

R4E355-AQ09-09

# AC centrifugal fan

backward-curved, single-intake



R4E355-AQ09-09 ebmpapst Datasheet

[sales@fansco.com](mailto:sales@fansco.com)

[www.fansco.com](http://www.fansco.com)

Limited partnership · Headquarters Muldingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Muldingen GmbH · Headquarters Muldingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

## Nominal data

|                             |                   |           |         |
|-----------------------------|-------------------|-----------|---------|
| Type                        | R4E355-AQ09-09    |           |         |
| Motor                       | M4E094-FA         |           |         |
| Phase                       |                   | 1~        | 1~      |
| Nominal voltage             | VAC               | 120       | 120     |
| Frequency                   | Hz                | 60        | 60      |
| Method of obtaining data    |                   | cs/ce     | cs/ce   |
| Valid for approval/standard |                   | UL 1004-1 | -       |
| Speed (rpm)                 | min <sup>-1</sup> |           | 1630    |
| Power consumption           | W                 |           | 480     |
| Current draw                | A                 | 4.3       | 4.3     |
| Capacitor                   | µF                | 30        | 30      |
| Capacitor voltage           | VDB               | 370       | 370     |
| Capacitor standard          |                   | UL        | S2 (CE) |
| Min. back pressure          | Pa                | 0         | 0       |
| Min. back pressure          | inH2O             | 0         | 0       |
| Min. ambient temperature    | °C                | -40       | -40     |
| Max. ambient temperature    | °C                | 75        | 75      |
| Starting current            | A                 | 11.0      | 10.0    |

