



## VORTICEL A-E RANGE

### Low-pressure plate axial fans

Industrial wall-mounted slim axial fans, available in different diameters and in single and three phase versions, designed for the ventilation of commercial and industrial premises, such as offices, gyms, restaurants, discos, dry cleaners and warehouses.

#### Key features

- Reduced axial clearance
- Possibility of installation in the presence of pressure drops (e.g. discharge via duct or through filters)
- Robust and weatherproof construction.
- Motors with high (IP54) degree of protection against dust and water.

#### Versions

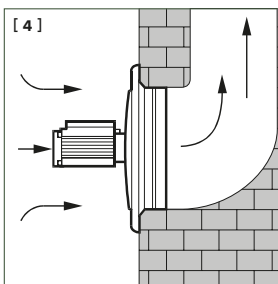
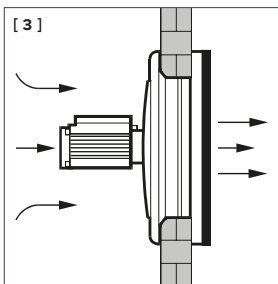
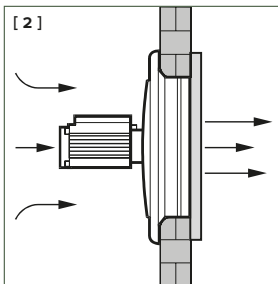
- 19 models, in single and three-phase versions, with 2, 4 and 6 poles, with a nominal diameter between 250 and 630 mm.

#### Technical features

- Wall panels made of pressed steel, pickled, phosphated and epoxy powder coated with hammered effect finish, guaranteeing long-term resistance to aggressive agents, in grey colour with hammered finish.
- Ventilation ports, fashioned in one piece with the wall panels, elongated profile, gauged to optimize airflow.
- Safety and anti-bird protective grilles designed in accordance with the UNI ISO 13857 standard combining the function of motor bracket, made of electrically welded steel rings with epoxy black paint finish. Easy removal simplifies the maintenance and cleaning of the fan.
- Class F thermally protected asynchronous rotor type motors in order to contain the axial clearance of the fan, with shafts mounted on double shielded ball bearings, characterized by high (IP54) degree of protection against dust and water, speed adjustable by Vortex controllers.
- Starting capacitors of the single-phase models comply with the EN 60252-1 standard and are third-party certified.
- Dynamically balanced impeller (UNI ISO 1940, Class 6.3); variable number of blades from 4 to 7 according to the model, moulded in electrically galvanised sheet steel and polyester powder-coated.

#### Note

- The fans of the VORTICEL A-E range comply with Reg. ErP No. 327/2011/EU.
- The fans of the VORTICEL A-E range are compatible with applications that envision high pressure drops, such as those induced by discharge into ventilation ducts or by coupling to air filters. They are not suitable for handling flows characterized by significant concentrations of abrasive powders or acid or corrosive substances.



**[1] Reduced thickness. [2] [3] [4]** These devices can be applied with exhaust in the ventilation duct combined with filters used in all installations where there are pressure drops. The ventilated air must not be dusty, acidic or corrosive.



