**D3G283-AB32-26**

# EC centrifugal fan

forward curved, dual inlet

with housing (large 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** | **D3G283-AB32-26** |
| **Motor** | **M3G112-GA** |

| | | |
|---|---|---|
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Nominal voltage range | VAC | 200 .. 277 |
| Frequency | Hz | 50/60 |
| Type of data definition | | ml |
| State | | prelim. |
| Speed (rpm) | $min^{-1}$ | 1030 |
| Power input | W | 750 |
| Current draw | A | 3.4 |
| Min. back pressure | Pa | 150 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 40 |

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 $\eta_{es}$ | % | 53.7 | 33.8 |
| 02 Measurement category | | A | |
| 03 Efficiency category | | Static | |
| 04 Efficiency grade N | | 63.9 | 44 |
| 05 Variable speed drive | | Yes | |

| | | |
|---|---|---|
| 09 Power input $P_{ed}$ | kW | 0.24 |
| 09 Air flow $q_v$ | $m^3/h$ | 1205 |
| 09 Pressure increase $p_{fs}$ | Pa | 355 |
| 10 Speed (rpm) n | $min^{-1}$ | 1190 |
| 11 Specific ratio* | | 1.00 |

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-107476

# EC centrifugal fan

forward curved, dual inlet

with housing (large flange)

## Technical features

| | |
|---|---|
| **Mass** | 18.7 kg |
| **Size** | 283 mm |
| **Surface of rotor** | Coated in black |
| **Material of electronics housing** | Die-cast aluminium |
| **Material of impeller** | Sheet steel, galvanised |
| **Housing material** | Sheet steel, galvanised |
| **Motor suspension** | Motor anti-vibration mounted on one side via brackets |
| **Direction of rotation** | Clockwise, seen on rotor |
| **Type of protection** | IP 54 |
| **Insulation class** | "B" |
| **Humidity (F)/environmental protection class (H)** | F4-1 |
| **Max. permissible ambient motor temp. (transp./ storage)** | +80 °C |
| **Min. permissible ambient motor temp. (transp./storage)** | -40 °C |
| **Mounting position** | Shaft horizontal |
| **Condensate discharge holes** | None |
| **Operation mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Technical features** | - Motor current limit<br>- PFC, active<br>- Soft start<br>- Control input 0-10 VDC<br>- Control interface with SELV potential safely disconnected from the mains<br>- Over-temperature protected electronics / motor<br>- Line undervoltage / phase failure detection |
| **EMC interference immunity** | Acc. to EN 61000-6-2 (industrial environment) |
| **EMC harmonics** | Acc. to EN 61000-3-2/3 |
| **EMC interference emission** | Acc. to EN 61000-6-4 (industrial environment) |
| **Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)** | <= 3.5 mA |
| **Electrical leads** | With plug |
| **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 61800-5-1; CE |
| **Approval** | EAC |



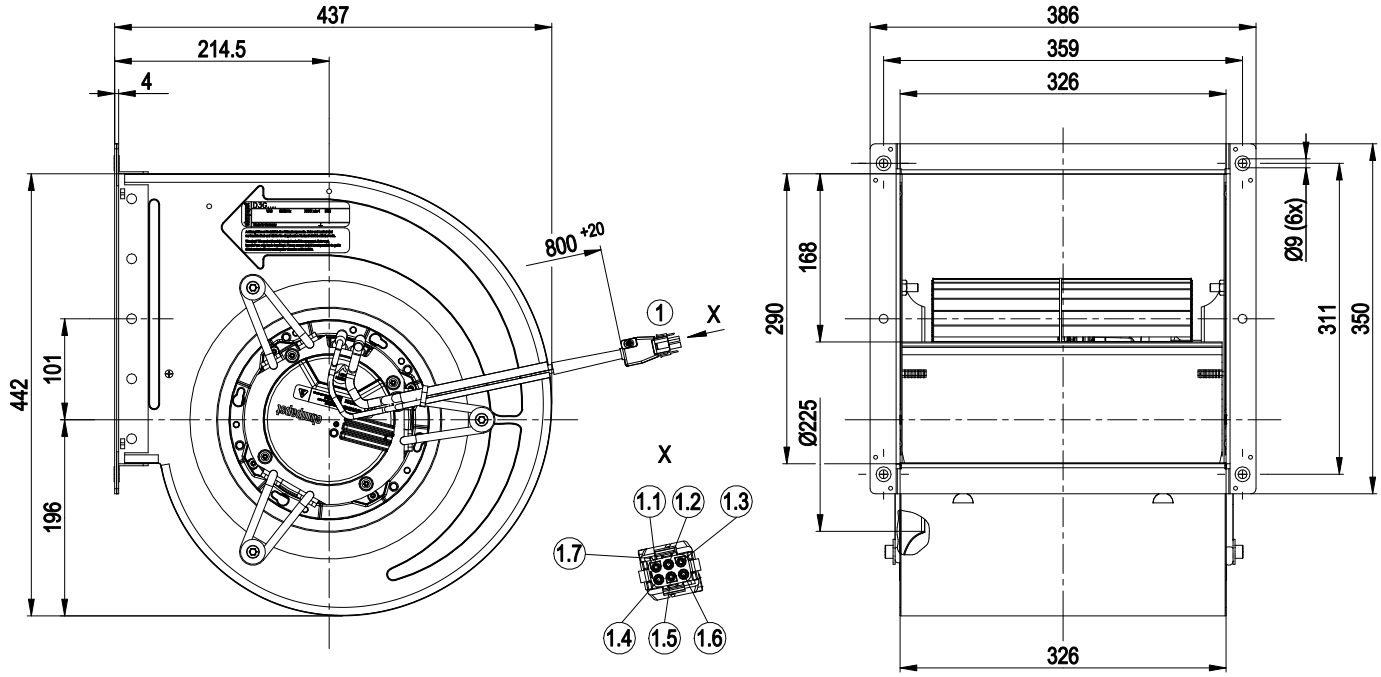
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# EC centrifugal fan

forward curved, dual inlet

with housing (large flange)

## Product drawing




| | |
|---|---|
| 1 | Connection line PVC AWG18/AWG22, with 6-pole connector housing AMP 350715-4, 5x plug pin AMP 926885-1, 1x plug pin AMP 350654-1 (PE) |
| 1.1 | 0-10 V / PWM (yellow) |
| 1.2 | GND (blue) |
| 1.3 | internal (red) |
| 1.4 | L1 (black) |
| 1.5 | L2 (blue) |
| 1.6 | PE (green/yellow) |
| 1.7 | Polarising rib |



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

# EC centrifugal fan

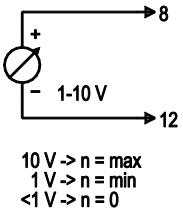
forward curved, dual inlet

with housing (large flange)

## Connection screen

**Customer circuit**

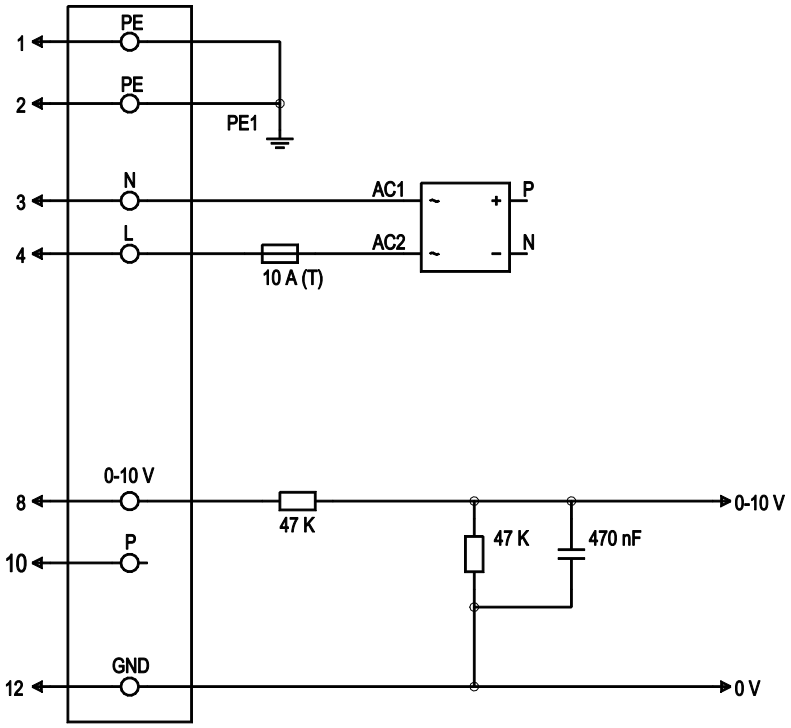
Adjustable speed




10 V -> n = max
1 V -> n = min
<1 V -> n = 0

**Connection**

**Fan/Motor**




| No. | Conn. | Designation | Colour | Function / assignment |
|---|---|---|---|---|
| 1 | 1,2 | PE | green/yellow | Protective earth |
| 1 | 3 | N | blue | Supply voltage, neutral conductor, 50/60 Hz |
| 1 | 4 | L | black | Supply voltage, phase, 50/60 Hz |
| 2 | 8 | 0-10 V | yellow | Control input, set value 0-10 VDC, impedance 100 kΩ, SELV |
| 2 | 10 | P | red | Internal |
| 2 | 12 | GND | blue | Signal ground for control interface, SELV |



