

Model:YWF(K)4D280-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℃~+60℃
- 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	16 kg
Size	φ280 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,200~240/380~440V △/Y
Frequency	50 Hz

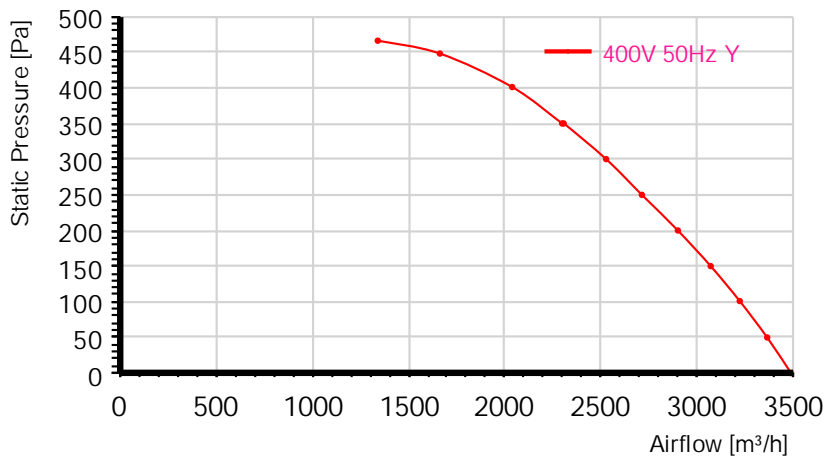
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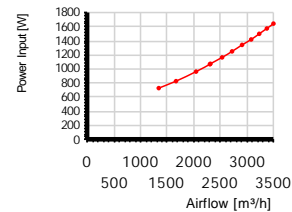
Motor poles	4
Rated voltage	230/400 VAC
Power input	1700 W
Rated current	5.4/3.2 A
Rated speed	1360 r/min
Max airflow	3500 m <sup>3</sup> /h (Static pressure=0Pa)
Acoustic	85 dB(A) measured at 1.0m from inlet side

