Compact centrifugal modules
with AC, EC and DC motors

The engineer's choice

ebmpapst
Compact centrifugal modules

Centrifugal fans with backward curved blades need additional components so they can be placed inside the final unit without putting their proper function at risk. In the past, the majority of such components used to be designed and built by the unit manufacturers themselves.

With the new compact centrifugal modules, this extra expenditure is no longer needed, as they come with a square mounting plate with integrated inlet nozzle and motor suspension.

Mounting plate, inlet nozzle and motor suspension are made of robust and durable plastic, with the additional benefit of not having to go for compromises in terms of aero-acoustic design.

The centrifugal modules are available with impellers in diameters ranging from 190 to 225 mm and with either AC, EC or DC motors. They are extremely compact and simple to install – adjusting the impeller to the nozzle at great expense is no longer needed. Optionally, a guard grille on the suction side may be plugged on.

Take advantage of what a completely pre-installed functional unit has to offer:
- Compact design
- Optimised, certified and guaranteed functional unit
- Plug-and-Play characteristics
- AC, EC and DC versions with dimensions allowing for simple interchange
- Optional guard grille
- Simple logistics
Table of content

- GreenTech: The Green Company 4
- AC compact centrifugal modules 6
  - size 190, 220, 225
- EC compact centrifugal modules 12
  - size 190, 220, 225
- DC compact centrifugal modules 18
  - size 190, 220, 225
- Accessories 24
- Electrical connections 28
- Technical parameters & scope 32
- ebm-papst representatives & subsidiaries 36
Sustainability is at the Centre of Our Thoughts and Actions. Out of Conviction!

Eco-friendliness and sustainability have always been at the core of our thoughts and actions. For decades, we have worked according to the simple but strict creed of our co-founder Gerhard Sturm: “Each new product we develop has to be better than the last one in terms of economy and ecology.” GreenTech is the ultimate expression of our corporate philosophy.
GreenTech is pro-active development.
Even in the design phase, the materials and processes we use are optimised for the greatest possible eco-friendliness, energy balance and – wherever possible – recyclability. We continually improve the material and performance of our products, as well as the flow and noise characteristics. At the same time, we significantly reduce energy consumption. Close cooperation with universities and scientific institutes and the professorship we endow in the area of power engineering and regenerative energies allows us to profit from the latest research findings in these fields – and at the same time ensure highly qualified young academics.

GreenTech is eco-friendly production.
GreenTech also stands for maximum energy efficiency in our production processes. There, the intelligent use of industrial waste heat and groundwater cooling, photovoltaics and, of course, our own cooling and ventilation technology are of the utmost importance. Our most modern plant, for instance, consumes 91% less energy than currently specified and required. In this way, our products contribute to protecting the environment, from their origin to their recyclable packaging.

GreenTech is acknowledged and certified.
Every step in our chain of production meets the stringent standards of environmental specialists and the public. The 2008 Environmental Prize of Baden-Wuerttemberg, the Green Award 2009, the Energy Efficiency Award 2009 of dena – to give just a few examples – testify to this. The environmental advantage gained in the performance of the products developed from our GreenTech philosophy can also be measured in the fulfillment of the most stringent energy and environmental standards. In many instances, our products are already well below the thresholds energy legislation will impose a few years from now – several times over.

Our customers profit from this every day.
The heart of GreenTech is ebm-papst EC technology. The EC technology at the core of our most efficient motors and fans allows efficiency of up to 90%, saves energy at a very high level, significantly extends service life and makes our products maintenance-free. These values pay off not only for the environment, but every cent also pays off for the user! All ebm-papst products – even those for which EC technology does not (yet) make sense from an application viewpoint – feature the greatest possible connection of economy and ecology.
AC centrifugal module
backward curved, Ø 190

- **Material:** Housing: PA plastic 6, fibreglass-reinforced
  Impeller: PA plastic 6, fibreglass-reinforced
  Rotor: Coated in black
- **Number of blades:** 7
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** “B”
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>VAC Hz</th>
<th>Frequency</th>
<th>Air flow</th>
<th>Speed imp.</th>
<th>Power input</th>
<th>Current draw</th>
<th>Capacitor</th>
<th>Sound level</th>
<th>Perm. amb. temp.</th>
<th>Electr. connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>K2E 190(1)</td>
<td>M2E 068-BF</td>
<td>1~ 115</td>
<td>50 550</td>
<td>2400</td>
<td>50 0,45</td>
<td>6,0/250</td>
<td>68 -25...+60</td>
<td>A1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K2E 190(2)</td>
<td>M2E 068-BF</td>
<td>1~ 115</td>
<td>60 590</td>
<td>2600</td>
<td>62 0,55</td>
<td>6,0/250</td>
<td>69 -25...+60</td>
<td>A1)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

subject to alterations
(1) external capacitor required; (2) capacitor included

### Curves

<table>
<thead>
<tr>
<th>n (rpm)</th>
<th>P1 (W)</th>
<th>I (A)</th>
<th>LWA (dB(A))</th>
</tr>
</thead>
<tbody>
<tr>
<td>2400</td>
<td>50</td>
<td>0,45</td>
<td>68</td>
</tr>
<tr>
<td>2320</td>
<td>52</td>
<td>0,46</td>
<td>64</td>
</tr>
<tr>
<td>2270</td>
<td>54</td>
<td>0,47</td>
<td>62</td>
</tr>
<tr>
<td>2415</td>
<td>49</td>
<td>0,43</td>
<td>66</td>
</tr>
<tr>
<td>2600</td>
<td>62</td>
<td>0,55</td>
<td>69</td>
</tr>
<tr>
<td>2440</td>
<td>65</td>
<td>0,57</td>
<td>65</td>
</tr>
<tr>
<td>2360</td>
<td>66</td>
<td>0,57</td>
<td>62</td>
</tr>
<tr>
<td>2610</td>
<td>61</td>
<td>0,53</td>
<td>67</td>
</tr>
<tr>
<td>2500</td>
<td>57</td>
<td>0,26</td>
<td>68</td>
</tr>
<tr>
<td>2415</td>
<td>59</td>
<td>0,26</td>
<td>67</td>
</tr>
<tr>
<td>2375</td>
<td>60</td>
<td>0,26</td>
<td>62</td>
</tr>
<tr>
<td>2515</td>
<td>57</td>
<td>0,25</td>
<td>67</td>
</tr>
<tr>
<td>2700</td>
<td>74</td>
<td>0,33</td>
<td>70</td>
</tr>
<tr>
<td>2565</td>
<td>77</td>
<td>0,34</td>
<td>69</td>
</tr>
<tr>
<td>2505</td>
<td>78</td>
<td>0,35</td>
<td>64</td>
</tr>
<tr>
<td>2720</td>
<td>74</td>
<td>0,33</td>
<td>69</td>
</tr>
</tbody>
</table>

Air performance measured as per ISO 5801, Installation category A, without protection against accidental contact
Suction-side noise levels: LwA as per ISO 13347, measured at 1 m distance to fan axis
The acoustic values given are only valid under the measurement conditions listed and may vary depending on the installation situation.
With any deviation to the standard setup, the specific values have to be checked and reviewed once installed or fitted!

For detailed information see page 32 ff.

---

Subject: centrifugal module 190

- Material: Housing: PA plastic 6, fibreglass-reinforced
  Impeller: PA plastic 6, fibreglass-reinforced
  Rotor: Coated in black
- Number of blades: 7
- Direction of rotation: Clockwise, seen on rotor
- Type of protection: IP 44
- Insulation class: “B”
- Mounting position: Shaft horizontal or rotor on bottom; rotor on top on request
- Condensate discharges: Rotor-side
- Mode of operation: Continuous operation (S1)
- Bearings: Maintenance-free ball bearings

