

Model:YWF(K)4D250-GQ

Fan type:AC Forward curved centrifugal fan



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Fan Introduction

This product consist of outer rotor(AC)motor, forward curved centrifugal impeller, with features of compact structure, small volume, light weight, 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℃~+70℃
- 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/T 10563 Technical specification for general purposes centrifugal fans
- GB/T 14711 Safety requirements of small and medium size rotating electrical machines
- GB/T 755/IEC60034-1 Rotating electrical machines - Part 1: Rating 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
- Balance quality grade for rotor is G6.3, in accordance with ISO 1940-1,
- Vibration testing and velocity is performed according to JB/T 8689.
- This product is certified by China CCC and EU CE
- ISO 9001 quality system certification

Technical features

Mass	10.7 kg
Size	φ250 mm
Impeller material	Galvanised sheet steel
Rotation	Counter-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	Single Inlet
Impeller type	Forward curved impeller
Housing	Without housing; With inlet ring;

Technical parameters

Supply	3P
Frequency	50 Hz
Motor poles	4

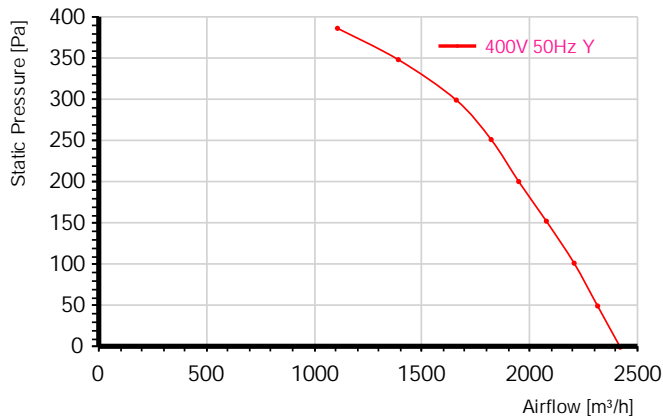
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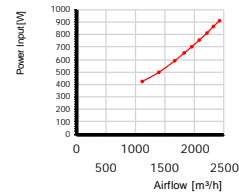
Rated voltage	230/400 VAC
Power input	870 W
Rated current	3.1/1.8 A
Rated speed	1400 r/min
Max airflow	2320 m³/h (Static pressure=50Pa)
Acoustic	84 dB(A) measured at 1.0m from inlet side

