

D3G146-HQ01-09

# EC centrifugal fan

forward-curved, dual-intake  
with housing (large flange)



D3G146-HQ01-09 ebmpapst Datasheet  
sales@fansco.com  
www.fansco.com

## Nominal data

|                          |                   |            |
|--------------------------|-------------------|------------|
| Type                     | D3G146-HQ01-09    |            |
| Motor                    | M3G055-DF         |            |
| Phase                    |                   | 1~         |
| Nominal voltage          | VAC               | 230        |
| Nominal voltage range    | VAC               | 200 .. 240 |
| Frequency                | Hz                | 50/60      |
| Method of obtaining data |                   | ml         |
| Speed (rpm)              | min <sup>-1</sup> | 1850       |
| Power consumption        | W                 | 160        |
| Current draw             | A                 | 1.3        |
| Min. ambient temperature | °C                | -25        |
| Max. ambient temperature | °C                | 50         |

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



# EC centrifugal fan

forward-curved, dual-intake  
with housing (large flange)

## Technical description

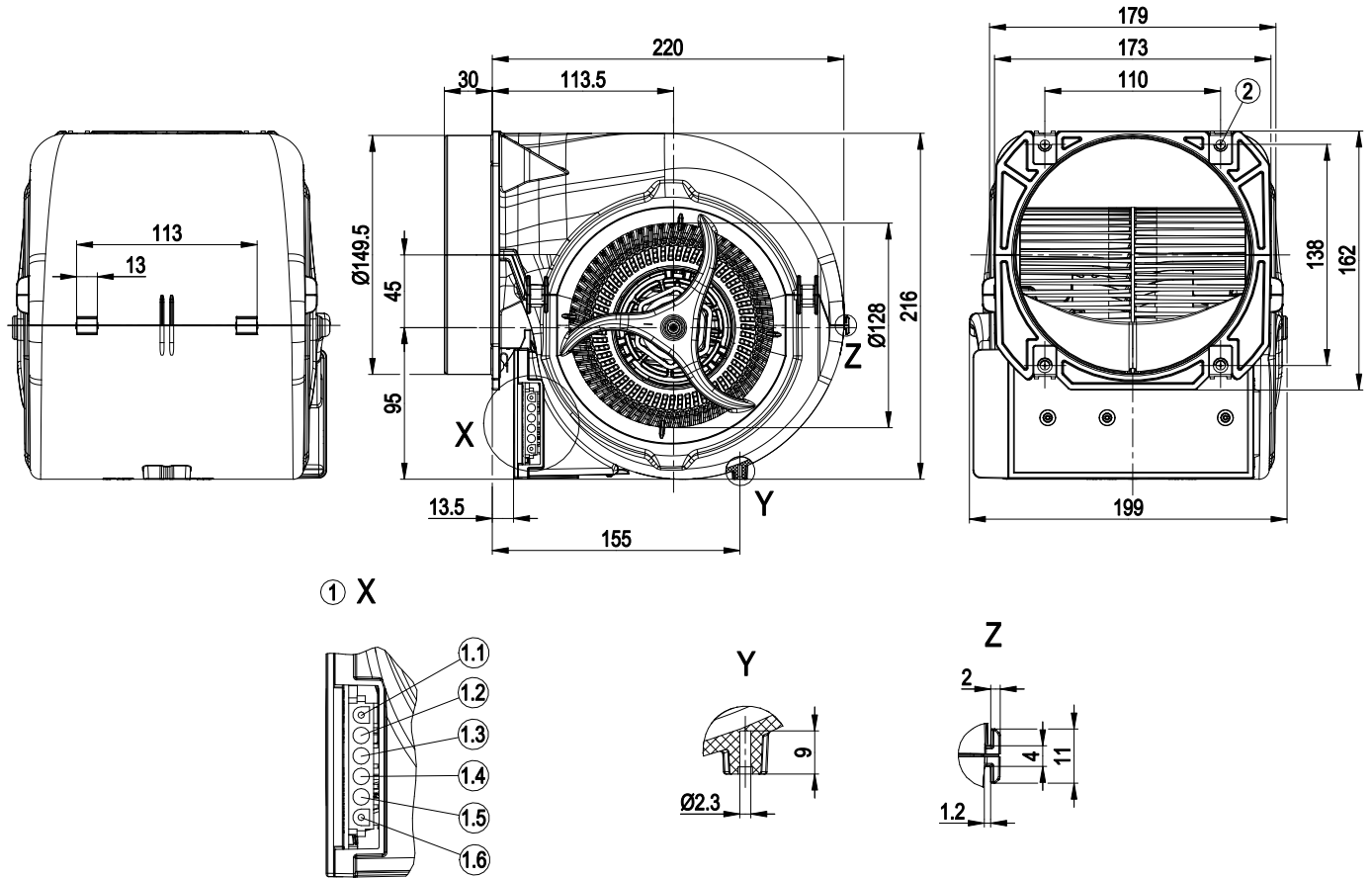
|                                                                            |                                                       |
|----------------------------------------------------------------------------|-------------------------------------------------------|
| Weight                                                                     | 2.4 kg                                                |
| Fan size                                                                   | 146 mm                                                |
| Impeller material                                                          | PP plastic                                            |
| Housing material                                                           | PP plastic                                            |
| Motor suspension                                                           | Motor vibration-damped on both sides                  |
| Direction of rotation                                                      | Counterclockwise, viewed toward rotor                 |
| Degree of protection                                                       | Motor IP54, electronics IP20                          |
| Insulation class                                                           | "F"                                                   |
| Max. permitted ambient temp. for motor (transport/storage)                 | + 80 °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                                          |
| Speed levels                                                               | 4                                                     |
| Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system) | ≤ 3.5 mA                                              |
| Electrical hookup                                                          | STK; Via terminal box                                 |
| Motor protection                                                           | Thermal overload protector (TOP) internally connected |
| With cable                                                                 | Variable                                              |
| Protection class                                                           | I (with customer connection of protective earth)      |
| Conformity with standards                                                  | EN 60335-1; CE                                        |



