

# EC centrifugal module - ESM

sickle-shaped blades (S series), single-intake  
with support bracket



K1G200-AA73-14 ebmpapst Datasheet  
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## Nominal data

|                          |                   |       |       |
|--------------------------|-------------------|-------|-------|
| Type                     | K1G200-AA73-14    |       |       |
| Motor                    | M1G055-BD         |       |       |
| Phase                    |                   | 1~    | 1~    |
| Nominal voltage          | VAC               | 230   | 230   |
| Frequency                | Hz                | 50/60 | 50/60 |
| Method of obtaining data |                   |       | ml    |
| Speed                    | min <sup>-1</sup> | 1500  | 2000  |
| Power consumption        | W                 | -     | 35    |
| Current draw             | A                 |       | 0.3   |
| 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

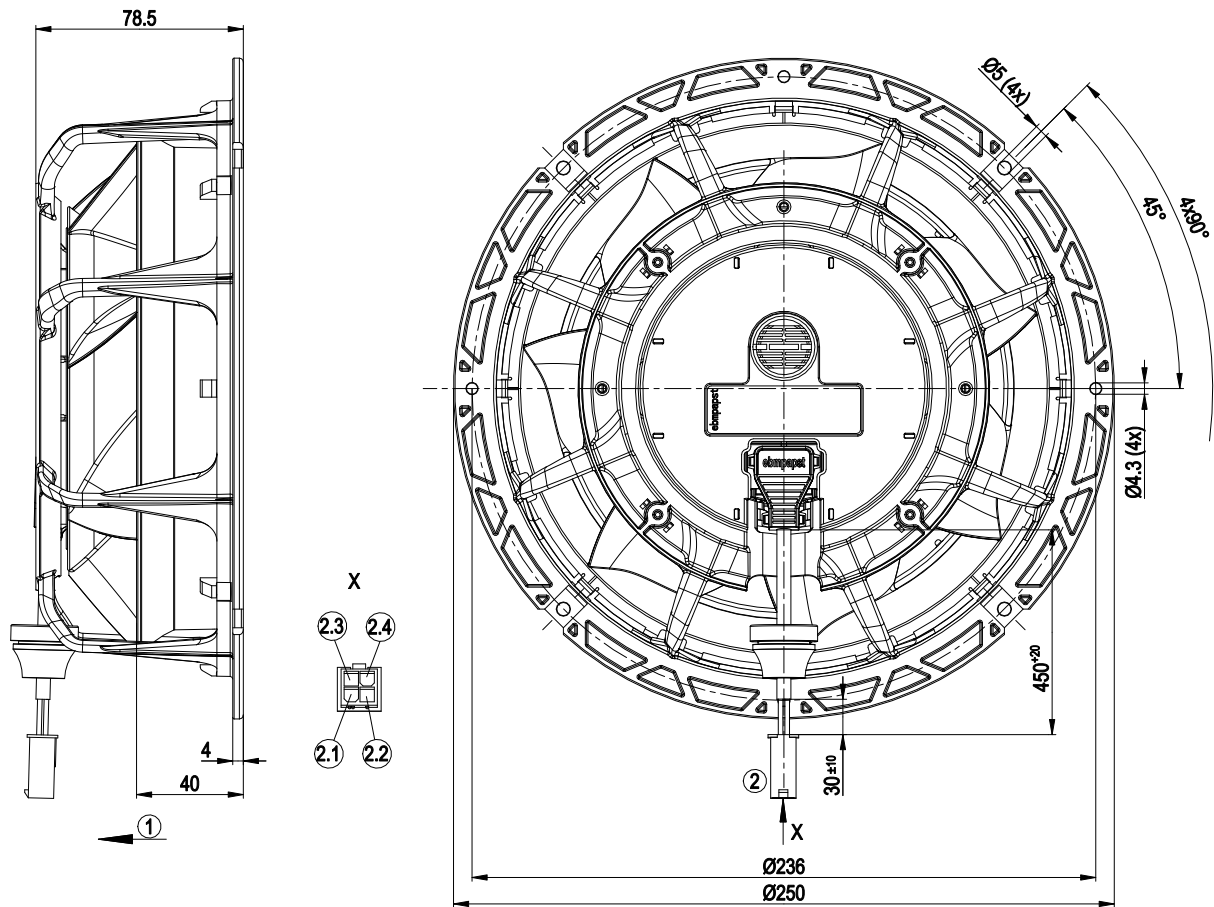
|                                                            |                                                                                                                                                                                                       |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight                                                     | 1.2 kg                                                                                                                                                                                                |
| Fan size                                                   | 200 mm                                                                                                                                                                                                |
| Impeller material                                          | PA plastic                                                                                                                                                                                            |
| Support bracket material                                   | PA plastic                                                                                                                                                                                            |
| Inlet nozzle material                                      | PA plastic                                                                                                                                                                                            |
| Number of blades                                           | 7                                                                                                                                                                                                     |
| Direction of rotation                                      | Clockwise, viewed toward rotor                                                                                                                                                                        |
| Degree of protection                                       | IP54                                                                                                                                                                                                  |
| 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, open rotor                                                                                                                                                                                      |
| Mode                                                       | S1                                                                                                                                                                                                    |
| Motor storage                                              | Ball bearing                                                                                                                                                                                          |
| Technical features                                         | <ul style="list-style-type: none"> <li>- Speed setting input (230 V)</li> <li>- ESM+ expandable with plug-in module</li> <li>- Soft start</li> <li>- Thermal overload protection for motor</li> </ul> |
| Speed levels                                               | 2                                                                                                                                                                                                     |
| Motor protection                                           | Thermal overload protector (TOP) internally connected                                                                                                                                                 |
| Protection class                                           | II                                                                                                                                                                                                    |
| Conformity with standards                                  | EN 60335-1; CE                                                                                                                                                                                        |
| Approval                                                   | CSA C22.2 No. 77; UL 2111; VDE                                                                                                                                                                        |



