**S1G200-AH77-52**

# EC axial fan

sickle-shaped blades (S series)

with guard grille for short nozzle

**ebm-papst Mulfingen GmbH & Co. KG**
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

## Nominal data

| | |
|---|---|
| **Type** | **S1G200-AH77-52** |
| **Motor** | **M1G074-BF** |

| | | |
|---|---|---|
| Nominal voltage | VDC | 24 |
| Nominal voltage range | VDC | 16 .. 28 |
| Frequency | Hz | - |
| Method of obtaining data | | fa |
| Speed (rpm) | $min^{-1}$ | 2950 |
| Power consumption | W | 55 |
| Current draw | A | 2.6 |
| Max. back pressure | Pa | 120 |
| Max. back pressure | inH2O | 0.48 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 60 |

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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## Technical description

| | |
|---|---|
| **Weight** | 1.9 kg |
| **Fan size** | 200 mm |
| **Rotor surface** | Painted black |
| **Impeller material** | Sheet steel, painted black |
| **Guard grille material** | Steel, coated with black plastic (RAL 9005) |
| **Number of blades** | 9 |
| **Airflow direction** | "V" |
| **Direction of rotation** | Counterclockwise, viewed toward rotor |
| **Degree of protection** | IP42 |
| **Insulation class** | "B" |
| **Moisture (F) / Environmental (H) protection class** | F0 |
| **Max. permitted ambient temp. for motor (transport/storage)** | +80 °C |
| **Min. permitted ambient temp. for motor (transport/storage)** | -40 °C |
| **Installation position** | Any |
| **Condensation drainage holes** | None |
| **Mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Technical features** | - Tach output<br>- Motor current limitation<br>- Soft start<br>- Control input 0-10 VDC / PWM |
| **EMC immunity to interference** | According to EN 61000-6-2 (industrial environment) |
| **EMC interference emission** | According to EN 55022 (Class B, household environment) |
| **Motor protection** | Reverse polarity and locked-rotor protection |
| **With cable** | Lateral |
| **Conformity with standards** | EN 60950-1 |
| **Approval** | EAC; CSA C22.2 No. 77; UL 1004-1 |



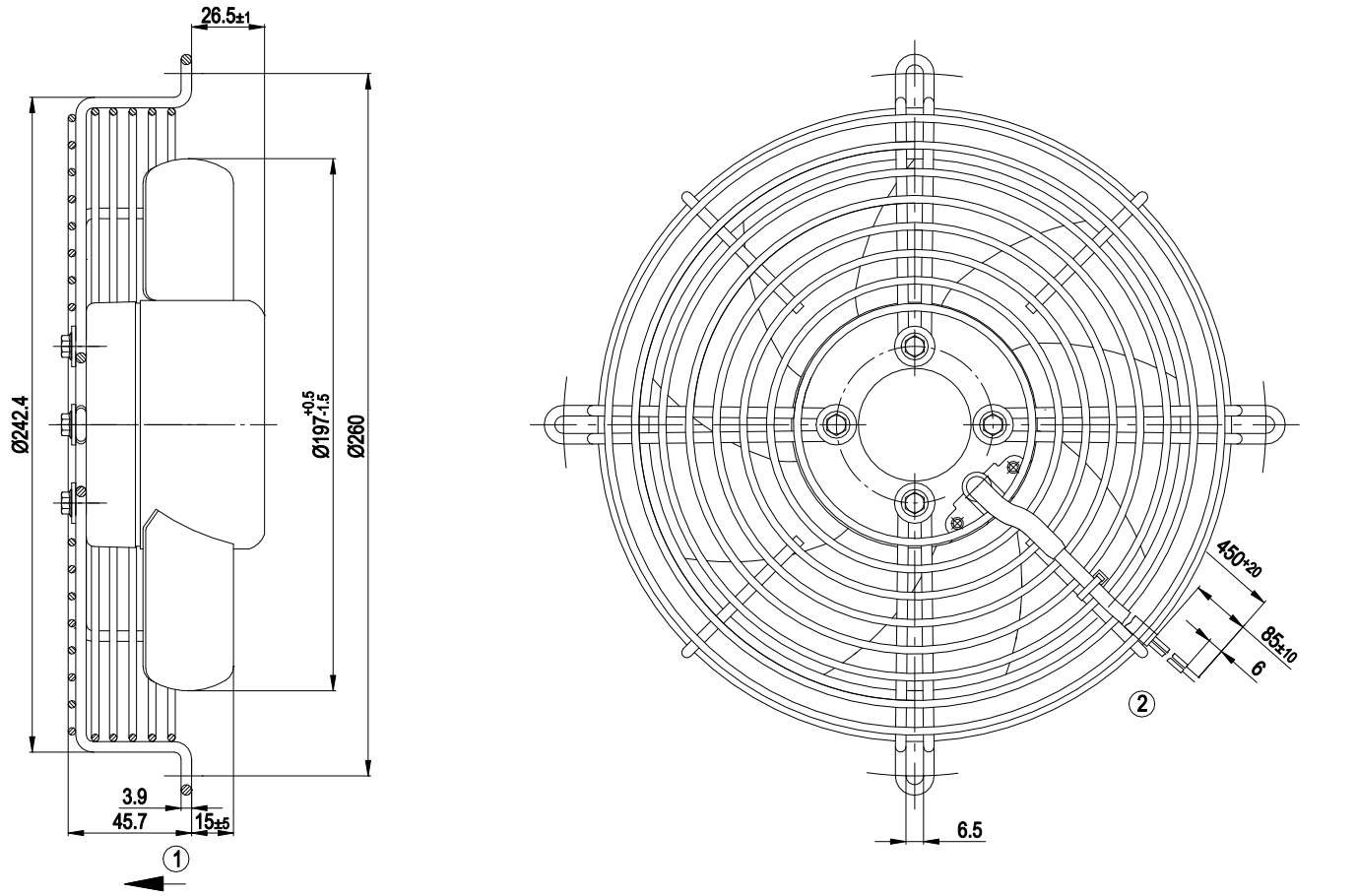
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## Product drawing




| | |
|---|---|
| 1 | Direction of air flow "V" |
| 2 | Cable PVC AWG20, 4x crimped splices |



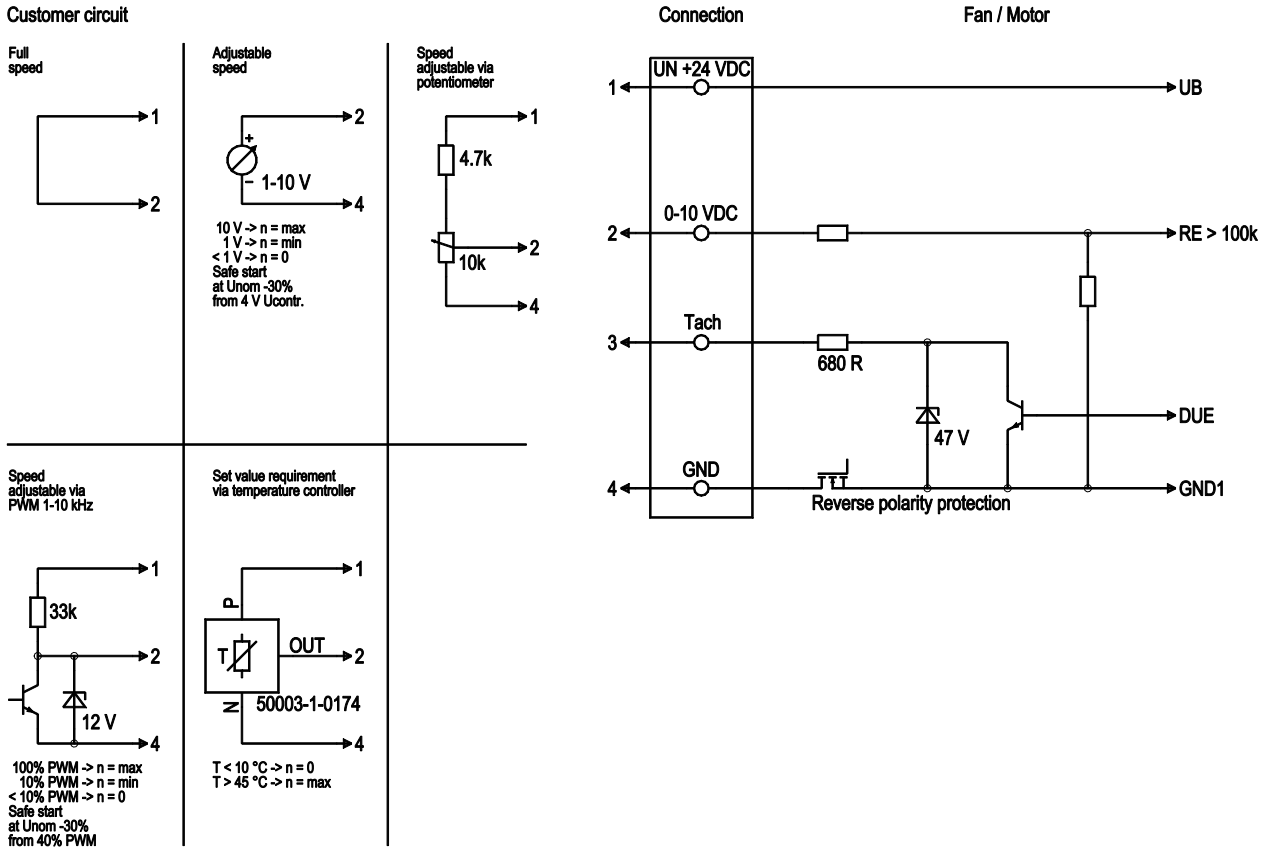
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## Connection diagram




