**K3G097-AK34-43**

# EC dual centrifugal fan

forward-curved, dual-intake

with housing, Automotive



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ErP2015 EXCEEDS THE NORM

## Nominal data

| | | |
|---|---|---|
| **Type** | **K3G097-AK34-43** | |
| **Motor** | **M3G074-CF** | |
| Nominal voltage | VDC | 26 |
| Nominal voltage range | VDC | 16 .. 32 |
| Method of obtaining data | | ml |
| Speed (rpm) | min$^{-1}$ | 3600 |
| Power consumption | W | 325 |
| Current draw | A | 12.5 |
| Min. ambient temperature | °C | -40 |
| Max. ambient temperature | °C | 85 |

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

## Data according to ErP Directive

| | | Actual | Req. 2015 |
|---|---|---|---|
| 01 Overall efficiency $\eta_{es}$ | % | 44.9 | 33.5 |
| 02 Measurement category | | A | |
| 03 Efficiency category | | Static | |
| 04 Efficiency grade N | | 55.4 | 44 |
| 05 Variable speed drive | | Yes | |

| | | |
|---|---|---|
| 09 Power consumption $P_e$ | kW | 0.22 |
| 09 Air flow $q_v$ | m³/h | 510 |
| 09 Pressure increase $p_{fs}$ | Pa | 625 |
| 10 Speed (rpm) n | min$^{-1}$ | 4845 |
| 11 Specific ratio* | | 1.01 |

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + $p_{fs}$ / 100 000 Pa

LU-171155

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## Technical description

| | |
|---|---|
| **Weight** | 2.3 kg |
| **Fan size** | 97 mm |
| **Impeller material** | PA plastic |
| **Housing material** | PP plastic |
| **Number of blades** | 34 |
| **Balancing grade according to DIN ISO 1940-1** | G 2.5 |
| **Direction of rotation** | Clockwise, viewed toward rotor |
| **Degree of protection** | IP24 KM |
| **Insulation class** | "B" |
| **Moisture (F) / Environmental (H) protection class** | F3-2 |
| **Max. permitted ambient temp. for motor (transport/storage)** | +85 °C |
| **Min. permitted ambient temp. for motor (transport/storage)** | -40 °C |
| **Installation position** | Any |
| **Condensation drainage holes** | None, open rotor |
| **Mode** | S1 |
| **Motor bearing** | Ball bearing; (sealed) |
| **Life expectancy** | 40,000 h (typical) |
| **Technical features** | - Lowering input<br>- Tach output<br>- Fault output (high-side switch max. 30 mA)<br>- INVLIN (inverse linear control input)<br>- Power limit<br>- Load dump (58 V)<br>- Motor current limitation<br>- Soft start<br>- Control input 0-10 VDC / PWM<br>- Overvoltage detection<br>- Thermal overload protection for electronics<br>- Line undervoltage detection |
| **EMC regulations** | According to ECE R10 Rev. 3 |
| **Electrical hookup** | With plug; Standby current less than 500 µA |
| **Motor protection** | Reverse polarity and locked-rotor protection |
| **Approval** | EAC; E1 |
| **Sound level** | 76 dB(A), sound power level according to ISO 13347 |
| **Comment** | Type approval number – 036432 |



