Product Data Sheet 9793520191

VBS0101XUGDS
RER101-36/18NHH

ebmpapst
The engineer's choice

RER101-36/18NHH

INDEX

1 General

Fan type	Blower without chassis with intake nozzle	
Rotating direction looking at rotor	Clockwise	
Airflow direction	Air in axially, Air out radially	
Bearing system	Ball bearing	
Mounting position - shaft	Any	

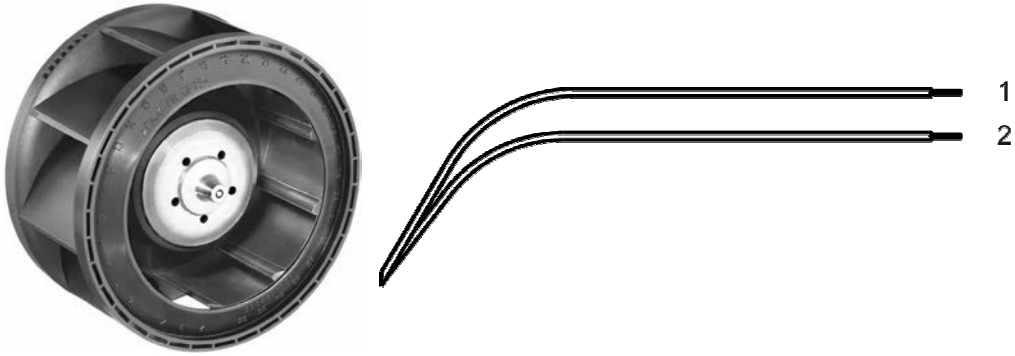
2 Mechanics

2.1 General

Depth	36,0 mm	
Diameter	101,0 mm	
Mass	0,300 kg	
Housing material		
Impeller material	Plastic	

2.2 Connections

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



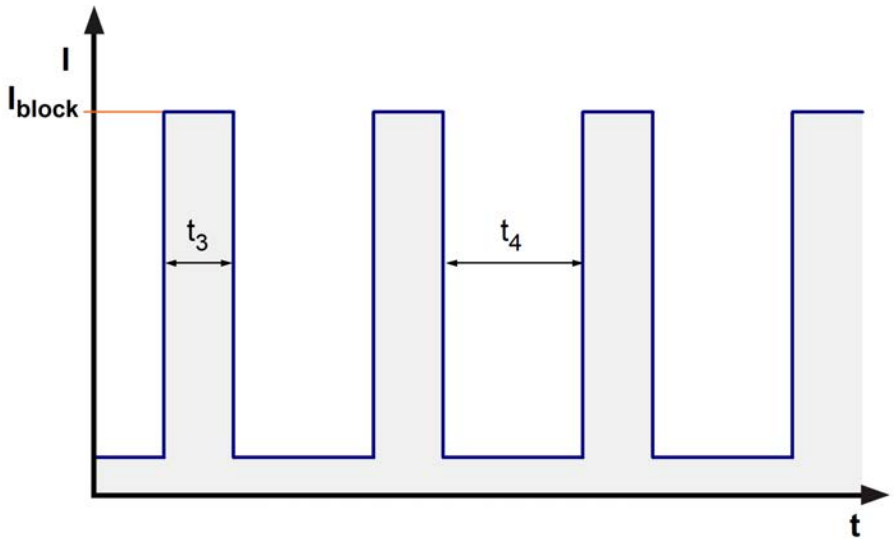
Wire	Color	Operation	Wire size	Insulation diameter
1	red	+ UB	AWG 22	1,70 mm
2	blue	- GND	AWG 22	1,70 mm

3 Operating Data

3.1 Electrical Operating Data

3.2 Electrical Features

Electronic function	None	
Reversed polarity protection Max. residual current at U_N	Rectifying diode I_F <= 100 uA	
Locked rotor protection	Auto restart	
Locked rotor current at U_N	I_{block} approx. 700 mA	
Clock signal at locked rotor	t_3 / t_4 typical: 0,5 s / 20,0 s	



3.3 Aerodynamics

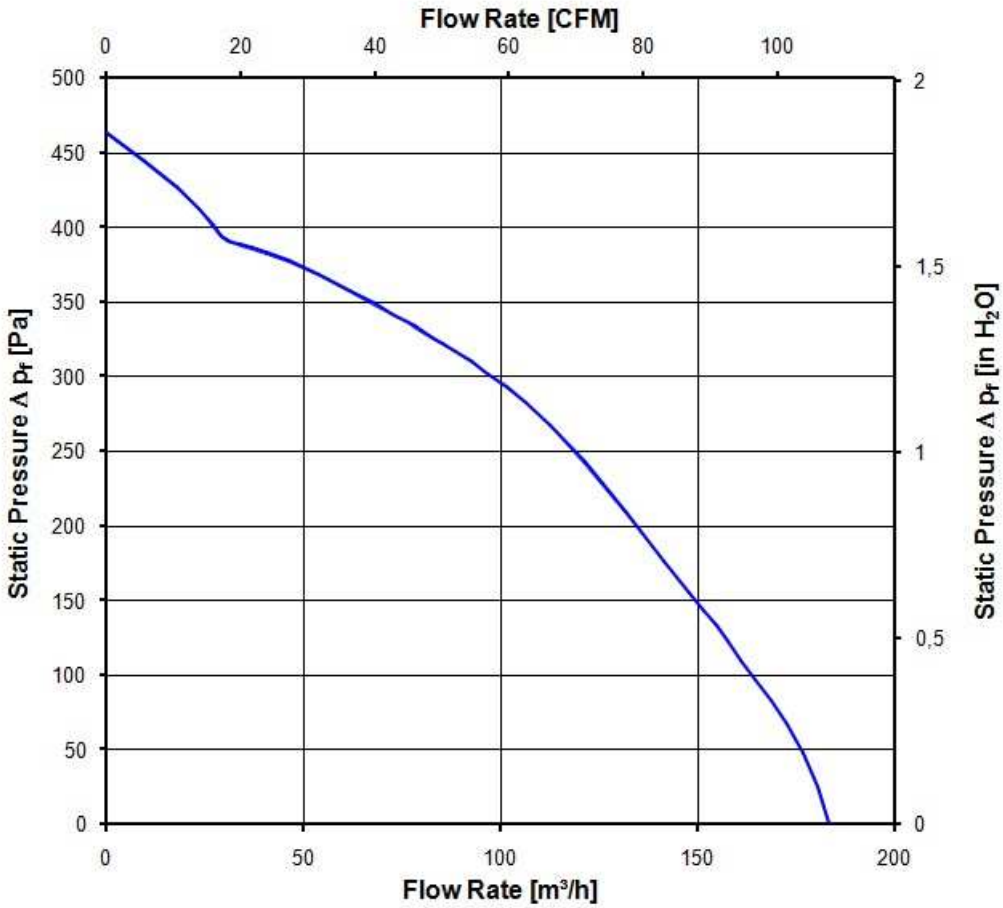
Measurement conditions:	Measured with a double chamber intake rig acc. to DIN EN ISO 5801. Normal air density = 1,2 kg/m3; Temperature 23℃ +/ - 3℃; In the intake and outlet area should not be any solid obstruction within 0,5 m. Motor shaft horizontal. The information is only valid under the specified 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.

Measurement setup:	Measured between two steel plates
Steel plate:	148 mm x 148 mm
Intake nozzle:	D: 66 mm; R: 7 mm
Distance between bottom and top plate:	
Overlapping impeller / nozzle:	1 mm

a.) Operation condition:

at free air flow

Max. free-air flow (Δp = 0 / V̇ = max.)	185,0 m3/h	
Max. static pressure (Δp = max. / V̇ =0)	460 Pa	
at free air flow		
at free air flow		



3.4 Sound Data

Measurement conditions:	Sound pressure level: 1 meter distance between microphone and the air intake. Sound power level: Acc. to DIN 45635 part 38 (ISO 10302) Measured in a semianchoic chamber with a background noise level of Lp(A) < 5 dB(A) For further measurement conditions see chapter aerodynamics.

a.) Operation condition:

at free air flow

Optimal operating point	76,0 m3/h @ 302 Pa	
Sound power level at the optimal operating point	7,2 bel(A)	
Sound pressure level at free air flow, measured in rubber bands		
at free air flow		
at free air flow		

4 Environment

4.1 General

Min. permitted ambient temperature TU min.	-20 ℃	
Max. permitted ambient temperature TU max.	70 ℃	
Min. permitted storage temperature TL min.	-40 ℃	
Max. permitted storage temperature TL max.	80 ℃	

4.2 Climatic Requirements

Humidity requirements	humid heat, constant; according to DIN EN 60068-2-78, 14 days	
Water exposure	None	
Dust requirements	None	
Salt fog requirements	None	

Permitted application area:
The product is intended for use in sheltered rooms with controlled temperature and controlled humidity. Directly exposure to water must be avoided.

Pollution degree 1 (according DIN EN 60664-1)
There is either no pollution or it occurs only dry, non-conductive pollution. The pollution has no negative impact.

Please require severity levels and specification parameters from the responsible development departments.

