The overall efficiency of a fan can only ever be as good as the efficiency of each of the fan components.

Our successful HyBlade fan blades and impellers are major contributory factors, setting market standards in terms of both aerodynamics and aeroacoustics with their optimized blade geometries.

The HyBlade series is now complete, offering a full range of fan sizes from 200 to 990.

In combination with the GreenTech EC motors featuring integrated control electronics, these provide an ideal basis for maximum efficiency and optimum system incorporation.

Making it possible to combine a variety of EC motors and electronics options, the intelligent modular system leaves nothing to be desired. The outcome is the new standard range in this catalog!

Adaptations have been made to satisfy market and application requirements. The lower end of the 200 to 450 fan size range has been extended and is now available with GreenTech EC motors with both 2-speed and analog 0-10 V interface and different power outputs.

The new size 84 and 112 EC motor generation has been introduced for fan sizes 400 to 910 and can now be supplied as standard with a 0-10 V and an RS485 MODBUS RTU serial interface.

The modular design of this new EC motor generation also permits single-phase and 3-phase versions for lower output ranges.

The increased IP protection level provided by IP55 rounds off this range from a technical point of view and allows a broad spectrum of applications.

The catalog now also includes AxiTop versions of fan sizes 800 and 910, thus considerably raising the output range in both cases.

At the top end, fan size 1250 has been added to the standard range and an AxiTop version is also available.

This has further extended the output range, opening up yet more and new potential areas of application for our products.

Our “Product selector” design program now also contains the corresponding collections for this new standard range to help customers choose the ideal fan best suited to their application.

All the axial fans presented in the catalog surpass the higher minimum efficiency requirements stipulated in the ecodesign directive for fans which came into force in 2015.

The advantages at a glance:
- High efficiency thanks to HyBlade axial impellers and the new GreenTech EC motors
- Perfectly matched components (motor/electronics/impeller/peripherals)
- Minimal noise level thanks to HyBlade technology and optimized peripherals
- High power density
- Compact design
- EC fans with 2 speeds or infinitely variable control (fan size 200-450 mm)
- RS485 MODBUS serial interface throughout (fan size 400-1250 mm)
- Robust design and maintenance-free operation
- Extremely simple commissioning
Contents

The HyBlade® - an ongoing success story ...
GreenTech: The green company
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Technology:
- Tender specifications
- Accessories
- Conn. diagrams
- Technical parameters & scope

ebm-papst agents
Environmental compatibility and sustainability have always formed the basis for all our thought processes and actions. Which is why we have been dedicated for decades to the simple but firm principle of one of our company founders, Gerhard Sturm: “Every new product we develop must be economically and ecologically superior to its predecessor.” We use the name GreenTech to express our company philosophy.

**GreenTech means looking ahead.**
We optimize the materials and processes we employ right from the design stage to ensure optimum environmental compatibility, the best possible energy balance and – where feasible – maximum recyclability. We are constantly improving materials, performance and the flow and noise characteristics of our products, while at the same time significantly reducing energy consumption.

Close ties with universities and scientific institutes as well as a sponsored professorship in the field of power engineering and regenerative energies also allow us to benefit from the latest research results in these areas – as well as providing us with a reservoir of highly qualified young talent for the future.

**GreenTech means environmentally compatible production.**
GreenTech also stands for maximum energy efficiency in our production processes. Photovoltaics, the intelligent use of waste heat and groundwater cooling and of course our own cooling and ventilation technology all play a major role.

Energy consumption at our most modern plant is 91% lower than demanded by the applicable regulations for example.

In this way, our products make their contribution to environmental protection from the development stage right through to recycling of the packaging.
GreenTech is a recognized, award-winning concept.
Our entire production chain can stand up to critical scrutiny by environmental specialists and the public.
Confirmation of this came in the form of an award as Germany’s most sustainable company in 2013 and the 2012 DEKRA Award in the category “Environment – The Challenge of Energy Transition” – to name just a few examples.
The ecological prowess of our products based on GreenTech principles is also verified by their compliance with even the most stringent energy and environmental standards.
In many cases they already more than satisfy limit values which will only come into force in a few years time.

GreenTech is a good investment for our customers.
At the heart of GreenTech is innovative EC technology from ebm-papst, which enables our best motors and fans to attain efficiency levels of up to 90%, achieves maximum energy savings, ensures a far longer service life and makes our products completely maintenance-free.
Figures that are not just good for the environment but also of 100% benefit to users! Because all ebm-papst products – even those for which GreenTech EC technology is not (yet) of relevance to the particular application – offer an ideal combination of economic and ecological advantages.

GreenTech means ecologically improving every new product.
## Product overview EC-HyBlade®

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<th>Ø</th>
<th>Motor</th>
<th>Nominal voltage range VAC</th>
<th>without attachments</th>
<th>with round full nozzle</th>
<th>Compact fan</th>
<th>with guard grille for short nozzle</th>
<th>with guard grille for short nozzle and top-mounted terminal box</th>
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Data is subject to change without notice at ebm-papst discretion.
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<th>with round / square full nozzle</th>
<th>with guard grille for short nozzle / full nozzle</th>
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Overview of curves EC-HyBlade®
To aid in selection of the right fan, ebm-papst provides the "Product Selector" software.

With this new program, you can use the operating point as a selection criterion for HyBlade fans.

If there is more than one fan in the specified power range, the displayed aerodynamic and acoustic data can be used to select and document the most suitable fan.

You can also have the life cycle costs calculated for the selected fans.

You can make your selection based on point of operation or type designation.

Data sheets can be created in PDF format and show not only a fan’s nominal data but also its performance data at the specified operating point together with the intake and outlet sound power levels over the octave band.

Just ask your contact at ebm-papst!
EC axial fans – HyBlade®
EC axial fans – HyBlade®
Ø 200, including compact fan

- **Material:**
  - Guard grille: Steel, coated with black plastic (RAL 9005)
  - Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  - Compact fan housing: Die-cast aluminum
  - Blades: PP plastic
  - Rotor: Thick-film passivated
  - Electronics housing: Die-cast aluminum

- **Number of blades:** 7
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** IP54
- **Insulation class:** “B”
- **Installation position:** Any
- **Condensation drain holes:** None, open rotor
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

### Nominal data

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<th>Motor</th>
<th>Curve</th>
<th>Nominal voltage range</th>
<th>Frquency</th>
<th>Speed(1)</th>
<th>Max. input power(1)</th>
<th>Max. input current(2)</th>
<th>Perm. ambient temp.</th>
<th>Max. back pressure Pa</th>
<th>2-speed (0-10 V)</th>
<th>Perm. ambient temp.</th>
<th>TECH features and connection diagram</th>
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<td>0,53</td>
<td>110</td>
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<td>M3G 055-BD</td>
<td>1-200-240</td>
<td>50/60</td>
<td>2900</td>
<td>54</td>
<td>0,55</td>
<td>96</td>
<td>-25...+60</td>
<td>Open-loop speed control</td>
<td>P. 129 / H4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subject to change

(1) Nominal data at operating point with maximum load and 230 VAC
(2) Not suitable for constant outdoor use, special version available on request.

---

**Curves:**

2 speed levels

<table>
<thead>
<tr>
<th>Speed</th>
<th>Power</th>
<th>Current</th>
<th>Noise</th>
</tr>
</thead>
<tbody>
<tr>
<td>2985</td>
<td>50</td>
<td>0,46</td>
<td>64</td>
</tr>
<tr>
<td>2875</td>
<td>55</td>
<td>0,50</td>
<td>64</td>
</tr>
<tr>
<td>2830</td>
<td>57</td>
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<td>2820</td>
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<td>72</td>
</tr>
<tr>
<td>2650</td>
<td>36</td>
<td>0,37</td>
<td>81</td>
</tr>
<tr>
<td>2575</td>
<td>40</td>
<td>0,40</td>
<td>81</td>
</tr>
<tr>
<td>2540</td>
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<td>2535</td>
<td>42</td>
<td>0,42</td>
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<td>2570</td>
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<td>85</td>
</tr>
<tr>
<td>2885</td>
<td>55</td>
<td>0,53</td>
<td>64</td>
</tr>
<tr>
<td>2825</td>
<td>58</td>
<td>0,56</td>
<td>65</td>
</tr>
<tr>
<td>2900</td>
<td>54</td>
<td>0,55</td>
<td>71</td>
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<tr>
<td>2645</td>
<td>36</td>
<td>0,37</td>
<td>62</td>
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<tr>
<td>2575</td>
<td>39</td>
<td>0,40</td>
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<td>2525</td>
<td>42</td>
<td>0,42</td>
<td>62</td>
</tr>
<tr>
<td>2510</td>
<td>42</td>
<td>0,43</td>
<td>68</td>
</tr>
</tbody>
</table>

Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.
Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
- Technical features: See connection diagram P. 128 f.
- EMC: Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2/3
  Interference emission according to EN 61000-6-3 (household environment)
  Radio interference is to be checked in the complete unit.
- Touch current: <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- Cable exit: Variable
- Terminal box design: electrical connection via terminal strip
- Protection class: I (with customer connection of protective earth)
- Conformity with standards: EN 60335-1, CE
- Approvals: VDE; cURus/

### Curves: Open-loop speed control

Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: $L_{wA}$ according to ISO 13347, $L_p$ measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.

### Specifications

<table>
<thead>
<tr>
<th>Airflow direction</th>
<th>Weight without attachments</th>
<th>Weight with round full nozzle</th>
<th>Compact fan</th>
<th>Weight with guard grille for short nozzle</th>
<th>Weight with guard grille for short nozzle a. top-mount. term. box</th>
<th>n</th>
<th>$P_{adm}$</th>
<th>I</th>
<th>$L_{wA}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;V&quot; A3G 200-AD01 -01(3)</td>
<td>1.0</td>
<td>W3G 200-CD01 -30(3)</td>
<td>2.0</td>
<td>---</td>
<td>---</td>
<td>2985</td>
<td>50</td>
<td>0.46</td>
<td>64</td>
</tr>
<tr>
<td>&quot;V&quot; W3G 200-CD01 -01(3)</td>
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<td>---</td>
<td>---</td>
<td>---</td>
<td>2975</td>
<td>55</td>
<td>0.50</td>
<td>64</td>
</tr>
<tr>
<td>&quot;V&quot; W3G 200-CD01 -03(3)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>2965</td>
<td>60</td>
<td>0.53</td>
<td>72</td>
</tr>
<tr>
<td>&quot;V&quot; W3G 200-CD01 -32(3)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>2955</td>
<td>55</td>
<td>0.53</td>
<td>64</td>
</tr>
<tr>
<td>&quot;V&quot; W3G 200-CD01 -30(3)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>2945</td>
<td>55</td>
<td>0.53</td>
<td>65</td>
</tr>
</tbody>
</table>

Airflow direction "V" on request (4) depending on installation and position.
EC axial fans – HyBlade®
Ø 200 with motor M3G 055, 2 speed levels

A3G 200-AD01-01 (without attachments, airflow direction “V”)

W3G 200-CD01-30 (with round full nozzle, airflow direction “V”)

S3G 200-AD01-30 / S3G 200-AD01-50* (with guard grille for short nozzle, airflow direction “V”)

Max. clearance for screw 5 mm

Inside diameter of fan housing min. 200 mm

Cable PVC 4G 0.5 mm², 4x crimped splices

*Terminal box type:
EC axial fans – HyBlade®
Ø 200 with motor M3G 055, open-loop speed control

A3G 200-AD01-03  (without attachments, airflow direction “V”)

W3G 200-CD01-32  (with round full nozzle, airflow direction “V”)

S3G 200-AD01-32 / S3G 200-AD01-52*  (with guard grille for short nozzle, airflow direction “V”)

Max. clearance for screw 5 mm

Inside diameter of fan housing min. 200 mm

Cable PVC 4X AWG22, 4x crimped splices

Cable PVC 3G AWG20, 3x crimped splices

Terminal box type:

Inside diameter of fan housing min. 200 mm

*Terminal box type:
EC axial fans – HyBlade®
Ø 200 with motor M3G 055, 2 speed levels, compact

W3G 200-HD01-01  Compact fan  (with full nozzle, airflow direction “V”)
EC axial fans – HyBlade®
Ø 200 with motor M3G 055, open-loop speed control, compact

W3G 200-HD01-03  Compact fan  (with full nozzle, airflow direction “V”)
EC axial fans – HyBlade®
Ø 250, including compact fan

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Compact fan housing: Die-cast aluminum
  Blades: PP plastic
  Rotor: Thick-film passivated
  Electronics housing: Die-cast aluminum

- **Number of blades:** 7
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** IP54
- **Insulation class:** “B”
- **Installation position:** Any
- **Condensation drain holes:** None, open rotor
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Curve</th>
<th>Nominal voltage range</th>
<th>Freq range</th>
<th>Speed</th>
<th>Max. input power</th>
<th>Max. input current</th>
<th>Max. back pressure</th>
<th>Perm. ambient temp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>*3G 250</td>
<td>M3G 055-CF</td>
<td>2 speed levels</td>
<td>1-200-240</td>
<td>50/60</td>
<td>2330</td>
<td>83</td>
<td>0,72</td>
<td>120</td>
<td>-25..+60</td>
</tr>
<tr>
<td>*3G 250</td>
<td>M3G 055-CF</td>
<td>2 speed levels</td>
<td>1-200-240</td>
<td>50/60</td>
<td>2330</td>
<td>83</td>
<td>0,72</td>
<td>100</td>
<td>-25..+60</td>
</tr>
<tr>
<td>*3G 250</td>
<td>M3G 055-CF</td>
<td>Open-loop speed control</td>
<td>1-200-240</td>
<td>50/60</td>
<td>2330</td>
<td>83</td>
<td>0,72</td>
<td>120</td>
<td>-25..+60</td>
</tr>
<tr>
<td>*3G 250</td>
<td>M3G 055-CF</td>
<td>Open-loop speed control</td>
<td>1-200-240</td>
<td>50/60</td>
<td>2330</td>
<td>83</td>
<td>0,72</td>
<td>100</td>
<td>-25..+60</td>
</tr>
</tbody>
</table>

Subject to change

(1) Nominal data at operating point with maximum load and 230 VAC
(2) Not suitable for constant outdoor use, special version available on request.

---

**Curves:**
2 speed levels

- **Techn. features and connection diagram**

---

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.
Intake-side sound level: $L_{WA}$ according to ISO 13347, $L_p$ measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
Curves: Open-loop speed control

**Technical features:** See connection diagram P. 128 ff.

**EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)

Circuit feedback according to EN 61000-3-2/3

Radio interference is to be checked in the complete unit.

**Touch current:** < 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)

**Cable exit:** Variable

**Terminal box design:** electrical connection via terminal strip

**Protection class:** I (with customer connection of protective earth)

**Conformity with standards:** EN 60335-1, CE

**Approvals:** VDE; cURus(3)

### Curves: Open-loop speed control

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.

### Airflow direction

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

**Technical features:** See connection diagram P. 128 ff.

**EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)

Circuit feedback according to EN 61000-3-2/3

Radio interference is to be checked in the complete unit.

**Touch current:** < 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)

**Cable exit:** Variable

**Terminal box design:** electrical connection via terminal strip

**Protection class:** I (with customer connection of protective earth)

**Conformity with standards:** EN 60335-1, CE

**Approvals:** VDE; cURus(3)
EC axial fans – HyBlade®
Ø 250 with motor M3G 055, 2 speed levels

A3G 250-AH07-01  (without attachments, airflow "V")

W3G 250-CH07-30   (with round full nozzle, airflow direction "V")

S3G 250-AH07-30 / S3G 250-AH07-50*   (with guard grille for short nozzle, airflow direction "V")

Inside diameter of fan housing min. 257 mm

Max. clearance for screw 5 mm

Cable PVC 4G 0.5 mm², 4x crimped splices

*Terminal box type:
EC axial fans – HyBlade®
Ø 250 with motor M3G 055, open-loop speed control

A3G 250-AH07-03 (without attachments, airflow direction “V”)  
Max. clearance for screw 5 mm
Inside diameter of fan housing min. 257 mm
Cable PVC 4X AWG22, 4x crimped splices
Cable PVC 3G AWG20, 3x crimped splices

W3G 250-CH07-32 (with round full nozzle, airflow direction “V”)  

S3G 250-AH07-32 / S3G 250-AH07-52* (with guard grille for short nozzle, airflow direction “V”)  
*Terminal box type:
Inside diameter of fan housing min. 257 mm

Max. clearance for screw 5 mm
Cable PVC 3G AWG20, 3x crimped splices
EC axial fans – HyBlade®
Ø 250 with motor M3G 055, 2 speed levels, compact
EC axial fans – HyBlade®
Ø 250 with motor M3G 055, open-loop speed control, compact

W3G 250-HH07-03  Compact fan (with full nozzle, airflow direction "V")
EC axial fans – HyBlade®
Ø 300

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades: PP plastic
  Rotor: Thick-film passivated
  Electronics housing: Die-cast aluminum
- **Number of blades:** 5
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** IP54
- **Insulation class:** “B”
- **Installation position:** Any
- **Condensation drain holes:** None, open rotor
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Curve</th>
<th>VAC</th>
<th>Hz</th>
<th>rpm</th>
<th>W</th>
<th>A</th>
<th>Pa</th>
<th>°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>*3G 300 (2)</td>
<td>M3G 055-CF</td>
<td>⬜️ 1–200–240</td>
<td>50/60</td>
<td>1500</td>
<td>85</td>
<td>0.80</td>
<td>85</td>
<td>-25...+60</td>
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<tr>
<td>*3G 300 (2)</td>
<td>M3G 055-DF</td>
<td>⬜️ 1–200–240</td>
<td>50/60</td>
<td>1750</td>
<td>120</td>
<td>1.00</td>
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<td></td>
</tr>
<tr>
<td>*3G 300 (2)</td>
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<td>⬜️ 1–200–240</td>
<td>50/60</td>
<td>2020</td>
<td>170</td>
<td>1.35</td>
<td>140</td>
<td>-25...+60</td>
<td></td>
</tr>
</tbody>
</table>

 Subject to change
(1) Nominal data at operating point with maximum load and 230 VAC
(2) Not suitable for constant outdoor use, special version available on request.

Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.
Intake-side sound level: LWA according to ISO 13347, measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
- **Technical features**: See connection diagram P. 128 f.
- **EMC**: Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback up to total power ≤ 130 W according to EN 61000-3-2/3
  Interference emission according to EN 61000-6-4 (industrial environment)
  Radio interference is to be checked in the complete unit.
- **Touch current**: ≤ 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Cable exit**: Variable
- **Terminal box design**: electrical connection via terminal strip
- **Protection class**: I (with customer connection of protective Earth)
- **Conformity with standards**: EN 60335-1, CE
- **Approvals**: VDE; cURus

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**Curves:** Open-loop speed control

- **Air flow direction**: “V” on request

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### Table: Weight without attachments and with accessories

<table>
<thead>
<tr>
<th>Airflow direction</th>
<th>Weight without attachments</th>
<th>Weight with round full nozzle</th>
<th>Weight with guard grille for short nozzle</th>
<th>Weight with guard grille for short nozzle and top-mounted terminal box</th>
</tr>
</thead>
<tbody>
<tr>
<td>“V” A3G 300-AK13 -01</td>
<td>1.40</td>
<td>3.40</td>
<td>2.40</td>
<td>2.50</td>
</tr>
<tr>
<td>“V” A3G 300-AL1 -01</td>
<td>1.60</td>
<td>3.60</td>
<td>2.70</td>
<td>2.80</td>
</tr>
<tr>
<td>“V” A3G 300-AN02 -01</td>
<td>2.00</td>
<td>4.00</td>
<td>2.95</td>
<td>3.10</td>
</tr>
<tr>
<td>“V” A3G 300-AK13 -03</td>
<td>1.40</td>
<td>3.40</td>
<td>2.40</td>
<td>2.50</td>
</tr>
<tr>
<td>“V” A3G 300-AL11 -03</td>
<td>1.60</td>
<td>3.60</td>
<td>2.70</td>
<td>2.80</td>
</tr>
<tr>
<td>“V” A3G 300-AN02 -03</td>
<td>2.00</td>
<td>4.00</td>
<td>2.95</td>
<td>3.10</td>
</tr>
</tbody>
</table>

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**Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.**

Intake-side sound level: $L_\text{WA}$ according to ISO 13347, $L_\text{pA}$ measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
EC axial fans – HyBlade®
Ø 300 with motor M3G 055, 2 speed levels

**A3G 300-AK13-01** (without attachments, airflow direction “V”)

Max. clearance for screw 5 mm

Inside diameter of fan housing min. 306 mm

**W3G 300-CK13-30** (with round full nozzle, airflow direction “V”)

Cable PVC 4G 0.5 mm², 4x crimped splices

**S3G 300-AK13-30 / S3G 300-AK13-50** (with guard grille for short nozzle, airflow direction “V”)

Inside diameter of fan housing min. 306 mm

*Terminal box type:
EC axial fans – HyBlade®
Ø 300 with motor M3G 055, open-loop speed control

A3G 300-AK13-03 (without attachments, airflow direction "V")

W3G 300-CK13-32 (with round full nozzle, airflow direction "V")

S3G 300-AK13-32 / S3G 300-AK13-52* (with guard grille for short nozzle, airflow direction "V")

Max. clearance for screw 5 mm
Inside diameter of fan housing min. 306 mm
Cable PVC 4X AWG22, 4x crimped splices
Cable PVC 3G AWG20, 3x crimped splices

Max. clearance for screw 5 mm
Inside diameter of fan housing min. 306 mm

*Terminal box type:
EC axial fans – HyBlade®
Ø 300 with motor M3G 055, 2 speed levels

A3G 300-AL11-01 (without attachments, airflow direction "V")

W3G 300-CL11-30 (with round full nozzle, airflow direction "V")

S3G 300-AL11-30 / S3G 300-AL11-50* (with guard grille for short nozzle, airflow direction "V")

*Terminal box type:
EC axial fans – HyBlade®
Ø 300 with motor M3G 055, open-loop speed control
EC axial fans – HyBlade®
Ø 300 with motor M3G 074, 2 speed levels

A3G 300-AN02-01 (without attachments, airflow direction "V")

W3G 300-CN02-30 (with round full nozzle, airflow direction "V")

S3G 300-AN02-30 / S3G 300-AN02-50* (with guard grille for short nozzle, airflow direction "V")
EC axial fans – HyBlade®
Ø 300 with motor M3G 074, open-loop speed control

A3G 300-AN02-03 (without attachments, airflow direction “V”)

W3G 300-CN02-32 (with round full nozzle, airflow direction “V”)

S3G 300-AN02-32 / S3G 300-AN02-52* (with guard grille for short nozzle, airflow direction “V”)

Inside diameter of fan housing min. 306 mm
**EC axial fans – HyBlade® Ø 350**

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades: PP plastic
  Rotor: Thick-film passivated
  Electronics housing: Die-cast aluminum
- **Number of blades:** 5
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** IP54\(^{(2)}\)
- **Insulation class:** “B”
- **Installation position:** Any
- **Condensation drain holes:** None, open rotor
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

### Nominal Data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Curve</th>
<th>Nominal voltage range</th>
<th>Speed(^{(1)}) n rpm</th>
<th>Max. input power(^{(1)}) W</th>
<th>Max. input current(^{(1)}) A</th>
<th>Perm. ambient temp. °C</th>
<th>2-speed / 0-10 V</th>
<th>Tech. features and connection diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>*3G 350(^{(2)})</td>
<td>M3G 055-DF</td>
<td>1-200-240 50/60</td>
<td>1040</td>
<td>73</td>
<td>0,65</td>
<td>55</td>
<td>-25...+60</td>
<td>2 speed levels</td>
<td>P. 128 / H3</td>
</tr>
<tr>
<td>*3G 350(^{(2)})</td>
<td>M3G 074-CF</td>
<td>1-200-240 50/60</td>
<td>1475</td>
<td>165</td>
<td>1,35</td>
<td>100</td>
<td>-25...+60</td>
<td>2 speed levels</td>
<td>P. 128 / H3</td>
</tr>
<tr>
<td>*3G 350(^{(2)})</td>
<td>M3G 055-DF</td>
<td>1-200-240 50/60</td>
<td>1040</td>
<td>73</td>
<td>0,65</td>
<td>55</td>
<td>-25...+60</td>
<td>Open-loop speed control</td>
<td>P. 129 / H4</td>
</tr>
<tr>
<td>*3G 350(^{(2)})</td>
<td>M3G 074-CF</td>
<td>1-200-240 50/60</td>
<td>1475</td>
<td>165</td>
<td>1,35</td>
<td>100</td>
<td>-25...+60</td>
<td>Open-loop speed control</td>
<td>P. 129 / H4</td>
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</tbody>
</table>

Subject to change

\(^{(1)}\) Nominal data at operating point with maximum load and 230 VAC
\(^{(2)}\) Not suitable for constant outdoor use, special version available on request.

---

**Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level Lwa according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.**
Airflow direction "A" on request

<table>
<thead>
<tr>
<th>qv m³/h</th>
<th>500</th>
<th>1000</th>
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</tr>
</tbody>
</table>

Technical Features:
- See connection diagram P. 128 ff.
- EMC: Immunity to interference according to EN 61000-6-2 (industrial environment)
  - Circuit feedback up to total power ≤ 130 W according to EN 61000-3-2/3
  - Interference emission according to EN 61000-6-4 (industrial environment)
  - Radio interference is to be checked in the complete unit.
- Touch current: ≤ 3,5 mA according to IEC 60990 (measuring circuit Fig. 4)
- Cable exit: Variable
- Terminal box design: Electrical connection via terminal strip
- Conformity with standards: EN 60335-1; CE
- Approvals: VDE; CURUS(3)

Agents | Technology | ø 1250 | ø 990 | ø 910 | ø 800 | ø 710 | ø 630 | ø 560 | ø 500 | ø 450 | ø 400 | ø 350 | ø 300 | ø 250 | ø 200 |
---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Curves:
- Open-loop speed control
- Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.
- Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
EC axial fans – HyBlade®
Ø 350 with motor M3G 055, 2 speed levels

A3G 350-AG03-01 (without attachments, airflow direction “V”)

W3G 350-CG03-30 (with round full nozzle, airflow direction “V”)

S3G 350-AG03-30 / S3G 350-AG03-50* (with guard grille for short nozzle, airflow direction “V”)

Max. clearance for screw 5 mm

Inside diameter of fan housing min. 358 mm

Cable PVC 4G 0.5 mm², 4x crimped splices

*Terminal box type:
EC axial fans – HyBlade®
Ø 350 with motor M3G 055, open-loop speed control

A3G 350-AG03-03 (without attachments, airflow direction “V”)

W3G 350-CG03-32 (with round full nozzle, airflow direction “V”)

S3G 350-AG03-32 / S3G 350-AG03-52* (with guard grille for short nozzle, airflow direction “V”)

*Terminal box type:
EC axial fans – HyBlade®
Ø 350 with motor M3G 074, 2 speed levels

A3G 350-AN01-01  (without attachments, airflow direction "V")

W3G 350-CN01-30  (with full nozzle, airflow direction "V")

S3G 350-AN01-30 / S3G 350-AN01-50*  (with guard grille for short nozzle, airflow direction "V")

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 358 mm

Cable PVC 4G AWG20, 4x crimped splices

*Terminal box type:
EC axial fans – HyBlade®
Ø 350 with motor M3G 074, open-loop speed control

A3G 350-AN01-03   (without attachments, airflow direction “V”)

W3G 350-CN01-32   (with round full nozzle, airflow direction “V”)

S3G 350-AN01-32 / S3G 350-AN01-52*   (with guard grille for short nozzle, airflow direction “V”)

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 358 mm

Cable PVC 4X AWG22, 4x crimped splices

Cable PVC 3G AWG20, 3x crimped splices

*Terminal box type:

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 358 mm

Cable PVC 3G AWG20, 3x crimped splices

Terminal box type:
EC axial fans – HyBlade®
Ø 400

- **Material:**
  - Guard grille: Steel, coated with black plastic (RAL 9005)
  - Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  - Blades (5):
    - A: PP plastic;
    - B: Press-fitted sheet steel blank, over-molded with PP plastic
  - Rotor: (5):
    - A: Thick-film passivated;
    - B: Painted black
  - Electronics housing: (5):
    - A: Die-cast aluminum;
    - B: Painted black

- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:**
  - A: IP 54(2);
  - B: IP 55

- **Insulation class:**
  - A: "B";
  - B: "F"

- **Installation position:**
  - A: Any;
  - B: Shaft horizontal or rotor on bottom, rotor on top on request

- **Condensation drain holes:**
  - A: None, open rotor;
  - B: Rotor side

- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

---

<table>
<thead>
<tr>
<th>Nominal data</th>
<th>2-speed / 0-10V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Motor</td>
</tr>
<tr>
<td>*3G 400(2)</td>
<td>M3G 074-CF</td>
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<td>*3G 400(2)</td>
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<td>M3G 084-DF</td>
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<td>*3G 400</td>
<td>M3G 084-DF</td>
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</table>

**Subject to change**

1. Nominal data at operating point with maximum load and 230 or 400VAC
2. Not suitable for constant outdoor use, special version available on request.
3. Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings on request.

---

Curves:
2 speed levels

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.
Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
- **Technical features:** See connection diagram P. 128 ff.
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  - Circuit feedback up to total power of ≤ 130 W according to EN 61000-3-2/3
  - Circuit feedback according to EN 61000-3-2
  - Interference emission according to EN 61000-6-4 (industrial environment), radio interference is to be checked in the complete unit.
  - Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current:** < 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Cable exit:** Variable
- **Terminal box design:** Electrical connection via terminal strip
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** EN 60335-1, CE; EN 61800-5-1, EN 60335-1, CE; EN 61800-5-1, CE
- **Approvals:** VDE; eURus(6)
  - EAC, UL; EAC, UL on request

---

<table>
<thead>
<tr>
<th>Airflow direction</th>
<th>Weight without attachments</th>
<th>Weight with round full nozzle</th>
<th>Weight with guard grille for short nozzle</th>
<th>Weight with guard grille for short nozzle and top-mounted terminal box</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;V&quot;</td>
<td>2.30 kg</td>
<td>W3G 400-CN04 -30</td>
<td>4.10 kg</td>
<td>S3G 400-AN04 -50</td>
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<tr>
<td>&quot;V&quot;</td>
<td>2.30 kg</td>
<td>W3G 400-CN04 -32</td>
<td>4.10 kg</td>
<td>S3G 400-AN04 -52</td>
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<tr>
<td>&quot;V&quot;</td>
<td>4.40 kg</td>
<td>W3G 400-FK08 -H1</td>
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</tr>
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<td>&quot;V&quot;</td>
<td>5.00 kg</td>
<td>W3G 400-FK11 -M1</td>
<td>7.10 kg</td>
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</tbody>
</table>

**Airflow direction "F" on request**

---

**Curves:**

**Open-loop speed control**

Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.

