**S1G250-AI79-49**

# EC axial fan

sickle-shaped blades (S series)

with guard grille for short nozzle

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## Nominal data

| | | |
|---|---|---|
| **Type** | **S1G250-AI79-49** | |
| **Motor** | **M1G074-BF** | |
| Nominal voltage | VDC | 12 |
| Nominal voltage range | VDC | 8 .. 14 |
| Method of obtaining data | | fa |
| Speed (rpm) | min-1 | 2400 |
| Power consumption | W | 72 |
| Current draw | A | 6.3 |
| Max. back pressure | Pa | 110 |
| Max. back pressure | inH2O | 0.44 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 45 |

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** | 2.3 kg |
| **Fan size** | 250 mm |
| **Rotor surface** | Painted black |
| **Blade material** | Sheet steel, painted black |
| **Guard grille material** | Steel, coated with black plastic (RAL 9005) |
| **Number of blades** | 7 |
| **Airflow direction** | "A" |
| **Direction of rotation** | Counterclockwise, viewed toward rotor |
| **Degree of protection** | IP42 |
| **Insulation class** | "B" |
| **Moisture (F) / Environmental (H) protection class** | F3-1 |
| **Max. permitted ambient temp. for motor (transport/storage)** | + 80 °C |
| **Min. permitted ambient temp. for motor (transport/storage)** | - 40 °C |
| **Installation position** | Shaft horizontal or rotor on bottom; rotor on top on request |
| **Condensation drainage holes** | On rotor side |
| **Mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Technical features** | - Tach output<br>- Motor current limitation<br>- Soft start<br>- Control input 0-10 VDC / PWM |
| **Motor protection** | Reverse polarity and locked-rotor protection |
| **With cable** | Lateral |
| **Protection class** | I (with customer connection of protective earth) |
| **Approval** | CSA C22.2 No. 77; UL 1004-1 |



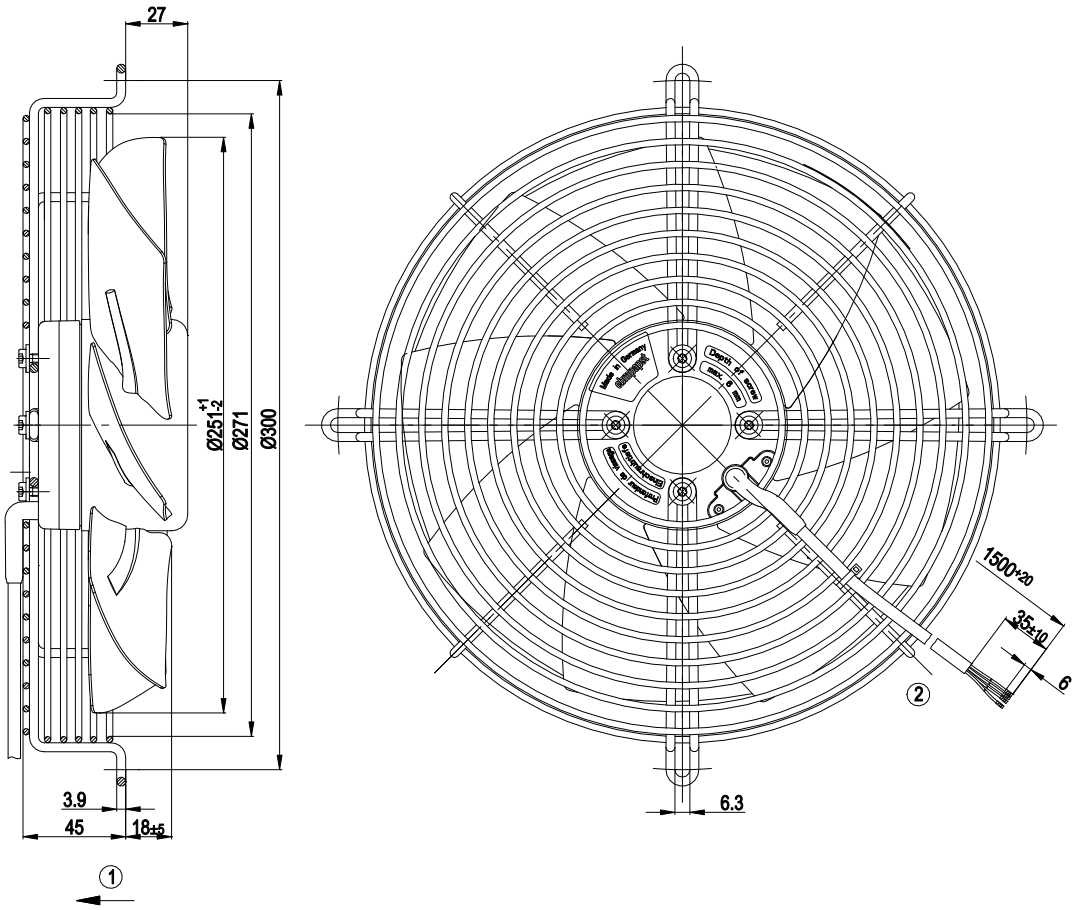
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## Product drawing




