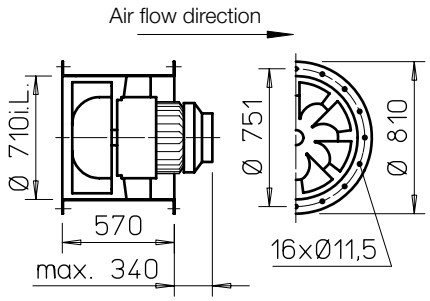
## VAR and B VAR 710 F300/F400



40 °C 60 °C Ex F300 F400

## Dimensions VAR and B VAR 710 F300/F400




All dim. in mm

**Casing**
Duct with flanges on both sides DIN 24155 pt. 3. Welded construction, hot-dip galvanised. Welded guide vane with inner hub for mounting the flange motor, hot-dip galvanised.

**Impeller**
Optimised for high pressure and volume output.
Special development with spatially curved hot-dip galvanised steel blades

**Motor**
Direct through IEC three phase motor.
☐ **Series VAR**
Enclosed design IP54. With condensation drain holes upon request, installation type specification necessary when ordering for this purpose.

☐ **Series B VAR**
Efficient IE3 three phase motor (smoke extraction motors F300 and F400). Pole-switching fans with IEC standard motor. Protection class IP55. Insulation class H. External cable with sheathing.

**Motor protection**
☐ **Series VAR**
All types (except explosion-proof and pole-switching models) have PTC resistors. For effective motor protection, these must be wired to a full motor protection device (see type table).
Motors without PTC resistors must be protected with an on-site motor-protective circuit-breaker.
☐ **Series B VAR**
All types (except pole-switching) have PTC resistors as standard and must be protected with a full motor protection device (MSA, Ref. no. 01289). This must be bridged in smoke extraction situation.

**Installation**
Installation in any position.
☐ **Series VAR**
Consider potential condensation drain holes depending on application.

☐ **Series B VAR**
Suitable for installation within and outside of the fire zone.

**Electrical connection**
Standard plastic terminal box (protection class IP54) (series VAR) or in temperature-resistant design (series B VAR), outside of duct.

Double pressure

**Mounting package MP-Z for two-stage Z unit**
For arrangement of two identical fans in a row, for highest pressure ratings.
Scope of delivery: Extension ducts (2 pcs.) and assembly kit.
Weight: 43 kg

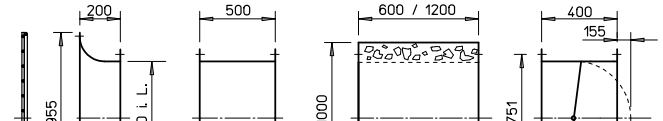
**MP-Z 710** Ref. no. 04910

Double volume

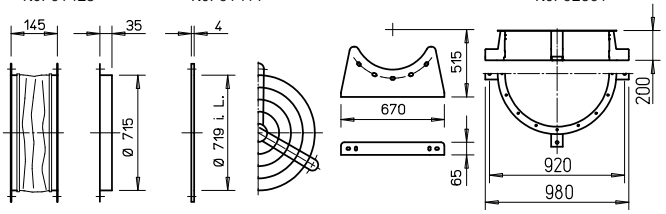
**Mounting package MP-P for parallel P unit**
For arrangement of two identical fans side by side, for highest flow rates.
Scope of delivery: Extension ducts, backdraught shutter, mounting rails (2 pcs. each), mounting brackets (4 pcs.) and assembly kits.
Weight: 145 kg

**MP-P 710** Ref. no. 04894

## Accessories VAR + B VAR 710 F300/F400 Description see page 163 ff.



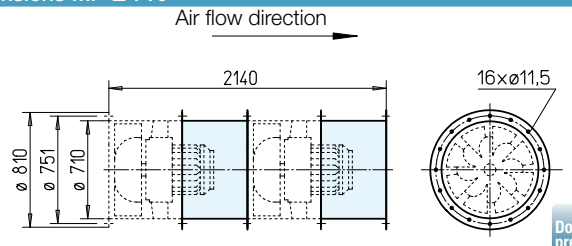

Bell mouth + guard **ASD-SGD 710** No. 01423
Extension duct **VR 710** No. 01411
Circular attenuator **RSD 710/…**
Backdraught shutter, automatic **RVS 710**[a] No. 02601




Flang. flex. connector **STS 710**[b] No. 01229
Counter flange **FR 710** No. 01212
Flat flange **FF 710** No. 04950
Duct-side guard **SG 710** No. 01244
Mounting brackets **MK 710** (1 set = 2 pcs.) No. 01372
Mounting ring for vertical installation **MRV 710** No. 01743

[a] Backdraught shutter, motorised, **for ventilation**, see main Helios catalogue
[b] Type for B VARD: STSB 710 F400, No. 01918