---

**Nominal data**

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>VAC Hz</th>
<th>Frequency</th>
<th>Air flow</th>
<th>Speed imp.</th>
<th>Power input</th>
<th>Current draw</th>
<th>Capacitor</th>
<th>Sound level</th>
<th>Perm. amb. temp.</th>
<th>Electr. connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>K2E 190(1)</td>
<td>M2E 068-BF</td>
<td>1~ 115</td>
<td>50 550</td>
<td>2400</td>
<td>50 0,45</td>
<td>6,0/250</td>
<td>68 -25...+60</td>
<td>A1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K2E 190(2)</td>
<td>M2E 068-BF</td>
<td>1~ 115</td>
<td>60 590</td>
<td>2600</td>
<td>62 0,55</td>
<td>6,0/250</td>
<td>69 -25...+60</td>
<td>A1)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

subject to alterations
(1) external capacitor required; (2) capacitor included

**Curves**

<table>
<thead>
<tr>
<th>n (rpm)</th>
<th>P1 (W)</th>
<th>I (A)</th>
<th>LWA (dB(A))</th>
</tr>
</thead>
<tbody>
<tr>
<td>2400</td>
<td>50</td>
<td>0,45</td>
<td>68</td>
</tr>
<tr>
<td>2320</td>
<td>52</td>
<td>0,46</td>
<td>64</td>
</tr>
<tr>
<td>2270</td>
<td>54</td>
<td>0,47</td>
<td>62</td>
</tr>
<tr>
<td>2415</td>
<td>49</td>
<td>0,43</td>
<td>66</td>
</tr>
<tr>
<td>2600</td>
<td>62</td>
<td>0,55</td>
<td>69</td>
</tr>
<tr>
<td>2440</td>
<td>65</td>
<td>0,57</td>
<td>65</td>
</tr>
<tr>
<td>2360</td>
<td>66</td>
<td>0,57</td>
<td>62</td>
</tr>
<tr>
<td>2610</td>
<td>61</td>
<td>0,53</td>
<td>67</td>
</tr>
<tr>
<td>2500</td>
<td>57</td>
<td>0,26</td>
<td>68</td>
</tr>
<tr>
<td>2415</td>
<td>59</td>
<td>0,26</td>
<td>67</td>
</tr>
<tr>
<td>2375</td>
<td>60</td>
<td>0,26</td>
<td>62</td>
</tr>
<tr>
<td>2515</td>
<td>57</td>
<td>0,25</td>
<td>67</td>
</tr>
<tr>
<td>2700</td>
<td>74</td>
<td>0,33</td>
<td>70</td>
</tr>
<tr>
<td>2565</td>
<td>77</td>
<td>0,34</td>
<td>69</td>
</tr>
<tr>
<td>2505</td>
<td>78</td>
<td>0,35</td>
<td>64</td>
</tr>
<tr>
<td>2720</td>
<td>74</td>
<td>0,33</td>
<td>69</td>
</tr>
</tbody>
</table>

Air performance measured as per ISO 5801, Installation category A, without protection against accidental contact
Suction-side noise levels: LwA as per ISO 13347, measured at 1 m distance to fan axis
The acoustic values given are only valid under the measurement conditions listed and may vary depending on the installation situation.
With any deviation to the standard setup, the specific values have to be checked and reviewed once installed or fitted!

For detailed information see page 32 ff.
- Motor protection: TOP wired internally
- Connection leads: Plug system, Cable design on request
- Protection class: I
- Product conforming to standard: EN 60335-1, CE
- Approvals: CCC, GOST

### Centrifugal module

<table>
<thead>
<tr>
<th>Centrifugal module</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>K2E 190-A050 -02</td>
<td>1.6</td>
</tr>
<tr>
<td>K2E 190-A026 -01</td>
<td>1.6</td>
</tr>
</tbody>
</table>

### Mounting dimensions

- View X
- Centrifugal module with support basket

### Coded plug system
- AMP Universal-Mate-N-Lok
- Connector shell: AMP 350 799-1
- 4 x Pin connector: AMP 926 686-1
- Mating connector (not part of delivery):
  - Connector shell: AMP 350 779-4
  - 4 x female terminal: AMP 926 684-1

#### 115V:
- 1 = Protective earth
- 2 = N
- 3 = L + capacitor
- 4 = Capacitor

#### 230V:
- 1 = Protective earth
- 2 = N
- 3 = L
- 4 = Not assigned (capacitor)
### AC centrifugal module

backward curved, Ø 220

- **Material:** Housing: PA plastic 6, fibreglass-reinforced
  Impeller: PA plastic 6, fibreglass-reinforced
  Rotor: Coated in black
- **Number of blades:** 11
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** “F”
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Curve</th>
<th>Nominal voltage</th>
<th>Frequency</th>
<th>Air flow</th>
<th>Speed</th>
<th>Power input</th>
<th>Current draw</th>
<th>Capacitor</th>
<th>Sound level</th>
<th>Perm. amb. temp.</th>
<th>Electr. connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>K2E 220(1)</td>
<td>M2E 068-CF</td>
<td>1</td>
<td>1~ 115</td>
<td>50</td>
<td>990</td>
<td>2650</td>
<td>90</td>
<td>0,80</td>
<td>10,0/250</td>
<td>74</td>
<td>-25...+40</td>
<td>A1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>1~ 115</td>
<td>60</td>
<td>1120</td>
<td>3050</td>
<td>120</td>
<td>1,05</td>
<td>10,0/250</td>
<td>76</td>
<td>-25...+55</td>
<td></td>
</tr>
<tr>
<td>K2E 220(2)</td>
<td>M2E 068-CF</td>
<td>1</td>
<td>1~ 230</td>
<td>50</td>
<td>990</td>
<td>2700</td>
<td>85</td>
<td>0,38</td>
<td>2,5/400</td>
<td>74</td>
<td>-25...+55</td>
<td>A1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>1~ 230</td>
<td>60</td>
<td>1110</td>
<td>3050</td>
<td>115</td>
<td>0,51</td>
<td>2,5/400</td>
<td>76</td>
<td>-25...+50</td>
<td></td>
</tr>
</tbody>
</table>

Subject to alterations

(1) external capacitor required; (2) capacitor included

### Curves

<table>
<thead>
<tr>
<th>Curves</th>
<th>n (rpm)</th>
<th>P1 [W]</th>
<th>I [A]</th>
<th>Lw,a [dB(A)]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2650</td>
<td>90</td>
<td>0,80</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>2530</td>
<td>109</td>
<td>0,98</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>2460</td>
<td>117</td>
<td>1,04</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>2540</td>
<td>109</td>
<td>0,98</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>3050</td>
<td>120</td>
<td>1,05</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>2720</td>
<td>146</td>
<td>1,26</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>2555</td>
<td>155</td>
<td>1,34</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>2740</td>
<td>144</td>
<td>1,24</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>2700</td>
<td>85</td>
<td>0,38</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>2515</td>
<td>104</td>
<td>0,46</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>2440</td>
<td>111</td>
<td>0,49</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>2515</td>
<td>102</td>
<td>0,45</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>3050</td>
<td>115</td>
<td>0,51</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>2665</td>
<td>137</td>
<td>0,59</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>2490</td>
<td>145</td>
<td>0,83</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>2670</td>
<td>135</td>
<td>0,59</td>
<td>71</td>
</tr>
</tbody>
</table>

Air performance measured as per ISO 5801, Installation category A, without protection against accidental contact.

Section-side noise levels Lw,a as per ISO 13347, Lw,a measured at 1 m distance to fan axis.

The acoustic values given are only valid under the measurement conditions listed and may vary depending on the installation situation.

With any deviation to the standard setup, the specific values have to be checked and reviewed once installed or fitted!

For detailed information see page 32 ff.
- Motor protection: TOP wired internally
- Connection leads: Plug system, Cable design on request
- Protection class: I
- Product conforming to standard: EN 60335-1, CE
- Approvals: CCC, GOST

<table>
<thead>
<tr>
<th>Centrifugal module</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>K2E 220-BB08 -02</td>
<td>2.5</td>
</tr>
<tr>
<td>K2E 220-BB08 -01</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Mass of centrifugal module with support basket

Coded plug system
AMP Universal-Mate-N-Lok
Connector shell: AMP 350 790-1
4 x Pin connector: AMP 926 886-1
Mating connector (not part of delivery):
Connector shell: AMP 350 779-4
4 x female terminal: AMP 926 884-1

115V:
1 = Protective earth
2 = N
3 = L + capacitor
4 = Capacitor

230V:
1 = Protective earth
2 = N
3 = L
4 = Not assigned (capacitor)
**AC centrifugal module**

**backward curved, Ø 225**

- **Material:** Back of housing: Die-cast aluminium  
  Front of housing (suction side): PA plastic 6, fibreglass-reinforced  
  Impeller: PA plastic 6, fibreglass-reinforced  
  Rotor: Coated in black

- **Number of blades:** 7

- **Direction of rotation:** Clockwise, seen on rotor

- **Type of protection:** IP 44

- **Insulation class:** "F"

- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request

- **Condensate discharges:** Rotor-side

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

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

---

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Curve</th>
<th>Nominal voltage</th>
<th>Frequency</th>
<th>Air flow</th>
<th>Speed</th>
<th>Power input</th>
<th>Current draw</th>
<th>Capacitor</th>
<th>Sound level</th>
<th>Perm. amb. temp.</th>
<th>Electr. connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>K2E 225(1)</td>
<td>M2E 068-DF</td>
<td>1</td>
<td>1~115</td>
<td>50 Hz</td>
<td>1260</td>
<td>2650</td>
<td>140</td>
<td>1,25</td>
<td>16,0/250</td>
<td>75</td>
<td>-25...+45</td>
<td>A1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>1~115</td>
<td>60 Hz</td>
<td>1430</td>
<td>3000</td>
<td>195</td>
<td>1,72</td>
<td>16,0/250</td>
<td>78</td>
<td>-25...+55</td>
<td></td>
</tr>
<tr>
<td>K2E 225(2)</td>
<td>M2E 068-DF</td>
<td>3</td>
<td>1~230</td>
<td>50 Hz</td>
<td>1260</td>
<td>2650</td>
<td>135</td>
<td>0,60</td>
<td>4,0/450</td>
<td>75</td>
<td>-25...+55</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>1~230</td>
<td>60 Hz</td>
<td>1400</td>
<td>2950</td>
<td>200</td>
<td>0,90</td>
<td>4,0/450</td>
<td>77</td>
<td>-25...+50</td>
<td></td>
</tr>
</tbody>
</table>