Performance curve

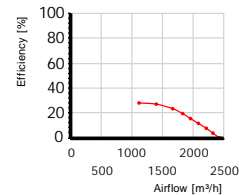
Airflow curve



Power input curve



Efficiency on total pressure



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

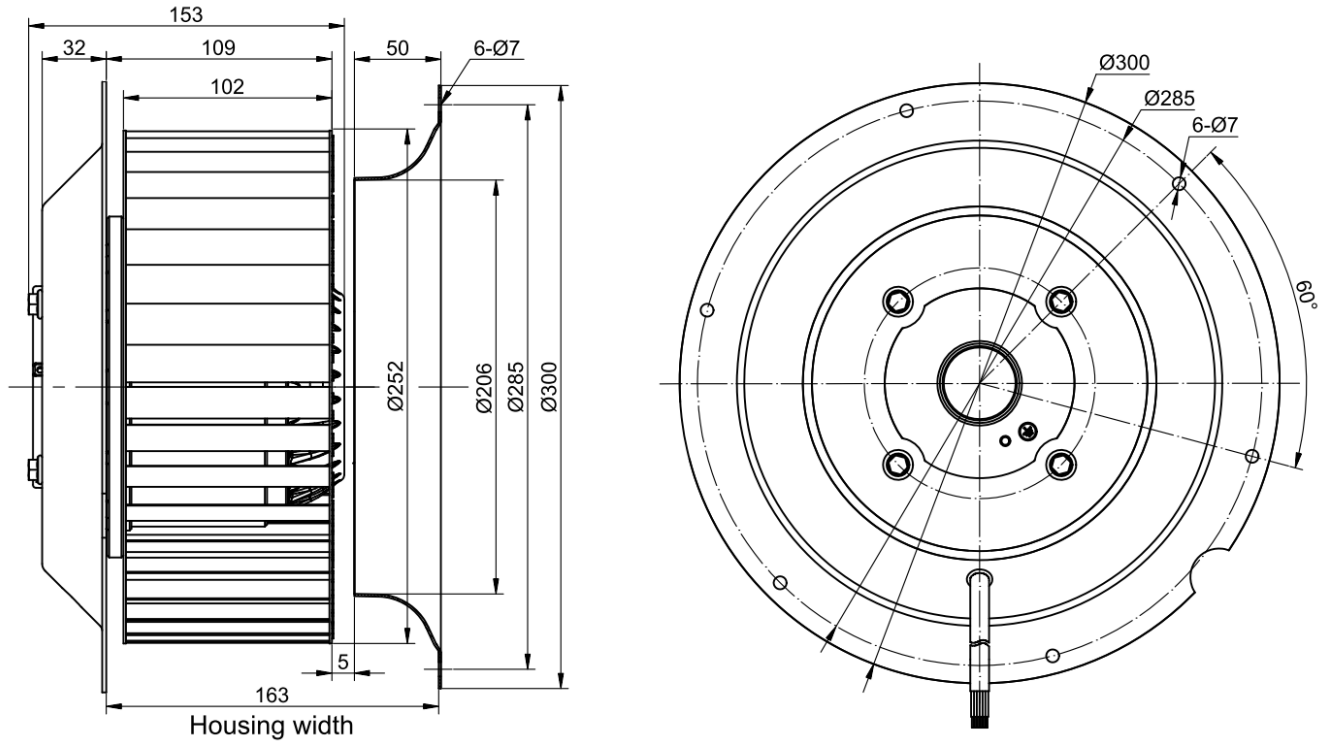
TestID			2012081701			Connection			Y	
Test environment										
Outlet size		Outlet area		Temperature		Humidity		Baropressure		Density
250mm		0.0491㎡		32℃		77%		101.3kPa		1.2kg/m³
Test data										
Voltage	Frequency	Speed	Power input	Current	Airflow	Static pressure	Dynamic pressure	Total pressure	Pressure Difference	Nozzle Size
V	Hz	r/min	W	A	m³/h	Pa	Pa	Pa	Pa	mm
398.7	50	1017	425	1.23	1108	387	22	410	183	150+189*0
398.9	50	1430	498	1.28	1390	349	35	384	287	150+189*0
400.9	50	1414	591	1.36	1659	300	50	350	408	150+189*0
400.6	50	1402	654	1.42	1821	252	61	312	491	150+189*0
402.2	50	1395	704	1.47	1949	201	69	271	224	+189*1
401.9	50	1382	758	1.53	2077	153	79	231	254	+189*1

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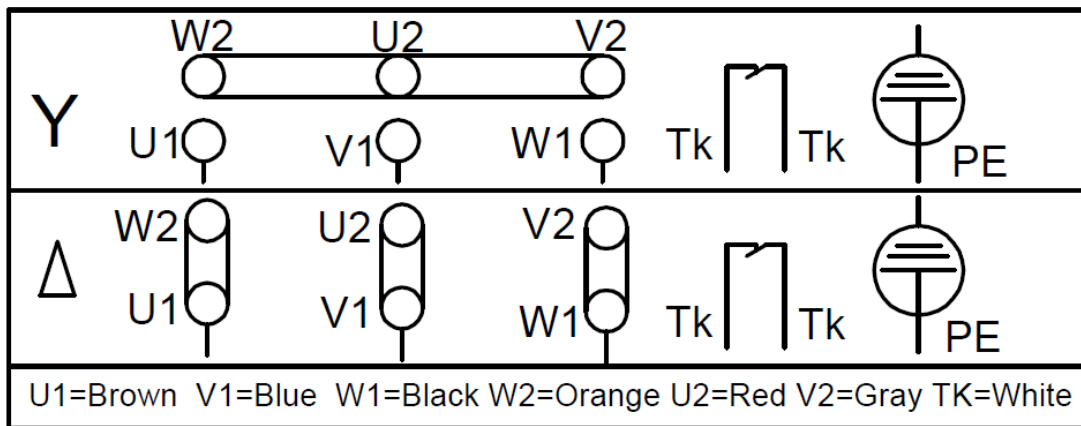
399.7	50	1371	814	1.59	2206	102	89	191	286	+189*1
400.7	50	1363	867	1.65	2315	50	98	148	315	+189*1
401.9	50	1353	913	1.71	2420	0	107	107	344	+189*1

Dimensions(in mm)



Wiring diagram

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;
- ▣For AC fans powered by three-phase supply, please confirm the power connection phase sequence before use to ensure that the motor rotation direction is consistent with the marked rotation direction (the motor rotation direction can be changed by reversing any two-phase phase sequence of the power supply);
- ▣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.

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Service life, maintenance, warranty and Disclaimer

- 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.).
- 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;
- All AC fans should be used according to the specified voltage range and power frequency. It is not recommended to use frequency converters and voltage regulators as speed control devices. If necessary, you need to make technical confirmation with our sales before placing an order. The use of unconfirmed speed control devices leads to the reduction of product life, abnormal noise, operating failures, etc., which are not covered by this warranty;