1 General

Fan type	Fan	
Rotating direction looking at rotor	Counterclockwise	
Airflow direction	Air outlet over struts	
Bearing system	Ball bearing	
Mounting position - shaft	Any	

2 Mechanics

2.1 General

Width	80,0 mm	
Height	80,0 mm	
Depth	32 mm	
Mass	0,1 kg	
Housing material	Plastic	
Impeller material	Plastic	
Max. torque when mounted across both mounting flanges Screw size	Wire outlet corner: 100 Ncm Remaining corners: 100 Ncm ISO 4762 - M4 degreased, without an additional brace and without washer	

2.2 Connections

Electrical connection	Wires	
Lead wire length Tolerance	L = 310 mm +- 10,0 mm	

Wire	Color	Operation	Wire size	Insulation diameter
1	red	+ UB	AWG 26	1,35 mm
2	blue	- GND	AWG 26	1,35 mm

3 Operating Data

3.1 Electrical Operating Data

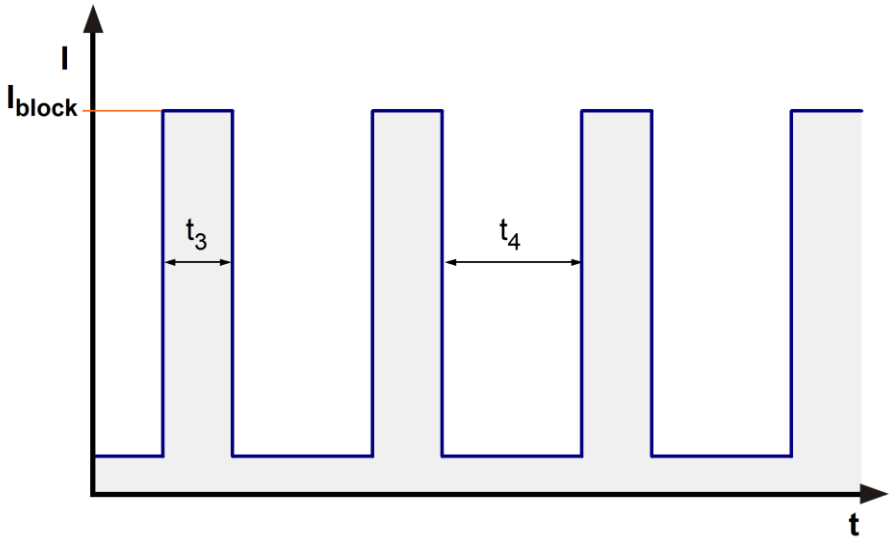
Measurement conditions: Normal air density = 1,2 kg/m3; Temperature 23°C +/- 3°C; Motor axis horizontal; warm-up time before measuring 5 minutes (unless otherwise specified). In the intake and outlet area should not be any solid obstruction within 0,5 m.

Δp = 0: corresp. to free air flow (see chapter aerodynamics)
I: corresp. to arithm. mean current value

Features	Condition	Symbol	Values		
Voltage range		U	6 V		15 V
Nominal voltage		U_N		12 V	
Power consumption Tolerance	Δp = 0 0010	P	0,4 W +- 17,5 %	1,5 W +- 12,5 %	2,3 W +- 15 %
Current consumption Tolerance	Δp = 0 0010	I	70 mA +- 17,5 %	125 mA +- 12,5 %	150 mA +- 15 %
Speed Tolerance	Δp = 0 0010	n	1.600 1/min +- 12,5 %	3.300 1/min +- 7,5 %	4.200 1/min +- 10 %
Starting current consumption				750 mA	

3.2 Electrical Features

Electronic function	None	
Reversed polarity protection Max. residual current at U_N	Rectifying diode I_F <= 500 uA	
Locked rotor protection	Auto restart	
Locked rotor current at U_N	I_{block} approx. 750 mA	
Clock signal at locked rotor	t_3 / t_4 typical: 0,23 s / 11,8 s	


