

W1G200-EC91-37

# EC axial fan - ESM

sickled blades (S series), single inlet  
ESM wall ring



W1G200-EC91-37 ebmpapst Datasheet  
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## Nominal data

|                          |                   |       |       |
|--------------------------|-------------------|-------|-------|
| Type                     | W1G200-EC91-37    |       |       |
| 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 <sup>-1</sup> | 2100  | 1500  |
| Power input              | W                 | 31    |       |
| Current draw             | A                 | 0.24  |       |
| Max. back pressure       | Pa                | 55    |       |
| 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

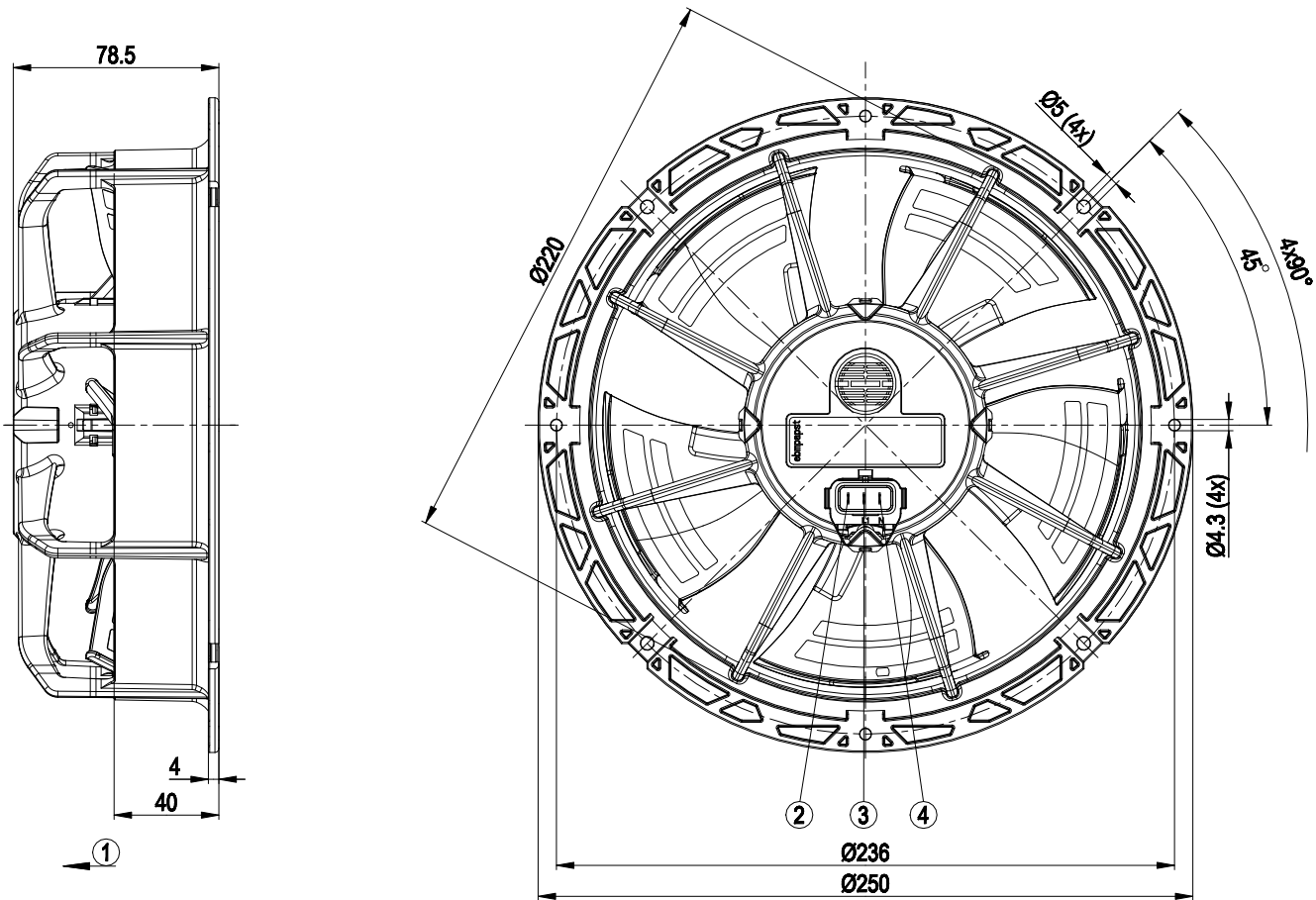
|                                                         |                                                                                                                                                                                                     |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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; Only with suitable connector, which has to be fitted by the customer                                                                                                                         |
| 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                                      | <ul style="list-style-type: none"> <li>- Speed adjustment input (230 V)</li> <li>- ESM+ extensible with plug-in module</li> <li>- Soft start</li> <li>- Over-temperature protected motor</li> </ul> |
| 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)                                                                                                                                                        |
| Motor protection                                        | Thermal overload protector (TOP) wired internally                                                                                                                                                   |
| Protection class                                        | II                                                                                                                                                                                                  |
| Product conforming to standard                          | EN 60335-1; EN 60335-2-24; EN 60335-2-80; EN 60335-2-89; CE                                                                                                                                         |
| Approval                                                | CSA C22.2 No.77; VDE; UL 1004-3                                                                                                                                                                     |



