

# 9906

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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 |
| Balancing grade | 40,0 |

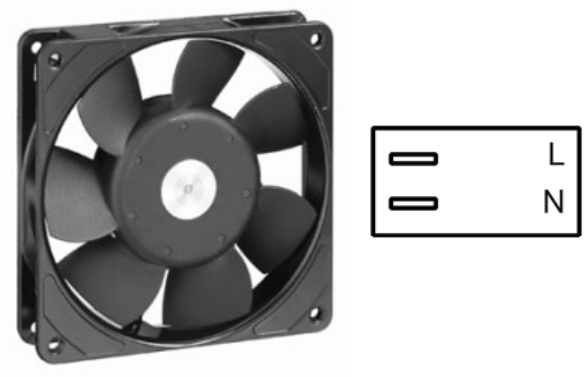
## 2 Mechanics

### 2.1 General

| | | |
|---|---|---|
| Width | 119,0 mm | |
| Height | 119,0 mm | |
| Depth | 25,0 mm | |
| Diameter | 0,0 mm | |
| Weight | 0,320 kg | |
| Housing material | Metal | |
| Impeller material | Plastic | |
| Max. torque when mounted across both mounting flanges<br>Screw size | wire outlet corner: 110 Ncm<br>remaining corners: 380 Ncm<br>ISO 4762 - M4 degreased, without an additional brace and without washer | |

## 2.2 Connections

| | | |
|---|---|---|
| Electrical connection | Plug | |
| 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).<br>In the intake and outlet area should not be any solid obstruction within 0,5 m. |

Δp = 0: corresp. to free air flow (see section 3.4)
I: corresp. to RMS line current

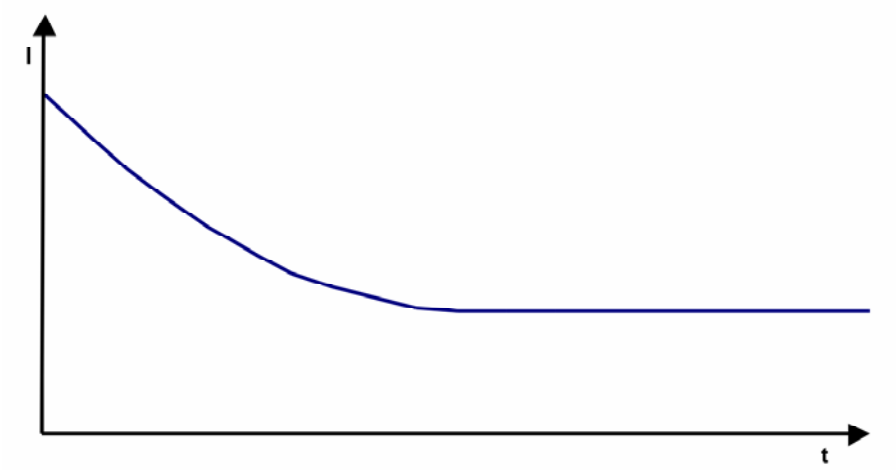
| Features | Condition | Symbol | Values | |
|---|---|---|---|---|
| Frequency | Δp = 0 | f | 50 Hz | 60 Hz |
| Nominal voltage<br>Tolerance | Δp = 0 | $U_N$ | 115,0 V<br>+ 6,0 % - 10,0 % | 115,0 V<br>+ 6,0 % - 10,0 % |
| Power consumption<br>Tolerance | Δp = 0 | P | 14,0 W<br>+ 5,0 % - 10,0 % | 12,0 W<br>+ 5,0 % - 10,0 % |
| Speed<br>Tolerance | Δp = 0 | n | 2.450 1/min<br>+- 3,0 % | 2.850 1/min<br>+- 3,0 % |

### 3.2 Operating Data - Electrical Interface -Output

| | |
|---|---|
| Tacho type | None |

### 3.3 Electrical Features

| | |
|---|---|
| Locked rotor protection | Impedance |
| Locked rotor current at Un | |




### 3.4 Aerodynamic

| | |
|---|---|
| Measurement conditions: | Measured with a double chamber intake rig acc. to DIN EN ISO 5801.<br>Normal air density = 1,2 kg/m3; Temperature 23°C +/- 3°C;<br>In the intake and outlet area should not be any solid obstruction within 0,5 m. |

a.) Operation condition:
2.450 1/min at free air flow Frequency: 50 Hz

| | |
|---|---|
| Max. free-air flow (Δp = 0 / $\dot{V}$ = max.) | 114,0 m3/h |
| Max. static pressure (Δp = max. / $\dot{V}$ =0) | 48 Pa |

b.) Operation condition:
2.850 1/min at free air flow Frequency: 60 Hz

| | |
|---|---|
| Max. free-air flow (Δp = 0 / $\dot{V}$ = max.) | 130,0 m3/h |
| Max. static pressure (Δp = max. / $\dot{V}$ =0) | 38 Pa |

### 3.5 Sound Data

| | |
|---|---|
| Measurement conditions: | Sound pressure level: 1 Meter distance between microphone and the air intake.<br>Sound power level: Acc. to DIN 45635 part 38 (ISO 10302)<br>Measured in a semianchoic chamber with a background noise level of Lp(A) < 5 dB(A)<br>For further measurement conditions see section 3.4 |

a.) Operation condition:
2.450 1/min at free air flow Frequency: 50 Hz

| | | |
|---|---|---|
| Optimal operating point | 84,0 m3/h @ 17 Pa | |
| Sound power level at the optimal operating point | 5,0 bel(A) | |
| Sound pressure level at free air flow, measured in rubber bands | 38,0 dB(A) | |

b.) Operation condition:
2.850 1/min at free air flow Frequency: 60 Hz

| | | |
|---|---|---|
| Optimal operating point | 84,0 m3/h @ 22 Pa | |
| Sound power level at the optimal operating point | 5,4 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. | -40 °C / 50 Hz<br>-40 °C / 60 Hz | |
| Max. permitted ambient temperature TU max. | 70 °C / 50 Hz<br>70 °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 | |
| Radiation exposure | None | |
| Dust requirements | None | |
| Salt fog requirements | None | |
| Harmful gas requirements | None | |

