

W1G200-EX91-12

II 3G Ex nA IIA T4 Gc (-30°C ≤ TA ≤ +40°C) X

EC axial fan - ESM

sickled blades (S series)  
ESM wall ring



W1G200-EX91-12 ebmpapst Datasheet  
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Nominal data

|                          |                   |       |       |
|--------------------------|-------------------|-------|-------|
| Type                     | W1G200-EX91-12    |       |       |
| 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> | 1500  | 2100  |
| Power input              | W                 |       | 31    |
| Current draw             | A                 |       | 0.24  |
| Max. back pressure       | Pa                |       | 55    |
| Min. ambient temperature | °C                | -30   | -30   |
| Max. ambient temperature | °C                | 40    | 40    |

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



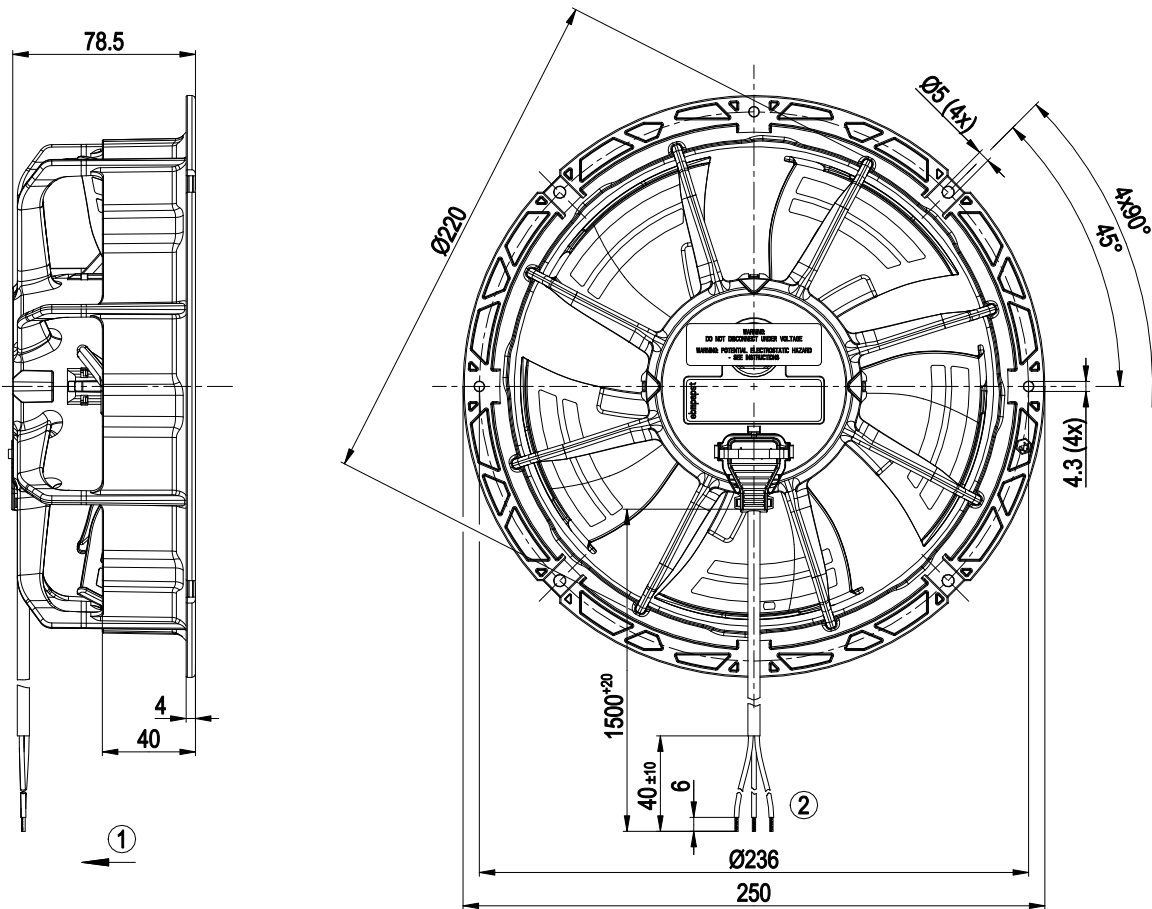


## Technical features

|                                                         |                                                                                                                                               |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Mass                                                    | 1 kg                                                                                                                                          |
| Size                                                    | 200 mm                                                                                                                                        |
| Motor size                                              | 55                                                                                                                                            |
| Material of blades                                      | PA plastic                                                                                                                                    |
| Material of wall ring                                   | PC / ABS plastic                                                                                                                              |
| Number of blades                                        | 5                                                                                                                                             |
| Direction of air flow                                   | V                                                                                                                                             |
| Direction of rotation                                   | Counter-clockwise, seen on rotor                                                                                                              |
| Type of protection                                      | IP54                                                                                                                                          |
| 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                                                                                                                                           |