TECHNICAL DATA

|              | PRODUCTS    | CODE      | V~50HZ  | W       | A    | POLES | RPM  | MAX AIRFLOW |      | MAX PRESSURE       |     | Lp dB(A)*<br>3 m | MAX<br>°C** | KG   |
|--------------|-------------|-----------|---------|---------|------|-------|------|-------------|------|--------------------|-----|------------------|-------------|------|
|              |             |           |         |         |      |       |      | m³/h        | l/s  | mmH <sub>2</sub> O | Pa  |                  |             |      |
| SINGLE-PHASE | A-E 252 M   | 42207     | 220-240 | 95      | 0.41 | 2     | 2500 | 1365        | 379  | 379                | 177 | 53.0             | 50          | 2.1  |
|              | A-E 254 M   | 42208     | 220-240 | 38      | 0.17 | 4     | 1400 | 764         | 212  | 212                | 61  | 38.5             | 50          | 2.1  |
|              | A-E 304 M   | 42216     | 220-240 | 81      | 0.35 | 4     | 1400 | 1563        | 434  | 434                | 130 | 43.0             | 50          | 3.0  |
|              | A-E 354 M   | 42258     | 220-240 | 170     | 0.75 | 4     | 1400 | 2960        | 822  | 822                | 100 | 49.5             | 50          | 6.2  |
|              | A-E 404 M   | 42260     | 220-240 | 300     | 1.33 | 4     | 1400 | 4310        | 1197 | 1197               | 152 | 55.6             | 50          | 9.3  |
|              | A-E 454 M   | 42307     | 220-240 | 270     | 1.19 | 4     | 1400 | 5250        | 1458 | 1458               | 127 | 54.8             | 50          | 15.0 |
|              | A-E 504 M   | 42316     | 220-240 | 482     | 2.12 | 4     | 1400 | 6639        | 1844 | 1844               | 186 | 59.0             | 50          | 13.2 |
|              | A-E 506 M   | 42337     | 220-240 | 290     | 1.27 | 6     | 1000 | 4805        | 1335 | 1335               | 152 | 57.2             | 50          | 17.6 |
|              | A-E 566 M   | 42356     | 220-240 | 350     | 1.60 | 6     | 1000 | 6715        | 1865 | 1865               | 134 | 57.2             | 50          | 24.2 |
|              | THREE-PHASE | A-E 254 T | 42357   | 380-415 | 50   | 0.22  | 4    | 1400        | 785  | 218                | 218 | 134              | 39.0        | 50   |
| A-E 304 T    |             | 42227     | 380-415 | 79      | 0.22 | 4     | 1400 | 1696        | 471  | 471                | 129 | 46.0             | 50          | 3.4  |
| A-E 354 T    |             | 42259     | 380-415 | 166     | 0.35 | 4     | 1400 | 2980        | 828  | 828                | 115 | 48.7             | 50          | 6.2  |
| A-E 404 T    |             | 42261     | 380-415 | 318     | 0.65 | 4     | 1400 | 3832        | 1064 | 1064               | 246 | 62.5             | 50          | 6.3  |
| A-E 454 T    |             | 42308     | 380-415 | 370     | 0.73 | 4     | 1350 | 5187        | 1440 | 1440               | 155 | 58.0             | 50          | 6.5  |
| A-E 504 T    |             | 42327     | 380-415 | 485     | 1.12 | 4     | 1400 | 6966        | 1935 | 1935               | 128 | 60.5             | 40          | 11.1 |
| A-E 506 T    |             | 42346     | 380-415 | 250     | 0.79 | 6     | 1000 | 5040        | 1400 | 1400               | 96  | 52.7             | 50          | 15.0 |
| A-E 564 T    |             | 42336     | 380-415 | 925     | 1.71 | 4     | 1400 | 9255        | 2570 | 2570               | 285 | 54.9             | 40          | 14.8 |
| A-E 566 T    |             | 42366     | 380-415 | 480     | 1.06 | 6     | 1000 | 8050        | 2236 | 2236               | 175 | 56.7             | 50          | 20.8 |
| A-E 636 T    |             | 42347     | 380-415 | 522     | 1.10 | 6     | 1000 | 9502        | 2639 | 2639               | 154 | 58.0             | 50          | 15.8 |

\*Sound pressure level measured at 1 and 3 m in free field conditions in accordance with standard ISO 3741.

\*\* Maximum continuous operating temperature of the product.



