

# EC centrifugal fan

backward-curved, single-intake  
with housing (flange)

G1G144-AE13-05 ebmpapst Datasheet

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## Nominal data

|                          |                   |          |
|--------------------------|-------------------|----------|
| Type                     | G1G144-AE13-05    |          |
| Motor                    | M1G055-AI         |          |
| Nominal voltage          | VDC               | 24       |
| Nominal voltage range    | VDC               | 16 .. 28 |
| Method of obtaining data |                   | fa       |
| Speed (rpm)              | min <sup>-1</sup> | 4350     |
| Power consumption        | W                 | 54       |
| Current draw             | A                 | 2.5      |
| Min. ambient temperature | °C                | -25      |
| Max. ambient temperature | °C                | 70       |

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change



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## Technical description

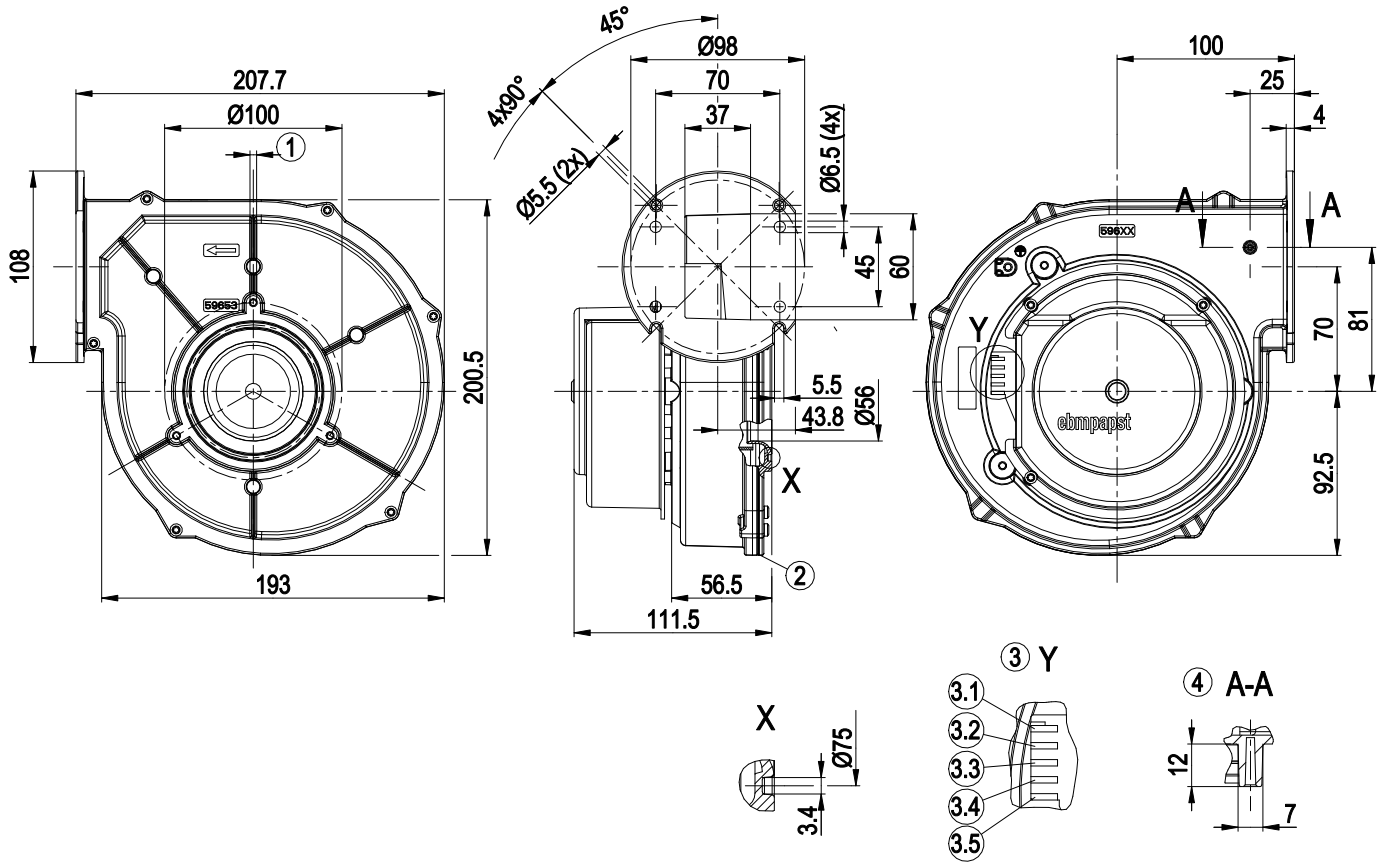
|                                                            |                                                      |
|------------------------------------------------------------|------------------------------------------------------|
| Weight                                                     | 1.6 kg                                               |
| Size                                                       | 144 mm                                               |
| Motor size                                                 | 55                                                   |
| Rotor surface                                              | Thick-film passivated                                |
| Cover material                                             | PP plastic                                           |
| Impeller material                                          | PA plastic                                           |
| Housing material                                           | Die-cast aluminum                                    |
| Direction of rotation                                      | Clockwise, viewed toward rotor                       |
| Degree of protection                                       | IP00                                                 |
| Insulation class                                           | "B"                                                  |
| Moisture (F) / Environmental (H) protection class          | H0 - dry environment                                 |
| Max. permitted ambient temp. for motor (transport/storage) | + 80 °C                                              |
| Min. permitted ambient temp. for motor (transport/storage) | - 40 °C                                              |
| Installation position                                      | Any                                                  |
| Condensation drainage holes                                | On rotor side                                        |
| Mode                                                       | S1                                                   |
| Premixing                                                  | Not suitable for premixing.                          |
| Motor mounting                                             | Ball bearing                                         |
| Motor protection                                           | Reverse polarity and locked-rotor protection         |
| Comment                                                    | Complete unit must be tested for required approvals. |



