**K3G250-AT39-56**

# EC centrifugal module - RadiPac

backward-curved, single-intake

with support bracket



**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
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

## Nominal data

| | |
|---|---|
| **Type** | **K3G250-AT39-56** |
| **Motor** | **M3G084-DF** |

| | | |
|---|---|---|
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Nominal voltage range | VAC | 200 .. 277 |
| Frequency | Hz | 50/60 |
| Method of obtaining data | | ml |
| Speed (rpm) | $min^{-1}$ | 3000 |
| Power consumption | W | 448 |
| Current draw | A | 2.8 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 40 |

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

## Data according to ErP Directive

| | | Actual | Req. 2015 |
|---|---|---|---|
| 01 Overall efficiency $\eta_{es}$ | % | 63.1 | 47.9 |
| 02 Measurement category | | A | |
| 03 Efficiency category | | Static | |
| 04 Efficiency grade N | | 77.2 | 62 |
| 05 Variable speed drive | | Yes | |

| | | |
|---|---|---|
| 09 Power consumption $P_{ed}$ | kW | 0.45 |
| 09 Air flow $q_v$ | $m^3/h$ | 1550 |
| 09 Pressure increase $p_{fs}$ | Pa | 601 |
| 10 Speed (rpm) n | $min^{-1}$ | 2940 |
| 11 Specific ratio* | | 1.01 |

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

LU-108683

# EC centrifugal module - RadiPac

backward-curved, single-intake

with support bracket

## Technical description

| | |
|---|---|
| **Weight** | 9 kg |
| **Fan size** | 250 mm |
| **Rotor surface** | Painted black |
| **Electronics housing material** | Die-cast aluminum, painted black |
| **Impeller material** | Sheet aluminum, coated with white plastic |
| **Support plate material** | Sheet steel, galvanized and painted white |
| **Support bracket material** | Steel, galvanized and painted black |
| **Inlet nozzle material** | Sheet steel, galvanized and painted white |
| **Number of blades** | 7 |
| **Direction of rotation** | Clockwise, viewed toward rotor |
| **Degree of protection** | IP54 |
| **Insulation class** | "B" |
| **Moisture (F) / Environmental (H) protection class** | F5 |
| **Max. permitted ambient temp. for motor (transport/storage)** | +80 °C |
| **Min. permitted ambient temp. for motor (transport/storage)** | -40 °C |
| **Installation position** | Shaft horizontal or rotor on bottom; rotor on top on request |
| **Condensation drainage holes** | On rotor side |
| **Mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Technical features** | - Output 10 VDC, max. 1.1 mA<br>- Alarm relay<br>- Motor current limitation<br>- Soft start<br>- Control input 0-10 VDC / PWM<br>- Control interface with SELV potential safely disconnected from supply<br>- Thermal overload protection for electronics/motor<br>- Line undervoltage detection |
| **EMC immunity to interference** | According to EN 61000-6-2 (industrial environment) |
| **EMC interference emission** | According to EN 61000-6-3 (household environment) |
| **Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)** | <= 3.5 mA |
| **Motor protection** | Thermal overload protector (TOP) internally connected |
| **With cable** | Variable |
| **Protection class** | I (with customer connection of protective earth) |
| **Conformity with standards** | EN 61800-5-1; CE |
| **Approval** | EAC; UL 2111; CSA C22.2 No. 77 |