# INDUSTRIAL VENTILATION

## VORTICEL A-E RANGE

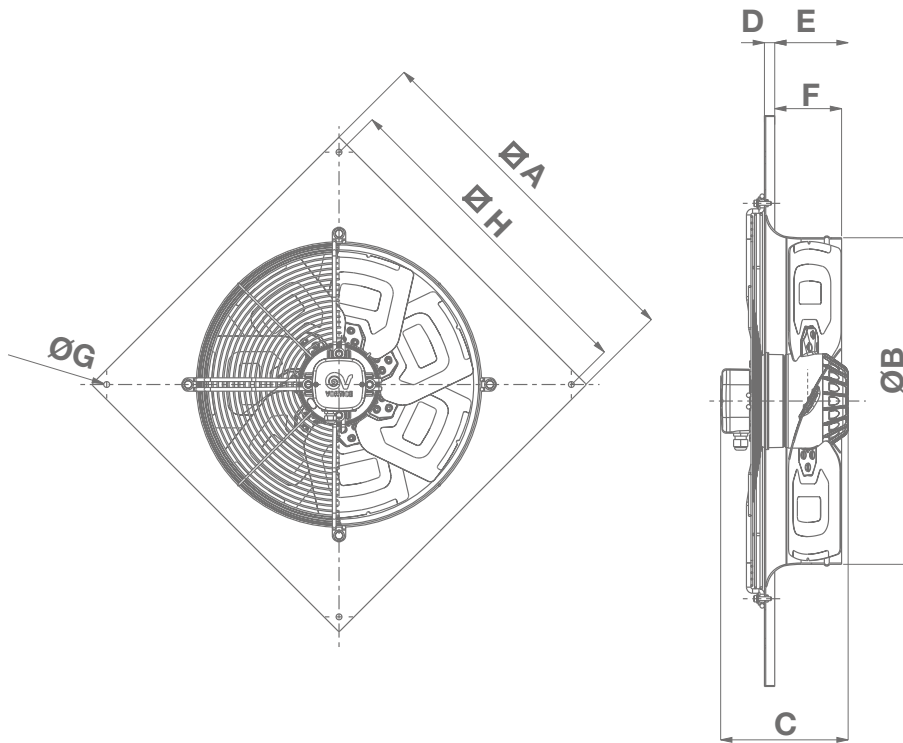
### ERP DATA DIRECTIVE N° 327/2011/UE

|              | PRODUCTS  | CODE  | MEASUREMENT CAT. | EFFICIENCY CAT. | YEAR OF CONSTRUCTION | VARIABLE DRIVE | $\eta$ | N.   | kW Pe  | m <sup>3</sup> /h q | BEP* Pa p | RPM  | Spec. ratio <1.04 |
|--------------|-----------|-------|------------------|-----------------|----------------------|----------------|--------|------|--------|---------------------|-----------|------|-------------------|
| SINGLE-PHASE | A-E 354 M | 42258 | A                | STATIC          | 2015                 | NO             | 29.0   | 41.0 | 0.1450 | 1975                | 74.1      | 1333 | YES               |
|              | A-E 404 M | 42260 | A                | STATIC          | 2015                 | NO             | 32.1   | 42.0 | 0.2282 | 3121                | 84.6      | 1375 | YES               |
|              | A-E 454 M | 42307 | A                | STATIC          | 2015                 | NO             | 31.6   | 41.5 | 0.2749 | 3501                | 89.4      | 1309 | YES               |
|              | A-E 504 M | 42316 | A                | STATIC          | 2013                 | NO             | 32.2   | 41.0 | 0.3972 | 4749                | 101       | 1285 | YES               |
|              | A-E 506 M | 42337 | A                | STATIC          | 2015                 | NO             | 29.9   | 40.0 | 0.2293 | 3681                | 67.1      | 924  | YES               |
|              | A-E 566 M | 42356 | A                | STATIC          | 2015                 | NO             | 32.7   | 42.0 | 0.2816 | 4468                | 74.3      | 891  | YES               |
|              | A-E 354 T | 42259 | A                | STATIC          | 2015                 | NO             | 29.5   | 41.0 | 0.1415 | 2107                | 71.2      | 1332 | YES               |
| THREE-PHASE  | A-E 404 T | 42261 | A                | STATIC          | 2013                 | NO             | 29.2   | 40.0 | 0.2078 | 2376                | 96        | 1428 | YES               |
|              | A-E 454 T | 42308 | A                | STATIC          | 2013                 | NO             | 30.8   | 40.0 | 0.3049 | 3442                | 101       | 1384 | YES               |
|              | A-E 504 T | 42327 | A                | STATIC          | 2013                 | NO             | 32.9   | 41.0 | 0.4741 | 5056                | 116       | 1366 | YES               |
|              | A-E 506 T | 42346 | A                | STATIC          | 2015                 | NO             | 29.5   | 40.0 | 0.2162 | 3408                | 68.3      | 957  | YES               |
|              | A-E 564 T | 42336 | A                | STATIC          | 2013                 | NO             | 36.6   | 44.0 | 0.7527 | 6528                | 159       | 1349 | YES               |
|              | A-E 566 T | 42366 | A                | STATIC          | 2015                 | NO             | 31.7   | 41.0 | 0.3749 | 5249                | 81.4      | 936  | YES               |
|              | A-E 636 T | 42347 | A                | STATIC          | 2013                 | NO             | 33.8   | 43.0 | 0.410  | 6309                | 82        | 923  | YES               |

\* Best efficiency point.



DIMENSIONS



| PRODUCTS  | BLADES | ØA  | ØB  | C   | D  | E   | F   | G  | ØH  |
|-----------|--------|-----|-----|-----|----|-----|-----|----|-----|
| A-E 252 M | 5      | 320 | 264 | 149 | 10 | -   | 82  | 8  | 280 |
| A-E 254 M | 5      | 320 | 264 | 149 | 10 | -   | 82  | 8  | 280 |
| A-E 254 T | 5      | 320 | 264 | 149 | 10 | -   | 82  | 8  | 280 |
| A-E 304 M | 5      | 380 | 316 | 151 | 10 | -   | 84  | 8  | 330 |
| A-E 304 T | 5      | 380 | 316 | 151 | 10 | -   | 84  | 8  | 330 |
| A-E 354 M | 5      | 450 | 361 | 155 | 12 | 85  | 74  | 9  | 380 |
| A-E 354 T | 5      | 450 | 366 | 155 | 12 | 85  | 74  | 9  | 380 |
| A-E 404 M | 4      | 510 | 406 | 200 | 12 | 108 | 88  | 12 | 430 |
| A-E 454 M | 4      | 630 | 455 | 206 | 15 | 100 | 85  | 12 | 530 |
| A-E 506 M | 7      | 630 | 508 | 218 | 16 | 134 | 105 | 11 | 530 |
| A-E 506 T | 4      | 630 | 508 | 198 | 16 | 114 | 105 | 11 | 530 |
| A-E 566 M | 5      | 725 | 563 | 248 | 16 | 161 | 105 | 11 | 675 |
| A-E 566 T | 5      | 725 | 563 | 218 | 16 | 131 | 105 | 11 | 675 |

