

**R3G140-AV17-40**

# EC centrifugal fan

forward curved



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R3G140-AV17-40 ebmpapst Datasheet

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## Nominal data

|                          |                   |       |
|--------------------------|-------------------|-------|
| Type                     | R3G140-AV17-40    |       |
| Motor                    | M3G055-CF         |       |
| Phase                    |                   | 1~    |
| Nominal voltage          | VAC               | 230   |
| Frequency                | Hz                | 50/60 |
| Type of data definition  |                   | -     |
| Speed                    | min <sup>-1</sup> | 2200  |
| Power input              | W                 | 69    |
| Current draw             | A                 | 0.55  |
| Min. ambient temperature | °C                | -25   |
| Max. ambient temperature | °C                | 50    |

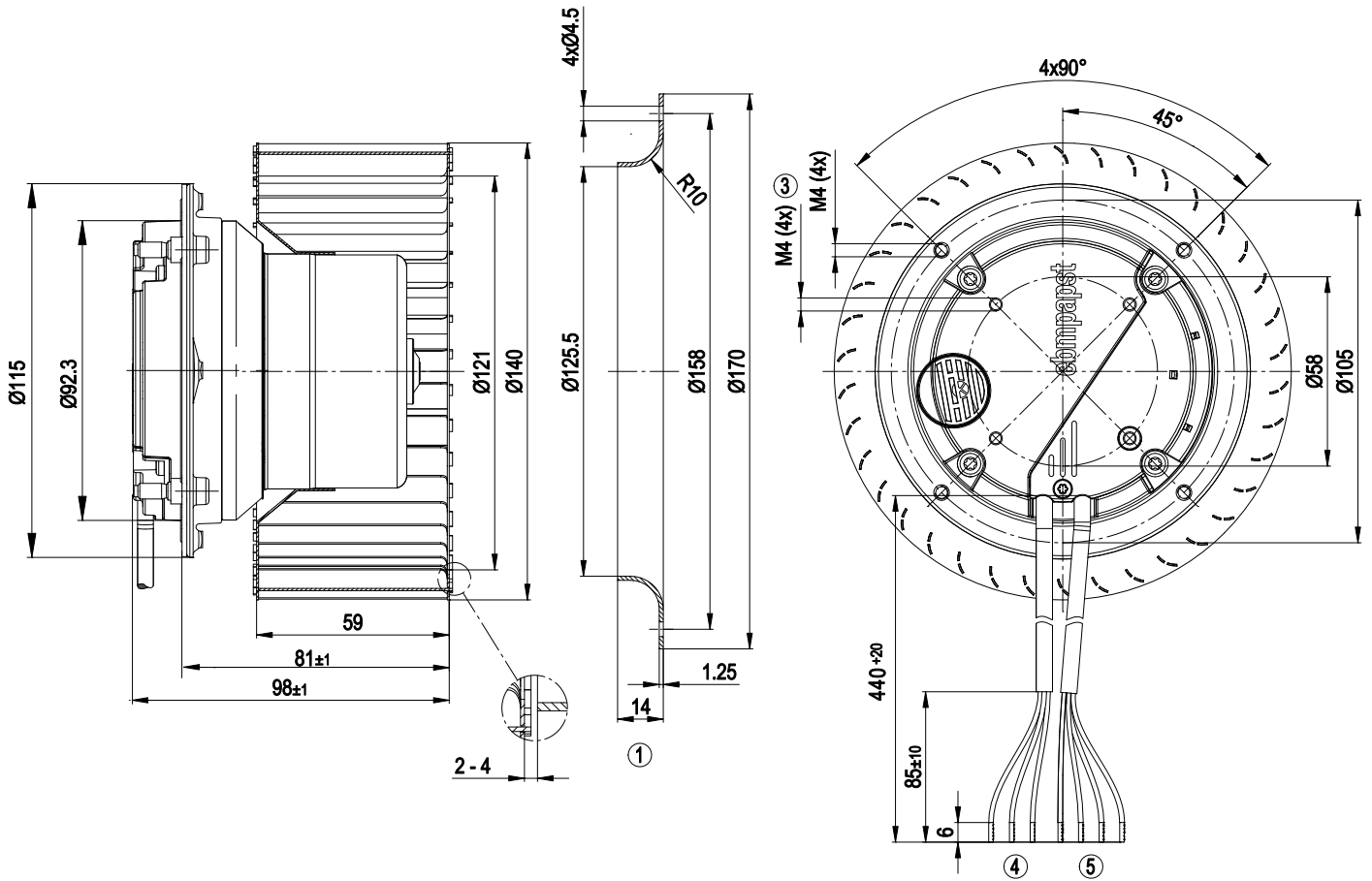
ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit  
Subject to alterations