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## Product drawing

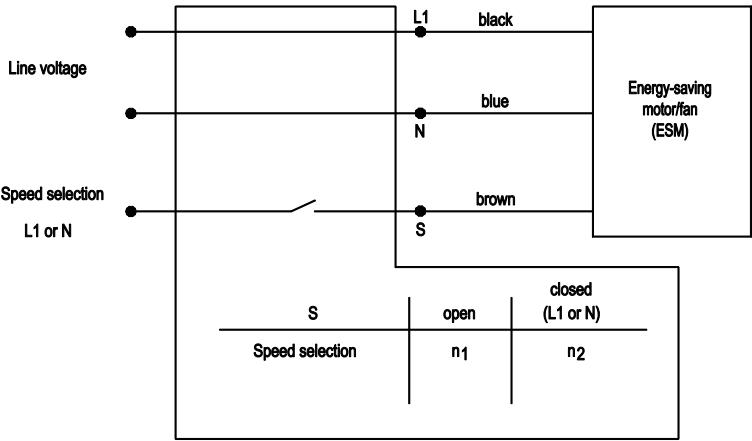


|     |                                                                                             |
|-----|---------------------------------------------------------------------------------------------|
| 1   | Direction of air flow "V"                                                                   |
| 2   | Cable PVC AWG20, 1x 4-pole connector housing Molex 46993-0411, 3x plug pin Molex 39-00-0041 |
| 2.1 | N (blue)                                                                                    |
| 2.2 | L (black)                                                                                   |
| 2.3 | not used                                                                                    |
| 2.4 | Speed selection (brown)                                                                     |

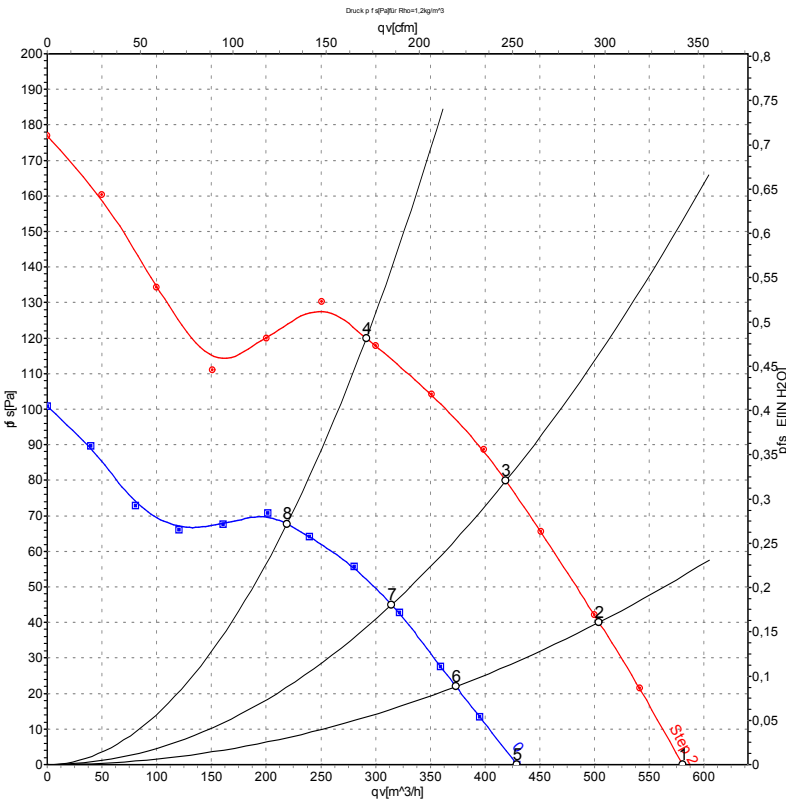
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## Connection diagram



Curves: Air performance 50 Hz



Measurement: LU-123220  
Measurement: LU-123224

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

|   | Stage | U   | f  | n                 | P <sub>ed</sub> | I    | qv                | p <sub>fs</sub> |
|---|-------|-----|----|-------------------|-----------------|------|-------------------|-----------------|
|   |       | V   | Hz | min <sup>-1</sup> | W               | A    | m <sup>3</sup> /h | Pa              |
| 1 | 1     | 230 | 50 | 2000              | 31              | 0.24 | 580               | 0               |
| 2 | 1     | 230 | 50 | 2000              | 33              | 0.26 | 505               | 40              |
| 3 | 1     | 230 | 50 | 2000              | 35              | 0.30 | 420               | 80              |
| 4 | 1     | 230 | 50 | 2000              | 35              | 0.27 | 290               | 120             |
| 5 | 2     | 230 | 50 | 1500              | 16              | 0.13 | 430               | 0               |
| 6 | 2     | 230 | 50 | 1500              | 19              | 0.14 | 375               | 22              |
| 7 | 2     | 230 | 50 | 1500              | 20              | 0.18 | 315               | 45              |
| 8 | 2     | 230 | 50 | 1500              | 18              | 0.14 | 220               | 68              |

U = Power supply · f = Frequency · n = Speed · P<sub>ed</sub> = Power consumption · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase

