

**ebm-papst Muldingen GmbH & Co. KG**

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Limited partnership · Headquarters Muldingen
County court Stuttgart · HRA 590344General partner Elektrobau Muldingen GmbH · Headquarters Muldingen
County court Stuttgart · HRB 590142**Nominal data**

| | | |
|--------------------------|-----------------------|------------|
| Type | R3G225-RE07-03 | |
| Motor | M3G055-DF | |
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Nominal voltage range | VAC | 200 .. 240 |
| Frequency | Hz | 50/60 |
| Type of data definition | | ml |
| Speed | min ⁻¹ | 2860 |
| Power input | W | 170 |
| Current draw | A | 1.4 |
| 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

Data according to ErP directive

| | |
|-----------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |
| Specific ratio* | 1.00 |

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

| | | Actual | Request 2013 | Request 2015 |
|--------------------------------|-------------------|--------|--------------|--------------|
| Overall efficiency η_{es} | % | 61.7 | 39.1 | 43.1 |
| Efficiency grade N | | 80.6 | 58 | 62 |
| Power input P_{ed} | kW | 0.16 | | |
| Air flow q_v | m ³ /h | 705 | | |
| Pressure increase p_{fs} | Pa | 458 | | |
| Speed n | min ⁻¹ | 2865 | | |

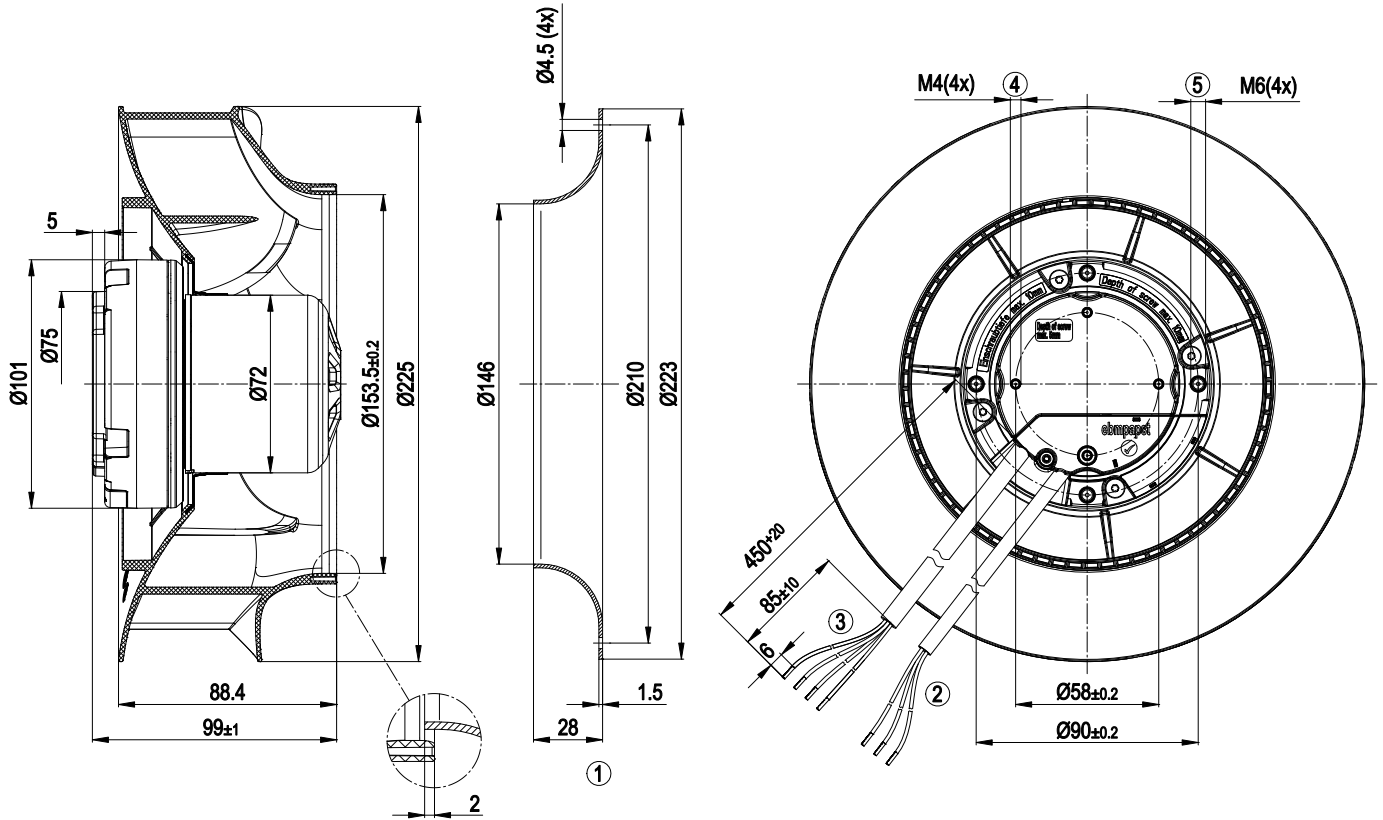
Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.



Technical features

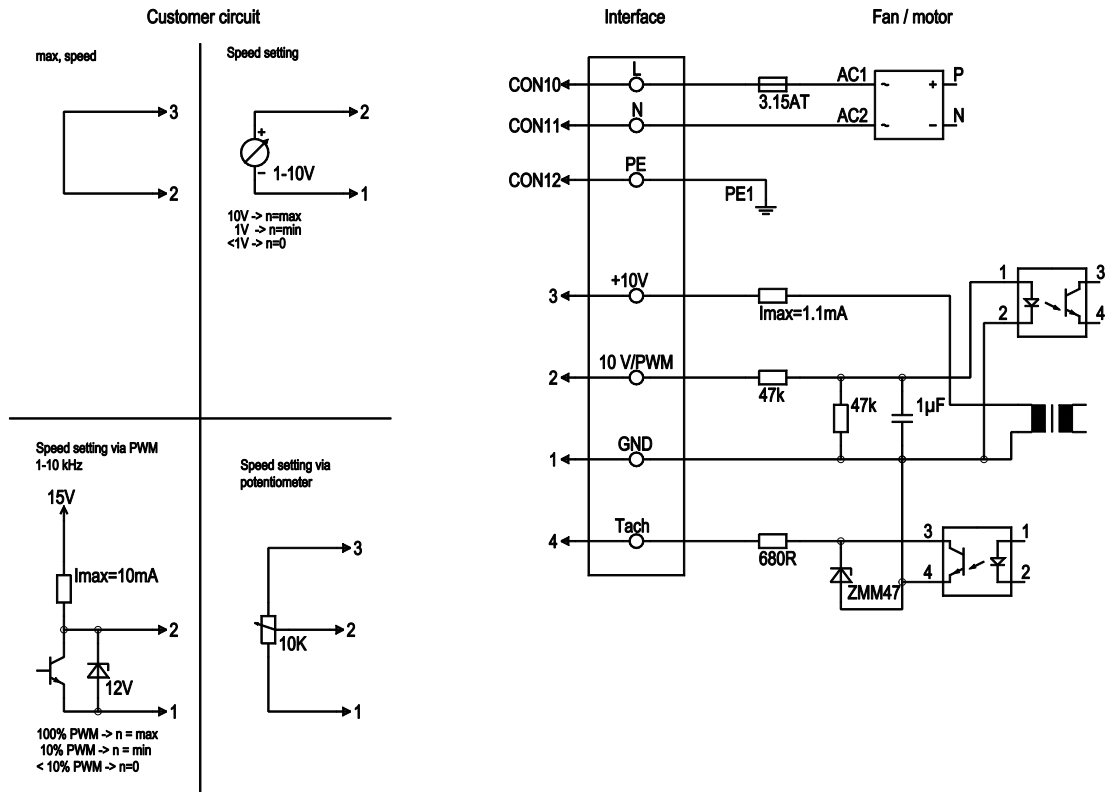
| | |
|---|---|
| Mass | 1.75 kg |
| Size | 225 mm |
| Surface of rotor | Thick layer passivated |
| Material of electronics housing | Die-cast aluminium |
| Material of impeller | Plastic PA6, fibreglass-reinforced |
| Number of blades | 7 |
| Direction of rotation | Clockwise, seen on rotor |
| Type of protection | IP 54 |
| Insulation class | "B" |
| Max. permissible ambient motor temp. (transp./ storage) | + 80 °C |
| Min. permissible ambient motor temp. (transp./storage) | - 40 °C |
| Mounting position | Any |
| Condensate discharge holes | None, open rotor |
| Operation mode | S1 |
| Motor bearing | Ball bearing |
| Technical features | <ul style="list-style-type: none"> - Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Over-temperature protected electronics / motor - Line undervoltage detection |
| Touch current acc. IEC 60990 (measuring network Fig. 4, TN system) | <= 3.5 mA |
| Motor protection | Locked-rotor protection |
| Cable exit | Variable |
| Protection class | I (if protective earth is connected by customer) |
| Product conforming to standard | EN 60335-1 |
| Approval | CCC; UL 2111; CSA C22.2 Nr.77 |