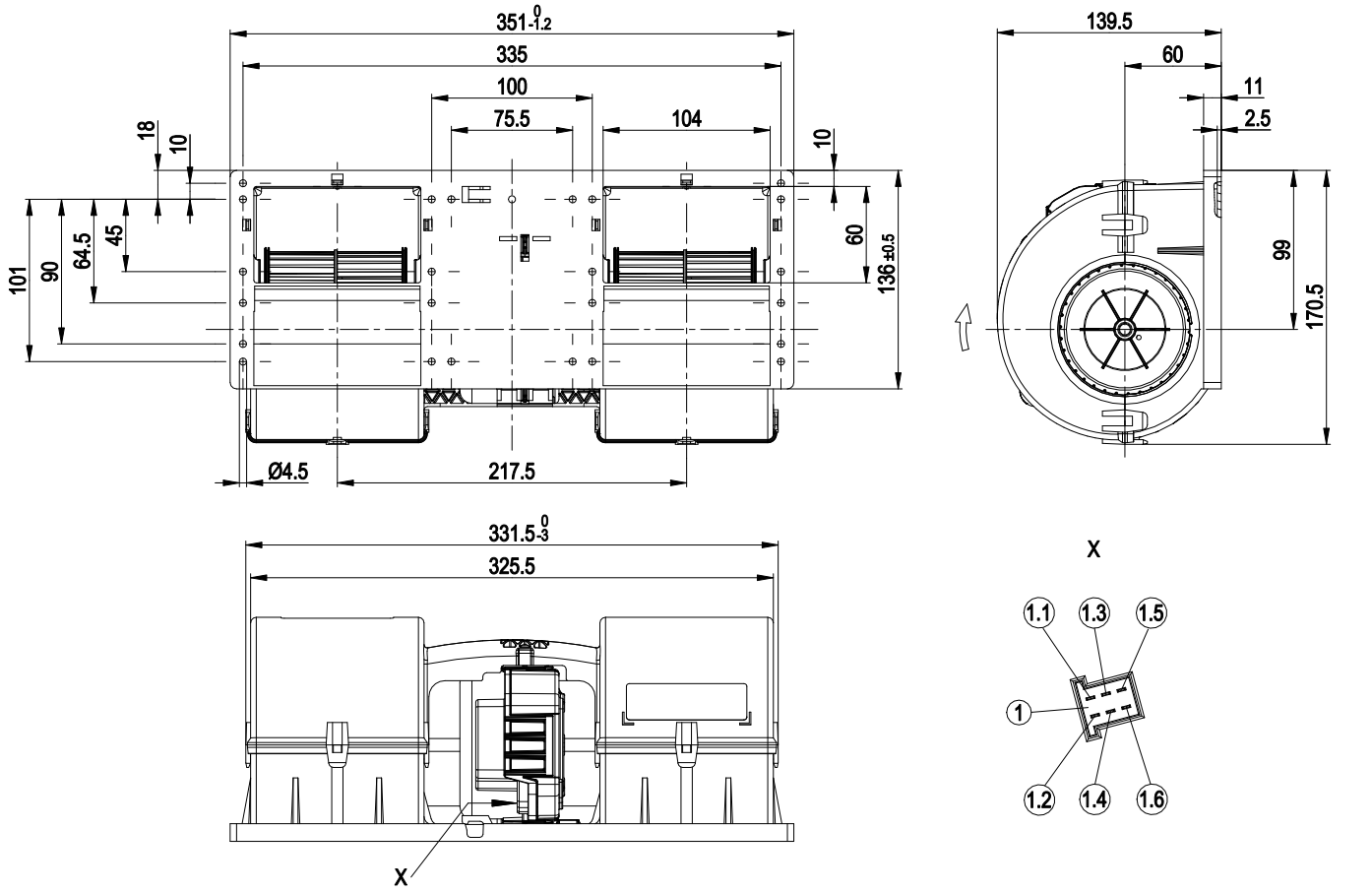
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## Product drawing




| | |
|---|---|
| 1 | 6-pole coded header tyco Junior Power Timer, cable (460 mm) with mating connector part no. 02001-4-1021 not included in scope of delivery. |
| 1.1 | + UB |
| 1.2 | GND |
| 1.3 | PWM/LIN |
| 1.4 | INVLIN |
| 1.5 | ABSENK |
| 1.6 | Diagnostic output |



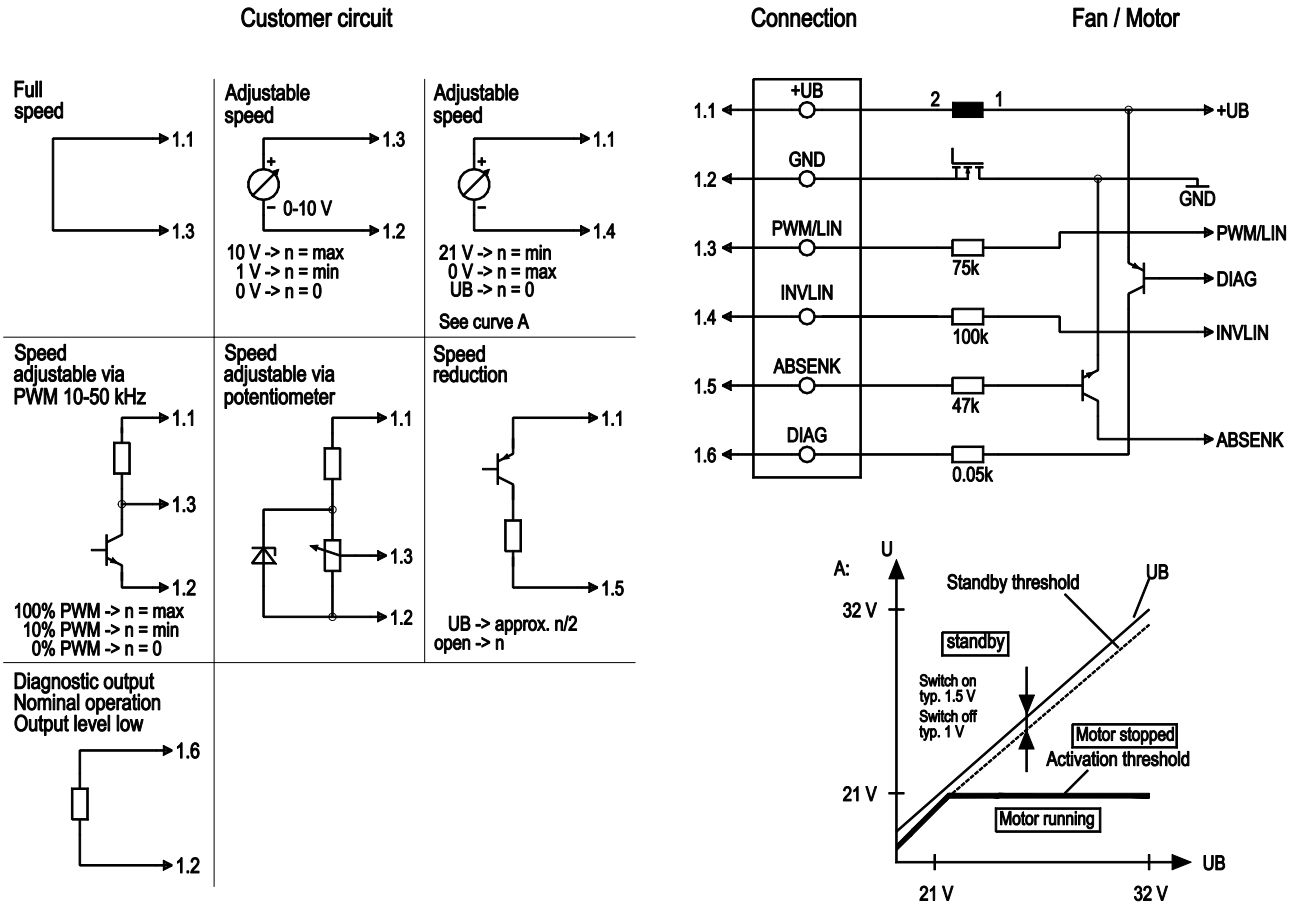
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## Connection diagram




