

K3G175-AF19-10

EC centrifugal fan

backward curved, single inlet

ESM wall ring



K3G175-AF19-10 ebmpapst Datasheet

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Nominal data

| | | |
|--------------------------|-------------------|-------|
| Type | K3G175-AF19-10 | |
| Motor | M3G055-CF | |
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Frequency | Hz | 50/60 |
| Type of data definition | | ml |
| Speed | min ⁻¹ | 4260 |
| Power input | W | 120 |
| Current draw | A | 0.9 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | +60 |

ml = max. load · me = max. efficiency · rfa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations



Technical features

| | |
|---|--|
| Leakage current | <= 3.5 mA |
| Size | 175 mm |
| Operation mode | S1 |
| Direction of rotation | Clockwise, seen on rotor |
| Mounting position | Shaft horizontal or rotor on bottom; rotor on top on request |
| EMC harmonics | Acc. to EN 61000-3-2/3 |
| EMC interference emission | Acc. to EN 61000-6-3 (household environment) |
| EMC interference immunity | Acc. to EN 61000-6-2 (industrial environment) |
| Humidity class | F3-1 |
| Insulation class | "B" |
| Cable exit | Variable |
| Condensate discharge holes | Rotor-side |
| Motor bearing | Ball bearing |
| Mass | 1.6 kg |
| Material of electronics housing | Die-cast aluminium |
| Material of impeller | Plastic PA66, fibreglass-reinforced |
| Motor protection | Reverse polarity and locked-rotor protection |
| Surface of rotor | Coated in black |
| Number of blades | 7 |
| Type of protection | IP 44 |
| Protection class | I |
| Technical features | <ul style="list-style-type: none"> - Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start |
| Max. permissible ambient motor temp. (transp./ storage) | + 80 °C |
| Min. permissible ambient motor temp. (transp./storage) | - 40 °C |

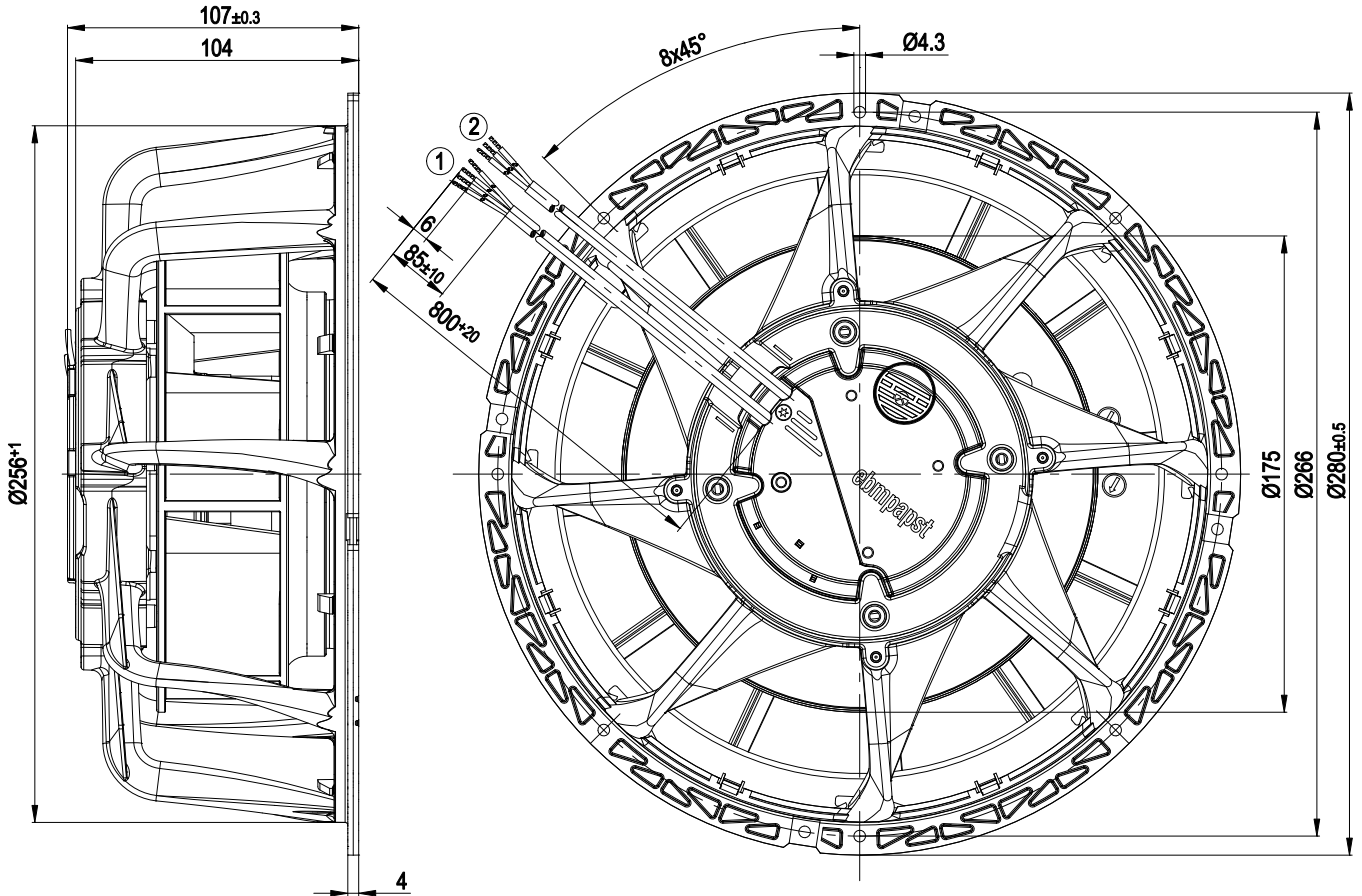
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Product drawing



