

# AC axial fan

sickled blades (S series)  
with guard grille for short nozzle

S4E350-AP06-82 ebmpapst Datasheet  
sales@fansco.com  
www.fansco.com



## Nominal data

|                               |                   |      |      |
|-------------------------------|-------------------|------|------|
| Type                          | S4E350-AP06-82    |      |      |
| Motor                         | M4E074-DF         |      |      |
| Phase                         |                   | 1~   | 1~   |
| Nominal voltage               | VAC               | 230  | 230  |
| Frequency                     | Hz                | 50   | 60   |
| Type of data definition       |                   | fa   | fa   |
| Valid for approval / standard |                   | CE   | CE   |
| Speed                         | min <sup>-1</sup> | 1400 | 1590 |
| Power input                   | W                 | 130  | 190  |
| Current draw                  | A                 | 0.58 | 0.83 |
| Motor capacitor               | μF                | 4    | 4    |
| Capacitor voltage             | VDB               | 400  | 400  |
| Max. back pressure            | Pa                | 90   | 60   |
| Max. ambient temperature      | °C                | 55   | 55   |
| Starting current              | A                 | 1.2  | 1.1  |

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  | No     |
| Specific ratio*       | 1.00   |

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

|                                |                   | Actual | Request 2013 | Request 2015 |
|--------------------------------|-------------------|--------|--------------|--------------|
| Overall efficiency $\eta_{es}$ |                   | 28.5   | 24.5         | 28.5         |
| Efficiency grade N             |                   | 40     | 36           | 40           |
| Power input $P_e$              | kW                | 0.15   |              |              |
| Air flow $q_v$                 | m <sup>3</sup> /h | 2200   |              |              |
| Pressure increase $p_{fs}$     | Pa                | 70     |              |              |
| Speed n                        | min <sup>-1</sup> | 1345   |              |              |

Data established at point of optimum efficiency



# AC axial fan

sickled blades (S series)  
with guard grille for short nozzle

## Technical features

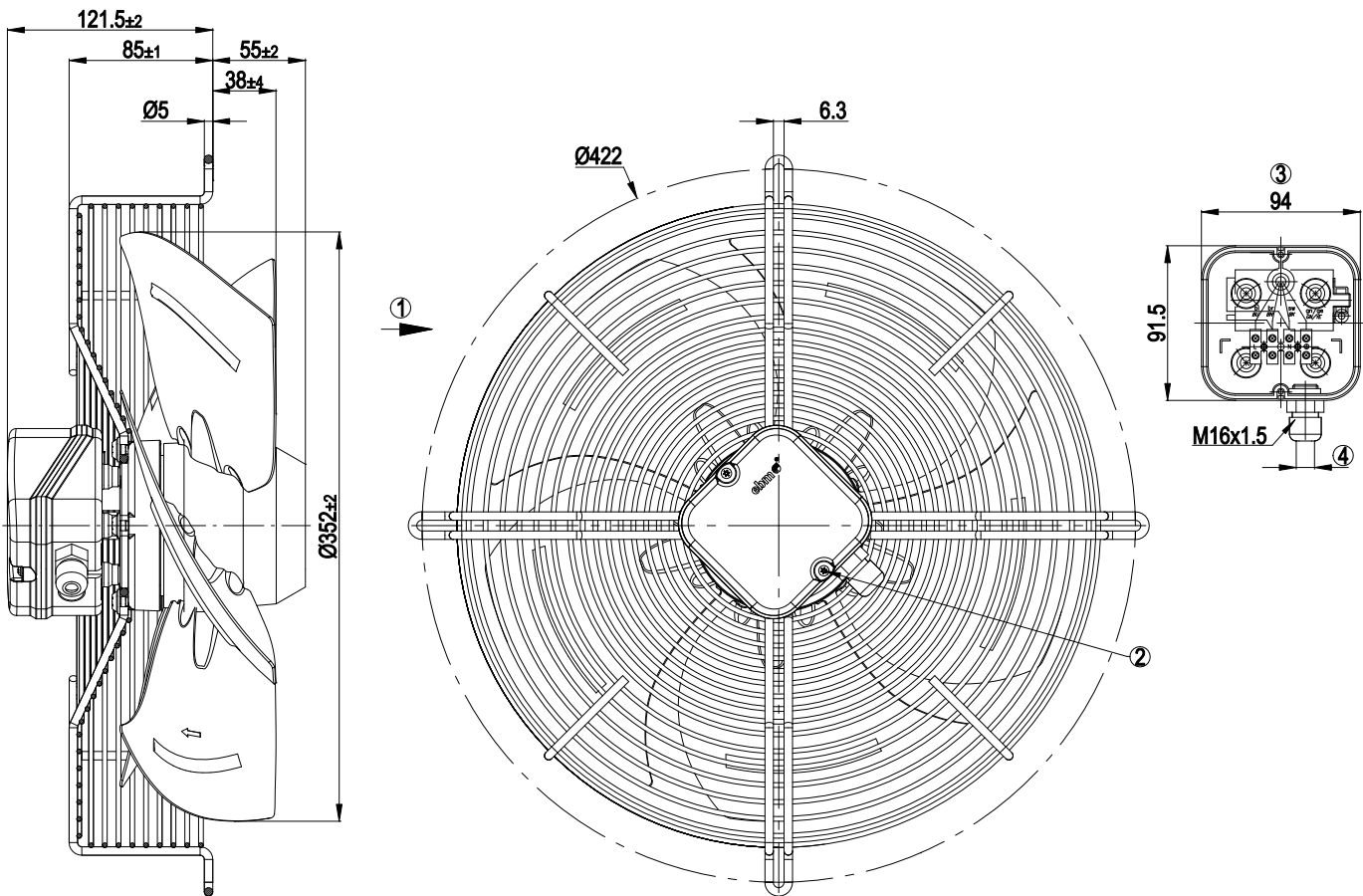
|                                                                    |                                                                   |
|--------------------------------------------------------------------|-------------------------------------------------------------------|
| Mass                                                               | 5.2 kg                                                            |
| Size                                                               | 350 mm                                                            |
| Surface of rotor                                                   | Coated in black                                                   |
| Material of terminal box                                           | ABS plastic, black                                                |
| Material of blades                                                 | Sheet steel, coated in black                                      |
| Material of guard grille                                           | Steel, phosphated and coated in black plastic                     |
| Number of blades                                                   | 5                                                                 |
| Direction of air flow                                              | "A"                                                               |
| Direction of rotation                                              | Clockwise, seen on rotor                                          |
| Type of protection                                                 | IP 44                                                             |
| Insulation class                                                   | "F"                                                               |
| Humidity class                                                     | F1-2                                                              |
| Max. permissible ambient motor temp. (transp./ storage)            | + 80 °C                                                           |
| Min. permissible ambient motor temp. (transp./storage)             | - 40 °C                                                           |
| Mounting position                                                  | Shaft horizontal or rotor on bottom; rotor on top on request      |
| Condensate discharge holes                                         | Rotor-side                                                        |
| Operation mode                                                     | S1                                                                |
| Motor bearing                                                      | Ball bearing                                                      |
| Touch current acc. IEC 60990 (measuring network Fig. 4, TN system) | < 0.75 mA                                                         |
| Electrical leads                                                   | Via terminal box, integrated capacitor connected via terminal box |
| Motor protection                                                   | Thermal overload protector (TOP) wired internally                 |
| Cable exit                                                         | Axial                                                             |
| Protection class                                                   | I (if protective earth is connected by customer)                  |
| Product conforming to standard                                     | EN 60335-1; CE                                                    |



# AC axial fan

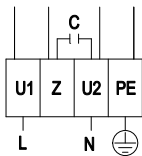
sickled blades (S series)  
with guard grille for short nozzle

## Product drawing



|   |                                                     |
|---|-----------------------------------------------------|
| 1 | Direction of air flow "A"                           |
| 2 | Tightening torque 0.8 Nm                            |
| 3 | Illustration without terminal box cover             |
| 4 | Cable diameter: max. 7.5 mm; tightening torque 2 Nm |

## Connection screen



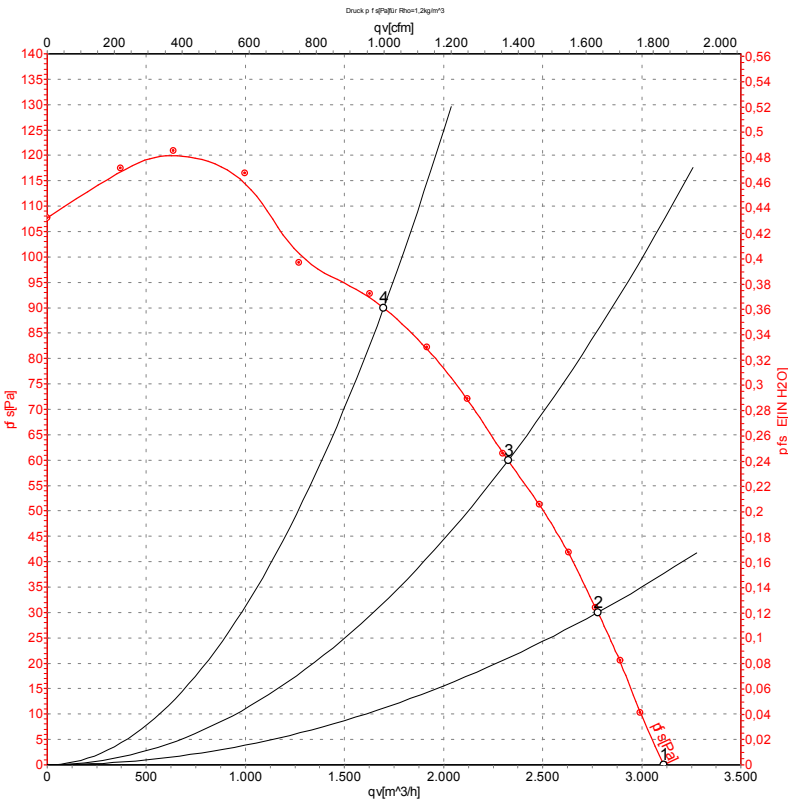
|    |              |   |       |   |              |
|----|--------------|---|-------|---|--------------|
| L  | = U1 = blue  | Z | brown | N | = U2 = black |
| PE | green/yellow |   |       |   |              |



