

Model:YWF(K)2E146-GQ01A-LSR

Fan type:AC Blower with Scroll housing



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## Fan Introduction

This product consist of outer rotor(AC)motor, forward curved centrifugal impeller and volute, with features of compact structure, small volume, convenient installation etc..

## Scope of application

General purpose fan, can be widely used in purification of air conditioning systems, ventilation duct dust, environmental protection, refrigeration equipment and other fields.

## Environmental requirements

- Operating ambient temperature range:-25℃~+50℃
- Working environment humidity range:≤90%
- Transportation and storage temperature range:-40℃~+80℃
- Transportation and storage environment humidity range:≤80%
- The storage place is well ventilated, corrosive gases not contained.

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## Design, manufacturing, testing standards and certification

- JB-T10563 Technical specification for general purposes centrifugal fans
- GB/T 14711 General safety requirements for Medium and small rotary motor
- GB/T 755/IEC60034-1 rotary motor quota and performance
- GB 4706.32-2012/IEC 60335-2-40:2005 Household and similar electrical appliances - Safety - Part 2-40: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers
- The level of balance is in accordance with ISO 1940, G6.3
- Vibration testing and velocity is performed according to JB/T8689.
- This product is certified by China CCC and EU CE
- ISO 9001 quality system certification

## Technical features

|                   |                                                              |
|-------------------|--------------------------------------------------------------|
| Mass              | 6 kg                                                         |
| Size              | φ146 mm                                                      |
| Impeller material | Galvanised sheet steel                                       |
| Rotation          | Clockwise(Seen from cable exit)                              |
| Protection class  | IP54                                                         |
| Insulation class  | F                                                            |
| Mounting          | Shaft horizontal or rotor on bottom; rotor on top on request |
| Mode of operation | S1(Continuous operation)                                     |
| Bearings          | Maintenance-free ball bearings                               |
| Thermal protector | Can be built in or out of line according to requirements     |

## Structures

|               |                          |
|---------------|--------------------------|
| Inlet type    | Dual Inlet               |
| Impeller type | Forward curved impeller  |
| Housing       | Volute; With inlet ring; |

## Technical parameters

|             |             |
|-------------|-------------|
| Supply      | 1P,220~240V |
| Frequency   | 50 Hz       |
| Motor poles | 2           |

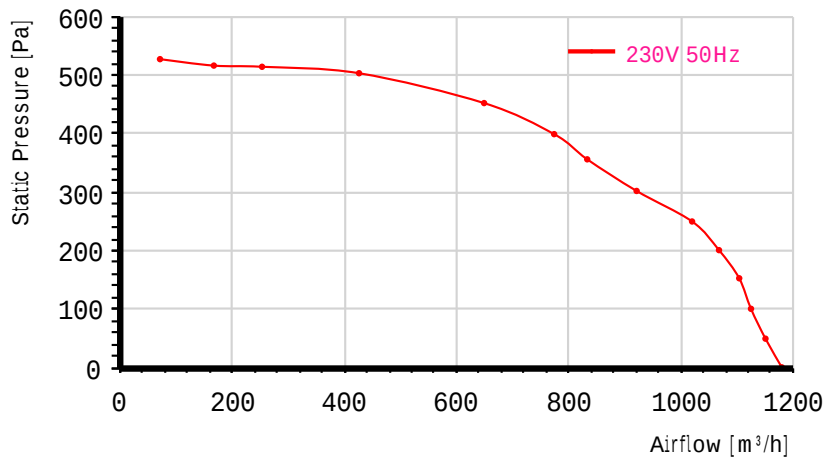
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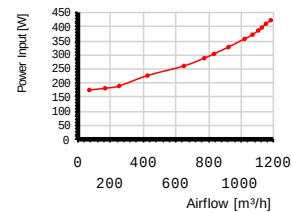
|               |                                           |
|---------------|-------------------------------------------|
| Rated voltage | 230 VAC                                   |
| Power input   | 300 W                                     |
| Rated current | 1.37 A                                    |
| Rated speed   | 2500 r/min                                |
| Max airflow   | 1200 m³/h (Static pressure=0Pa)           |
| Acoustic      | 76 dB(A) measured at 1.0m from inlet side |

## Performance curve

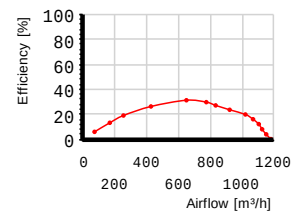
Airflow curve



Power input curve



Efficiency on total pressure



## Performance test with reference to GB/T 1236-2017, equivalent to ISO 5801

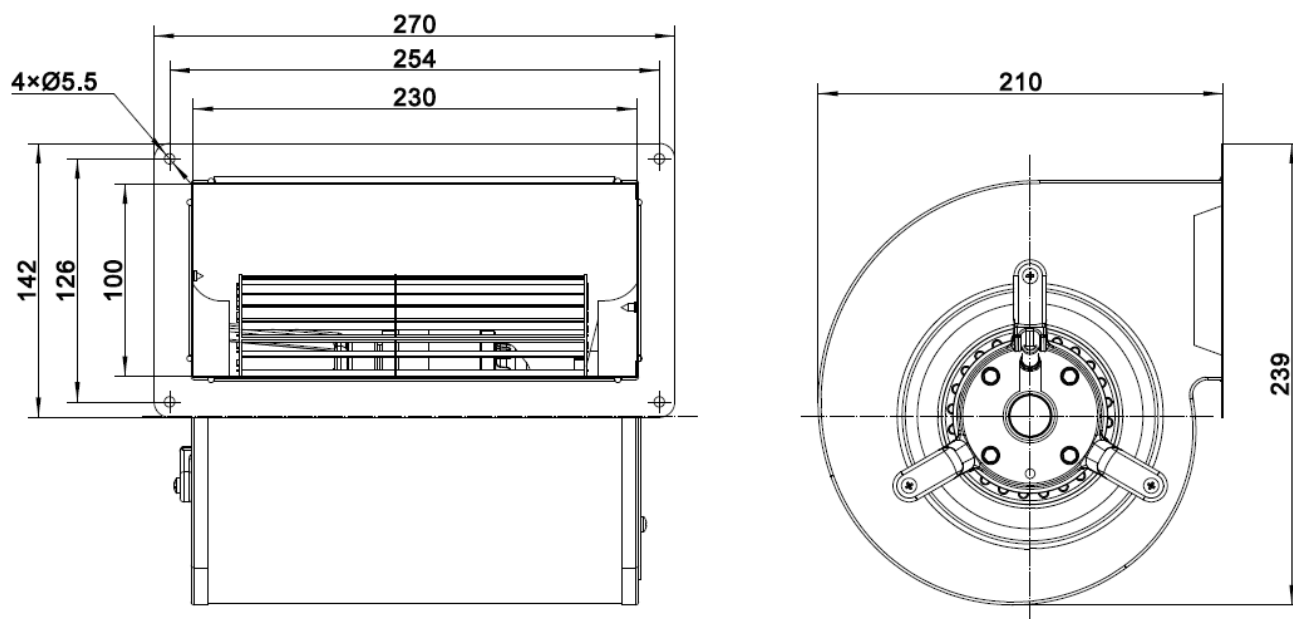
|                  |           |             |             |             |         |                 |                  |                |                     |              |  |
|------------------|-----------|-------------|-------------|-------------|---------|-----------------|------------------|----------------|---------------------|--------------|--|
| TestID           |           |             | 2016052502  |             |         | Capacitor       |                  |                | 10 uF               |              |  |
| Test environment |           |             |             |             |         |                 |                  |                |                     |              |  |
| Outlet size      |           | Outlet area |             | Temperature |         | Humidity        |                  | Baropressure   |                     | Density      |  |
| 162mm            |           | 0.0206m²    |             | 26℃         |         | 74%             |                  | 101.5kPa       |                     | 1.2kg/m³     |  |
| Test data        |           |             |             |             |         |                 |                  |                |                     |              |  |
| Voltage          | Frequency | Speed       | Power input | Current     | Airflow | Static pressure | Dynamic pressure | Total pressure | Pressure Difference | Nozzle Size  |  |
| V                | Hz        | r/min       | W           | A           | m³/h    | Pa              | Pa               | Pa             | Pa                  | mm           |  |
| 231.5            | 50        | 2836        | 176         | 0.93        | 71      | 527             | 0                | 528            | 486                 | 30           |  |
| 231.2            | 50        | 2825        | 182         | 0.95        | 167     | 516             | 3                | 519            | 348                 | 30+40        |  |
| 231.4            | 50        | 2809        | 190         | 0.98        | 253     | 514             | 7                | 520            | 200                 | 30+40+50     |  |
| 231.5            | 50        | 2725        | 227         | 1.1         | 426     | 503             | 19               | 522            | 258                 | 30+40+70     |  |
| 230.1            | 50        | 1613        | 261         | 1.22        | 649     | 452             | 45               | 497            | 333                 | 30+40+50+70  |  |
| 231.7            | 50        | 2538        | 289         | 1.31        | 774     | 399             | 64               | 462            | 472                 | 30+40+50+70  |  |
| 230.9            | 50        | 2469        | 304         | 1.37        | 833     | 356             | 74               | 430            | 238                 | 30+40+50+100 |  |
| 232.2            | 50        | 2374        | 328         | 1.44        | 921     | 302             | 90               | 392            | 290                 | 30+40+50+100 |  |