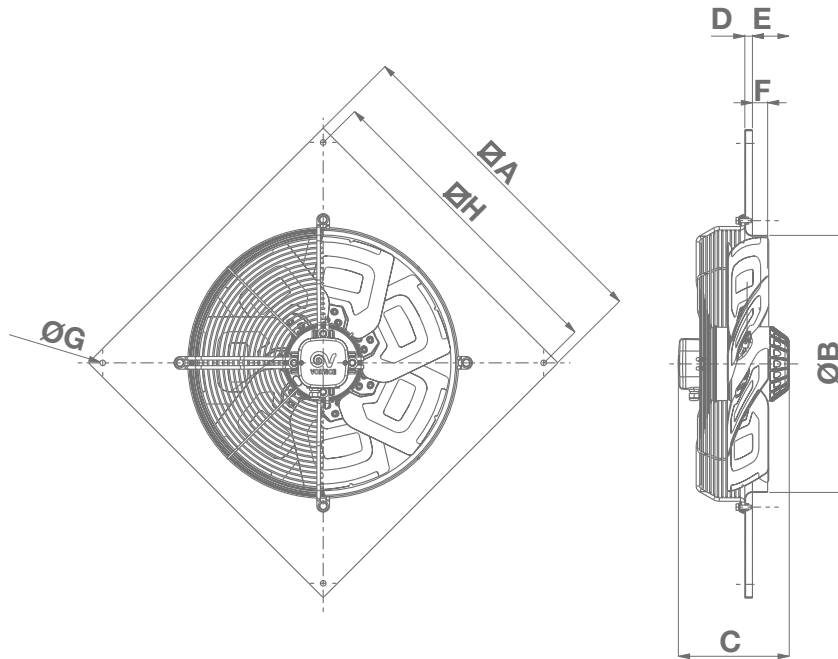
Dimensions (mm)



# INDUSTRIAL VENTILATION

## VORTICEL A-E RANGE

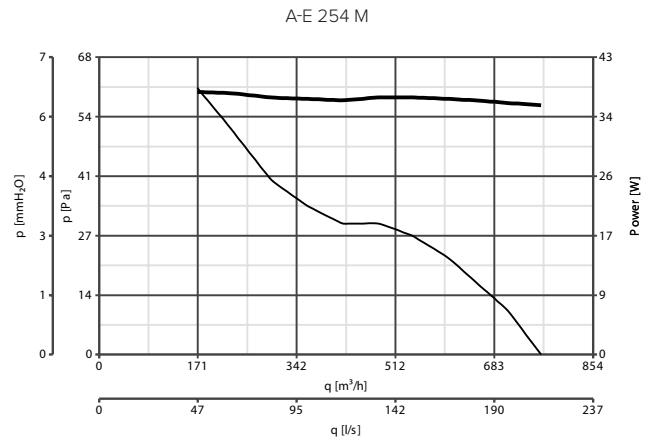
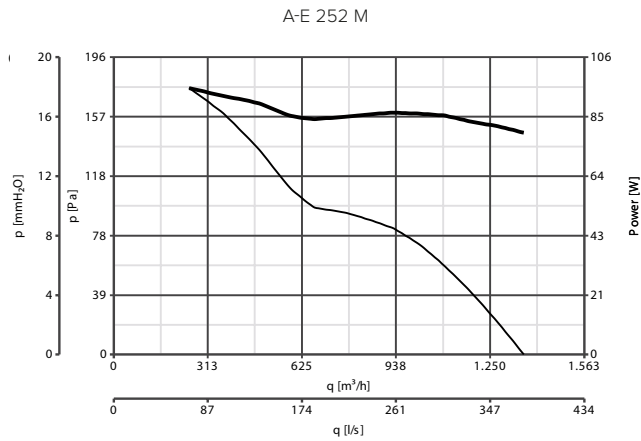
### DIMENSIONS



| PRODUCTS  | BLADES | ØA  | ØB  | C   | D  | E  | F  | G  | ØH  |
|-----------|--------|-----|-----|-----|----|----|----|----|-----|
| A-E 404 T | 4      | 510 | 406 | 207 | 15 | 67 | 30 | 12 | 430 |
| A-E 454 T | 4      | 630 | 455 | 207 | 15 | 67 | 30 | 12 | 530 |
| A-E 504 M | 4      | 630 | 507 | 218 | 15 | 72 | 30 | 11 | 530 |
| A-E 504 T | 4      | 630 | 507 | 198 | 15 | 52 | 30 | 11 | 530 |
| A-E 564 T | 4      | 725 | 563 | 218 | 15 | 67 | 30 | 11 | 675 |
| A-E 636 T | 4      | 805 | 638 | 218 | 15 | 68 | 45 | 11 | 750 |

