ACmaxx / EC fans

Technical information about ACmaxx
Overview
ACmaxx axial fans
GreenTech EC tubeaxial fans
Energy-saving axial fans
EC axial fans
ACmaxx in-line duct fans
Progress made by ebm-papst
The best example: The ACmaxx fans from ebm-papst that offer substantial benefits thanks to an ingenious yet simple improvement over conventional AC fans.
The aim in developing the new ACmaxx series was to raise the technical standard of the conventional AC fan significantly and in the process facilitate a transition to new technology by maintaining the same fan sizes. In short, to make sure that the fans can be replaced 1:1 without any changes to the peripherals or voltage situation.
ebm-papst offers two generations of ACmaxx products that meet different needs.

What the ACmaxx and GreenTech EC compact fans have in common: Energy efficiency
A drive concept based on state-of-the-art GreenTech EC technology with outstanding motor efficiency. Compared to AC fans of the same size, ACmaxx energy consumption is up to 77% lower – for greater cooling capacity! The energy savings alone means that the products pay for themselves after only a few months. The savings over the entire service life, especially in systems with multiple fans, is considerable.

Independent of the power frequency and line voltage
The ACmaxx and GreenTech EC tubeaxial fans are prepared for direct connection to a wide range of AC voltages and frequencies. The speed, and thus important properties of the fan such as air flow and noise, are independent of the power frequency and do not change, even within the defined voltage range. Voltage fluctuations in the power system are automatically compensated for.

Long service life
The efficiency of ACmaxx and GreenTech EC tubeaxial fan motors is up to 75% greater than that of conventional AC fan variants. This not only saves energy, it also means less self-heating of the motor. Especially the bearing system responds positively to the low self-heating. The reason why the fans have a service life that is up to 85% longer! This also extends the service and maintenance intervals significantly. Investments in replacement fans and every more expensive downtime are manageably small.
Safety
- Safety certifications: UL, CSA and VDE 0805 / EN60950.
  VDE 0700 / EN60335 on request.
- Our fans have the CE mark of conformity.
- EMC protection:
  - EN61000-4-4 Level 1 (1 kV or 2 kV) B
  - EN61000-4-2 Level 8 kV/15 kV or 4 kV/8 kV
  - EN61000-4-3
  - EN61000-4-6
  - EN61000-4-8
  - EN55022 Class B

The environment
AC fans are extremely common and are used in a wide variety of applications. In control cabinet cooling, beer coolers, cooling cabinets, wood-burning stoves, medical devices – all have different requirements for resistance to environmental conditions. ACmaxx and GreenTech EC tubeaxial fans offer the same features for moisture protection, splash water, and tougher environmental conditions.

Particular design features of the GreenTech EC tubeaxial fan (ACi 4400): GreenTech EC compact fan is more compact!
As large as existing AC fans – and not a bit larger. This is the greatest feature of the new ACi 4400 GreenTech EC tubeaxial fans. Even in the hub area, the fan does not differ from typical 119 x 119 x 38 mm AC fans. Out with the AC, in with the ACi 4400 GreenTech EC tubeaxial fans – it’s that simple.

The GreenTech EC tubeaxial fan is more efficient!
ACmaxx saves energy, and the GreenTech EC tubeaxial fan generation saves even more. While an AC fan at 50 Hz can barely reach an overall efficiency of 5-6%, the ACmaxx makes it to about 20-25%. With the new ACi 4400 GreenTech EC tubeaxial fans, a remarkable level of up to 30% is reached. This is the result of the optimization of the entire package made up of the drive, electronics, AC/DC conversion, and aerodynamics. Thus the new GreenTech EC tubeaxial fan series boasts energy savings of almost 75% compared to the corresponding AC fan, thus providing significantly greater savings than the 40% level of the old AC 4300 generation.

The GreenTech EC tubeaxial fan is quieter!
The ACi 4400 GreenTech EC tubeaxial fan is quieter! Quieter than AC fans and quieter than the existing ACmaxx generation. The reason for this is the optimized aerodynamics and the drive, which is optimized for minimum structure-borne noise. Thus the fan is only half as loud at a comparable air performance, and is up to 6 dB(A) quieter at some operating points.

