

EC axial fan - ESM

sickle-shaped blades (S series)

Fan housing with mounting grille

W1G300-EB19-23 ebmpapst Datasheet

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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 | W1G300-EB19-23 | | |
| Motor | M1G055-BI | | |
| Phase | | 1~ | 1~ |
| Nominal voltage | VAC | 230 | 230 |
| Frequency | Hz | | 50/60 |
| Method of obtaining data | | | ml |
| Speed (rpm) | min ⁻¹ | 900 | 1300 |
| Power consumption | W | | 38 |
| Current draw | A | | 0.3 |
| Max. back pressure | Pa | | 41 |
| Max. back pressure | in. wg | | 0.16 |
| Min. ambient temperature | °C | -30 | -30 |
| Max. ambient temperature | °C | 50 | 50 |

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 | 1.78 kg |
| Size | 300 mm |
| Motor size | 55 |
| Blade material | PA plastic |
| Fan housing material | Sheet steel, galvanized and coated with pebble-gray plastic (RAL 7032) |
| Number of blades | 5 |
| Airflow direction | V |
| Direction of rotation | Counterclockwise, viewed toward rotor |
| Degree of protection | IP55 |
| Insulation class | "B" |
| Moisture (F) / Environmental (H) protection class | H1+ |
| 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 | <ul style="list-style-type: none"> - Speed setting input (230 V) - ESM+ expandable with plug-in module - Soft start - Thermal overload protection for motor |
| Speed levels | 2 |
| Motor protection | Thermal overload protector (TOP) internally connected |
| Protection class | II |
| Conformity with standards | EN 60335-1; EN 60335-2-24; EN 60335-2-80; EN 60335-2-89; EN 60204-1; EN 60034-1; CE |
| Approval | VDE; CSA C22.2 No. 77; UL 1004-3 |

