

Product Data Sheet **9274014876**
VWC0119AQHCZ
4650 Z-876

ebmpapst

The engineer's choice

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1 General

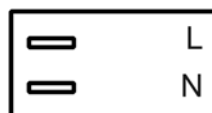
Fan type	Fan
Rotating direction looking at rotor	Clockwise
Airflow direction	Air outlet over struts
Bearing system	Sleeve bearing
Mounting position - shaft	Any
Balancing grade	2,5

2 Mechanics**2.1 General**

Width	119,0 mm	
Height	119,0 mm	
Depth	38,0 mm	
Diameter	0,0 mm	
Mass	0,540 kg	
Housing material	Metal	
Impeller material	Metal	
Max. torque when mounted across both mounting flanges	Wire outlet corner: 120 Ncm Remaining corners: 350 Ncm	
Screw size	ISO 4762 - M4 degreased, without an additional brace and without washer	

2.2 Connections

Electrical connection	Plug	
Lead wire length	See drawing	
Tolerance		
Tube length	See drawing	
Tolerance		
Wire size (AWG)		
Insulation diameter		
Plug	See drawing	
Contact	See drawing	



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.

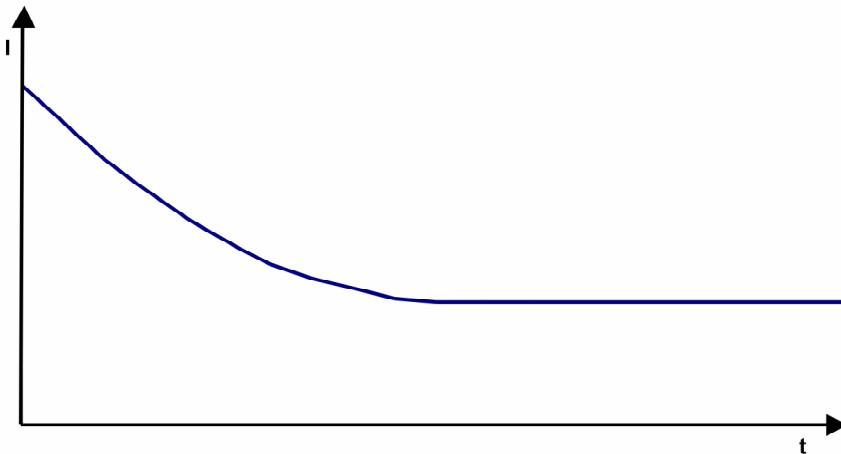
$\Delta p = 0$: corresp. to free air flow (see chapter aerodynamics)

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	230 V	
Tolerance			+ 6 % - 10 %	+ 6 % - 10 %
Power consumption	$\Delta p = 0$	P	19 W	
Tolerance			+- 10 %	
Speed	$\Delta p = 0$	n	2.650 1/min	
Tolerance			+- 3 %	

3.2 Electrical Features

Locked rotor protection	Impedance
Locked rotor current at	



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:
2.650 1/min at free air flow Frequency: 50 Hz

Max. free-air flow ($\Delta p = 0 / \dot{V} = \text{max.}$)	152,0 m ³ /h
Max. static pressure ($\Delta p = \text{max.} / \dot{V} = 0$)	70 Pa

b.) Operation condition:
3.100 1/min at free air flow Frequency: 60 Hz

Max. free-air flow ($\Delta p = 0 / \dot{V} = \text{max.}$)	180,0 m ³ /h
Max. static pressure ($\Delta p = \text{max.} / \dot{V} = 0$)	80 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) Sound power level: Acc. to DIN 45635 part 38 (ISO 10302)
Measured in a semianchoic chamber with a background noise level of $L_p(A) < 5 \text{ dB(A)}$
For further measurement conditions see chapter aerodynamics.

a.) Operation condition:

2.650 1/min at free air flow

Frequency: 50 Hz

Optimal operating point	136,0 m ³ /h @ 11 Pa	
Sound power level at the optimal operating point	4,9 bel(A)	
Sound pressure level at free air flow, measured in rubber bands	37,0 dB(A)	

b.) Operation condition:

3.100 1/min at free air flow

Frequency: 60 Hz

Optimal operating point	154,0 m ³ /h @ 16 Pa	
Sound power level at the optimal operating point	5,5 bel(A)	
Sound pressure level at free air flow, measured in rubber bands	42,0 dB(A)	

4 Environment

4.1 General

Min. permitted ambient temperature TU min.	-10 °C / 50 Hz -10 °C / 60 Hz	
Max. permitted ambient temperature TU max.	50 °C / 50 Hz 60 °C / 60 Hz	
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.