**subject to alterations**

(1) external capacitor required; (2) capacitor included

---

### Curves

**Curves**

<table>
<thead>
<tr>
<th>( n ) [rpm]</th>
<th>( P_1 ) [W]</th>
<th>( I ) [A]</th>
<th>( L_{wA} ) [dB(A)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2650</td>
<td>140</td>
<td>1,25</td>
<td>75</td>
</tr>
<tr>
<td>2620</td>
<td>154</td>
<td>1,37</td>
<td>74</td>
</tr>
<tr>
<td>2565</td>
<td>184</td>
<td>1,46</td>
<td>70</td>
</tr>
<tr>
<td>2650</td>
<td>148</td>
<td>1,33</td>
<td>73</td>
</tr>
<tr>
<td>3000</td>
<td>195</td>
<td>1,72</td>
<td>78</td>
</tr>
<tr>
<td>2885</td>
<td>214</td>
<td>1,86</td>
<td>74</td>
</tr>
<tr>
<td>2755</td>
<td>226</td>
<td>1,97</td>
<td>71</td>
</tr>
<tr>
<td>2925</td>
<td>208</td>
<td>1,81</td>
<td>76</td>
</tr>
<tr>
<td>2650</td>
<td>135</td>
<td>0,60</td>
<td>75</td>
</tr>
<tr>
<td>2600</td>
<td>147</td>
<td>0,64</td>
<td>74</td>
</tr>
<tr>
<td>2545</td>
<td>157</td>
<td>0,68</td>
<td>70</td>
</tr>
<tr>
<td>2620</td>
<td>143</td>
<td>0,62</td>
<td>73</td>
</tr>
<tr>
<td>2950</td>
<td>200</td>
<td>0,90</td>
<td>77</td>
</tr>
<tr>
<td>2790</td>
<td>212</td>
<td>0,93</td>
<td>74</td>
</tr>
<tr>
<td>2660</td>
<td>220</td>
<td>0,96</td>
<td>71</td>
</tr>
<tr>
<td>2825</td>
<td>208</td>
<td>0,91</td>
<td>75</td>
</tr>
</tbody>
</table>

Air performance measured as per ISO 5801, installation category A, without protection against accidental contact

Suction-side noise levels:

- \( L_{wA} \) as per ISO 13347,
- \( L_{pA} \) measured at 1 m distance to fan axis

The acoustic values given are only valid under the measurement conditions listed and may vary depending on the installation situation.

With any deviation to the standard setup, the specific values have to be checked and reviewed once installed or fitted!

For detailed information see page 32 ff.
- Motor protection: TOP wired internally
- Connection leads: Plug system, Cable design on request
- Protection class: I
- Product conforming to standard: EN 60335-1, CE
- Approvals: CCC, GOST

### Centrifugal module

<table>
<thead>
<tr>
<th>Mass of centrifugal module with support basket (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K2E 225-AD40 -02</td>
</tr>
<tr>
<td>K2E 225-AD92 -01</td>
</tr>
</tbody>
</table>

**Centrifugal module**

- Code plug system
- AMP Universal-Mate-N-Lok
- Connector shell: AMP 350 788-1
- 4 x Pin connector: AMP 926 886-1
- Mating connector (not part of delivery):
  - Connector shell: AMP 350 779-4
  - 4 x female terminal: AMP 926 884-1

**115V**

1 = Protective earth
2 = N
3 = L + capacitor
4 = Capacitor

**230V**

1 = Protective earth
2 = N
3 = L
4 = Not assigned (capacitor)
**EC centrifugal module**

backward curved, Ø 190

- **Material:** Housing: PA plastic 6, fibreglass-reinforced
  Impeller: PA plastic 6, fibreglass-reinforced
  Rotor: Galvanised
  Electronics enclosure: Die-cast aluminium
- **Number of blades:** 7
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

---

### Nominal data

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>K3G 190</td>
<td>M3G 055-CF</td>
<td>1~ 115</td>
<td>50/60</td>
<td>3150</td>
<td>85</td>
<td>1,20</td>
<td>-25...+60</td>
<td>H1)</td>
</tr>
<tr>
<td>K3G 190</td>
<td>M3G 055-CF</td>
<td>1~ 230</td>
<td>50/60</td>
<td>3395</td>
<td>104</td>
<td>0,75</td>
<td>-25...+60</td>
<td>H1)</td>
</tr>
</tbody>
</table>

(subject to alterations
(1) Nominal data in operating point with maximum load and 115 or 230 V AC)

---

### Curves

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3265</td>
<td>76</td>
<td>1,09</td>
<td>74</td>
</tr>
<tr>
<td>3160</td>
<td>85</td>
<td>1,20</td>
<td>71</td>
</tr>
<tr>
<td>3150</td>
<td>85</td>
<td>1,20</td>
<td>69</td>
</tr>
<tr>
<td>3265</td>
<td>78</td>
<td>1,11</td>
<td>73</td>
</tr>
<tr>
<td>3515</td>
<td>91</td>
<td>0,68</td>
<td>76</td>
</tr>
<tr>
<td>3375</td>
<td>103</td>
<td>0,75</td>
<td>73</td>
</tr>
<tr>
<td>3395</td>
<td>104</td>
<td>0,75</td>
<td>71</td>
</tr>
<tr>
<td>3485</td>
<td>94</td>
<td>0,71</td>
<td>75</td>
</tr>
</tbody>
</table>

Air performance measured as per ISO 5801, installation category A, without protection against accidental contact and suction-side noise levels: LwA as per ISO 13347, LwA measured at 1 m distance to fan axis.

The acoustic values given are only valid under the measurement conditions listed and may vary depending on the installation situation.

With any deviation to the standard setup, the specific values have to be checked and reviewed once installed or fitted.

For detailed information see page 32 ff.
- **Technical features:**
  - Control input 0-10 VDC / PWM
  - Output 10 VDC max. 1.1 mA

- **EMC:**
  - Interference emission acc. to EN 61000-6-3
  - Interference immunity acc. to EN 61000-6-2
  - Harmonics acc. to DIN EN 61000-3-2/3

- ** Leakage current:** < 3.5 mA acc. to EN 60950-1

- **Cable exit:** Variable

- **Protection class:** I

- **Product conforming to standards:** EN 60335-1, CE

- **Approvals:** VDE, UL, CSA, CCC, GOST are applied for

---

<table>
<thead>
<tr>
<th>Centrifugal module</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>K3G 190-CB15 -02</td>
<td>1.7</td>
</tr>
<tr>
<td>K3G 190-CB23 -01</td>
<td>1.7</td>
</tr>
</tbody>
</table>

---

Guard grille p. 24
Electr. connection p. 29
EC centrifugal module
backward curved, Ø 220

- **Material:** Housing: PA plastic 6, fibreglass-reinforced
  Impeller: PA plastic 6, fibreglass-reinforced
  Rotor: Galvanised
  Electronics enclosure: Die-cast aluminium

- **Number of blades:** 11
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>K3G 220</td>
<td>M3G 055-CF</td>
<td>1~ 115 50/60</td>
<td>2340</td>
<td>75</td>
<td>1,10</td>
<td>-25...+60</td>
<td>H1</td>
<td></td>
</tr>
<tr>
<td>K3G 220</td>
<td>M3G 055-CF</td>
<td>1~ 230 50/60</td>
<td>2670</td>
<td>105</td>
<td>0,78</td>
<td>-25...+60</td>
<td>H1</td>
<td></td>
</tr>
</tbody>
</table>

Subject to alterations

(1) Nominal data in operating point with maximum load and 115 or 230 V AC

### Curves

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2600</td>
<td>56</td>
<td>0,82</td>
<td>72</td>
</tr>
<tr>
<td>2435</td>
<td>70</td>
<td>1,03</td>
<td>68</td>
</tr>
<tr>
<td>2340</td>
<td>75</td>
<td>1,10</td>
<td>65</td>
</tr>
<tr>
<td>2420</td>
<td>68</td>
<td>0,99</td>
<td>69</td>
</tr>
<tr>
<td>2990</td>
<td>76</td>
<td>0,56</td>
<td>76</td>
</tr>
<tr>
<td>2780</td>
<td>97</td>
<td>0,71</td>
<td>72</td>
</tr>
<tr>
<td>2670</td>
<td>105</td>
<td>0,78</td>
<td>70</td>
</tr>
<tr>
<td>2720</td>
<td>101</td>
<td>0,75</td>
<td>73</td>
</tr>
</tbody>
</table>

Air performance measured as per ISO 5801.
Installation category A, without protection against accidental contact.

