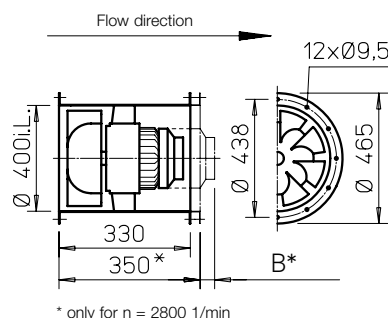


## VAR 400



Also available in version:

## Dimensions VAR 400



Dim. B see table  
Dim. in mm

### Casing

Duct with double-sided flange DIN 24155 p. 3. Made of galvanised steel sheet, fixed guide wheel with inner hub for mounting the flange motor. Types with  $n = 2800 \text{ min}^{-1}$  welded casing, hot-dip galvanised.

### Impeller

Optimised for high pressure and volume performance. Special development with spatially curved blades made of hot-dip galvanised steel.

### Drive

Directly through maintenance-free flange motor. Closed design type IP54. Aluminium or grey cast iron casing with cooling fins. Radio interference-free, sealed ball bearings. Tropicalised winding with moisture proof coating. With condensate drain holes upon request (except for explosion-proof types), and the installation method must be indicated when placing the order.

### Power control

The voltage-controllable types are identified in the "Current consumption with control mode" column with a value which must be observed when determining the controller (see Speed controller column). The flow rates are shown in the performance diagram. The planned use of a frequency inverter without a sine filter should be indicated when placing the order. This requires a change of fan version and additional costs, if necessary. Explosion-proof types are not controllable.

### Electrical connection

Standard terminal box (protection category IP55) on outside of duct.

### Installation

Installation possible in any position; but be aware of any condensate drain holes depending on usage.

### Motor protection

All types (except for explosion-proof models and type VARD 400/4/2) are equipped with thermal contacts. These should be wired with the motor protection circuit breaker (see type table) for effective motor protection. Motors without thermal contacts must be protected by means of on-site a motor protection circuit breaker.

### Noise levels

See sound power information above performance diagram. The lower sound pressure value can be determined using the diagram on the "Technical information" page. See page 14 f for noise emissions and room acoustics.

### Reference

### Page

|                      |        |
|----------------------|--------|
| Techn. description   | 256    |
| Selection table      | 257    |
| Planning information | 14 ff. |

### Special design

Different voltage, frequency, protection category, higher air flow temperature and acid protection upon request.

The technical information on p. 19 ff. must be observed.

| Type                                                                                                                       | Ref. no. | Speed             | Flow rate free-blow | Power consump.* | Voltage | Current consumption* |              | Wiring diagram | Max. air flow temp. |              | Weight net | Dim. B Motor protrusion | Speed controller 5-step Pole chang. switch |               | Motor protection circuit breaker for connecting built-in thermal contacts |       | Vibration dampers |       |
|----------------------------------------------------------------------------------------------------------------------------|----------|-------------------|---------------------|-----------------|---------|----------------------|--------------|----------------|---------------------|--------------|------------|-------------------------|--------------------------------------------|---------------|---------------------------------------------------------------------------|-------|-------------------|-------|
|                                                                                                                            |          |                   |                     |                 |         | at rated voltage     | with control |                | at rated voltage    | with control |            |                         | Type                                       | Ref. no.      | Type                                                                      | No.   | Compr.            | Tens. |
|                                                                                                                            |          | min <sup>-1</sup> | m <sup>3</sup> /h   | kW              | V       | A                    | A            | No.            | +°C                 | +°C          | ca. kg     | mm                      |                                            |               |                                                                           |       |                   |       |
| <b>Single-phase alternating current, 50 Hz, protection category IP54</b>                                                   |          |                   |                     |                 |         |                      |              |                |                     |              |            |                         |                                            |               |                                                                           |       |                   |       |
| VARW 400/4                                                                                                                 | 06688    | 1375              | 5130                | 0.70            | 230     | 3.00                 | 3.35         | 967            | 60                  | 40           | 22.5       | —                       | MWS 5 <sup>1)</sup>                        | 01949         | MW                                                                        | 01579 | SDD 1             | SDZ 1 |
| <b>Three-phase current, 50 Hz, protection category IP54</b>                                                                |          |                   |                     |                 |         |                      |              |                |                     |              |            |                         |                                            |               |                                                                           |       |                   |       |
| VARD 400/4                                                                                                                 | 06690    | 1400              | 5240                | 0.72            | 400     | 1.95                 | 2.00         | 469            | 60                  | 40           | 22.5       | —                       | RDS 4 <sup>1) 2)</sup>                     | 01316         | MD                                                                        | 05849 | SDD 1             | SDZ 1 |
| <b>Two-speed, three-phase current, 50 Hz, Y/Δ connection, protection category IP54</b>                                     |          |                   |                     |                 |         |                      |              |                |                     |              |            |                         |                                            |               |                                                                           |       |                   |       |
| VARD 400/2/2                                                                                                               | 06691    | 2475/2800         | 8320/10610          | 3.63/4.95       | 400Y/Δ  | 5.75/7.95            | —            | 520            | 60                  | 40           | 74.0       | 202                     | RDS 11 <sup>1) 2)</sup>                    | 01332         | M 4 <sup>2)</sup>                                                         | 01571 | SDD 1             | SDZ 2 |
| <b>Pole-changeable, 2 speeds (Dahlander winding Y/Y), Three-phase current, 50 Hz, protection category IP54</b>             |          |                   |                     |                 |         |                      |              |                |                     |              |            |                         |                                            |               |                                                                           |       |                   |       |
| VARD 400/4/2                                                                                                               | 06782    | 1400/2890         | 5220/10700          | 0.80/5.90       | 400     | 3.03/8.69            | —            | 471            | 40                  | —            | 74.0       | 207                     | PDA 12 <sup>3)</sup>                       | 05081         | —                                                                         | —     | SDD 1             | SDZ 2 |
| <b>Ex Explosion-proof, II 2G Ex h IIB T3 Gb, Motor Ex e, three-phase current 400 Volt, 50 Hz, protection category IP55</b> |          |                   |                     |                 |         |                      |              |                |                     |              |            |                         |                                            |               |                                                                           |       |                   |       |
| VARD 400/6 Ex                                                                                                              | 06692    | 925               | 3465                | 0.25            | 400     | 0.80                 | —            | 470            | 40                  | —            | 21.0       | —                       | not permitted                              | not permitted | SDD 1                                                                     | SDZ 1 |                   |       |
| VARD 400/4 Ex                                                                                                              | 06693    | 1440              | 5360                | 0.55            | 400     | 1.32                 | —            | 470            | 40                  | —            | 25.0       | —                       | not permitted                              | not permitted | SDD 1                                                                     | SDZ 1 |                   |       |
| VARD 400/2 Ex <sup>4)</sup>                                                                                                | 06694    | 2920              | 10950               | 4.60            | 400     | 9.10                 | —            | 498            | 40                  | —            | 83.0       | 255                     | not permitted                              | not permitted | SDD 2                                                                     | SDZ 2 |                   |       |

