

ebm-papst Ventilator (Shanghai) Co.,Ltd.

No.418, Hua Jing Road, Wai Gao Qiao Free Trade Zone, Pudong

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W3G800-GO84-01/F05 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Nominal data

| | | |
|--------------------------|--------------------|------------|
| Type | W3G800-GO84-01/F05 | |
| Motor | M3G112-IA | |
| Phase | | 3~ |
| Nominal voltage | VAC | 400 |
| Nominal voltage range | VAC | 380 .. 480 |
| Frequency | Hz | 50/60 |
| Type of data definition | | ml |
| Speed | min ⁻¹ | 735 |
| Power input | W | 835 |
| Current draw | A | 1.4 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 60 |

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

Data according to ErP directive

| | |
|---------------------------------|------------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive integrated | Integrated |
| Specific ratio* | 1,00 |

* Specific ratio = $1 + p_{fs} / 100\,000 \text{ Pa}$

| | | Actual | Request 2013 | Request 2015 |
|--------------------------------|-------------------|--------|--------------|--------------|
| Overall efficiency η_{es} | | 44,2 | 29 | 33 |
| Efficiency grade N | | 51,2 | 36 | 40 |
| Power input P_{ed} | kW | 0,78 | | |
| Air flow q_v | m ³ /h | 12095 | | |
| Pressure increase p_{fs} | Pa | 95 | | |
| Speed n | min ⁻¹ | 740 | | |

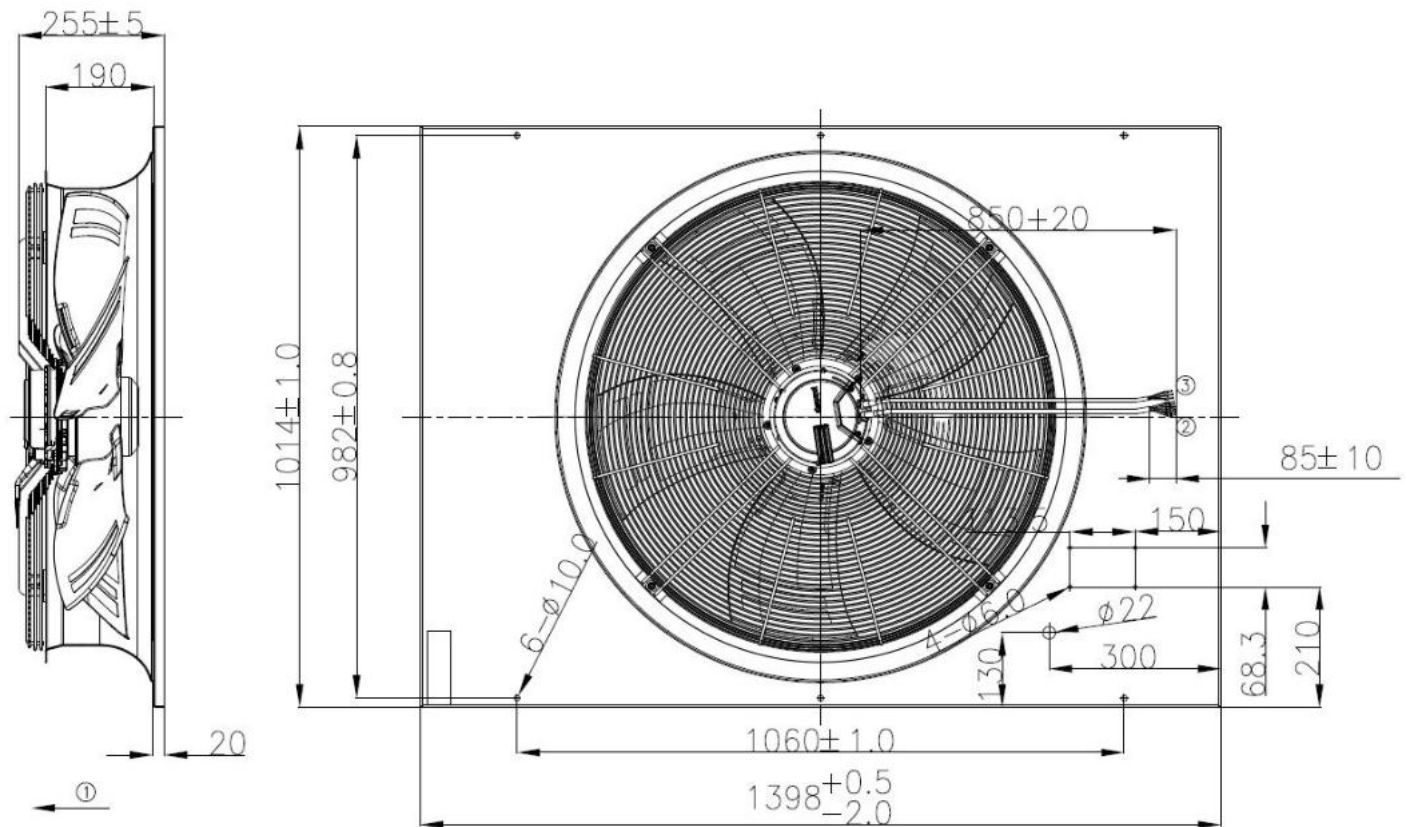
Data established at point of optimum efficiency



