

# FRAME TECHNICAL DATASHEET

## FRAME SILO FAN VFIS022Z



### APPLICATIONS

The fans of this series are suitable for sucking clean or slightly dusty air and they are mainly used in plants where it is requested to convey great volumes of air and therefore they are particularly proper for grain and feed drying and aeration of storage bins. The particular shape of the impeller with reversed blades assure a high efficiency. In the standard execution the temperature of sucked fluid must not exceed 80°C.

### TECHNICAL FEATURES

Scroll made in beaded and welded steel, impeller with reversed blades made in welded steel dynamically balanced, motor support made in welded sheet steel and steel sections, hopper in welded steel. The thickness of the metal sheet of the various components go from 15/10 mm to 50/10 mm. All the carpentries are subject to a treatment of hot deep galvanization according to the norms UNI EN ISO 1461 with a middle thickness of the covering minimum from 55 to 70 µm according to the thickness of the steel.

### OPERATING RANGE

Pt = 100 - 310 mm. H<sub>2</sub>O - Q = 6000 - 16.800 mc/h.

### As optional, we can also offer the following items:

- > Fan Version on trolley with handles and wheels for handling;
- > Standard version for temperatures until -20 °C;
- > Special version for temperatures until -32 °C;
- > Electric on/off switch panel placed on the board of the fan, in protection class IP 56;
- > Anti-condensation motor heaters for tropical or low temperature environments.



— FAN VFIS022Z

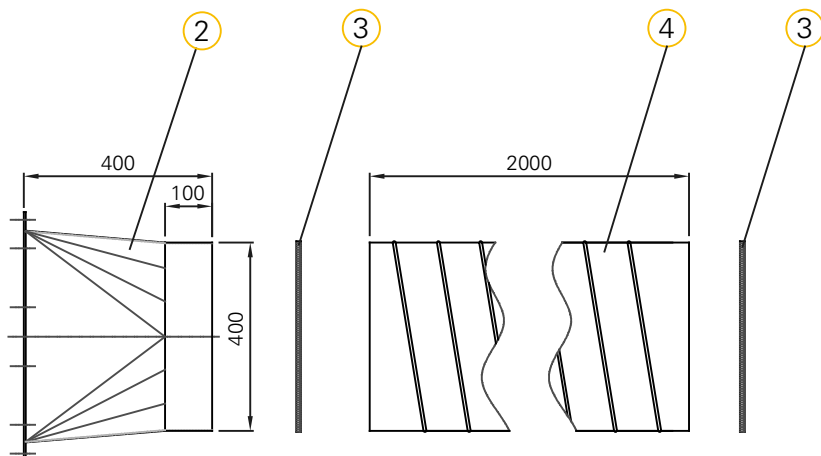
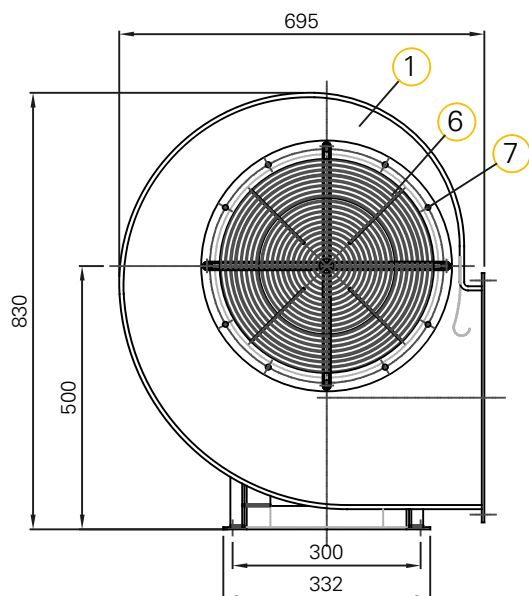
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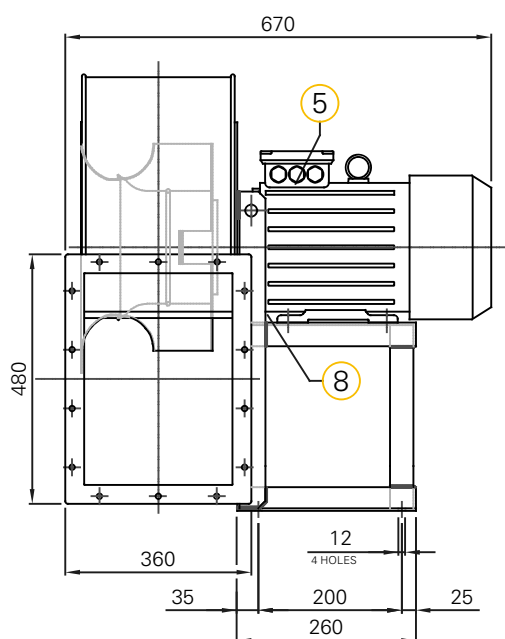


