

Delivery Premium Quality Fans Globally for Healthier Breathing

World's Largest Selection of Fan Products  
World's Most Comprehensive Fan Solutions



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## LONGWELL TECHNOLOGY

"Born for High-Quality Breathing  
LONGWELL Fans Power Your Equipments"



Professional Manufacturer  
of HVACR Fan & Motors

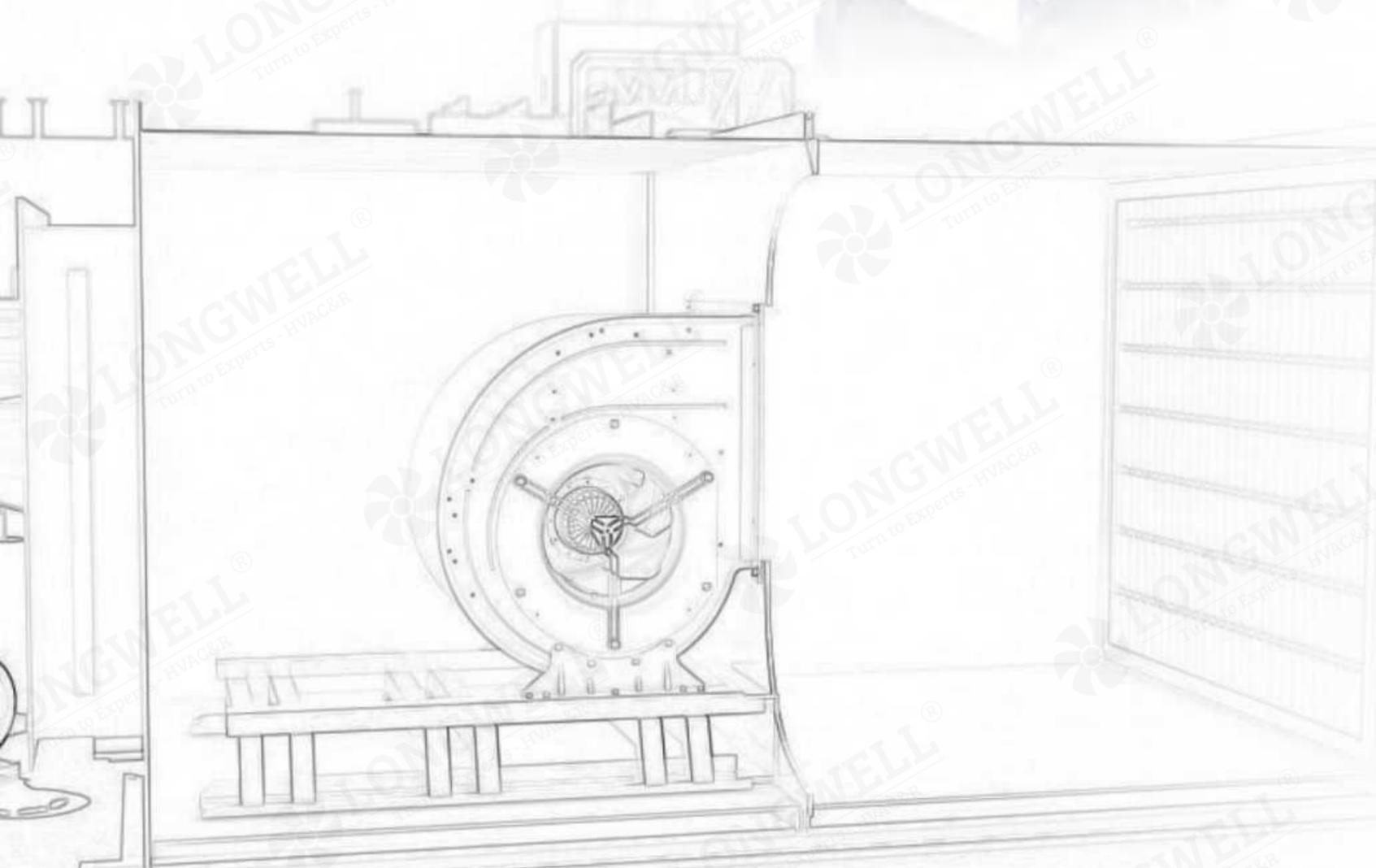
Commercial Fan & Blowers

Longwell Group

Longwell-China  
Longwell-USA  
Longwell-Russia  
Longwell-Europe

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# About Longwell

Born for High-Quality Breathing, LONGWELL Fans Power Your Equipment

- OEM for Well-Known Brands
- Supplies Fortune 500 Companies
- Global Technical Support

LONGWELL is a leading fan manufacturer, specializing in high-quality fans, blowers, motors, and components for heating, ventilation, air conditioning, and refrigeration applications. We have a strong presence in delivery capabilities, design and R&D capabilities, as well as manufacturing, placing us at the forefront of the industry.

Our product range includes EC/DC/AC centrifugal fans, axial fans, AC/BLDC cross-flow fans, single/double forward curved fans, AC/BLDC/ECM motors, and industrial fan blowers. Since our establishment in 1990, we have continuously upgraded our facilities and production capacity, boasting advanced testing labs and production facilities with an annual capacity of millions of fans. With over 20 years of experience, we are highly skilled in the design, development, and manufacture of fans and motors. We export to over 30 countries and serve numerous Fortune 500 clients.

Our facilities and products are compliant with certifications such as ISO9001, ISO14001, BSCI, CE, UL/ETL, CCC, EMC, and LVD. These certifications demonstrate our compliance in quality management, environmental management, social responsibility, and product safety. We are quality-oriented and dedicated to providing products and services that meet international standards.

Equipped with advanced testing labs and production facilities, including a B&K noise lab, CFD simulation lab, air dynamics test chambers, automatic welding machines, CNC machining centers, and auto robot injection machines, we ensure efficient production and on-time delivery.

As industry leaders, we prioritize technological innovation and efficiency. We employ advanced technologies such as aerodynamics principles and CFD simulation to ensure precise and efficient fan designs. Additionally, we offer customized services to design and manufacture fan systems according to specific customer requirements. Our focus is on providing high-tech, high-efficiency products that meet our customers' needs and contribute to a better future.

At LONGWELL, innovation is at the core of our operations, driving continuous improvement. With our extensive experience and expertise, we can quickly customize solutions that meet customer needs. We emphasize technological sophistication, utilizing advanced technologies and high-performance materials to deliver products that are efficient, safe, and reliable. Our brand is widely recognized globally, and we are committed to promoting sustainable development and advancing the efficient fan industry.

LONGWELL looks forward to collaborating with you and providing high-quality customized fan and motor solutions. Please feel free to contact us as we work together to create a brighter future.

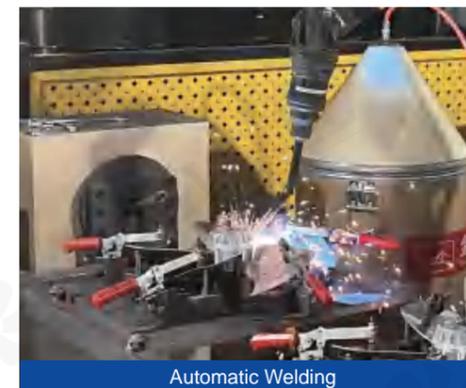
<b>193</b> Staff	<b>40000m<sup>2</sup></b> Floor Space	<b>500<sup>+</sup></b> Branding Clients	<b>1Million<sup>+</sup>PCS</b> Annual Outputs	<b>6</b> Overseas offices on spot support	<b>50<sup>+</sup></b> Members R&D Team
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B&K Noise Testing Lab



Production Line



Automatic Welding



Balance Machine



Automatic Welding Machine



Production Line - Centrifugal Fan



Automatic CNC machine



Air Dynamic Test Lab



Production Line - Axial Fans



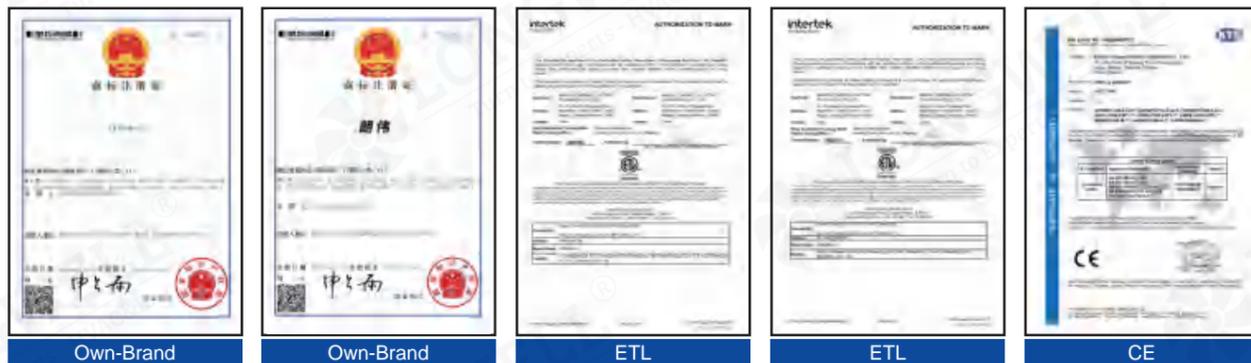
Production Line

# Testing and Standards

- ISO 9001:2015/GB/T 24001-2016 idt ISO 14001:2015/GB/T 45001-2020 idt ISO 45001:2018
- UL 507:2017 Ed.10+R:27/CSA C22.2#113:2018 Ed.11
- BSCI ANSI C63.4:2014/ANSI C63.4a-2017
- EN IEC 55014-1:2021/EN IEC 55014-2:2021/EN IEC 61000-3-2:2019 +A1:2021  
EN 61000-3-3:2013 +A1:2019 +A2:2021 +AC:2022-01  
EN 60335-2-80:2003 +A1:2004 +A2:2009;  
EN 60335-1:2012 +A11:2014 +A13:2017 +A1:2019+A14:2019 +A2:2019+A15:2021  
EN 62321-1:2013/EN 62321-2:2014/EN 62321-3-1:2014  
EN 62321-4:2014+A1:2017/EN 62321-5:2014/EN 62321-6:2015  
EN 62321-7-1:2015/EN 62321-7-2:2017/EN 62321-8:2017



Enterprise Credit Evaluation Certificate - Highest Level in China

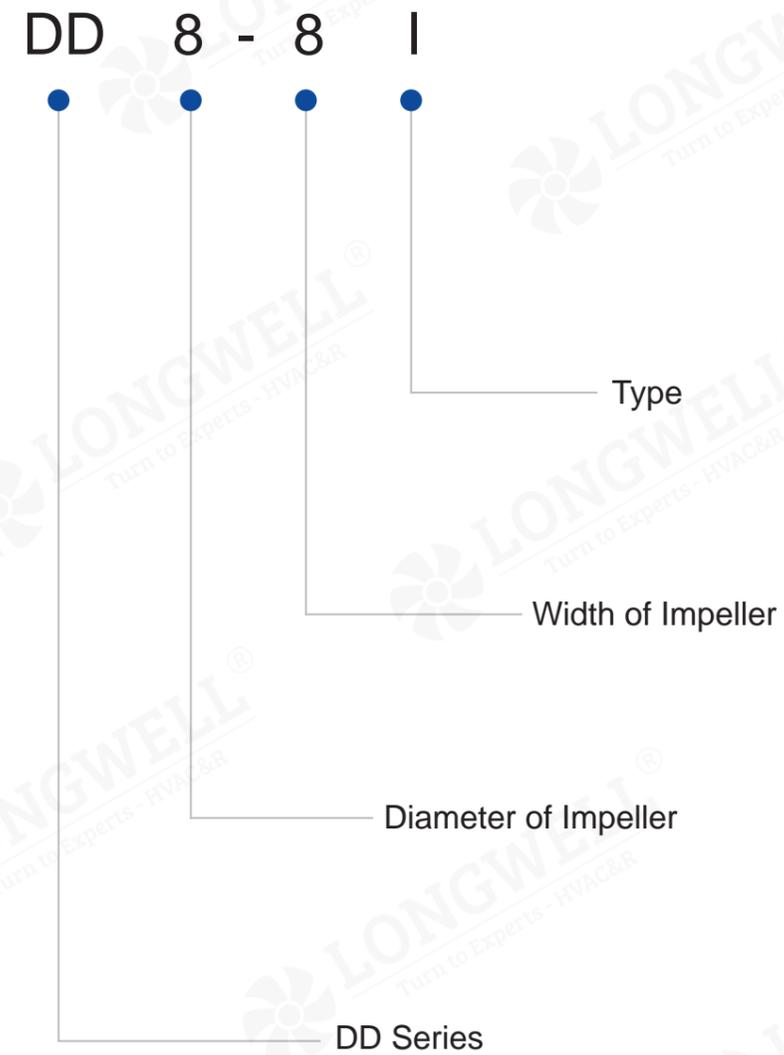


# DD Series Centrifugal Blower

Professional HVAC Fan & Motors Manufacturer



## Type Code



## DD Series Centrifugal Blower

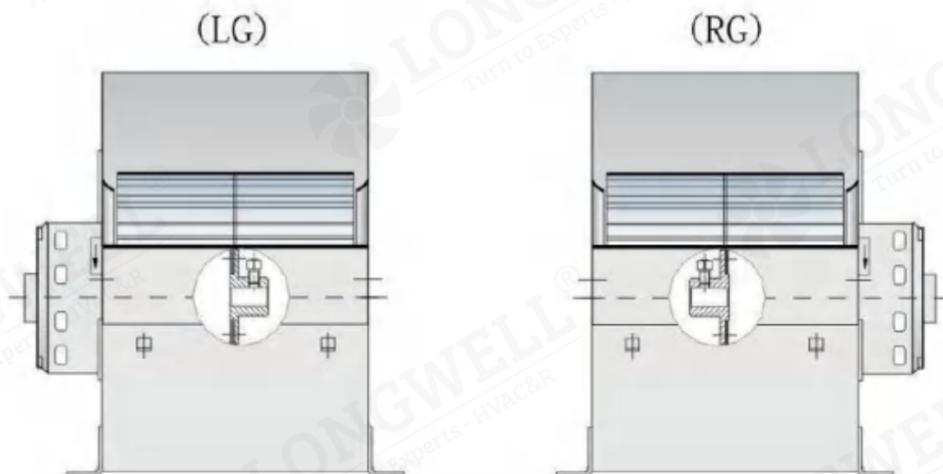
### 1. Outline

DD series centrifugal air-conditioning fans are based on AT series, which are newly developed and manufactured products with internationally advanced by this company. It was developed by using high technology and with low noise and compact structure. It was specially designed for the air-conditioning. The flow rate and total pressure range of this series fan are from 800m<sup>3</sup>/h to 5000m<sup>3</sup>/h. It is the ideal equipment for the changeable air conditioners, tube type units VAV system, heating and other kind of fan system.

### 2. Type of Product

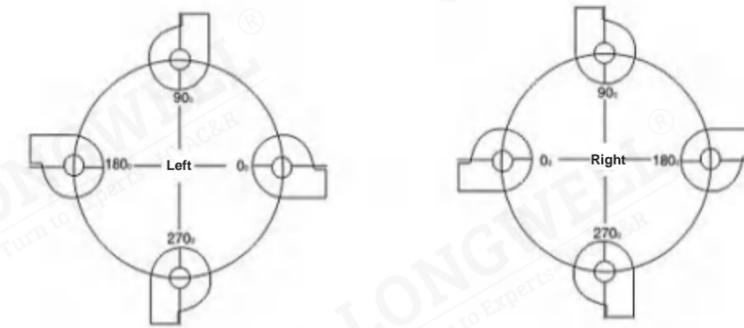
#### (1) Rotation Direction

The rotation direction of the fan can be divided into clockwise rotation (R) and counterclockwise rotation (L). Clockwise rotation (R): From the sleeve side, the Wheel rotation direction is the same as the clockwise direction of rotation. Counterclockwise rotation (L): From the sleeve side, the Wheel rotation direction is opposite to the clockwise direction of rotation.



#### (2) Discharge Direction

According to Fig 1, DD Series fans can be made in four air-outlet directions: 0°, 90°, 180°, 270°



(Fig 1)

### 3. Construction of Product

DD Series ventilators consists of housing, Wheel, baseplate and motor.

#### (1) Housing

The housing is made of hot galvanized steel sheet. The side plates include inlet cones that are designed with the best aerodynamics for inlet condition. The scroll is fixed to the side plates by spot welding. On the side of the housing there are a series of holes drilled in advance for riveting nuts to carry out installation according to air outlet direction needed by the customer.

#### (2) Wheel

Forward curved Wheel is constructed of high-grade hot galvanized steel sheet with the advanced aerodynamics profile to achieve the highest efficiency and the lowest noise level. The Wheel is fixed on the center plate and on the end ring with riveting grippes. The Wheel is constructed with maximum strength that endures the continuous operation with maximum power. All Wheels are balanced to the ANSI/AMCA 204 Notional Standard. company internal standard is G2.5 or higher for wheel balancing.

#### (3) Frame

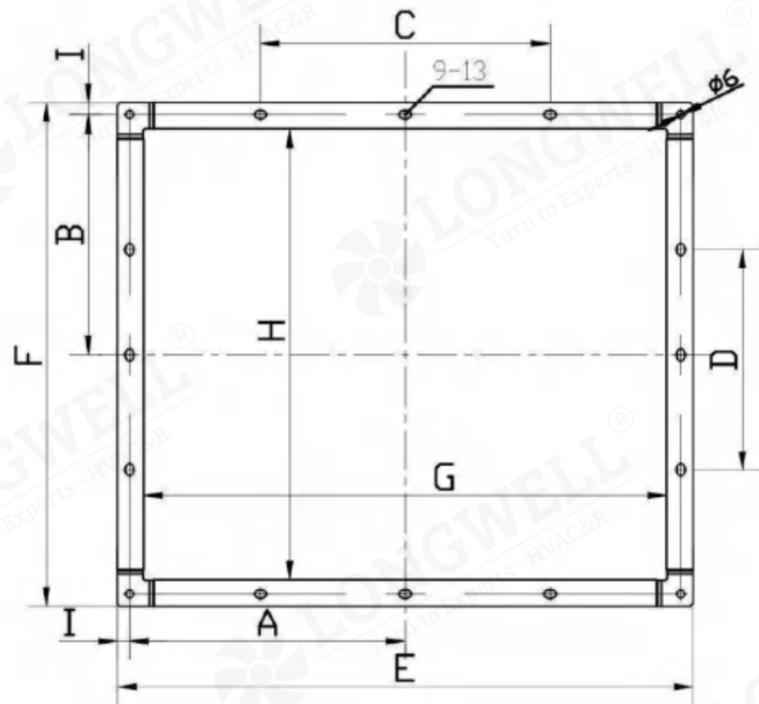
DD series fan baseplates are made of high-quality galvanized steel sheet, which can be assembled with the direction by the customer demand.

#### (4) Motor

DD series fans are equipped with single-phase 220V/50Hz three speeds motors, which are flexible to change speed and easy to install, Speed can be changed by using provided silicon controlled voltage regulator and frequency converter.

## (5) Flange

The flange is made of galvanized steel. The connections of the flange components to the scroll are made using a TOX non-welding process. This maintains a good flange appearance while also providing sufficient strength and rigidity. The dimensions and type of flange are shown in Fig 2.



Note:the size in mm

Type	DD7-7I	DD8-8I	DD9-7I	DD9-9I	DD10-8I	DD10-10I	DD10-10II	DD12-9I	DD12-12I
A	128.5	153.5	126	159	147.5	180.5	182	169.5	212.5
B	124	138	141	141	159.5	159.5	158.5	185.5	185.5
C	/	/	/	/	/	/	/	123	148
D	/	/	/	/	/	/	/	138	138
E	277	327	272	338	321	387	390	365	451
F	268	296	302	302	345	345	343	397	397
G	237	287	232	298	265	331	334	309	395
H	228	256	262	262	289	289	287	341	341
I	10	10	10	10	13	13	13	13	13

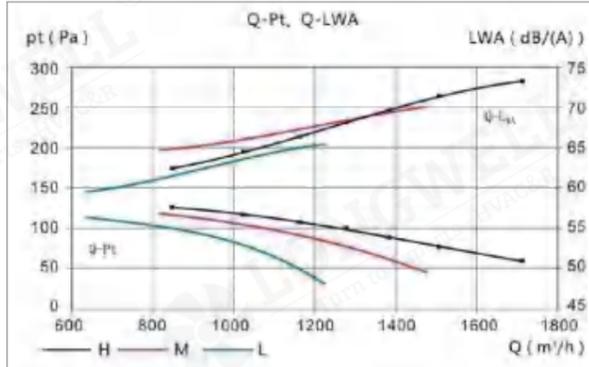
(Fig 2)

## 5. Instructions

- (1) The rated motor power as calculated herein might not be sufficient to drive the fan with an unrestricted discharge flow. Operating the fan with an unrestricted discharge outlet will result in flow rate that exceeds the specified fan capabilities. Such operation will quickly burn the motor and damage the fan. Great care must be taken in operating the fan to make sure that the maximum rated flows, as provided on the performance charts in this catalog, are not exceeded.
- (2) The fan performance in the catalog is tested under the motor rated speed, we can meet the actual requirement of the user by changing the motor speed.
- (3) Special care should be taken during transportation, load and unload.
- (4) The fan is limited for use in areas where air substances are non-corrosive, non-toxics and non-erosive.
- (5) Following the installation, the Wheel should be turned by hand or with the use of a wrench to make sure that it turns freely without colliding with other parts of the fan. Once all this is done, the fan can be commissioned normally.
- (6) A flexible connector should be used between the fan out let flange and its mating ductwork. The flex connector should not be over-stretched.
- (7) The inside of the scroll and casing need to be checked to make sure that there are no foreign objects inside the housing, such as tools or loose parts.
- (8) The rotational directions of the motor and should be checked to ensure that they are in compliance with the specification and purchase orders.
- (9) During ordering it is necessary to state the type of fan, motor type, air flow, air pressure and other parameters.

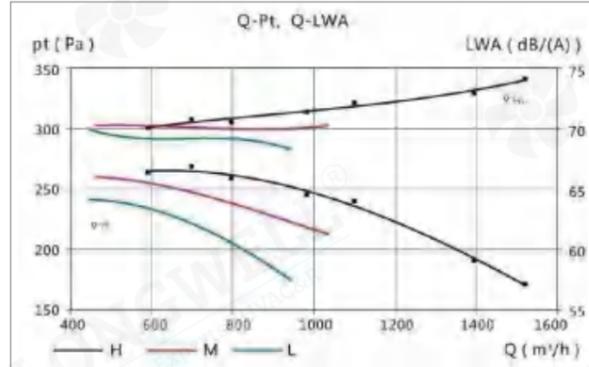
## DD7-7I Series

### Technical Specifications



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD7-7I 90W-6P	220	50	1.1	8.17	IP20

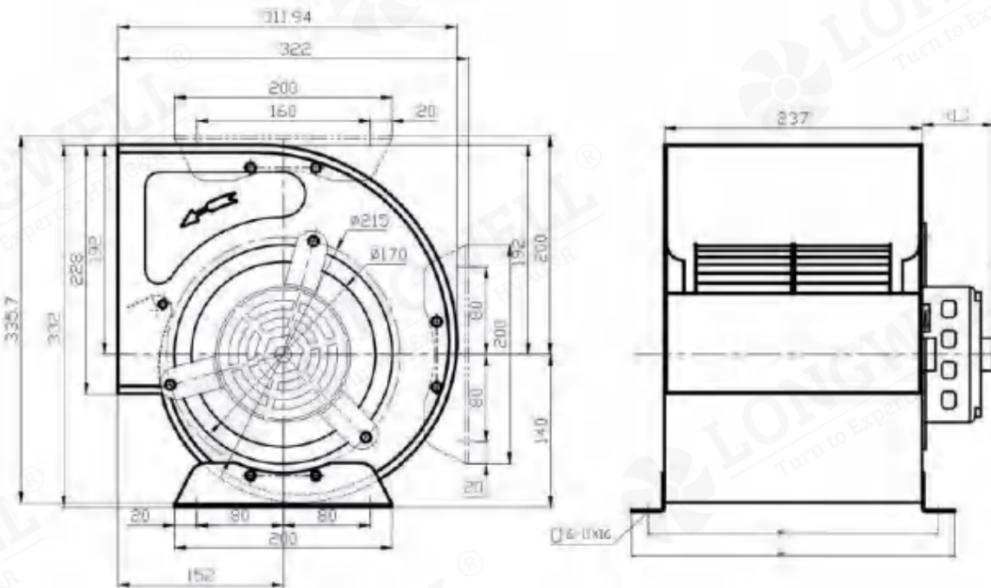
1/1 Octave (H)							
63 Hz	40.9	41.0	42.4	43.8	45.3	45.8	46.4
125 Hz	47.1	47.2	48.6	50.0	51.5	52.0	52.6
250 Hz	53.3	53.9	55.1	56.4	57.7	60.3	62.1
500 Hz	54.3	56.5	58.5	59.7	61.4	62.7	64.0
1K Hz	58.1	60.4	62.3	64.0	65.5	66.6	68.5
2K Hz	55.0	57.2	58.8	60.3	61.7	63.3	65.5
4K Hz	52.5	55.9	58.2	60.6	62.2	64.2	66.3
8K Hz	45.7	47.7	49.6	52.2	54.1	61.3	62.8
LwA dB(A)	62.4	64.5	66.3	68.1	69.6	71.4	73.2



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD7-7I 150W-4P	220	50	1.6	9.1	IP20

1/1 Octave (H)							
63 Hz	49.2	50.1	48.7	47.9	47.7	48.1	49.0
125 Hz	55.4	56.3	54.9	54.1	53.9	54.3	55.2
250 Hz	62.3	63.5	62.8	62.3	62.7	63.2	64.0
500 Hz	61.2	61.7	61.3	61.6	61.9	63.8	65.1
1K Hz	64.8	65.5	65.3	66.2	67.0	67.9	69.3
2K Hz	62.0	62.5	62.6	64.3	65.6	65.4	66.5
4K Hz	61.2	61.7	61.9	63.7	64.6	65.8	67.0
8K Hz	59.5	59.7	59.7	60.3	60.5	61.3	62.1
LwA dB(A)	70.1	70.7	70.5	71.4	72.1	72.9	74.1

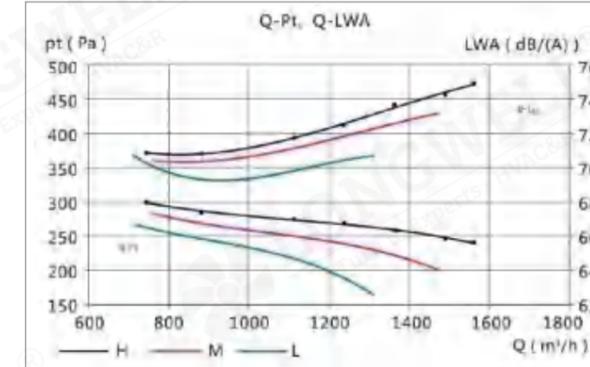
### Product Drawing



Motor Power	90W-6P	150W-4P	200W-4P
L	31	31	31

## DD7-7I Series

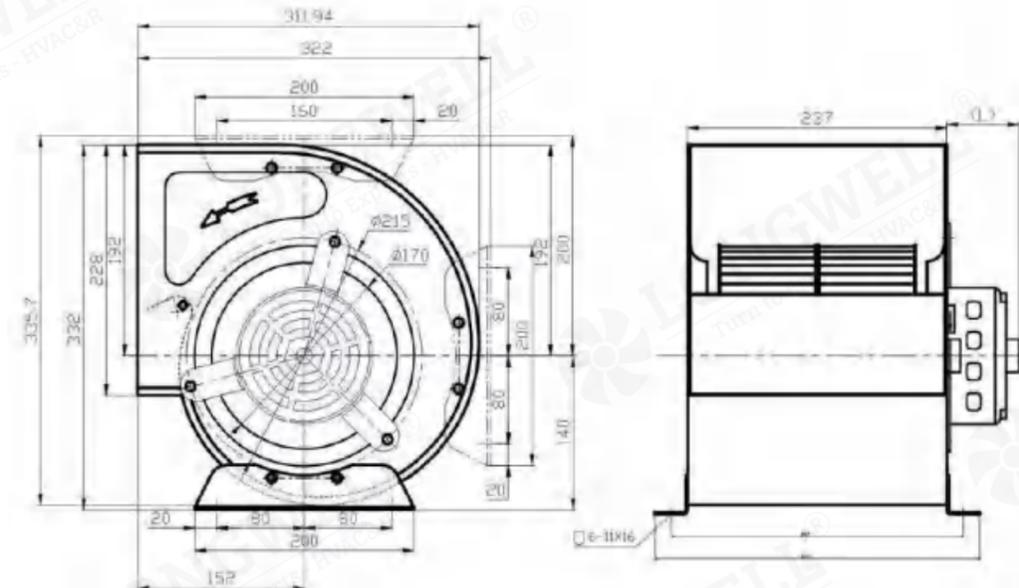
### Technical Specifications



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD7-7I 200W-4P	220	50	1.8	9.4	IP20

1/1 Octave (H)							
63 Hz	51.5	50.2	48.7	48.5	48.4	48.0	48.6
125 Hz	57.7	56.4	54.9	54.7	54.6	54.2	54.8
250 Hz	64.1	63.4	63.1	64.1	64.6	64.0	64.7
500 Hz	62.2	61.8	62.3	62.8	63.5	64.3	64.8
1K Hz	65.9	66.1	67.3	67.8	69.4	69.8	70.5
2K Hz	62.6	63.0	64.3	65.0	66.0	66.9	67.6
4K Hz	61.5	62.2	63.8	65.0	66.3	67.5	68.1
8K Hz	52.8	53.9	56.1	57.5	59.1	60.5	61.3
LwA dB(A)	70.9	70.8	71.7	72.5	73.7	74.3	74.9

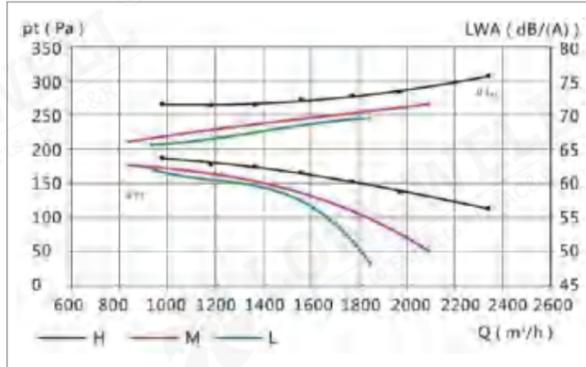
### Product Drawing



Motor Power	90W-6P	150W-4P	200W-4P
L	31	31	31

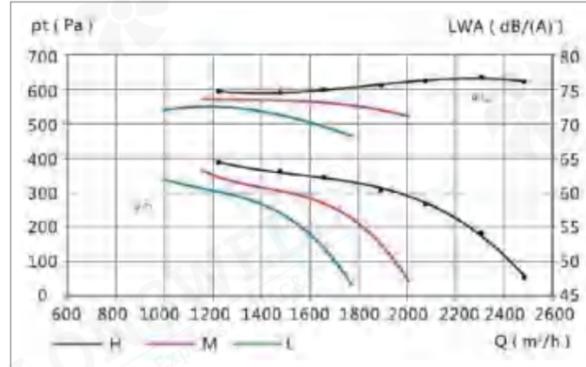
## DD8-8I Series

### Technical Specifications



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD8-8I 200W-6P	220	50	1.8	14.1	IP20

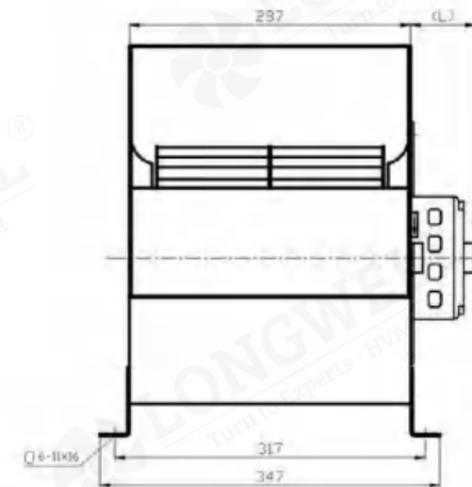
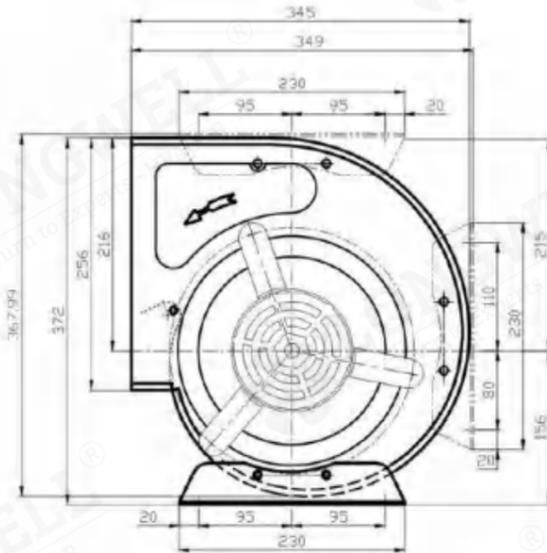
1/1 Octave (H)							
63 Hz	49.3	48.6	48.8	49.8	49.8	51.3	51.8
125 Hz	55.5	54.8	55.0	56.0	56.0	57.5	58.0
250 Hz	62.5	62.3	63.6	64.0	64.2	64.7	65.6
500 Hz	60.6	60.4	61.7	63.9	64.2	64.0	65.7
1K Hz	68.9	68.5	67.7	67.9	67.8	67.3	69.0
2K Hz	63.1	63.5	63.6	64.6	65.5	66.7	69.4
4K Hz	58.7	59.8	60.9	62.5	64.4	66.5	70.2
8K Hz	56.7	56.9	57.2	58.0	58.9	60.4	63.0
LwA dB(A)	71.6	71.4	71.5	72.3	72.8	73.3	75.7



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD8-8I 300W-4P	220	50	3.7	13.5	IP20

1/1 Octave (H)							
63 Hz	55.9	55.3	53.9	54.2	54.9	54.4	52.6
125 Hz	62.1	61.5	60.1	60.4	61.1	60.6	58.8
250 Hz	69.2	67.2	67.9	68.5	68.5	67.4	61.8
500 Hz	65.6	64.9	64.8	64.3	65.3	65.7	65.8
1K Hz	67.4	68.0	68.4	69.1	69.8	70.6	69.8
2K Hz	66.6	67.2	67.8	68.6	69.3	70.0	70.3
4K Hz	66.4	67.3	68.0	69.0	70.0	70.9	70.8
8K Hz	61.0	61.5	61.9	62.9	63.1	64.0	63.3
LwA dB(A)	74.7	74.5	74.9	75.6	76.2	76.7	76.1

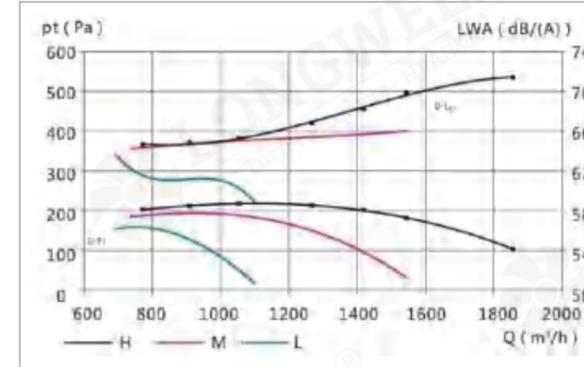
### Product Drawing



Motor Power	200W-6P	300W-4P
L	85	80

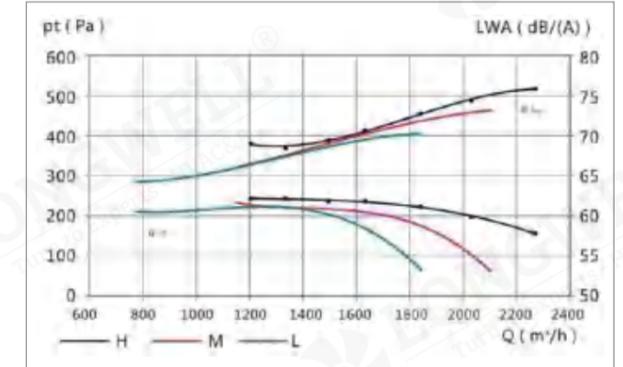
## DD9-7I Series

### Technical Specifications



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD9-7I 150W-6P	220	50	1.4	12.9	IP20

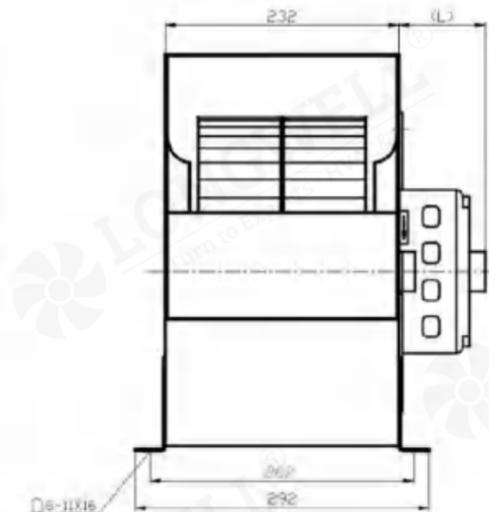
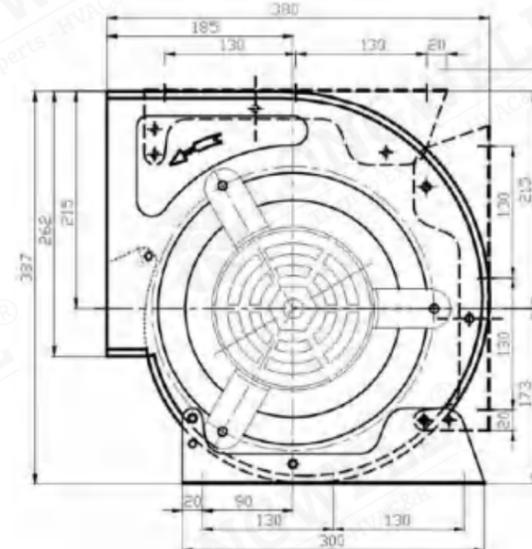
1/1 Octave (H)							
63 Hz	45.4	44.6	43.4	43.4	45.8	47.8	49.9
125 Hz	51.6	50.8	49.6	49.6	52.0	54.0	56.1
250 Hz	58.1	58.1	58.1	59.0	59.3	61.8	61.9
500 Hz	57.1	57.0	57.7	59.1	60.6	62.1	63.5
1K Hz	58.9	59.5	59.9	61.4	62.9	64.1	65.6
2K Hz	57.4	57.3	57.9	59.7	61.1	62.4	64.2
4K Hz	54.2	54.7	55.9	58.7	60.6	62.5	64.6
8K Hz	44.2	45.6	46.4	48.8	51.2	53.7	57.1
LwA dB(A)	64.7	64.8	65.3	66.8	68.2	69.9	71.4



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD9-7I 250W-6P	220	50	2.1	13.5	IP20

1/1 Octave (H)							
63 Hz	47.6	47.2	46.1	46.3	50.8	51.9	52.1
125 Hz	53.8	53.4	52.3	52.5	57.0	58.1	58.3
250 Hz	61.7	59.1	59.2	59.9	62.6	64.0	65.1
500 Hz	60.4	60.0	61.2	62.3	64.2	65.1	66.0
1K Hz	63.8	63.3	64.2	65.4	67.4	69.2	70.3
2K Hz	61.7	61.5	62.6	63.8	65.6	67.3	69.0
4K Hz	60.6	61.0	62.4	63.9	66.0	68.0	69.9
8K Hz	51.6	52.1	53.7	55.6	58.5	61.1	63.4
LwA dB(A)	69.0	68.5	69.4	70.6	72.7	74.4	75.9

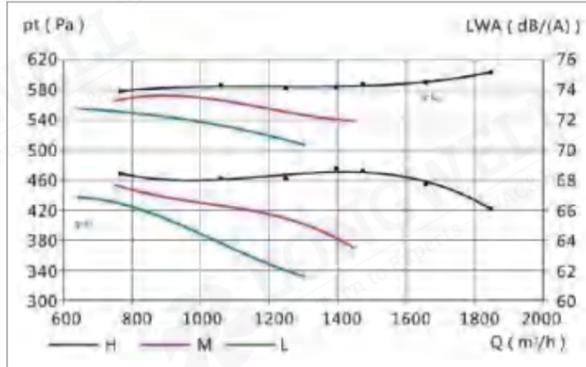
### Product Drawing



Motor Power	375W-4P	375W-6P
L	90	90

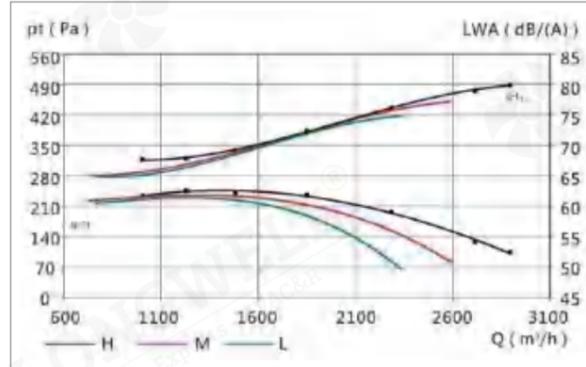
## DD9-7I Series

### Technical Specifications



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD9-7I 375W-4P	220	50	3.0	14.9	IP20

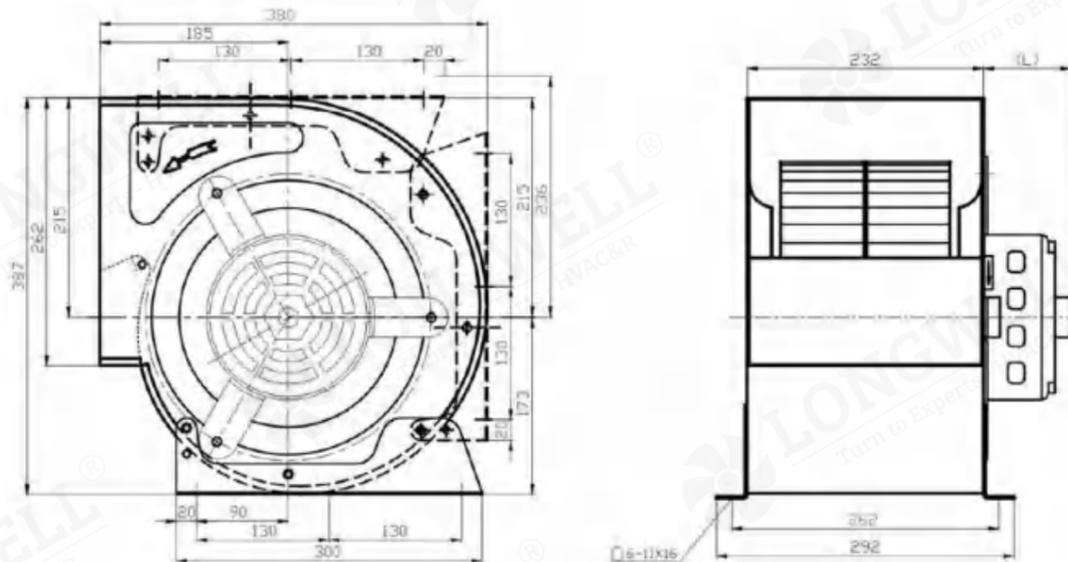
1/1 Octave (H)							
63 Hz	56.3	55.2	53.9	51.9	51.5	49.3	49.1
125 Hz	62.5	61.4	60.1	58.1	57.7	55.5	55.3
250 Hz	68.4	67.9	66.8	66.1	65.6	64.1	64.0
500 Hz	66.5	67.0	66.0	66.3	66.6	65.8	65.9
1K Hz	67.2	68.0	68.7	68.6	68.9	69.5	70.3
2K Hz	65.3	65.9	66.1	66.5	66.7	67.2	68.0
4K Hz	63.9	65.4	65.9	66.7	67.0	67.9	68.9
8K Hz	56.1	58.0	58.9	59.6	60.1	60.9	62.1
LwA dB(A)	73.9	74.3	74.1	74.2	74.4	74.5	75.2



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD9-7I 375W-6P	220	50	3.5	15.7	IP20

1/1 Octave (H)							
63 Hz	48.3	47.4	46.3	46.5	51.8	54.7	56.6
125 Hz	54.5	53.6	52.5	52.7	58.0	60.9	62.8
250 Hz	62.9	61.4	59.6	60.7	65.0	67.8	69.3
500 Hz	58.8	59.4	60.9	63.5	66.3	68.4	69.2
1K Hz	61.2	62.0	64.0	67.1	70.5	73.1	73.9
2K Hz	59.6	60.4	62.4	65.4	69.4	72.1	73.2
4K Hz	57.3	59.3	62.2	66.4	70.5	73.5	74.5
8K Hz	48.2	49.9	53.2	58.7	63.9	67.4	68.2
LwA dB(A)	67.7	67.9	69.3	72.4	76.2	79.0	80.0

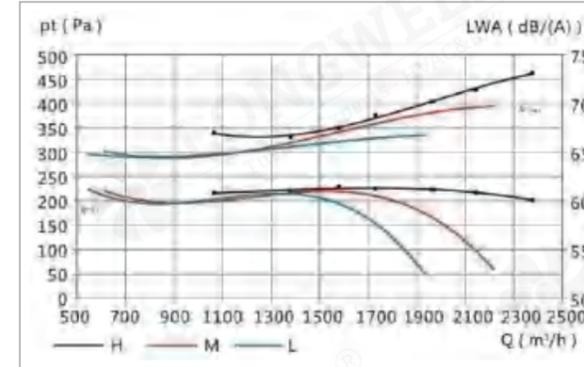
### Product Drawing



Motor Power	375W-4P	375W-6P
L	90	90

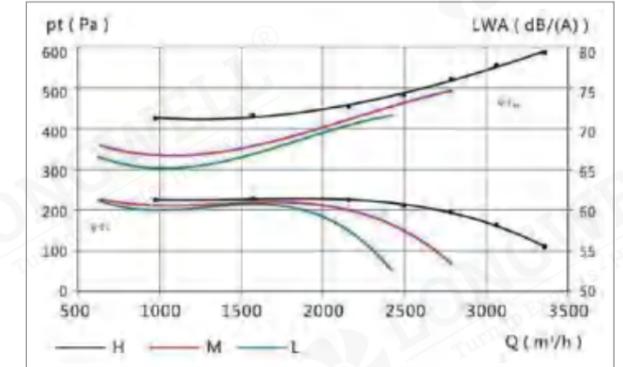
## DD9-9I Series

### Technical Specifications



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD9-9I 250W-6P	220	50	2.1	14.1	IP20

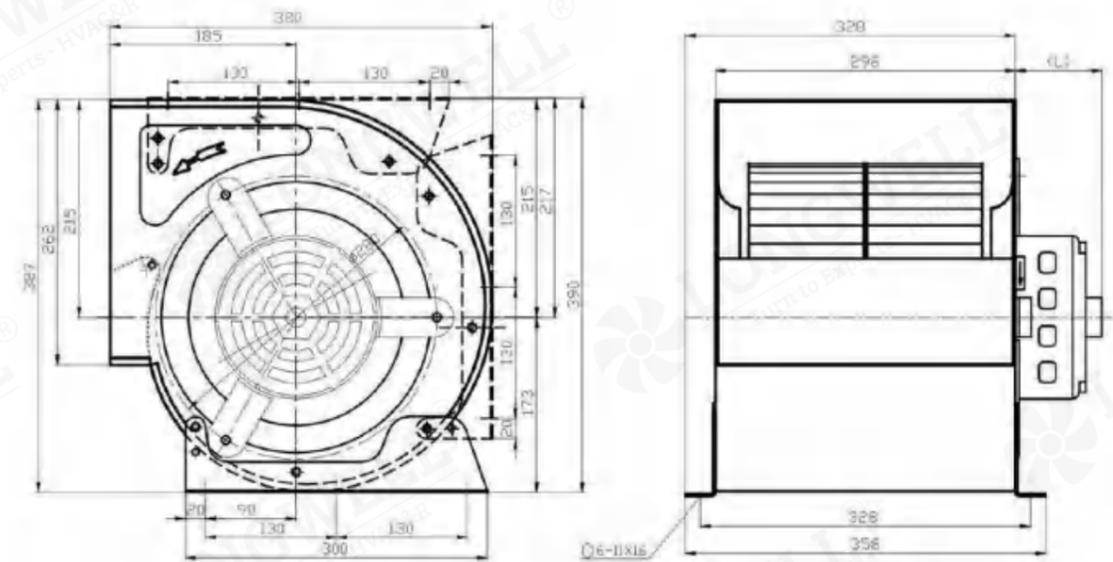
1/1 Octave (H)							
63 Hz	49.7	47.5	46.8	47.6	47.2	47.7	50.9
125 Hz	55.9	53.7	53.0	53.8	53.4	53.9	57.1
250 Hz	61.3	58.9	59.2	59.9	59.9	60.8	61.9
500 Hz	58.0	57.4	58.7	61.5	61.5	62.6	64.2
1K Hz	61.5	61.6	62.3	64.8	64.8	66.0	67.4
2K Hz	59.0	59.9	61.1	63.7	63.7	64.8	66.6
4K Hz	55.6	57.1	59.1	63.5	63.5	62.0	67.0
8K Hz	47.8	47.9	49.2	53.6	53.6	56.0	59.1
LwA dB(A)	67.0	66.6	67.5	70.2	70.2	71.4	73.1



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD9-9I 375W-6P	220	50	3.5	16.6	IP20

1/1 Octave (H)							
63 Hz	50.6	47.4	49.6	53.0	52.7	53.6	54.7
125 Hz	56.8	53.6	55.8	59.2	58.9	59.8	60.9
250 Hz	68.9	68.0	64.4	63.6	64.8	65.9	67.9
500 Hz	60.6	59.4	63.7	65.2	66.6	68.1	69.2
1K Hz	63.7	65.2	67.4	68.9	70.5	72.0	73.2
2K Hz	60.5	64.0	65.6	67.4	69.5	71.5	73.2
4K Hz	57.7	60.4	65.7	67.7	70.0	72.0	73.9
8K Hz	47.3	49.3	56.0	59.3	62.3	64.5	66.5
LwA dB(A)	71.3	71.6	69.4	74.2	76.2	77.8	79.4

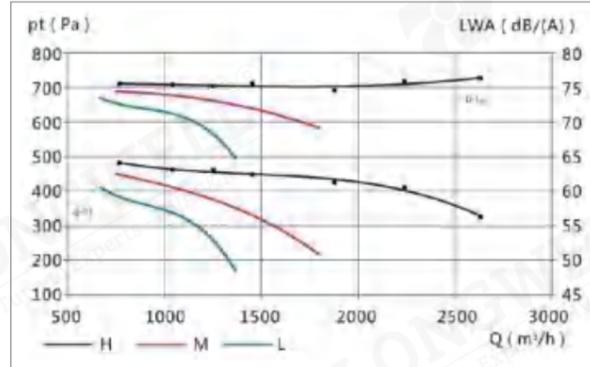
### Product Drawing



Motor Power	250W-6P	375W-6P
L	90	90

## DD9-9I Series

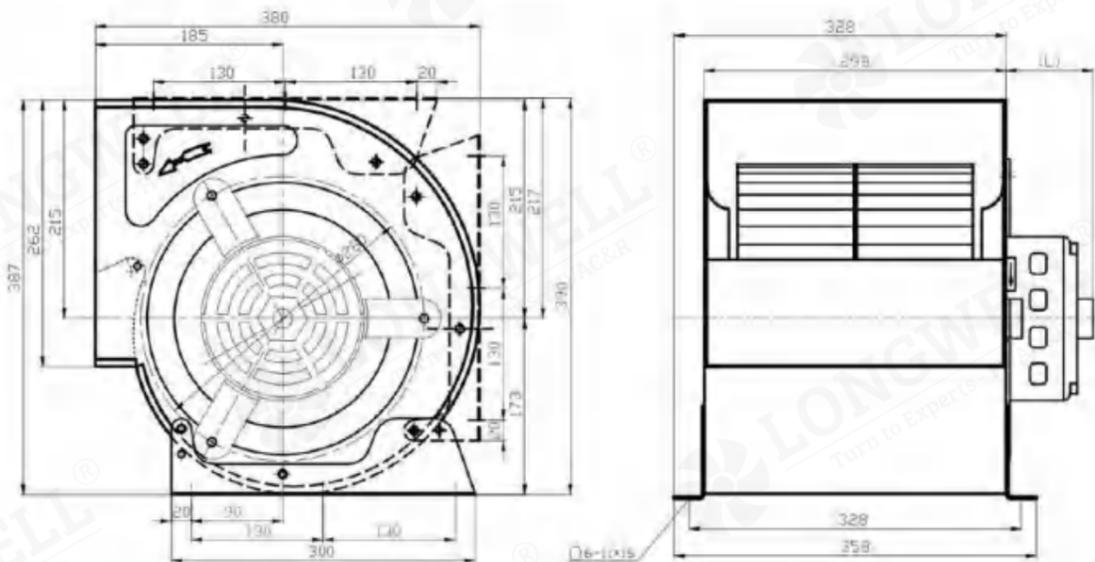
### Technical Specifications



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD9-9I 450W-4P	220	50	5.0	16.8	IP20

1/1 Octave (H)							
63 Hz	58.3	58.8	57.4	57.4	53.7	52.7	52.3
125 Hz	64.5	65.0	63.6	63.6	59.9	58.9	58.5
250 Hz	70.7	70.8	70.1	70.0	67.4	67.1	65.8
500 Hz	66.4	66.0	65.5	66.0	64.6	66.2	66.7
1K Hz	68.8	68.3	68.7	69.4	69.0	70.6	71.0
2K Hz	67.1	66.7	67.2	67.9	67.8	69.3	69.7
4K Hz	65.4	65.0	65.1	66.2	66.7	68.6	69.9
8K Hz	57.3	56.8	56.9	58.0	58.4	60.2	62.2
LwA dB(A)	75.5	75.3	75.1	75.6	74.6	75.8	76.3

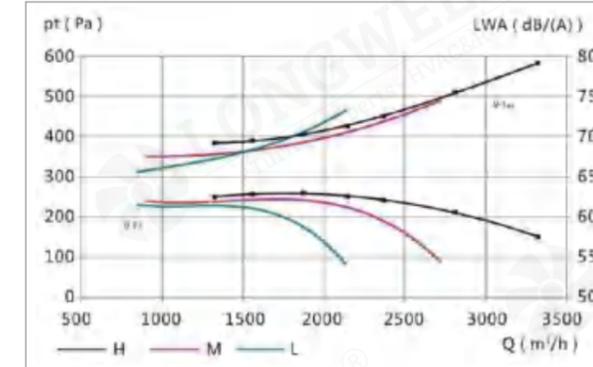
### Product Drawing



Motor Power	450W-4P
L	95

## DD10-8I Series

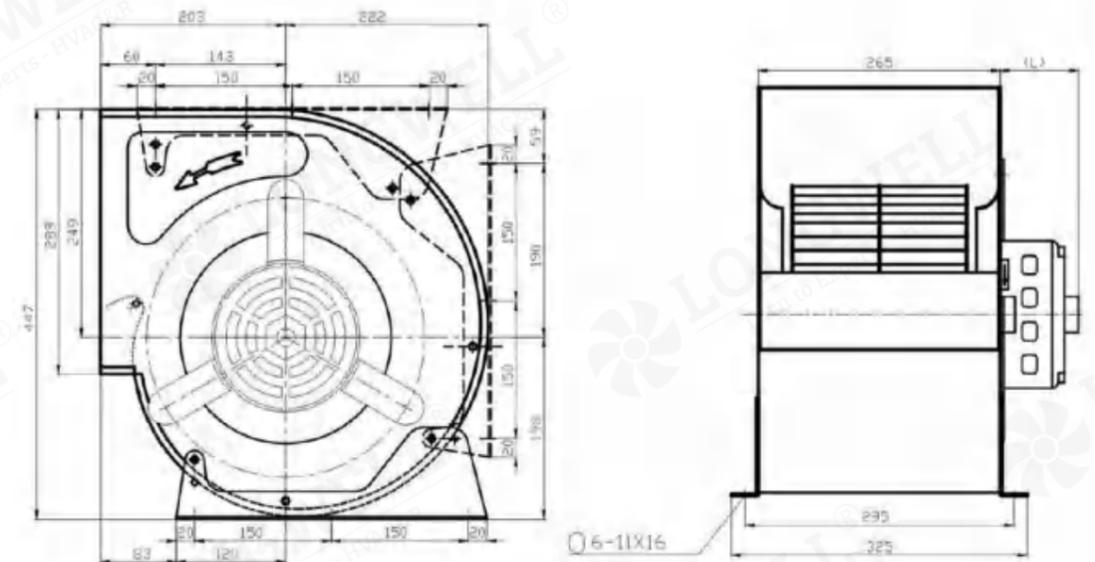
### Technical Specifications



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD10-8I 375W-6P	220	50	3.5	17.1	IP20

1/1 Octave (H)							
63 Hz	55.4	54.9	53.3	52.0	51.4	52.4	53.8
125 Hz	61.6	61.1	59.5	58.2	57.6	58.6	60.0
250 Hz	62.1	61.5	62.3	61.7	62.9	64.1	65.6
500 Hz	60.4	60.8	61.4	62.1	63.3	65.8	68.6
1K Hz	63.0	63.8	64.9	66.0	67.0	70.0	73.3
2K Hz	61.0	61.8	63.1	64.5	66.0	69.4	73.6
4K Hz	59.0	60.2	62.2	64.1	65.7	69.3	73.2
8K Hz	48.6	49.7	52.1	54.5	56.6	61.3	65.7
LwA dB(A)	69.2	69.5	70.4	71.3	72.5	75.5	79.1

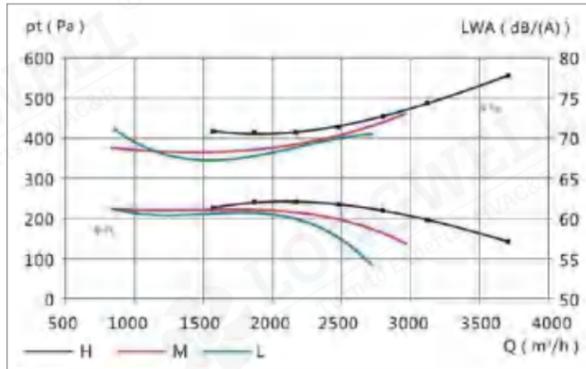
### Product Drawing



Motor Power	375W-6P	550W-4P
L	90	105

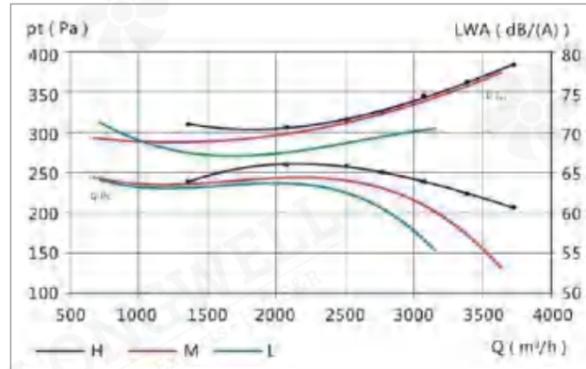
## DD10-10I Series

### Technical Specifications



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD10-10I 375W-6P	220	50	3.5	18.1	IP20

1/1 Octave (H)							
63 Hz	58.6	58.8	57.2	56.0	55.6	55.7	57.1
125 Hz	64.8	65.0	63.4	62.2	61.8	61.9	63.3
250 Hz	63.6	62.2	62.6	62.1	62.8	64.0	67.4
500 Hz	61.2	60.4	60.6	61.6	63.1	64.7	68.3
1K Hz	63.5	63.9	64.6	65.6	67.2	68.9	72.2
2K Hz	61.8	62.3	63.4	64.6	66.1	68.3	72.1
4K Hz	61.2	61.3	61.4	63.1	64.9	66.7	70.1
8K Hz	55.1	54.0	53.8	56.1	58.6	61.0	64.4
LwA dB(A)	70.8	70.7	70.7	71.4	72.7	74.4	77.8

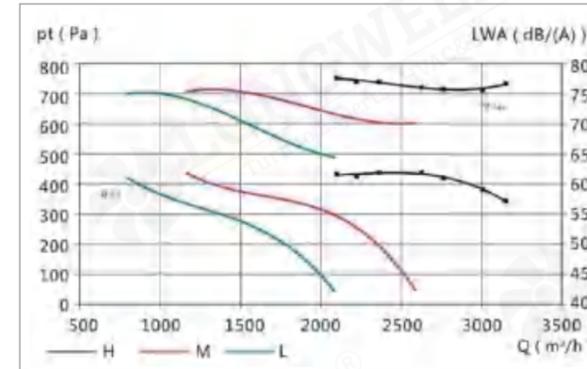


Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD10-10I 450W-6P	220	50	3.5	18.3	IP20

1/1 Octave (H)							
63 Hz	58.6	57.7	57.4	55.2	54.7	52.7	52.0
125 Hz	64.8	63.9	63.6	61.4	60.9	58.9	58.2
250 Hz	72.6	71.8	71.8	69.2	67.5	67.4	67.1
500 Hz	68.0	66.8	66.5	65.1	65.1	65.6	66.1
1K Hz	70.3	70.1	70.1	70.0	70.0	70.4	70.3
2K Hz	70.3	69.6	69.5	69.5	69.5	69.7	70.0
4K Hz	68.5	68.3	68.4	68.5	68.5	67.0	69.1
8K Hz	61.9	62.1	62.2	62.1	62.2	62.8	68.8
LwA dB(A)	77.6	77.0	76.9	76.0	75.8	75.7	76.6

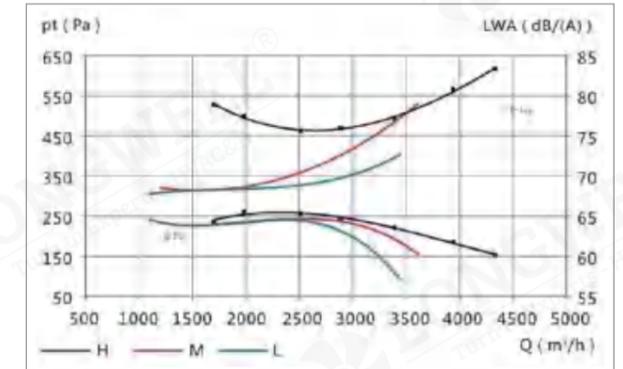
## DD10-10I Series

### Technical Specifications



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD10-10I 550W-4P	220	50	4.9	18.8	IP20

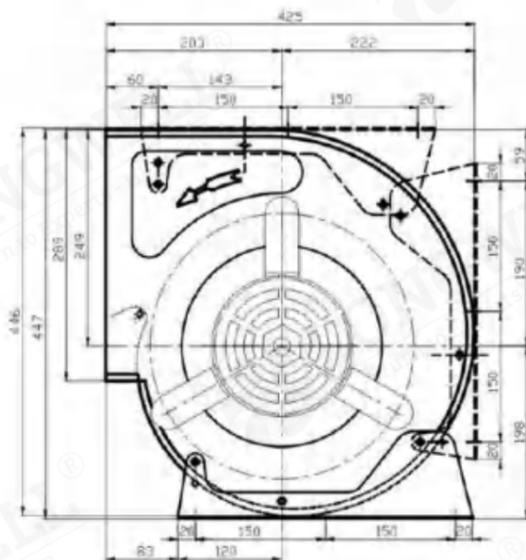
1/1 Octave (H)							
63 Hz	58.6	57.7	57.4	55.2	54.7	52.7	52.0
125 Hz	64.8	63.9	63.6	61.4	60.9	58.9	58.2
250 Hz	72.6	71.8	71.8	69.2	67.5	67.4	67.1
500 Hz	68.0	66.8	66.5	65.1	65.1	65.6	66.1
1K Hz	70.3	70.1	70.1	70.0	70.0	70.4	70.3
2K Hz	70.3	69.6	69.5	69.4	69.5	69.7	70.0
4K Hz	68.5	68.3	68.4	68.4	68.5	67.0	69.1
8K Hz	61.9	62.1	62.2	62.1	62.2	62.8	68.8
LwA dB(A)	77.6	77.0	76.9	76.0	75.8	75.7	76.6



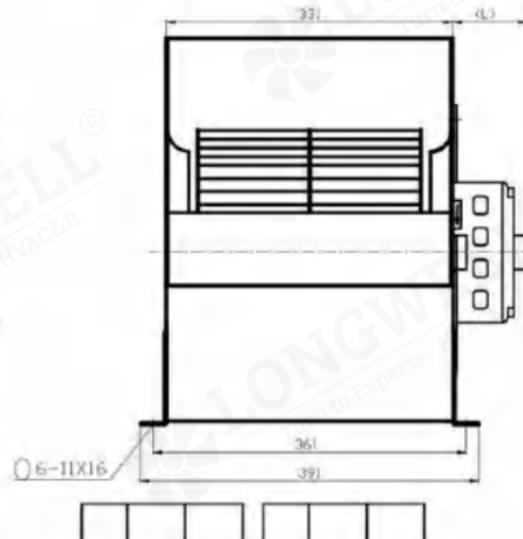
Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD10-10I 550W-6P	220	50	4.7	18.3	IP20

1/1 Octave (H)							
63 Hz	59.3	59.3	55.0	56.5	55.4	58.2	62.4
125 Hz	65.5	65.5	61.2	62.7	61.6	64.4	68.6
250 Hz	65.1	64.2	63.7	63.4	66.5	69.3	71.5
500 Hz	64.4	63.9	70.2	63.6	66.5	69.6	72.4
1K Hz	75.1	72.3	69.1	71.6	71.9	75.8	77.4
2K Hz	68.5	68.4	66.8	66.8	70.7	74.0	76.7
4K Hz	71.5	70.8	67.1	68.9	69.7	73.8	76.6
8K Hz	71.6	70.5	66.4	68.1	65.9	71.0	74.6
LwA dB(A)	78.9	77.4	75.6	76.0	77.1	80.8	83.3

### Product Drawing

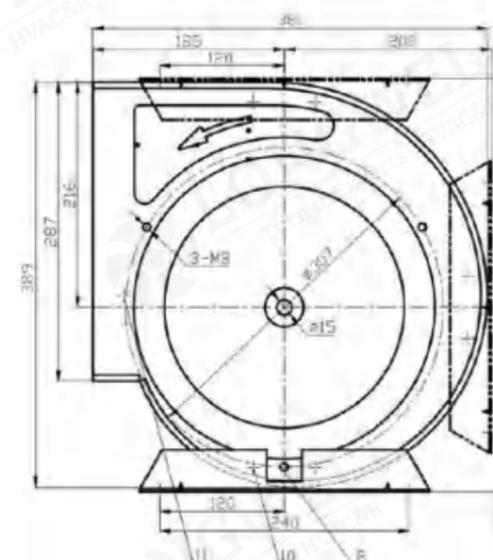


Motor Power	375W-6P	550W-4P
L	90	105

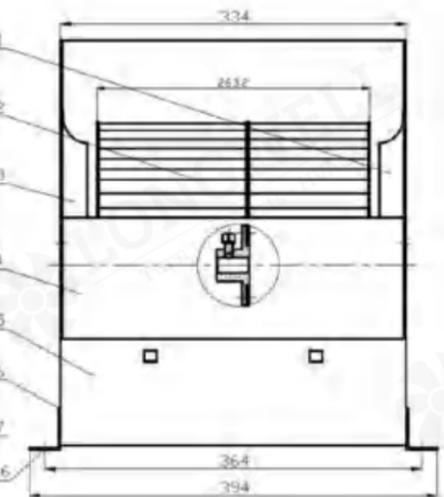


Motor Power	450W-6P	550W-4P
L	105	105

### Product Drawing



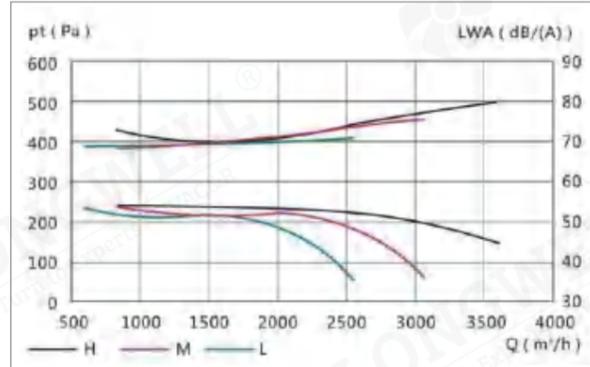
Motor Power	375W-6P	550W-4P
L	90	105



Motor Power	450W-6P	550W-4P
L	105	105

## DD10-10II Series

### Technical Specifications

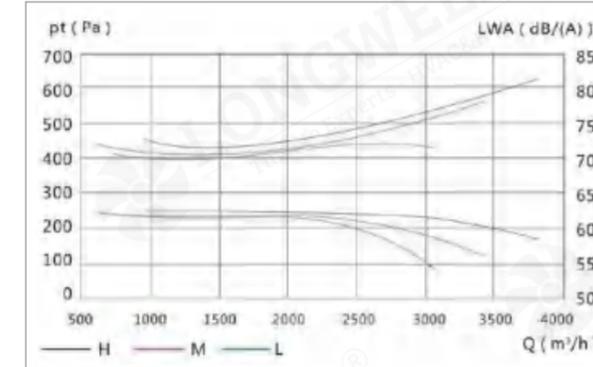


Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD10-10II 375W-6P	220	50	3.0	16.5	IP20

1/1 Octave (H)											
63 Hz	55.6	50.3	50.0	49.3	49.4	49.2	50.2	50.6	51.3	53.3	
125 Hz	61.8	56.5	56.2	55.5	55.6	55.4	56.4	56.8	57.5	59.5	
250 Hz	69.1	64.6	64.6	64.9	63.4	63.4	64.5	65.3	66.5	68.3	
500 Hz	64.5	59.9	60.2	60.5	61.2	63.1	64.4	65.6	67.0	68.8	
1K Hz	66.1	62.1	62.5	63.7	65.7	67.5	69.1	71.0	72.0	73.6	
2K Hz	63.7	61.9	61.8	63.8	64.7	66.7	68.8	70.7	72.6	74.6	
4K Hz	62.5	59.1	59.5	61.4	62.7	65.1	67.5	69.5	71.6	74.2	
8K Hz	53.8	49.5	50.6	52.1	54.6	57.1	59.7	61.4	63.4	65.6	
LwA dB(A)	73.2	69.3	69.4	70.3	71.0	72.7	74.5	76.2	77.8	79.9	

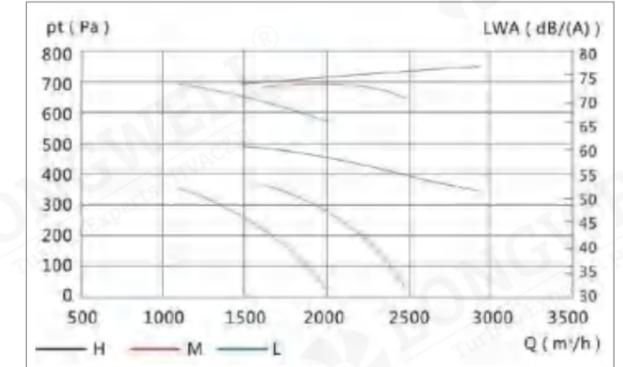
## DD10-10II Series

### Technical Specifications



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD10-10II 450W-6P	220	50	3.6	17.25	IP20

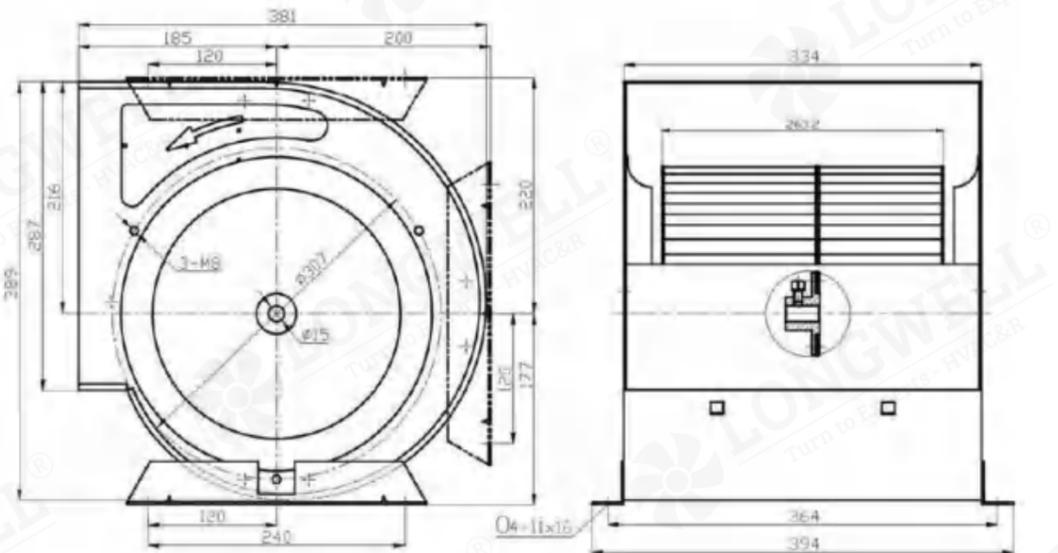
1/1 Octave (H)											
63 Hz	48.6	48.5	46.8	46.6	46.5	49.8	50.3	51.8	53.4	53.8	
125 Hz	54.8	54.7	53.0	52.8	52.7	56.0	56.5	58.0	59.6	60.0	
250 Hz	71.3	71.7	71.0	70.3	68.8	63.4	69.0	67.4	69.4	66.8	
500 Hz	57.3	57.5	55.9	57.5	59.9	63.9	65.4	67.0	68.9	69.2	
1K Hz	59.5	60.1	59.7	62.4	64.6	68.8	71.1	73.0	75.1	75.2	
2K Hz	57.2	58.0	58.3	61.3	64.3	68.6	70.5	72.6	74.9	75.3	
4K Hz	53.7	54.7	55.4	59.1	62.3	67.0	69.2	71.8	74.8	75.3	
8K Hz	43.7	45.2	46.8	51.0	54.4	58.8	61.3	63.7	71.2	66.9	
LwA dB(A)	72.1	72.5	71.8	71.9	72.1	74.1	76.6	78.3	80.9	80.8	



Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD10-10II 550W-4P	220	50	4.2	17.7	IP20

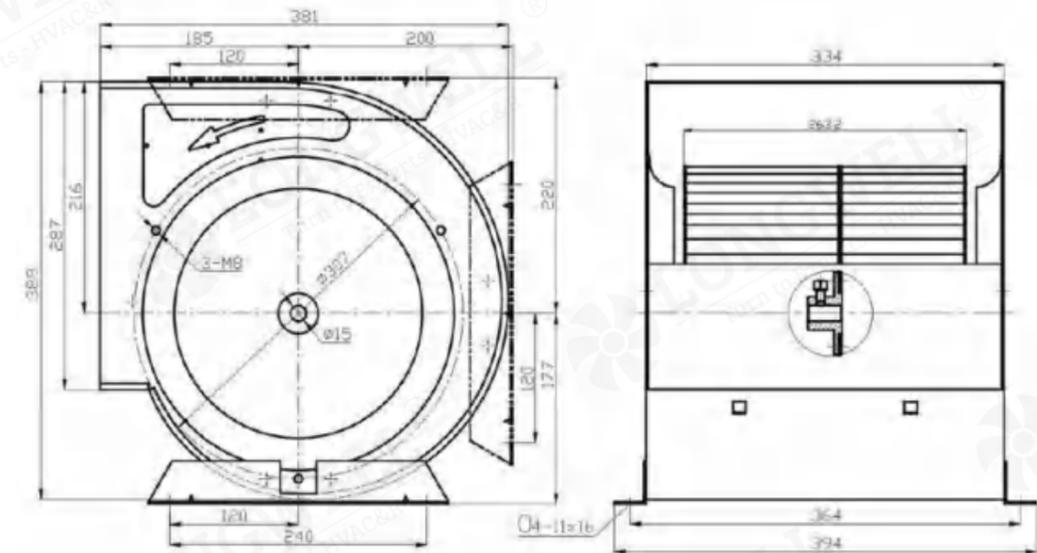
1/1 Octave (H)											
63 Hz	48.8	53.5	53.2	53.3	53.2	52.5	52.7	52.3	51.1	50.6	
125 Hz	55.0	59.7	59.4	59.5	59.4	58.7	58.9	58.5	57.3	56.8	
250 Hz	60.2	67.8	67.8	67.8	67.7	67.7	68.1	67.8	66.9	66.7	
500 Hz	62.8	65.0	65.2	65.0	64.6	64.4	65.2	65.3	65.3	65.8	
1K Hz	67.7	67.7	68.1	68.3	68.8	69.4	70.2	70.4	71.3	71.1	
2K Hz	69.2	67.1	67.7	68.1	68.7	68.9	69.9	70.0	70.2	70.9	
4K Hz	64.1	65.1	65.9	66.6	67.6	68.0	69.1	69.3	69.7	70.5	
8K Hz	54.8	57.3	58.3	59.1	60.3	60.8	61.9	62.2	62.7	63.5	
LwA dB(A)	73.1	74.0	74.3	74.6	75.0	75.2	76.1	76.2	76.4	76.8	

### Product Drawing



Motor Power	550W-6P	750W-6P
L	105	125

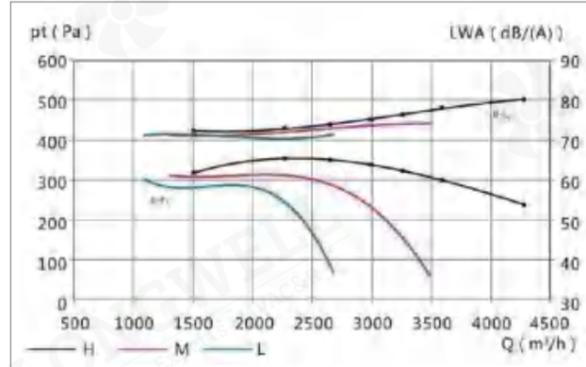
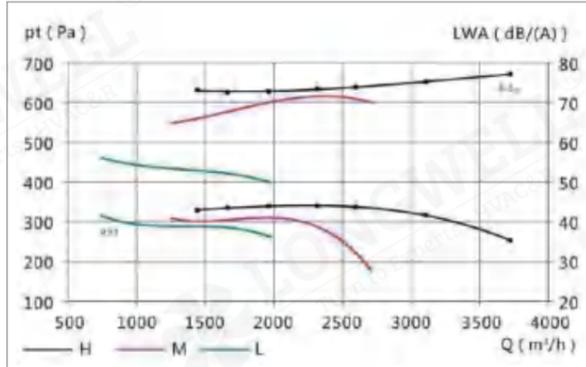
### Product Drawing



Motor Power	550W-6P	750W-6P
L	105	125

## DD12-9I Series

### Technical Specifications



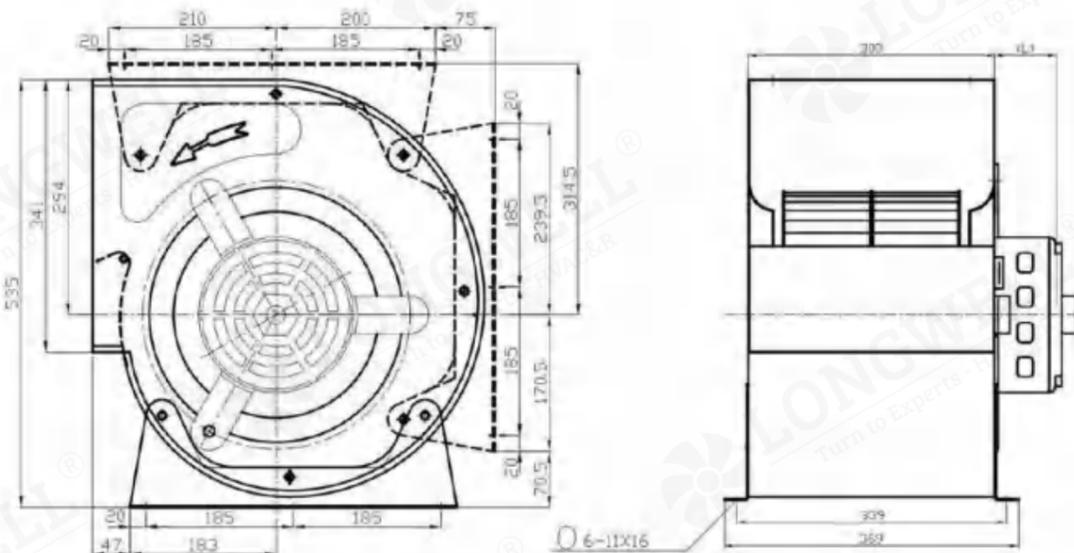
Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD12-9I 550W-6P	220	50	4.7	22.4	IP20

Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD12-9I 750W-6P	220	50	5.4	22.8	IP20

1/1 Octave (H)							
63 Hz	54.2	54.0	54.9	55.2	54.7	53.9	55.9
125 Hz	60.4	60.2	61.1	61.4	60.9	60.1	62.1
250 Hz	69.2	67.4	66.5	67.2	66.2	65.1	65.0
500 Hz	64.3	64.0	64.3	65.2	66.0	68.1	69.2
1K Hz	66.2	66.4	66.9	67.5	68.0	69.6	71.3
2K Hz	63.3	63.7	64.5	65.4	66.2	67.9	70.2
4K Hz	62.0	62.7	63.5	64.4	65.3	67.8	70.6
8K Hz	52.2	52.6	53.1	53.7	54.6	57.0	61.9
LwA dB(A)	73.0	72.5	72.7	73.4	73.7	75.1	77.0

1/1 Octave (H)							
63 Hz	55.2	55.5	55.6	55.8	59.1	55.7	55.7
125 Hz	61.4	61.7	61.8	62.0	65.3	61.9	61.9
250 Hz	65.8	65.7	66.5	66.9	67.6	70.3	69.5
500 Hz	64.9	65.2	66.1	67.6	68.8	70.4	71.6
1K Hz	66.9	67.6	68.4	69.9	71.0	73.1	75.7
2K Hz	63.4	64.8	65.8	67.1	68.3	70.3	73.0
4K Hz	61.9	63.8	65.1	66.6	67.9	69.6	72.7
8K Hz	52.2	54.6	56.3	58.3	59.8	61.5	64.9
LwA dB(A)	72.3	73.0	73.9	75.1	76.3	78.1	80.0

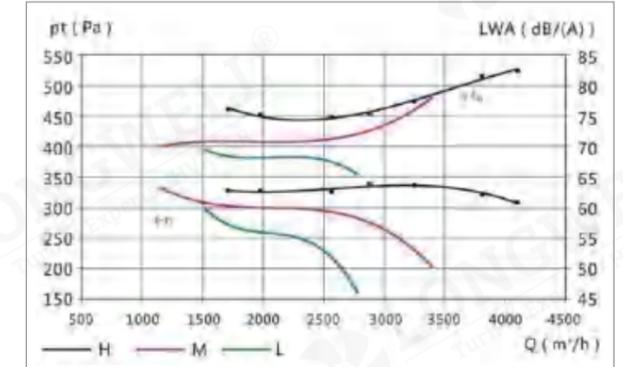
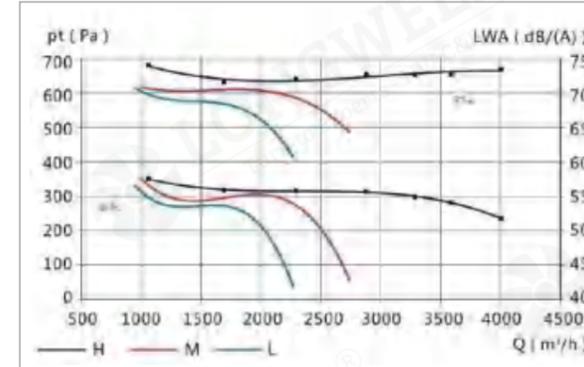
### Product Drawing



Motor Power	550W-6P	750W-6P
L	105	125

## DD12-12I Series

### Technical Specifications



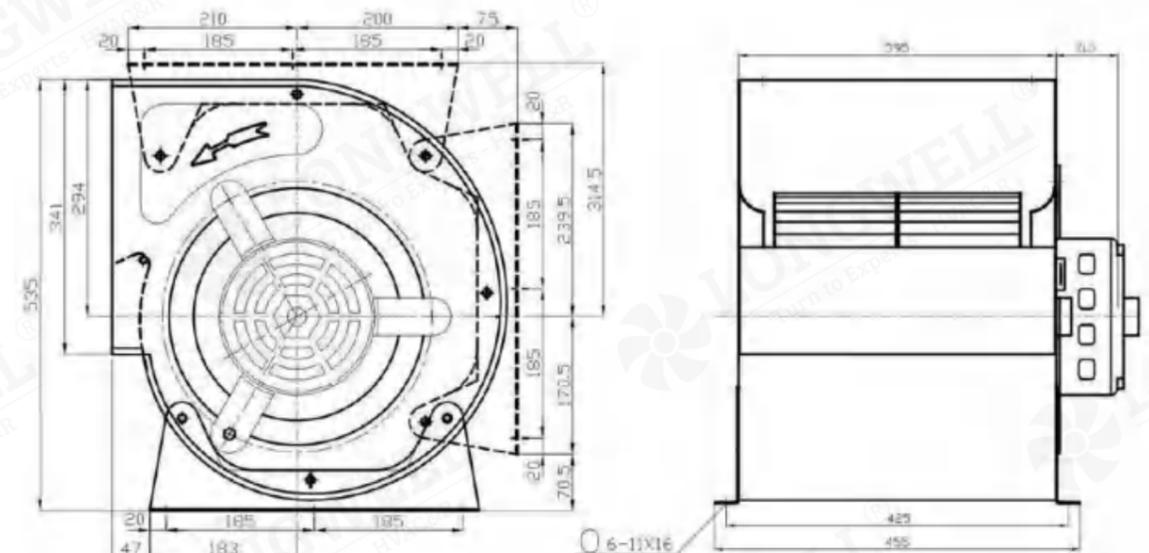
Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD12-12I 550W-6P	220	50	4.7	24	IP20

Model	Voltage (V)	Frequency (Hz)	Current (A)	Weight (kg)	Protection Class
DD12-12I 750W-6P	220	50	5.4	24.8	IP20

1/1 Octave (H)							
63 Hz	54.6	55.3	55.0	55.1	55.2	55.2	54.5
125 Hz	60.8	61.5	61.2	61.3	61.4	61.4	60.7
250 Hz	71.1	65.2	66.9	66.2	66.2	63.6	63.5
500 Hz	65.2	64.3	63.8	64.7	65.2	65.7	66.4
1K Hz	65.7	65.4	65.4	66.4	66.4	66.7	67.5
2K Hz	63.9	63.0	63.5	65.2	64.8	65.5	66.8
4K Hz	62.2	61.0	61.8	63.5	63.1	63.9	65.4
8K Hz	53.5	52.1	52.5	53.8	54.2	55.1	57.8
LwA dB(A)	74.0	71.6	72.0	72.7	72.7	72.6	73.5

1/1 Octave (H)							
63 Hz	56.4	55.7	55.0	55.8	57.3	56.1	57.5
125 Hz	62.6	61.9	61.2	62.0	63.5	62.3	63.7
250 Hz	68.1	66.8	71.7	72.5	75.2	81.2	82.0
500 Hz	68.0	67.3	65.2	65.3	67.2	64.2	67.0
1K Hz	69.0	68.3	66.2	66.4	67.8	63.6	65.1
2K Hz	69.6	68.5	65.5	65.6	66.8	61.8	63.2
4K Hz	68.5	67.3	64.3	64.3	65.2	59.6	61.3
8K Hz	63.5	62.4	56.6	55.7	56.9	51.6	53.7
LwA dB(A)	76.1	75.1	74.8	75.3	77.4	81.5	82.4

### Product Drawing



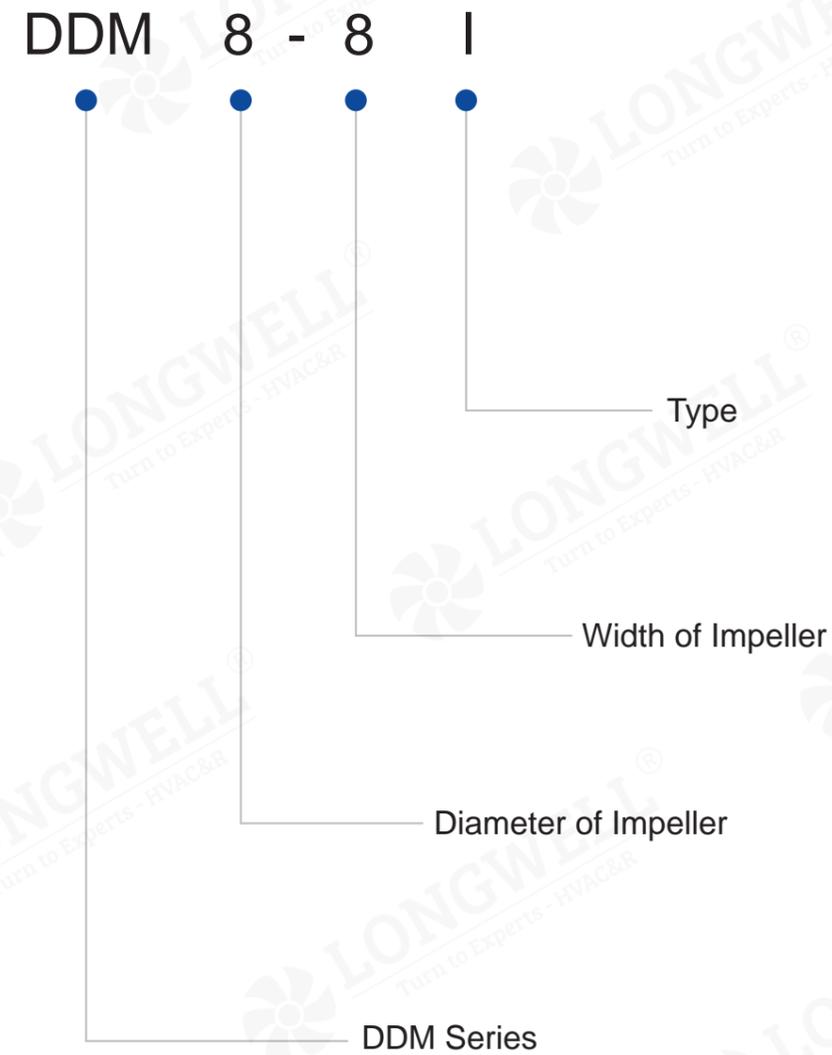
Motor Power	550W-6P	750W-6P
L	105	125

# DDM Series Centrifugal Blower

Professional HVAC Fan & Motors Manufacturer



## Type Code



# DDM Series Centrifugal Blower

## 1. Outline

DDM series centrifugal fan is kind of air-conditioning fan. The impeller of the fan is driven by three phases external motor. It was developed by using high technology and with low noise and compact structure. It was specially designed for the air-conditioning. The flow rate and total pressure range of this series fan is from 1000m<sup>3</sup>/h to 20000m<sup>3</sup>/h and 200Pa to 850Pa. It is the ideal equipment for air-conditioning and other kind of ventilator system.

