

# EC axial fan

sickle-shaped blades (S series)  
Fan housing with guard grille



W3G300-JK13-36 ebmpapst Datasheet  
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## Nominal data

|                          |                   |            |
|--------------------------|-------------------|------------|
| Type                     | W3G300-JK13-36    |            |
| Motor                    | M3G055-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> | 1500       |
| Power consumption        | W                 | 85         |
| Current draw             | A                 | 0.8        |
| Max. back pressure       | Pa                | 65         |
| Max. back pressure       | in. wg            | 0.26       |
| 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



## Technical description

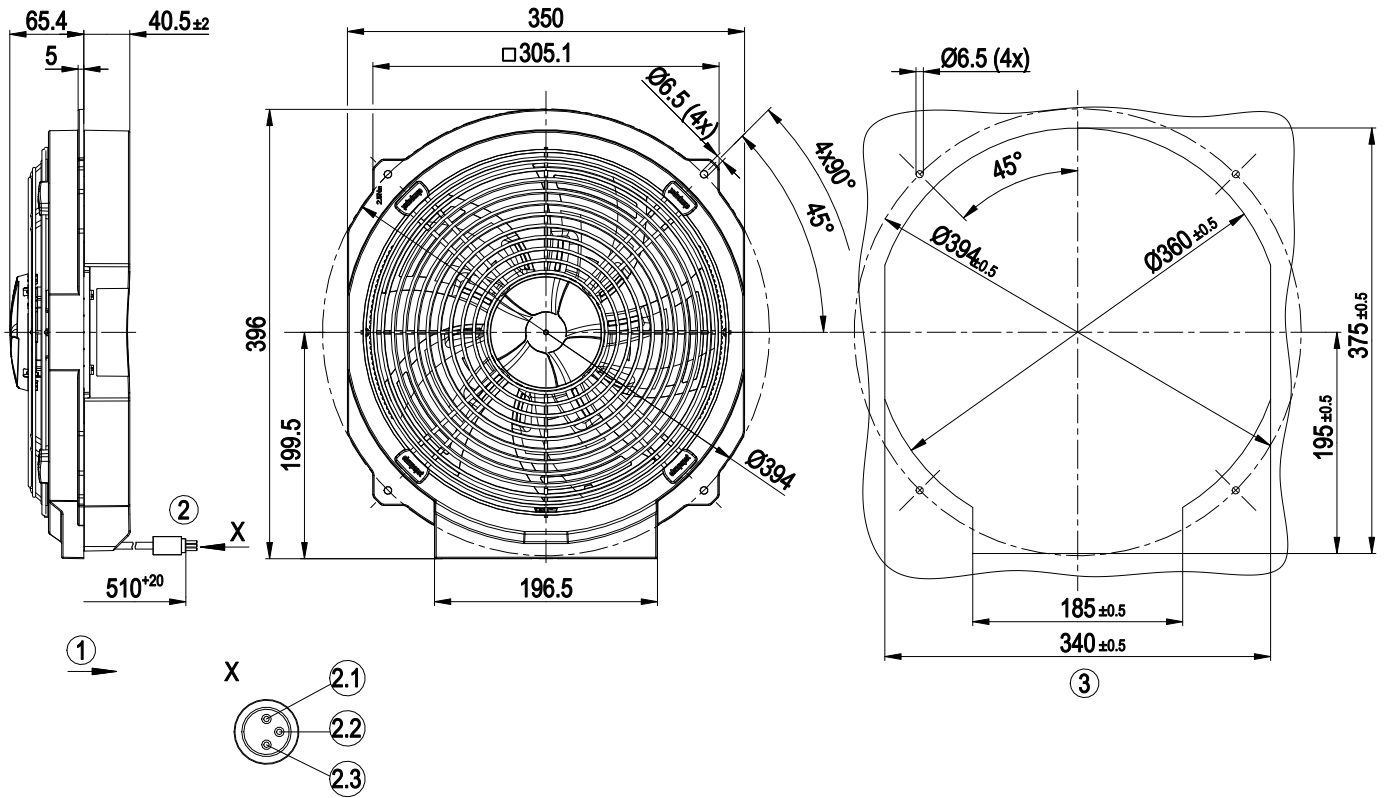
|                                                                            |                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight                                                                     | 2.6 kg                                                                                                                                                                                                                                                                 |
| Fan size                                                                   | 300 mm                                                                                                                                                                                                                                                                 |
| Rotor surface                                                              | Thick-film passivated                                                                                                                                                                                                                                                  |
| Blade material                                                             | Press-fitted sheet steel blank, sprayed with PP plastic                                                                                                                                                                                                                |
| Fan housing material                                                       | PP plastic                                                                                                                                                                                                                                                             |
| Guard grille material                                                      | Steel, coated with black plastic (RAL 9005)                                                                                                                                                                                                                            |
| Number of blades                                                           | 5                                                                                                                                                                                                                                                                      |
| Airflow direction                                                          | "A"                                                                                                                                                                                                                                                                    |
| Direction of rotation                                                      | Clockwise, 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                                                                                                                                                                                                                                                       |
| 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>- Thermal overload protection for electronics/motor</li> <li>- Line undervoltage detection</li> </ul> |
| Speed levels                                                               | 2                                                                                                                                                                                                                                                                      |
| EMC immunity to interference                                               | According to EN 61000-6-2 (industrial environment)                                                                                                                                                                                                                     |
| EMC circuit feedback                                                       | According to EN 61000-3-2/3                                                                                                                                                                                                                                            |
| EMC interference emission                                                  | According to EN 61000-6-3 (household 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 60034-1; EN 60204-1; CE                                                                                                                                                                                                                                             |
| Approval                                                                   | C22.2 No.77 + CAN/CSA-E60730-1; UL 1004-7 + 60730                                                                                                                                                                                                                      |

