

EC axial fan - HyBlade

sickled blades (S series)

with guard grille for short nozzle

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 590344General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

| | | |
|--------------------------|-------------------|------------|
| Type | S3G350-AN01-32 | |
| Motor | M3G074-CF | |
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Nominal voltage range | VAC | 200 .. 240 |
| Frequency | Hz | 50/60 |
| Type of data definition | | ml |
| Speed | min ⁻¹ | 1475 |
| Power input | W | 165 |
| Current draw | A | 1.35 |
| Max. back pressure | Pa | 100 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 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

| | |
|-----------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive | Yes |
| Specific ratio* | 1.00 |

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

| | | Actual | Request 2015 |
|--------------------------------|-------------------|--------|--------------|
| Overall efficiency η_{es} | % | 39.8 | 28.6 |
| Efficiency grade N | | 51.2 | 40 |
| Power input P_{ed} | kW | 0.16 | |
| Air flow q_v | m ³ /h | 2400 | |
| Pressure increase p_{fs} | Pa | 87 | |
| Speed n | min ⁻¹ | 1495 | |

Data definition with optimum efficiency.

LU-134592

The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.



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Technical features

| | |
|---|--|
| Mass | 3.6 kg |
| Size | 350 mm |
| Material of blades | Press-fitted sheet steel blank, sprayed with PP plastic |
| Material of guard grille | Steel, coated in black plastic (RAL9005) |
| Number of blades | 5 |
| Direction of air flow | "V" |
| Direction of rotation | Counter-clockwise, seen on rotor |
| Type of protection | IP 54 |
| Insulation class | "B" |
| Humidity class | F3-1 |
| 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, open rotor |
| Cooling bore / aperture | Rotor-side |
| Operation mode | S1 |
| Motor bearing | Ball bearing |
| Technical features | <ul style="list-style-type: none"> - Output 10 VDC, max. 1.1 mA - Tach output - Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor |
| EMC interference immunity | Acc. to EN 61000-6-2 (industrial environment) |
| 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 |
| Motor protection | PTC resistor |
| Cable exit | Variable |
| Protection class | I (if protective earth is connected by customer) |
| Product conforming to standard | EN 60335-1; CE |
| Approval | CCC; C22.2 Nr.77 + CAN/CSA-E60730-1; UL 1004-7 + 60730 |