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## Product drawing

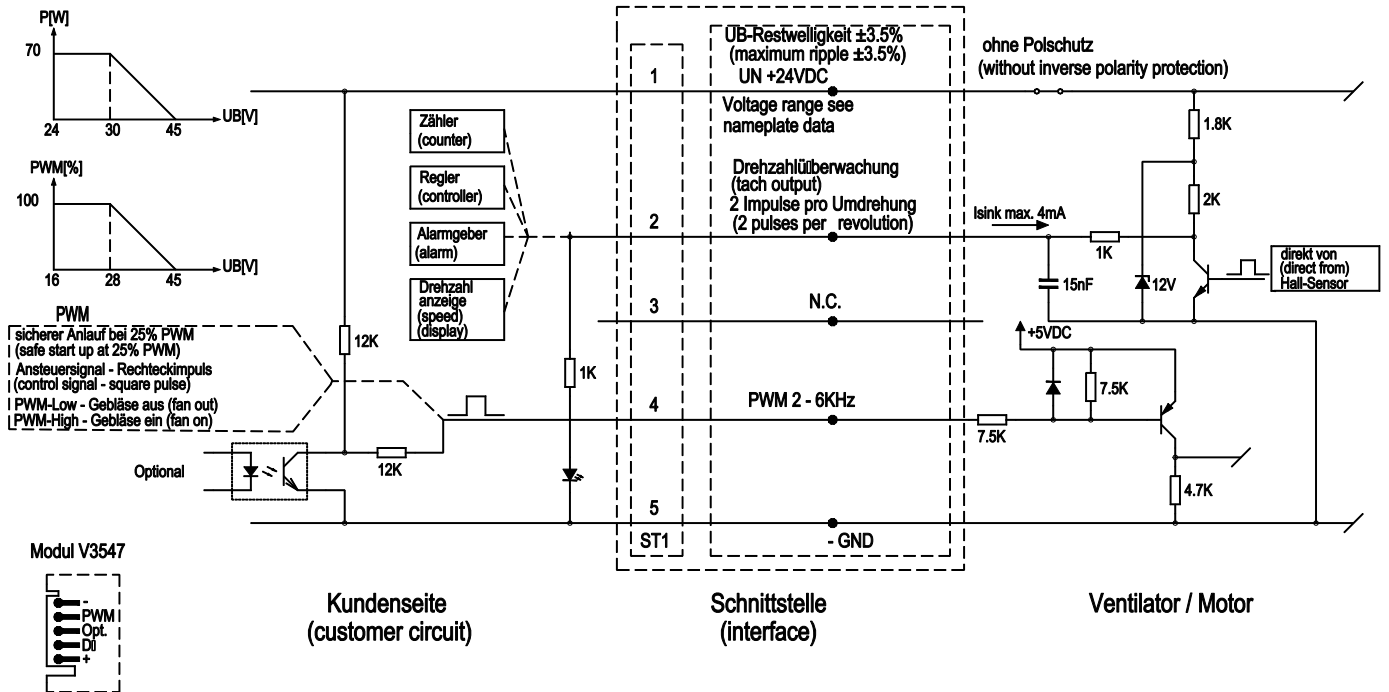


|     |                                                                   |
|-----|-------------------------------------------------------------------|
| 1   | For self-tapping M4 screws, max. clearance for screw 11 mm        |
| 2   | Housing side parts sealed with NBR round cord (pentane-resistant) |
| 3   | Motor connection                                                  |
| 3.1 | -                                                                 |
| 3.2 | PWM                                                               |
| 3.3 | not used                                                          |
| 3.4 | Speed monitoring                                                  |
| 3.5 | +                                                                 |
| 4   | Pressure tap sealed (drilled open if required)                    |

