

# FRAME TECHNICAL DATASHEET

## FRAME SILO FAN VFIS220P4Z



### 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 = 90 - 235 mm. H<sub>2</sub>O - Q = 15.000 - 48.000 mc/h.

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

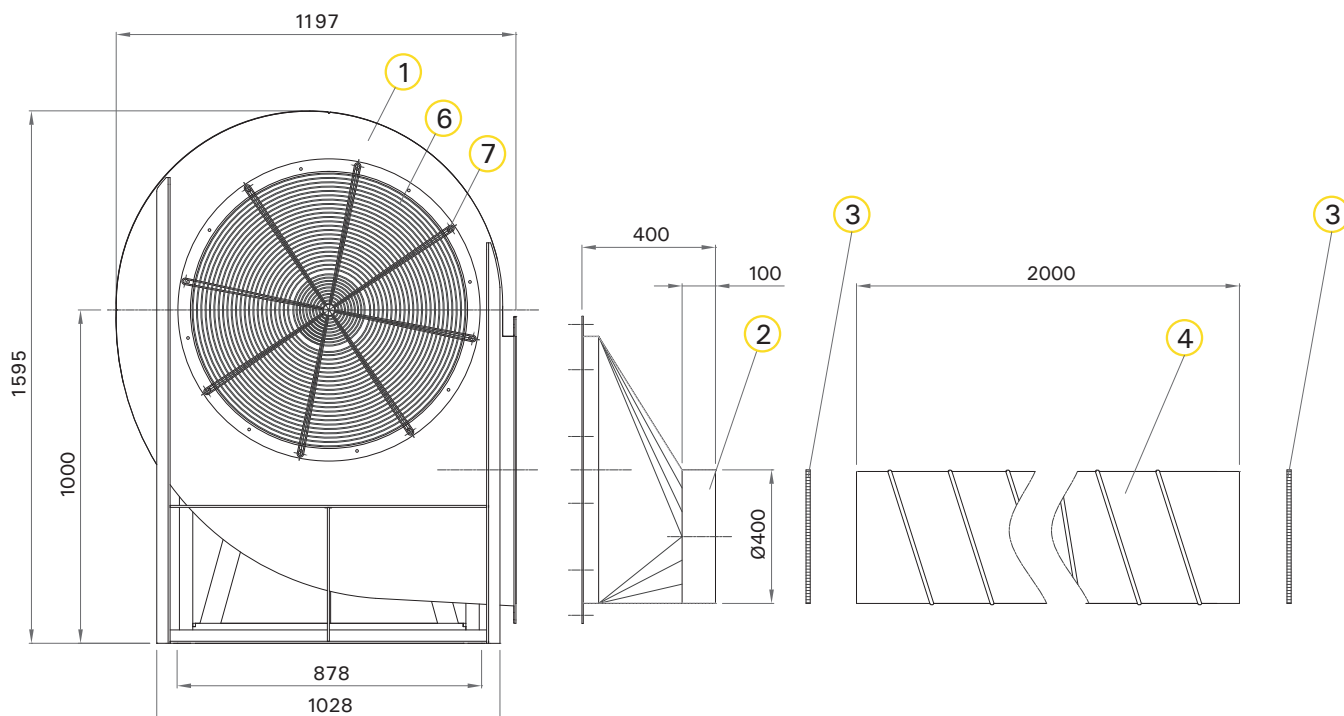
- > Fan Version on trolley with handles and wheels for handling;
- > Standard version for temperatures until -20 °C;
- > Special version for temperatures until -32 °C;
- > Electric on/off switch panel placed on the board of the fan, in protection class IP 56;
- > Anti-condensation motor heaters for tropical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