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LATERAL VIEW  
INLET SIDE

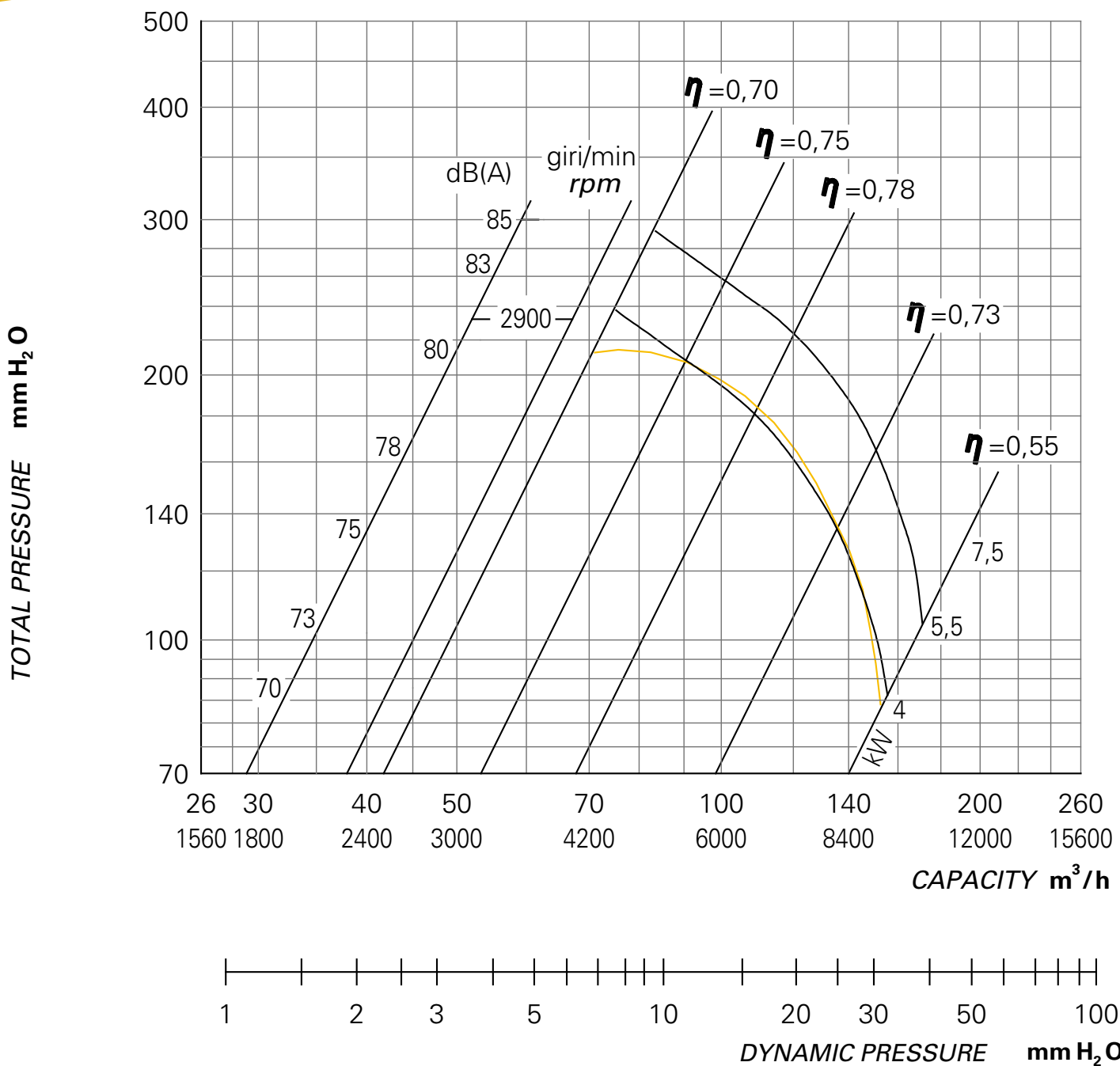


FRONT VIEW  
OUTLET SIDE



## LEGEND

- 1 - SCROLL MADE IN FE SHEET HOT DEEP GALVANIZED ACCORDING TO THE NORMS UNI EN ISO 1461
- 2 - HOPPER MADE IN WELDED FE SHEET HOT DEEP GALVANIZED.
- 3 - WRAPPER
- 4 - SPIRALIZED PIPE
- 5 - ELECTRIC MOTOR 2,2 kW, 2 POLES, IE2 eff. - WITH DRAINAGE HOLES
- 6 - PROTECTION NET
- 7 - NUTS AND BOLTS MADE IN AISI 304
- 8 - DRAINAGE HOLE



NOISE LEVEL TOLERANCE +3 Db(A) ABSORBED POWER TOLERANCE ±3%

Performances are referred to an environmental temperature of 15°C – altitude of 0 meters - p = 1,226 kg/m<sup>3</sup>

