

W1G200-EF01-01

## EC axial fan - ESM

sickled blades (S series)

ESM wall ring

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## Nominal data

|                          |                   |          |
|--------------------------|-------------------|----------|
| Type                     | W1G200-EF01-01    |          |
| Motor                    | M1G055-BD         |          |
| Nominal voltage          | VDC               | 24       |
| Nominal voltage range    | VDC               | 16 .. 28 |
| Type of data definition  |                   | fa       |
| Speed                    | min <sup>-1</sup> | 2130     |
| Power input              | W                 | 29       |
| Current draw             | A                 | 1.5      |
| Max. back pressure       | Pa                | 55       |
| Min. ambient temperature | °C                | -30      |
| Max. ambient temperature | °C                | 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 electronics housing                         | PP plastic                                                                                                                                                                                                       |
| Material of blades                                      | PA plastic                                                                                                                                                                                                       |
| Material of wall ring                                   | Plastic, epylene GT50                                                                                                                                                                                            |
| 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 class                                          | F3-1                                                                                                                                                                                                             |
| 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>- Tach output</li><li>- Motor current limit</li><li>- Soft start</li><li>- Control input 0-10 VDC / PWM</li><li>- Over-temperature protected electronics / motor</li></ul> |
| Motor protection                                        | Thermal overload protector (TOP) wired internally                                                                                                                                                                |
| Cable exit                                              | Lateral                                                                                                                                                                                                          |
| Protection class                                        | II                                                                                                                                                                                                               |
| Approval                                                | CSA C22.2 Nr.77; EAC; UL 2111; VDE                                                                                                                                                                               |

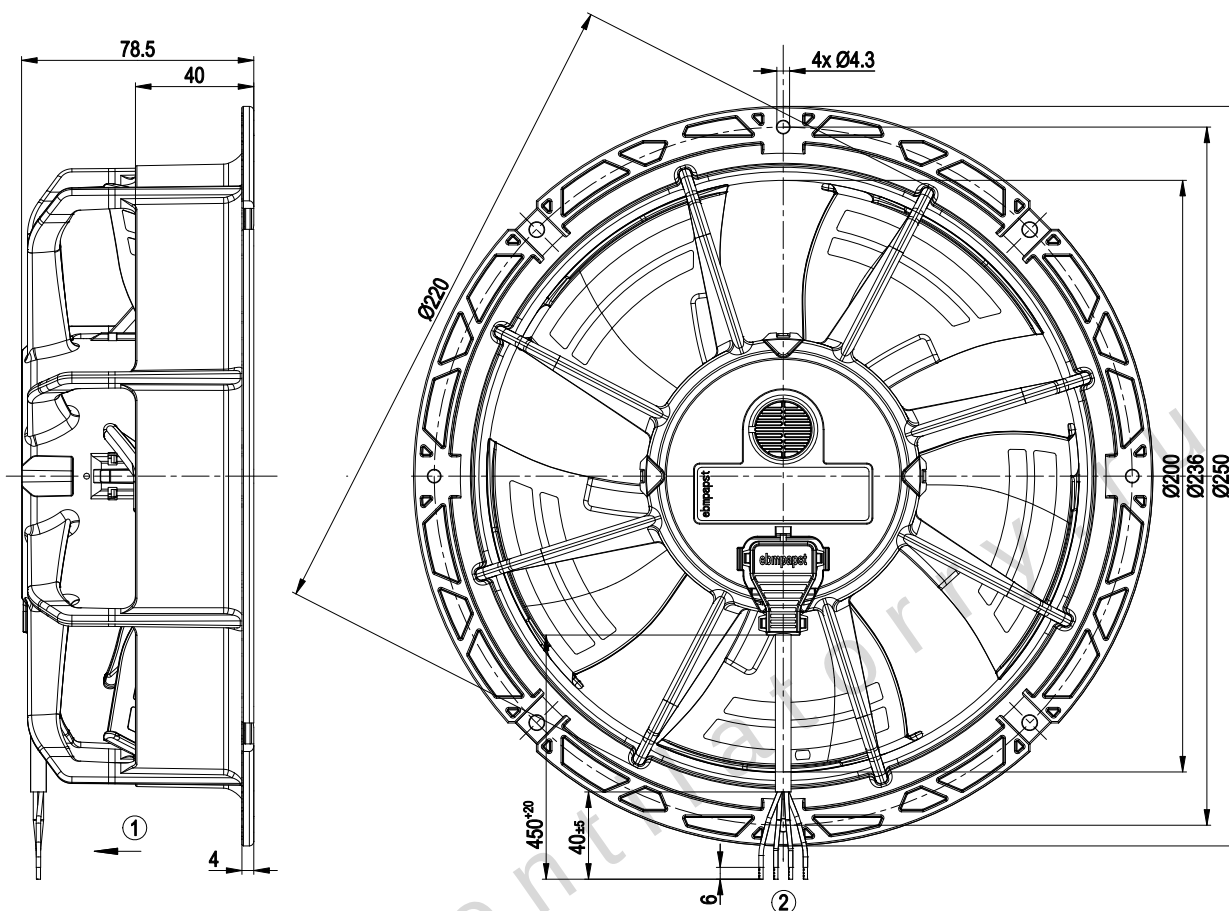
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## Product drawing



