

# EC centrifugal fan

backward curved, single inlet

R3G225-AE19-17 ebmpapst Datasheet

[sales@fansco.com](mailto:sales@fansco.com)

[www.fansco.com](http://www.fansco.com)

Limited partnership · Headquarters Muldingen  
County court Stuttgart · HRA 590344

General partner Elektrobau Muldingen GmbH · Headquarters Muldingen  
County court Stuttgart · HRB 590142

## Nominal data

|                          |                   |       |
|--------------------------|-------------------|-------|
| Type                     | R3G225-AE19-17    |       |
| Motor                    | M3G055-CF         |       |
| Phase                    |                   | 1~    |
| Nominal voltage          | VAC               | 230   |
| Frequency                | Hz                | 50/60 |
| Type of data definition  |                   | ml    |
| Speed                    | min <sup>-1</sup> | 2560  |
| Power input              | W                 | 120   |
| Current draw             | A                 | 0.9   |
| Min. ambient temperature | °C                | - 25  |
| Max. ambient temperature | °C                | + 40  |

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



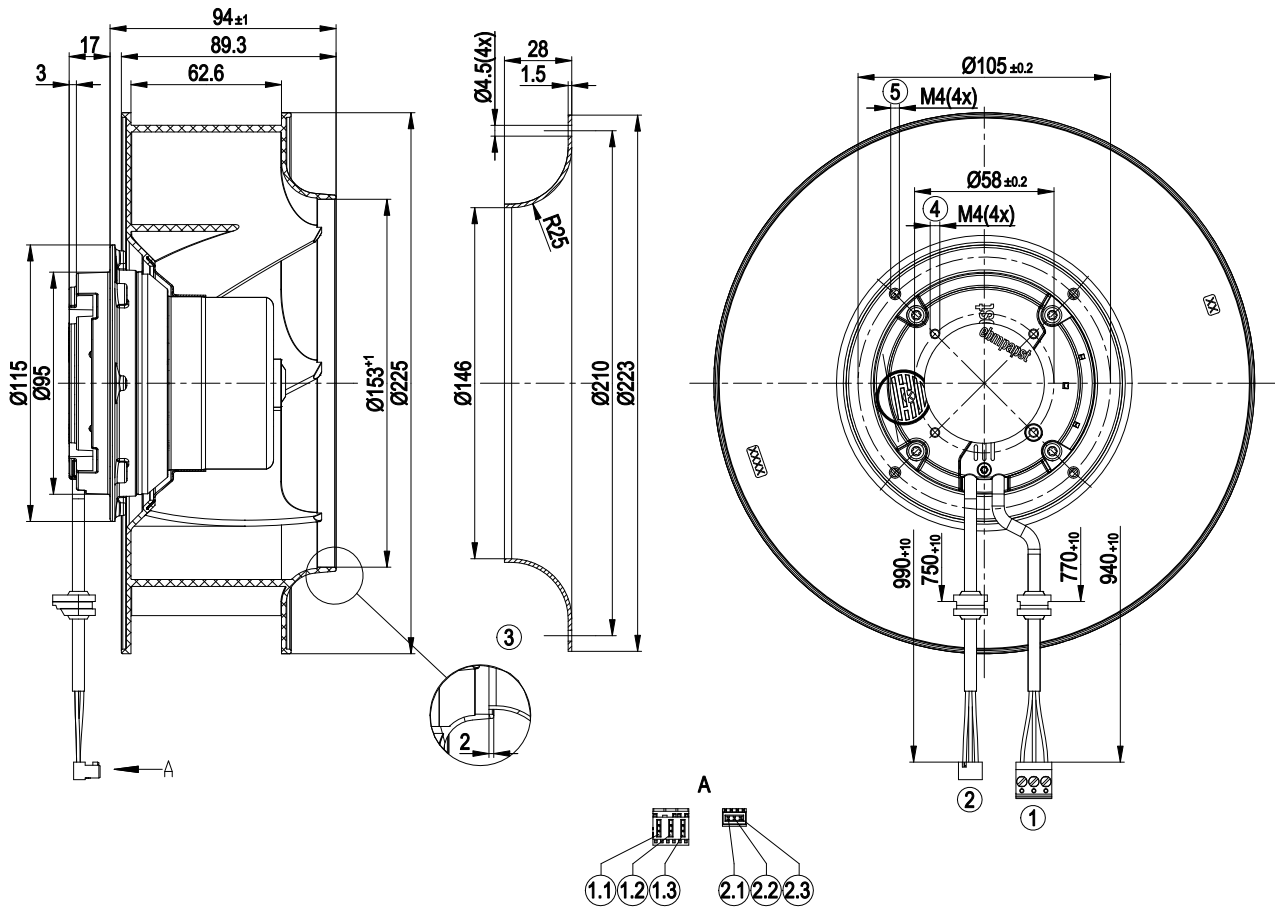
### Technical features

|  |   |
|--|---|
| Size   | 225 mm  |
| Surface of rotor   | Thick layer passivated  |
| Material of impeller   | Plastic PA66, fibreglass-reinforced   |
| Number of blades   | 7   |
| Direction of rotation  | Clockwise, seen on rotor  |