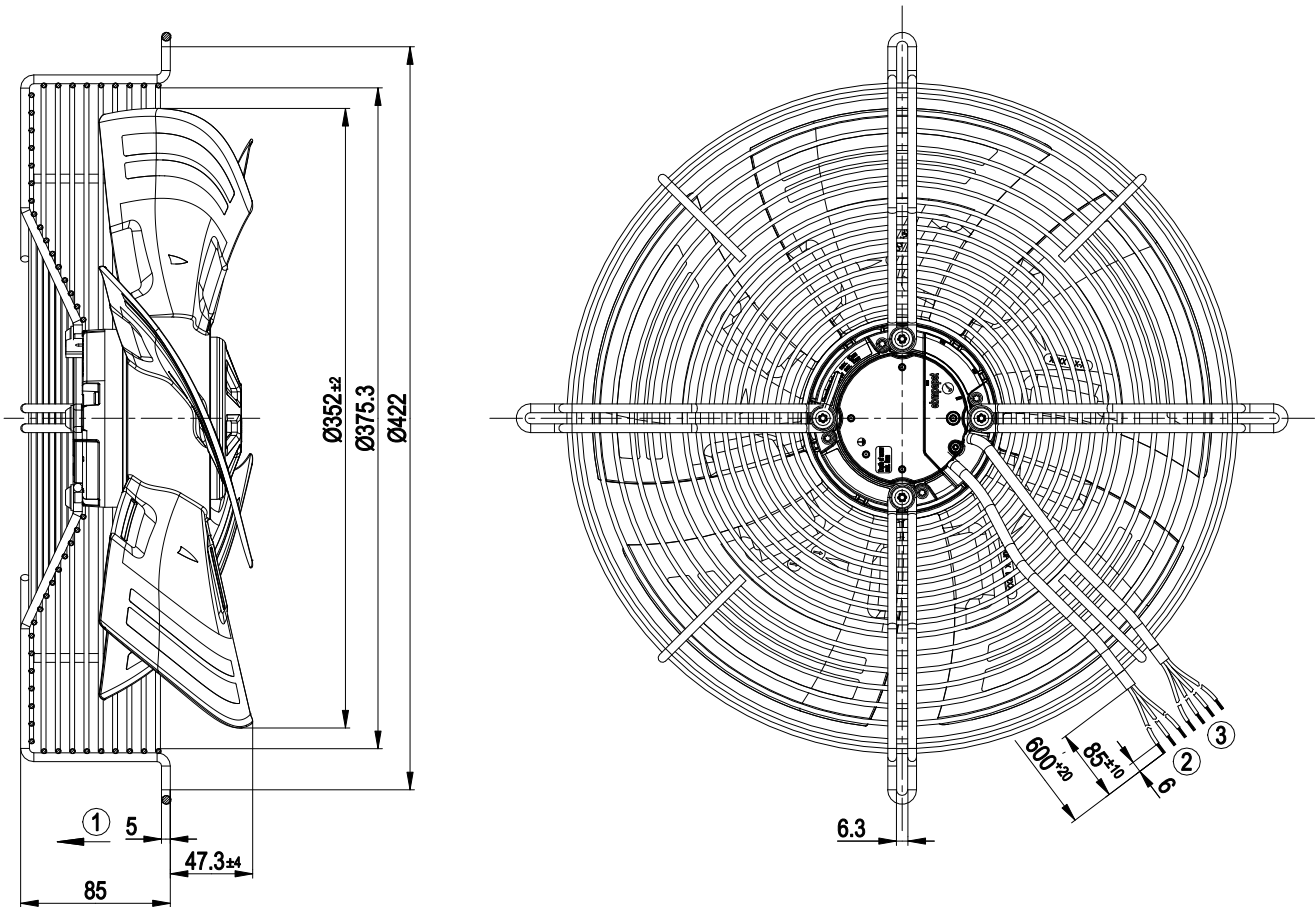


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Product drawing



| | |
|---|--|
| 1 | Direction of air flow "V" |
| 2 | Connection line PVC 3G AWG20, 3x brass lead tips crimped |
| 3 | Connection line PVC 4X AWG22, 4x brass lead tips crimped |

