

D2E146-AP47-22/A01

AC centrifugal fan

forward curved, dual inlet

with housing (flange)



D2E146-AP47-22/A01 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Limited partnership · Headquarters Muldingen
County court Stuttgart · HRA 590344

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



Nominal data

| | | | |
|-------------------------------|--------------------|------|------|
| Type | D2E146-AP47-22/A01 | | |
| 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 | min ⁻¹ | 2050 | 2550 |
| Power input | W | 300 | 330 |
| Current draw | A | 1.31 | 1.45 |
| Motor capacitor | µF | 8 | 8 |
| Capacitor voltage | VDB | 400 | 400 |
| Min. back pressure | Pa | 200 | 400 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 30 | 25 |

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 | Overall efficiency η_{es} | Actual | Request 2013 | Request 2015 |
| Efficiency category | Static | Efficiency grade N | 28.2 | 26.8 | 33.8 |
| Variable speed drive | No | Power input P_e | 38.4 | 37 | 44 |
| Specific ratio* | 1.00 | kW | 0.24 | | |
| | | Air flow q_v | m ³ /h | 705 | |
| | | Pressure increase p_{fs} | Pa | 351 | |
| | | Speed n | min ⁻¹ | 2435 | |

Data established at point of optimum efficiency

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



AC centrifugal fan

forward curved, dual inlet
with housing (flange)

Technical features

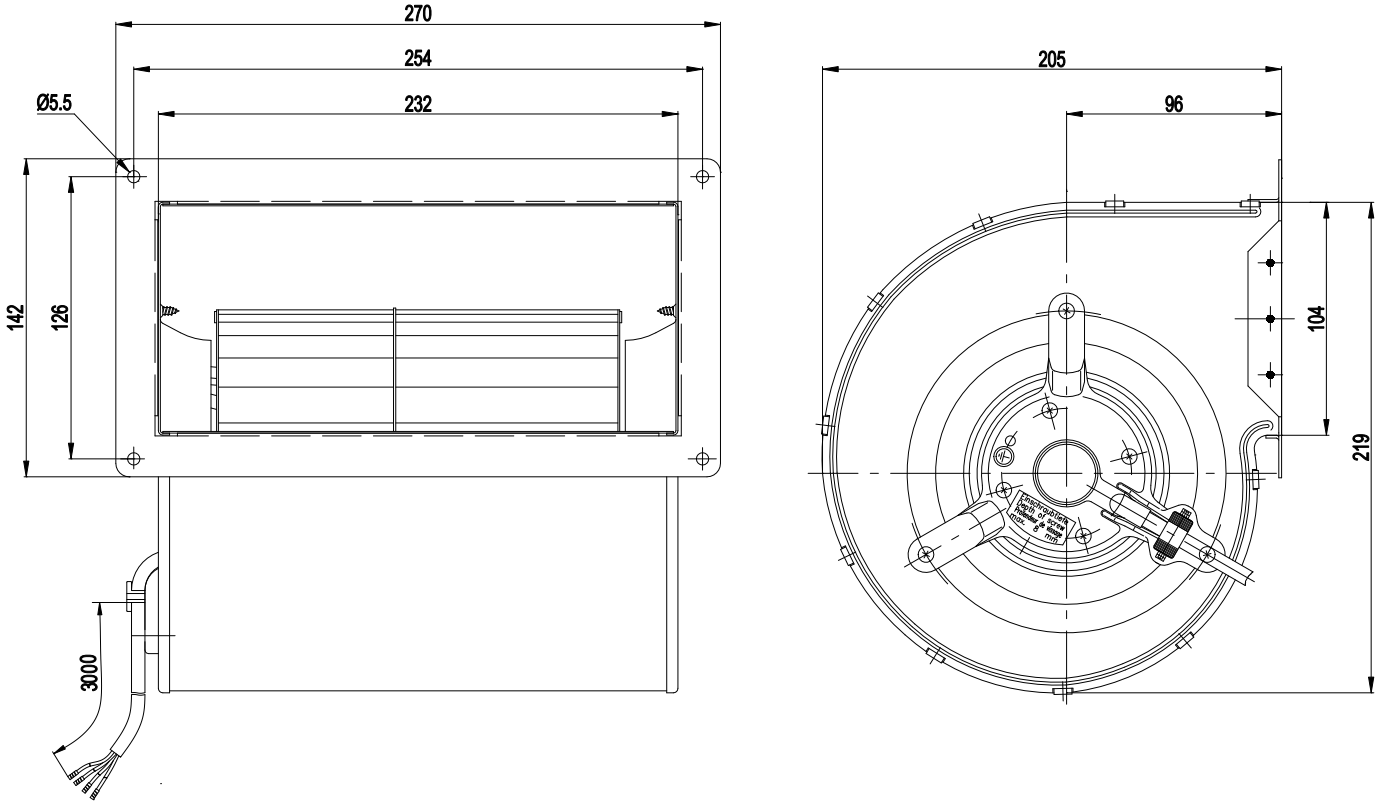
| | |
|---|---|
| Mass | 4.2 kg |
| Size | 146 mm |
| Surface of rotor | Uncoated |
| Material of impeller | Sendzimir galvanized sheet steel |
| Housing material | Sendzimir galvanized sheet steel |
| Motor suspension | Motor mounted via brackets on one side |
| Direction of rotation | Counter-clockwise, seen on rotor |
| Type of protection | IP 44 |
| Insulation class | "B" |
| Humidity class | F0 |
| 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 | Continuous operation (S1) |
| Motor bearing | Ball bearing |
| Touch current acc. IEC 60990 (measuring network Fig. 4, TN system) | < 0.75 mA |
| Motor protection | Thermal overload protector (TOP) wired internally |
| Cable exit | Axial |
| Protection class | I (if protective earth is connected by customer) |
| Product conforming to standard | CE |
| Approval | CCC; GOST |