Speed independent of voltage and frequency
For the ACi 4400 GreenTech EC tubeaxial fans, the speed, and thus the flow quantity and operating noise, are independent of the power supply and power frequency.
Versions are available for 115 VAC with a voltage range from 85 to 132 VAC and 230 VAC with a voltage range of 195 to 265 VAC. Operation with DC voltage is also possible. Voltage fluctuations and frequency differences in the power system are compensated for automatically.
Particular design features of the ACmaxx:

Prepared for all common AC voltages
These models have a very wide voltage range from 85 to 265 VAC – the global voltage range, so to speak. This allows the fan to be used around the world, opening up large savings potentials. In addition to reduced logistics effort and stock keeping, worldwide availability is key. ACmaxx is compatible with every power supply and no switching is needed. From 85 to 265 volts and power frequencies of 50 and 60 Hz. Voltage fluctuations in the power system are automatically compensated for.

Higher performance
Unlike conventional AC technology, the state-of-the-art drive concept of this fan series is not linked to a fixed power frequency. This allows the motor speed to be increased over a wide range. Thus ACmaxx provides significantly greater air flow and significantly increased pressure.

Greater flexibility
The flexibility of ACmaxx is unique. With its intelligent features, ACmaxx can be adapted individually to the specific application: standby mode, overload mode at peak times, or night reduction all the way to temperature-controlled quiet operation are all possible. From speed monitoring to long-term function checks using an alarm or speed signal outputs, ACmaxx offers optional interfaces that allow you to monitor an operation easily and quickly.

You can find further information about these fan options in the “Fans specials” chapter, starting on page 161. Or you can simply contact our application engineers to discuss your ideal ACmaxx or GreenTech EC tubeaxial fan.
### Overview of air performance

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Series</th>
<th>Air flow</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm</td>
<td>m³/h</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ 80 x 32</td>
<td>AC 8300</td>
<td>80</td>
<td>188</td>
</tr>
<tr>
<td>☐ 92 x 38</td>
<td>AC 3200 J</td>
<td>144</td>
<td>189</td>
</tr>
<tr>
<td>☐ 119 x 25</td>
<td>AC 4400 FN</td>
<td>205</td>
<td>190</td>
</tr>
<tr>
<td>☐ 119 x 32</td>
<td>AC 4300</td>
<td>204</td>
<td>191</td>
</tr>
<tr>
<td>☐ 119 x 38</td>
<td>AC 4400</td>
<td>100..175</td>
<td>192</td>
</tr>
<tr>
<td>Ø 172 x 51</td>
<td>AC 6200 N</td>
<td>350</td>
<td>193</td>
</tr>
<tr>
<td>Ø 130</td>
<td>W1G 130</td>
<td>220..370</td>
<td>194</td>
</tr>
<tr>
<td>Ø 200</td>
<td>W3G 200</td>
<td>560..1065</td>
<td>196</td>
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<tr>
<td>Ø 250</td>
<td>W3G 250</td>
<td>900..1910</td>
<td>198</td>
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<tr>
<td>Ø 98.5 x 130</td>
<td>AC 100</td>
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Subject to change

### Overview of technically feasible designs

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>mm</th>
<th>Series</th>
<th>VDE, UL, CSA</th>
<th>Sleeve bearings / Ball bearings</th>
<th>Speed Signal</th>
<th>Go / NoGo alarm</th>
<th>Alarm with speed limit</th>
<th>External temperature sensor</th>
<th>PWM control input</th>
<th>Analog control input</th>
<th>Moisture protection</th>
<th>Page</th>
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<tbody>
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</tr>
<tr>
<td>☐ 92 x 38</td>
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</tr>
<tr>
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</tr>
<tr>
<td>☐ 119 x 38</td>
<td>AC 4400</td>
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<td>•</td>
<td>•</td>
<td>•</td>
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</tr>
<tr>
<td>Ø 172 x 51</td>
<td>AC 6200 N</td>
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<td>•</td>
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<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>193</td>
</tr>
<tr>
<td>Ø 98.5 x 130</td>
<td>AC 100</td>
<td>*</td>
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<td>•</td>
<td>•</td>
<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>200</td>
</tr>
</tbody>
</table>

Subject to change

Please note that these special versions are not possible for all voltages and speeds, and not in all combinations. The special versions are designed for specific customers and projects. As a rule they are not available off the shelf and are tied to minimum volumes. Please consult your customer support representative about the feasibility of your special variant.
**ACmaxx axial fans**

