

Model:YWF(K)2D280-GH01-LD

Fan type:AC Backward curved centrifugal fan



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## Fan Introduction

This product consist of outer rotor(AC)motor, backward curved centrifugal impeller, with features of compact structure, large airflow, high static pressure, low vibration, low noise, convenient installation, energy saving, high efficiency 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℃~+75℃
- 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	8 kg
Size	φ280 mm
Impeller material	Sheet aluminium
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	Backward curved impeller
Housing	Without housing; With inlet ring;

## Technical parameters

Supply	3P,380~440V
Frequency	50 Hz

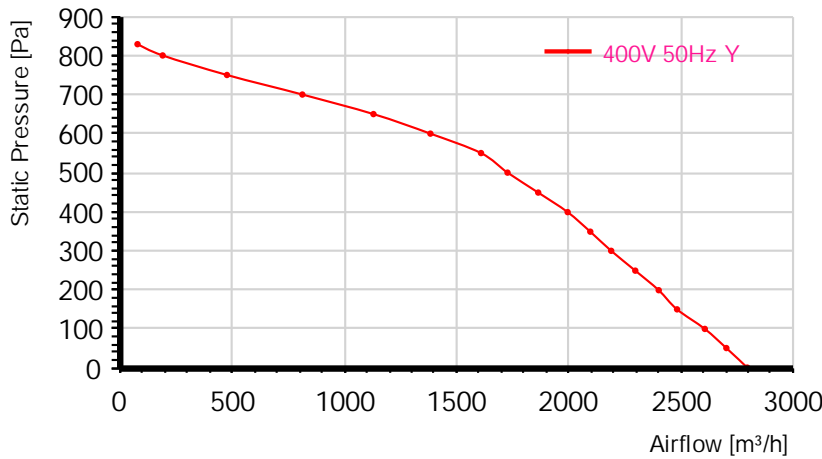
Model: YWF(K)2D280-GH01-LD

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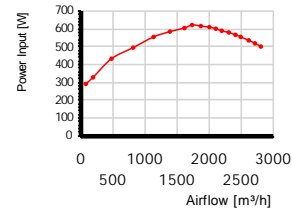
Motor poles	2
Rated voltage	400 VAC
Power input	620 W
Rated current	1.1 A
Rated speed	2750 r/min
Max airflow	2800 m <sup>3</sup> /h (Static pressure=0Pa)
Acoustic	82 dB(A) measured at 1.0m from inlet side