Dimensions (mm)

### PERFORMANCE CURVES

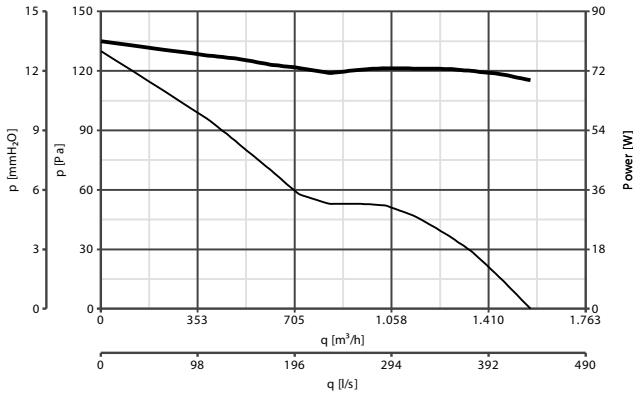


Power consumption  
 Delivery

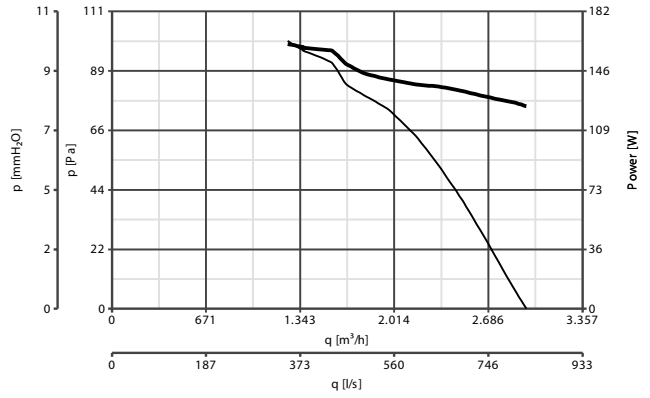


PERFORMANCE CURVES

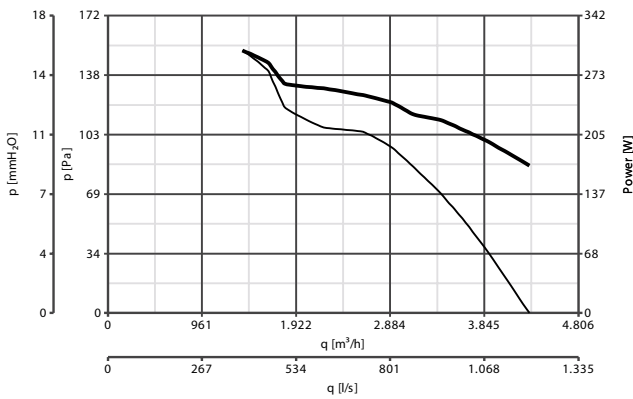
A-E 304 M



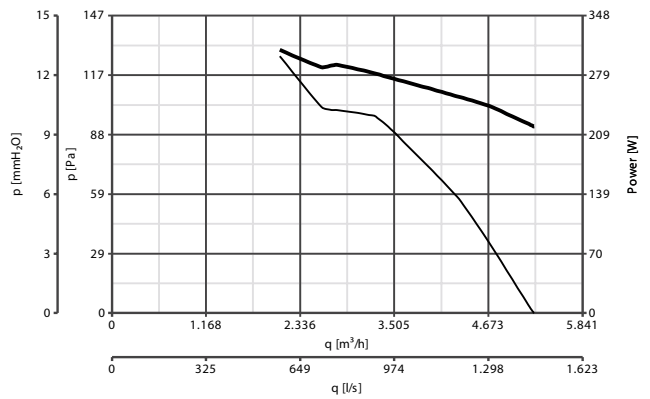
A-E 354 M



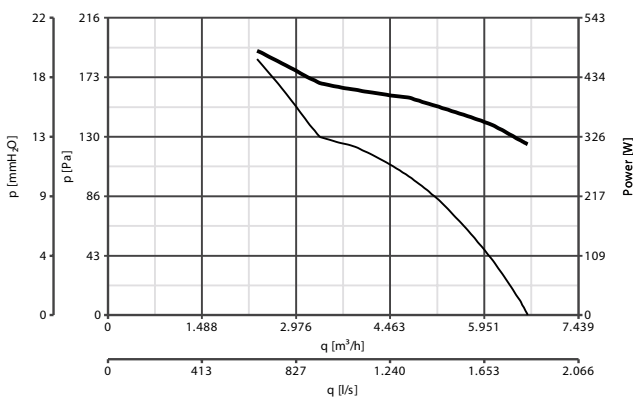
A-E 404 M



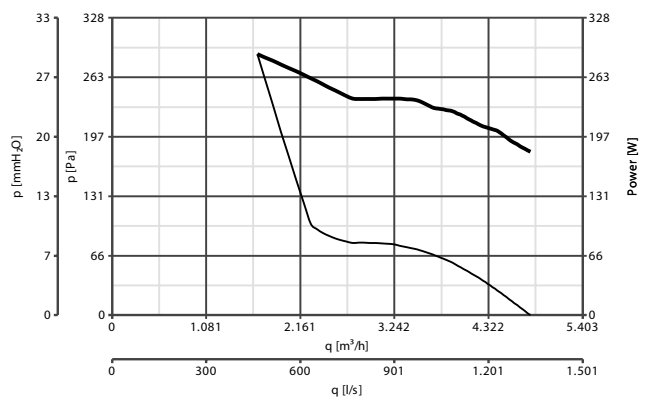
A-E 454 M



A-E 504 M



A-E 506 M

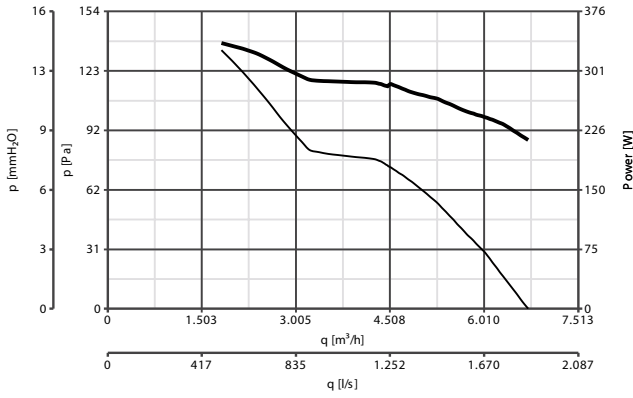


Power consumption  
 Delivery

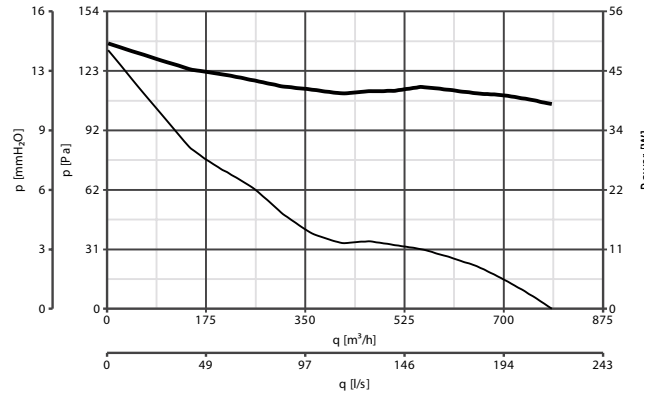


PERFORMANCE CURVES

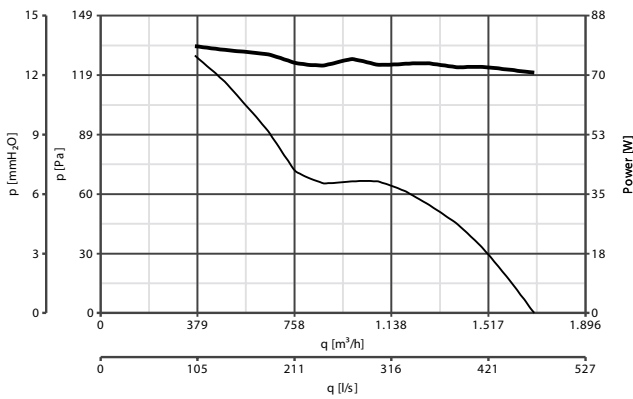
A-E 566 M



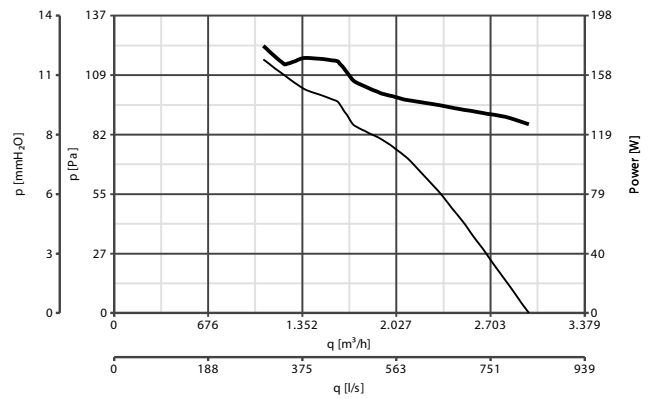
A-E 254 T



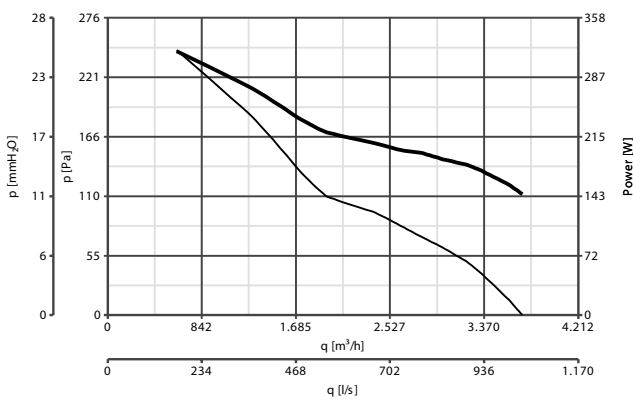
A-E 304 T



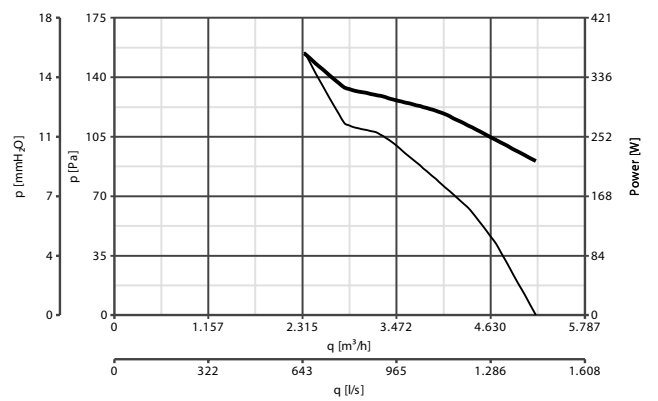
A-E 354 T



A-E 404 T



A-E 454 T

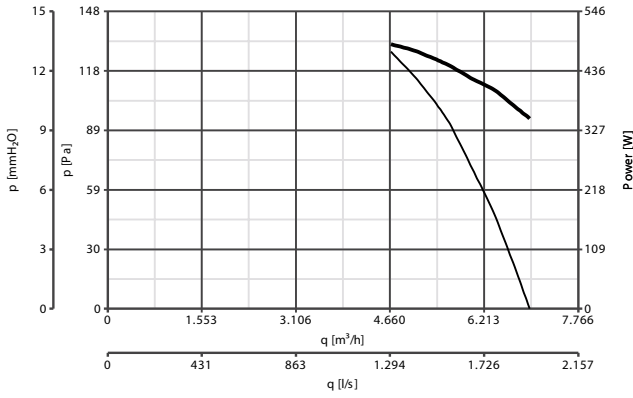


Power consumption  
 Delivery

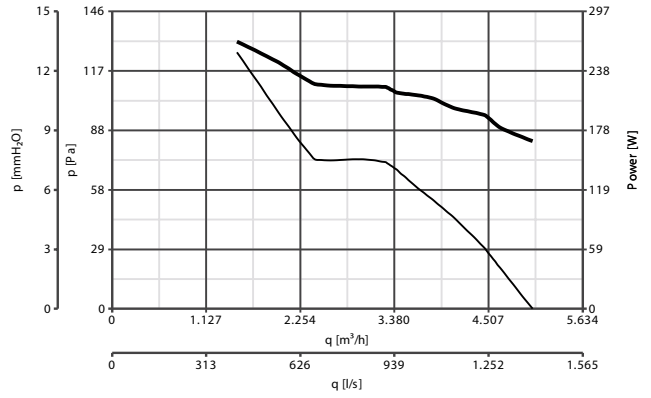


PERFORMANCE CURVES