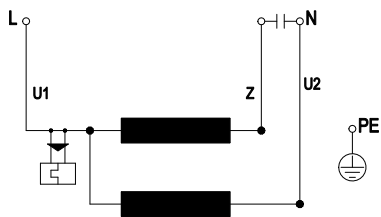
AC centrifugal fan

forward curved, dual inlet
with housing (flange)

Product drawing



Connection screen



| | | | | | |
|----|--------------|---|-------|----|-------|
| U1 | blue | Z | brown | U2 | black |
| PE | green/yellow | | | | |

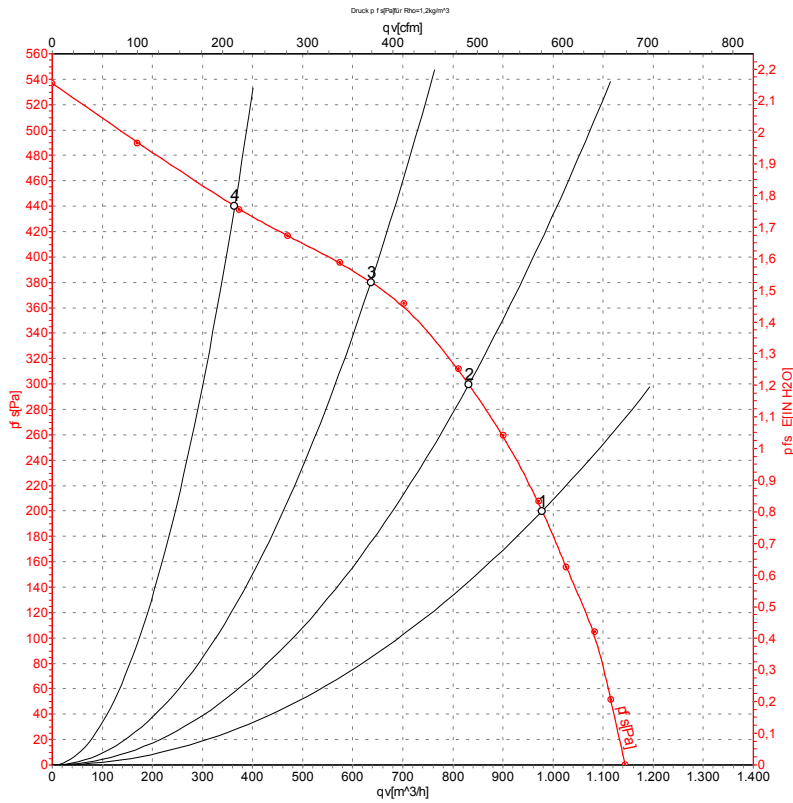


AC centrifugal fan

forward curved, dual inlet

with housing (flange)