### Technical features

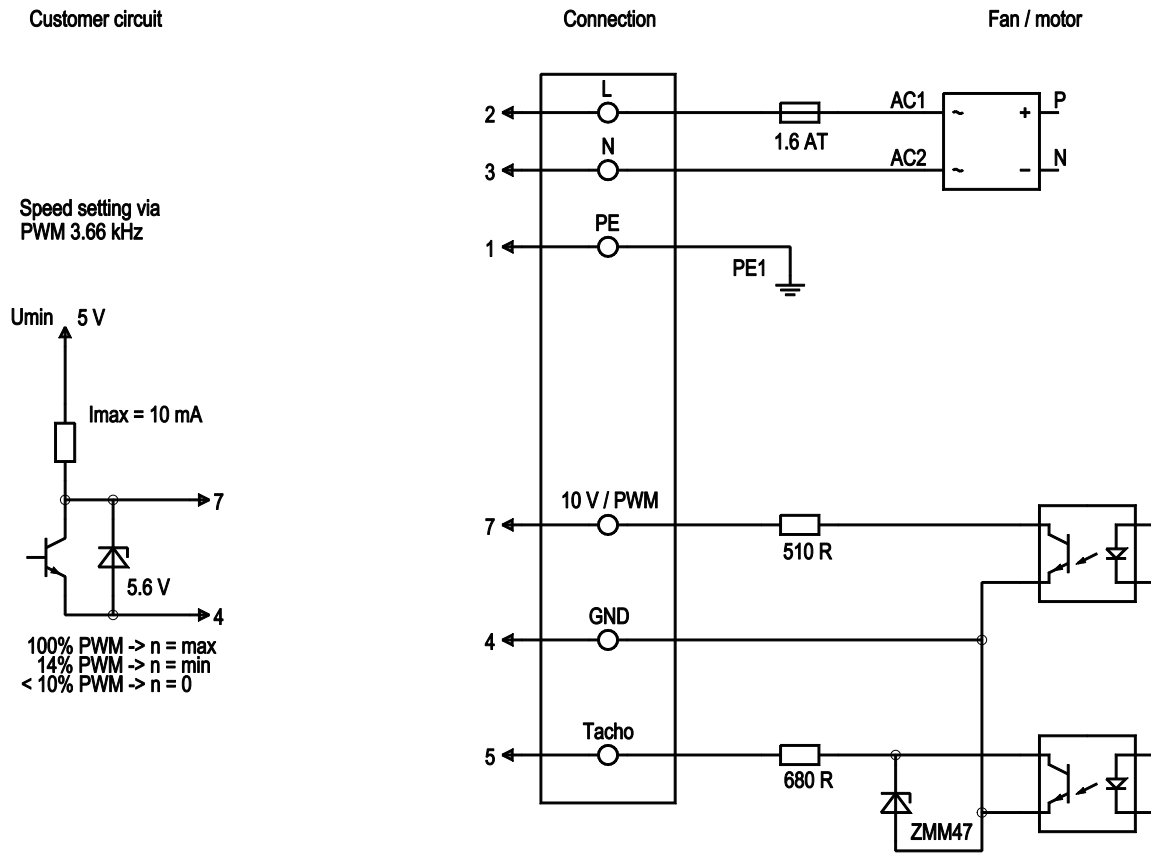
|  |   |
|--|---|
| <b>Mass</b>  | 1.24 kg   |
| <b>Size</b>  | 140 mm  |
| <b>Surface of rotor</b>  | Thick layer passivated  |
| <b>Material of electronics housing</b>                         | Die-cast aluminium  |
| <b>Material of impeller</b>                                    | Sheet steel, galvanised   |
| <b>Direction of rotation</b>                                   | Clockwise, seen on rotor  |
| <b>Type of protection</b>                                      | IP 44   |
| <b>Insulation class</b>  | "B"   |
| <b>Humidity class</b>  | F3-1  |
| <b>Max. permissible ambient motor temp. (transp./ storage)</b> | + 80 °C   |
| <b>Min. permissible ambient motor temp. (transp./storage)</b>  | - 40 °C   |
| <b>Mounting position</b>                                       | Any   |
| <b>Condensate discharge holes</b>                              | Rotor-side  |
| <b>Operation mode</b>  | S1  |
| <b>Motor bearing</b>   | Ball bearing  |
| <b>Technical features</b>                                      | <ul style="list-style-type: none"> <li>- Tach output</li> <li>- Motor current limit</li> <li>- Soft start</li> <li>- PWM control input</li> </ul> |
| <b>EMC interference immunity</b>                               | Acc. to EN 61000-6-2 (industrial environment)   |
| <b>EMC harmonics</b>   | Acc. to EN 61000-3-2/3  |
| <b>EMC interference emission</b>                               | Acc. to EN 61000-6-3 (household environment)  |
| <b>Leakage current</b>   | <= 3.5 mA   |
| <b>Motor protection</b>  | Thermal overload protector (TOP) internally connected   |
| <b>Cable exit</b>  | Variable  |
| <b>Protection class</b>  | I (if protective earth is connected by customer)  |
| <b>Product conforming to standard</b>                          | EN 60335-1  |
| <b>Approval</b>  | CCC   |

Product drawing



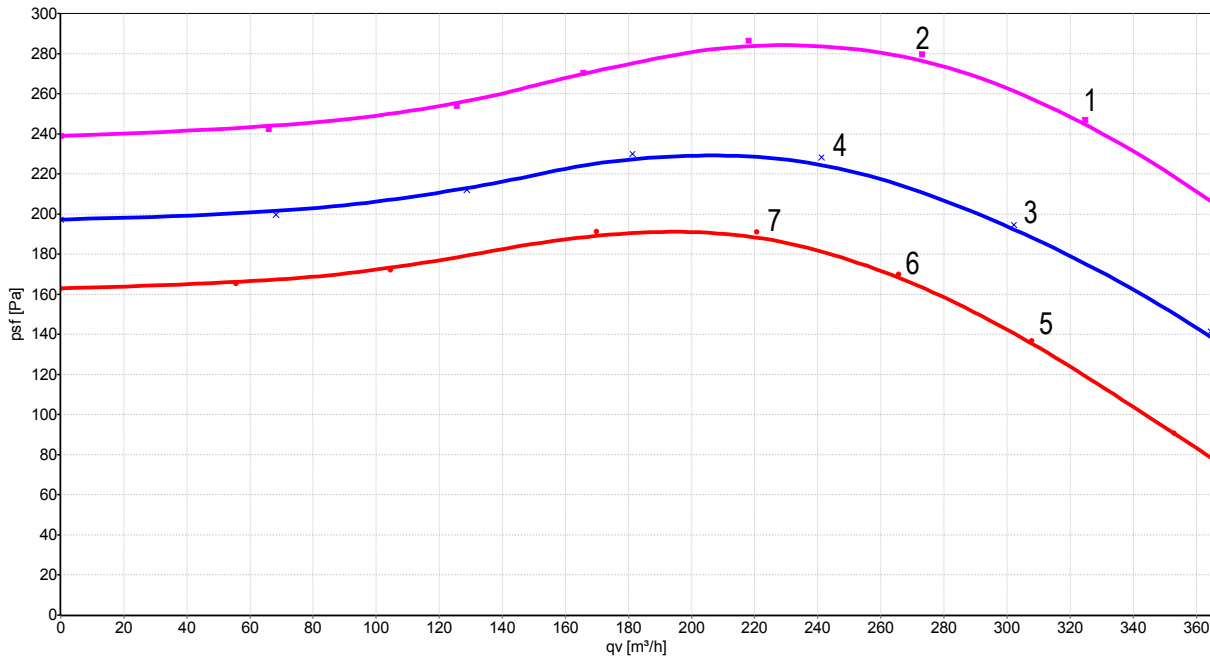
|   |   |
|---|---|
| 1 | Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery |
| 3 | Max. clearance for screw 5 mm   |
| 4 | Connection line AWG20 UL style 2517, 3 x brass lead tips crimped                          |
| 5 | Connection line AWG22 UL style 2464, 4 x brass lead tips crimped                          |

