**A3G350-AN01-25**

# EC axial fan

sickle-shaped blades (S series), single-intake

**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** | **A3G350-AN01-25** |
| **Motor** | **M3G074-CF** |

| | | |
|---|---|---|
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Nominal voltage range | VAC | 200 .. 240 |
| Frequency | Hz | 50/60 |
| Method of obtaining data | | ml |
| Speed (rpm) | $min^{-1}$ | 1475 |
| Power consumption | W | 165 |
| Current draw | A | 1.35 |
| Max. back pressure | Pa | 100 |
| Max. back pressure | in. wg | 0.4 |
| Min. ambient temperature | °C | -40 |
| Max. ambient temperature | °C | 40 |

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

## Data according to Commission Regulation (EU) 327/2011

| | | Actual | Req. 2015 |
|---|---|---|---|
| 01 Overall efficiency $\eta_{es}$ | % | 39.8 | 28.7 |
| 02 Measurement category | | A | |
| 03 Efficiency category | | Static | |
| 04 Efficiency grade N | | 51.1 | 40 |
| 05 Variable speed drive | | Yes | |

| | | |
|---|---|---|
| 09 Power consumption $P_{ed}$ | kW | 0.16 |
| 09 Air flow $q_v$ | $m^3/h$ | 2400 |
| 09 Pressure increase $p_{fs}$ | Pa | 87 |
| 10 Speed (rpm) n | $min^{-1}$ | 1495 |
| 11 Specific ratio* | | 1.00 |

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

LU-134592

# EC axial fan

sickle-shaped blades (S series), single-intake

## Technical description

| | |
|---|---|
| **Weight** | 2.2 kg |
| **Size** | 350 mm |
| **Motor size** | 74 |
| **Rotor surface** | Unpainted |
| **Blade material** | Press-fitted sheet steel blank, sprayed with PP plastic |
| **Number of blades** | 5 |
| **Airflow direction** | V |
| **Direction of rotation** | Counterclockwise, viewed toward rotor |
| **Degree of protection** | IP54 |
| **Insulation class** | "B" |
| **Moisture (F) / Environmental (H) protection class** | H1 |
| **Max. permitted ambient temp. for motor (transport/storage)** | + 70 °C |
| **Min. permitted ambient temp. for motor (transport/storage)** | - 40 °C |
| **Installation position** | Any |
| **Condensation drainage holes** | None, open rotor |
| **Cooling hole/opening** | On rotor side |
| **Mode** | S1 |
| **Motor mounting** | Ball bearing with low-temperature lubricant |
| **Technical features** | - Output 10 VDC, max. 10 mA<br>- Tach output<br>- Power limiter<br>- Motor current limitation<br>- Soft start<br>- Control input 0-10 VDC / PWM<br>- Control interface with SELV potential safely disconnected from the mains<br>- Overvoltage detection<br>- Thermal overload protection for electronics/motor<br>- Line undervoltage detection |
| **EMC immunity to interference** | According to EN 61000-6-2 (industrial environment) |
| **EMC interference emission** | According to EN 61000-6-4 (industrial environment) |
| **Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)** | <= 3.5 mA |
| **Motor protection** | Electronic motor protection |
| **With cable** | Variable |
| **Protection class** | I (with customer connection of protective earth) |
| **Conformity with standards** | EN 60335-1; CE |