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## Product drawing



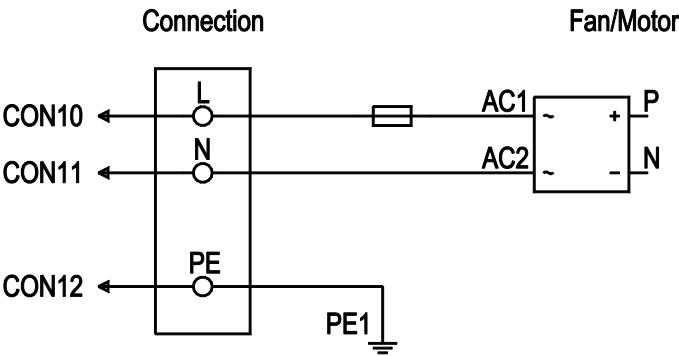
|     |                                                                                                                    |
|-----|--------------------------------------------------------------------------------------------------------------------|
| 1   | Direction of air flow "A"                                                                                          |
| 2   | Cable PVC AWG20, 3-pole connector housing EMF Corporation P-3-4-100, 3x plug contact HS United European 52 310 140 |
| 2.1 | N (blue)                                                                                                           |
| 2.2 | PE (green/yellow)                                                                                                  |
| 2.3 | L (black)                                                                                                          |
| 3   | Mounting dimensions                                                                                                |



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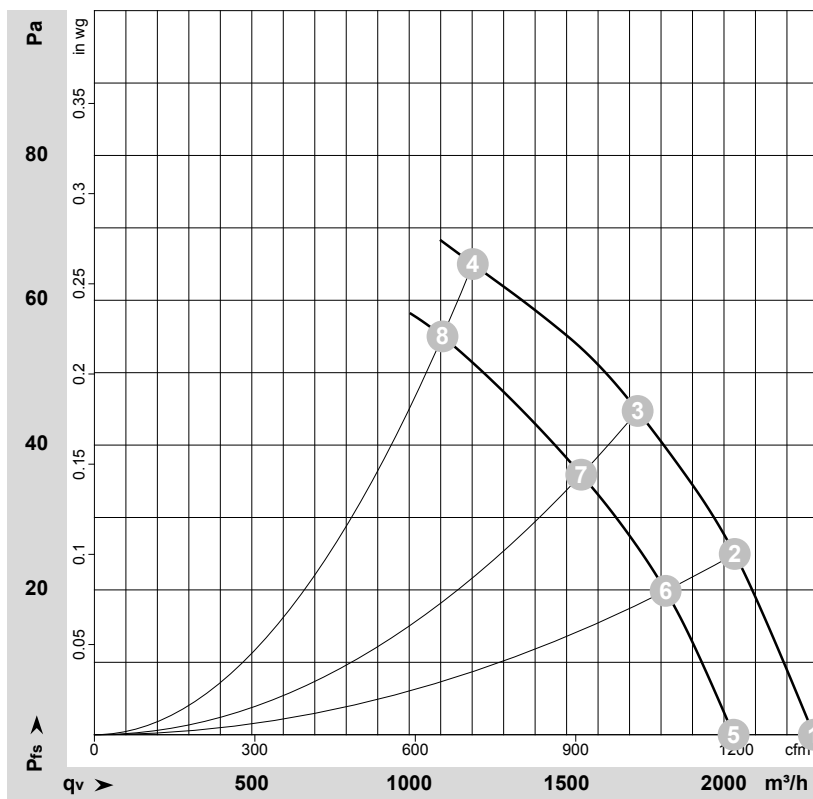
## Connection diagram



| 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                                                  |



## Curves: Air performance 50 Hz



$$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$$

Measurement: LU-149119-1  
Measurement: LU-149125-1

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 | 1665              | 71              | 0.63 | 60                | 68                | 2285           | 0               | 1345           | 0.00            |
| 2 | 230 | 50 | 1625              | 77              | 0.68 | 59                | 67                | 2035           | 25              | 1195           | 0.10            |
| 3 | 230 | 50 | 1580              | 82              | 0.70 | 57                | 64                | 1725           | 45              | 1015           | 0.18            |
| 4 | 230 | 50 | 1500              | 85              | 0.80 | 56                | 63                | 1200           | 65              | 705            | 0.26            |
| 5 | 230 | 50 | 1485              | 51              | 0.50 | 59                | 66                | 2030           | 0               | 1195           | 0.00            |
| 6 | 230 | 50 | 1450              | 55              | 0.51 | 58                | 64                | 1815           | 20              | 1070           | 0.08            |
| 7 | 230 | 50 | 1415              | 59              | 0.55 | 56                | 62                | 1545           | 36              | 910            | 0.14            |
| 8 | 230 | 50 | 1370              | 64              | 0.58 | 54                | 61                | 1105           | 55              | 650            | 0.22            |

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