- |   |                                                    |
|---|----------------------------------------------------|
| 1 | Direction of air flow "V"                          |
| 2 | Connection line AWG20, 4 x brass lead tips crimped |

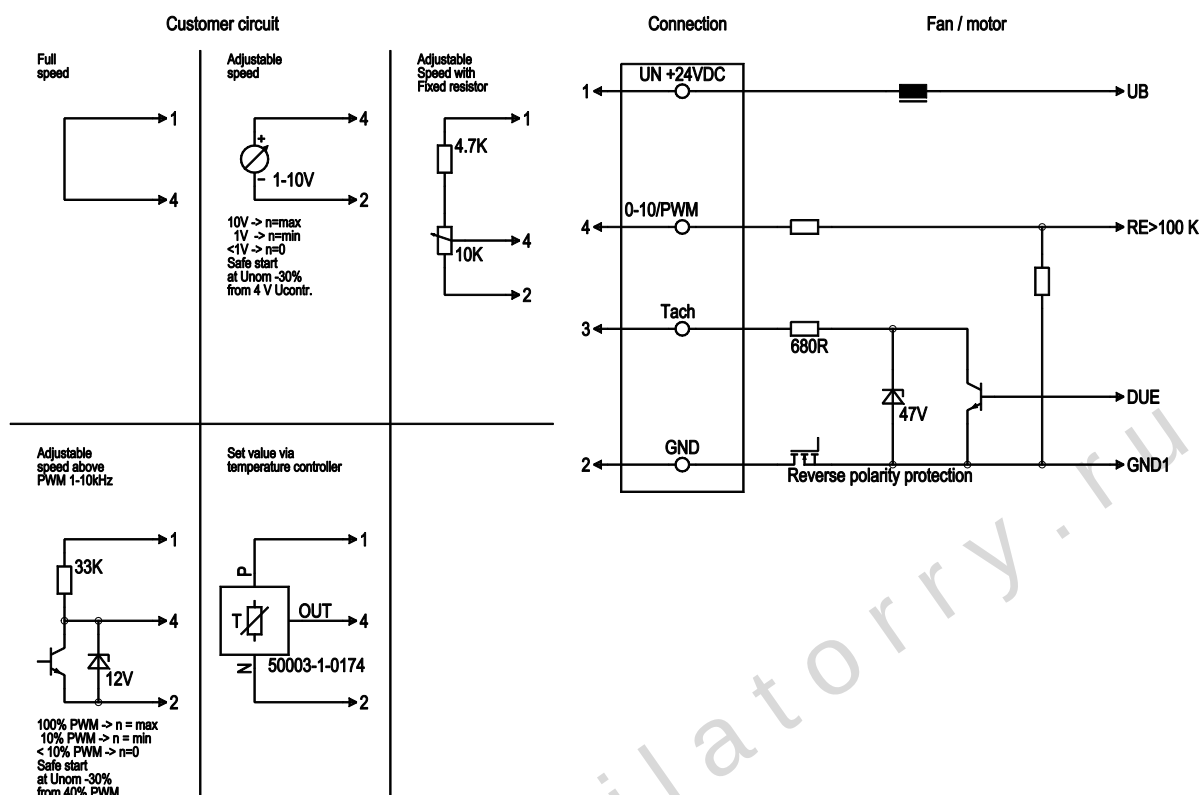
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## Connection screen



| No. | Conn.          | Designation | Colour | Function / assignment                                                   |
|-----|----------------|-------------|--------|-------------------------------------------------------------------------|
| 1   | UN +24 VDC     |             | red    | Power supply 24 VDC, residual ripple 3.5 %                              |
| 2   | GND            |             | Blue   | Reference ground                                                        |
| 3   | Tach           |             | white  | Tacho output, 1 pulse per revolution, Isink max = 10 mA, open collector |
| 4   | PWM / 0-10 VDC |             | yellow | Control input PWM or 0-10 V, RE >100K                                   |