Product drawing



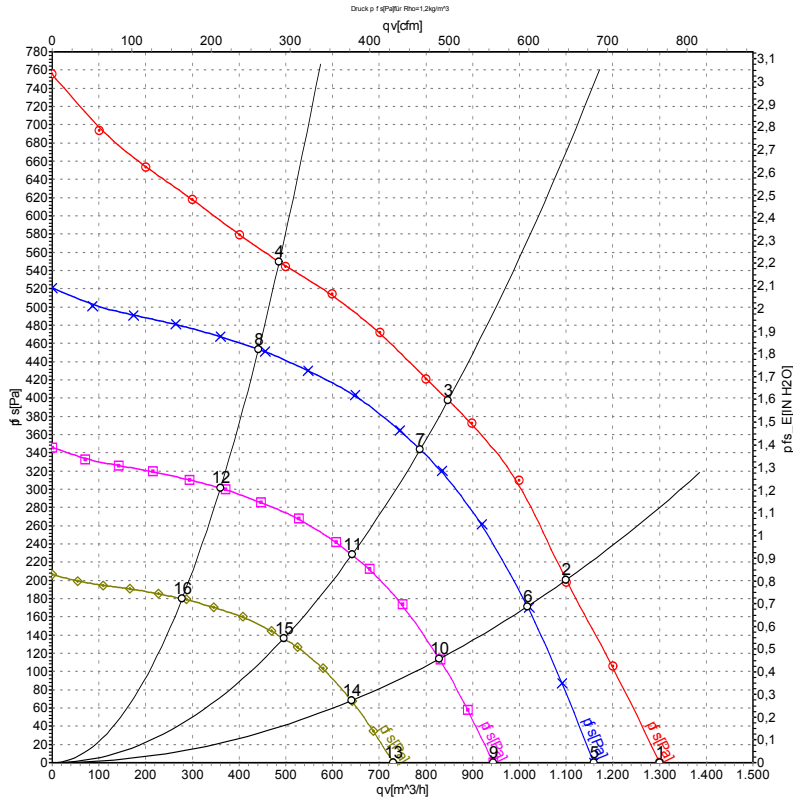
| | |
|---|---|
| 1 | Accessory part: Inlet nozzle 96358-2-4013, not included in the standard scope of delivery |
| 2 | Connection line PVC 3G AWG20; 3 x brass lead tips crimped |
| 3 | Connection line PVC 4X AWG22; 4 x brass lead tips crimped |
| 4 | Depth of screw max. 5 mm |
| 5 | Depth of screw max. 10 mm |

Connection screen



| Line | No. | Signal | Colour | Function / assignment |
|------|-------|----------------|--------------|--|
| | CON10 | L | black | Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate |
| | CON11 | N | blue | Neutral conductor |
| | CON12 | PE | green/yellow | Protective earth |
| | 1 | GND | blue | GND - Connection for control interface |
| | 2 | 0- 10V PWM | yellow | Control input 0 - 10 V or PWM, electrically isolated |
| | 3 | 10V/ max 1.1mA | red | Voltage output 10V/ 1.1mA, electrically isolated, not short-circuit-proof. |
| | 4 | Tach | white | Tach output: open collector, 1 pulse per revolution, electrically isolated |

Charts: Air flow 50 Hz



Measurement: LU-129100

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: L_{wA} measured as per ISO 13347 / L_{pA} 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 _{ed} | I | L _{pA_{in}} | L _{wA_{in}} | qv | p _{fs} |
|----|-----|----|-------------------|-----------------|------|------------------------------|------------------------------|-------------------|-----------------|
| | V | Hz | min ⁻¹ | W | A | dB(A) | dB(A) | m ³ /h | Pa |
| 1 | 230 | 50 | 3030 | 151 | 1.25 | 70 | 78 | 1300 | 0 |
| 2 | 230 | 50 | 2910 | 168 | 1.40 | 66 | 74 | 1100 | 200 |
| 3 | 230 | 50 | 2860 | 170 | 1.40 | 60 | 68 | 850 | 400 |
| 4 | 230 | 50 | 2970 | 157 | 1.35 | 65 | 73 | 485 | 550 |
| 5 | 230 | 50 | 2700 | 107 | 0.89 | 68 | 76 | 1160 | 0 |
| 6 | 230 | 50 | 2700 | 134 | 1.11 | 65 | 72 | 1015 | 174 |
| 7 | 230 | 50 | 2700 | 135 | 1.15 | 59 | 67 | 790 | 344 |
| 8 | 230 | 50 | 2700 | 118 | 1.01 | 62 | 70 | 440 | 454 |
| 9 | 230 | 50 | 2200 | 58 | 0.48 | 63 | 70 | 945 | 0 |
| 10 | 230 | 50 | 2200 | 73 | 0.60 | 59 | 67 | 830 | 115 |
| 11 | 230 | 50 | 2200 | 73 | 0.62 | 54 | 62 | 640 | 228 |
| 12 | 230 | 50 | 2200 | 64 | 0.55 | 57 | 65 | 360 | 301 |
| 13 | 230 | 50 | 1700 | 27 | 0.22 | 56 | 64 | 730 | 0 |
| 14 | 230 | 50 | 1700 | 33 | 0.28 | 53 | 61 | 640 | 69 |
| 15 | 230 | 50 | 1700 | 34 | 0.29 | 48 | 56 | 495 | 136 |
| 16 | 230 | 50 | 1700 | 29 | 0.25 | 50 | 59 | 280 | 180 |

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · L_{pA_{in}} = Sound pressure level inlet side · L_{wA_{in}} = Sound power level inlet side · qv = Air flow
 p_{fs} = Pressure increase

