

EC axial fan

sickle-shaped blades (S series)

A3G350-AA58-02 ebmpapst Datasheet

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Nominal data

| | | |
|--------------------------|-------------------|------------|
| Type | A3G350-AA58-02 | |
| Motor | M3G074-CF | |
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Nominal voltage range | VAC | 200 .. 277 |
| Frequency | Hz | 50/60 |
| Method of obtaining data | | fa |
| Speed (rpm) | min ⁻¹ | 1540 |
| Power consumption | W | 150 |
| Current draw | A | 1.2 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 60 |

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 η_{es} | % | 41.6 | 28.6 | 09 Power consumption P_{ed} | kW | 0.16 |
| 02 Measurement category | | A | | 09 Air flow q_v | m ³ /h | 2195 |
| 03 Efficiency category | | Static | | 09 Pressure increase p_{fs} | Pa | 100 |
| 04 Efficiency grade N | | 53 | 40 | 10 Speed (rpm) n | min ⁻¹ | 1450 |
| 05 Variable speed drive | | Yes | | 11 Specific ratio* | | 1.00 |

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

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

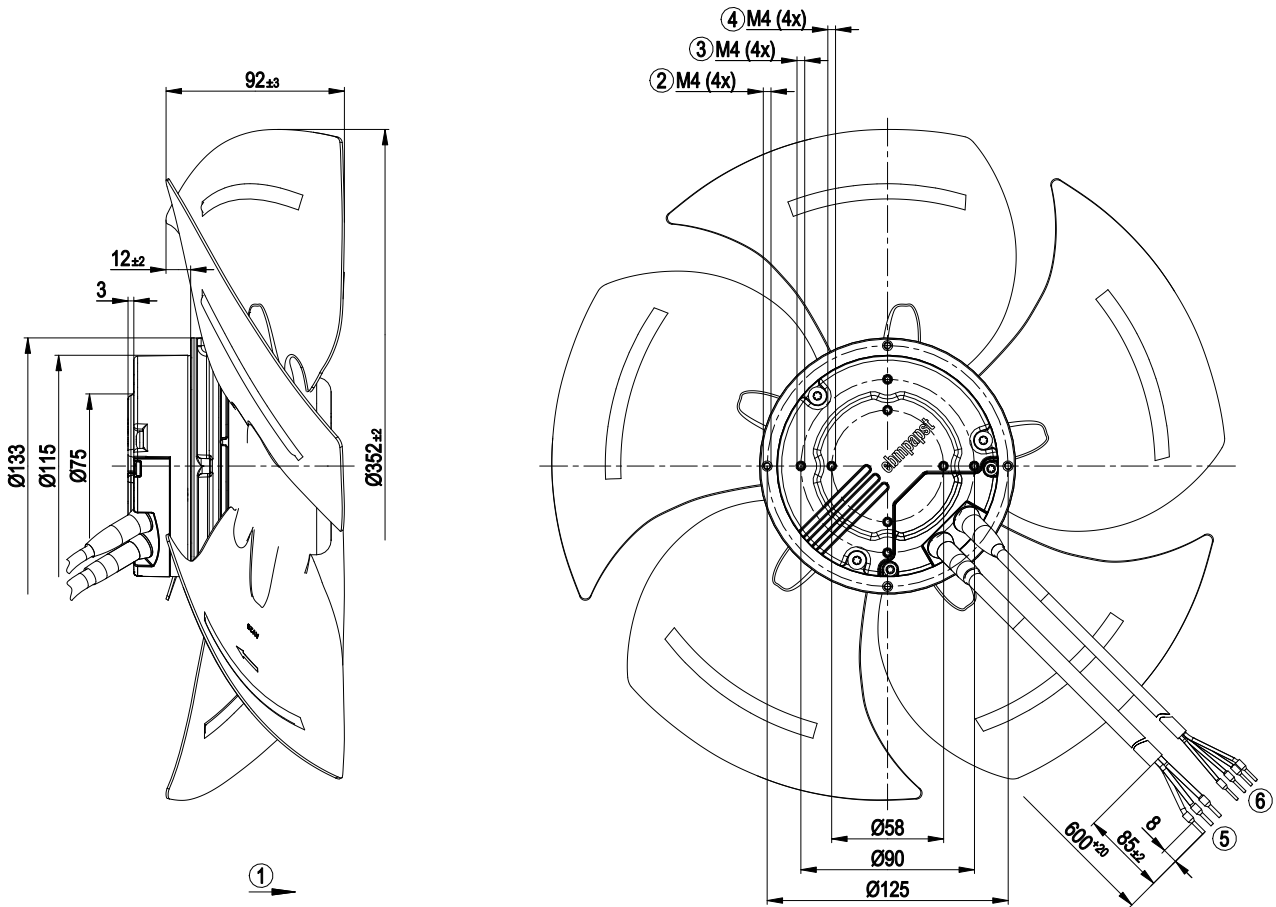
LU-71540



Technical description

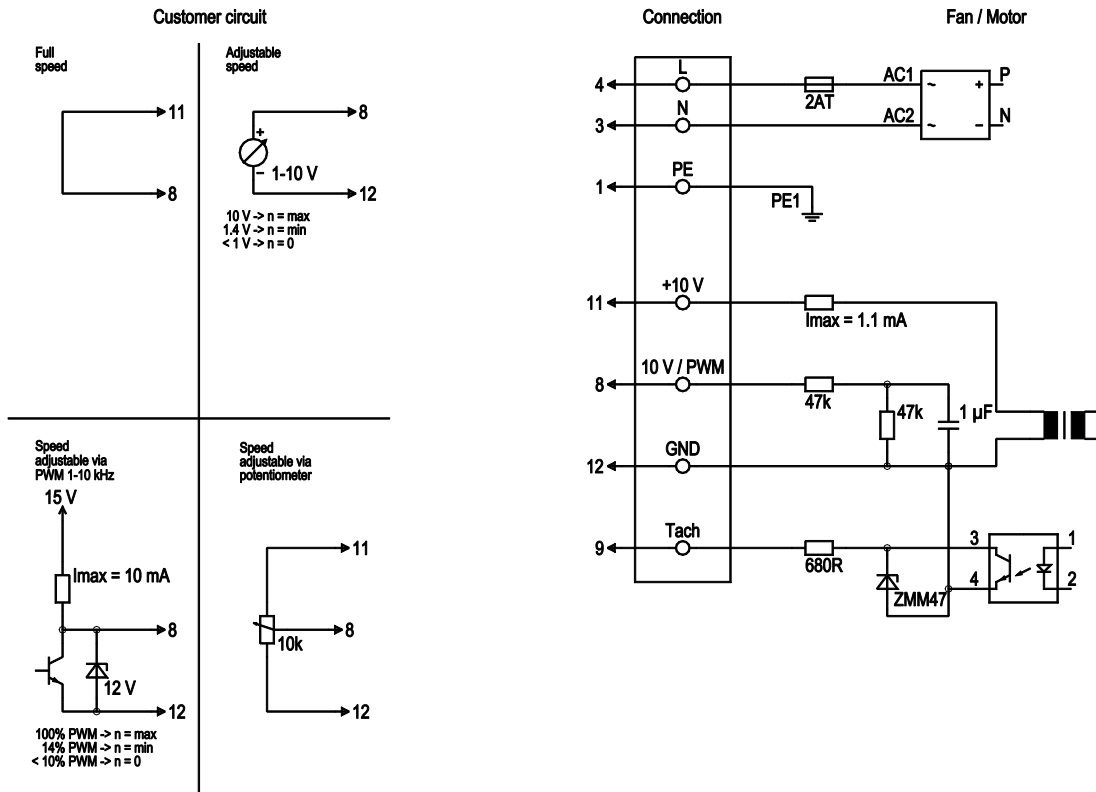
| | |
|---|--|
| Weight | 3 kg |
| Fan size | 350 mm |
| Rotor surface | Painted black |
| Electronics housing material | Die-cast aluminum |
| Impeller material | Sheet steel, painted black |
| Blade material | Sheet steel |
| Number of blades | 5 |
| Direction of rotation | "A" |
| Degree of protection | IP44 |
| Insulation class | "B" |
| Moisture (F) / Environmental (H) protection class | F3-1 |
| Installation position | Shaft horizontal or rotor on bottom; rotor on top on request |
| Mode | Continuous operation (S1) |
| Motor bearing | Ball bearing |
| Technical features | PFC (passive), control input 0-10 VDC/PWM, output 10 VDC max. 1.1 mA, tach output, thermal overload protection for electronics/motor |
| 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 | CE |
| Approval | UL; CSA |