- **Material:** Housing: GRP² (PBTP)
  Impeller: GRP² (PA)
- **Direction of air flow:** Exhaust over struts
- **Direction of rotation:** Clockwise, looking towards rotor
- **Connection:** Via single wires AWG 22, TR 64
- **Highlights:** Universally usable for all power voltages between 85 and 265 VAC
  - Weight: 325 g

**Possible special versions:**
(See chapter DC fans - specials)
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54

**Series AC 8300**

<table>
<thead>
<tr>
<th>Type</th>
<th>Nominal data</th>
<th>Nominal voltage</th>
<th>Frequency</th>
<th>Sound pressure level dB(A)</th>
<th>Sound power level Bel(A)</th>
<th>Power consumption Watts</th>
<th>Nominal speed rpm</th>
<th>Temperature range °C</th>
<th>Service life L10(Tmax) / Service life L10(40 °C) Hours</th>
<th>Life expectancy L10IPC (40 °C) Curve</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 8300 H</td>
<td>80 m³/h</td>
<td>115 / 230 VAC 50 / 60 Hz</td>
<td>85 ... 265 VAC</td>
<td>48</td>
<td>6.2</td>
<td>8.3</td>
<td>5 000</td>
<td>-20...+75</td>
<td>55 000 / 20 000</td>
<td>92 500</td>
</tr>
</tbody>
</table>

Subject to change

Speed variants available on request.

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**Nominal data**

- **Air flow** m³/h
- **Air flow** cfm
- **Nominal voltage** VAC
- **Frequency** Hz
- **Sound pressure level** dB(A)
- **Sound power level** Bel(A)
- **Power consumption** Watts
- **Nominal speed** rpm
- **Temperature range** °C
- **Service life L10(Tmax) / Service life L10(40 °C) Hours**
- **Life expectancy L10IPC(40 °C) Curve**

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Subject to change

- **Material:**
  - Housing: GRP² (PBTP)
  - Impeller: GRP² (PA)

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**Finger guards**

- **ACmaxx axial fans**
- **80 x 32 mm**

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**Air performance measured according to ISO 5801.**

- Installation category A, without contact protection.
- Noise: Total sound power level LWA ISO 103002 measured on a hemisphere with a radius of 2 m.
- Sound pressure level LpA measured at 1 m distance from fan axis.
- The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
- In the event of deviation from the standard configuration, the parameters must be checked after installation!
- For detailed information see http://www.ebmpapst.com/general conditions

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1) Fiberglass-reinforced plastic.
Max. 144 m³/h

# ACmaxx axial fans

- **Material**: Housing: GRP²³¹ (PBTP)  
  Impeller: GRP²³¹ (PA)
- **Direction of air flow**: Exhaust over struts
- **Direction of rotation**: Clockwise, looking towards rotor
- **Connection**: Via single wires AWG 22, TR 64
- **Highlights**: Universally usable for all power voltages between 85 and 265 VAC  
  325 g
- **Possible special versions**: (See chapter DC fans - specials)  
  - Speed signal  
  - Go / NoGo alarm  
  - Alarm with speed limit  
  - External temperature sensor  
  - Internal temperature sensor  
  - PWM control input  
  - Analog control input  
  - Moisture protection  
  - Salt spray protection  
  - Degree of protection: IP 54

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## Series AC 3200 J

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>m³/h</th>
<th>cfm</th>
<th>VAC</th>
<th>Hz</th>
<th>VAC</th>
<th>dB(A)</th>
<th>Bel(A)</th>
<th>Watts</th>
<th>rpm⁻¹</th>
<th>°C</th>
<th>Hours</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 3200 JH</td>
<td>144</td>
<td>85</td>
<td>115 / 230</td>
<td>50 / 60</td>
<td>85 ... 265</td>
<td>55</td>
<td>6.4</td>
<td>12</td>
<td>6 800</td>
<td>-20...+70</td>
<td>70 000 / 35 000</td>
<td>117 500</td>
</tr>
</tbody>
</table>

Subject to change

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Speed variants available on request.