\* For Ex types: Motor ratings see information on page 20.

<sup>1)</sup> incl. motor protection circuit breaker.

<sup>2)</sup> includes operating and speed switch.

<sup>3)</sup> Flush-m. version see Switch product page.

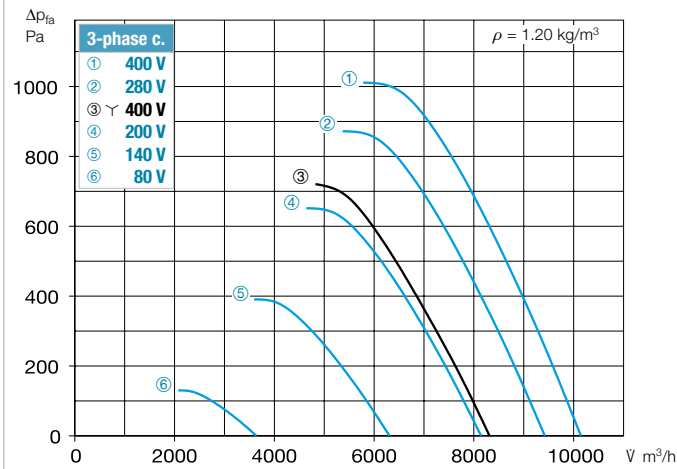
<sup>4)</sup> A vibration monitoring system (on-site) must be provided according to DIN EN 14986.

<sup>5)</sup> Frequency inverter with integrated sine filter, Type FU-BS 2.5, No. 05459, see product page FU.

## Performance curves VAR 400/2

n=2800 1/min

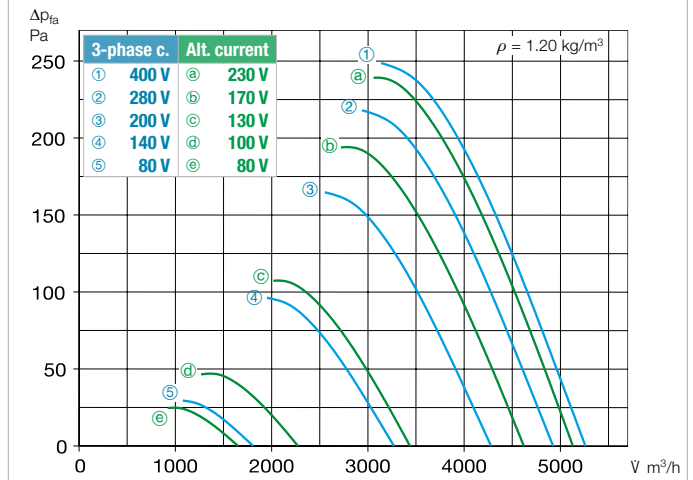
| Frequency                     | Hz | Tot. | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
|-------------------------------|----|------|-----|-----|-----|----|----|----|----|
| L <sub>WA</sub> Air noise     |    | 98   | 69  | 80  | 91  | 94 | 94 | 90 | 81 |
| L <sub>PA, 4m</sub> Air noise |    | 78   | 49  | 60  | 71  | 74 | 74 | 70 | 61 |