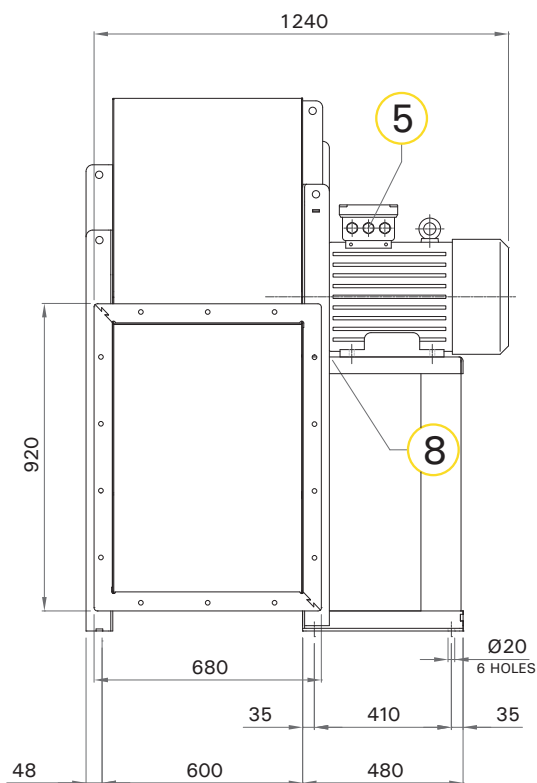
— VFIS220P4Z

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FRONT VIEW  
OUTLET SIDE

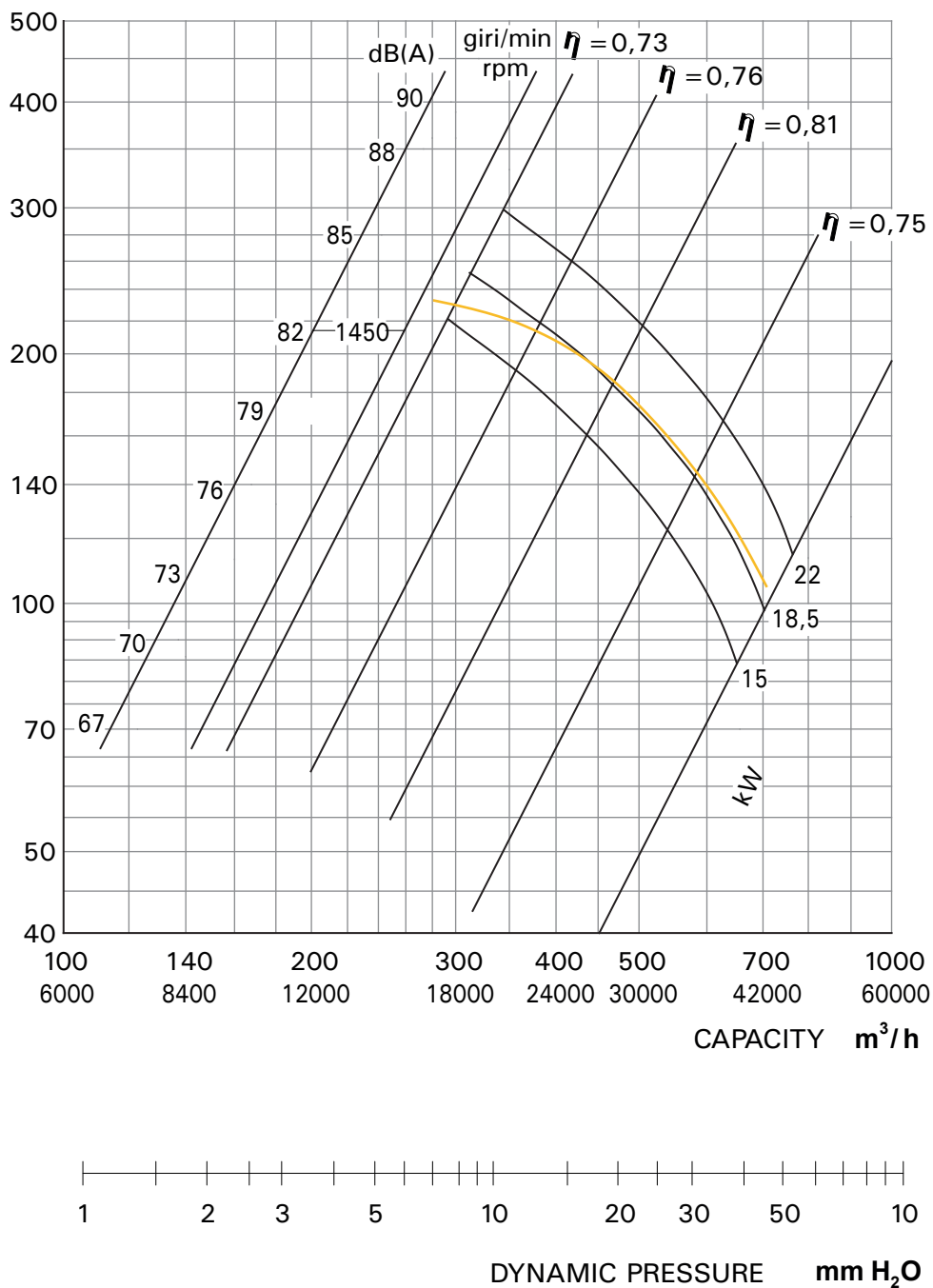


### LEGEND

- 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 22 kW, 4 POLES, IE2 eff. - WITH DRAINAGE HOLES
- 6 - PROTECTION NET
- 7 - NUTS AND BOLTS MADE IN AISI 304
- 8 - DRAINAGE HOLE