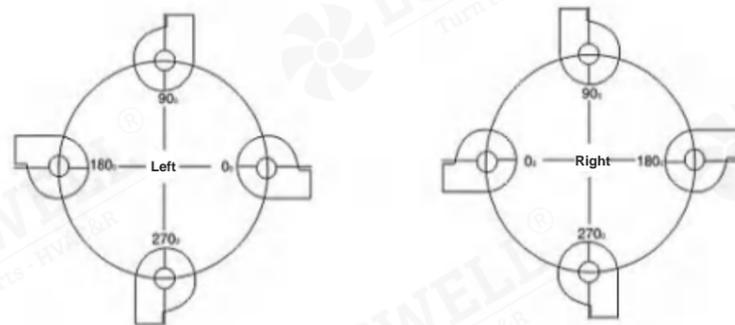
## 2. Type of Product

### (1) Direction of Rotation

DDM Series ventilator can be divided into two direction of rotations, left-hand rotation (LG) and right hand rotation (RD); Viewing from motor outlet terminal, if the impeller rotates clockwise, it is called right hand ventilator; If the impeller rotates anti-clockwise, it is called left hand ventilator.

### (2) Direction of Air Outlet

According to Fig 1, DDM Series ventilator can be made in four air-outlet directions: 0°, 90°, 180°, 270°



(Fig 1)

## 3. Construction of Product

DDM Series ventilator consists of scroll, impeller, baseplate (frame), motor, shaft sleeve and air outlet flange.

### (1) Scroll

The scroll is made of high quality hot-galvanizing steel sheet. The side plates take the shape according to aerodynamics and make the ventilator volume minimum. On the air inlet of side plate there is an air-inlet to make the air stream enter the impeller without loss. The snail plate is fixed on the side plates by way of spot welding or biting as a whole. On the side plate of the scroll there are a series of holes drilled in advance for riveting nuts to carry out installation according to air outlet direction needed by the customer.

### (2) Impeller

The impeller is made of high quality hot galvanizing steel sheet and is designed to a special configuration according to aerodynamics to make the efficiency highest and the noise lowest. The impeller is fixed on the middle disk plate and on the end ring with riveting grippers. The impeller has enough rigidity during continuous rotation with maximum power. Before leaving factory, all impellers have passed all-round dynamic balance test according to the Company Standard which is higher than National Standard.

### (3) Baseplate(Frame)

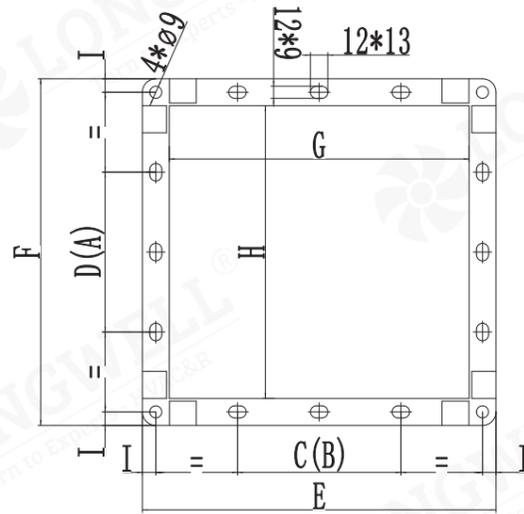
DDM Series ventilator baseplate is made of high quality hot galvanizing steel sheet. The direction of baseplate installation can be carried out according to the different requirements of customers. Over DDM12-12 ventilator frame is made of angle steel and flatsteel. On four sides of the frame there are holes drilled for installation to meet customers requirements in different installation directions.

### (4) Motor

The motor used in DDM series fans are low noise three phase asynchronous motors with external rotors. The impeller is installed on the external casing of the motor. The motor rotation speed can be changed by using provided with three-phase voltage regular, silicon controlled. Voltage regulator, frequency converter and etc, to satisfy changeable load in system.

### (5) Flange

The flange is made of hot galvanizing angle steel. The connection of angle steel straps and the connection between flange and scroll are carried out by using TOX non-welding technology, thus obtaining fine appearance, enough rigidity and strength. The dimensions and type of flange are shown in Fig 2.



Note:the size in mm

Type	8-8I	9-9I	9-9II	10-10I	10-10II	11-11I	11-11II	12-12I	12-12II	14-14I	14-14II	16-16I	16-16II	18-18I	18-18II	20-20I	20-20II
A	121.5	138	153	149.5	159	160	188	/	/	/	/	/	/	/	/	/	/
B	118.5	132	132	145.5	145.5	162.6	162.5	/	/	/	/	/	/	/	/	/	/
C	/	/	/	/	/	/	/	140	140	140	140	140	140	170	170	170	170
D	/	/	/	/	/	/	/	140	140	140	140	140	140	170	170	170	170
E	263	296	326	319	338	340	396	394	456	431	487	475	516	525	586	564	656
F	257	284	284	311	311	345	345	394	394	431	431	475	475	525	525	564	562
G	223	256	286	279	298	300	356	338	400	375	375	419	419	470	469	508	506
H	217	244	244	271	271	305	305	338	438	375	375	419	419	470	469	508	506
I	10	10	10	10	10	10	10	13	13	13	13	13	13	13	13	13	13

(Fig 2)

## 4. Performance of Ventilator

(1) The ventilator performance in this catalogue denotes the performance in standard conditions.

It denotes air inlet conditions of ventilator as follows:

Air inlet pressure Pa = 101.325KPa Air temperature t = 20°C

Inlet gas density ρ = 1.2Kg/ms

If the practical air inlet conditions of customer or the speed of the operating ventilator changes, the conversion can be carried out according to the following expression:

$$\frac{Q_s}{Q_n} = \frac{n'}{n}$$

$$\frac{P_s}{P_n} = \frac{n'^2}{n^2} \cdot \frac{\rho'}{\rho} \quad \frac{P_s}{P_n} = \frac{n'^2}{n^2} \cdot \frac{Pa'}{Pa} \cdot \frac{273+t}{273+t'}$$

$$\frac{Nin_s}{Nin_n} = \frac{n'^3}{n^3} \cdot \frac{\rho'}{\rho} \quad \frac{Nin_s}{Nin_n} = \frac{n'^3}{n^3} \cdot \frac{Pa'}{Pa} \cdot \frac{273+t}{273+t'}$$

where:

- Volume Qo(m³/h),total pressure Po( Pa),speed n(r/min),and Nino(kw) can be obtained from Performance chart.
- Asterisk (\*) on the upper right corner denotes the performance parameter needed by the customers in practical gas inlet conditions.
- The difference in relative humidity is omitted from the above-mentioned formulas.

The performance of the sample ventilator is tested in accordance with GB1236-2000.Its noise index is measured according to GB2888-1991 at the point 1 metre from the inlet.

Asterisk (\*)on the upper right cornerdenotes the performance parameter needed by the customers in practical gas inlet conditions.

## 5. Instructions

(1) Matching electric motor power of ventilator denotes internal power plus safety coefficient of electric motor capacity in special operating condition,it does not denote the power required during full opening of air outlet. Therefore no-load running of ventilator without any applied resistance is strictly prohibited in order to avoid burning out of the motor caused by its operation at over rated power.

(2) This fan is restricted for use in areas where air substances are non-corrosive,non-toxics and non-alkaline or where dust parties<150mg/m³,-10°C<temperature< 40°C.If special conditions during transportation,load and unload,it is strictly prohibited to shock the ventilators.

(3) Prior to installing ventilator,rotate the impeller by hand or stick to check for tightness or impact. If it is ensured that there is no tightness and impact,then the installation can be carried out.

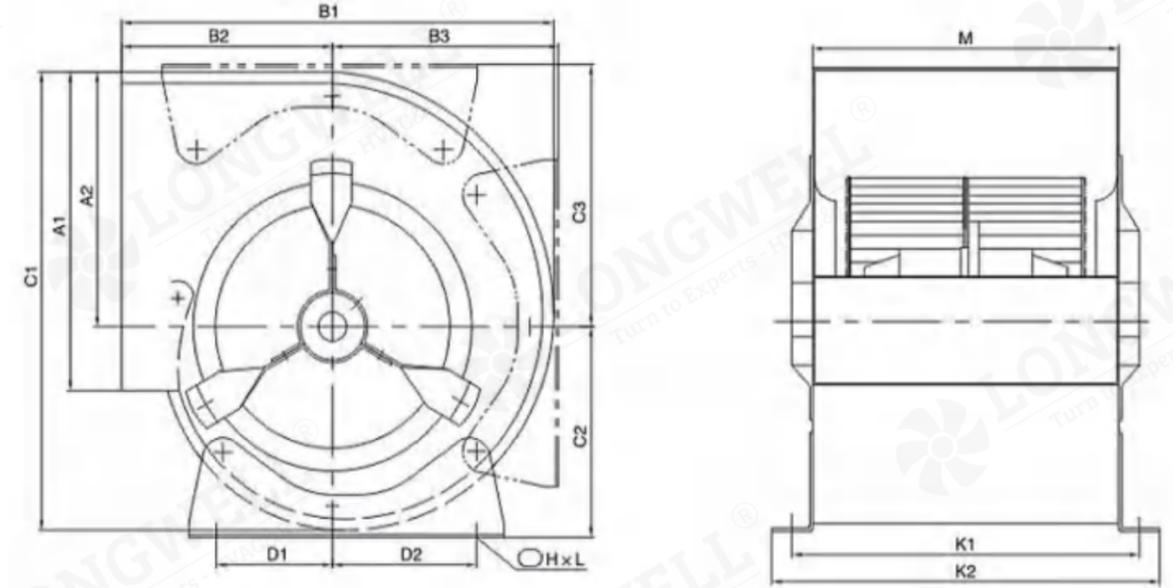
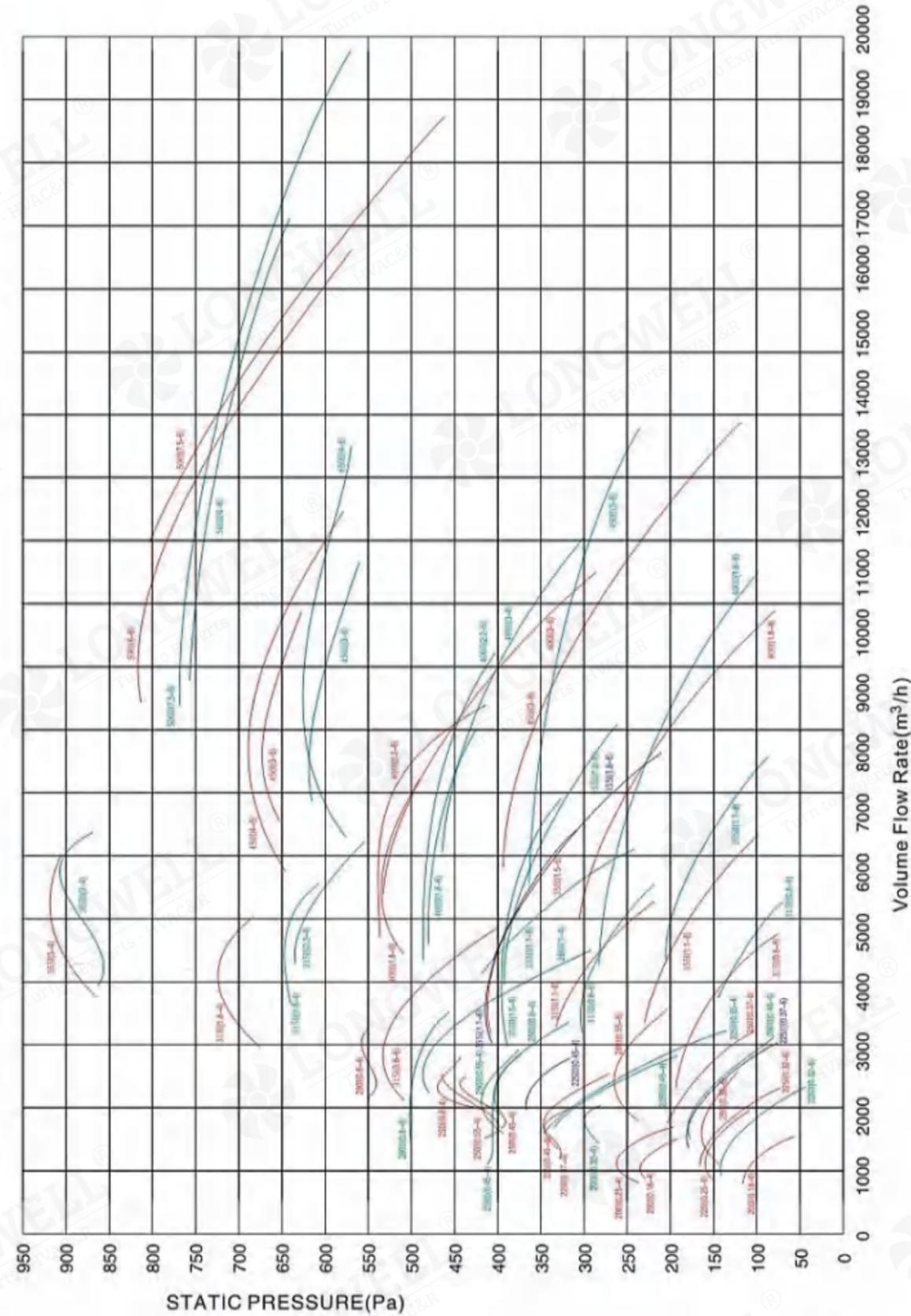
(4) Soft connection between air pipe and ventilator air-inlet and outlet should be made as possible. The joints should not be tightened too much.

(5) After installing,the ventilator,the scroll of ventilator should be inspected.There should not be tools and extra matters remained in the casing.

(6) Prior to official operation of ventilation,it is necessary to check the rotating direction of both motor and ventilator for their coordination.

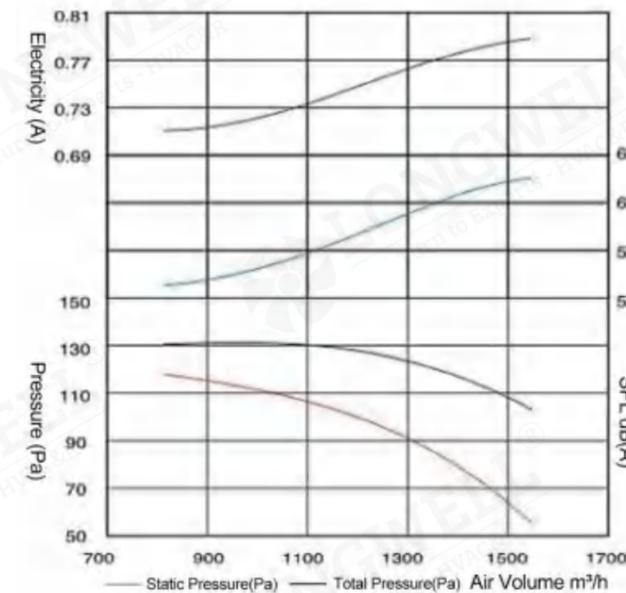
(7) During ordering it is necessary to state the type of ventilator,speed,air volume,air pressure, direction of air outlet,rotating direction,type of electric motor and its specifications.

## DDM8-8 Series



### Overall Size and Erection Size

Model	A1	A2	B1	B2	B3	C1	C2	C3	D1	D2	M	K1	K2	HxL
DDM8-8I	219	172	308	154	160	308	140	177	85	105	225	255	285	11x16
DDM8-8II	230	180	317	153	167	328	152	182	81	99	300	333	360	11x16

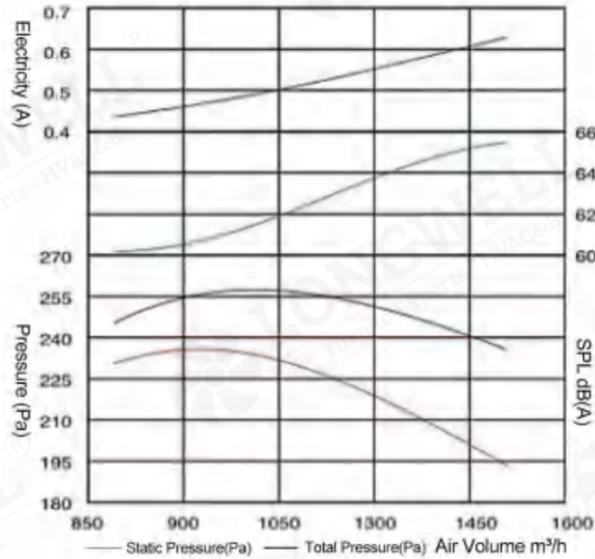


Model	Motor	Weight(kg)	Rate Current(A)
DDM8-8I	0.18KW-6	15	0.84

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
812	130	117	0.71	53.6
1028	132	111	0.72	55.2
1145	128	103	0.74	57.8
1230	125	96	0.76	60.3
1425	116	76	0.77	62.5
1546	103	56	0.79	64.9

## DDM8-8 Series

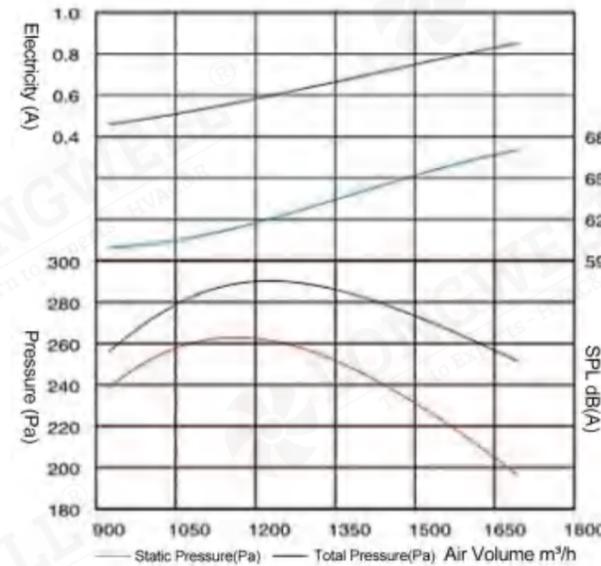
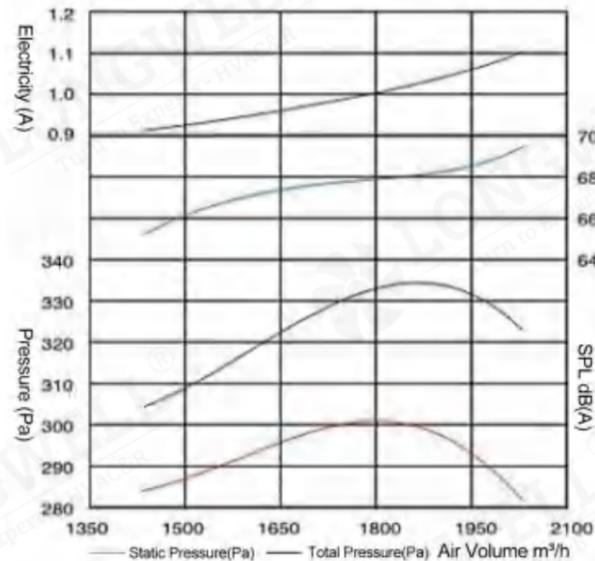


Model	Motor	Weight(kg)	Rate Current(A)
DDM8-8I	0.18KW-4	15	0.64

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
892	244	229	0.44	60.2
984	258	239	0.46	60.5
1088	255	232	0.48	61.2
1236	254	224	0.53	62.9
1374	248	211	0.58	64.6
1509	236	192	0.63	65.5

Model	Motor	Weight(kg)	Rate Current(A)
DDM8-8I	0.25KW-4	15	0.9

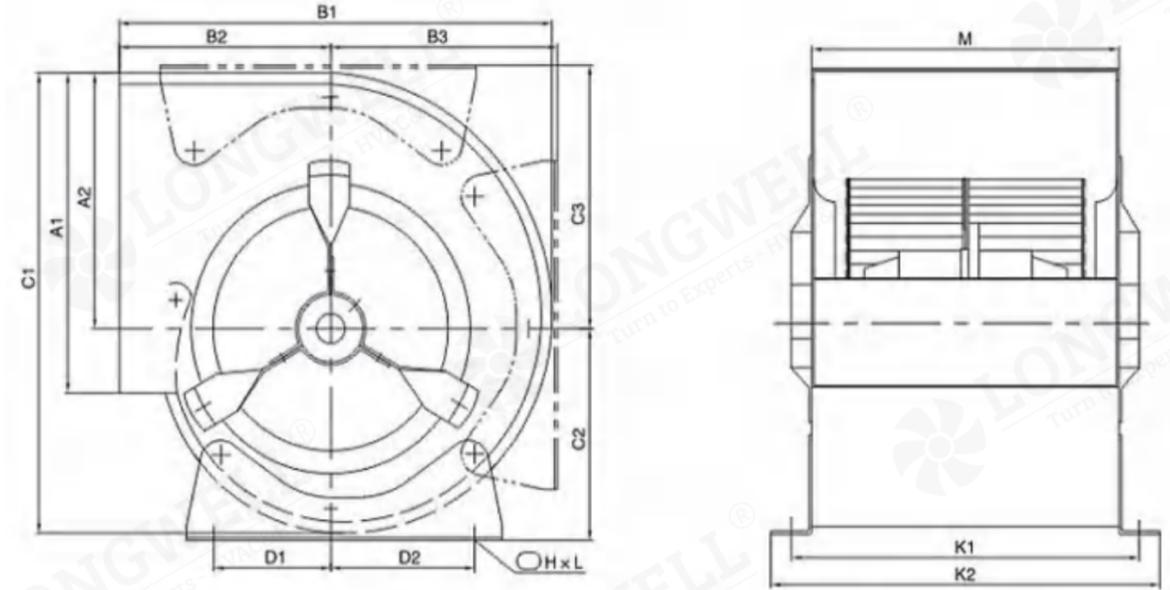
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
924	255	239	0.46	60.1
1190	290	263	0.59	61.6
1257	289	259	0.61	62.5
1485	276	234	0.75	65.0
1695	252	197	0.86	67.1



Model	Motor	Weight(kg)	Rate Current(A)
DDM8-8II	0.32KW-4	15.8	1.05

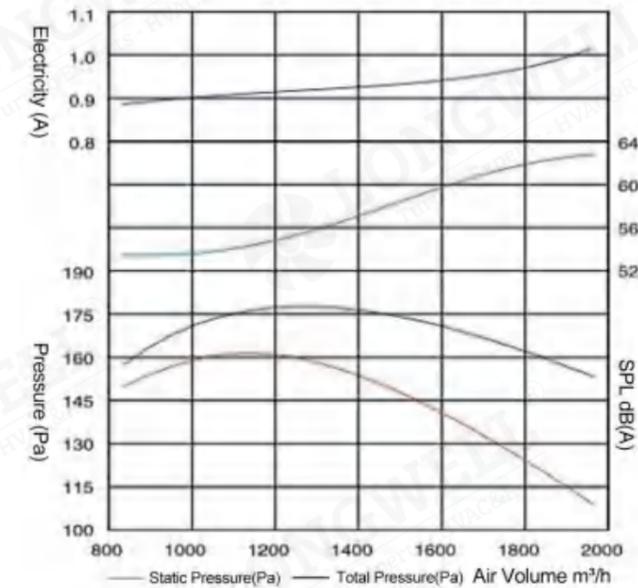
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1435	305	285	0.91	65.2
1536	311	287	0.93	66.5
1712	330	301	0.98	67.7
1958	329	291	1.06	68.6
2032	324	283	1.10	69.5

## DDM9-9 Series



### Overall Size and Erection Size

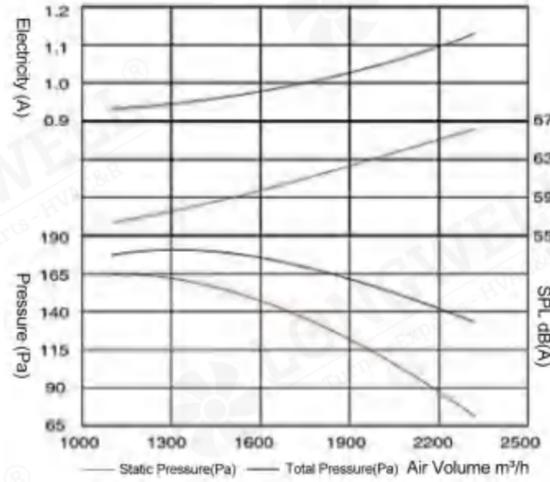
Model	A1	A2	B1	B2	B3	C1	C2	C3	D1	D2	M	K1	K2	HxL
DDM9-9I	246	194	342	169	178	347	158	200	100	120	258	289	319	11x16
DDM9-9II	246	215.5	357	167	193	380	167.6	218.5	100	120	388	319	349	11x16
DDM9-9III	273	215	377	184	200	385	180	220	110	130	300	330	360	11x16



Model	Motor	Weight(kg)	Rate Current(A)
DDM9-9I	0.25KW-6	17.6	1.0

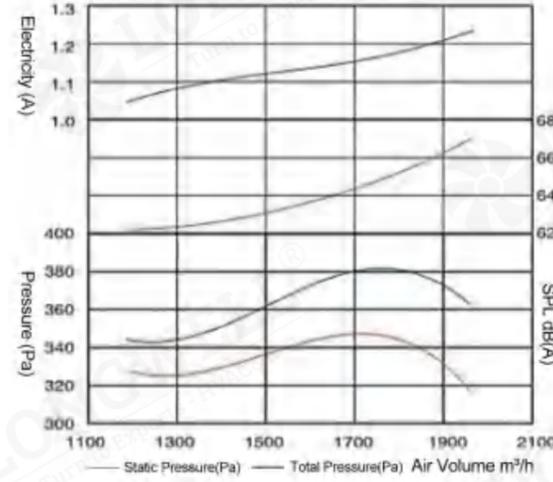
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
837	158	150	0.89	53.6
1302	177	157	0.92	56.0
1717	170	136	0.95	60.5
1794	156	119	0.98	62.3
1964	154	110	1.01	62.8

## DDM9-9 Series



Model	Motor	Weight(kg)	Rate Current(A)
DDM9-9I	0.32KW-6	18.9	1.2

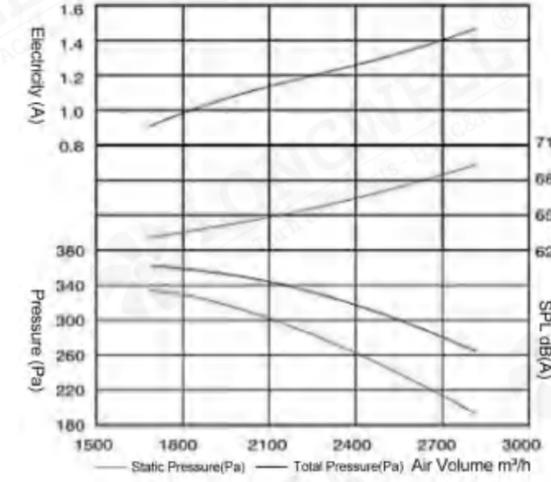
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1103	178	165	0.93	56.5
1347	181	160	0.95	57.5
1694	173	141	0.99	60.8
1933	159	117	1.03	63.1
2184	144	91	1.10	64.2
2325	134	73	1.13	66.3



Model	Motor	Weight(kg)	Rate Current(A)
DDM9-9II	0.37KW-4	17.9	1.22

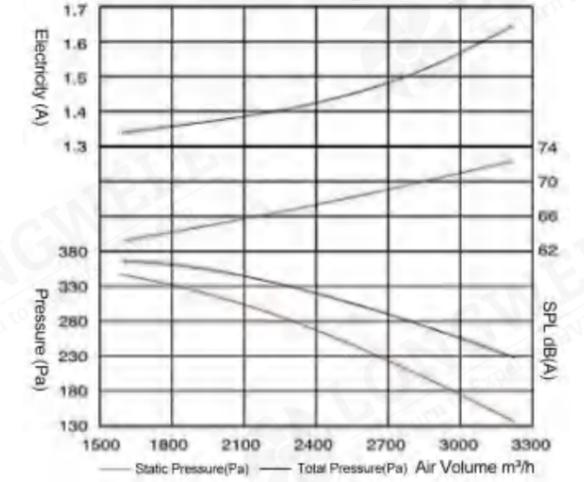
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1189	344	328	1.05	62.2
1438	355	331	1.11	62.8
1763	385	349	1.17	65.0
1867	373	333	1.20	65.7
1965	363	319	1.24	67.0

## DDM9-9 Series



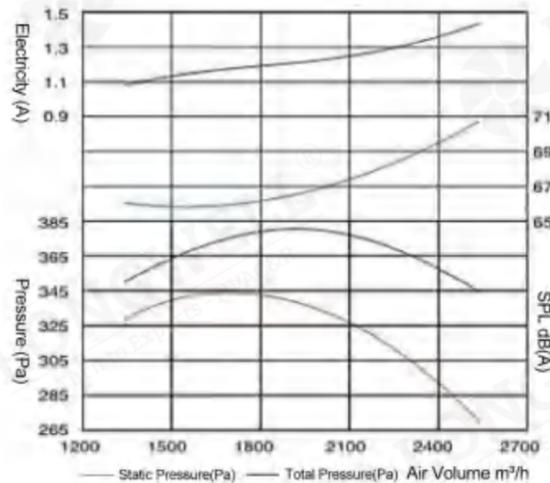
Model	Motor	Weight(kg)	Rate Current(A)
DDM9-9III	0.45KW-4	16.65	1.44

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1689	362	335	0.90	63.2
1836	359	328	1.02	63.6
2257	328	281	1.18	65.7
2579	297	236	1.36	67.6
2819	265	192	1.46	69.3



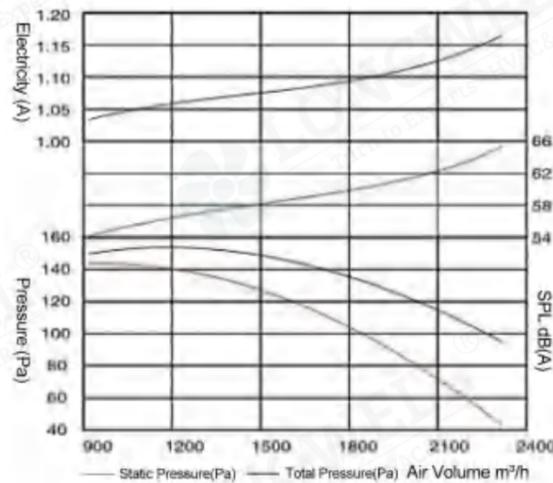
Model	Motor	Weight(kg)	Rate Current(A)
DDM9-9IV	0.55KW-4	17.8	1.67

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1596	365	345	1.34	63.3
2005	350	313	1.38	65.3
2614	300	237	1.45	68.2
2909	266	188	1.55	70.7
3224	229	133	1.65	72.4



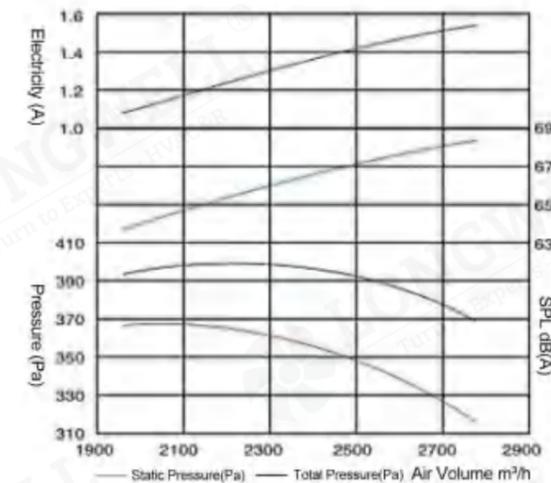
Model	Motor	Weight(kg)	Rate Current(A)
DDM9-9V	0.45KW-4	18.85	1.44

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1341	350	329	1.08	66.1
1920	380	338	1.21	66.2
2154	375	322	1.27	67.9
2334	364	301	1.32	69.4
2541	344	270	1.44	70.8



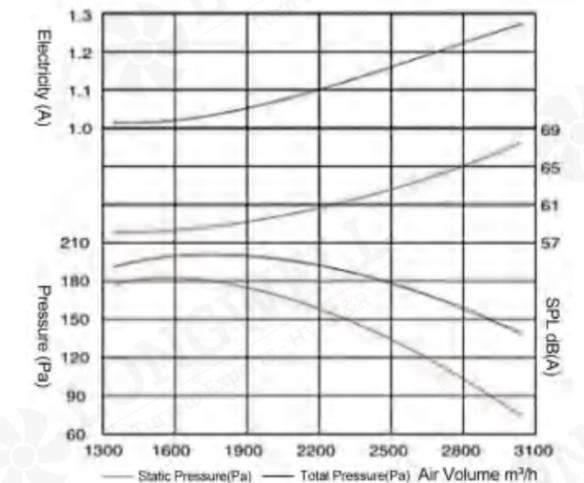
Model	Motor	Weight(kg)	Rate Current(A)
DDM9-9VI	0.32KW-6	16.7	1.29

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
921	150	142	1.03	54.2
1285	154	138	1.09	56.6
1524	149	126	1.04	58.5
1737	137	108	1.10	59.5
2133	113	69	1.14	62.5
2322	95	43	1.16	65.5



Model	Motor	Weight(kg)	Rate Current(A)
DDM9-9VII	0.45KW-4	18.35	1.44

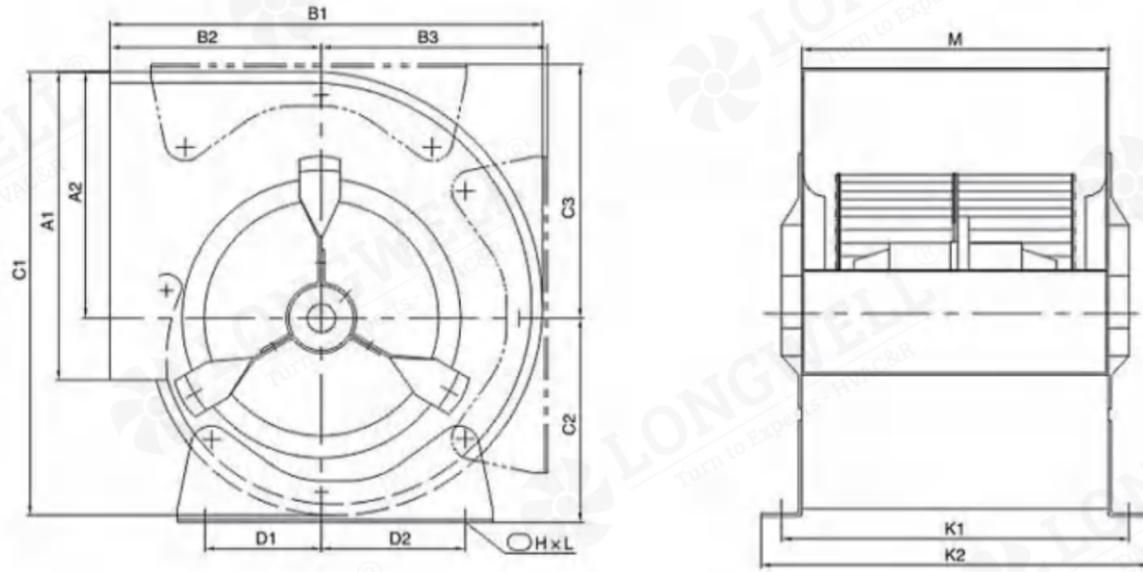
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1961	394	366	1.12	63.9
2140	399	367	1.18	64.5
2362	397	358	1.26	66.8
2502	391	347	1.31	67.3
2673	381	331	1.38	67.6
2775	370	316	1.44	68.6



Model	Motor	Weight(kg)	Rate Current(A)
DDM9-9VIII	0.37KW-6	18.4	1.4

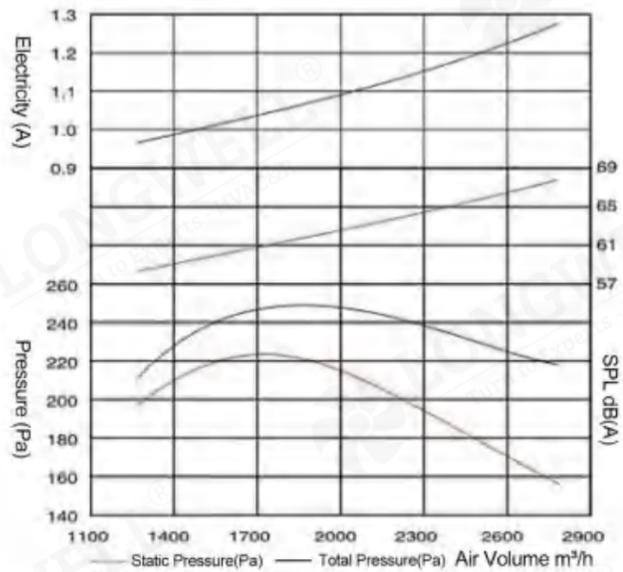
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1345	191	178	1.01	58.1
1637	201	183	1.03	58.5
1939	197	171	1.05	59.2
2547	175	130	1.17	63.0
2851	154	97	1.24	65.7
3042	140	75	1.27	67.3

## DDM10-10 Series



### Overall Size and Erection Size

Model	A1	A2	B1	B2	B3	C1	C2	C3	D1	D2	M	K1	K2	HxL
DDM10-10I	273	215	377	184	200	385	180	220	110	130	281	311	341	11x16
DDM10-10II	272	226	389	187	205	403	181	229	110	130	300	330	360	11x16

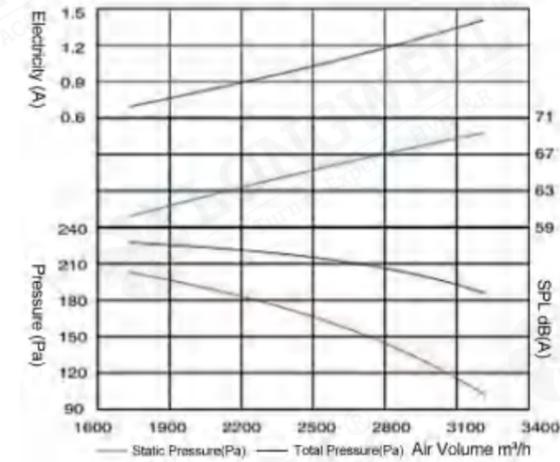


Model	Motor	Weight(kg)	Rate Current(A)
DDM10-10I	0.32KW-6	20.4	1.29

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1268	210	196	0.97	58.5
1778	251	225	1.05	61.1
2070	241	205	1.11	63.1
2258	239	197	1.13	64.3
2571	230	174	1.23	66.4
2786	219	154	1.28	67.7

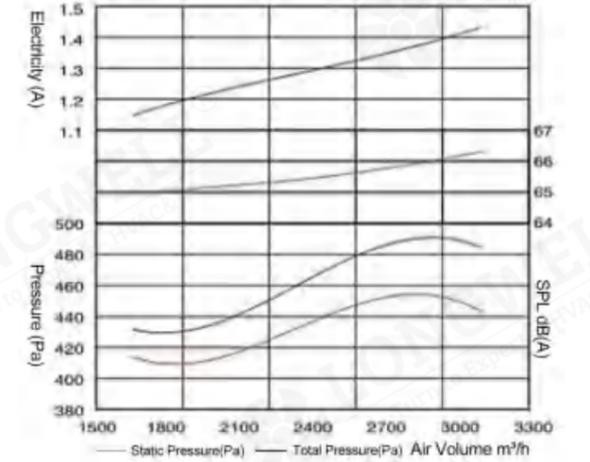
## DDM10-10 Series



Model	Motor	Weight(kg)	Rate Current(A)
DDM10-10I	0.37KW-6	20.4	1.4

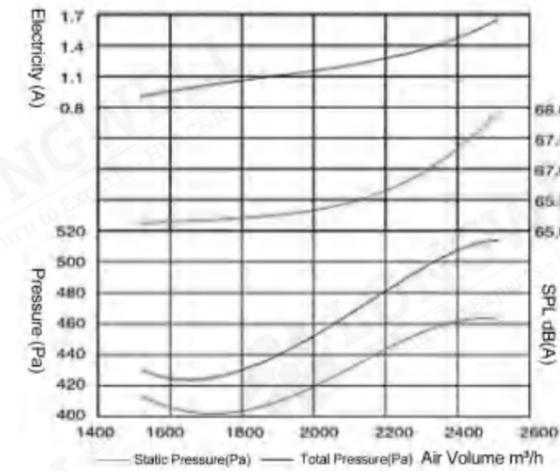
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1734	227	203	0.69	60.2
2396	218	173	0.98	63.9
2675	210	154	1.11	66.7
2891	204	138	1.23	67.9
3217	183	102	1.40	69.2



Model	Motor	Weight(kg)	Rate Current(A)
DDM10-10I	0.45KW-4	20.35	1.44

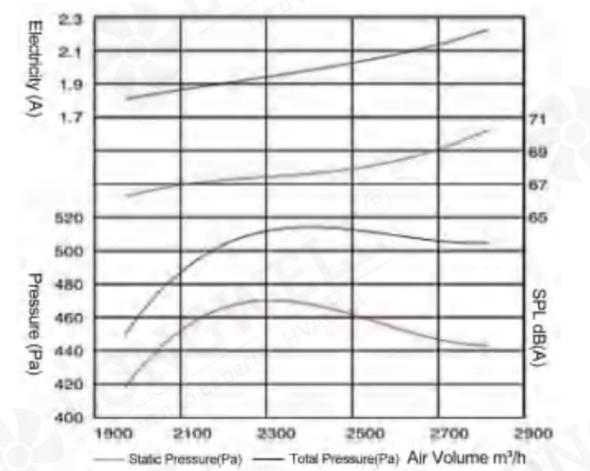
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1685	419	397	1.15	65.0
1898	421	393	1.23	65.2
2132	473	437	1.30	65.5
2274	476	435	1.35	65.8
2489	483	434	1.43	66.3



Model	Motor	Weight(kg)	Rate Current(A)
DDM10-10I	0.55KW-4	21.5	1.67

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1522	430	412	0.91	66.1
1808	435	409	1.01	66.2
2068	453	419	1.25	66.4
2401	516	471	1.40	67.3
2512	510	460	1.68	67.9

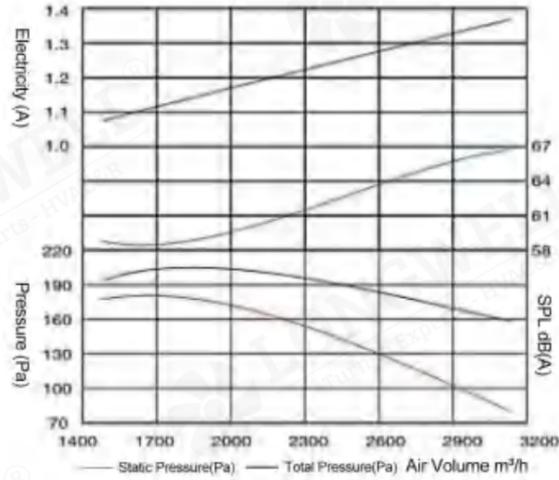


Model	Motor	Weight(kg)	Rate Current(A)
DDM10-10I	0.8KW-4	23.65	2.22

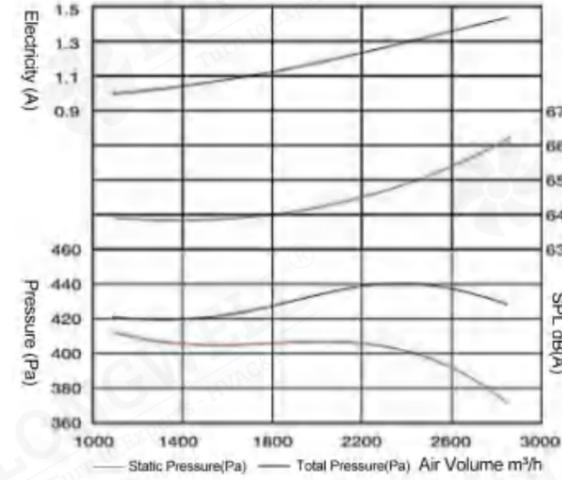
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1972	449	418	1.81	66.3
2213	507	468	1.92	67.1
2396	512	466	1.97	67.8
2599	509	455	2.08	68.3
2817	506	442	2.22	70.3

## DDM10-10 Series



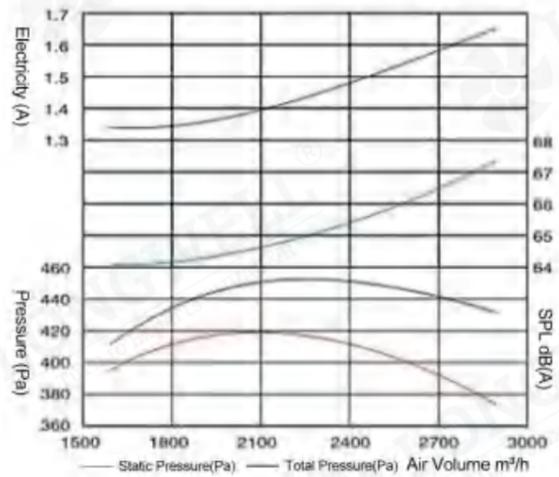
Model	Motor	Weight(kg)	Rate Current(A)
DDM10-10II	0.45KW-6	20	1.48

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1483	195	177	1.08	58.7
1816	205	179	1.16	58.8
2158	201	164	1.18	60.3
2510	186	136	1.27	63.2
2836	174	110	1.33	65.2
3134	158	80	1.37	66.9



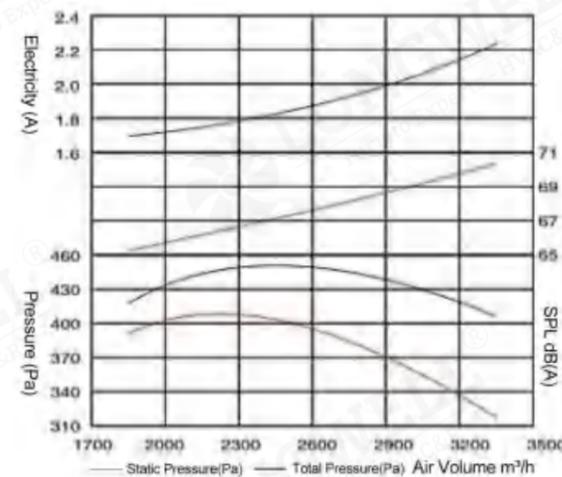
Model	Motor	Weight(kg)	Rate Current(A)
DDM10-10III	0.45KW-4	19.5	1.44

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1090	421	413	1.00	63.9
2004	434	406	1.18	64.4
2410	443	403	1.30	64.8
2671	435	385	1.38	65.3
2853	430	373	1.44	66.3



Model	Motor	Weight(kg)	Rate Current(A)
DDM10-10I	0.55KW-4	20.3	1.67

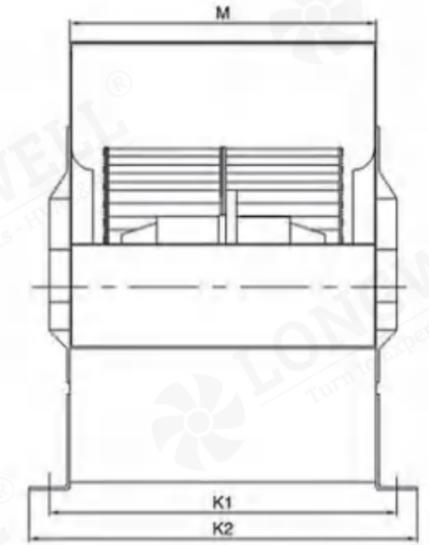
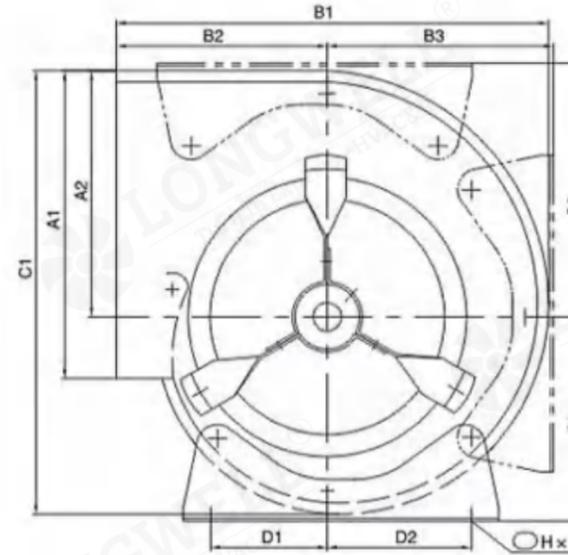
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1590	412	394	1.34	64.1
2200	452	418	1.41	64.8
2410	451	411	1.50	65.4
2640	444	396	1.55	66.3
2895	432	374	1.65	67.4



Model	Motor	Weight(kg)	Rate Current(A)
DDM10-10II	0.8KW-4	22.45	2.22

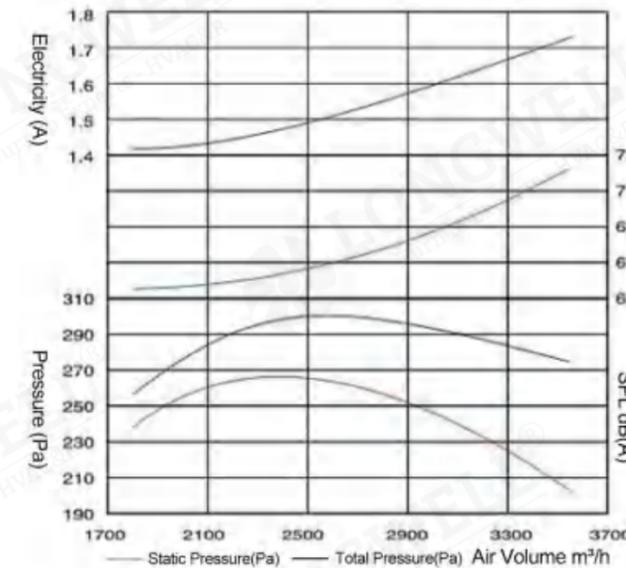
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1853	419	392	1.70	65.4
2152	446	409	1.74	66.4
2448	451	403	1.84	67.5
2756	441	381	1.93	67.9
3047	432	358	2.06	68.9
3348	407	318	2.23	70.5

## DDM11-11 Series



### Overall Size and Erection Size

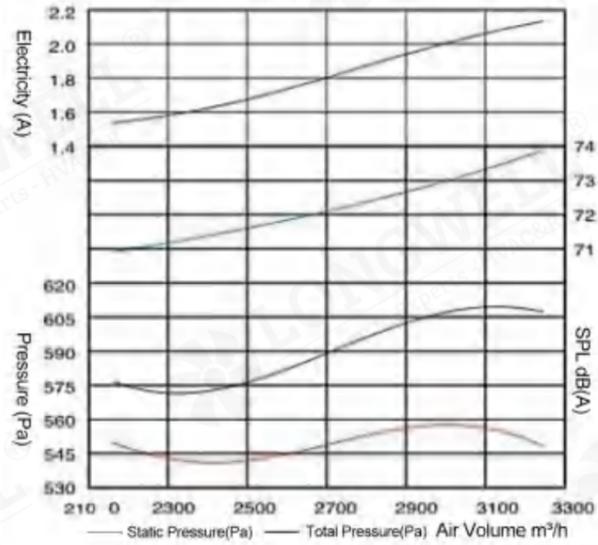
Model	A1	A2	B1	B2	B3	C1	C2	C3	D1	D2	M	K1	K2	HxL
DDM11-11I	305	241	417	201	220	432	195	245	132	138	300	330	360	11x16
DDM11-11II	305	241	417	201	220	432	195	245	132	138	356	386	416	11x16



Model	Motor	Weight(kg)	Rate Current(A)
DDM11-11I	0.55KW-6	24	1.68

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1803	257	239	1.42	65.6
2425	300	268	1.48	66.3
2838	296	252	1.56	68.1
3245	289	231	1.66	70.3
3556	273	203	1.73	72.2

## DDM11-11 Series

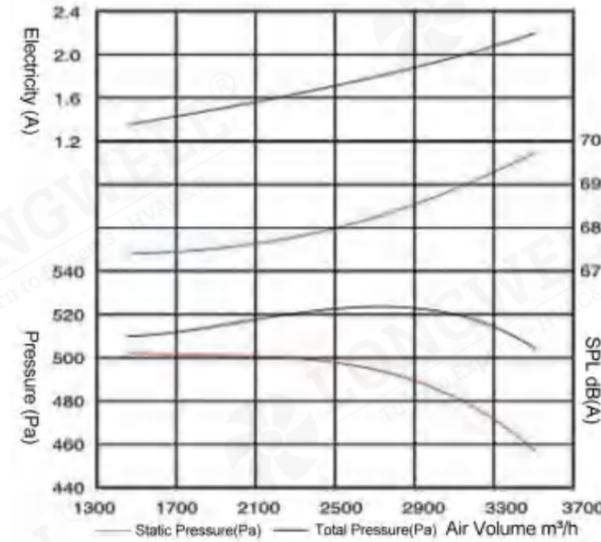


Model	Motor	Weight(kg)	Rate Current(A)
DDM11-11I	0.8KW-4	32.2	2.31

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
2160	576	550	1.54	70.9
2507	578	543	1.69	71.7
2600	582	545	1.73	71.9
2853	600	555	1.91	72.4
3246	607	549	2.13	73.9

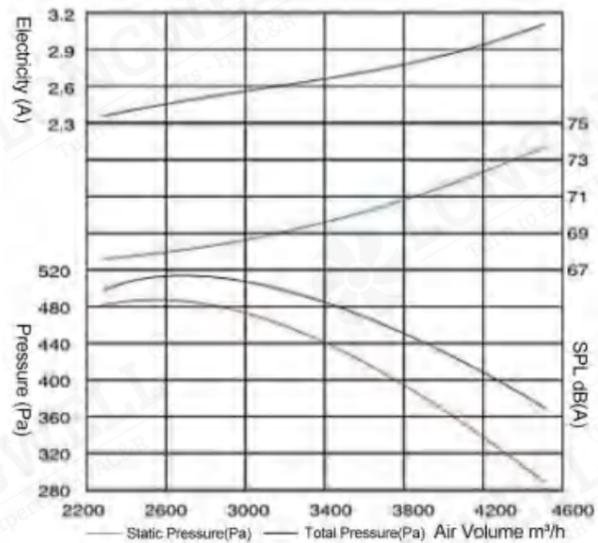
Model	Motor	Weight(kg)	Rate Current(A)
DDM11-11II	0.8KW-4	31.7	2.31

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
1460	510	502	1.36	67.4
2130	520	503	1.58	67.8
2670	521	493	1.79	68.1
3346	517	473	2.10	69.3
3510	503	455	2.21	69.8

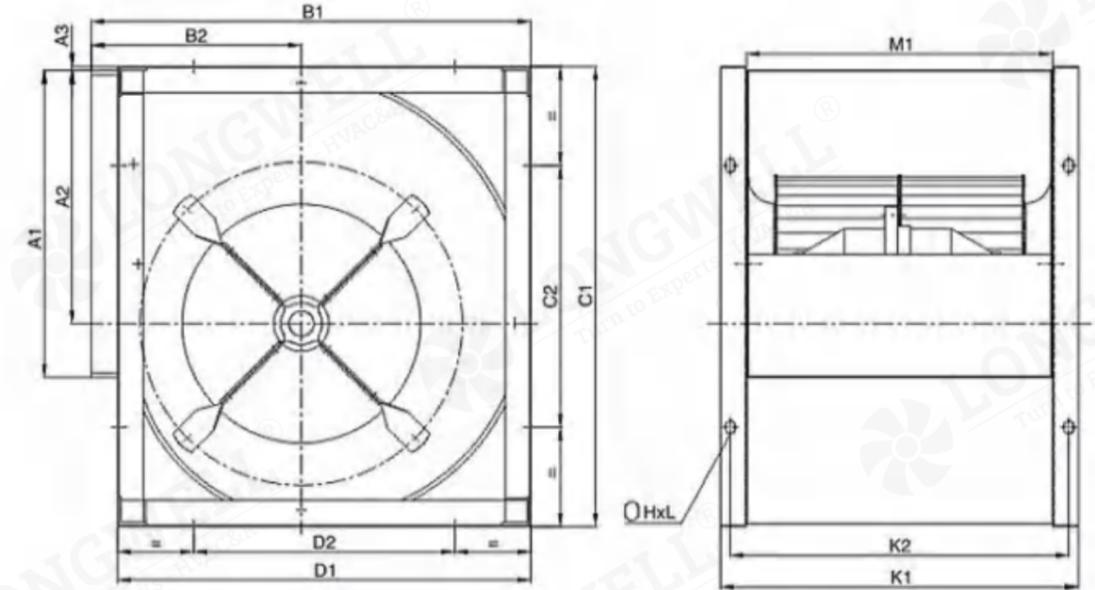


Model	Motor	Weight(kg)	Rate Current(A)
DDM11-11III	1KW-4	29.5	3.12

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
2280	500	480	2.36	67.6
2975	510	475	2.55	68.3
3875	440	381	2.83	71.4
4240	406	335	2.94	72.4
4510	370	290	3.12	73.6

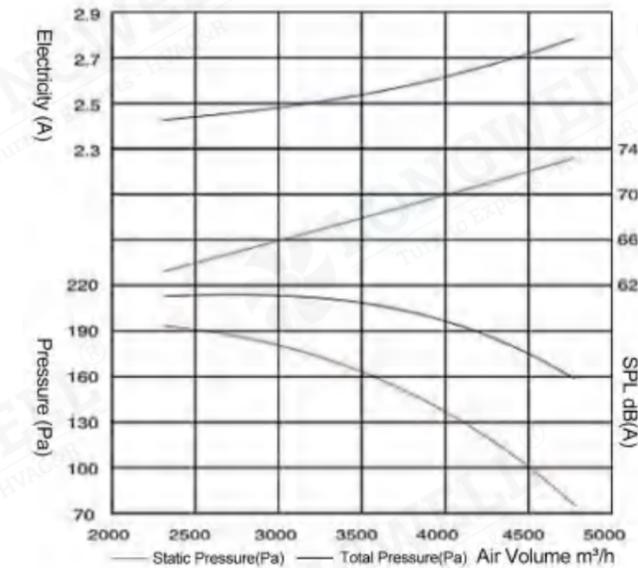


## DDM12-12 Series



### Overall Size and Erection Size

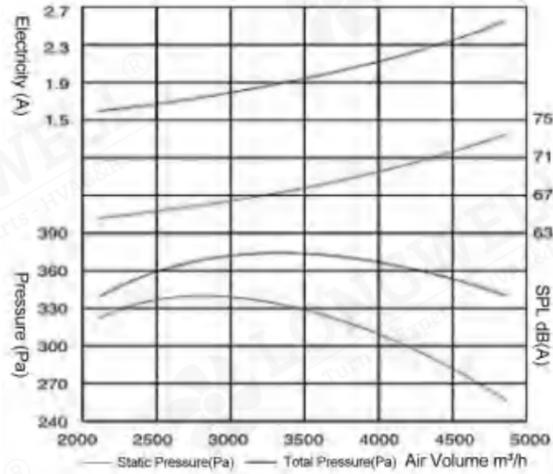
Model	A1	A2	A3	B1	B2	C1	C2	D1	D2	M1	K1	K2	HxL
DDM12-12I	338	271	5	490	242	495	280	450	280	338	418	378	13x18
DDM12-12II	338	271	5	490	242	495	280	450	280	400	480	440	13x18



Model	Motor	Weight(kg)	Rate Current(A)
DDM12-12I	0.8KW-8	43.8	2.9

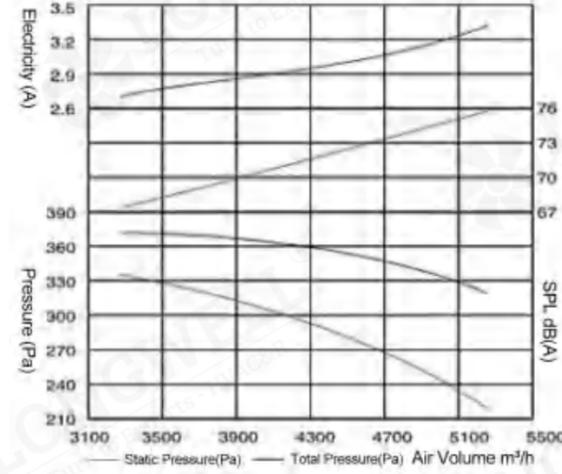
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
2313	213	193	2.43	63.3
3028	213	180	2.49	65.9
3549	206	160	2.53	68.1
3883	200	145	2.60	69.5
4223	188	123	2.66	70.9
4776	158	76	2.79	73.3

## DDM12-12 Series



Model	Motor	Weight(kg)	Rate Current(A)
DDM12-12I	0.8KW-6	42.2	2.5

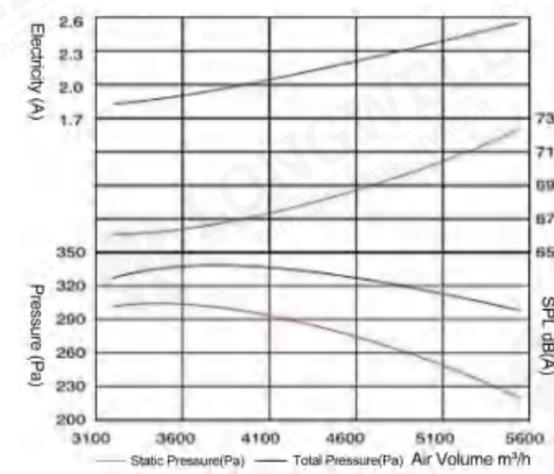
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
2110	339	323	1.60	64.7
3067	373	339	1.81	66.3
3870	367	313	2.06	69.5
4243	360	295	2.23	70.5
4580	352	277	2.39	72.1
4867	340	255	2.56	73.5



Model	Motor	Weight(kg)	Rate Current(A)
DDM12-12II	1.1KW-6	43.8	3.3

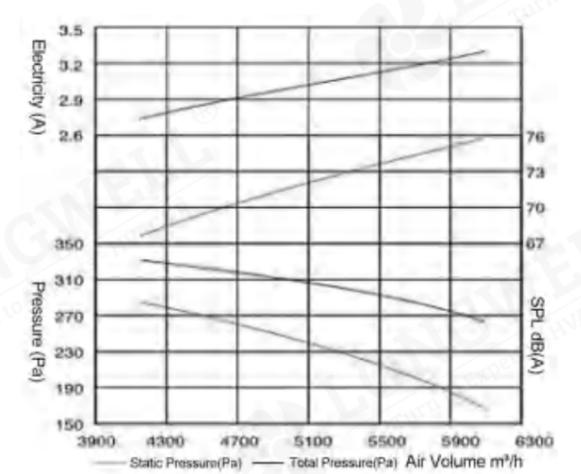
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
3276	372	334	2.71	67.5
3644	371	324	2.80	68.3
4161	362	300	2.92	71.4
4728	346	266	3.06	73.6
5050	333	241	3.22	74.8
5260	319	220	3.33	75.8

## DDM12-12 Series



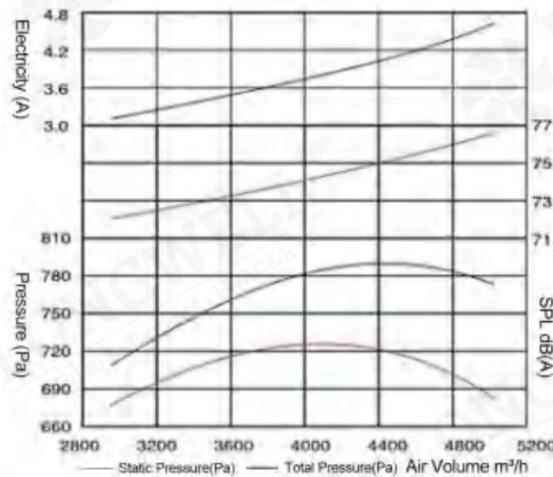
Model	Motor	Weight(kg)	Rate Current(A)
DDM12-12II	0.8KW-6	40.5	2.55

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
3195	328	302	1.83	66.2
3915	339	299	1.99	66.5
4536	329	276	2.18	68.8
4850	322	262	2.29	69.7
5157	311	243	2.43	70.8
5540	299	220	2.55	72.3



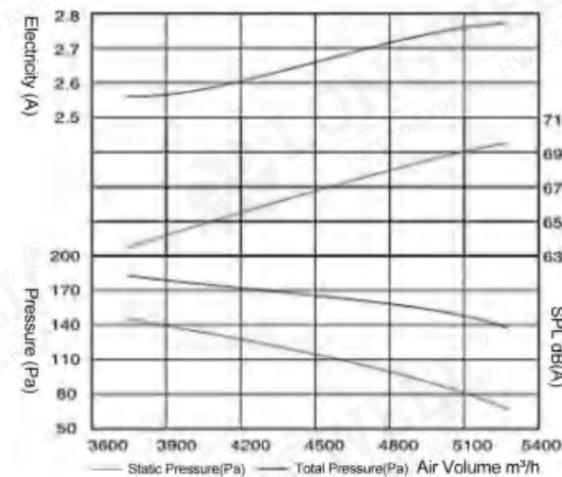
Model	Motor	Weight(kg)	Rate Current(A)
DDM12-12II	1.1KW-6	42.1	3.3

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
4152	331	287	2.74	67.8
4523	322	269	2.84	69.3
5024	310	245	3.01	71.7
5641	287	205	3.16	74.3
6098	264	168	3.30	75.7



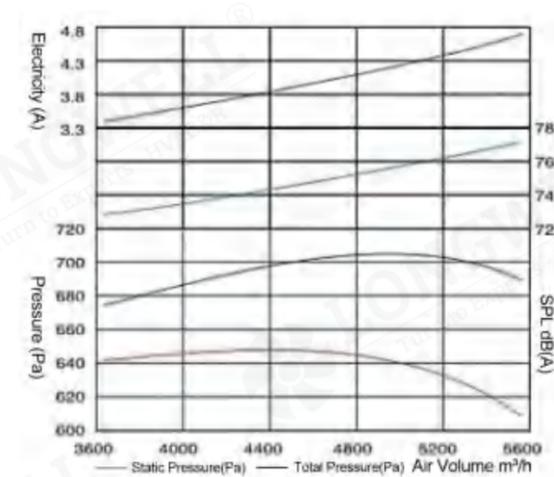
Model	Motor	Weight(kg)	Rate Current(A)
DDM12-12I	1.8KW-4	46.7	4.7

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
2957	709	678	3.14	72.1
3321	739	700	3.32	72.4
3704	771	722	3.56	73.5
4153	789	727	3.86	74.6
4549	787	713	4.14	75.3
5032	775	684	4.66	76.7



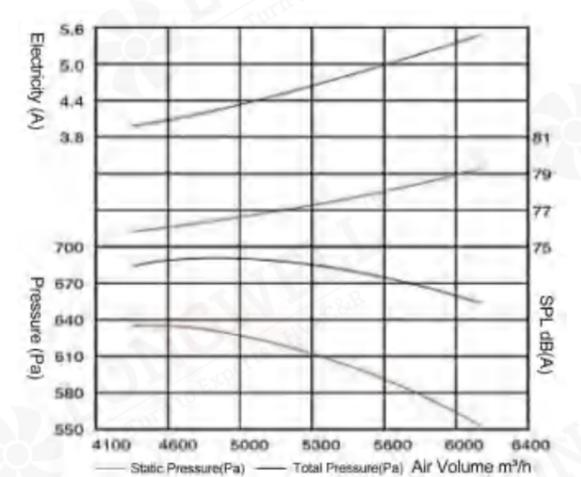
Model	Motor	Weight(kg)	Rate Current(A)
DDM12-12II	0.8KW-8	42.1	2.9

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
3742	182	146	2.56	63.5
4089	176	133	2.58	65.1
4347	169	121	2.65	66.3
4718	161	105	2.68	67.5
4976	153	90	2.76	68.6
5270	139	69	2.77	69.5



Model	Motor	Weight(kg)	Rate Current(A)
DDM12-12II	1.8KW-4	42	4.7

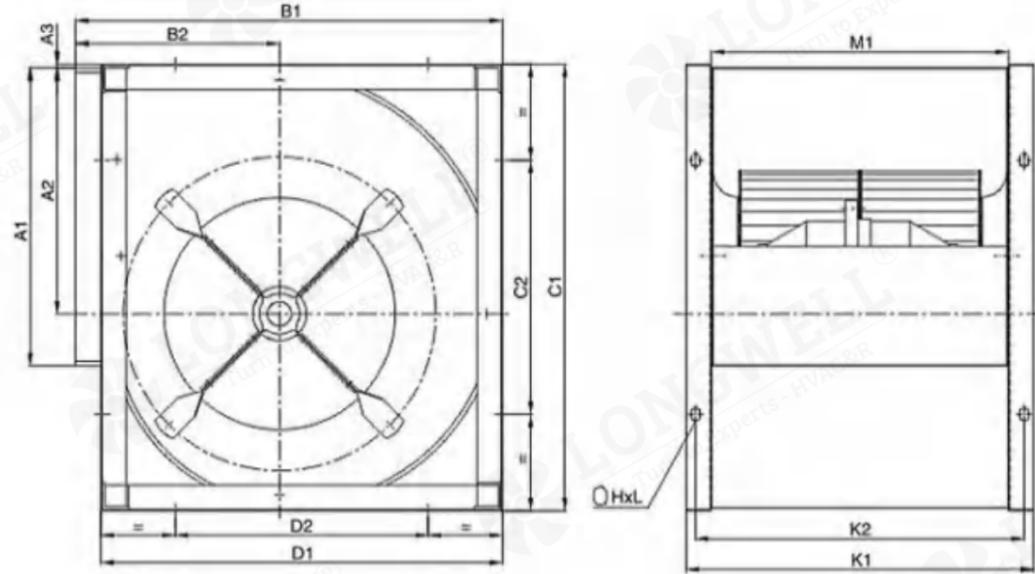
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
3639	676	642	3.10	72.7
3940	683	642	3.58	73.7
4521	702	650	3.90	74.5
4806	706	646	4.12	74.8
5135	702	634	4.32	76.6
5556	690	610	4.70	77.1



Model	Motor	Weight(kg)	Rate Current(A)
DDM12-12II	2.2KW-4	45	5.4

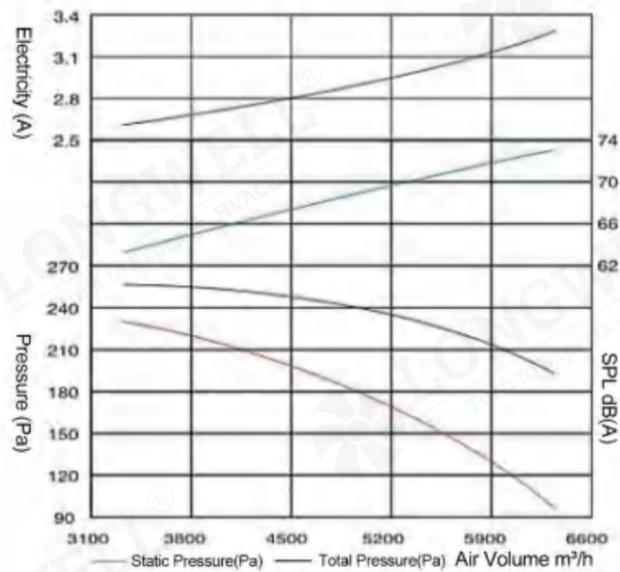
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
4305	685	637	4.00	75.8
4688	687	631	4.18	76.3
5049	690	624	4.46	76.9
5489	681	604	4.82	77.5
5830	667	580	5.10	78.3
6229	655	555	5.46	79.2

## DDM14-14 Series



### Overall Size and Erection Size

Model	A1	A2	A3	B1	B2	C1	C2	D1	D2	M1	K1	K2	HxL
DDM14-14I	375	306	4	545	266	557	315	505	315	375	455	415	13x18
DDM14-14II	375	305	5	545	266	557	315	505	315	431	511	471	13x18