| Type of protection   | IP 44; Depending on installation and position as per EN 60034-5   |
| Insulation class   | "B"   |
| Humidity class   | F3-1  |
| 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"> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Tach output</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Control interface with SELV potential safely disconnected from the mains</li> <li>- Over-temperature protected motor</li> </ul> |
| EMC interference immunity  | Acc. to EN 61000-6-2 (industrial environment)   |
| EMC harmonics  | Acc. to EN 61000-3-2/3  |
| EMC interference emission  | Acc. to EN 61000-6-3 (household environment)  |
| Touch current acc. IEC 60990 (measuring network Fig. 4, TN system) | <= 3.5 mA   |
| Motor protection   | Thermal overload protector (TOP) wired internally   |
| Cable exit   | Variable  |
| Protection class   | I (if protective earth is connected by customer)  |
| Product conforming to standard                                     | EN 60335-1; CE  |

# EC centrifugal fan

backward curved, single inlet

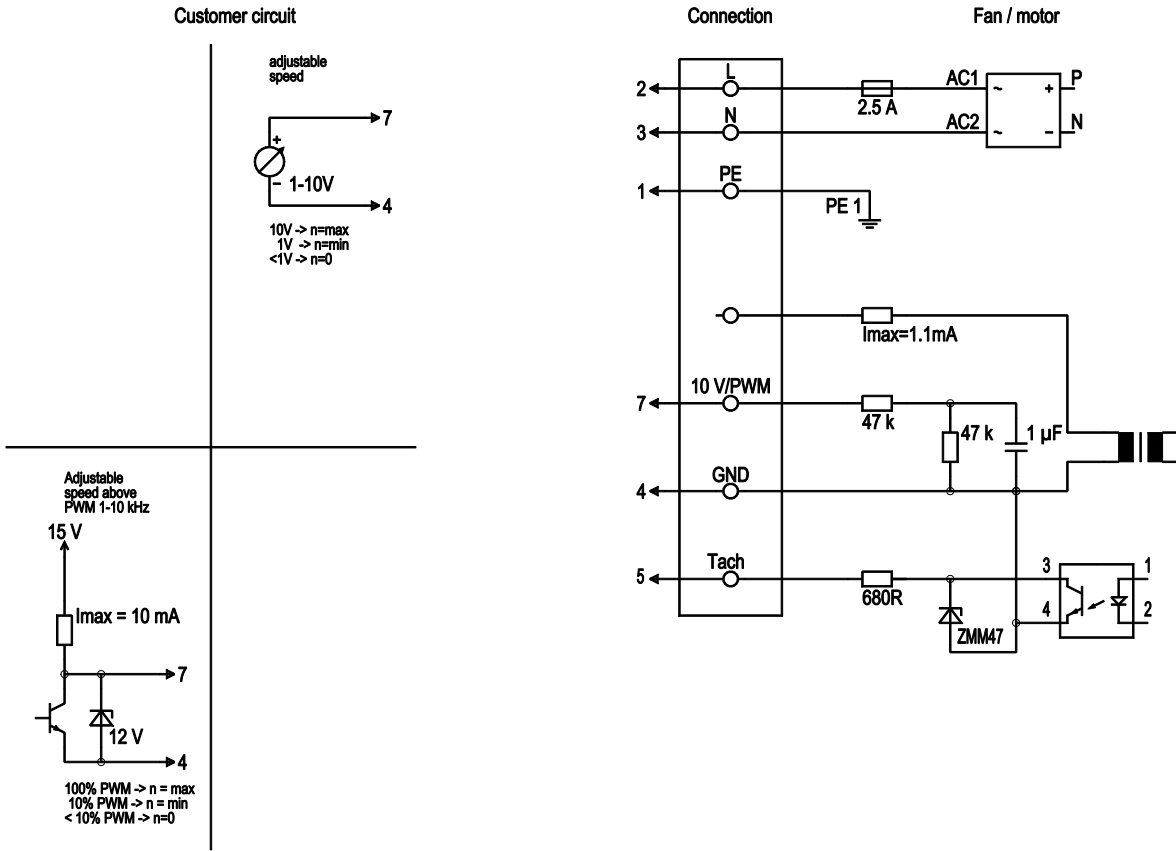
## Product drawing



|   |   |
|---|---|
| 1 | Connection line H03VV-F3G 0.5; Lumberg connector shell 3615-2 03 K01                      |
| 2 | Connection line A03VV-F3x0.25; Lumberg 3510 03 K06 M12                                    |
| 3 | Accessory part: Inlet nozzle 96358-2-4013, not included in the standard scope of delivery |
| 4 | Depth of screw max. 6 mm  |
| 5 | Depth of screw max. 6 mm  |