---

<table>
<thead>
<tr>
<th>n (rpm)</th>
<th>P Film (W)</th>
<th>I (A)</th>
<th>LwA (dB(A))</th>
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<td>1110</td>
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<td>1095</td>
<td>133</td>
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<td>1080</td>
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<td>489</td>
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<td>1760</td>
<td>500</td>
<td>0.80</td>
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</table>
EC axial fans – HyBlade®
Ø 400 with motor M3G 074, 2 speed levels

A3G 400-AN04-01  (without attachments, airflow direction "V")

W3G 400-CN04-30  (with round full nozzle, airflow direction "V")

S3G 400-AN04-30 / S3G 400-AN04-50*  (with guard grille for short nozzle, airflow direction "V")

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 400 mm

Cable PVC 4G AWG20, 4x crimped splices

Inside diameter of fan housing min. 400 mm

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 400 mm

Terminal box type:
EC axial fans – HyBlade®
Ø 400 with motor M3G 074, open-loop speed control

A3G 400-AN04-03 (without attachments, airflow direction "V")

W3G 400-CN04-32 (with round full nozzle, airflow direction "V")

S3G 400-AN04-32 / S3G 400-AN04-52* (with guard grille for short nozzle, airflow direction "V")

Inside diameter of fan housing min. 400 mm

Cable PVC 4X AWG22, 4x crimped splices

Cable PVC 3G AWG20, 3x crimped splices

*Terminal box type:
### EC axial fans – HyBlade®

Ø 400 with motor M3G 084, 2 speed levels

#### A3G 400-BK08-H1 (without attachments, airflow direction "V")

![Diagram of A3G 400-BK08-H1](image1)

#### W3G 400-FK08-H1 (with square full nozzle, airflow direction "V")

![Diagram of W3G 400-FK08-H1](image2)

#### S3G 400-LK08-H1 (with guard grille for short nozzle, airflow direction "V")

![Diagram of S3G 400-LK08-H1](image3)
EC axial fans – HyBlade®
Ø 400 with motor M3G 084, open-loop speed control

**A3G 400-BK11-M1** (without attachments, airflow direction “V”)

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 400 mm

**W3G 400-FK11-M1** (with square full nozzle, airflow direction “V”)

Cable PVC AWG18, 6x crimped ferrules

**S3G 400-LK11-M1** (with guard grille for short nozzle, airflow direction “V”)

Cable PVC AWG22, 5x crimped ferrules

Inside diameter of fan housing min. 400 mm
EC axial fans – HyBlade®

Ø 450

- Material:
  - Guard grille: Steel, coated with black plastic (RAL 9005)
  - Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  - Blades: PP plastic,
  - press-fitted sheet steel blank, over-molded with PP plastic
  - Rotor: Thick-film passivated; painted black
  - Electronics housing: painted black

- Direction of rotation: Counterclockwise viewed toward rotor
- Degree of protection: IP 54f, IP 55
- Insulation class: “B”
- Installation position: Any, shaft horizontal or rotor on bottom, rotor on top on request
- Condensation drain holes: None, open rotor; rotor side
- Mode: Continuous operation (S1)
- Mounting: Maintenance-free ball bearings

Nominal data

<table>
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<tr>
<th>Type</th>
<th>Motor</th>
<th>VAC</th>
<th>Hz</th>
<th>rpm</th>
<th>W</th>
<th>A</th>
<th>Pa</th>
<th>°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>*3G 450</td>
<td>M3G 074-DF</td>
<td>1–200–240</td>
<td>50/60</td>
<td>980</td>
<td>163</td>
<td>1,34</td>
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<td>-25..+60</td>
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<td>M3G 074-DF</td>
<td>1–200–240</td>
<td>50/60</td>
<td>980</td>
<td>163</td>
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<td>-25..+60</td>
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<td>*3G 450</td>
<td>M3G 084-FA</td>
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<td>50/60</td>
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<td>530</td>
<td>0,85</td>
<td>165</td>
<td>-25..+65</td>
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</table>

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC
(2) Not suitable for constant outdoor use, special version available on request.
(3) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

Curves:

- 2 speed levels

Level 1

Level 2

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.

Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
**Technical features:** See connection diagram P. 128 ff.

**EMC:**
- Immunity to interference according to EN 61000-6-2 (industrial environment)
- Circuit feedback up to total power of \( \leq 130 \text{ W} \) according to EN 61000-3-2/3
- Circuit feedback according to EN 61000-3-2/3
- Interference emission according to EN 61000-6-4 (industrial environment), radio interference is to be checked in the complete unit.
- Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request

**Touch current:** < 3,5 mA according to IEC 60990 (measuring circuit Fig. 4)

**Cable exit:** Variable

**Terminal box design:** Electrical connection via terminal strip

**Protection class:** I (with customer connection of protective earth)

**Conformity with standards:**
- EN 60335-1, CE
- EN 61800-5-1, CE
- EN 61800-5-1, CE

**Approvals:**
- VDE; cURus®
- EAC, UL; EAC, UL on request

---

### Airflow direction “A” on request

#### Weight without attachment:

<table>
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<tr>
<th>Airflow direction</th>
<th>Weight without attachment</th>
<th>Weight with round full nozzle</th>
<th>Weight with guard grille for short nozzle</th>
<th>Weight with guard grille and top-mounted terminal box</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;V&quot; A3G 450-AO02 -01</td>
<td>2.70 kg</td>
<td>7.50 kg</td>
<td>4.80 kg</td>
<td>4.90 kg</td>
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<tr>
<td>&quot;V&quot; A3G 450-AO02 -03</td>
<td>2.70 kg</td>
<td>7.50 kg</td>
<td>4.80 kg</td>
<td>4.90 kg</td>
</tr>
<tr>
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<td>10.00 kg</td>
<td>6.70 kg</td>
<td>---</td>
</tr>
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<td>5.30 kg</td>
<td>10.40 kg</td>
<td>7.50 kg</td>
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</tr>
</tbody>
</table>

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### Curves: Open-loop speed control

Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.

Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
EC axial fans – HyBlade®
Ø 450 with motor M3G 074, 2 speed levels

A3G 450-A002-01  (without attachments, airflow direction “V”)

W3G 450-C002-30  (with round full nozzle, airflow direction “V”)

S3G 450-A002-30 / S3G 450-A002-50*  (with guard grille for short nozzle, airflow direction “V”)

Max. clearance for screw 10 mm
Inside diameter of fan housing min. 454 mm
Cable PVC 4G AWG20, 4x crimped splices

Inside diameter of fan housing min. 454 mm

*Terminal box type:
EC axial fans – HyBlade®
Ø 450 with motor M3G 074, open-loop speed control

A3G 450-A002-03 (without attachments, airflow direction “V”)

W3G 450-C002-32 (with round full nozzle, airflow direction “V”)

S3G 450-A002-32 / S3G 450-A002-52* (with guard grille for short nozzle, airflow direction “V”)

*Terminal box type:

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm

Cable PVC 4X AWG22, 4x crimped splices

Cable PVC 3G AWG20, 3x crimped splices

Inside diameter of fan housing min. 454 mm

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm

Cable PVC 4X AWG22, 4x crimped splices

Cable PVC 3G AWG20, 3x crimped splices

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm

Max. clearance for screw 10 mm

Inside diameter of fan housing min. 454 mm
EC axial fans – HyBlade®
Ø 450 with motor M3G 084, 2 speed levels

A3G 450-BL03-H1 (without attachments, airflow direction "V")

W3G 450-FL03-H1 (with square full nozzle, airflow direction "V")

S3G 450-LL03-H1 (with guard grille for short nozzle, airflow direction "V")

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 454 mm

Cable PVC AWG18, 5x crimped ferrules

Cable PVC AWG22, 5x crimped ferrules

Inside diameter of fan housing min. 454 mm

2015-09

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EC axial fans – HyBlade®
Ø 450 with motor M3G 084, open-loop speed control

A3G 450-BL07-M1 (without attachments, airflow direction “V”)

W3G 450-FL07-M1 (with square full nozzle, airflow direction “V”)

S3G 450-LL07-M1 (with guard grille for short nozzle, airflow direction “V”)

Inside diameter of fan housing min. 454 mm

Max. clearance for screw 16 mm

Cable PVC AWG18, 6x crimped ferrules

Inside diameter of fan housing min. 454 mm

Cable PVC AWG22, 5x crimped ferrules
EC axial fans – HyBlade®
Ø 500

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades: press-fitted sheet steel blank, over-molded with PP plastic
  Rotor: Painted black
  Electronics housing: Die-cast aluminum, painted black

- **Number of blades:** 5
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** IP55
- **Insulation class:** “F”
- **Installation position:** Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes:** Rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

---

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Curve</th>
<th>Nominal voltage range</th>
<th>Freq.</th>
<th>Speed</th>
<th>Max. input power</th>
<th>Max. input current</th>
<th>Max. back pressure</th>
<th>Perm. ambient temp.</th>
<th>Tech. features and connection diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>*3G 500</td>
<td>M3G 084-DF</td>
<td>①</td>
<td>1~200-277</td>
<td>50/60</td>
<td>970</td>
<td>250</td>
<td>1,10</td>
<td>80</td>
<td>-25°,+60</td>
<td>P. 132 / P7</td>
</tr>
<tr>
<td>*3G 500</td>
<td>M3G 084-GF</td>
<td>①</td>
<td>1~200-277</td>
<td>50/60</td>
<td>1260</td>
<td>500</td>
<td>2,20</td>
<td>120</td>
<td>-25°,+60</td>
<td>P. 132 / P7</td>
</tr>
<tr>
<td>*3G 500</td>
<td>M3G 084-GF</td>
<td>①</td>
<td>3~380-480</td>
<td>50/60</td>
<td>1370</td>
<td>630</td>
<td>1,00</td>
<td>150</td>
<td>-25°,+60</td>
<td>P. 133 / P8</td>
</tr>
<tr>
<td>*3G 500</td>
<td>M3G 112-EA</td>
<td>①</td>
<td>1~200-277</td>
<td>50/60</td>
<td>740</td>
<td>3,25</td>
<td>180</td>
<td>-25°,+60</td>
<td>P. 132 / P7</td>
<td></td>
</tr>
<tr>
<td>*3G 500</td>
<td>M3G 112-GA</td>
<td>①</td>
<td>3~380-480</td>
<td>50/60</td>
<td>1770</td>
<td>1300</td>
<td>2,10</td>
<td>240</td>
<td>-25°,+60</td>
<td>P. 133 / P8</td>
</tr>
</tbody>
</table>

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC.
(2) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

---

### Curves:

- Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.
- Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
– **Technical features:** See connection diagram P. 132 ff.
– **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2
  Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
– **Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
– **Electrical connection:** Via terminal box
– **Protection class:** I (with customer connection of protective earth)
– **Conformity with standards:** (1) EN 61800-5-1, EN 60335-1, CE
  (2) EN 61800-5-1, CE
  (3) EN 61800-5-1, EN 60335-1 in preparation, CE
– **Approvals:** (1) EAC, UL; (2) EAC, UL on request
  (3) UL, CSA; (4) UL, CSA planned

---

### Airflow direction

<table>
<thead>
<tr>
<th>Airflow direction</th>
<th>Weight without attachments-</th>
<th>with square full nozzle</th>
<th>Weight with guard grille for short nozzle</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;V&quot;</td>
<td>4,80</td>
<td>5,70</td>
<td>7,40</td>
</tr>
<tr>
<td>&quot;V&quot;</td>
<td>5,70</td>
<td>12,30</td>
<td>8,30</td>
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<tr>
<td>&quot;V&quot;</td>
<td>6,00</td>
<td>13,30</td>
<td>9,50</td>
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<tr>
<td>&quot;V&quot;</td>
<td>7,40</td>
<td>14,40</td>
<td>10,70</td>
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<tr>
<td>&quot;V&quot;</td>
<td>8,90</td>
<td>15,90</td>
<td>12,20</td>
</tr>
</tbody>
</table>

Airflow direction "V" on request.
EC axial fans – HyBlade®
Ø 500 with motor M3G 084

**A3G 500-BK07-G1** (without attachments, airflow direction "V")

**W3G 500-GK07-G1** (with square full nozzle, airflow direction "V")

**S3G 500-AK07-G1** (with guard grille for short nozzle, airflow direction "V")

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 503 mm

Inside diameter of fan housing min. 503 mm
EC axial fans – HyBlade®
Ø 500 with motor M3G 084

A3G 500-BM06-H1 (without attachments, airflow direction "V")

Max. clearance for screw 16 mm

W3G 500-GM06-H1 (with square full nozzle, airflow direction "V")

Inside diameter of fan housing min. 503 mm

S3G 500-AM06-H1 (with guard grille for short nozzle, airflow direction "V")

Inside diameter of fan housing min. 503 mm
## EC axial fans – HyBlade®

Ø 500 with motor M3G 084

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3G 500-BM03-M1</td>
<td>(without attachments, airflow direction &quot;V&quot;)</td>
<td><img src="image1.png" alt="Diagram" /></td>
</tr>
<tr>
<td>W3G 500-GM03-M1</td>
<td>(with square full nozzle, airflow direction &quot;V&quot;)</td>
<td><img src="image2.png" alt="Diagram" /></td>
</tr>
<tr>
<td>S3G 500-AM03-M1</td>
<td>(with guard grille for short nozzle, airflow direction &quot;V&quot;)</td>
<td><img src="image3.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

- **A3G 500-BM03-M1**: Max. clearance for screw 16 mm. Inside diameter of fan housing min. 503 mm
- **W3G 500-GM03-M1**: Inside diameter of fan housing min. 503 mm
- **S3G 500-AM03-M1**: Inside diameter of fan housing min. 503 mm
EC axial fans – HyBlade®
Ø 500 with motor M3G 112

A3G 500-BA74-21 (without attachments, airflow direction "V")

W3G 500-GA74-21 (with square full nozzle, airflow direction "V")

S3G 500-AA74-21 (with guard grille for short nozzle, airflow direction "V")

Max. clearance for screw 16 mm
Inside diameter of fan housing min. 503 mm
EC axial fans – HyBlade®
Ø 500 with motor M3G 112

A3G 500-BD59-01  (without attachments, airflow direction “V”)

W3G 500-GD59-01  (with square full nozzle, airflow direction “V”)

S3G 500-AD59-01  (with guard grille for short nozzle, airflow direction “V”)

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 503 mm

Inside diameter of fan housing min. 503 mm
EC axial fans – HyBlade®
Ø 560

- Material: Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades: Sheet aluminum insert, over-molded with PP plastic
  Rotor: Painted black
  Electronics housing: Die-cast aluminum, painted black
- Number of blades: 5
- Direction of rotation: Counterclockwise viewed toward rotor
- Degree of protection: IP55
- Insulation class: “F”
- Installation position: Shaft horizontal or rotor on bottom, rotor on top on request
- Condensation drainage holes: Rotor side
- Mode: Continuous operation (S1)
- Mounting: Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Curve</th>
<th>VAC</th>
<th>Hz</th>
<th>rpm</th>
<th>W</th>
<th>A</th>
<th>Pa</th>
<th>°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;3G 560&quot;</td>
<td>M3G 112-EA</td>
<td>-5&quot;</td>
<td>1</td>
<td>200-277</td>
<td>50/60</td>
<td>1230</td>
<td>735</td>
<td>3,20</td>
<td>-25°, +60</td>
</tr>
<tr>
<td>&quot;3G 560&quot;</td>
<td>M3G 112-IA</td>
<td>-5&quot;</td>
<td>3</td>
<td>380-480</td>
<td>50/60</td>
<td>1520</td>
<td>1300</td>
<td>2,10</td>
<td>-25°, +60</td>
</tr>
</tbody>
</table>

Subject to change

1. Nominal data at operating point with maximum load and 230 or 400 VAC.
2. Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

### Curves:

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.
Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.

<table>
<thead>
<tr>
<th>rpm</th>
<th>P_{dd}</th>
<th>I</th>
<th>LwA</th>
</tr>
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<tbody>
<tr>
<td>1230</td>
<td>531</td>
<td>2,38</td>
<td>73</td>
</tr>
<tr>
<td>1230</td>
<td>606</td>
<td>2,70</td>
<td>72</td>
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<tr>
<td>1230</td>
<td>668</td>
<td>2,96</td>
<td>71</td>
</tr>
<tr>
<td>1230</td>
<td>735</td>
<td>3,20</td>
<td>74</td>
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<tr>
<td>1520</td>
<td>958</td>
<td>1,51</td>
<td>77</td>
</tr>
<tr>
<td>1520</td>
<td>1097</td>
<td>1,72</td>
<td>76</td>
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<tr>
<td>1520</td>
<td>1207</td>
<td>1,69</td>
<td>75</td>
</tr>
<tr>
<td>1520</td>
<td>1300</td>
<td>2,10</td>
<td>78</td>
</tr>
</tbody>
</table>
**Technical features:** See connection diagram P. 132 ff.

**EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
- Circuit feedback according to EN 61000-3-2
- Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request

**Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)

**Electrical connection:** Via terminal box

**Protection class:** I (with customer connection of protective earth)

**Conformity with standards:** EN 61800-5-1, CE; EN 60335-1 in preparation

**Approvals:**
- EAC, UL, CSA
- EAC; UL, CSA planned

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### Accessories

<table>
<thead>
<tr>
<th>Airflow direction</th>
<th>Weight without attachments</th>
<th>Weight with square full nozzle</th>
<th>Weight with guard grille for short nozzle</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>8.50</td>
<td>20.20</td>
<td>12.80</td>
</tr>
<tr>
<td>V</td>
<td>11.10</td>
<td>22.80</td>
<td>15.40</td>
</tr>
</tbody>
</table>

Airflow direction "V" on request

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**Agent**

**Information**

**Technologies**

**Accessories**

**Useful data**

**Technical data**

**Design aspects**

**Drawings**

---
EC axial fans – HyBlade®
Ø 560 with motor M3G 112

A3G 560-B878-21 (without attachments, airflow direction “V”)

W3G 560-G878-21 (with square full nozzle, airflow direction “V”)

S3G 560-AB78-21 (with guard grille for short nozzle, airflow direction “V”)

Max. clearance for screw 16 mm
Inside diameter of fan housing min. 559 mm

Inside diameter of fan housing min. 559 mm

Max. clearance for screw 16 mm
Inside diameter of fan housing min. 559 mm
EC axial fans – HyBlade®
Ø 560 with motor M3G 112

A3G 560-BH99-01 (without attachments, airflow direction “V”)

Max. clearance for screw 16 mm

W3G 560-GH99-01 (with square full nozzle, airflow direction “V”)

Inside diameter of fan housing min. 559 mm

S3G 560-AH99-01 (with guard grille for short nozzle, airflow direction “V”)

Inside diameter of fan housing min. 559 mm
**EC axial fans – HyBlade® Ø 630**

- **Material**: Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades (5): Press-fitted sheet steel blank, over-molded with PP plastic
  Aluminum insert, over-molded with PP plastic
  Rotor: Painted black
  Electronics housing: Die-cast aluminum, painted black

- **Direction of rotation**: (1) to (6) counterclockwise, (7) clockwise, viewed toward rotor
- **Degree of protection**: IP55
- **Insulation class**: “F”
- **Installation position**: Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes**: Rotor side
- **Mode**: Continuous operation (S1)
- **Mounting**: Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Blade pitch</th>
<th>Curve</th>
<th>Nominal voltage range</th>
<th>Frequency</th>
<th>Speed</th>
<th>Max. input power (1)</th>
<th>Max. input current (1)</th>
<th>Max. back pressure</th>
<th>Perm. ambient temp.</th>
<th>Techn. features and connection diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>*3G 630</td>
<td>M3G 084-FA</td>
<td>---</td>
<td>(1)</td>
<td>1~200-277 50/60</td>
<td>770</td>
<td>240</td>
<td>1,00</td>
<td>65</td>
<td>-25...+60</td>
<td>P. 132 / P7</td>
<td></td>
</tr>
<tr>
<td>*3G 630</td>
<td>M3G 084-GF</td>
<td>---</td>
<td>(1)</td>
<td>1~200-277 50/60</td>
<td>900</td>
<td>390</td>
<td>1,70</td>
<td>85</td>
<td>-25...+60</td>
<td>P. 132 / P7</td>
<td></td>
</tr>
<tr>
<td>*3G 630</td>
<td>M3G 112-GA</td>
<td>(3)</td>
<td>3~380-480 50/60</td>
<td>1000</td>
<td>700</td>
<td>1,10</td>
<td>130</td>
<td>-25...+60</td>
<td>P. 133 / P8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*3G 630</td>
<td>M3G 112-GA</td>
<td>(3)</td>
<td>3~380-480 50/60</td>
<td>1020</td>
<td>730</td>
<td>3,20</td>
<td>150</td>
<td>-25...+60</td>
<td>P. 132 / P7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*3G 630</td>
<td>M3G 112-IA</td>
<td>---</td>
<td>(3)</td>
<td>3~380-480 50/60</td>
<td>1160</td>
<td>1080</td>
<td>1,70</td>
<td>190</td>
<td>-25...+60</td>
<td>P. 133 / P8</td>
<td></td>
</tr>
<tr>
<td>*3G 630</td>
<td>M3G 150-F</td>
<td>0°</td>
<td>(3)</td>
<td>3~380-480 50/60</td>
<td>1510</td>
<td>3250</td>
<td>5,00</td>
<td>320</td>
<td>-25...+65</td>
<td>P. 134 / M5</td>
<td></td>
</tr>
</tbody>
</table>

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC.
(2) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

---

### Curves:

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.
Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
- **Technical features**: See connection diagram P. 132 ff.
- **EMC**: Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2
  Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current**: <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Electrical connection**: Via terminal box
- **Protection class**: I (with customer connection of protective earth)
- **Conformity with standards**:①②③ EN 61800-5-1, EN 60335-1, CE
  ①②③ EN 61800-5-1, CE; EN 60335-1 in preparation
  ① EN 61800-5-1, CE
- **Approvals**:① EAC, UL on request; ② EAC, UL
  ③ UL, CSA; ⑥ UL, CSA planned; ⑥ EAC

---

<table>
<thead>
<tr>
<th>Airflow direction</th>
<th>Weight without attachments</th>
<th>Weight with square full nozzle</th>
<th>Weight with guard grille for short nozzle</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;V&quot;</td>
<td>A3G 630-006 -G1</td>
<td>5.50</td>
<td>W3G 630-G06 -G1</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;V&quot;</td>
<td>A3G 630-007 -H1</td>
<td>5.90</td>
<td>W3G 630-G07 -H1</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;V&quot;</td>
<td>A3G 630-005 -G1</td>
<td>5.60</td>
<td>W3G 630-G05 -G1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;V&quot;</td>
<td>A3G 630-005 -H1</td>
<td>5.90</td>
<td>W3G 630-G05 -H1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;V&quot;</td>
<td>A3G 630-005 -G1</td>
<td>5.60</td>
<td>W3G 630-G05 -G1</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>&quot;V&quot;</td>
<td>A3G 630-005 -H1</td>
<td>5.90</td>
<td>W3G 630-G05 -H1</td>
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<tr>
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<tr>
<td>&quot;V&quot;</td>
<td>A3G 630-005 -G1</td>
<td>5.60</td>
<td>W3G 630-G05 -G1</td>
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<tr>
<td>&quot;V&quot;</td>
<td>A3G 630-005 -H1</td>
<td>5.90</td>
<td>W3G 630-G05 -H1</td>
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<td></td>
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</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Airflow direction</th>
<th>Weight without attachments</th>
<th>Weight with square full nozzle</th>
<th>Weight with guard grille for short nozzle</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;A&quot;</td>
<td>A3G 630-006 -G1</td>
<td>5.50</td>
<td>W3G 630-G06 -G1</td>
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<td></td>
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</tr>
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<td>&quot;A&quot;</td>
<td>A3G 630-007 -H1</td>
<td>5.90</td>
<td>W3G 630-G07 -H1</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;A&quot;</td>
<td>A3G 630-005 -G1</td>
<td>5.60</td>
<td>W3G 630-G05 -G1</td>
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<tr>
<td>&quot;A&quot;</td>
<td>A3G 630-005 -H1</td>
<td>5.90</td>
<td>W3G 630-G05 -H1</td>
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</tr>
<tr>
<td>&quot;A&quot;</td>
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<td>5.60</td>
<td>W3G 630-G05 -G1</td>
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<tr>
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<td>A3G 630-005 -H1</td>
<td>5.90</td>
<td>W3G 630-G05 -H1</td>
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<tr>
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<td>5.60</td>
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<table>
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<tr>
<th>Airflow direction</th>
<th>Weight without attachments</th>
<th>Weight with square full nozzle</th>
<th>Weight with guard grille for short nozzle</th>
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<tr>
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<tr>
<td>&quot;A&quot;</td>
<td>A3G 630-005 -H1</td>
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<tr>
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<td>A3G 630-005 -H1</td>
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<td>W3G 630-G05 -H1</td>
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<tr>
<td>&quot;A&quot;</td>
<td>A3G 630-005 -G1</td>
<td>5.60</td>
<td>W3G 630-G05 -G1</td>
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<tr>
<th>rpm</th>
<th>P_{av}</th>
<th>I_{max}</th>
<th>L_{A}</th>
<th>L_{S}</th>
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<tr>
<td>1160</td>
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<td>1160</td>
<td>836</td>
<td>1.35</td>
<td>74</td>
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<td>1180</td>
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<td>1.53</td>
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<td>1160</td>
<td>1089</td>
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<td>75</td>
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<td>1510</td>
<td>2516</td>
<td>3.89</td>
<td>82</td>
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<td>1510</td>
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<td>4.30</td>
<td>81</td>
<td></td>
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<td>1510</td>
<td>3259</td>
<td>5.00</td>
<td>87</td>
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</table>
EC axial fans – HyBlade®
Ø 630 with motor M3G 084

**A3G 630-BL06-G1** (without attachments, airflow direction "V")

**W3G 630-GL06-G1** (with square full nozzle, airflow direction "V")

**S3G 630-AL06-G1** (with guard grille for short nozzle, airflow direction "V")

Inside diameter of fan housing min. 634 mm
### EC axial fans – HyBlade®

Ø 630 with motor M3G 084

#### A3G 630-BM07-H1 (without attachments, airflow direction "V")

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø626±2</td>
<td>Inside diameter of fan housing min. 634 mm</td>
</tr>
<tr>
<td>91.7</td>
<td>Max. clearance for screw 16 mm</td>
</tr>
<tr>
<td>Ø150±0.35</td>
<td>Inside diameter of fan housing min. 634 mm</td>
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<tr>
<td>118.2</td>
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#### W3G 630-GM07-H1 (with square full nozzle, airflow direction "V")

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
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<tbody>
<tr>
<td>Ø750</td>
<td>Inside diameter of fan housing min. 634 mm</td>
</tr>
<tr>
<td>245.7±5</td>
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</tr>
<tr>
<td>Ø710.4</td>
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</tr>
<tr>
<td>202.2</td>
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<tr>
<td>17.4±4</td>
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</tr>
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</table>

#### S3G 630-AM07-H1 (with guard grille for short nozzle, airflow direction "V")

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø710.4</td>
<td>Inside diameter of fan housing min. 634 mm</td>
</tr>
<tr>
<td>245.7±5</td>
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</tr>
<tr>
<td>Ø450</td>
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<td>2015-09</td>
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</tr>
<tr>
<td>ø 630</td>
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<td>ø 640</td>
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<tr>
<td>ø 710</td>
<td></td>
</tr>
<tr>
<td>ø 800</td>
<td></td>
</tr>
<tr>
<td>ø 990</td>
<td></td>
</tr>
<tr>
<td>ø 1250</td>
<td></td>
</tr>
</tbody>
</table>

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**EBM Papst**
EC axial fans – HyBlade®
Ø 630 with motor M3G 112

A3G 630-BE55-51 (without attachments, airflow direction "V")

Max. clearance for screw 16 mm

W3G 630-GE55-51 (with square full nozzle, airflow direction "V")

Inside diameter of fan housing min. 634 mm

S3G 630-AE55-51 (with guard grille for short nozzle, airflow direction "V")

Inside diameter of fan housing min. 634 mm
EC axial fans – HyBlade®
Ø 630 with motor M3G 112

A3G 630-BE55-21 (without attachments, airflow direction "V")

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 634 mm

W3G 630-GE55-21 (with square full nozzle, airflow direction "V")

S3G 630-AE55-21 (with guard grille for short nozzle, airflow direction "V")

Inside diameter of fan housing min. 634 mm
EC axial fans – HyBlade®
Ø 630 with motor M3G 112

**A3G 630-BG97-01** (without attachments, airflow direction "V")

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 634 mm

**W3G 630-GG97-01** (with square full nozzle, airflow direction "V")

**S3G 630-AG97-01** (with guard grille for short nozzle, airflow direction "V")

Inside diameter of fan housing min. 634 mm
EC axial fans – HyBlade®
Ø 630 with motor M3G 150

A3G 630-AU31-71 (without attachments, airflow direction "V")

W3G 630-GU31-71 (with square full nozzle, airflow direction "V")

S3G 630-AU31-71 (with guard grille for short nozzle, airflow direction "V")

Inside diameter of fan housing min. 634 mm

Max. clearance for screw 25 mm

Inside diameter of fan housing min. 634 mm
EC axial fans – HyBlade®
Ø 710

- Material:
  - Guard grille: Steel, coated with black plastic (RAL 9005)
  - Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  - Blades: Aluminum insert, over-molded with PP plastic
  - Rotor: Painted black
  - Electronics housing: Die-cast aluminum, painted black

- Number of blades: 5
- Direction of rotation: (A) to (E) counterclockwise, (F) clockwise, viewed toward rotor
- Degree of protection: IP55
- Insulation class: “F”
- Installation position: Shaft horizontal or rotor on bottom, rotor on top on request
- Condensation drainage holes: Rotor side
- Mode: Continuous operation (S1)
- Mounting: Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Blade pitch</th>
<th>Curve</th>
<th>VAC</th>
<th>Hz</th>
<th>rpm</th>
<th>W</th>
<th>A</th>
<th>Pa</th>
<th>°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>*3G 710</td>
<td>M3G 112-EA</td>
<td>-5°</td>
<td>1</td>
<td>1–200–277</td>
<td>50/60</td>
<td>620</td>
<td>250</td>
<td>1.10</td>
<td>60</td>
<td>-25..+60</td>
</tr>
<tr>
<td>*3G 710</td>
<td>M3G 112-EA</td>
<td>-5°</td>
<td>2</td>
<td>3–380–480</td>
<td>50/60</td>
<td>730</td>
<td>400</td>
<td>0.67</td>
<td>85</td>
<td>-25..+60</td>
</tr>
<tr>
<td>*3G 710</td>
<td>M3G 112-GA</td>
<td>0°</td>
<td>1</td>
<td>1–200–277</td>
<td>50/60</td>
<td>730</td>
<td>500</td>
<td>2.20</td>
<td>80</td>
<td>-25..+60</td>
</tr>
<tr>
<td>*3G 710</td>
<td>M3G 112-IA</td>
<td>0°</td>
<td>1</td>
<td>1–200–277</td>
<td>50/60</td>
<td>850</td>
<td>740</td>
<td>3.30</td>
<td>100</td>
<td>-25..+60</td>
</tr>
<tr>
<td>*3G 710</td>
<td>M3G 112-IA</td>
<td>0°</td>
<td>2</td>
<td>3–380–480</td>
<td>50/60</td>
<td>1010</td>
<td>1200</td>
<td>2.50</td>
<td>120</td>
<td>-25..+60</td>
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<tr>
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<td>M3G 150-F</td>
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<td>3</td>
<td>3–380–480</td>
<td>50/60</td>
<td>1250</td>
<td>2875</td>
<td>4.40</td>
<td>240</td>
<td>-25..+60</td>
</tr>
</tbody>
</table>

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC.
(2) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

### Curves:

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.
Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.

<table>
<thead>
<tr>
<th>n (rpm)</th>
<th>Pmax (W)</th>
<th>I (A)</th>
<th>LwA (dB(A))</th>
</tr>
</thead>
<tbody>
<tr>
<td>620</td>
<td>141</td>
<td>0.65</td>
<td>63</td>
</tr>
<tr>
<td>620</td>
<td>177</td>
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<td>60</td>
</tr>
<tr>
<td>620</td>
<td>212</td>
<td>0.94</td>
<td>61</td>
</tr>
<tr>
<td>620</td>
<td>250</td>
<td>1.10</td>
<td>65</td>
</tr>
<tr>
<td>730</td>
<td>219</td>
<td>0.41</td>
<td>67</td>
</tr>
<tr>
<td>730</td>
<td>286</td>
<td>0.50</td>
<td>65</td>
</tr>
<tr>
<td>730</td>
<td>348</td>
<td>0.59</td>
<td>66</td>
</tr>
<tr>
<td>730</td>
<td>401</td>
<td>0.67</td>
<td>70</td>
</tr>
<tr>
<td>730</td>
<td>324</td>
<td>1.44</td>
<td>64</td>
</tr>
<tr>
<td>730</td>
<td>386</td>
<td>1.71</td>
<td>64</td>
</tr>
<tr>
<td>730</td>
<td>450</td>
<td>1.98</td>
<td>67</td>
</tr>
<tr>
<td>730</td>
<td>550</td>
<td>2.20</td>
<td>71</td>
</tr>
<tr>
<td>850</td>
<td>484</td>
<td>2.17</td>
<td>68</td>
</tr>
<tr>
<td>850</td>
<td>590</td>
<td>2.62</td>
<td>67</td>
</tr>
<tr>
<td>850</td>
<td>667</td>
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<td>68</td>
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<tr>
<td>850</td>
<td>740</td>
<td>3.30</td>
<td>73</td>
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</table>
**Technical features:** See connection diagram P. 132 ff.

**EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
Circuit feedback according to EN 61000-3-2
Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request

**Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)

**Electrical connection:** Via terminal box

**Protection class:** I (with customer connection of protective earth)

**Conformity with standards:**
- to EN 61800-5-1, CE; EN 60335-1 in preparation
- EN 61800-5-1, CE

**Approvals:**
- UL, CSA
- UL, CSA planned
- EAC

---

### Technical Details

**Airflow direction**
- "V" with guard grille for short nozzle
- "V" with square full nozzle
- "V" with square full nozzle without attachments

<table>
<thead>
<tr>
<th>Airflow direction</th>
<th>Weight without attachments</th>
<th>Weight with square full nozzle</th>
<th>Weight with guard grille for short nozzle</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;V&quot; A3G 710-BB77 -41</td>
<td>9.30 kg</td>
<td>23.90 kg</td>
<td>15.80 kg</td>
</tr>
<tr>
<td>&quot;V&quot; A3G 710-BB80 -51</td>
<td>9.40 kg</td>
<td>24.00 kg</td>
<td>15.90 kg</td>
</tr>
<tr>
<td>&quot;V&quot; A3G 710-AD60 -31</td>
<td>10.30 kg</td>
<td>24.00 kg</td>
<td>16.80 kg</td>
</tr>
<tr>
<td>&quot;V&quot; A3G 710-BG95 -21</td>
<td>12.00 kg</td>
<td>26.60 kg</td>
<td>18.50 kg</td>
</tr>
<tr>
<td>&quot;V&quot; A3G 710-AG98 -01</td>
<td>12.20 kg</td>
<td>26.90 kg</td>
<td>18.70 kg</td>
</tr>
<tr>
<td>&quot;V&quot; A3G 710-AG98 -71</td>
<td>25.60 kg</td>
<td>42.80 kg</td>
<td>34.80 kg</td>
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### Performance Data

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<th>P_{ax} (W)</th>
<th>I (A)</th>
<th>L_{wA} (dB(A))</th>
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<tbody>
<tr>
<td>1010</td>
<td>797</td>
<td>1.28</td>
<td>72</td>
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<tr>
<td>1010</td>
<td>957</td>
<td>1.53</td>
<td>71</td>
</tr>
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<td>1010</td>
<td>1073</td>
<td>1.70</td>
<td>72</td>
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<tr>
<td>1010</td>
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<td>1250</td>
<td>2209</td>
<td>3.43</td>
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<td>1250</td>
<td>2431</td>
<td>3.77</td>
<td>78</td>
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<td>1250</td>
<td>2645</td>
<td>4.08</td>
<td>79</td>
</tr>
<tr>
<td>1250</td>
<td>2875</td>
<td>4.40</td>
<td>81</td>
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**Information**

- ø 200
- ø 250
- ø 300
- ø 350
- ø 400
- ø 450
- ø 500
- ø 560
- ø 630
- ø 710
- ø 800
- ø 890
- ø 910
- ø 990
- ø 1250
EC axial fans – HyBlade®
Ø 710 with motor M3G 112

A3G 710-BB77-41 (without attachments, airflow direction "V")

W3G 710-GB77-41 (with square full nozzle, airflow direction "V")

S3G 710-AB77-41 (with guard grille for short nozzle, airflow direction "V")
EC axial fans – HyBlade®
Ø 710 with motor M3G 112

A3G 710-B880-51 (without attachments, airflow direction "V")

W3G 710-G880-51 (with full nozzle, airflow direction "V")

S3G 710-AB80-51 (with guard grille for short nozzle, airflow direction "V")
EC axial fans – HyBlade®
Ø 710 with motor M3G 112

A3G 710-BD60-31 (without attachments, airflow direction "V")

Max. clearance for screw 16 mm
Inside diameter of fan housing min. 710 mm

W3G 710-GD60-31 (with square full nozzle, airflow direction "V")

Inside diameter of fan housing min. 710 mm

S3G 710-AD60-31 (with guard grille for short nozzle, airflow direction "V")
EC axial fans – HyBlade®
Ø 710 with motor M3G 112

A3G 710-BG95-21 (without attachments, airflow direction "V")

W3G 710-GG95-21 (with square full nozzle, airflow direction "V")

S3G 710-AG95-21 (with guard grille for short nozzle, airflow direction "V")

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 710 mm

Inside diameter of fan housing min. 710 mm
EC axial fans – HyBlade®
Ø 710 with motor M3G 112

A3G 710-BG98-01 (without attachments, airflow direction “V”)

W3G 710-GG98-01 (with square full nozzle, airflow direction “V”)

S3G 710-AG98-01 (with guard grille for short nozzle, airflow direction “V”)

Max. clearance for screw 16 mm
Inside diameter of fan housing min. 710 mm

Inside diameter of fan housing min. 710 mm
EC axial fans – HyBlade®
Ø 710 with motor M3G 150

A3G 710-AU32-71 (without attachments, airflow direction "V")

W3G 710-GU32-71 (with square full nozzle, airflow direction "V")

S3G 710-AU32-71 (with guard grille for short nozzle, airflow direction "V")

Inside diameter of fan housing min. 710 mm
EC axial fans – HyBlade®
Ø 800

- **Material**: Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades (5): Press-fitted sheet steel blank, over-molded with PP plastic
  to Aluminum insert, over-molded with PP plastic
  Rotor: Painted black / Diffuser: PP plastic
  Electronics housing: Die-cast aluminum, painted black

- **Direction of rotation**: Clockwise viewed toward rotor
- **Degree of protection**: IP55
- **Insulation class**: “F”
- **Installation position**: Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes**: Rotor side
- **Mode**: Continuous operation (S1)
- **Mounting**: Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Curve</th>
<th>VAC Hz rpm</th>
<th>W</th>
<th>A</th>
<th>Pa</th>
<th>°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>*3G 800</td>
<td>M3G 112-EA</td>
<td>---</td>
<td>1–200-277</td>
<td>490</td>
<td>240</td>
<td>1,10</td>
<td>50</td>
</tr>
<tr>
<td>*3G 800</td>
<td>M3G 112-GA</td>
<td>---</td>
<td>3–380-480</td>
<td>520</td>
<td>275</td>
<td>0,49</td>
<td>50</td>
</tr>
<tr>
<td>*3G 800</td>
<td>M3G 112-EA</td>
<td>---</td>
<td>1–200-277</td>
<td>630</td>
<td>210</td>
<td>2,10</td>
<td>75</td>
</tr>
<tr>
<td>*3G 800</td>
<td>M3G 112-IA</td>
<td>---</td>
<td>3–380-480</td>
<td>700</td>
<td>330</td>
<td>1,10</td>
<td>100</td>
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<tr>
<td>*3G 800</td>
<td>M3G 112-IA</td>
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<td>1–200-277</td>
<td>730</td>
<td>330</td>
<td>1,10</td>
<td>100</td>
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<td>*3G 800</td>
<td>M3G 112-IA</td>
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<td>3–380-480</td>
<td>770</td>
<td>330</td>
<td>1,10</td>
<td>100</td>
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<tr>
<td>*3G 800</td>
<td>M3G 150-FF</td>
<td>0°</td>
<td>3–380-480</td>
<td>930</td>
<td>330</td>
<td>1,10</td>
<td>100</td>
</tr>
<tr>
<td>*3G 800</td>
<td>M3G 150-IF</td>
<td>0°</td>
<td>3–380-480</td>
<td>1020</td>
<td>520</td>
<td>2,10</td>
<td>160</td>
</tr>
<tr>
<td>*3G 800</td>
<td>M3G 150-NA</td>
<td>0°</td>
<td>3–380-480</td>
<td>1090</td>
<td>520</td>
<td>2,10</td>
<td>160</td>
</tr>
</tbody>
</table>

Subject to change

- Nominal data at operating point with maximum load and 230 or 400 VAC.
- (*) AxiTop
- Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

---

### Graphs

#### Curves:

Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.

Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
- **Technical features:** See connection diagram P. 132 ff.
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2
- **Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Electrical connection:** Via terminal box
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:**① to ⑦ EN 61800-5-1, CE; EN 60335-1 in preparation
  ⑧ ⑨ ⑩ EN 61800-5-1, CE
- **Approvals:**① ② ③ UL, CSA
  ④ ⑤ ⑥ UL, CSA planned
  ⑦ ⑧ ⑨ EAC

<table>
<thead>
<tr>
<th>Airflow direction</th>
<th>Weight without attachments-&lt;br&gt;without guard grille</th>
<th>Weight with square full nozzle</th>
<th>Weight with guard grille for full nozzle</th>
<th>Weight with square full nozzle and diffuser (AxiTop)</th>
<th>Weight with guard grille for full nozzle and diffuser</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;V&quot; A3G 800-BA77 -41</td>
<td>8,60 kg W3G 800-GA77 -41</td>
<td>25,40 kg S3G 800-BA77 -41</td>
<td>15,30 kg ---</td>
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</tr>
<tr>
<td>&quot;V&quot; A3G 800-BA77 -51</td>
<td>8,80 kg W3G 800-GA77 -51</td>
<td>25,60 kg S3G 800-BA77 -51</td>
<td>15,50 kg ---</td>
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<td></td>
</tr>
<tr>
<td>&quot;V&quot; A3G 800-BD57 -31</td>
<td>10,10 kg W3G 800-GD57 -31</td>
<td>30,00 kg S3G 800-BD57 -31</td>
<td>16,80 kg ---</td>
<td>---</td>
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</tr>
<tr>
<td>&quot;V&quot; A3G 800-BG01 -51</td>
<td>12,10 kg W3G 800-GG01 -51</td>
<td>31,90 kg S3G 800-BG01 -51</td>
<td>18,80 kg ---</td>
<td>---</td>
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</tr>
<tr>
<td>&quot;V&quot; A3G 800-BG95 -21</td>
<td>12,20 kg W3G 800-GG95 -21</td>
<td>32,00 kg S3G 800-BG95 -21</td>
<td>18,90 kg ---</td>
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<tr>
<td>&quot;V&quot; A3G 800-BG95 -01</td>
<td>12,10 kg W3G 800-GG95 -01</td>
<td>31,90 kg S3G 800-BG95 -01</td>
<td>18,80 kg ---</td>
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<tr>
<td>&quot;V&quot; A3G 800-AS26 -71</td>
<td>22,50 kg W3G 800-GS26 -71</td>
<td>42,50 kg S3G 800-BS26 -71</td>
<td>29,50 kg ---</td>
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<tr>
<td>&quot;V&quot; A3G 800-AV05 -71</td>
<td>31,00 kg W3G 800-GV05 -71</td>
<td>51,00 kg S3G 800-BV05 -71</td>
<td>38,00 kg ---</td>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>

Curves:

Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.
Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
EC axial fans – HyBlade®
Ø 800 with motor M3G 112

A3G 800-BA77-41 (without attachments, airflow direction "V")

Max. clearance for screw 16 mm
Inside diameter of fan housing min. 795 mm

W3G 800-GA77-41 (with square full nozzle, airflow direction "V")

S3G 800-BA77-41 (with guard grille for full nozzle, airflow direction "V")

Inside diameter of fan housing min. 795 mm
EC axial fans – HyBlade®
Ø 800 with motor M3G 112

A3G 800-BA77-51 (without attachments, airflow direction “V”)

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 795 mm

W3G 800-GA77-51 (with square full nozzle, airflow direction “V”)

S3G 800-BA77-51 (with guard grille for full nozzle, airflow direction “V”)

Inside diameter of fan housing min. 795 mm

ebmpapst
EC axial fans – HyBlade®
Ø 800 with motor M3G 112

**A3G 800-BD57-31** (without attachments, airflow direction “V”)

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 795 mm

**W3G 800-GD57-31** (with square full nozzle, airflow direction “V”)

**S3G 800-BD57-31** (with guard grille for full nozzle, airflow direction “V”)

Inside diameter of fan housing min. 795 mm
EC axial fans – HyBlade®
Ø 800 with motor M3G 112

A3G 800-BG01-51 (without attachments, airflow direction "V")

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 795 mm

W3G 800-GG01-51 (with square full nozzle, airflow direction "V")

Inside diameter of fan housing min. 795 mm

S3G 800-BG01-51 (with guard grille for full nozzle, airflow direction "V")

Inside diameter of fan housing min. 795 mm
EC axial fans – HyBlade®
Ø 800 with motor M3G 112

A3G 800-BG95-21 (without attachments, airflow direction “V”)

W3G 800-GG95-21 (with square full nozzle, airflow direction “V”)

S3G 800-BG95-21 (with guard grille for full nozzle, airflow direction “V”)

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 795 mm

Inside diameter of fan housing min. 795 mm

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 795 mm

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 795 mm
EC axial fans – HyBlade®
Ø 800 with motor M3G 112

### A3G 800-BG95-01
(without attachments, airflow direction "V")

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 795 mm

### W3G 800-GG95-01
(with square full nozzle, airflow direction "V")

### S3G 800-BG95-01
(with guard grille for full nozzle, airflow direction "V")

Inside diameter of fan housing min. 795 mm
EC axial fans – HyBlade®
Ø 800 with motor M3G 112, AxiTop

W3G 800-HG95-01 (with square full nozzle and diffuser, airflow direction "V") - AxiTop -
EC axial fans – HyBlade®
Ø 800 with motor M3G 150

A3G 800-AS26-71 (without attachments, airflow direction "V")

W3G 800-GS26-71 (with square full nozzle, airflow direction "V")

S3G 800-BS26-71 (with guard grille for full nozzle, airflow direction "V")

Max. clearance for screw 25 mm

Inside diameter of fan housing min. 795 mm

Inside diameter of fan housing min. 795 mm
EC axial fans – HyBlade®
Ø 800 with motor M3G 150

**A3G 800-AU23-71** (without attachments, airflow direction "V")

- Inside diameter of fan housing min. 795 mm
- Max. clearance for screw 25 mm

**W3G 800-GU23-71** (with square full nozzle, airflow direction "V")

- Inside diameter of fan housing min. 795 mm

**S3G 800-BU23-71** (with guard grille for full nozzle, airflow direction "V")

- Inside diameter of fan housing min. 795 mm
EC axial fans – HyBlade®
Ø 800 with motor M3G 150, AxiTop

W3G 800-HU23-71 (with square full nozzle and diffuser, airflow direction "V") - AxiTop -
EC axial fans – HyBlade®
Ø 800 with motor M3G 150

A3G 800-AV05-71 (without attachments, airflow direction "V")

Max. clearance for screw 25 mm
Inside diameter of fan housing min. 795 mm

W3G 800-GV05-71 (with square full nozzle, airflow direction "V")

Inside diameter of fan housing min. 795 mm

S3G 800-BV05-71 (with guard grille for full nozzle, airflow direction "V")

Inside diameter of fan housing min. 795 mm
EC axial fans – HyBlade®
Ø 800 with motor M3G 150, AxiTop

W3G 800-HV05-71 (with square full nozzle and diffuser, airflow direction "V") - AxiTop -
EC axial fans – HyBlade®

- Material:
  - Guard grille: Steel, coated with black plastic (RAL 9005)
  - Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  - Blades (3): Press-fitted sheet steel blank, over-molded with PP plastic
  - Rotor: Painted black / Diffuser: PP plastic
  - Electronics housing: Die-cast aluminum, painted black

- Direction of rotation: Clockwise viewed toward rotor
- Degree of protection: IP55
- Insulation class: “F”
- Installation position: Shaft horizontal or rotor on bottom, rotor on top on request
- Condensation drainage holes: Rotor side
- Mode: Continuous operation (S1)
- Mounting: Maintenance-free ball bearings

**Nominal data**

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Blade pitch</th>
<th>Curve</th>
<th>Nominal voltage range</th>
<th>Frequency</th>
<th>Speed</th>
<th>Max. input power</th>
<th>Max. input current</th>
<th>Max. back pressure</th>
<th>Perm. ambient temp.</th>
<th>Tech. features and connection diagram</th>
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<tbody>
<tr>
<td><em>3G 910</em></td>
<td>M3G 112-EA</td>
<td>---</td>
<td>1</td>
<td>1–200–277</td>
<td>50/60</td>
<td>450</td>
<td>250</td>
<td>1.10</td>
<td>40</td>
<td>-25..+60</td>
<td>P. 132 / P7</td>
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<tr>
<td><em>3G 910</em></td>
<td>M3G 112-GA</td>
<td>---</td>
<td>1</td>
<td>1–200–277</td>
<td>50/60</td>
<td>560</td>
<td>470</td>
<td>2.10</td>
<td>70</td>
<td>-25..+60</td>
<td>P. 132 / P7</td>
</tr>
<tr>
<td><em>3G 910</em></td>
<td>M3G 112-IA</td>
<td>---</td>
<td>1</td>
<td>1–200–277</td>
<td>50/60</td>
<td>620</td>
<td>630</td>
<td>2.80</td>
<td>75</td>
<td>-25..+60</td>
<td>P. 132 / P7</td>
</tr>
<tr>
<td><em>3G 910</em></td>
<td>M3G 112-IA</td>
<td>---</td>
<td>3</td>
<td>3–380–480</td>
<td>50/60</td>
<td>640</td>
<td>700</td>
<td>1.10</td>
<td>85</td>
<td>-25..+60</td>
<td>P. 133 / P8 / P. 136* / M7*</td>
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<tr>
<td><em>3G 910</em></td>
<td>M3G 150-IF</td>
<td>0°</td>
<td>3</td>
<td>3–380–480</td>
<td>50/60</td>
<td>800</td>
<td>1550</td>
<td>2.50</td>
<td>130</td>
<td>-25..+60</td>
<td>P. 134 / M5</td>
</tr>
<tr>
<td><em>3G 910</em></td>
<td>M3G 150-FA</td>
<td>0°</td>
<td>3</td>
<td>3–380–480</td>
<td>50/60</td>
<td>850</td>
<td>2100</td>
<td>3.20</td>
<td>160</td>
<td>-25..+60</td>
<td>P. 134 / M5</td>
</tr>
</tbody>
</table>

