**W1G200-EC87-53**

# EC axial fan - ESM

sickled blades (S series), single inlet

ESM wall ring



**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
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

## Nominal data

| | |
|---|---|
| **Type** | **W1G200-EC87-53** |
| **Motor** | **M1G055-BD** |

| | | | |
|---|---|---|---|
| Phase | | 1~ | 1~ |
| Nominal voltage | VAC | 230 | 230 |
| Frequency | Hz | 50/60 | 50/60 |
| Type of data definition | | ml | |
| Speed (rpm) | $min^{-1}$ | 1300 | 900 |
| Power input | W | 8 | |
| Current draw | A | 0.07 | |
| Max. back pressure | Pa | 23 | |
| Min. ambient temperature | °C | -30 | -30 |
| Max. ambient temperature | °C | 50 | 50 |

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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## Technical features

| | |
|---|---|
| **Mass** | 1 kg |
| **Size** | 200 mm |
| **Material of blades** | PA plastic |
| **Material of wall ring** | PP plastic |
| **Number of blades** | 5 |
| **Direction of air flow** | "V" |
| **Direction of rotation** | Counter-clockwise, seen on rotor |
| **Type of protection** | IP 54 |
| **Insulation class** | "B" |
| **Humidity (F)/environmental protection class (H)** | H1 |
| **Max. permissible ambient motor temp. (transp./ storage)** | + 80 °C |
| **Min. permissible ambient motor temp. (transp./storage)** | - 40 °C |
| **Mounting position** | Any |
| **Condensate discharge holes** | None |
| **Operation mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Technical features** | - Speed adjustment input (230 V)<br>- ESM+ extensible with plug-in module<br>- Soft start<br>- Over-temperature protected motor |
| **Speed steps** | 2 |
| **EMC interference immunity** | Acc. to EN 61000-6-2 (industrial environment) |
| **EMC harmonics** | Acc. to EN 61000-3-2/3 |
| **EMC interference emission** | Acc. to EN 61000-6-3 (household environment) |
| **Electrical leads** | With plug |
| **Motor protection** | Thermal overload protector (TOP) wired internally |
| **Cable exit** | Lateral |
| **Protection class** | II |
| **Product conforming to standard** | EN 60335-1; EN 60335-2-24; EN 60335-2-80; EN 60335-2-89; CE |
| **Approval** | VDE; EAC |



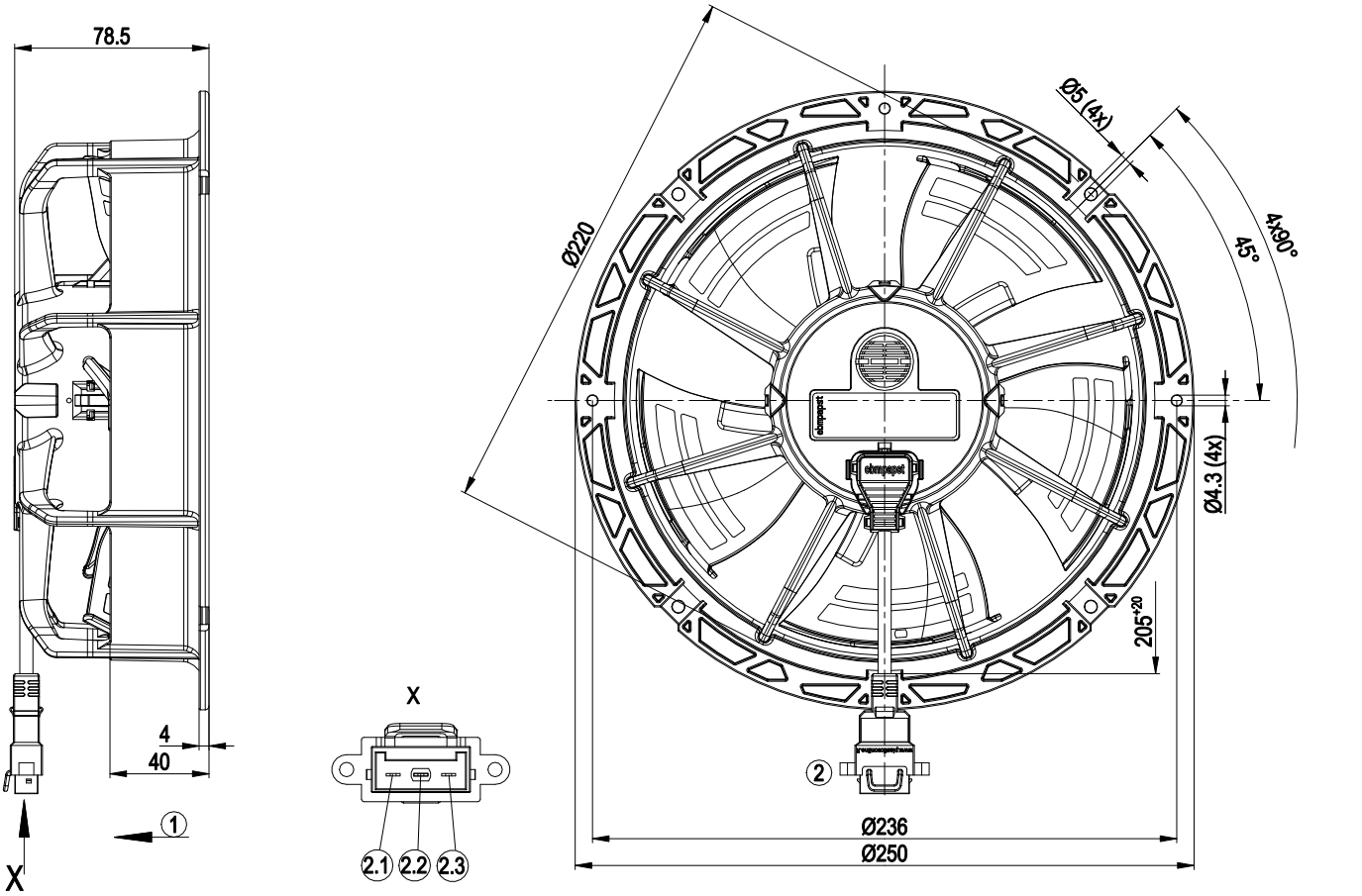
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## Product drawing