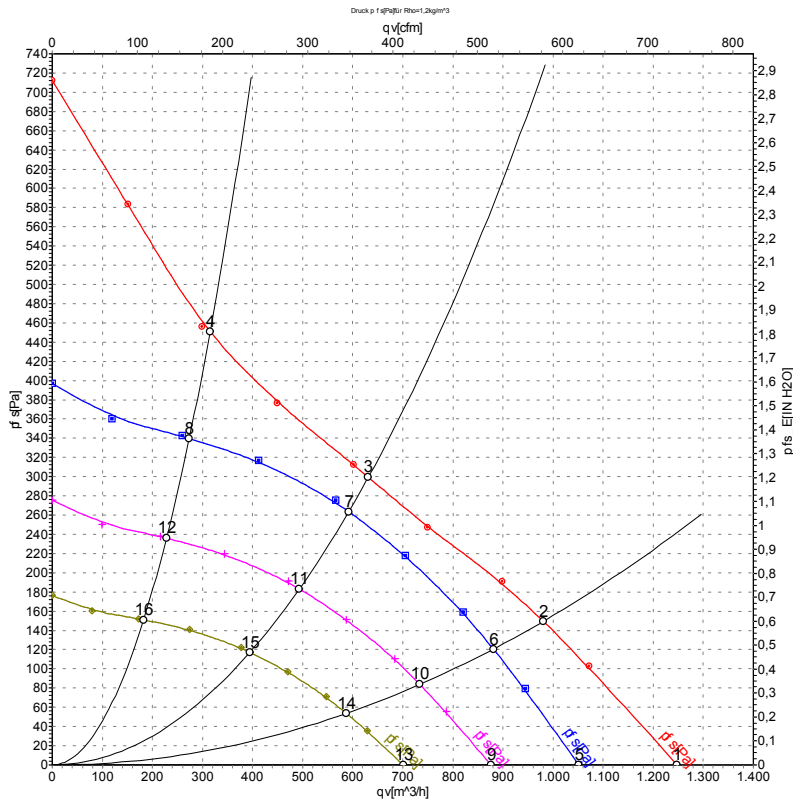


## Connection screen



| Line | No. | Signal     | Colour       | Function / assignment  |
|------|-----|------------|--------------|--|
|      | 2   | L          | brown        | Power supply 230 VAC, 50-60 Hz, see type plate for voltage range           |
|      | 3   | N          | blue         | Neutral conductor  |
|      | 1   | PE         | green/yellow | Protective earth   |
|      | 7   | 0-10 V PWM | yellow       | Control input 0 - 10 V or PWM, electrically isolated                       |
|      | 4   | GND        | blue         | GND - Connection for control interface                                     |
|      | 5   | Tach       | white        | Tach output: Open Collector, 1 pulse per revolution, electrically isolated |

## Charts: Air flow 50 Hz



Measurement: LU-67965

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 <sub>ed</sub> | I    | qv                | P <sub>fs</sub> |
|----|-----|----|-------------------|-----------------|------|-------------------|-----------------|
|    | V   | Hz | min <sup>-1</sup> | W               | A    | m <sup>3</sup> /h | Pa              |
| 1  | 230 | 50 | 2850              | 117             | 0.90 | 1250              | 0               |
| 2  | 230 | 50 | 2675              | 117             | 0.90 | 980               | 150             |
| 3  | 230 | 50 | 2560              | 120             | 0.90 | 630               | 300             |
| 4  | 230 | 50 | 2750              | 117             | 0.90 | 315               | 450             |
| 5  | 230 | 50 | 2400              | 70              | 0.53 | 1050              | 0               |
| 6  | 230 | 50 | 2400              | 85              | 0.64 | 880               | 121             |
| 7  | 230 | 50 | 2400              | 96              | 0.74 | 590               | 264             |
| 8  | 230 | 50 | 2400              | 77              | 0.60 | 275               | 340             |
| 9  | 230 | 50 | 2000              | 40              | 0.31 | 875               | 0               |
| 10 | 230 | 50 | 2000              | 49              | 0.37 | 735               | 84              |
| 11 | 230 | 50 | 2000              | 56              | 0.43 | 495               | 184             |
| 12 | 230 | 50 | 2000              | 45              | 0.35 | 230               | 236             |
| 13 | 230 | 50 | 1600              | 21              | 0.16 | 700               | 0               |
| 14 | 230 | 50 | 1600              | 25              | 0.19 | 585               | 54              |
| 15 | 230 | 50 | 1600              | 29              | 0.22 | 395               | 118             |
| 16 | 230 | 50 | 1600              | 23              | 0.18 | 180               | 151             |

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

