

## Product Data Sheet AC3200JLU

**ebm****papst**

The engineer's choice



## AC3200JLU

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**1 General**

|                                     |                        |
|-------------------------------------|------------------------|
| Fan type                            | Fan                    |
| Rotating direction looking at rotor | Counterclockwise       |
| 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                                                 | 72,0 mm                                                                 |  |
| Diameter                                              | 0,0 mm                                                                  |  |
| Mass                                                  | 0,325 kg                                                                |  |
| Housing material                                      | Plastic                                                                 |  |
| Impeller material                                     | Plastic                                                                 |  |
| Max. torque when mounted across both mounting flanges | Wire outlet corner: 30 Ncm<br>Remaining corners: 30 Ncm                 |  |
| Screw size                                            | ISO 4762 - M4 degreased, without an additional brace and without washer |  |

**2.2 Connections**

|                       |             |  |
|-----------------------|-------------|--|
| Electrical connection | Wires       |  |
| Lead wire length      | L = 450 mm  |  |
| Tolerance             | + - 10,0 mm |  |
| Tube length           | S = 15 mm   |  |
| Tolerance             | + - 5 mm    |  |
| Wire size (AWG)       | 22          |  |
| Insulation diameter   |             |  |
| Plug                  | See drawing |  |
| Contact               | See drawing |  |



| Wire | Color | Operation |
|------|-------|-----------|
| 1    | black | L1        |
| 2    | black | L2        |

### 3 Operating Data

#### 3.1 Electrical Interface - Input

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

|               |      |
|---------------|------|
| Control input | None |
|---------------|------|

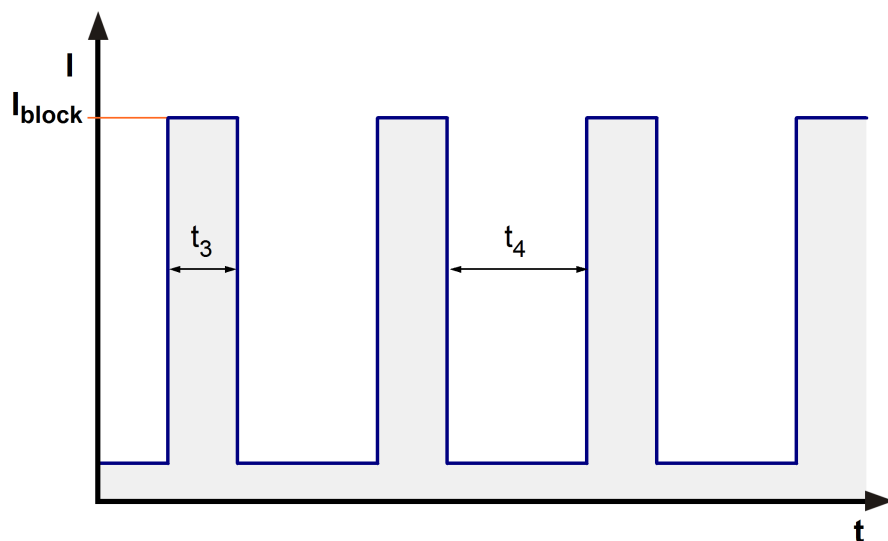
#### Features

#### 3.2 Electrical Operating Data

| Features                            | Condition      | Symbol           | Values                  |                     |                   |                     |
|-------------------------------------|----------------|------------------|-------------------------|---------------------|-------------------|---------------------|
| Voltage range<br>Tolerance          |                | U                | 85 V                    |                     |                   | 265 V               |
| Nominal voltage                     |                | U <sub>N</sub>   |                         | 115 V / 230 V       | 115 V / 230 V     |                     |
| Frequency                           |                | f                | 50 Hz / 60 Hz           |                     |                   |                     |
| Power consumption<br>Tolerance      | $\Delta p = 0$ | P                | 2,6 W<br>+/- 20 %       |                     |                   |                     |
| Current<br>consumption<br>Tolerance | $\Delta p = 0$ | I <sub>RMS</sub> | 49 mA<br>+/- 20 %       | 35 mA<br>+/- 22,5 % | 25 mA<br>+/- 20 % | 23 mA<br>+/- 22,5 % |
| Speed<br>Tolerance                  | $\Delta p = 0$ | n                | 3.360 1/min<br>+/- 10 % |                     |                   |                     |