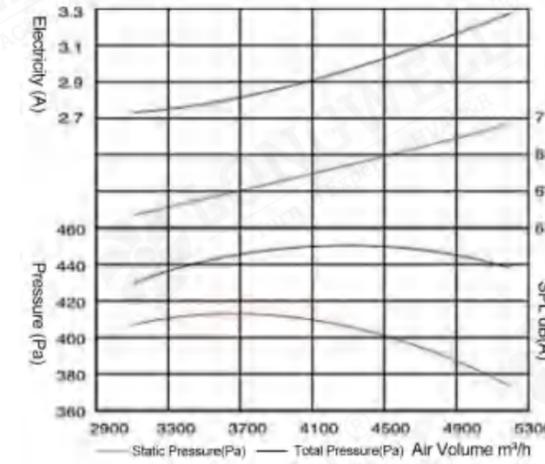


Model	Motor	Weight(kg)	Rate Current(A)
DDM14-14I	1.1KW-8	53	3.67

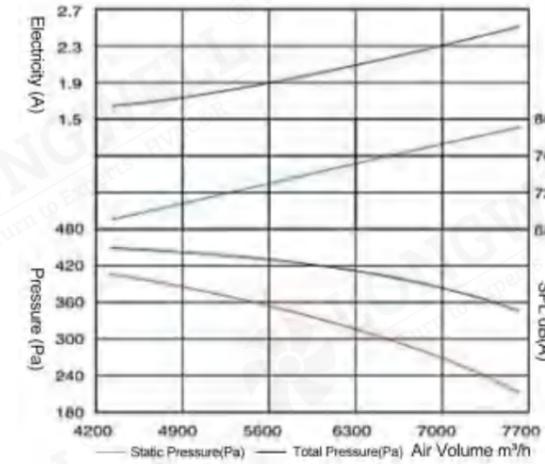
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
3318	256	230	2.62	63.2
3905	253	217	2.68	65.7
4539	246	197	2.81	67.3
5190	234	170	2.96	69.5
5723	216	139	3.06	71.4
6340	193	98	3.29	73.2

## DDM14-14 Series



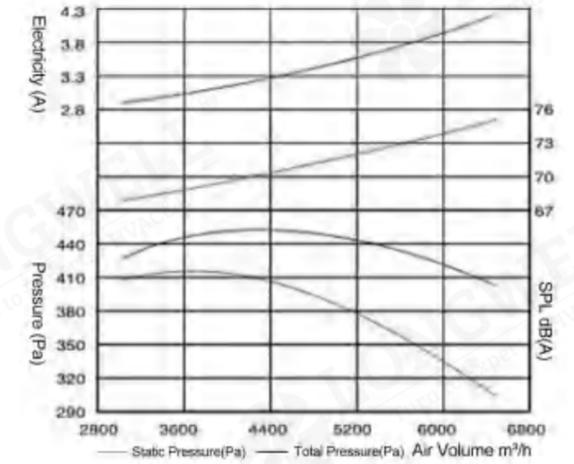
Model	Motor	Weight(kg)	Rate Current(A)
DDM14-14I	1.1KW-6	46.8	3.18

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
3107	431	408	2.74	65.9
3716	446	413	2.83	66.9
4350	450	405	2.97	68.6
4643	448	397	3.10	69.5
4951	444	385	3.18	70.2
5191	439	375	3.28	70.5



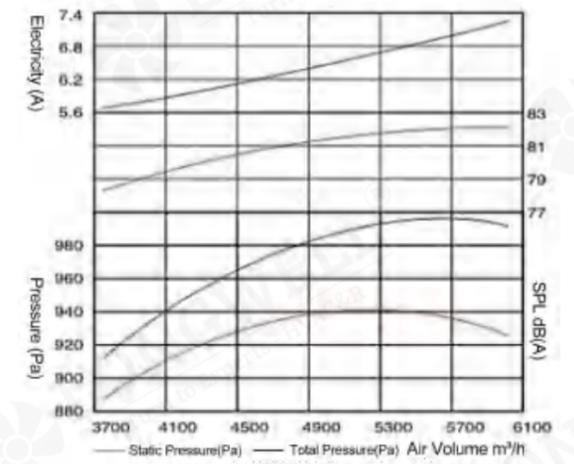
Model	Motor	Weight(kg)	Rate Current(A)
DDM14-14I	1.8KW-6	55.6	5.0

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
4329	450	405	1.65	69.1
5405	435	365	1.85	72.4
6023	418	331	2.01	74.3
6588	401	298	2.18	76.1
7147	378	257	2.36	77.6
7629	350	211	2.52	79.3



Model	Motor	Weight(kg)	Rate Current(A)
DDM14-14II	1.5KW-6	53	4.2

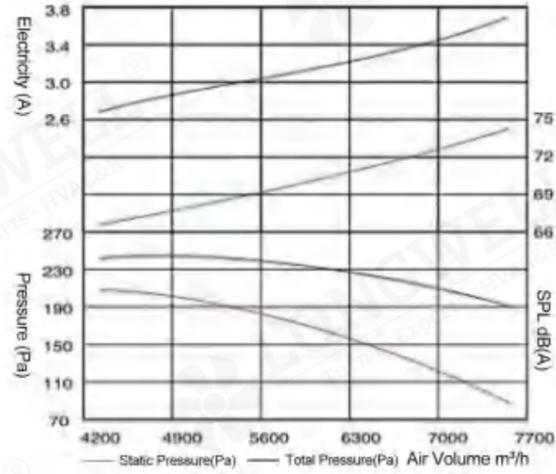
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
3033	428	406	2.91	67.6
3478	445	416	3.03	68.9
4343	450	405	3.24	70.5
5458	436	365	3.68	72.3
5929	423	339	3.91	73.6
6475	405	305	4.21	75.3



Model	Motor	Weight(kg)	Rate Current(A)
DDM14-14II	3.0KW-4	57	7.3

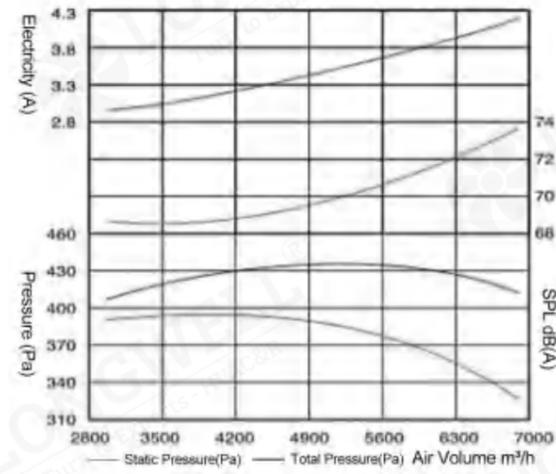
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
3758	893	867	5.70	73.7
4189	925	893	5.88	74.3
4568	950	912	6.22	74.8
4968	961	916	6.48	76.1
5473	975	920	6.80	77.2
6024	972	906	7.30	78.5

## DDM14-14 Series



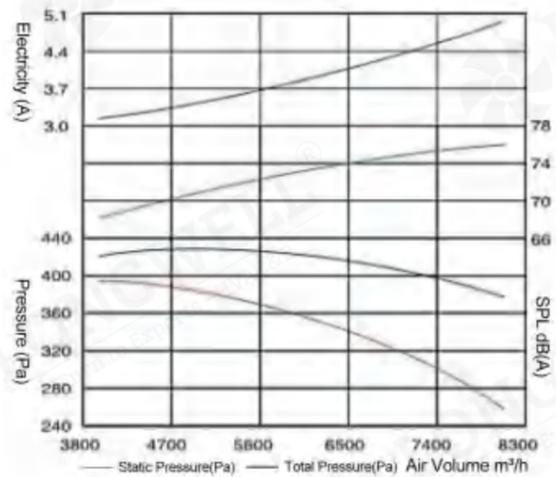
Model	Motor	Weight(kg)	Rate Current(A)
DDM14-14II	1.1KW-8	53.8	3.67

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
4332	241	207	2.69	66.6
5009	245	200	2.92	67.8
5478	239	185	2.99	68.9
5970	234	170	3.12	70.2
5724	216	134	3.36	71.7
7564	191	87	3.69	74.3



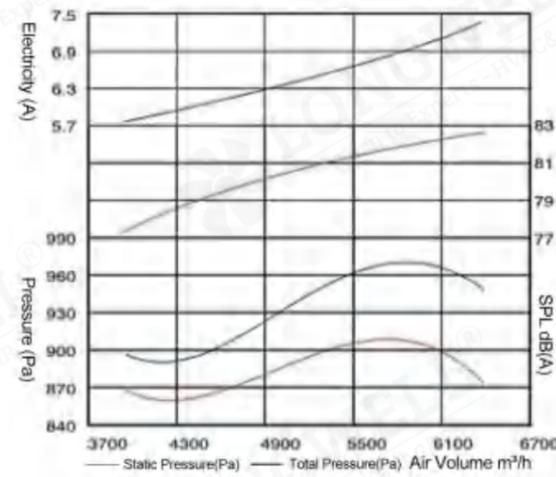
Model	Motor	Weight(kg)	Rate Current(A)
DDM14-14II	1.5KW-6	53.8	4.2

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
2980	407	391	2.96	68.7
5569	435	379	3.66	70.1
5909	432	369	3.79	71.5
6330	428	355	3.97	72.5
6683	419	339	4.08	73.2
6904	414	327	4.21	73.5



Model	Motor	Weight(kg)	Rate Current(A)
DDM14-14II	1.8KW-6	56.4	5.0

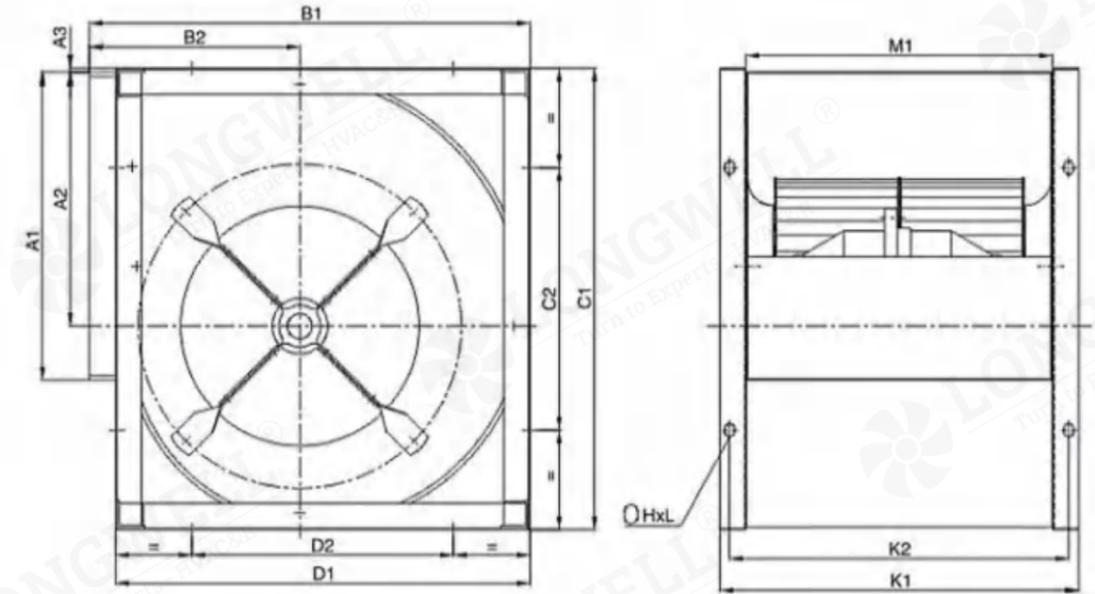
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
3965	422	394	3.14	68.2
5669	426	368	3.70	72.5
6435	416	342	4.02	73.9
6982	407	319	4.32	74.9
7490	395	294	4.60	75.2
8082	379	261	4.96	76.1



Model	Motor	Weight(kg)	Rate Current(A)
DDM14-14II	3.0KW-4	57.8	7.3

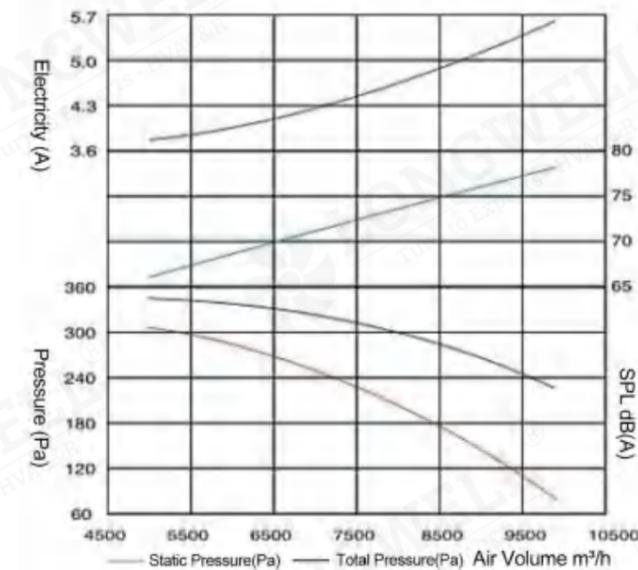
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
3949	898	870	5.78	77.3
4306	891	857	6.02	78.4
4542	889	851	6.04	79.5
5167	961	913	6.44	81.0
5885	956	893	6.92	81.3
6379	949	875	7.36	82.8

## DDM16-16 Series



### Overall Size and Erection Size

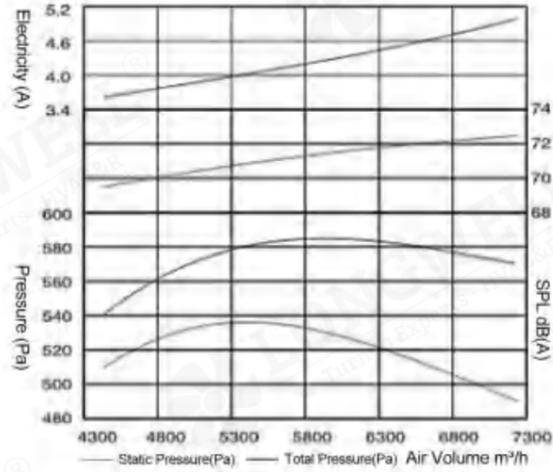
Model	A1	A2	A3	B1	B2	C1	C2	D1	D2	M1	K1	K2	HxL
DDM16-16I	419	344	5	605	292	626	355	565	355	419	499	459	13x18
DDM16-16II	419	344	5	605	292	626	355	565	355	460	540	500	13x18



Model	Motor	Weight(kg)	Rate Current(A)
DDM16-16I	1.8KW-8	65	5.59

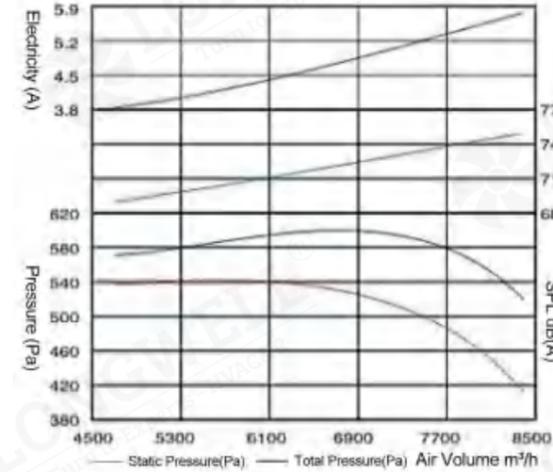
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
4998	345	307	3.76	66.5
6017	339	283	3.98	68.2
6967	325	251	4.20	70.8
8336	291	185	4.84	74.8
8879	269	149	5.06	76.5
9900	227	78	5.62	77.9

## DDM16-16 Series



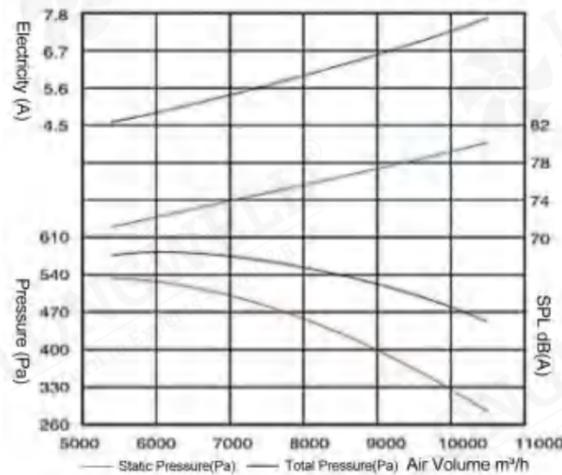
Model	Motor	Weight(kg)	Rate Current(A)
DDM16-16I	1.8KW-6	61.2	5.0

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
4437	540	510	3.62	69.5
5016	574	536	3.88	70.5
5419	578	534	4.02	70.9
5989	582	527	4.24	71.5
6689	581	512	4.68	71.9
7230	570	490	5.00	72.6



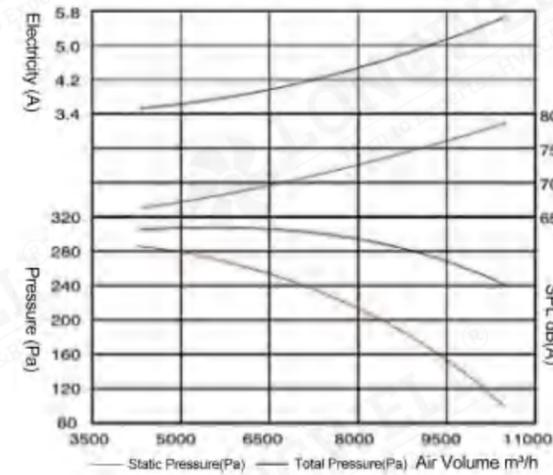
Model	Motor	Weight(kg)	Rate Current(A)
DDM16-16II	2.2KW-6	65	5.8

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
4710	570	536	3.86	69.3
5629	590	542	4.16	69.8
6746	595	526	4.76	72.3
7137	589	511	5.04	73.1
7916	577	481	5.44	74.2
8386	518	410	5.80	75.0



Model	Motor	Weight(kg)	Rate Current(A)
DDM16-16I	3.0KW-6	76.4	7.7

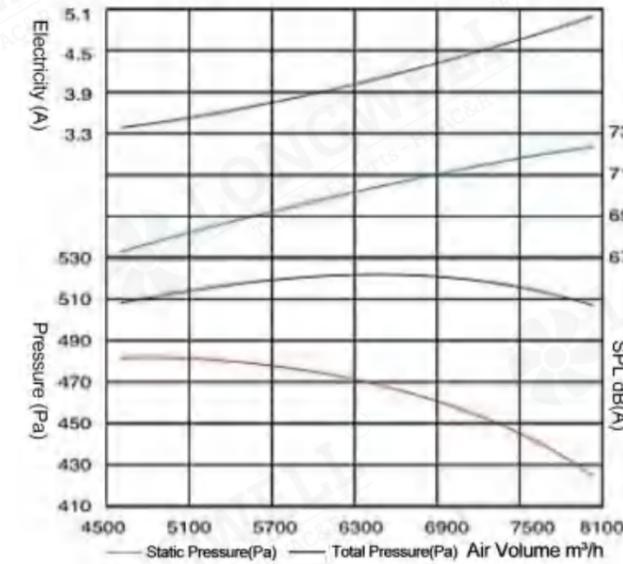
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
5400	578	534	4.62	71.3
6434	580	518	5.12	72.9
7340	569	487	5.60	74.5
9063	516	392	6.66	77.5
9881	484	336	7.20	79.4
10487	453	286	7.70	80.2



Model	Motor	Weight(kg)	Rate Current(A)
DDM16-16II	1.8KW-8	64.3	5.59

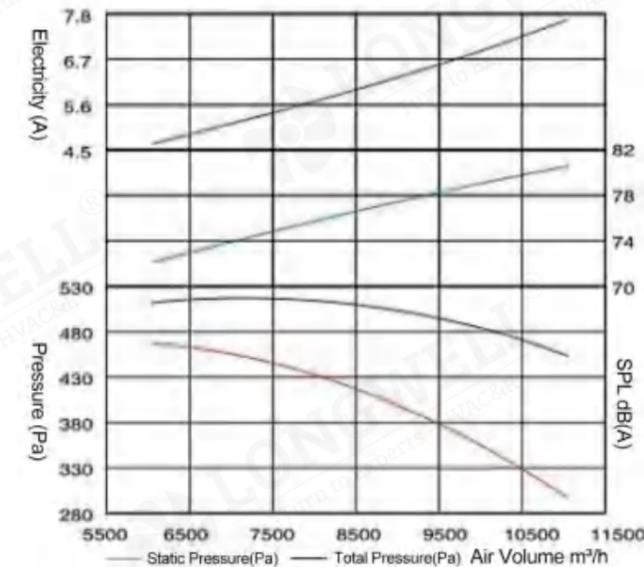
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
4291	306	283	3.52	66.8
6147	309	261	3.86	68.2
7040	301	238	4.14	70.6
7976	295	215	4.46	72.8
8952	278	176	4.86	75.5
10495	239	100	5.66	78.2

## DDM16-16 Series



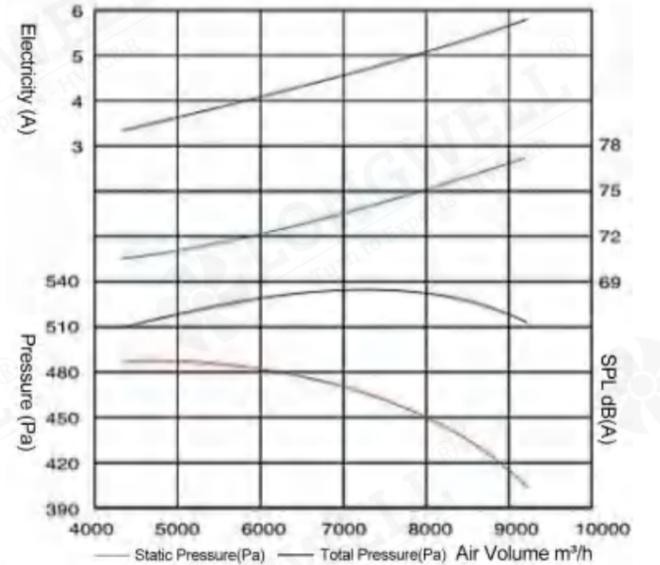
Model	Motor	Weight(kg)	Rate Current(A)
DDM16-16II	2.2KW-6	64.3	5.8

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
4358	510	486	3.40	70.0
4944	521	489	3.64	71.6
6311	527	476	4.20	72.4
7704	536	460	4.92	74.3
8306	528	440	5.24	75.9
9229	512	404	5.80	77.3



Model	Motor	Weight(kg)	Rate Current(A)
DDM16-16II	1.8KW-6	60.5	5.0

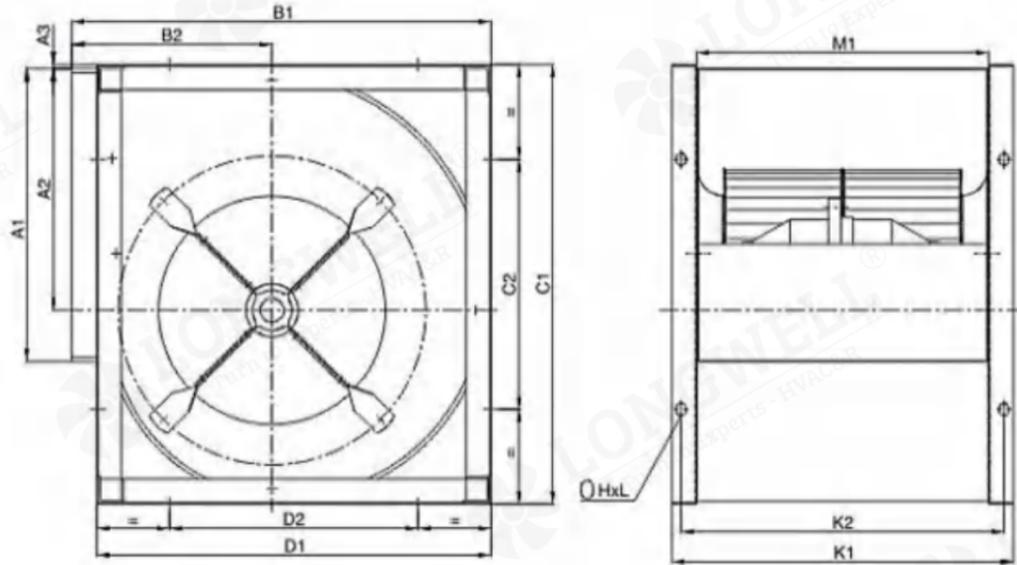
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
4600	508	482	3.40	67.2
5736	517	475	3.76	69.5
6295	525	474	4.02	70.0
6709	520	463	4.24	70.7
7454	515	445	4.64	71.6
8031	508	426	5.00	72.4



Model	Motor	Weight(kg)	Rate Current(A)
DDM16-16II	3.0KW-6	75.7	7.7

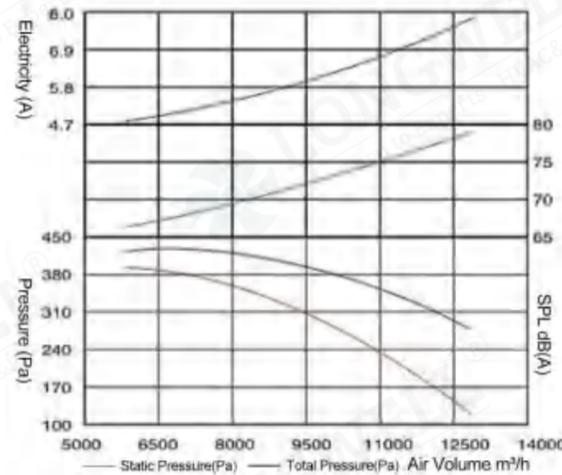
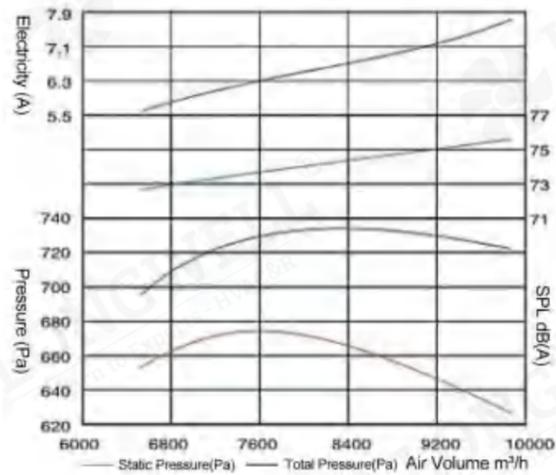
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
6059	513	466	4.64	71.9
7040	514	451	5.18	74.1
7982	518	437	5.64	75.8
7982	504	403	6.18	77.3
9984	482	355	6.92	78.7
11058	456	301	7.70	80.7

## DDM18-18 Series



### Overall Size and Erection Size

Model	A1	A2	A3	B1	B2	C1	C2	D1	D2	M1	K1	K2	HxL
DDM18-18I	469	387	5	674	322	703	400	634	400	469	549	519	13x18
DDM18-18II	469	387	5	674	322	703	400	634	400	530	610	580	13x18



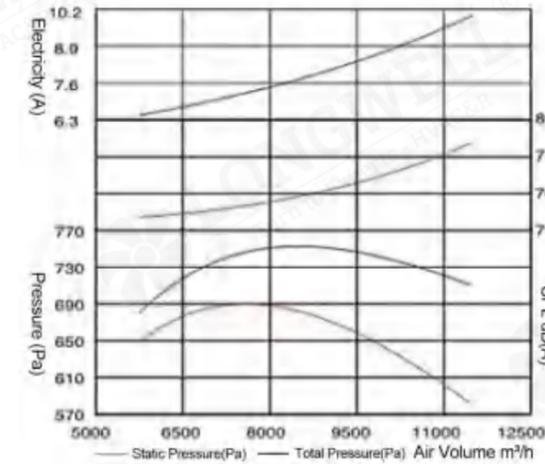
Model	Motor	Weight(kg)	Rate Current(A)
DDM18-18I	3.0KW-8	96	8.36

Model	Motor	Weight(kg)	Rate Current(A)
DDM18-18II	3.0KW-6	86.8	7.7

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
5827	427	394	4.80	66.5
8200	418	352	5.46	69.7
9026	406	327	5.80	71.5
10053	381	282	6.18	73.1
10876	355	240	6.62	75.1
12863	281	120	7.84	79.1

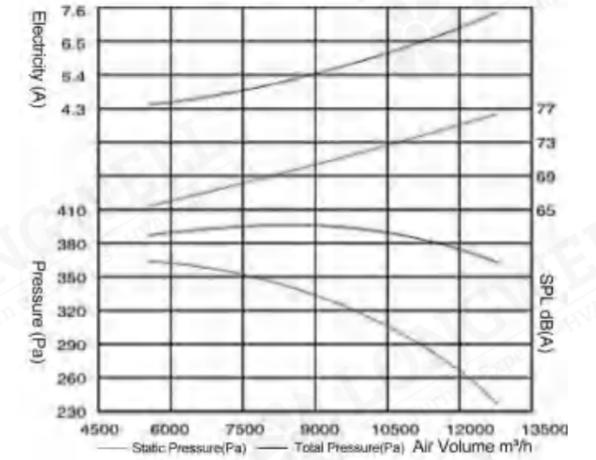
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
6532	696	654	5.60	72.7
7662	731	674	6.34	73.8
8058	734	671	6.52	74.0
8917	731	653	6.98	74.8
9403	728	641	7.34	75.3
9868	722	627	7.74	75.6

## DDM18-18 Series



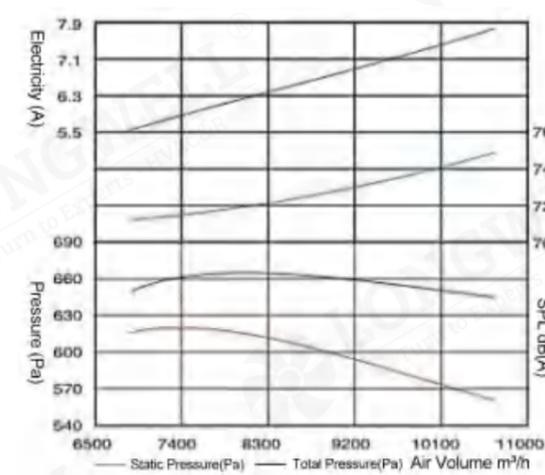
Model	Motor	Weight(kg)	Rate Current(A)
DDM18-18I	4.0KW-6	96	9.9

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
5759	681	649	6.50	72.1
7508	743	688	7.30	73.1
8420	753	684	7.65	73.8
9221	751	669	8.15	74.5
10597	725	616	9.25	76.3
11474	711	583	9.95	78.2



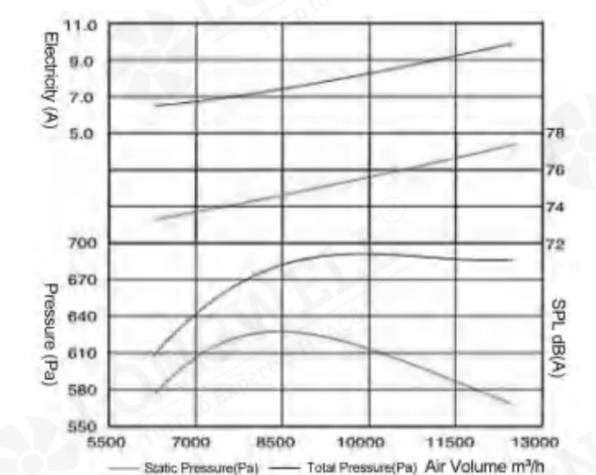
Model	Motor	Weight(kg)	Rate Current(A)
DDM18-18II	3.0KW-8	103.4	8.36

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
5551	388	365	4.45	65.9
7137	390	351	4.80	66.8
8924	399	338	5.45	70.6
10083	392	315	5.95	72.2
11071	383	290	6.45	73.7
12787	363	238	7.45	76.3



Model	Motor	Weight(kg)	Rate Current(A)
DDM18-18II	3.0KW-6	94.2	7.7

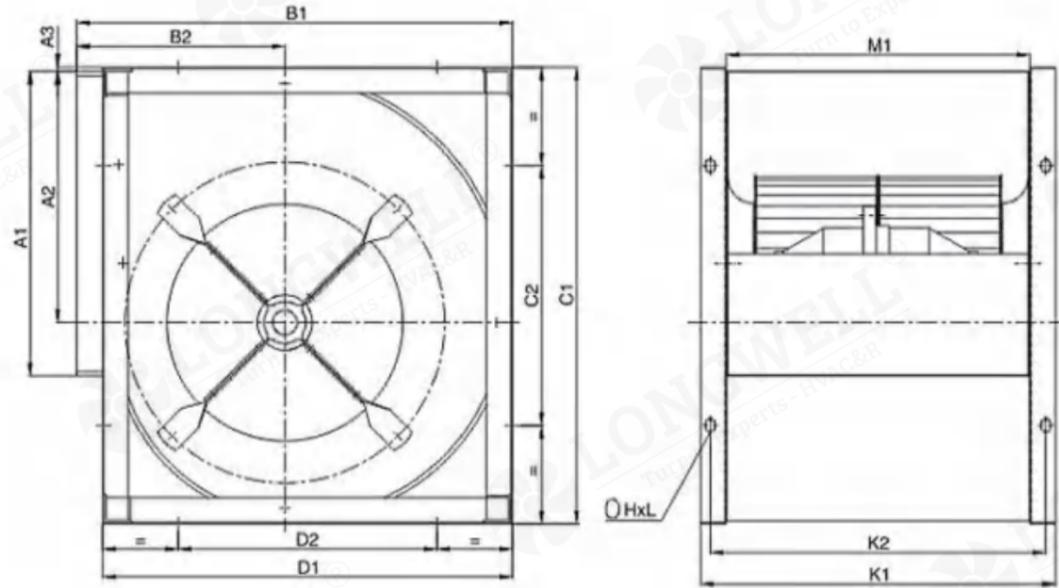
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
6864	652	616	5.58	71.2
8021	668	619	6.26	72.0
8752	659	601	6.62	72.5
9241	658	593	6.86	73.1
9919	655	580	7.34	73.7
10655	647	561	7.78	74.9



Model	Motor	Weight(kg)	Rate Current(A)
DDM18-18II	4.0KW-6	103.4	9.9

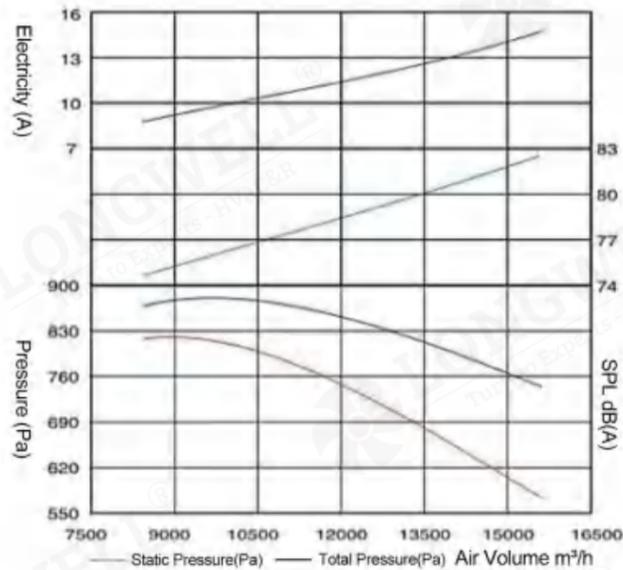
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
6290	608	578	6.60	73.3
6897	636	599	6.75	73.6
7892	676	628	7.20	74.4
10327	682	601	8.50	75.8
11154	694	599	9.00	76.4
12495	687	568	10.00	77.4

## DDM20-20 Series



### Overall Size and Erection Size

Model	A1	A2	A3	B1	B2	C1	C2	D1	D2	M1	K1	K2	HxL
DDM20-20I	506	430	5	741	351	780	450	701	450	506	586	556	13x18
DDM20-20II	506	430	5	741	351	780	450	701	450	600	680	650	13x18

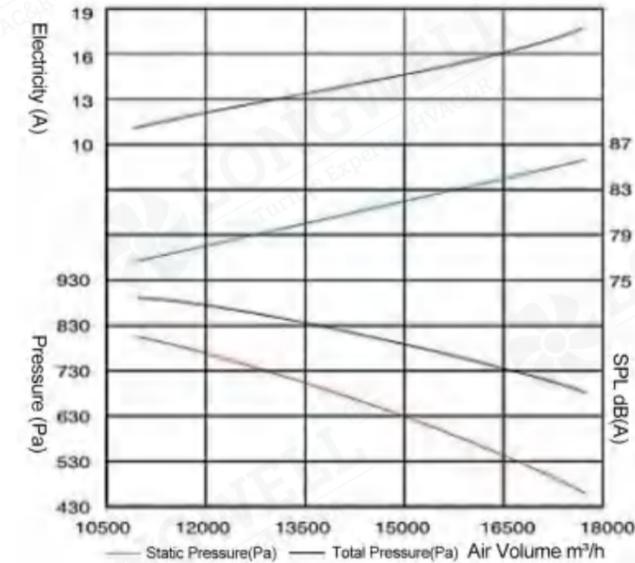


Model	Motor	Weight(kg)	Rate Current(A)
DDM20-20I	6.0KW-6	127	14.5

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
8444	867	816	8.85	74.8
10591	878	798	10.35	76.2
11394	864	770	10.95	78.2
13395	814	685	12.45	79.9
14413	784	635	13.45	81.3
15611	747	572	14.70	82.3

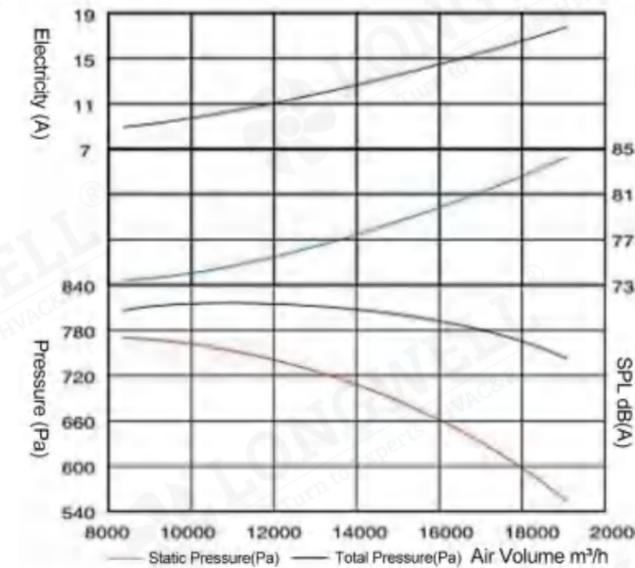
## DDM20-20 Series



Model	Motor	Weight(kg)	Rate Current(A)
DDM20-20II	6.0KW-6	128.2	14.5

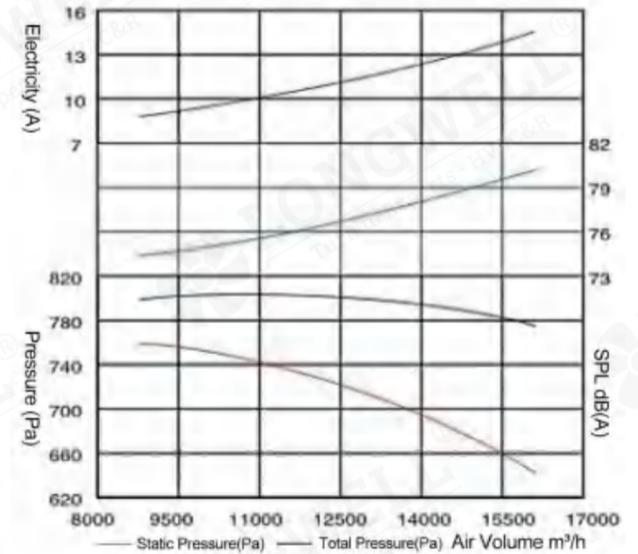
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
8784	799	759	8.85	74.4
10109	804	752	9.65	75.3
12283	802	724	10.8	76.5
14529	791	683	12.8	78.7
15425	783	660	13.85	79.8
16117	777	643	14.5	80.2



Model	Motor	Weight(kg)	Rate Current(A)
DDM20-20I	7.5KW-6	135	17.7

Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
10956	892	805	11.20	76.8
12470	864	752	12.50	78.6
14703	799	643	14.35	81.3
15305	782	613	14.85	82.7
16365	744	551	15.90	84.0
17739	688	461	17.70	85.5



Model	Motor	Weight(kg)	Rate Current(A)
DDM20-20II	7.5KW-6	136.2	17.7

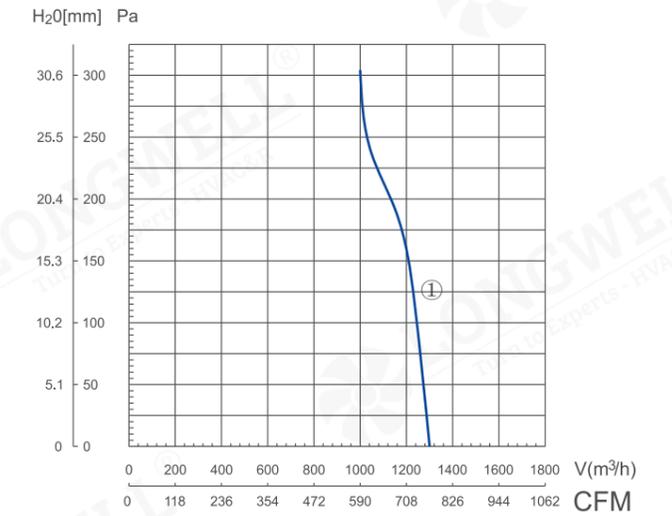
Air Volume (m³/h)	Total Pressure (Pa)	Static Pressure (Pa)	Electricity (A)	SPL dB(A)
8387	807	771	8.95	73.5
11387	815	748	10.65	75.0
14053	807	706	12.75	76.9
16382	784	646	14.80	81.2
18293	764	593	17.00	83.1
19069	742	556	17.75	84.0

# LWFA Series Centrifugal Blower

Professional HVAC Fan & Motors Manufacturer



## LWFA-E-200 Series Air Conditioning Fan



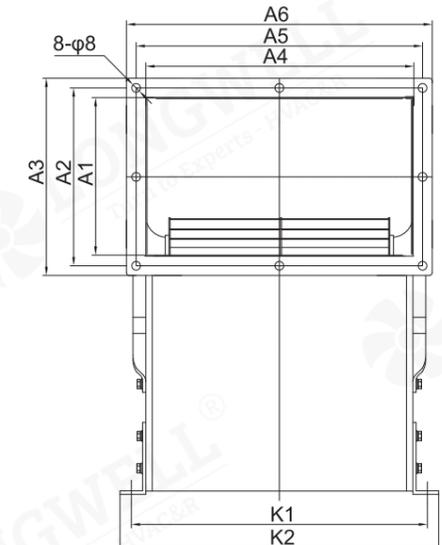
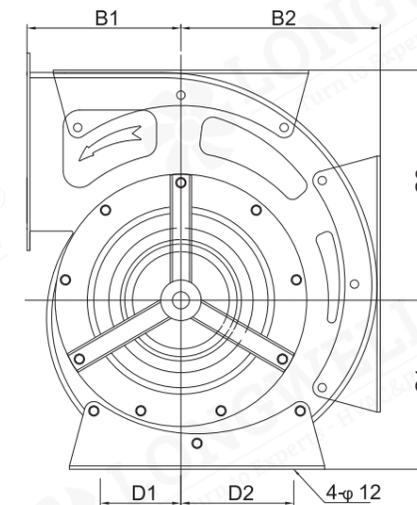
### Technical Specifications

Model	Motor Power	Air Flow (m³/h)	Total Pressure (Pa)	Noise (dBA)	Curve No.
LWFA-E-200-01	0.25KW-4P	1000-1300	305-300	58	①

### Installation dimension sheet

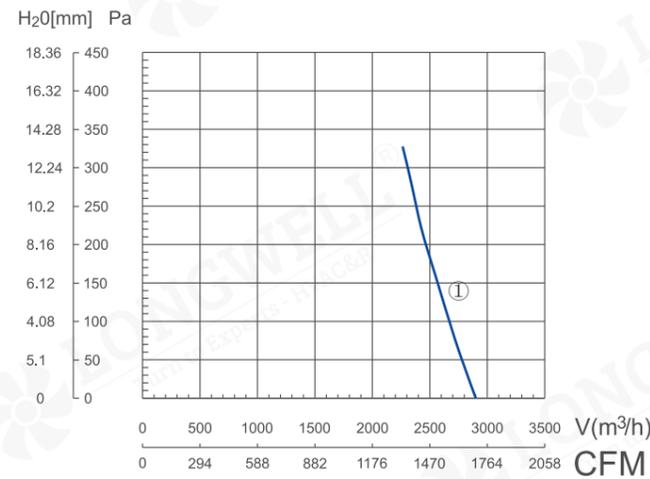
Model	Outlet Dimensions						Mounting Dimensions							
	A1	A2	A3	A4	A5	A6	B1	B2	C1	C2	D1	D2	K1	K2
LWFA-E-200	130	162	190	226	258	286	150	168	151	188	90	90	255	285

### Product Drawing (mm)



## LWFA-E-225 Series

### Air Conditioning Fan



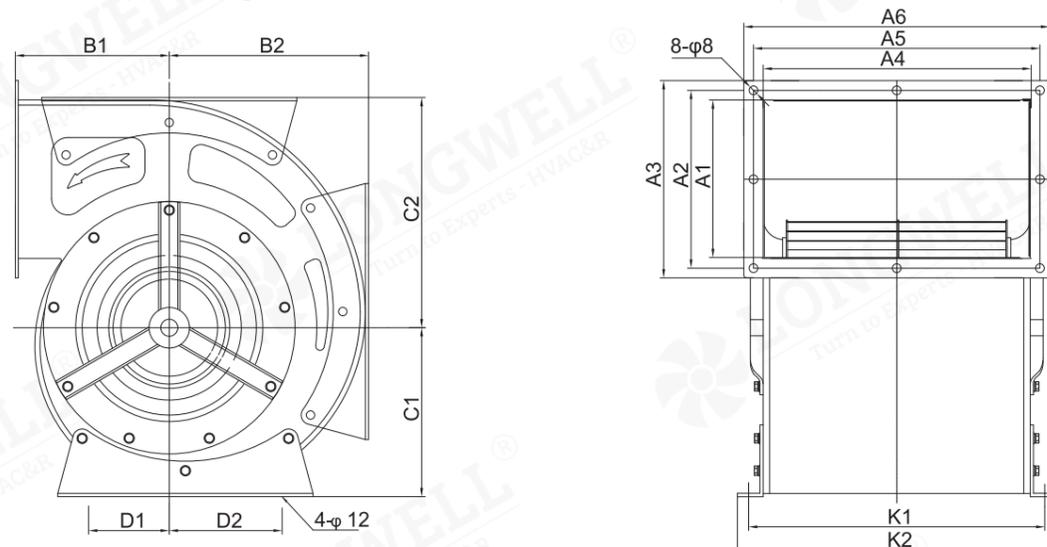
### Technical Specifications

Model	Motor Power	Air Flow (m³/h)	Total Pressure (Pa)	Noise (dBA)	Curve No.
LWFA-E-225-01	0.45KW-4P	2300-2900	325-300	65	①

### Installation dimension sheet

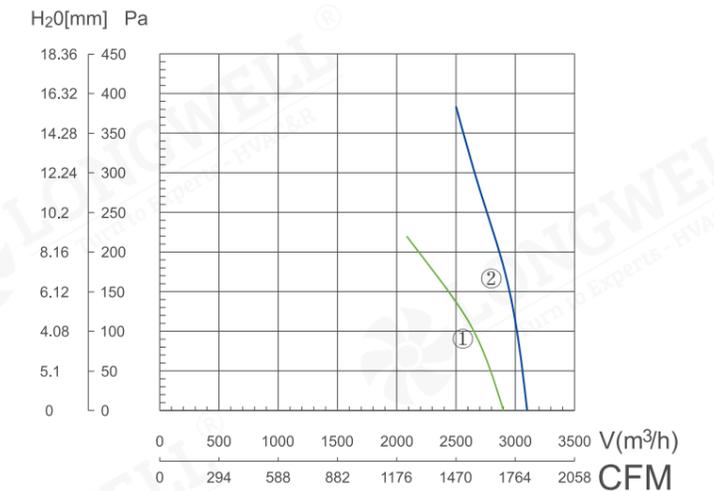
Model	Outlet Dimensions						Mounting Dimensions							
	A1	A2	A3	A4	A5	A6	B1	B2	C1	C2	D1	D2	K1	K2
LWFA-E-225	146	178	206	256	288	316	170	194	173	218	89	117	286	308

### Product Drawing (mm)



## LWFA-E-250 Series

### Air Conditioning Fan



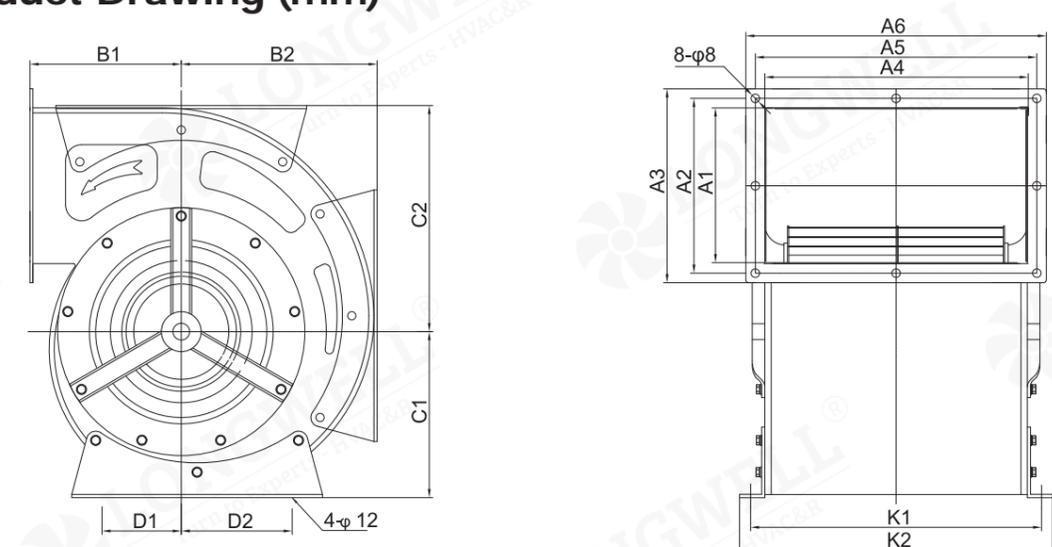
### Technical Specifications

Model	Motor Power	Air Flow (m³/h)	Total Pressure (Pa)	Noise (dBA)	Curve No.
LWFA-E-250-01	0.55KW-4P	2500-3100	380-330	70	①
LWFA-E-250-02	0.37KW-6P	2100-2900	215-200	64	②

### Installation dimension sheet

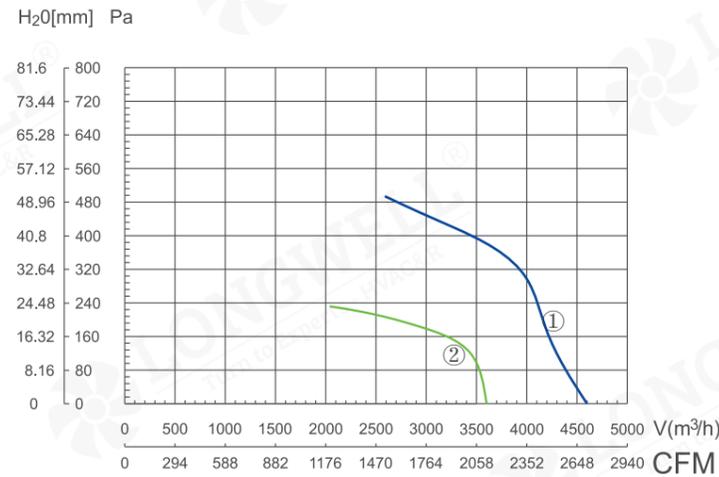
Model	Outlet Dimensions						Mounting Dimensions							
	A1	A2	A3	A4	A5	A6	B1	B2	C1	C2	D1	D2	K1	K2
LWFA-E-250	160	192	220	283	315	343	185	203	182	228	105	135	315	343

### Product Drawing (mm)



# LWFA-E-280 Series

## Air Conditioning Fan



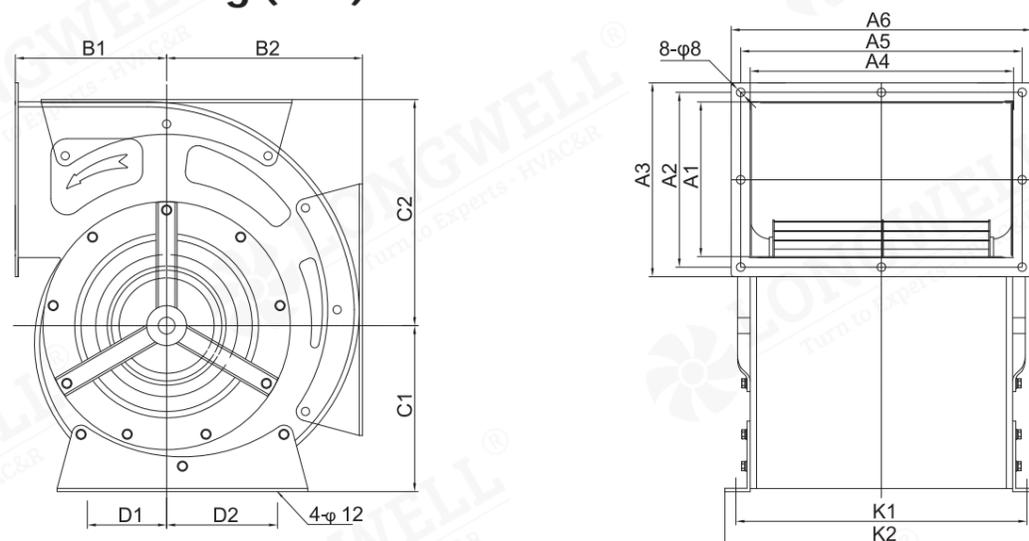
### Technical Specifications

Model	Motor Power	Air Flow (m³/h)	Total Pressure (Pa)	Noise (dBA)	Curve No.
LWFA-E-280-01	0.8KW-4P	2600-4600	490-420	69	①
LWFA-E-280-02	0.55KW-6P	2100-3600	220-190	64	②

### Installation dimension sheet

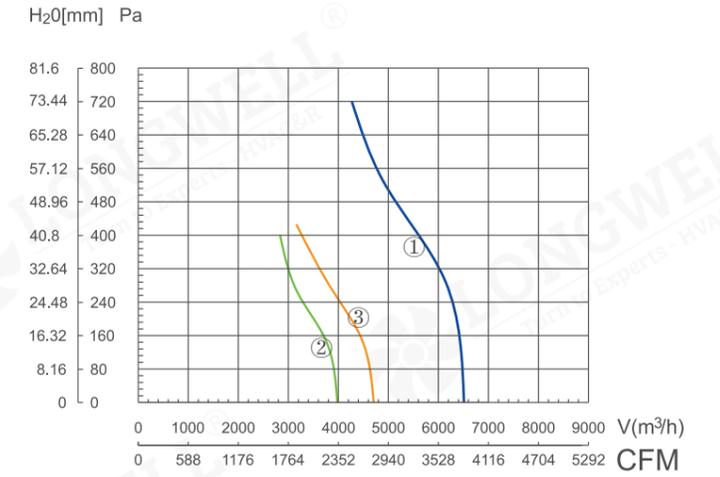
Model	Outlet Dimensions						Mounting Dimensions							
	A1	A2	A3	A4	A5	A6	B1	B2	C1	C2	D1	D2	K1	K2
LWFA-E-280	237	269	297	303	335	363	213	244	226	320	135	135	340	370

### Product Drawing (mm)



# LWFA-E-300 Series

## Air Conditioning Fan



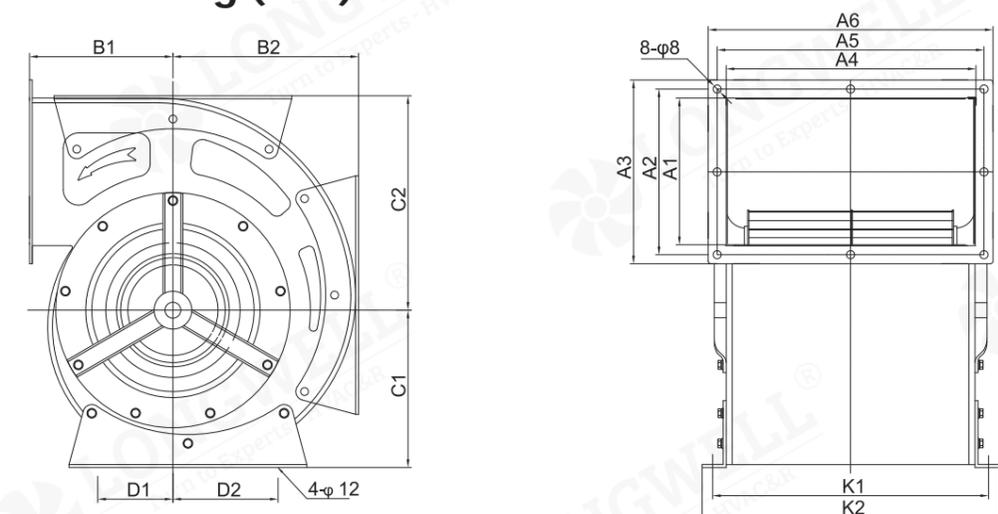
### Technical Specifications

Model	Motor Power	Air Flow (m³/h)	Total Pressure (Pa)	Noise (dBA)	Curve No.
LWFA-E-300-01	2.2KW-4P	4300-6500	720-700	72	①
LWFA-E-300-02	0.8KW-6P	2900-4000	408-385	65	②
LWFA-E-300-03	1.1KW-6P	3100-4700	422-412	66	③

### Installation dimension sheet

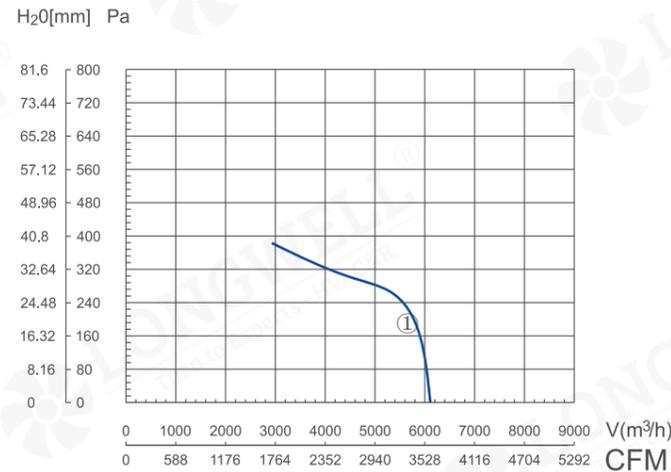
Model	Outlet Dimensions						Mounting Dimensions							
	A1	A2	A3	A4	A5	A6	B1	B2	C1	C2	D1	D2	K1	K2
LWFA-E-300	254	286	314	335	367	395	229	257	235	338	135	135	336	396

### Product Drawing (mm)



# LWFA-E-350 Series

## Air Conditioning Fan



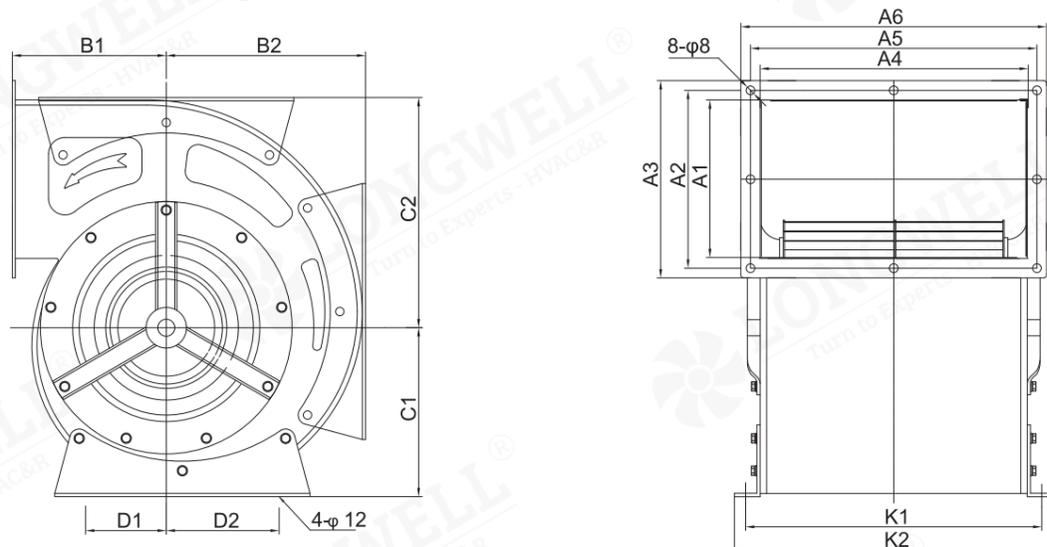
### Technical Specifications

Model	Motor Power	Air Flow (m³/h)	Total Pressure (Pa)	Noise (dBA)	Curve No.
LWFA-E-350-01	1.5KW-6P	2950-6100	370-340	65	①

### Installation dimension sheet

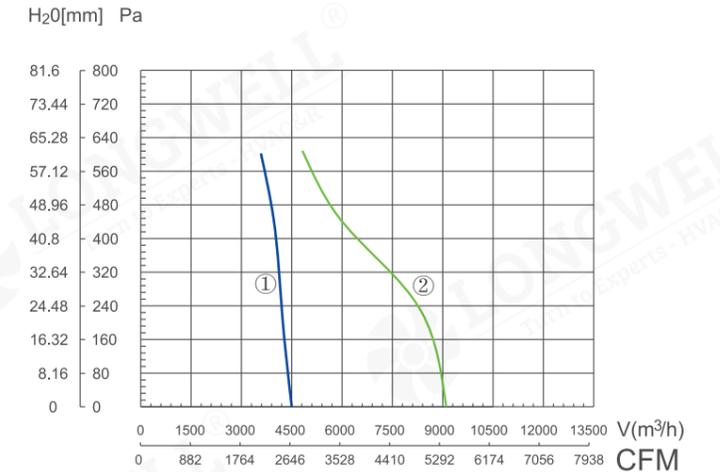
Model	Outlet Dimensions						Mounting Dimensions							
	A1	A2	A3	A4	A5	A6	B1	B2	C1	C2	D1	D2	K1	K2
LWFA-E-350	282	314	342	373	405	433	268	290	261	366	150	190	420	455

### Product Drawing (mm)



# LWFA-E-400 Series

## Air Conditioning Fan



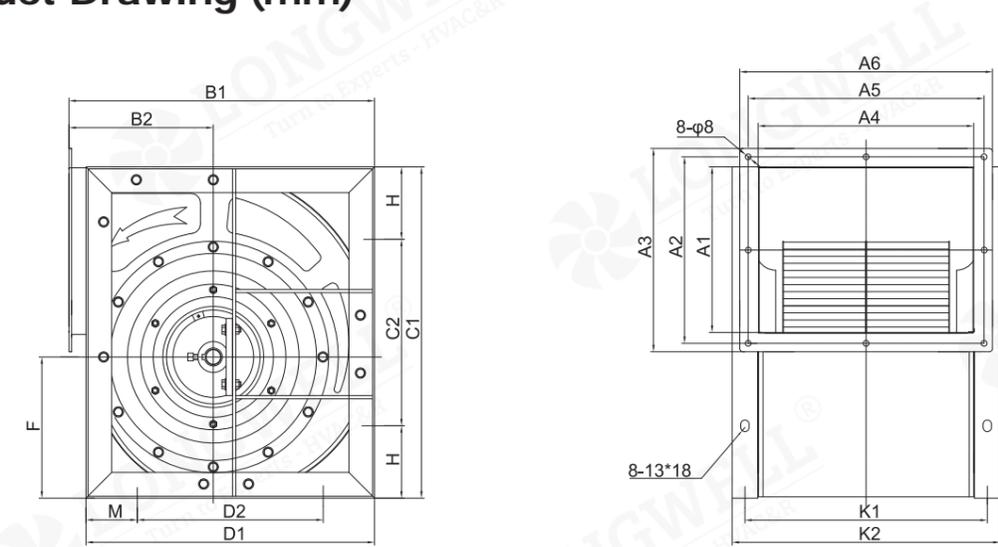
### Technical Specifications

Model	Motor Power	Air Flow (m³/h)	Total Pressure (Pa)	Noise (dBA)	Curve No.
LWFA-E-400-01	2.2KW-6P	4500-4050	612-600	68	①
LWFA-E-400-02	3KW-6P	5100-9100	610-590	70	②

### Installation dimension sheet

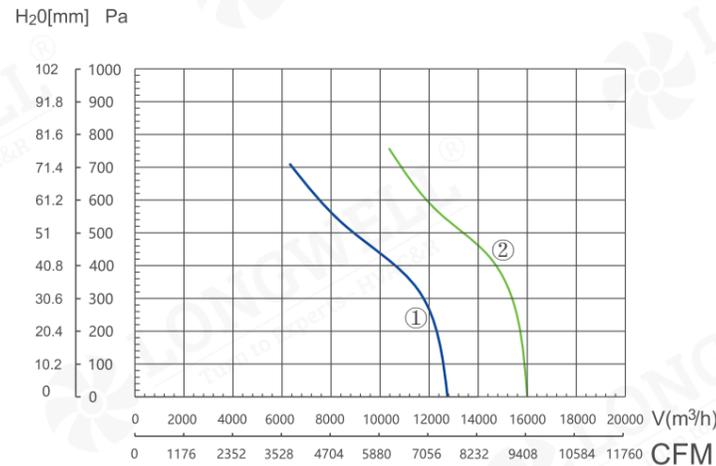
Model	Outlet Dimensions						Mounting Dimensions										
	A1	A2	A3	A4	A5	A6	B1	B2	C1	C2	H	D1	D2	M	F	K1	K2
LWFA-E-400	322	354	382	416	448	476	627	300	657	355	151	579	355	112	292	459	499

### Product Drawing (mm)



# LWFA-E-450 Series

## Air Conditioning Fan



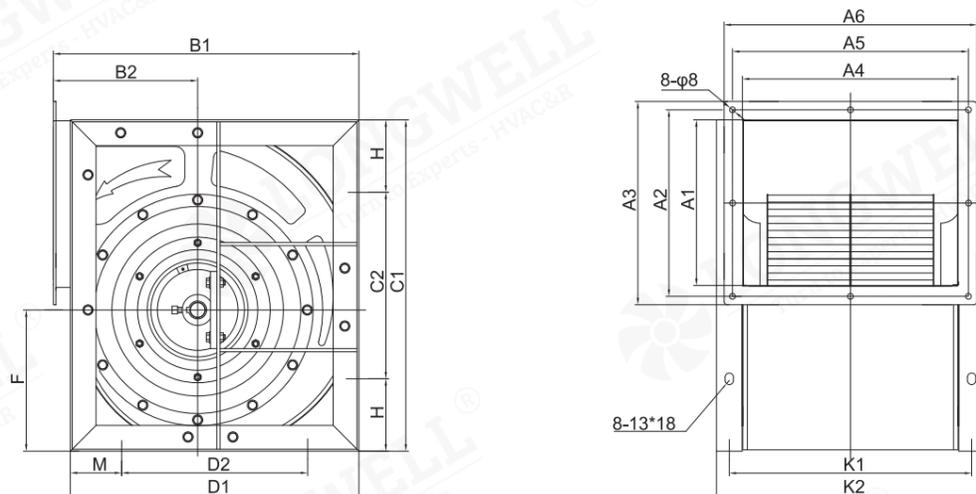
### Technical Specifications

Model	Motor Power	Air Flow (m³/h)	Total Pressure (Pa)	Noise (dBA)	Curve No.
LWFA-E-450-01	4KW-6P	6230-12660	710-625	72	①
LWFA-E-450-02	5.5KW-6P	10500-16000	750-700	80	②

### Installation dimension sheet

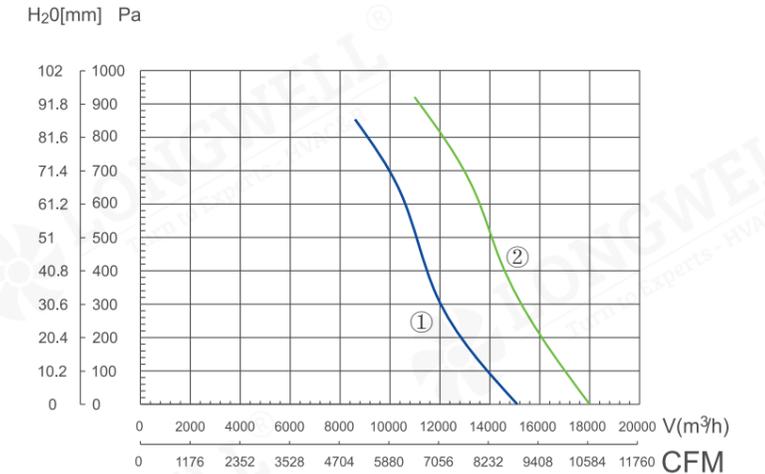
Model	Outlet Dimensions								Mounting Dimensions										
	A1	A2	A3	E	A4	A5	A6	F	B1	B2	C1	C2	H	D1	D2	M	I	K1	K2
LWFA-E-450	467	499	527	166	471	503	531	168	674	325	703	400	152	634	400	117	312	510	550

### Product Drawing (mm)



# LWFA-E-500 Series

## Air Conditioning Fan



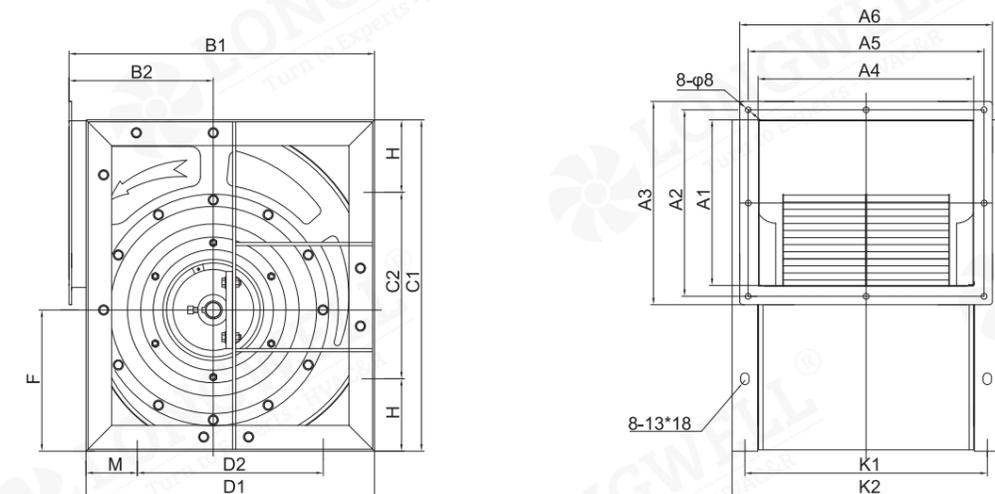
### Technical Specifications

Model	Motor Power	Air Flow (m³/h)	Total Pressure (Pa)	Noise (dBA)	Curve No.
LWFA-E-500-01	5.5KW-6P	8380-15660	850-580	75	①
LWFA-E-500-02	7.5KW-6P	11000-18000	910-750	82	②

### Installation dimension sheet

Model	Outlet Dimensions								Mounting Dimensions										
	A1	A2	A3	E	A4	A5	A6	F	B1	B2	C1	C2	H	D1	D2	M	I	K1	K2
LWFA-E-500	508	540	568	180	508	540	568	180	744	354	780	450	165	701	450	125	346	561	611

### Product Drawing (mm)



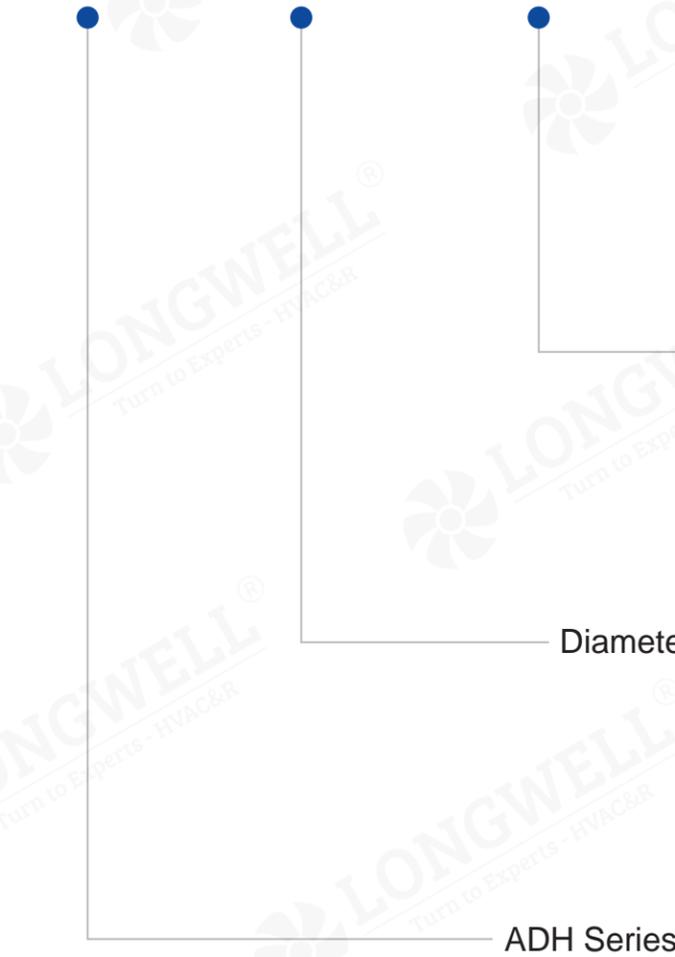
# ADH Series Centrifugal Blower

Professional HVAC Fan & Motors Manufacturer



## Type Code

ADH 355 - R



- Type R L (Basic model)
- Type K (Enhanced model)
- Type E (Heavy duty model)
- Type C (Handling model)

# ADH Series Centrifugal Blower

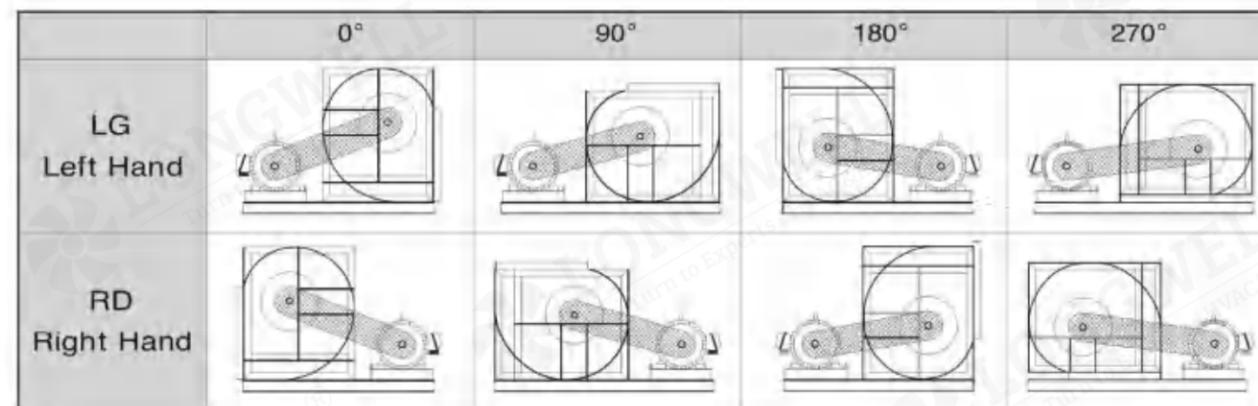
## 1.Product Features

### (1) Rotation

ADH Series ventilator can be divided into two direction of rotations, left-hand rotation (LG) and right-hand rotation (RD); Viewing from end of motor outlet line if the impeller rotates clockwise, it is called right hand ventilator; If the impeller rotates anti-clockwise, it is called left hand ventilator. The pulley can adjust its direction, left or right, therefore there is no limitation in directionality.

### (2) Direction of Air Outlet

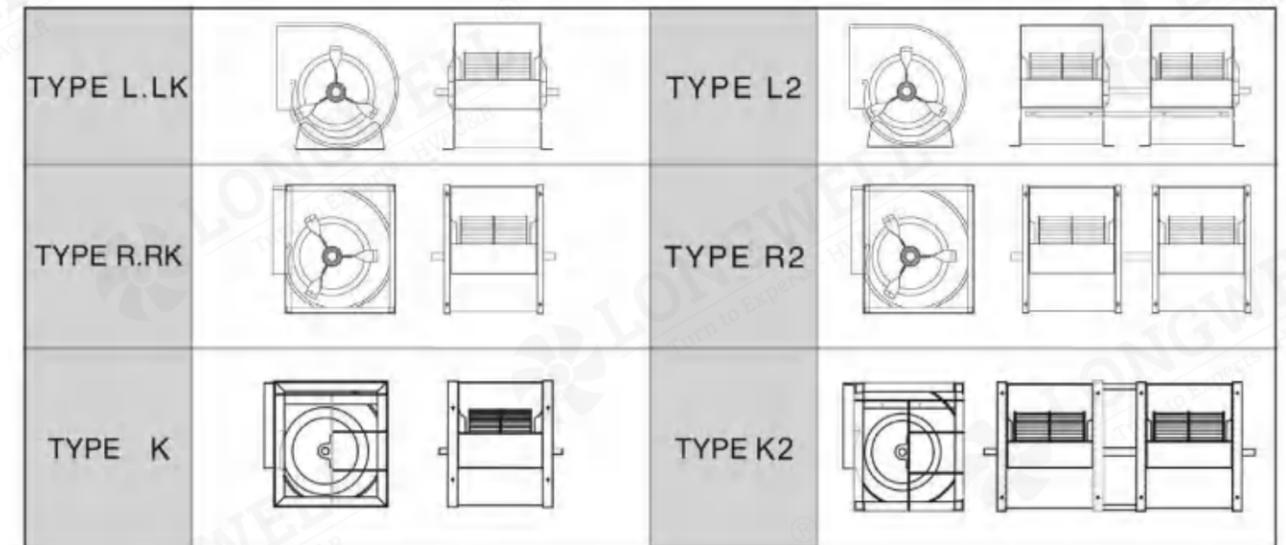
According to Fig 1, ADH Series ventilator can be made in four air-outlet directions: 0°, 90°, 180°, and 270°.



(Fig 1)

### (3) Type of Structure

According to Fig 2, ADH series ventilators can be divided into Category L.LK.R.RK Category L2.R2, Category K.K2



(Fig 2)

## 2. Constructon of Product

ADH Series series ventilators are mainly consisted of scroll, impeller, frame bearing, shaft and outlet flange (generally is not included)

### (1) Scroll

The scroll is made of hot galvanizing steel sheet. Its side plate has an outline complying with aerodynamics. The scroll plat fixed to the side plates by means of "electric spot welding". or "seam locking"

### (2) Impeller

Forwards curved impeller is made of high grade hot galvanizing steel sheet and is designed to a special configuration accordingd to aerodynamics to make the efficiency highest and the noise lowest. The impeller is fixed on the middle disk plate and on the end ring with riveting grippers. The impeller has enough rigidity during continuous rotation with maximum power. Backwards curved vadial impellers are made of high gvade cold-rolled sheet The veneev blades which are designeel in three-dimensional theory are welded between middle tray and endmost Before leaving factory, all impellers have passed all-round dynamic balance test according to the Company Standard which is higher level than National Standard.

### (3) Frame

The frames for type R ventilators are made of galvanized steel angle iron bars. The cutting and bending of the frame parts, as well as the TOX connections, are formed with the use of molds to assure their high accuracy and the rigidity of the frames; The frames for type K ventilators are welded by angle steel and flat steel, and they are finished with polyesters coatings in order to assure sufficient rigidity and intensity.

### (4) Bearings

Ball bearings are used in all of the ADH Series ventilators. They are high quality bearings and they are selected to minimize the ventilator noise levels. The bearings are pre-lubricated, sealed, and self-centering. For type R ventilators, the bearings are mounted using vibration resistant washers. For type K ventilators, self-aligning pillow block ball bearings are used. Type K ventilators bearings are supplied with lubrication fittings. The ventilators of type Z use the bearing housing which with heavy load double-row roller bearing.

### (5) Shaft

The shafts are made of special steel bars. The shafts are rough machined and then stress relieved before final machining. The shaft diameters are machined to very accurate tolerance levels and they are fully checked to assure precision fits. They are coated after assembly in order to provide corrosion resistance.

### (6) Outlet Flange

The outlet flange is made of galvanized steel. The connections of the flange components to each other and to the scroll are made using a TOX non-welding process. This maintains a good flange appearance while also providing sufficient strength and rigidity. The outlet flange dimensions are provided in Figure 3.