Section-side noise levels
Lw A as per ISO 13347.
Lw A measured at 1 m distance to fan axis.

The acoustic values given are only valid under the measurement conditions listed and may vary depending on the installation situation.

With any deviation to the standard setup, the specific values have to be checked and reviewed once installed or fitted.

For detailed information see page 32 ff.
- **Technical features:**
  - Control input 0-10 VDC / PWM
  - Output 10 VDC max. 1.1 mA
- **EMC:** Interference emission acc. to EN 61000-6-3
  - Interference immunity acc. to EN 61000-6-2
  - Harmonics acc. to DIN EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 60950-1
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST are applied for

<table>
<thead>
<tr>
<th>Centrifugal module</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>K3G 220-CD21 -02</td>
<td>1.8</td>
</tr>
<tr>
<td>K3G 220-CD17 -01</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Guard grille p. 24  
Electr. connection p. 29
EC centrifugal module
backward curved, Ø 225

- Material: Housing: PA plastic 6, fibreglass-reinforced
  Impeller: PA plastic 6.6, fibreglass-reinforced
  Rotor: Galvanised
  Electronics enclosure: Die-cast aluminium
- Number of blades: 7
- Direction of rotation: Clockwise, seen on rotor
- Type of protection: IP 44
- Insulation class: “B”
- Mounting position: Any
- Condensate discharges: Rotor-side
- Mode of operation: Continuous operation (S1)
- Bearings: Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>VAC</th>
<th>Hz</th>
<th>rpm</th>
<th>W</th>
<th>A</th>
<th>°C</th>
<th>p. 29</th>
</tr>
</thead>
<tbody>
<tr>
<td>K3G 225</td>
<td>M3G 055-CF</td>
<td>1~ 115</td>
<td>50/60</td>
<td>2185</td>
<td>85</td>
<td>1,23</td>
<td>-25..+60</td>
<td>H1)</td>
</tr>
<tr>
<td>K3G 225</td>
<td>M3G 055-CF</td>
<td>1~ 230</td>
<td>50/60</td>
<td>2240</td>
<td>91</td>
<td>0,71</td>
<td>-25..+60</td>
<td>H1)</td>
</tr>
</tbody>
</table>

subject to alterations

(1) Nominal data in operating point with maximum load and 115 or 230 VAC

### Curves

<table>
<thead>
<tr>
<th>n (rpm)</th>
<th>P1 [W]</th>
<th>I [A]</th>
<th>Lw, A [dB(A)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2395</td>
<td>70</td>
<td>1,01</td>
<td>71</td>
</tr>
<tr>
<td>2235</td>
<td>82</td>
<td>1,19</td>
<td>65</td>
</tr>
<tr>
<td>2185</td>
<td>85</td>
<td>1,23</td>
<td>62</td>
</tr>
<tr>
<td>2285</td>
<td>79</td>
<td>1,15</td>
<td>68</td>
</tr>
<tr>
<td>2455</td>
<td>75</td>
<td>0,57</td>
<td>72</td>
</tr>
<tr>
<td>2310</td>
<td>86</td>
<td>0,68</td>
<td>87</td>
</tr>
<tr>
<td>2240</td>
<td>91</td>
<td>0,71</td>
<td>64</td>
</tr>
<tr>
<td>2320</td>
<td>85</td>
<td>0,67</td>
<td>68</td>
</tr>
</tbody>
</table>

Air performance measured as per ISO 5801,
Installation category A,
without protection against accidental contact

Section-side noise levels
Lw, as per ISO 13347,
Lw, measured at 1 m distance to fan axis

The acoustic values given are only valid under the measurement conditions listed and may vary depending on the installation situation.

With any deviation to the standard setup, the specific values have to be checked and reviewed once installed or fitted!

For detailed information see page 32 ff.
- **Technical features:**
  - Control input 0-10 VDC / PWM
  - Output 10 VDC max. 1.1 mA
- **EMC:**
  - Interference emission acc. to EN 61000-6-3
  - Interference immunity acc. to EN 61000-6-2
  - Harmonics acc. to DIN EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 60950-1
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST are applied for

<table>
<thead>
<tr>
<th>Centrifugal module</th>
<th>kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>K3G 225-CE21 -02</td>
<td>2.1</td>
</tr>
<tr>
<td>K3G 225-CE11 -01</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Guard grille
pn. 24
Electr. connection
pn. 29
DC centrifugal module
backward curved, Ø 190

- **Material:** Housing: PA plastic 6, fibreglass-reinforced
  Impeller: PA plastic 6.6, fibreglass-reinforced
  Rotor: Galvanised
- **Number of blades:** 7
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 20 or IP 66
- **Insulation class:** "E"
- **Mounting position:** Any
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Voltage VDC</th>
<th>Voltage Range VDC m³/h</th>
<th>Air flow rpm</th>
<th>Power input W</th>
<th>Current draw A</th>
<th>Sound level dB(A)</th>
<th>Perm. amb. temp. °C</th>
<th>Life expectancy Life L10 (40°C)</th>
<th>Service life Life L10 (Max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RG 190</td>
<td>54.14; 3ph.</td>
<td>24</td>
<td>16-30</td>
<td>700</td>
<td>3000</td>
<td>60</td>
<td>2,50</td>
<td>74</td>
<td>-20..+60</td>
<td>55000 / 35000</td>
</tr>
<tr>
<td>RG 190</td>
<td>54.14; 3ph.</td>
<td>24</td>
<td>16-30</td>
<td>700</td>
<td>3000</td>
<td>60</td>
<td>2,50</td>
<td>74</td>
<td>-20..+55</td>
<td>55000 / 35000</td>
</tr>
<tr>
<td>RG 190</td>
<td>54.14; 3ph.</td>
<td>48</td>
<td>36-57</td>
<td>700</td>
<td>3000</td>
<td>60</td>
<td>1,25</td>
<td>73</td>
<td>-20..+60</td>
<td>55000 / 35000</td>
</tr>
<tr>
<td>RG 190</td>
<td>54.14; 3ph.</td>
<td>48</td>
<td>36-57</td>
<td>700</td>
<td>3000</td>
<td>60</td>
<td>1,25</td>
<td>73</td>
<td>-20..+60</td>
<td>55000 / 35000</td>
</tr>
<tr>
<td>RG 190</td>
<td>54.20; 3ph.</td>
<td>24</td>
<td>16-36</td>
<td>890</td>
<td>3900</td>
<td>115</td>
<td>4,80</td>
<td>79</td>
<td>-20..+65</td>
<td>52500 / 30500</td>
</tr>
<tr>
<td>RG 190</td>
<td>54.20; 3ph.</td>
<td>48</td>
<td>36-72</td>
<td>1080</td>
<td>4600</td>
<td>192</td>
<td>4,00</td>
<td>81</td>
<td>-20..+65</td>
<td>42500 / 22500</td>
</tr>
</tbody>
</table>

subject to alterations

### Curves

- Air performance measured as per ISO5801,
- Installation category A,
- without protection against accidental contact
- Suction-side noise levels:
  - $L_{wA}$ as per ISO13347,
  - $L_{pA}$ measured at 1 m distance to fan axis
- The acoustic values given are only valid under the measurement conditions listed and may vary depending on the installation situation.
- With any deviation to the standard setup, the specific values have to be checked and reviewed once installed or fitted!