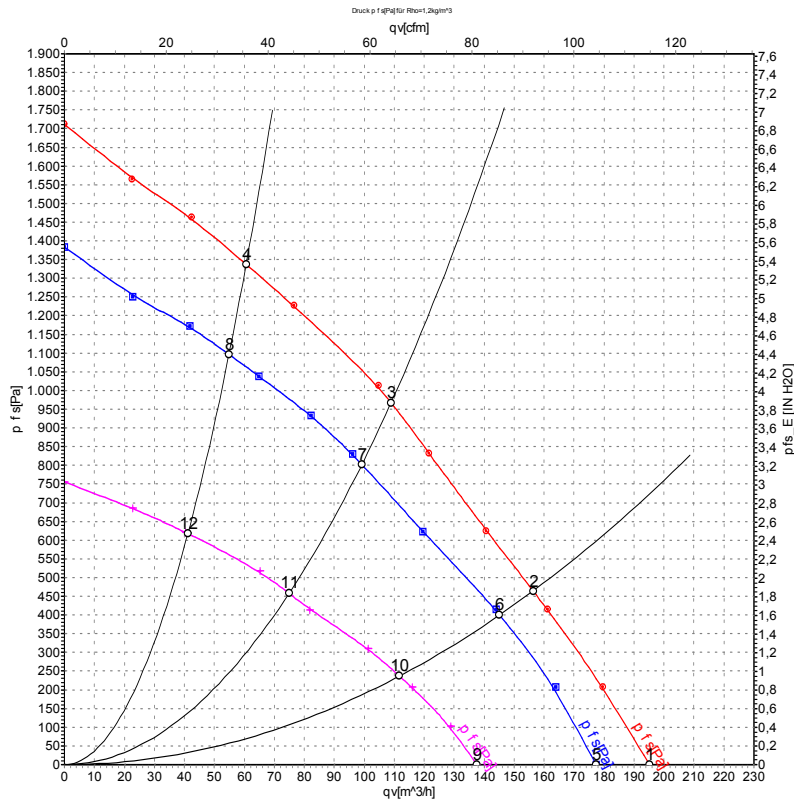
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## Connection diagram



## Curves: Air performance



Measurement: LU-38724-1  
Measurement: LU-38723-1  
Measurement: LU-38725-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

## Measured values

|    | U  | n                 | $P_{ed}$ | I    | $q_v$                 | $p_{fs}$ | $q_v$ | $p_{fs}$ |
|----|----|-------------------|----------|------|-----------------------|----------|-------|----------|
|    | V  | $\text{min}^{-1}$ | W        | A    | $\text{m}^3/\text{h}$ | Pa       | cfm   | in. wg   |
| 1  | 28 | 4655              | 68       | 2.83 | 195                   | 0        | 115   | 0.00     |
| 2  | 28 | 4775              | 66       | 2.70 | 155                   | 465      | 90    | 1.87     |
| 3  | 28 | 5155              | 61       | 2.45 | 110                   | 970      | 65    | 3.89     |
| 4  | 28 | 5655              | 52       | 2.04 | 60                    | 1337     | 35    | 5.37     |
| 5  | 24 | 4350              | 54       | 2.50 | 175                   | 0        | 105   | 0.00     |
| 6  | 24 | 4435              | 53       | 2.43 | 145                   | 404      | 85    | 1.62     |
| 7  | 24 | 4700              | 47       | 2.16 | 100                   | 804      | 60    | 3.23     |
| 8  | 24 | 5105              | 39       | 1.77 | 55                    | 1096     | 30    | 4.40     |
| 9  | 16 | 3380              | 25       | 1.70 | 140                   | 0        | 80    | 0.00     |
| 10 | 16 | 3435              | 24       | 1.64 | 110                   | 237      | 65    | 0.95     |
| 11 | 16 | 3595              | 21       | 1.47 | 75                    | 458      | 45    | 1.84     |
| 12 | 16 | 3855              | 18       | 1.23 | 40                    | 618      | 25    | 2.48     |

U = Power supply · n = Speed (rpm) ·  $P_{ed}$  = Power consumption · I = Current draw ·  $q_v$  = Air flow ·  $p_{fs}$  = Pressure increase