Charts: Air flow 50 Hz Y



Measurement: LU-32744

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

| | Conn. | U | f | n | P _e | I | qv | P _{fs} |
|---|-------|-----|----|-------------------|----------------|------|-------------------|-----------------|
| | | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa |
| 1 | Y | 230 | 50 | 2050 | 300 | 1.31 | 970 | 200 |
| 2 | Y | 230 | 50 | 2265 | 267 | 1.18 | 830 | 300 |
| 3 | Y | 230 | 50 | 2490 | 232 | 1.02 | 635 | 380 |
| 4 | Y | 230 | 50 | 2675 | 191 | 0.84 | 365 | 440 |

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · P_{fs} = Pressure increase

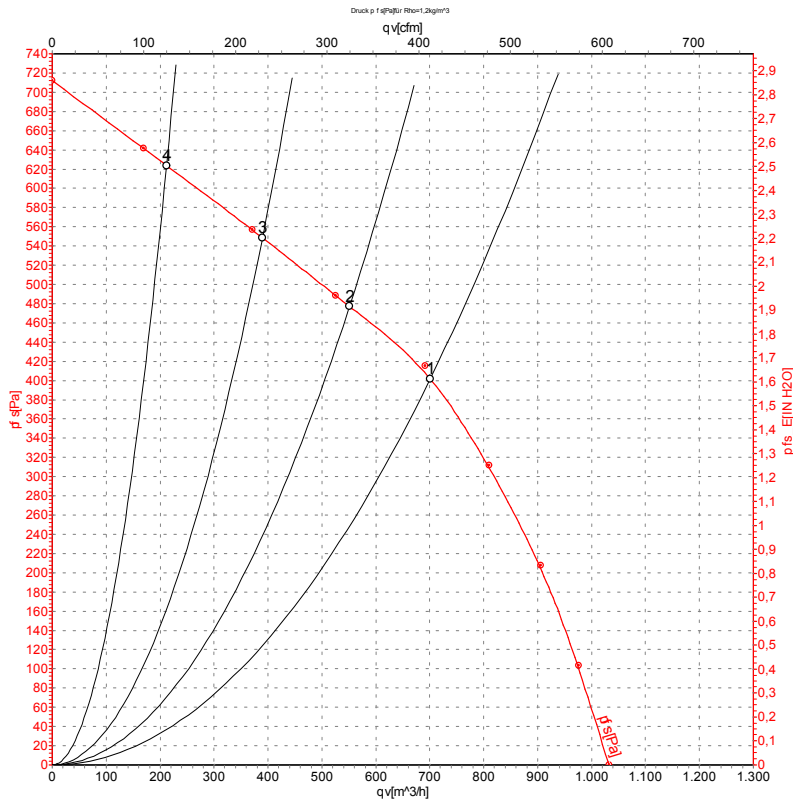


AC centrifugal fan

forward curved, dual inlet

with housing (flange)

Charts: Air flow 60 Hz Y



Measurement: LU-32745

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

| | Conn. | U | f | n | P _e | I | qv | p _{fs} |
|---|-------|-----|----|-------------------|----------------|------|-------------------|-----------------|
| | | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa |
| 1 | Y | 230 | 60 | 2550 | 330 | 1.45 | 700 | 400 |
| 2 | Y | 230 | 60 | 2770 | 300 | 1.36 | 550 | 475 |
| 3 | Y | 230 | 60 | 2975 | 277 | 1.28 | 390 | 550 |
| 4 | Y | 230 | 60 | 3095 | 260 | 1.22 | 210 | 625 |

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