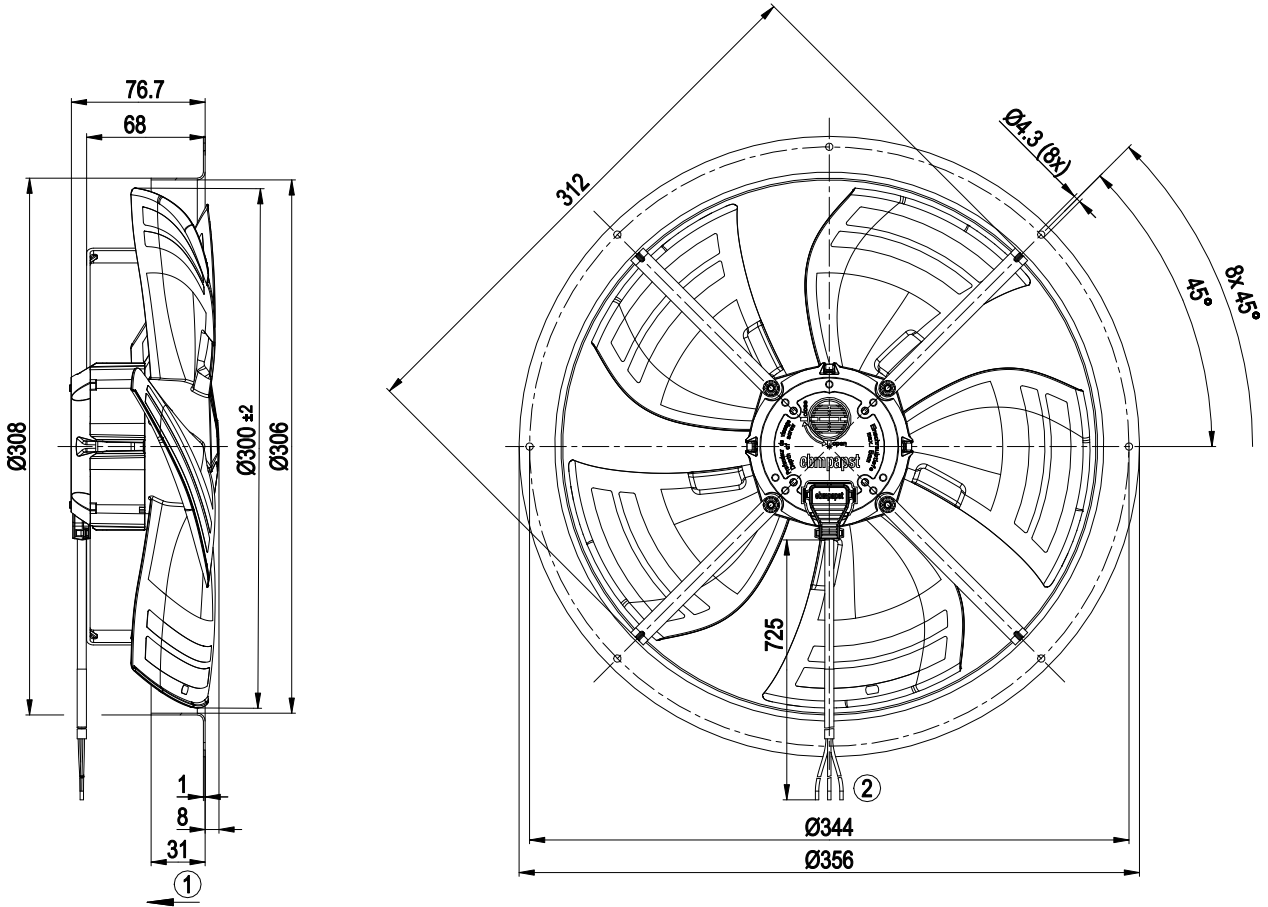


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Product drawing



| | |
|------------------------------------|-----------------------|
| 1 | Airflow direction "V" |
| 2 | Cable PFA AWG20 |
| Wire ends: Insulation not stripped | |

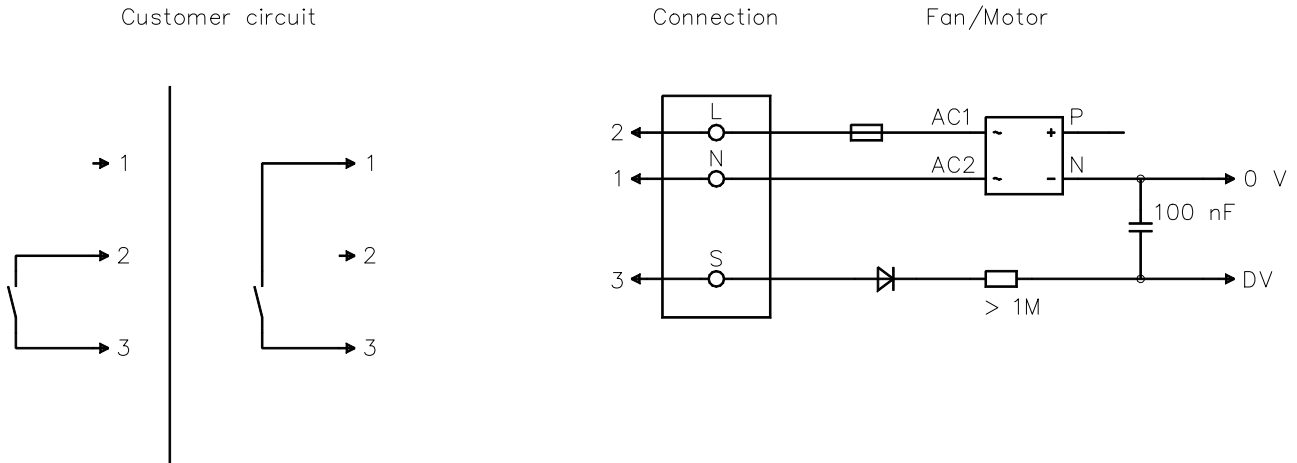


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Connection diagram



| No. | Conn. | Designation | Color | Function/assignment |
|-----|-------|-------------|-------|---|
| 1 | N | | blue | Neutral conductor |
| 2 | L | | black | Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range |
| 3 | S | | brown | Speed selection: switch open speed 1 (fast), switch closed speed 2 (slow) |

