

R1G220-AB73-49

EC centrifugal fan

backward curved, single inlet



R1G220-AB73-49 ebmpapst Datasheet

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Nominal data

| | | |
|--------------------------|-------------------|----------|
| Type | R1G220-AB73-49 | |
| Motor | M1G074-BF | |
| Nominal voltage | VDC | 48 |
| Nominal voltage range | VDC | 36 .. 57 |
| Type of data definition | | fa |
| State | | prelim. |
| Speed | min ⁻¹ | 3100 |
| Power input | W | 100 |
| Current draw | A | 2.4 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 60 |

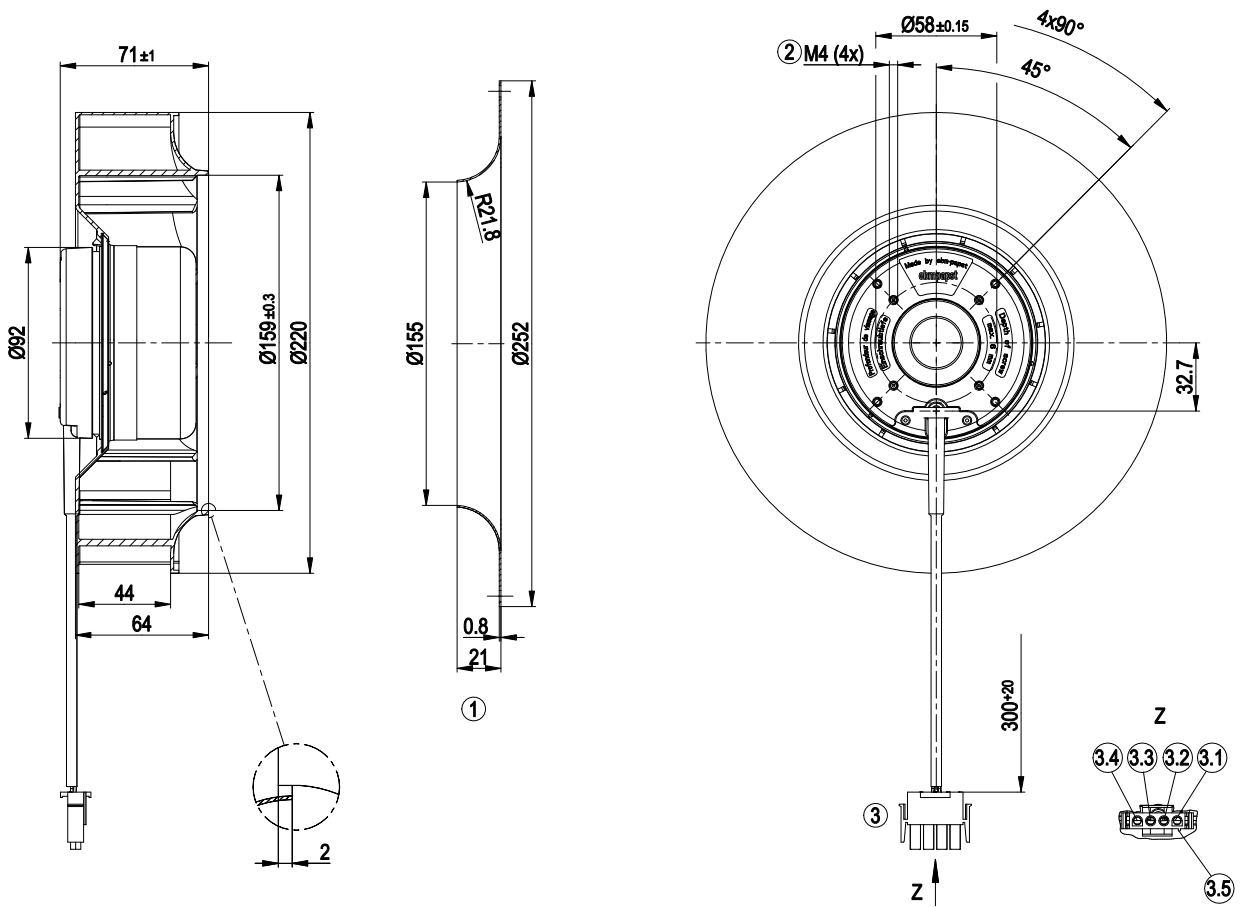
ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations



Technical features

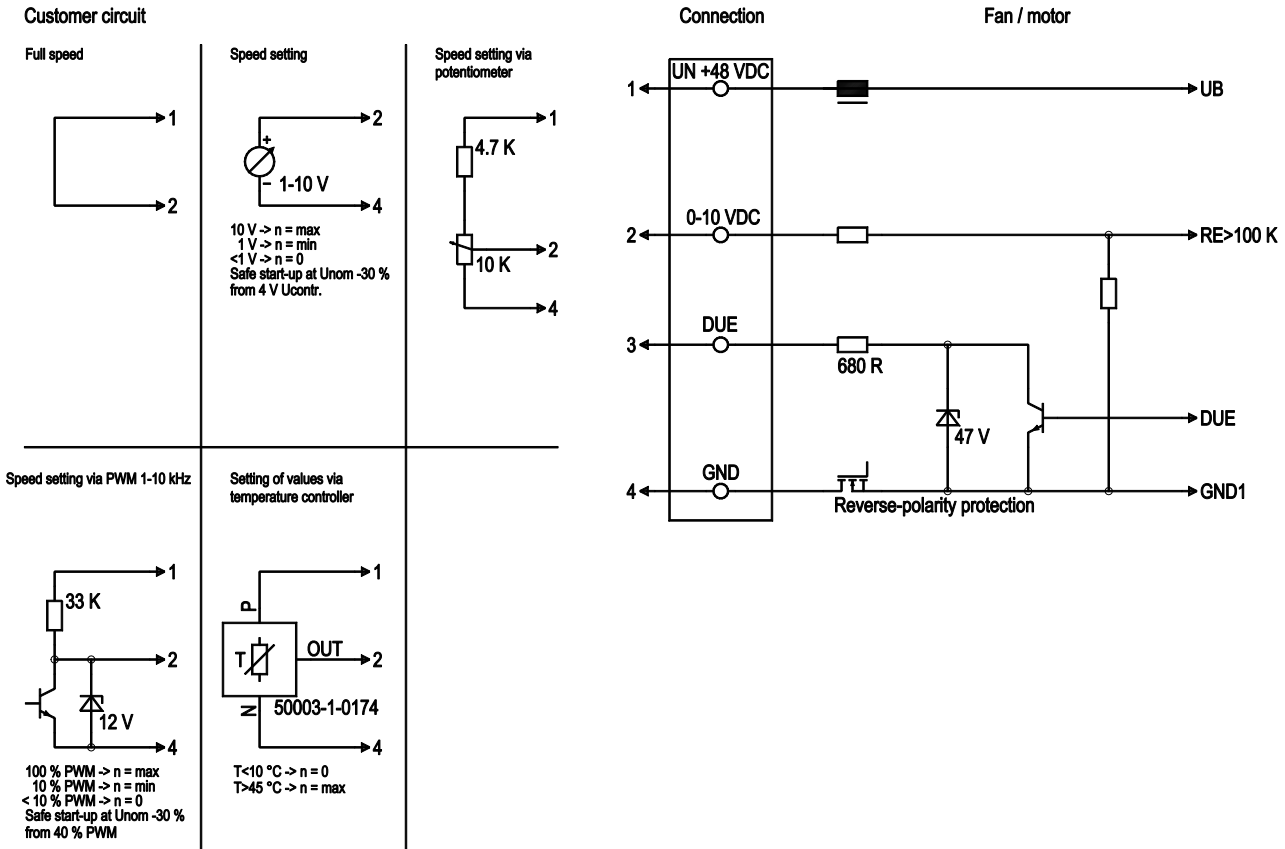
| | |
|--|--|
| Mass | 1.4 kg |
| Size | 220 mm |
| Surface of rotor | Coated in black |
| Material of impeller | PA plastic |
| Number of blades | 11 |
| Direction of rotation | Clockwise, seen on rotor |
| Type of protection | IP 42; Depending on installation and position |
| Insulation class | "B" |
| Humidity class | F3-1 |
| Max. permissible ambient motor temp. (transp./ storage) | + 80 °C |
| Min. permissible ambient motor temp. (transp./storage) | - 40 °C |
| Mounting position | Any |
| Condensate discharge holes | None |
| Operation mode | S1 |
| Motor bearing | Ball bearing |
| Technical features | <ul style="list-style-type: none"> - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM |
| EMC interference immunity | Acc. to EN 61000-6-2 (industrial environment) |
| EMC interference emission | Acc. to EN 55022 (Class B) |
| Electrical leads | With plug |
| Motor protection | Reverse polarity and locked-rotor protection |
| Cable exit | Variable |
| Product conforming to standard | EN 60950-1 |
| Approval | UL 1004-1; CSA C22.2 Nr.77 |

Product drawing



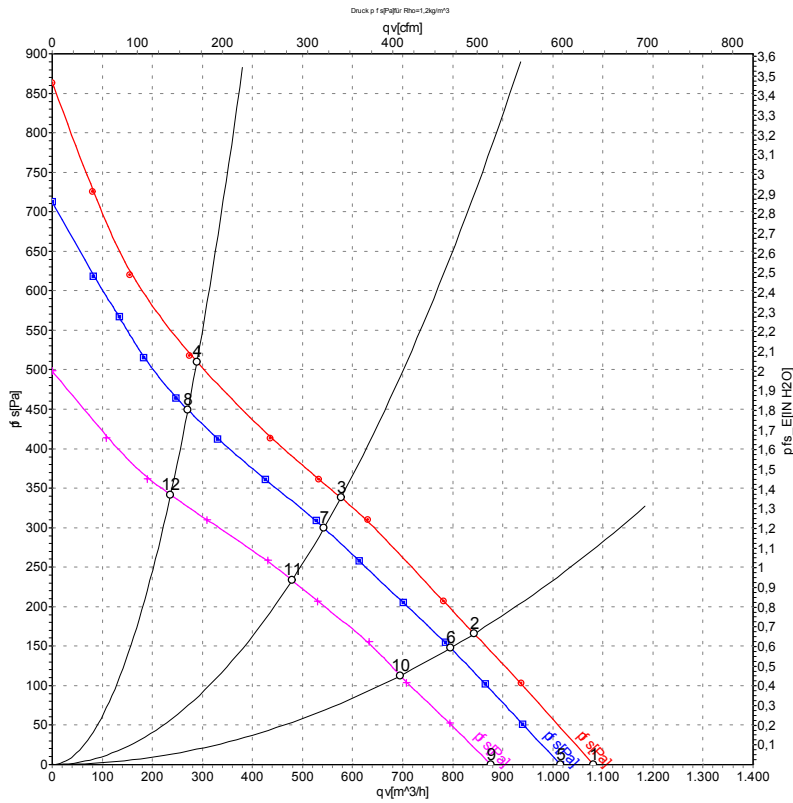
| | |
|-----|---|
| 1 | Accessory part: Inlet nozzle 09609-2-4013, not included in the standard scope of delivery |
| 2 | Depth of screw max. 6 mm |
| 3 | Connector housing 4-pole (AMP 350779-1), 4 x female terminal (AMP 350536-2) |
| 3.1 | (+) red |
| 3.2 | Yellow control input |
| 3.3 | Speed monitoring, white |
| 3.4 | (-) blue |
| 3.5 | Polarising rib |

Connection screen



| Line | No. | Signal | Colour | Function / assignment |
|------|-----|------------|--------|---|
| 1 | 1 | Un +48 VDC | red | Power supply 48 VDC, residual ripple 3.5 % |
| 1 | 2 | 0-10 VDC | yellow | Control input Re > 100 K |
| 1 | 3 | Tach | white | Speed monitoring output, 3 pulses per rotation, Isink max = 10 mA |
| 1 | 4 | GND | blue | Reference mass |

Charts: Air flow



Measurement: LU-47146
 Measurement: LU-47145
 Measurement: LU-47147

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. 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 _{ed} | I | qv | p _{fs} |
|----|----|-------------------|-----------------|------|-------------------|-----------------|
| | V | min ⁻¹ | W | A | m ³ /h | Pa |
| 1 | 56 | 3305 | 118 | 2.54 | 1080 | 0 |
| 2 | 56 | 3095 | 122 | 2.72 | 845 | 166 |
| 3 | 56 | 2975 | 126 | 2.85 | 575 | 338 |
| 4 | 56 | 3155 | 122 | 2.68 | 290 | 508 |
| 5 | 48 | 3100 | 100 | 2.40 | 1015 | 0 |
| 6 | 48 | 2915 | 102 | 2.51 | 795 | 150 |
| 7 | 48 | 2805 | 104 | 2.59 | 545 | 300 |
| 8 | 48 | 2980 | 101 | 2.45 | 270 | 450 |
| 9 | 36 | 2665 | 64 | 1.96 | 875 | 0 |
| 10 | 36 | 2545 | 68 | 2.10 | 695 | 112 |
| 11 | 36 | 2480 | 71 | 2.20 | 480 | 233 |
| 12 | 36 | 2600 | 66 | 2.03 | 235 | 341 |

U = Supply voltage · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

