**G2E160-BY50-25**

# AC centrifugal fan

forward curved, single inlet

with housing (flange)

**ebm-papst Mulfingen GmbH & Co. KG**
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

## Nominal data

| | | | |
|---|---|---|---|
| **Type** | **G2E160-BY50-25** | | |
| **Motor** | **M2E068-EC** | | |
| Phase | | 1~ | 1~ |
| Nominal voltage | VAC | 230 | 230 |
| Frequency | Hz | 50 | 60 |
| Type of data definition | | ml | ml |
| Valid for approval / standard | | CE | CE |
| Speed (rpm) | $min^{-1}$ | 2400 | 2950 |
| Power input | W | 240 | 240 |
| Current draw | A | 1.05 | 1.08 |
| Motor capacitor | µF | 6 | 6 |
| Capacitor voltage | VDB | 400 | 400 |
| Capacitor standard | | S0 (CE) | S0 (CE) |
| Min. back pressure | Pa | 220 | 600 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 60 | 60 |

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

| | | Actual | Request 2015 |
|---|---|---|---|
| 01 Overall efficiency $\eta_{es}$ | % | 33.8 | 32.6 |
| 02 Measurement category | | A | |
| 03 Efficiency category | | Static | |
| 04 Efficiency grade N | | 45.2 | 44 |
| 05 Variable speed drive | | No | |

| | | |
|---|---|---|
| 09 Power input $P_e$ | kW | 0.16 |
| 09 Air flow $q_v$ | $m^3/h$ | 385 |
| 09 Pressure increase $p_{fs}$ | Pa | 524 |
| 10 Speed (rpm) n | $min^{-1}$ | 2700 |
| 11 Specific ratio* | | 1.01 |

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

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

LU-167318

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## Technical features

| | |
|---|---|
| **Mass** | 4 kg |
| **Size** | 160 mm |
| **Surface of rotor** | Uncoated |
| **Material of terminal box** | Die-cast aluminium |
| **Material of impeller** | Sheet steel, galvanised |
| **Housing material** | Die-cast aluminium |
| **Direction of rotation** | Clockwise, seen on rotor |
| **Type of protection** | IP 44; Depending on installation and position |
| **Insulation class** | "F" |
| **Humidity (F)/environmental protection class (H)** | F1-1 |
| **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 |
| **Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)** | < 0.75 mA |
| **Electrical leads** | Via terminal box, integrated capacitor connected via terminal box |
| **Motor protection** | Thermal overload protector (TOP) wired internally |
| **Cable exit** | Variable |
| **Protection class** | I (if protective earth is connected by customer) |
| **Product conforming to standard** | EN 60335-1; CE |



