

K1G220-AF92-02

# EC centrifugal module - ESM

backward-curved  
with support bracket



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## Nominal data

|                          |                   |       |       |
|--------------------------|-------------------|-------|-------|
| Type                     | K1G220-AF92-02    |       |       |
| Motor                    | M1G055-BD         |       |       |
| Phase                    |                   | 1~    | 1~    |
| Nominal voltage          | VAC               | 230   | 230   |
| Frequency                | Hz                | 50/60 | 50/60 |
| Method of obtaining data |                   | ml    |       |
| Speed (rpm)              | min <sup>-1</sup> | 1600  | 1200  |
| Power consumption        | W                 | 33    |       |
| Current draw             | A                 | 0.25  |       |
| Min. ambient temperature | °C                | -30   | -30   |
| Max. ambient temperature | °C                | 50    | 50    |

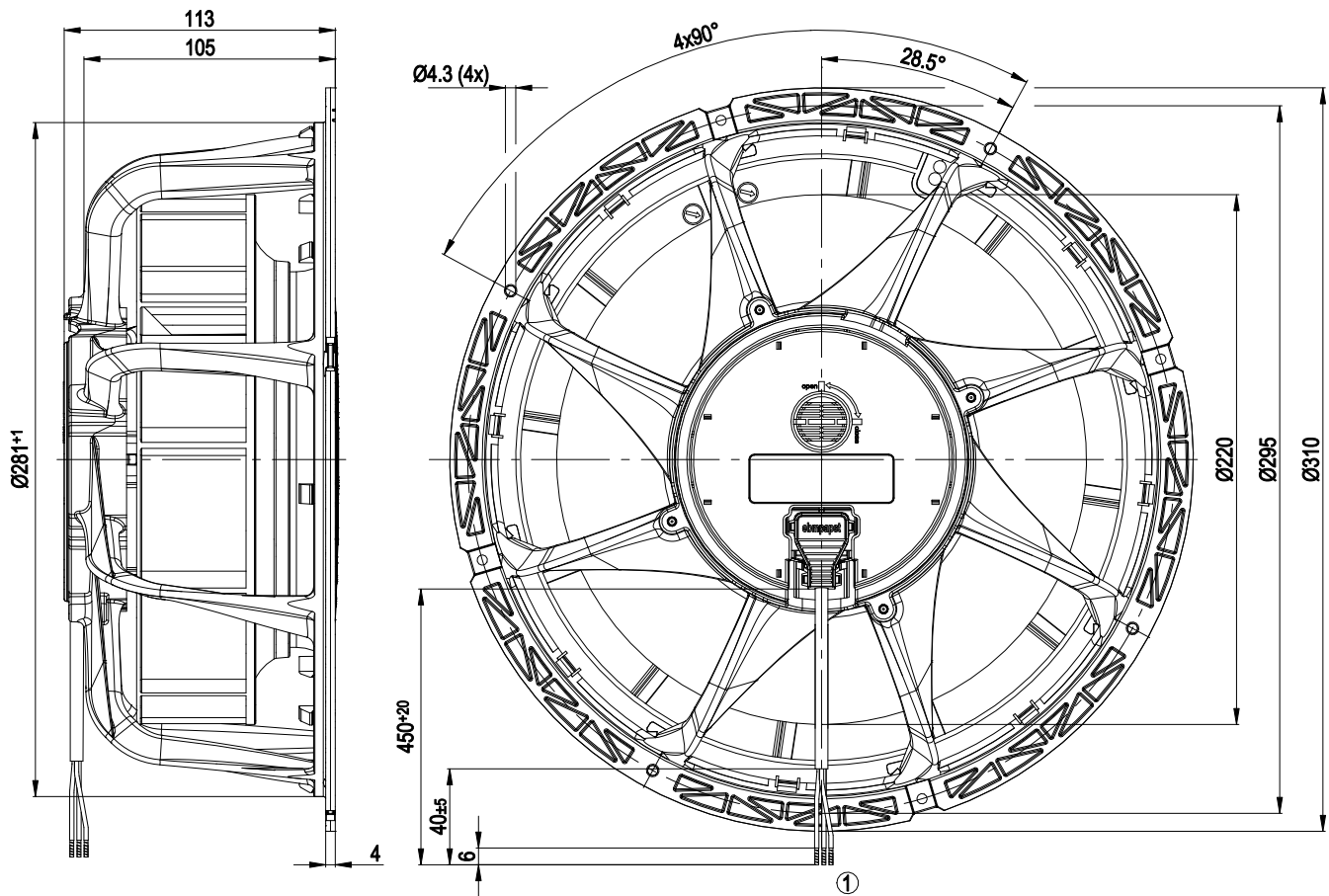
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change