## 3. Performance of Ventilator

1. The ventilator performance in this catalogue denotes the performance in standard conditions. It denotes air inlet conditions of ventilator as follows:

Air inlet pressure Pa = 101.325 KPa      Air temperature t = 20°C  
Inlet gas density ρ = 1.2 Kg/m<sup>3</sup>

If the practical air inlet conditions of customer or the speed of the operating ventilator changes, the conversion can be carried out according to the following expression:

$$\frac{Q_0^*}{Q_0} = \frac{n^*}{n}$$

$$\frac{P_0^*}{P_0} = \frac{n^{*2}}{n^2} \cdot \frac{\rho^*}{\rho} \qquad \frac{P_0^*}{P_0} = \frac{n^{*2}}{n^2} \cdot \frac{Pa^*}{Pa} \cdot \frac{273+t}{273+t^*}$$

$$\frac{Nin_0^*}{Nin_0} = \frac{n^{*3}}{n^3} \cdot \frac{\rho^*}{\rho} \qquad \frac{Nin_0^*}{Nin_0} = \frac{n^{*3}}{n^3} \cdot \frac{Pa^*}{Pa} \cdot \frac{273+t}{273+t^*}$$

where:

- Volume Q<sub>0</sub> (m<sup>3</sup>/h), total pressure P<sub>0</sub> (Pa), speed n (r/min) can be obtained from Performance chart.
  - Asterisk (\*) on the upper right corner denotes the performance parameter needed by the customers in practical gas inlet conditions.
  - The difference in relative humidity is omitted from the abovementioned formulas.
2. The power (Nin<sub>0</sub>) on the performance chart the internal power of the ventilator.
- Shaft power of ventilator: N<sub>s</sub> = Nin<sub>0</sub>/η<sub>m</sub>

where: N<sub>s</sub> - Shaft power of ventilator      η<sub>m</sub> - Mechanical efficiency of ventilator

The value of mechanical efficiency of ventilator can be obtained from Table 1.

Way of Ventilator Driving	η <sub>m</sub>
Electric Motor Directly Driven	1
Coupling Directly Driven	0.98
V-belt Driven	0.95

(Table1)

The rated power of the drive motor equals the total required shaft input power multiplied by the safety factor:

N = N<sub>s</sub> · K      where: N = rated power of drive motor      K = required safety factor

The required safety factor is provided in Table 2.

Power of Electric Motor (KW)	Value K
≤ 2.2 KW	1.2
≤ 7.5 KW	1.15
≥ 11 KW	1.1

(Table2)

3. Noise: The noise levels shown on each performance chart, L<sub>wiA</sub>, refer to the overall sound power "A-Weighted" levels. The computed sound power levels were converted into A-Weighted levels using adjustments to the octave band spectrum as follows:

Center Frequency Hz	63	125	250	500	1000	2000	4000	8000
A-Weighted Adjustment dB(A)	-25.5	-12.5	-8.5	-3	0	+1	+1	-1

(Table3)

The overall sound pressure levels,  $L_{piA}$ , can be computed from the overall sound power levels as follows:

Free Field Conditions:

$$L_{piA} = L_{wia} - (20 \log_{10} d) - 11$$

Room Conditions:

$$L_{piA} = L_{wia} - (20 \log_{10} d) - 7$$

Where:

$d$  = distance from fan in meters

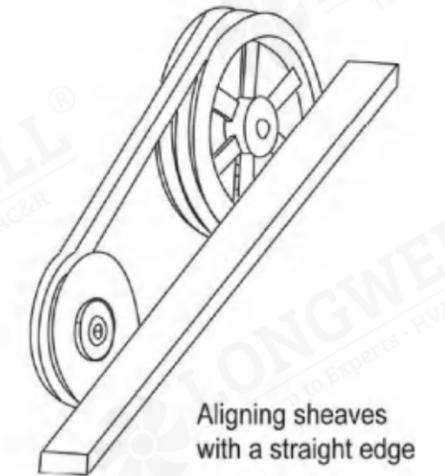
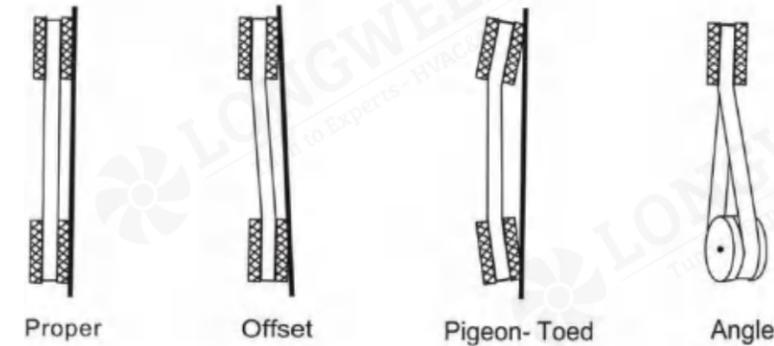
4. Comparing the performance of the twin ventilator of Category L2, Category R2 and Category K2 with the performance of Category L, Category R and K in the chart in the same condition of pressure, the twin ventilators' performance is as the following.

Volume x 2      Speed x 1.05      Inner Power x 2.15      Noise +3

Performance of twin ventilators are not licensed by AMCA International.

## 4.V-Belt Drive Installation

1. Remove the protective coating from the ends of the fan shaft and assure that the shaft ends are free of nicks and burrs.
2. Check fan and motor shafts for parallel and angular alignment.
3. The center distance must be controlled as  $0.7(d_1+d_2) < 2(d_1+d_2)$ ; the belt speed of forward fan should be more than 10m/s, but less than 15m/s, ( $10 < v < 15\text{m/s}$ ); the belt speed of backward fan should be more than 25m/s, but less than 35m/s, ( $25 < v < 35\text{m/s}$ ).
4. Slide sheaves on to the shafts-do not drive the sheaves on to the shafts as this may result in bearing damage.
5. Align fan and motor sheaves with a straight-edge or string, and tighten.
6. Place belts over the sheaves with carefull, otherwise the belts will be damaged.
7. Adjust the belt tension until the belts appear snug. Run the unit for a few minutes and allow the belts to set properly.
8. Switch off the fan, adjust the belt tension by moving the motor base. When in operation, the tight side of the belts should be in a straight line from sheave to sheave and there should be a slight bow on the slack side.



## 5. Belt Tension

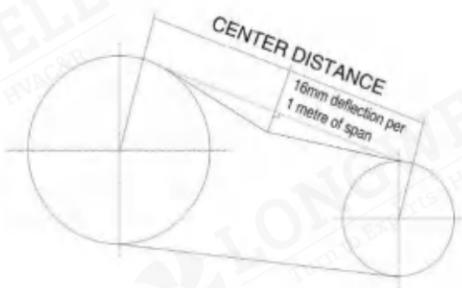
A proper level of belt tension is required in order to obtain a satisfactory belt life. If the belt tension level is too high, then excessive loads will be imposed on the belts and the bearings, and this will reduce the lives of both of these components. If the belt tension level is too low, then the belt will slip. Belt slippage generates a large amount of heat, and this heat will drastically reduce the life of a belt.

Belt-tensioning gauges can be used to determine whether the belts are tensioned properly. A chart is normally supplied with the gauge which indicates the ranges of forces required to deflect the belts by a given amount to obtain the proper belt tension level. The required forces are based upon the center distance of the sheaves and the belt cross-section. The belts are properly tensioned when the forces required to deflect the belt are within the specified range. See Fig 4 and Table 3.

If a belt-tensioning gauge is not available, then the belt should be tightened just enough so that the belt does not squeal when the ventilator is started. A very short period of noise during the starting of a ventilator is allowable, but a squeal lasting several seconds or longer is not acceptable. After tensioning the belts and before starting the ventilator, check to make sure that the sheaves are properly aligned.

Realign the sheaves if necessary. Note that new belts may stretch a little during initial use, so the belt tension level should be checked after a few days of operation.

Belt tension indicator applied to mid centre distance.



(Fig 4)

Belt Section	Force required to deflect belt 16mm per metre of span		
	Small Pulle/Diamter(mm)	Newton(N)	Kilogram Force (Kgf)
SPZ	56-95	13-20	1.3-2.0
	100-140	20-25	2.0-2.5
SPA	80-132	25-35	2.5-3.6
	140-200	35-45	3.6-4.6
SPB	112-224	45-65	4.6-6.6
	236-315	65-85	6.6-8.7
SPC	224-335	85-115	8.7-11.7
	375-560	115-150	11.7-15.3
A	80-140	10-15	1.1-1.5
B	125-200	20-30	2.0-3.1

(Table3)

## 6. Bearing Lubrication

The ventilator bearings are filled with lubricant when they come from the factory, so the bearings do not require any additional grease to be supplied before starting the ventilator.

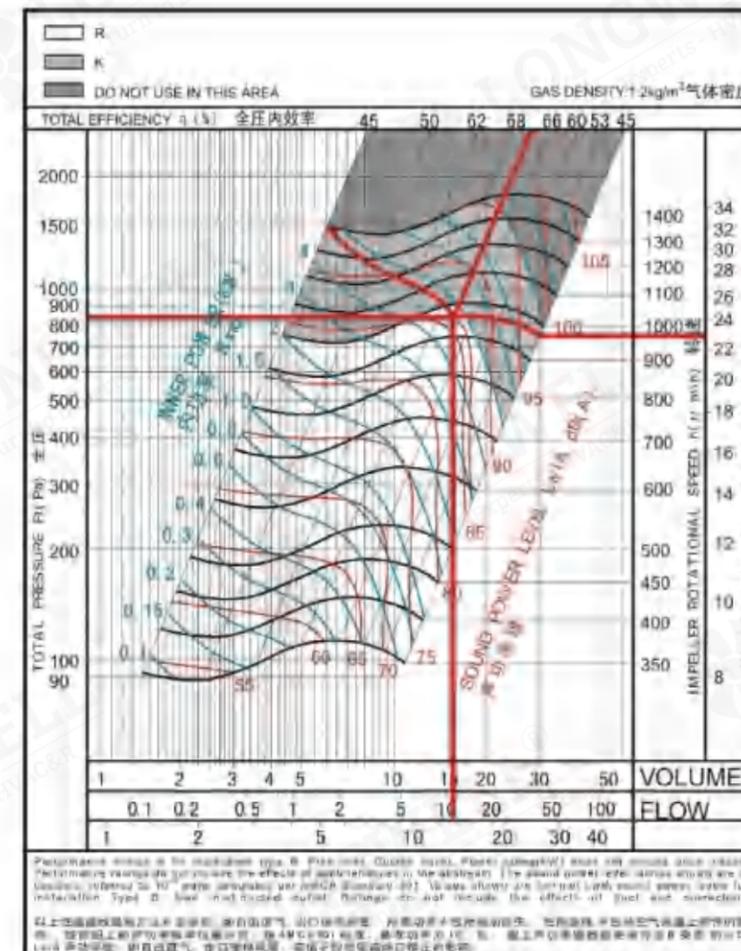
The ventilator that are equipped with pillow block bearings are provided with lubrication fittings, and these fittings allow for additional lubrication to be supplied to the bearings at regular intervals. The allowable period of time between lubrication of these bearings depends upon the operating speeds and temperatures of the bearing as well as on the type of grease used. The best way to determine the required frequency of lubrication is to inspect the condition of the grease that is discharged from the seals when new grease is added. If the discharged grease looks similar to the new grease, then a longer period of time between lubrications is possible. If the discharged grease is much darker than the new grease, then this indicates that the grease is being oxidized and more frequent lubrications of the bearings are required.

## 7. Instructions

- (1) During ordering it is necessary to state the type of ventilator, speed, air volume, air pressure, direction of air outlet, rotating direction, type of electric motor and its specifications.
- (2) Prior to installation, the ventilator should be carefully inspected. Special care should be taken in checking the shaft, impeller and bearings. If there is an indication of any damage, then the damaged parts should be repaired or replaced before the ventilator is installed or operated.
- (3) The inside of the scroll and casing need to be checked to make sure that there are no foreign objects contained therein, such as tools or loose parts.
- (4) The rotational directions of the motor and impeller should be checked to assure that they are consistent with each other.

- (5) A flexible connector should be used between the ventilator outlet flange and its mating pipe. The bolts used to fasten the outlet flange to the pipe should not be over-tightened.
- (6) Following the installation, the impeller should be turned by hand or with the use of a wrench to make sure that it turns freely. Once this is verified, the ventilator can be operated normally.
- (7) The rated motor power as calculated herein is not sufficient to drive the ventilator with an unrestricted discharge flow path. Operating the ventilator with an unrestricted discharge flow path will result in flow rates that exceed the ventilator flow rate capabilities, and such operation will quickly burn out the motor. So care must be taken in operating the ventilators to make sure that the maximum rated flows, as provided on the performance charts in this brochure, are not exceeded.
- (8) This fan is restricted for use in areas where air substances are noncorrosive and non-toxic, non-alkaline or where dust particles < 150mg/m<sup>3</sup>, -20°C < temperature < 85°C. If special conditions during transportation, load and unload, it is strictly prohibited to shock the ventilators.

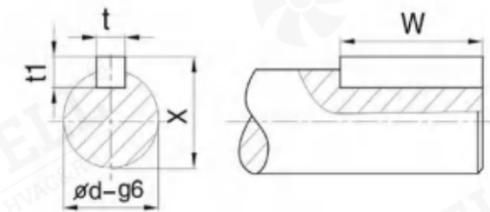
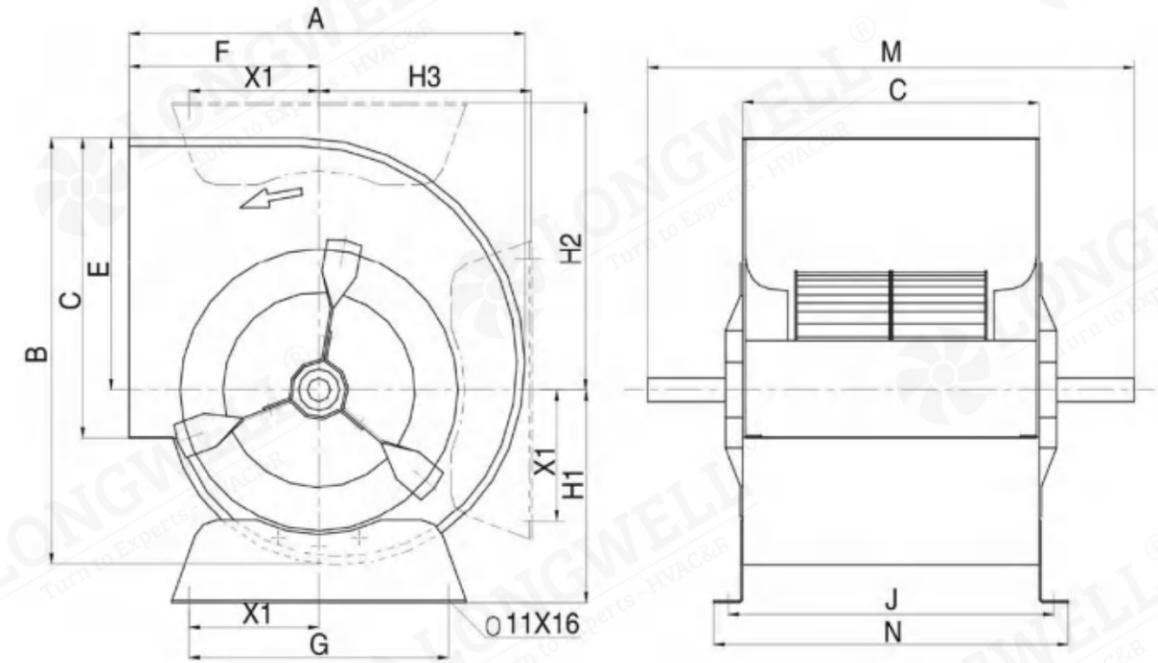
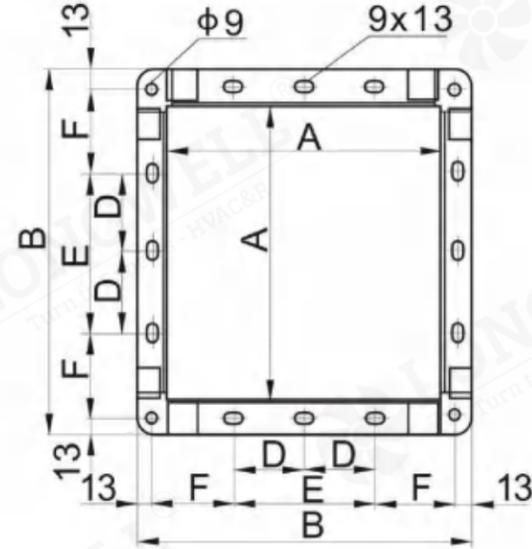
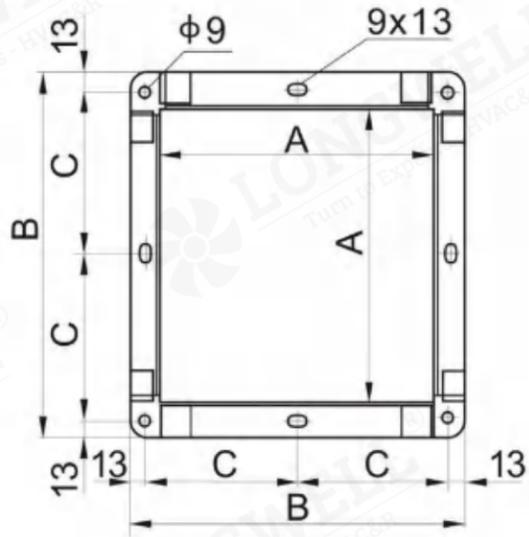
## 8. Example of Curve Reading



- Volume V=15700m<sup>3</sup>/h
- Total Pressure Pt=839Pa
- Dynamic Pressure Pd=109Pa
- Outlet Velocity C=13.5 m/s
- Speed n=980 r/min
- Impeller Tip Speed U<sub>2</sub>=23.2 m/s
- Inner Power N<sub>ino</sub>=5.34 kW
- Sound Power Level L<sub>wi A</sub>=86dB(A)
- Total Pressure Efficiency η=68.5%

# Outlet Flange

# ADH - L



Model	A	B	C	D	E	F
200	256	296	138	/	/	/
225	288	328	154	/	/	/
250	322	362	171	/	/	/
280	361	417	195.5	/	/	/
315	404	460	217	/	/	/
355	453	509	241.5	/	/	/
400	507	563	/	/	200	168.5
450	569	625	/	/	200	199.5
500	638	694	/	/	250	209
560	715	771	/	/	250	247.5
630	801	857	/	/	300	265.5
710	898	954	/	200	400	264
800	1107	1063	/	250	500	268.5
900	1130	1186	/	300	600	280
1000	1267	1323	/	350	700	298.5

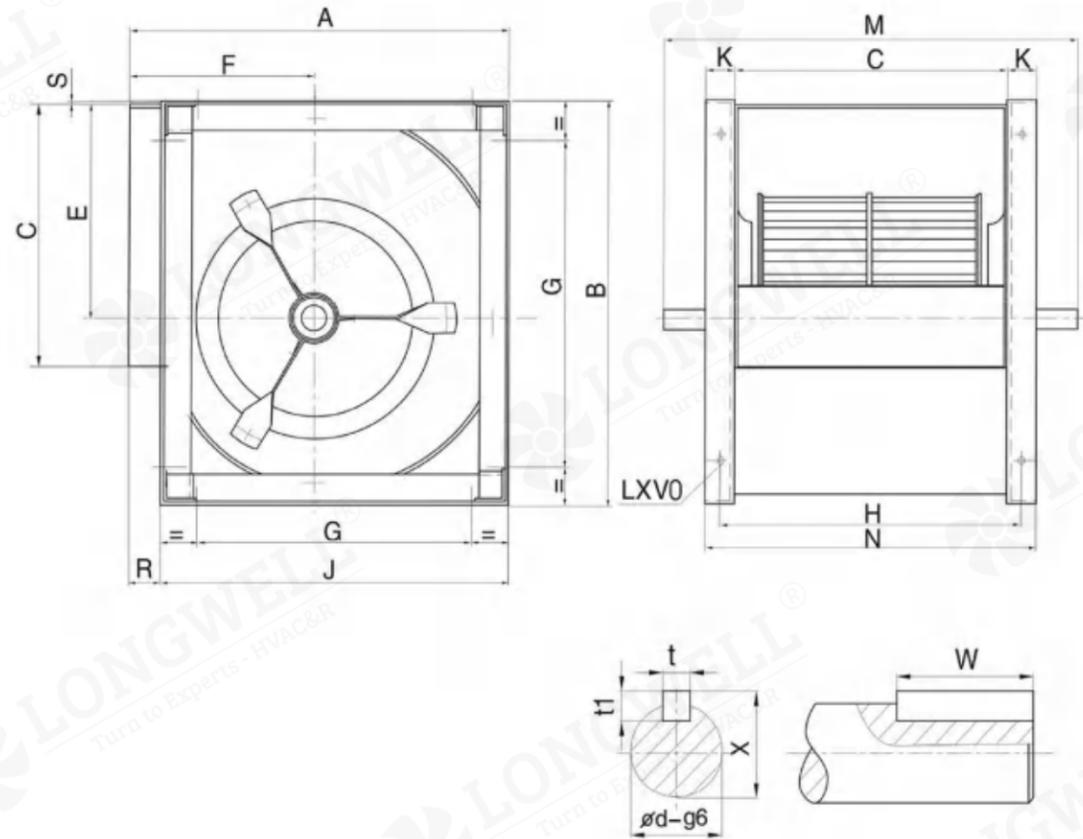
Note: the size unit in the form is mm

## Technical Specifications

Model	A	B	C	E	F	G	J	M	N	X1	H1	H2	H3	t	t1	X	W	Φd
ADH 200-L	342	364	256	215	164	224	281	420	306	112	181	245	184	6	6	22.5	40	20
ADH 225-L	380	407.8	288	243	180	224	313	460	338	112	197	274	204	6	6	22.5	50	20
ADH 250-L	417	454	322	270	195	224	347	490	372	112	210	299	227	6	6	22.5	50	20

Note: the size unit in the form is mm

# ADH - R

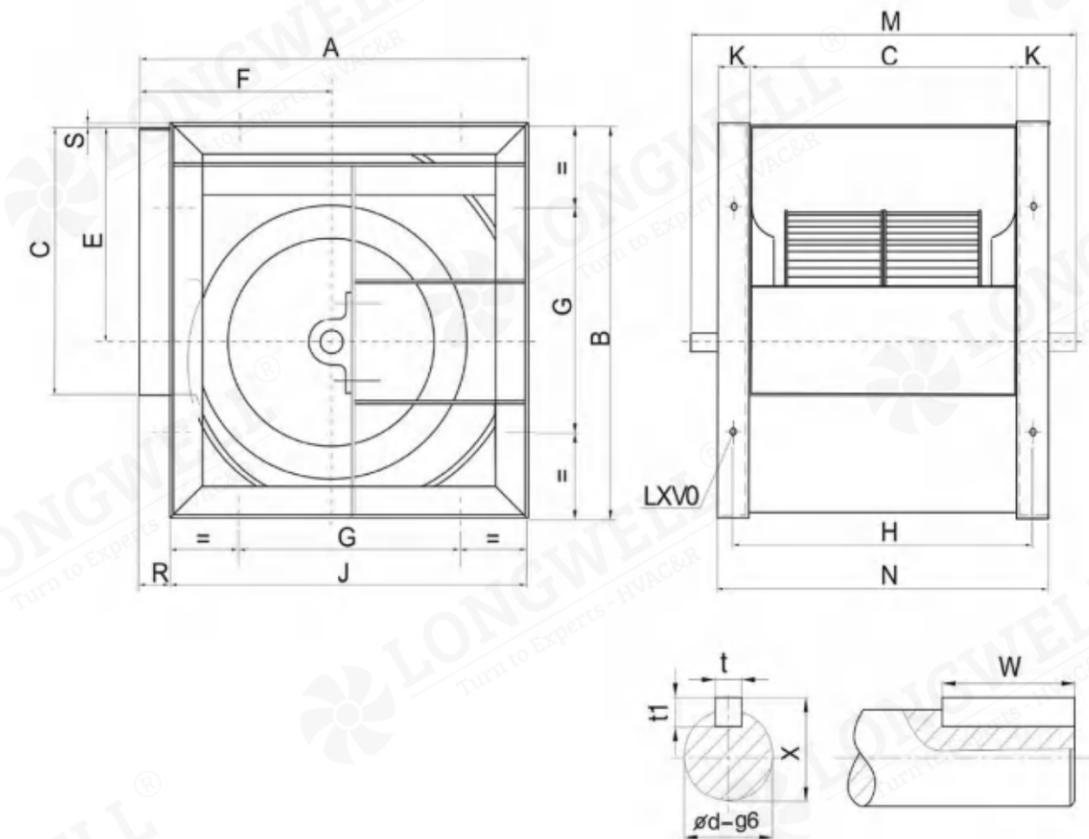


## Technical Specifications

Model	A	B	C	E	F	G	H	J	K	M	N	R	S	t	t1	W	X	Φd	LxV
ADH 200-R	343	370	256	215	164	224	281	306	25	420	306	37	4	6	6	40	22.5	20	11x16
ADH 225-R	383	415	288	243	180	224	313	348	25	460	338	35	3	6	6	50	22.5	20	11x16
ADH 250-R	419	461	322	270	195	224	347	384	25	490	372	35	4	6	6	50	22.5	20	11x16
ADH 280-R	466	518	361	302	215	280	391	432	30	555	421	34	5	8	7	40	28	25	13x18
ADH 315-R	518	578	404	340	236	280	434	480	30	600	464	38	3	8	7	40	28	25	13x18
ADH 355-R	578	655	453	383	261	355	493	548	40	675	533	30	6	8	7	65	33	30	13x18
ADH 400-R	651	736	507	431.5	290	355	547	613	40	725	587	38	4.5	8	7	65	33	30	13x18
ADH 450-R	726	827	569	486	322	530	609	681	40	815	649	45	5	10	8	70	38	35	13x18
ADH 500-R	800	914	638	538	352	530	678	750	40	885	718	50	5	10	8	50	38	35	13x18
ADH 560-R	893	1030	715	602	390	530	765	845	50	1000	815	48	8	12	8	70	43	40	13x18
ADH 630-R	999	1157	801	678.5	434	530	851	946	50	1090	901	53	7	14	9	70	48.5	45	13x18
ADH 710-R	1121	1303	898	765	485	630	948	1058	50	1255	998	63	7	14	9	90	53.5	50	17x22

Note: the size unit in the form is mm

# ADH - K



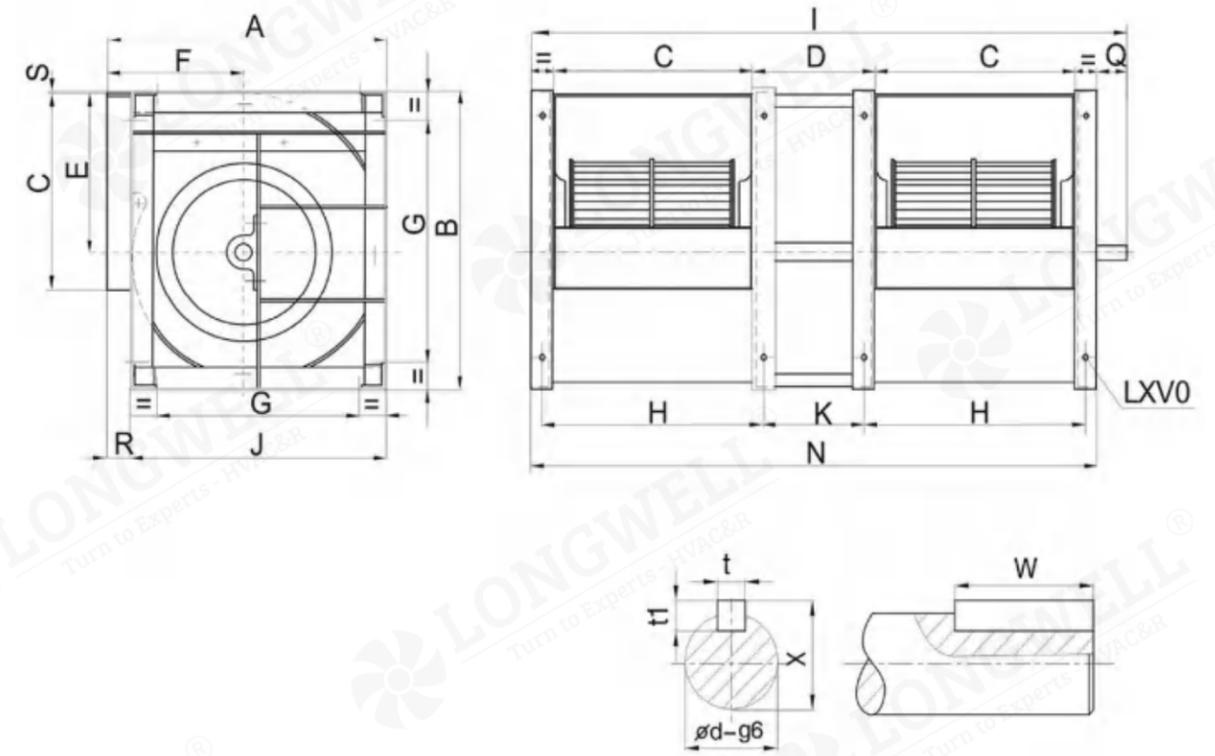
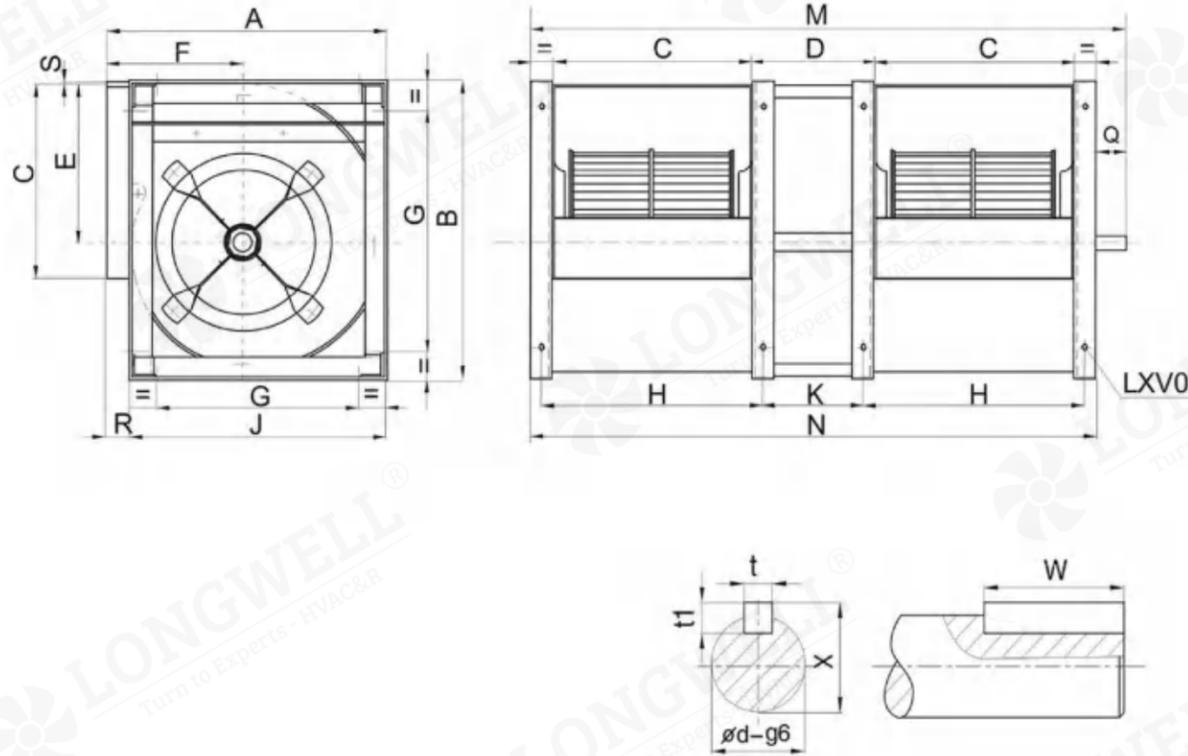
## Technical Specifications

Model	A	B	C	E	F	G	H	J	K	M	N	R	S	t	t1	W	X	Φd	LxV
ADH 280-K	466	518	361	302	215	280	391	432	30	580	421	34	5	8	7	40	33	30	13x18
ADH 315-K	518	578	404	340	236	280	434	480	30	625	464	38	3	8	7	40	33	30	13x18
ADH 355-K	578	655	453	383	261	355	493	548	40	685	533	30	6	10	8	50	38	35	13x18
ADH 400-K	651	736	507	431.5	290	355	547	613	40	790	587	38	4.5	8	8	70	38	35	13x18
ADH 450-K	726	827	569	486	322	530	609	681	40	850	649	45	5	12	8	70	43	40	13x18
ADH 500-K	800	918	638	538	352	530	678	750	40	920	718	50	5	12	8	70	43	40	13x18
ADH 560-K	893	1030	715	602	390	530	765	845	50	1070	815	48	8	14	9	90	53.5	50	13x18
ADH 630-K	999	1157	801	678.5	434	530	851	946	50	1155	901	53	7	14	9	90	53.5	50	13x18
ADH 710-K	1121	1303	898	765	485	630	948	1058	50	1290	998	63	7	18	11	90	64	60	17x22
ADH 800-K	1250	1468	1007	862	535	710	1057	1181	50	1450	1107	69	7	18	11	90	64	60	17x22
ADH 900-K	1408	1648	1130	971	604	800	1180	1319	60	1570	1250	89	9	18	11	100	64	60	17x22
ADH 1000-K	1541	1810	1267	1066	657	900	1317	1462	60	1700	1387	79	9	18	11	100	64	60	17x22

Note: the size unit in the form is mm

## ADH - R2

## ADH - K2



### Technical Specifications

Model	A	B	C	D	E	F	G	H	J	K	M	N	Q	R	S	t	t1	W	X	$\Phi d$	LxV
ADH 280-R2	466	518	361	280	302	215	280	391	432	250	1140	1062	78	34	5	8	7	60	33	30	13x18
ADH 315-R2	518	578	404	315	340	236	280	434	480	285	1263	1183	80	38	3	8	7	60	33	30	13x18
ADH 355-R2	578	655	453	355	383	261	355	493	548	315	1341	1341	90	30	6	10	8	50	38	35	13x18
ADH 400-R2	650	736	507	400	432	290	355	547	612	360	1582	1494	98	38	4	10	8	50	38	35	13x18
ADH 450-R2	726	827	569	450	486	322	530	609	681	410	1768	1668	100	45	5	12	8	70	43	40	13x18
ADH 500-R2	800	918	638	500	538	352	530	678	750	460	1956	1856	100	50	5	12	8	70	43	40	13x18

Note: the size unit in the form is mm

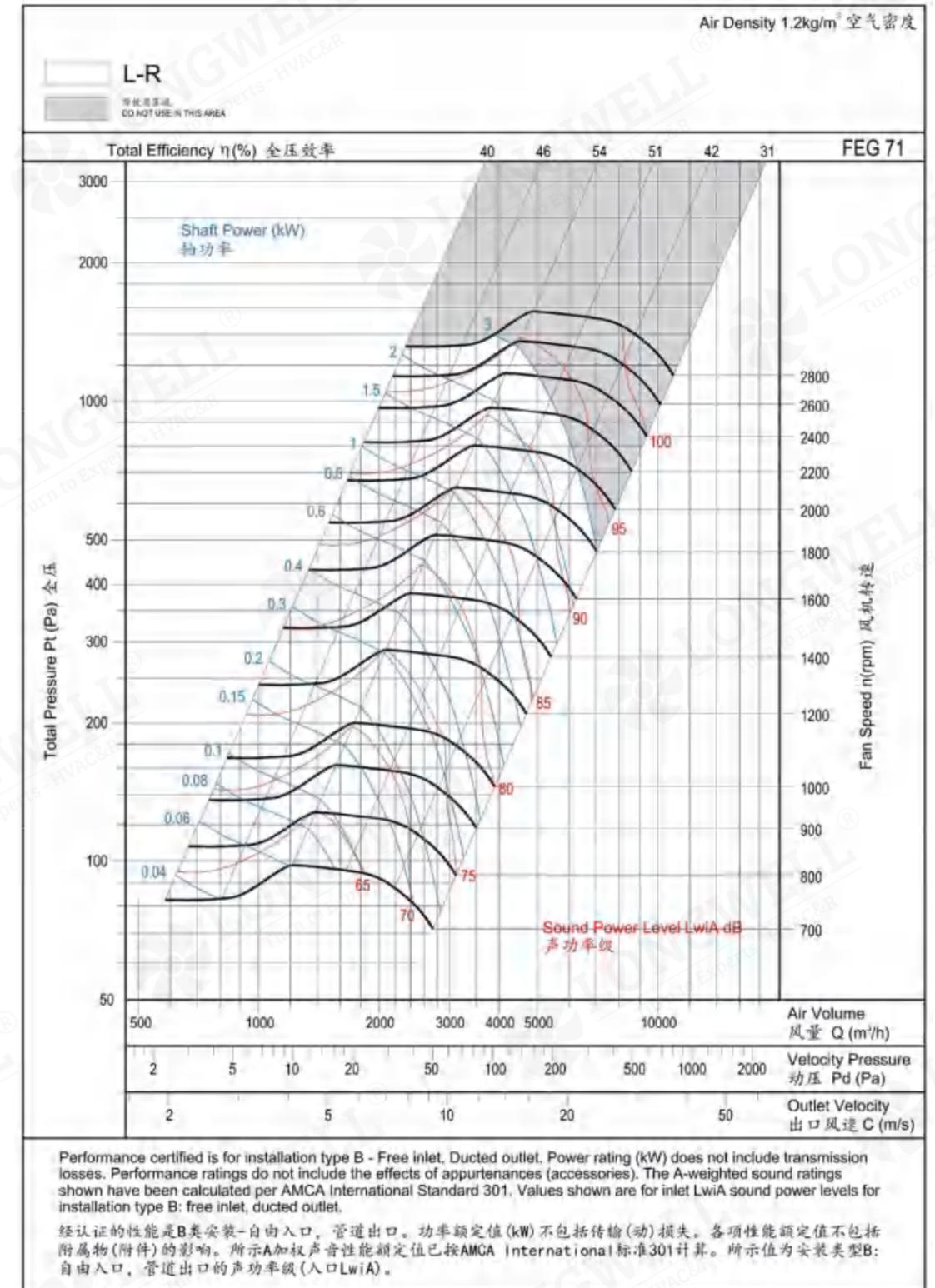
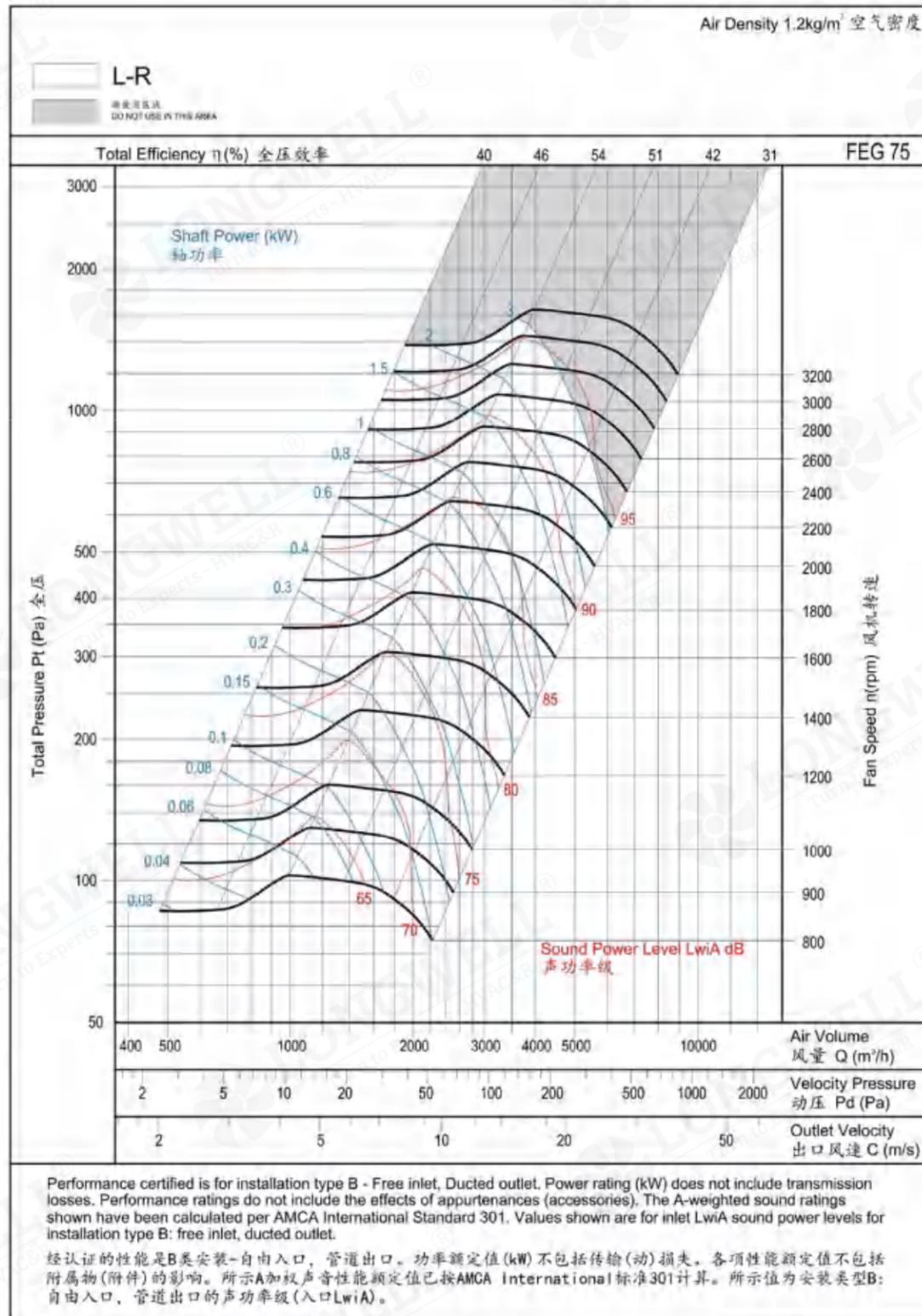
### Technical Specifications

Model	A	B	C	D	E	F	G	H	I	J	K	N	Q	R	S	t	t1	$\Phi d$	W	X	LxV
ADH 355-K2	578	655	453	355	383	261	355	493	1451	548	315	1341	110	30	6	12	8	40	70	43	13x18
ADH 400-K2	651	736	507	400	431.5	290	355	547	1604	613	360	1494	110	38	4.5	12	8	40	70	43	13x18
ADH 450-K2	726	827	569	450	486	322	530	609	1803	681	410	1668	135	45	5	14	9	45	90	48.5	13x18
ADH 500-K2	800	918	638	500	538	352	530	678	1991	750	460	1856	135	50	5	14	9	50	90	53.5	13x18

Note: the size unit in the form is mm

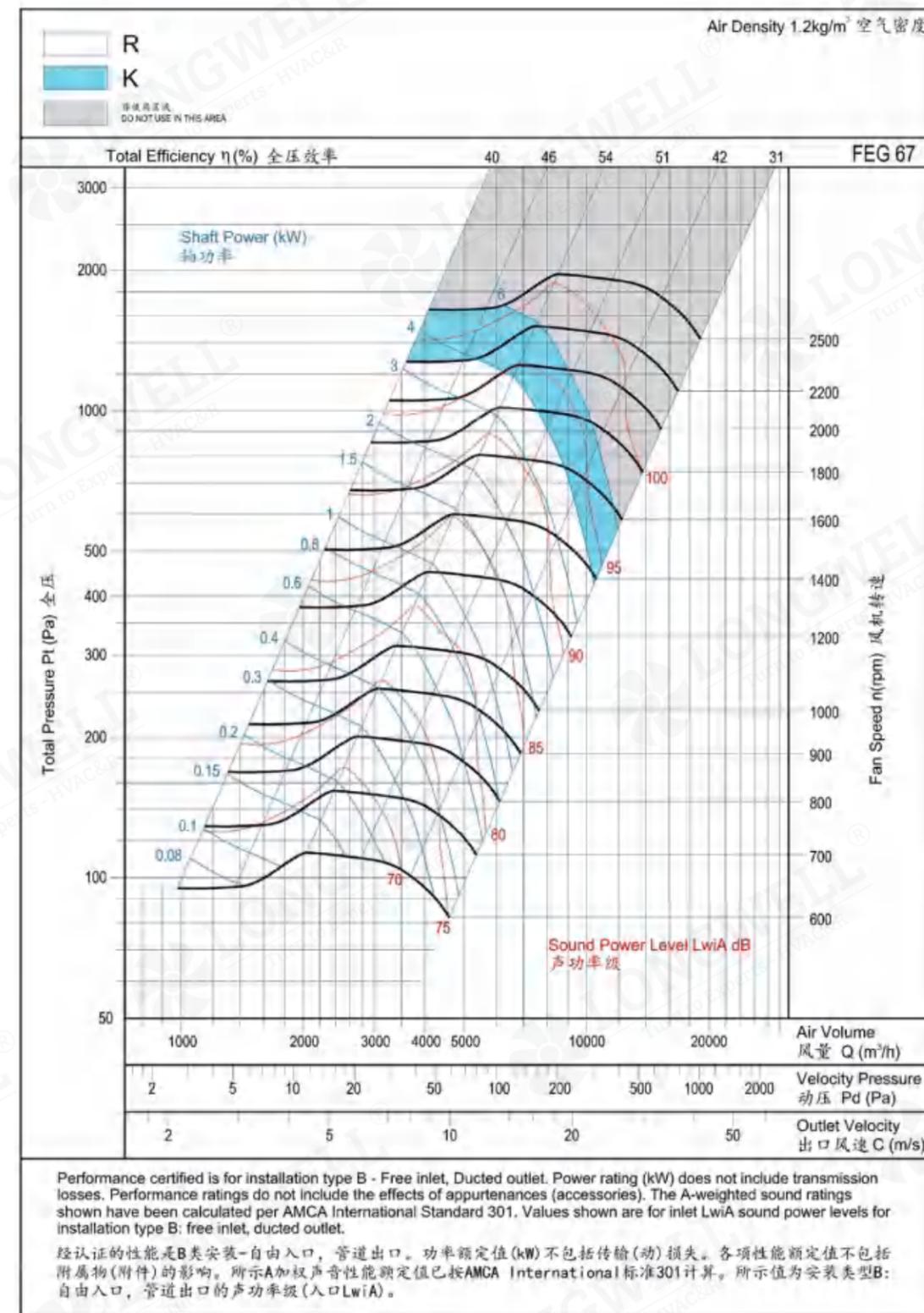
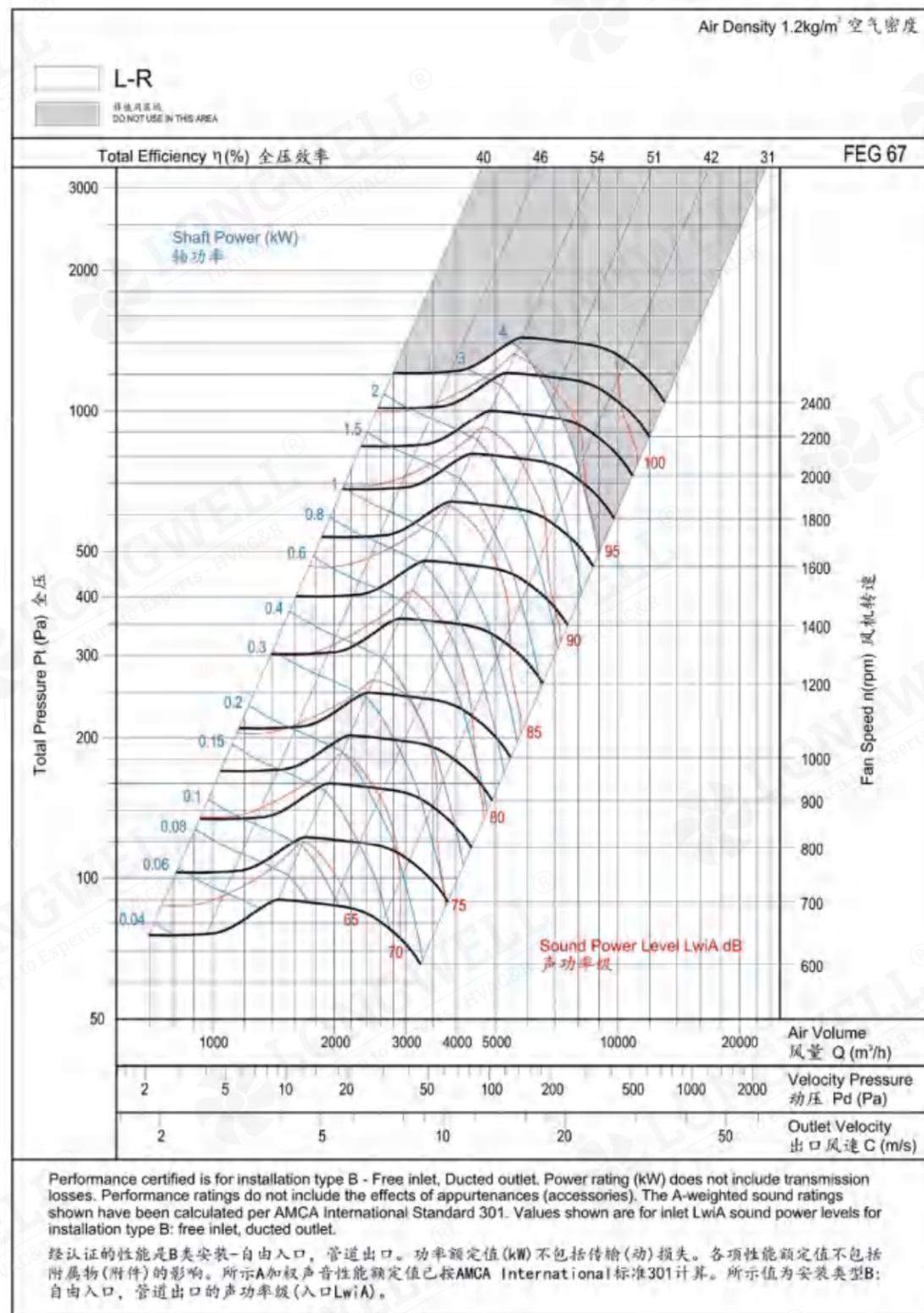
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# ADH-225



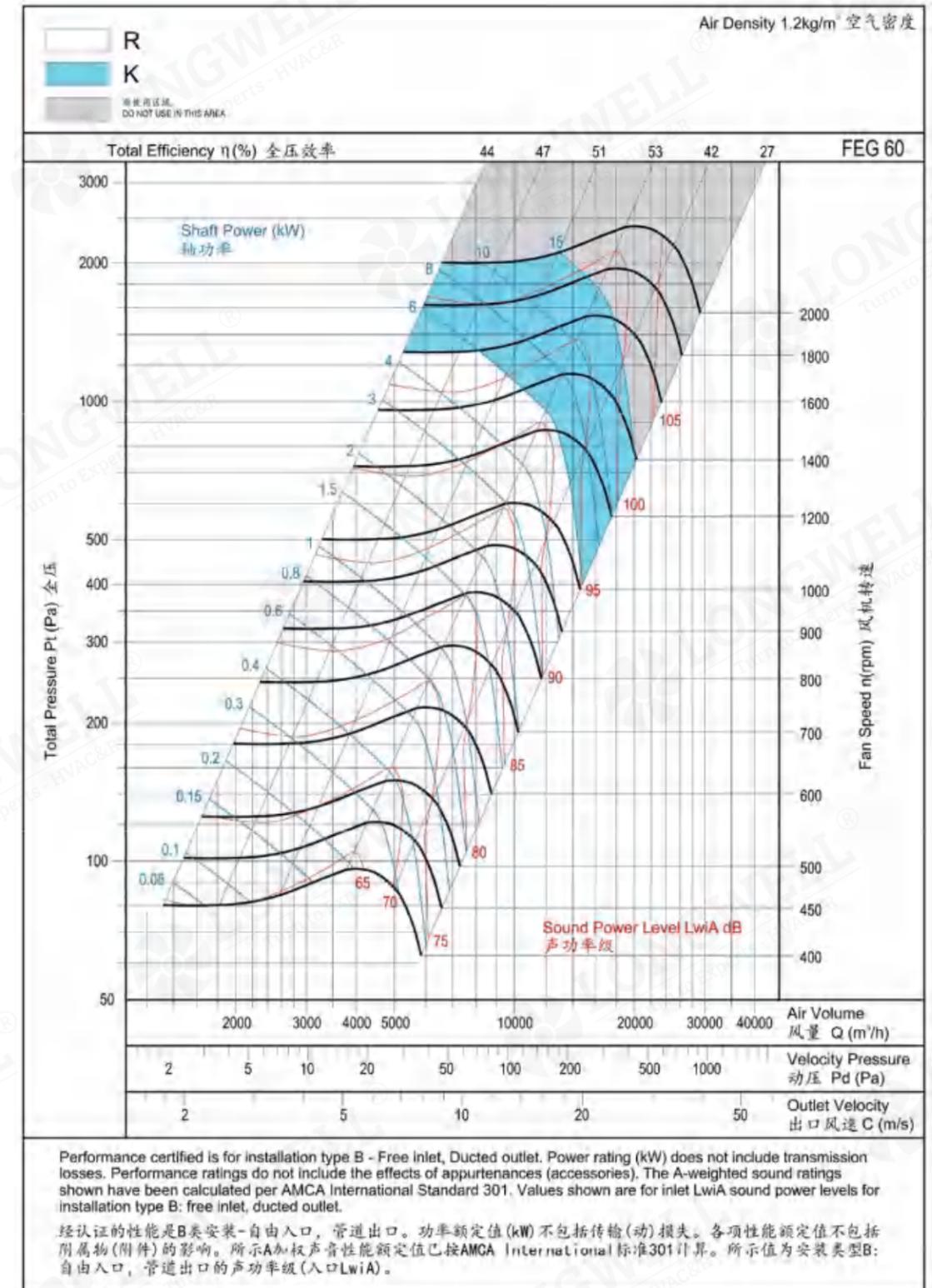
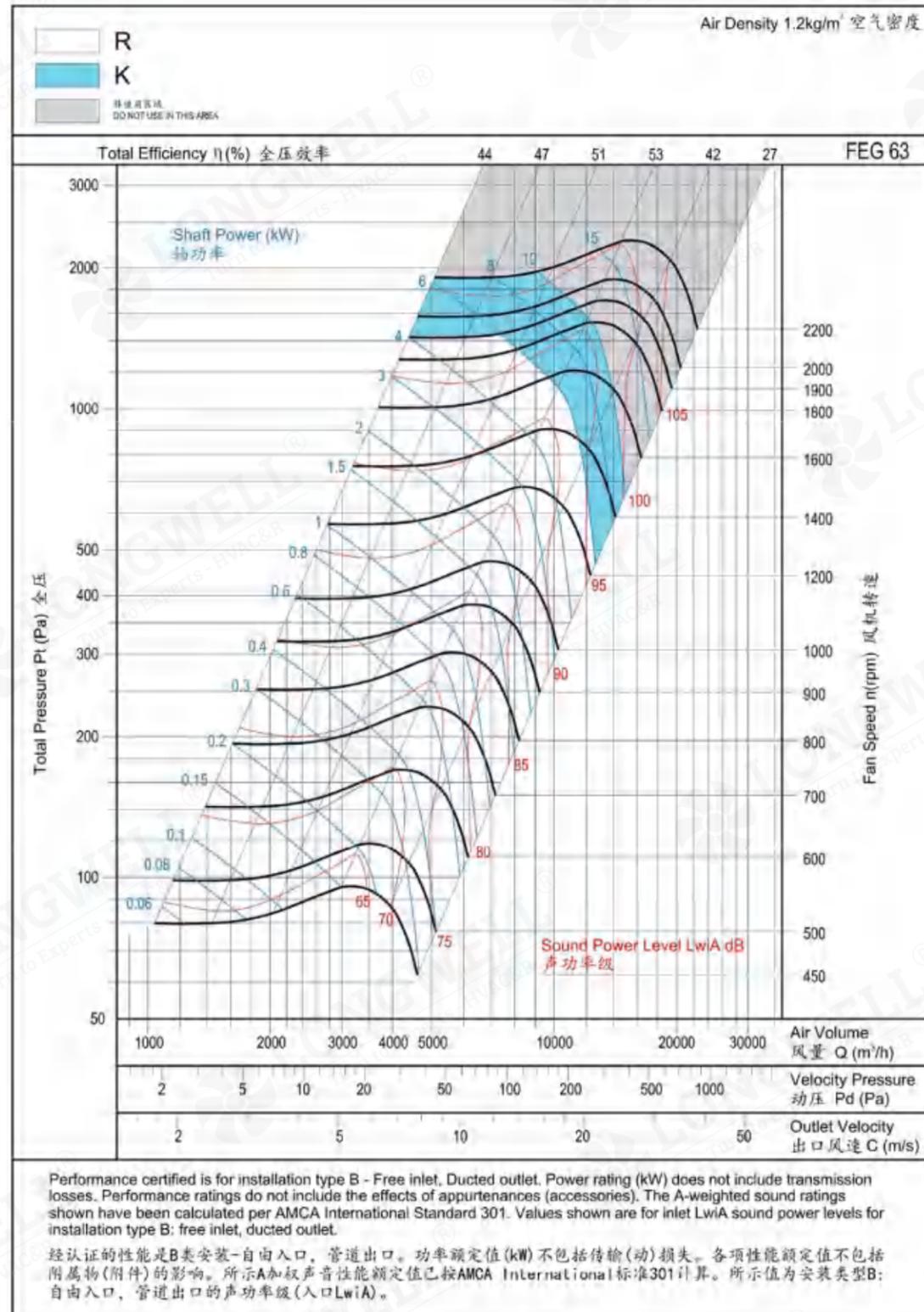
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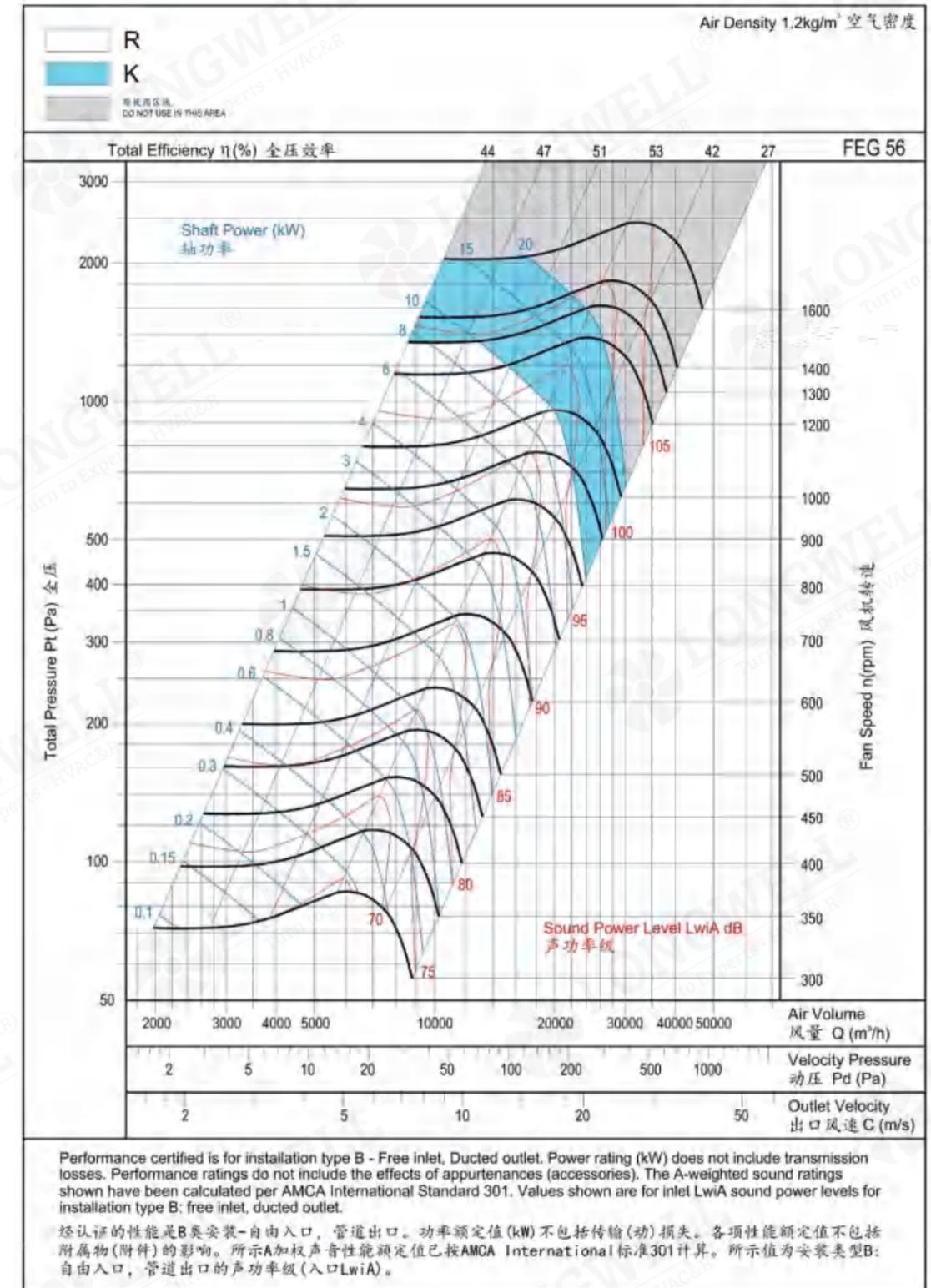
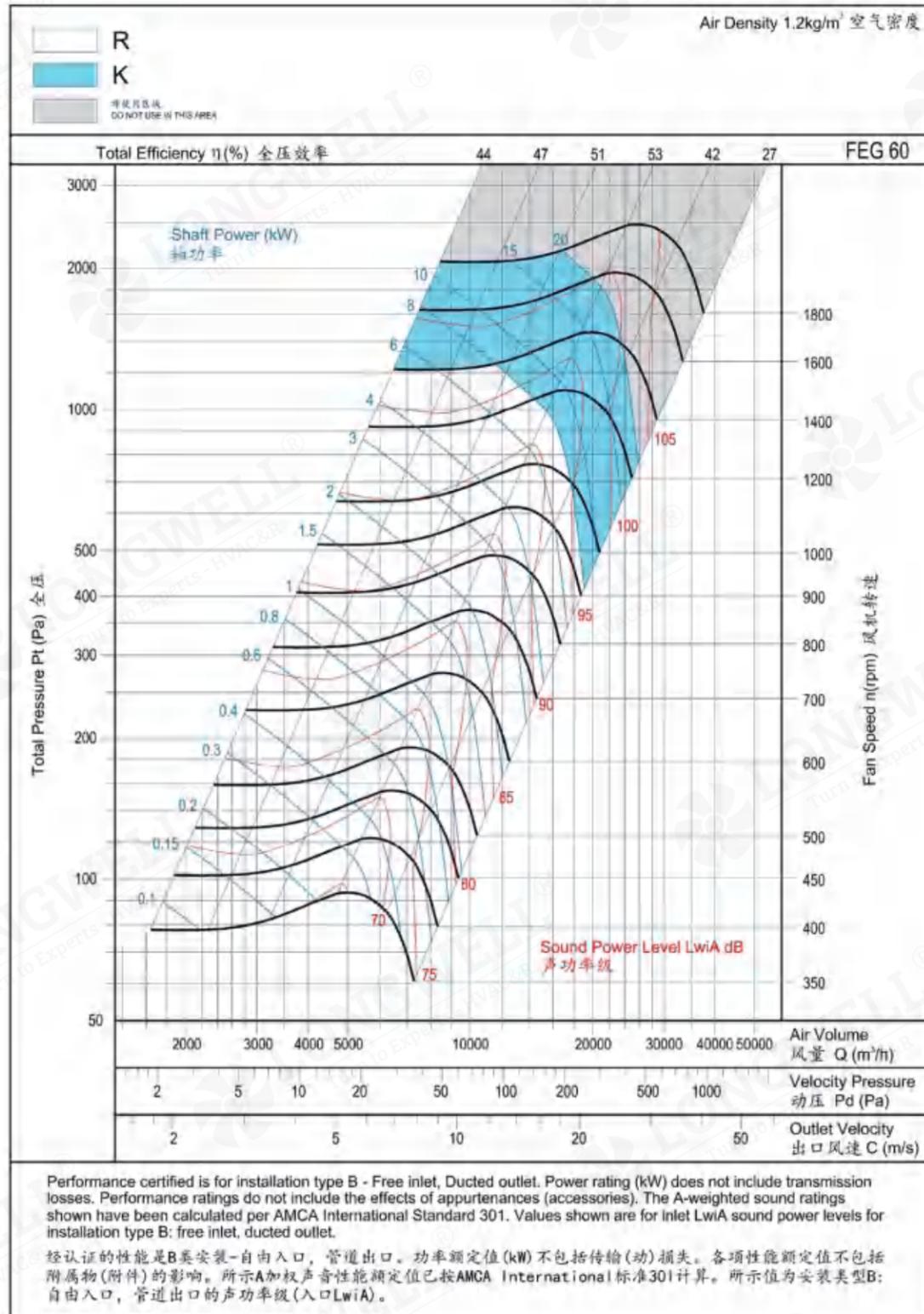
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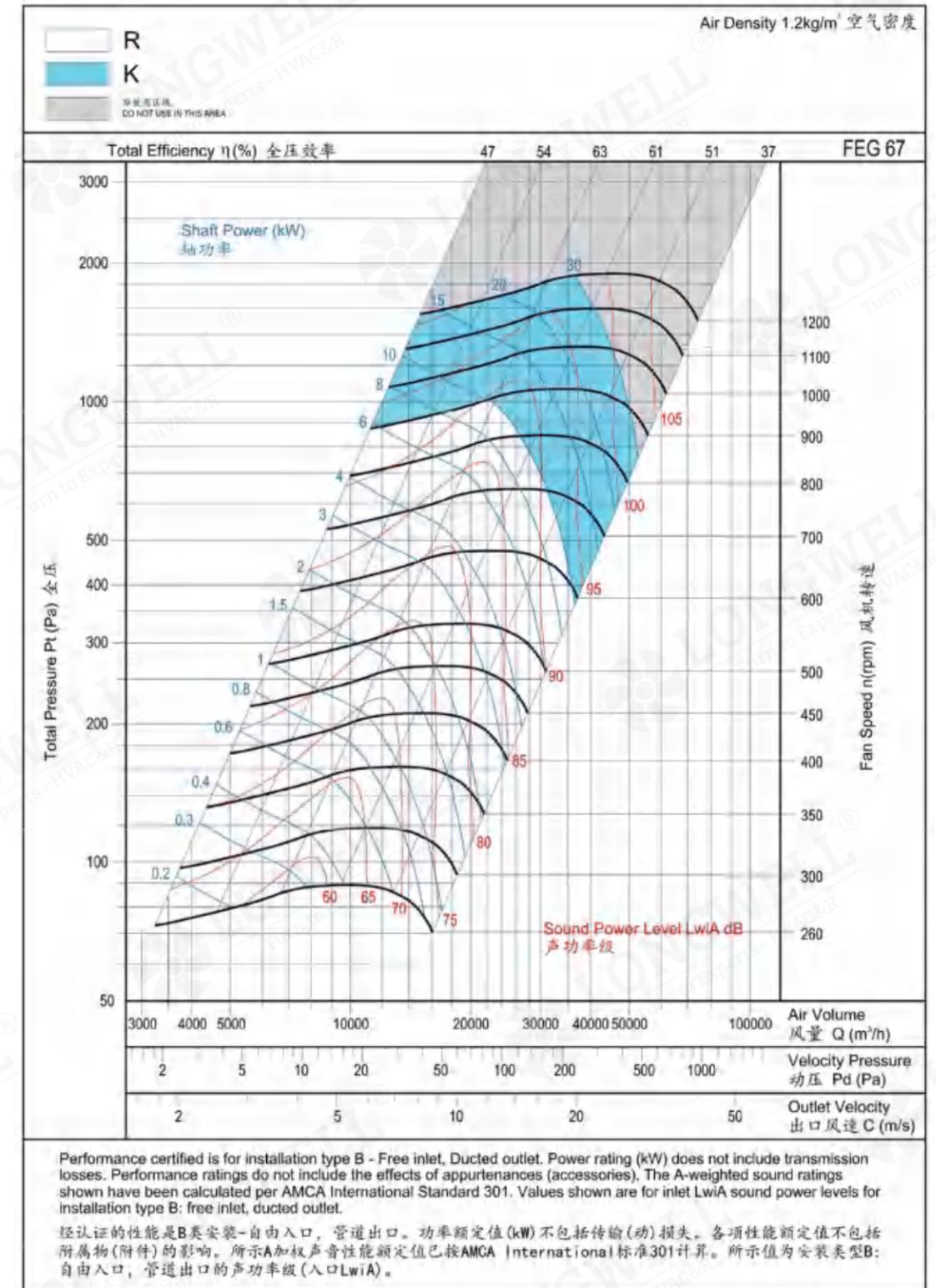
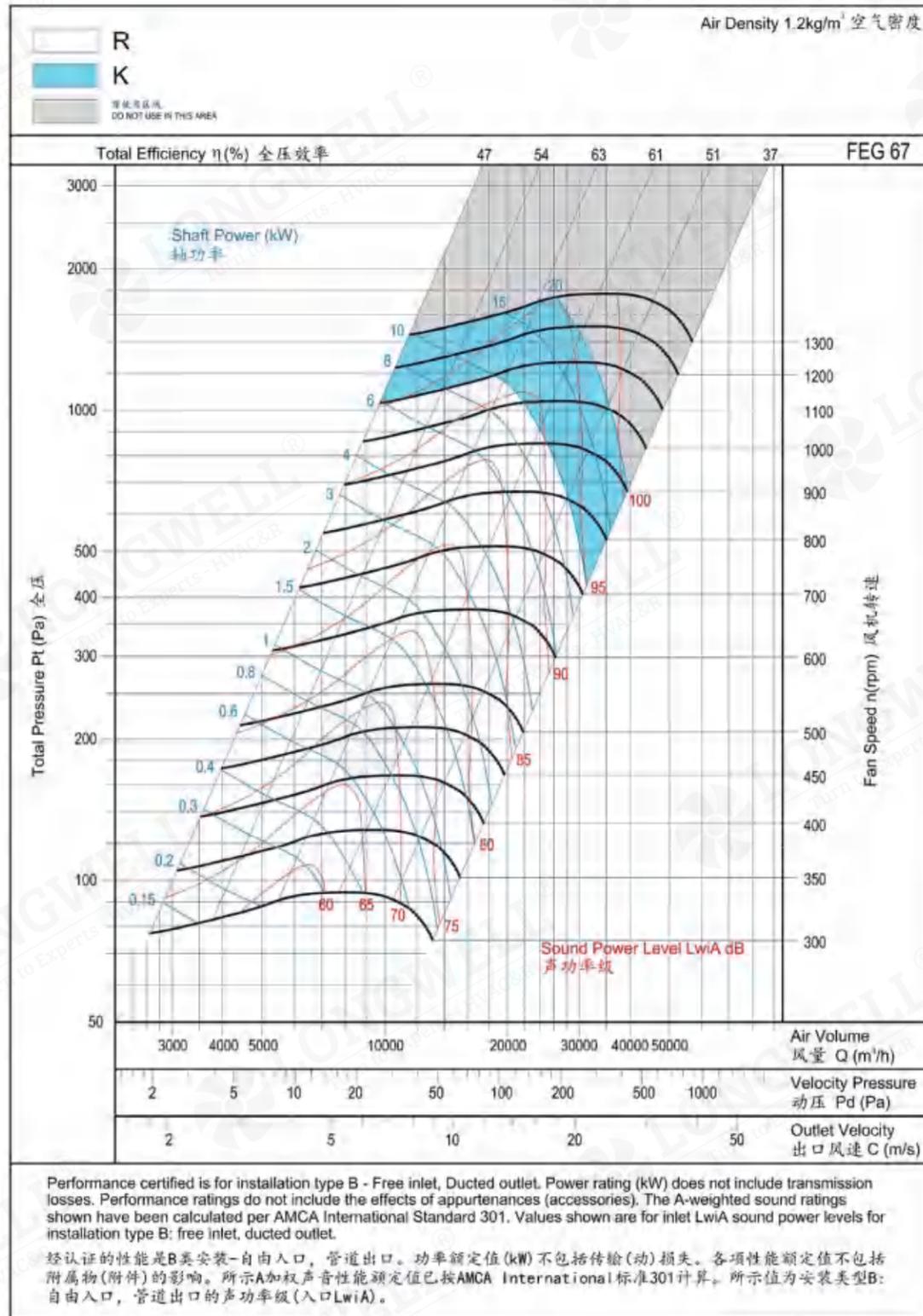
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# ADH-450



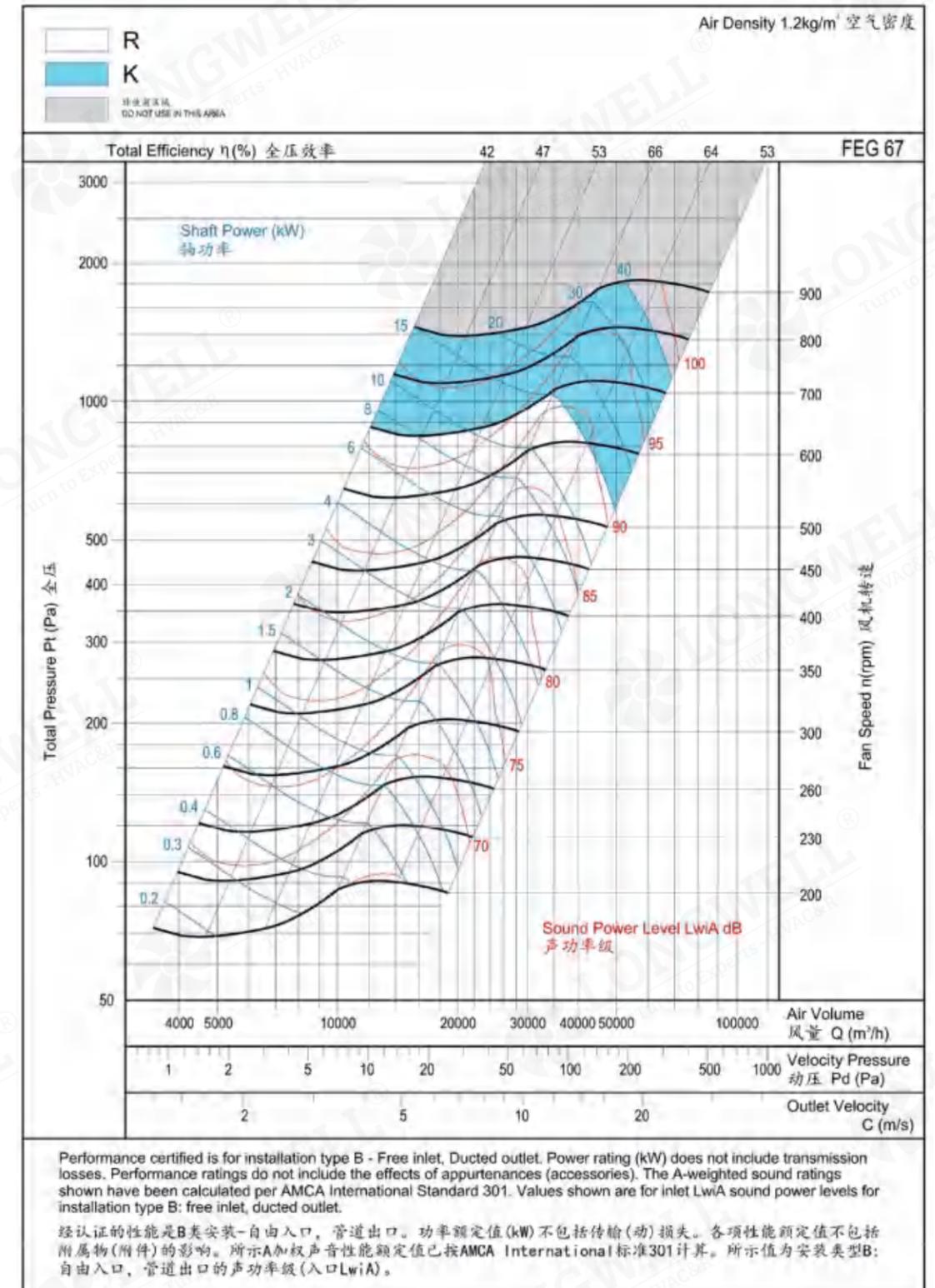
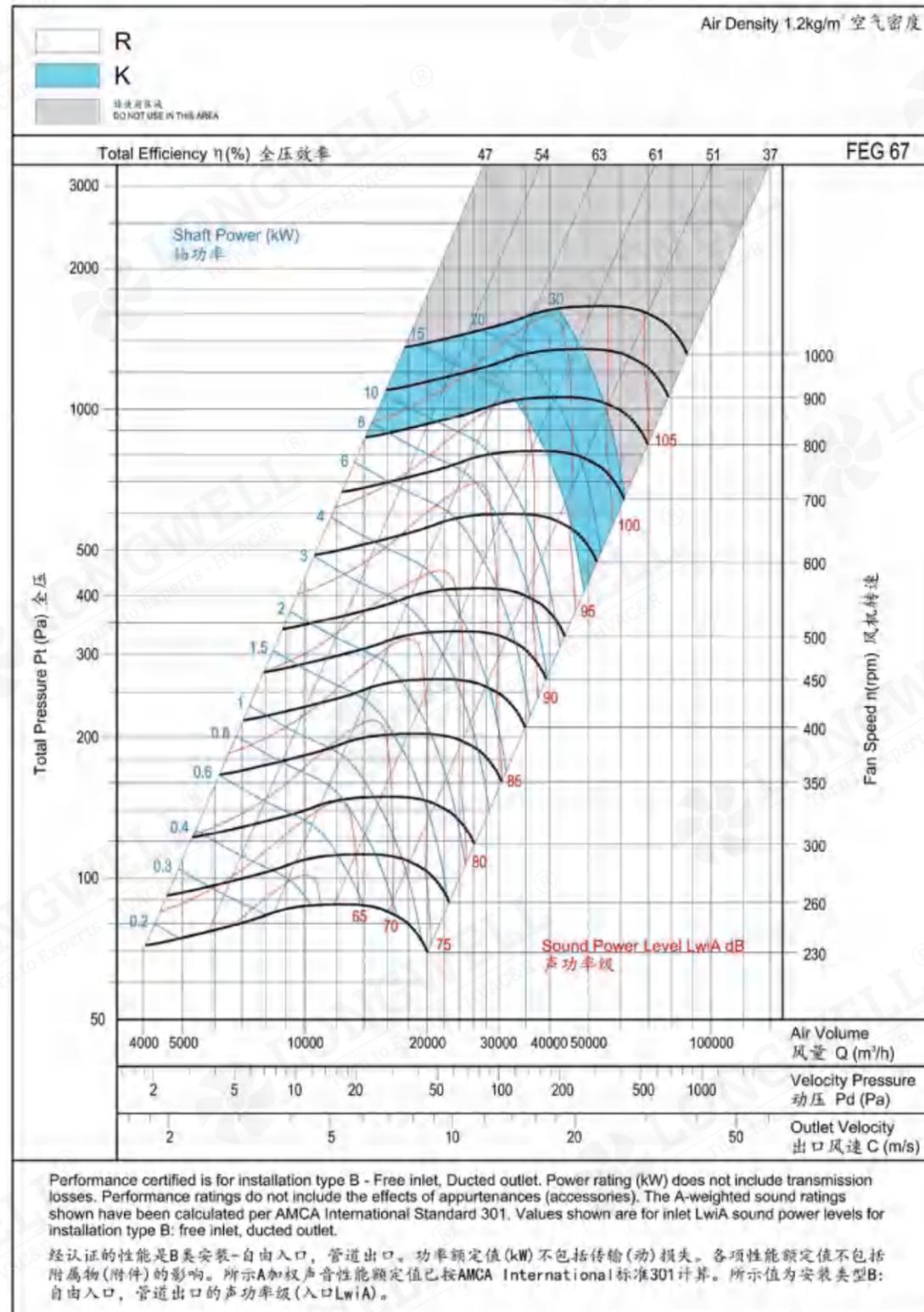
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# ADH-560



