

Product Data Sheet AC 4400 FNNR

**ebmpapst**

Die Wahl der Ingenieure



AC 4400 FNNR

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## 1 General

Fan type	Fan
Rotational direction looking at rotor	counterclockwise
Airflow direction	Air outlet over struts
Bearing system	Ball bearing
Mounting position	any

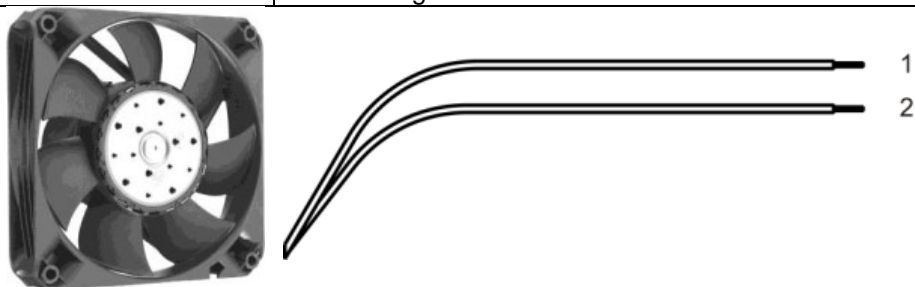
## 2 Mechanics

### 2.1 General

Width	119,0 mm	
Height	119,0 mm	
Depth	58,0 mm	
Diameter	0,0 mm	
Weight	0,370 kg	
Housing material	Plastic	
Impeller material	Plastic	

## 2.2 Connections

Electrical connection	Wires	
Length of lead wire	L = 450 mm	
Tolerance	+/- 10,0 mm	
Length of tube	S = 15 mm	
Tolerance	+/- 5 mm	
Wire gauge (AWG)	22	
Insulation diameter		
Plug	see drawing	
Contact	see drawing	



	Colour	Operation
Wire 1	black	L1
Wire 2	black	L2

### 3 Operating Data

#### 3.1 Operating Data - Electrical Interface - Input

External voltage supply for input and output signals must be SELV conform.

Control input	None
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#### 3.2 Electrical Operating Data

Features	Condition	Symbol	Values			
			85 V	230 V	265 V	115 V
Voltage range	$\Delta p = 0$	U	85 V	230 V	265 V	115 V
Nominal voltage	$\Delta p = 0$	$U_N$		230 V		
Frequency	$\Delta p = 0$	f		50 Hz		60 Hz
Power consumption Tolerance	$\Delta p = 0$	P	12 W +- 15 %	12 W +- 15 %	12 W +- 20 %	12 W +- 20 %
Speed Tolerance	$\Delta p = 0$	n	4.850 1/min +- 10 %	4.850 1/min +- 10 %	4.850 1/min +- 10 %	4.850 1/min +- 10 %

#### 3.3 Operating Data - Electrical Interface -Output

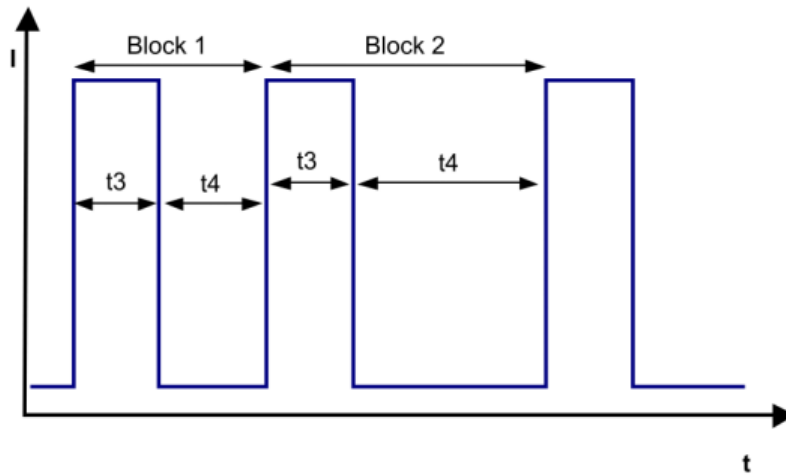
External voltage supply for input and output signals must be SELV conform.

