

Product Data Sheet QG030-198/12

ebmpapst

The engineer's choice



**QG030-198/12
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1 General

| | | |
|---------------------------------------|----------------|--|
| Fan type | Cross-flow fan | |
| Rotational direction looking at motor | Clockwise | |
| Airflow direction | Cross-flow | |
| Bearing system motor | Ball bearing | |
| Bearing system rotor | Sleeve bearing | |
| Mounting position - shaft | Any | |

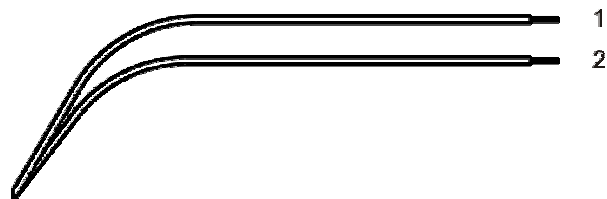
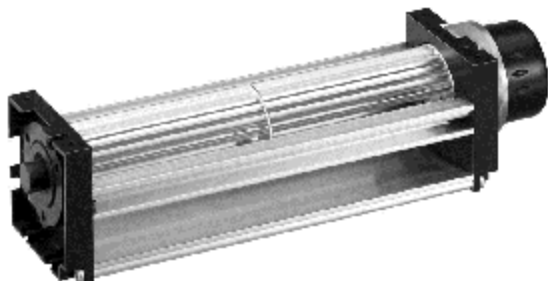
2 Mechanics

2.1 General

| | | |
|----------------------------------|-----------------------|--|
| Width | 260,5 mm | |
| Height | 47,5 mm | |
| Depth | 50,0 mm | |
| Mass | 0,290 kg | |
| Material spiral with tongue | Metal | |
| side part material | Plastic | |
| Impeller material | Metal | |
| surface protection rotor housing | Elektrophobic coating | |

2.2 Connections

| | | |
|-----------------------|-------------|--|
| Electrical connection | Wires | |
| Lead wire length | See drawing | |
| Tolerance | | |
| Tube length | S = 35,0 mm | |
| Tolerance | + - 10,0 mm | |
| Wire size (AWG) | 24 | |
| Insulation diameter | 1,55 mm | |
| Plug | See drawing | |
| Contact | See drawing | |



| Wire | Color | Operation |
|------|-------|-----------|
| 1 | red | + UB |
| 2 | blue | - GND |

3 Operating Data

3.1 Electrical Operating Data

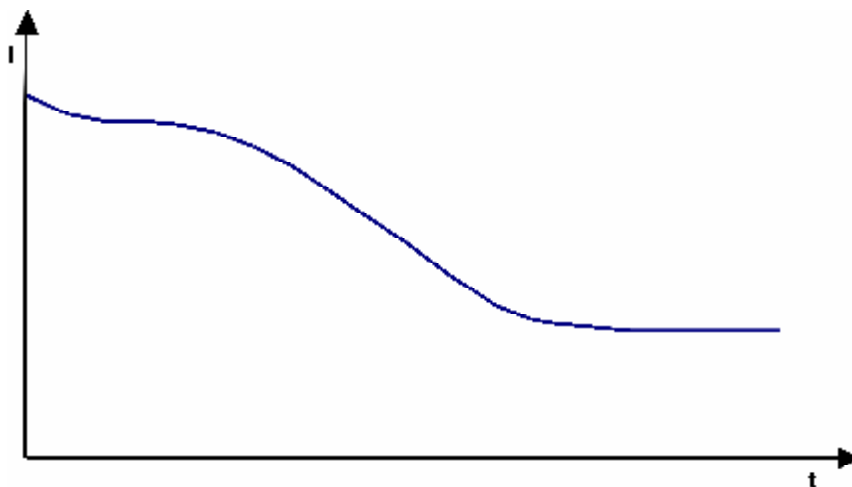
Measurement conditions: Normal air density = 1,2 kg/m³; Temperature 23°C +/- 3°C; Motor axis horizontal; warm-up time before measuring 5 minutes (unless otherwise specified). In the intake and outlet area should not be any solid obstruction within 0,5 m.

