FlaktWoods Limited
Fan Selector - Technical Datasheet

FläktGroup

Project :
Quotation :
Project Code :
Date : 16 November 2023



JM Aerofoil

90JM/25/4/9/20
5 weeks

PRODUCT

Model Code	90JM/25/4/9/20
Fan Diameter	900 mm
Fan Speed	1440 rpm [Max 2045, Min 288]
Impeller	9 Blades, 20° Angle
Installation	Type D - Form A
Fan Casing	Short - Horizontal

PERFORMANCE

Requested Duty	30000 m³/h @ 450 Pa (Static)
Actual Duty	30777 m³/h @ 474 Pa (Static)
Outlet Dynamic Pressure	108 Pa
Velocity	13.44 m/s
Absorbed Power	6.63 kW
Peak Power	7.07 kW [Used to size motor]
Efficiency (Total / Static)	75.1 % / 61.1 %

MOTOR

Motor Rating	9.00 kW [132M Frame - 4 Pole]
Full Load Current	17.1 A
Starting Current	102 A
Electrical Supply	380 - 415 Volts 50 Hz 3 Phase
Motor Winding	Standard
Motor Type	TEAR - Pad - IE2 - Class F Insulation

EFFICIENCY GRADES

ErP [FMEG] Rating	N 68 (ErP Compliant 2015) ✓
ErP [FMEG]	Target N 58
FMEG Blade Angle [Range]	22° [8° To 24°]
Measurement Category	D
VSD	No
Fan + Motor Efficiency	67.7% (9.47 m³/s @ 591 Pa)
Motor Input Power (ErP)	8.26 kW

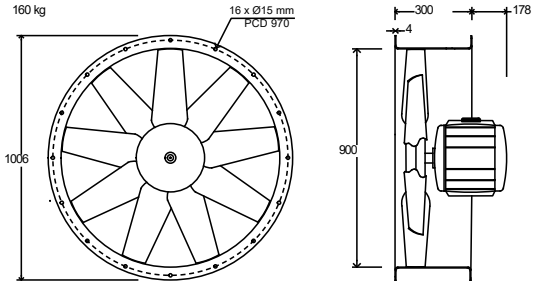
ENVIRONMENT

Air Density	1.2 kg/m³ / 20 °C / 0 m / 40% RH
Smoke Venting	No Smoke Venting
Operating Environment	Normal

RUNNING COSTS

Power from mains	7.44 KWh
Energy Consumption	14,877.31 (2,000.00 h/Year)
Running Cost / Year	£3,719.33
CO2 per Year	5,230.27 kgCO2e
SFP value	0.87 W/l/s @ Actual Duty

PRODUCT DIMENSIONS



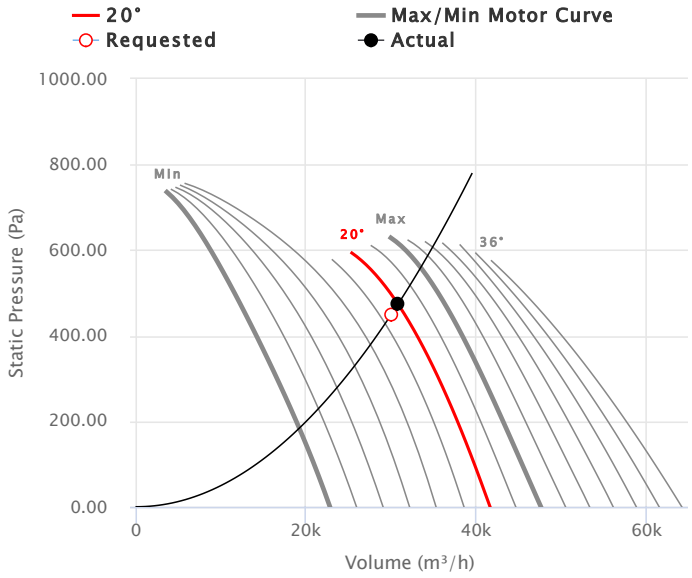
This drawing shows dimensions that should be used as a guide only and are

MECHANICAL

Casing	900mm Steel Casing
Impeller	Aluminium LM6 Hub, Aluminium LM6 Blades
Operating Temperatures	-20 °C to 50 °C
Weight	160kg

COMMENTS

FAN PERFORMANCE CURVE



ACOUSTICS

	Sound Spectrum (Hz)								Overall		Distance (3 m)
	63	125	250	500	1k	2k	4k	8k	Lw*	LwA*	LpA @ 3 m **
Inlet	91	89	92	93	94	91	87	82	100	98	78
Outlet	93	89	93	94	95	91	88	83	101	99	78
Breakout	83	66	65	67	68	62	67	60	84	73	53

Sound Data At Requested Duty. * Lw dB re 10^{-12} W * Lw dB re 10^{-12} W

FAN & ACCESSORIES

Item Description	Part Number	Qty	Lead-Time
90JM/25/4/9/20		1	5 Weeks

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