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1) Fiberglass-reinforced plastic

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Air performance measured according to ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level \( L_{WA} \) measured on a hemisphere with a radius of 2 m.
Sound pressure level \( L_{P,A} \) measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see http://www.ebmpapst.com/general conditions

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Air performance measured according to: ISO 5801, installation category A, without contact protection.
Noise: Total sound power level $L_{WA}$ ISO 10300 measured on a hemisphere with a radius of 2 m.
Sound pressure level $L_{PA}$ measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation. For detailed information see http://www.ebmpapst.com/general conditions.

<table>
<thead>
<tr>
<th>Nominal data</th>
<th>AC 4400 FN</th>
<th>119 x 25 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>Housing: GRP (PBTP)</td>
<td>Impeller: GRP (PA)</td>
</tr>
<tr>
<td>Direction of air flow:</td>
<td>Exhaust over struts</td>
<td></td>
</tr>
<tr>
<td>Direction of rotation:</td>
<td>Counterclockwise, looking towards rotor</td>
<td></td>
</tr>
<tr>
<td>Connection:</td>
<td>Via single wires AWG 22, TR 64</td>
<td></td>
</tr>
<tr>
<td>Highlights:</td>
<td>Universally usable for all power voltages between 85 and 265 VAC</td>
<td></td>
</tr>
<tr>
<td>Weight:</td>
<td>370 g</td>
<td></td>
</tr>
</tbody>
</table>

Possible special versions:
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection

Series AC 4400 FN

Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>m³/h</th>
<th>cfm</th>
<th>VAC</th>
<th>Hz</th>
<th>VAC</th>
<th>dB(A)</th>
<th>Bel(A)</th>
<th>Watts</th>
<th>rpm⁻¹</th>
<th>°C</th>
<th>Hours</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 4400 FN</td>
<td>205</td>
<td>121</td>
<td>115</td>
<td>50</td>
<td>60</td>
<td>53</td>
<td>6.2</td>
<td>12</td>
<td>4850</td>
<td>-20...+70</td>
<td>60 000 / 30 000</td>
<td>102 500</td>
</tr>
</tbody>
</table>

Subject to change.

Speed variants available on request.

Finger guards P. 244
### ACmaxx axial fans

**Type**: □ 119 x 32 mm

- **Material**: Housing: GRP 1) (PBTP)
  Impeller: GRP 1) (PA)
- **Direction of air flow**: Exhaust over struts
- **Direction of rotation**: Clockwise, looking towards rotor
- **Connection**: Via single wires AWG 22, TR 64
- **Highlights**: Universally usable for all power voltages between 85 and 265 VAC
- **Weight**: 325 g

#### Possible special versions:
(See chapter DC fans - specials)
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54 / IP 68

#### Material:
1) Fiberglass-reinforced plastic

#### Air performance measured according to ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level LWA ISO 103002 measured on a hemisphere with a radius of 2 m.
Sound pressure level LpA measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation.
For detailed information see http://www.ebmpapst.com/general conditions

### Series AC 4300

#### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Air flow m³/h</th>
<th>cfm</th>
<th>Air flow VAC</th>
<th>Hz</th>
<th>Nominal voltage VAC</th>
<th>Air flow dB(A)</th>
<th>Sound power level Bel(A)</th>
<th>Sound level dB(A)</th>
<th>Sound pressure level dB(A)</th>
<th>Sound pressure level Bel(A)</th>
<th>Power consumption Watts</th>
<th>Nominal speed rpm⁻¹</th>
<th>Temperature range °C</th>
<th>Hours</th>
<th>Hours</th>
<th>Service life L10 (40 °C)</th>
<th>L10(Tmax)</th>
<th>Life expectancy L10 IPC (40 °C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 4300 H</td>
<td>204</td>
<td>120</td>
<td>115 / 230</td>
<td>60</td>
<td>50 / 60</td>
<td>85 ... 265</td>
<td>51</td>
<td>6.4</td>
<td>12</td>
<td>3 400</td>
<td>-20...+70</td>
<td>45 000 / 22 500</td>
<td>75 500</td>
<td></td>
<td></td>
<td>119 x 32 mm</td>
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</tbody>
</table>

Subject to change

Speed variants available on request.
Max. 175 m³/h

GreenTech EC tubeaxial fans

□ 119 x 38 mm

- Material: Housing: GRP\(^1\) (PBT)
- Impeller: GRP\(^1\) (PA)
- Direction of air flow: Exhaust over struts
- Direction of rotation: Clockwise, looking towards rotor
- Connection: with flat plug 2.8 x 0.5, optionally also with exposed external wires
- Highlights: Fully integrated converter and fan electronics
- Weight: 250 g

\(^1\) Fiberglass-reinforced plastic

Possible special versions:
(See chapter DC fans - specials)
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54

Series ACi 4400

Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Nominal voltage</th>
<th>Frequency</th>
<th>Voltage range</th>
<th>Sound pressure level</th>
<th>Sound power level</th>
<th>Power consumption</th>
<th>Nominal speed</th>
<th>Temperature range</th>
<th>Service life L10 (40 °C)</th>
<th>Service life L10 (Temp. max.)</th>
<th>ebm-papst standard</th>
<th>Life expectancy L10 IPC</th>
<th>Curve</th>
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<tbody>
<tr>
<td>ACi 4420 ML</td>
<td>100</td>
<td>59</td>
<td>230</td>
<td>50 / 60</td>
<td>195...265</td>
<td>25</td>
<td>4.1</td>
<td>1.7</td>
<td>1 850</td>
<td>-40...+75</td>
<td>65 000 / 25 000</td>
<td>110 000</td>
<td>(1)</td>
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<td>86</td>
<td>230</td>
<td>50 / 60</td>
<td>195...265</td>
<td>36</td>
<td>4.9</td>
<td>2.8</td>
<td>2 700</td>
<td>-40...+75</td>
<td>65 000 / 25 000</td>
<td>110 000</td>
<td>(2)</td>
</tr>
<tr>
<td>ACi 4420 H</td>
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<td>230</td>
<td>50 / 60</td>
<td>195...265</td>
<td>39</td>
<td>5.1</td>
<td>3.2</td>
<td>3 000</td>
<td>-40...+75</td>
<td>65 000 / 25 000</td>
<td>110 000</td>
<td>(3)</td>
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<td>65 000 / 25 000</td>
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<td>-40...+75</td>
<td>65 000 / 25 000</td>
<td>110 000</td>
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Subject to change

Air performance measured according to ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level LWA, ISO 103002 measured on a hemisphere with a radius of 2 m.
Sound pressure level LpA measured at 1 m distance from fan axis.
The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.
In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see http://www.ebmpapst.com/general conditions
**ACmaxx axial fans**

**Series AC 6200 N**

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Air flow m³/h</th>
<th>cfm</th>
<th>Nominal voltage 115 / 230 VAC</th>
<th>Nominal voltage 50 / 60 VAC</th>
<th>Frequency Hz</th>
<th>Nominal speed rpm⁻¹</th>
<th>Sound pressure level SPL 50 dB(A)</th>
<th>Sound power level SPL 75 dB(A)</th>
<th>Air flow VAC 85 dB(A)</th>
<th>Power consumption Watts</th>
<th>Temperature range °C</th>
<th>Service life L10 (40 °C) Hours</th>
<th>Life expectancy L10(IPC) Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 6200 NM</td>
<td>350</td>
<td>206</td>
<td>115</td>
<td>230</td>
<td>50 / 60</td>
<td>85 ... 265</td>
<td>50</td>
<td>5.7</td>
<td>2850</td>
<td>-20...+70</td>
<td>80 000 / 40 000</td>
<td>135 000</td>
<td>1</td>
</tr>
</tbody>
</table>

*Subject to change*

*Possible special versions:*
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54

**Max. 350 m³/h**

**Highlights:**
- Universally usable for all power voltages between 85 and 265 VAC, 50-60 Hz
- Housing with grounding lug for screw M4 x 8 (Torx)
- Weight: 900 g

1) Fiberglass-reinforced plastic

---

**Air performance measured according to ISO 5801:**
Installation category A, without contact protection.

**Noise:**
Total sound power level LWA ISO 10300 measured on a hemisphere with a radius of 2 m.

**Sound pressure level LpA:**
Measured at 1 m distance from fan axis.

The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.

In the event of deviation from the standard configuration, the parameters must be checked after installation!

