**W3G300-ER38-45**

# EC axial fan

with brushless DC motor

Automotive



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ErP2015 EXCEEDS THE NORM

## Nominal data

| | | |
|---|---|---|
| **Type** | **W3G300-ER38-45** | |
| **Motor** | **M3G074-CF** | |
| Nominal voltage | VDC | 27.5 |
| Nominal voltage range | VDC | 15 .. 32 |
| Type of data definition | | fa/cu |
| Speed | min$^{-1}$ | 3320 |
| Power input | W | 335 |
| Current draw | A | 12.2 |
| Min. ambient temperature | °C | -40 |
| Max. ambient temperature | °C | 70 |

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

## Data according to ErP directive

| | |
|---|---|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |
| Specific ratio* | 1.00 |

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

| | | Actual | Request 2013 | Request 2015 |
|---|---|---|---|---|
| Overall efficiency $\eta_{es}$ | % | 41.2 | 26.9 | 30.9 |
| Efficiency grade N | | 50.3 | 36 | 40 |
| Power input $P_e$ | kW | 0.36 | | |
| Air flow $q_v$ | m³/h | 2010 | | |
| Pressure increase $p_{fs}$ | Pa | 243 | | |
| Speed n | min$^{-1}$ | 3255 | | |

Data definition with optimum efficiency. LU-67589
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.



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## Technical features

| | |
|---|---|
| **Size** | 300 mm |
| **Direction of rotation** | "A" |
| **Type of protection** | IP 24 KM |
| **Insulation class** | "B" |
| **Humidity class** | F3-2 |
| **Cooling bore / aperture** | Rotor-side |
| **Motor bearing** | Ball bearing |
| **Electrical leads** | With plug |
| **Motor protection** | Reverse polarity and locked-rotor protection |
| **Cable exit** | Lateral |
| **Approval** | EAC; E1 |



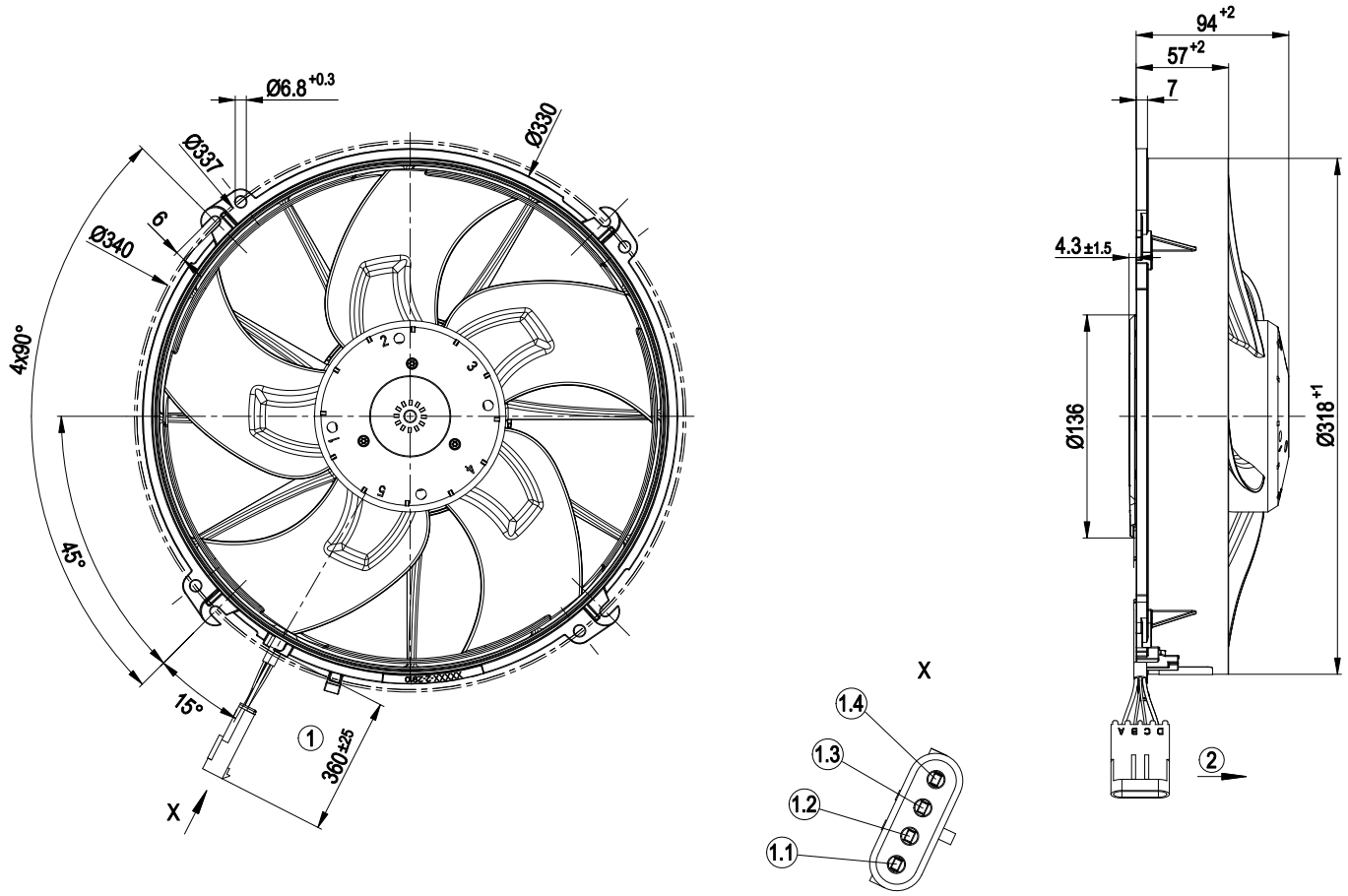
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## Product drawing