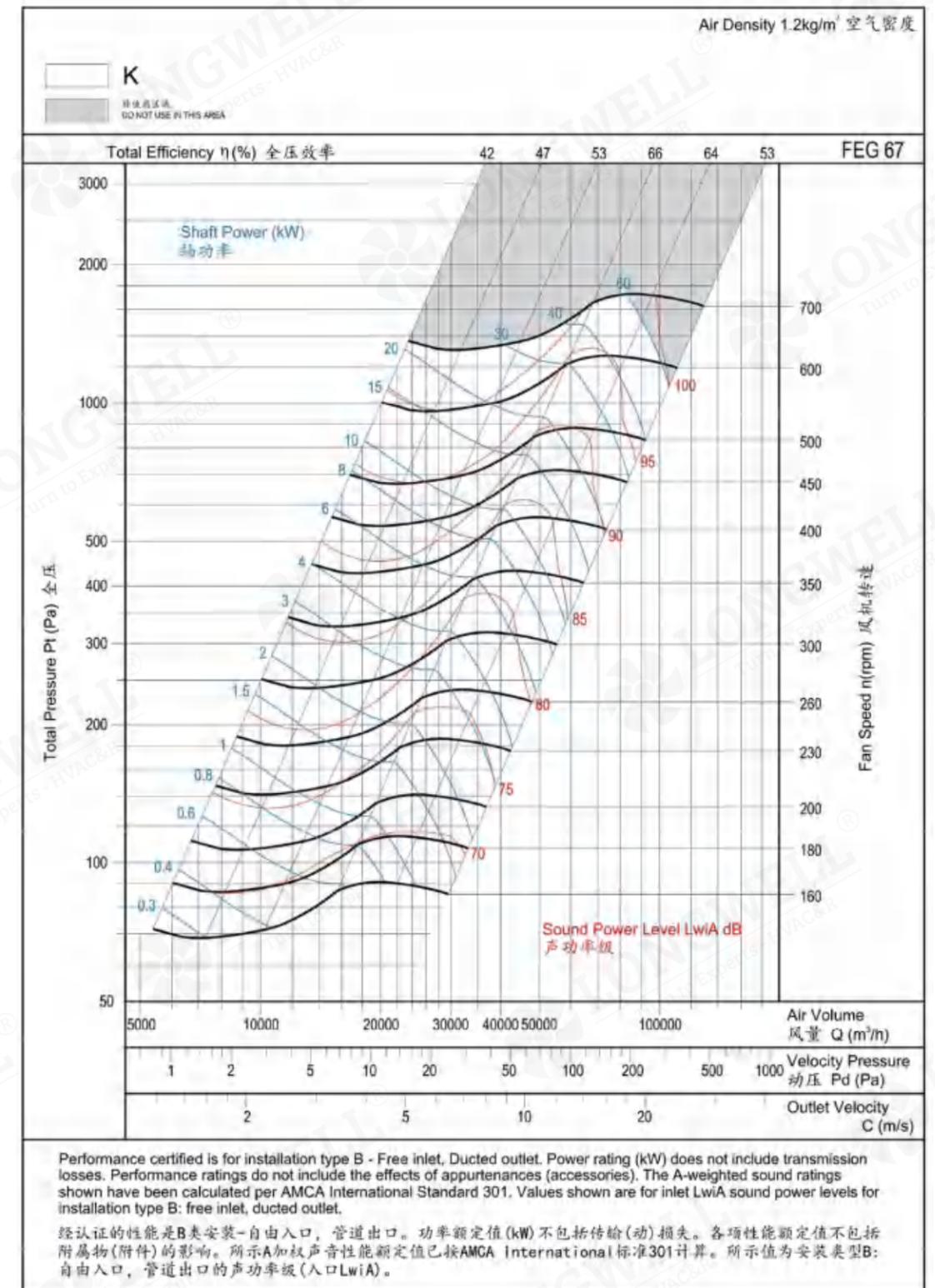
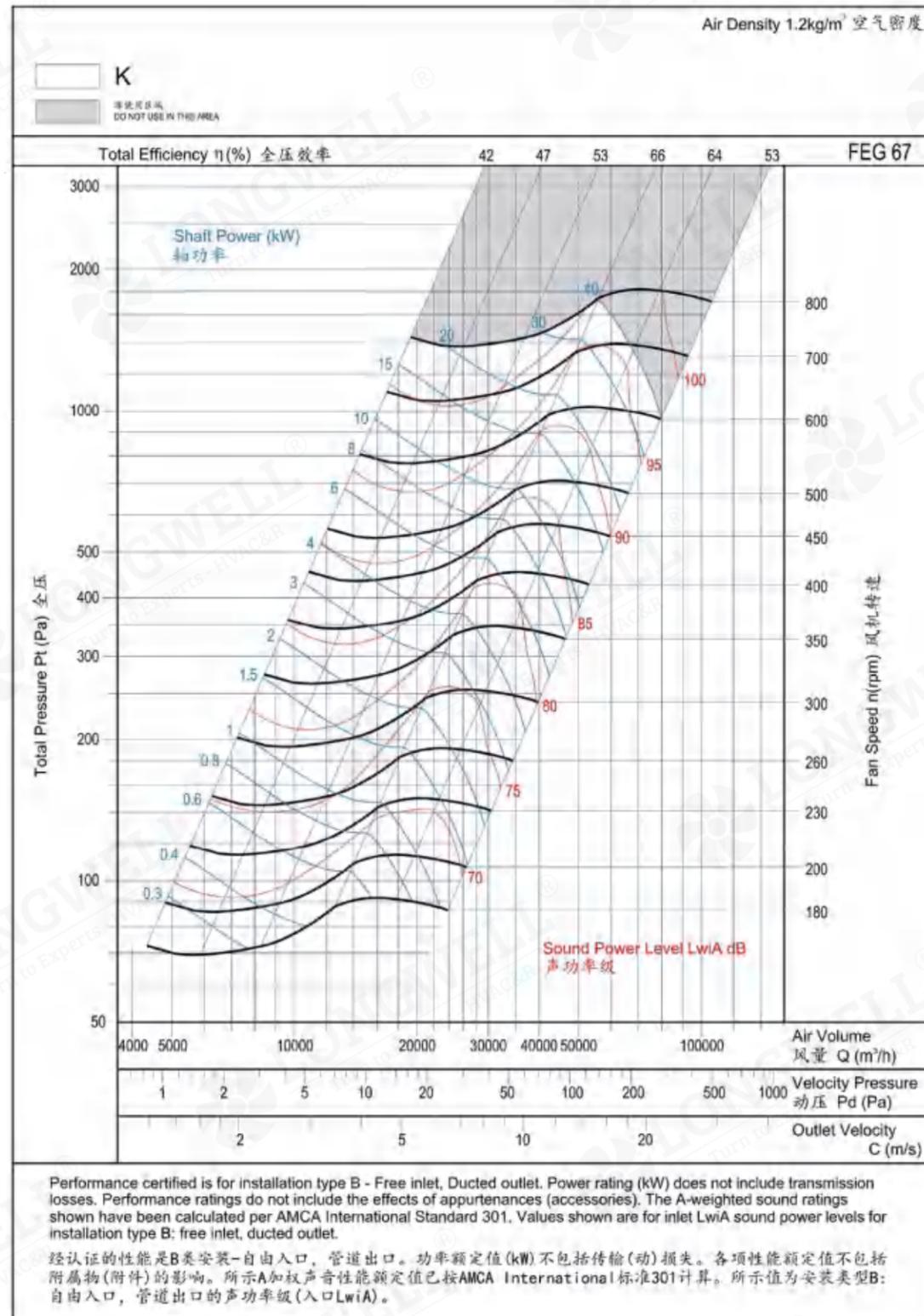
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# ADH-710

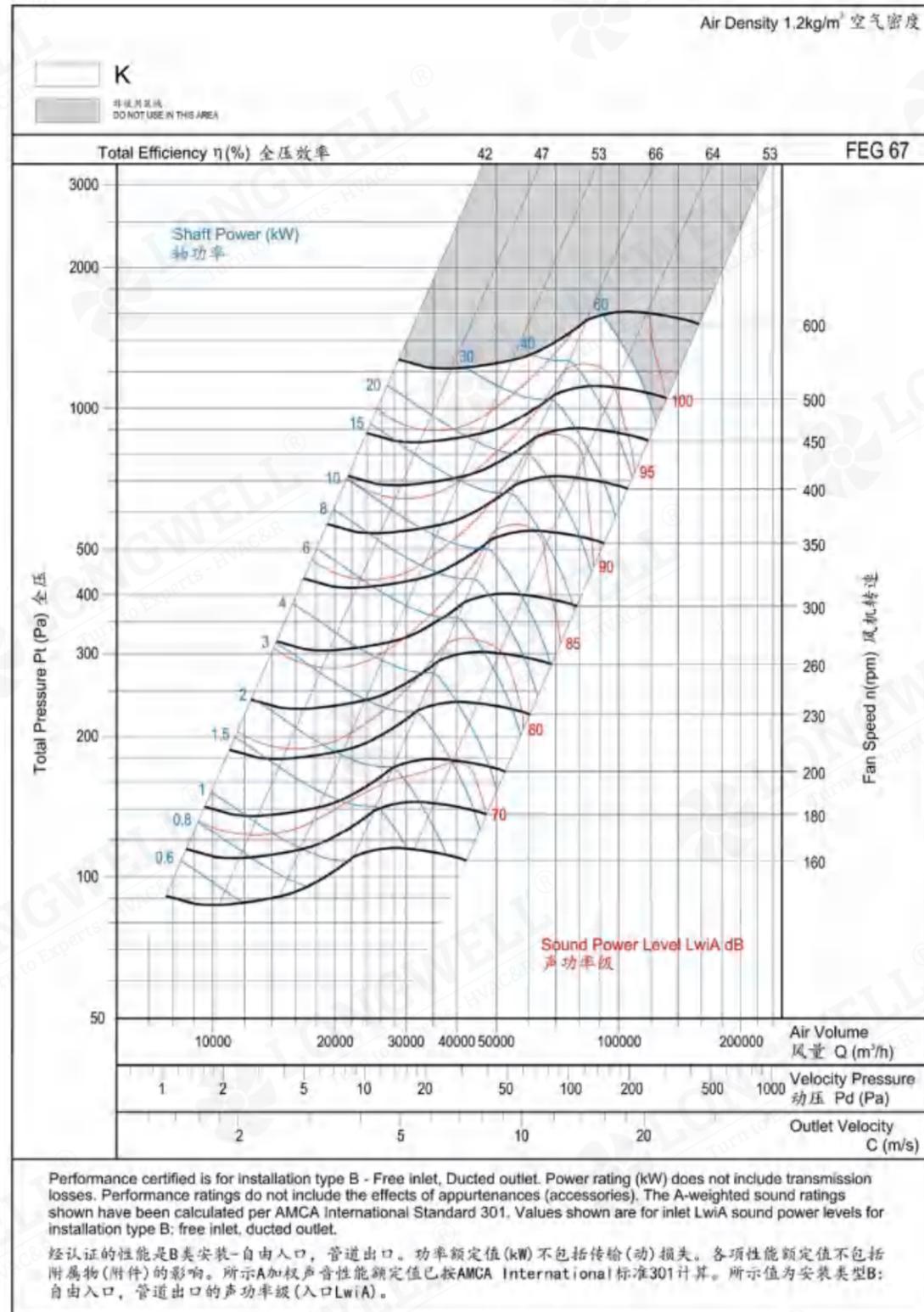


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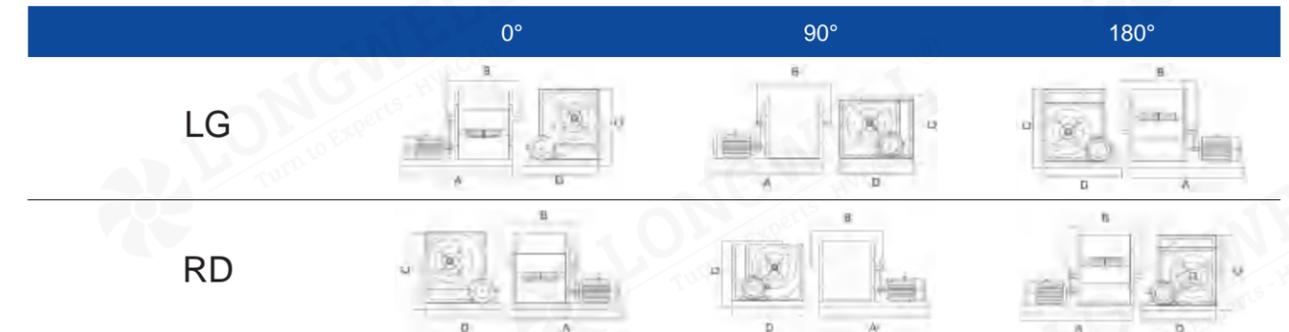
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# ADH-1000



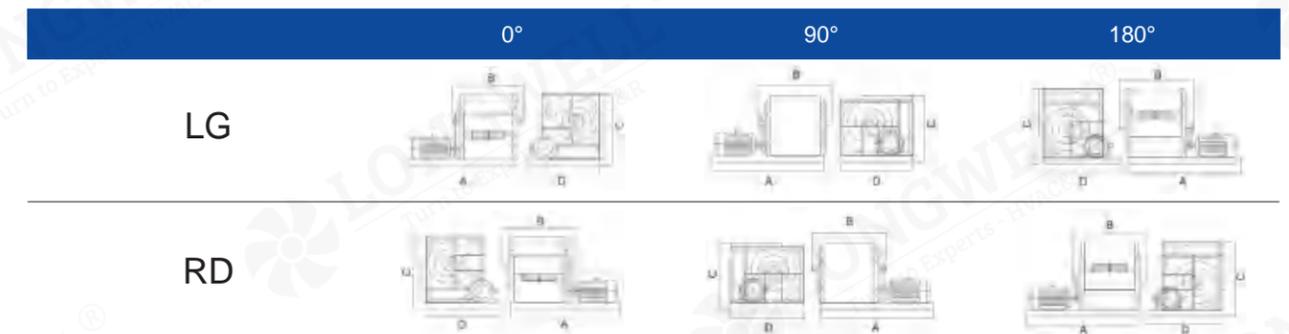
# ADH - R



Model	Motor Frame Size	A	B	C	D	A	B	C	D	A	B	C	D
630	90	1340	1090	1220	1157	1340	1090	1062	1157	1340	1090	1220	1157
	100	1380	1090	1220	1157	1380	1090	1062	1157	1380	1090	1220	1157
	112	1400	1090	1220	1157	1400	1090	1062	1157	1400	1090	1220	1157
	132	1480	1090	1220	1157	1480	1090	1062	1157	1480	1090	1220	1157
710	160	1620	1090	1220	1157	1620	1090	1062	1157	1620	1090	1220	1157
	100	1480	1225	1383	1303	1480	1255	1508	1303	1480	1255	1383	1303
	112	1500	1225	1383	1303	1500	1255	1508	1303	1500	1255	1383	1303
	132	1600	1225	1383	1303	1600	1255	1508	1303	1600	1255	1383	1303
	160	1730	1225	1383	1303	1730	1255	1508	1303	1730	1255	1383	1303
	180	1800	1225	1383	1303	1800	1255	1508	1303	1800	1255	1383	1303

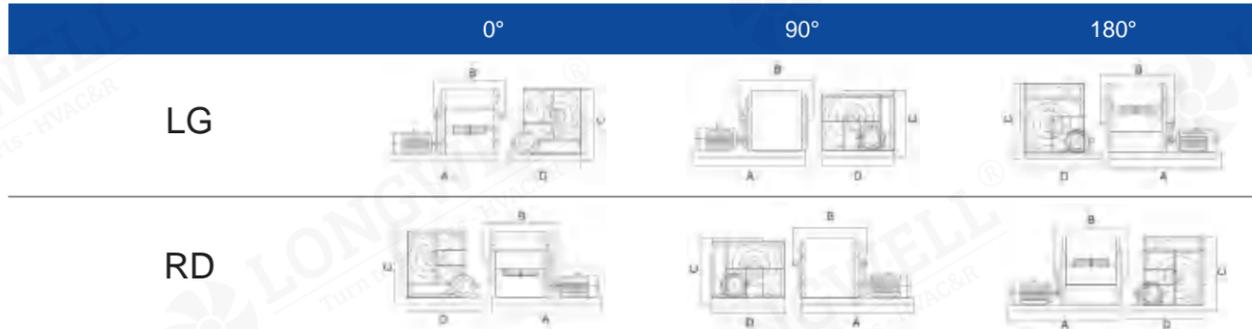
Note: the size unit in the form is mm

# ADH - K



Model	Motor Frame Size	A	B	C	D	A	B	C	D	A	B	C	D
280	100	870	600	568	612	870	600	516	612	870	600	568	612
	112	890	600	568	612	890	600	516	612	890	600	568	612
	132	990	600	568	612	990	600	516	612	990	600	568	612
315	100	910	665	628	617	910	665	568	617	910	665	628	617
	112	930	665	628	617	930	665	568	617	930	665	628	617
	132	1030	665	628	617	1030	665	568	617	1030	665	628	617
	160	1190	665	628	617	1070	665	568	617	1070	665	628	617

# ADH - K



Model	Motor Frame Size	A	B	C	D	A	B	C	D	A	B	C	D
355	100	970	725	705	655	970	725	628	655	970	725	705	655
	112	990	725	705	655	990	725	628	655	990	725	705	655
	132	1090	725	705	655	1090	725	628	655	1090	725	705	655
	160	1250	725	705	655	1130	725	628	655	1130	725	705	655
400	112	1070	790	786	736	1070	790	613	736	1070	790	786	736
	132	1170	790	786	736	1170	790	613	736	1170	790	786	736
	160	1300	790	786	736	1300	790	613	736	1300	790	786	736
450	112	1120	850	877	827	1120	850	776	827	1120	850	877	827
	132	1220	850	877	827	1220	850	776	827	1220	850	877	827
	160	1300	850	877	827	1300	850	776	827	1300	850	877	827
500	112	1190	920	981	918	1190	920	863	918	1190	920	981	918
	132	1290	920	981	918	1290	920	863	918	1290	920	981	918
	160	1430	920	981	918	1430	920	863	918	1430	920	981	918
	180	1500	920	981	918	1500	920	863	918	1500	920	981	918
560	132	1400	1070	981	1030	1400	1070	956	1030	1400	1070	1093	1030
	160	1550	1070	1093	1030	1550	1070	956	1030	1550	1070	1093	1030
	180	1600	1070	1093	1030	1600	1070	956	1030	1600	1070	1093	1030
630	200	1660	1070	1093	1030	1660	1070	956	1030	1660	1070	1093	1030
	132	1480	1155	1220	1157	1480	1155	1062	1157	1480	1155	1220	1157
	160	1620	1155	1220	1157	1620	1155	1062	1157	1620	1155	1220	1157
	180	1680	1155	1220	1157	1680	1155	1062	1157	1680	1155	1220	1157
710	200	1740	1155	1220	1157	1740	1155	1062	1157	1740	1155	1220	1157
	132	1600	1290	1383	1303	1600	1290	1508	1303	1600	1290	1383	1303
	160	1730	1290	1383	1303	1730	1290	1508	1303	1730	1290	1383	1303
	180	1800	1290	1383	1303	1800	1290	1508	1303	1800	1290	1383	1303
800	200	1850	1290	1383	1303	1850	1290	1508	1303	1850	1290	1383	1303
	225	1920	1290	1383	1303	1920	1290	1508	1303	1920	1290	1383	1303
	132	1720	1450	1548	1468	1720	1450	1330	1468	1720	1450	1548	1468
	160	1880	1450	1548	1468	1880	1450	1330	1468	1880	1450	1548	1468
900	180	1950	1450	1548	1468	1950	1450	1330	1468	1950	1450	1548	1468
	200	2000	1450	1548	1468	2000	1450	1330	1468	2000	1450	1548	1468
	225	2050	1450	1548	1468	2050	1450	1330	1468	2050	1450	1548	1468
900	160	1980	1570	1748	1648	1980	1570	1748	1648	1980	1570	1748	1648
	180	2030	1570	1748	1648	2030	1570	1748	1648	2030	1570	1748	1648
	200	2100	1570	1748	1648	2100	1570	1748	1648	2100	1570	1748	1648
	225	2170	1570	1748	1648	2170	1570	1748	1648	2170	1570	1748	1648

1000	160	2110	1700	1910	1810	2110	1700	1641	1810	2110	1700	1910	1810
	180	2160	1700	1910	1810	2160	1700	1641	1810	2160	1700	1910	1810
	200	2230	1700	1910	1810	2230	1700	1641	1810	2230	1700	1910	1810
	225	2300	1700	1910	1810	2300	1700	1641	1810	2300	1700	1910	1810
	250	2390	1700	1910	1810	2390	1700	1641	1810	2390	1700	1910	1810

Note: the size unit in the form is mm

## ADH Series Ventilator Operational Limits

		200	225	250	280	315	355	400	450	500	560	630	710	800	900	1000
Max. absorbed Power	L KW	3	3	4	/	/	/	/	/	/	/	/	/	/	/	/
	R KW	3	3	4	4	6	6	8	10	10	10	15	15	/	/	/
	K KW	/	/	/	6	10	15	20	20	20	30	30	40	40	60	60
	R2 KW	/	/	/	9	13	13	18	22	22	/	/	/	/	/	/
Max. R.P.M	K2 KW	/	/	/	/	/	33	45	45	45	65	/	/	/	/	/
	L rpm	3200	2800	2400	/	/	/	/	/	/	/	/	/	/	/	/
	R rpm	3200	2800	2400	2200	1900	1600	1400	1300	1100	900	800	700	/	/	/
	K rpm	/	/	/	2500	2200	2000	1800	1600	1300	1200	1000	900	800	700	600
Air Temperature Limits (Min-20°C)	R2 rpm	/	/	/	1800	1400	1400	1200	1000	900	/	/	/	/	/	/
	K2 rpm	/	/	/	/	/	1600	1400	1200	1000	900	/	/	/	/	/
	L Max.°C	85	85	85	/	/	/	/	/	/	/	/	/	/	/	/
	R Max.°C	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
Fan Weight	K Max.°C	/	/	/	85	85	85	85	85	85	85	85	85	85	85	85
	R2 Max.°C	/	/	/	85	85	85	85	85	/	/	/	/	/	/	/
	K2 Max.°C	/	/	/	/	/	85	85	85	/	/	/	/	/	/	/
	L Kg	7.4	9.2	11	/	/	/	/	/	/	/	/	/	/	/	/
Fan Weight	R Kg	9.4	10.8	13	19	25	36	44	57	71.5	131	156	192	/	/	/
	K Kg	/	/	/	29	35	42	57	72	92	160	185	240	290	365	480
	R2 Kg	/	/	/	38	50	71	87	113	142	/	/	/	/	/	/
	K2 Kg	/	/	/	/	/	85	107	136	175	328	/	/	/	/	/

## Fan Selection Criteria

1.the selection of high efficiency,the smaller the smaller,the larger the scope of the wind turbine,to meet the system can accept the performance,efficiency and quality requirements.The fan operating point,should be selected in the vicinity of high efficiency fan,to ensure stable operation,avoid the work of the fan in the surge zone.To reduce the noise,we must reduce the speed of the wind turbine, the choice of a large fan.AV system fan,air pressure should be selected according to the operating time of a longer part of the load conditions.

2.the choice of a strong wind turbine,often make the wind turbine running in the small wind area. the pressure difference between the inlet and outlet of the wind turbine,will cause the operation of instability and noise pulse.higher noise.After selection of wind machine,will raise the rotation speed of the fan,air leaving the blades have higher speed,also can produce high noise.The average speed of the air blower is M/S 10-15.

3.before to the multi blade fan:has the advantages of low speed,light structure,low noise,good speed regulation performance and cheap price,when the design flow and the pressure of small or large volume low pressure should give high priority to the use of wind turbine.After the wind machine, which has the advantages of high efficiency,low noise,high pressure and structure characteristics of strong,when the design pressure of fan is large should give high priority to the use of wind turbine. No shell fan: when the pipe network needs a flexible export position,need to reduce the pipeline outlet noise,or pipe network in the future may change the occasion should be preferred.

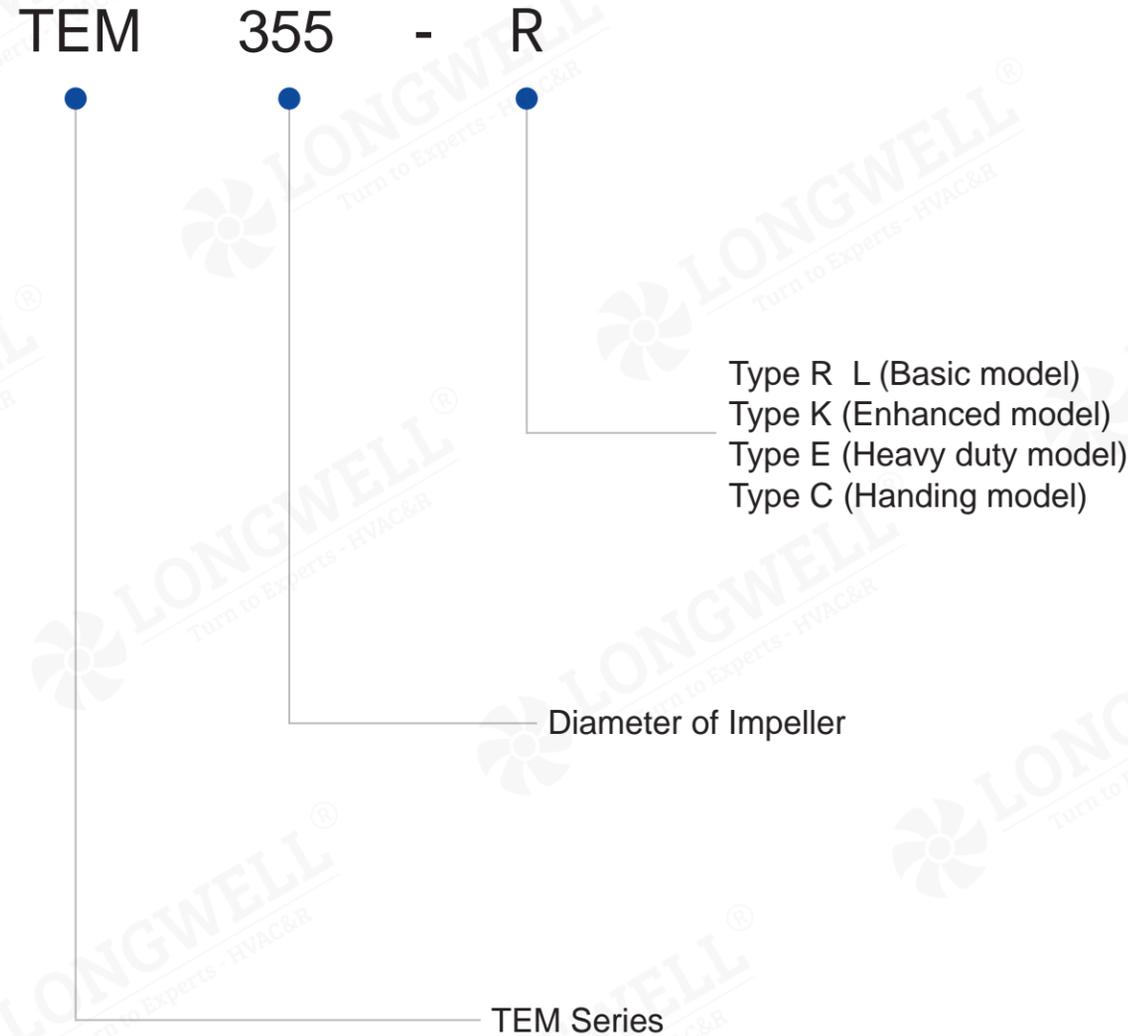
4.total pressure curve is flat,small steepness,static pressure has a great influence on the wind power,performance and wider range of fan for air volume system,the static pressure sensitive,need air conditioning VAV air conditioning units.Full pressure curve is steep,steep,static pressure of air power influence small wind machine,suitable for fixed volume of air conditioner,before the wind turbine motor is not overloaded.The belt drive fan to pole motor with 4/6.

## TEM Series Centrifugal Blower

Professional HVAC Fan & Motors Manufacturer



# Type Code



## TEM Series Centrifugal Blower

### 1. Summary

The TEM Series of centrifugal air conditioning fans was developed with advanced technologies. They are licensed to bear the AMCA Seal for air performance, sound, and FEG. The TEM Series includes 12 models as described in this catalogue. The volume flow ranges from 700 m<sup>3</sup>/h to 50,000 m<sup>3</sup>/h, the total pressure ranges from 200Pa to 1500Pa. Some of the features and characteristics of these fans are: forward blades, a wide range of applications, high efficiency, low noise, and low power consumption. These fans are ideal for use in central air-conditioning systems, in purifiers. They are also suitable for use in a variety of other ventilation applications.

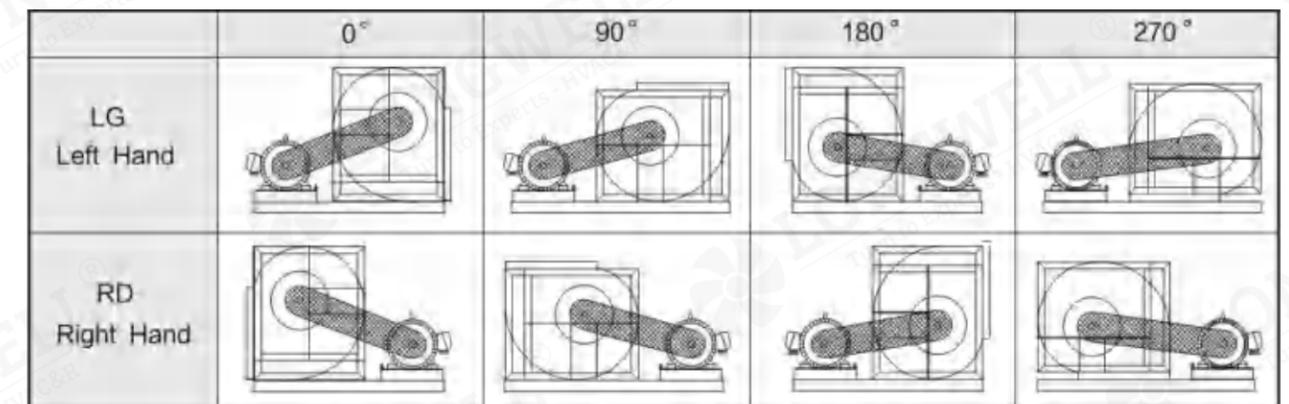
### 2. Product Features

#### (1) Rotation

TEM series fans have two direction of rotations, left-hand rotation (LG) and right-hand rotation (RD); Viewing from drive side, if the Wheel rotates clockwise, it is left hand (LG) rotation. If the Wheel rotates counter clockwise, it is right-hand (RD).

#### (2) Discharge Direction

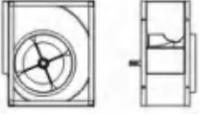
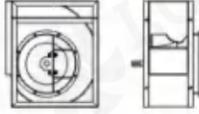
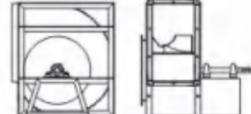
As shown in Fig1, TEM Series fans can be constructed in four discharge directions: 0°, 90°, 180° and 270°.



(Fig 1)

### (3) Type of Construction

As shown in Fig 2, TEM series fans can be divided into category R, E, C.

Fan Type	Fan Size	Fan Diagram	Bearing Type
TYPE R	280-710		
TYPE E	280-1000		
TYPE C	280-1000		

(Fig 2)

## 3. Constructon of Product

TEM series fans are mainly constructed of housing, Wheel, frame, bearing and shaft. Outlet flange (is optional).

### (1) Housing

The housing is made of hot galvanized steel sheet. The side plates include inlets cones that are designed with the best aerodynamics for inlet condition. The scroll is fixed to the side plates by spot welding or "Pittsburg seam locking".

### (2) Wheel

Forward curved Wheel is constructed of high-grade hot galvanized steel sheet with the advanced aerodynamics profile to achieve the highest efficiency and the lowest noise level. The Wheel is fixed on the center plate and on the end ring with riveting grip pres. The Wheel is constructed with maximum strength that endures the continuous operation with maximum power. All Wheels are balanced to ANSI/AMCA Standard 204-05. Yilida's internal standard is G2.5 or higher for wheel balancing.

### (3) Frame

The frames for type R construction are made of galvanized steel angle iron bars. The cutting and bending of the frame parts, as well as the TOX connections, are formed with the use of toolings to ensure the high accuracy and the rigidity of the frames; The farms for E and C constructions are welded by angle steel and flat steel, and finished with polyester coating in order to ensure sufficient rigidity and strength.

### (4) Bearings

Ball bearings are used in all of the TEM Series fans. These are high-quality bearings and selected to minimize the fan noise levels. The bearings are pre-lubricated, sealed, and self-centering. For type R constructions, the bearings are supplied with lubrication fittings. For type E and C constructions, the bearings are supplied with redial bearing. All Yilida bearing service life (L10) are over 100,000 hours (L10≥ 100000 hours).

### (5) Shaft

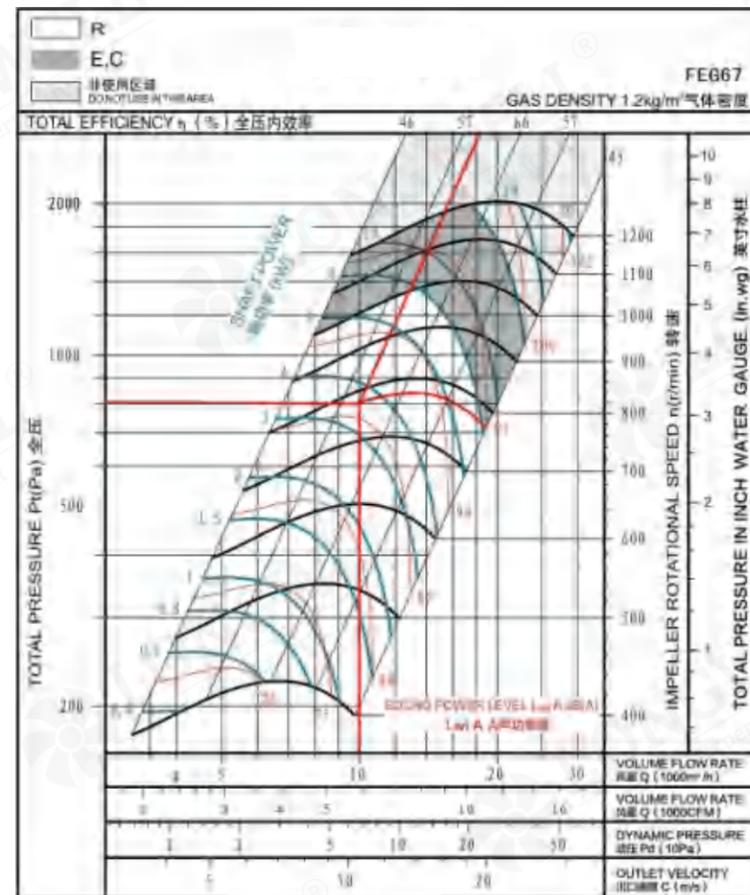
The shafts are made of 40 Cr carbon steel bars. The shafts are rough machined and then stress relieved with heat treatment before final machining. The shaft diameters are machined to very accurate tolerance levels and they are fully checked to ensure precision fit. Each shaft is made turned, ground and polished. They are coated after assembly to provide corrosion resistance. Shaft size should be designed to meet the first critical speed of at least fan maximum running speed 1.4 times.

### (6) Outlet Flange

The inlet flange is made of high-grade cold-rolling sheet with polyester coating. The outlet flange is made of galvanized steel. The connections of the flange components to the scroll are made using a TOX non-welding process. This maintains a good flange appearance while also providing sufficient strength and rigidity.

## 4. Performance Chart

### (1) Fan Performance Curve



Type	ADHS 560-R
Volume	$q_v=10000\text{m}^3/\text{h}$
Total Pressure	$P_{tF}=800\text{Pa}$
Dynamic Pressure	$P_{dF}=67\text{Pa}$
Outlet Velocity	$C=10.56\text{m/s}$
Fan Speed	$n=768\text{r/min}$
Shaft Power	$P_{sh}=3.43\text{KW}$
A Sound Power Level	$L_{wA}=87\text{dB(A)}$
Total Efficiency	$\eta_{tF}=64.8\%$

### (2) Motor Selection

The power ( $P_{sh}$ ) on the performance chart refers to the shaft power of the fan.

The rated power of the drive motor equals the total required shaft input multiplied by the safety

factor:  $P_{sh,p}=P_{sh} \times K \div \eta_{me}$

The value of mechanical drive efficiency can be obtained from Table 1.

The required safety factors is provided in Table 2.

Drive Type	$\eta_{me}$
Motor Direct Drive	1
Coupling Direct Drive	0.98
V-Blet Drive	0.95

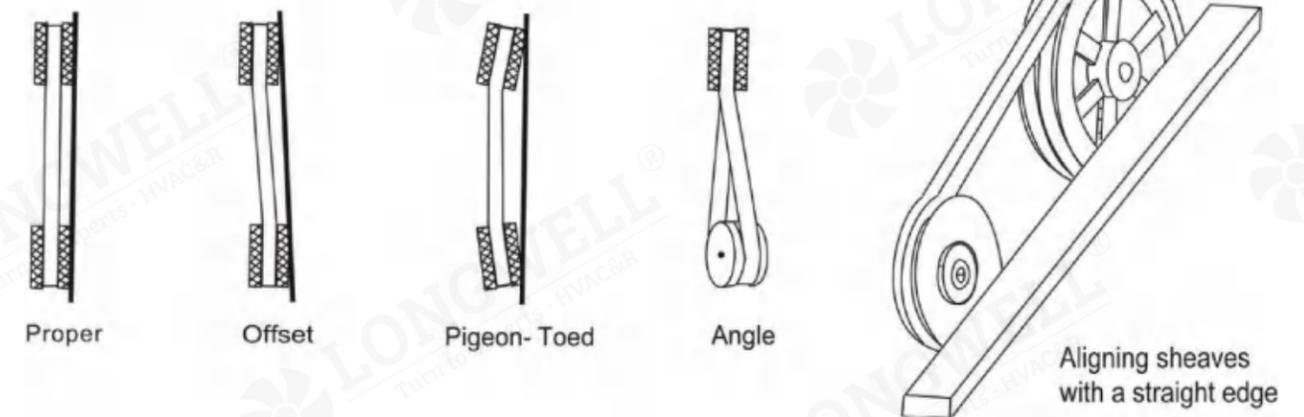
(Table 1)

Power of Electric Motor(KW)	Value K
$\leq 0.75\text{KW}$	1.3
$\leq 2.2\text{KW}$	1.2
$\leq 7.5\text{KW}$	1.15
$\geq 11\text{KW}$	1.1

(Table 2)

## 5. V-Belt Drive Installation

1. Remove the protective coating from the ends of the fan shaft and ensure that the shaft ends are free of nick and burrs.
2. Check fan and motor shafts for alignment.
3. The center distance must be controlled as  $0.7(d_1+d_2) < a < 2(d_1+d_2)$ ; the belt speed of forward curve fan should be more than 10m/s, but less than 15m/s, ( $10 < v < 15\text{m/s}$ ); the belt speed of backward curve fan should be more 25m/s, but less than 35m/s, ( $25 < v < 35\text{m/s}$ ).
4. Slide sheaves on to the shafts, Do not hammer the sheaves on to the shafts with force as this may result in bearing damage.
5. Align fan and motor sheaves with a straight-edge, and tighten the sheaves.
6. Place belts over the sheaves with care. Do not bend or squeeze the belts or it might get damaged.
7. Adjust the belt tension until the belts appear snug. Run the unit for a few minutes and allow the belts to set properly.
8. Switch off the fan, adjust the belt tension by moving the motor base. When in operation, the tight side of the belts should be in a straight line from sheave to sheave and there should be a slight bow on the slack side.



## 6. Belt Tension

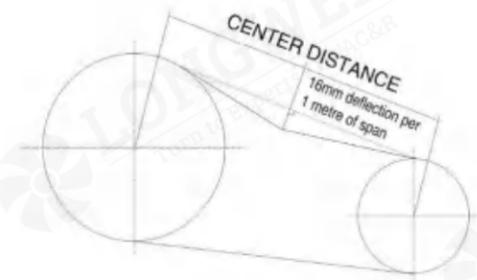
A proper level of belt tension is required in order to obtain a satisfactory belt life. If the belt tension level is too high, excessive loads will be imposed on the belts and the bearings, and this will reduce the lives of both of these components. If the belt tension level is too low, the belt will slip. Belt slippage generates a large amount of heat, and this heat will drastically reduce the life of a belt.

Belt-tensioning gauges can be used to determine whether the belts are tensioned properly. A chart is normally supplied with the gauge which indicates the ranges of forces required to deflect the belts by a given amount to obtain the proper belt tension level. The required forces are based upon the center distance of the sheaves and the belt cross-section. The belts are properly tensioned when the forces required to deflect the belt are within the specified range. see Fig 4 and Table 3.

If a belt-tensioning gauge is not available, then the belt should be tightened just enough so that the belt does not squeal when the ventilator is started. A very short period of noise during the starting of a ventilator is allowable, but a squeal lasting several seconds or longer is not acceptable. After tensioning the belts and before starting the fan, check to make sure that the sheaves are properly aligned.

Realign the sheaves if necessary. Note that new belts may stretch a little during initial use, so the belt tension level should be checked after a few days of operation.

Belt tension indicator applied to mid centre distance.



(Fig 4)

Belt Section	Force required to deflect belt 16mm per metre of span		
	Small Pulley/Diameter(mm)	Newton(N)	Kilogram Force (Kgf)
SPZ	56-95	13-20	1.3-2.0
	100-140	20-25	2.0-2.5
SPA	80-132	25-35	2.5-3.6
	140-200	35-45	3.6-4.6
SPB	112-224	45-65	4.6-6.6
	236-315	65-85	6.6-8.7
SPC	224-335	85-115	8.7-11.7
	375-560	115-150	11.7-15.3
A	80-140	10-15	1.1-1.5
B	125-200	20-30	2.0-3.1

(Table3)

## 7. Bearing Lubrication

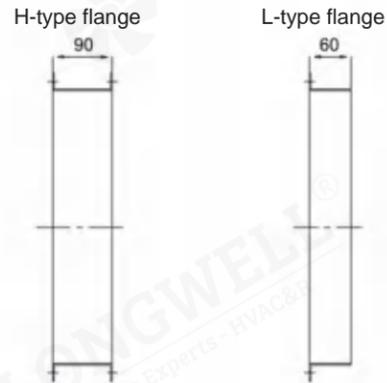
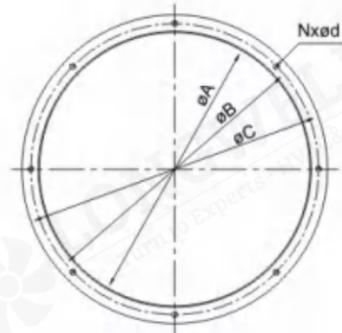
The fan bearings are filled with lubricant when they ship from the factory, so the bearings do not require any additional grease to be supplied before starting the fan. The fans that are equipped with pillow block bearing are provided with lubrication fittings, and these fittings allow for additional lubrication to be supplied to the bearings at regular intervals. The allowable period of time between lubrication of these bearings depends upon the operating speeds and temperatures of the bearing as well as on the type of lubrication. It is recommended to inspect the condition of the grease that is discharged from the bearings when new grease is added. If the discharged grease looks similar to the new grease, then a longer period of time between lubrications is possible. If the discharged grease is much darker than the new grease, this indicates that the grease is being oxidized and more frequent lubrications of the bearings are required.

## 8. Instructions

- (1) When placing the order, it is necessary to state the type of fan, speed, air volume, air pressure, discharge direction, rotation direction, type of electric motor and its specifications.
- (2) Prior to installation, the fan should be carefully inspected. Special care should be taken in checking the shaft, Wheel and bearings. If there is an indication of any damage, the damaged parts should be repaired or replaced before the fan is installed or commissioned.
- (3) The inside of the scroll and casing need to be checked to make sure that there are no foreign objects inside the housing, such as tools or loose parts.
- (4) The rotational directions of the motor and Wheel should be checked to ensure that they are in compliance with the specification and purchase orders.
- (5) A flexible connector should be used between the fan out let flange and its mating ductwork. The flex connector should not be over-stretched.
- (6) Following the installation, the Wheel should be turned by hand or with the use of a wrench to make sure that it turns freely without colliding with other parts of the fan. Once all this is done, the fan can be commissioned normally.
- (7) The rated motor power as calculated herein might not be sufficient to drive the fan with an unrestricted discharge flow. Operating the fan with an unrestricted discharge outlet will result in flow rate that exceeds the specified fan capabilities. Such operation will quickly burn the motor and damage the fan. Great care must be taken in operating the fan to make sure that the maximum rated flows, as provided on the performance charts in this catalog, are not exceeded.
- (8) The fan is limited for use in areas where air substances are non-corrosive, non-toxic and non-erosive and where dust particles are less than 150mg/m<sup>3</sup> with a temperature between -20°C and 85°C. Special care should be taken during transportation, load and unload.

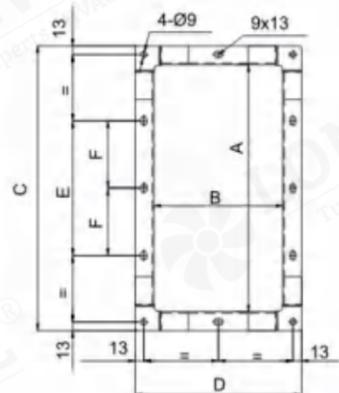
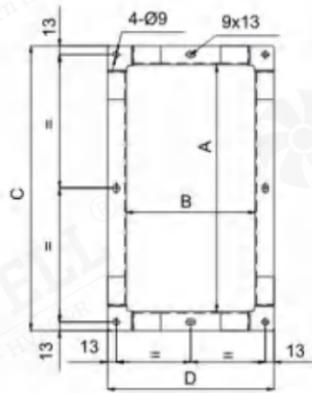
# Imported Flange

# TEM - R

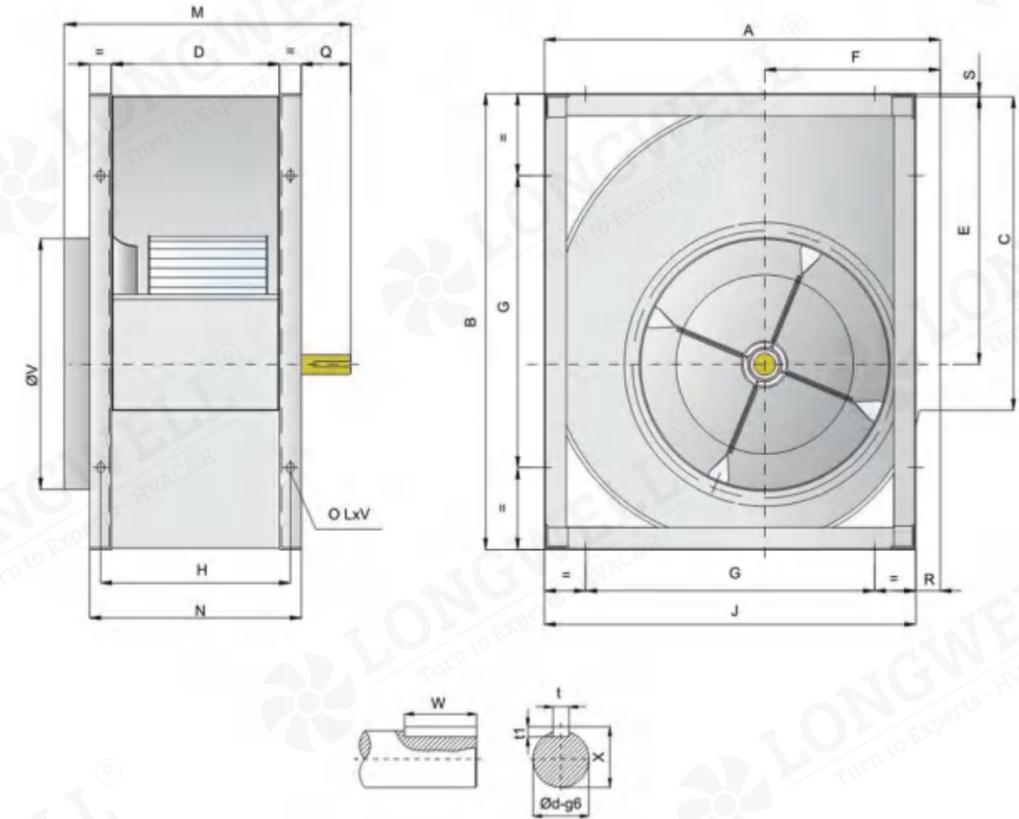


Model	280	315	355	400	450	500	560	630	710	800	900	1000
A	292	322	362	404	448	510	570	635	722	808	896	996
B	325	344	386	432	485	544	605	670	750	844	945	1044
C	355	383	423	466	515	570	635	700	778	875	980	1080
N-d	6x7	6x7	8x9	8x9	8x9	8x11	8x11	10x13	10x13	12x13	12x13	12x13

Note: Customers can choose H-type flange or L-type flange. The default is the L-type flange



Model	280	315	355	400	450	500	560	630	710	800	900	1000
A	361	404	453	507	569	638	715	801	898	1007	1130	1267
B	197	223	238	258	288	324	368	412	468	520	580	663
C	417	460	509	563	625	684	771	857	954	1063	1186	1323
D	253	279	294	314	344	380	424	468	524	576	683	719
E				200	200	250	250	300	400	500	600	700
F									200	250	300	350

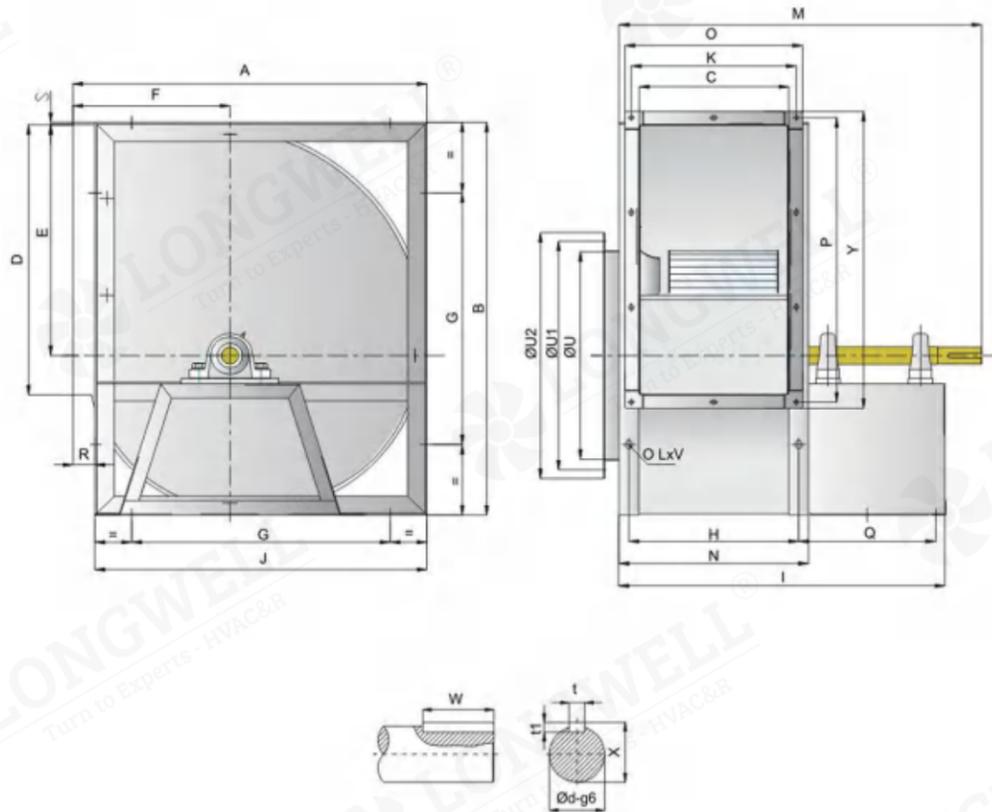


## Technical Specifications

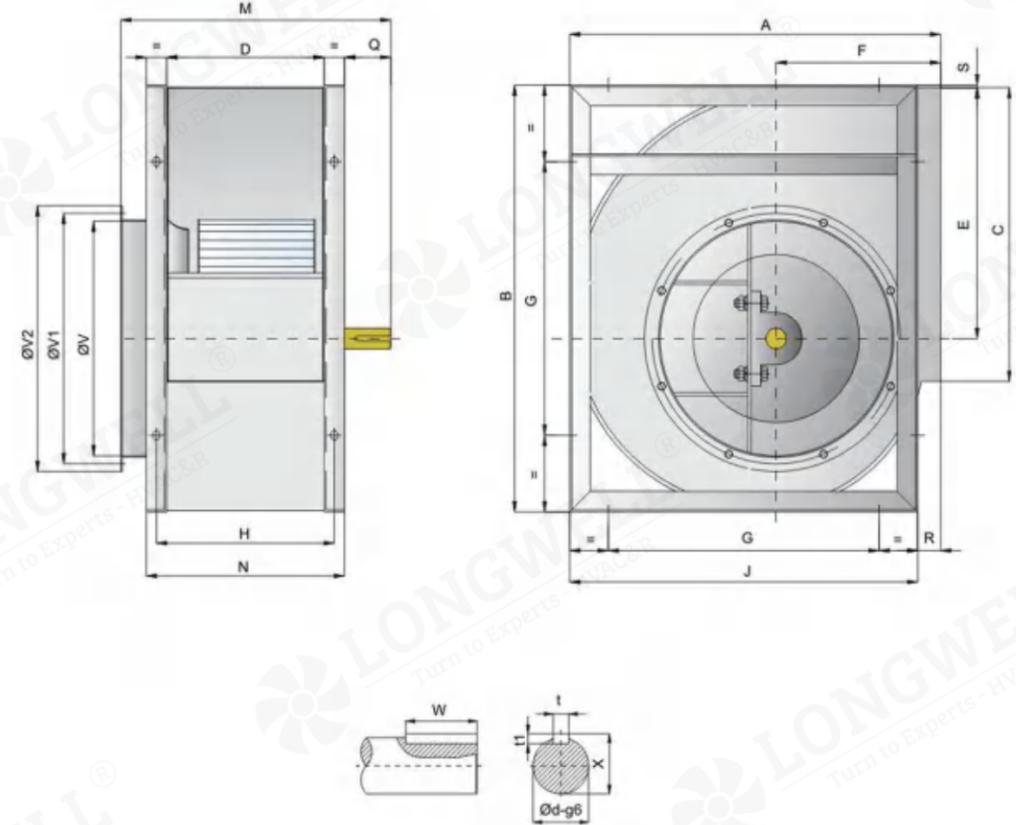
Model	A	B	C	D	E	F	G	H	J	K	M	N	Q	R	S	V	t	t1	W	X	Φd	LxV
TEM 280-R	466	518	361	197	302	215	280	227	432	30	360	257	73	34	5	292	8	7	50	28	25	13x18
TEM 315-R	518	478	404	223	340	236	280	253	480	30	395	283	83	38	3	322	8	7	60	28	25	13x18
TEM 355-R	578	655	453	238	383	261	355	278	548	40	416	318	78	30	6	362	8	7	60	33	30	13x18
TEM 400-R	651	736	507	258	431.5	290	355	298	613	40	436	338	78	38	4.5	404	8	7	60	33	30	13x18
TEM 450-R	726	827	569	288	486	322	530	338	681	40	480	368	92	45	5	448	10	8	70	38	35	13x18
TEM 500-R	800	918	638	324	538	352	530	364	750	40	515	404	92	50	5	510	10	8	70	38	35	13x18
TEM 560-R	893	1030	715	368	602	390	530	418	845	50	585	468	87	48	8	570	12	8	70	43	40	13x18
TEM 630-R	999	1157	801	412	678.5	434	530	468	946	50	630	512	87	53	7	635	14	9	70	48.5	45	13x18
TEM 710-R	1121	1303	898	468	765	485	630	518	1058	50	715	568	115	63	7	722	14	9	90	53.5	50	17x22

Note: the size unit in the form is mm

# TEM - C



# TEM - E



## Technical Specifications

Model	A	B	C	D	E	F	G	H	I	J	K	M	N	O	P	Q	R	S	t	t1	U	U1	U2	W	X	Y	Φd	LxV
TEM 280-C	466	518	197	361	302	215	280	227	530	432	213	590	257	239	391	274	34	5	8	7	292	325	355	40	33	471	30	13x18
TEM 315-C	518	578	223	404	340	236	280	253	556	480	233	612	283	259	434	274	38	3	8	7	322	344	383	40	33	460	30	13x18
TEM 355-C	578	655	238	453	383	261	355	278	627	548	260	687	318	286	483	300	30	6	8	7	362	386	423	50	38	509	35	13x18
TEM 400-C	651	736	258	507	431.5	290	355	298	654	613	290	708	338	316	537	300	38	4.5	8	7	404	432	466	50	38	563	35	13x18
TEM 450-C	726	827	288	569	486	322	530	338	728	681	318	796	368	344	599	340	45	5	10	8	448	485	515	70	43	526	40	13x18
TEM 500-C	800	918	324	638	538	352	530	364	764	750	350	830	404	376	668	340	50	5	10	8	510	544	570	70	43	694	40	13x18
TEM 560-C	893	1030	368	715	603	390	530	418	855	845	366	930	468	414	745	378	48	8	12	8	570	605	635	90	53.5	771	50	13x18
TEM 630-C	999	1157	412	801	678.5	434	530	468	904	946	434	974	512	460	831	378	53	7	12	8	635	670	700	90	53.5	857	50	13x18
TEM 710-C	1121	1303	468	898	765	485	630	518	1005	1058	483	1105	568	512	928	436	63	7	14	9	722	750	778	90	64	954	60	17x22
TEM 800-C	1250	1468	520	1007	862	535	710	570	1060	1181	541	1167	620	567	1039	440	69	7	14	9	808	844	875	90	64	1063	60	17x22
TEM 900-C	1408	1648	582	1130	971	604	800	632	1191	1319	602	1300	702	613	1160	510	89	7	16	10	896	945	980	100	64	1186	60	17x22
TEM 1000-C	1541	1810	663	1267	1066	657	900	713	1259	1462	668	1381	783	694	1297	510	79	9	16	10	996	1044	1080	100	64	1323	60	17x22

Note: the size unit in the form is mm

## Technical Specifications

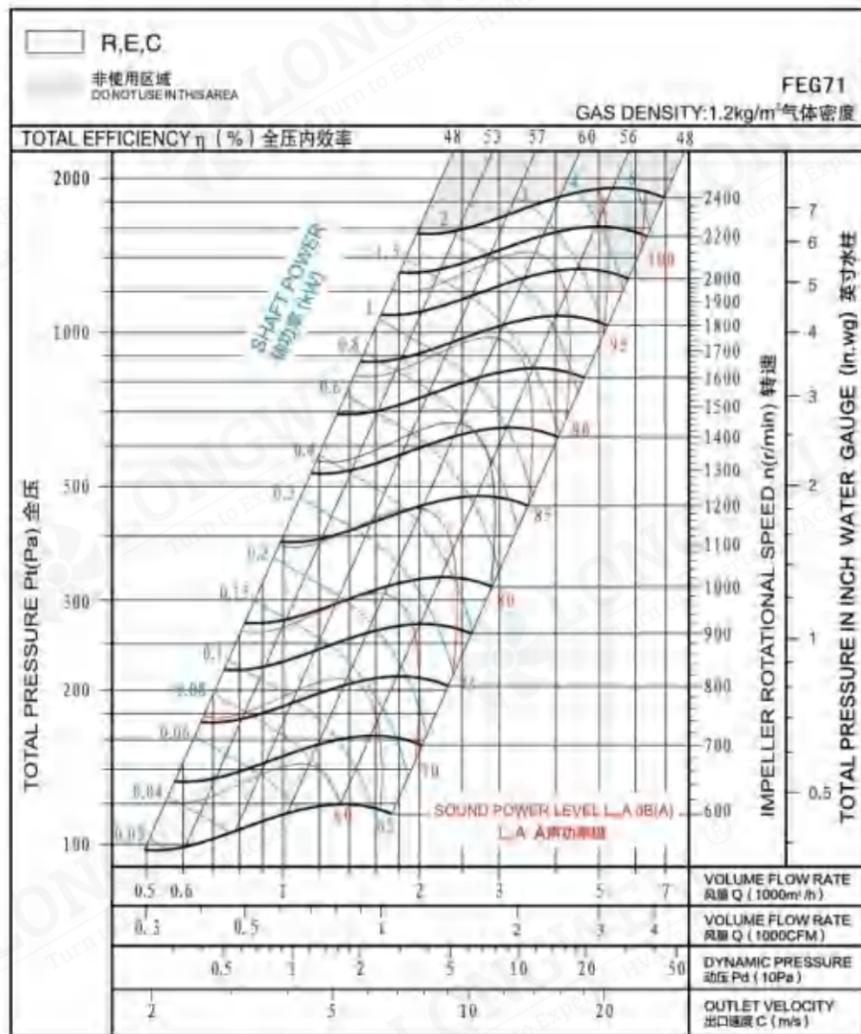
Model	A	B	C	D	E	F	G	H	J	K	M	N	Q	R	S	V	V1	V2	t	t1	W	X	Φd	LxV
TEM 280-E	466	518	361	197	302	215	280	227	432	30	405	257	86	34	5	292	325	355	8	7	60	33	30	13x18
TEM 315-E	518	578	404	223	340	236	280	253	480	30	440	283	96	38	3	322	344	383	8	7	70	33	30	13x18
TEM 355-E	578	655	453	238	383	261	355	278	548	40	461	318	91	30	6	362	386	423	10	8	70	38	35	13x18
TEM 400-E	651	736	507	258	431.5	290	355	298	613	40	481	338	91	38	4.5	404	432	466	10	8	70	38	35	13x18
TEM 450-E	726	827	569	288	486	322	530	338	681	40	536	368	116	45	5	448	485	515	12	8	90	43	40	13x18
TEM 500-E	800	918	638	324	538	352	530	364	750	40	572	404	116	50	5	510	544	570	12	8	90	43	40	13x18
TEM 560-E	893	1030	715	368	602	390	530	418	845	50	625	468	115	48	8	570	605	635	14	9	90	53.5	50	13x18
TEM 630-E	999	1157	801	412	678.5	434	530	468	946	50	670	512	115	53	7	635	670	700	14	9	90	53.5	50	13x18
TEM 710-E	1121	1303	898	468	765	485	630	518	1058	50	736	568	126	63	7	722	750	778	18	11	90	64	60	17x22
TEM 800-E	1250	1468	1007	520	862	535	710	570	1181	50	788	620	126	69	7	808	844	875	18	11	90	64	60	17x22
TEM 900-E	1408	1648	1130	582	971	604	800	632	1319	60	867	702	135	89	7	896	945	980	18	11	100	64	60	17x22
TEM 1000-E	1541	1810	1267	663	1066	657	900	713	1462	60	950	783	135	79	9	996	1044	1080	18	11	100	64	60	17x22

Note: the size unit in the form is mm

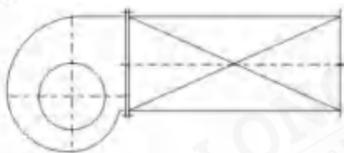
# TEM-280

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



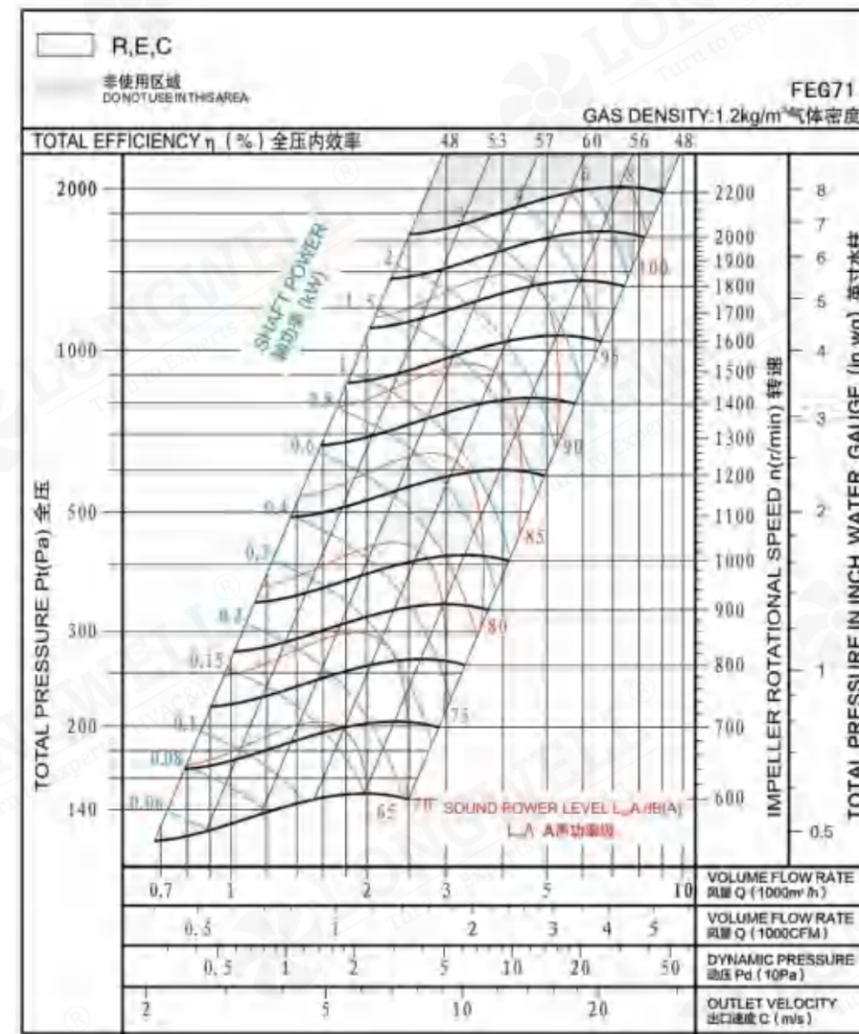
Measured in installation B according to AMCA Standard 210:



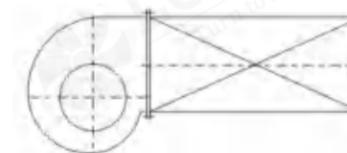
# TEM-315

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



Measured in installation B according to AMCA Standard 210:



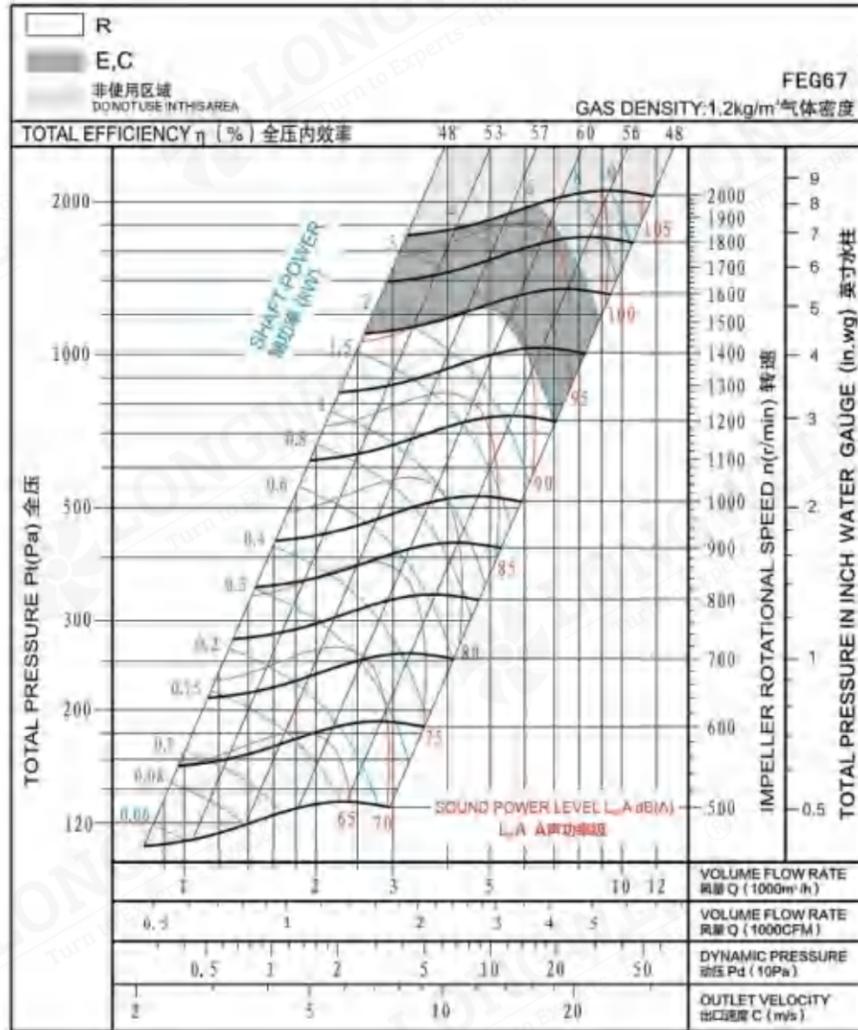
Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
280mm	0.032kg·m <sup>2</sup>	2400r/min	30kg

Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
315mm	0.055kg·m <sup>2</sup>	2000r/min	33kg

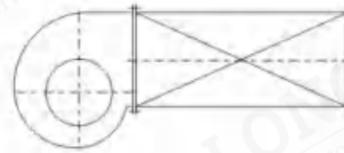
# TEM-355

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet  $L_{wA}$  sound power levels for installation type B:free inlet,ducted outlet.



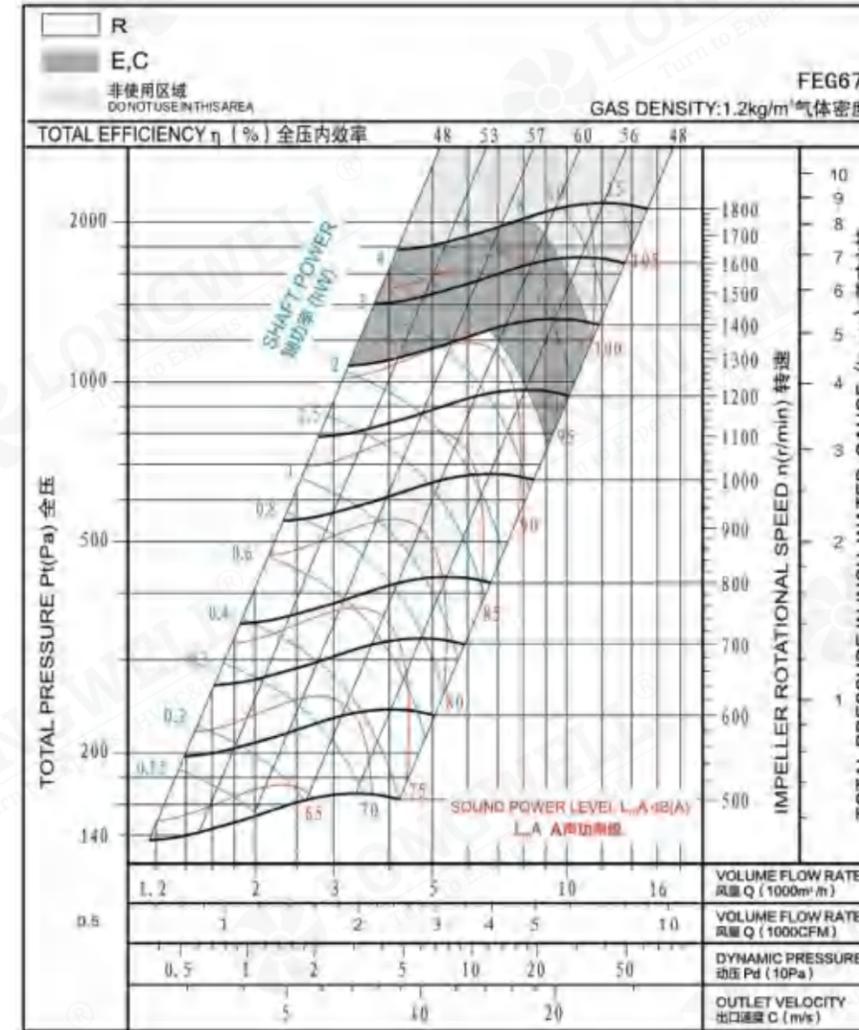
Measured in installation B according to AMCA Standard 210:



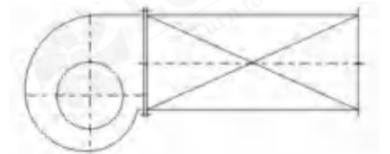
# TEM-400

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet  $L_{wA}$  sound power levels for installation type B:free inlet,ducted outlet.



Measured in installation B according to AMCA Standard 210:



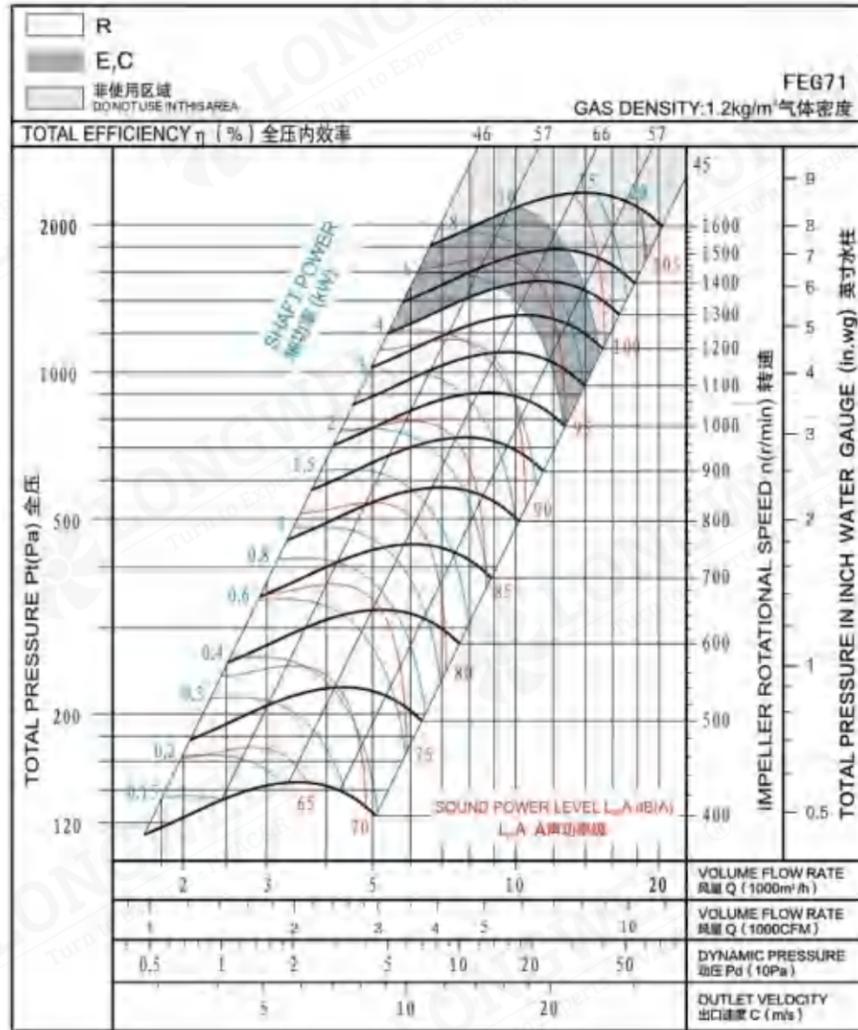
Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
355mm	0.083kg·m <sup>2</sup>	2000r/min	48kg

Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
400mm	0.17kg·m <sup>2</sup>	1800r/min	57kg

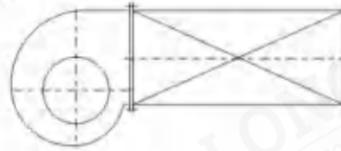
# TEM-450

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



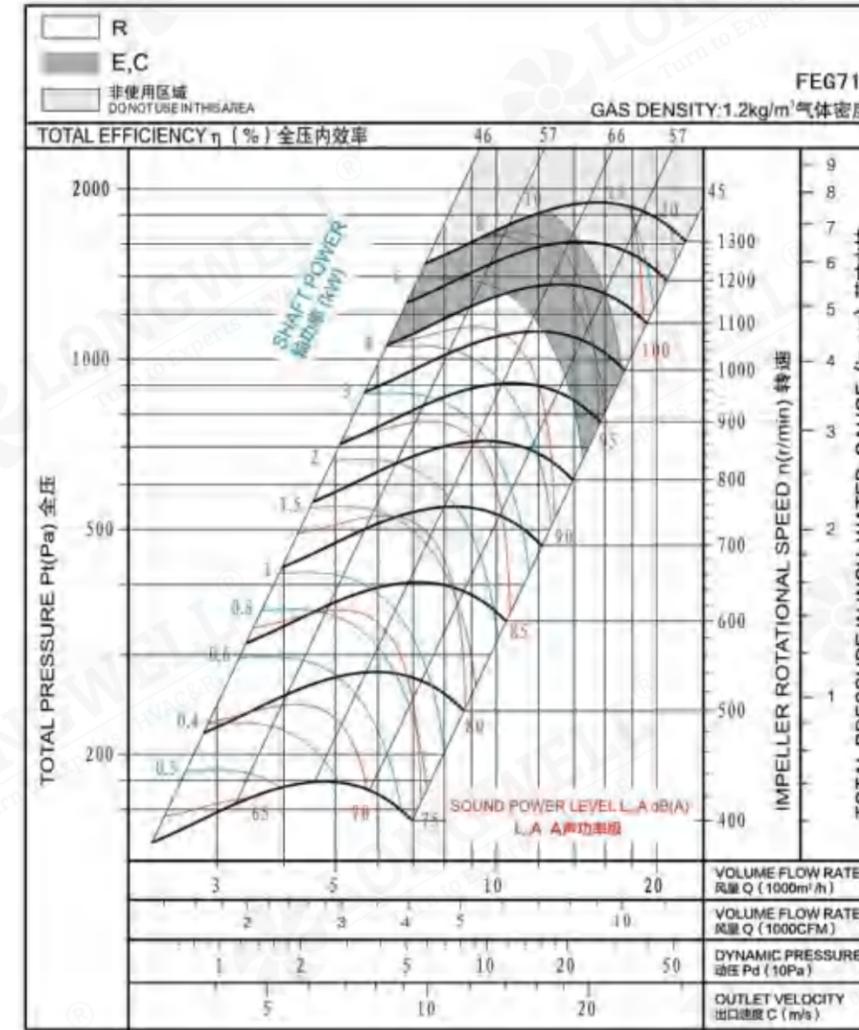
Measured in installation B according to AMCA Standard 210:



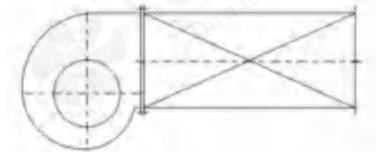
# TEM-500

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



Measured in installation B according to AMCA Standard 210:



Wheel Diameter

Moment of Inertia

Speed Limit

Fan Weight

450mm

0.26kg·m<sup>2</sup>

1600r/min

66kg

Wheel Diameter

Moment of Inertia

Speed Limit

Fan Weight

500mm

0.5kg·m<sup>2</sup>

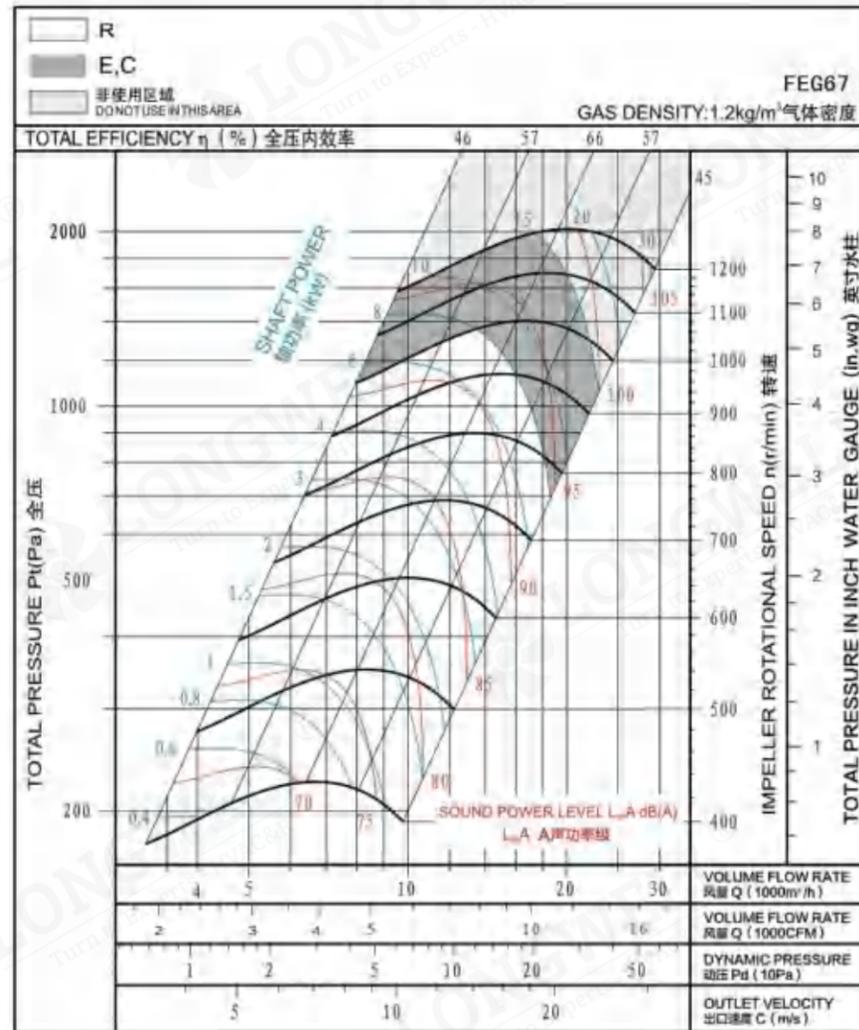
1300r/min

85kg

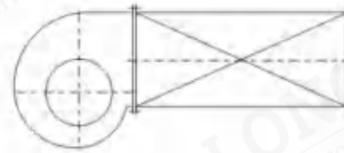
# TEM-560

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



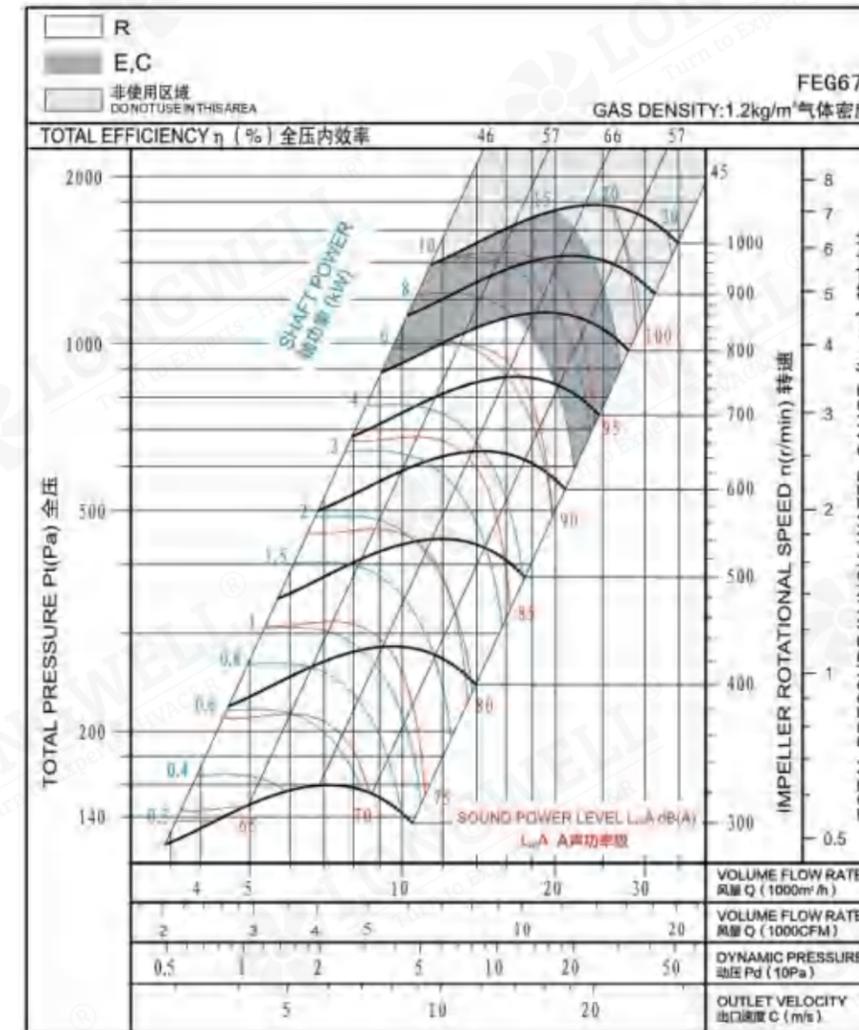
Measured in installation B according to AMCA Standard 210:



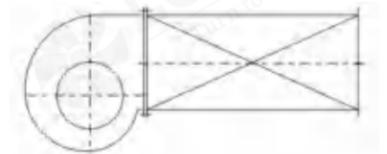
# TEM-630

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



Measured in installation B according to AMCA Standard 210:



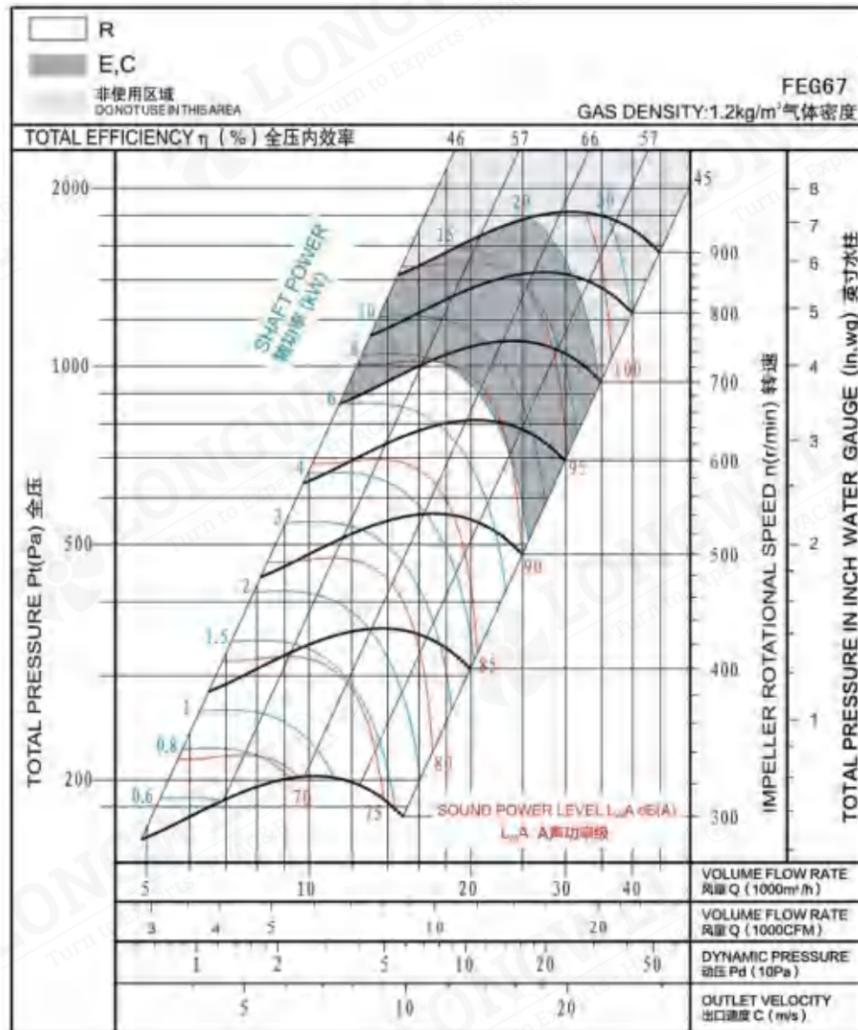
Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
560mm	0.86kg·m²	1200r/min	115kg

Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
630mm	1.42kg·m²	1000r/min	130kg

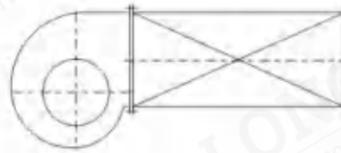
# TEM-710

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



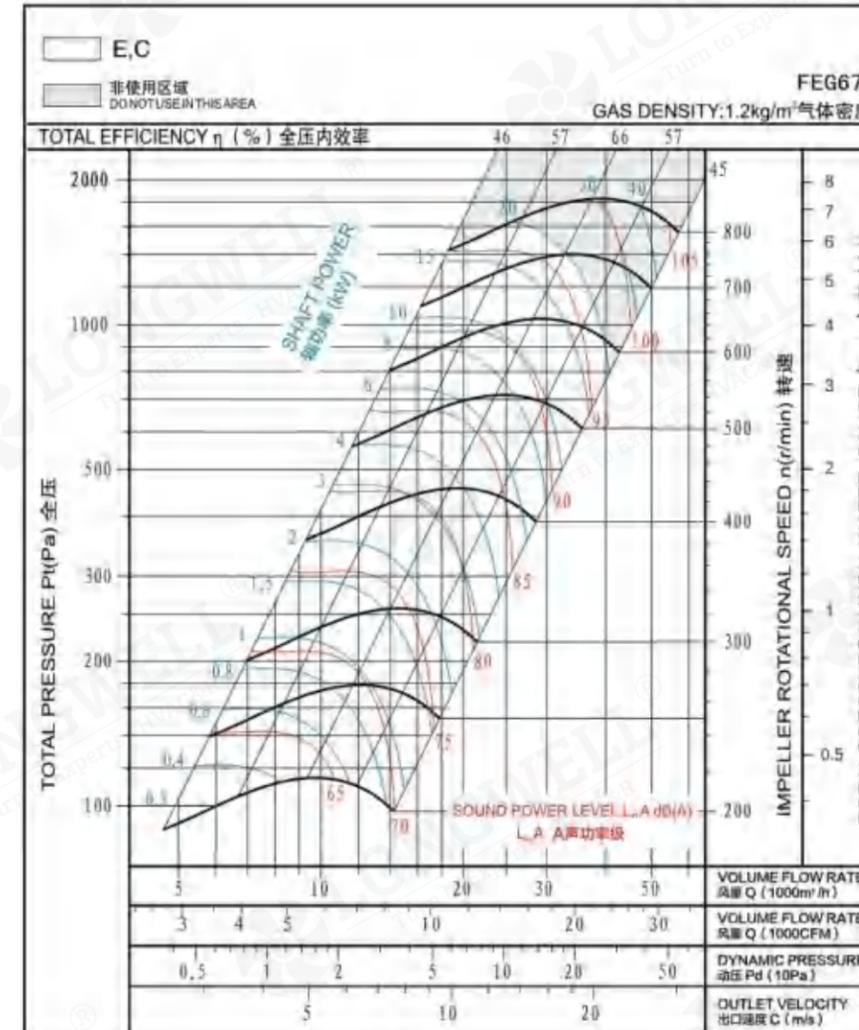
Measured in installation B according to AMCA Standard 210:



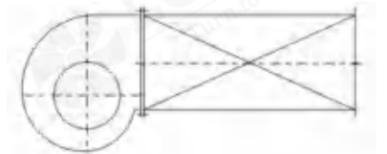
# TEM-800

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



Measured in installation B according to AMCA Standard 210:



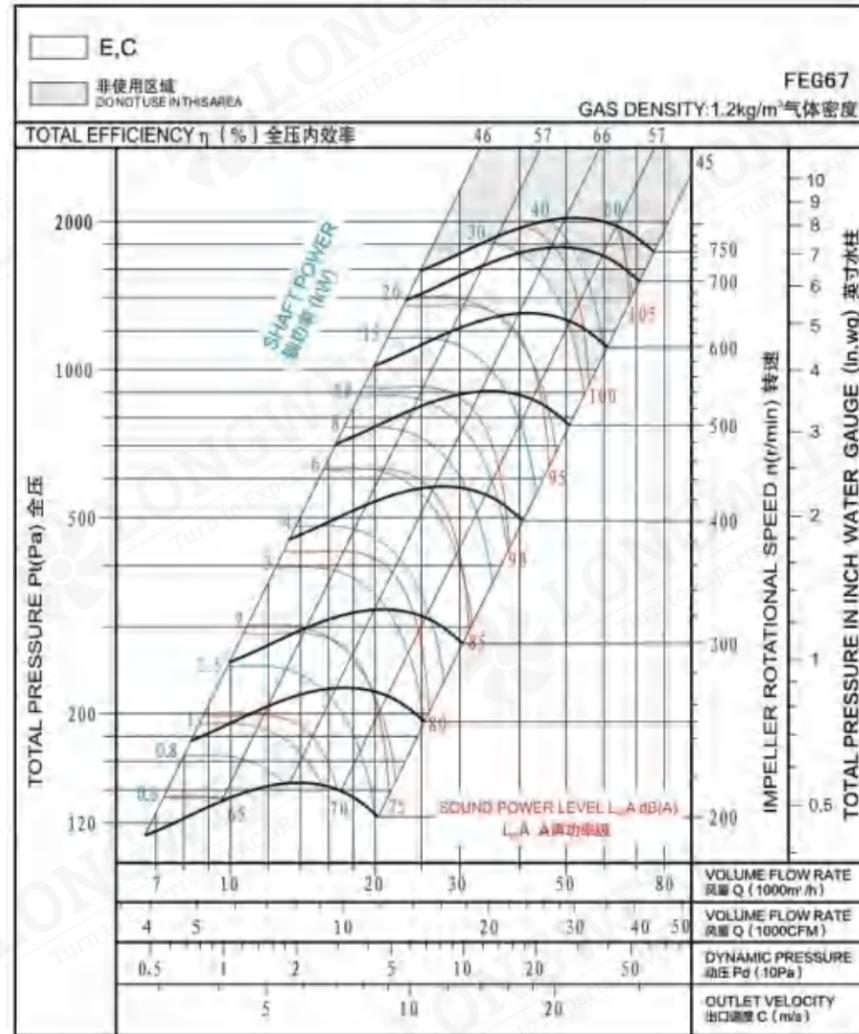
Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
710mm	2.81kg·m <sup>2</sup>	900r/min	185kg

Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
800mm	4.59kg·m <sup>2</sup>	800r/min	230kg

# TEM-900

## Performance Curves

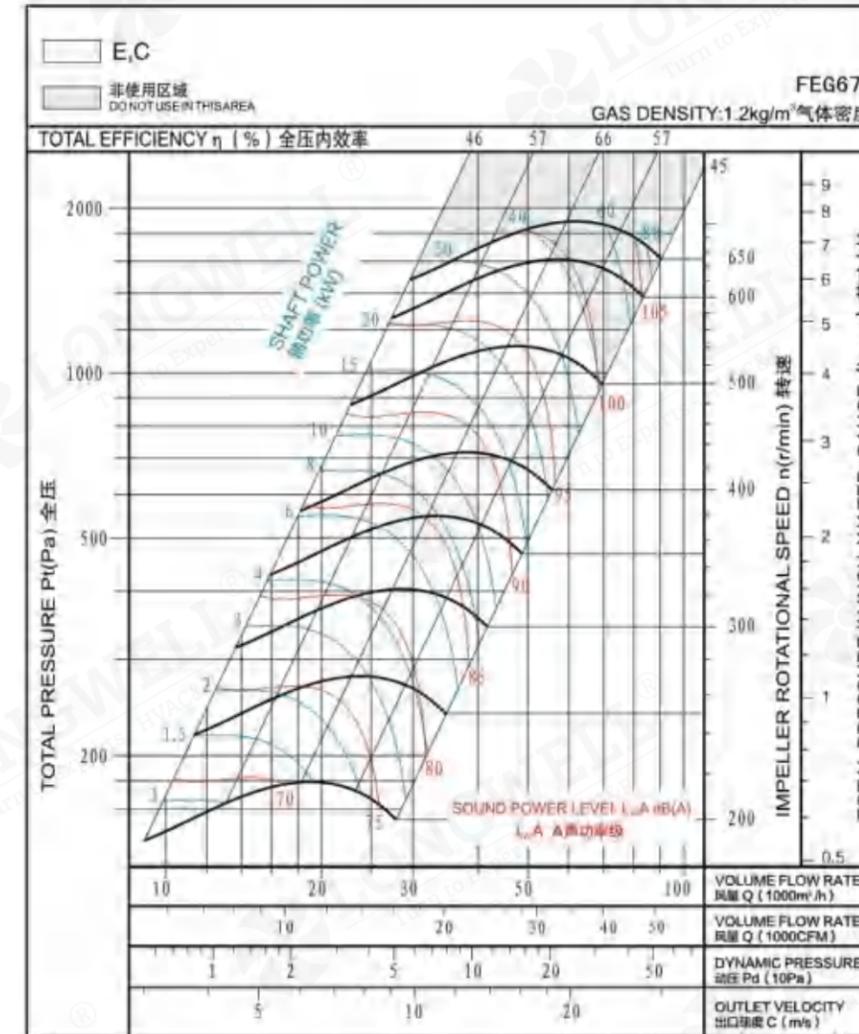
Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



# TEM-1000

## Performance Curves

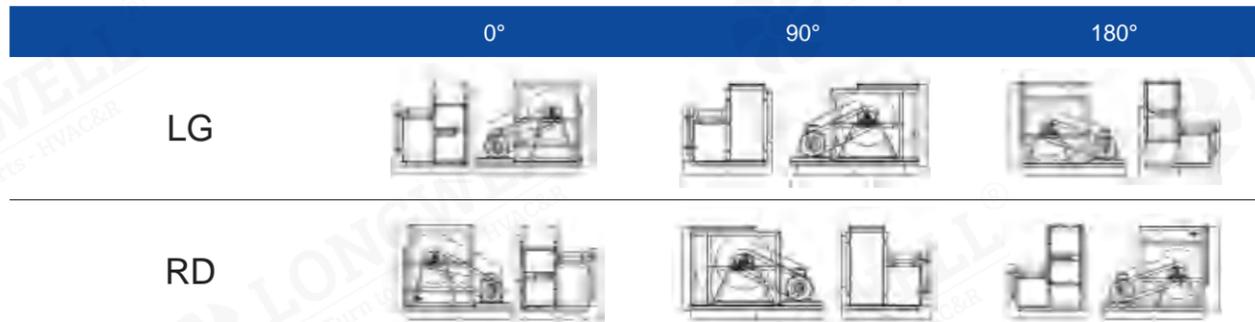
Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
900mm	6.93kg·m <sup>2</sup>	750r/min	280kg

Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
1000mm	10.3kg·m <sup>2</sup>	650r/min	315kg

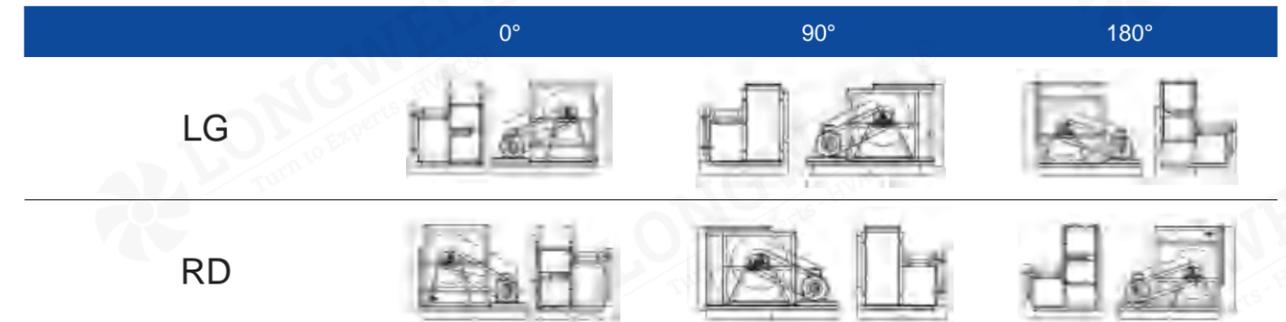
# TEM - C



Model	Motor Frame Size	L	A	B	C	L	A	B	C	L	A	B	C
280	80	425	760	675	568	375	850	675	516	410	760	675	568
	90	435	780	675	568	385	860	675	516	420	780	675	568
	100	445	800	675	568	395	880	675	516	430	800	675	568
	112	455	850	675	568	405	930	675	516	440	850	675	568
	132	465	870	675	568	415	950	675	516	450	870	675	568
315	80	465	800	700	628	405	900	700	568	440	800	700	628
	90	475	820	700	627	415	920	700	568	450	820	700	627
	100	485	850	700	628	425	950	700	568	460	850	700	628
	112	495	900	700	628	435	1000	700	568	470	900	700	628
355	132	505	920	700	628	445	1020	700	568	480	920	700	628
	80	515	850	775	705	445	1000	775	628	480	850	775	705
	90	525	860	775	705	455	1000	775	628	490	860	775	705
	100	535	900	775	705	465	1040	775	628	500	900	775	705
	112	545	960	775	705	475	1080	775	628	510	960	775	705
400	132	555	980	775	705	485	1100	775	628	520	980	775	705
	90	585	930	800	786	500	950	800	701	540	930	800	786
	100	595	980	800	786	510	1000	800	701	550	980	800	786
	112	605	1030	800	786	520	1160	800	701	560	1030	800	786
450	132	615	1050	800	786	530	1180	800	701	570	1050	800	786
	160	615	1100	800	786	530	1230	800	701	570	1100	800	786
	90	650	1000	894	877	548	1120	894	776	590	1000	894	877
	100	660	1050	894	877	558	1170	894	776	600	1050	894	877
	112	670	1100	894	877	568	1220	894	776	610	1100	894	877
500	132	680	1120	894	877	578	1270	894	776	620	1120	894	877
	160	680	1200	894	877	578	1350	894	776	620	1200	894	877
	90	720	1100	930	968	610	1250	930	850	650	1100	930	968
	100	730	1130	930	968	620	1280	930	850	660	1130	930	968
	112	740	1180	930	968	630	1330	930	850	670	1180	930	968
560	132	750	1200	930	968	640	1350	930	850	680	1200	930	968
	160	750	1280	930	968	640	1440	930	850	680	1280	930	968
	90	805	1210	1020	1093	680	1370	1020	956	720	1210	1020	1093
	112	815	1260	1020	1093	690	1420	1020	956	730	1260	1020	1093
	132	825	1280	1020	1093	700	1460	1020	956	740	1280	1020	1093
	160	835	1360	1020	1093	710	1540	1020	956	750	1360	1020	1093
	180	845	1400	1020	1093	720	1580	1020	956	760	1400	1020	1093

Note: the size unit in the form is mm

# TEM - C

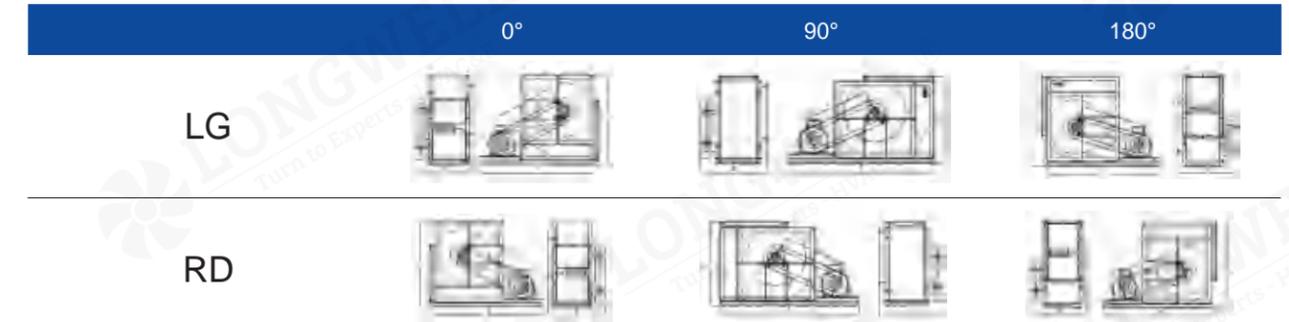
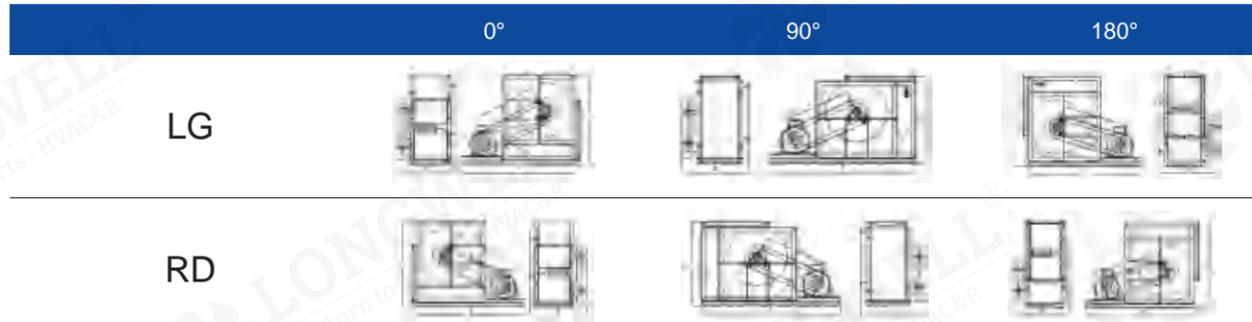


Model	Motor Frame Size	L	B	C	D	L	B	C	D	L	B	C	D
630	100	895	1310	1065	1220	755	1530	1065	1062	795	1310	1065	1220
	112	905	1360	1065	1220	765	1580	1065	1062	805	1360	1065	1220
	132	915	1380	1065	1220	775	1600	1065	1062	815	1380	1065	1220
	160	930	1450	1065	1220	790	1680	1065	1062	830	1450	1065	1220
	180	940	1500	1065	1220	800	1730	1065	1062	840	1500	1065	1220
710	200	950	1550	1065	1220	810	1780	1065	1062	850	1550	1065	1220
	100	1005	1430	1185	1366	840	1670	1185	1184	885	1430	1185	1366
	112	1015	1480	1185	1366	850	1720	1185	1184	895	1480	1185	1366
	132	1025	1500	1185	1366	860	1740	1185	1184	905	1500	1185	1366
	160	1040	1570	1185	1366	875	1800	1185	1184	920	1570	1185	1366
800	180	1050	1620	1185	1366	885	1850	1185	1184	930	1620	1185	1366
	200	1060	1670	1185	1366	895	1900	1185	1184	940	1670	1185	1366
	225	1070	1700	1185	1366	905	1930	1185	1184	950	1700	1185	1366
	112	1130	1580	1245	1548	950	1880	1245	1330	990	1580	1245	1548
	132	1140	1600	1245	1548	960	1900	1245	1330	1000	1600	1245	1548
900	160	1155	1650	1245	1548	975	1950	1245	1330	1015	1650	1245	1548
	180	1165	1720	1245	1548	985	2020	1245	1330	1025	1720	1245	1548
	200	1175	1770	1245	1548	995	2070	1245	1330	1035	1770	1245	1548
	225	1185	1820	1245	1548	1005	2120	1245	1330	1045	1820	1245	1548
	250	1195	1880	1245	1548	1015	2180	1245	1330	1055	1880	1245	1548
1000	112	1270	1730	1375	1728	1060	2060	1375	1488	1110	1730	1375	1728
	132	1280	1750	1375	1728	1070	2080	1375	1488	1110	1750	1375	1728
	160	1295	1800	1375	1728	1085	2130	1375	1488	1125	1800	1375	1728
	180	1310	1880	1375	1728	1095	2220	1375	1488	1135	1880	1375	1728
	200	1320	1920	1375	1728	1105	2250	1375	1488	1145	1920	1375	1728
	225	1330	1980	1375	1728	1115	2320	1375	1488	1155	1980	1375	1728
	250	1340	2050	1375	1728	1125	2380	1375	1488	1165	2050	1375	1728
	132	1400	1900	1450	1890	1175	2250	1450	1621	1215	1900	1450	1890
	160	1415	1950	1450	1890	1190	2300	1450	1621	1230	1950	1450	1890
	180	1425	2030	1450	1890	1200	2380	1450	1621	1240	2030	1450	1890
	200	1435	2070	1450	1890	1210	2420	1450	1621	1250	2070	1450	1890
	225	1445	2130	1450	1890	1220	2480	1450	1621	1260	2130	1450	1890
	250	1455	2200	1450	1890	1230	2550	1450	1621	1270	2200	1450	1890
	280	1465	2250	1450	1890	1240	2600	1450	1621	1280	2250	1450	1890

Note: the size unit in the form is mm

# TEM - E

# TEM - E



Model	Motor Frame Size	L	A	B	C	L	A	B	C	L	A	B	C
280	80	425	760	430	568	375	850	430	516	410	760	430	568
	90	435	780	430	568	385	860	430	516	420	780	430	568
	100	445	800	430	568	395	880	430	516	430	800	430	568
	112	455	850	430	568	405	930	430	516	440	850	430	568
	132	465	870	430	568	415	950	430	516	450	870	430	568
315	80	465	800	465	628	405	900	465	568	440	800	465	628
	90	475	820	465	627	415	920	465	568	450	820	465	627
	100	485	850	465	628	425	950	465	568	460	850	465	628
	112	495	900	465	628	435	1000	465	568	470	900	465	628
355	132	505	920	465	628	445	1020	465	568	480	920	465	628
	80	515	850	495	705	445	1000	495	628	480	850	495	705
	90	525	860	495	705	455	1000	495	628	490	860	495	705
	100	535	900	495	705	465	1040	495	628	500	900	495	705
	112	545	960	495	705	475	1080	495	628	510	960	495	705
400	132	555	980	495	705	485	1100	495	628	520	980	495	705
	90	585	930	525	786	500	950	525	701	540	930	525	786
	100	595	980	525	786	510	1000	525	701	550	980	525	786
	112	605	1030	525	786	520	1160	525	701	560	1030	525	786
450	132	615	1050	525	786	530	1180	525	701	570	1050	525	786
	160	615	1100	525	786	530	1230	525	701	570	1100	525	786
	90	650	1000	580	877	548	1120	580	776	590	1000	580	877
	100	660	1050	580	877	558	1170	580	776	600	1050	580	877
	112	670	1100	580	877	568	1220	580	776	610	1100	580	877
500	132	680	1120	580	877	578	1270	580	776	620	1120	580	877
	160	680	1200	580	877	578	1350	580	776	620	1200	580	877
	90	720	1100	620	968	610	1250	620	850	650	1100	620	968
	100	730	1130	620	968	620	1280	620	850	660	1130	620	968
	112	740	1180	620	968	630	1330	620	850	670	1180	620	968
560	132	750	1200	620	968	640	1350	620	850	680	1200	620	968
	160	750	1280	620	968	640	1440	620	850	680	1280	620	968
	100	805	1210	665	1093	680	1370	665	956	720	1210	665	1093
	112	815	1260	665	1093	690	1420	665	956	730	1260	665	1093
560	132	825	1280	665	1093	700	1460	665	956	740	1280	665	1093
	160	835	1360	665	1093	710	1540	665	956	750	1360	665	1093
	180	845	1400	665	1093	720	1580	665	956	760	1400	665	1093

Note: the size unit in the form is mm

Model	Motor Frame Size	L	B	C	D	L	B	C	D	L	B	C	D
630	100	895	1310	715	1220	755	1530	715	1062	795	1310	715	1220
	112	905	1360	715	1220	765	1580	715	1062	805	1360	715	1220
	132	915	1380	715	1220	775	1600	715	1062	815	1380	715	1220
	160	930	1450	715	1220	790	1680	715	1062	830	1450	715	1220
	180	940	1500	715	1220	800	1730	715	1062	840	1500	715	1220
	200	950	1550	715	1220	810	1780	715	1062	850	1550	715	1220
710	100	1005	1430	770	1366	840	1670	770	1184	885	1430	770	1366
	112	1015	1480	770	1366	850	1720	770	1184	895	1480	770	1366
	132	1025	1500	770	1366	860	1740	770	1184	905	1500	770	1366
	160	1040	1570	770	1366	875	1800	770	1184	920	1570	770	1366
	180	1050	1620	770	1366	885	1850	770	1184	930	1620	770	1366
800	200	1060	1670	770	1366	895	1900	770	1184	940	1670	770	1366
	225	1070	1700	770	1366	905	1930	770	1184	950	1700	770	1366
	112	1130	1580	825	1548	950	1880	825	1330	990	1580	825	1548
	132	1140	1600	825	1548	960	1900	825	1330	1000	1600	825	1548
	160	1155	1650	825	1548	975	1950	825	1330	1015	1650	825	1548
900	180	1165	1720	825	1548	985	2020	825	1330	1025	1720	825	1548
	200	1175	1770	825	1548	995	2070	825	1330	1035	1770	825	1548
	225	1185	1820	825	1548	1005	2120	825	1330	1045	1820	825	1548
	250	1195	1880	825	1548	1015	2180	825	1330	1055	1880	825	1548
	112	1270	1730	905	1728	1060	2060	905	1488	1110	1730	905	1728
1000	132	1280	1750	905	1728	1070	2080	905	1488	1110	1750	905	1728
	160	1295	1800	905	1728	1085	2130	905	1488	1125	1800	905	1728
	180	1310	1880	905	1728	1095	2220	905	1488	1135	1880	905	1728
	200	1320	1920	905	1728	1105	2250	905	1488	1145	1920	905	1728
	225	1330	1980	905	1728	1115	2320	905	1488	1155	1980	905	1728
1000	250	1340	2050	905	1728	1125	2380	905	1488	1165	2050	905	1728
	132	1400	1900	975	1890	1175	2250	975	1621	1215	1900	975	1890
	160	1415	1950	975	1890	1190	2300	975	1621	1230	1950	975	1890
	180	1425	2030	975	1890	1200	2380	975	1621	1240	2030	975	1890
	200	1435	2070	975	1890	1210	2420	975	1621	1250	2070	975	1890
	225	1445	2130	975	1890	1220	2480	975	1621	1260	2130	975	1890
1000	250	1455	2200	975	1890	1230	2550	975	1621	1270	2200	975	1890
	280	1465	2250	975	1890	1240	2600	975	1621	1280	2250	975	1890

Note: the size unit in the form is mm

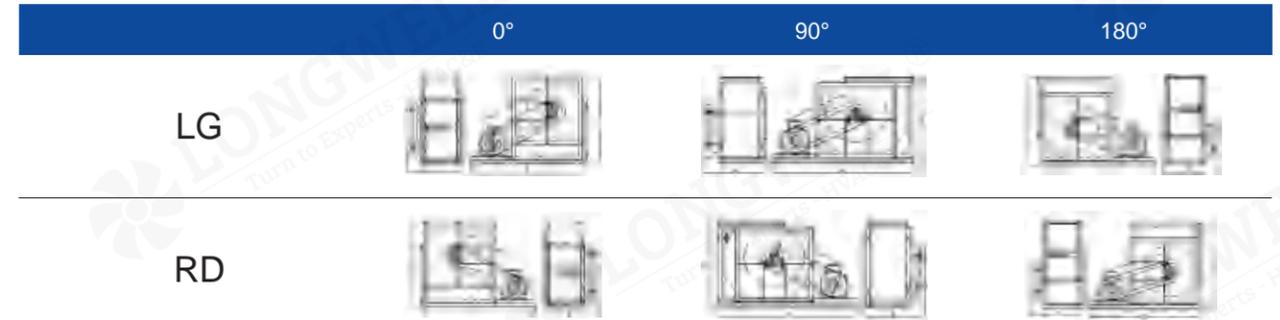
# TEM - R



Model	Motor Frame Size	L	A	B	C	L	A	B	C	L	A	B	C
280	71	415	740	400	568	365	830	400	516	400	740	400	568
	80	425	760	400	568	375	850	400	516	410	760	400	568
	90	435	780	400	568	385	860	400	516	420	780	400	568
	100	445	800	400	568	395	880	400	516	430	800	400	568
	112	455	850	400	568	405	930	400	516	440	850	400	568
315	71	455	780	435	628	395	880	435	568	430	780	435	628
	80	465	800	435	628	405	900	435	568	440	800	435	628
	90	475	820	435	628	415	920	435	568	450	820	435	628
	100	485	850	435	628	425	950	435	568	460	850	435	628
355	71	505	830	465	705	435	960	465	628	470	830	465	705
	80	515	850	465	705	445	980	465	628	480	850	465	705
	90	525	860	465	705	455	1000	465	628	490	860	465	705
	100	535	900	465	705	465	1040	465	628	500	900	465	705
400	71	545	960	465	705	475	1080	465	628	510	960	465	705
	80	565	880	495	786	480	900	495	701	520	880	495	786
	90	575	900	495	786	490	920	495	701	530	900	495	786
	100	585	930	495	786	500	950	495	701	540	930	495	786
	112	605	1030	495	786	520	1160	495	701	560	1030	495	786
450	132	615	1050	495	786	530	1180	495	701	570	1050	495	786
	80	640	980	550	877	548	1100	550	776	580	980	550	877
	90	650	1000	550	877	548	1120	550	776	590	1000	550	877
	100	660	1050	550	877	558	1170	550	776	600	1050	550	877
500	112	670	1100	550	877	568	1220	550	776	610	1100	550	877
	132	680	1120	550	877	578	1270	550	776	620	1120	550	877
	80	710	1080	590	968	600	1230	590	850	640	1080	590	968
	90	720	1100	590	968	610	1250	590	850	650	1100	590	968
	10	730	1130	590	968	620	1280	590	850	660	1130	590	968
500	112	740	1180	590	968	640	1330	590	850	670	1180	590	968
	132	750	1200	590	968	630	1350	590	850	680	1200	590	968

Note: the size unit in the form is mm

# TEM - R



Model	Motor Frame Size	L	B	C	D	L	B	C	D	L	B	C	D
560	90	795	1160	635	1093	670	1320	635	956	710	1160	635	1093
	100	805	1210	635	1093	680	1370	635	956	720	1210	635	1093
	112	815	1260	635	1093	690	1420	635	956	730	1260	635	1093
	132	825	1280	635	1093	700	1460	635	956	740	1280	635	1093
	160	835	1360	635	1093	710	1540	635	956	750	1360	635	1093
630	90	885	1260	685	1220	745	1480	685	1062	785	1260	685	1220
	100	895	1310	685	1220	755	1530	685	1062	795	1310	685	1220
	112	905	1360	685	1220	765	1580	685	1062	805	1360	685	1220
	132	915	1380	685	1220	775	1600	685	1062	815	1380	685	1220
710	160	930	1450	685	1220	790	1680	685	1062	830	1450	685	1220
	90	995	1380	740	1366	830	1620	740	1184	875	1380	740	1366
	100	1005	1430	740	1366	840	1670	740	1184	885	1430	740	1366
	112	1015	1480	740	1366	850	1720	740	1184	895	1480	740	1366
	132	1025	1500	740	1366	860	1740	740	1184	905	1500	740	1366
160	1040	1570	740	1366	875	1800	740	1184	920	1570	740	1366	

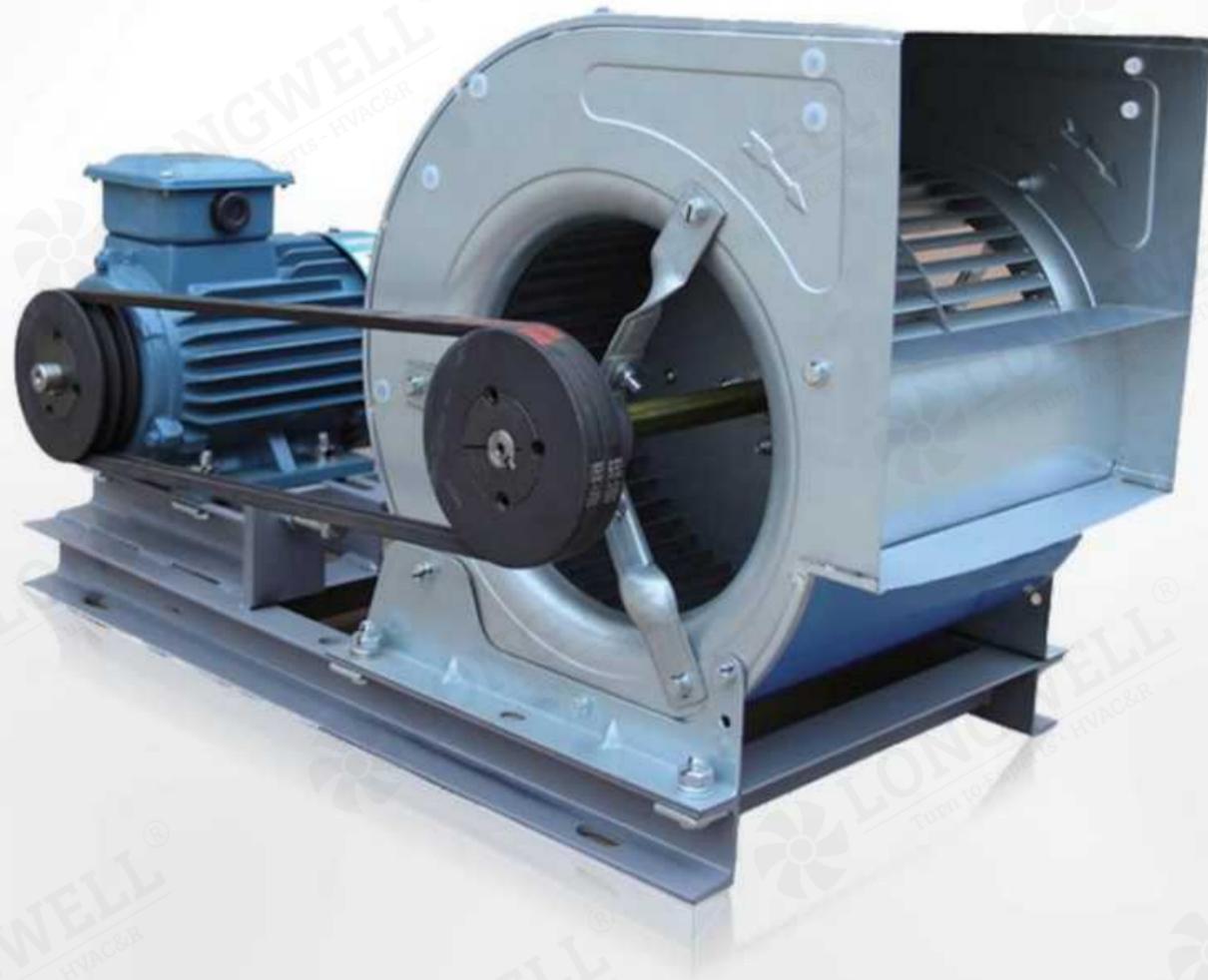
Note: the size unit in the form is mm

## TEM Series Ventilator Operational Limits

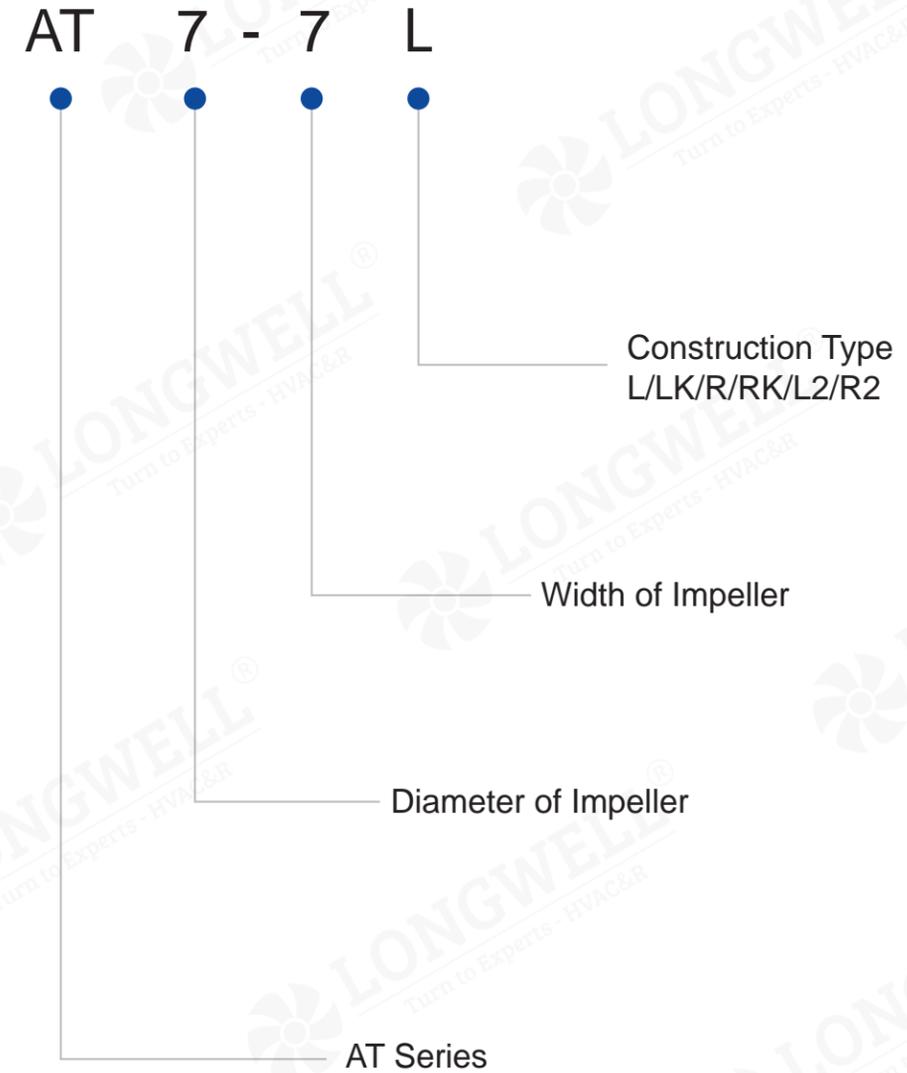
			280	315	355	400	450	500	560	630	710	800	900	1000
Max. absorbed Power	R	KW	4	6	3	4	6	6	8	8	10	/	/	/
	E	KW	4	6	6	8	10	10	15	15	20	20	30	40
	C	KW	4	6	6	8	10	10	15	15	20	20	30	40
Max. R.P.M	R	rpm	2400	2000	1800	1500	1300	1100	1000	800	700	/	/	/
	E	rpm	2400	2000	2000	1800	1600	1300	1200	1000	900	800	750	650
	C	rpm	3400	2000	2000	1800	1600	1300	1200	1000	900	800	750	650
Air Temperature Limits (Min-20°C)	R	Max.°C	85	85	85	85	85	85	85	85	85	/	/	/
	E	Max.°C	85	85	85	85	85	85	85	85	85	85	85	85
	C	Max.°C	180	180	180	180	180	180	180	180	180	180	180	180
Fan Weight	R	Kg	15	17	21	30	37	48	60	76	125	/	/	/
	E	Kg	23	26	39	46	51	70	95	110	162	200	245	275
	C	Kg	30	33	48	57	65	85	115	130	185	230	280	315

# AT Series Centrifugal Blower

Professional HVAC Fan & Motors Manufacturer



## Type Code



# AT Series Centrifugal Blower

## 1. Outline

AT series centrifugal air-conditioning ventilators volum ranging from 1000m<sup>3</sup>/h-40000m<sup>3</sup>/h,they are characterized by compact construction.high efficiency and low noise.They are the ideal subsidiary equipment for various cabinet central air-conditioning units,tube units and heating, airconditioning,cleansing and ventilating equipments.

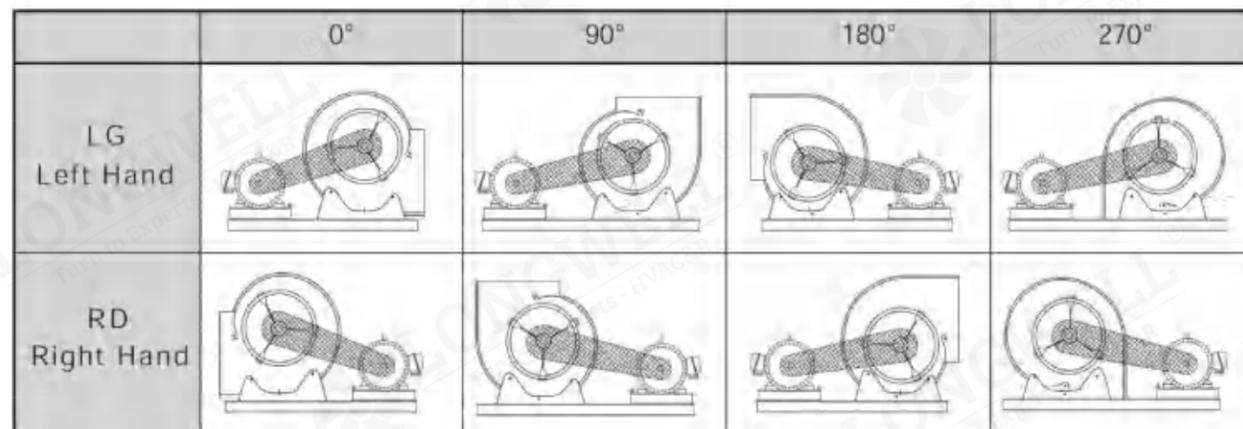
## 2. Type of Product

### (1) Direction of Rotation

AT series ventilator can be divided into two direction of rotations,left-hand rotation (LG) and right hand rotation (RD):Viewing from end of motor outlet line,if the impeller rotates clockwise,it is called right hand ventilator;if the impeller rotates anti-clockwise,it is called left hand ventilator.The pulley can adjust its direction,left or right,therefore there is no limitation in directionality.

### (2) Direction of Air Outlet

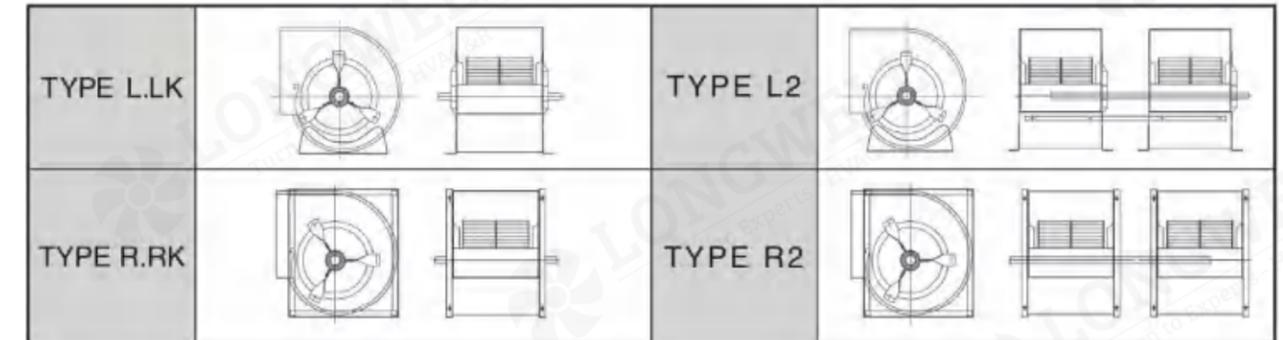
According to Fig 1.AT Series ventilator can be made in four air-outlet directions:0°,90°,180°, and 270°.



(Fig 1)

### (3) Type of Structure

According to Fig 2,AT series ventilators can be divided into Category L.LK.R.RK Category L2.R2.



(Fig 2)

## 3. Construction of Product

AT series ventilators are mainly consisted of scroll,impeller,frame bearing and shaft.

### (1) Scroll

The scroll is made of hot galvanizing steel sheet. Its side plate has an outline complying with aerodynamics.The scroll plat fixed to the side plates by means of "electric spot welding". On the side plate of the scroll there are a series of holes drilled in advance for riveting nuts to carry out installation according to air outlet direction needed by the customer.

### (2) Impeller

The impeller is made of high grade hot galvanizing steel sheet and is designed to a special configuration according to aerodynamics to make the efficiency highest and the noise lowest. The impeller is fixed on the middle disk plate and on the end ring with riveting grippers.The impeller has enough rigidity during continuous rotation with maximum power.Before leaving factory,all impellers have passed all-round dynamic balance test according to the Company Standard which is higher level than National Standard.

### (3) Frame

The frames for type R ventilators are made of galvanized steel angle iron bars.Thecutting and bending of the frame parts,as well as the TOX connections,are formed with the use of molds to assure their high accuracy and the rigidity of the frames.

#### (4) Bearing

AT series ventilators are made of ball bearings of high quality, which are chosen according to the lowest noise produced. These bearings are air-sealed, with preset lubricating oil, and of automatic alignment. The bearings are assembled on the support and vibration-proof rings are also provided.

#### (5) Shaft

The shafts are made of 40Cr or C45 carbon steel bars. The shafts are rough machined and then stress relieved before final machining. The shaft diameters are machined to very accurate tolerance levels and they are fully checked to assure precision fits, they are coated after assembly in order to provide corrosion resistance.

### 4. Performance of Ventilator

1. The ventilator performance in this catalogue denotes the performance in standard conditions. It denotes air inlet conditions or ventilator as follows:

Air inlet pressure Pa = 101.325 KPa    Air temperature t = 20°C    Inlet gas density ρ = 1.2 Kg/m<sup>3</sup>

If the practical air inlet conditions of customer or the speed of the operating ventilator changes, the conversion can be carried out according to the following expression:

$$\frac{Q_o^*}{Q_o} = \frac{n^*}{n}$$

$$\frac{P_o^*}{P_o} = \frac{n^{*2}}{n^2} \cdot \frac{\rho^*}{\rho} \quad \frac{P_o^*}{P_o} = \frac{n^{*2}}{n^2} \cdot \frac{Pa^*}{Pa} \cdot \frac{273+t}{273+t^*}$$

$$\frac{Nin_o^*}{Nin_o} = \frac{n^{*3}}{n^3} \cdot \frac{\rho^*}{\rho} \quad \frac{Nin_o^*}{Nin_o} = \frac{n^{*3}}{n^3} \cdot \frac{Pa^*}{Pa} \cdot \frac{273+t}{273+t^*}$$

where:

- Volume Q<sub>o</sub>(m<sup>3</sup>/h), total pressure P<sub>o</sub>(Pa), speed n( r/min ) can be obtained from Performance chart.
- Asterisk (\*) on the upper right corner denotes the performance parameter needed by the customers in practical gas inlet conditions.
- The difference in relative humidity is omitted from the abovementioned formulas.

2. The power (Nin<sub>o</sub>) on the performance chart the internal power of the ventilator.

- Shaft power of ventilator: N<sub>s</sub> = Nin<sub>o</sub> / η<sub>m</sub>

where: N<sub>s</sub> - Shaft power of ventilator

η<sub>m</sub> - Mechanical efficiency of ventilator

The value of mechanical efficiency of ventilator can be obtained from Table 1.

Way of Ventilator Driving	η <sub>m</sub>
Electric Motor Directly Driven	1
Coupling Directly Driven	0.98
V-belt Driven	0.95

(Table1)

- Power of matching electric motor: N = N<sub>s</sub> / K    here: N - Power of matching electric motor  
K - Safety coefficient of electric motor capacity

The value of safety coefficient of electric motor capacity can be from Table 2.

3. Comparing the performance of the twin ventilator of Category L2 and Category R2 with the performance of Category L and Category R in the chart, in the same condition of pressure, the twin ventilators' performance is as the following.

Volume x2    Speed x1.05    Inner Power x2.15    Noise +3

4. The performance of the sample ventilator is tested in accordance with GB/T1236-2000. Its noise index is measured according to GB/T 2888-2008 at the point 1 metre from the inlet.

Power of Electric Motor(Kw)	Value k
≤2.2	1.2
≤1.1	1.15
>11	1.1

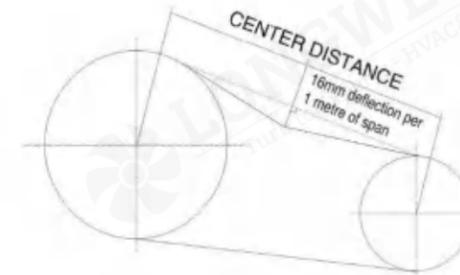
(Table2)

### 5. V-Belt Drive Installation

1. Remove the protective coating from the ends of the fan shaft and assure that the shaft ends are free of nicks and burrs.
2. Check fan and motor shafts for parallel and angular alignment.
3. The center distance must be controlled as 0.7(d1+d2) < 2(d1+d2); the belt speed of fan should be more than 10m/s, but less than 15m/s, (10 < v < 15m/s).
4. Slide sheaves on to the shafts - do not drive the sheaves on to the shafts as this may result in bearing damage.
5. Align fan and motor sheaves with a straight-edge or string, and tighten.
6. Place belts over the sheaves with care, otherwise the belts will be damaged.
7. Adjust the belt tension until the belts appear snug. Run the unit for a few minutes and allow the belts to set properly.
8. Switch off the fan, adjust the belt tension by moving the motor base. When in operation, the tight side of the belts should be in a straight line from sheave to sheave and there should be a slight bow on the slack side.



Belt tension indicator applied to mid centre distance.



Belt Section	Force required to deflect belt 16mm per metre of span		
	Small Pulley/Diameter(mm)	Newton(N)	Kilogram Force (Kgf)
SPZ	56-95	13-20	1.3-2.0
	100-140	20-25	2.0-2.5
SPA	80-132	25-35	2.5-3.6
	140-200	35-45	3.6-4.6
SPB	112-224	45-65	4.6-6.6
	236-315	65-85	6.6-8.7
SPC	224-335	85-115	8.7-11.7
	375-560	115-150	11.7-15.3
A	80-140	10-15	1.1-1.5
B	125-200	20-30	2.0-3.1

## 6. Belt Tension

A proper level of belt tension is required in order to obtain a satisfactory belt life. If the belt tension level is too high, then excessive loads will be imposed on the bearings, and this will reduce the lives of both of these components. If the belt tension level is too low, then the belt will slip. Belt slippage generates a large amount of heat, and this heat will drastically reduce the life of a belt. Belt-tensioning gauges can be used to determine whether the belts are tensioned properly. A chart is normally supplied with the gauge which indicates the ranges of forces required to deflect the belts by a given amount to obtain the proper belt tension level. The required forces are based upon the center distance of the sheaves and the belt cross-section. The belts are properly tensioned when the forces required to deflect the belt are within the specified range. If a belt-tensioning gauge is not available, then the belt should be tightened just enough so that the belt does not squeal when the ventilator is started. A very short period of noise during the starting of a ventilator is allowable, but a squeal lasting several seconds or longer is not acceptable. After tensioning the belts and before starting the ventilator, check to make sure that the sheaves are properly aligned. Realign the sheaves if necessary. Note that new belts may stretch a little during initial use, so the belt tension level should be checked after a few days of operation.

Note: The belt should be released if the ventilator does not run in a long time, and until the fan is to be used over again, the belt tension level must be just again. The rotor should be turned 180 degrees at regular intervals when the ventilator is not used in a long time to avoid the static state distortion of the shaft.

## 7. Bearing Lubrication

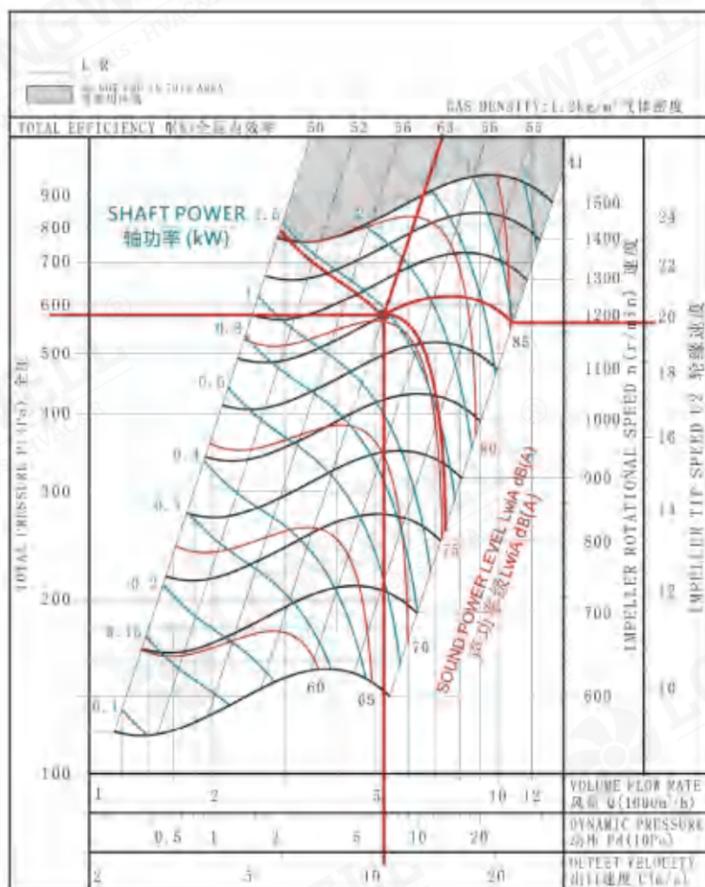
The ventilator bearings are filled with lubricant when they come from the factory, so the bearings do not require any additional grease to be supplied before starting the ventilator. The ventilators that are equipped with pillow block bearings are provided with lubrication fittings, and these fittings allow for additional lubrication to be supplied to the bearings at regular intervals. The allowable period of time between lubrication of these bearings depends upon the operating speeds and temperatures of the bearing as well as on the type of grease used. The best way to determine the required frequency of lubrication is to inspect the condition of the grease that is discharged from the seals when new grease is added. If the discharged grease looks similar to the new grease, then a longer period of time between lubrications is possible. If the discharged grease is much darker than the new grease, this indicates that the grease is being oxidized and more frequent lubrications of the bearings are required.

## 8. Instructions

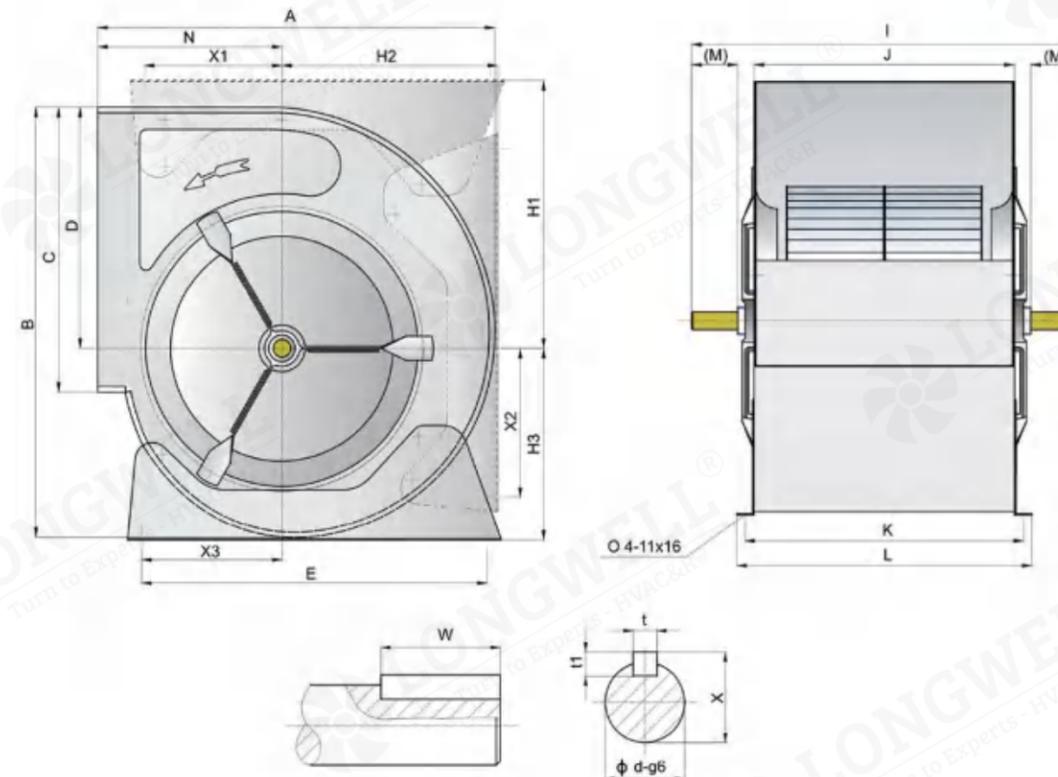
1. Prior to installation, all parts of the ventilator should be inspected. Great and careful attention should be taken to shaft, bearings and main parts for checking. If there is some damage, recovery should be made, then to install again for use.
2. Check the internal space of the scroll and other casings, tools and other extra matters should not be left inside.
3. After installation, turn its impeller by hand or by means of lever to check for tightness or shock. Make sure that there is no such phenomenon over there, trial operation can be carried out.
4. Matching electric motor power of ventilator denotes internal power plus mechanical loss during driving and safety coefficient of electric motor capacity in special operating condition, it does not

- denote the power required during full opening of air outlet. Therefore no-load running of ventilator without any applied resistance including connecting pipelines on air-inlet or aoroutlet is strictly prohibited in order to avoid burning out of the motor caused by its operation at over rated power.
- 5. Soft connection between air pipe and ventilator air-outlet should be made. The joints should not be tightened too much.
- 6. Prior to official operation of ventilator, it is necessary to check the rotating direction of both motor and ventilator for their coordination..
- 7. During ordering it is necessary to state the type of ventilator, speed, air volume, air pressure, direction of air outlet, rotating direction, type of electric motor and its specifications.
- 8. If the customer needs matching belts, pulley, electric motor, mounting frame and other parts and requirements, please state at that time.
- 9. This fan is restricted for use in areas where air substances are noncorrosive and non-toxics non-alkaline or where dust partides < 150mg/m<sup>3</sup>, -20°C < temperature < 85°C. If special conditions during transportaion, load and unload, it is strictly prohibited to shock the ventilators.

### 9. Example of curve Reading



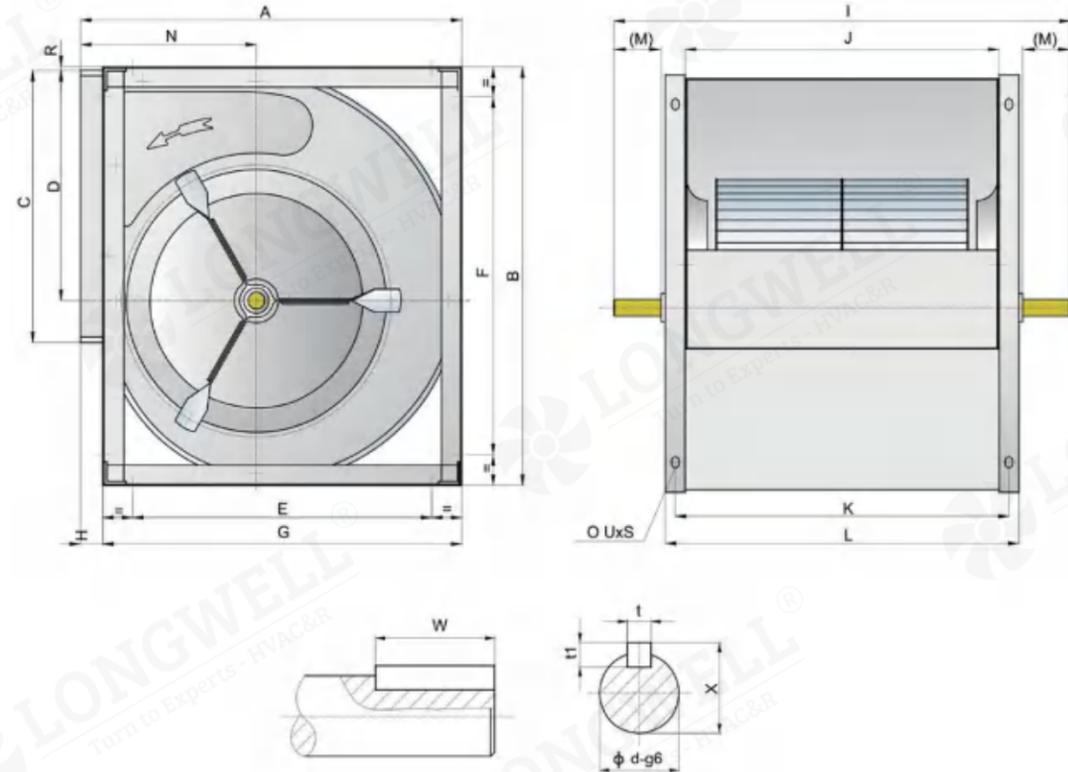
## AT - L(LK)



### Technical Specifications

Model	A	B	C	D	E	I	J	K	L	M	N	X	t	t1	W	d	H1	H2	H3	X1	X2	X3
AT7-7L	312	327.5	228	192	160	360	259	289	319	35.5	152	22.5	6	6	30	20	215	185	155	80	80	80
AT8-8L	345	364	256	216	190	400	287	317	347	41.5	164	22.5	6	6	30	20	239	204	175	95	80	95
AT9-7L	380	387	262	215	260	360	232	262	292	49	185	22.5	8	6	30	20	236	195	173	127.5	100	90
AT9-9L	380	387	262	215	260	430	298	328	358	51	185	22.5	8	6	30	20	236	195	173	127.5	100	90
AT10-8L	425	444	289	249	300	400	265	295	325	52.5	203	28	8	7	40	25	273	225	198	143	150	100
AT10-10L	425	444	289	249	300	480	331	361	391	59.5	203	28	8	7	40	25	273	225	198	143	150	100
AT12-9L	491.5	521.5	341	294	370	470	309	339	369	57	230	28	8	7	50	25	314.5	275	241	190	150.5	163
AT12-12L	491.5	521.5	341	294	370	550	395	425	455	54	230	28	8	7	54	25	314.5	275	241	190	150.5	163
AT15-11L	569	622	404	342	430	540	373	403	433	64	264	28	8	7	50	25	363	324	280	214	182	204
AT15-11LK	569	622	404	342	430	540	373	403	433	72	264	33	8	7	40	30	363	324	280	214	182	204
AT15-15L	569	622	404	342	430	640	471	501	531	65	264	28	8	7	50	25	363	324	280	214	182	204
AT15-15LK	569	622	404	342	430	640	471	501	531	65	264	33	8	7	65	30	363	324	280	214	182	204
AT18-13L	683	739	478	415	540	600	430	460	490	61.5	314	28	8	7	55	25	440	385	340	270	270	270
AT18-13LK	683	739	478	415	540	600	430	460	490	61	314	38	10	8	60	35	440	385	340	270	270	270
AT18-18L	683	739	478	415	540	720	557	587	617	58	314	28	8	7	55	25	440	385	340	270	270	270
AT18-18LK	683	739	478	415	540	720	557	587	617	87	314	38	10	8	70	35	440	385	340	270	270	270

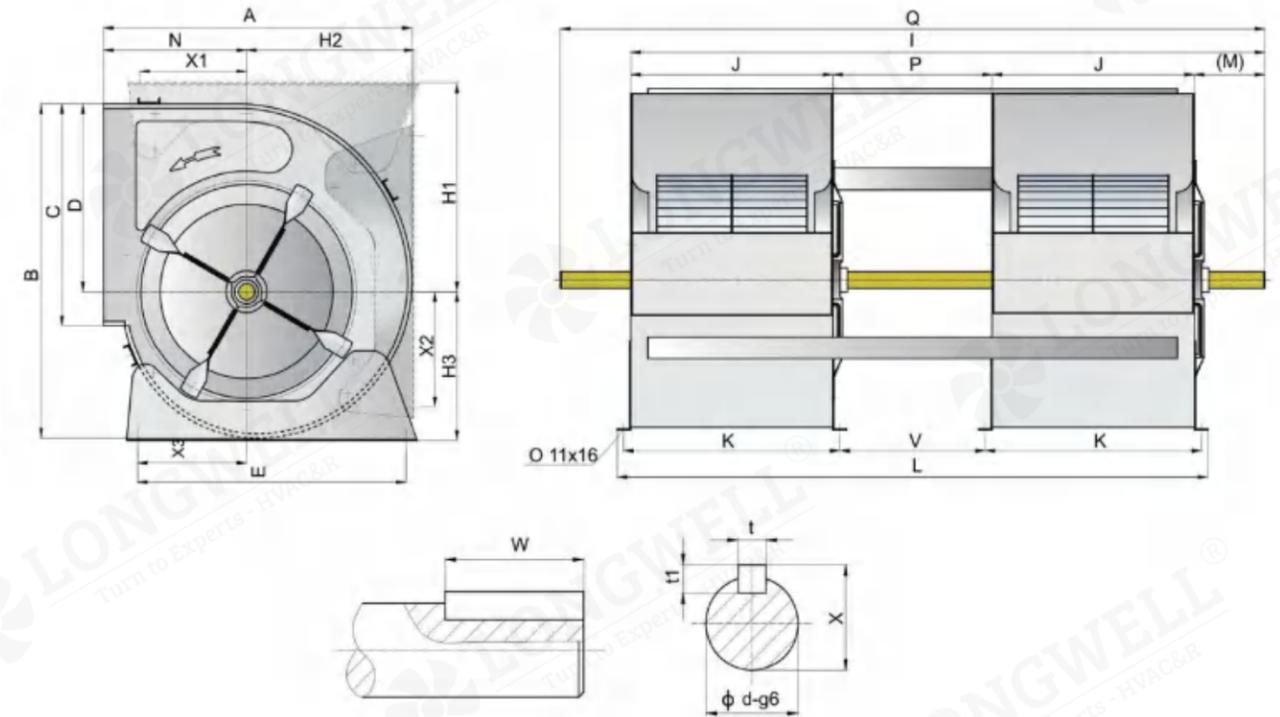
# AT - R(RK)



## Technical Specifications

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	R	t	t1	W	X	d	UxS
AT7-7R	323	336	228	192	180	180	294	29	400	259	281	299	50	152	6	6	6	40	22.5	20	9x12
AT8-8R	348	370	256	216	224	224	314	34	450	287	312	337	55	164	3	6	6	40	22.5	20	9x12
AT9-7R	385	399	262	215	274	324	349	36	390	232	254	272	58	185	6	6	6	40	22.5	20	9x12
AT9-9R	385	399	262	215	274	324	349	36	460	298	320	338	60	185	6	6	6	40	22.5	20	9x12
AT10-8R	431	455	289	249	330	390	395	36	425	265	287	305	59	203	6	8	7	40	28	25	11x16
AT10-10R	431	455	289	249	371	390	395	36	490	331	353	371	58	203	6	8	7	40	28	25	11x16
AT12-9R	494	527	341	294	371	443	458	36	490	309	339	369	59	230	3	8	7	50	28	25	11x16
AT12-12R	494	619	341	294	371	443	458	36	580	395	425	455	61	230	3	8	7	40	28	25	11x16
AT15-11R	575	619	402	294	449	531	539	36	590	373	403	433	77	266.7	4	8	7	50	28	25	11x16
AT15-11RK	575	619	402	343	449	531	539	36	625	373	403	433	99	266.7	4	8	7	65	33	30	11x16
AT15-15R	575	619	402	343	449	531	539	36	680	471	501	531	73	266.7	4	8	7	50	28	25	11x16
AT15-15RK	575	619	402	343	449	531	539	36	725	471	501	531	100	266.7	4	8	7	65	33	30	11x16
AT18-13R	690	751	478	415	544	641	654	36	660	430	470	510	74	314	6	8	7	55	28	25	11x16
AT18-13RK	690	751	478	415	544	641	654	36	660	430	470	510	89	314	6	10	8	55	38	35	11x16
AT18-18R	690	751	478	415	544	641	654	36	780	557	597	637	70	314	6	8	7	55	28	25	11x16
AT18-18RK	690	751	478	415	544	641	654	36	780	557	597	637	89	314	6	10	8	70	38	35	11x16

# AT - L2

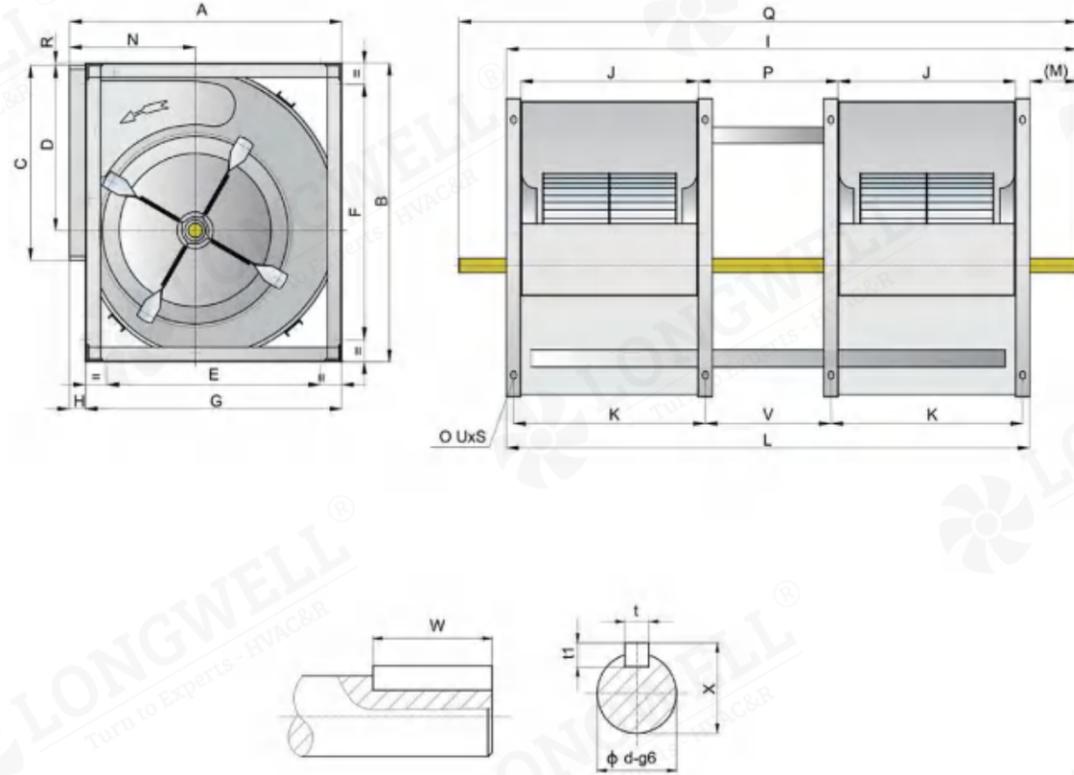


## Technical Specifications

Model	A	B	C	D	E	I	J	K	L	M	N	X	t	t1	W	d	H1	H2	H3	X1	X2	X3	P	Q	V
AT7-7L2	312	327.5	228	192	160	/	259	289	762	80	152	22.5	6	6	50	20	215	185	155	80	80	80	184	860	154
AT8-8L2	345	364	256	216	190	/	287	317	848	96	164	22.5	6	6	50	20	239	204	175	95	80	95	214	980	184
AT9-7L2	380	387	262	215	260	/	232	262	708	91	185	22.5	8	6	60	20	236	195	173	127.5	100	90	184	830	154
AT9-9L2	380	387	262	215	260	/	298	328	900	90	185	28	8	7	60	25	236	195	173	127.5	100	90	244	1020	214
AT10-8L2	425	444	289	249	300	/	265	295	804	90.5	203	28	8	7	60	25	273	222	198	143	110	100	214	925	184
AT10-10L2	425	444	289	249	300	/	331	361	986	89.5	203	28	8	7	60	25	273	225	198	143	110	100	264	1105	234
AT12-9L2	491.5	521.5	341	294	370	/	309	339	922	109	230	28	8	7	60	25	314.5	275	241	190	150.5	163	244	1080	214
AT12-12L2	491.5	521.5	341	294	370	1224	395	425	1174	110	230	33	8	7	80	30	314.5	275	241	190	150.5	163	324	/	294
AT15-11L2	569	622	404	342	430	1170	373	403	1100	130	264	33	8	7	90	30	362.5	324	280	214	182	204	294	/	264
AT15-15L2	569	622	404	342	430	1456	471	501	1386	130	264	33	8	7	90	30	362.5	324	280	214	182	204	384	/	354
AT18-13L2	683	739	478	415	540	1343	430	460	1263	140	314	28	10	8	90	35	440	385	340	270	270	270	343	/	313
AT18-18L2	683	739	478	415	540	1702	557	587	1632	130	314	38	10	8	90	35	440	385	340	270	270	270	458	/	428

Note: AT7-7 to AT12-9 series fans are double-shaft extension  
AT12-12 to AT18-18 series fans are single-shaft extension

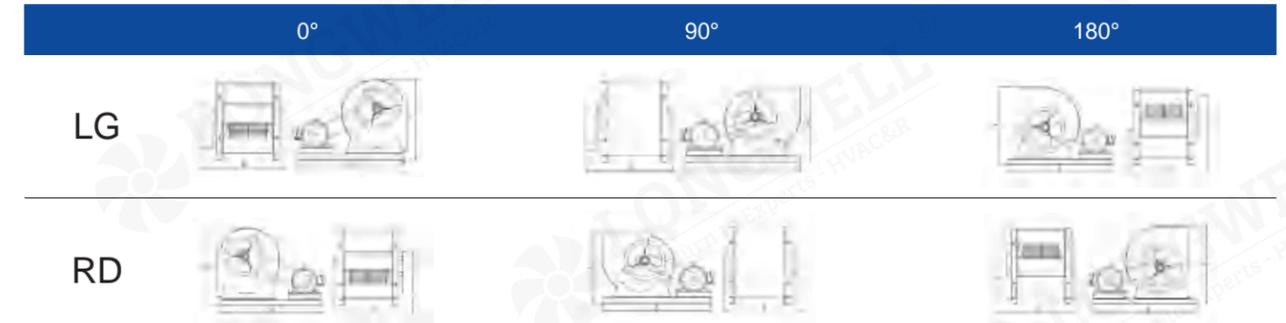
# AT - R2



## Technical Specifications

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	R	t	t1	W	X	d	UxS	P	Q	V
AT7-7R2	323	336	228	192	180	180	294	29	/	259	281	742	50	152	6	6	6	60	22.5	20	9x12	184	880	162
AT8-8R2	348	370	256	216	224	224	314	34	/	287	312	838	55	164	3	6	6	60	22.5	20	9x12	214	980	189
AT9-7R2	385	399	262	215	274	324	349	36	/	232	254	688	58	185	6	6	6	60	22.5	20	9x12	184	830	162
AT9-9R2	385	399	262	215	274	324	349	36	/	298	320	880	60	185	6	6	6	60	22.5	20	9x12	244	1020	222
AT10-8R2	431	455	289	249	330	390	395	36	/	265	287	784	59	203	6	8	7	60	28	25	11x16	214	925	192
AT10-10R2	431	455	289	249	330	390	395	36	/	331	353	966	58	203	6	8	7	60	28	25	11x16	264	1105	242
AT12-9R2	494	527	341	294	371	443	458	36	/	309	339	918	59	230	3	8	7	60	28	25	11x16	244	1080	214
AT12-12R2	494	527	341	294	371	443	458	36	1274	395	425	1174	61	230	3	8	7	90	33	25	11x16	324	/	294
AT15-11R2	575	619	402	294	449	531	539	36	1200	373	403	1100	77	266.7	4	8	7	90	33	25	11x16	294	/	264
AT15-15R2	575	619	402	343	449	531	539	36	1486	471	501	1386	73	266.7	4	8	7	90	33	25	11x16	384	/	354
AT18-13R2	690	751	478	415	544	641	654	36	1383	430	470	1283	74	314	6	8	7	90	38	25	11x16	343	/	303
AT18-18R2	690	751	478	415	544	641	654	36	1752	557	597	1652	70	314	6	8	7	90	38	25	11x16	458	/	418

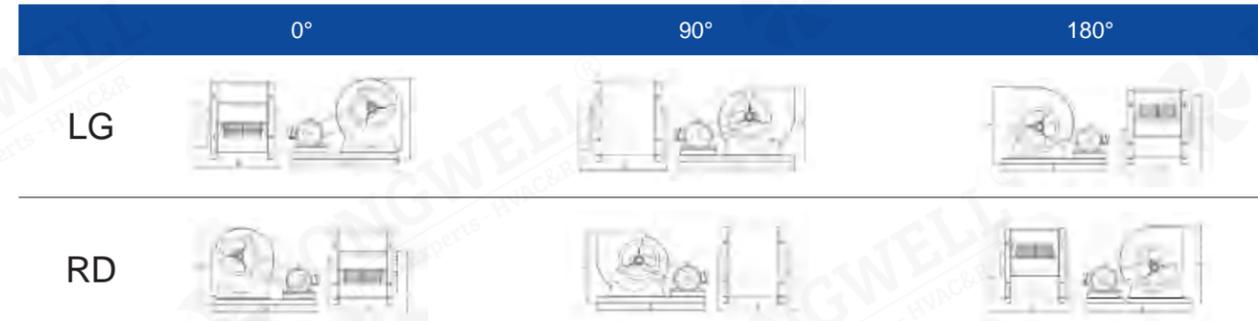
# AT - L(LK)