## Technical description

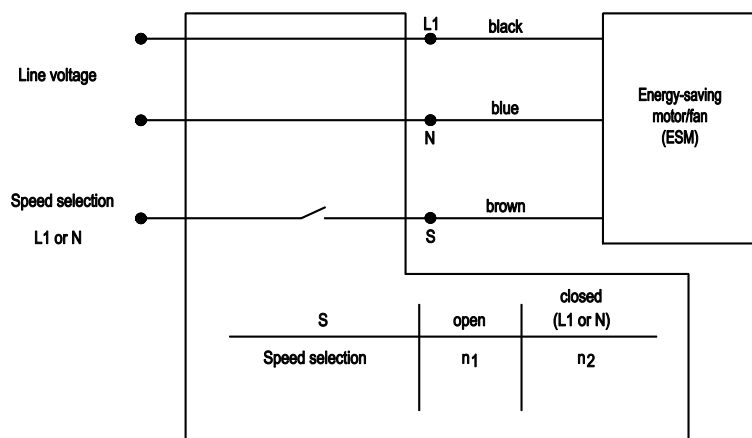
|                                                            |                                                                        |
|------------------------------------------------------------|------------------------------------------------------------------------|
| Weight                                                     | 1.4 kg                                                                 |
| Size                                                       | 220 mm                                                                 |
| Motor size                                                 | 55                                                                     |
| Rotor surface                                              | Galvanized                                                             |
| Impeller material                                          | PA plastic                                                             |
| Support bracket material                                   | PA plastic                                                             |
| Inlet nozzle material                                      | PA plastic                                                             |
| Number of blades                                           | 11                                                                     |
| 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                                | On rotor side                                                          |
| Mode                                                       | S1                                                                     |
| Motor bearing                                              | Ball bearing                                                           |
| Technical features                                         | - Thermal overload protection for motor<br>- Speed selection max./min. |
| Speed levels                                               | 2                                                                      |
| EMC immunity to interference                               | According to EN 61000-6-2                                              |
| EMC circuit feedback                                       | According to EN 61000-3-2/3                                            |
| EMC interference emission                                  | According to EN 61000-6-3 (household environment)                      |
| Motor protection                                           | Thermal overload protector (TOP) internally connected                  |
| Protection class                                           | II                                                                     |
| Conformity with standards                                  | EN 60335-1; EN 60335-2-24; EN 60335-2-80; EN 60335-2-89; CE            |
| Approval                                                   | CSA C22.2 No. 77; EAC; UL 1004-3; VDE                                  |

## Product drawing

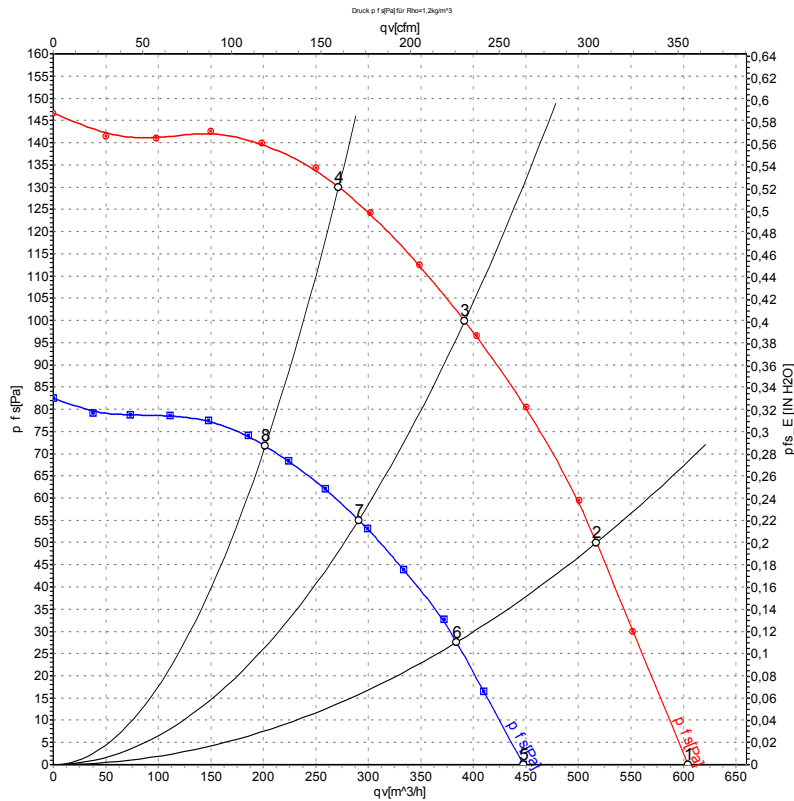


1 Cable AWG20, 3x crimped splices

## Connection diagram



## Curves: Air performance 50 Hz



Measurement: LU-116642-1

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

|   | U   | f  | n                 | P <sub>ed</sub> | I    | LpA <sub>in</sub> | LwA <sub>in</sub> | q <sub>v</sub> | p <sub>ts</sub> | q <sub>v</sub> | p <sub>ts</sub> |
|---|-----|----|-------------------|-----------------|------|-------------------|-------------------|----------------|-----------------|----------------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W               | A    | dB(A)             | dB(A)             | m³/h           | Pa              | cfm            | in. wg          |
| 1 | 230 | 50 | 1600              | 18              | 0.14 | 51                | 59                | 605            | 0               | 355            | 0.00            |
| 2 | 230 | 50 | 1600              | 25              | 0.20 | 50                | 57                | 515            | 50              | 305            | 0.20            |
| 3 | 230 | 50 | 1600              | 33              | 0.25 | 48                | 55                | 390            | 100             | 230            | 0.40            |
| 4 | 230 | 50 | 1600              | 30              | 0.25 | 49                | 56                | 270            | 130             | 160            | 0.52            |
| 5 | 230 | 50 | 1200              | 7.4             | 0.06 | 45                | 52                | 450            | 0               | 265            | 0.00            |
| 6 | 230 | 50 | 1200              | 10              | 0.08 | 43                | 50                | 385            | 28              | 225            | 0.11            |
| 7 | 230 | 50 | 1200              | 13              | 0.10 | 41                | 48                | 290            | 55              | 170            | 0.22            |
| 8 | 230 | 50 | 1200              | 13              | 0.10 | 42                | 50                | 200            | 72              | 120            | 0.29            |

U = Voltage · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
q<sub>v</sub> = Air flow · p<sub>ts</sub> = Pressure increase