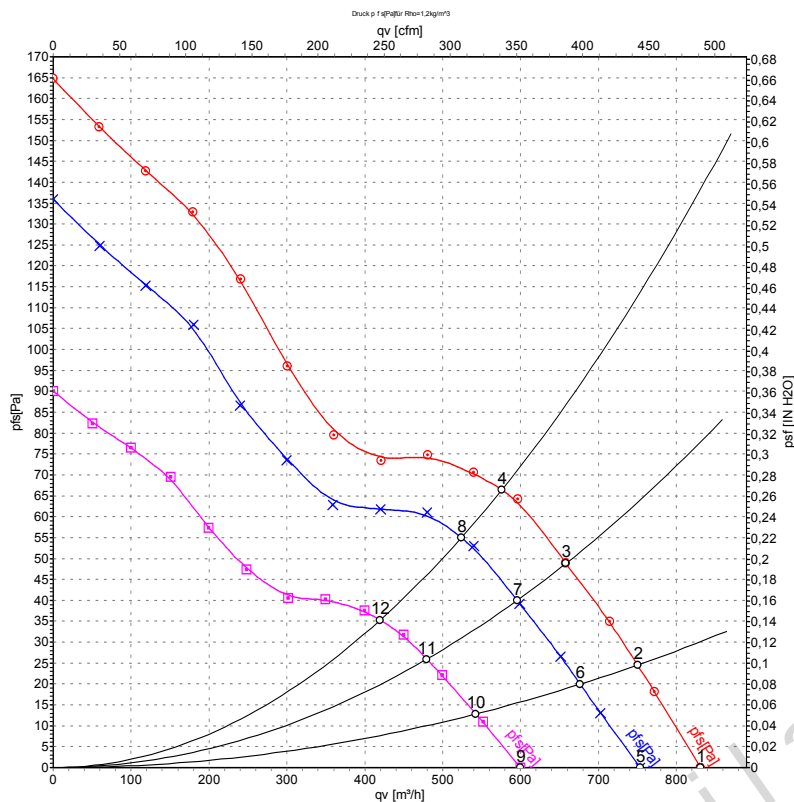
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## Charts: Air flow



Measurement: LU-140491  
 Measurement: LU-140490  
 Measurement: LU-140492

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: L<sub>wA</sub> measured as per ISO 13347 /  
 L<sub>pA</sub> 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  | n                 | P <sub>ed</sub> | I    | LpA <sub>in</sub> | LwA <sub>in</sub> | qv   | p <sub>fs</sub> |
|----|----|-------------------|-----------------|------|-------------------|-------------------|------|-----------------|
|    | V  | min <sup>-1</sup> | W               | A    | dB(A)             | dB(A)             | m³/h | Pa              |
| 1  | 28 | 2310              | 38              | 1.80 | 57                | 65                | 830  | 0               |
| 2  | 28 | 2260              | 40              | 1.88 | 57                | 65                | 750  | 24              |
| 3  | 28 | 2225              | 42              | 1.96 | 56                | 63                | 660  | 49              |
| 4  | 28 | 2230              | 42              | 1.95 | 54                | 62                | 575  | 66              |
| 5  | 24 | 2130              | 29              | 1.50 | 55                | 62                | 755  | 0               |
| 6  | 24 | 2085              | 30              | 1.56 | 54                | 62                | 675  | 20              |
| 7  | 24 | 2050              | 31              | 1.61 | 53                | 61                | 595  | 40              |
| 8  | 24 | 2050              | 31              | 1.62 | 51                | 59                | 525  | 55              |
| 9  | 16 | 1705              | 13              | 0.91 | 49                | 57                | 600  | 0               |
| 10 | 16 | 1670              | 14              | 0.95 | 48                | 56                | 545  | 13              |
| 11 | 16 | 1645              | 14              | 0.98 | 47                | 55                | 480  | 26              |
| 12 | 16 | 1660              | 14              | 0.97 | 46                | 54                | 420  | 35              |

U = Supply voltage · n = Speed · 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 · qv = Air flow · p<sub>fs</sub> = Pressure increase