For detailed information see [http://www.ebmpapst.com/general conditions](http://www.ebmpapst.com/general conditions)

---

**Material:**
Housing: Die-cast aluminum
Impeller: GRP 1) (PA)

**Direction of air flow:**
Exhaust over struts

**Direction of rotation:**
Counterclockwise, looking towards rotor

**Connection:**
Via single wires AWG 22, TR 64

**Highlights:**
- Speed variants available on request.

---

**Material:**
- Housing: Die-cast aluminum
- Impeller: GRP 1) (PA)

**Direction of air flow:**
- Exhaust over struts

**Direction of rotation:**
- Counterclockwise, looking towards rotor

**Connection:**
- Via single wires AWG 22, TR 64

**Highlights:**
- Universally usable for all power voltages between 85 and 265 VAC, 50-60 Hz
- Housing with grounding lug for screw M4 x 8 (Torx)
- Weight: 900 g

1) Fiberglass-reinforced plastic
Material: Housing: PP plastic, fiberglass-reinforced; Blades: PA plastic, fiberglass-reinforced
Number of blades: 7
Direction of air flow: "V", exhaust over struts
Direction of rotation: Counterclockwise, looking towards rotor
Degree of protection: IP 54
Insulation class: "B"
Installation position: Any
Condensation drainage holes: None
Mode of operation: Continuous operation (S1)
Bearings: Maintenance-free ball bearings

Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>VAC</th>
<th>Hz</th>
<th>rpm⁻¹</th>
<th>W</th>
<th>A</th>
<th>Pa</th>
<th>°C</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1G130-AA49 -01</td>
<td>M1G 055-AI</td>
<td>1~ 115 50/60</td>
<td>3200</td>
<td>24</td>
<td>0.38</td>
<td>90</td>
<td>-30..+60</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>W1G130-AA25 -01</td>
<td>M1G 055-AI</td>
<td>1~ 230 50/60</td>
<td>3200</td>
<td>24</td>
<td>0.19</td>
<td>90</td>
<td>-30..+70</td>
<td>0.75</td>
<td></td>
</tr>
</tbody>
</table>

Subject to change

Energy-saving axial fans
Ø 130 mm

Max. 370 m³/h

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Suction-side noise levels: LWA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see http://www.ebmpapst.com/general conditions.
- **Motor protection:** Via electronics and thermal overload protector
- **Electrical hookup:** Plug-in connection on motor side
- **Protection class:** II
- **Conformity with standard(s):** CE; EN 60335-1
- **Approvals:** VDE, GOST (are available); UL, CSA (are applied for)
- **Speed:** Using the programming unit 2 speeds between $n_{\text{min}}$ and $n_{\text{max}}$ can be programmed

Connection lead (total length 450 mm) is fitted ex works and can be detached.
Max. 1065 m³/h

EC axial fans
Ø 200 mm

- Material:
  Housing: Die-cast aluminum
  Blades: PP plastic
  Rotor: Thick-film passivated

- Number of blades: 7
- Direction of air flow: "V"
- Direction of rotation: Counterclockwise, looking towards rotor
- Degree of protection: Depending on installation and position
  - Insulation class: "B"
- Installation position: Any
- Condensate discharges: None, open rotor
- Mode of operation: Continuous operation (S1)
- Bearings: Maintenance-free ball bearings

Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>VAC</th>
<th>Hz</th>
<th>rpm⁻¹</th>
<th>W</th>
<th>A</th>
<th>Pa</th>
<th>°C</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>W3G200-HD01 -01</td>
<td>M3G055-BD</td>
<td>1~ 200-240</td>
<td>50/60</td>
<td>2 900</td>
<td>54</td>
<td>0,55</td>
<td>96</td>
<td>-25..+60</td>
<td>1,6</td>
</tr>
<tr>
<td>W3G200-HD01 -03</td>
<td>M3G055-BD</td>
<td>1~ 200-240</td>
<td>50/60</td>
<td>2 900</td>
<td>54</td>
<td>0,55</td>
<td>96</td>
<td>-25..+60</td>
<td>1,6</td>
</tr>
<tr>
<td>W3G200-HD23 -10</td>
<td>M3G055-BD</td>
<td>1~ 115</td>
<td>50/60</td>
<td>2 900</td>
<td>65</td>
<td>1,00</td>
<td>94</td>
<td>-25..+60</td>
<td>1,6</td>
</tr>
</tbody>
</table>

Subject to change

Curves:

- 2 Speed stages
- Speed-controlled

Air performance measured according to ISO 5801. Installation category A, without contact protection. Suction-side noise levels: LWA according to ISO 13347. LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see http://www.ebmpapst.com/general conditions
- **Technical features:** See connection diagram p. 260/261
- **Touch current:** <= 3.5 mA acc. to IEC 60990 (test circuit, illustration 4)
- **Electrical hookup:** Via terminal strip
- **Protection class:** I (with customer connection to grounding conductor)
- **Conformity with standard(s):** EN 60335-1, CE
- **Approvals:** VDE, cURus
EC axial fans
Ø 250 mm

- **Material:**
  - Housing: Die-cast aluminum
  - Blades: PP plastic
  - Rotor: Thick-film passivated

- **Number of blades:** 7

- **Direction of air flow:** "V"

- **Direction of rotation:** Counterclockwise, looking towards rotor

- **Degree of protection:** Depending on installation and position

- **Insulation class:** "B"

- **Installation position:** Any

- **Condensate discharges:** None, open rotor

- **Mode of operation:** Continuous operation (S1)

- **Bearings:** Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>VAC</th>
<th>Hz</th>
<th>rpm⁻¹</th>
<th>W</th>
<th>A</th>
<th>Pa</th>
<th>°C</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>W3G250-HH07 -01</td>
<td>M3G055-CF</td>
<td>1~ 200-240</td>
<td>50/60</td>
<td>2 330</td>
<td>83</td>
<td>0,72</td>
<td>100</td>
<td>-25...+60</td>
<td>2,1</td>
</tr>
<tr>
<td>W3G250-HH07 -03</td>
<td>M3G055-CF</td>
<td>1~ 200-240</td>
<td>50/60</td>
<td>2 330</td>
<td>83</td>
<td>0,72</td>
<td>100</td>
<td>-25...+60</td>
<td>2,1</td>
</tr>
<tr>
<td>W3G250-HK53 -03</td>
<td>M3G055-CF</td>
<td>1~ 115</td>
<td>50/60</td>
<td>2 040</td>
<td>56</td>
<td>0,90</td>
<td>80</td>
<td>-25...+50</td>
<td>2,1</td>
</tr>
<tr>
<td>W3G250-HK35 -11</td>
<td>M3G055-CF</td>
<td>1~ 115</td>
<td>50/60</td>
<td>2 700</td>
<td>125</td>
<td>1,90</td>
<td>130</td>
<td>-25...+60</td>
<td>2,1</td>
</tr>
</tbody>
</table>

Subject to change

### Curves:

- 2 Speed stages

- Speed-controlled

Air performance measured according to ISO 5801. Installation category A, without contact protection. Suction-side noise levels: LWA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see http://www.ebmpapst.com/general conditions
- Technical features: See connection diagram p. 260/261
- Touch current: <= 3.5 mA acc. to IEC 60990 (test circuit, illustration 4)
- Electrical hookup: Via terminal strip
- Protection class: I (with customer connection to grounding conductor)
- Conformity with standard(s): EN 60335-1, CE
- Approvals: VDE, cURus