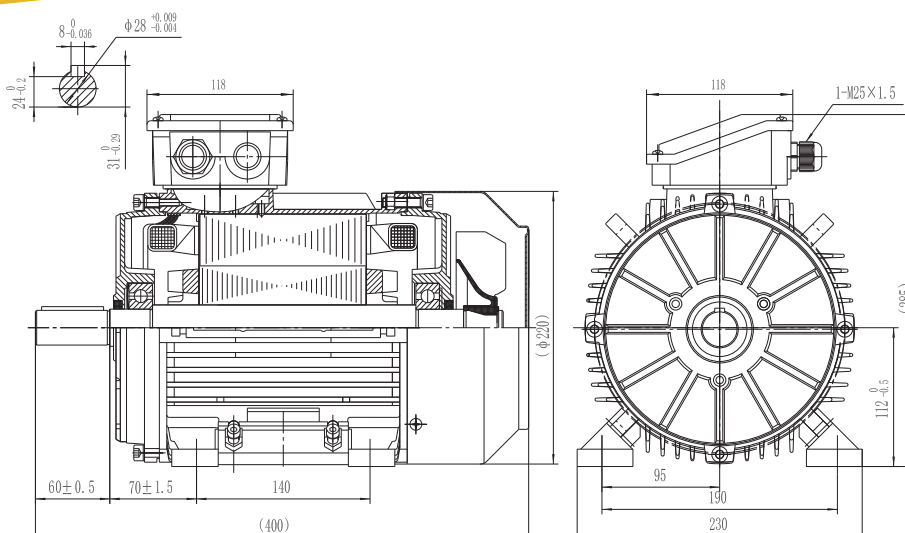
The values of noisiness' brought are referred to a distance of measurement of two meters in free field with canalized fan.

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**FRAME**

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| Electrical data             |       |         |                        | General data                      |                     |      |           |
|-----------------------------|-------|---------|------------------------|-----------------------------------|---------------------|------|-----------|
| Rated motor power           | 4     |         | Kw                     | Frame size                        | 112                 |      |           |
| Rated motor speed           | 2910  |         | min <sup>-1</sup> 50Hz | Mounting                          | B3                  |      |           |
|                             | 3495  |         | min <sup>-1</sup> 60Hz | Weight                            | 26.7                | Kg   |           |
| Rated motor frequency       | 50    |         | Hz                     | Casing material                   | Aluminum            |      |           |
| Rated motor voltage(+/-10%) | 230   |         | VΔ/50Hz                | Protection                        | IP                  | 55   |           |
|                             | 400   |         | VY/50Hz                | Insulation class/Temperature rise | F                   | /    | B         |
|                             | 280   |         | VΔ/60Hz                | Tropicalization                   | Yes                 |      |           |
|                             | 480   |         | VY/60Hz                | Vibration class                   | N                   |      |           |
| Rated motor torque          | 13.13 |         | Nm (Mn)                | Duty                              | S1                  |      |           |
| Rated motor current         | 13.16 | VΔ/50Hz | A (In)                 | Direction of rotation             | Bidirectional       |      |           |
|                             | 7.61  | VΔ/50Hz | A (In)                 | Method of cooling                 | IC                  | 411  |           |
| Starting motor current      | 9.6   |         | xIn                    | Cable entry                       | 2-M25x1,5           |      |           |
| Starting motor torque       | 3.3   |         | xMn                    | Standards                         | IEC/DIN/ISO/VDE/EN  |      |           |
| Breakdown motor torque      | 3.6   |         | xMn                    | Execute at Standard               | IEC 60034-1         |      |           |
| Starting                    |       |         | D.O.L.                 | Feet removable                    | Yes                 |      |           |
| Efficiency class            | IE2   |         |                        | Paintwork                         | RAL                 | 7024 | dark grey |
|                             | 50Hz  | 60Hz    |                        | Thermal protections               | n/a                 |      |           |
|                             | 85.8  | 87.5    | 100% load              | <b>Site conditions</b>            |                     |      |           |
|                             | 85.9  | 86.4    | 75% load               | Ambient temperature               | from -20,C to +40,C |      |           |
|                             | 84.4  | 83.7    | 50% load               | Altitude above sea level          | 1000 m              |      |           |
| Power factor cosφ           | 0.89  | 0.89    | 100% load              |                                   |                     |      |           |

| Mechanical data         |   |                                       |                                      |             |
|-------------------------|---|---------------------------------------|--------------------------------------|-------------|
| Noise level             | LpA   | 78                                    | dB(A)                                |             |
|                         | LwA   | 88                                    | dB(A)                                |             |
| Moment of inertia       | 0.00631   |                                       | Kgmf                                 |             |
| Bearings type           |   |                                       | NSK                                  |             |
| Lubricants for bearings | See installation and maintenance manual page 12 |                                       | Bearing DE side                      | 6306-2RS-C3 |
|                         |   |                                       | Bearing NDE side                     | 6206-2RS-C3 |
|                         |   |                                       | Average bearing lifetime             | 40000 h     |
|                         |   |                                       | Relubrication interval L1 DE bearing | life h      |
|                         |   | Relubrication interval L1 NDE bearing | life h                               |             |
|                         |   | Compensation ring                     | NDE SIDE standard                    |             |