Model	Motor Frame Size	0°				90°				180°			
		L	A	B	C	L	A	B	C	L	A	B	C
7-7	63	374	600	390	409	339	620	390	335	359	600	390	405
	71	379	620	390	409	365	660	390	335	365	620	390	405
	80	402	660	390	409	390	700	390	335	390	660	390	405
	90	463	740	390	409	414	740	390	335	454	740	390	405
8-8	63	388	620	430	449	355	660	430	358	370	620	430	448
	71	412	660	430	449	342	660	430	358	396	660	430	448
	80	434	700	430	449	367	700	430	358	420	700	430	448
	90	456	740	430	449	430	780	430	358	444	740	430	448
9-7	71	432	700	390	481	388	700	390	428	414	700	390	438
	80	455	740	390	481	412	740	390	428	439	740	390	438
	90	476	780	390	481	435	780	390	428	462	780	390	438
	100	498	820	390	481	458	820	390	428	486	820	390	438
9-9	112	517	860	390	481	538	920	390	428	508	860	390	438
	71	432	700	460	481	388	700	460	428	414	700	460	438
	80	455	740	460	481	412	740	460	428	439	740	460	438
	90	476	780	460	481	435	780	460	428	462	780	460	438
10-8	100	498	820	460	481	458	820	460	428	486	820	460	438
	112	517	860	460	481	538	920	460	428	508	860	460	438
	71	465	740	430	535	440	780	430	472	439	740	430	438
	80	487	780	430	535	464	820	430	472	464	780	430	438
10-10	90	507	820	430	535	486	860	430	472	487	820	430	438
	100	528	860	430	535	469	860	430	472	510	860	430	438
	112	565	920	430	535	548	960	430	472	551	920	430	438
	80	487	780	510	535	464	820	510	472	464	780	510	438
10-10	90	507	820	510	535	486	860	510	472	487	820	510	438
	100	528	860	510	535	469	860	510	472	510	860	510	438
	112	565	920	510	535	548	960	510	472	551	920	510	438

L=Center distance between fan and motor pulley  
the size unit the form is mm

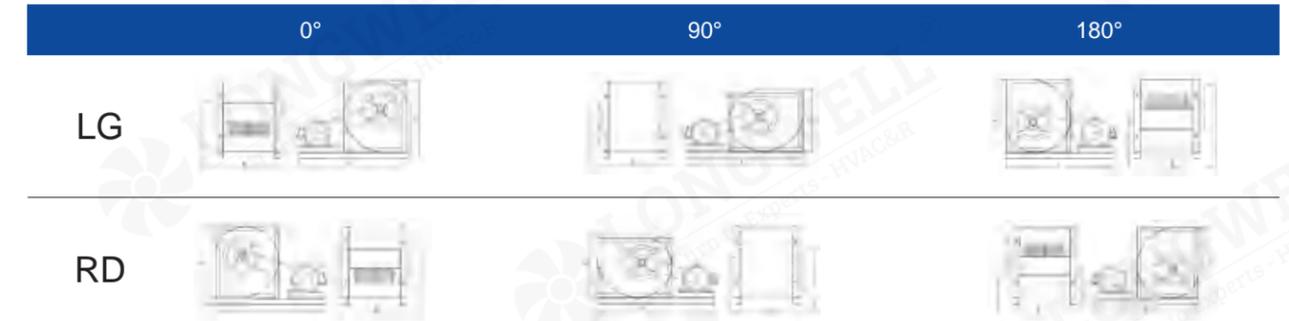
# AT - L(LK)



Model	Motor Frame Size	L	A	B	C	L	A	B	C	L	A	B	C
12-9	80	552	860	500	626	469	860	500	537	522	860	500	567
	90	591	920	500	626	509	920	500	537	564	920	500	567
	100	592	940	500	626	531	960	500	537	568	940	500	567
	112	614	895	500	626	570	1020	500	537	592	985	500	567
	132	691	1100	500	626	655	1140	500	537	675	1100	500	567
12-12	80	552	860	580	626	469	860	580	537	522	860	580	567
	90	591	920	580	626	509	920	580	537	564	920	580	567
	100	592	940	580	626	531	960	580	537	568	940	580	567
	112	648	1020	580	626	570	1020	580	537	627	1020	580	567
	132	691	1100	580	626	655	1140	580	537	675	1100	580	567
15-11	80	596	920	570	704	533	960	570	605	557	920	570	646
	90	633	980	570	704	572	1020	570	605	598	980	570	646
	100	652	1020	570	704	593	1060	570	605	620	1020	570	646
	112	668	1060	570	704	611	1100	570	605	639	1060	570	646
	132	748	1180	570	704	674	1200	570	605	725	1180	570	646
15-15	80	596	920	670	704	533	960	670	605	557	920	670	646
	90	633	980	670	704	572	1020	670	605	598	980	670	646
	100	652	1020	670	704	593	1060	670	605	620	1020	670	646
	112	668	1060	670	704	611	1100	670	605	639	1080	670	646
	132	748	1180	670	704	674	1200	670	605	725	1180	670	646
18-13	90	729	1100	630	838	639	1140	630	730	684	1100	630	795
	100	747	1140	630	838	659	1180	630	730	705	1140	630	795
	112	762	1180	630	838	704	1250	630	730	723	1180	630	795
	132	838	1300	630	838	765	1350	630	730	806	1300	630	795
	160	884	1400	630	838	814	1450	630	730	858	1400	630	795
18-18	90	729	1100	750	838	639	1140	750	730	684	1100	750	795
	100	747	1140	750	838	659	1180	750	730	705	1140	750	795
	112	762	1180	750	838	704	1250	750	730	723	1180	750	795
	132	791	1250	750	838	765	1350	750	730	757	1250	750	795
	160	884	1400	750	838	814	1450	750	730	858	1400	750	795

L=Center distance between fan and motor pulley  
the size unit the form is mm

# AT - R(RK)



Model	Motor Frame Size	L	A	B	C	L	A	B	C	L	A	B	C
7-7	63	366	600	398	376	334	620	398	363	355	600	398	376
	71	372	620	398	376	361	660	398	363	402	660	398	376
	80	396	660	398	376	385	700	398	363	428	700	398	376
	90	458	740	398	376	409	740	398	363	453	740	398	376
8-8	63	381	620	484	410	352	660	484	383	364	620	484	410
	71	405	660	484	410	378	700	484	383	391	660	484	410
	80	428	700	484	410	402	740	484	383	417	700	484	410
	90	450	740	484	410	426	780	484	483	441	740	484	410
9-7	71	423	700	418	439	382	700	418	425	414	700	418	410
	80	447	740	418	439	406	740	418	425	439	740	418	439
	90	469	780	418	439	429	780	418	425	462	780	418	439
	100	492	820	418	439	452	820	418	425	486	820	418	439
9-9	112	512	860	418	439	532	920	418	425	508	860	418	439
	71	423	700	490	439	382	700	490	425	414	700	490	439
	80	447	740	490	439	406	740	490	425	439	740	490	439
	90	469	780	490	439	429	780	490	425	462	780	490	439
10-8	100	492	820	490	439	452	820	490	425	486	820	490	439
	112	512	860	490	439	532	920	490	425	508	860	490	439
	71	454	740	455	495	435	780	455	471	440	740	455	495
	80	477	780	455	495	458	820	455	471	464	780	455	495
10-10	90	498	820	455	495	480	860	455	471	487	820	455	495
	100	520	860	455	495	522	920	455	471	511	860	455	495
	112	559	920	455	495	542	960	455	471	551	920	455	495
	80	477	780	520	495	458	820	520	471	464	780	520	495
10-10	90	498	820	520	495	480	860	520	471	487	820	520	495
	100	520	860	520	495	522	920	520	471	511	860	520	495
	112	559	920	520	495	542	960	520	471	551	920	520	495

L=Center distance between fan and motor pulley  
the size unit the form is mm

# AT - R(RK)

# AT7-7

0° 90° 180°

LG

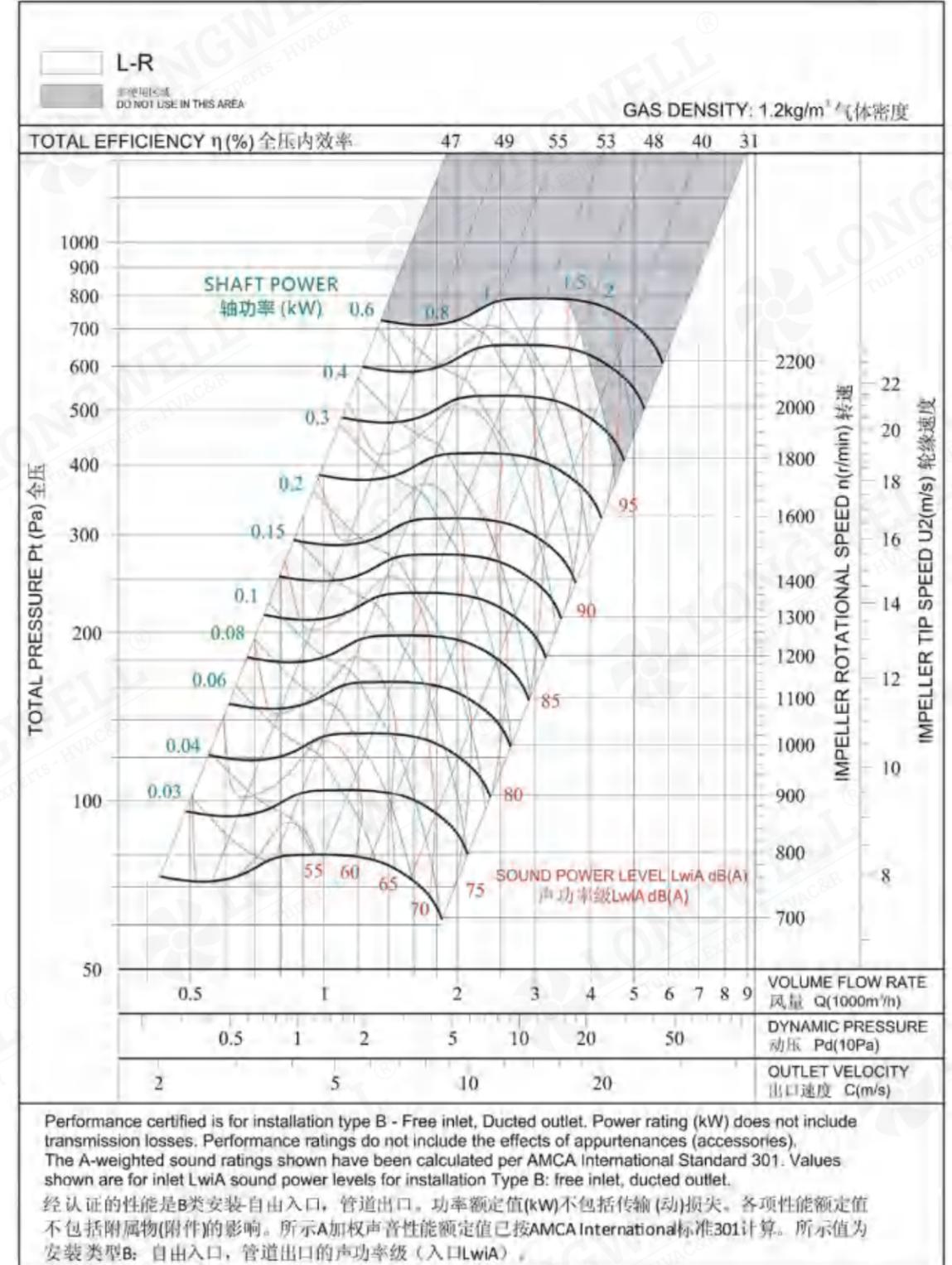


RD



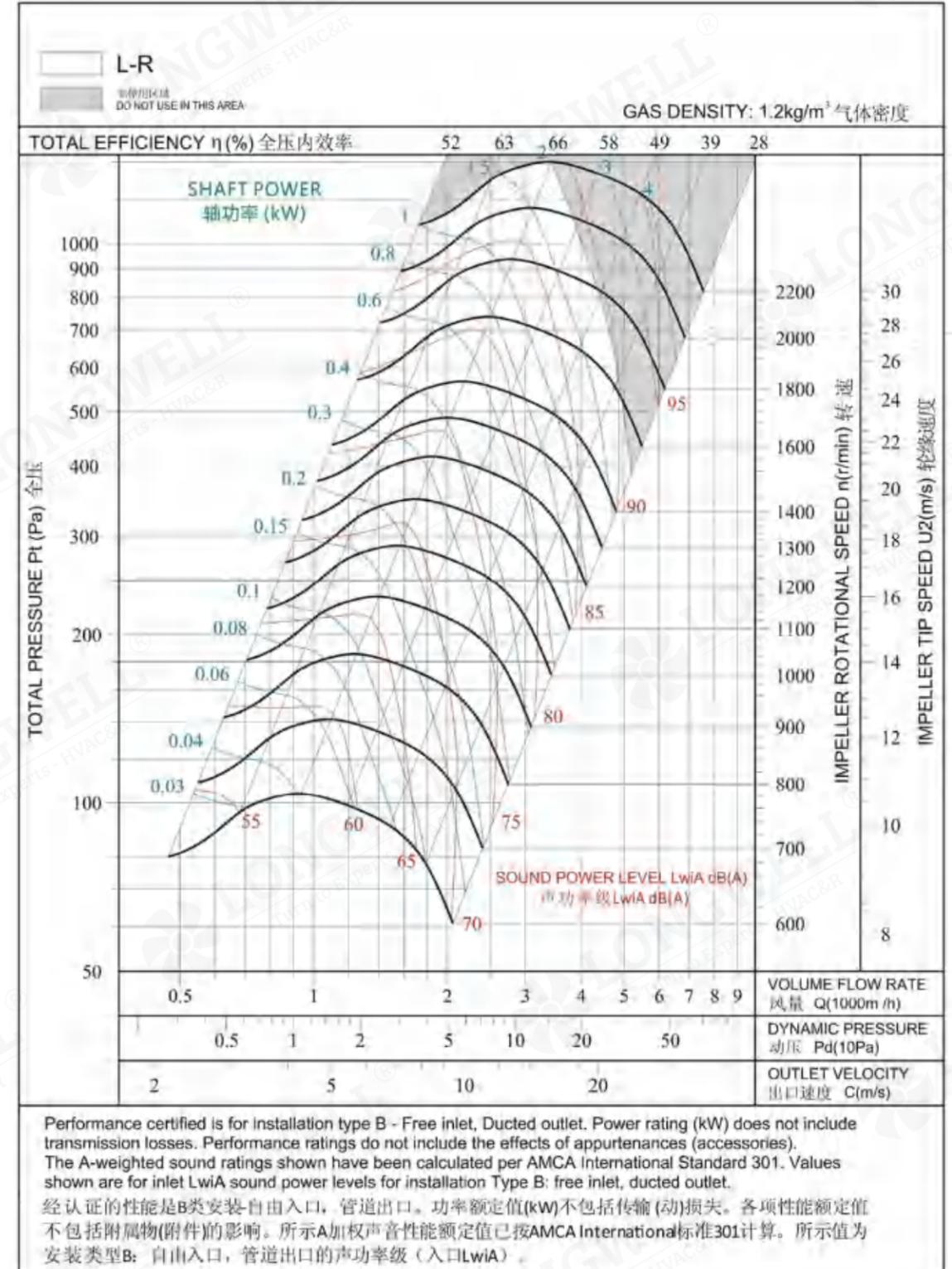
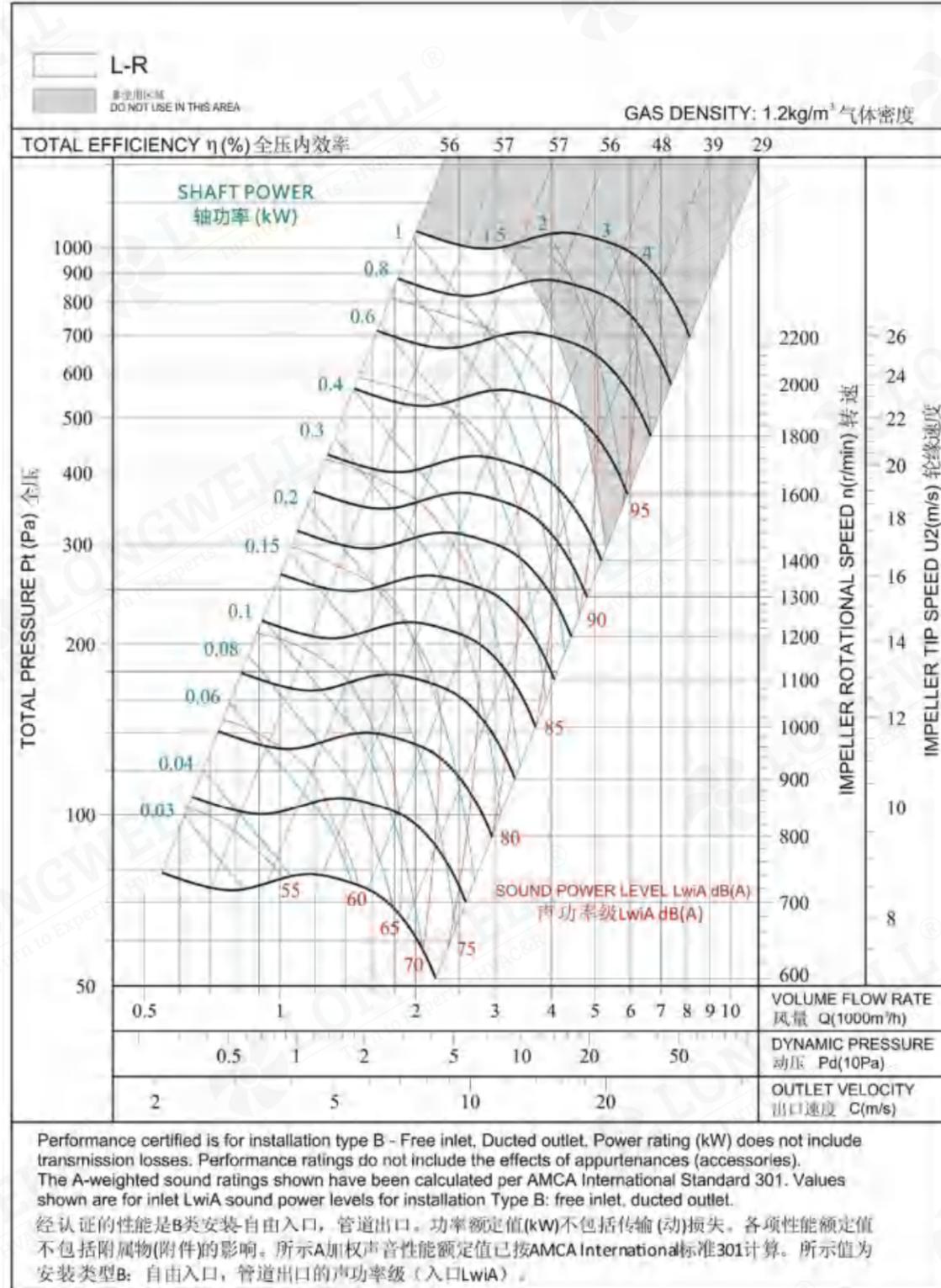
Model	Motor Frame Size	L	A	B	C	L	A	B	C	L	A	B	C
12-9	80	566	860	525	573	521	920	525	537	549	860	525	573
	90	606	920	525	573	504	920	525	537	591	920	525	573
	100	608	940	525	573	545	980	525	537	614	940	525	573
	112	632	895	525	573	564	1020	525	537	654	1020	525	573
	132	711	1100	525	573	649	1140	525	537	702	1100	525	573
12-12	80	566	860	615	573	521	920	615	537	549	860	615	573
	90	606	920	615	573	504	920	615	537	591	920	615	573
	100	608	940	615	573	545	980	615	537	594	940	615	573
	112	666	1020	615	573	564	1020	615	537	654	1020	615	573
15-11	80	582	920	615	661	546	980	615	615	577	940	615	661
	90	621	980	615	661	567	1020	615	615	598	980	615	661
	100	641	1020	615	661	587	1060	615	615	620	1020	615	661
	112	658	1060	615	661	605	1100	615	615	640	1060	615	661
15-15	132	739	1180	615	661	669	1200	615	615	725	1180	615	661
	80	582	920	715	661	546	980	715	615	577	940	715	661
	90	621	980	715	661	567	1020	715	615	598	980	715	661
	100	641	1020	715	661	587	1060	715	615	620	1020	715	661
18-13	112	658	1060	715	661	605	1100	715	615	640	1060	715	661
	132	739	1180	715	661	669	1200	715	615	725	1180	715	661
	90	713	1100	696	791	634	1140	696	730	681	1100	696	791
	100	732	1140	696	791	672	1200	696	730	702	1140	696	791
18-18	112	748	1180	696	791	698	1250	696	730	740	1200	696	791
	132	826	1300	696	791	759	1350	696	730	804	1300	696	791
	160	874	1400	696	791	808	1450	696	730	856	1400	696	791
18-18	90	713	1100	820	791	634	1140	820	730	681	1100	820	791
	100	732	1140	820	791	672	1200	820	730	702	1140	820	791
	112	748	1180	820	791	698	1250	820	730	740	1200	820	791
	132	799	1250	820	791	759	1350	820	730	804	1300	820	791
160	874	1400	820	791	808	1450	820	730	856	1400	820	791	

L=Center distance between fan and motor pulley  
the size unit the form is mm



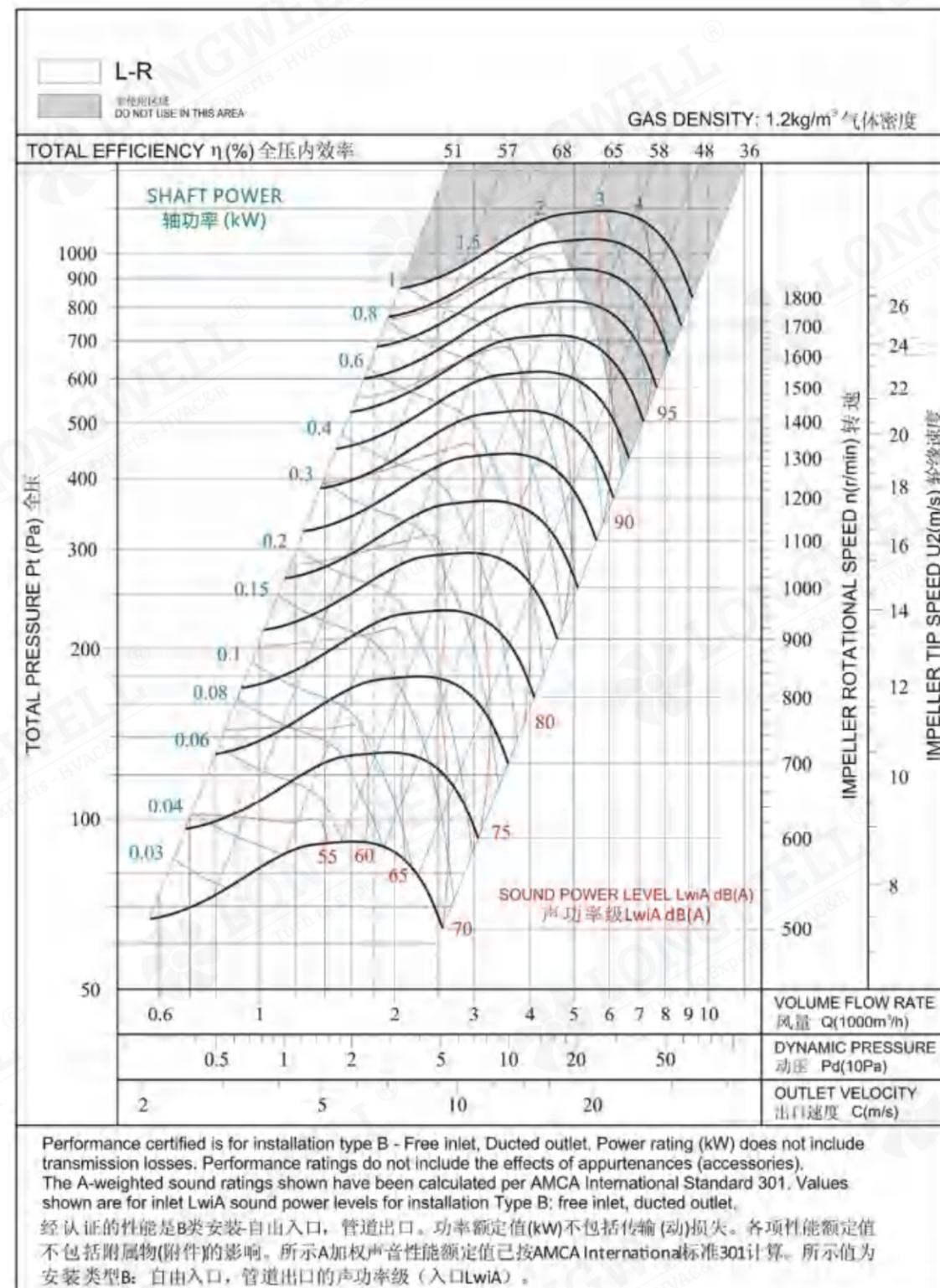
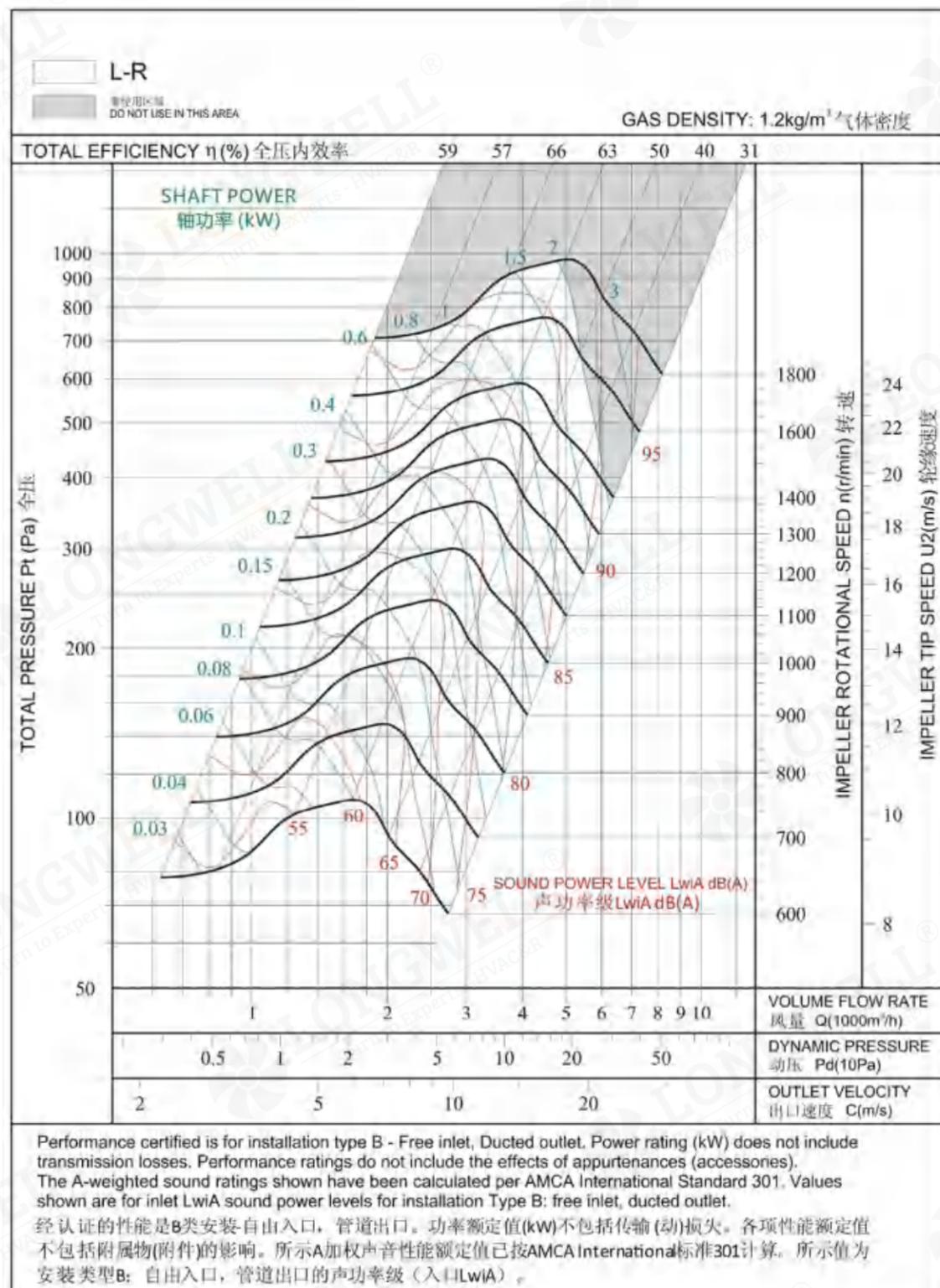
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# AT9-7



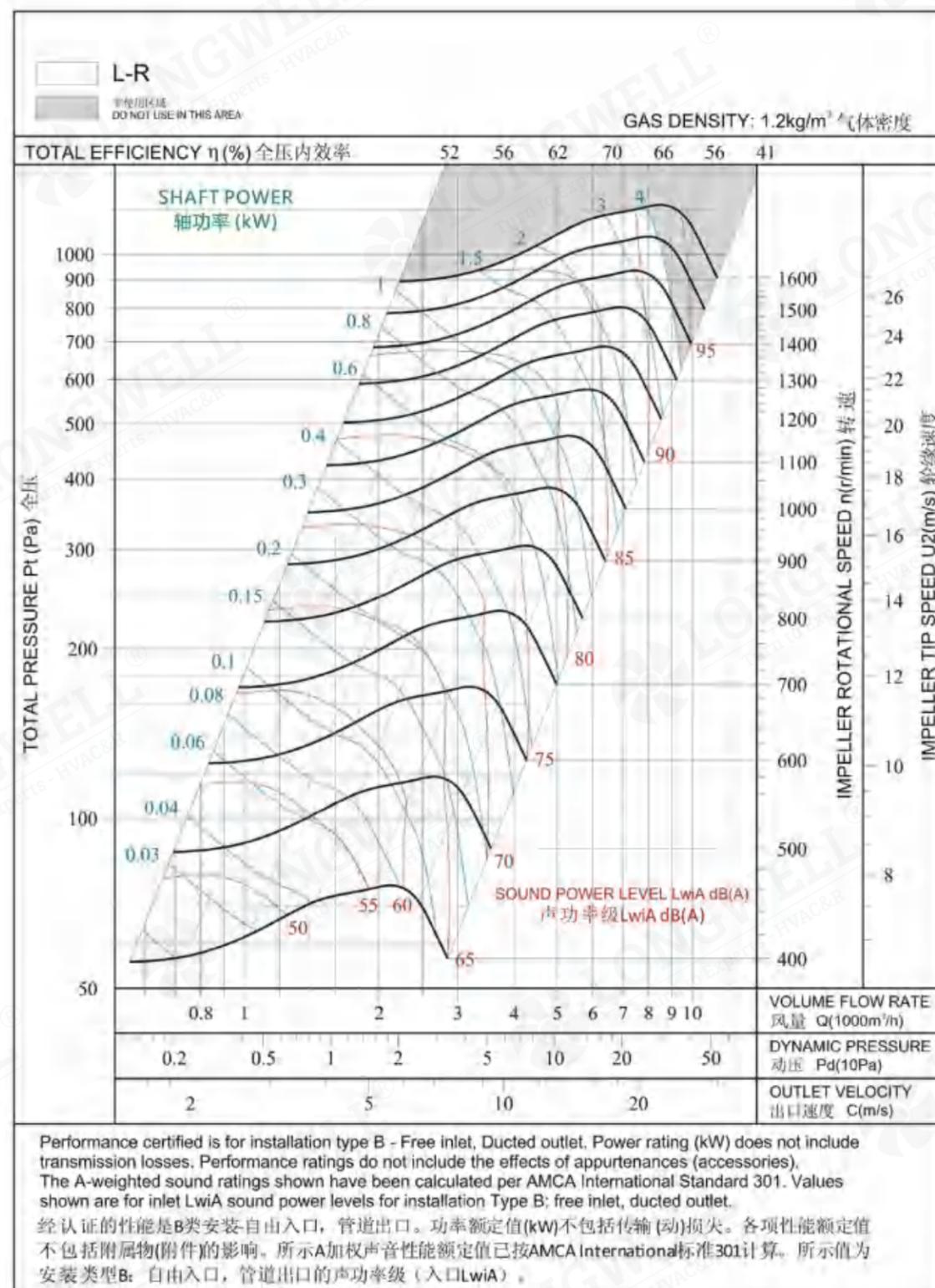
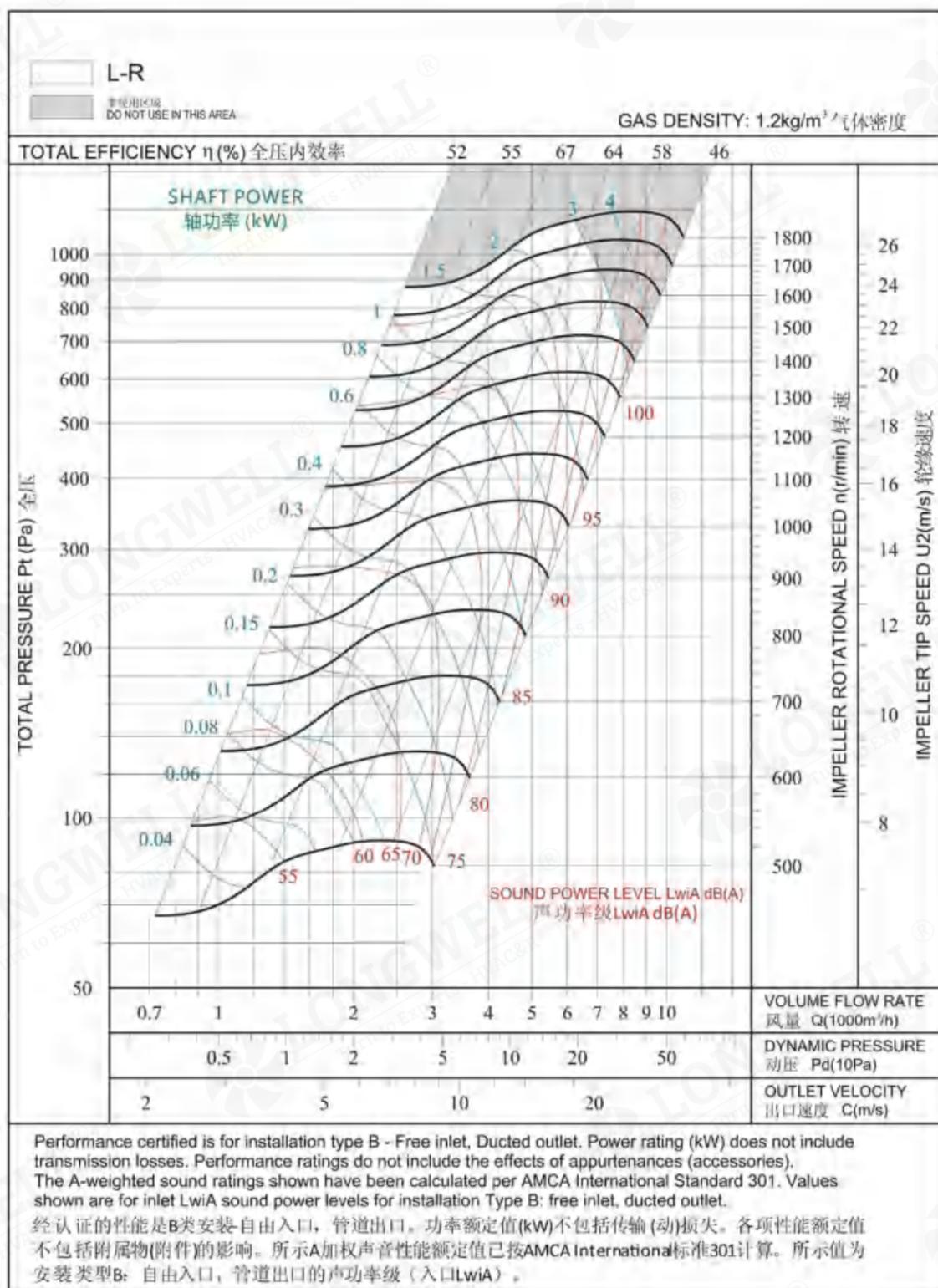
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# AT10-8



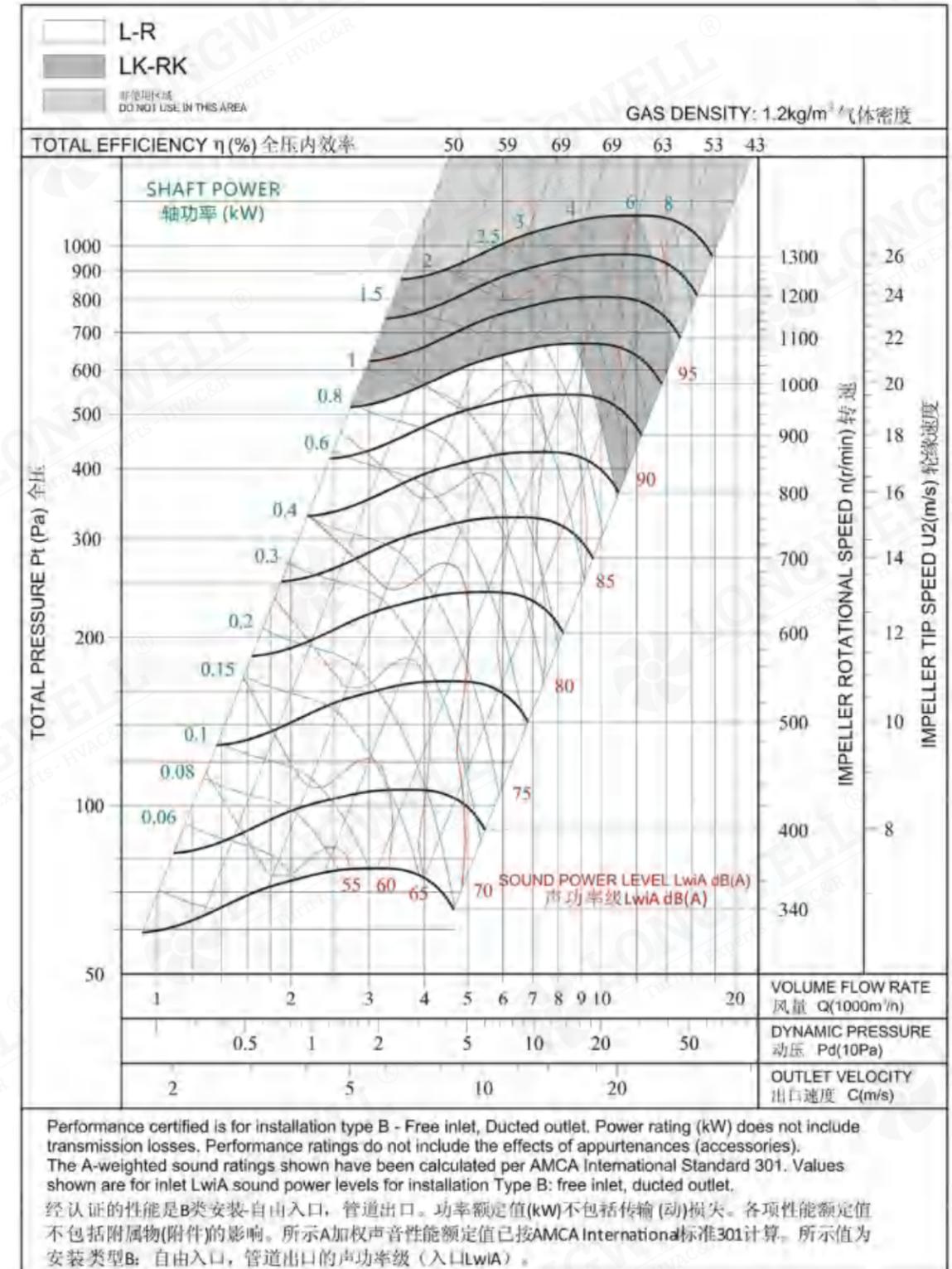
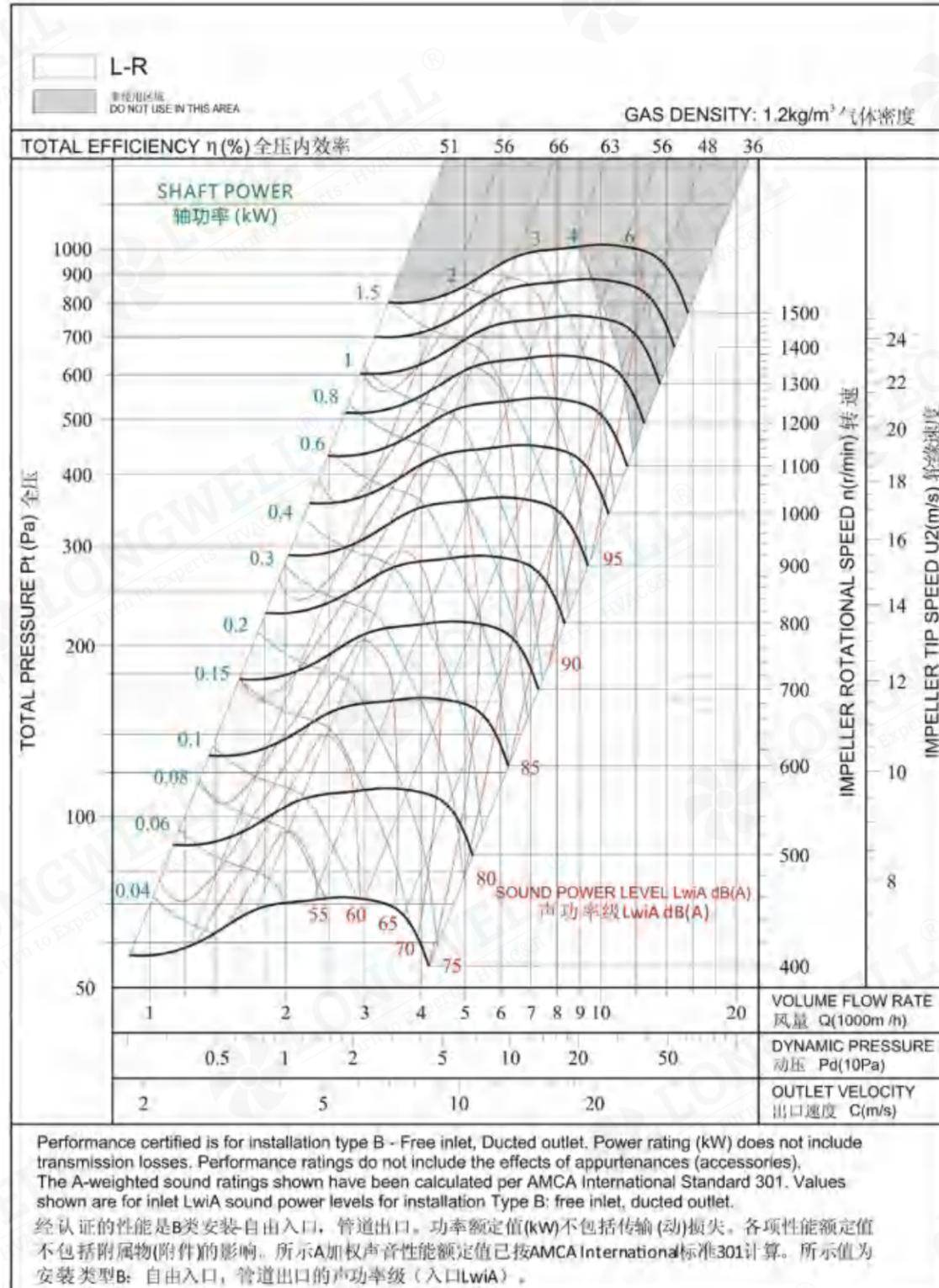
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# AT12-9



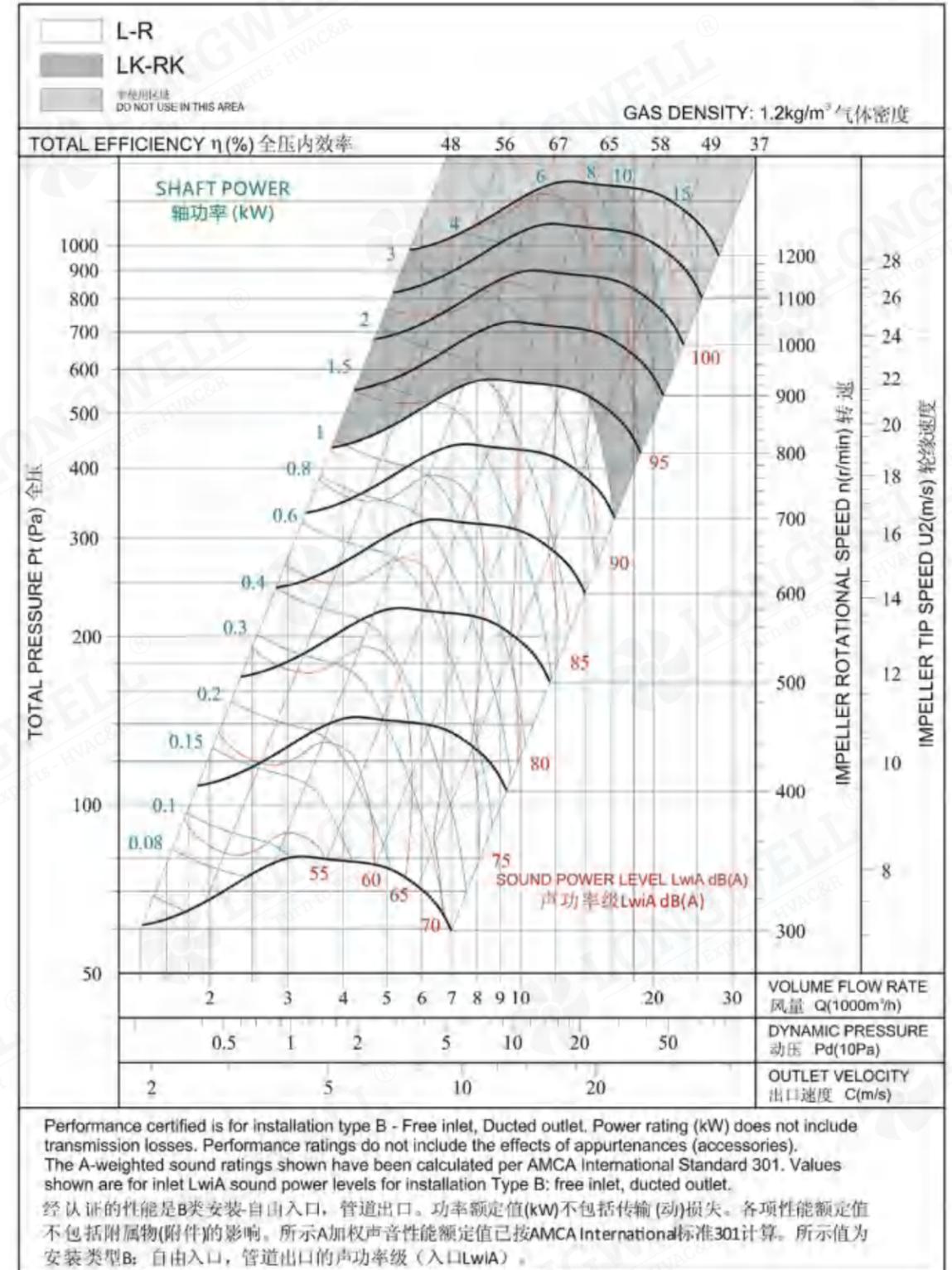
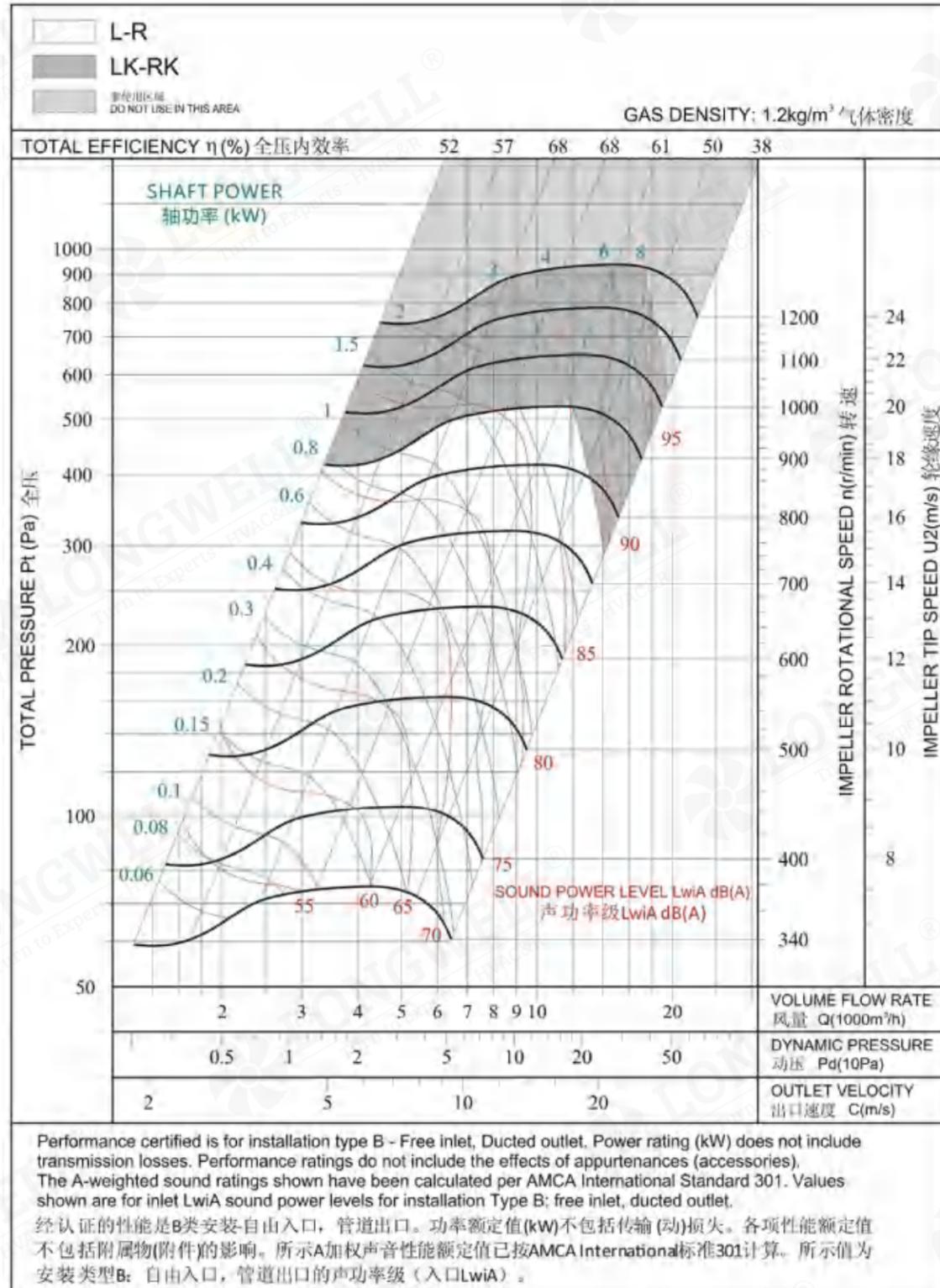
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# AT15-11



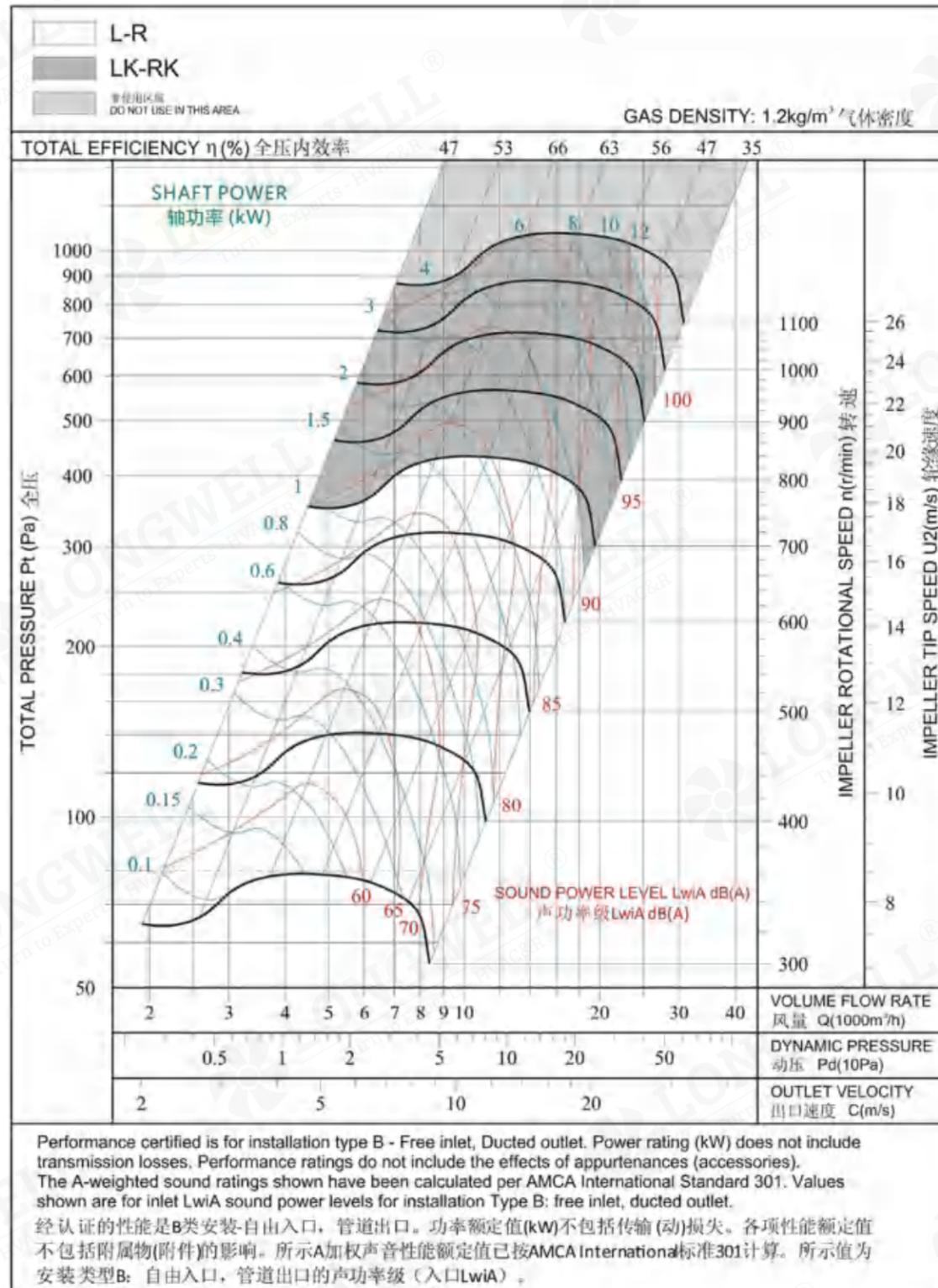
# AT15-15

# AT18-13



# AT18-18

# AT Series Ventilator Operational Limits



Model		7-7	8-8	9-7	9-9	10-8	10-10	12-9	12-12	15-11	15-15	18-13	18-18
Max.absorbed Power	L-R KW	1	1.5	2	2	2	3	4	4	2.5	3	4	4
	LK-RK KW	/	/	/	/	/	/	/	/	6	8	10	12
	L2-R2 KW	2	3	4	4	4	6	8	8	12	16	20	24
Max.R.P.M	L-R rpm	2200	2200	2200	1800	1800	1800	1600	1500	1000	900	800	700
	LK-RK rpm	/	/	/	/	/	/	/	/	1300	1200	1200	1100
Air Temperature Limits(Min-20°C)	L-R Max.°C	85	85	85	85	85	85	85	85	85	85	85	85
	L2-R2 Max.°C	85	85	85	85	85	85	85	85	85	85	85	85
Bearing Dynamic Load	L-R N	12800	12800	12800	12800	14000	14000	14000	14000	14000	14000	14000	14000
	LK-RK N	/	/	/	/	/	/	/	/	19500	19500	25700	25700
	L2-R2 N	12800	12800	12800	12800	14000	14000	14000	19500	19500	19500	25700	25700
Fan Weight	L kg	6	7	8	9.5	10	11	15.2	18.2	21.2	24.7	32.4	39.6
	R kg	8.5	9.5	10.2	11.4	12.3	13.2	19.1	22	25.1	29.4	39.6	45.5
	LK kg	/	/	/	/	/	/	/	/	24.5	28.2	38.6	45.8
	RK kg	/	/	/	/	/	/	/	/	28.5	32.8	45.8	51.7
	L2 kg	14	15.6	17.9	21.7	22.2	25.3	33.9	40.6	47.6	54.3	69.3	84.6
	R2 kg	20	24	25.8	29.7	29.7	34.1	50	56	63	74.8	100.1	116.3

# RDH Series Centrifugal Blower

Professional HVAC Fan & Motors Manufacturer



## Type Code

RDH 355 - R



- Type R L (Basic model)
- Type K (Enhanced model)
- Type E (Heavy duty model)
- Type C (Handling model)
- Type Z (Heavy duty)

# RDH Series Centrifugal Blower

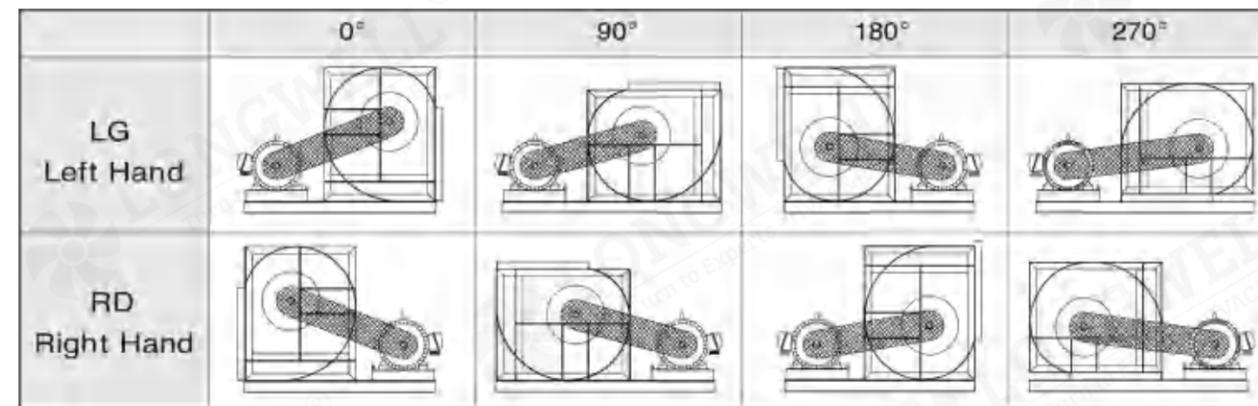
## 1.Product Features

### (1) Rotation

RDH Series ventilator can be divided into two direction of rotations, left-hand rotation (LG) and right-hand rotation (RD); Viewing from end of motor outlet line if the impeller rotates clockwise, it is called right hand ventilator; If the impeller rotates anti-clockwise, it is called left hand ventilator. The pulley can adjust its direction, left or right, therefore there is no limitation in directionality.

### (2) Direction of Air Outlet

According to Fig 1. RDH Series ventilator can be made in four air-outlet directions: 0°, 90°, 180°, and 270°.



(Fig 1)

### (3) Type of Structure

There are three types of RDH ventilators, type R, type K and type Z. The type R represents the basic model, while the type K is designed for use at the higher power levels, and the type Z at the heavy duty levels.

## 2. Constructon of Product

The major components of the RDH Series ventilators include the scroll, impeller, frame, bearings, shaft, and outlet flange. (Outlet flange should be indicated when placing order)

### (1) Scroll

The scroll is made of hot galvanized steel sheet, and it is designed to provide an aerodynamically efficient flow path. The inlet is formed in one piece. The scroll is fixed to the side plates by "spot welding" or "seam locking".

### (2) Impeller

The RDH impeller is made of high grade cold-rolled steel sheet. It is to provide a highly efficient and low noise and specially-designed blades, are welded on the center disc, and painted with polyester coatings. The impellers are dynamic balanced testing balanced before assembly in accordance with national standards.

### (3) Frame

The frames of RDH made of angle flat steel to assure sufficient frame rigidity and intensity they are painted with polyester coatings.

### (4) Bearings

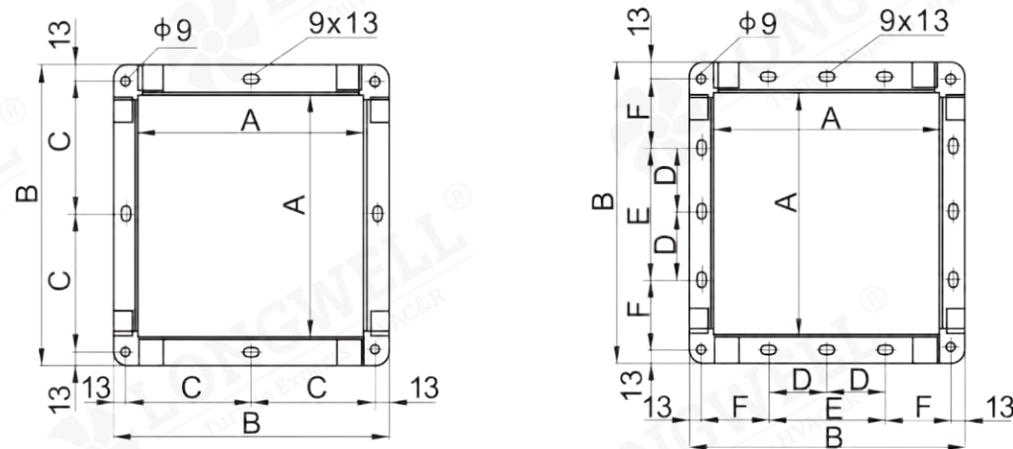
Out-spherical ball bearings are used RDH Series ventilators. They are high quality with low noise ventilator. The bearing are supplied with lubrication fittings, they are pre-lubricated, sealed and self centering, For type L/R/K ventilators, self-aligning ball bearings are used, for type Z ventilators, heavy duty bearings housings are used.

### (5) Shaft

The shafts are made of 40 Cr or C45 carbon steel bars. The shafts are rough machined and then stress relieved before final machining. The shaft diameters are machined to very accurate tolerance levels and they are fully checked to assure precision fits. They are coated after assembly in order to provide corrosion resistance.

### (6) Outlet Flange

The outlet flange is made of galvanized steel sheet. The connections of the flange to the scroll is made using a TOX non-welding process. This maintains a good flange appearance while also providing sufficient strength and rigidity. The outlet flange dimensions are provided in Figure 2.



Type	200	225	250	280	315	355	400	450	500	560	630	710	800	900	1000
A	256	288	322	361	404	453	507	569	638	715	801	898	1007	1130	1267
B	296	328	362	417	460	509	563	625	694	771	857	954	1063	1186	1323
C	138	154	171	195.5	217	241.5	-	-	-	-	-	-	-	-	-
D	-	-	-	-	-	-	-	-	-	-	200	250	300	350	-
E	-	-	-	-	-	-	200	200	250	250	300	400	500	600	700
F	-	-	-	-	-	-	168.5	199.5	209	247.5	265.5	264	268.5	280	298.5

(Fig 2)

### 3. Performance of Ventilator

1. The ventilator performance in this catalogue denotes the performance in standard conditions.

It denotes air inlet conditions of ventilator as follows:

Air inlet pressure Pa = 101.325KPa Air temperature t = 20°C

Inlet gas density ρ = 1.2Kg/ms

If the practical air inlet conditions of customer or the speed of the operating ventilator changes, the conversion can be carried out according to the following expression:

$$\frac{Q_0^*}{Q_0} = \frac{n^*}{n}$$

$$\frac{P_0^*}{P_0} = \frac{n^{*2}}{n^2} \cdot \frac{\rho^*}{\rho} \quad \frac{P_0^*}{P_0} = \frac{n^{*2}}{n^2} \cdot \frac{Pa^*}{Pa} \cdot \frac{273+t}{273+t^*}$$

$$\frac{Nin_0^*}{Nin_0} = \frac{n^{*3}}{n^3} \cdot \frac{\rho^*}{\rho} \quad \frac{Nin_0^*}{Nin_0} = \frac{n^{*3}}{n^3} \cdot \frac{Pa^*}{Pa} \cdot \frac{273+t}{273+t^*}$$

where:

- Volume  $Q_0$  (m<sup>3</sup>/h), total pressure  $P_0$  (Pa), speed  $n$  (r/min) can be obtained from Performance chart.
  - Asterisk (\*) on the upper right corner denotes the performance parameter needed by the customers in practical gas inlet conditions.
  - The difference in relative humidity is omitted from the abovementioned formulas.
2. The power ( $Nin_0$ ) on the performance chart the internal power of the ventilator.
- Shaft power of ventilator:  $Ns = Nin_0 / \eta_m$

where:  $Ns$ -Shaft power of ventilator  $\eta_m$ -Mechanical efficiency of ventilator

The value of mechanical efficiency of ventilator can be obtained from Table 1.

Way of Ventilator Driving	$\eta_m$
Electric Motor Directly Driven	1
Coupling Directly Driven	0.98
V-belt Driven	0.95

(Table1)

The rated power of the drive motor equals the total required shaft input power multiplied by the safety factor:

$$N = Ns \cdot K \quad \text{where: } N = \text{rated power of drive motor} \quad K = \text{required safety factor}$$

The required safety factor is provided in Table 2.

Power of Electric Motor(KW)	Value K
≤2.2KW	1.2
≤7.5KW	1.15
≥11KW	1.1

(Table2)

3.Noise:The noise levels shown on each performance chart,  $Lw_{iA}$ , refer to the overall sound power "A-Weighted" levels. The computed sound power levels were converted into A-Weighted levels using adjustments to the octave band spectrum as follows:

Center Frequency Hz	63	125	250	500	1000	2000	4000	8000
A-Weighted Adjustment dB(A)	-25.5	-12.5	-8.5	-3	0	+1	+1	-1

(Table3)

The overall sound pressure levels,  $L_{piA}$ , can be computed from the overall sound power levels as follows:

Free Field Conditions:  $L_{piA} = L_{w_{iA}} - (20 \log_{10} d) - 11$

Room Conditions:  $L_{piA} = L_{w_{iA}} - (20 \log_{10} d) - 7$

Where:  $d$  = distance from fan in meters

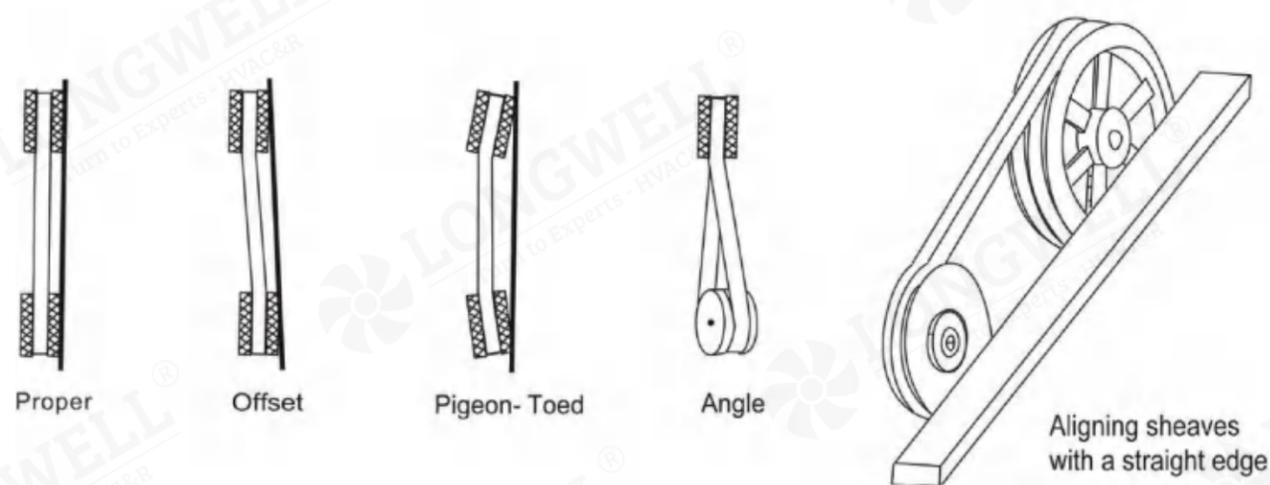
4. Comparing the performance of the twin ventilator of Category L2, Category R2 and Category K2 with the performance of Category L, Category R and K in the chart in the same condition of pressure, the twin ventilators' performance is as the following.

Volume x 2      Speed x 1.05      Inner Power x 2.15      Noise +3

Performance of twin ventilators are not licensed by AMCA International.

## 4.V-Belt Drive Installation

1. Remove the protective coating from the ends of the fan shaft and assure that the shaft ends are free of nicks and burrs.
2. Check fan and motor shafts for parallel and angular alignment.
3. The center distance must be controlled as  $0.7(d1+d2) < 2(d1+d2)$ ; the belt speed of forward fan should be more than 10m/s, but less than 15m/s, ( $10 < v < 15\text{m/s}$ ); the belt speed of backward fan should be more than 25m/s, but less than 35m/s, ( $25 < v < 35\text{m/s}$ ).
4. Slide sheaves on to the shafts-do not drive the sheaves on to the shafts as this may result in bearing damage.
5. Align fan and motor sheaves with a straight-edge or string, and tighten.
6. Place belts over the sheaves with carefull, otherwise the belts will be damaged.
7. Adjust the belt tension until the belts appear snug. Run the unit for a few minutes and allow the belts to set properly.
8. Switch off the fan, adjust the belt tension by moving the motor base. When in operation, the tight side of the belts should be in a straight line from sheave to sheave and there should be a slight bow on the slack side.



## 5.Belt Tenstion

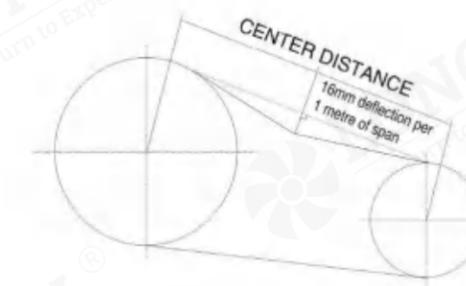
A proper level of belt tension is required in order to obtain a satisfactory belt life. If the belt tension level is too high, then excessive loads will be imposed on the belts and the bearings, and this will reduce the lives of both of these components. If the belt tension level is too low, then the belt will slip. Belt slippage generates a large amount of heat, and this heat will drastically reduce the life of a belt.

Belt-tensioning gauges can be used to determine whether the belts are tensioned properly. A chart is normally supplied with the gauge which indicates the ranges of forces required to deflect the belts by a given amount to obtain the proper belt tension level. The required forces are based upon the center distance of the sheaves and the belt cross-section. The belts are properly tensioned when the forces required to deflect the belt are within the specified range. See Fig 4 and Table 3.

If a belt-tensioning gauge is not available, then the belt should be tightened just enough so that the belt does not squeal when the ventilator is started. A very short period of noise during the starting of a ventilator is allowable, but a squeal lasting several seconds or longer is not acceptable. After tensioning the belts and before starting the ventilator, check to make sure that the sheaves are properly aligned.

Realign the sheaves if necessary. Note that new belts may stretch a little during initial use, so the belt tension level should be checked after a few days of operation.

Belt tension indicator applied to mid centre distance.



(Fig 4)

Belt Section	Force required to deflect belt 16mm per metre of span		
	Small Pulle/Diamter(mm)	Newton(N)	Kilogram Force (Kgf)
SPZ	56-95	13-20	1.3-2.0
	100-140	20-25	2.0-2.5
SPA	80-132	25-35	2.5-3.6
	140-200	35-45	3.6-4.6
SPB	112-224	45-65	4.6-6.6
	236-315	65-85	6.6-8.7
SPC	224-335	85-115	8.7-11.7
	375-560	115-150	11.7-15.3
A	80-140	10-15	1.1-1.5
B	125-200	20-30	2.0-3.1

(Table3)

## 6. Bearing Lubrication

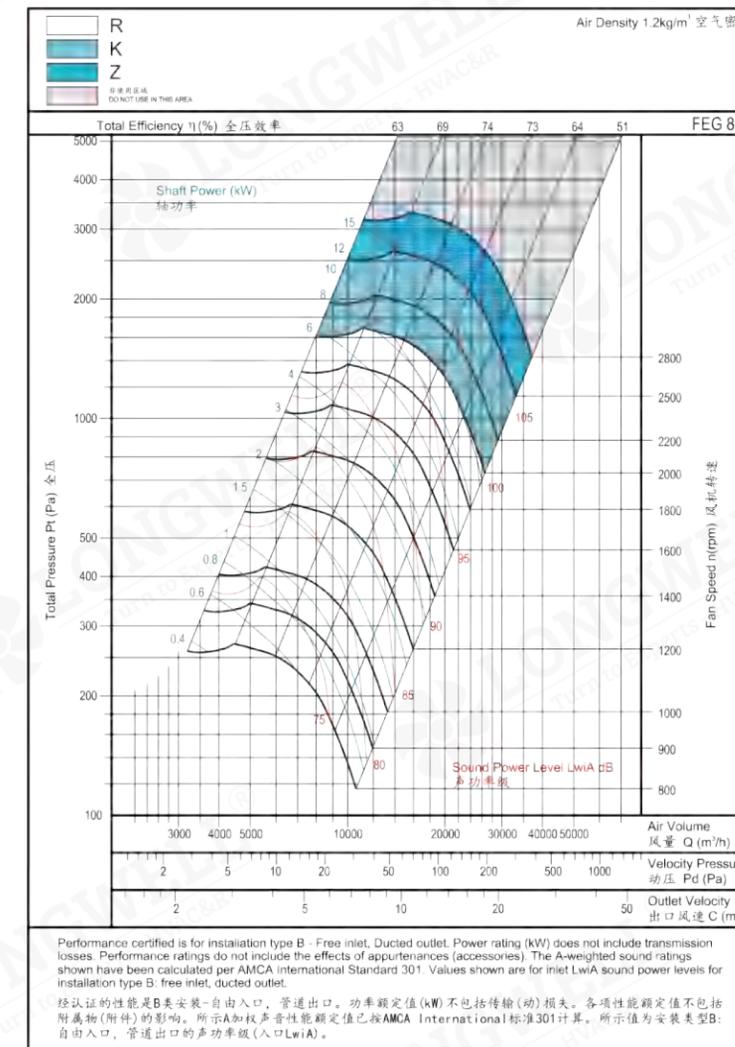
The ventilator bearings are filled with lubricant when they come from the factory, so the bearings do not require any additional grease to be supplied before starting the ventilator.

The ventilator that are equipped with pillow block bearings are provided with lubrication fittings, and these fittings allow for additional lubrication to be supplied to the bearings at regular intervals. The allowable period of time between lubrication of these bearings depends upon the operating speeds and temperatures of the bearing as well as on the type of grease used. The best way to determine the required frequency of lubrication is to inspect the condition of the grease that is discharged from the seals when new grease is added. If the discharged grease looks similar to the new grease, then a longer period of time between lubrications is possible. If the discharged grease is much darker than the new grease, then this indicates that the grease is being oxidized and more frequent lubrications of the bearings are required.

## 7. Instructions

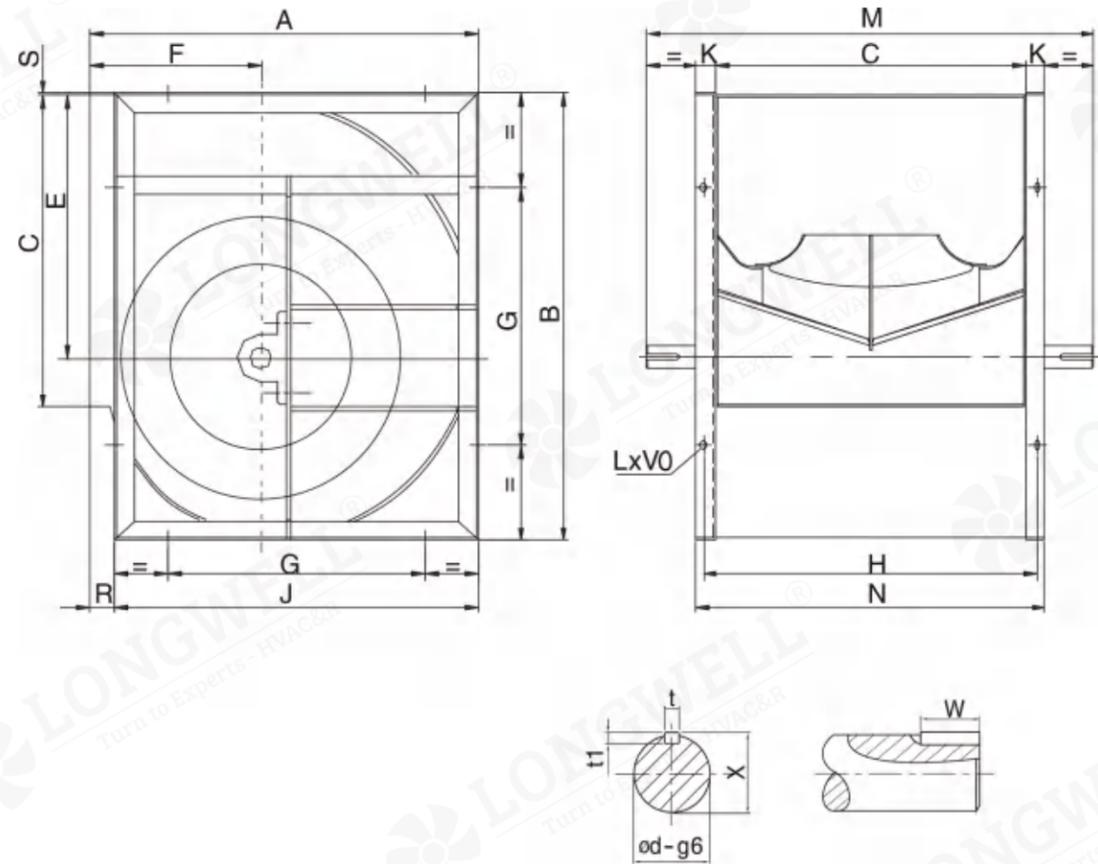
- (1) During ordering it is necessary to state the type of ventilator, speed, air volume, air pressure, direction of air outlet, rotating direction, type of electric motor and its specifications.
- (2) Prior to installation, the ventilator should be carefully inspected. Special care should be taken in checking the shaft, impeller and bearings. If there is an indication of any damage, then the damaged parts should be repaired or replaced before the ventilator is installed or operated.
- (3) The inside of the scroll and casing need to be checked to make sure that there are no foreign objects contained therein, such as tools or loose parts.
- (4) The rotational directions of the motor and impeller should be checked to assure that they are consistent with each other.
- (5) A flexible connector should be used between the ventilator outlet flange and its mating pipe. The bolts used to fasten the outlet flange to the pipe should not be over-tightened.
- (6) Following the installation, the impeller should be turned by hand or with the use of a wrench to make sure that it turns freely. Once this is verified, the ventilator can be operated normally.
- (7) The rated motor power as calculated herein is not sufficient to drive the ventilator with an unrestricted discharge flow path. Operating the ventilator with an unrestricted discharge flow path will result in flow rates that exceed the ventilator flow rate capabilities, and such operation will quickly burn out the motor. So care must be taken in operating the ventilators to make sure that the maximum rated flows, as provided on the performance charts in this brochure, are not exceeded.
- (8) This fan is restricted for use in areas where air substances are noncorrosive and non-toxic, non-alkaline or where dust particles <math>< 150\text{mg}/\text{m}^3</math>, <math>-20^\circ\text{C}</math> <math>< \text{temperature} < 85^\circ\text{C}</math>. If special conditions during transportation, load and unload, it is strictly prohibited to shock the ventilators.