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.	1500 VAC / 1 Min. 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 / 1,8 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 E38324
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.: 230 V / f: 60 Hz @ TU approval max.: 60 °C

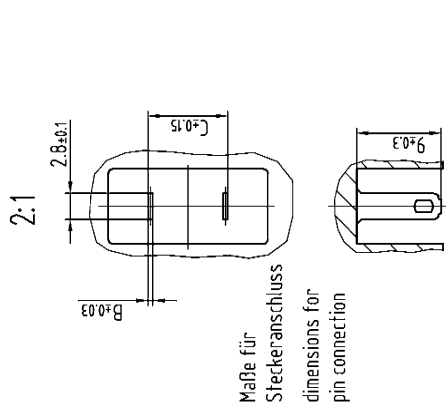
6 Reliability

6.1 General

Life expectancy L10 at TU = 40 °C	37.500 h / 50 Hz	
	40.000 h / 60 Hz	
Life expectancy L10 at TU max.	30.000 h / 50 Hz	
	25.000 h / 60 Hz	

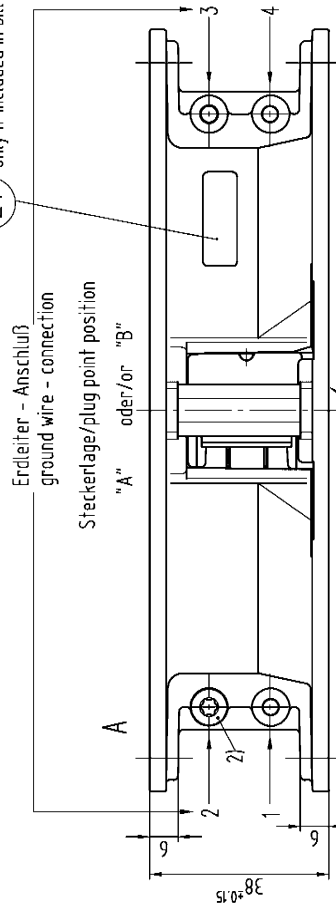
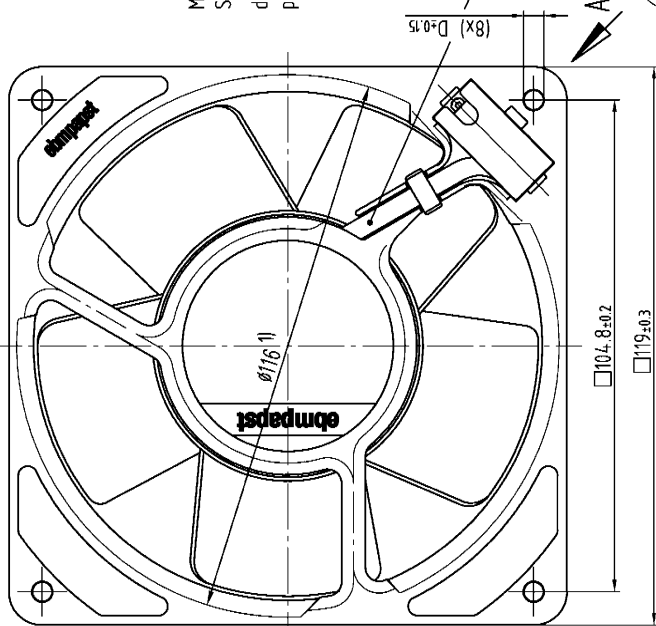
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Schützmerkmale nach DIN ISO 1606 beachten/ Refer to protection notice DIN ISO 1606!