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC.
(1) AxiTop
(2) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

**Curves:**

Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
### Technical features:
- See connection diagram P. 132 ff.
- EMC: Immunity to interference according to EN 61000-6-2 (industrial environment)
- Circuit feedback according to EN 61000-3-2
- Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- Touch current: <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- Electrical connection: Via terminal box
- Protection class: I (with customer connection of protective earth)
- Conformity with standards:
  - EN 61800-5-1, CE; EN 60335-1 in preparation
  - EAC
- Approvals:
  - UL, CSA
  - UL, CSA planned
  - EAC

### Weight with square full nozzle and diffuser

<table>
<thead>
<tr>
<th>Airflow direction</th>
<th>Weight without attachments</th>
<th>Weight with square full nozzle</th>
<th>Weight with guard grille for full nozzle</th>
<th>Weight with square full nozzle and diffuser (AxiTop)</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;V&quot;</td>
<td>A3G 910-BA79 -41</td>
<td>8,80</td>
<td>32,50</td>
<td>16,10</td>
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<tr>
<td>&quot;V&quot;</td>
<td>A3G 910-BD61 -31</td>
<td>10,30</td>
<td>34,00</td>
<td>17,60</td>
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</tr>
<tr>
<td>&quot;V&quot;</td>
<td>A3G 910-GD02 -21</td>
<td>12,10</td>
<td>35,80</td>
<td>19,40</td>
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</tr>
<tr>
<td>&quot;V&quot;</td>
<td>A3G 910-GG02 -51</td>
<td>12,00</td>
<td>35,70</td>
<td>19,30</td>
<td>---</td>
</tr>
<tr>
<td>&quot;V&quot;</td>
<td>A3G 910-BS39 -71</td>
<td>23,00</td>
<td>47,00</td>
<td>31,00</td>
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</tr>
<tr>
<td>&quot;V&quot;</td>
<td>A3G 910-BS39 -71</td>
<td>25,50</td>
<td>49,50</td>
<td>33,50</td>
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</tr>
<tr>
<td>&quot;V&quot;</td>
<td>A3G 910-BS39 -71</td>
<td>31,50</td>
<td>55,50</td>
<td>39,50</td>
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</table>

### Curves:
- An performance measured according to ISO 5801, installation category A, in Ebmpapst full nozzle without contact protection.
- Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff. for detailed information.

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### Technology
- ebmpapst
- EC_HyBlade_2015_04_09_2015_AE_710_bis_Z50_.indd 95

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### Information
- Page dimensions: 654.3x900.9
EC axial fans – HyBlade®
Ø 910 with motor M3G 112

**A3G 910-BA79-41** (without attachments, airflow direction "V")

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 913 mm

**W3G 910-GA79-41** (with square full nozzle, airflow direction "V")

**S3G 910-BA79-41** (with guard grille for full nozzle, airflow direction "V")

Inside diameter of fan housing min. 913 mm
EC axial fans – HyBlade®
Ø 910 with motor M3G 112

**A3G 910-BD61-31** (without attachments, airflow direction "V")

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 913 mm

**W3G 910-GD61-31** (with square full nozzle, airflow direction "V")

**S3G 910-BD61-31** (with guard grille for full nozzle, airflow direction "V")

Inside diameter of fan housing min. 913 mm
EC axial fans – HyBlade®
Ø 910 with motor M3G 112

**A3G 910-BG02-21** (without attachments, airflow direction "V")

**W3G 910-GG02-21** (with square full nozzle, airflow direction "V")

**S3G 910-BG02-21** (with guard grille for full nozzle, airflow direction "V")

Max. clearance for screw 16 mm

Inside diameter of fan housing min. 913 mm
EC axial fans – HyBlade®
Ø 910 with motor M3G 112

**A3G 910-BG02-51** (without attachments, airflow direction "V")

Max. clearance for screw 16 mm
Inside diameter of fan housing min. 913 mm

**W3G 910-GG02-51** (with square full nozzle, airflow direction "V")

**S3G 910-BG02-51** (with guard grille for full nozzle, airflow direction "V")

Inside diameter of fan housing min. 913 mm
EC axial fans – HyBlade®
Ø 910 with motor M3G 112, AxiTop

W3G 910-HG02-51 (with square full nozzle and diffuser, airflow direction "V") - AxiTop -
EC axial fans – HyBlade®
Ø 910 with motor M3G 150

**A3G 910-AS39-71** (without attachments, airflow direction “V”)

Max. clearance for screw 25 mm

Inside diameter of fan housing min. 913 mm

**W3G 910-GS39-71** (with square full nozzle, airflow direction “V”)

Inside diameter of fan housing min. 913 mm

**S3G 910-BS39-71** (with guard grille for full nozzle, airflow direction “V”)

Inside diameter of fan housing min. 913 mm
EC axial fans – HyBlade®
Ø 910 with motor M3G 150

A3G 910-AU27-71 (without attachments, airflow direction “V”)

W3G 910-GU27-71 (with square full nozzle, airflow direction “V”)

S3G 910-BU27-71 (with guard grille for full nozzle, airflow direction “V”)

Inside diameter of fan housing min. 913 mm

Max. clearance for screw 25 mm
EC axial fans – HyBlade®
Ø 910 with motor M3G 150, AxiTop

W3G 910-HU27-71 (with square full nozzle and diffuser, airflow direction "V") - AxiTop -
EC axial fans – HyBlade®
Ø 910 with motor M3G 150

A3G 910-AV12-71 (without attachments, airflow direction "V")

W3G 910-GV12-71 (with square full nozzle, airflow direction "V")

S3G 910-BV12-71 (with guard grille for full nozzle, airflow direction "V")

Inside diameter of fan housing min. 913 mm
EC axial fans – HyBlade®
Ø 910 with motor M3G 150, AxiTop

W3G 910-HV12-71 (with square full nozzle and diffuser, airflow direction "V") - AxiTop -
EC axial fans – HyBlade®
Ø 990

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades: Aluminum insert, over-molded with PP plastic
  Rotor: Painted black
  Electronics housing: Die-cast aluminum, painted black
- **Number of blades:** 5
- **Direction of rotation:** Clockwise viewed toward rotor
- **Degree of protection:** IP55
- **Insulation class:** “F”
- **Installation position:** Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes:** Rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Blade pitch</th>
<th>Curve</th>
<th>Nominal voltage range</th>
<th>Frequency</th>
<th>Speed</th>
<th>Max. input power</th>
<th>Max. input current</th>
<th>Max. back pressure</th>
<th>Perm. ambient temp.</th>
<th>Tech. features and connection diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>“3G 990”</td>
<td>M3G 150-IF</td>
<td>-5”</td>
<td>3 380-480</td>
<td>50/60</td>
<td>820</td>
<td>1650</td>
<td>2,60</td>
<td>140</td>
<td>-25°C, +70°C</td>
<td>P. 134 / M5</td>
<td></td>
</tr>
<tr>
<td>“3G 990”</td>
<td>M3G 150-NA</td>
<td>-5”</td>
<td>3 380-480</td>
<td>50/60</td>
<td>960</td>
<td>2500</td>
<td>3,90</td>
<td>180</td>
<td>-25°C, +65°C</td>
<td>P. 134 / M5</td>
<td></td>
</tr>
</tbody>
</table>

Subject to change

(1) Nominal data at operating point with maximum load and 400 VAC.
(2) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings on request.

### Curves:

Air performance measured according to ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.
Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
- **Technical features**: See connection diagram P. 134
- **EMC**: Immunity to interference according to EN 61000-6-2 (industrial environment)
  
  Circuit feedback according to EN 61000-3-2
  
  Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current**: <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Electrical connection**: Via terminal box
- **Protection class**: I (with customer connection of protective earth)
- **Conformity with standards**: EN 61800-5-1, CE
- **Approvals**: EAC

---

**Airflow direction “V” on request**

<table>
<thead>
<tr>
<th>Airflow direction</th>
<th>Weight without attachments</th>
<th>Weight with square full nozzle</th>
<th>Weight with guard grille for full nozzle</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;V&quot; A3G 990-AY22 -71</td>
<td>26,00 kg</td>
<td>W3G 990-GY22 -71</td>
<td>S3G 990-BY22 -71</td>
<td>35,00 kg</td>
</tr>
<tr>
<td>&quot;V&quot; A3G 990-AZ01 -71</td>
<td>32,00 kg</td>
<td>W3G 990-GZ01 -71</td>
<td>S3G 990-BZ01 -71</td>
<td>41,00 kg</td>
</tr>
</tbody>
</table>
EC axial fans – HyBlade®
Ø 990 with motor M3G 150

A3G 990-AY22-71 (without attachments, airflow direction "V")

W3G 990-GY22-71 (with square full nozzle, airflow direction "V")

S3G 990-BY22-71 (with guard grille for full nozzle, airflow direction "V")

Inside diameter of fan housing min. 1000 mm
EC axial fans – HyBlade®
Ø 990 with motor M3G 150

A3G 990-AZ01-71 (without attachments, airflow direction "V")

W3G 990-GZ01-71 (with square full nozzle, airflow direction "V")

S3G 990-BZ01-71 (with guard grille for full nozzle, airflow direction "V")

Inside diameter of fan housing min. 1000 mm
EC axial fans – HyBlade®
Ø 1250

- **Material:**
  - Guard grille: Steel, coated with black plastic (RAL 9005)
  - Fan housing and diffuser: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  - Blades: Die-cast aluminum
  - Rotor: Painted black
  - Electronics housing: Die-cast aluminum, painted black

- **Number of blades:** 5
- **Direction of rotation:** Clockwise viewed toward rotor
- **Degree of protection:** IP54
- **Insulation class:** “F”
- **Installation position:** Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes:** Rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Blade pitch</th>
<th>VAC</th>
<th>Hz</th>
<th>rpm</th>
<th>W</th>
<th>A</th>
<th>Pa</th>
<th>°C</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>3G Z50</em></td>
<td>M3G 200-0A</td>
<td>-5°</td>
<td>① 3-380-480</td>
<td>50/60</td>
<td>820</td>
<td>6000</td>
<td>9,20</td>
<td>280</td>
<td>-25..+60</td>
</tr>
</tbody>
</table>

Subject to change

(①) Nominal data at operating point with maximum load and 400 VAC.  
(②) AxTop

### Curves:

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection.

Intake-side sound level: LwA according to ISO 13347, LpA measured at 1 m distance from fan axis. The values given are only applicable 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 in installed condition. See Page 136 ff for detailed information.
- **Technical features:** See connection diagram P. 135/137
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2
  Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Electrical connection:** Via terminal box
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** EN 61800-5-1, CE
- **Approvals:** EAC, C22.2 Nr. 77 + CAN/CSA-E60730-1, UL 1004-7 + 60730

<table>
<thead>
<tr>
<th>Airflow direction</th>
<th>Weight without attachments</th>
<th>Weight with round full nozzle</th>
<th>Weight with guard grille for full nozzle</th>
<th>Weight with round full nozzle and diffuser (AxiTop)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;V&quot;</td>
<td>---</td>
<td>W3G Z50-FF02 -01</td>
<td>---</td>
<td>W3G Z50-EF02 -01</td>
</tr>
</tbody>
</table>

Flow direction "V" on request
EC axial fans – HyBlade®
Ø 1250 with motor M3G 200

W3G Z50-FF02-01 (with round full nozzle, airflow direction "V")

W3G Z50-EF02-01 (with round full nozzle and diffuser, airflow direction "V") - AxiTop -
Tender specifications
Fan size 200 to 450

Direct-drive EC axial fans - HyBlade® with high-performance axial impeller, mounted on a GreenTech EC external rotor motor with integrated control electronics.

Round full nozzle, pre-galvanized, coated with black plastic RAL 9005, flow-optimized nozzle shape integrated on intake side, guard grille made of phosphated steel and coated with black plastic.

Sickle-shaped blades; one-piece impellers made of glass-fiber reinforced PP plastic; winglets at blade tips.

Motor impeller statically and dynamically balanced on two planes to balancing grade G 6.3 in accordance with DIN ISO 1940.

GreenTech EC external rotor motor surpasses efficiency class IE4, magnets with no rare earths, maintenance-free ball bearings with long-term lubrication, theoretical nominal service life of at least 40,000 hours of operation, installation with horizontal and vertical motor shaft; soft start, integrated current limitation.

Extended voltage input 1~200-240 V, 50/60 Hz, fan can be used with all standard power supply networks with unaltered air performance. Designed for mode S1 Continuous operation.

See data sheet for installation position and temperature range.

Compact electronics; no time-consuming installation work involving shielded wiring; extremely low-noise commutation logic; pre-set operating parameters, no complicated parameterization. Standard cable design.

Any work required for isolation from structure-borne noise to be performed by the customer.

Fan satisfies the applicable EMC guidelines and requirements with regard to circuit feedback; documentation and marking conform to the applicable EU Directives.

Reliable performance data, air performance measurements on intake-side chamber test rig according to ISO 5801 and DIN 24163, noise measurements in anechoic rooms according to DIN EN ISO 3745.

Integrated protective devices:
- Locked-rotor protection
- Soft start of motors
- Thermal overload protection for electronics and motor
- Short circuit protection
- Motor current limitation
- Degree of protection
  M3G 055/074: IP 54 (according to EN 60529)
- Degree of protection
  M3G 084: IP 55

Optional:
- Other and specific requirements on request
**Technical data:**

Fan type = __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __

Air flow \( q_V \) = _________________________________ m³/h

Stat. pressure increase \( \rho_{fs} \) = _________________________________ Pa

Stat. overall efficiency \( \eta_{es} \) = _________________________________ %

Operating speed \( n \) = _________________________________ rpm

Motor type = EC motor

Type of control

\( \square \) 0-10VDC/PWM

\( \square \) 2 speed levels

Motor efficiency class = IE4

Total power input \( P_{ed} \) = _________________________________ kW

Specific fan power \( SFP \) = _________________________________ kW/(m³/s)

Nominal voltage range \( U_N \) = _________________________________ V

Line frequency \( f \) = 50 / 60 Hz

Nominal current \( I_N \) = _________________________________ A

Protection class M3G 055/074 = IP54

Protection class M3G 084 = IP55

Sound power level \( L_{WA}^{(in)} \) = _________ / \( L_{WA}^{(out)} \) = _________ dB(A)

Sound pressure level (at 1 m) \( L_{PA}^{(in)} \) = _________ / \( L_{PA}^{(out)} \) = _________ dB(A)

Perm. ambient temperature \( T \) = _______________ to _______________ °C

Weight of fan \( m \) = _________________________________ kg

See data sheet for dimensions and connections.
**Tender specifications**

**Fan size 500 to 1250**

**Direct-drive EC axial fans - HyBlade®** with high-performance axial impeller, mounted on a GreenTech EC external rotor motor with integrated control electronics.

Square full nozzle, pre-galvanized, coated with black plastic RAL 9005, flow-optimized nozzle shape integrated on intake side, guard grille made of phosphated steel and coated with black plastic.

Sickle-shaped blades; high-strength aluminum alloy or steel blank; sprayed with glass-fiber reinforced PP plastic; winglets at blade tips.

Motor impeller statically and dynamically balanced on two planes to balancing grade G 6.3 in accordance with DIN ISO 1940.

GreenTech EC external rotor motor surpasses efficiency class IE4, magnets with no rare earths, maintenance-free ball bearings with long-term lubrication, theoretical nominal service life of at least 40,000 hours of operation, installation with horizontal and vertical motor shaft; soft start, integrated current limitation.

Extended voltage input 1~200-277 V / 3~380-480 V, 50/60 Hz, fan can be used with all standard power supply networks with unaltered air performance. Designed for mode S1 Continuous operation.

See data sheet for installation position and temperature range.

Compact electronics; no time-consuming installation work involving shielded wiring; extremely low-noise commutation logic; 100% open-loop speed control, RS485/MODBUS RTU interface; pre-set operating parameters, no complicated parameterization.

Top-mounted terminal box made of plastic with easily accessible connection area with terminal strip or integrated terminal box in motor electronics with easily accessible connection area with spring terminals, environment-resistant cable glands.