For detailed information see page 32 ff.
- **Technical features:**
  - Control input 0-10 VDC / PWM
  - Cable exit: Variable
  - Protection class: III I
  - Product conforming to standard: EN 60950-1, UL 507, C22.2 No.113
  - Approvals: VDE, UL, CSA are applied for

- **Cable length 350 mm as of housing**

- **Tach output**
- Reverse polarity and locked-rotor protection

<table>
<thead>
<tr>
<th>Centrifugal module</th>
<th>kg</th>
<th>IP</th>
</tr>
</thead>
<tbody>
<tr>
<td>RG190-45/14/2TDMLO</td>
<td>1.21</td>
<td>20</td>
</tr>
<tr>
<td>RG190-45/14/2TDMLOU</td>
<td>1.21</td>
<td>66</td>
</tr>
<tr>
<td>RG190-45/18/2TDMLO</td>
<td>1.21</td>
<td>20</td>
</tr>
<tr>
<td>RG190-45/18/2TDMLOU</td>
<td>1.21</td>
<td>66</td>
</tr>
<tr>
<td>RG190-45/14/2TDMO</td>
<td>1.21</td>
<td>20</td>
</tr>
<tr>
<td>RG190-45/18/2TDO</td>
<td>1.21</td>
<td>20</td>
</tr>
</tbody>
</table>

Connection via single stranded wires AWG 20; TR64; Tach signal and control input AWG22; Cable length 350 mm as of housing
DC centrifugal module
backward curved, Ø 220

- **Material:** Housing: PA plastic 6, fibreglass-reinforced
  Impeller: PA plastic 6.6, fibreglass-reinforced
  Rotor: ⚫ Coated in black; ⚫ Galvanised
- **Number of blades:** 7
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 20 or IP 42 or IP 44
- **Insulation class:** ⚪ “B”; ⚫ “E”
- **Mounting position:** Any
- **Condensate discharges:** ⚫ None; ⚫ Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>Voltage</th>
<th>Voltage Range</th>
<th>Airflow</th>
<th>Speed</th>
<th>Power</th>
<th>Current Draw</th>
<th>Sound Level</th>
<th>Perm. amb. temp.</th>
<th>Service Life L10 (40°C)</th>
<th>Service Life L10 (Max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1G 220</td>
<td>M1G074-BF</td>
<td>24</td>
<td>16-28</td>
<td>925</td>
<td>2800</td>
<td>68</td>
<td>3,20</td>
<td>74</td>
<td>-25...+60</td>
<td>95000 / 58000</td>
<td>126000 (G1)</td>
</tr>
<tr>
<td>K1G 220</td>
<td>M1G074-BF</td>
<td>24</td>
<td>16-28</td>
<td>925</td>
<td>2800</td>
<td>68</td>
<td>3,20</td>
<td>74</td>
<td>-25...+60</td>
<td>95000 / 58000</td>
<td>126000 (G1)</td>
</tr>
<tr>
<td>K1G 220</td>
<td>M1G074-BF</td>
<td>48</td>
<td>36-57</td>
<td>1025</td>
<td>3100</td>
<td>94</td>
<td>2,30</td>
<td>78</td>
<td>-25...+60</td>
<td>82000 / 43000</td>
<td>111000 (G1)</td>
</tr>
<tr>
<td>K1G 220</td>
<td>M1G074-BF</td>
<td>48</td>
<td>36-57</td>
<td>1025</td>
<td>3100</td>
<td>94</td>
<td>2,30</td>
<td>78</td>
<td>-25...+60</td>
<td>82000 / 43000</td>
<td>111000 (G1)</td>
</tr>
<tr>
<td>RG 220</td>
<td></td>
<td>54.20</td>
<td></td>
<td>1250</td>
<td>3500</td>
<td>140</td>
<td>2,90</td>
<td>80</td>
<td>-20...+55</td>
<td>55000 / 40000</td>
<td>110000 (G2)</td>
</tr>
</tbody>
</table>

*subject to alterations*

### Curves

- Air performance measured as per: ISO 5801, Installation category A, without protection against accidental contact
- Section-side noise levels: $L_{W A}$ as per ISO 13347, $L_{W A}$ measured at 1 m distance to fan axis
- The acoustic values given are only valid under the measurement conditions listed and may vary depending on the installation situation.

With any deviation to the standard setup, the specific values have to be checked and reviewed once installed or fitted!

For detailed information see page 32 ff.

---

**Nominal data**

- **Type:** Motor
- **VDC:** Voltage
- **VDC m³/h:** Airflow
- **Rpm:** Speed
- **W:** Power
- **A dB(A):** Current draw
- **°C:** Sound level
- **Hours:** Perm. amb. temp.
- **Service Life L10 (40°C):** Service Life L10 (Max)

**Curves**

- **n [rpm]:** 2800
- **P [W]:** 68
- **I [A]:** 3,20
- **Lw A [dB(A)]:** 74
- **Technical features:**
  - Control input 0-10 VDC / PWM
  - **EMC:**
    - Interference emission acc. to EN 61000-6-3
    - Interference immunity acc. to EN 61000-6-2
  - **Cable exit:** Variable
  - **Protection class:** I
  - **Product conforming to standard:** EN 60950-1
  - **Approvals:** VDE, UL, CSA, CCC are applied for

- **Mass of centrifugal module with support basket:**

<table>
<thead>
<tr>
<th>Centrifugal module</th>
<th>kg</th>
<th>IP</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1G 220-AA89-02</td>
<td>2.35</td>
<td>42</td>
</tr>
<tr>
<td>K1G 220-AA89-04</td>
<td>2.35</td>
<td>44</td>
</tr>
<tr>
<td>K1G 220-AA67-02</td>
<td>2.35</td>
<td>42</td>
</tr>
<tr>
<td>K1G 220-AA67-04</td>
<td>2.35</td>
<td>44</td>
</tr>
<tr>
<td>RG220-44/18/2TDO</td>
<td>1.87</td>
<td>20</td>
</tr>
</tbody>
</table>

- **Type of protection:**

- **Centrifugal module:**
  - **RG:** Connection via single stranded wires AWG 20; TR64;
  - Tach signal and control input AWG22;
  - Cable length 350 mm as of housing

- **K1G:** Cable length 350 mm as of housing, insulation stripped for 85 mm;
  - brass lead tips attached
DC centrifugal module
backward curved, Ø 225

- **Material:** Housing: PA plastic 6, fibreglass-reinforced
  Impeller: PA plastic 6.6, fibreglass-reinforced
  Rotor: ③ Coated in black; ④ Galvanised
- **Number of blades:** 7
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 20 or IP 42 or IP 44
- **Insulation class:** ③ "B"; ④ "E"
- **Mounting position:** Any
- **Condensate discharges:** ③ None; ④ Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

### Nominal data

<table>
<thead>
<tr>
<th>Type</th>
<th>Motor</th>
<th>VDC</th>
<th>Voltage Range</th>
<th>Airflow</th>
<th>Power input</th>
<th>Current draw</th>
<th>Sound level</th>
<th>Perm. amb. temp.</th>
<th>Service Life L10 (40°C)</th>
<th>Life expectancy L10 (40°C)</th>
<th>Electric connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1G 225</td>
<td>M1G 074-BF</td>
<td>④ 24</td>
<td>16-28</td>
<td>1080</td>
<td>2370</td>
<td>72</td>
<td>3,40</td>
<td>72 -25...+60</td>
<td>100000 / 60000</td>
<td>130000</td>
<td>G1</td>
</tr>
<tr>
<td>K1G 225</td>
<td>M1G 074-BF</td>
<td>④ 24</td>
<td>16-28</td>
<td>1080</td>
<td>2370</td>
<td>72</td>
<td>3,40</td>
<td>72 -25...+60</td>
<td>100000 / 60000</td>
<td>130000</td>
<td>G1</td>
</tr>
<tr>
<td>K1G 225</td>
<td>M1G 074-BF</td>
<td>④ 48</td>
<td>36-57</td>
<td>1140</td>
<td>2500</td>
<td>83</td>
<td>2,00</td>
<td>74 -25...+60</td>
<td>96000 / 56000</td>
<td>130000</td>
<td>G1</td>
</tr>
<tr>
<td>K1G 225</td>
<td>M1G 074-BF</td>
<td>④ 48</td>
<td>36-57</td>
<td>1140</td>
<td>2500</td>
<td>83</td>
<td>2,00</td>
<td>74 -25...+60</td>
<td>96000 / 56000</td>
<td>130000</td>
<td>G1</td>
</tr>
<tr>
<td>RG 225</td>
<td></td>
<td>④ 48</td>
<td>36-72</td>
<td>1480</td>
<td>3100</td>
<td>163</td>
<td>3,40</td>
<td>78 -20...+55</td>
<td>460000 / 340000*</td>
<td>92000*</td>
<td>G2</td>
</tr>
</tbody>
</table>

subject to alterations

* Preliminary Service Life

### Curves

Air performance measured as per ISO 5801, Installation category A, without protection against accidental contact

- Suction-side noise levels: LwA as per ISO 13347, LwA measured at 1 m distance to fan axis
- The acoustic values given are only valid under the measurement conditions listed and may vary depending on the installation situation.

With any deviation to the standard setup, the specific values have to be checked and reviewed once installed or fitted!