Product drawing



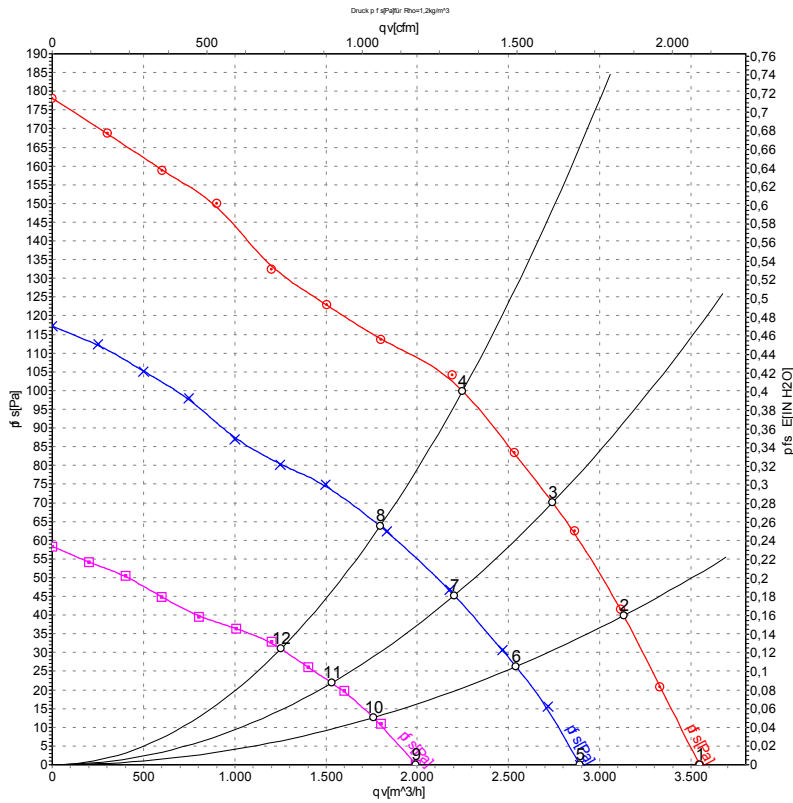
| | |
|---|---|
| 1 | Direction of air flow "A" |
| 2 | Clearance for screw 8 - 10 mm |
| 3 | Tapping hole ready for self-tapping M4 screw, max. clearance for screw 6 mm |
| 4 | Tapping hole ready for self-tapping M4 screw, max. clearance for screw 8 mm |
| 5 | Cable PVC AWG 18, 3x crimped ferrules |
| 6 | Cable PVC AWG 22, 4x crimped ferrules |

Connection diagram



| No. | Conn. | Designation | Color | Function/assignment |
|-----|-------|------------------|--------------|--|
| | 4 | L | black | Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range |
| | 3 | N | blue | Neutral conductor |
| | 1 | PE | green/yellow | Protective earth |
| | 8 | 0-10 V PWM | yellow | Control input 0-10 V or PWM, electrically isolated |
| | 9 | Tach | white | Tach output: open collector, 1 pulse per revolution, electrically isolated |
| | 11 | 10V / max 1.1 mA | red | Voltage output 10 V/max. 1.1 mA, electrically isolated |
| | 12 | GND | blue | GND connection for control interface |

Curves: Air performance 50 Hz



Measurement: LU-71540-1
 Measurement: LU-71541-1
 Measurement: LU-71542-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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 | 1540 | 150 | 1.20 | 3545 | 0 | 2090 | 0.00 |
| 2 | 230 | 50 | 1510 | 166 | 1.24 | 3130 | 40 | 1845 | 0.16 |
| 3 | 230 | 50 | 1485 | 167 | 1.25 | 2740 | 70 | 1615 | 0.28 |
| 4 | 230 | 50 | 1455 | 167 | 1.23 | 2250 | 100 | 1325 | 0.40 |
| 5 | 230 | 50 | 1255 | 87 | 0.66 | 2890 | 0 | 1700 | 0.00 |
| 6 | 230 | 50 | 1225 | 90 | 0.69 | 2540 | 26 | 1495 | 0.10 |
| 7 | 230 | 50 | 1190 | 89 | 0.69 | 2205 | 46 | 1295 | 0.18 |
| 8 | 230 | 50 | 1165 | 91 | 0.69 | 1795 | 64 | 1055 | 0.26 |
| 9 | 230 | 50 | 870 | 33 | 0.27 | 1995 | 0 | 1175 | 0.00 |
| 10 | 230 | 50 | 845 | 35 | 0.28 | 1760 | 13 | 1035 | 0.05 |
| 11 | 230 | 50 | 830 | 34 | 0.28 | 1530 | 22 | 900 | 0.09 |
| 12 | 230 | 50 | 815 | 34 | 0.27 | 1255 | 31 | 735 | 0.12 |

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

