Product Data Sheet **9293510101**
VWCE092PHGKS
3312 NH3

ebmpapst

engineering a better life

3312 NH3

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1 General

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

2 Mechanics

2.1 General

Width	92,0 mm	
Height	92,0 mm	
Depth	32 mm	
Mass	0,19 kg	
Housing material	Plastic	
Impeller material	Plastic	
Max. torque when mounted across both mounting flanges Screw size	Wire outlet corner: 80 Ncm Remaining corners: 80 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 size (AWG)		
Insulation diameter	1,5 mm	

Wire	Color	Operation	Wire size	Insulation diameter
1	red	+ UB	AWG 24	
2	blue	- GND	AWG 24	

3 Operating Data

3.1 Electrical Operating Data

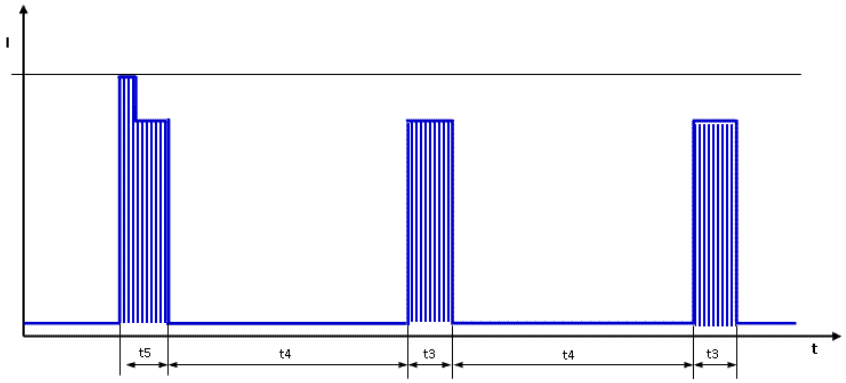
Measurement conditions: Normal air density = 1,2 kg/m3; Temperature 23°C +/- 3°C; Motor axis horizontal; warm-up time before measuring 5 minutes (unless otherwise specified). In the intake and outlet area should not be any solid obstruction within 0,5 m.

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

Features	Condition	Symbol	Values		
Voltage range		U	7 V		13,2 V
Nominal voltage		U_N		12 V	
Power consumption Tolerance	Δp = 0 0010	P	1,7 W +- 17,5 %	5,5 W +- 12,5 %	6,7 W +- 15 %
Current consumption Tolerance	Δp = 0 0010	I	240 mA +- 17,5 %	460 mA +- 12,5 %	500 mA +- 15 %
Speed Tolerance	Δp = 0 0010	n	2.700 1/min +- 12,5 %	4.350 1/min +- 7,5 %	4.700 1/min +- 10 %
Starting current consumption				<= 600 mA	

3.2 Electrical Features

Electronic function	None	
Reversed polarity protection Max. residual current at U_N	Rectifying diode I_F < 1 mA	
Locked rotor protection	Auto restart	
Locked rotor current at U_N	I_{block} approx. 950 mA	
Clock signal at locked rotor	t_3 / t_4 typical: 1 s / 9 s	



First pulse t5 typical 1,6s (1,3 .. 1,9s) followed by t4. Afterwards cyclical t3/t4.