$\Delta p = 0$: corresp. to free air flow (see chapter aerodynamics)
 I: corresp. to arithm. mean current value

| Features | Condition | Symbol | Values | | |
|---------------------|----------------|--------|-------------|-------------|-------------|
| Voltage range | $\Delta p = 0$ | U | 8,0 V | | 14,0 V |
| Nominal voltage | $\Delta p = 0$ | U_N | | 12,0 V | |
| Power consumption | $\Delta p = 0$ | P | | 8,0 W | 7,7 W |
| Tolerance | | | | +/- 10 % | +/- 10 % |
| Current consumption | $\Delta p = 0$ | I | | 665 mA | 550 mA |
| Tolerance | | | | +/- 10 % | +/- 10 % |
| Speed | $\Delta p = 0$ | n | 3.000 1/min | 4.400 1/min | 4.900 1/min |
| Tolerance | | | +/- 7,5 % | +/- 7,5 % | +/- 7,5 % |

3.2 Electrical Features

| | | |
|--|--------------------------------|-------|
| Electronic function | None | |
| Reversed polarity protection | PTC | |
| Max. residual current at U_{max} | IF 5.000 mA | |
| reaction time reversed polarity protection | < 30,0 s at $T_u = 23^\circ C$ | |
| Locked rotor protection | PTC | |
| reaction time locked rotor protection | < 300 s at $T_u = 23^\circ C$ | |
| Locked rotor current at U_{max} | approx. 300 mA according | 120 s |



Blower restart possible after a short power shut down.

3.3 Aerodynamics

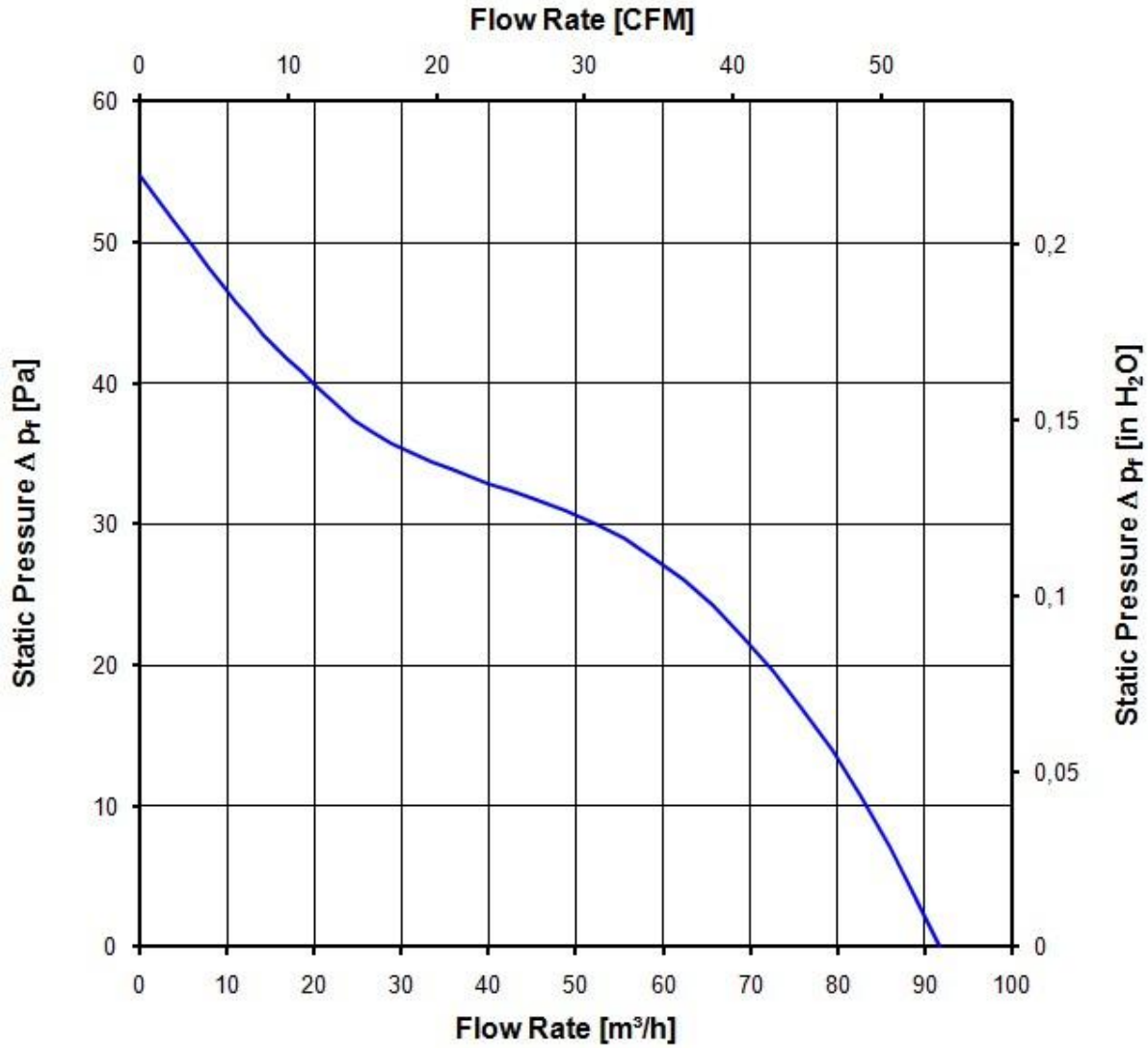
Measurement conditions: Measured in suction side throttled double-chamber test rig acc. DIN EN ISO 5801 and using a dedicated ebmpapst-setup for cross flow blowers.
 Normal air density = 1,2 kg/m³; Temperature 23°C +/- 3°C;
 In the intake and outlet area should not be any solid obstruction within 0,5 m. Motor shaft horizontal.
 The information is only valid under the specified test conditions and may be changed by the installation conditions. If there are deviations from the standard test conditions, the characteristic values must be checked under the installed conditions.

