**R1G133-AA17-02**

# EC centrifugal fan

backward curved, single inlet



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## Nominal data

| | | |
|---|---|---|
| **Type** | **R1G133-AA17-02** | |
| **Motor** | **M1G055-BD** | |
| Nominal voltage | VDC | 24 |
| Nominal voltage range | VDC | 16 .. 28 |
| Type of data definition | | fa |
| Speed | min-1 | 3900 |
| Power input | W | 28 |
| Current draw | A | 1.3 |
| 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

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## Technical features

| | |
|---|---|
| **Mass** | 0.65 kg |
| **Size** | 133 mm |
| **Surface of rotor** | Thick layer passivated |
| **Material of electronics housing** | Die-cast aluminium |
| **Material of impeller** | Plastic PA66, fibreglass-reinforced |
| **Number of blades** | 7 |
| **Direction of rotation** | Clockwise, seen on rotor |
| **Type of protection** | IP 20 |
| **Insulation class** | "B" |
| **Humidity class** | F0 |
| **Max. permissible ambient motor temp. (transp./ storage)** | +80 °C |
| **Min. permissible ambient motor temp. (transp./storage)** | -40 °C |
| **Mounting position** | Any |
| **Condensate discharge holes** | Rotor-side |
| **Operation mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Technical features** | - Control input 0-10 VDC / PWM<br>- Tach output<br>- Motor current limit<br>- Soft start |
| **EMC interference immunity** | Acc. to EN 61000-6-2 (industrial environment) |
| **EMC interference emission** | Acc. to EN 61000-6-3 (household environment) |
| **Motor protection** | Reverse polarity and locked-rotor protection |
| **Cable exit** | Variable |
| **Approval** | UL 1004-1; CSA C22.2 Nr.77 |