Any work required for isolation from structure-borne noise to be performed by the customer.

Fan satisfies the applicable EMC guidelines and requirements with regard to circuit feedback; documentation and marking conform to the applicable EU Directives.

Reliable performance data, air performance measurements on intake-side chamber test rig according to ISO 5801 and DIN 24163, noise measurements in anechoic rooms according to DIN EN ISO 3745.

**Integrated protective devices:**

- Alarm relay with floating contacts
  
  (250 V AC/2 A, cos φ = 1)

- Locked-rotor protection

- Phase failure detection

- Soft start of motors

- Line undervoltage detection

- Thermal overload protection for electronics and motor

- Short circuit protection

- Motor current limitation

- Degree of protection: IP 55

**Optional:**

- Other and specific requirements on request
Technical data:

Fan type

Air flow $q_v$ = ____________ m³/h

Stat. pressure increase $\rho_{ls}$ = ____________ Pa

Stat. overall efficiency $\eta_{es}$ = ____________ %

Operating speed $n$ = ____________ rpm

Motor type = EC motor

Type of control = Closed-loop speed control, 0-100 %

Motor efficiency class = IE4

Total power input $P_{ed}$ = ____________ kW

Specific fan power $SFP$ = ____________ kW/(m³/s)

Nominal voltage range $U_N$ = ____________ V

Line frequency $f$ = 50 / 60 Hz

Nominal current $I_N$ = ____________ A

Protection class = IP55

Sound power level $L_{WA} (A, in)$ = _________ / $L_{WA} (A, out)$ = _________ dB(A)

Sound pressure level (at 1 m) $L_{PA} (A, in)$ = _________ / $L_{PA} (A, out)$ = _________ dB(A)

Perm. ambient temperature $T$ = ____________ to ____________ °C

Weight of fan $m$ = ____________ kg

See data sheet for dimensions and connections.
Accessories
Temperature control modules

- Degree of protection: IP40

### Nominal data

<table>
<thead>
<tr>
<th>Part number</th>
<th>Nominal voltage</th>
<th>Input current</th>
<th>PWM</th>
<th>Output current</th>
<th>Output impedance</th>
<th>Temperature control range</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>50010-1-0174</td>
<td>10-12 VDC</td>
<td>1</td>
<td>100</td>
<td>0.1</td>
<td>1</td>
<td>+10...+45 °C</td>
<td>20 g</td>
</tr>
<tr>
<td>50011-1-0174</td>
<td>10-12 VDC</td>
<td>1</td>
<td>20</td>
<td>0.1</td>
<td>1</td>
<td>+30...+55 °C</td>
<td>20 g</td>
</tr>
</tbody>
</table>

Subject to change

- **Connection diagram:**

- **Control function:** Control function of both versions is cooling

- **Nominal voltage:** 10-12 VDC
- **PWM/°C:**
  - 50011-1-0174: 100% PWM at 45 °C
  - 50010-1-0174: 100% PWM at 45 °C

- **Tolerance:** ±3 K
Pressure sensors
for pressure-controlled speed control

- **Material**: Housing made of PA
  Pressure connection made of brass
- **Degree of protection**: IP 65 according to EN 60529 / IEC 529
- **Refrigerants**: suitable for R134A, R407C, R404A, R507
- **Installation**: via pressure connection with 7/16”-20 UNF internal thread with Schrader valve opener
- **Power supply**: via 10 VDC
- **Actuating output signal**: 0-10 VDC for pressure-dependent fan speed setting
- **Supplied**: as single pack

### Nominal data

<table>
<thead>
<tr>
<th>Part number</th>
<th>Nominal voltage</th>
<th>Max. input current</th>
<th>Adjustment range</th>
<th>Factory setting Cut-off</th>
<th>Test pressure</th>
<th>Max. point of operation</th>
<th>Max. media temperature</th>
<th>Perm. ambient temperature</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>40100-4-7380</td>
<td>10 VDC</td>
<td>1</td>
<td>4.. 12,5</td>
<td>7,8</td>
<td>30</td>
<td>27</td>
<td>70</td>
<td>-20..+65</td>
<td>125</td>
</tr>
<tr>
<td>40101-4-7380</td>
<td>10 VDC</td>
<td>1</td>
<td>10.. 21</td>
<td>15,5</td>
<td>36</td>
<td>32</td>
<td>70</td>
<td>-20..+65</td>
<td>125</td>
</tr>
</tbody>
</table>

Subject to change

---

**Connection diagram:**

- Cable with connector (1,5 m)
  - Not included in scope of delivery!
  - Part number: 24010-4-1040

1 = Signal 0-10 V
2 = 10 V
4 = GND

**Control voltage**
0-10 VDC

**Hysteresis**
1 bar

**P-band**

**Cut-off**

**Condensation pressure**

---

**Notes**

- **Adjustment range**
- **Cut-off**
- **Condensation pressure bar**
FlowGrid: the air inlet grille, drastically reduces noise-generating disturbances. The vortex strings are split up on coming into contact with the grille and greatly dampened in the through-flow. This reduces the sound pressure in the entire frequency band and in particular the disturbing tonal noise in the low frequency band.

As a result the sound pressure level is far lower and a pleasant running noise is obtained. It is thus easier to comply with noise regulations and people in the direct vicinity are not disturbed.

### FlowGrid air inlet grille

<table>
<thead>
<tr>
<th>Part number</th>
<th>Fan size</th>
<th>ØB</th>
<th>ØC</th>
<th>ØE</th>
<th>S</th>
<th>H</th>
<th>N*</th>
</tr>
</thead>
<tbody>
<tr>
<td>20280-2-2957</td>
<td>200</td>
<td>260</td>
<td>245-260</td>
<td>4,5</td>
<td>3,0</td>
<td>40</td>
<td>2 ± 0,5 Nm</td>
</tr>
<tr>
<td>25310-2-2957</td>
<td>250</td>
<td>310</td>
<td>290</td>
<td>4,5</td>
<td>3,0</td>
<td>49</td>
<td>2 ± 0,5 Nm</td>
</tr>
<tr>
<td>35505-2-2957</td>
<td>300, 350</td>
<td>470</td>
<td>440</td>
<td>9,0</td>
<td>3,5</td>
<td>71</td>
<td>10 ± 2 Nm</td>
</tr>
<tr>
<td>00630-2-2957</td>
<td>400</td>
<td>580</td>
<td>545</td>
<td>10</td>
<td>3,0</td>
<td>90</td>
<td>10 ± 2 Nm</td>
</tr>
<tr>
<td>50710-2-2957</td>
<td>450, 500</td>
<td>666</td>
<td>630</td>
<td>10</td>
<td>3,0</td>
<td>106</td>
<td>10 ± 2 Nm</td>
</tr>
<tr>
<td>63000-2-2957</td>
<td>560, 630</td>
<td>785</td>
<td>750</td>
<td>10</td>
<td>3,0</td>
<td>125</td>
<td>10 ± 2 Nm</td>
</tr>
<tr>
<td>80000-2-2957</td>
<td>710, 800</td>
<td>995</td>
<td>960</td>
<td>10</td>
<td>3,5</td>
<td>131</td>
<td>10 ± 2 Nm</td>
</tr>
<tr>
<td>91000-2-2957</td>
<td>910</td>
<td>1105</td>
<td>1075</td>
<td>10</td>
<td>3,5</td>
<td>164</td>
<td>10 ± 2 Nm</td>
</tr>
</tbody>
</table>

Subject to change  
* Recommended tightening torque for fastening screws

Would you like to find out more?

If you need an installation guide or more information about the dimensions, go to:

www.ebmpapst.com/flowgrid-manual

or scan the QR code below:
Guard grille for Compact fans

Material: Steel, coated with plastic (silver-metallic gloss)

<table>
<thead>
<tr>
<th>Guard grille for Compact fans</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part number</td>
<td>Fan size</td>
</tr>
<tr>
<td>78128-2-4039</td>
<td>200</td>
</tr>
<tr>
<td>09418-2-4039</td>
<td>250</td>
</tr>
</tbody>
</table>

Subject to change
EC connection diagrams
Technical features:

- Speed selection max./min.
- Locked-rotor protection
- Soft start
- Motor current limitation
- Thermal overload protection for electronics/motor

Customer Connection Fan

Connection diagram: H3)
M3G055 & M3G074, with 2 speed levels

<table>
<thead>
<tr>
<th>Wire</th>
<th>Connection</th>
<th>Color</th>
<th>Assignment/function</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON10</td>
<td>L</td>
<td>black</td>
<td>Power supply 230 VAC, 50-60 Hz; see nameplate for voltage range</td>
</tr>
<tr>
<td>CON11</td>
<td>N</td>
<td>blue</td>
<td>Neutral conductor</td>
</tr>
<tr>
<td>CON12</td>
<td>PE</td>
<td>green/yellow</td>
<td>Protective earth</td>
</tr>
<tr>
<td>CON70</td>
<td>SL</td>
<td>brown</td>
<td>Speed selection: switch open speed 1; switch closed speed 2</td>
</tr>
</tbody>
</table>
Connection diagram: H4)  
M3G055 & M3G074, Open-loop speed control

### Technical features:
- Control input 0-10 VDC / PWM
- Output 10 VDC max. 1.1 mA
- Undervoltage detection
- Tach output
- Locked-rotor protection
- Soft start
- Power limiter
- Motor current limitation
- Overvoltage detection
- Overvoltage detection for electronics/motor
- Thermal overload protection for electronics/motor
- Control interface with SELV potential safely disconnected from supply

### Customer
Max. speed

<table>
<thead>
<tr>
<th>Adjustable speed</th>
<th>Speed adjustable via PWM 1 - 10 kHz</th>
<th>Speed adjustable via potentiometer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 10 V</td>
<td>10V -&gt; n = max</td>
<td>10% PWM -&gt; n = min &lt; 10% PWM -&gt; n = 0</td>
</tr>
<tr>
<td>1</td>
<td>10V -&gt; n = max</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>10% PWM -&gt; n = min</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>&lt; 10% PWM -&gt; n = 0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Wire**

<table>
<thead>
<tr>
<th>Wire</th>
<th>Connection</th>
<th>Color</th>
<th>Assignment/function</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON10</td>
<td>L</td>
<td>black</td>
<td>Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range</td>
</tr>
<tr>
<td>CON11</td>
<td>N</td>
<td>blue</td>
<td>Neutral conductor</td>
</tr>
<tr>
<td>CON12</td>
<td>PE</td>
<td>green/yellow</td>
<td>Protective earth</td>
</tr>
<tr>
<td>1</td>
<td>GND</td>
<td>blue</td>
<td>GND connection of control interface</td>
</tr>
<tr>
<td>2</td>
<td>0-10V / PWM</td>
<td>yellow</td>
<td>Control input 0-10V or PWM, electrically isolated</td>
</tr>
<tr>
<td>3</td>
<td>10V max. 1.1 mA</td>
<td>red</td>
<td>Voltage output 10 V / 1.1 mA, electrically isolated, not short-circuit-proof</td>
</tr>
<tr>
<td>4</td>
<td>Tach</td>
<td>white</td>
<td>Tach output: Open collector, 1 pulse per revolution, electrically isolated</td>
</tr>
</tbody>
</table>
Technical features:
- Control input 0-10 VDC / PWM
- Output 10 VDC max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Locked-rotor protection, soft start
- PFC, active
- Power limiter
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage detection
- Control interface with SELV potential safely disconnected from supply

Connection diagram: P5)
M3G084, 1~, Open-loop speed control

Customer
- Full Speed
- Speed setting
- Speed setting with potentiometer

Connection
- 1 PE
- 2 PE
- 3 N
- 4 L
- 5 COM
- 6 NC
- 7 COM
- 8 0-10 V
- 9 RSB
- 10 RSA
- 11 RSB
- 12 GND
- 13 10 V

Fan
- 0-10 V

Wire 1
- PE green/yel.
- N blue
- L black
- NC white
- COM white

Wire 2
- 0-10 V yellow
- RSB brown
- RSA white
- GND blue
- +10 V red

Assignment/function
- Protective earth
- Power supply, neutral conductor, voltage range see nameplate, 50/60 Hz
- Power supply, phase, voltage range see nameplate, 50/60 Hz
- Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1)
- min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
- Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1)
- min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
- Analog input (set value), SELV 0-10 V, impedance 100 kΩ, adjustable curve
- RS485 interface for MODBUS, RSB, SELV
- RS485 interface for MODBUS, RSA, SELV
- Reference ground for control interface, SELV
- Fixed voltage output 10 VDC, SELV +10 V +/- 3%), max. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer)
Connection diagram: P6)  
M3G084, 3~, Open-loop speed control

Technical features:
- Control input 0-10 VDC / PWM
- Output 10 VDC max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Locked-rotor protection, soft start
- PFC, passive

- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage/phase failure detection
- Control interface with SELV potential safely disconnected from supply

Customer Connection

<table>
<thead>
<tr>
<th>Wire</th>
<th>No.</th>
<th>Connection</th>
<th>Color</th>
<th>Assignment/function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1, 2</td>
<td>PE</td>
<td>green/yellow</td>
<td>Protective earth</td>
</tr>
<tr>
<td>1</td>
<td>3, 4, 5</td>
<td>L1, L2, L3</td>
<td>black</td>
<td>Power supply, phase, voltage range see nameplate, 50/60 Hz</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>NC</td>
<td>white 1</td>
<td>Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side</td>
</tr>
<tr>
<td>1</td>
<td>7</td>
<td>COM</td>
<td>white 2</td>
<td>Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>0-10 V / PWM</td>
<td>yellow</td>
<td>Analog input (set value), SELV/0-10 V, impedance 100 kΩ, adjustable curve</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>RSB</td>
<td>brown</td>
<td>RS485 interface for MODBUS, RSB, SELV</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>RSA</td>
<td>white</td>
<td>RS485 interface for MODBUS, RSA, SELV</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>GND</td>
<td>blue</td>
<td>Reference ground for control interface, SELV</td>
</tr>
<tr>
<td>2</td>
<td>13</td>
<td>+10 V</td>
<td>red</td>
<td>Fixed voltage output 10 VDC, SELV (+10 V +/- 3%), max. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer)</td>
</tr>
</tbody>
</table>
Technical features:
- Control input 0-10 VDC / PWM
- Output 10 VDC max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Locked-rotor protection, soft start
- PFC, active
- Power limiter
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage detection
- Control interface with SELV potential safely disconnected from supply

Connection diagram: P7)

<table>
<thead>
<tr>
<th>No.</th>
<th>Connection</th>
<th>Assignment/function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2</td>
<td>PE</td>
<td>Protective earth</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>Power supply, neutral conductor, voltage range see nameplate, 50/60 Hz</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
<td>not used</td>
</tr>
<tr>
<td>5</td>
<td>L</td>
<td>Power supply, phase, voltage range see nameplate, 50/60 Hz</td>
</tr>
<tr>
<td>6</td>
<td>NC</td>
<td>Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side</td>
</tr>
<tr>
<td>7</td>
<td>COM</td>
<td>Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side</td>
</tr>
<tr>
<td>8</td>
<td>GND</td>
<td>Reference ground for control interface, SELV</td>
</tr>
<tr>
<td>9</td>
<td>RSA</td>
<td>RS485 interface for MODBUS, RSA, SELV</td>
</tr>
<tr>
<td>10</td>
<td>RSB</td>
<td>RS485 interface for MODBUS, RSB, SELV</td>
</tr>
<tr>
<td>11</td>
<td>0-10 V / PWM</td>
<td>Analog input (set value), SELV 0-10 V, impedance 100 kΩ, adjustable curve</td>
</tr>
<tr>
<td>12</td>
<td>+10 V</td>
<td>Fixed voltage output 10 VDC, SELV +10 V +/- 3%, max. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer)</td>
</tr>
</tbody>
</table>
Connection diagram: P8)
M3G084 & M3G112, 3~

**Technical features:**
- Control input 0-10 VDC / PWM
- Output 10 VDC max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Locked-rotor protection, soft start
- PFC, passive
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage/phase failure detection
- Control interface with SELV potential safely disconnected from supply