## Performance curve

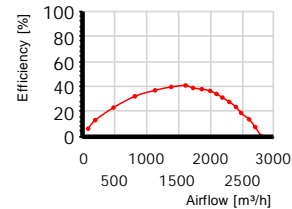
Airflow curve



Power input curve



Efficiency on static pressure



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

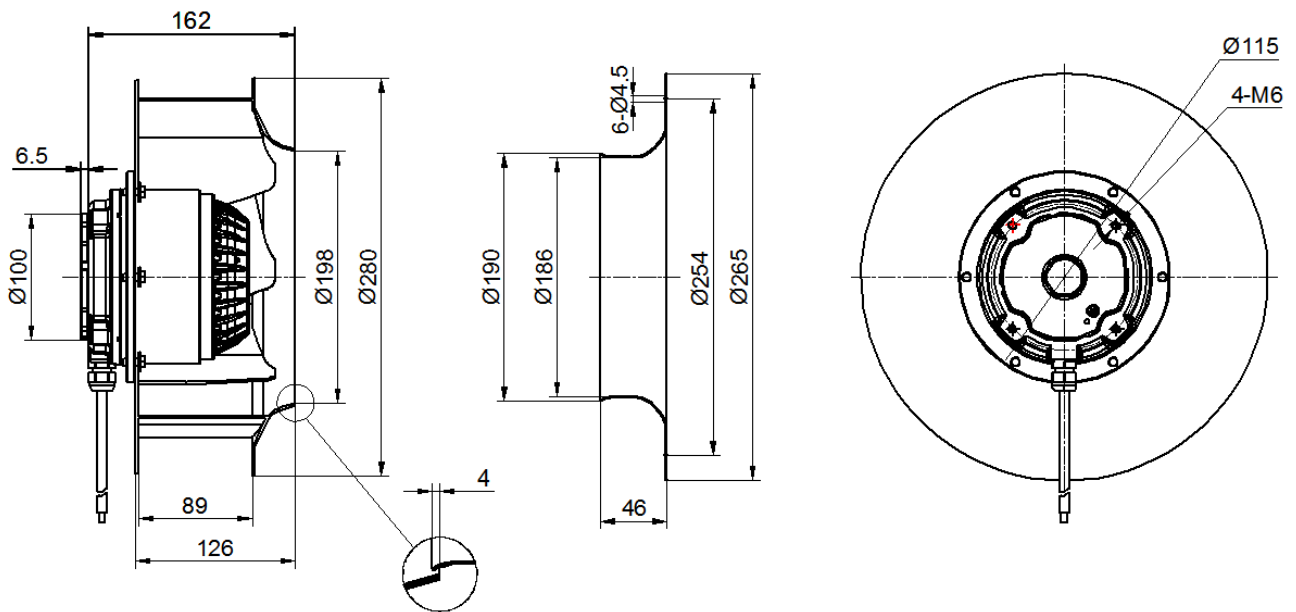
TestID	2017040204		Connection	Y						
Test environment										
Outlet size	Outlet area	Temperature	Humidity	Baropressure	Density					
317.4mm	0.0791m <sup>2</sup>	18°C	63%	101.9kPa	1.2kg/m <sup>3</sup>					
Test data										
Voltage	Frequency	Speed	Power input	Current	Airflow	Static pressure	Dynamic pressure	Total pressure	Pressure Differenc	Nozzle Size
V	Hz	r/min	W	A	m <sup>3</sup> /h	Pa	Pa	Pa	Pa	mm
401.4	50	2796	291	0.68	77	829	0	829	595	30
399.2	50	2786	327	0.71	189	800	0	800	250	30+50
399.4	50	2756	432	0.83	476	750	2	752	330	30+40+70
401.8	50	2731	494	0.9	812	700	5	705	233	30+40+50+100
400.6	50	2690	554	0.98	1129	650	10	660	256	30+40+50+70+100
400	50	2669	584	1.02	1383	600	14	614	383	30+40+50+70+100

Model: YWF(K)2D280-GH01-LD

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400.7	50	2658	604	1.05	1609	550	19	569	516	30+40+50+70+100
398.3	50	2630	621	1.07	1727	500	22	523	461	150+189*0
400.8	50	2640	615	1.06	1864	449	26	475	537	150+189*0
401.2	50	2650	609	1.05	1995	399	30	429	244	+189*1
401.8	50	2660	600	1.04	2096	349	33	382	270	+189*1
397.3	50	2667	588	1.03	2189	300	36	336	294	+189*1
400	50	2675	579	1.01	2297	249	40	289	324	+189*1
399.6	50	2682	566	1	2401	199	43	242	353	+189*1
400	50	2690	554	0.98	2483	150	46	196	378	+189*1
400	50	2700	535	0.96	2607	100	51	151	416	+189*1
401.8	50	2720	518	0.93	2703	51	55	105	447	+189*1
402.4	50	2740	500	0.91	2796	1	58	59	478	+189*1

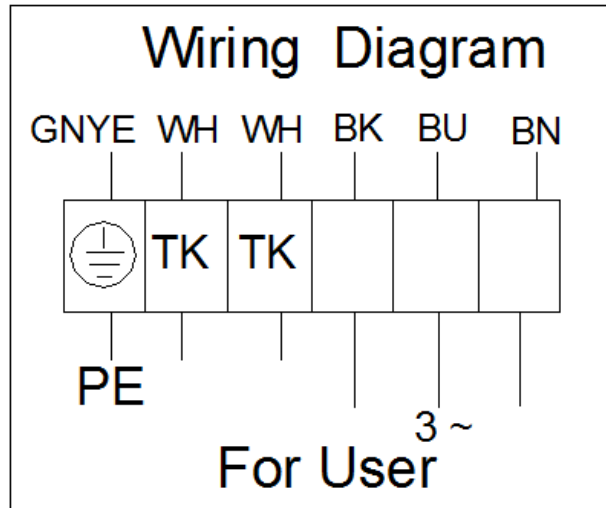
## Dimensions(in mm)



Model:YWF(K)2D280-GH01-LD

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## Wiring diagram



## 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 usage;

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- ★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 there 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.).
- 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;