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℃. 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℃ measured with U=500 VDC for 1 min.	RI > 10 MOhm	
Clearance / creepage distance	1,0 mm / 1,5 mm	
Protection class	III	

5.2 Approval Tests

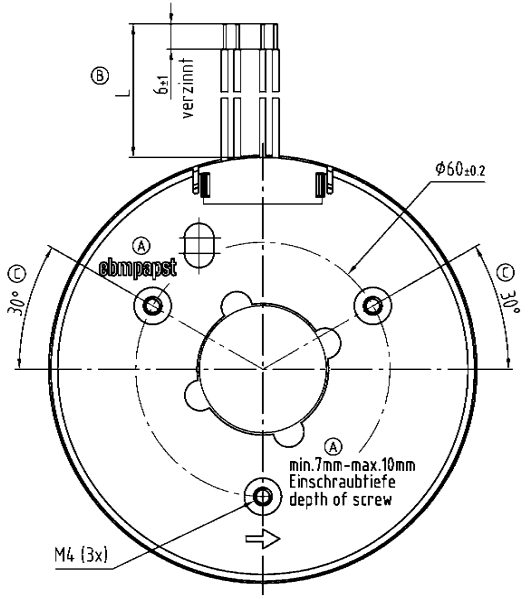
CE	EC Declaration of Conformity	Yes
EAC	Eurasian Conformity	Yes
UL	Underwriters Laboratories	Yes / UL507, Electric Fans E38324
VDE	Association for Electrical, Electronic and Information Technologies	No
CSA	Canadian Standards Association	Yes / CSA audited by UL according to C22.2 No. 113 Fans and Ventilators
CCC	China Compulsory Certification	Yes / GB 12350 Safety Requirements for small Power Motors

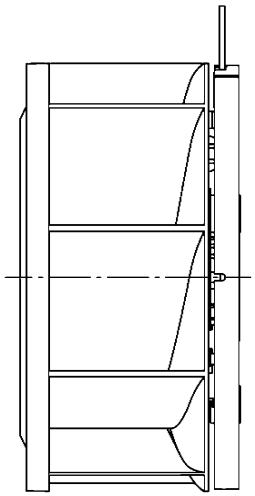
6 Reliability

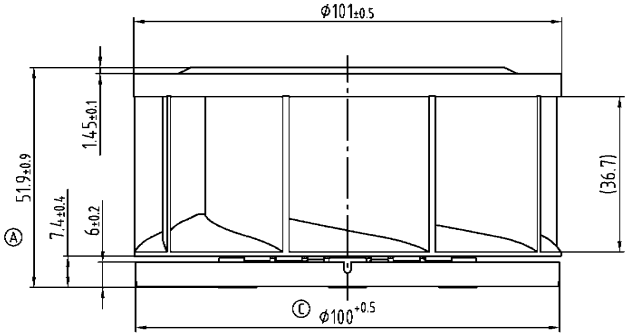
6.1 General

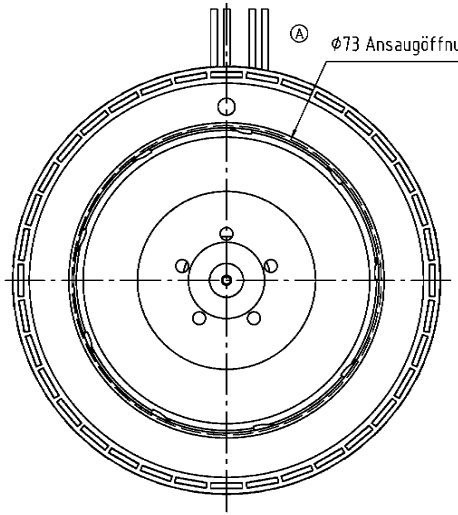
Life expectancy L10 at TU = 40 ℃	60.000 h	
Life expectancy L10 at TU max.	30.000 h	
Life expectancy L10 acc. to IPC 9591 at TU = 40 ℃	102. 500 h	

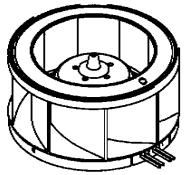
Ⓑ Länge L und Anzahl der Litzen siehe Spezifikation











SAP-Status/State	Anmt.-Nr./Change-No.		ebmpapst	Werkstoff/Material:		Volumen/Volume (mm³):
		AutoCAD-System-Version	CAD-Umgebung/ CAD-Environment			Gewicht/Mass (g):
Toleranzen/Tolerances:		Datum/Date	Name/Name			
		Bearb./ Drawn		Artikel/Title		Ⓐ
Allgemeintoleranzen/Gen. tolerances:		Gepr./ Checked				
		Freig./ Releas.				
		ebmpapst		Zchg.-Nr./ Drawing-No.:		Ers.f.Zchg./ Replaces:
		ebm-papst St. Georgen GmbH & Co. KG		Dokumenttyp/Type of Document	Teildokument (Bl./Lf)/Page) Index/Index	Format/Size Massstab/scale

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