- | | |
|---|--|
| 1 | Connection line A03VV-F4x0.25; 4 x brass lead tips crimped |
| 2 | Connection line H03VV-F3G0.5; 3 x brass lead tips crimped |

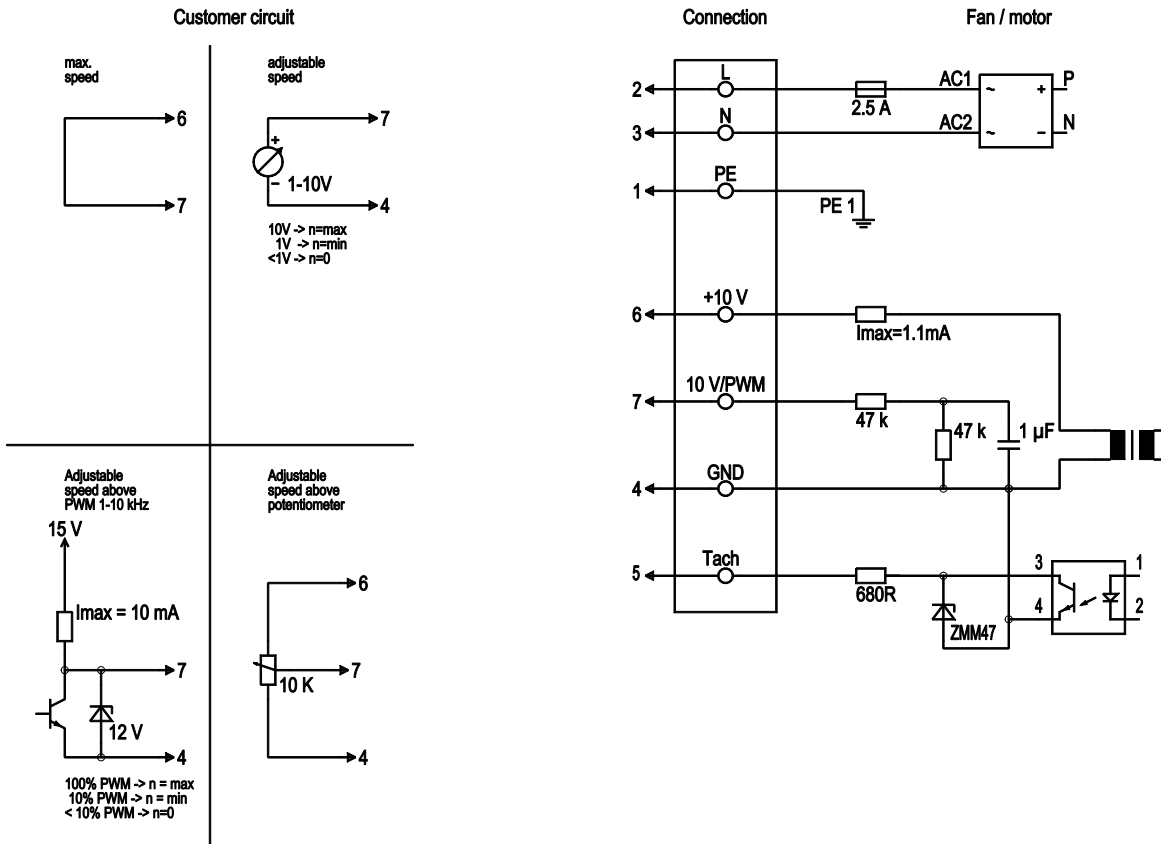


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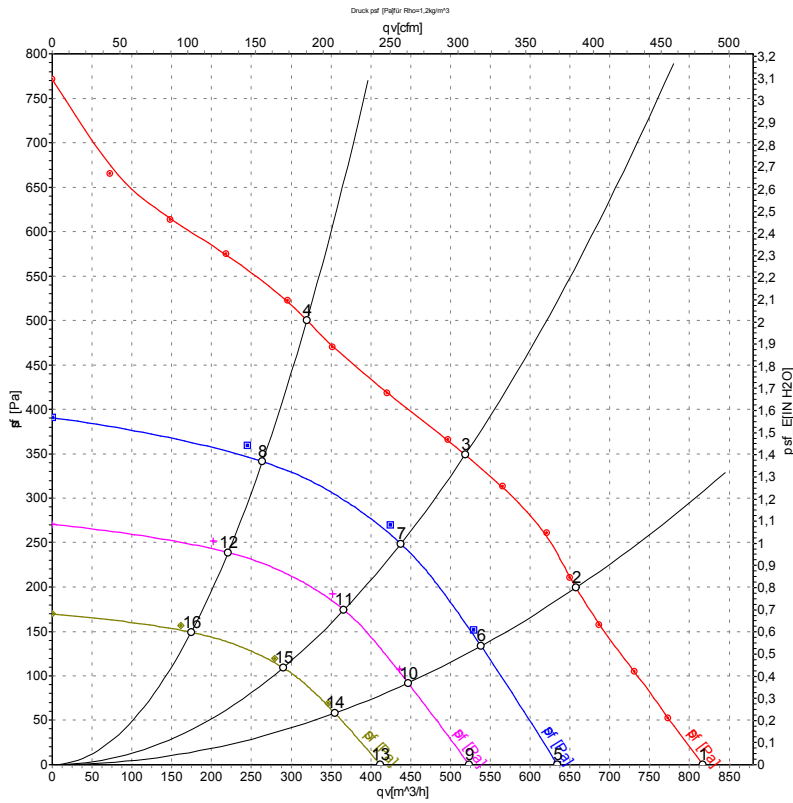
Connection screen



| Line | No. | Signal | Colour | Function / assignment |
|------|-----|-------------------|--------------|--|
| | 2 | L | brown | Power supply 230 VAC, 50-60 Hz, see type plate for voltage range |
| | 3 | N | blue | Neutral conductor |
| | 1 | PE | green/yellow | Protective earth |
| | 7 | 0-10 V PWM | yellow | Control input 0 - 10 V or PWM, electrically isolated |
| | 5 | Tacho | white | Tach output: Open Collector, 1 pulse per revolution, electrically isolated |
| | 6 | 10V / max. 1.1 mA | red | Voltage output 10V / 1.1mA, electrically isolated, not short-circuit-proof |
| | 4 | GND | blue | GND - Connection for control interface |



Charts: Air flow 50 Hz



Measurement: LU-117353
 Measurement: LU-119194
 Measurement: LU-119195
 Measurement: LU-119196

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: L_{wA} measured as per ISO 13347 / L_{pA} measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

| | U | f | n | P _e | I | L _{pA_{in}} | L _{wA_{in}} | qv | p _{sf} |
|----|-----|----|-------------------|----------------|------|------------------------------|------------------------------|-------------------|-----------------|
| | V | Hz | min ⁻¹ | W | A | dB(A) | dB(A) | m ³ /h | Pa |
| 1 | 230 | 50 | 4485 | 99 | 0.72 | 72 | 80 | 815 | 0 |
| 2 | 230 | 50 | 4280 | 112 | 0.82 | 69 | 77 | 660 | 200 |
| 3 | 230 | 50 | 4200 | 118 | 0.90 | 68 | 75 | 520 | 350 |
| 4 | 230 | 50 | 4200 | 117 | 0.86 | 71 | 79 | 320 | 500 |
| 5 | 230 | 50 | 3500 | 50 | 0.39 | 68 | 75 | 635 | 0 |
| 6 | 230 | 50 | 3500 | 60 | 0.48 | 66 | 72 | 540 | 138 |
| 7 | 230 | 50 | 3500 | 71 | 0.56 | 64 | 71 | 440 | 255 |
| 8 | 230 | 50 | 3500 | 69 | 0.53 | 67 | 75 | 265 | 350 |
| 9 | 230 | 50 | 2900 | 30 | 0.24 | 63 | 70 | 525 | 0 |
| 10 | 230 | 50 | 2900 | 37 | 0.30 | 60 | 67 | 445 | 94 |
| 11 | 230 | 50 | 2900 | 43 | 0.34 | 60 | 67 | 365 | 178 |
| 12 | 230 | 50 | 2900 | 42 | 0.33 | 62 | 69 | 220 | 244 |
| 13 | 230 | 50 | 2300 | 18 | 0.16 | 57 | 65 | 410 | 0 |
| 14 | 230 | 50 | 2300 | 21 | 0.17 | 55 | 63 | 355 | 60 |
| 15 | 230 | 50 | 2300 | 25 | 0.21 | 54 | 62 | 290 | 112 |
| 16 | 230 | 50 | 2300 | 22 | 0.19 | 55 | 63 | 175 | 153 |