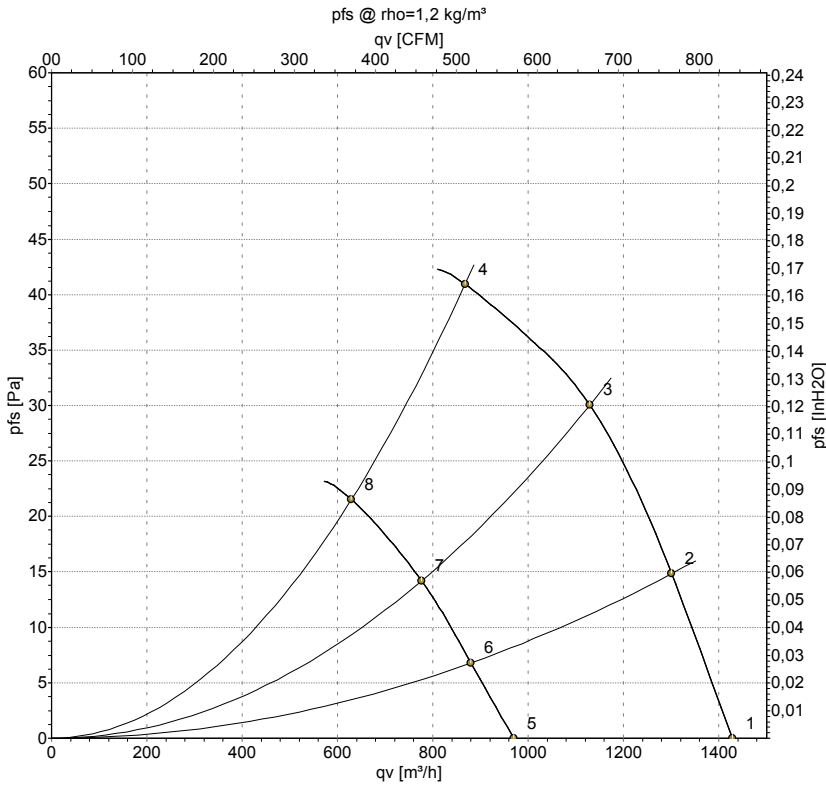


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Curves: Air performance 50 Hz



Measurement: LU-157545-1
Measurement: LU-142414-1

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 | q _v | p _{fs} | q _v | p _{fs} |
|---|-----|----|-------------------|-----------------|------|-------------------|-----------------|----------------|-----------------|
| | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa | cfm | in. wg |
| 1 | 230 | 50 | 1300 | 28 | 0.24 | 1430 | 0 | 840 | 0.00 |
| 2 | 230 | 50 | 1300 | 32 | 0.27 | 1300 | 15 | 765 | 0.06 |
| 3 | 230 | 50 | 1300 | 35 | 0.30 | 1130 | 30 | 665 | 0.12 |
| 4 | 230 | 50 | 1300 | 38 | 0.30 | 865 | 41 | 510 | 0.16 |
| 5 | 230 | 50 | 900 | 11 | 0.11 | 970 | 0 | 570 | 0.00 |
| 6 | 230 | 50 | 900 | 14 | 0.13 | 880 | 7 | 520 | 0.03 |
| 7 | 230 | 50 | 900 | 14 | 0.14 | 775 | 14 | 455 | 0.06 |
| 8 | 230 | 50 | 900 | 17 | 0.16 | 630 | 22 | 370 | 0.09 |

U = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase

