



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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The engineer's choice

**ebmpapst**

AC 6200 NMU

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**1 General**

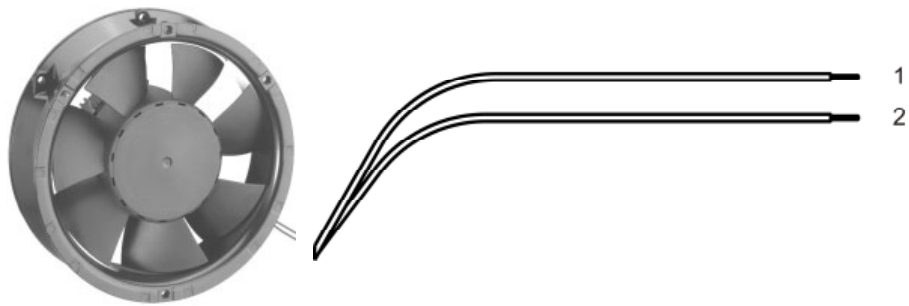
Fan type	Fan
Rotational direction looking at rotor	counterclockwise
Airflow direction	Air outlet over struts
Bearing system	Ball bearing
Mounting position	any

**2 Mechanics****2.1 General**

Width	0 mm	
Height	0 mm	
Depth	84 mm	
Diameter	172 mm	
Weight	0,970 kg	
Housing material	Metal	
Impeller material	Plastic	

2.2 Connections

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



	Colour	Operation
Wire 1	black	L
Wire 2	black	N

### 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

#### Features

#### 3.2 Electrical Operating Data

Features	Condition	Symbol	Values			
Voltage range	$\Delta p = 0$	U	85 V		265 V	115 V / 230 V
Nominal voltage	$\Delta p = 0$	$U_N$		115 V / 230 V		
Frequency	$\Delta p = 0$	f	50 Hz			60 Hz
Power consumption Tolerance	$\Delta p = 0$	P	14 W +- 20 %	14 W +- 20 %	14 W +- 25 %	14 W +- 25 %
Speed Tolerance	$\Delta p = 0$	n	2.850 1/min +- 10 %	2.850 1/min +- 10 %	2.850 1/min +- 10 %	2.850 1/min +- 10 %

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

Tacho type	None
Alarm type	None

#### 3.4 Electrical Features

Electronic function	None	
Locked rotor protection	PWM	



### 3.5 Aerodynamic

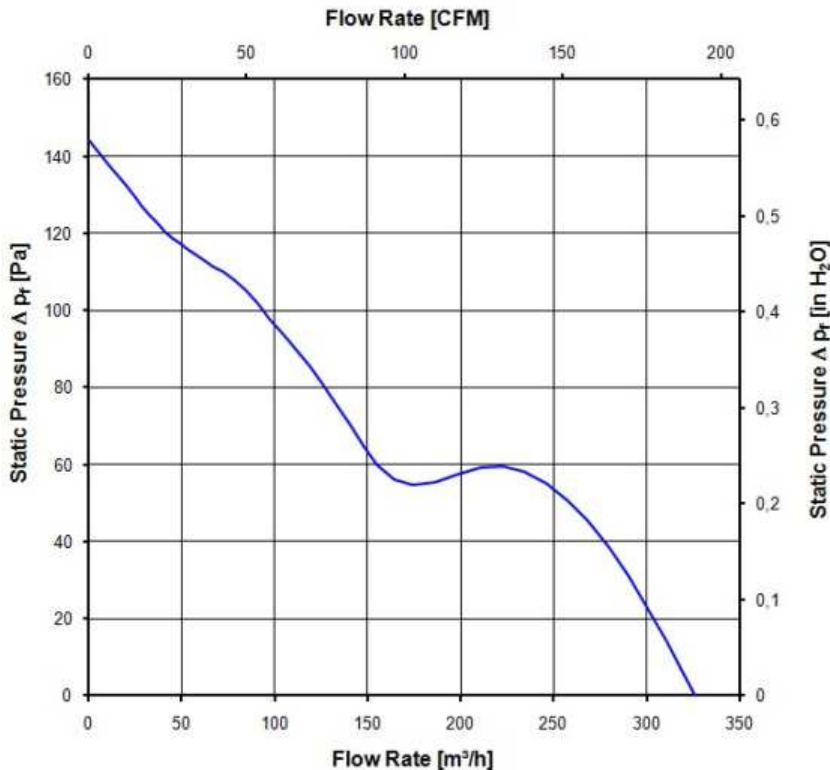
Measurement conditions: Measured with a double chamber intake rig acc. to DIN EN ISO 5801.  
 Normal air density = 1,2 kg/m<sup>3</sup>; Temperature 23°C +/- 3°C;  
 In the intake and outlet area should not be any solid obstruction within 0,5 m.  
 The information is only valid under the specified test 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: 2.850 1/min at free air flow      Frequency: 50 Hz      Nominal voltage: 115 V / 230 V