| Condensation drainage holes                             | None                                                                                                                                          |
| Operation mode                                          | S1                                                                                                                                            |
| Motor bearing                                           | Ball bearing                                                                                                                                  |
| Technical features                                      | <ul style="list-style-type: none"> <li>- Speed selection max/min</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                                                                                             |
| Cable exit                                              | Lateral                                                                                                                                       |
| Protection class                                        | II                                                                                                                                            |
| Product conforming to standard                          | EN 60335-1; EN 60335-2-89; 3G; CE                                                                                                             |
| Approval                                                | 3G; VDE; CSA C22.2 no. 77; UL 1004-3                                                                                                          |
| Remark                                                  | Fan application category BV-3                                                                                                                 |

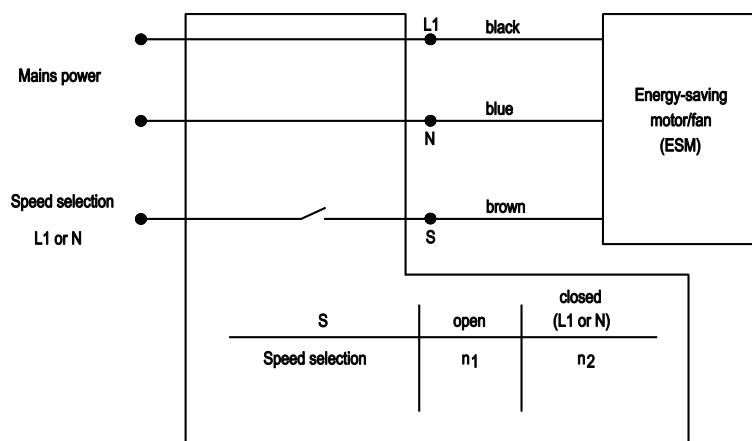


## Product drawing



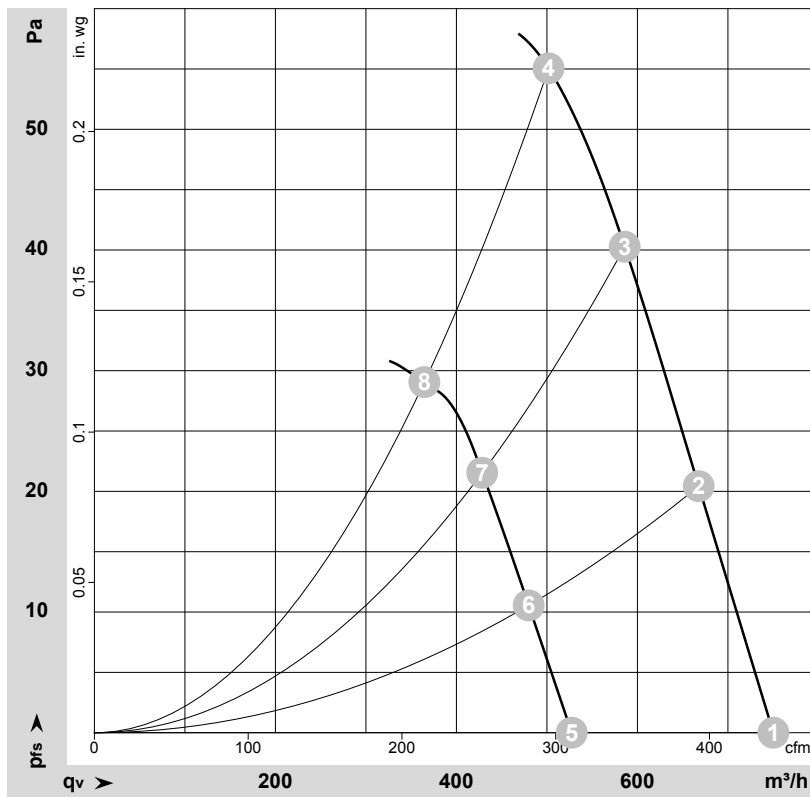
- |   |                           |
|---|---------------------------|
| 1 | Direction of air flow "V" |
| 2 | Connection line PVC AWG20 |
|   | 3x lead tip               |

## Connection screen





## Charts: Air flow 50 Hz



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

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)             | m³/h           | Pa              | cfm            | in. wg          |
| 1 | 230 | 50 | 2100              | 28              | 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                | 585            | 40              | 345            | 0.16            |
| 4 | 230 | 50 | 2100              | 31              | 0.24 | 56                | 64                | 500            | 55              | 295            | 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            | 11              | 285            | 0.04            |
| 7 | 230 | 50 | 1500              | 15              | 0.12 | 45                | 53                | 430            | 22              | 250            | 0.09            |
| 8 | 230 | 50 | 1500              | 15              | 0.12 | 48                | 56                | 365            | 29              | 215            | 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

