$ [%] | N    | [kW]  | [ $m^3/h$ ] | [Pa] | [RPM] |
|----|--------|-----|----|------------|------|-------|-------------|------|-------|
| C  | Static | No  | 1  | 34,6       | 42,4 | 0,594 | 7481        | 99   | 888   |

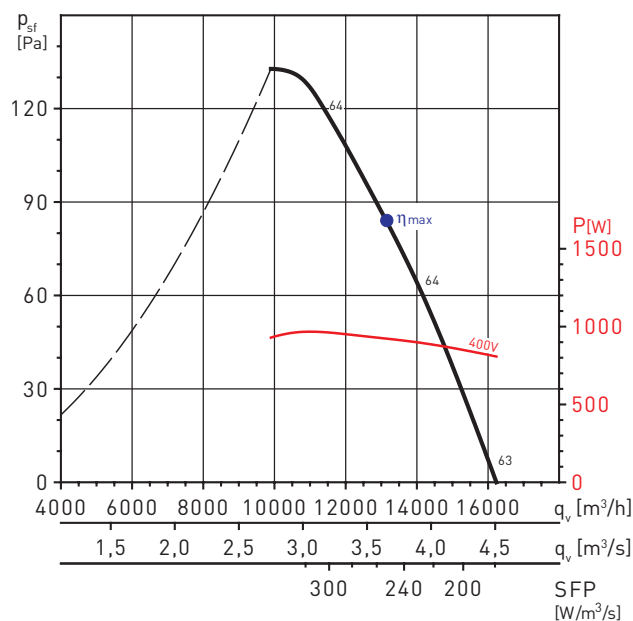
PERFORMANCE CURVES - 6 POLE MOTORS

TCBT/6-630/H



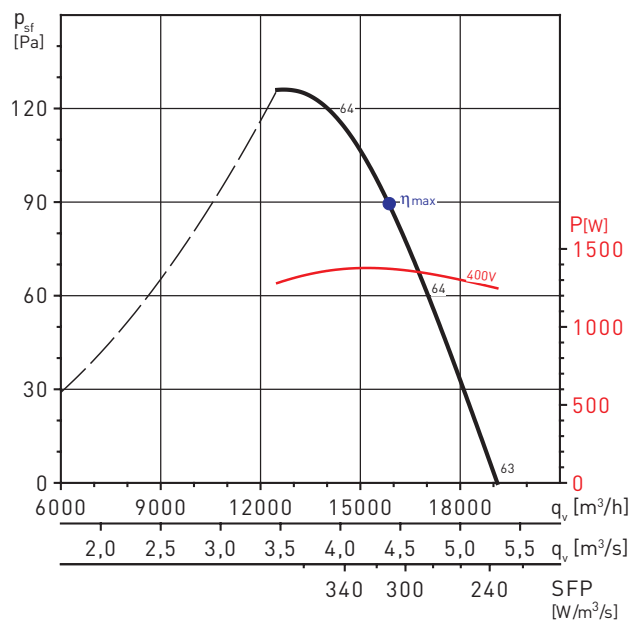
| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 51,7       | 58,4 | 0,880 | 11606  | 141  | 949   |

TCBT/6-710/L



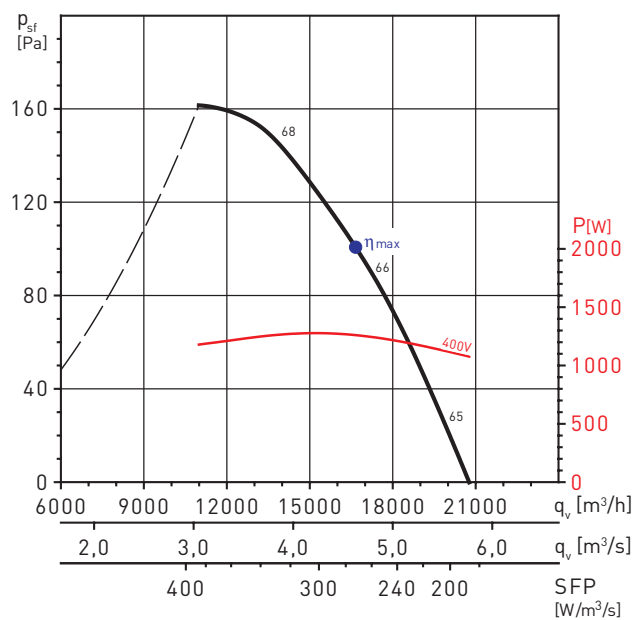
| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 53,7       | 60,3 | 0,921 | 13209  | 134  | 894   |