| | |
|---|---|
| 1 | Airflow direction "A" |
| 2 | Cable AWG 20, 4x crimped splices |



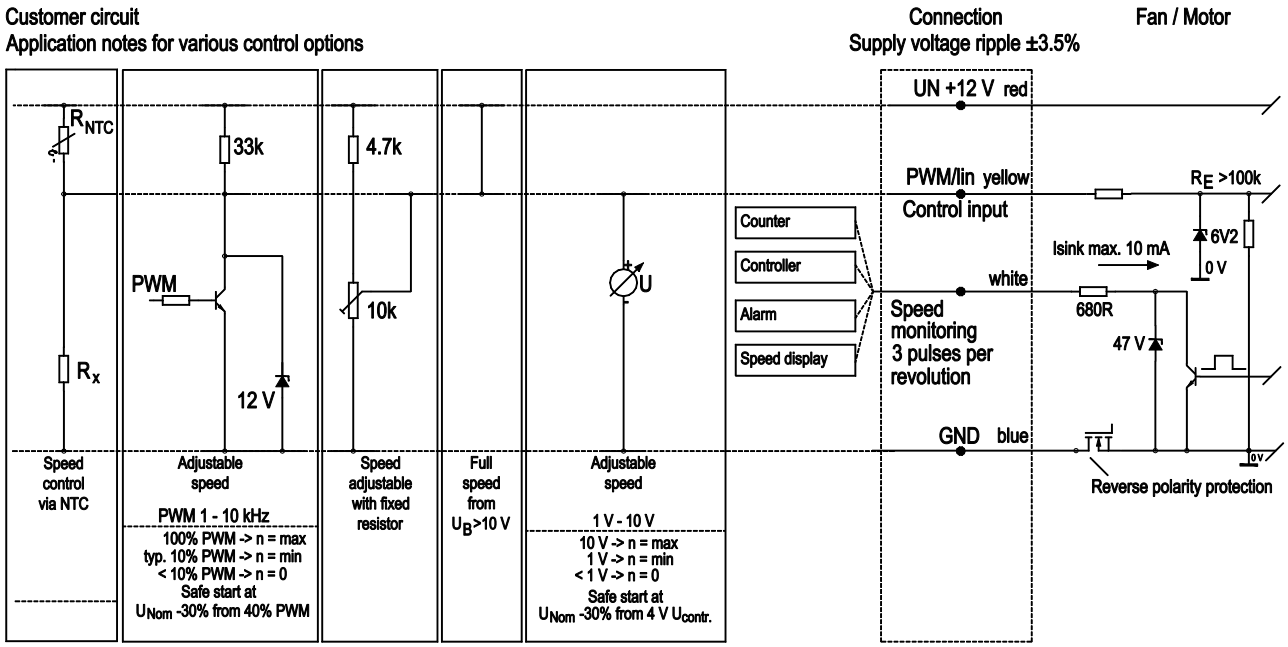
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## Connection diagram