Tacho type	None
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Alarm type	None
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### 3.4 Electrical Features

Electronic function	None	
Locked rotor protection	Auto restart	
Clock signal t3/t4 at locked rotor	Typical: 0,25 s / 20 s	



### 3.5 Aerodynamic

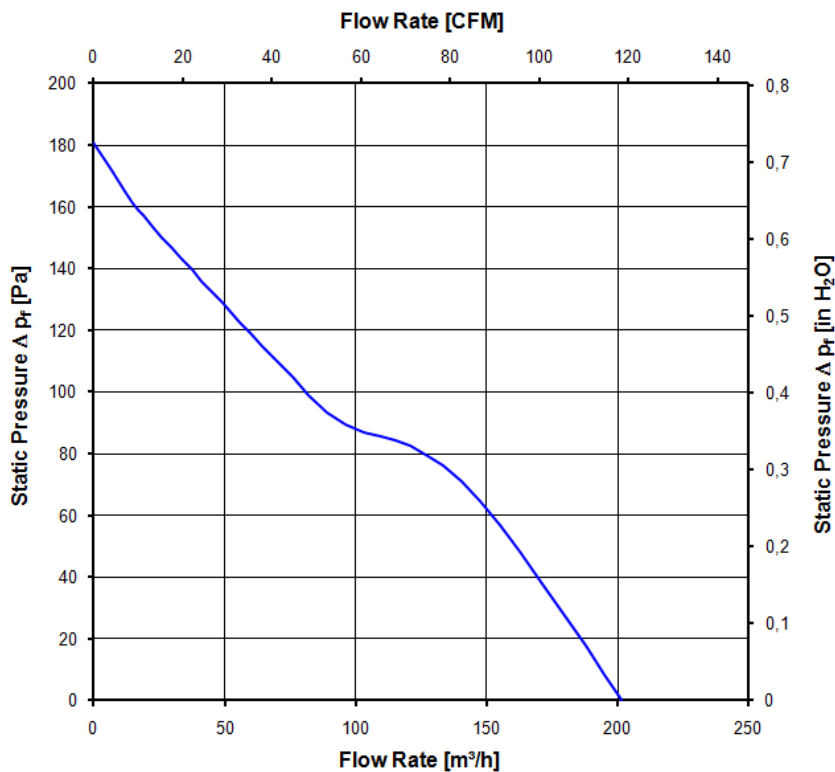
Measurement conditions: Measured with a double chamber intake rig acc. to DIN EN ISO 5801.  
 Normal air density = 1,2 kg/m<sup>3</sup>; Temperature 23°C +/- 3°C;  
 In the intake and outlet area should not be any solid obstruction within 0,5 m.  
 The information is only valid under the specified test 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:  
 4.850 1/min at free air flow                      Frequency: 50 Hz                      Nominal voltage: 230 V

Max. free-air flow ( $\Delta p = 0 / \dot{V} = \text{max.}$ )	205 m <sup>3</sup> /h
Max. static pressure ( $\Delta p = \text{max.} / \dot{V} = 0$ )	168 Pa

b) Operation condition:  
 4.850 1/min at free air flow                      Frequency: 60 Hz                      Nominal voltage: 115 V

Max. free-air flow ( $\Delta p = 0 / \dot{V} = \text{max.}$ )	205 m <sup>3</sup> /h
Max. static pressure ( $\Delta p = \text{max.} / \dot{V} = 0$ )	168 Pa



**3.6 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  $L_p(A) < 5 \text{ dB}(A)$   
 For further measurement conditions see section 3.4

a) Operation condition:  
 4.850 1/min at free air flow                      Frequency: 50 Hz                      Nominal voltage: 230 V