TCBT/6-710/H



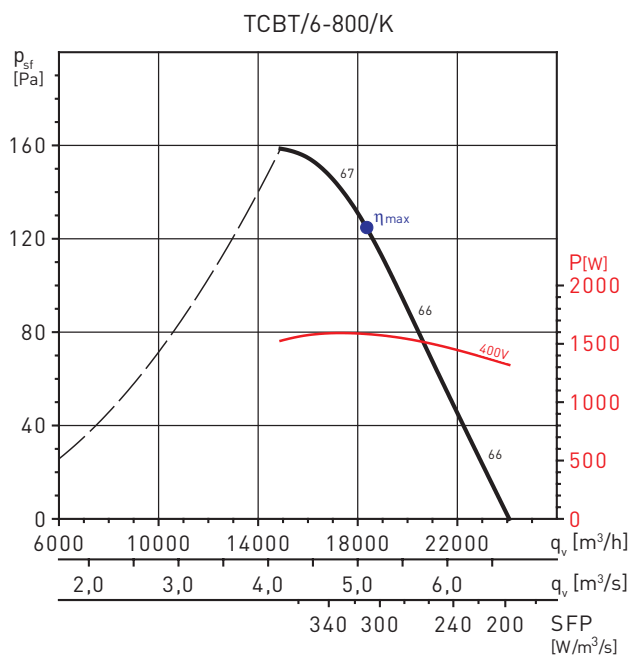
| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 52,7       | 58,2 | 1,376 | 15643  | 167  | 897   |

TCBT/6-800/L

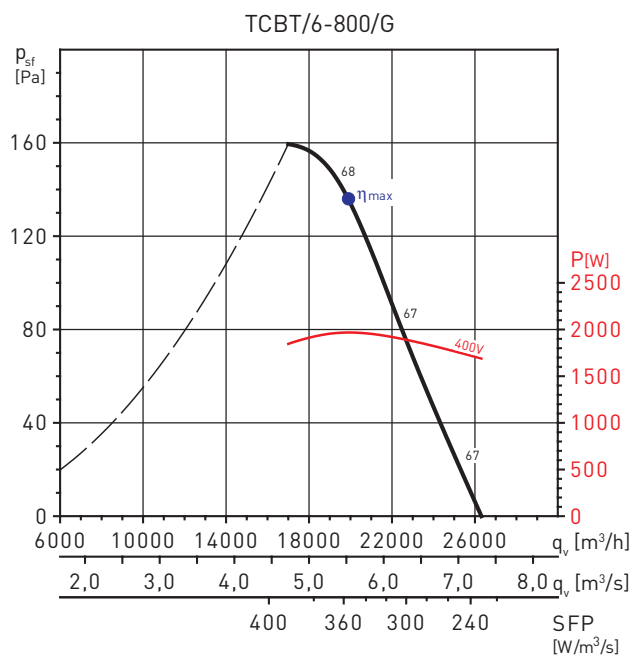


| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 56,0       | 61,7 | 1,260 | 16668  | 152  | 955   |

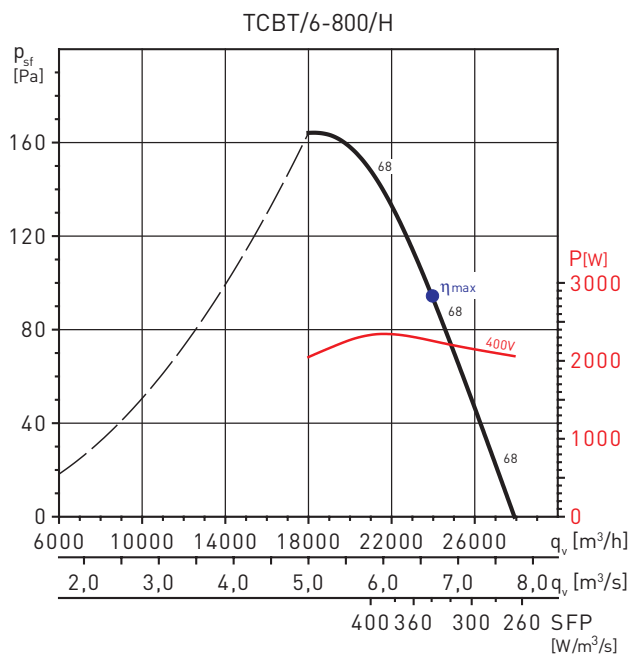
**PERFORMANCE CURVES - 6 POLE MOTORS**



| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 60,1       | 65,2 | 1,584 | 18352  | 187  | 965   |



| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 58,6       | 63,1 | 1,968 | 19904  | 209  | 971   |



| MC | EC    | VSD | SR | $\eta$ [%] | N    | [kW]  | [m³/h] | [Pa] | [RPM] |
|----|-------|-----|----|------------|------|-------|--------|------|-------|
| D  | Total | No  | 1  | 59,0       | 63,1 | 2,257 | 23956  | 200  | 962   |