For detailed information see page 32 ff.
- **Technical features:**
  - Control input 0-10 VDC / PWM
  - Tach output
  - Reverse polarity and locked-rotor protection
- **EMC:**
  - Interference emission acc. to EN 61000-6-3
  - Interference immunity acc. to EN 61000-6-2
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standard:** EN 60950-1
- **Approvals:** VDE, UL, CSA, CCC are applied for

---

<table>
<thead>
<tr>
<th>Centrifugal module</th>
<th>kg</th>
<th>IP</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1G 225-AC49 -02</td>
<td>2,45</td>
<td>42</td>
</tr>
<tr>
<td>K1G 225-AC49 -04</td>
<td>2,45</td>
<td>44</td>
</tr>
<tr>
<td>K1G 225-AC39 -02</td>
<td>2,45</td>
<td>42</td>
</tr>
<tr>
<td>K1G 225-AC39 -04</td>
<td>2,45</td>
<td>44</td>
</tr>
<tr>
<td>RG225-63/18/2TDO</td>
<td>2,03</td>
<td>20</td>
</tr>
</tbody>
</table>

---

**RG:** Connection via single stranded wires AWG 20; TR64;
Tach signal and control input AWG22;
Cable length 350 mm as of housing

**K1G:** Cable length 350 mm as of housing, insulation stripped for 85 mm;
brass lead tips attached
Guard grille

Guard grille for suction side for compact centrifugal modules

<table>
<thead>
<tr>
<th>Part no.</th>
<th>Size</th>
<th>a</th>
<th>b</th>
</tr>
</thead>
<tbody>
<tr>
<td>19050-2-2929</td>
<td>190</td>
<td>133,0</td>
<td>9,0</td>
</tr>
<tr>
<td>22050-2-2929</td>
<td>220</td>
<td>166,0</td>
<td>8,7</td>
</tr>
<tr>
<td>22550-2-2929</td>
<td>225</td>
<td>158,0</td>
<td>8,7</td>
</tr>
</tbody>
</table>

Material: PA plastic 6, fibreglass-reinforced

subject to alterations
Capacitors

- **Material:** Plastic cap, aluminium cup
- **Designation:** FPU or P2 according to IEC 252 (non-flammable, non-explosive, circuit-breaking)
- **Approval:** VDE according to DIN EN 60252 (VDE 0560/8)
- **Calculated life time:**
  - 420 V; -25 to +85°C; 30,000 hrs; class A
  - 470 V; -25 to +85°C; 10,000 hrs; class B
  - 500 V; -25 to +85°C; 3,000 hrs; class C

**MKP motor capacitors FPU or P2 (with fuse)**

<table>
<thead>
<tr>
<th>Part no.</th>
<th>Capacity</th>
<th>a</th>
<th>b (max.)</th>
<th>c (max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>02162-4-7320</td>
<td>5.0 µF</td>
<td>25-30</td>
<td>104,0</td>
<td>113,0</td>
</tr>
<tr>
<td>02163-4-7320</td>
<td>6.0 µF</td>
<td>30,0</td>
<td>101,0</td>
<td>110,0</td>
</tr>
<tr>
<td>02166-4-7320</td>
<td>10.0 µF</td>
<td>35,0</td>
<td>96,0</td>
<td>110,0</td>
</tr>
<tr>
<td>02168-4-7320</td>
<td>16.0 µF</td>
<td>40,0</td>
<td>96,0</td>
<td>130,0</td>
</tr>
</tbody>
</table>

subject to alterations

- **Pull-off protector:** The housing expands by max. 9 mm. The protector responds to overload by the generated excess pressure snapping off the internal lead in a predetermined breaking point.
- **Mounting:** c is the overall dimension of the capacitor which has to be taken into account when mounting the part. The capacitor design, however, depends on the manufacturer. The expansion (9 mm) is either added to dimension b, or it is already integrated in the capacitor.
Connection leads
115 V (UL)

- Plug assignment:
  1 = green/yellow
  2 = blue
  3 = black
  4 = brown

---

## Lead connections for AC centrifugal modules (115 V)

<table>
<thead>
<tr>
<th>Part no.</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>11530-4-1029</td>
<td>450.0</td>
</tr>
<tr>
<td>11531-4-1029</td>
<td>1000.0</td>
</tr>
<tr>
<td>11532-4-1029</td>
<td>1300.0</td>
</tr>
<tr>
<td>11533-4-1029</td>
<td>1600.0</td>
</tr>
<tr>
<td>11534-4-1029</td>
<td>2300.0</td>
</tr>
</tbody>
</table>

subject to alteration
Connection leads

230 V

- Plug assignment:
  1 = green/yellow
  2 = blue
  3 = brown
  4 = not assigned

---

Lead connections for AC centrifugal modules (230 V)

<table>
<thead>
<tr>
<th>Part no.</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>23030-4-1012</td>
<td>450.0</td>
</tr>
<tr>
<td>23031-4-1012</td>
<td>1000.0</td>
</tr>
<tr>
<td>23032-4-1012</td>
<td>1300.0</td>
</tr>
<tr>
<td>23033-4-1012</td>
<td>1600.0</td>
</tr>
<tr>
<td>23034-4-1012</td>
<td>2300.0</td>
</tr>
</tbody>
</table>

subject to alterations
**Electrical connections**

A1) Single-phase capacitor motor with TOP wired internally

- $U_1$ = blue
- $U_2$ = black
- $Z$ = brown
- $\otimes$ = green/yellow
**Notes on various control possibilities and their applications**

<table>
<thead>
<tr>
<th>Customer Circuit</th>
<th>Connection</th>
<th>Colour</th>
<th>Assignment / function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line 1</td>
<td>L</td>
<td>brown</td>
<td>Mains 50/60 Hz, phase</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>blue</td>
<td>Mains 50/60 Hz, neutral</td>
</tr>
<tr>
<td></td>
<td>PE</td>
<td>green/yellow</td>
<td>Protective earth</td>
</tr>
</tbody>
</table>

| Line 2           | +10 V  | red   | Voltage output: +10 V max. 1.1 mA |
|                  | 0-10 V / PWM | yellow | Control input (Impedance 100 kΩ) |
|                  | GND     | blue  | GND |
|                  | Tach    | white | Tach output: 1 pulse per revolution |
Electrical connections

Notes on various control possibilities and their applications

<table>
<thead>
<tr>
<th>Temperature control module</th>
<th>Speed setting</th>
<th>Full speed setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWM 1 - 10 kHz</td>
<td>100% PWM -&gt; n= max</td>
<td></td>
</tr>
<tr>
<td>approx. 10% PWM -&gt; n= min</td>
<td>&lt; 10% PWM -&gt; n= 0</td>
<td></td>
</tr>
<tr>
<td>start up at &gt; 14 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed setting</td>
<td>1 V - 10 V</td>
<td></td>
</tr>
<tr>
<td>with potentiometer</td>
<td>10 V -&gt; n= max</td>
<td></td>
</tr>
<tr>
<td></td>
<td>approx. 1 V -&gt; n= min</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt; 1 V -&gt; n= 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>start up at &gt; 1.4 V</td>
<td></td>
</tr>
</tbody>
</table>

Customer circuit

<table>
<thead>
<tr>
<th>Line</th>
<th>Connection</th>
<th>Colour</th>
<th>Assignment / function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+</td>
<td>red</td>
<td>Maximum ripple ± 3.5 %</td>
</tr>
<tr>
<td>GND</td>
<td>blue</td>
<td></td>
<td>GND</td>
</tr>
</tbody>
</table>

Line 1

<table>
<thead>
<tr>
<th>Line</th>
<th>Connection</th>
<th>Colour</th>
<th>Assignment / function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tach</td>
<td>white</td>
<td>Tach output:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 pulses / revolution</td>
</tr>
<tr>
<td></td>
<td>0-10 V / PWM</td>
<td>yellow</td>
<td>Control input (Impedance 100 kΩ)</td>
</tr>
</tbody>
</table>
Notes on various control possibilities and their applications

<table>
<thead>
<tr>
<th>Line</th>
<th>Connection</th>
<th>Colour</th>
<th>Assignment / function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+</td>
<td>red</td>
<td>Maximum ripple ± 3.5 %</td>
</tr>
<tr>
<td></td>
<td>GND</td>
<td>blue</td>
<td>GND</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Line</th>
<th>Connection</th>
<th>Colour</th>
<th>Assignment / function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tach</td>
<td>white</td>
<td>Tach output:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 pulses / revolution</td>
</tr>
<tr>
<td></td>
<td>0-10 V / PWM</td>
<td>violet</td>
<td>Control input (Impedance 100 kΩ)</td>
</tr>
</tbody>
</table>
Technical parameters & scope

High standards for all ebm-papst products
Here at ebm-papst, we constantly strive to further improve our products in order to be able to offer you the best possible product for your application. Careful monitoring of the market ensures that technical innovations are reflected in the improvements of our products.
Based on the technical parameters listed below and the ambience you want our product to operate in, we here at ebm-papst can always work out the best solution for your specific application.

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

Type of protection
The type of protection is specified in the product-specific data sheets.

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

Mounting position
The mounting position is specified in the product-specific data sheets.