## Performance curves VAR 400/4

n=1450 1/min

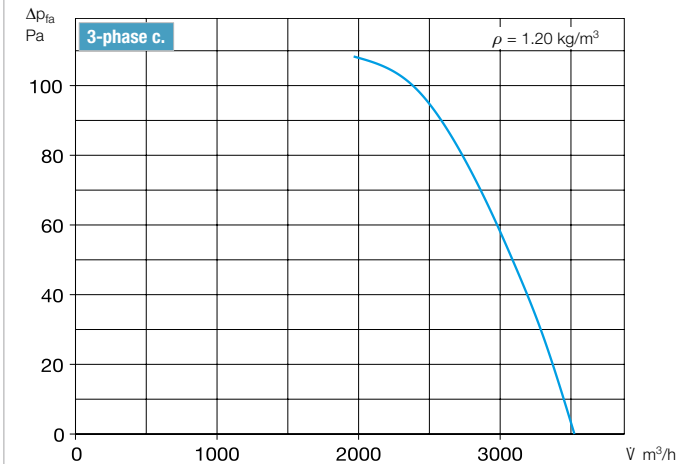
| Frequency                     | Hz | Tot. | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
|-------------------------------|----|------|-----|-----|-----|----|----|----|----|
| L <sub>WA</sub> Air noise     |    | 83   | 59  | 72  | 77  | 79 | 77 | 70 | 60 |
| L <sub>PA, 4m</sub> Air noise |    | 63   | 39  | 52  | 57  | 59 | 57 | 50 | 40 |



## Performance curve VAR 400/6

n=930 1/min

| Frequency                     | Hz | Tot. | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
|-------------------------------|----|------|-----|-----|-----|----|----|----|----|
| L <sub>WA</sub> Air noise     |    | 72   | 56  | 62  | 68  | 68 | 64 | 56 | 47 |
| L <sub>PA, 4m</sub> Air noise |    | 52   | 36  | 42  | 48  | 48 | 44 | 36 | 27 |



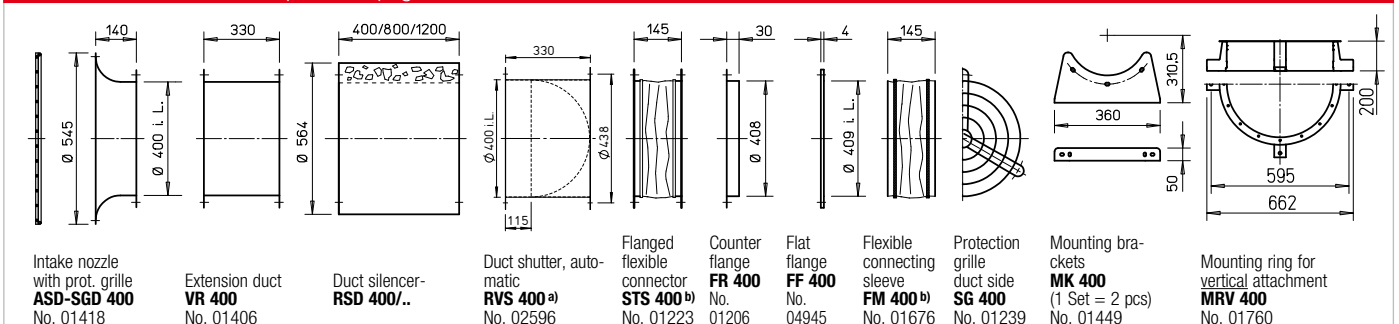
## Other accessories Page

### Access. for expl.-proof fans

|                                   |                |
|-----------------------------------|----------------|
| <b>Flanged flexible connector</b> |                |
| <b>STS 400 Ex</b>                 | Ref. no. 02505 |
| <b>Flexible connecting sleeve</b> |                |
| <b>FM 400 Ex</b>                  | Ref. no. 01692 |

|                                             |         |
|---------------------------------------------|---------|
| Filters and silencers                       | 483 ff. |
| Shutters and ventilation grilles            | 563 ff. |
| Speed controllers, controllers and switches | 601 ff. |

## Accessories VAR 400 Description see page 278 ff.



a) Shutter, motorised see Accessories product pages. b) Types for explosion-proof fans see left page.