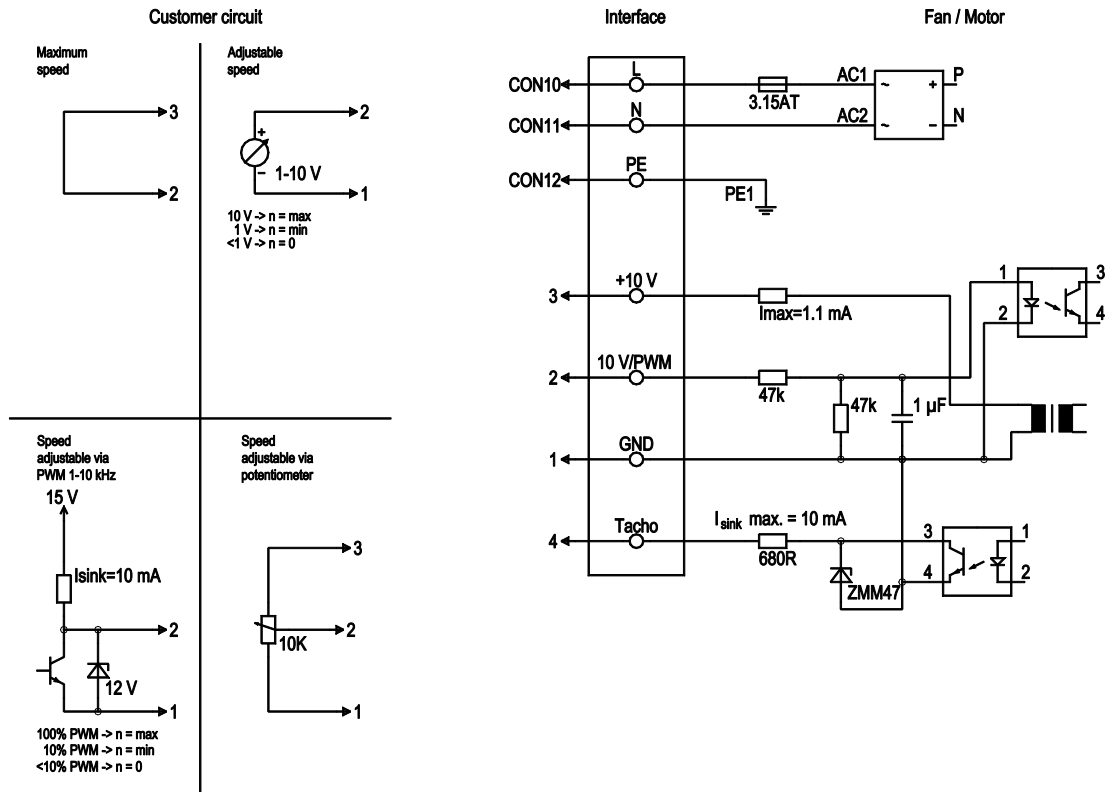


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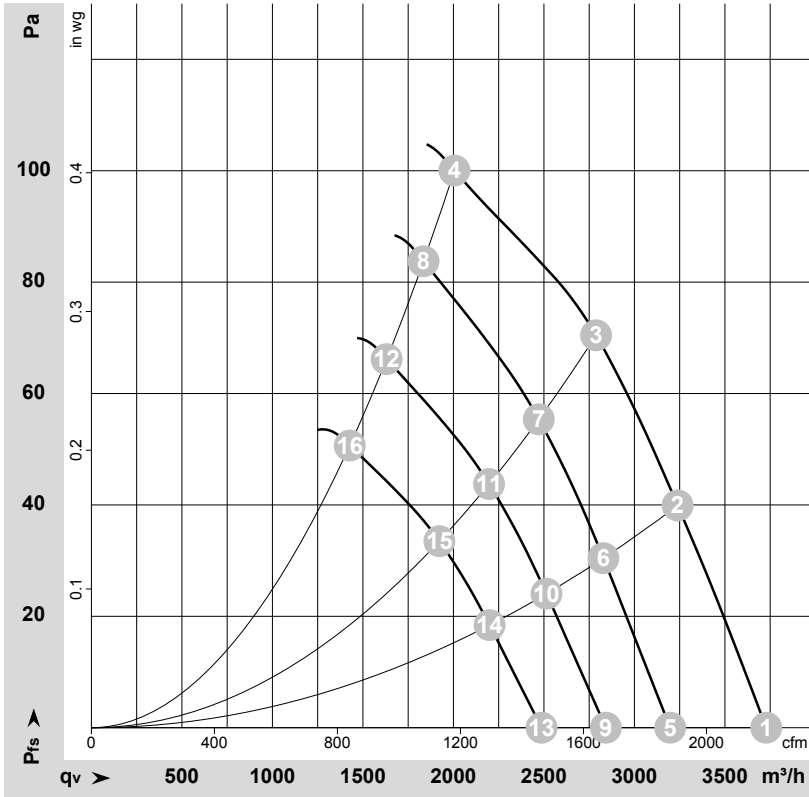
Connection screen



| No. | Conn. | Designation | Colour | Function / assignment |
|-----|-------|----------------|--------------|---|
| | CON10 | L | black | Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate |
| | CON11 | N | blue | Neutral conductor |
| | CON12 | PE | green/yellow | Protective earth |
| | 1 | GND | blue | GND - Connection for control interface |
| | 2 | 0- 10V PWM | yellow | Control input 0 - 10 V or PWM, electrically isolated |
| | 3 | 10V/ max 1.1mA | red | Voltage output 10 V / 1.1 mA, electrically isolated, not short-circuit-proof, Isink = 10 mA |
| | 4 | Tach | white | Tach output: open collector, 1 pulse per revolution, electrically isolated, Isink max = 10 mA |



Charts: Air flow 50 Hz



$\rho = 1,15 \text{ kg/m}^3 \pm 2\%$

Measurement: LU-134592

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. 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} | qv | p _{fs} |
|----|-----|----|-------------------|-----------------|------|-------------------|-------------------|-------------------|-----------------|
| | V | Hz | min ⁻¹ | W | A | dB(A) | dB(A) | m ³ /h | Pa |
| 1 | 230 | 50 | 1575 | 141 | 1.15 | 64 | 71 | 3730 | 0 |
| 2 | 230 | 50 | 1545 | 155 | 1.24 | 61 | 68 | 3240 | 40 |
| 3 | 230 | 50 | 1525 | 164 | 1.32 | 58 | 66 | 2790 | 70 |
| 4 | 230 | 50 | 1475 | 165 | 1.35 | 59 | 67 | 2005 | 100 |
| 5 | 230 | 50 | 1350 | 89 | 0.72 | 60 | 67 | 3200 | 0 |
| 6 | 230 | 50 | 1350 | 103 | 0.83 | 58 | 65 | 2830 | 31 |
| 7 | 230 | 50 | 1350 | 114 | 0.92 | 55 | 62 | 2470 | 55 |
| 8 | 230 | 50 | 1350 | 127 | 1.02 | 56 | 64 | 1835 | 84 |
| 9 | 230 | 50 | 1200 | 63 | 0.51 | 57 | 64 | 2840 | 0 |
| 10 | 230 | 50 | 1200 | 72 | 0.58 | 55 | 62 | 2515 | 24 |
| 11 | 230 | 50 | 1200 | 80 | 0.65 | 52 | 60 | 2195 | 44 |
| 12 | 230 | 50 | 1200 | 89 | 0.72 | 53 | 61 | 1630 | 66 |
| 13 | 230 | 50 | 1050 | 42 | 0.34 | 53 | 60 | 2485 | 0 |
| 14 | 230 | 50 | 1050 | 49 | 0.39 | 51 | 59 | 2200 | 19 |
| 15 | 230 | 50 | 1050 | 54 | 0.43 | 49 | 56 | 1920 | 34 |
| 16 | 230 | 50 | 1050 | 60 | 0.48 | 50 | 58 | 1425 | 51 |

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

