

## ASIA PACIFIC SHENGRUI LIMITED

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## Nominal data

|                               |                   |         |         |
|-------------------------------|-------------------|---------|---------|
| Type                          | W2E143-AB15-01    |         |         |
| Motor                         | M2E052-BF         |         |         |
| Phase                         |                   | 1~      | 1~      |
| Nominal voltage               | VAC               | 115     | 115     |
| Frequency                     | Hz                | 50      | 60      |
| Type of data definition       |                   | fa      | fa      |
| Valid for approval / standard |                   | CE      | CE      |
| Speed                         | min <sup>-1</sup> | 2850    | 3300    |
| Power input                   | W                 | 26      | 29      |
| Current draw                  | A                 | 0.25    | 0.26    |
| Motor capacitor               | μF                | 3       | 3       |
| Capacitor voltage             | VDB               | 250     | 250     |
| Capacitor standard            |                   | P0 (CE) | P0 (CE) |
| Max. ambient temperature      | °C                | 60      | 75      |

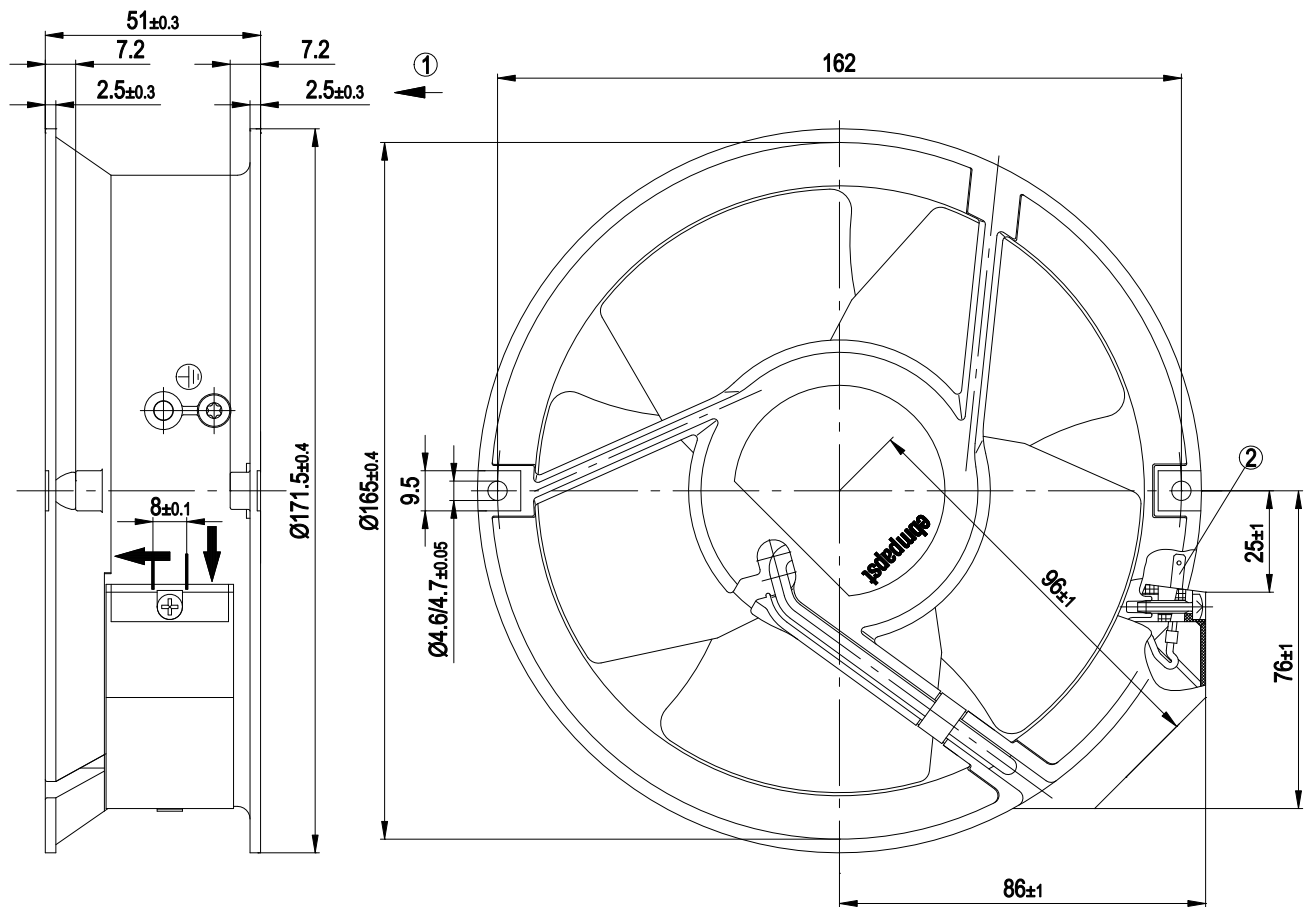
ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit  
Subject to alterations



## Technical features

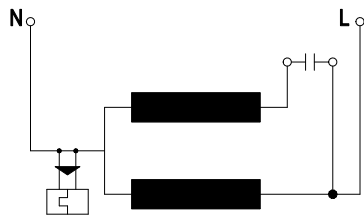
|                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| Mass                                                    | 0.95 kg                                           |
| Size                                                    | 143 mm                                            |
| Surface of rotor                                        | Rotor open, coated in black                       |
| Material of blades                                      | Sheet steel, coated in black                      |
| Material of wall ring                                   | Die-cast aluminium, coated in black               |
| Number of blades                                        | 5                                                 |
| Direction of air flow                                   | "V"                                               |
| Direction of rotation                                   | Counter-clockwise, seen on rotor                  |
| Type of protection                                      | IP 20                                             |
| Insulation class                                        | "B"                                               |
| 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                                  |
| Operation mode                                          | S1                                                |
| Motor bearing                                           | Ball bearing                                      |
| Leakage current                                         | < 0.75 mA                                         |
| Electrical leads                                        | With plug                                         |
| Motor protection                                        | Thermal overload protector (TOP) wired internally |
| Protection class                                        | I (if earth wire is connected by customer)        |
| Product conforming to standard                          | EN 60335-1; CE                                    |
| Approval                                                | CCC; CSA C22.2 Nr.113; UL 507; VDE                |

## Product drawing

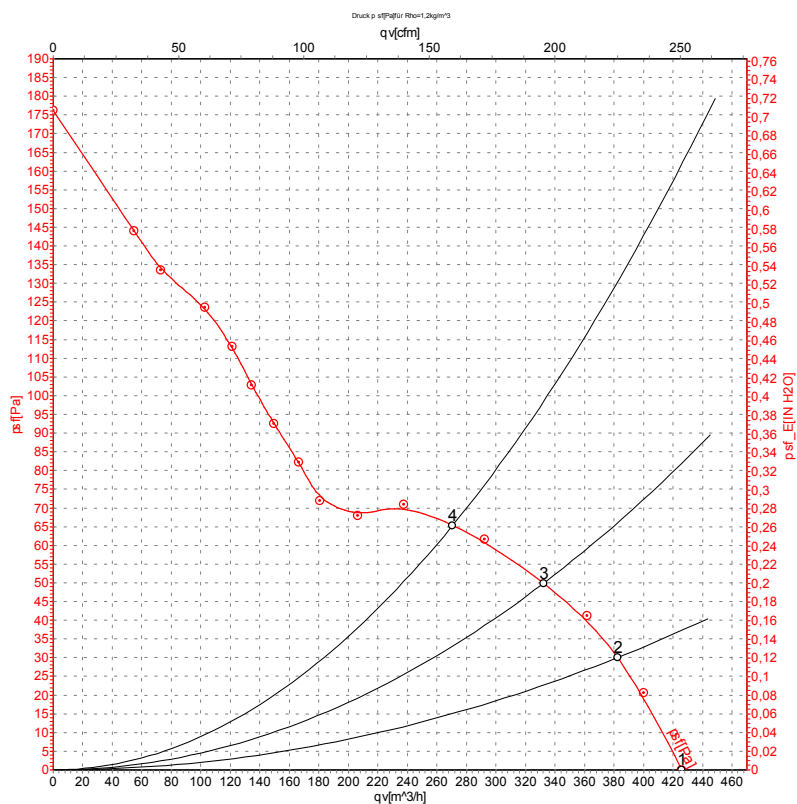


- |   |                             |
|---|-----------------------------|
| 1 | Direction of air flow "V"   |
| 2 | Blade terminal 2.8 x 0.5 mm |

## Connection screen



## Charts: Air flow 50 Hz



Measurement: LU-31564

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>sf</sub> |
|---|-----|----|-------------------|----------------|------|------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m³/h | Pa              |
| 1 | 115 | 50 | 2850              | 26             | 0.25 | 425  | 0               |
| 2 | 115 | 50 | 2790              | 27             | 0.25 | 380  | 30              |
| 3 | 115 | 50 | 2775              | 27             | 0.26 | 330  | 50              |
| 4 | 115 | 50 | 2765              | 28             | 0.26 | 270  | 65              |

The graph displays the relationship between specific volume  $q_v$  and both pressure  $p$  and specific enthalpy  $psf$  for water vapor at a constant density  $Rho = 1.2 \text{ kg/m}^3$ . The x-axis represents specific volume  $q_v$  in  $\text{m}^3/\text{kg}$ , ranging from 0 to 550. The left y-axis represents pressure  $p$  in Pa, ranging from 0 to 220. The right y-axis represents specific enthalpy  $psf$  in  $\text{kJ}/(\text{kg H}_2\text{O})$ , ranging from 0 to 0.85. A red curve with open circle markers shows the pressure  $p$  as a function of  $q_v$ . Four points are marked on this curve: 1 (at  $q_v \approx 470$ ), 2 (at  $q_v \approx 450$ ), 3 (at  $q_v \approx 410$ ), and 4 (at  $q_v \approx 300$ ). Three black lines originate from the origin (0,0) and represent different states or processes, with the steepest line passing through point 4.

| Point | $q_v$ [ $\text{m}^3/\text{kg}$ ] | $p$ [Pa] | $psf$ [ $\text{kJ}/(\text{kg H}_2\text{O})$ ] |
|-------|----------------------------------|----------|-----------------------------------------------|
| 1     | ~470                             | ~10      | ~0.02                                         |
| 2     | ~450                             | ~30      | ~0.05                                         |
| 3     | ~410                             | ~60      | ~0.10                                         |
| 4     | ~300                             | ~90      | ~0.35                                         |

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: 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.

|   | U   | f  | n                 | P <sub>e</sub> | I    | qv                | p <sub>sf</sub> |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m <sup>3</sup> /h | Pa              |
| 1 | 115 | 60 | 3300              | 29             | 0.26 | 500               | 0               |
| 2 | 115 | 60 | 3230              | 32             | 0.27 | 460               | 30              |
| 3 | 115 | 60 | 3200              | 33             | 0.28 | 410               | 60              |
| 4 | 115 | 60 | 3165              | 34             | 0.29 | 310               | 90              |