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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/m3

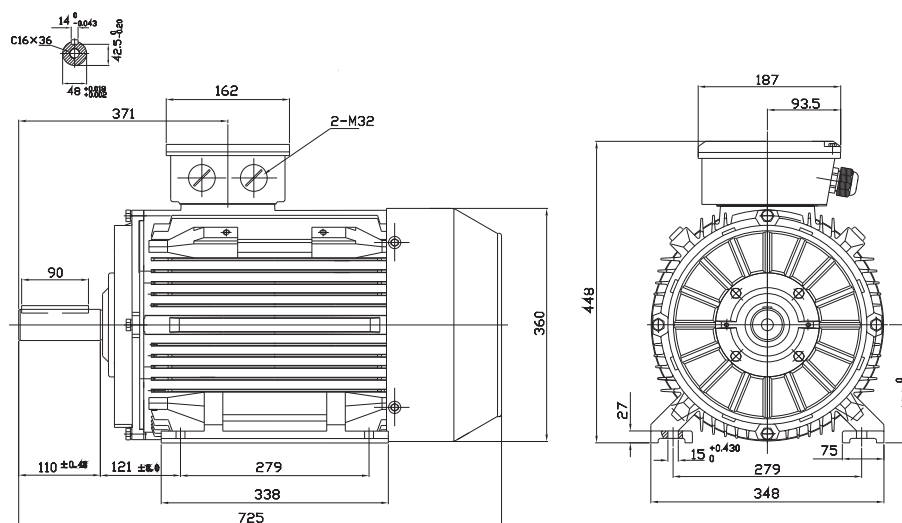
The values of noisiness' brought are referred to a distance of measurement of two meters in free fiel with canalized fan.

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# FRAME

www.framespa.it



Electrical data				General data			
Rated motor power	22		Kw	Frame size	180		
Rated motor speed	1460		min <sup>-1</sup> 50Hz	Mounting	B3		
	1755		min <sup>-1</sup> 60Hz	Weight	175.6	Kg	
Rated motor frequency	50		Hz	Casing material	Cast iron		
Rated motor voltage(+/--10%)	400		V€/50Hz	Protection	IP	55	
	690		VY/50Hz	Insulation class/Temperature rise	F	/	B
	480		V€/60Hz	Tropicalization	Yes		
	830		VY/60Hz	Vibration class	N		
Rated motor torque	143.9		Nm (Mn)	Duty	S1		
Rated motor current	44.77	VΔ/50Hz	A (In)	Direction of rotation	Bidirectional		
	25.88	VΔ/50Hz	A (In)	Method of cooling	IC	411	
Starting motor current	8.1		xIn	Cable entry	2-M32x1,5+1M16x1,5		
Starting motor torque	2.5		xMn	Standards	IEC/DIN/ISO/DE/EN		
Breakdown motor torque	2.8		xMn	Execute at Standard	IEC 60034-1		
Starting			D.O.L.	Feet removable	Yes		
Efficiency class	IE2			Paintwork	RAL	7024	dark grey
Efficiency	50Hz	60Hz		Thermal protections	n/a		
	91.6	92.5	100% load	<b>Site conditions</b>			
	92.2	93.6	75% load	Ambient temperature	from -20°C to +40°C		
	91.6	91.7	50% load	Altitude above sea level	1000 m		
Power factor cosφ	0.88	0.88	100% load				

Mechanical data			
Noise level	LpA	67	dB(A)
	LwA	76	dB(A)
Moment of inertia	0.16541		Kgm <sup>f</sup>
Bearings type			NSK
Lubricants for bearings	See installation and maintenance manual page 12		
	Bearing DE side		6311-C3
Bearing NDE side		6311-C3	
Average bearing lifetime		40000	h
Relubrication interval L1 DE bearing		18500	h
Relubrication interval L1 NDE bearing		18500	h
Compensation ring		NDE SIDE	standard