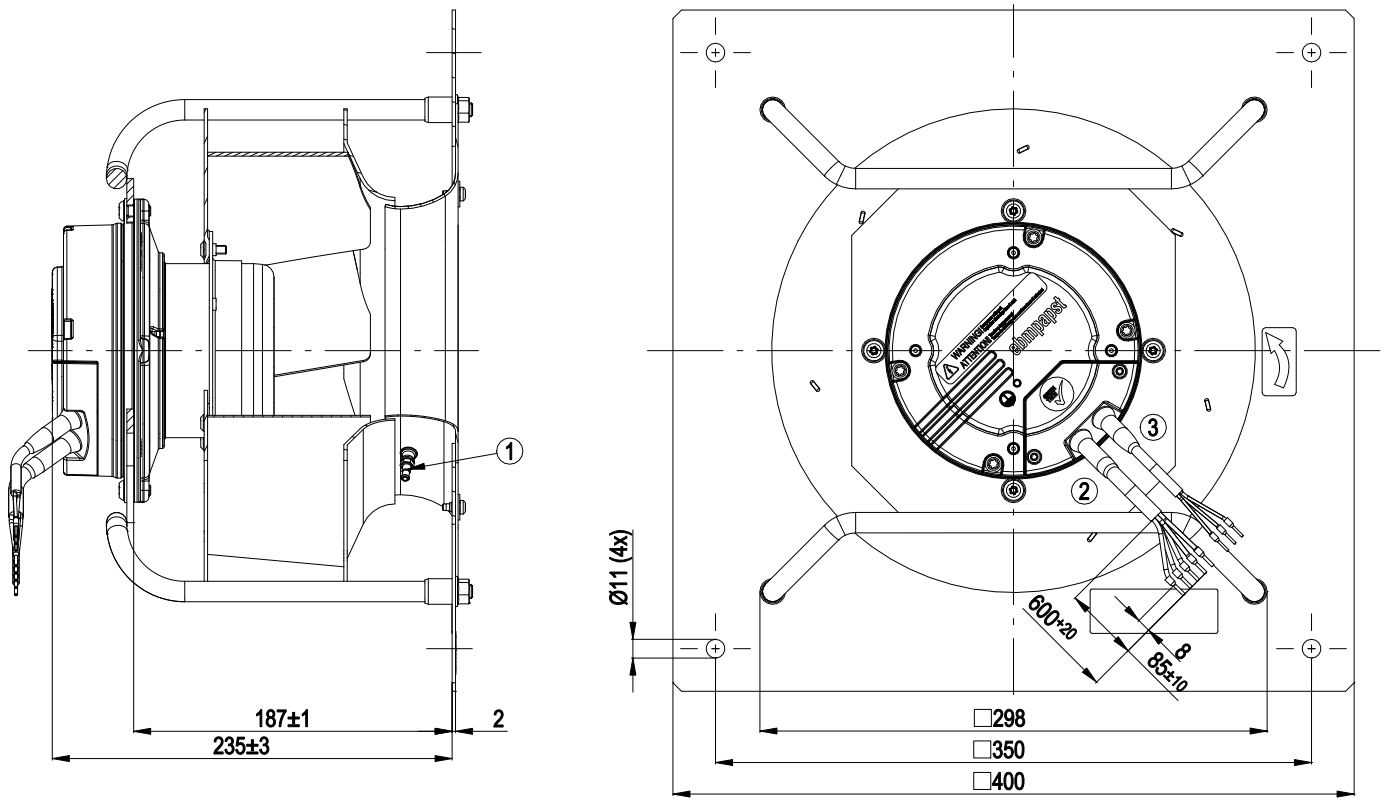
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# EC centrifugal module - RadiPac

backward-curved, single-intake

with support bracket

## Product drawing




| | |
|---|---|
| 1 | Inlet ring with pressure tap (k-factor: 70) |
| 2 | Cable PVC AWG18, 5x crimped ferrules |
| 3 | Cable PVC AWG22, 3x crimped ferrules |



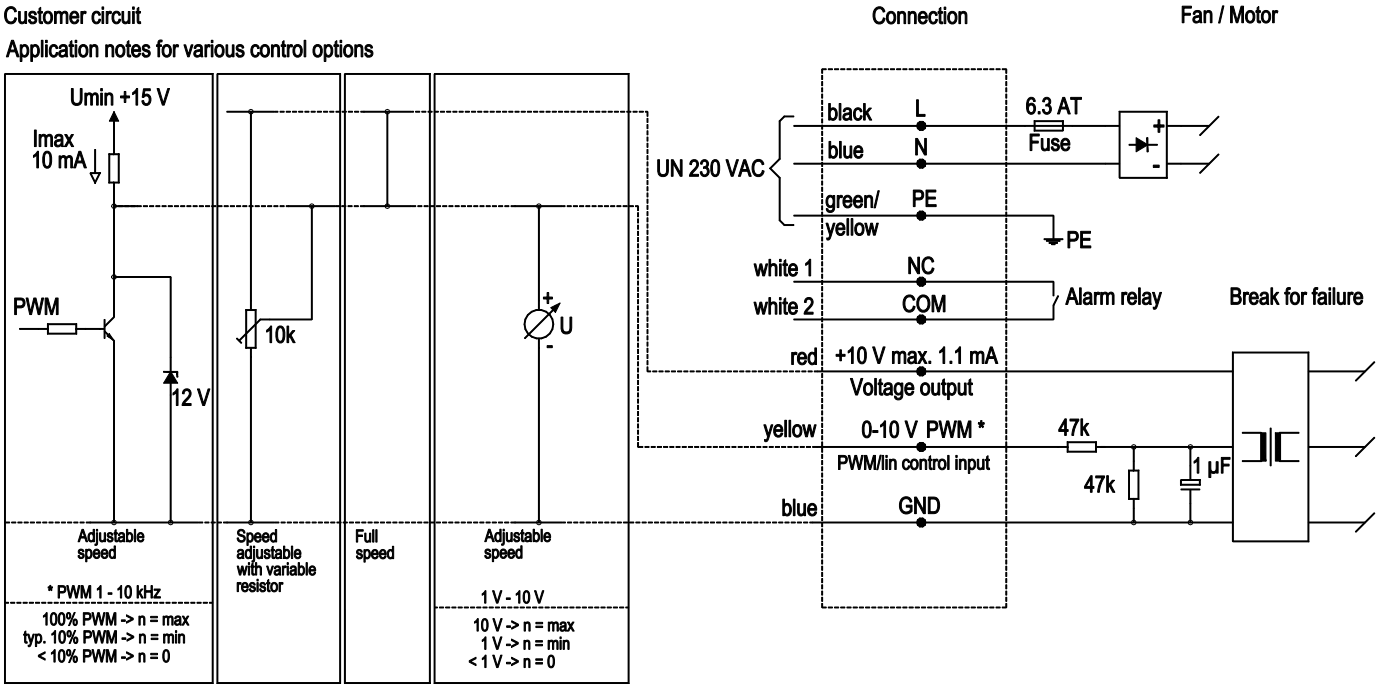
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# EC centrifugal module - RadiPac