### 3.3 Electrical Features

|                              |                         |  |
|------------------------------|-------------------------|--|
| Electronic function          | None                    |  |
| Locked rotor protection      | Auto restart            |  |
| Clock signal at locked rotor | typical: 0,5 s / 2,75 s |  |



### 3.4 Aerodynamics

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. 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. Power consumption of the fan motor when operating at normal voltage is shown. Depending on the operating conditions of the application, the power input may be higher.

a) Operation condition:

3.360 1/min at free air flow

Frequency: 50 Hz

Nominal voltage: 115 V / 230 V

|                                                             |                      |
|-------------------------------------------------------------|----------------------|
| Max. free-air flow ( $\Delta p = 0$ / $\dot{v} = \max.$ )   | 70 m <sup>3</sup> /h |
| Max. static pressure ( $\Delta p = \max.$ / $\dot{v} = 0$ ) | 70 Pa                |

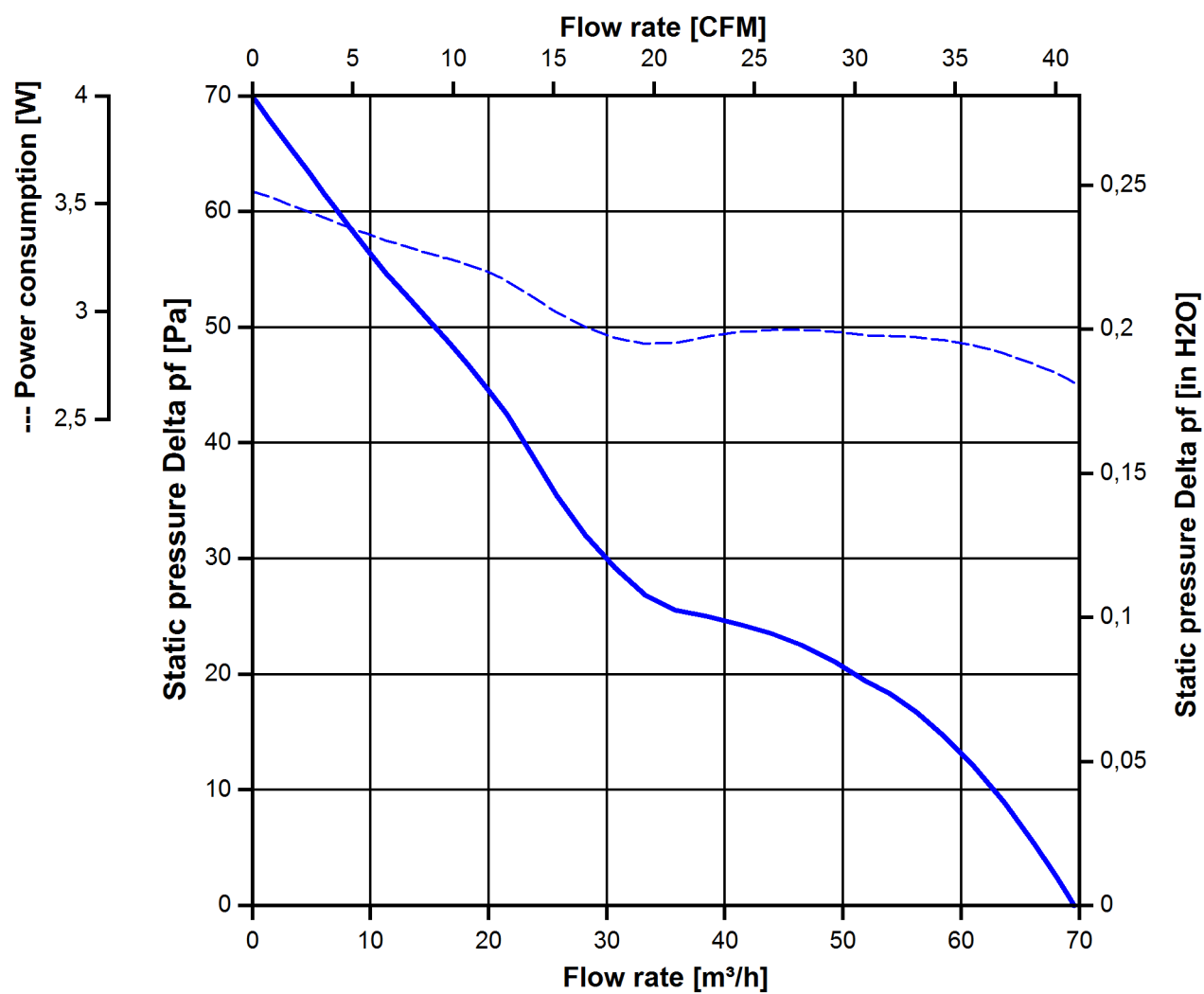
b) Operation condition:

3.360 1/min at free air flow

Frequency: 60 Hz

Nominal voltage: 115 V / 230 V

|                                                             |                      |
|-------------------------------------------------------------|----------------------|
| Max. free-air flow ( $\Delta p = 0$ / $\dot{v} = \max.$ )   | 70 m <sup>3</sup> /h |
| Max. static pressure ( $\Delta p = \max.$ / $\dot{v} = 0$ ) | 70 Pa                |



### 3.5 Sound Data

Measurement conditions: Sound pressure level: 1 meter distance between microphone and the air intake.  
 Sound power level: According 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:

3.360 1/min at free air flow

Frequency: 50 Hz

Nominal voltage: 115 V / 230 V

|                                                                 |                              |  |
|-----------------------------------------------------------------|------------------------------|--|
| Optimal operating point                                         | 54 m <sup>3</sup> /h @ 18 Pa |  |
| Sound power level at the optimal operating point                | 4,5 bel(A)                   |  |
| Sound pressure level at free air flow, measured in rubber bands | 36 dB(A)                     |  |

b) Operation condition:

3.360 1/min at free air flow

Frequency: 60 Hz

Nominal voltage: 115 V / 230 V

|                                                                 |                              |  |
|-----------------------------------------------------------------|------------------------------|--|
| Optimal operating point                                         | 54 m <sup>3</sup> /h @ 18 Pa |  |
| Sound power level at the optimal operating point                | 4,5 bel(A)                   |  |
| Sound pressure level at free air flow, measured in rubber bands | 36 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 temperature, cyclic; according to DIN EN 60068-2-38, 10 cycle and condensation water check; according to DIN EN ISO 6270-2, 14 days |  |
| Water exposure        | Splash water check IPX4; according to DIN EN 60529 VDE 0470, not certified                                                                |  |
| Dust requirements     | Dust check IP5X; according to DIN EN 60529 VDE 0470, not certified                                                                        |  |
| 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 DIN EN 60664-1)

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

## 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                                           | No             |
| VDE | Association for Electrical, Electronic and Information Technologies | No             |
| CSA | Canadian Standards Association                                      | No             |
| CCC | China Compulsory Certification                                      | Not applicable |

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:

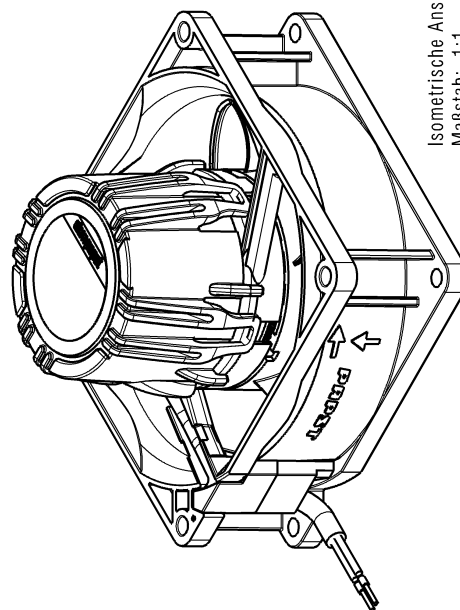
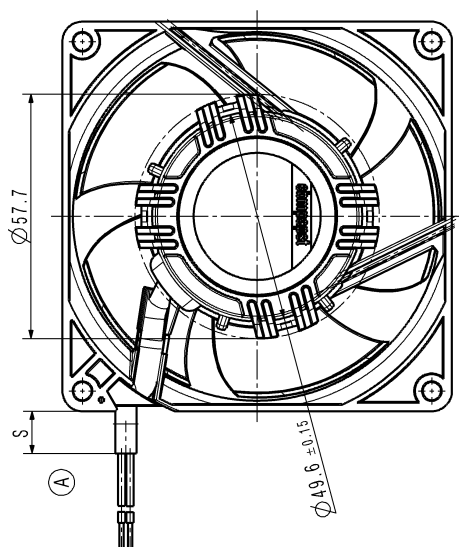
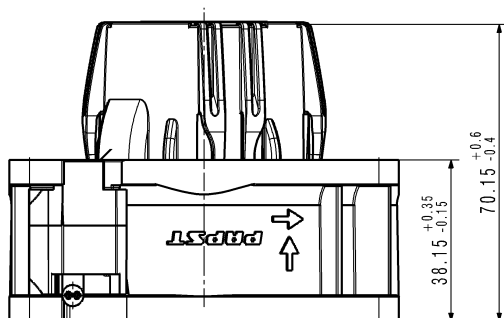
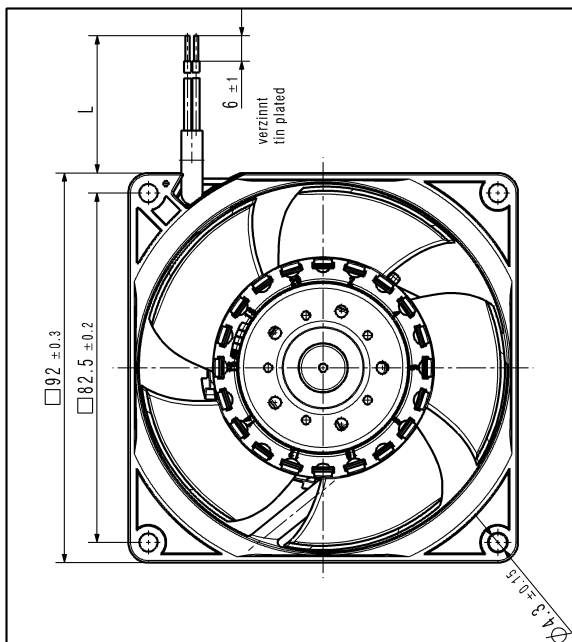
However, some types of electrical devices, designed and manufactured for being uses as basic components to be incorporated into other electrical equipment, are such that their safety to a very large extent depends on how they are integrated into the final product and the overall characteristics of the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

## 6 Reliability

### 6.1 General

|                                                    |            |  |
|----------------------------------------------------|------------|--|
| Life expectancy L10 at TU = 40 °C                  | 70.000 h   |  |
| Life expectancy L10 at TU max.                     | 35.000 h   |  |
| Life expectancy L10 acc. to IPC 9591 at TU = 40 °C | 117. 500 h |  |



Isometrische Ansicht  
Maßstab: 1:1

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)

[illegible]