Technical features

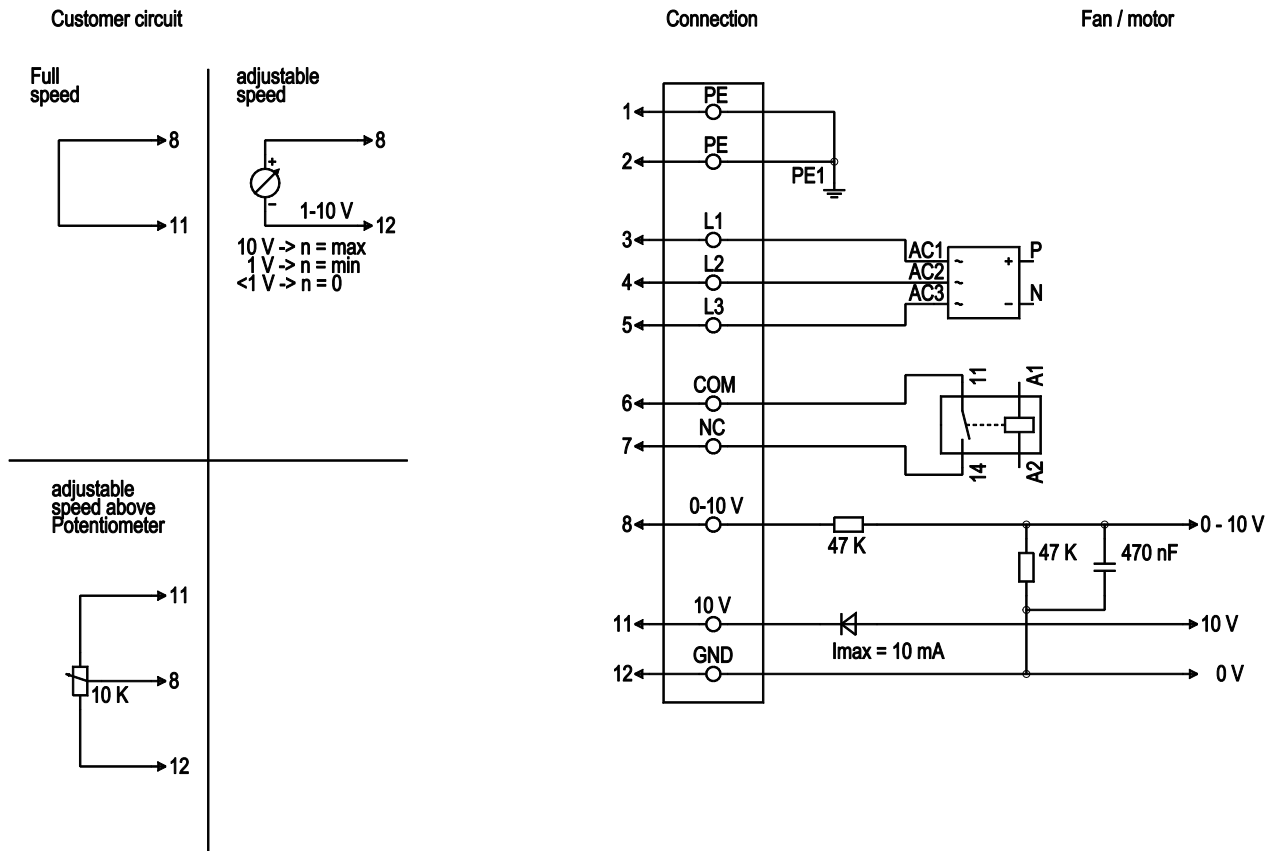
| | |
|---|---|
| Mass | 30 kg |
| Size | 800 mm |
| Surface of rotor | Coated in black |
| Material of electronics housing | Die-cast aluminium, coated in black |
| Material of blades | Press-fitted sheet steel blank, sprayed with PP plastic |
| Material of wall ring | Sheet steel, pre-galvanised and coated in qq5021 |
| Material of guard grille | Steel, phosphated and coated in black plastic |
| Number of blades | 5 |
| Blade angle | 0° |
| Direction of air flow | "V" |
| Direction of rotation | Clockwise, seen on rotor |
| Type of protection | IP 54 |
| Insulation class | "B" |
| Humidity class | F4-1 |
| Max. permissible ambient motor temp. (transp./ storage) | +80 °C |
| Min. permissible ambient motor temp. (transp./storage) | -40 °C |
| Mounting position | Shaft horizontal or rotor on bottom; rotor on top on request |
| Condensate discharge holes | Rotor-side |
| Operation mode | S1 |
| Motor bearing | Ball bearing |
| Technical features | <ul style="list-style-type: none"> - PFC, passive - Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Tach output - Over-temperature protected electronics / motor - Alarm relay - Integrated PID controller - RS485 ebmBUS - Motor current limit - Soft start - Line undervoltage / phase failure detection |
| EMC interference immunity | Acc. to EN 61000-6-2 (industrial environment) |
| EMC interference emission | Acc. to EN 61000-6-3 (household environment) |
| EMC harmonics | Acc. to EN 61000-3-2/3 |
| Leakage current | <= 3.5 mA |
| Motor protection | Thermal overload protector (TOP) wired internally |
| Cable exit | Variable |
| Protection class | I (if protective earth is connected by customer) |
| Conformity with standards | EN 61800-5-1; CE |
| Approval | EAC; CCC |

