

NIMUS 451 T2 7,5kW (std) (NS4512132)

GENERAL DATA



CENTRIFUGAL FAN, FOR CLEAN OR SLIGHTLY DUSTY AIR

MANUFACTURING FEATURES

- Medium pressure centrifugal fan with direct coupling.
- Reinforced housing made of carbon laminated steel, protected against corrosion by powder coating polyester resin RAL 5010. Finish C3.
- Casing fully latched and adjustable.
- Self-cleaning turbine and reinforced impeller with high-performance backward (reaction) blades made of carbon laminated steel dynamically balanced to minimize noise and vibrations. Black painted RAL 9005
- Squirrel cage standardized asynchronous IEC motor with IP-55 protection and class F electrical insulation. Standard voltages 230/400V 50Hz for three-phase motors up to 4kW and 400/690V 50Hz for higher powers. IE4 motors for 75kW power or higher.
- Motor with feet (B3) supported on motor support foot.
- Models of size 500 and above are supplied with a front support foot, for the other models the front support foot is optional.
- Maximum working temperature in continuous: air transported: 130°C, Environment: 60°C.
- Available positions (to be indicated in case of order): LG270, LG0, LG45, LG90, LG135, LG180, LG225, LG315, RD0, RD45, RD90, RD135, RD180, RD225, RD270, RD315.
- The indicated codes correspond to the model in position LG270

APPLICATIONS

Suitable for moving clean or dusty air. Designed to be installed in conduit for suction or impulsion.

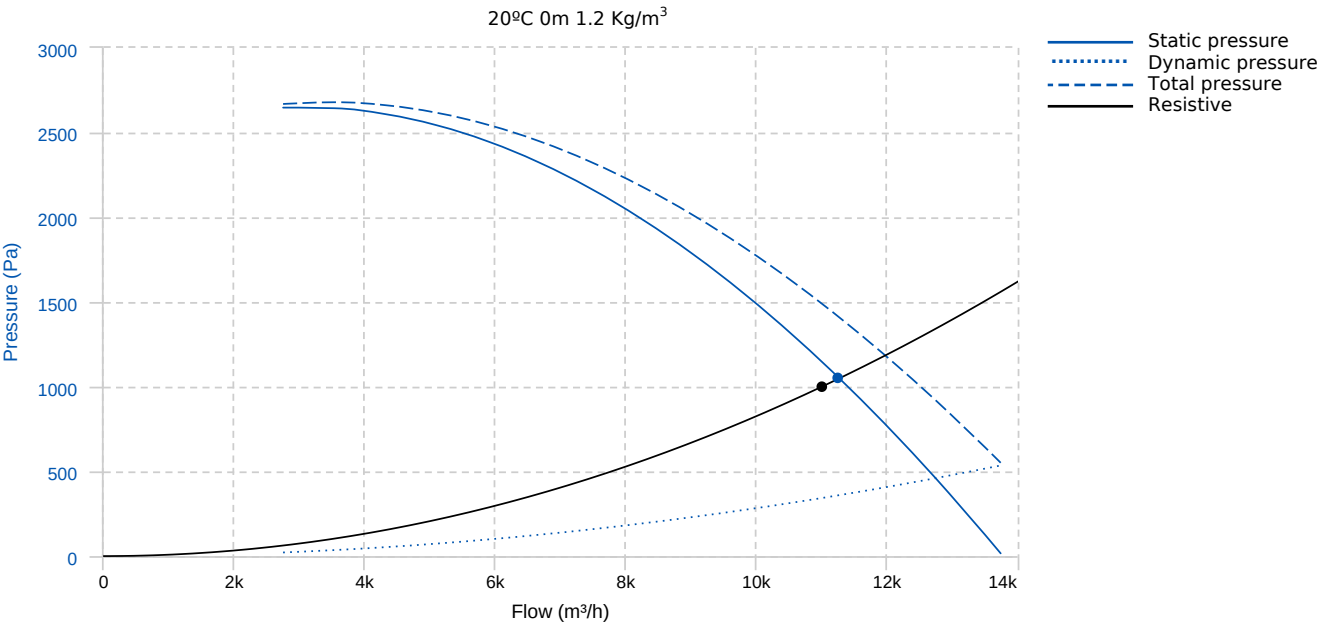
- Paint booths
- Collection of dust
- Food industry dryers
- Food processing
- Incineration
- Odor control in industry
- Indoor / outdoor pollution control
- Big buildings
- Malls
- Factories / Industrial buildings
- Warehouses
- Extraction of smoke
- Boilers and ovens
- Manufacture and treatment of chemical products.
- Tunnels, underground stations.

ON DEMAND

- Fans for special voltages.
- 2 speed motor.
- C4 or C5 coating painting
- Hot dip galvanized
- Inox 304 (normal or electropolished finish)
- Inox 316 (normal or electropolished finish)
- Cooling wheel
- Anticaloric paint
- Fully welded housing (waterproof)
- Inspection door to facilitate maintenance and cleaning
- Drain plug.
- Airtight axle
- Non-sparking air passage and standard motor
- Other brands of motors.



PERFORMANCE CURVE



Design point

Flow (m³/h)	11000	Pressure (Pa)	1000
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Service point

T.max (°C)	135	Q (m³/h)	11267.84	Ps (Pa)	1049.29	Pd (Pa)	359.76
Pt (Pa)	1409.05	Speed (m/s)	24.49	Security coefficient	1.38	Fan total efficiency	72.11
Mechanical total efficiency	80.3	Pabs (kW) 1.2 kg/m³	6.06	Pw.mec (kW)	5.45	SFP (W/l/s) 1.2 kg/m³	1.94

TECHNICAL DATA

Fan

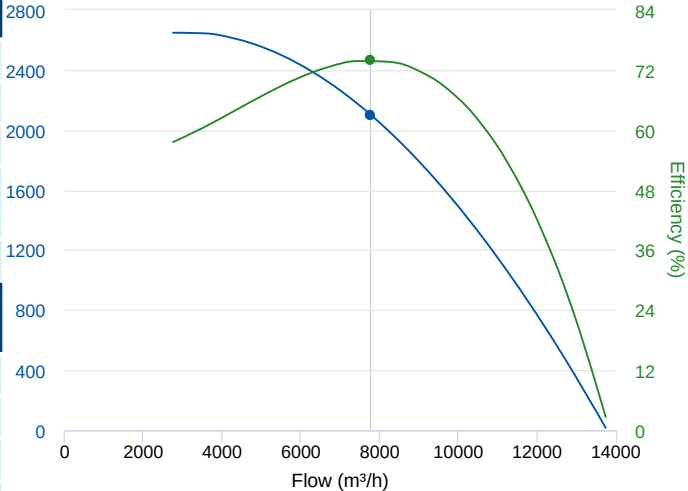
RPM	2910	Approx. weight	159.03 kg	Max. Flow	13750 m³/h
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Motor