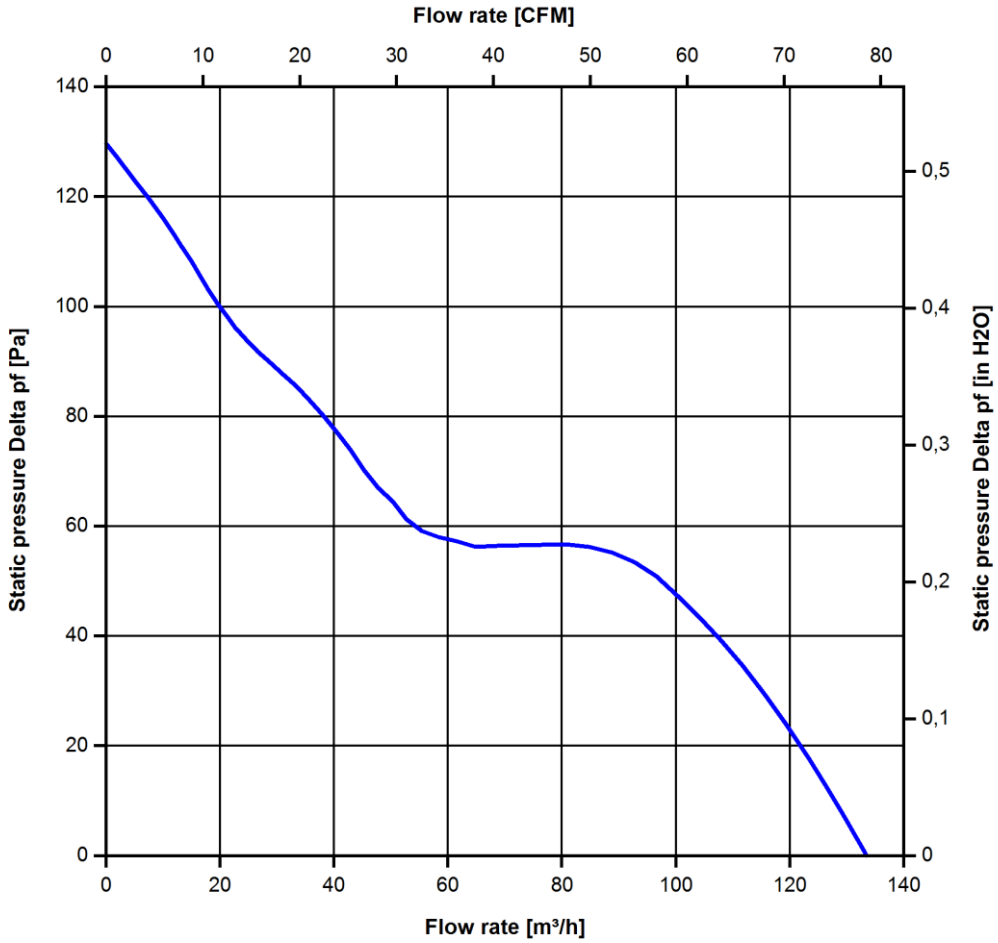
3.3 Aerodynamics

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.

a.) Operation condition:

4.350 1/min at free air flow

Max. free-air flow (Δp = 0 / $\dot{V}$ = max.)	133,0 m3/h	
Max. static pressure (Δp = max. / $\dot{V}$ =0)	130 Pa	



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 semianechoic chamber with a background noise level of Lp(A) < 5 dB(A) For further measurement conditions see chapter aerodynamics.

a.) Operation condition:

4.350 1/min at free air flow

Optimal operating point	84,0 m3/h @ 51 Pa	
Sound power level at the optimal operating point	6,0 bel(A)	
Sound pressure level at free air flow, measured in rubber bands	50,0 dB(A)	

4 Environment

4.1 General

Min. permitted ambient temperature TU min.	-20 °C	
Max. permitted ambient temperature TU max.	75 °C	
Min. permitted storage temperature TL min.	-40 °C	
Max. permitted storage temperature TL max.	80 °C	

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.

4.3 Mechanical Requirements

severity level	Vibration (sinusoidal)	
1 G	Vibration (sinusoidal) in use IEC 60068-2-6 Displacement / frequency range Acceleration / frequency range Sweep rate Sweep cycles Duration Axes of vibration	 Vibration (sinusoidal) 0,075 mm / 10-58, 58-10 Hz 1 G / 58-500-58 Hz 1 Oct./min 10 2 hrs. 3

severity level	stationary use		
1	storage / transportation	Random vibration not in use IEC 60068-2-64 Frequency range / ASD G_{RMS} Axes of vibration Test duration	 Random vibration 5 - 20 Hz : 1,0 m^2 / s^3 20 - 500 Hz : - 3 dB / Oct 0,91 G 3 3 x 5 h
	storage / transportation	Bump not in use IEC 60068-2-29 Shock spectrum Acceleration Duration Number of bumps (+X, -X, -Y, +Y, -Z, +Z) Total bumps	 Bump half sine 18 G 6 ms 100 in each direction 600
	stationary use	Random vibration in use IEC 60068-2-64 Frequency range / ASD G_{RMS} Axes of vibration Test duration	 Random vibration 5 - 20 Hz : 2,0 m^2 / s^3 20- 150 Hz : - 3 dB / Oct 0,83 G 3 3 x 5 h
	stationary use	Bump in use IEC 60068-2-29 Shock spectrum Acceleration Duration Number of bumps (+X, -X, -Y, +Y, -Z, +Z) Total bumps	 Bump half sine 5 G 11 ms 100 in each direction 600

5 Safety

5.1 Electrical Safety

Dielectric strength DIN EN 62368 and DIN EN 60335 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. Not applicable	
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	

contact person

A/B-Projects: C25000749
project leader:
mechanics:
electronics: Mauch, Volker

C-Projects:
applicator: -

Fan key data
Reference fan:

Integrated test software: NO EDM Dok:
Locked rotor test needed: NO

Quality of data:
1. First values RnD: -
2. 10´s Protokoll values: NO EDM Dok:
3. Final PPAP Values (EHSxxxx): NO EDM Dok:
4. Adjusted series values: NO EDM Dok:

Änderungen/Changes (DE):
11.07.2025 014/Mauch: Spec auf neue Technologie angepasst (Diodes)