---

Finger guards from p. 245
Connection diagrams p. 260/261
**Series AC 100**

### Nominal data

<table>
<thead>
<tr>
<th>Type high air flow</th>
<th>m³/h</th>
<th>cfm</th>
<th>VAC</th>
<th>Hz</th>
<th>Air flow</th>
<th>Voltage range</th>
<th>Boost off, Jumper low</th>
<th>Boost off, Jumper high</th>
<th>Boost on</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 100 MR</td>
<td>55</td>
<td>32</td>
<td>115/230</td>
<td>50-60</td>
<td>85...265</td>
<td>33</td>
<td>4.5</td>
<td>1.8</td>
<td>2 050</td>
</tr>
<tr>
<td></td>
<td>90</td>
<td>53</td>
<td></td>
<td></td>
<td>40</td>
<td>5.0</td>
<td></td>
<td>3.8</td>
<td>3 150</td>
</tr>
<tr>
<td>AC 100 NR</td>
<td>80</td>
<td>47</td>
<td>115/230</td>
<td>50-60</td>
<td>85...265</td>
<td>35</td>
<td>4.7</td>
<td>2.5</td>
<td>2 750</td>
</tr>
<tr>
<td></td>
<td>105</td>
<td>62</td>
<td></td>
<td></td>
<td>42</td>
<td>5.3</td>
<td></td>
<td>4.5</td>
<td>3 500</td>
</tr>
<tr>
<td>Max. AC 100 HR*</td>
<td>135</td>
<td>79</td>
<td>115/230</td>
<td>50-60</td>
<td>85...265</td>
<td>tbd</td>
<td>tbd</td>
<td>7.0</td>
<td>4 500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type high pressure</th>
<th>m³/h</th>
<th>cfm</th>
<th>VAC</th>
<th>Hz</th>
<th>Air flow</th>
<th>Voltage range</th>
<th>Boost off, Jumper low</th>
<th>Boost off, Jumper high</th>
<th>Boost on</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 100 MR*</td>
<td>40</td>
<td>23</td>
<td>115/230</td>
<td>50-60</td>
<td>85...265</td>
<td>31</td>
<td>4.2</td>
<td>tbd</td>
<td>2 050*</td>
</tr>
<tr>
<td></td>
<td>62</td>
<td>36</td>
<td></td>
<td></td>
<td>38</td>
<td>4.7</td>
<td></td>
<td>tbd</td>
<td>3 150*</td>
</tr>
<tr>
<td>AC 100 NR-017</td>
<td>53</td>
<td>31</td>
<td>115/230</td>
<td>50-60</td>
<td>85...265</td>
<td>33</td>
<td>4.4</td>
<td>2.8</td>
<td>2 680</td>
</tr>
<tr>
<td></td>
<td>66</td>
<td>39</td>
<td></td>
<td></td>
<td>40</td>
<td>5.0</td>
<td></td>
<td>3.5</td>
<td>3 300</td>
</tr>
</tbody>
</table>

---

**Possible special versions:**
- Speed signal
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: IP 44 (IP45 possible depending on installation position)

**Material:**
- Housing: GRP1\(^*\) (PBT)
- Impeller: GRP1\(^*\) (PA)

**Direction of air flow:** Intake over struts

**Direction of rotation:** Clockwise, looking towards rotor

**Connection:** Via 3-pin Europa terminal strip

**Max.:** 135 m³/h

---

**Material:**
- Housing: GRP1\(^*\) (PBT)
- Impeller: GRP1\(^*\) (PA)

**Direction of air flow:** Intake over struts

**Direction of rotation:** Clockwise, looking towards rotor

**Connection:** Via 3-pin Europa terminal strip

**Max.:** 135 m³/h

---

**Weight:**
- 400 g

---

**Notes:**
- Total sound power level LWA measured on a hemisphere with a radius of 2 m.
- Sound pressure level LpA measured at 1 m distance from fan axis.
- The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions.

---

**Temperature range:**
- AC 100 MR: 0...+55 °C
- AC 100 NR: 0...+55 °C
- AC 100 MR*: 0...+55 °C
- AC 100 NR-017: 0...+55 °C

**Service life L10(Tmax) ebm-papst standard:**
- AC 100 MR: 70 000 / 50 000
- AC 100 NR: 70 000 / 50 000
- AC 100 MR*: 70 000 / 50 000
- AC 100 NR-017: 70 000 / 50 000

---

**Subject to change**
- * on request

---

**Possible special versions:**
- Speed signal
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: IP 44 (IP45 possible depending on installation position)

---

**Weight:**
- 400 g

---

**Subject to change**
- * on request

---

**Possible special versions:**
- Speed signal
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: IP 44 (IP45 possible depending on installation position)

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**Weight:**
- 400 g

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**Possible special versions:**
- Speed signal
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: IP 44 (IP45 possible depending on installation position)

---

**Weight:**
- 400 g
Highest energy efficiency:
0.03 - 0.045 W/m³·h free air (specific fan power).

Boost speed:
2 speed settings possible via boost function.

Vibration isolation:
Reduced transmission of vibrations from motor to housing.

Intelligence:
Can be expanded to include set value requirement and signal outputs as an option.

Examples of connections

Example 1:
Nom speed endurance
Boost via light switch

Example 2:
Nom speed via light switch
Separate boost switch

Example 3:
Simple connection
Nom speed without switching

Example 4:
Simple connection
Boost without switching

Scope of delivery

DC axial fans
DC fans – specials
ACmaxx / EC fans
AC axial fans
DC centrifugal fans
AC centrifugal fans
Accessories
Agents
Representatives

Information