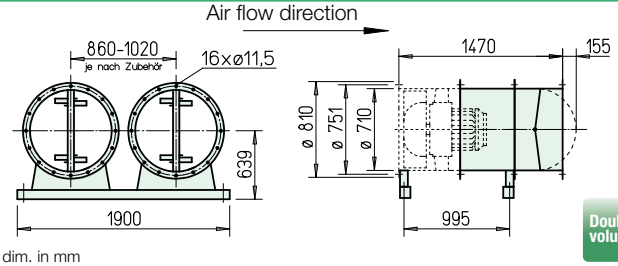
## Dimensions MP-Z 710




All dim. in mm

Double pressure

## Dimensions MP-P 710



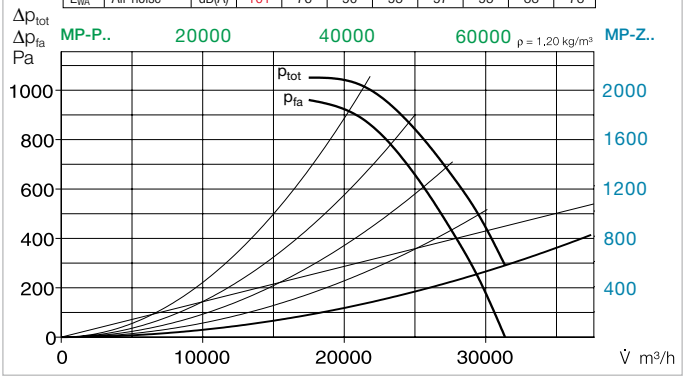

All dim. in mm

Double volume

## Performance curves VAR / B VAR 710/4 F300/F400

n=1480 1/min

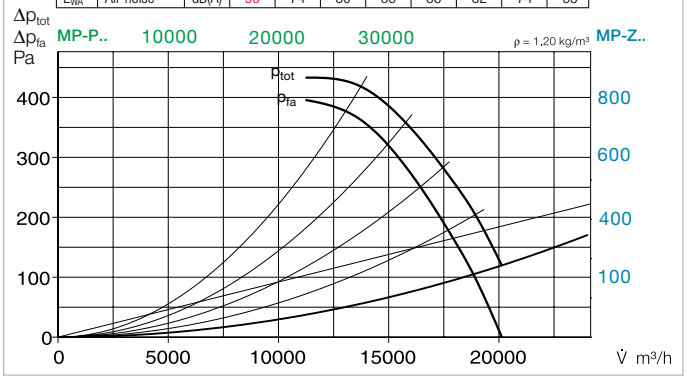
| Frequency | | Hz | Total | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
|---|---|---|---|---|---|---|---|---|---|---|
| $L_{WA}$ | Air noise | dB(A) | 101 | 76 | 90 | 95 | 97 | 95 | 88 | 78 |




## Performance curves VAR / B VAR 710/6 F300/F400

n=950 1/min

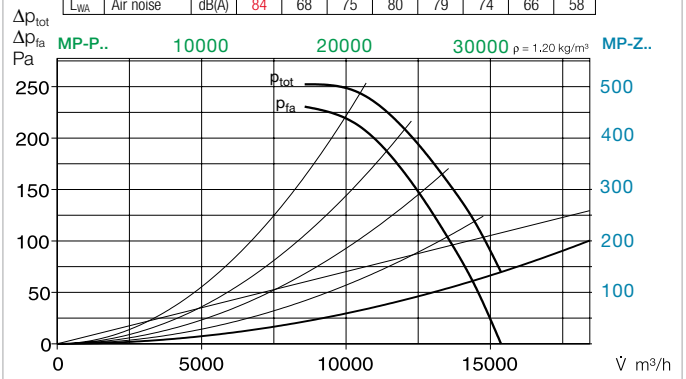
| Frequency | | Hz | Total | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
|---|---|---|---|---|---|---|---|---|---|---|
| $L_{WA}$ | Air noise | dB(A) | 90 | 74 | 80 | 86 | 86 | 82 | 74 | 65 |




## Performance curves VAR / B VAR 710/8 F300/F400

n=725 1/min

| Frequency | | Hz | Total | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
|---|---|---|---|---|---|---|---|---|---|---|
| $L_{WA}$ | Air noise | dB(A) | 84 | 68 | 75 | 80 | 79 | 74 | 66 | 58 |




### Certification

The smoke extraction fans B VARD have been tested according to DIN EN 12101-3. Certificate of performance reliability:
F300: 0036-CPR-RG05-01
F400: 0036-CPR-RG05-05

### Information


| Information | Page |
|---|---|
| Techn. description | 84 f. |
| Project planning information | 10 ff. |
| **Accessory details** | |
| Mounting accessories | 163 ff. |
| Attenuator | 168 |
| Gas warning systems, switch and control technology | 170 ff. |


### Safety information B VAR

Protection against accidental contact for impeller must be ensured by installation pursuant to DIN EN ISO 13857.