Condensate discharge holes
Information on the condensate discharge 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 major factors:
– The service life of the insulation system
– The service life of the bearing system
The service life of the insulation system mainly depends on voltage level, temperature and ambient conditions, such as humidity and condensation.
The service life of the bearing system depends mainly on the thermal load on the bearing.
The majority of our products use maintenance-free ball bearings for any mounting position possible. As an option, sleeve bearings can be used, which is indicated on the product-specific data sheet wherever applicable.
The service life L10 of the ball bearings can be taken as approx. 40,000 operating hours at an ambient temperature of 40 °C, yet this estimate can vary according to the actual ambient conditions.
We will gladly provide you with a lifetime calculation taking into account your specific operating conditions.

Motor protection / thermal protection
Information on motor protection and thermal protection is provided in the product-specific data sheets.
Depending on motor type and field of application, the following protective features are realised:
– Thermal overload protection (TOP), either in-circuit or external
– PTC with electronic diagnostics
– Impedance protection
– Thermal overload protection (TOP) with electronic diagnostics
– Current limitation via electronics
If an external TOP is connected, the customer has to make sure to connect a conventional trigger device for switching it off.
Products without fitted TOP and without protection against improper use, a motor protection complying with the valid standards has to be installed.
Legal and normative directives
The products described in this catalogue are designed, developed and produced in keeping with the standards in place for the relevant product and, if known, the conditions governing the relevant fields 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.
Complying with the EMC standards has to be established on the final appliance, as different mounting situations can result in changed EMC properties.

Leakage current
Information on the leakage current is provided in the product-specific data sheets.
Measuring is according to IEC 60990.

Approvals
In case you require a specific approval for your ebm-papst product (VDE, UL, GOST, CCC, CSA, etc.) please let us know.
Most of our products can be supplied with the relevant approval.
Information on existing approvals is provided in the product-specific data sheets.

Fields of application, industries and applications
Our products are used in various industries and applications:
Ventilation, air-conditioning and refrigeration technology, clean room technology, automotive and rail technology, medical and laboratory technology, electronics, computer and office technology, telecommunications, household appliances, heating, machines and plants, drive engineering.
Our products are not designed for use in the aviation and aerospace industry!

Mechanical strain / performance parameters
All ebm-papst products are subjected to comprehensive tests complying with the normative specifications. In addition to this, the tests also reflect the vast experience and expertise of ebm-papst.

Vibration test
Vibration tests are carried out in compliance with
– Vibration test in operation according to DIN IEC 68, parts 2-6
– Vibration test at standstill according to DIN IEC 68, parts 2-6

Shock load
Shock load tests are carried out in compliance with
– Shock load according to DIN IEC 68, parts 2-27

Balancing quality
Testing the balancing quality is carried out in compliance with
– Residual imbalance according to DIN ISO 1940
– Standard balancing quality level G 6.3
Should you require a higher balancing quality level for your specific application, please let us know and specify this when ordering your product.

Chemo-physical strain / performance parameters
Should you have questions about chemo-physical strain, please direct them to your ebm-papst contact.

Air performance measurements
All air performance measurements are carried out on suction side and on chamber test beds conforming to the specifications as per ISO 5801 and DIN 24163. The fans under test are installed in the measuring chamber at free air intake and exhaust (installation category A) and are operated at nominal voltage, with AC also at nominal frequency, and without any additional components such as guard grilles.
As required by the standard, the air performance curves correspond to an air density of 1.2 kg/m³.
Measurement conditions for air and noise measurement

ebm-papst products are measured under the following conditions:
- Axial and diagonal fans in direction of rotation “V” in full nozzle and without guard grille
- Backward curved centrifugal fans, free-running and with inlet nozzle
- Forward curved single and dual inlet centrifugal fans with housing

Noise measurements

All noise measurements are carried out in low-reflective test rooms with reverberant floor. Thus the ebm-papst acoustic test chambers meet the requirements of precision class 1 according to DIN EN ISO 3745. For noise measurement, the fans being tested are placed in a reverberant wall and operated at nominal voltage (for AC, also at nominal frequency) without additional attachments such as the guard grille.

Sound pressure level and sound level

All acoustic values are established according to ISO 13347, DIN 45635 and ISO 3744/3745 to accuracy class 2 and given in A-rated form.

When the sound pressure level \( L_p \) is measured, the microphone is on the intake side of the fan being tested, usually at a distance of 1 m on the fan axis.

To measure the sound level \( L_w \), 10 microphones are distributed over an enveloping surface on the intake side of the fan being tested (see graphic). The sound level measured can be roughly calculated from the sound pressure level by adding 7 dB.

Measuring configuration as per ISO 13347-3 respectively DIN 45635-38:
- 10 measuring points
- \( d \geq D \)
- \( h = 1,5d \ldots 4,5d \)
- Measurement area \( S = 6d^2 + 7d(h + 1,5d) \)
Adding multiple noise sources with the same level
Adding 2 noise sources with the same volume results in a level increase of approx. 3 dB. The noise characteristics of multiple identical fans can be determined in advance based on the noise values specified in the data sheet. This is shown in the diagram opposite.
Example: 8 A3G800 axial fans are on a condenser. According to the data sheet, the sound pressure level of a fan is approximately 75 dB(A). The level increase measured from the diagram is 9 dB. Thus the overall sound level of the installation can be expected to be 84 dB(A).

Adding two noise sources with different levels
The acoustic performance of two different fans can be predetermined based on the sound levels given in the data sheet. This is shown in the diagram opposite.
Example: There is an axial fan A3G800 with a sound pressure level of 75 dB(A) at the operating point and an axial fan A3G710 with 71 dB(A) in a ventilation unit. The level difference is 4 dB. The level increase can now be read in the diagram as approx. 1.5 dB. This means that the overall sound level of the unit can be expected to be 76.5 dB(A).

Distance laws
Sound power level is independent of distance to the sound source. In contrast to this, sound pressure level decreases the further away the noise source is. The adjacent diagram shows the decrease in level under far sound field conditions. Far sound field conditions apply whenever the distance between microphone and fan is big when compared to fan diameter and wavelength to be considered. For more information on far sound field, please consult the relevant literature on this complex topic. Per doubling of distance, the level in the far sound field decreases by 6 dB. In the near field of the fan, other correlations apply and the decrease in levels can be considerably smaller. The following example only applies to far sound field conditions and can vary strongly depending on the installation effects:
With an axial fan A3G300, a sound pressure level of 65 dB(A) was measured at a distance of 1 m. According to the adjacent diagram, at a distance of 20 m we would get a reduction by 26 dB, i.e. a sound pressure level of 39 dB(A).
ebm-papst representatives & subsidiaries

**Germany**

**ebm-papst**
Mußling RT GmbH & Co. KG
Bachmühle 2
D-74673 Mußlingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com

**ebm-papst**
St. Georgen GmbH & Co. KG
Hermann-Papst-Straße 1
D-78112 St. Georgen
Phone +49 7724 81-0
Fax +49 7724 81-1309
info2@de.ebmpapst.com

**ebm-papst**
Landshut GmbH
Hofmark-Aich-Straße 25
D-84030 Landshut
Phone +49 871 707-0
Fax +49 871 707-465
info3@de.ebmpapst.com

**Distributors**

**Frankfurt**
R.E.D. Handelsgesellschaft mbH
Gutenbergstraße 3
D-63110 Rodgau-Jügesheim
Phone +49 6106 841-0
Fax +49 6106 841-111
info@red-elektromechanik.de
www.red-elektromechanik.de

**Hamburg**
Breuell & Hilgenfeldt GmbH
Grützmühlenweg 40
D-22339 Hamburg
Phone +49 40 538092-20
Fax +49 40 538092-84
info@breuell-hilgenfeldt.de
www.breuell-hilgenfeldt.de

**Munich**
A. Schweiger GmbH
Ohmstraße 1
D-82054 Sauerlach
Phone +49 8104 897-0
Fax +49 8104 897-90
info@schweiger-gmbh.de
www.schweiger-gmbh.com

**North**
Breuell + Hilgenfeldt GmbH
Grützmühlenweg 40
D-22339 Hamburg
Phone +49 40 538092-20
Fax +49 40 538092-84
ebmpapst@breuell-hilgenfeldt.de

**South**
HDS Ventilatoren Vertriebs GmbH
Glaswiesenstraße 1
D-74677 Dörzbach
Phone +49 7937 8033520
Fax +49 7937 8033525
info@hds-gmbh.net

**Express Service Center** (1 to 5 pieces)

**North**
Breuell + Hilgenfeldt GmbH
Grützmühlenweg 40
D-22339 Hamburg
Phone +49 40 538092-20
Fax +49 40 538092-84
ebmpapst@breuell-hilgenfeldt.de

**South**
HDS Ventilatoren Vertriebs GmbH
Glaswiesenstraße 1
D-74677 Dörzbach
Phone +49 7937 8033520
Fax +49 7937 8033525
info@hds-gmbh.net
Europe