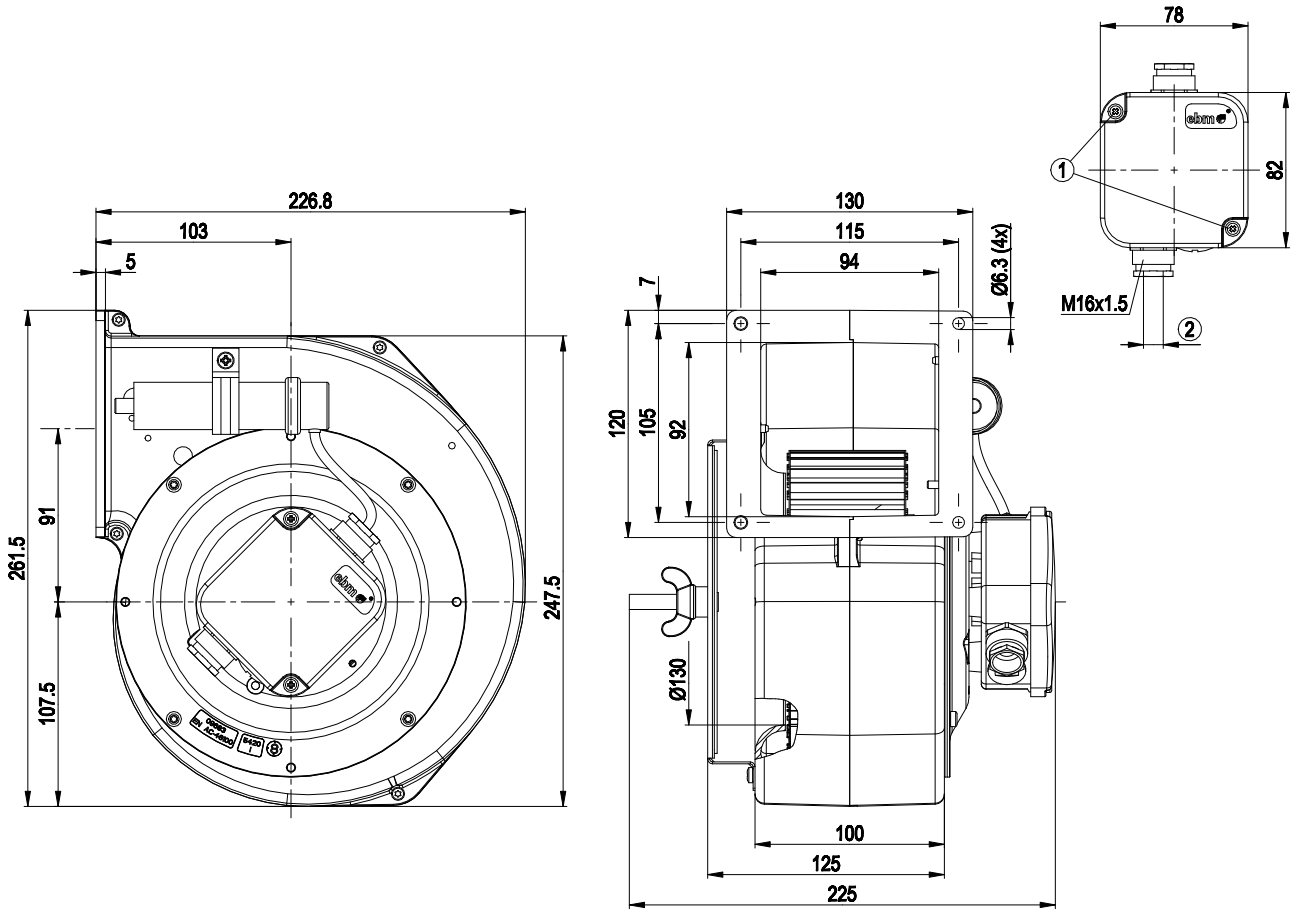
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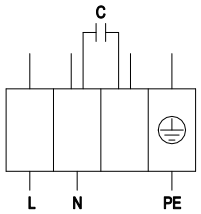
with housing (flange)

## Product drawing




| | |
|---|---|
| 1 | Tightening torque 0.5±0.1 Nm |
| 2 | Cable diameter min. 8 mm, max. 10 mm, tightening torque 3±0.4 Nm |

## Connection screen




| | | | | | |
|---|---|---|---|---|---|
| PE | green / yellow | L | blue | N | black |



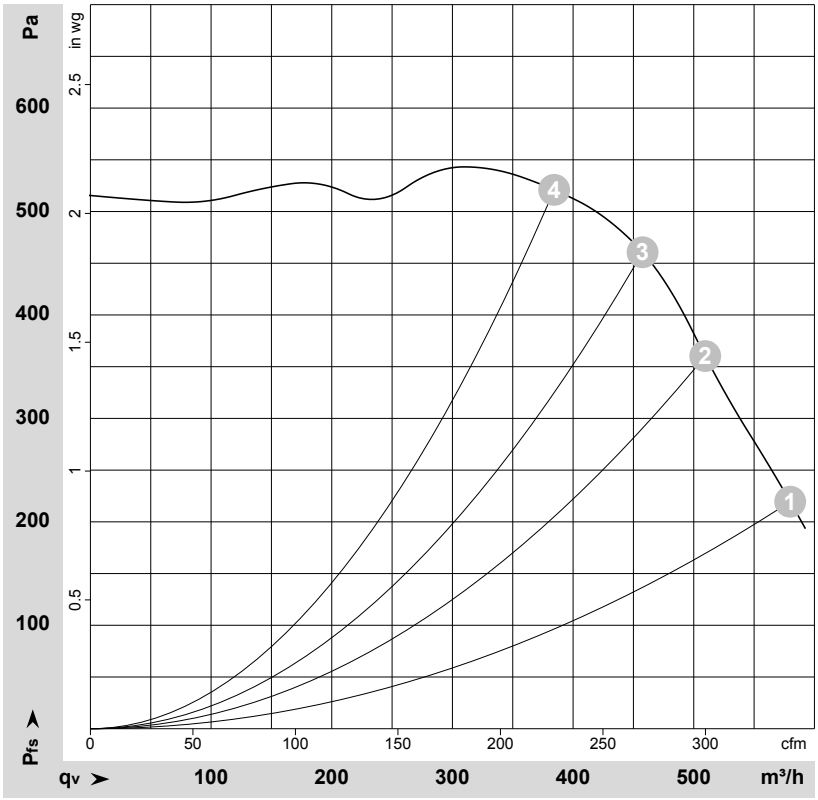
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## Charts: Air flow 50 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-167318-1