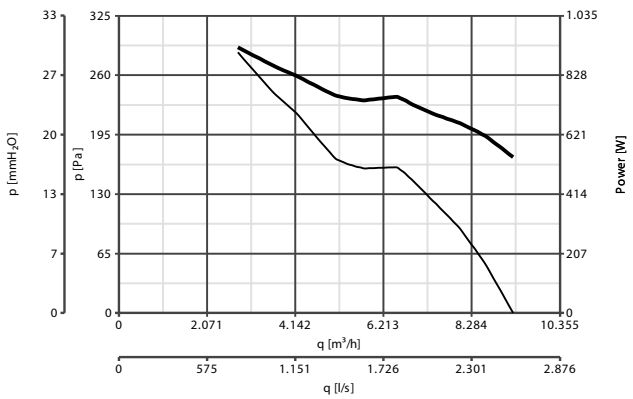
A-E 504 T



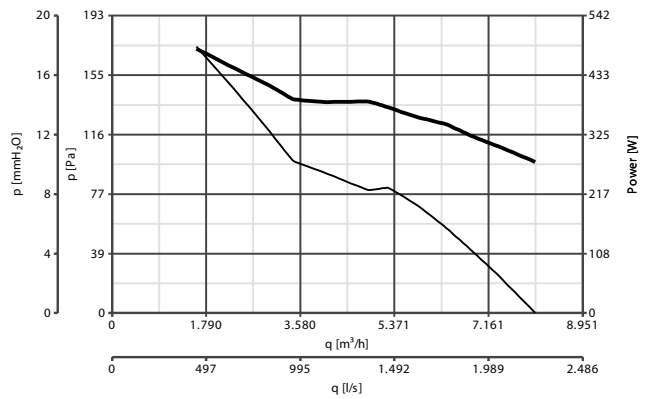
A-E 506 T



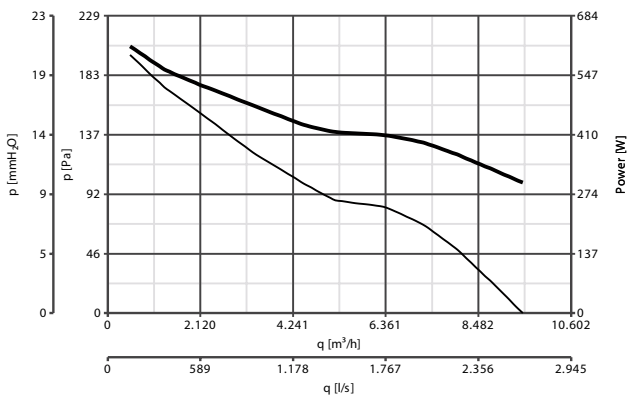
A-E 564 T



A-E 566 T



A-E 636 T



Power consumption  
 Delivery













## INDUSTRIAL VENTILATION

### VORTICEL A-E RANGE

#### ACCESSORIES

| MODELS   | DESCRIPTION                         | CODE    | PRODUCTS  |
|--|-------------------------------------|---------|---|
|   | DPU - Spacer for panel installation | 250     | 42207 - 42208 - 42357                                 |
|  |                                     | 300     | 42216 - 42227   |
|  |                                     | 350     | 42258 - 42259   |
|  |                                     | 400     | 42260 - 42261   |
|   | PGR - Gravity shutter               | 250     | 42207 - 42208 - 42357                                 |
|  |                                     | 300     | 42216 - 42227   |