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



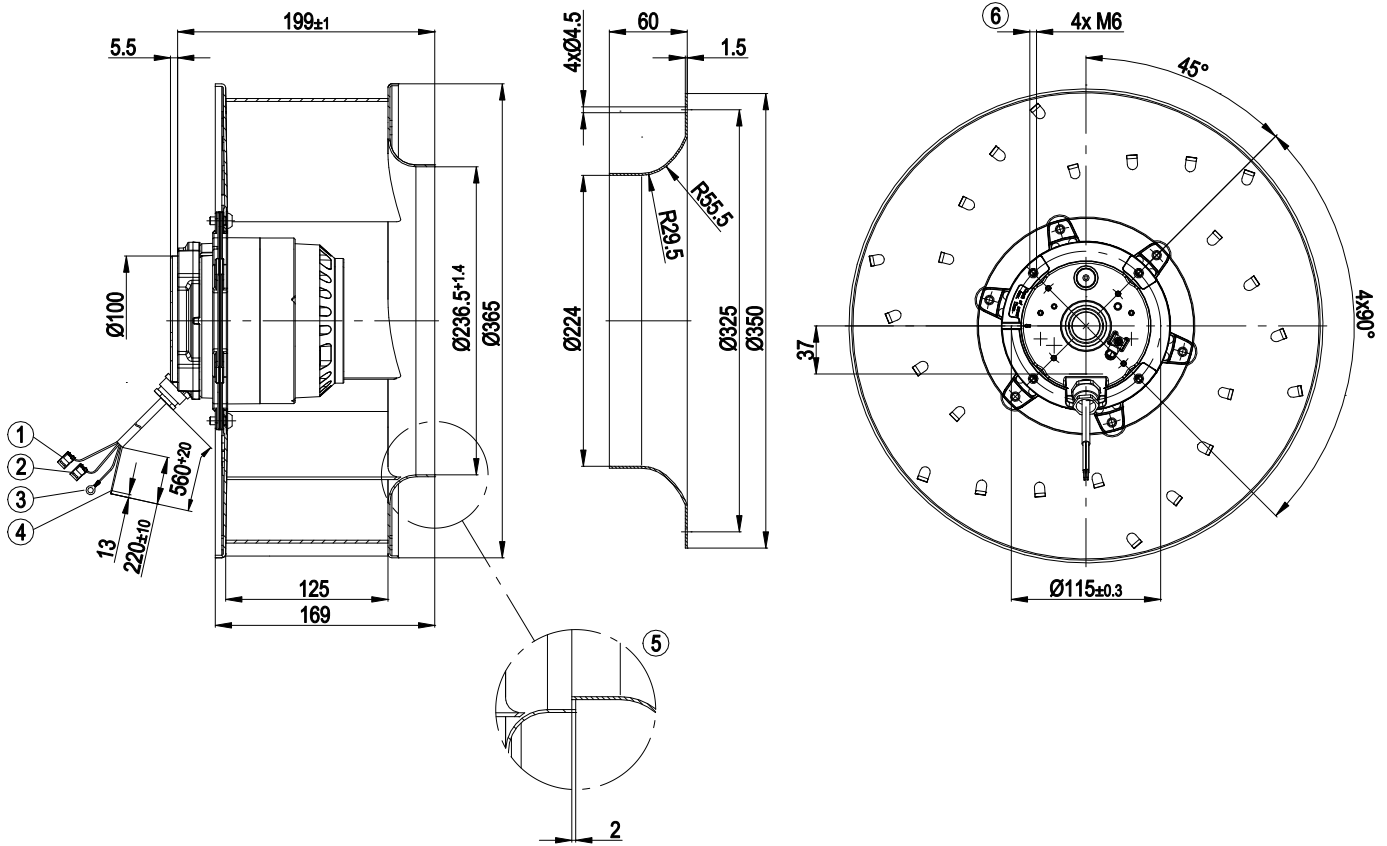
### Technical description

|  |   |
|--|---|
| Weight   | 7 kg  |
| Fan size   | 355 mm  |
| Rotor surface  | Painted black   |
| Impeller material  | Sheet aluminum  |
| Number of blades   | 6   |
| Direction of rotation  | Clockwise, viewed toward rotor                        |
| Degree of protection   | IP54  |
| Insulation class   | "F"   |
| Moisture (F) / Environmental (H) protection class                          | F4-1  |
| 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  |
| Mode   | S1  |
| Motor bearing  | Ball bearing  |
| 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   | Axial   |
| Protection class   | I (with customer connection of protective earth)      |
| Motor capacitor according to EN 60252-1 in safety protection class         | S0  |
| Conformity with standards  | EN 60034-1 (2004)                                     |
| Approval   | UL 1004-1; CSA C22.2 No. 100                          |

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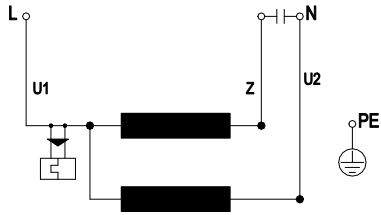
## Product drawing



|   |   |
|---|---|
| 1 | Cable PFA, brown wire, crimped flat push-on receptacle                    |
| 2 | Cable PFA, black wire, crimped flat push-on receptacle                    |
| 3 | Cable PFA, green/yellow wire, crimped ring terminal                       |
| 4 | Cable PFA, blue wire, wire end stripped                                   |
| 5 | Accessory part: inlet ring 51357-2-4013 not included in scope of delivery |
| 6 | Max. clearance for screw 12 mm  |



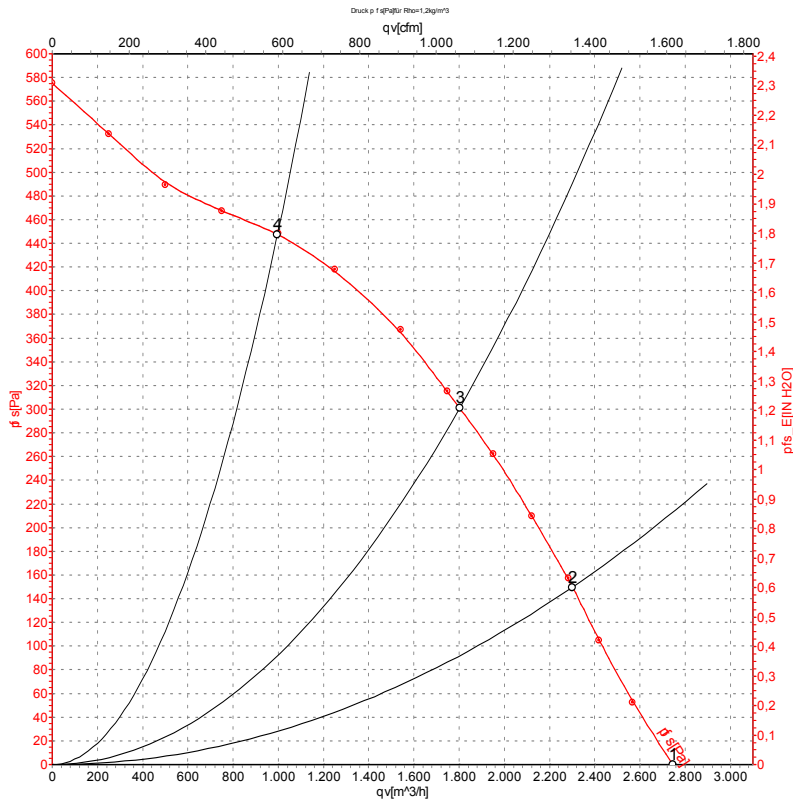
## Connection diagram



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



## Curves: Air performance 60 Hz



Measurement: LU-69397-1

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 <sub>e</sub> | I    | q <sub>v</sub>    | P <sub>fs</sub> | q <sub>v</sub> | P <sub>fs</sub> |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|----------------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m <sup>3</sup> /h | Pa              | cfm            | inH2O           |
| 1 | 115 | 60 | 1650              | 450            | 4.09 | 2745              | 0               | 1615           | 0.00            |
| 2 | 115 | 60 | 1640              | 463            | 4.19 | 2300              | 150             | 1355           | 0.60            |
| 3 | 115 | 60 | 1630              | 480            | 4.30 | 1805              | 300             | 1060           | 1.20            |
| 4 | 115 | 60 | 1660              | 428            | 3.88 | 995               | 449             | 585            | 1.80            |

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