backward-curved, single-intake

with support bracket

## Connection diagram





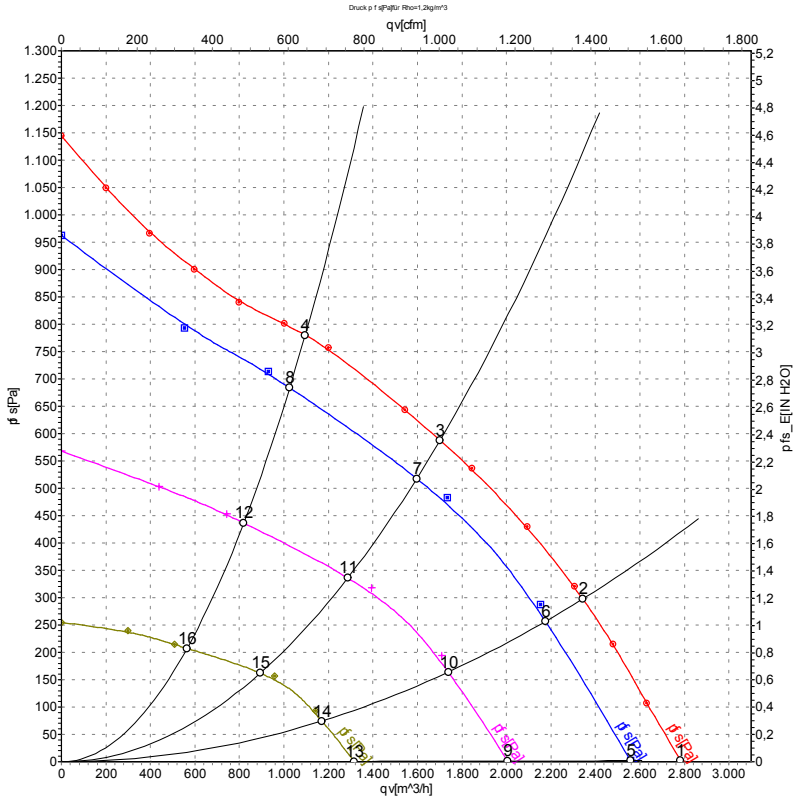

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# EC centrifugal module - RadiPac

backward-curved, single-intake

with support bracket

## Curves: Air performance 50 Hz




Measurement: LU-108683-1
Measurement: LU-124170-1
Measurement: LU-124171-1
Measurement: LU-124172-1

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 | $P_{ed}$ | I | qv | $p_{fs}$ | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa | CFM | inH2O |
| 1 | 230 | 50 | 3175 | 380 | 2.48 | 2785 | 0 | 1640 | 0.00 |
| 2 | 230 | 50 | 3045 | 436 | 2.72 | 2345 | 300 | 1380 | 1.20 |
| 3 | 230 | 50 | 3000 | 448 | 2.80 | 1700 | 590 | 1000 | 2.37 |
| 4 | 230 | 50 | 3020 | 436 | 2.72 | 1095 | 780 | 645 | 3.13 |
| 5 | 230 | 50 | 2925 | 294 | 1.90 | 2555 | 0 | 1505 | 0.00 |
| 6 | 230 | 50 | 2845 | 335 | 2.16 | 2175 | 271 | 1280 | 1.09 |
| 7 | 230 | 50 | 2790 | 341 | 2.25 | 1595 | 522 | 940 | 2.10 |
| 8 | 230 | 50 | 2835 | 326 | 2.14 | 1025 | 686 | 605 | 2.75 |
| 9 | 230 | 50 | 2300 | 142 | 0.97 | 2005 | 0 | 1180 | 0.00 |
| 10 | 230 | 50 | 2265 | 166 | 1.12 | 1740 | 174 | 1025 | 0.70 |
| 11 | 230 | 50 | 2240 | 174 | 1.19 | 1285 | 340 | 755 | 1.36 |
| 12 | 230 | 50 | 2270 | 163 | 1.13 | 820 | 438 | 485 | 1.76 |
| 13 | 230 | 50 | 1510 | 44 | 0.34 | 1315 | 0 | 775 | 0.00 |
| 14 | 230 | 50 | 1520 | 53 | 0.40 | 1170 | 78 | 690 | 0.31 |
| 15 | 230 | 50 | 1555 | 58 | 0.45 | 895 | 165 | 525 | 0.66 |
| 16 | 230 | 50 | 1555 | 55 | 0.43 | 565 | 208 | 335 | 0.84 |

U = Power supply · f = Frequency · n = Speed (rpm) · $P_{ed}$ = Power consumption · I = Current draw · qv = 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