Optimal operating point	128,0 m <sup>3</sup> /h @ 75 Pa	
Sound power level at the optimal operating point	6,2 bel(A)	
Sound pressure level at free air flow, measured in rubber bands	53,0 dB(A)	

b) Operation condition:  
 4.850 1/min at free air flow                      Frequency: 60 Hz                      Nominal voltage: 115 V

Optimal operating point	128,0 m <sup>3</sup> /h @ 75 Pa	
Sound power level at the optimal operating point	6,2 bel(A)	
Sound pressure level at free air flow, measured in rubber bands	53,0 dB(A)	

## 4 Environment

### 4.1 General

Min. permitted ambient temperature TU min.	-20 °C	
Max. permitted ambient temperature TU max.	70 °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	
Radiation exposure	None	
Dust requirements	None	
Salt fog requirements	None	
Harmful gas requirements	None	
Humidity requirements	humid heat, cyclic; according to DIN EN 60068-2-30, 6 cycle	
Water exposure	None	
Radiation exposure	None	
Dust requirements	Dust check; according to DIN EN 60068-2-68, 6g/m2d, 1 day	
Salt fog requirements	None	
Harmful gas 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

A verification of thermal conditions (normal and abnormal operation) as well as the protection against electric shock, ingress of solid foreign objects and water has to be done in conjunction with the appliance.

Test voltage HV type test	1500 V
Unit test voltage	VAC
Time type test HV	1 s
Insulation resistance	RI > 10 MOhm
Protection class	built-in fan

### 5.2 Approval Tests

CE	EC Declaration of Conformity	Yes
EAC	Eurasian Conformity	Yes
UL	Underwriters Laboratories	Yes
VDE	Association for Electrical, Electronic and Information Technologies	Yes
CSA	Canadian Standards Association	Yes
CCC	China Compulsory Certification	Yes

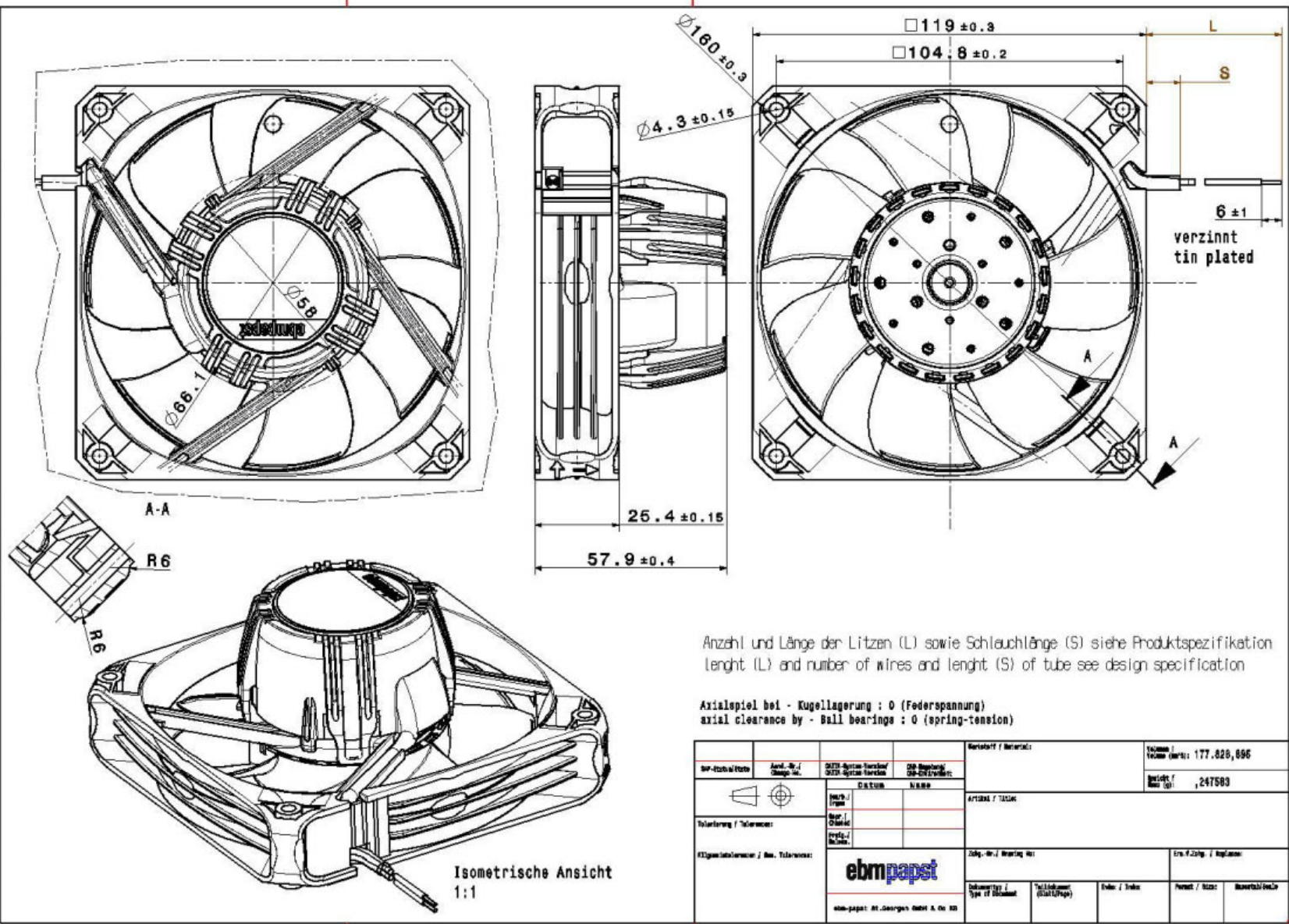
According to the guidelines on the application of Directive 2006/95/EC, chapter III: Scope of the "low voltage" directive, paragraph: Are "components" included in the scope? the following has to be applied:

However, some types of electrical devices, designed and manufactured for being uses as basic components to be incorporated into other electrical equipment, are such that their safety to a very large extent depends on how they are integrated into the final product and the overall characteristics of the final product. These basic components include electronic and certain other components.

Taking into account these objectives of the "Low Voltage" Directive, such basic components, the safety of which can only, to a very large extend, be assessed taking into account, how they are incorporated and for which a risk assessment cannot be undertaken, then they are not covered as such by the Directive. In particular, they must not be CE marked unless covered by other Community legislation that requires CE marking.

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Zeichnungen sind DIN 101 (ISO 10301) nachzuzeichnen. Refer to production rules ISO 10301 (DIN 101).



Anzahl und Länge der Litzen (L) sowie Schlauchlänge (S) siehe Produktspezifikation  
 length (L) and number of wires and length (S) of tube see design specification

Axialspiel bei - Kugellagerung : 0 (Federspannung)  
 axial clearance by - Ball bearings : 0 (spring-tension)

DW-Status 	Art.-Nr. / Design No.	DW-System-Veränderung DW-System-Veränderung	DW-System-Veränderung DW-System-Veränderung	Material / Material:	Teilname / Name: 177.826.096
Tolerierung / Tolerances:	Datum Name	DW-System-Veränderung DW-System-Veränderung	DW-System-Veränderung DW-System-Veränderung	Artikel / Part:	Gewicht / Weight: 247583
Eigenschaften / Features:	DW-System-Veränderung DW-System-Veränderung	DW-System-Veränderung DW-System-Veränderung	DW-System-Veränderung DW-System-Veränderung	Zeichnung / Drawing:	DW-System-Veränderung DW-System-Veränderung
		DW-System-Veränderung DW-System-Veränderung	DW-System-Veränderung DW-System-Veränderung	DW-System-Veränderung DW-System-Veränderung	DW-System-Veränderung DW-System-Veränderung
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Isometrische Ansicht  
 1:1