| | |
|---|---|
| 1 | Direction of air flow "V" |
| 2 | Connection line PVC 3x0.5 mm², connector housing 3-pole Plastics P1113 |
| 2.1 | PIN S, speed selection (flat connector 2.8 x 0.5) |
| 2.2 | PIN L1, phase (flat connector 2.8 x 0.5) |
| 2.3 | PIN N, neutral conductor (flat connector 2.8 x 0.5) |



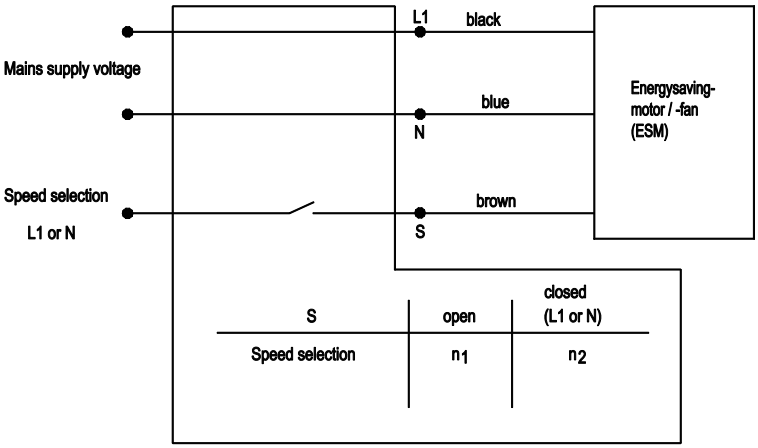
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## Connection screen





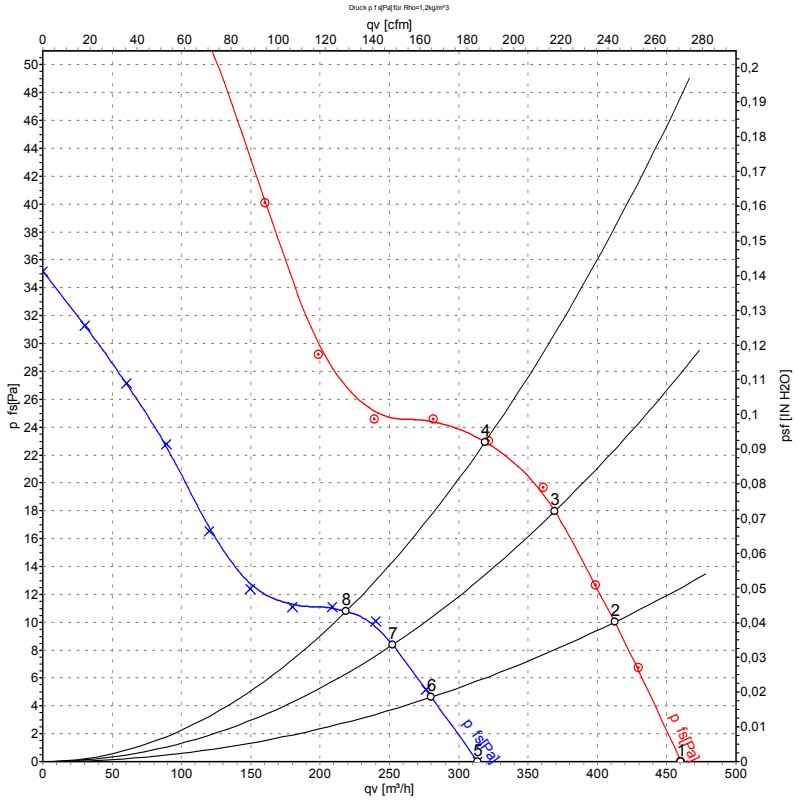

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## Charts: Air flow 50 Hz




Measurement: LU-113354-1
Measurement: LU-113366-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

## 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 | inH2O |
| 1 | 230 | 50 | 1300 | 7.0 | 0.06 | 42 | 50 | 460 | 0 | 270 | 0.00 |
| 2 | 230 | 50 | 1300 | 8.0 | 0.07 | 41 | 49 | 410 | 10 | 240 | 0.04 |
| 3 | 230 | 50 | 1300 | 8.0 | 0.07 | 40 | 48 | 370 | 18 | 215 | 0.07 |
| 4 | 230 | 50 | 1300 | 8.0 | 0.07 | 43 | 51 | 320 | 23 | 190 | 0.09 |
| 5 | 230 | 50 | 900 | 3.4 | 0.03 | 33 | 41 | 315 | 0 | 185 | 0.00 |
| 6 | 230 | 50 | 900 | 4.0 | 0.04 | 32 | 41 | 280 | 5 | 165 | 0.02 |
| 7 | 230 | 50 | 900 | 4.1 | 0.04 | 32 | 40 | 250 | 8 | 150 | 0.03 |
| 8 | 230 | 50 | 900 | 4.0 | 0.04 | 32 | 41 | 220 | 11 | 130 | 0.04 |

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



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