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 | f | n | $P_e$ | I | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa | cfm | inH2O |
| 1 | 230 | 50 | 2400 | 240 | 1.05 | 580 | 220 | 340 | 0.88 |
| 2 | 230 | 50 | 2545 | 209 | 0.91 | 510 | 360 | 300 | 1.45 |
| 3 | 230 | 50 | 2615 | 190 | 0.83 | 460 | 460 | 270 | 1.85 |
| 4 | 230 | 50 | 2695 | 166 | 0.72 | 385 | 520 | 225 | 2.09 |

U = Supply voltage · f = Frequency · n = Speed (rpm) · $P_e$ = Power input · I = Current draw · $q_V$ = Air flow · $p_{fs}$ = Pressure increase



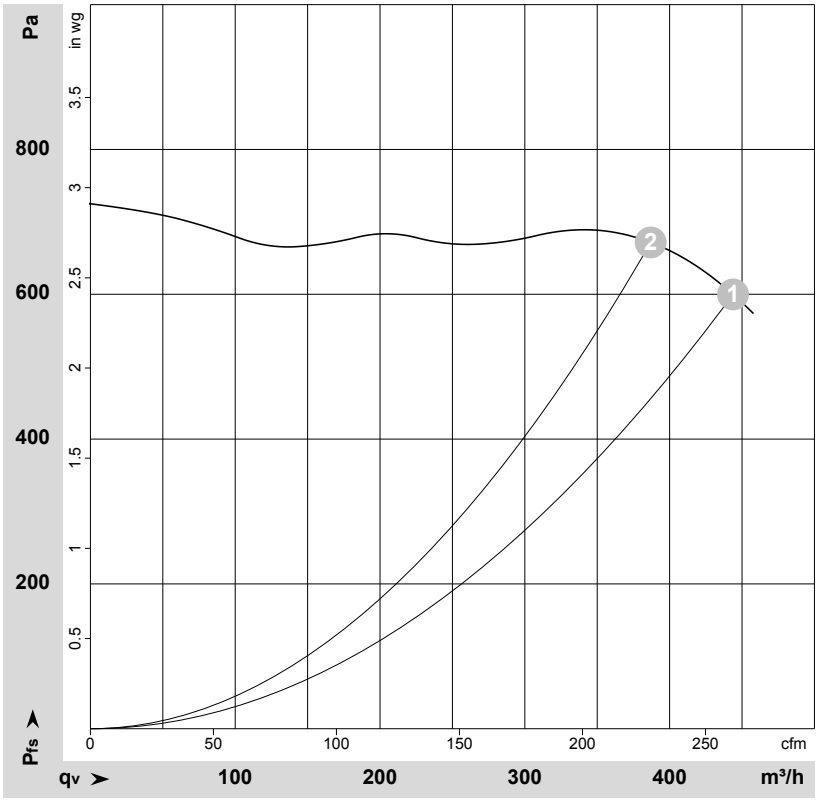
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# AC centrifugal fan

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## Charts: Air flow 60 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-167375-1

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 | f | n | $P_e$ | I | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa | cfm | inH2O |
| 1 | 230 | 60 | 2950 | 240 | 1.08 | 445 | 600 | 260 | 2.41 |
| 2 | 230 | 60 | 3055 | 223 | 0.99 | 385 | 670 | 230 | 2.69 |

U = Supply voltage · f = Frequency · n = Speed (rpm) · $P_e$ = Power input · I = Current draw · $q_V$ = Air flow · $p_{fs}$ = Pressure increase



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