

# EC axial fan - AxiCool

sickle-shaped blades (S series), single-intake  
Fan housing with mounting grille

W3G350-SN01-34 ebmpapst Datasheet  
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## Nominal data

|                          |                   |            |
|--------------------------|-------------------|------------|
| Type                     | W3G350-SN01-34    |            |
| 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 <sup>-1</sup> | 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 $\eta_{es}$ | % | 40.7   | 28.6      |
| 02 Measurement category           |   | A      |           |
| 03 Efficiency category            |   | Static |           |
| 04 Efficiency grade N             |   | 52.1   | 40        |
| 05 Variable speed drive           |   | Yes    |           |

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

|                               |                   |      |
|-------------------------------|-------------------|------|
| 09 Power consumption $P_{ed}$ | kW                | 0.16 |
| 09 Air flow $q_v$             | m³/h              | 2405 |
| 09 Pressure increase $p_{fs}$ | Pa                | 90   |
| 10 Speed (rpm) n              | min <sup>-1</sup> | 1500 |
| 11 Specific ratio*            |                   | 1.00 |

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

LU-152182



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## Technical description

|                                                                            |                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight                                                                     | 3.7 kg                                                                                                                                                                                                                                                                                                  |
| Fan size                                                                   | 350 mm                                                                                                                                                                                                                                                                                                  |
| Rotor surface                                                              | Thick-film passivated                                                                                                                                                                                                                                                                                   |
| Blade material                                                             | Press-fitted sheet steel blank, sprayed with PP plastic                                                                                                                                                                                                                                                 |
| Fan housing material                                                       | 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 bearing                                                              | Ball bearing with low-temperature lubricant                                                                                                                                                                                                                                                             |
| Technical features                                                         | <ul style="list-style-type: none"> <li>- Speed setting input (230 V)</li> <li>- Power limiter</li> <li>- Motor current limitation</li> <li>- Soft start</li> <li>- Overvoltage detection</li> <li>- Thermal overload protection for electronics/motor</li> <li>- Line undervoltage detection</li> </ul> |
| Speed levels                                                               | 2                                                                                                                                                                                                                                                                                                       |
| 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                                                                                                                                                                                                                                                                                          |