| | |
|---|---|
| 1 | Connection line with 4-pole connector Packard Electric 12010974, coded |
| 1.1 | + UB (red) |
| 1.2 | PWM/LIN (blue) |
| 1.3 | CGND (white) |
| 1.4 | GND (black) |
| | Customer circuit socket: |
| | Housing: Packard 12015797 |
| | Plug contacts: Packard 120 89188 and Packard 121 24580 |
| | Seal: Packard 153 24982 and Packard 153 24983 |



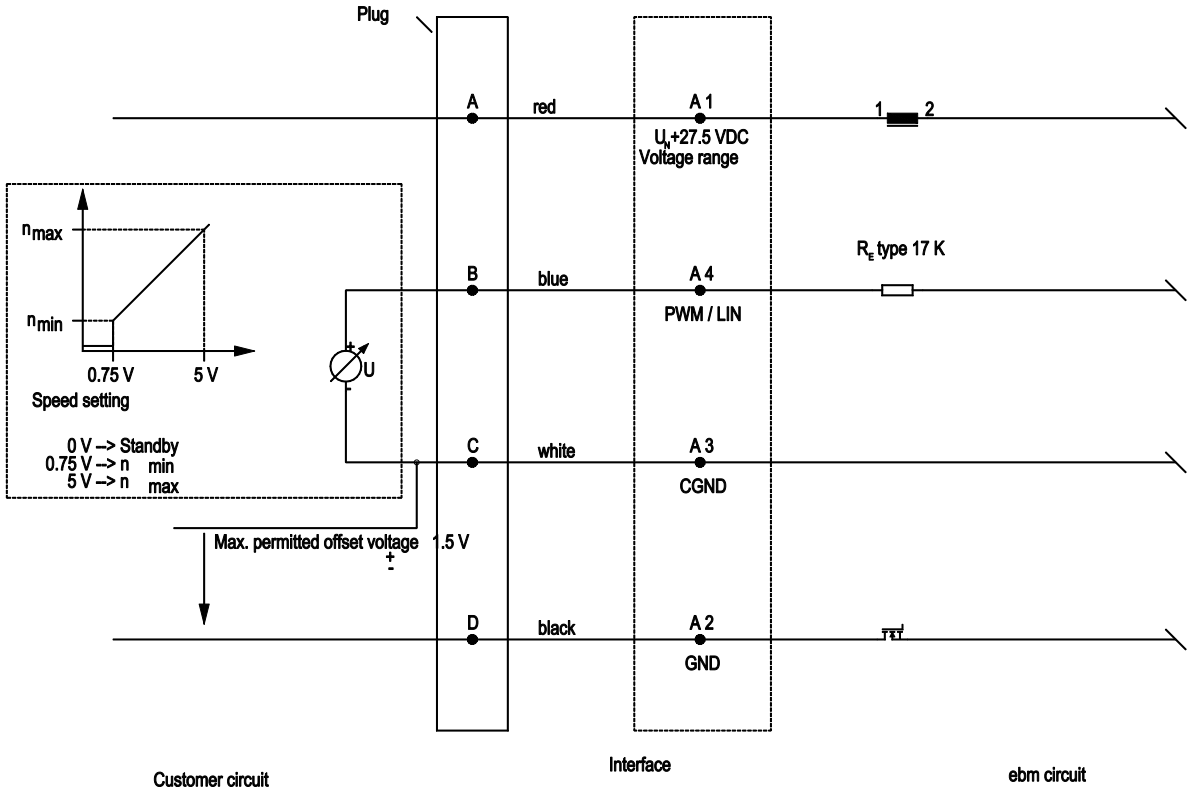
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## Connection screen