Austria
ebm-papst Motoren & Ventilatoren GmbH
Straubingstraße 17
A-4030 Linz
Phone +43 732 321150-0
Fax +43 732 321150-20
info@at.ebmpapst.com
www.ebmpapst.at

Belarus
ebm-papst Bel Agmbh
P.O. Box 117
BY-220138 Minsk
Phone +375 17 3851556
Fax +375 17 3851556
info@by.ebmpapst.com
www.ebmpapst.by

Belgium
ebm-papst Benelux B.V.
Sales office Belgium-Luxembourg
Romeinsestraat 6/0101
B-3001 Heverlee-Leuven
Phone +32 16 396-200
Fax +32 16 396-220
info@be.ebmpapst.com
www.ebmpapst.be

Bulgaria
ebm-papst Romania S.R.L.
Str. Trinavei Nr. 20
RO-500327 Brasov
Phone +40 268 312-805
Fax +40 268 312-805
dudasludovic@xnet.ro

Croatia
ebm-papst Industries Kft.
Ezered u. 2.
H-1044 Budapest
Phone +36 1 8722-190
Fax +36 1 8722-194
office@hu.ebmpapst.com

Czech Republic / Slovakia
ebm-papst CZ s.r.o.
Kalitánová 34a
CZ-820 00 Brno
Phone +420 547 232-617
Fax +420 547 232-622
info@ebmpapst.cz
www.ebmpapst.cz

Denmark
ebm-papst Denmark ApS
Vallensbaekvej 21
DK-2605 Brandby
Phone +45 43 631111
Fax +43 43 630505
mail@dk.ebmpapst.com
www.ebmpapst.dk

Estonia
ebm-papst Oy, Eesti Filiaal
Kesk tee 13
Aaviku küla, Jüri Tehnopark
EST-75301 Rae Vald, Harjumaa
Phone +372 65569-76
Fax +372 65569-79
www.ebmpapst.ee

Finland
ebm-papst Oy
Puistotie 1
FIN-02760 Espoo
Phone +358 9 887022-0
Fax +358 9 887022-13
mailbox@ebmpapst.fi
www.ebmpapst.fi

France
ebm-papst SARL
Zi Nord - rue A. Mohier
BP 62
F-67212 Obernai-Cedex
Phone +33 820 325666
Fax +33 88673883
info@ebmpapst.fr
www.ebmpapst.fr

Germany
Helcoma
Th. Potas & Co OE
Dawski 65
GR-17672 Kallitheas-Attiki
Phone +30 210 9513-705
Fax +30 210 9513-490
contact@helcoma.gr
www.helcoma.gr

Hungary
ebm-papst Industries Kft.
Ezered u. 2.
H-1044 Budapest
Phone +36 1 8722-190
Fax +36 1 8722-194
office@hu.ebmpapst.com

Iceland
RJ Engineers
Stangargvísl 1A
IS-110 Reykjavik
Phone +354 567 8030
Fax +354 567 8015
rj@rj.is
www.rj.is

Ireland
ebm-papst Limited
Portlaoise Business & Technology Park
Mountrath Road
IRL-Portlaoise, Co. Laois
Phone +353 5786 643-43
Fax +353 5786 643-46
sales@ie.ebmpapst.com
www.ebmpapst.ie

Italy
ebm-papst Srl
Via Cornaggia 108
I-22076 Mozzate (Co)
Phone +39 0331 838201
Fax +39 0331 821510
info.it@ebmpapst.com
www.ebmpapst.it

Macedonia
ebm-papst Industries Kft.
Ezered u. 2.
H-1044 Budapest
Phone +36 1 8722-190
Fax +36 1 8722-194
office@hu.ebmpapst.com
ebm-papst representatives & subsidiaries

Asia

China
ebm-papst Ventilator (Shanghai) Co., Ltd.
No. 418, Huajing Road
WaiGaoQiao Free Trade Zone
No. 2001, Yang Gao (M) Road
VRC-200131 Shanghai, P.R. of China
Phone +86 21 5046-0183
Fax +86 21 5046-1119
sales@cn.ebmpapst.com
www.ebmpapst.com.cn

Hong Kong
ebm-papst Hong Kong Ltd.
Unit No. 13.9 / F
Technology Park, 18 On Lai Street
Siu Lek Yuen, Shatin N.T.
Hong Kong - P.R. of China
Phone +852 2145-8678
Fax +852 2145-7678
info@hk.ebmpapst.com

India
ebm-papst India Pvt. Ltd.
26/3, G.N.T. Road, Erukkencherry
IND-Chennai-600118
Phone +91 44 25372556
Fax +91 44 25371149
sales@in.ebmpapst.com
www.ebmpapst.in

Indonesia
ebm-papst Indonesia
Representative Office
German Centre, 4th Floor, Suite 4470
RI-15321 Tangerang
Phone +62 21 5376250
Fax +62 21 5388305
salesdept@id.ebmpapst.com

Israel
Polak Bros. Import Agencies Ltd.
9 Hamefalsim Street
IL-Kiryat Arie, Petach-Tikva 49514
Phone +972 3 9100300
Fax +972 3 5796679
polak@polak.co.il
www.polak.co.il

Japan
ebm-papst Industries Japan K.K.
12 Floor, Benex 5-3 Bldg.
3-20-8 Shinryokohama, Kohoku-ku
J-222-0033 Yokohama
Phone +81 45 47057-51
Fax +81 45 47057-52
info@jp.ebmpapst.com
www.ebmpapst.jp

Korea
ebm-papst Korea Co. Ltd.
6F, Trutec Bldg.
B 6-2, Digital Media City (DMC)
Sangam-Dong, Mapo-Gu
ROK-Seoul 121-270
Phone +82 2 366213-24
Fax +82 2 366213-26
info@kr.ebmpapst.com
www.ebmpapst.co.kr

Malaysia
ebm-papst Malaysia
Representative Office
Unit 12-2, Jalan USJ Sentral 3
Pentaiaran Subang, Selangor Darul Ehsan
MAL-47600 Subang Jaya
Phone +60 3 8024-1680
Fax +60 3 8024-8718
salesdept@my.ebmpapst.com

Singapore
ebm-papst SEA Pte. Ltd.
No. 23 Ubi Road 4
#06-00 Olympia Industrial Building
SGP-Singapore 408620
Phone +65 65513789
Fax +65 68428439
salesdept@sg.ebmpapst.com

Taiwan
ETECO Engineering & Trading Corp.
10F-I, No. 92, Teh-Wei Str.
RC-Tsow-Inn District, Kaohsiung
Phone +886 7 557-4268
Fax +886 7 557-2788
eteco@ms22.hinet.net
www.ebmpapst.com.tw

Thailand
ebm-papst Thailand Co., Ltd.
99/349 Na-Nakorn Bldg., 4th Floor
Chao Watana Road, Thungsonghong,
THA-10210 Laksi, BKK
Phone +66 2 57615-24
Fax +66 2 57615-42
salesdept@th.ebmpapst.com

United Arab Emirates
ebm-papst Middle East FZE
P O Box 17755
Jebel Ali Free Zone / FZS1 / AP05
UAE-Dubai
Phone +971 4 88608-26
Fax +971 4 88608-27
info@ae.ebmpapst.com
www.ebmpapst.ae

Vietnam
ebm-papst Vietnam
Representative Office
Room #102, 25 Nguyen Van Thue Street
District 1
VN-Ho Chi Minh City
Phone +84 8 39104099
Fax +84 8 39103970
linh.nguyen@vn.ebmpapst.com

Thailand
ebm-papst Thailand Co., Ltd.
99/349 Na-Nakorn Bldg., 4th Floor
Chao Watana Road, Thungsonghong,
THA-10210 Laksi, BKK
Phone +66 2 57615-24
Fax +66 2 57615-42
salesdept@th.ebmpapst.com

United Arab Emirates
ebm-papst Middle East FZE
P O Box 17755
Jebel Ali Free Zone / FZS1 / AP05
UAE-Dubai
Phone +971 4 88608-26
Fax +971 4 88608-27
info@ae.ebmpapst.com
www.ebmpapst.ae

Vietnam
ebm-papst Vietnam
Representative Office
Room #102, 25 Nguyen Van Thue Street
District 1
VN-Ho Chi Minh City
Phone +84 8 39104099
Fax +84 8 39103970
linh.nguyen@vn.ebmpapst.com
Australia

Australia
ebm-papst A&NZ Pty Ltd.
10 Oxford Road
AUS-Laverton North, Victoria, 3026
Phone +61 3 9360-6400
Fax +61 3 9360-6464
sales@ebmpapst.com.au
www.ebmpapst.com.au

New Zealand

New Zealand
ebm-papst A&NZ Pty Ltd.
102 Henderson Valley Road
NZ-Henderson, Auckland 1230
Phone +64 9 837-1884
Fax +64 9 837-1899
sales@ebmpapst.com.au
www.ebmpapst.com.au