| No. | Conn. | Designation | Color | Function/assignment |
|---|---|---|---|---|
| 1 | 1 | Un +24 VDC | red | Power supply 24 VDC, maximum ripple 3.5 % |
| 1 | 2 | 0-10 VDC | yellow | Control input Re > 100k |
| 1 | 3 | Tach | white | Tach output, 3 pulses per revolution, Isink max = 10 mA |
| 1 | 4 | GND | blue | Reference ground |



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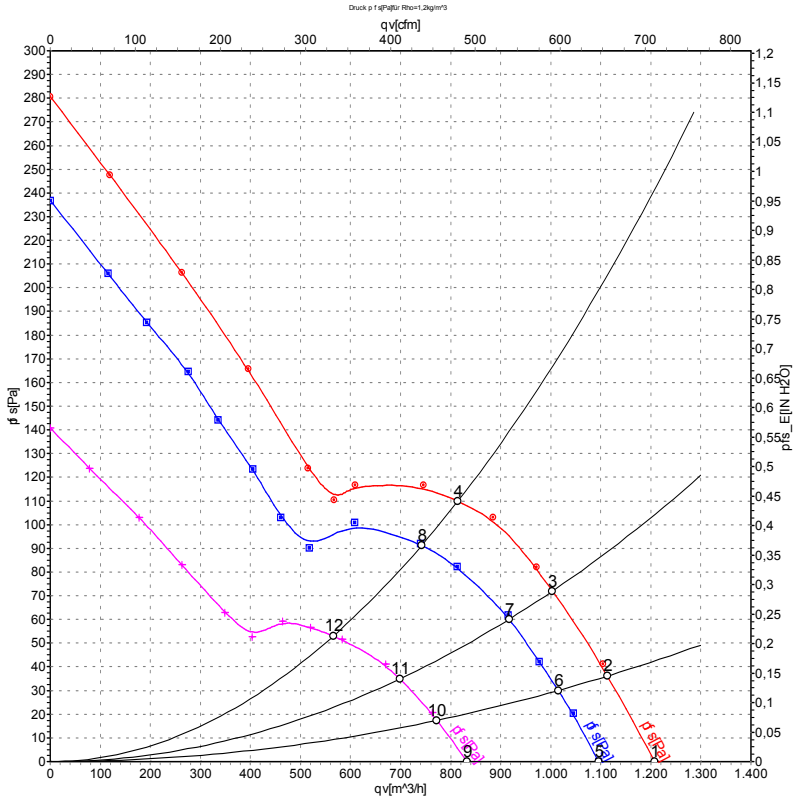
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## Curves: Air performance




Measurement: LU-48037-1
Measurement: LU-48036-1
Measurement: LU-48038-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

## Measured values

| | U | n | $P_{ed}$ | I | qv | $p_{fs}$ | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|
| | V | $min^{-1}$ | W | A | $m^3/h$ | Pa | CFM | inH2O |
| 1 | 28 | 3285 | 73 | 2.91 | 1205 | 0 | 710 | 0.00 |
| 2 | 28 | 3190 | 76 | 3.01 | 1115 | 38 | 655 | 0.15 |
| 3 | 28 | 3095 | 78 | 3.10 | 1005 | 72 | 590 | 0.29 |
| 4 | 28 | 3065 | 82 | 3.26 | 815 | 110 | 480 | 0.44 |
| 5 | 24 | 2950 | 55 | 2.60 | 1095 | 0 | 645 | 0.00 |
| 6 | 24 | 2915 | 57 | 2.67 | 1015 | 30 | 595 | 0.12 |
| 7 | 24 | 2860 | 60 | 2.76 | 915 | 60 | 540 | 0.24 |
| 8 | 24 | 2785 | 62 | 2.88 | 740 | 90 | 435 | 0.36 |
| 9 | 16 | 2285 | 28 | 2.08 | 835 | 0 | 490 | 0.00 |
| 10 | 16 | 2245 | 28 | 2.09 | 770 | 18 | 455 | 0.07 |
| 11 | 16 | 2200 | 29 | 2.13 | 700 | 35 | 410 | 0.14 |
| 12 | 16 | 2145 | 30 | 2.18 | 565 | 53 | 335 | 0.21 |

U = Power supply · n = Speed (rpm) · $P_{ed}$ = Power consumption · I = Current draw · qv = Air flow · $p_{fs}$ = Pressure increase



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