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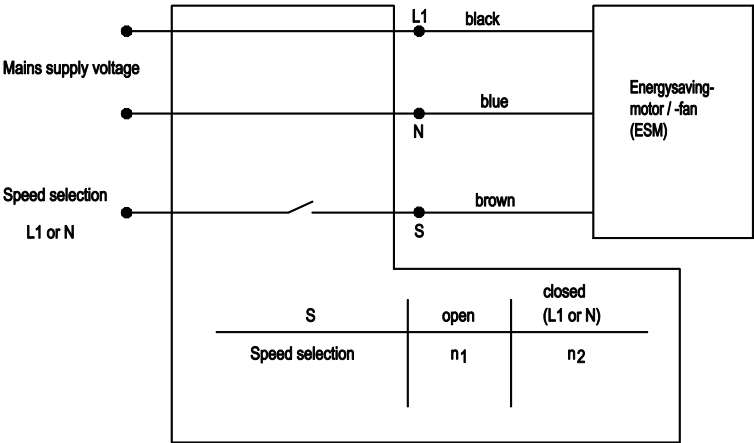
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Product drawing

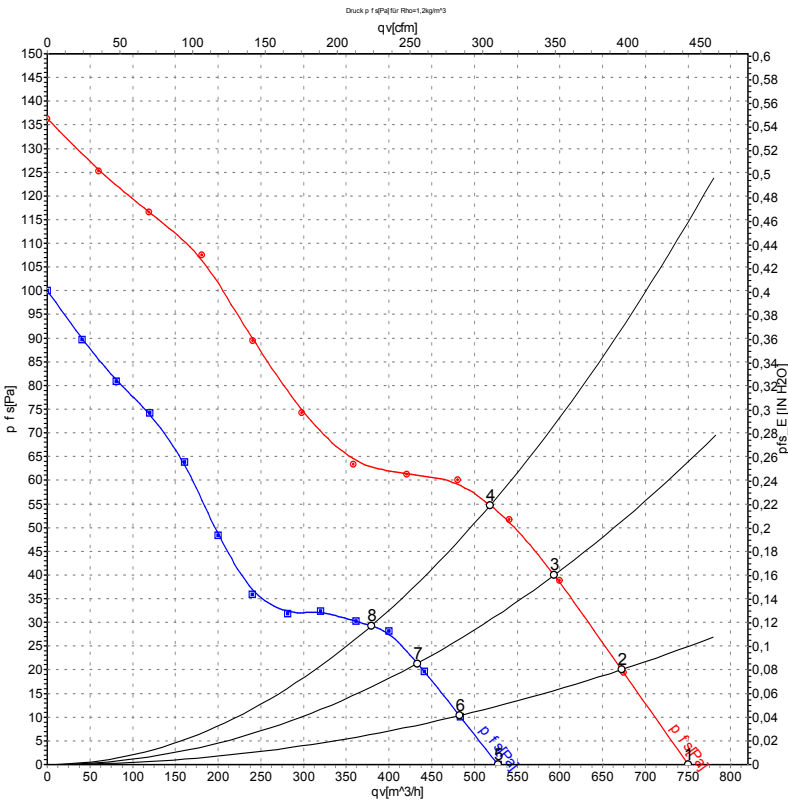


- |   |                                                     |
|---|-----------------------------------------------------|
| 1 | Direction of air flow "V"                           |
| 2 | PIN S, speed selection (flat connector 2.8 x 0.5)   |
| 3 | PIN L1, phase (flat connector 2.8 x 0.5)            |
| 4 | PIN N, neutral conductor (flat connector 2.8 x 0.5) |

Connection screen



Charts: Air flow 50 Hz



Measurement: LU-113351-1  
Measurement: LU-113352-1

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 <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)             | m <sup>3</sup> /h | Pa              | cfm            | inH <sub>2</sub> O |
| 1 | 230 | 50 | 2100              | 29              | 0.22 | 55                | 62                | 750               | 0               | 440            | 0.00               |
| 2 | 230 | 50 | 2100              | 30              | 0.23 | 54                | 61                | 670               | 20              | 395            | 0.08               |
| 3 | 230 | 50 | 2100              | 31              | 0.24 | 53                | 60                | 595               | 40              | 350            | 0.16               |
| 4 | 230 | 50 | 2100              | 31              | 0.24 | 54                | 62                | 520               | 55              | 305            | 0.22               |
| 5 | 230 | 50 | 1500              | 14              | 0.11 | 46                | 54                | 525               | 0               | 310            | 0.00               |
| 6 | 230 | 50 | 1500              | 15              | 0.12 | 46                | 54                | 480               | 10              | 285            | 0.04               |
| 7 | 230 | 50 | 1500              | 15              | 0.12 | 45                | 53                | 435               | 21              | 255            | 0.08               |
| 8 | 230 | 50 | 1500              | 15              | 0.12 | 47                | 55                | 380               | 29              | 225            | 0.12               |

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

