

Product Data Sheet 8506N

ebmpapst

The engineer's choice



8506N

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1 General

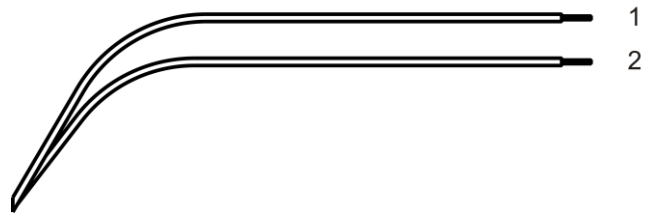
Fan type	Axial fan
Rotating direction looking at rotor	Clockwise
Airflow direction	Air outlet over struts
Bearing system	Ball bearings
Mounting position - shaft	Any
Balancing grade	2,5

2 Mechanics**2.1 General**

Width	80,0 mm	
Height	80,0 mm	
Depth	38,0 mm	
Diameter	0,0 mm	
Mass	0,380 kg	
Housing material	Metal	
Impeller material	Metal	
Max. torque when mounted across both mounting flanges	Wire outlet corner: 50 Ncm Remaining corners: 50 Ncm	
Screw size	ISO 4762 - M4 degreased, without an additional brace and without washer	

2.2 Connections

Electrical connection	Wires	
Lead wire length	L = 310,0 mm	
Tolerance	+ - 10,0 mm	
Tube length	S = 270,0 mm	
Tolerance	+ - 10,0 mm	
Wire size (AWG)	22	
Insulation diameter	1,09 mm	
Plug	See drawing	
Contact	See drawing	



	Color	Operation
1	blue	L
2	blue	N

3 Operating Data

3.1 Electrical Operating Data

Measurement conditions: Normal air density = 1,2 kg/m³; Temperature 23°C +/- 3°C; Motor axis horizontal; warm-up time before measuring 5 minutes (unless otherwise specified).
In the intake and outlet area should not be any solid obstruction within 0,5 m.

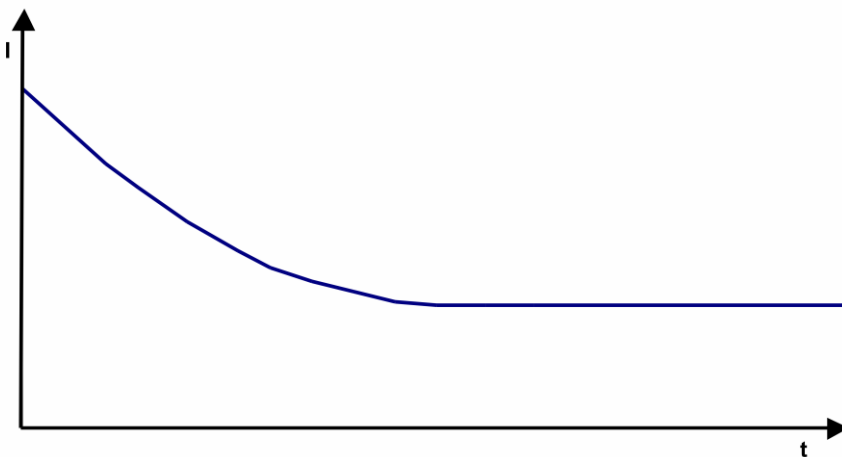
$\Delta p = 0$: corresp. to free air flow (see section 3.4)

I: corresp. to RMS line current

Features	Condition	Symbol	Values	
Frequency	$\Delta p = 0$	f	50 Hz	60 Hz
Nominal voltage	$\Delta p = 0$	U_N	115 V +- 10 %	115 V +- 10 %
Power consumption	$\Delta p = 0$	P	12 W	11 W
Tolerance			+ 5 % - 10 %	+ 5 % - 10 %
Speed	$\Delta p = 0$	n	2.800 1/min	3.300 1/min
Tolerance			+- 3 %	+- 3 %

3.2 Electrical Features

Locked rotor protection	Impedance
Locked rotor current at	



5 Safety

5.1 Electrical Safety

Dielectric strength DIN EN 60950 (VDE 0805) and DIN EN 60335 (VDE 0700) A.) Type test Measuring conditions: After 48h of storage at 95% R.H. and 25°C. No arcing or breakdown is allowed! All connections together to ground.	1000 VAC / 1 Min.
B.) Routine test Measuring conditions: At indoor climate. No arcing or breakdown is allowed! All connections together to ground.	1500 VAC / 1 Sec.
Isolation resistance Measuring conditions: After 48h of storage at 95% R.H. and 25°C measured with U=500 VDC for 1 min.	RI > 50 MOhm
clearance / creepage distance	2,0 mm / 1,1 mm
Protection class	I

5.2 Approval Tests

CE	EC Declaration of Conformity	Yes
EAC	Eurasian Conformity	Yes
UL	Underwriters Laboratories	Yes / UL507, Electric Fans
VDE	Association for Electrical, Electronic and Information Technologies	Yes / Approval acc. to EN 60950 (VDE 0805) - Information technology equipment
CSA	Canadian Standards Association	Yes / C22.2 No. 113 Fans and Ventilators
CCC	China Compulsory Certification	Yes / GB 12350 Safety Requirements for small Power Motors

The approval tests are observed to:

U approval max.: 115 V / f: 60 Hz @ TU approval max.: 95 °C

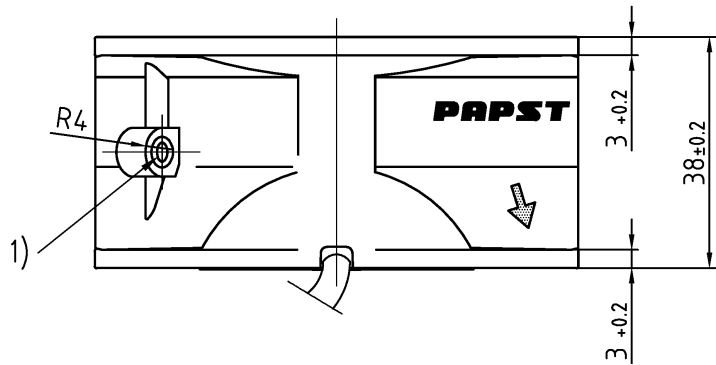
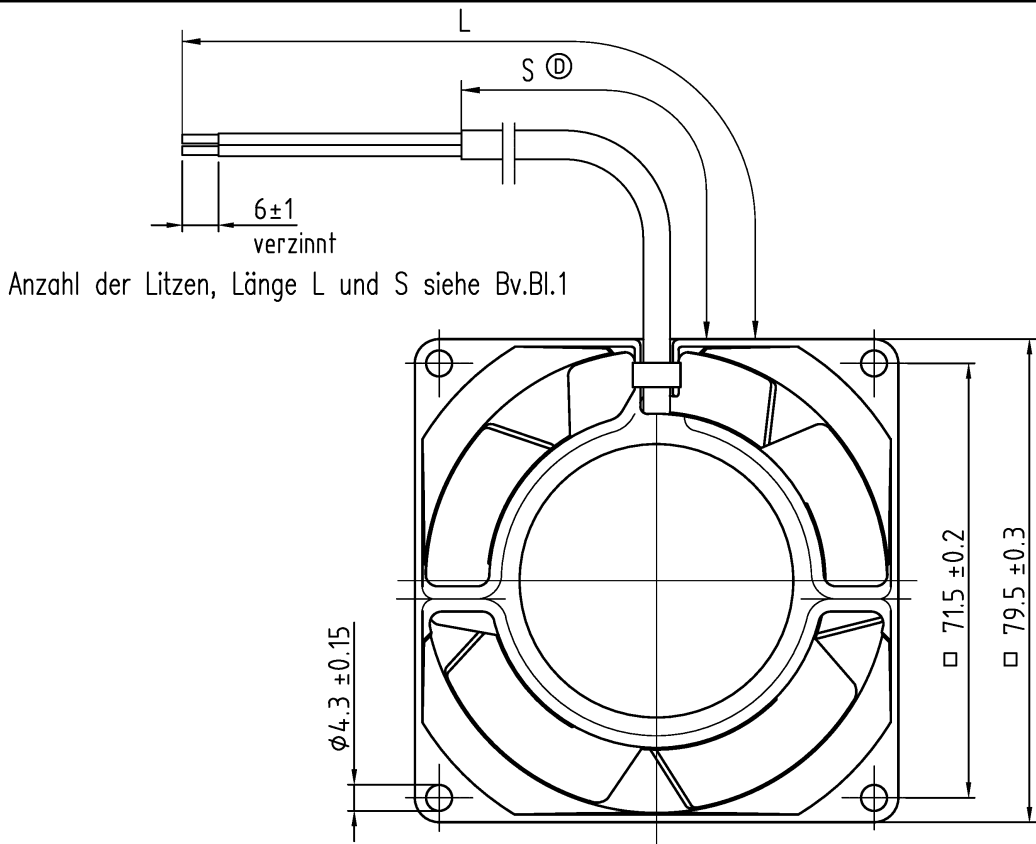
6 Reliability

6.1 General

Life expectancy L10 at TU = 40 °C	52.500 h / 50 Hz 55.000 h / 60 Hz	
Life expectancy L10 at TU max.	15.000 h / 50 Hz 15.000 h / 60 Hz	

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Refer to protection notice DIN ISO 15016!



1) Bohrung für Gewinde M4 oder 8-32 UNC

UV = unverzinnt
VZ = verzinnt
AV = angeschnitten u. vorgezogen

Axialspiel bei Kugellagerung mit Feder spielfrei verspannt.

Tolerierung/Tolerances: DIN 7167			
Allgemeintoleranzen/ Gen. tolerances: DIN 7167		Längenmaße: Winkel, Form u. Lage: DIN ISO 2768-mK	
		Artikel/Title	
		Massstab/Scale	
Datum/Date		Name/Name	
Bearb./Drawn:		Zchg.-Nr./ Dwg.-No.:	
Index/Index		Aend.-Nr./Change-No.	
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