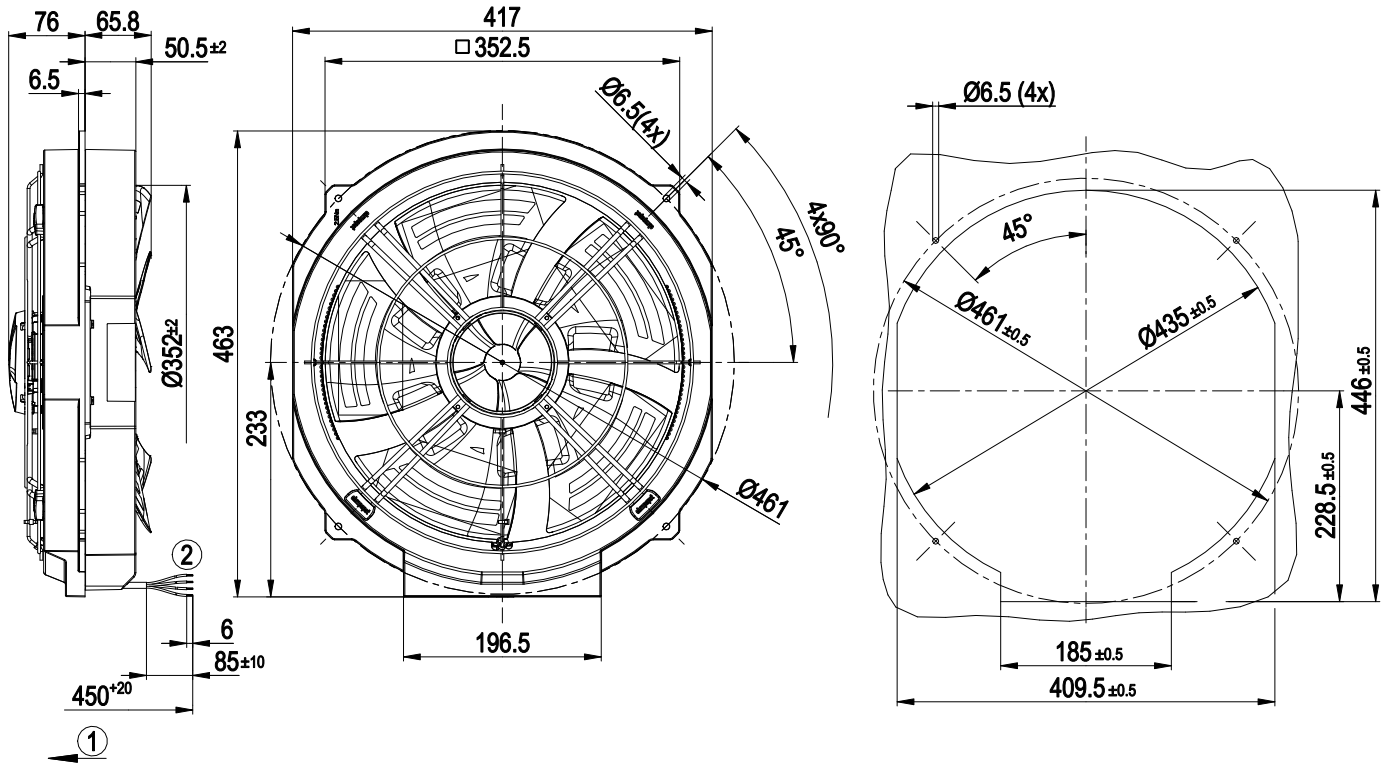


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## Product drawing



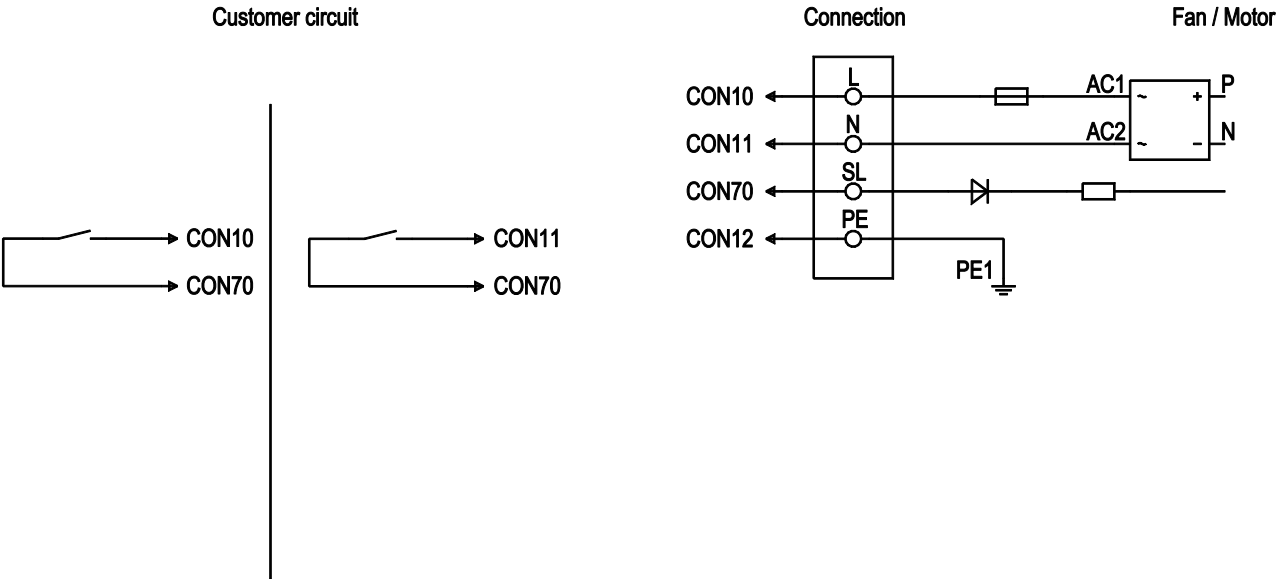
|   |                                          |
|---|------------------------------------------|
| 1 | Airflow direction "V"                    |
| 2 | Cable PVC 4G 0.5 mm², 4x crimped splices |
| 3 | Mounting dimensions                      |