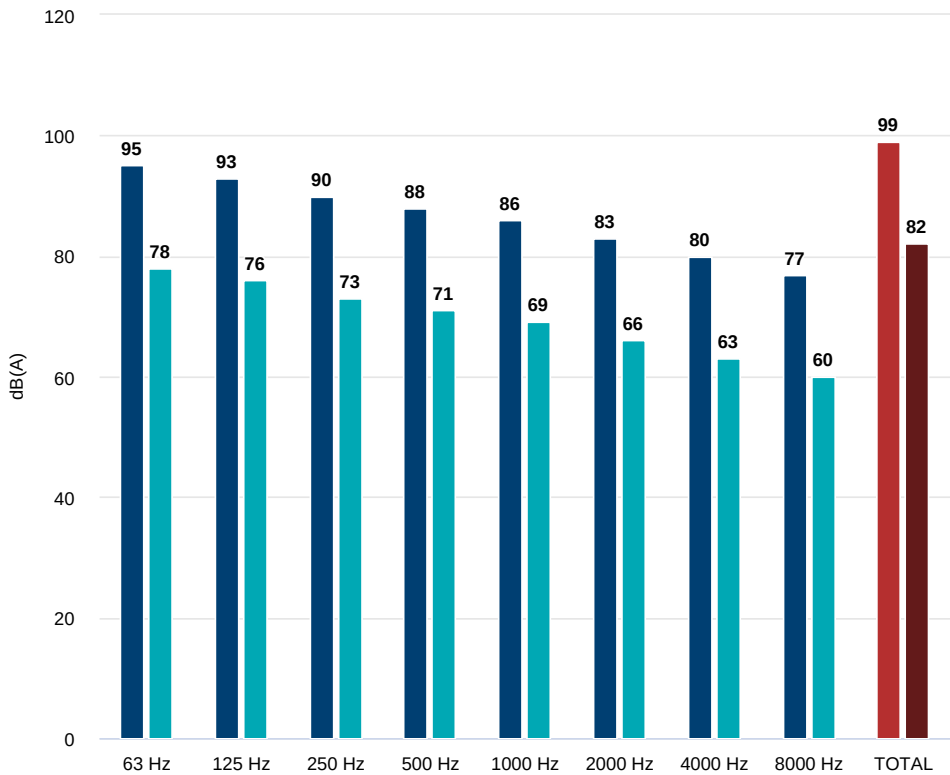
Power	7,5 kW	RPM	2910	I max. (400V)	14,1 A	I max. (690V)	8,17 A
Size	132S	Approx. weight	73 kg	Efficiency (%)	90.4 %	FP	0.87

ERP DATA

Fan data sheet		
Fan type	Centrifugal fan backward blades with casing	
Installation category	A: Outlet and Inlet free discharge	
Efficiency category	Static	
The fan has to be installed with VF	No	
Motor power (kW)	7.5	
	Fan values	ERP Requirements 2015
Max. efficiency (%)	73.9	58.84
Efficiency grade (N)	76.05	61
Pabs (kW)	6.232	
Flow (m³/h)	7774.45	
Static pressure (Pa)	2100.98	
Speed (m/s)	2910	
Specific ratio	1.02	



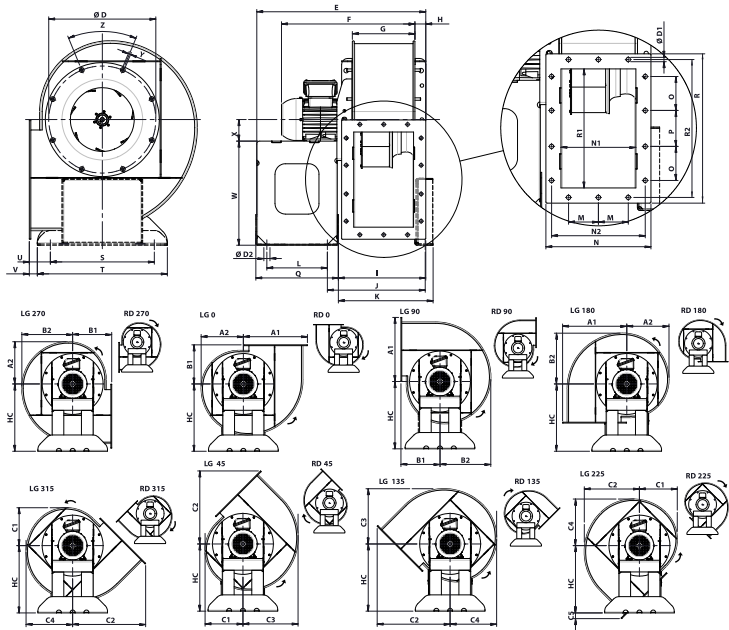
ACOUSTIC DATA (INLET)