|  |                                     | 350     | 42258 - 42259   |
|  |                                     | 400     | 42260 - 42261   |
|  |                                     | 450/500 | 42307 - 42316 - 42337 - 42308 - 42327 - 42346 - 42347 |
|  | TRA - Frame with safety net         | 250     | 42207 - 42208 - 42357                                 |
|  |                                     | 300     | 42216 - 42227   |
|  |                                     | 350     | 42258 - 42259   |
|  |                                     | 400     | 42260 - 42261   |
|  |                                     | 400/500 | 42307 - 42316 - 42337 - 42308 - 42327 - 42346         |

#### CONTROLLERS

| MODELS  | DESCRIPTION   | CODE  | PRODUCTS  |
|---|---|-------|---|
|  | IRM 30 - Three position single-phase speed controller             | 12921 | 42258 - 42260 - 42337 - 42356   |
|   | IRT 15 - Three position three-phase speed controller              | 12923 | 42227 - 42259 - 42261 - 42346 - 42657   |
|   | IRT 35 - Three-phase variable voltage drive                       | 12924 | 42261 - 42308 - 42327 - 42336 - 42346 - 42347 - 42366                         |
|  | IREM 3 - 3A Single-phase speed controller                         | 12931 | 42207 - 42208 - 42216 - 42258 - 42260 - 42316 - 42337 - 42356                 |
|  | C 1.5 - 1.5A Electronic speed controller                          | 12966 | 42207 - 42208 - 42216 - 42258   |
|  | IREM INVERTER 4 M - Single-phase speed controller with inverter*  | 12815 | 42207 - 42208 - 42216 - 42258 - 42260 - 42307 - 42316 - 42337 - 42356         |
|   | IRET INVERTER 2.5 M - Three-phase speed controller with inverter* | 12816 | 42357 - 42227 - 42259 - 42261 - 42308 - 42327 - 42346 - 42336 - 42366 - 42347 |
|  | POT - Potentiometer   | 12828 | 12815 - 12816   |

\* To adjust a regulator with inverter, combine a 0-10V potentiometer as code 12828