# AC axial fan

sickled blades (S series)  
with guard grille for short nozzle

## Charts: Air flow 50 Hz



Measurement: LU-28525

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: L<sub>wA</sub> measured as per ISO 13347 /  
L<sub>pA</sub> 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

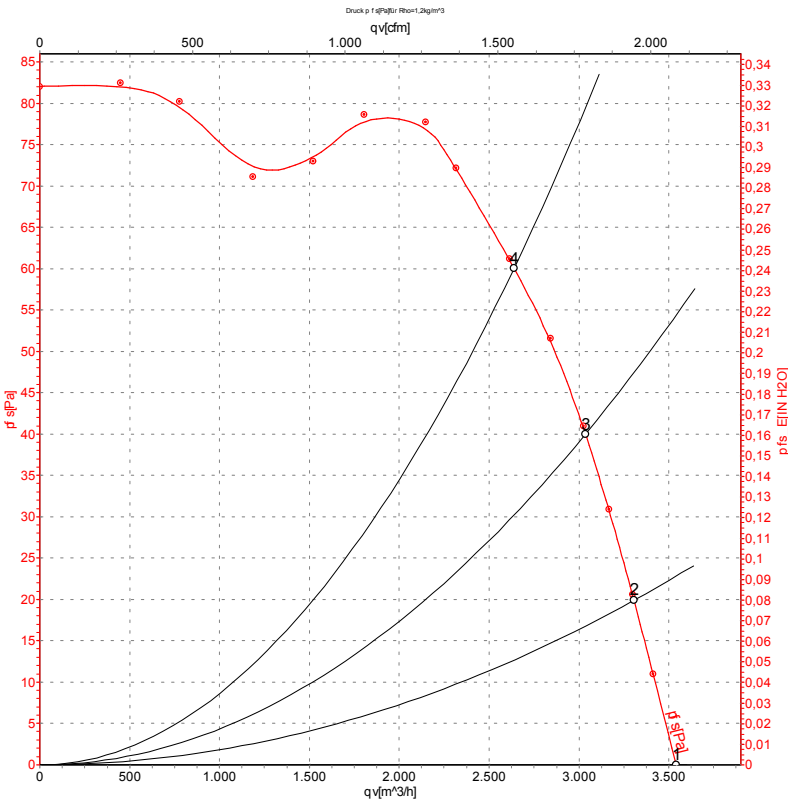
|   | U   | f  | n                 | P <sub>e</sub> | I    | qv   | p <sub>fs</sub> |
|---|-----|----|-------------------|----------------|------|------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m³/h | Pa              |
| 1 | 230 | 50 | 1400              | 130            | 0.58 | 3110 | 0               |
| 2 | 230 | 50 | 1380              | 140            | 0.61 | 2780 | 30              |
| 3 | 230 | 50 | 1355              | 151            | 0.66 | 2325 | 60              |
| 4 | 230 | 50 | 1290              | 174            | 0.76 | 1700 | 90              |

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase



AC axial fan  
sickled blades (S series)  
with guard grille for short nozzle

Charts: Air flow 60 Hz



Measurement: LU-28527

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: L<sub>wA</sub> measured as per ISO 13347 /  
L<sub>pA</sub> 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 <sub>e</sub> | I    | q <sub>v</sub>    | p <sub>fs</sub> |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m <sup>3</sup> /h | Pa              |
| 1 | 230 | 60 | 1590              | 190            | 0.83 | 3540              | 0               |
| 2 | 230 | 60 | 1565              | 196            | 0.85 | 3305              | 20              |
| 3 | 230 | 60 | 1520              | 203            | 0.88 | 3035              | 40              |
| 4 | 230 | 60 | 1455              | 208            | 0.90 | 2640              | 60              |

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