# EC centrifugal fan

forward-curved, dual-intake  
with housing (large flange)

## Product drawing

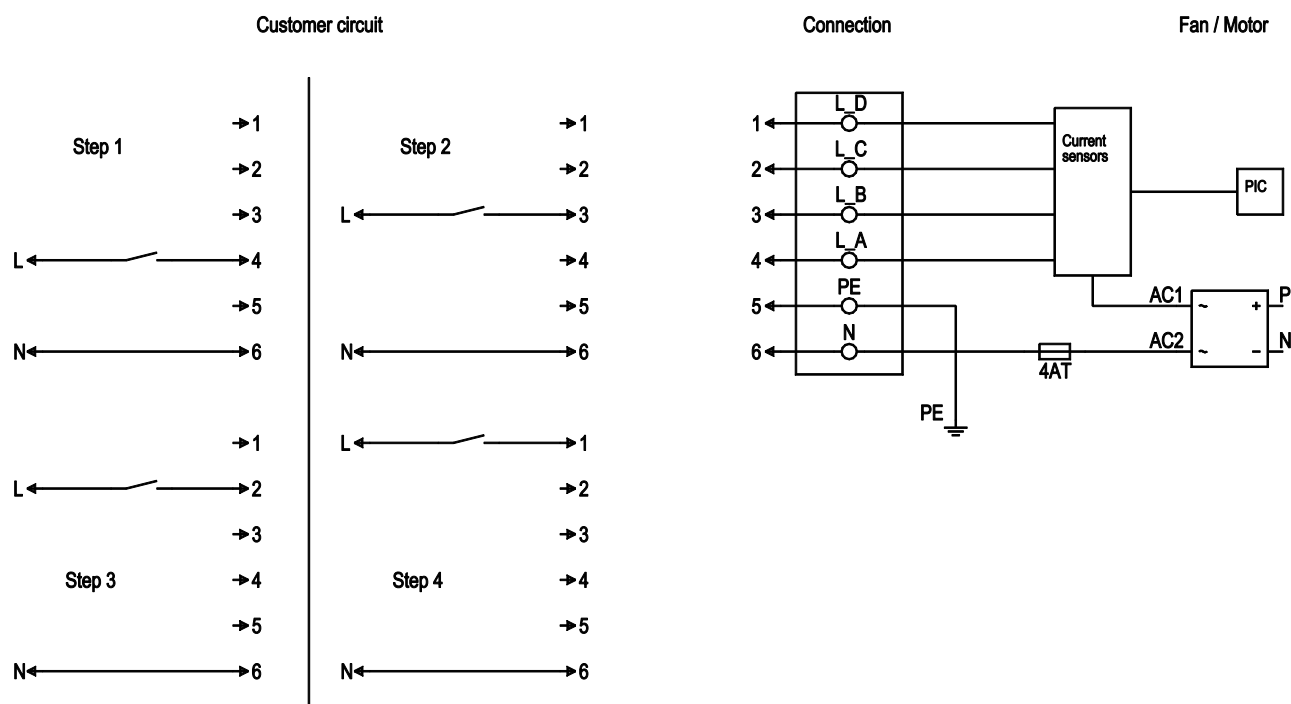


|     |                                                 |
|-----|-------------------------------------------------|
| 1   | Pin socket AMP Universal Mate-N-Lok 1586936-1   |
| 1.1 | L = step 4 (max.)                               |
| 1.2 | L = step 3                                      |
| 1.3 | L = step 2                                      |
| 1.4 | L = step 1 (min.)                               |
| 1.5 | PE                                              |
| 1.6 | N                                               |
| 2   | 4x sheet metal nut for thread EN ISO 1478-ST4.8 |

# EC centrifugal fan

forward-curved, dual-intake  
with housing (large flange)