Product drawing



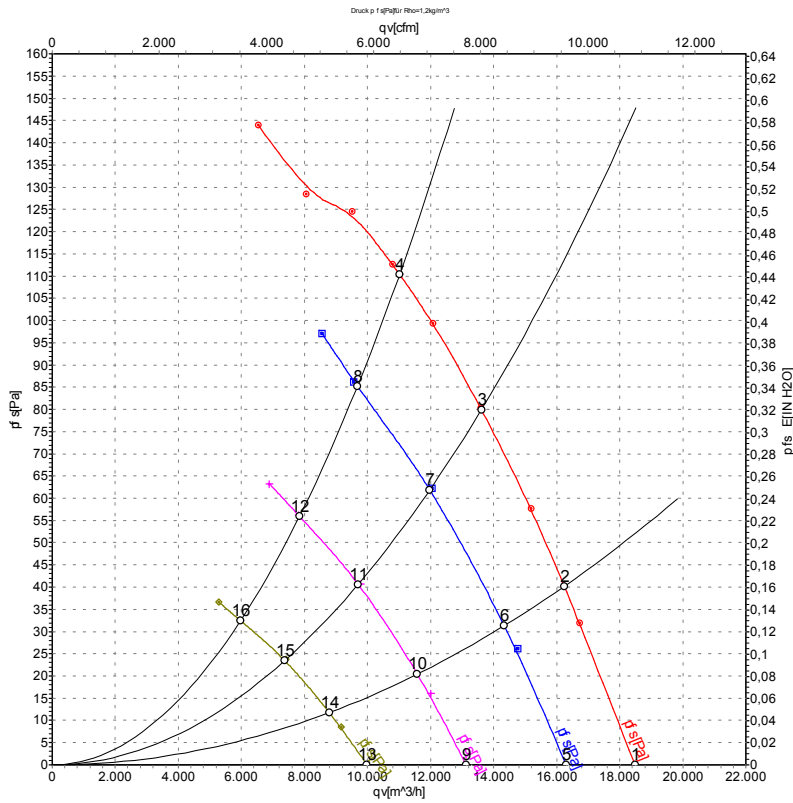
| | |
|---|---|
| 1 | Direction of air flow "V" |
| 2 | Connection line AWG18, 6 x crimped core-end sleeves |
| 3 | Connection line AWG22, 3 x crimped core-end sleeves |