## Connection screen



| Line | No. | Signal | Colour       | Function / assignment  |
|------|-----|--------|--------------|--|
|      | 1   | PE     | green/yellow | Protective earth   |
|      | 2   | L      | brown        | Power supply 230 VAC, 50 - 60 Hz   |
|      | 3   | N      | blue         | Neutral conductor  |
|      | 4   | GND    | blue         | GND - Connection for control interface                                     |
|      | 5   | Tacho  | white        | Tach output: Open Collector, 1 pulse per revolution, electrically isolated |
|      | 7   | PWM    | yellow       | PWM control input, electrically isolated                                   |

Charts: Air flow 50 Hz

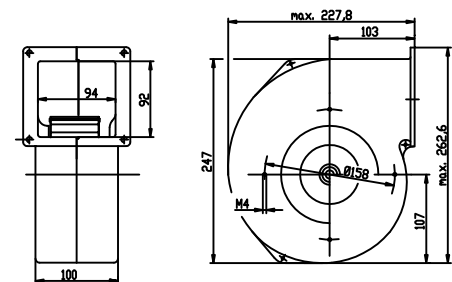


Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions 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

| No. | U [V]  | I <sub>N</sub> [A] | P <sub>e</sub> [W] | λ    | n [1/min] | P <sub>sf</sub> [Pa] | P <sub>sf12</sub> [Pa] | P <sub>f</sub> [Pa] | q <sub>v</sub> [m³/h] | η <sub>e</sub> [%] | LpA <sub>In</sub> [dBA] | LwA <sub>In</sub> [dBA] |
|-----|--------|--------------------|--------------------|------|-----------|----------------------|------------------------|---------------------|-----------------------|--------------------|-------------------------|-------------------------|
| 1   | 230.13 | 0.55               | 69.2               | 0.55 | 2207      | 246.9                | 252.5                  | 299.1               | 324.8                 | 38.9               | 60.4                    | 67.6                    |
| 2   | 230.29 | 0.44               | 56.4               | 0.56 | 2206      | 279.8                | 286.1                  | 316.7               | 273.0                 | 42.4               | 59.8                    | 67.0                    |
| 3   | 229.91 | 0.40               | 52.7               | 0.57 | 1991      | 194.6                | 198.1                  | 240.3               | 302.2                 | 38.2               |                         |                         |
| 4   | 230.82 | 0.33               | 42.1               | 0.55 | 2013      | 228.3                | 233.7                  | 257.4               | 241.2                 | 40.8               |                         |                         |
| 5   | 230.16 | 0.36               | 46.3               | 0.56 | 1818      | 136.6                | 139.1                  | 184.1               | 307.9                 | 33.9               |                         |                         |
| 6   | 230.32 | 0.30               | 39.0               | 0.56 | 1816      | 170.0                | 173.1                  | 205.4               | 265.6                 | 38.7               |                         |                         |
| 7   | 230.17 | 0.25               | 32.3               | 0.55 | 1828      | 191.0                | 194.5                  | 215.3               | 220.6                 | 40.9               |                         |                         |

Test with scroll housing



U = Supply voltage · f = Frequency · n = Speed · P<sub>ed</sub> = Power input · I = Current draw · q<sub>v</sub> = Air flow · p<sub>s</sub> = Pressure increase