I
I block
t3
t4
t

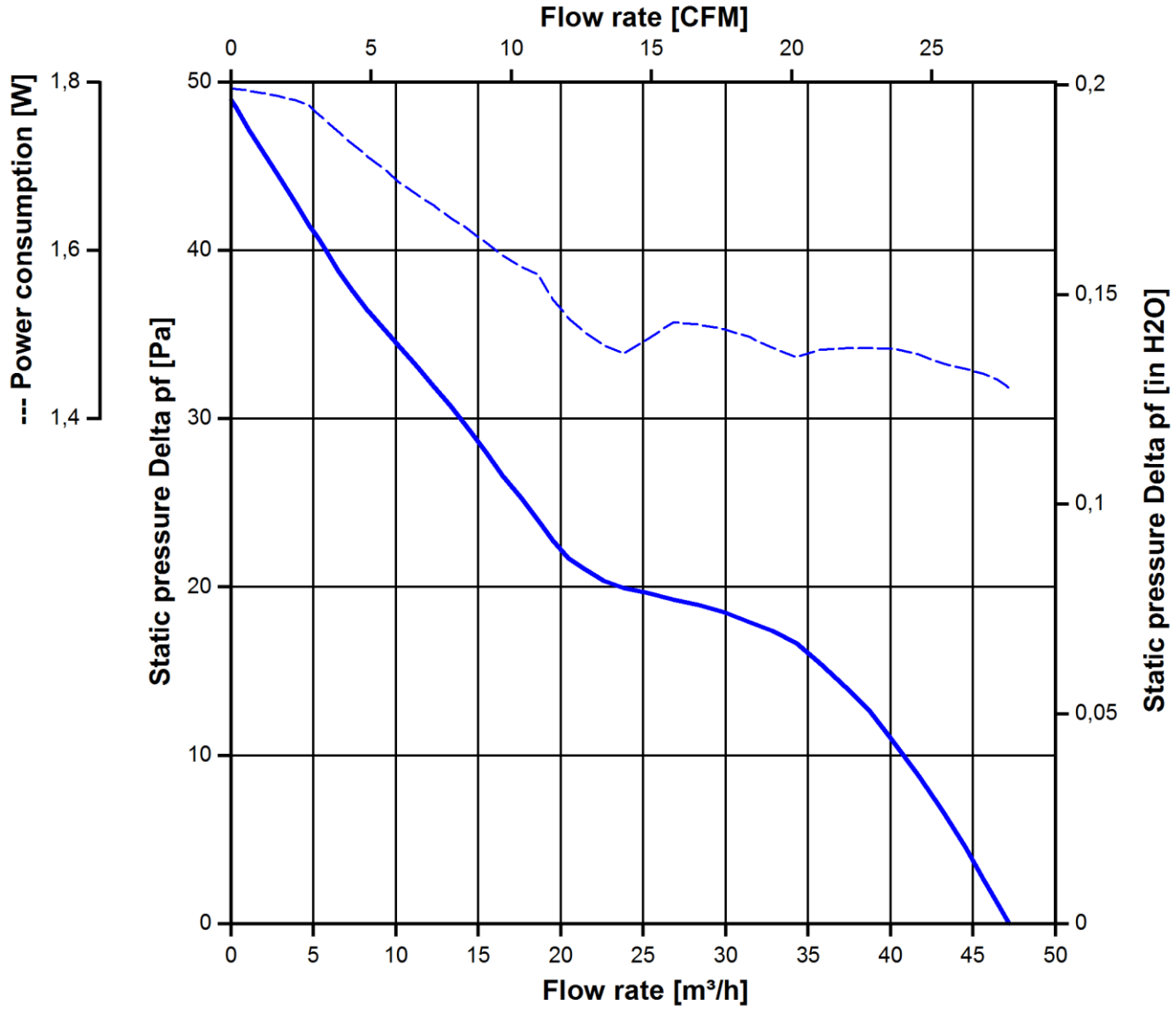
3.3 Aerodynamics

Measurement conditions:	Measured with a double chamber intake rig acc. to DIN EN ISO 5801. Normal air density = 1,2 kg/m3; Temperature 23°C +/- 3°C; In the intake and outlet area should not be any solid obstruction within 0,5 m. Motor shaft horizontal. The information is only valid under the specified test conditions and may be changed by the installation conditions. If there are deviations from the standard test conditions, the characteristic values must be checked under the installed conditions. Power consumption of the fan motor when operating at normal voltage is shown. Depending on the operating conditions of the application, the power input may be higher.

a.) Operation condition:

3.300 1/min at free air flow

Max. free-air flow (Δp = 0 / V̇ = max.)	47 m3/h	
Max. static pressure (Δp = max. / V̇ =0)	48 Pa	