Max. free-air flow ( $\Delta p = 0 / \dot{v} = \text{max.}$ )	325,0 m <sup>3</sup> /h
Max. static pressure ( $\Delta p = \text{max.} / \dot{v} = 0$ )	145 Pa

b) Operation condition: 2.850 1/min at free air flow      Frequency: 60 Hz      Nominal voltage: 115 V / 230 V

Max. free-air flow ( $\Delta p = 0 / \dot{v} = \text{max.}$ )	325,0 m <sup>3</sup> /h
Max. static pressure ( $\Delta p = \text{max.} / \dot{v} = 0$ )	145 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: 2.850 1/min at free air flow      Frequency: 50 Hz      Nominal voltage: 115 V / 230 V

Optimal operating point	255,0 m <sup>3</sup> /h @ 46 Pa	
Sound power level at the optimal operating point	5,9 bel(A)	
Sound pressure level at free air flow, measured in rubber bands	50,0 dB(A)	

b) Operation condition: 2.850 1/min at free air flow      Frequency: 60 Hz      Nominal voltage: 115 V / 230 V

Optimal operating point	255,0 m <sup>3</sup> /h @ 46 Pa	
Sound power level at the optimal operating point	5,9 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.	72 °C	
Min. permitted storage temperature TL min.	-40 °C	
Max. permitted storage temperature TL max.	80 °C	

### 4.2 Climatic requirements\*)

IP-protection type (certified)	IP 55 **)	
Humidity requirements	humid temperature, cyclic; according to DIN EN 60068-2-38, 10 cycle and condensation water check; according to DIN EN ISO 6270-2, 14 days	
Salt fog requirements	None	

\*) Permitted application area:

The product is for the use in partial sheltered rooms or open, roofed areas. Direct exposure to water is allowed provided that this does not prevent the normal operation. Saline ambient conditions must be avoided.

Pollution degree 3 (according to DIN EN 60664-1)

It occurs conductive pollution or dry non-conductive pollution which becomes conductive due to condensation.

\*\*) The specification of the IP protection refers to the conditions mentioned in certification of the fan. The above mentioned short description of the protection scope is not final. For detailed information of the respective protection scope and definitions, see certification as well as DIN EN 60529 (protection by housings) and ISO 20653 (for vehicles) with the letter K.

#### **Short description of the IP-protection type:**

Solid particle Protection: Protected against dust.

Protection against deliberate contact: Protected against contact to hazardous parts with a wire.

Protection against water: Protected against water jets.

## 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	
Time type test HV	1 s
Insulation resistance	
Protection class	II

### 5.2 Approval Tests

CE	No
UL	Yes / UL507, Electric Fans
VDE	Yes / Approval acc. to EN 60335 (VDE 0700) - Safety for household and similar electrical appliances
CSA	Yes
CCC	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:

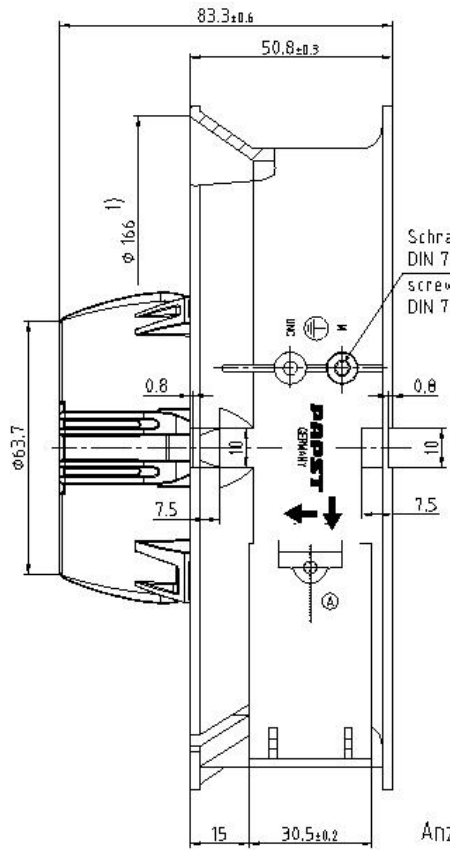
However, some types of electrical devices, designed and manufactured for being uses as basic components to be incorporated into other electrical equipment, are such that their safety to a very large extent depends on how they are integrated into the final product and the overall characteristics of the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

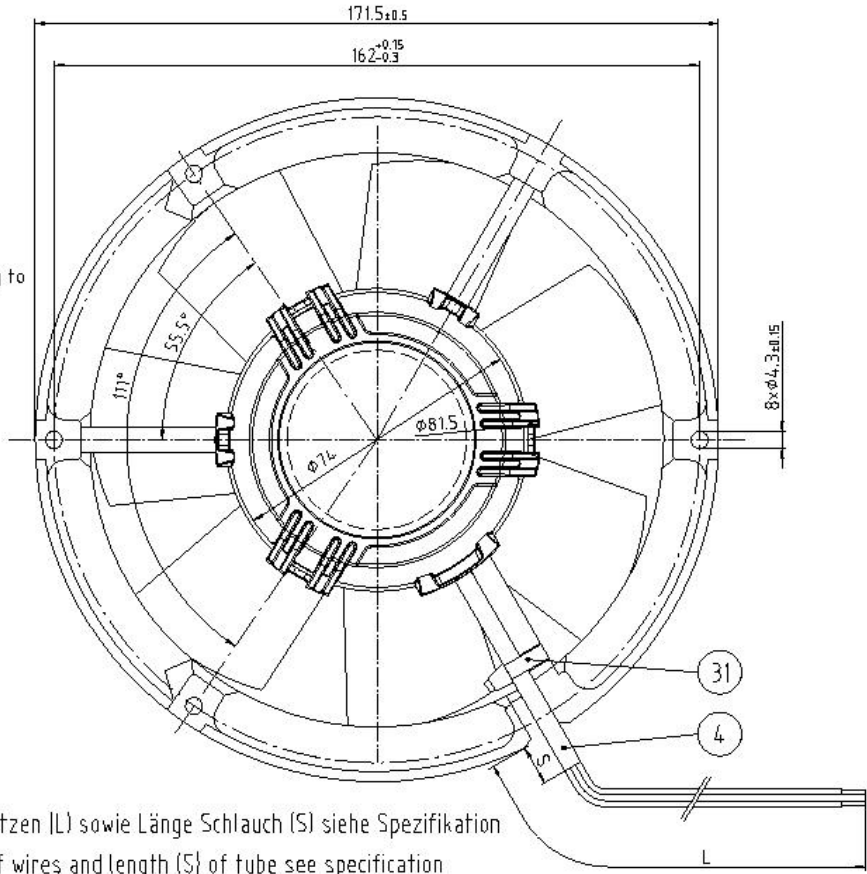
U approval max.:240 V @ TU approval max.:

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Schwermetalle nach DIN EN ISO 18312  
 RELEVANT FOR THE ENVIRONMENT



Schraube: Duo-Tapfite nach  
 DIN 7500, CM 4x8, Torx  
 screw: Duo-Tapfite according to  
 DIN 7500, CM 4x8, Torx



Anzahl und Länge der Litzen (L) sowie Länge Schlauch (S) siehe Spezifikation  
 length (L) and number of wires and length (S) of tube see specification

- 1) Durchmesser für Ausschnitt (Luftauslass)
- Axialspiel: mit Feder spielfrei verspannt
  
- 1) diameter for cutout (air outlet)
- without axial clearance by a pre-loaded spring

Tolerierung/Tolerances: DIN 7167		Artikel/Title									
Allgemeintoleranzen/ Gen. tolerances: DIN ISO 2768-mK-E		axial fan									
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