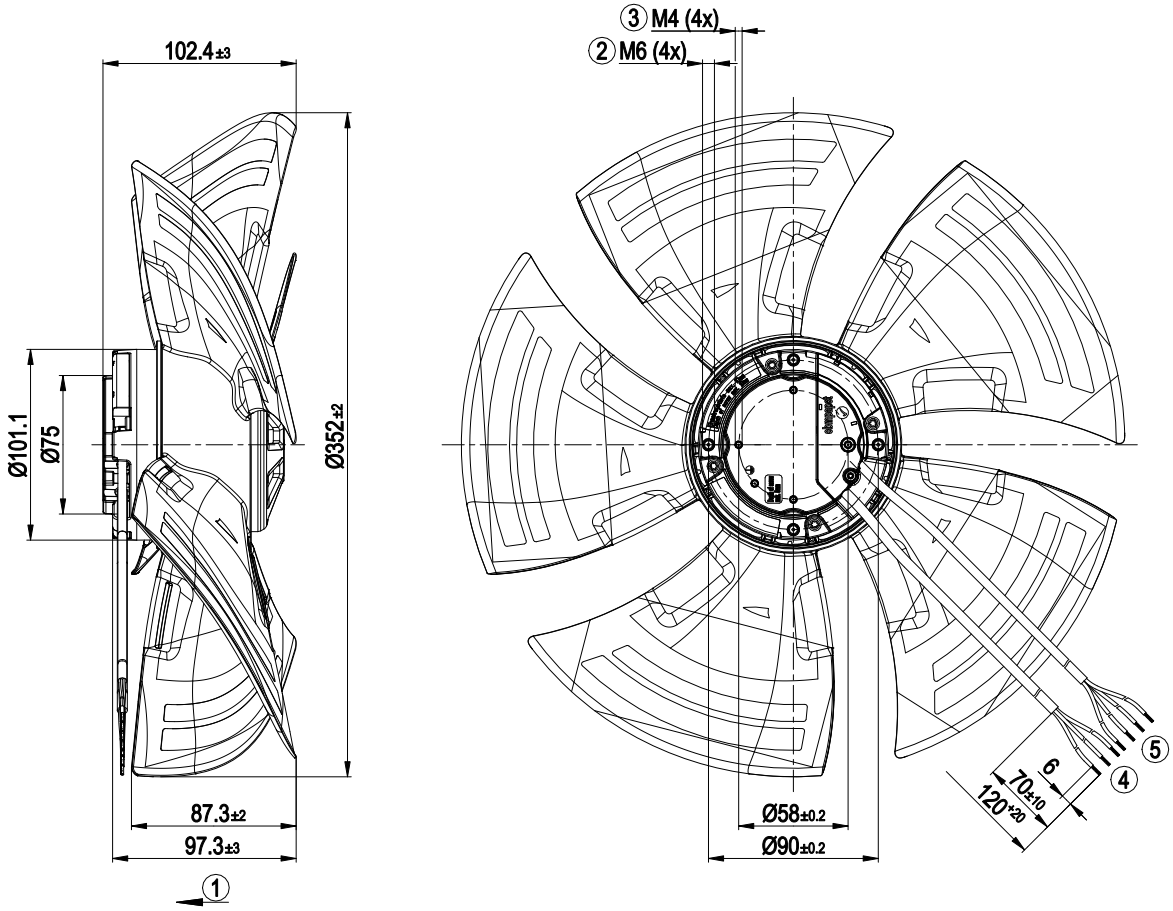


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# EC axial fan

sickle-shaped blades (S series), single-intake

## Product drawing




| | |
|---|---|
| 1 | Airflow direction "V" |
| 2 | Max. clearance for screw 10 mm |
| 3 | Max. clearance for screw 5 mm |
| 4 | Cable PVC AWG20 |
| | 3x splice |
| 5 | Cable PVC AWG22 |
| | 4x splice |