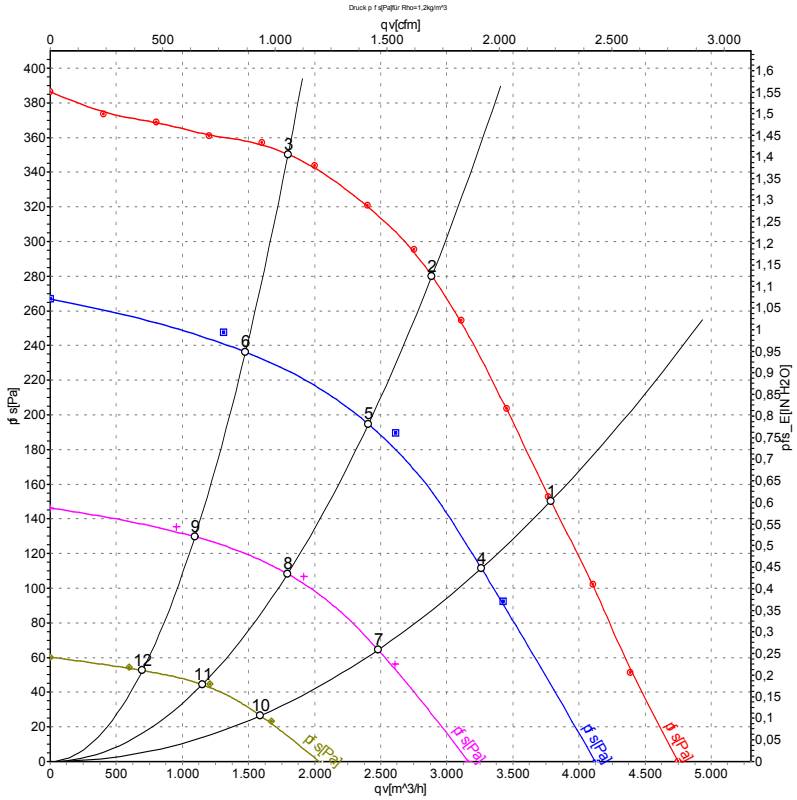
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# EC centrifugal fan

forward curved, dual inlet

with housing (large flange)

## Charts: Air flow 50 Hz




Measurement: LU-107476-1
Measurement: LU-107597-1
Measurement: LU-107598-1
Measurement: LU-107599-1

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 | $P_{ed}$ | I | $LpA_{in}$ | $LwA_{in}$ | $LwA_{out}$ | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | dB(A) | dB(A) | dB(A) | $m^3/h$ | Pa | cfm | inH2O |
| 1 | 230 | 50 | 1030 | 750 | 3.40 | 72 | 82 | 85 | 3785 | 150 | 2230 | 0.60 |
| 2 | 230 | 50 | 1100 | 574 | 2.61 | 68 | 78 | 83 | 2885 | 280 | 1700 | 1.12 |
| 3 | 230 | 50 | 1160 | 378 | 1.76 | 64 | 74 | 80 | 1800 | 350 | 1060 | 1.41 |
| 4 | 230 | 50 | 880 | 458 | 2.11 | 68 | 78 | 80 | 3260 | 112 | 1920 | 0.45 |
| 5 | 230 | 50 | 925 | 326 | 1.57 | 63 | 74 | 75 | 2405 | 199 | 1415 | 0.80 |
| 6 | 230 | 50 | 955 | 209 | 1.22 | 59 | 69 | 71 | 1475 | 240 | 870 | 0.96 |
| 7 | 230 | 50 | 675 | 209 | 0.99 | 61 | 71 | 74 | 2480 | 66 | 1460 | 0.26 |
| 8 | 230 | 50 | 695 | 150 | 0.74 | 57 | 67 | 70 | 1795 | 111 | 1055 | 0.45 |
| 9 | 230 | 50 | 715 | 102 | 0.57 | 51 | 61 | 64 | 1095 | 131 | 645 | 0.53 |
| 10 | 230 | 50 | 435 | 68 | 0.41 | 48 | 59 | 60 | 1590 | 27 | 935 | 0.11 |
| 11 | 230 | 50 | 445 | 52 | 0.32 | 43 | 53 | 54 | 1150 | 46 | 675 | 0.18 |
| 12 | 230 | 50 | 460 | 40 | 0.24 | 40 | 50 | 50 | 695 | 53 | 410 | 0.21 |

U = Supply voltage · f = Frequency · n = Speed (rpm) · $P_{ed}$ = Power input · I = Current draw · $LpA_{in}$ = Sound pressure level inlet side · $LwA_{in}$ = Sound power level inlet side · $LwA_{out}$ = Sound power level outlet side
$q_V$ = Air flow · $p_{fs}$ = Pressure increase



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