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## Connection diagram



| No. | Conn.  | Designation | Color        | Function/assignment                                             |
|-----|--------|-------------|--------------|-----------------------------------------------------------------|
|     | CON 10 | L           | black        | Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range |
|     | CON 11 | N           | blue         | Neutral conductor                                               |
|     | CON 12 | PE          | green/yellow | Protective earth                                                |
|     | CON 70 | SL          | brown        | Speed selection: switch open speed 1; switch closed speed 2     |

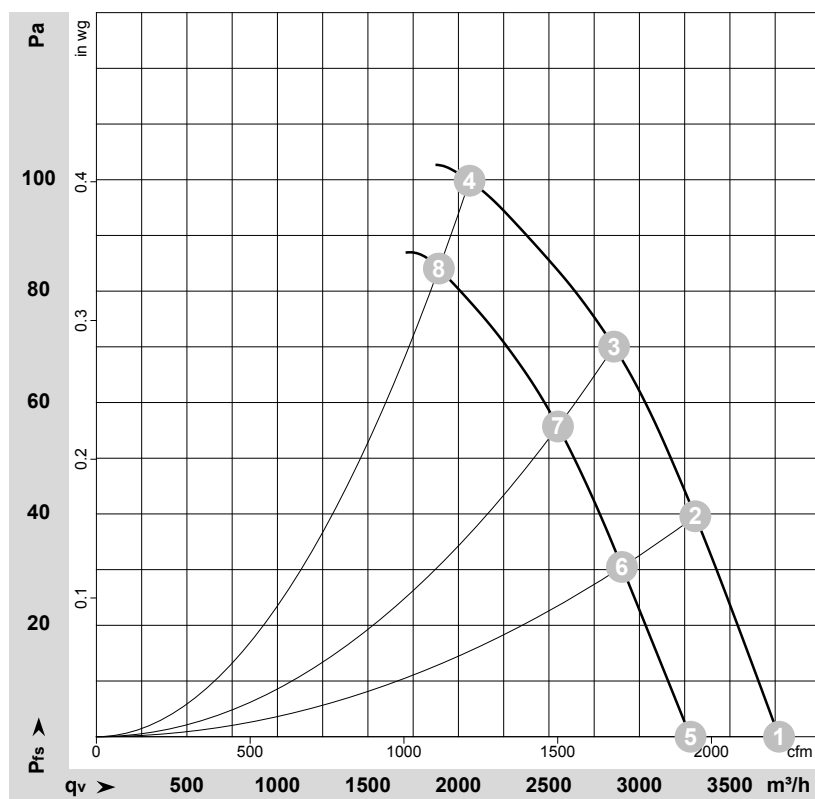


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## Curves: Air performance 50 Hz



$$\rho = 1.177 \text{ kg/m}^3 \pm 2 \%$$

Measurement: LU-152182-1  
Measurement: LU-152184-1

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 <sub>ed</sub> | I    | LpA <sub>in</sub> | LwA <sub>in</sub> | q <sub>v</sub> | p <sub>fs</sub> | q <sub>v</sub> | p <sub>fs</sub> |
|---|-----|----|-------------------|-----------------|------|-------------------|-------------------|----------------|-----------------|----------------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W               | A    | dB(A)             | dB(A)             | m³/h           | Pa              | cfm            | in. wg          |
| 1 | 230 | 50 | 1610              | 153             | 1.27 | 62                | 70                | 3770           | 0               | 2220           | 0.00            |
| 2 | 230 | 50 | 1585              | 165             | 1.35 | 61                | 68                | 3310           | 40              | 1950           | 0.16            |
| 3 | 230 | 50 | 1540              | 165             | 1.35 | 59                | 66                | 2860           | 70              | 1685           | 0.28            |
| 4 | 230 | 50 | 1475              | 165             | 1.35 | 59                | 66                | 2060           | 100             | 1215           | 0.40            |
| 5 | 230 | 50 | 1405              | 102             | 0.87 | 60                | 66                | 3280           | 0               | 1930           | 0.00            |
| 6 | 230 | 50 | 1385              | 112             | 0.95 | 58                | 65                | 2905           | 30              | 1710           | 0.12            |
| 7 | 230 | 50 | 1370              | 118             | 1.00 | 57                | 64                | 2550           | 56              | 1500           | 0.22            |
| 8 | 230 | 50 | 1350              | 126             | 1.06 | 62                | 70                | 1890           | 84              | 1115           | 0.34            |

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