Connection screen



| Line | No. | Signal | Colour | Function / assignment |
|------|---------|------------|--------------|---|
| 1 | 1, 2 | PE | green/yellow | Protective earth |
| 1 | 3, 4, 5 | L1, L2, L3 | black | Supply voltage 50 / 60 Hz |
| 1 | 6 | COM | white 1 | Floating status contact, break for failure (2 A, max. 250 VAC, min. 10 mA, AC1) |
| 1 | 7 | NC | white 2 | Floating status message contact, break for failure |
| 2 | 8 | 0 - 10 V | yellow | Control input, set value 0 - 10 VDC, impedance 100 kOhm, SELV |
| 2 | 11 | + 10 V | red | Voltage output 10 VDC (+/-3%), max. 10 mA, supply voltage for ext. devices (e.g. potentiometer), SELV |
| 2 | 12 | GND | blue | Reference mass for control interface, SELV |

Charts: Air flow 50 Hz



Measurement: LU-117968
 Measurement: LU-118106
 Measurement: LU-118107
 Measurement: LU-118105

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: LwA measured as per ISO 13347 / LpA 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 _{ed} | I | LpA _{in} | LwA _{in} | LwA _{out} | qv | P _{fs} |
|----|-----|----|-------------------|-----------------|------|-------------------|-------------------|--------------------|-------------------|-----------------|
| | V | Hz | min ⁻¹ | W | A | dB(A) | dB(A) | dB(A) | m ³ /h | Pa |
| 1 | 400 | 50 | 735 | 514 | 0.87 | 63 | 70 | 70 | 18480 | 0 |
| 2 | 400 | 50 | 735 | 632 | 1.04 | 59 | 66 | 65 | 16240 | 40 |
| 3 | 400 | 50 | 735 | 732 | 1.20 | 57 | 64 | 64 | 13610 | 80 |
| 4 | 400 | 50 | 735 | 835 | 1.40 | 62 | 70 | 69 | 11020 | 110 |
| 5 | 400 | 50 | 650 | 338 | 0.66 | 59 | 66 | 66 | 16290 | 0 |
| 6 | 400 | 50 | 650 | 398 | 0.77 | 57 | 63 | 63 | 14330 | 32 |
| 7 | 400 | 50 | 650 | 476 | 0.86 | 54 | 61 | 60 | 11970 | 63 |
| 8 | 400 | 50 | 650 | 521 | 0.89 | 58 | 66 | 66 | 9685 | 85 |
| 9 | 400 | 50 | 525 | 185 | 0.39 | 54 | 61 | 60 | 13120 | 0 |
| 10 | 400 | 50 | 525 | 223 | 0.46 | 52 | 58 | 58 | 11580 | 21 |
| 11 | 400 | 50 | 525 | 253 | 0.51 | 49 | 56 | 55 | 9705 | 41 |
| 12 | 400 | 50 | 525 | 276 | 0.55 | 53 | 60 | 60 | 7845 | 56 |
| 13 | 400 | 50 | 400 | 90 | 0.23 | 48 | 54 | 54 | 9985 | 0 |
| 14 | 400 | 50 | 400 | 107 | 0.26 | 46 | 52 | 52 | 8785 | 12 |
| 15 | 400 | 50 | 400 | 120 | 0.28 | 43 | 50 | 50 | 7375 | 24 |
| 16 | 400 | 50 | 400 | 127 | 0.29 | 45 | 52 | 52 | 5975 | 32 |