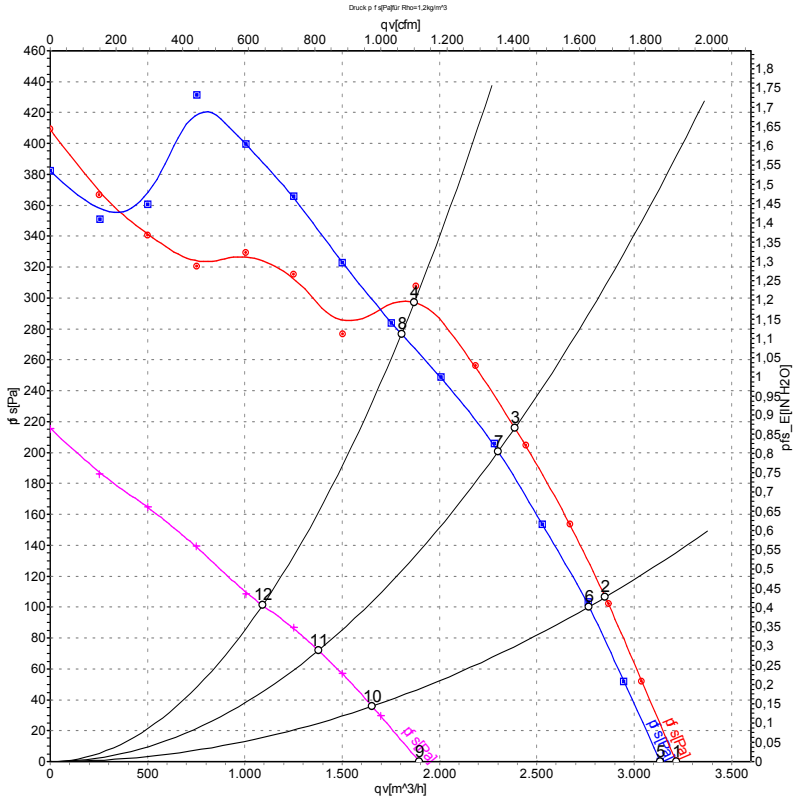

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## Charts: Air flow




Measurement: LU-67590
Measurement: LU-67589
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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 | n | $P_{ed}$ | I | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|
| | V | $min^{-1}$ | W | A | $m^3/h$ | Pa |
| 1 | 32 | 3385 | 356 | 11.08 | 3215 | 0 |
| 2 | 32 | 3380 | 384 | 11.99 | 2850 | 107 |
| 3 | 32 | 3385 | 406 | 12.69 | 2390 | 216 |
| 4 | 32 | 3370 | 428 | 13.36 | 1870 | 307 |
| 5 | 27.5 | 3320 | 335 | 12.20 | 3135 | 0 |
| 6 | 27.5 | 3295 | 353 | 12.81 | 2770 | 102 |
| 7 | 27.5 | 3275 | 364 | 13.22 | 2300 | 202 |
| 8 | 27.5 | 3240 | 377 | 13.71 | 1805 | 277 |
| 9 | 15 | 2025 | 79 | 5.28 | 1895 | 0 |
| 10 | 15 | 2005 | 84 | 5.58 | 1655 | 36 |
| 11 | 15 | 1995 | 86 | 5.76 | 1380 | 72 |
| 12 | 15 | 1980 | 91 | 6.04 | 1090 | 101 |

U = Supply voltage · n = Speed · $P_{ed}$ = Power input · I = Current draw · qv = Air flow · $p_{fs}$ = Pressure increase



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