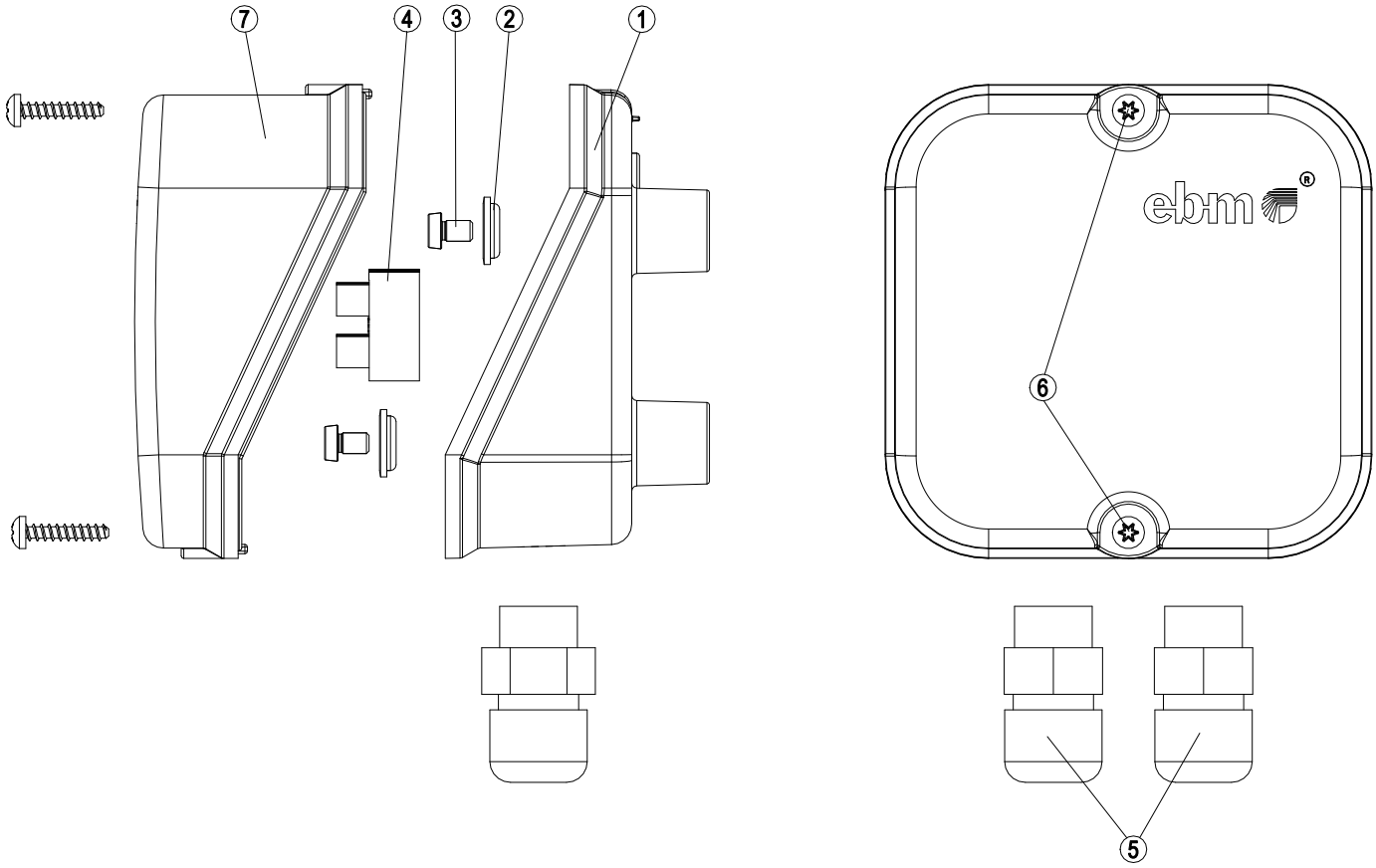


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# EC axial fan

sickle-shaped blades (S series), single-intake

## Accessory part




| | |
|---|---|
| | Accessory parts, included separately: |
| | Zipped plastic bag |
| 1 | Base of terminal box |
| 2 | 4x washers |
| 3 | 4x cheese-head screws, tightening torque 2.2 ± 0.2 Nm |
| 4 | Terminal strip |
| 5 | Cable gland, cable diameter max. 7.5 mm, tightening torque 1.3 ± 0.2 Nm |
| 6 | 2x oval-head screws, tightening torque 0.5 ± 0.2 Nm |
| 7 | Terminal box cover |