Operation condition: 4.300 1/min at free air flow

| | | |
|---|------------------------|--|
| Max. free-air flow ($\Delta p = 0 / \dot{V} = \text{max.}$) | 92,0 m ³ /h | |
|---|------------------------|--|

max. allowable operation point on the fan chart

| | | |
|-------------------------|------------------------|--|
| volumetric flow rate | 65,0 m ³ /h | |
| pressure (Δp) | 27 Pa | |



3.4 Sound Data

Measurement conditions: Sound pressure level: 1 meter distance between microphone and the air intake.
 Sound power level: Acc. to DIN 45635 part 38 (ISO 10302)
 Measured in a semianchoic chamber with a background noise level of $L_p(A) < 5$ dB(A)
 Measured without dedicated ebmpast-setup for cross-flow blowers
 For further measurement conditions see chapter aerodynamics.

Operation condition: 4.300 1/min at free air flow

| | | |
|---|--------------------------------|--|
| Optimal operating point | 60,0 m ³ /h @ 26 Pa | |
| Sound power level at the optimal operating point | 5,4 bel(A) | |
| Sound pressure level at free air flow, measured in rubber bands | 49,0 dB(A) | |

4 Environment

4.1 General

| | | |
|--|--------|--|
| Min. permitted ambient temperature TU min. | -20 °C | |
| Max. permitted ambient temperature TU max. | 60 °C | |
| Min. permitted storage temperature TL min. | -40 °C | |
| Max. permitted storage temperature TL max. | 80 °C | |

4.2 Climatic Requirements

| | | |
|-----------------------|---|--|
| Humidity requirements | humid heat, constant; according to DIN EN 60068-2-78, 14 days | |
| Water exposure | None | |
| Dust requirements | None | |
| Salt fog requirements | None | |

Permitted application area:

The product is intended for use in sheltered rooms with controlled temperature and controlled humidity. Directly exposure to water must be avoided.

Pollution degree 1 (according DIN EN 60664-1)

There is either no pollution or it occurs only dry, non-conductive pollution. The pollution has no negative impact.

4.3 Mechanical Requirements

Please require severity levels and specification parameters from the responsible development departments.

5 Safety

5.1 Electrical Safety

| | | |
|---|--|--|
| Dielectric strength DIN EN 60950 (VDE 0805) and DIN EN 60335 (VDE 0700) A.) Type test Measuring conditions: After 48h of storage at 95% R.H. and 25°C. No arcing or breakdown is allowed! All connections together to ground. B.) Routine test Measuring conditions: At indoor climate. No arcing or breakdown is allowed! All connections together to ground. | 500 VAC / 1 Min. 850 VDC / 1 Sec. | |
| Isolation resistance Measuring conditions: After 48h of storage at 95% R.H. and 25°C measured with U=500 VDC for 1 min. | RI > 10 MOhm | |
| Clearance / creepage distance | 1,0 mm / 1,2 mm | |
| Protection class | III | |

5.2 Approval Tests

| | | |
|-----|---|---|
| CE | EC Declaration of Conformity | Yes |
| EAC | Eurasian Conformity | Yes |
| UL | Underwriters Laboratories | Yes / UL507, Electric Fans |
| VDE | Association for Electrical, Electronic and Information Technologies | Yes / Approval acc. to EN 60950 (VDE 0805) - Information technology equipment |
| CSA | Canadian Standards Association | Yes / C22.2 No. 113 Fans and Ventilators |
| CCC | China Compulsory Certification | Not applicable |

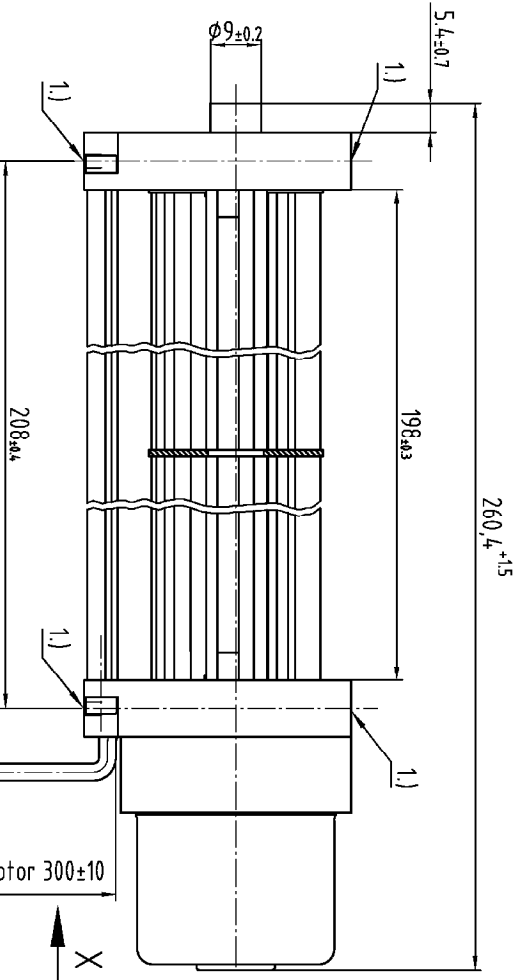
6 Reliability

6.1 General

| | | |
|--|----------|--|
| Life expectancy L10 at TU = 40 °C | 30.000 h | |
| Life expectancy L10 at TU max. | 20.000 h | |
| Life expectancy L10 acc. to IPC 9591 at TU = 40 °C | 50.000 h | |

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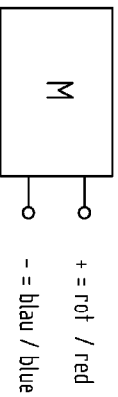
Schutzvermerk nach DIN ISO 16016 beachten/
Refer to protection notice DIN ISO 16016!



- 1) Befestigungsbohrungen 8x $\varnothing 2,3 \pm 0,2$
1) mounting holes 8x $\varnothing 2,3 \pm 0,2$

Litzenlänge ab Motorflansch 300 ± 10
wire length measured from flange of motor 300 ± 10

Schaltbild / circuit diagram



Technische Daten siehe Katalog
for technical data refer to catalogue

| | | | | | | | | | | | |
|----------------------|--|-----------------------------------|--|-------------------------------------|--|-------------------------|--|------------------------------|--|-----------------------------------|--|
| SAP-Statu/Staté | | Kont.-Nr./Change-No. | | eblmpapst | | eblmpapst | | Verstórf/Material | | Volumen/VOLUME (cm ³) | |
| Aundt-Serien-Version | | Datum/Date | | EOL-Jungfernung/ EOL-Eintragen! | | Name/Name | | Artikel/Title | | Gewicht/Mass (g) | |
| Bearth/ Drawn | | Gepr./ Checked | | Freig/ Released | | Zchg.-Nr./ Drawing-No.: | | Dokumenttyp/Type of Document | | Teilkonvent/Bblat/Prqel | |
| Toleranz/Tolerances | | Allgemeintoleranz/Gen. tolerances | | eblmpapst | | Ers.Zchg./Replaces: | | Index/Index | | Formal/Size | |
| | | | | eblmpapst St. Georgen GmbH & Co. KG | | | | Massstab/Scale | | | |