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. B.) Routine test Measuring conditions: At indoor climate. No arcing or breakdown is allowed! All connections together to ground.	500 VAC / 1 Min. 850 VDC / 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 > 10 MOhm	
Clearance / creepage distance	1,0 mm / 1,2 mm	
Protection class	III	

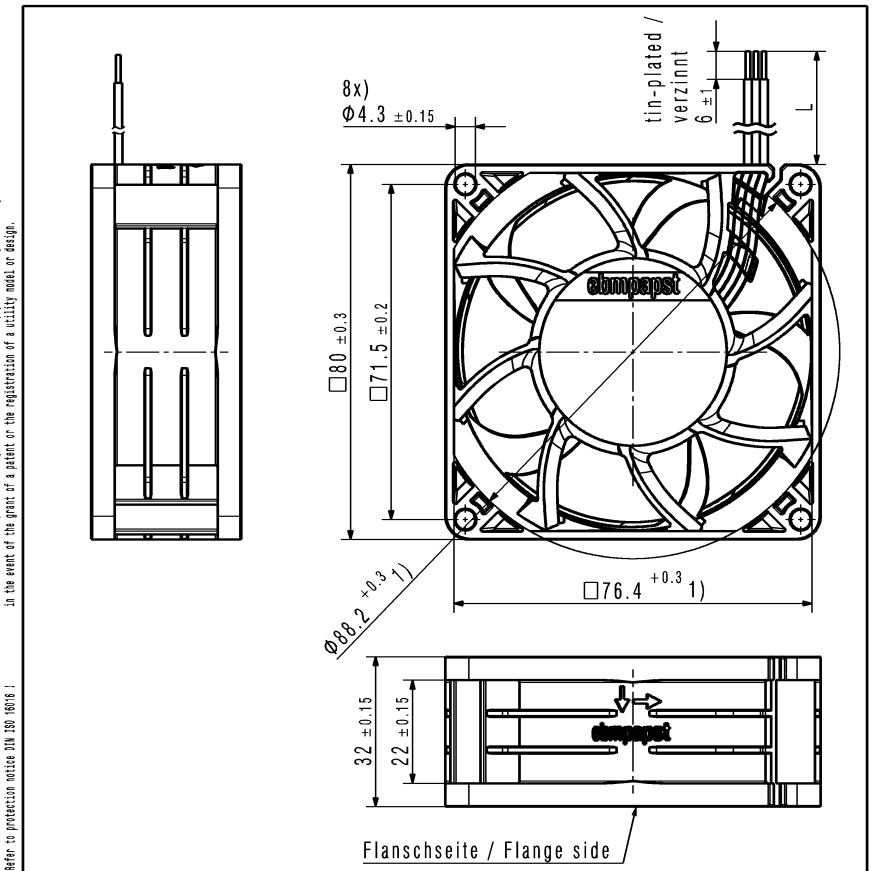
5.2 Approval Tests

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	Not applicable

6 Reliability

6.1 General

Life expectancy L10 at TU = 40 °C	102.500 h	
Life expectancy L10 at TU max.	40.000 h	
Life expectancy L10 acc. to IPC 9591 at TU = 40 °C	170.000 h	



1) Maße für Montagewand / Dimensions for assemlby wall
- Kein Axialspiel der Kugellager durch Federausgleich /
  no axial clearance of ball bearings due to a pre-load spring
- Anzahl und Länge der Litzen siehe Produktspezifikation Blatt 1
  Number and length of the wires see design specification sheet 1

Dokument-Status / Document-State	CATIA-Version/ CATIA-Version	CAD-Umgebung/ CAD-Environment	Werkstoff / Material:	Volumen / Volume (mm^3):		
Aend.-Nr./ Change-No.	9292910101 CPR000A			Gewicht / Mass (g):		
	3D-Referenzmodell / 3D-Referencemodel		Artikel / Title:			
Tolerierung / Tolerances: ○	Datum	Name				
Allgemeintoleranzen / Gen. Tolerances:	Bearb./ Drawn		Zchg.-Nr./ Drawing No:		Ers.f.Zchg. / Replaces:	
	Gepr./ Checked					
	Freig./ Releas.					
ebmpapst ebm-papst St.Georgen GmbH & Co KG			Dokumenttyp / Type of Document	Teildokument (Blatt/Page)	Index / Index: A	Format / Size: / Massstab/Scale