| No. | Conn. | Designation | Function/assignment |
|---|---|---|---|
| | 1.1 | +UB | Power supply |
| | 1.2 | GND | Power supply GND, reference ground |
| | 1.3 | PWM/LIN | Analog voltage control input 0-10 V or PWM |
| | 1.4 | INVLIN | Control input, inverse linear |
| | 1.5 | ABSENK | Lowering input |
| | 1.6 | DIAG | Diagnostic output |



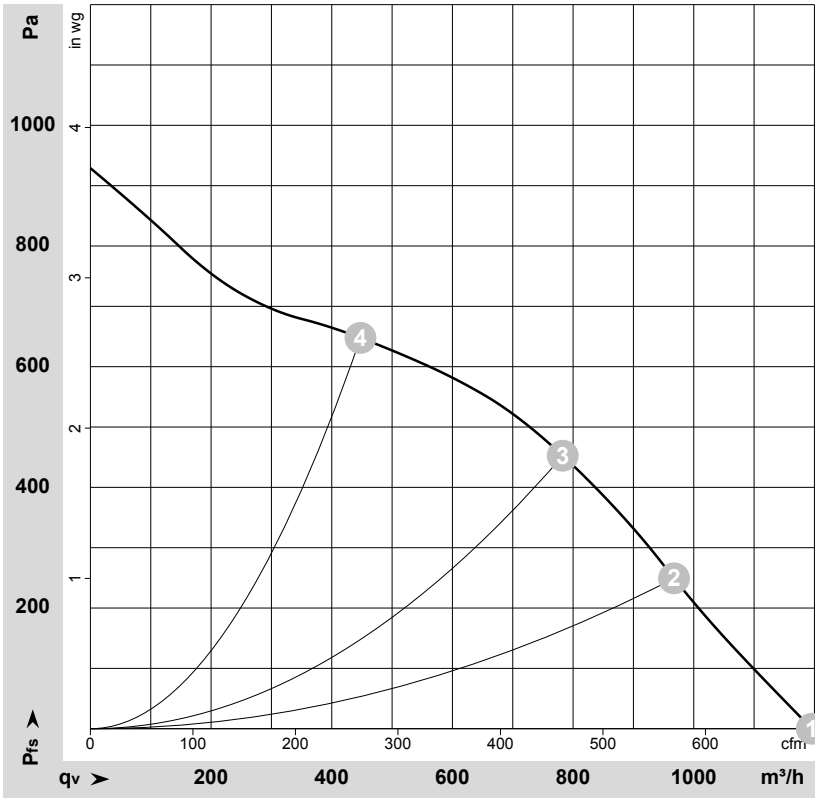
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## Curves: Air performance




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-171155-1

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 | n | $P_{ed}$ | I | qv | $p_{fs}$ | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|
| | V | $min^{-1}$ | W | A | $m^3/h$ | Pa | CFM | inH2O |
| 1 | 26 | 3600 | 325 | 12.50 | 1195 | 0 | 705 | 0.00 |
| 2 | 26 | 3945 | 281 | 10.82 | 965 | 250 | 570 | 1.00 |
| 3 | 26 | 4350 | 266 | 10.21 | 785 | 450 | 460 | 1.81 |
| 4 | 26 | 4895 | 207 | 7.93 | 450 | 650 | 265 | 2.61 |

U = Power supply · n = Speed (rpm) · $P_{ed}$ = Power consumption · I = Current draw · qv = Air flow · $p_{fs}$ = Pressure increase



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