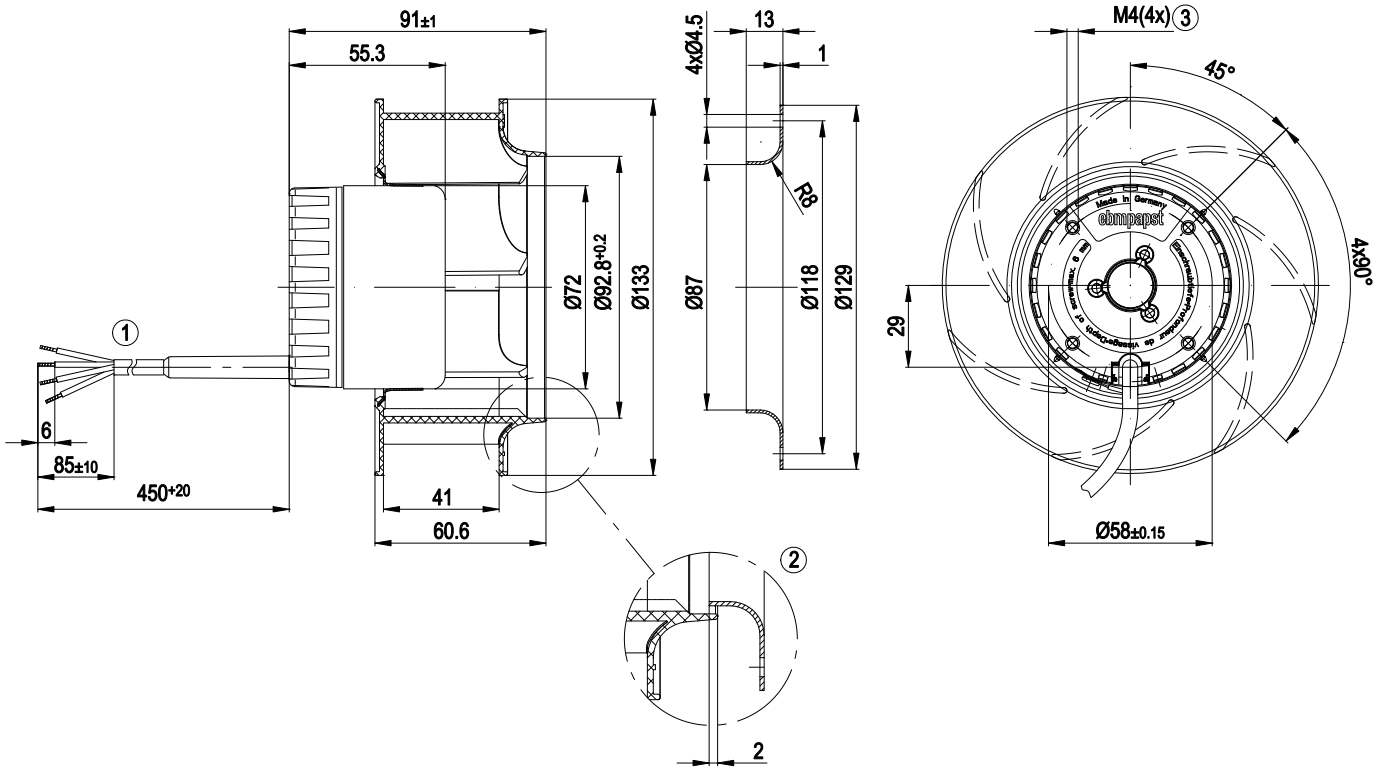


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## Product drawing




| | |
|---|---|
| 1 | Connection line AWG20; 4 x brass lead tips crimped |
| 2 | Accessory part: Inlet nozzle 09566-2-4013, not included in the standard scope of delivery |
| 3 | Depth of screw max. 6 mm |