### Noise levels

See information on sound power levels above the performance curves. The lower sound pressure level can be determined using the diagram on the “Technical information” page. Noise emmissions and room acoustics see page 5.

| Type | Ref. no. | Speed | Output free-blowing | Nom. motor power. (output) | Nominal voltage | Stromaufnahme bei Nominal voltage | Anschluss Schaltplan | max. air flow temp.[4] at nom. voltage | Net weight approx. | Frequency inverter | | Full motor protection or Smoke exhaust fan control system | | Anti-vibration mount [5] Pressure | | Anti-vibration mount [5] Tensile | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | min⁻¹ | V̇ m³/h | kW | V | A | No. | +°C | kg | Type | Ref. no. | Type | Ref. no. | Type | Ref. no. | Type | Ref. no. |
| 40° **Three phase motor, 50 Hz, protection class IP54** | | | | | | | | | | | | Full motor protection | | | | | |
| **VARD 710/4** | 06723 | 1450 | 31050 | 11.0* | 400/690 | 21.6/12.6 | 776 | 40 | 280.0 | **FU-CS 22**[2] | 05470 | **MSA**[3] | 01289 | **SDD 3** | 01367 | **SDZ 3** | 01366 |
| 60° **Pole-switching, 2 speed (Dahlander winding Y/YY), Three phase motor, 50 Hz, protection class IP54** | | | | | | | | | | | | | | | | | |
| **VARD 710/8/4** | 06794 | 730/1470 | 15470/31160 | 3.00/11.00* | 400 | 8.90/24.0 | 471 | 60 | 230.0 | — | | **MSA**[3] | 01289 | **SDD 3** | 01367 | **SDZ 3** | 01366 |
| Ex **Explosion-proof, E Exe II, three phases motor, 50 Hz, temperature class T 3, protection class IP54** | | | | | | | | | | | | | | | | | |
| **VARD 710/8 Ex**[1] | 06724 | 680 | 14410 | 1.30* | 400 | 3.65 | 470 | 40 | 165.0 | not permitted | | not permitted | | **SDD 2** | 01453 | **SDZ 3** | 01366 |
| **VARD 710/6 Ex**[1] | 06725 | 955 | 20240 | 2.60* | 400 | 6.8/3.9 | 498 | 40 | 190.0 | not permitted | | not permitted | | **SDD 3** | 01367 | **SDZ 3** | 01366 |
| **VARD 710/4 Ex**[1] | 06726 | 1475 | 31050 | 11.00* | 400 | 21.5/12.5 | 498 | 40 | 255.0 | not permitted | | not permitted | | **SDD 3** | 01367 | **SDZ 3** | 01366 |
| F300 **Three phase motor, 50 Hz, protection class IP54** | | | | | | | | | | | | Smoke exhaust fan control system | | | | | |
| **B VARD 710/4 F300** | 02350 | 1470 | 30940 | 11.00 | 400 | 20.9 | 776 | 40 / 300[4] | 230.0 | — | | **EVS-SD 004** | 04583 | **SDD 6** | 01926 | **SDZ 6** | 01927 |
| F300 **Pole-switching, 2 speed (Dahlander winding Y/YY), Three phase motor, 50 Hz, protection class IP54** | | | | | | | | | | | | | | | | | |
| **B VARD 710/8/4 F300** | 02351 | 725/1455 | 15460/30940 | 3.0/11.0 | 400 | 7.0/21.0 | 777 | 40 / 300[4] | 244.0 | — | | **on demand** | | **SDD 6** | 01926 | **SDZ 6** | 01927 |
| F400 **Three phase motor, 50 Hz, protection class IP54** | | | | | | | | | | | | | | | | | |
| **B VARD 710/4 F400** | 02433 | 1470 | 30940 | 11.0 | 400 | 20.9 | 776 | 40 / 400[4] | 240.0 | — | | **EVS-SD 004** | 04583 | **SDD 6** | 01926 | **SDZ 6** | 01927 |
| F400 **Pole-switching, 2 speed (Dahlander winding Y/YY), Three phase motor, 50 Hz, protection class IP54** | | | | | | | | | | | | | | | | | |
| **B VARD 710/8/4 F400** | 02434 | 725/1455 | 15460/30940 | 3.0/11.0 | 400 | 7.0/21.0 | 777 | 40 / 400[4] | 244.0 | — | | **on demand** | | **SDD 6** | 01926 | **SDZ 6** | 01927 |

[1] There must be a vibration monitoring system (on-site) pursuant to DIN EN 14986. [2] incl. full motor protection device and sine filter [3] for PTC resistor temperature sensor
[4] Smoke extraction (once 120 min. at 300 °C or 120 min. at 400 °C) [5] Types SDZ not permitted for installation within fire zone.