## Performance curve

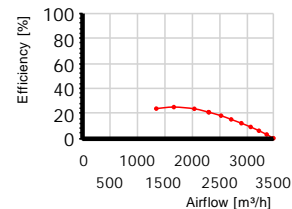
Airflow curve



Power input curve



Efficiency on total pressure



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

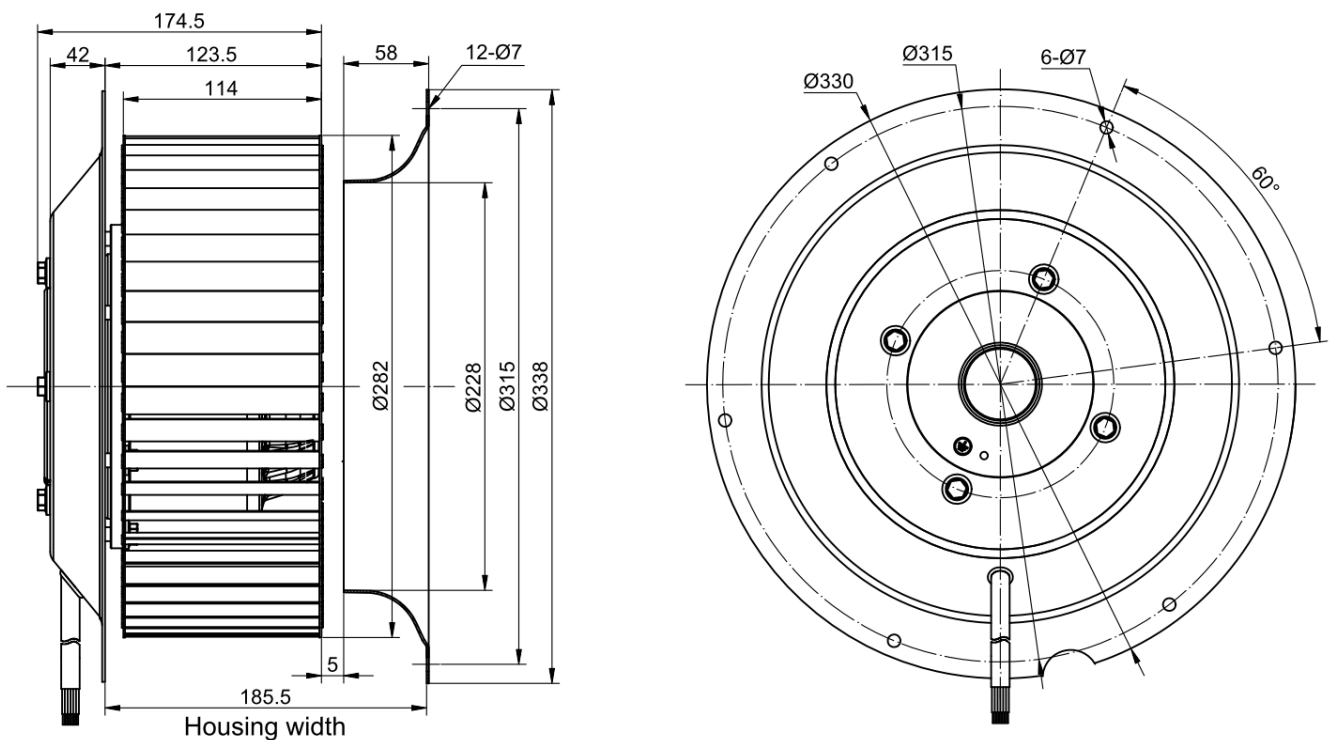
TestID	2012091105			Connection	Y					
Test environment										
Outlet size	Outlet area	Temperature	Humidity	Baropressure	Density					
280mm	0.0616m <sup>2</sup>	29℃	72%	101.5kPa	1.2kg/m <sup>3</sup>					
Test data										
Voltage	Frequency	Speed	Power input	Current	Airflow	Static pressure	Dynamic pressure	Total pressure	Pressure Differenc	Nozzle Size
V	Hz	r/min	W	A	m <sup>3</sup> /h	Pa	Pa	Pa	Pa	mm
401.3	50	1453	731	2.13	1340	466	21	487	270	150+189*0
400.3	50	1443	829	2.18	1663	448	33	481	414	150+189*0
399.9	50	1431	964	2.29	2039	401	49	450	247	+189*1
399.6	50	1421	1069	2.37	2299	350	62	412	313	+189*1
401.9	50	1421	1076	2.38	2307	350	63	413	315	+189*1
399.9	50	1413	1166	2.47	2528	300	75	375	378	+189*1

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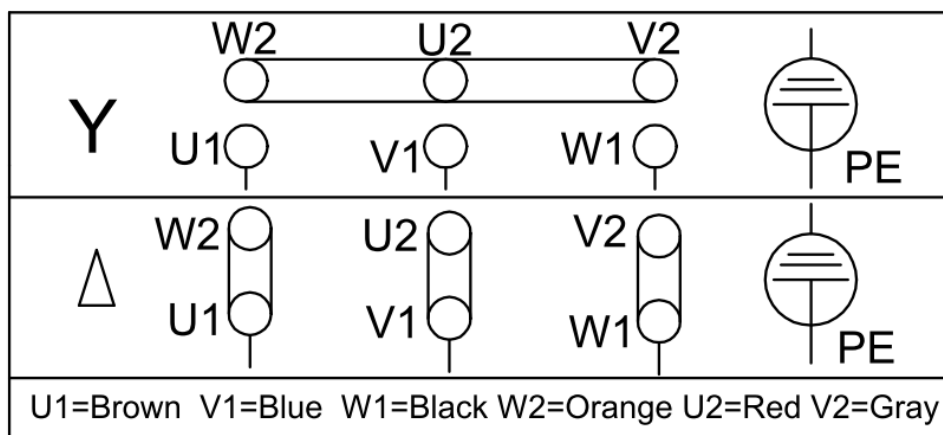
401.1	50	1404	1251	2.58	2714	250	87	337	436	+189*1
399.8	50	1395	1343	2.67	2901	200	99	299	497	+189*1
400.6	50	1387	1420	2.75	3072	150	111	261	212	150+189*1
400.7	50	1381	1501	2.85	3223	101	122	223	233	150+189*1
401	50	1373	1576	2.95	3366	50	133	183	254	150+189*1
400.7	50	1367	1645	3.07	3490	0	143	144	273	150+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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## 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°C 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;