<table>
<thead>
<tr>
<th>No.</th>
<th>Connection</th>
<th>Assignment/function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2</td>
<td>PE</td>
<td>Protective earth</td>
</tr>
<tr>
<td>3</td>
<td>L1</td>
<td>Power supply, voltage range see nameplate, 50/60 Hz</td>
</tr>
<tr>
<td>4</td>
<td>L2</td>
<td>Power supply, voltage range see nameplate, 50/60 Hz</td>
</tr>
<tr>
<td>5</td>
<td>L3</td>
<td>Power supply, voltage range see nameplate, 50/60 Hz</td>
</tr>
<tr>
<td>6</td>
<td>NC</td>
<td>Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side</td>
</tr>
<tr>
<td>7</td>
<td>COM</td>
<td>Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side</td>
</tr>
<tr>
<td>8</td>
<td>GND</td>
<td>Reference ground for control interface, SELV</td>
</tr>
<tr>
<td>9</td>
<td>RSA</td>
<td>RS485 interface for MODBUS, RSA, SELV</td>
</tr>
<tr>
<td>10</td>
<td>RSB</td>
<td>RS485 interface for MODBUS, RSB, SELV</td>
</tr>
<tr>
<td>11</td>
<td>0-10 V / PWM</td>
<td>Analog input (set value), SELV 0-10 V, impedance 100 kΩ, adjustable curve</td>
</tr>
<tr>
<td>12</td>
<td>+10 V</td>
<td>Fixed voltage output 10 VDC, SELV +10 V +/- 3%), max. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer)</td>
</tr>
</tbody>
</table>
## Connection diagram: M5)  M3G150

### Technical features:
- Control input 0-10 VDC / PWM
- Output 10 VDC max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Soft start
- PFC, passive
- Reverse polarity and locked-rotor protection
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage/phase failure detection
- Control interface with SELV potential safely disconnected from supply
- External enable input/External 24 V input (parameterization)
- Alarm relay
- Undervoltage/phase failure detection
- Soft start
- Control interface with SELV potential safely disconnected from supply

### Connection diagram

#### Terminal | Pin | Connection | Assignment/function
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>KL1</td>
<td>1</td>
<td>L1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>L2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>L3</td>
</tr>
<tr>
<td>PE</td>
<td>PE</td>
<td>Ground connection, PE connection</td>
</tr>
<tr>
<td>KL2</td>
<td>1</td>
<td>RSA</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>RSB</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>GND</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>COM</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Din1</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>+10 V</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Ain1 U /PWM</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>NC</td>
</tr>
</tbody>
</table>
### Technical features:

- **Control input 0-10 VDC / PWM**
- **Output 10 VDC (+/-10 %) max. 10 mA**
- **Output 20 VDC (+/-20 %) max. 50 mA**
- **Output for slave 0-10 V max. 5 mA**
- **Input for sensor 0-10 V or 4-20 mA**
- **Operation and fault indicator**
- **Integrated PI controller**
- **Reverse polarity and locked-rotor protection/Soft start**
- **Motor current limitation/Alarm relay**
- **RS 485 MODBUS-RTU / PFC, passive**
- **Thermal overload protection for electronics/motor**
- **Undervoltage/phase failure detection**
- **Control interface with SELV potential safely disconnected from supply**
- **External enable input/External 24 V input (parameterization)**

### Connection diagram: M3)

#### M3200

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Pin</th>
<th>Connection</th>
<th>Assignment/function</th>
</tr>
</thead>
<tbody>
<tr>
<td>KL1</td>
<td>1</td>
<td>L1</td>
<td>Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>L2</td>
<td>Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>L3</td>
<td>Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz</td>
</tr>
<tr>
<td>PE</td>
<td></td>
<td>PE</td>
<td>Ground connection, PE connection</td>
</tr>
<tr>
<td>KL2</td>
<td>1</td>
<td>ND</td>
<td>Status relay, floating status contact, make for failure</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>COM</td>
<td>Status relay, floating status contact, changeover contact, common connection (2 A, 250 V, min. 10 mA, AC1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>NC</td>
<td>Status relay, floating status contact, break for failure</td>
</tr>
<tr>
<td>KL3</td>
<td>1</td>
<td>RSA</td>
<td>Bus connection RS485; RSA; MODBUS RTU</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>RSB</td>
<td>Bus connection RS485; RSB; MODBUS RTU</td>
</tr>
<tr>
<td></td>
<td>3/10</td>
<td>GND</td>
<td>Reference ground for control interface</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Ain1 U /PWM</td>
<td>Analog input 1 (set value); 0-10 V; Ri= 100 kΩ; adjustable curve; only for use as alternative to input Ain1 I</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>+10 V</td>
<td>Fixed voltage output 10 VDC; +10 V ±3 %; max. 10 mA; short-circuit-proof; power supply for external devices (e.g. potentiometer)</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Ain1I</td>
<td>Analog input 1 (set value); 4-20 mA; Ri= 100 Ω; adjustable curve, only for use as alternative to input Ain1 U</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Din1</td>
<td>Digital input 1: Enable electronics; Enable: Pin open or applied voltage 5...50 VDC; Disable: Bridge to GND or applied voltage &lt; 1 VDC; Reset function: Triggering of software reset after level change to &lt; 1V</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Din2</td>
<td>Digital input 2: Switching parameter sets 1/2, according to EEPROM setting, the valid/used parameter set can be selected via bus or via digital input Din2. Parameter set 1: Pin open or applied voltage 5-50 VDC; Parameter set 2: Bridge to GND or applied voltage &lt; 1 VDC</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Din3</td>
<td>Digital input 3: Direction of action of integrated controller; According to EEPROM setting, the direction of action of the integrated controller can be selected as normal/inverse via bus or digital input; Normal: Pin open or applied voltage 5...50 VDC; Inverse: Bridge or applied voltage &lt; 1 VDC</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Ain2 U</td>
<td>Analog input 2; Measured value 0-10 V; Ri= 100 kΩ; adjustable curve; only for use as alternative to input 11 Ain2 I</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>+20 V</td>
<td>Fixed voltage output 20 VDC; +20 V ±25/-10 %; max. 50 mA; short-circuit-proof; power supply for external devices (e.g. sensor)</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>Ain2I</td>
<td>Analog input 2; Measured value 4-20 mA; Ri= 100 Ω; adjustable curve, only for use as alternative to input Ain2 U</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>Aout</td>
<td>Analog output 0-10 V; max. 5 mA; output of current motor modulation level/current motor speed. Adjustable curve</td>
</tr>
</tbody>
</table>
Technical features:

- Control input 0-10 VDC / PWM
- Output 10 VDC max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Soft start
- PFC, passive
- Reverse polarity and locked-rotor protection
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage/phase failure detection
- Control interface with SELV potential safely disconnected from supply
- External 24 V input (parameterization)

Connection diagram: M7)

M3G112, AxITop

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Pin</th>
<th>Connection</th>
<th>Assignment/function</th>
</tr>
</thead>
<tbody>
<tr>
<td>KL1</td>
<td>1</td>
<td>L1</td>
<td>Supply connection, 3-phase 380-480 VAC, 50/60 Hz</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>L2</td>
<td>Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>L3</td>
<td>Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>PE</td>
<td>Ground connection, PE connection</td>
</tr>
<tr>
<td>KL2</td>
<td>1</td>
<td>RSA</td>
<td>Bus connection RS485; RSA; MODBUS RTU</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>RSB</td>
<td>Bus connection RS485; RSB; MODBUS RTU</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>GND</td>
<td>Reference ground for control interface</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0-10 V / PWM</td>
<td>Control input/current sensor value input 0-10 VDC, impedance 100 kΩ; adjustable curve</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>+10 V</td>
<td>Fixed voltage output 10 VDC; +10 V  ±3 %; max. 10 mA; short-circuit-proof; power supply for external devices (e.g. potentiometer); voltage input 24 VDC for setting parameters via MODBUS without line voltage supply</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>COM</td>
<td>Status relay, floating status contact, changeover contact, common connection (2 A; 250 V, min. 10 mA; AC1)</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>NC</td>
<td>Status relay, floating status contact; break for failure</td>
</tr>
</tbody>
</table>
Connection diagram: M9)
M3G150 & M3G200, AxTop

Technical features:
- Control input 0-10 VDC / PWM
- Output 10 VDC (+10 %) max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Soft start
- PFC, passive
- Reverse polarity and locked-rotor protection
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage/phase failure detection
- Control interface with SELV potential safely disconnected from supply
- External enable input/External 24 V input (parameterization)

**Terminal | Pin | Connection | Assignment/function**
--- | --- | --- | ---
**KL1**
1 | L1 | Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
2 | L2 | Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
3 | L3 | Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
4 | PE | Ground connection, PE connection
**KL2**
1 | RSA | Bus connection RS485; RSA; MODBUS RTU
2 | RS B | Bus connection RS485; RS B; MODBUS RTU
3 | GND | Reference ground for control interface
4 | Din 1 | Digital input 1: Enable electronics; Enable: Pin open or applied voltage 5...50 VDC; Disable: Bridge to GND or applied voltage < 1 VDC; Reset function: Triggering of software reset after level change to < 1 V
5 | +10 V | Fixed voltage output 10 VDC; +10 V ±3 %; max. 10 mA; short-circuit-proof; power supply for external devices (e.g. potentiometer); voltage input 24 VDC for setting parameters via MODBUS without line voltage supply
6 | Ain 1 U /PWM | Analog input 1 (set value); 0-10 V; Ri= 100 kΩ; adjustable curve
7 | COM | Status relay, floating status contact; changeover contact; common connection (2 A; 250 V, min. 10 mA, AC1)
8 | NC | Status relay, floating status contact; break for failure
High standards for all ebm-papst products

At ebm-papst we are always looking to improve our products to be able to offer customers just what they need for their particular requirements. Careful monitoring of the market enables us to constantly incorporate enhancements into our products. As shown by the technical parameters listed below, you can always be sure of finding the right solution from ebm-papst for whatever application you may have in mind.

General performance parameters
Any deviations from the technical data and technical parameters described here are given in the product-specific data sheet.

Degree of protection
The degree of protection is specified in the product-specific data sheets.

Insulation class
The insulation class is specified in the product-specific data sheets.

Installation position
The installation position is specified in the product-specific data sheets.

Condensation drainage holes
Information on condensation drainage holes is provided in the product-specific data sheets.

Mode of operation
The mode of operation is specified in the product-specific data sheets.

Protection class
The protection class is specified in the product-specific data sheets.

Service life
The service life of ebm-papst products depends on two main factors:
- The service life of the insulation system
- The service life of the bearing system
The service life of the insulation system is essentially governed by the voltage level, the temperature and the ambient conditions such as humidity and condensation.

The service life of the bearing system is primarily governed by the thermal load on the bearings. For the majority of our products we use maintenance-free ball bearings which can be fitted in any installation position. Sleeve bearings can alternatively be employed, as described in the product-specific data sheets.

As a rough guide (depending on the general conditions), the ball bearings have a life expectancy L10 of approx. 40,000 hours of operation at an ambient temperature of 40 °C.
We will gladly provide you with a life expectancy calculation based on your specific usage conditions.

Motor protection/thermal protection
Information on motor protection and thermal protection is provided in the product-specific data sheets.

The following protection methods are provided depending on the type of motor and area of application:
- Thermal overload protector, in-circuit or external
- PTC with electronic diagnostics
- Impedance protection
- Thermal overload protector with electronic diagnostics
- Current limitation via electronics

If use is made of an external thermal overload protector, a commercially available tripping unit must be connected by the customer for shut-off.
Motor protection conforming to the applicable standard must be fitted for products not provided with a built-in thermal overload protector and not protected against improper use.

Mechanical strain/performance parameters
All ebm-papst products are subjected to comprehensive testing in conformity with the normative specifications and also incorporating the extensive experience of ebm-papst.
Vibration testing
Vibration testing is performed as follows:
– Vibration test in operation according to DIN IEC 68 Part 2-6
– Vibration test at standstill according to DIN IEC 68 Part 2-6

Shock load
Shock load testing is performed as follows:
– Shock load according to DIN IEC 68 Part 2-27

Balancing grade
Balancing grade testing is performed as follows:
– Residual imbalance according to DIN ISO 1940
– Standard balancing quality level G 6.3

Should your particular application require a higher level of balancing, please contact us and specify the details in your order.

Chemical and physical strain/performance parameters
Please consult your ebm-papst contact for any questions regarding chemical and physical strain.

Areas of use, industries & applications
Our products are used in a variety of industries and for numerous applications:
Ventilation, air conditioning and refrigeration technology, clean room technology, automotive and railway engineering, medical and laboratory technology, electronics, computer and office systems, telecommunications, household appliances, heating systems, machinery and installations, drive engineering.

Our products are not intended for use in the aerospace industry!

Legal and normative specifications
The products described in this catalog are developed and manufactured in accordance with the standards applying to the particular product and, if known, in accordance with the conditions of the particular area of application.

Standards
Information on standards is provided in the product-specific data sheets.

EMC
Information on EMC standards is provided in the product-specific data sheets.

Compliance with EMC standards has to be assessed on the final product, as EMC properties may change under different installation conditions.

Touch current
Information on touch current is provided in the product-specific data sheets.

Measurement is performed according to IEC 60990.

Approvals
Please contact us if you require a specific type of approval (VDE, UL, GOST, CCC, CSA, etc.) for your ebm-papst product.

Most of our products can be supplied with the applicable approval. Information on existing approvals is provided in the product-specific data sheets.

Air performance measurements
All air performance measurements are conducted on intake-side chamber test rigs conforming to the requirements of ISO 5801 and DIN 24163. The fans under test are attached to the measuring chamber with free air intake and exhaust (installation category A) and operated at nominal voltage, with alternating current also at nominal frequency, without any additional attachments such as a guard grille.

As required by the standards, the air performance curves shown are referenced to an air density of 1,15 kg/m³.
Air and sound measurement conditions
Measurements on ebm-papst products are taken under the following conditions:
- Axial and diagonal fans in airflow direction “V” in full nozzle without guard grille
- Backward-curved centrifugal fans, free-running with inlet ring
- Forward-curved single and dual-inlet centrifugal fans with housing
- Backward-curved dual-inlet centrifugal fans with housing

Sound measurements
All sound measurements are taken in anechoic rooms with reverberant floor. ebm-papst acoustic test chambers meet the requirements of accuracy class 1 as per DIN EN ISO 3745. For sound measurement, the fans being tested are positioned in a reverberant wall and operated at nominal voltage, with alternating current also at nominal frequency, without any additional attachments such as a guard grille.

Sound pressure and sound power level
All acoustic values are determined in accordance with ISO 13347, DIN 45635 and ISO 3744/3745 as per accuracy class 2 and given in A-rated form.
For measurement of the sound pressure level $L_p$ the microphone is located on the intake side of the fan being tested, generally at a distance of 1 m on the fan axis.
For measurement of the sound power level $L_w$ 10 microphones are distributed over an enveloping surface on the intake side of the fan being tested (see graphic). The measured sound power level can be roughly calculated from the sound pressure level by adding 7 dB.

Measurement set-up according to ISO 13347-3 and DIN 45635-38:
- 10 measuring points
- $d \geq D$
- $h = 1.5d \ldots 4.5d$
- Measurement area $S = 6d^2 + 7d (h + 1.5d)$
Cumulative level of several sound sources with the same level

The addition of 2 sound sources with the same level produces a level increase of approx. 3 dB. The noise characteristics of several identical fans can be predicted on the basis of the sound values specified in the data sheet. This is shown in the adjacent graph. Example: There are 8 axial fans A3G800 on a condenser. According to the data sheet, the sound pressure level of one fan is 75 dB(A). The level increase determined from the graph is 9 dB. This means that a total level of 84 dB(A) is to be expected for the installation.

Cumulative level of two sound sources with different levels

The noise characteristics of two different fans can be predicted on the basis of the sound values specified in the data sheet. This is shown in the adjacent graph. Example: In a ventilation unit, there is one axial fan A3G800 with a sound pressure level of 75 dB(A) at the point of operation and one axial fan A3G710 with 71 dB(A). The difference in level is 4 dB. The level increase of approx. 1.5 dB can now be read off the graph. This means that a total level of 76.5 dB(A) is to be expected for the unit.

Distance laws

The sound power level is not governed by the distance from the noise source. By contrast, the sound pressure level decreases with increasing distance from the sound source. The adjacent graph shows the decrease in level under far field conditions. Far field conditions apply if there is a considerable distance between the microphone and the fan in relation to the fan diameter and the wavelength under consideration. On account of the complexity of the topic, literature should be consulted for more detailed information on far fields. The level in the far field decreases by 6 dB each time the distance is doubled. Different relationships apply in the near field of the fan and the level may decrease to a far lesser extent. The following example only applies to far field conditions and may vary considerably as a result of installation effects:

For an axial fan A3G300, a sound pressure level of 65 dB(A) was measured at a distance of 1 m. From the adjacent graph, this would yield a reduction of 26 dB at a distance of 20 m, i.e. a sound pressure level of 39 dB(A).
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