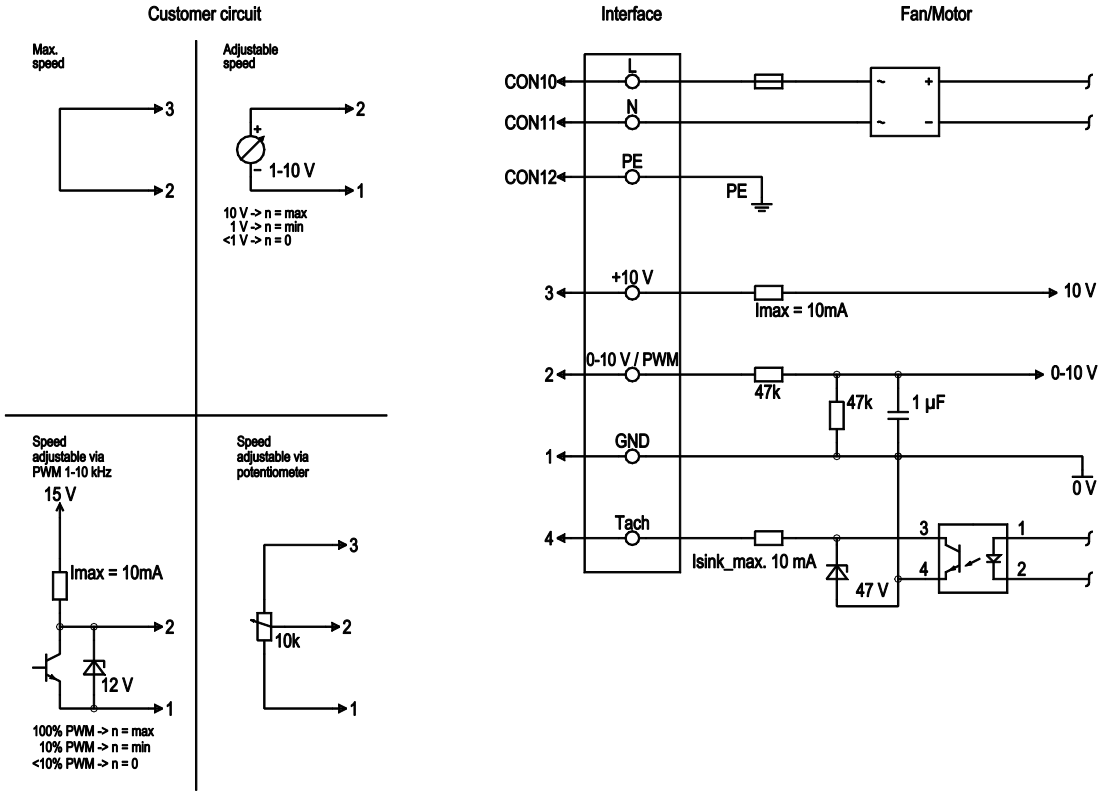


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# EC axial fan

sickle-shaped blades (S series), single-intake

## Connection diagram




| No. | Conn. | Designation | Color | Function/assignment |
|---|---|---|---|---|
| | CON10 | L | black | Supply connection, power supply, phase, see nameplate for voltage range |
| | CON11 | N | blue | Supply connection, power supply, neutral conductor, see nameplate for voltage range |
| | CON12 | PE | green/yellow | Ground connection |
| | 2 | 0- 10V PWM | yellow | 0-10 V / PWM control input, Ri=100 kΩ, SELV |
| | 4 | Tach | white | Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV |
| | 3 | +10 V | red | Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV |
| | 1 | GND | blue | Reference ground for control interface, SELV |