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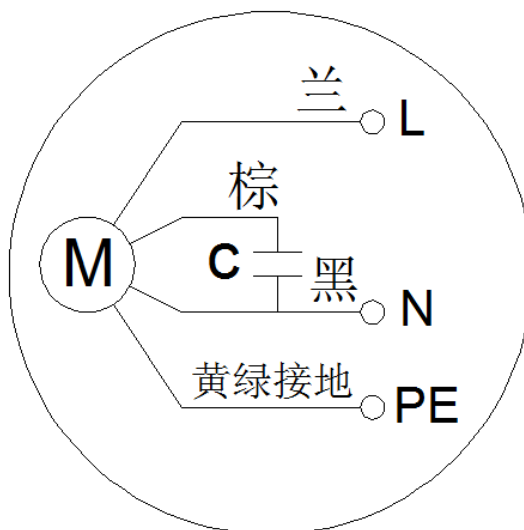
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|       |    |      |     |      |      |     |     |     |     |                 |
|-------|----|------|-----|------|------|-----|-----|-----|-----|-----------------|
| 231.8 | 50 | 2196 | 357 | 1.56 | 1020 | 250 | 111 | 361 | 203 | 30+40+50+70+100 |
| 232.2 | 50 | 2098 | 372 | 1.61 | 1068 | 201 | 121 | 322 | 223 | 30+40+50+70+100 |
| 232.1 | 50 | 1990 | 387 | 1.67 | 1104 | 153 | 130 | 282 | 238 | 30+40+50+70+100 |
| 230.6 | 50 | 1855 | 397 | 1.72 | 1125 | 101 | 135 | 236 | 247 | 30+40+50+70+100 |
| 230.9 | 50 | 1729 | 411 | 1.78 | 1151 | 50  | 141 | 191 | 258 | 30+40+50+70+100 |
| 230.8 | 50 | 1582 | 423 | 1.84 | 1180 | 1   | 148 | 149 | 271 | 30+40+50+70+100 |

## Dimensions(in mm)



## Wiring diagram



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## Attentions

- ★Please check the appearance and the accessories if there is no damage before use, check the model is consistent with requirements;
- ★Keep reliable grounding according to the wiring diagram. to avoid motor burning and personal accident, please check wiring is loose or fall off;
- ★Before connect the power supply, check whether the motor is reliable, otherwise it will cause motor damage and personal injury;
- ★It is forbidden to pull the power cable, if the power cable is damaged, to be repaired before use, to avoid the accident of electric shock;
- ★Drop or impact motor is forbidden;
- ★Washing motor with water is prohibited, it will reduce the motor insulation level, even lead to electric leakage even endanger personal safety;
- ★Special customized product is designed for specified requirements, please consult with our engineers before change useage;
- ★The temperature of the motor shell may be higher in a short time after the fan stopped, Please avoid direct contact with the motor surface. If necessary, please take protective measures to prevent scald;
- ★Do not contact the impeller when the fan running, you need to wait for all the parts stopped before operate it;
- ★When the fan is installed, check and ensure thers is no debris in the shell and other shell body, keep the fan clean;
- ★After the fan installation complete, before connected to supply, please confirm that there is no collision or interference or stuck.

## Product life and maintenance, warranty

- The design life of this product is 40,000 hours. This data is derived from the expected life of L10 for general ball bearings at 40℃ is 40,000 hours. The actual service life of the product is affected by the use environment (temperature, humidity, installation, bearing load, etc.).

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- According to the use of the environment, please make a clean maintenance every 3~6 months.
- From the date of purchase (order delivery date), The warranty period is one year. During this period, for failure due to the quality of the product itself, we provide free replacement or repairing. If the damage caused by improper disassembly, transportation, artificial damage or natural disasters, etc., is not in the scope of this warranty;