*) Permittet 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<br>DIN EN 60950 (VDE 0805) and DIN EN 60335 (VDE 0700)<br>A.) Type test<br>Measuring conditions: After 48h of storage at 95% R.H. and 25°C.<br>No arcing or breakdown is allowed!<br>All connections together to ground.<br>B.) Routine test<br>Measuring conditions: At indoor climate.<br>No arcing or breakdown is allowed!<br>All connections together to ground. | 1000 VAC / 1 Min.<br><br>1500 VAC / 1 Sec. |
| Isolation resistance<br>Measuring conditions: After 48h of storage at 95% R.H. and 25°C measured with U=500 VDC for 1 min. | RI > 50 MOhm |
| Air and leakage distances | 2,0 mm / 1,1 mm |
| Protection class | I |

### 5.2 Approval Tests

| | |
|---|---|
| CE | Yes |
| UL | Yes / UL507, Electric Fans |
| VDE | Yes / Approval acc. to EN 60335 (VDE 0700) - Safety for household and similar electrical appliances |
| CSA | Yes / C22.2 No. 113 Fans and Ventilators |
| CCC | Yes / GB 12350 Safety Requirements for small Power Motors |

The approval tests are observed to:
U approval max.: 115 V / f: 50 and 60 Hz @ TU approval max.: 70 °C

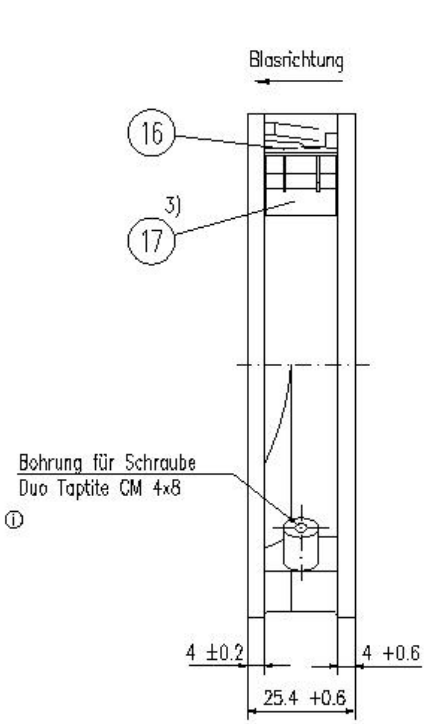
## 6 Reliability

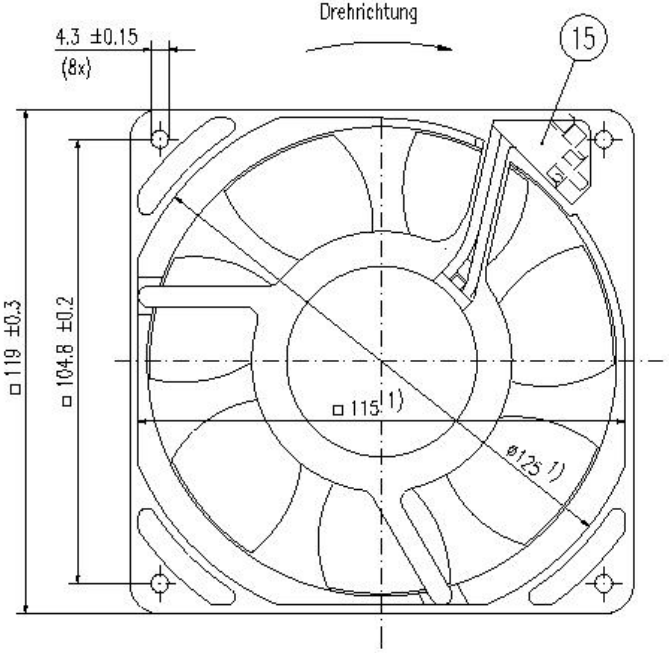
### 6.1 General

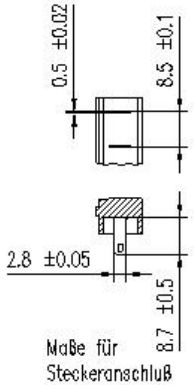
| | | |
|---|---|---|
| Life expectancy L10 at TU = 40 °C | 47.500 h / 50 Hz<br>52.500 h / 60 Hz | |
| Life expectancy L10 at TU max. | 22.500 h / 50 Hz<br>25.000 h / 60 Hz | |

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Schutzvermerk nach DIN 34 beachten




Maße für
Steckeranschluß

1) Maße für Montagewand
3) mit Pos. 23 geklebt

Axialspiel bei
- Kugellagerung (K): 0 (mit Federausgleich)
- Gleitlagerung (G): 0.1 – 0.6

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Tolerierung: DIN 7167<br>Allgemeintoleranzen: DIN ISO 2768-mK-E | | | | | | | | |
| l | | | | | | Datum | Name | Artikel: Maßstab |
| h | | | | | Erstellt | | | |
| g | | | | | Geprüft | | | |
| f | | | | | | | | |
| Index | Änd.-Nr. | Datum | Geändert von | | PAPST | | | Zchg.-Nr. Blatt |
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