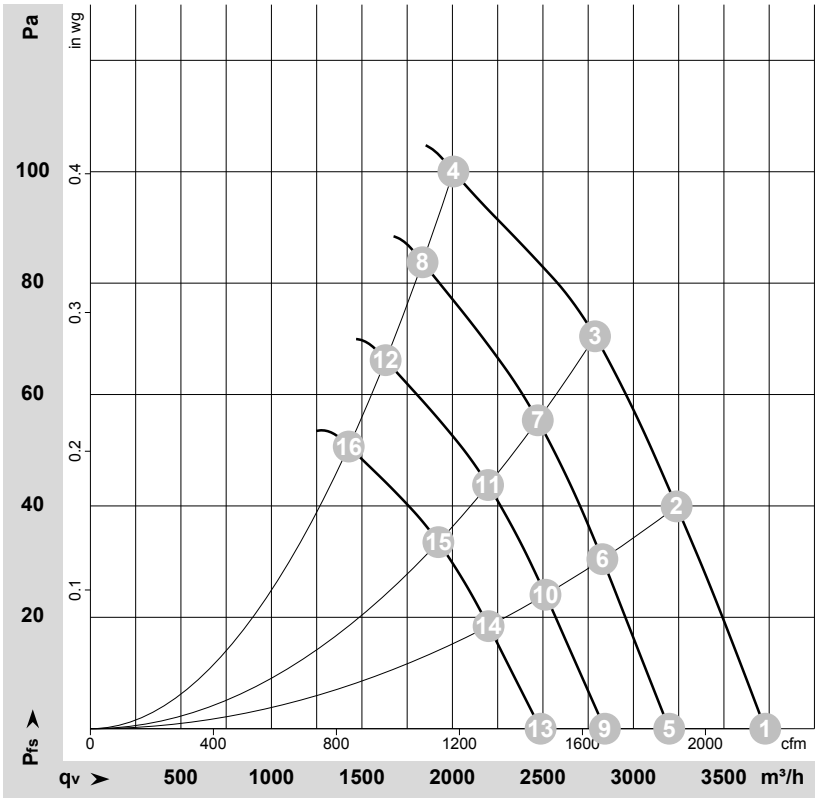


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# EC axial fan

sickle-shaped blades (S series), single-intake

## Curves: Air performance 50 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-134592-1

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 | f | n | $P_{ed}$ | I | $LpA_{in}$ | $LwA_{in}$ | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | dB(A) | dB(A) | $m^3/h$ | Pa | cfm | in. wg |
| 1 | 230 | 50 | 1575 | 141 | 1.15 | 64 | 71 | 3730 | 0 | 2195 | 0.00 |
| 2 | 230 | 50 | 1545 | 155 | 1.24 | 61 | 68 | 3240 | 40 | 1905 | 0.16 |
| 3 | 230 | 50 | 1525 | 164 | 1.32 | 58 | 66 | 2790 | 70 | 1640 | 0.28 |
| 4 | 230 | 50 | 1475 | 165 | 1.35 | 59 | 67 | 2005 | 100 | 1180 | 0.40 |
| 5 | 230 | 50 | 1350 | 89 | 0.72 | 60 | 67 | 3200 | 0 | 1880 | 0.00 |
| 6 | 230 | 50 | 1350 | 103 | 0.83 | 58 | 65 | 2830 | 31 | 1665 | 0.12 |
| 7 | 230 | 50 | 1350 | 114 | 0.92 | 55 | 62 | 2470 | 55 | 1455 | 0.22 |
| 8 | 230 | 50 | 1350 | 127 | 1.02 | 56 | 64 | 1835 | 84 | 1080 | 0.34 |
| 9 | 230 | 50 | 1200 | 63 | 0.51 | 57 | 64 | 2840 | 0 | 1675 | 0.00 |
| 10 | 230 | 50 | 1200 | 72 | 0.58 | 55 | 62 | 2515 | 24 | 1480 | 0.10 |
| 11 | 230 | 50 | 1200 | 80 | 0.65 | 52 | 60 | 2195 | 44 | 1295 | 0.18 |
| 12 | 230 | 50 | 1200 | 89 | 0.72 | 53 | 61 | 1630 | 66 | 960 | 0.26 |
| 13 | 230 | 50 | 1050 | 42 | 0.34 | 53 | 60 | 2485 | 0 | 1465 | 0.00 |
| 14 | 230 | 50 | 1050 | 49 | 0.39 | 51 | 59 | 2200 | 19 | 1295 | 0.08 |
| 15 | 230 | 50 | 1050 | 54 | 0.43 | 49 | 56 | 1920 | 34 | 1130 | 0.14 |
| 16 | 230 | 50 | 1050 | 60 | 0.48 | 50 | 58 | 1425 | 51 | 840 | 0.20 |

U = Power supply · f = Frequency · n = Speed (rpm) · $P_{ed}$ = Power consumption · I = Current draw · $LpA_{in}$ = Sound pressure level intake side · $LwA_{in}$ = Sound power level intake side
$q_V$ = Air flow · $p_{fs}$ = Pressure increase



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