Schlauch nur wenn in Stückliste enthalten!
tube only if included in bill of material

24 nur wenn in Stückliste enthalten!
only if included in bill of material



- 1) Maße für Montagewand
2) Schraube: Duo-Taprite nach DIN 7500, CM 4x8, Torx
- axial clearance by
- ball bearing (K): 0 (with spring compensation)
- sleeve bearing (G): 0.1 - 0.6
- sleeve bearing (GF): 0 (with spring compensation)

Erzeugnis-Nr. product number	Typ	Lagersystem bearing system	Befestigungs- bohrung - Ø D mounting holes	Steckermasse plug dimensions B/C	Steckerlage plug position	Lage des Erdleiter- Anschlusses position the ground wire - connection
924 4014 800 4656 Z	K		4.3	0.5/8.5	"A"	2
924 4014 801 4650 Z	G		4.3	0.5/8.5	"A"	2
924 4014 802 4606 Z	K		4.3	0.5/8.5	"A"	2
924 4014 803 4600 Z	G		4.3	0.5/8.5	"A"	2
924 4014 828 4856 Z	K		4.3	0.5/8.5	"A"	2
924 4014 829 4850 Z	G		4.3	0.5/8.5	"A"	2
924 4014 832 4806 Z	K		4.3	0.5/8.5	"A"	2
924 4014 833 4800 Z	G		4.3	0.5/8.5	"A"	2
924 4014 836 4536 Z	K		4.3	0.5/8.5	"A"	2
924 4014 837 4530 Z	G		4.3	0.5/8.5	"A"	2
924 4014 840 4586 Z	K		4.3	0.5/8.5	"A"	2
924 4014 841 4580 Z	G		4.3	0.5/8.5	"A"	2
924 4014 842 4606 ZR	K		4.3	0.5/8.5	"A"	2
924 4014 853 4656 Z-853	K		4.3	0.8/8.8	"A"	2
924 4014 854 4650 Z-854	G		4.3	0.8/8.8	"A"	2
924 4014 855 4606 Z-855	K		4.3	0.8/8.8	"A"	2
924 4014 856 4600 Z-856	G		4.3	0.8/8.8	"A"	2
924 4014 857 4856 Z-857	K		4.3	0.8/8.8	"A"	2
924 4014 858 4850 Z-858	G		4.3	0.8/8.8	"A"	2
924 4014 863 4586 Z-863	K		4.3	0.8/8.8	"A"	2
924 4014 864 4580 Z-864	G		4.3	0.8/8.8	"A"	2
924 4014 873 4656 ZR-873	K		4.3	0.5/8.5	"A"	2
924 4014 876 4650 Z-876	G		4.3	0.8/8.8	"A"	2
924 4014 881 4600 Z-881	G		4.3	0.8/8.8	"A"	2
924 4014 884 4856 ZR-884	K		4.3	0.5/8.5	"A"	2
924 4014 886 4586 ZR-886	K		4.3	0.5/8.5	"A"	2
924 4014 924 4586 ZU-024	K		4.3	0.5/8.5	"A"	2
924 4014 925 4656 ZU-025	K		4.3	0.5/8.5	"A"	2

Werkstoff/Material	ebmpapst CAD-Bezeichnung/ Name/Name	Werkstoff/Material	Volumen/Volumen (mm ³) Gewicht/Mass (g)
Alu-OD-System-Nenn- Ø/mm	Bezeichnung/ Name/Name	Arbeitsstoff/Material	
Bohr-/ Durch- Ø/mm	Bohr-/ Durch- Ø/mm	Arbeitsstoff/Material	
Spur-/ Einzel- Ø/mm	Spur-/ Einzel- Ø/mm	Arbeitsstoff/Material	
Fräs-/ Fräs- Ø/mm	Fräs-/ Fräs- Ø/mm	Arbeitsstoff/Material	
ebmpapst			
ebm-papst St. Georgen GmbH & Co. KG			