Sound power	
63 Hz	95
125 Hz	93
250 Hz	90
500 Hz	88
1000 Hz	86
2000 Hz	83
4000 Hz	80
8000 Hz	77
TOTAL	99

Sound pressure 3m Q=2	
63 Hz	78
125 Hz	76
250 Hz	73
500 Hz	71
1000 Hz	69
2000 Hz	66
4000 Hz	63
8000 Hz	60
TOTAL	82

DIMENSIONS



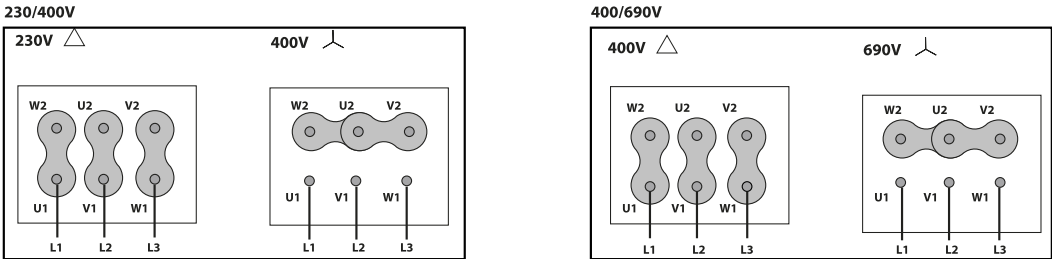
Dimensions (mm)

A1	549.3	A2	367.7	B1	325.4	B2	444	C1	329.6
C2	618.5	C3	482.2	C4	405.9	C5	47.9	D	485

Dimensions (mm)

D1	11.5	D2	20	E	868.1	F (±)	725	G (±)	293
H	48.5	HC	570.6	I	437.8	J	394.4	K	428.9
L	385	M	112	N	364	N1	284	N2	334
O	130	P	130	Q	464.7	R	530	R1	450
R2	500	S	487	T	563	U	81.9	V	43.9
W	438.6	X	132	Y	M8	Z	8holes x45º		

WIRING DIAGRAM



ACCESSORIES



SAFETY SWITCH
INT 25 3P A
REF: INT253PA



CONNECTION FLANGE
AC 450
REF: 960003213



ANTI-VIBRATION JOINT
JE 45
REF: 300719201



OUTLET PROTECTION GUARD FOR STORM FANS
RIS 450x284
REF: RIS-45284E2



RECTANGULAR-RECTANGULAR ANTI-VIBRATION FLANGE FOR STORM
BIDS 284x450-200
REF: BIDS-45284



INLET PROTECTION GUARD FOR CENTRIFUGAL FANS
RA 45/18
REF: 253531901



ANTI-VIBRATING FLANGE 400º/2H
BA-400 45
REF: 960002055



OUTLET FLANGE FOR STORM MODELS
EIS 450x284-450
REF: EIS-4528445



CIRCULAR-CIRCULAR ANTI-VIBRATION FLANGE FOR STORM
BADS 450
REF: BADS-4545



FREQUENCY SPEED CONTROLLER
SFC 400 III 16A *
REF: SFC400III16



ANTI-VIBRATION RUBBER BLOCK
AVR (GENERIC)



ANTI-VIBRATION SPRING BLOCK
AVS (GENERIC)



ACOUSTIC CABINS FOR CENTRIFUGAL FANS
AB (GENERIC)



FRONTAL FEET SUPORT
CPD-N45
REF: CPD-N45



MULTIPOSITION FRONTAL FEET SUPPORT
CPDMP-N45
REF: CPDMP-N45

SPARE PARTS

	Code	Model	Qty
1	R-BAD-N45	INLET CONE 450	x1
2	721001082	MOTOR 7,5kW T2 B3 400/690V	x1
3	721001082	MOTOR 7,5kW T2 B3 400/690V	x1