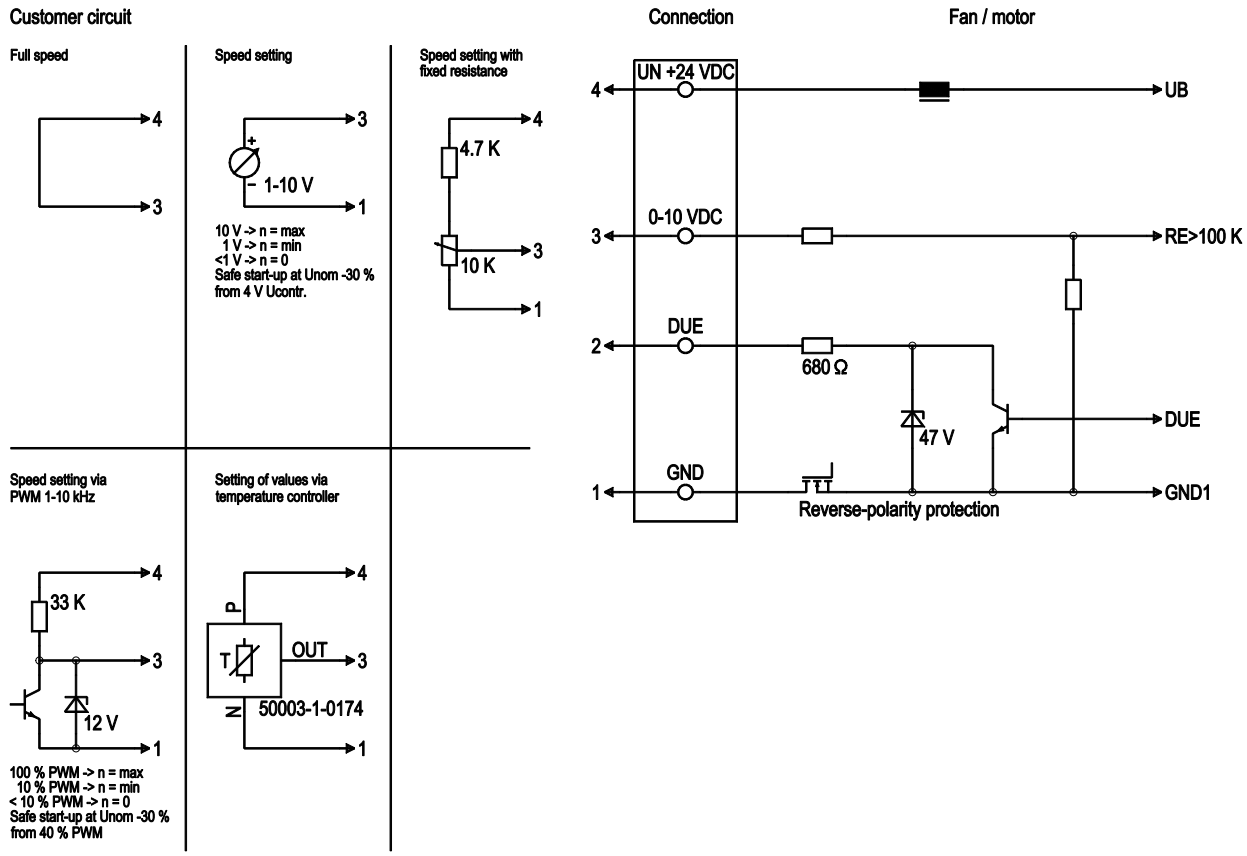


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## Connection screen




| Line | No. | Signal | Colour | Function / assignment |
|---|---|---|---|---|
| 1 | 1 | GND | blue | Reference mass |
| 1 | 2 | DUE | white | Speed monitoring output, 2 pulses per rotation, Isink max = 10 mA |
| 1 | 3 | 0-10 VDC | yellow | Control input Re > 100 K |
| 1 | 4 | Un +24 VDC | red | Power supply 24 VDC, residual ripple 3.5 % |

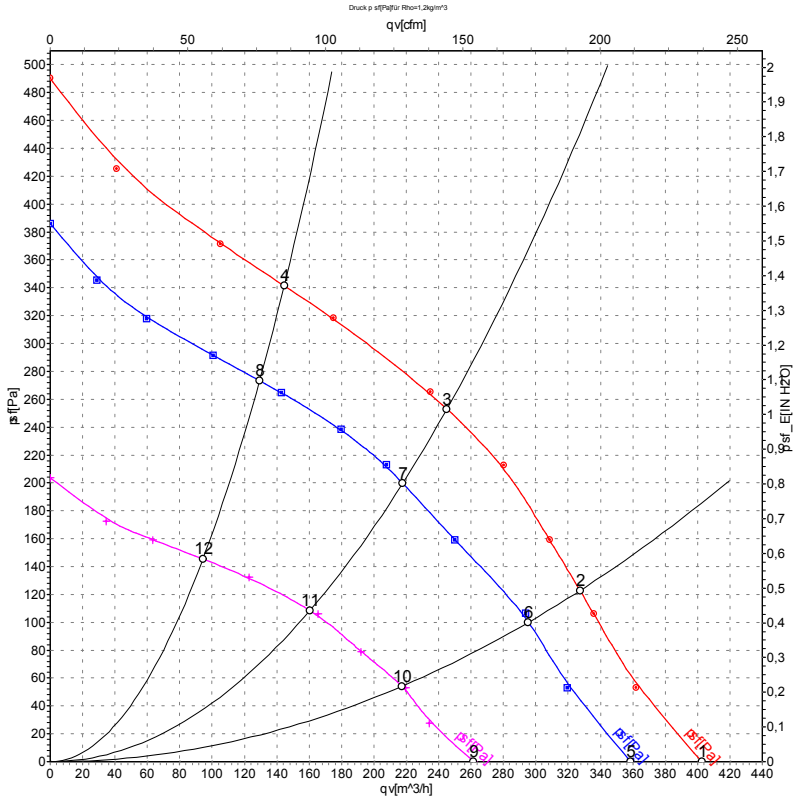


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## Charts: Air flow




Measurement: LU-54690
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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 | n | $P_e$ | I | qv | $p_{sf}$ |
|---|---|---|---|---|---|---|
| | V | $min^{-1}$ | W | A | $m^3/h$ | Pa |
| 1 | 28 | 4345 | 36 | 1.43 | 405 | 0 |
| 2 | 28 | 4170 | 40 | 1.60 | 325 | 123 |
| 3 | 28 | 4155 | 41 | 1.61 | 245 | 253 |
| 4 | 28 | 4255 | 38 | 1.51 | 145 | 342 |
| 5 | 24 | 3900 | 28 | 1.30 | 360 | 0 |
| 6 | 24 | 3725 | 30 | 1.39 | 295 | 100 |
| 7 | 24 | 3710 | 30 | 1.40 | 220 | 200 |
| 8 | 24 | 3800 | 28 | 1.32 | 130 | 275 |
| 9 | 16 | 2830 | 11 | 0.88 | 260 | 0 |
| 10 | 16 | 2750 | 13 | 0.95 | 215 | 55 |
| 11 | 16 | 2745 | 13 | 0.95 | 160 | 109 |
| 12 | 16 | 2795 | 12 | 0.91 | 95 | 145 |



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