5.2 Approval Tests

CE	EC Declaration of Conformity	Yes
UKCA	UK Conformity Assessed	Not applicable
EAC	Eurasian Conformity	Yes
America	UL - Underwriters Laboratories	Yes / UL507, Electric Fans E38324
Europe	VDE - Association for Electrical or UL - Underwriters Laboratories or comparable	Yes / Approval acc. to EN 62368 - Audio/video, information and communication technology equipment
Canada	UL - Underwriters Laboratories or CSA - Canadian Standards Association	Yes / C22.2 No. 113 Fans and Ventilators
China	CCC - China Compulsory Certification or CQC - China Quality Certification	Not applicable

6 Reliability

6.1 General

Life expectancy L10 at TU = 40 °C	60.000 h	
Life expectancy L10 at TU max.	30.000 h	
Life expectancy L10 acc. to IPC 9591 at TU = 40 °C	102.500 h	

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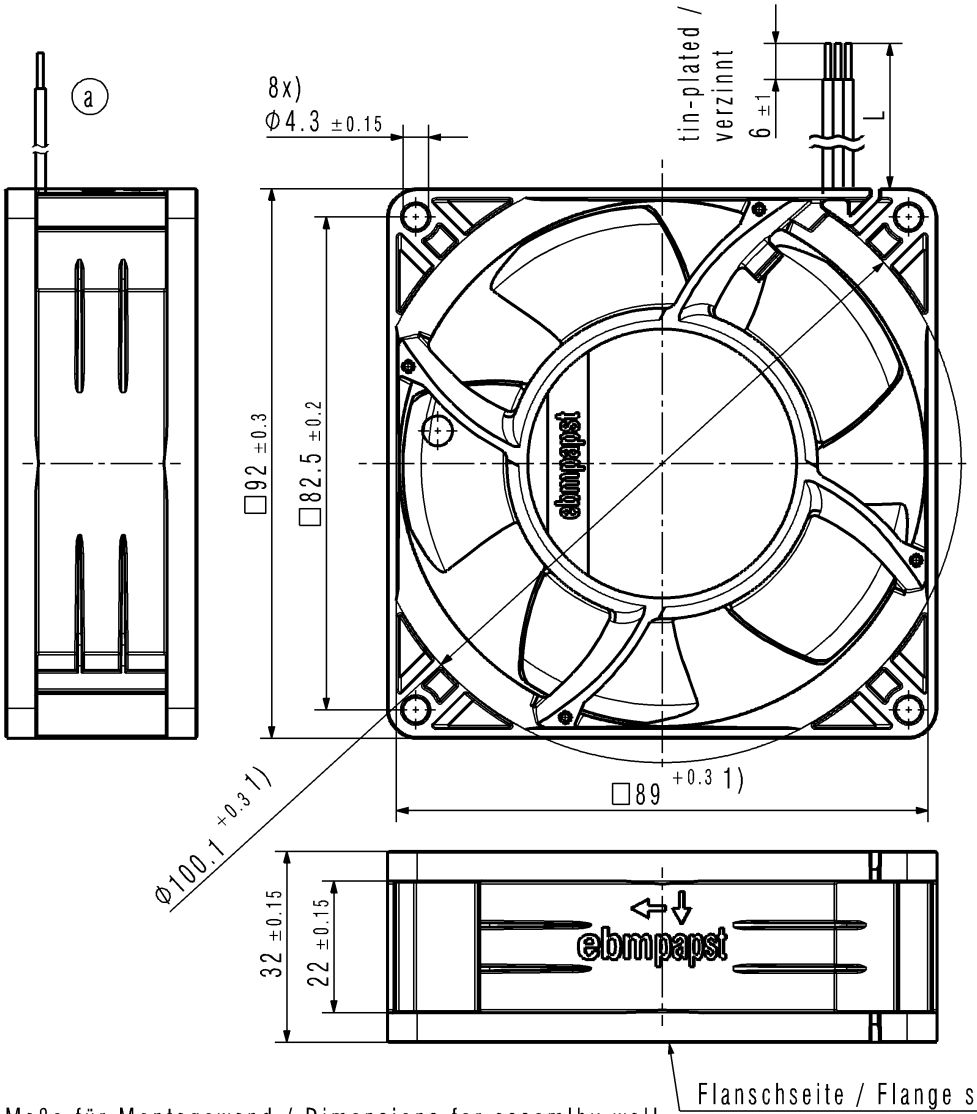
Refer to protection notice DIN ISO 16016 !



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

SAP-Status/State	Aend.-Nr./ Change-No.	CATIA-System-Version/ CATIA-System-Version	CAD-Umgebung/ CAD-Environment

9293510100 CPR000A

3D-Referenzmodell / 3D-Referencemodel

Tolerierung / Tolerances:

Allgemeintoleranzen / Gen. Tolerances:

	Datum	Name
Bearb./ Drawn		
Gepr./ Checked		
Freig./ Releas.		

ebmpapst

ebm-papst St.Georgen GmbH & Co KG

Werkstoff / Material:	Volumen / Volume (mm^3):
	Gewicht / Mass (g):

Artikel / Title:

Zchg.-Nr./ Drawing No:	Ers.f.Zchg. / Replaces:

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