## Connection diagram

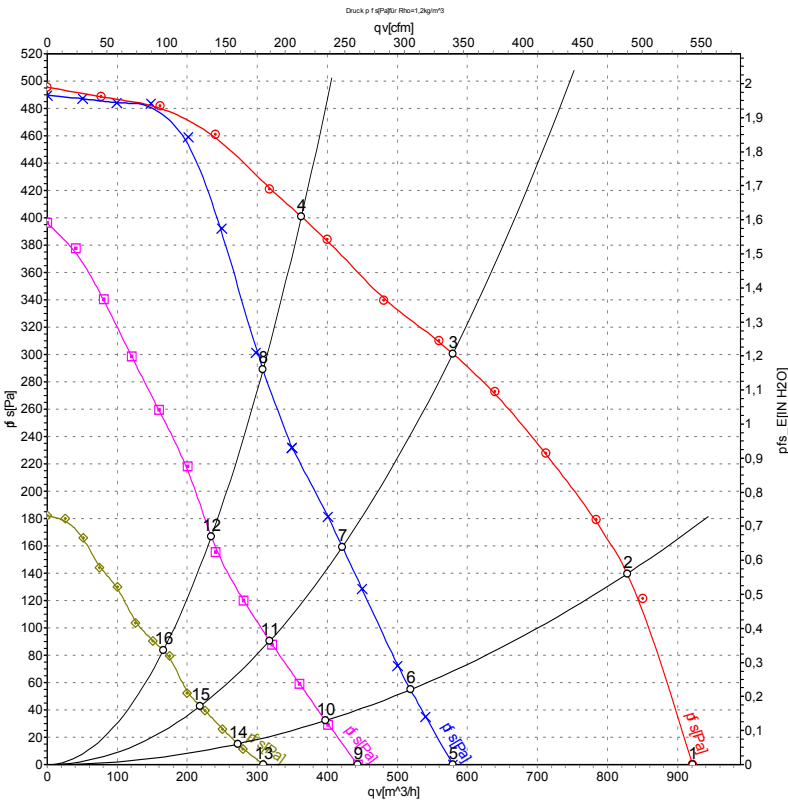


| No. | Conn. | Designation | Color        | Function/assignment                                                        |
|-----|-------|-------------|--------------|----------------------------------------------------------------------------|
|     | 1     | L_D         | black        | Step 4 - highest step (230 VAC, 50-60 Hz, see nameplate for voltage range) |
|     | 2     | L_C         | gray         | Step 3 (230 VAC, 50-60 Hz, see nameplate for voltage range)                |
|     | 3     | L_B         | red          | Step 2 (230 VAC, 50-60 Hz, see nameplate for voltage range)                |
|     | 4     | L_A         | white        | Step 1 - lowest step (230 VAC, 50-60 Hz, see nameplate for voltage range)  |
|     | 5     | PE          | green/yellow | Protective earth                                                           |
|     | 6     | N           | blue         | Neutral conductor                                                          |

# EC centrifugal fan

forward-curved, dual-intake  
with housing (large flange)

## Curves: Air performance 50 Hz



Measurement: LU-135423-1  
Measurement: LU-134018-1  
Measurement: LU-134019-1  
Measurement: LU-134021-1

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   | f  | n                 | P <sub>ed</sub> | I    | qv   | p <sub>fs</sub> | qv  | p <sub>fs</sub> |
|----|-----|----|-------------------|-----------------|------|------|-----------------|-----|-----------------|
|    | V   | Hz | min <sup>-1</sup> | W               | A    | m³/h | Pa              | CFM | inH2O           |
| 1  | 230 | 50 | 1530              | 135             | 1.08 | 920  | 0               | 545 | 0.00            |
| 2  | 230 | 50 | 1850              | 160             | 1.30 | 830  | 140             | 485 | 0.56            |
| 3  | 230 | 50 | 2210              | 128             | 1.05 | 580  | 300             | 340 | 1.20            |
| 4  | 230 | 50 | 2510              | 101             | 0.84 | 365  | 400             | 215 | 1.61            |
| 5  | 230 | 50 | 985               | 33              | 0.32 | 580  | 0               | 340 | 0.00            |
| 6  | 230 | 50 | 1205              | 38              | 0.36 | 520  | 55              | 305 | 0.22            |
| 7  | 230 | 50 | 1640              | 52              | 0.48 | 420  | 159             | 250 | 0.64            |
| 8  | 230 | 50 | 2135              | 62              | 0.55 | 310  | 288             | 180 | 1.16            |
| 9  | 230 | 50 | 780               | 17              | 0.18 | 445  | 0               | 260 | 0.00            |
| 10 | 230 | 50 | 940               | 20              | 0.20 | 395  | 32              | 235 | 0.13            |
| 11 | 230 | 50 | 1250              | 24              | 0.24 | 320  | 90              | 185 | 0.36            |
| 12 | 230 | 50 | 1640              | 31              | 0.29 | 235  | 166             | 140 | 0.67            |
| 13 | 230 | 50 | 555               | 7.3             | 0.10 | 310  | 0               | 180 | 0.00            |
| 14 | 230 | 50 | 655               | 7.7             | 0.10 | 270  | 15              | 160 | 0.06            |
| 15 | 230 | 50 | 875               | 9.9             | 0.11 | 220  | 43              | 130 | 0.17            |
| 16 | 230 | 50 | 1175              | 12              | 0.14 | 165  | 84              | 100 | 0.34            |

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase