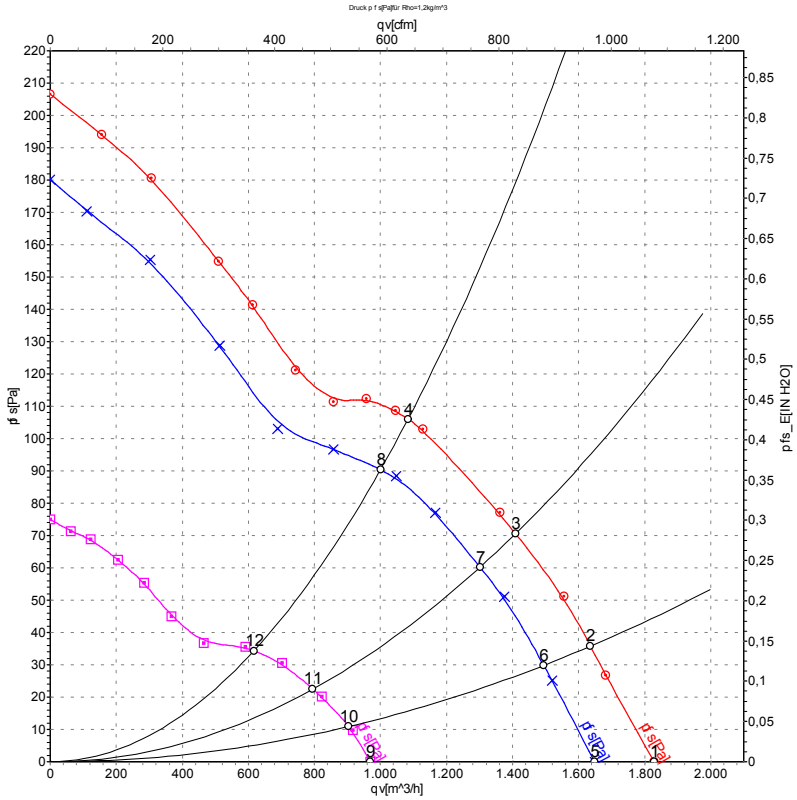

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## Curves: Air performance




Measurement: LU-53768-1
Measurement: LU-53767-1
Measurement: LU-53769-1

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 | 14 | 2610 | 94 | 7.09 | 1830 | 0 | 1075 | 0.00 |
| 2 | 14 | 2515 | 98 | 7.46 | 1635 | 36 | 965 | 0.14 |
| 3 | 14 | 2410 | 101 | 7.73 | 1410 | 71 | 830 | 0.29 |
| 4 | 14 | 2335 | 103 | 7.95 | 1085 | 106 | 640 | 0.43 |
| 5 | 12 | 2400 | 72 | 6.30 | 1650 | 0 | 970 | 0.00 |
| 6 | 12 | 2300 | 75 | 6.65 | 1495 | 30 | 880 | 0.12 |
| 7 | 12 | 2230 | 78 | 6.94 | 1300 | 60 | 765 | 0.24 |
| 8 | 12 | 2170 | 82 | 7.25 | 1000 | 90 | 590 | 0.36 |
| 9 | 8 | 1440 | 17 | 2.54 | 970 | 0 | 570 | 0.00 |
| 10 | 8 | 1415 | 18 | 2.66 | 905 | 11 | 530 | 0.04 |
| 11 | 8 | 1380 | 18 | 2.81 | 795 | 22 | 470 | 0.09 |
| 12 | 8 | 1350 | 19 | 2.98 | 615 | 34 | 365 | 0.14 |

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



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