## 8. Example of Curve Reading



Volume	V=17600m³/h
Total Pressure	Pt=2000Pa
Dynamic Pressure	Pd=82Pa
Outlet Velocity	C=11.7 m/s
Speed	n=2200 r/min
Impeller Tip Speed	U <sub>2</sub> =59 m/s
Inner Power	N <sub>ino</sub> =12.8 kW
Sound Power Level	LwA=100dB(A)
Total Pressure Efficiency	$\eta$ =76%

## RDH - R

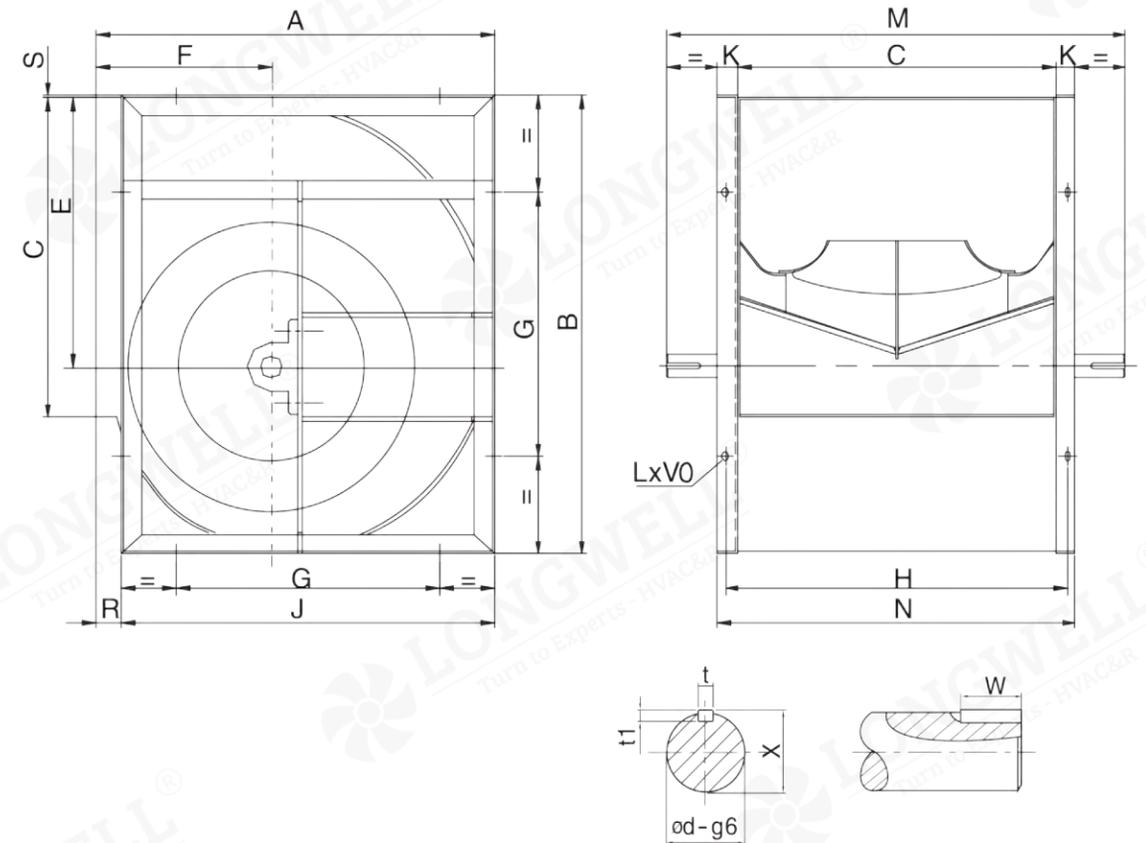


### Technical Specifications

Model	A	B	C	E	F	G	H	J	K	M	N	R	S	t	t1	W	X	Φd	LxV
RDH 280-R	466	518	361	302	215	280	391	432	30	575	421	34	5	8	7	50	28	25	13x18
RDH 315-R	518	578	404	340	236	280	434	480	30	640	464	38	3	8	7	60	28	25	13x18
RDH 355-R	578	655	453	383	261	355	493	548	40	700	533	30	6	8	7	60	33	30	13x18
RDH 400-R	651	736	507	431.5	290	355	547	613	40	760	587	38	4.5	8	7	60	33	30	13x18
RDH 450-R	726	827	569	486	322	530	609	681	40	845	649	45	5	10	8	70	38	35	13x18
RDH 500-R	800	918	638	538	352	530	678	750	40	915	718	50	5	10	8	70	38	35	13x18
RDH 560-R	893	1030	715	602	390	530	765	845	50	1000	815	48	8	12	8	70	43	40	13x18
RDH 630-R	999	1157	801	678.5	434	530	851	946	50	1090	901	53	7	14	9	70	48.5	45	13x18
RDH 710-R	1121	1303	898	765	485	630	948	1058	50	1255	998	63	7	14	9	90	53.5	50	17x22

Note: the size unit in the form is mm

## RDH - K(Z)

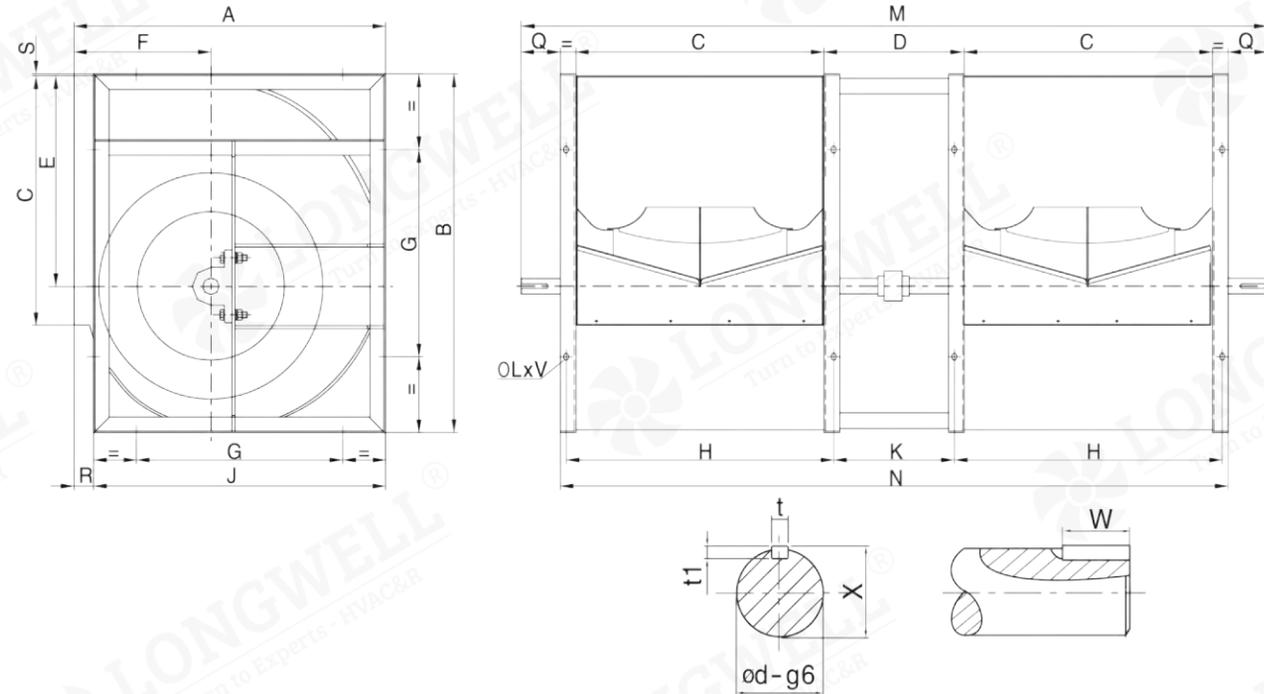


### Technical Specifications

Model	A	B	C	E	F	G	H	J	K	M	N	R	S	t	t1	W	X	Φd	LxV
RDH 280-K	466	518	361	302	215	280	391	432	30	600	421	34	5	8	7	60	33	30	13x18
RDH 315-K	518	578	404	340	236	280	434	480	30	665	464	38	3	8	7	70	33	30	13x18
RDH 355-K	578	655	453	383	261	355	493	548	40	725	533	30	6	10	8	70	38	35	13x18
RDH 400-K	651	736	507	431.5	290	355	547	613	40	790	587	38	4.5	10	8	70	38	35	13x18
RDH 450-K	726	827	569	486	322	530	609	681	40	890	649	45	4.5	12	8	90	43	40	13x18
RDH 500-K(Z)	800	918	638	538	352	530	678	750	40	960	718	50	5	12	8	90	43	40	13x18
RDH 560-K(Z)	893	1030	715	603	390	530	765	845	50	1070	815	48	8	14	9	90	53.5	50	13x18
RDH 630-K(Z)	999	1157	801	678.5	434	530	851	946	50	1155	901	53	7	14	9	90	53.5	50	13x18
RDH 710-K(Z)	1121	1303	898	765	485	630	948	1058	50	1290	998	63	7	18	11	90	64	60	17x22
RDH 800-K(Z)	1250	1468	1007	862	535	710	1057	1181	50	1450	1107	69	7	18	11	90	64	60	17x22
RDH 900-K(Z)	1408	1648	1130	971	604	800	1180	1319	60	1570	1250	89	7	18	11	100	69	65	17x22
RDH 1000-K(Z)	1541	1810	1267	1066	657	900	1317	1462	60	1700	1387	79	9	18	11	100	69	65	17x22

Note: the size unit in the form is mm

## RDH - R2

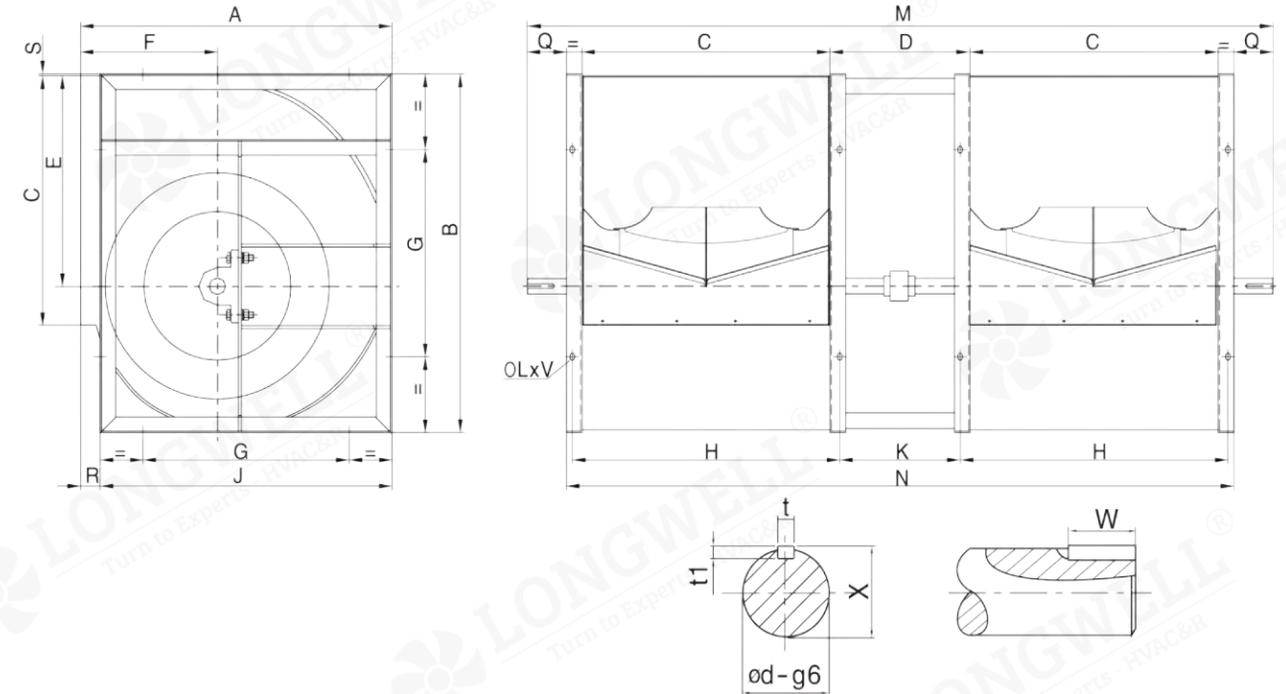


### Technical Specifications

Model	A	B	C	D	E	F	G	H	J	K	M	N	Q	R	S	t	t1	W	X	Φd	LxV
RDH 280-R2	466	518	361	280	302	214	280	391	432	250	1216	1060	77	34	5	8	7	50	28	25	13x18
RDH 315-R2	518	578	404	315	340	236	280	434	480	285	1359	1183	88	38	3	8	7	60	28	25	13x18
RDH 355-R2	578	654	453	355	383	260	355	493	548	315	1509	1339	83.5	30	6	8	7	60	33	30	13x18
RDH 400-R2	650	736	507	400	432	290	355	547	612	360	1667	1492	86.5	38	4.5	8	7	60	33	30	13x18
RDH 450-R2	726	827	569	450	486	322	530	609	681	410	1864	1666	98	45	5	10	8	70	38	35	13x18
RDH 500-R2	800	918	638	500	538	352	530	678	750	460	2053	1856	98.5	50	5	10	8	70	38	35	13x18
RDH 560-R2	893	1030	715	560	602	390	530	765	845	510	2275	2090	92.5	48	8	12	8	70	43	40	13x18

Note: the size unit in the form is mm

## RDH - K2



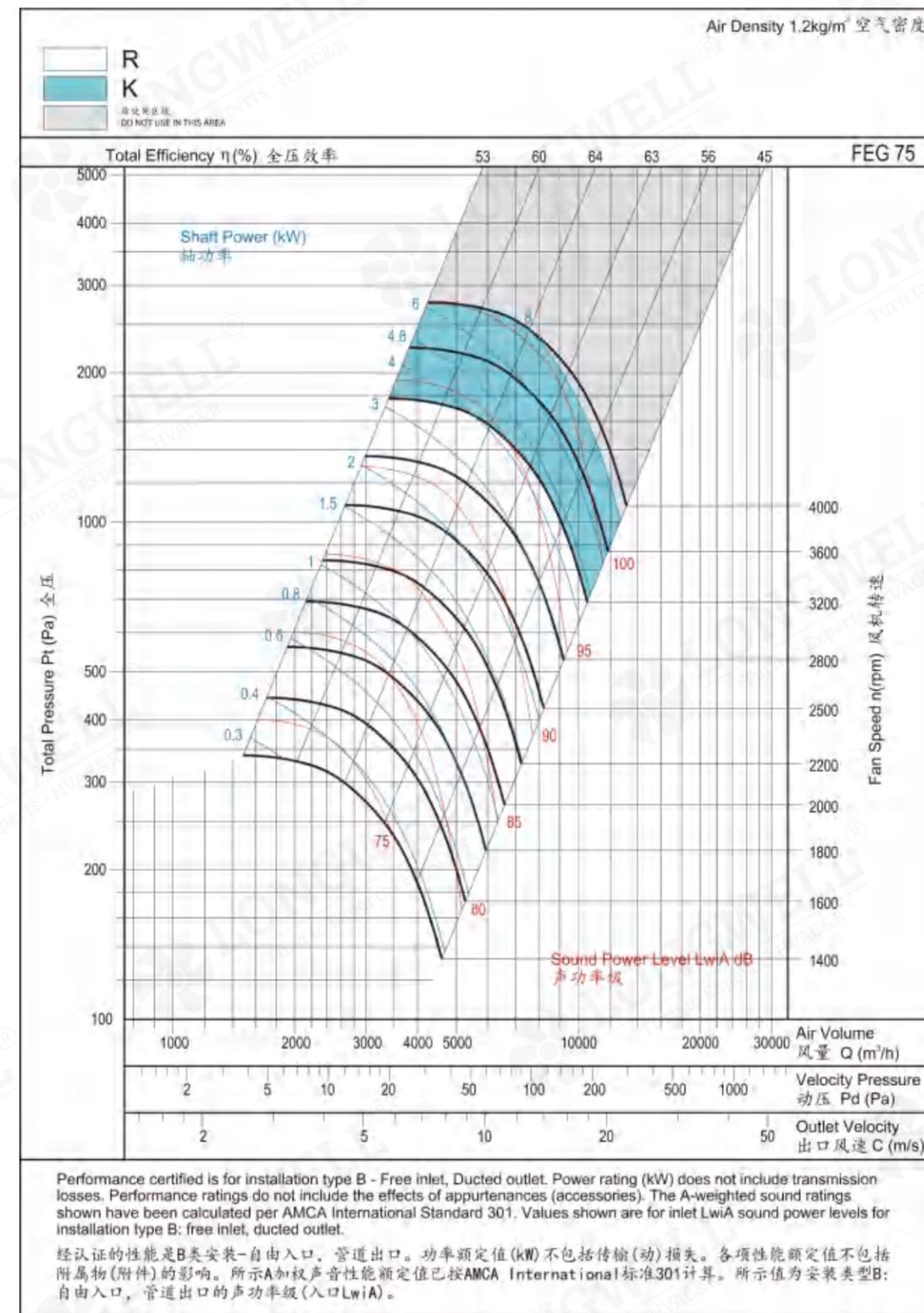
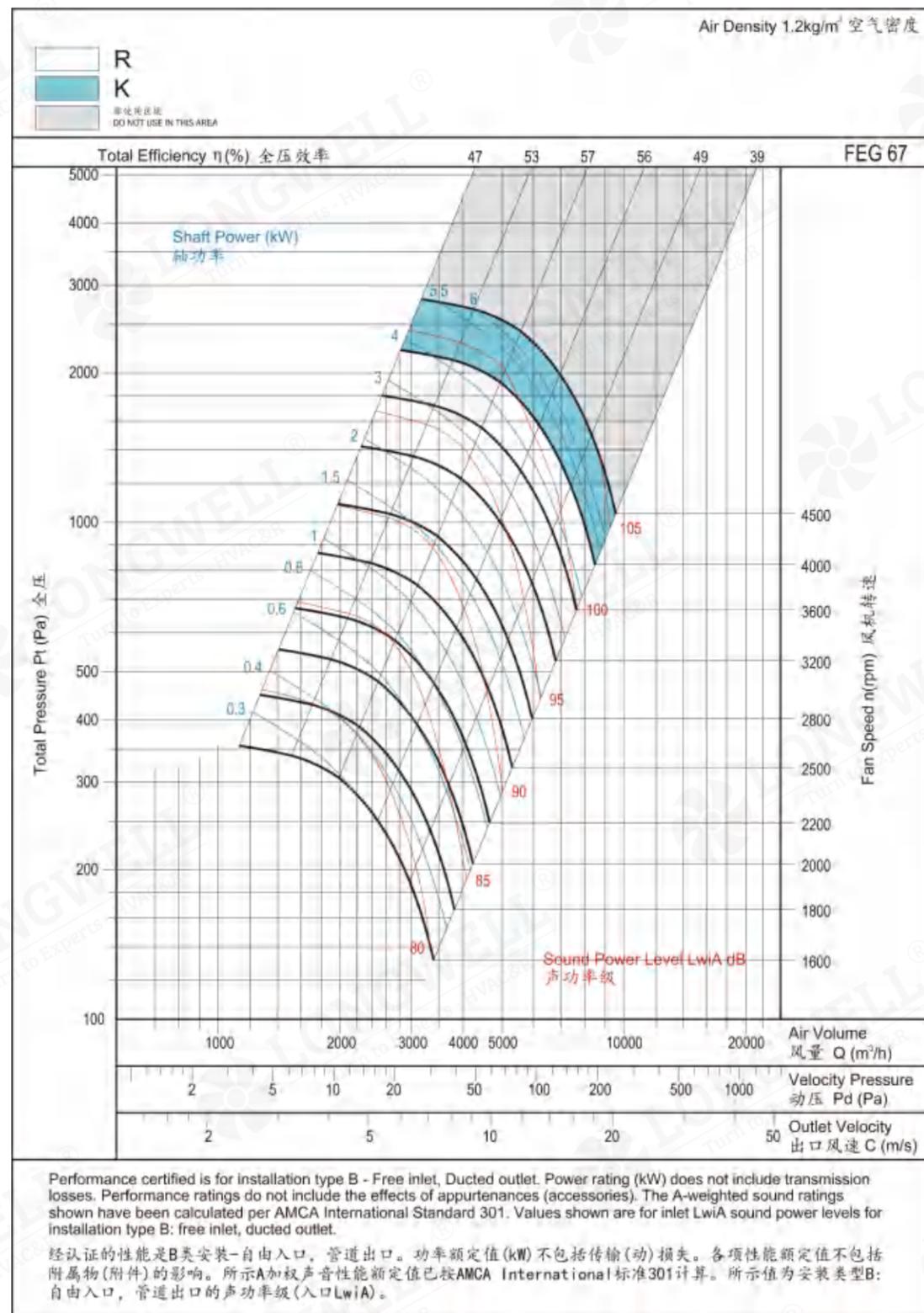
### Technical Specifications

Model	A	B	C	D	E	F	G	H	J	K	M	N	Q	R	S	t	t1	W	X	Φd	LxV
RDH 355-K2	578	654	453	355	383	260	355	493	548	315	1533	1339	96	30	6	10	8	70	38	35	13x18
RDH 400-K2	650	736	507	400	432	290	355	547	612	360	1697	1492	99	38	4.5	10	8	70	38	35	13x18
RDH 450-K2	726	827	569	450	486	322	530	609	681	410	1909	1666	120.5	45	5	12	8	90	43	40	13x18
RDH 500-K2	800	918	638	500	538	352	530	678	750	460	2098	1856	121	50	5	12	8	90	43	40	13x18
RDH 560-K2	893	1030	715	560	602	390	530	765	845	510	2345	2090	127.5	48	8	14	9	90	53.5	50	13x18

Note: the size unit in the form is mm

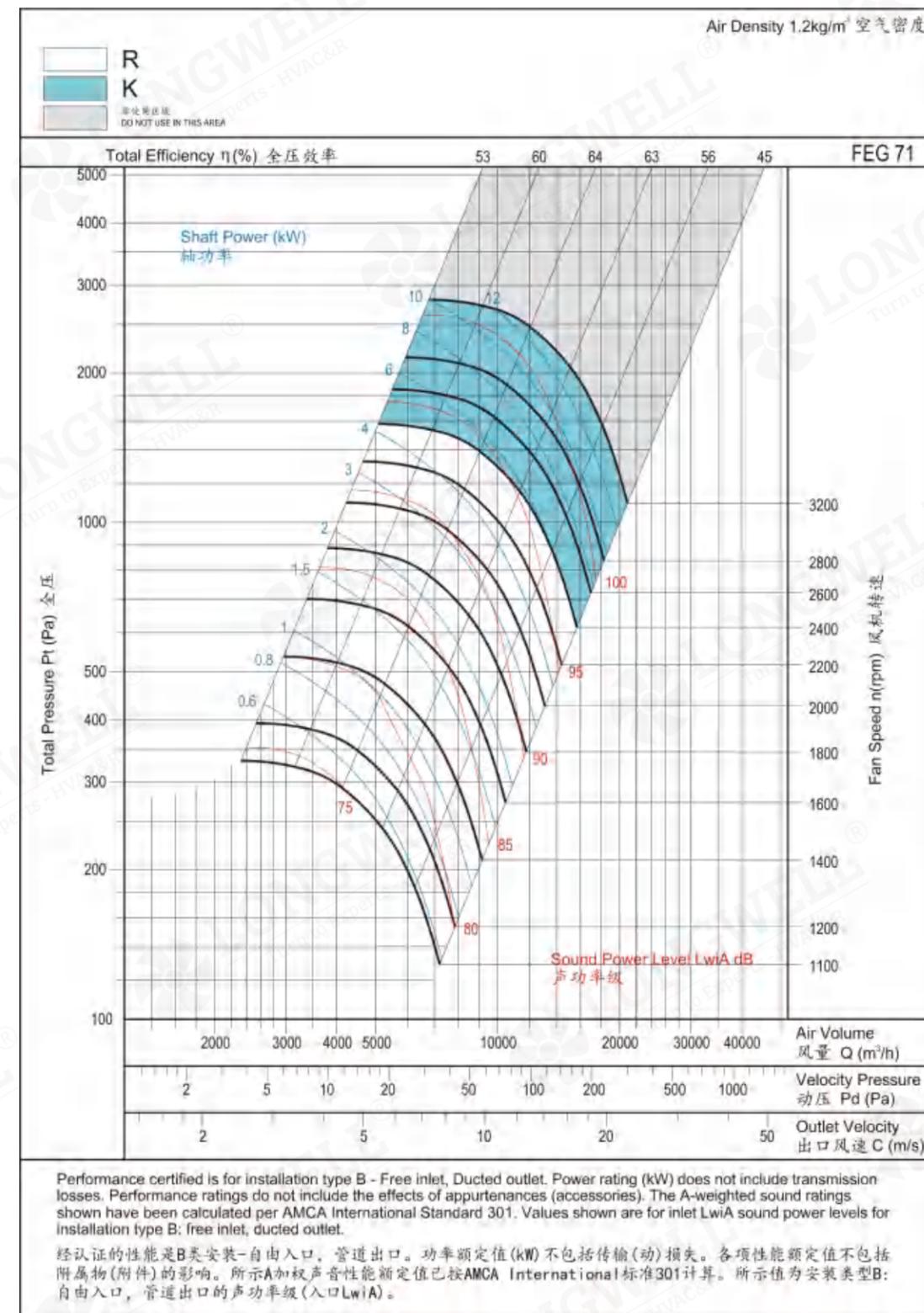
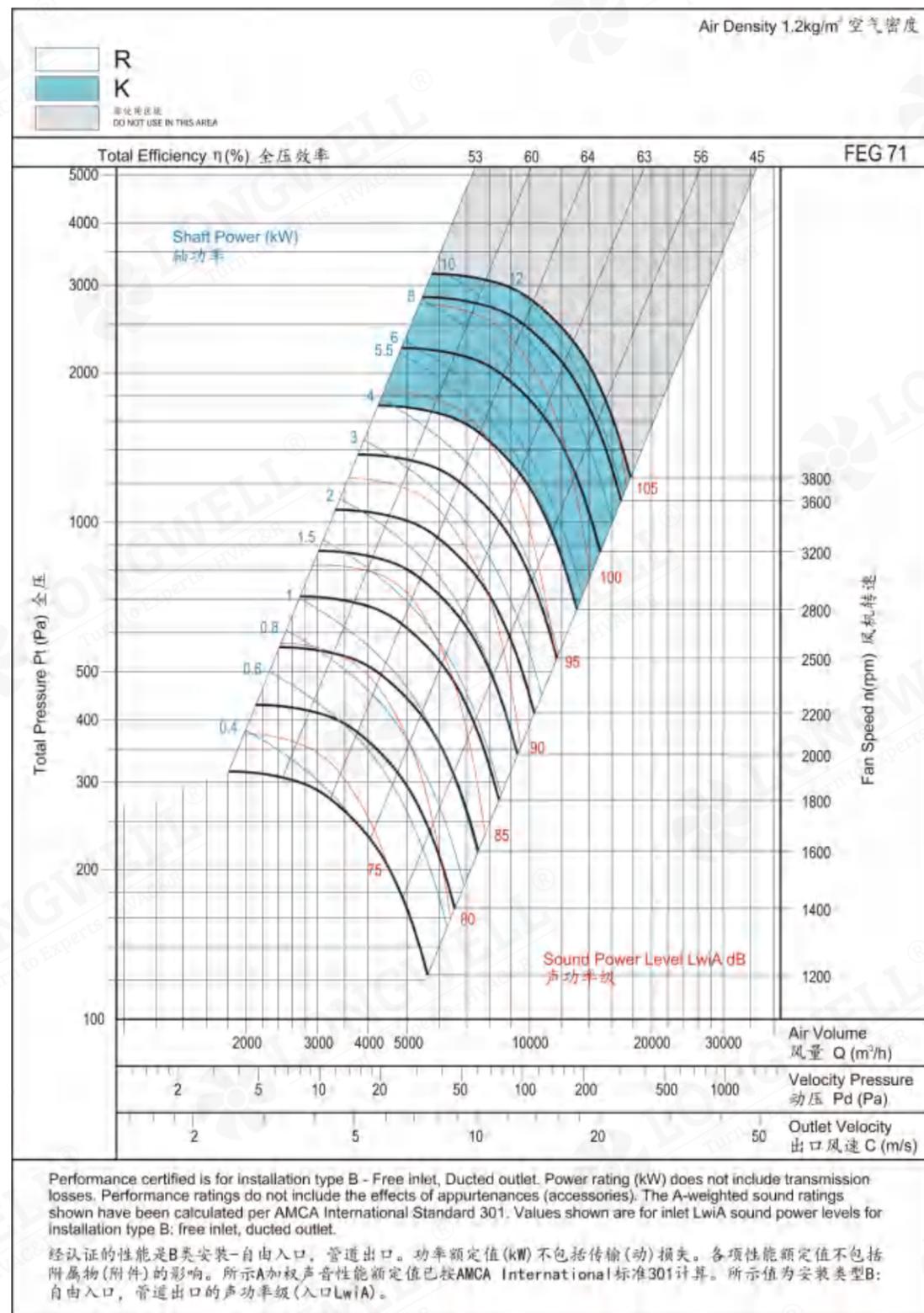
# RDH-280

# RDH-315



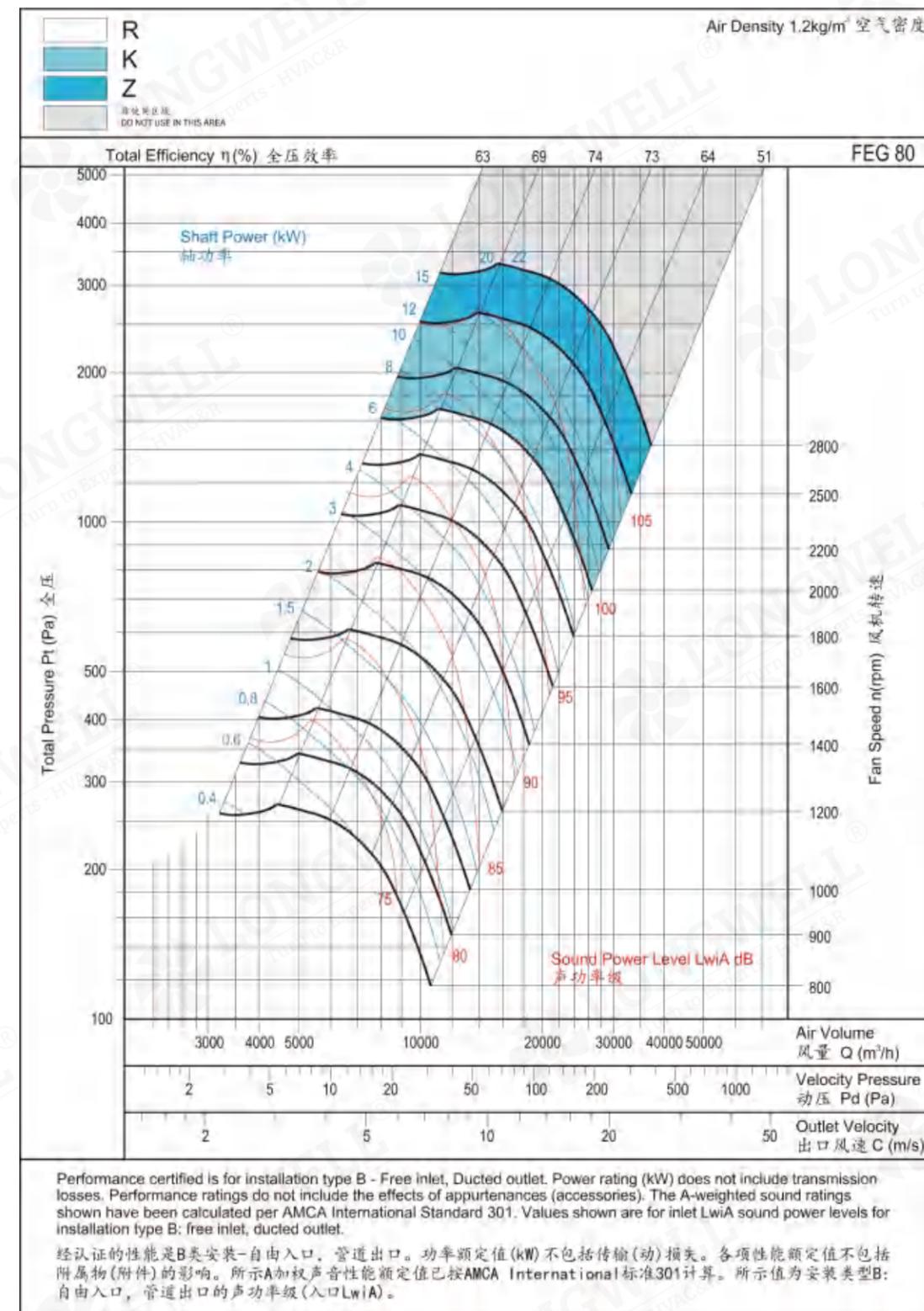
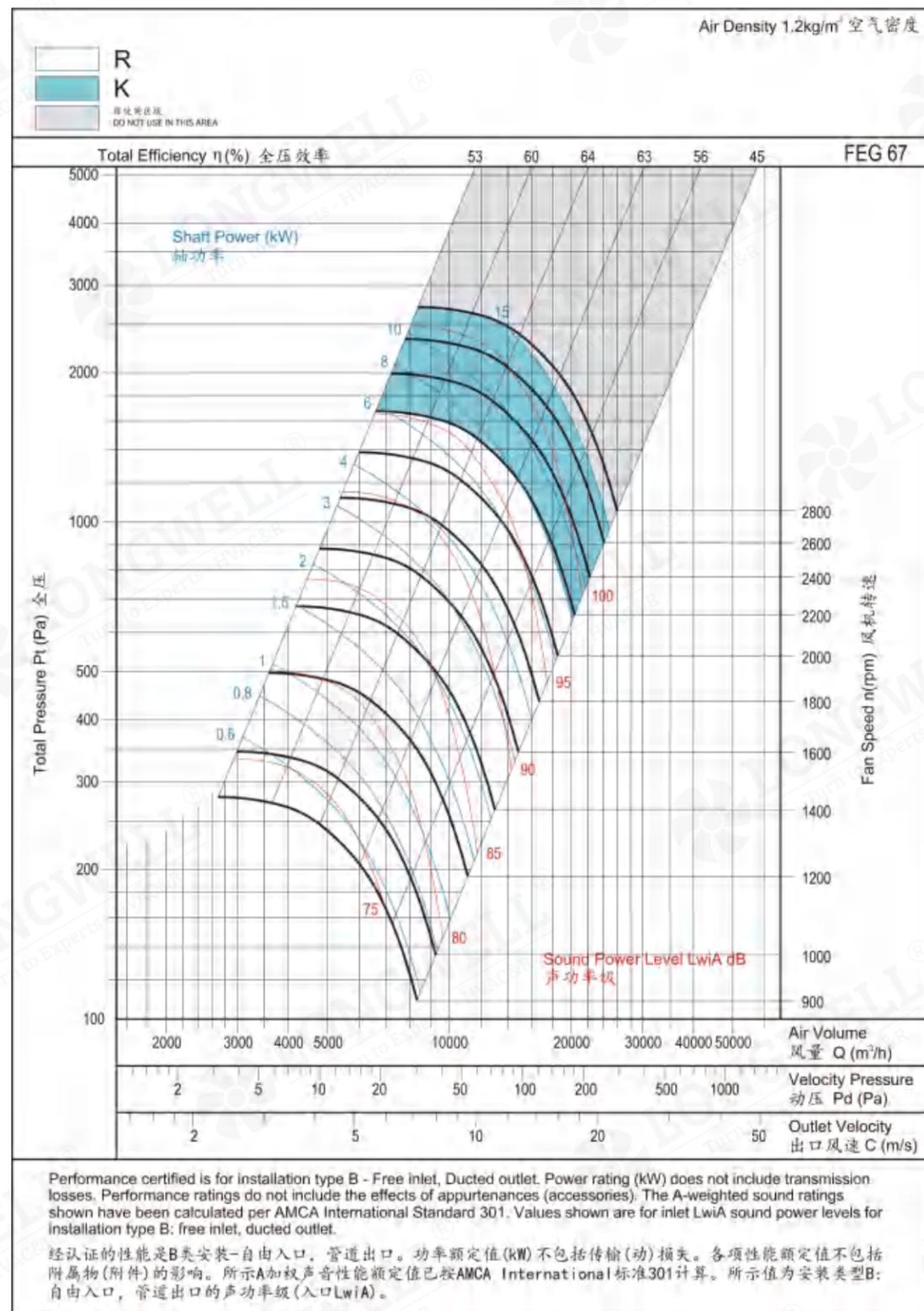
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# RDH-400



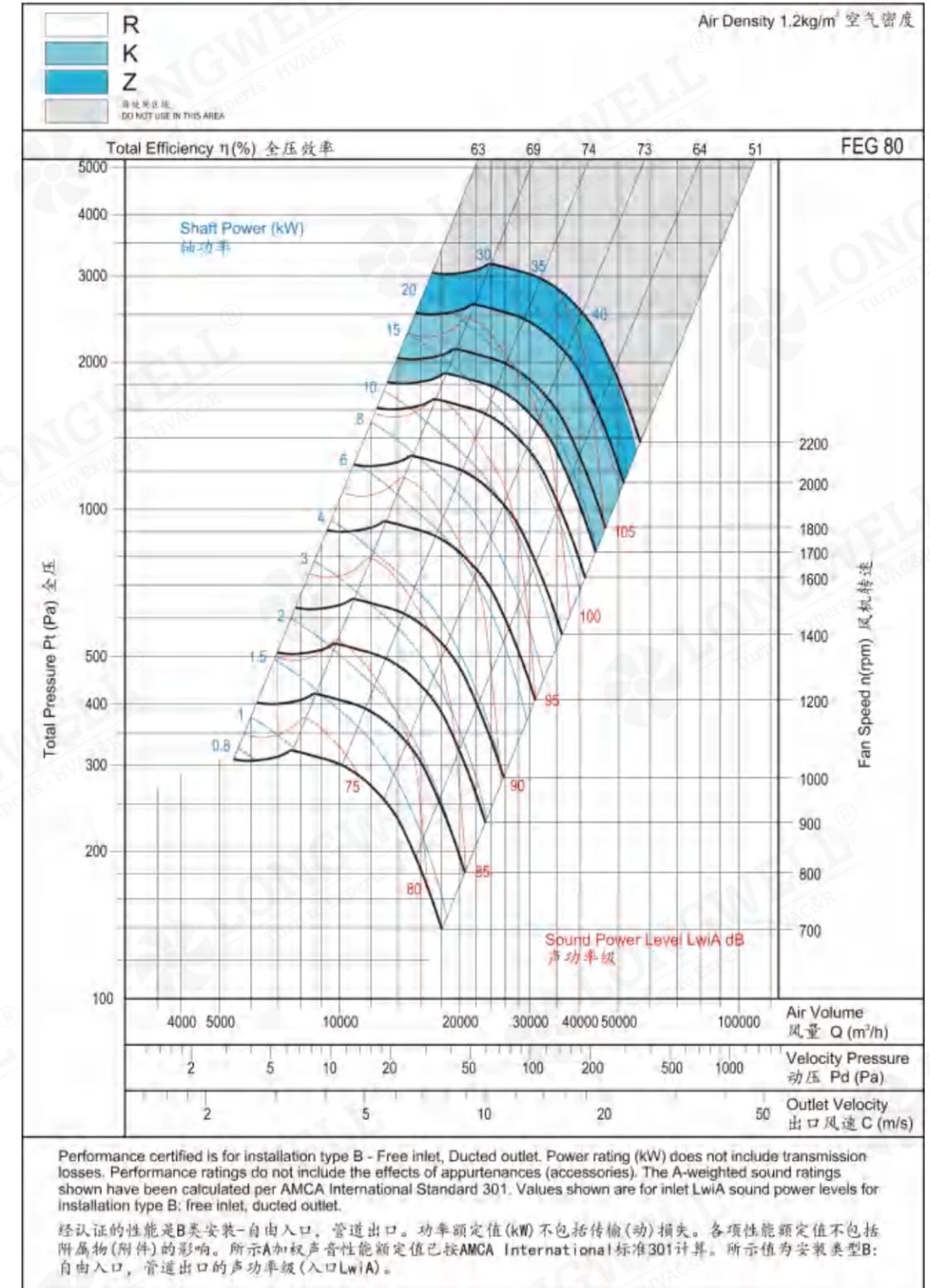
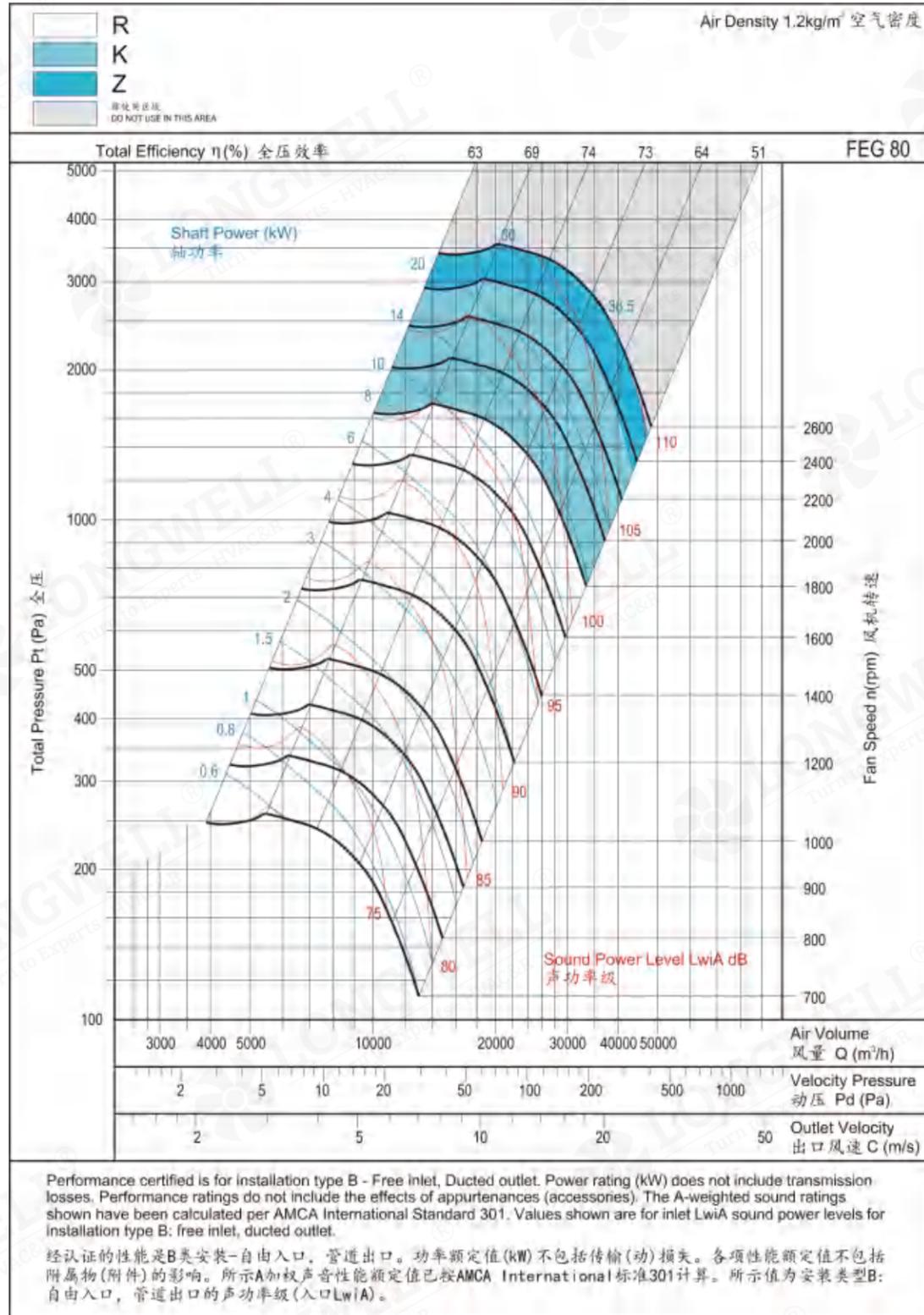
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# RDH-500



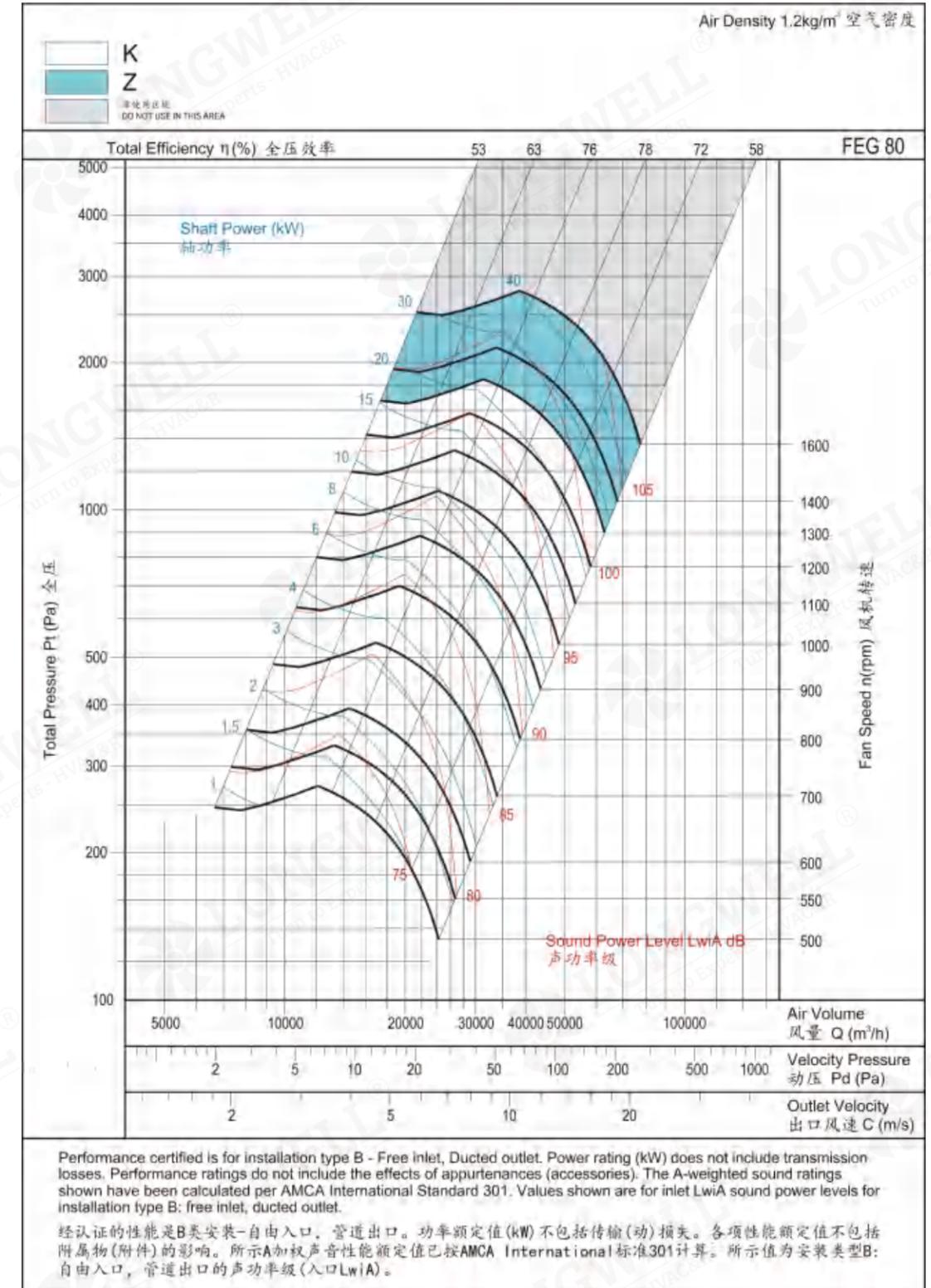
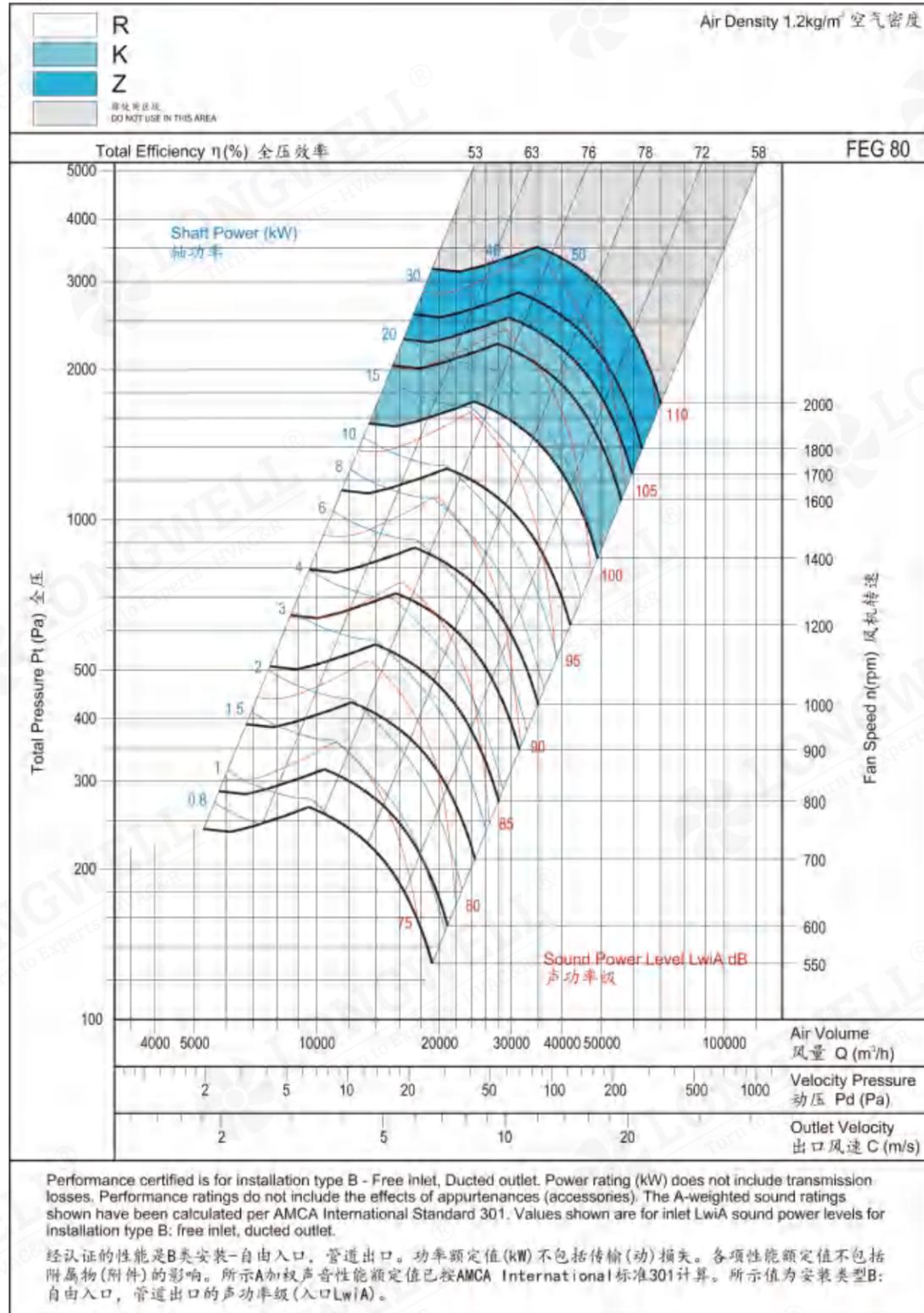
# RDH-560

# RDH-630



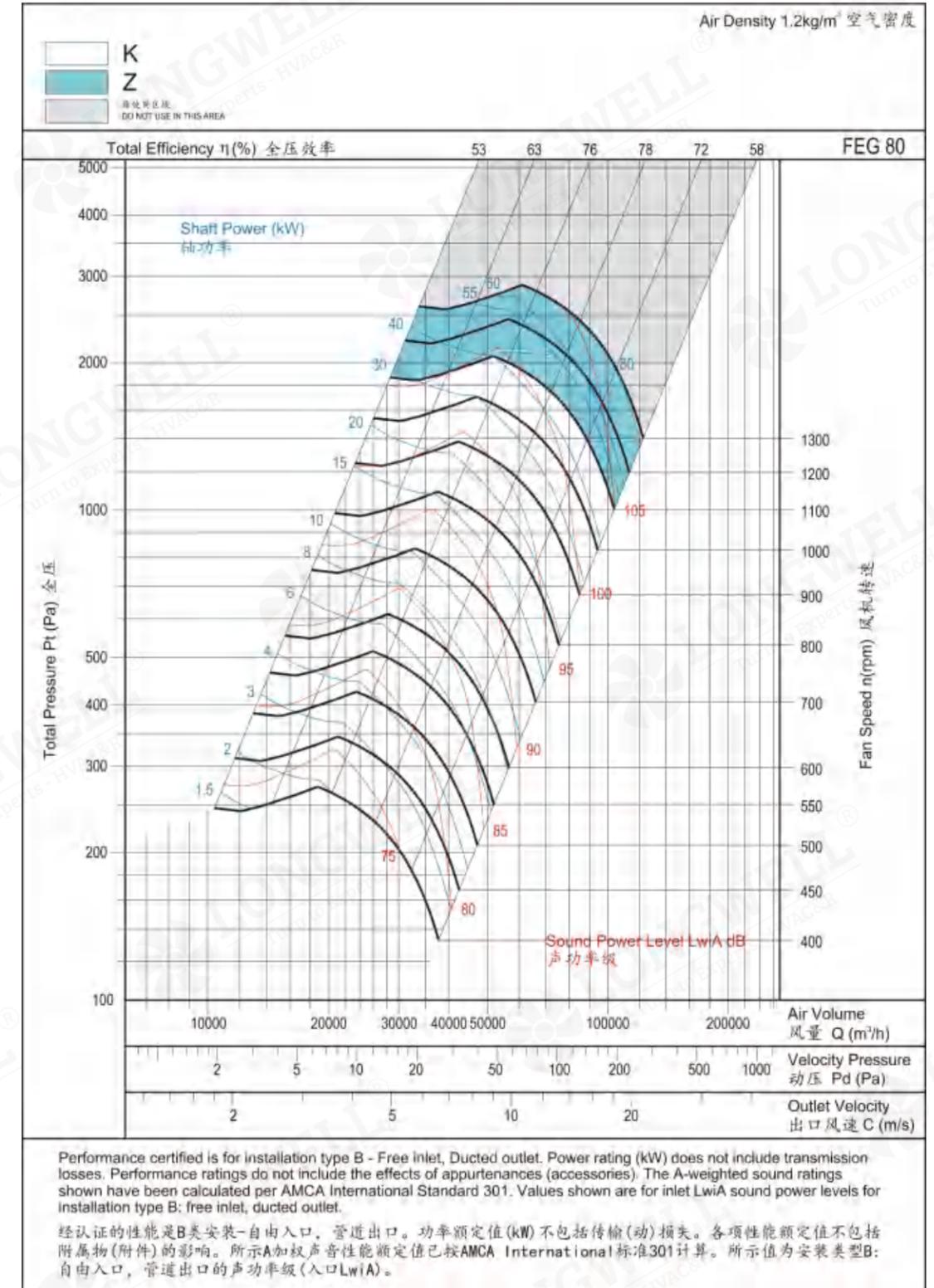
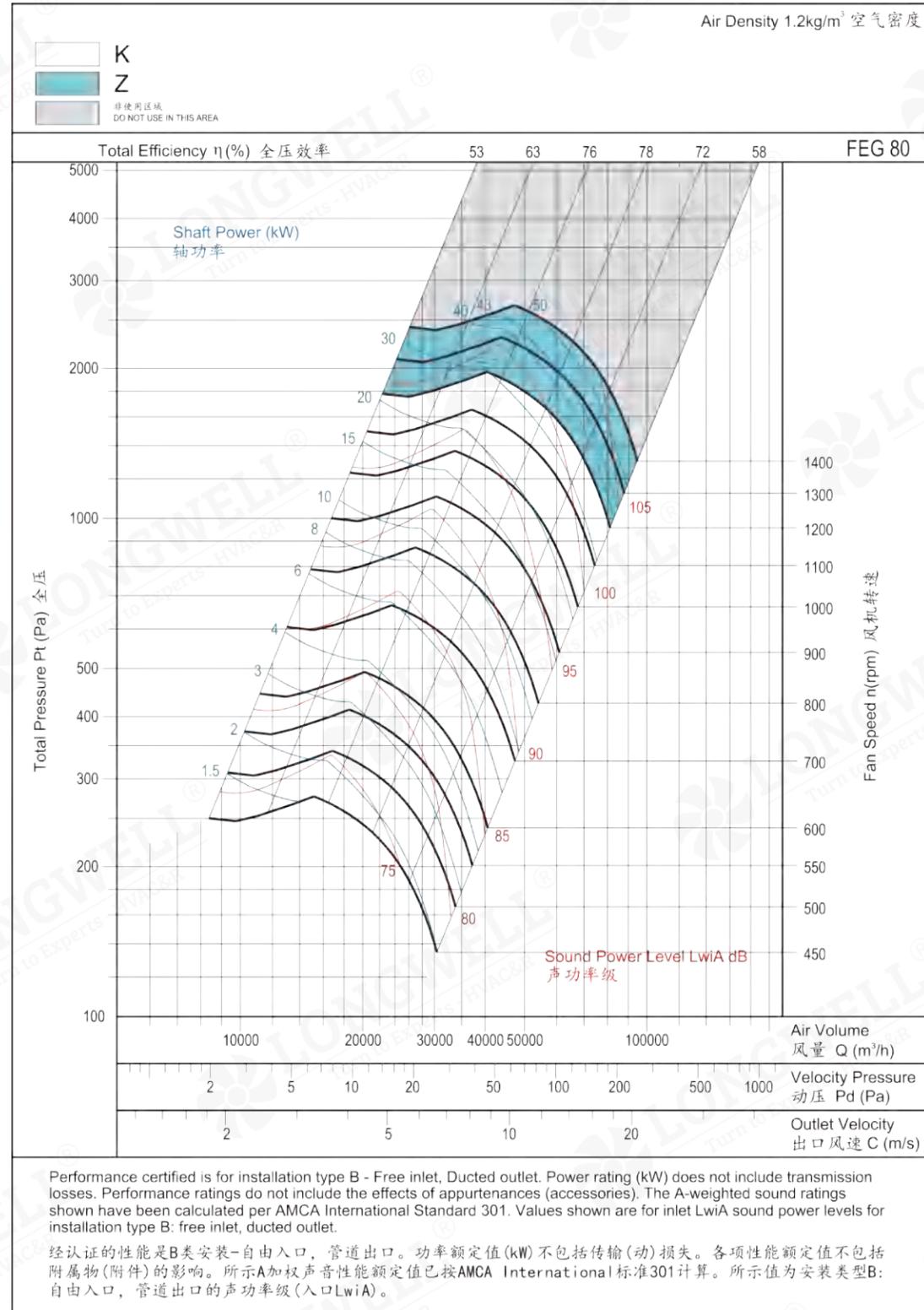
# RDH-710

# RDH-800

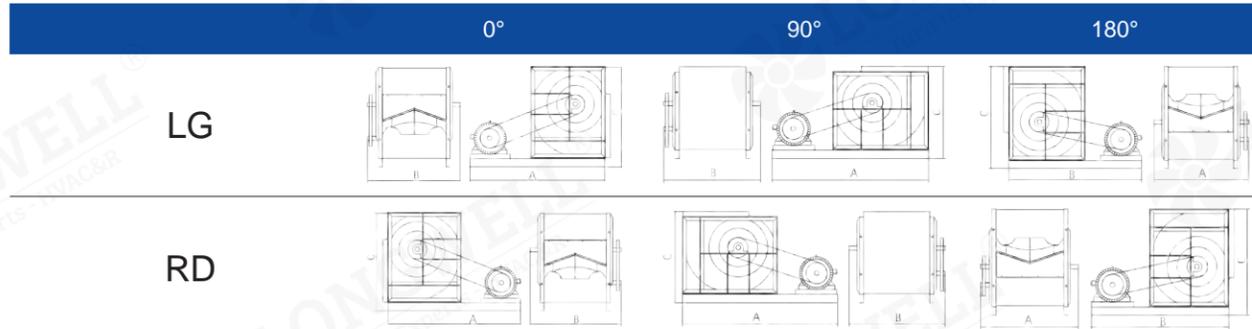


# RDH-900

# RDH-1000

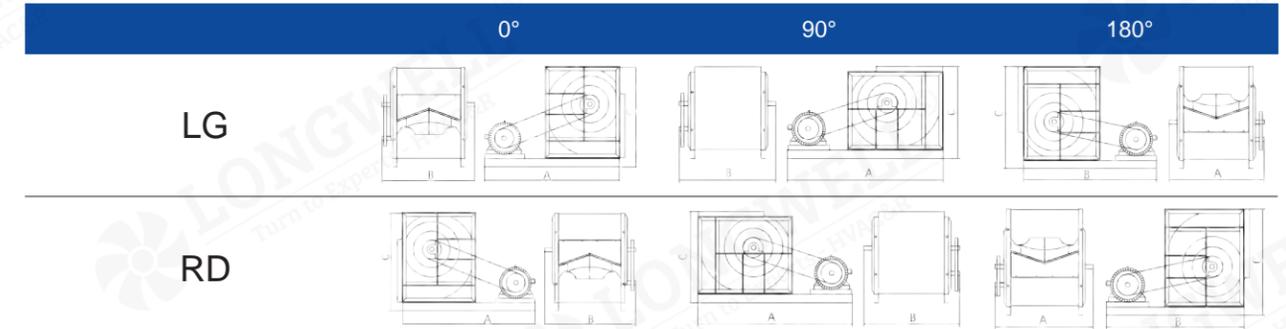


# RDH - R(K)



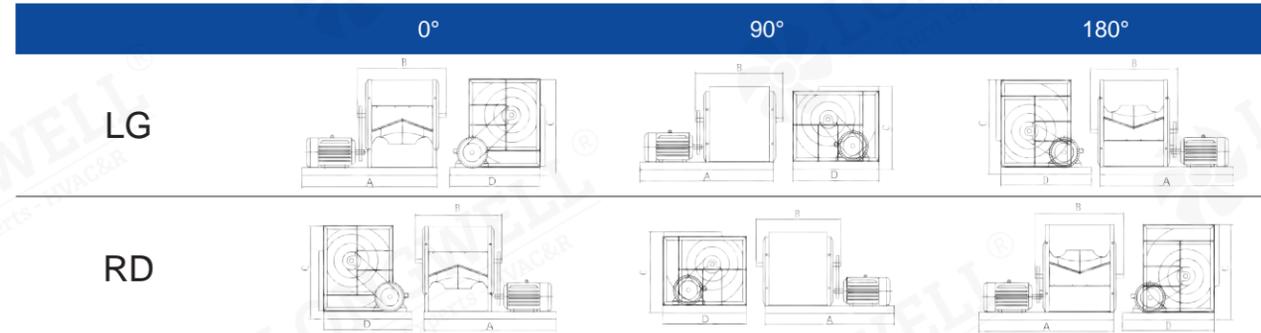
Model	Motor Frame Size	0°				90°				180°			
		A	Type R	Type K	C	A	Type R	Type K	C	A	Type R	Type K	C
280	71	730	575	600	568	820	575	600	516	730	575	600	568
	80	750	575	600	568	840	575	600	516	750	575	600	568
	90	760	575	600	568	850	575	600	516	760	575	600	568
	100	810	575	600	568	890	575	600	516	810	575	600	568
	112	850	575	600	568	930	575	600	516	850	575	600	568
	132	850	575	600	568	930	575	600	516	850	575	600	568
	160	900	575	600	568	980	575	600	516	900	575	600	568
315	71	790	640	665	628	900	640	665	568	790	640	665	628
	80	810	640	665	628	910	640	665	568	810	640	665	628
	90	830	640	665	628	930	640	665	568	830	640	665	628
	100	870	640	665	628	980	640	665	568	870	640	665	628
	112	925	640	665	628	1000	640	665	568	925	640	665	628
	132	930	640	665	628	1030	640	665	568	930	640	665	628
	160	980	640	665	628	1080	640	665	568	980	640	665	628
355	80	870	700	725	705	970	700	725	628	870	700	725	705
	90	890	700	725	705	990	700	725	628	890	700	725	705
	100	930	700	725	705	1030	700	725	628	930	700	725	705
	112	990	700	725	705	1090	700	725	628	990	700	725	705
	132	1020	700	725	705	1110	700	725	628	1020	700	725	705
	160	1070	700	725	705	1160	700	725	628	1070	700	725	705
	180	1120	700	725	705	1200	700	725	628	1120	700	725	705
400	90	980	760	790	786	1100	760	790	701	980	760	790	786
	100	1020	760	790	786	1140	760	790	701	1020	760	790	786
	112	1060	760	790	786	1190	760	790	701	1060	760	790	786
	132	1080	760	790	786	1210	760	790	701	1080	760	790	786
	160	1120	760	790	786	1240	760	790	701	1120	760	790	786
450	90	1050	845	890	877	1200	845	890	776	1050	845	890	877
	100	1100	845	890	877	1250	845	890	776	1100	845	890	877
	112	1150	845	890	877	1300	845	890	776	1150	845	890	877
	132	1220	845	890	877	1330	845	890	776	1220	845	890	877
	160	1270	845	890	877	1370	845	890	776	1270	845	890	877
	180	1310	845	890	877	1410	845	890	776	1310	845	890	877
	200	1350	845	890	877	1450	845	890	776	1350	845	890	877
500	90	1100	915	960	981	1280	915	960	863	1100	915	960	981
	100	1120	915	960	981	1120	915	960	863	1120	915	960	981
	112	1170	915	960	981	1340	915	960	863	1170	915	960	981
	132	1210	915	960	981	1385	915	960	863	1210	915	960	981
	160	1260	915	960	981	1430	915	960	863	1260	915	960	981
	180	1300	915	960	981	1470	915	960	863	1300	915	960	981
200	1350	915	960	981	1520	915	960	863	1350	915	960	981	

# RDH - R(K)



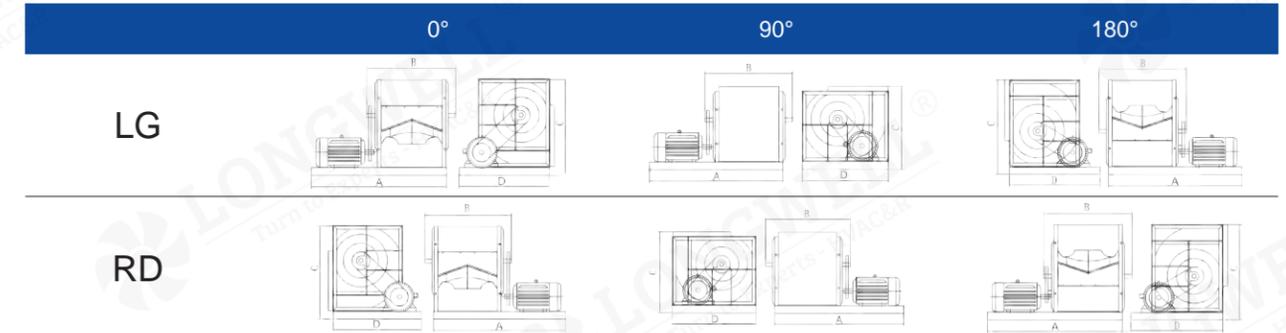
Model	Motor Frame Size	0°				90°				180°			
		A	Type R	Type K	C	A	Type R	Type K	C	A	Type R	Type K	C
560	90	1220	1000	1070	1093	1410	1000	1070	956	1220	1000	1070	1093
	100	1260	1000	1070	1093	1450	1000	1070	956	1260	1000	1070	1093
	112	1300	1000	1070	1093	1490	1000	1070	956	1300	1000	1070	1093
	132	1310	1000	1070	1093	1500	1000	1070	956	1310	1000	1070	1093
	160	1380	1000	1070	1093	1580	1000	1070	956	1380	1000	1070	1093
	180	1390	1000	1070	1093	1580	1000	1070	956	1390	1000	1070	1093
	200	1440	1000	1070	1093	1630	1000	1070	956	1440	1000	1070	1093
630	100	1400	1090	1155	1220	1610	1090	1155	1062	1400	1090	1155	1220
	112	1430	1090	1155	1220	1640	1090	1155	1062	1430	1090	1155	1220
	132	1450	1090	1155	1220	1660	1090	1155	1062	1450	1090	1155	1220
	160	1500	1090	1155	1220	1710	1090	1155	1062	1500	1090	1155	1220
	180	1520	1090	1155	1220	1730	1090	1155	1062	1520	1090	1155	1220
	200	1570	1090	1155	1220	1780	1090	1155	1062	1570	1090	1155	1220
	112	1600	1255	1290	1383	1850	1255	1290	1201	1600	1255	1290	1383
710	132	1650	1255	1290	1383	1900	1255	1290	1201	1650	1255	1290	1383
	160	1700	1255	1290	1383	1950	1255	1290	1201	1700	1255	1290	1383
	180	1750	1255	1290	1383	2000	1255	1290	1201	1750	1255	1290	1383
	200	1770	1255	1290	1383	2020	1255	1290	1201	1770	1255	1290	1383
	225	1800	1255	1290	1383	2050	1255	1290	1201	1800	1255	1290	1383
	132	1710	/	1450	1548	1950	/	1450	1330	1710	/	1450	1548
	160	1750	/	1450	1548	2040	/	1450	1330	1750	/	1450	1548
800	180	1770	/	1450	1548	2060	/	1450	1330	1770	/	1450	1548
	200	1820	/	1450	1548	2110	/	1450	1330	1820	/	1450	1548
	225	1850	/	1450	1548	2140	/	1450	1330	1850	/	1450	1548
	250	1900	/	1450	1548	2190	/	1450	1330	1900	/	1450	1548
	132	1860	/	1570	1748	2210	/	1570	1508	1860	/	1570	1748
900	160	1900	/	1570	1748	2250	/	1570	1508	1900	/	1570	1748
	180	1950	/	1570	1748	2300	/	1570	1508	1950	/	1570	1748
	200	2000	/	1570	1748	2350	/	1570	1508	2000	/	1570	1748
	225	2030	/	1570	1748	2380	/	1570	1508	2030	/	1570	1748
	250	2080	/	1570	1748	2430	/	1570	1508	2080	/	1570	1748
	280	2150	/	1570	1748	2500	/	1570	1508	2150	/	1570	1748
	132	2110	/	1700	1910	2410	/	1700	1641	2110	/	1700	1910
1000	160	2150	/	1700	1910	2450	/	1700	1641	2150	/	1700	1910
	180	2200	/	1700	1910	2500	/	1700	1641	2200	/	1700	1910
	200	2200	/	1700	1910	2500	/	1700	1641	2200	/	1700	1910
	225	2250	/	1700	1910	2650	/	1700	1641	2250	/	1700	1910
	250	2330	/	1700	1910	2630	/	1700	1641	2330	/	1700	1910
280	2400	/	1700	1910	2700	/	1700	1641	2400	/	1700	1910	

# RDH - R(K)



Model	Motor Frame Size	0°					90°					180°				
		A	Type R	Type K	C	D	A	Type R	Type K	C	D	A	Type R	Type K	C	D
280	71	750	575	600	568	612	750	575	600	516	612	750	575	600	568	612
	80	770	575	600	568	612	770	575	600	516	612	770	575	600	568	612
	90	810	575	600	568	612	810	575	600	516	612	810	575	600	568	612
	100	870	575	600	568	612	870	575	600	516	612	870	575	600	568	612
	112	890	575	600	568	612	890	575	600	516	612	890	575	600	568	612
	132	990	575	600	568	612	990	575	600	516	612	990	575	600	568	612
	160	1150	575	600	568	612	1030	575	600	516	612	1030	575	600	568	612
315	71	790	640	665	628	617	790	640	665	568	617	790	640	665	628	617
	80	810	640	665	628	617	810	640	665	568	617	810	640	665	628	617
	90	860	640	665	628	617	860	640	665	568	617	860	640	665	628	617
	100	910	640	665	628	617	910	640	665	568	617	910	640	665	628	617
	112	930	640	665	628	617	930	640	665	568	617	930	640	665	628	617
	132	1030	640	665	628	617	1030	640	665	568	617	1030	640	665	628	617
	160	1190	640	665	628	617	1070	640	665	568	617	1070	640	665	628	617
355	71	850	700	725	705	655	850	700	725	628	655	850	700	725	705	655
	80	870	700	725	705	655	870	700	725	628	655	870	700	725	705	655
	90	920	700	725	705	655	920	700	725	628	655	920	700	725	705	655
	100	970	700	725	705	655	970	700	725	628	655	970	700	725	705	655
	112	990	700	725	705	655	990	700	725	628	655	990	700	725	705	655
	132	1090	700	725	705	655	1090	700	725	628	655	1090	700	725	705	655
	160	1250	700	725	705	655	1130	700	725	628	655	1130	700	725	705	655
400	80	960	760	790	786	736	960	760	790	613	736	960	760	790	786	736
	90	1000	760	790	786	736	1000	760	790	613	736	1000	760	790	786	736
	100	1050	760	790	786	736	1050	760	790	613	736	1050	760	790	786	736
	112	1070	760	790	786	736	1070	760	790	613	736	1070	760	790	786	736
	132	1170	760	790	786	736	1170	760	790	613	736	1170	760	790	786	736
	160	1300	760	790	786	736	1300	760	790	613	736	1300	760	790	786	736
	180	1380	760	790	786	736	1380	760	790	613	736	1380	760	790	786	736
450	90	1050	845	890	877	827	1050	845	890	776	827	1050	845	890	877	827
	100	1100	845	890	877	827	1100	845	890	776	827	1100	845	890	877	827
	112	1120	845	890	877	827	1120	845	890	776	827	1120	845	890	877	827
	132	1220	845	890	877	827	1220	845	890	776	827	1220	845	890	877	827
	160	1300	845	890	877	827	1300	845	890	776	827	1300	845	890	877	827
	180	1380	845	890	877	827	1380	845	890	776	827	1380	845	890	877	827
	200	1440	845	890	877	827	1440	845	890	776	827	1440	845	890	877	827
500	90	1130	915	960	981	918	1130	915	960	863	918	1130	915	960	981	918
	100	1150	915	960	981	918	1150	915	960	863	918	1150	915	960	981	918
	112	1190	915	960	981	918	1190	915	960	863	918	1190	915	960	981	918
	132	1290	915	960	981	918	1290	915	960	863	918	1290	915	960	981	918
	160	1430	915	960	981	918	1430	915	960	863	918	1430	915	960	981	918
	180	1500	915	960	981	918	1500	915	960	863	918	1500	915	960	981	918
	200	1560	915	960	981	918	1560	915	960	863	918	1560	915	960	981	918

# RDH - R(K)



Model	Motor Frame Size	0°					90°					180°				
		A	Type R	Type K	C	D	A	Type R	Type K	C	D	A	Type R	Type K	C	D
560	90	1250	1000	1070	1093	1030	1250	1000	1070	956	1030	1250	1000	1070	1093	1030
	100	1290	1000	1070	1093	1030	1290	1000	1070	956	1030	1290	1000	1070	1093	1030
	112	1300	1000	1070	1093	1030	1300	1000	1070	956	1030	1300	1000	1070	1093	1030
	132	1400	1000	1070	1093	1030	1400	1000	1070	956	1030	1400	1000	1070	1093	1030
	160	1550	1000	1070	1093	1030	1550	1000	1070	956	1030	1550	1000	1070	1093	1030
	180	1600	1000	1070	1093	1030	1600	1000	1070	956	1030	1600	1000	1070	1093	1030
	200	1660	1000	1070	1093	1030	1660	1000	1070	956	1030	1660	1000	1070	1093	1030
630	90	1340	1090	1155	1220	1157	1340	1090	1155	1062	1157	1340	1090	1155	1220	1157
	100	1380	1090	1155	1220	1157	1380	1090	1155	1062	1157	1380	1090	1155	1220	1157
	112	1400	1090	1155	1220	1157	1400	1090	1155	1062	1157	1400	1090	1155	1220	1157
	132	1480	1090	1155	1220	1157	1480	1090	1155	1062	1157	1480	1090	1155	1220	1157
	160	1620	1090	1155	1220	1157	1620	1090	1155	1062	1157	1620	1090	1155	1220	1157
	180	1680	1090	1155	1220	1157	1680	1090	1155	1062	1157	1680	1090	1155	1220	1157
	200	1740	1090	1155	1220	1157	1740	1090	1155	1062	1157	1740	1090	1155	1220	1157
710	100	1480	1255	1290	1383	1303	1480	1255	1290	1508	1303	1480	1255	1290	1383	1303
	112	1500	1255	1290	1383	1303	1500	1255	1290	1508	1303	1500	1255	1290	1383	1303
	132	1600	1255	1290	1383	1303	1600	1255	1290	1508	1303	1600	1255	1290	1383	1303
	160	1730	1255	1290	1383	1303	1730	1255	1290	1508	1303	1730	1255	1290	1383	1303
	180	1800	1255	1290	1383	1303	1800	1255	1290	1508	1303	1800	1255	1290	1383	1303
	200	1850	1255	1290	1383	1303	1850	1255	1290	1508	1303	1850	1255	1290	1383	1303
	225	1920	1255	1290	1383	1303	1920	1255	1290	1508	1303	1920	1255	1290	1383	1303
800	100	1650	/	1450	1548	1468	1650	/	1450	1330	1468	1650	/	1450	1548	1468
	112	1650	/	1450	1548	1468	1650	/	1450	1330	1468	1650	/	1450	1548	1468
	132	1720	/	1450	1548	1468	1720	/	1450	1330	1468	1720	/	1450	1548	1468
	160	1800	/	1450	1548	1468	1880	/	1450	1330	1468	1880	/	1450	1548	1468
	180	1950	/	1450	1548	1468	1950	/	1450	1330	1468	1950	/	1450	1548	1468
	200	2000	/	1450	1548	1468	2000	/	1450	1330	1468	2000	/	1450	1548	1468
	225	2050	/	1450	1548	1468	2050	/	1450	1330	1468	2050	/	1450	1548	1468
900	132	1860	/	1570	1748	1648	1860	/	1570	1748	1648	1860	/	1570	1748	1648
	160	1980	/	1570	1748	1648	1980	/	1570	1748	1648	1980	/	1570	1748	1648
	180	2030	/	1570	1748	1648	2030	/	1570	1748	1648	2030	/	1570	1748	1648
	200	2100	/	1570	1748	1648	2100	/	1570	1748	1648	2100	/	1570	1748	1648
	225	2170	/	1570	1748	1648	2170	/	1570	1748	1648	2170	/	1570	1748	1648
	250	2270	/	1570	1748	1648	2270	/	1570	1748	1648	2270	/	1570	1748	1648
	280	2370	/	1570	1748	1648	2370	/	1570	1748	1648	2370	/	1570	1748	1648
1000	132	1990	/	1700	1910	1810	1990	/	1700	1641	1810	1990	/	1700	1910	1810
	160	2110	/	1700	1910	1810	2110	/	1700	1641	1810	2110	/	1700	1910	1810
	180	2160	/	1700	1910	1810	2160	/	1700	1641	1810	2160	/	1700	1910	1810
	200	2230	/	1700	1910	1810	2230	/	1700	1641	1810	2230	/	1700	1910	1810
	225	2300	/	1700	1910	1810	2300	/	1700	1641	1810	2300	/	1700	1910	1810
	250	2390	/	1700	1910	1810	2390	/	1700	1641	1810	2390	/	1700	1910	1810
	280</															

## RDH Series Ventilator Operational Limits

			280	315	355	400	450	500	560	630	710	800	900	1000
Max.absorbed Power	L	KW	/	/	/	/	/	/	/	/	/	/	/	/
	R	KW	5.5	4.8	5.5	6	8	12	14	20	20	/	/	/
	K	KW	8	8	15	15	15	22	30	35	40	30	43	55
	Z	KW	/	/	/	/	/	30	38.5	40	60	65	65	80
	R2	KW	5.5	6.5	8.5	8.5	12	13	14	18	18	/	/	/
	K2	KW	/	/	13	13	18.5	22	32	34	45	45	45	65
Max.R.P.M	L	rpm	/	/	/	/	/	/	/	/	/	/	/	/
	R	rpm	4000	3200	2800	2400	2200	2000	1800	1700	1400	/	/	/
	K	rpm	4500	4000	3800	3200	2800	2500	2400	2000	1700	1300	1200	1100
	Z	rpm	/	/	/	/	/	2800	2600	2200	2000	1600	1400	1300
	R2	rpm	3200	2800	2600	2100	1800	1600	1400	1200	1000	/	/	/
	K2	rpm	/	/	3000	2400	2200	2000	1800	1600	1400	1200	1000	900
Air Temperature Limits (Min-20°C)	L	Max.°C	/	/	/	/	/	/	/	/	/	/	/	/
	R/R2	Max.°C	85	85	85	85	85	85	85	85	85	/	/	/
	K/K2	Max.°C	85	85	85	85	85	85	85	85	85	85	85	85
	Z	Max.°C	/	/	/	/	/	85	85	85	85	85	85	85
Fan Weight	L	Kg	/	/	/	/	/	/	/	/	/	/	/	/
	R	Kg	22	32.6	42.7	50.6	67.5	84.2	142	168	223	/	/	/
	K	Kg	32	42.6	54.7	63.6	82.5	104.2	171	197	271	300	481.5	530
	Z	Kg	/	/	/	/	/	107	174	200	274	304	485	535
	R2	Kg	46	67	91	107	143	176	300	352	462	/	/	/
	K2	Kg	/	/	111	127	173	217	358	410	558	616	989	1086

## Fan Selection Criteria

1.the selection of high efficiency,the smaller the smaller,the larger the scope of the wind turbine,to meet the system can accept the performance,efficiency and quality requirements.The fan operating point,should be selected in the vicinity of high efficiency fan,to ensure stable operation,avoid the work of the fan in the surge zone.To reduce the noise,we must reduce the speed of the wind turbine, the choice of a large fan.AV system fan,air pressure should be selected according to the operating time of a longer part of the load conditions.

2.the choice of a strong wind turbine,often make the wind turbine running in the small wind area. the pressure difference between the inlet and outlet of the wind turbine,will cause the operation of instability and noise pulse.higher noise.After selection of wind machine,will raise the rotation speed of the fan,air leaving the blades have higher speed,also can produce high noise.The average speed of the air blower is M/S 10-15.

3.before to the multi blade fan:has the advantages of low speed,light structure,low noise,good speed regulation performance and cheap price,when the design flow and the pressure of small or large volume low pressure should give high priority to the use of wind turbine.After the wind machine, which has the advantages of high efficiency,low noise,high pressure and structure characteristics of strong,when the design pressure of fan is large should givel high priority to the use of wind turbine. No shell fan: when the pipe network needs a flexible export position,need to reduce the pipeline outlet noise,or pipe network in the future may change the occasion should be preferred.

4.total pressure curve is flat,small steepness,static pressure has a great influence on the wind power,performance and wider range of fan for air volume system,the static pressure sensitive,need air conditioning VAV air conditioning units.Full pressure curve is steep,steep,static pressure of air power influence small windl machine,suitable for fixed volume of air conditioner,before the wind turbine motor is not overloaded.The belt drive fan to pole motor with 4/6.

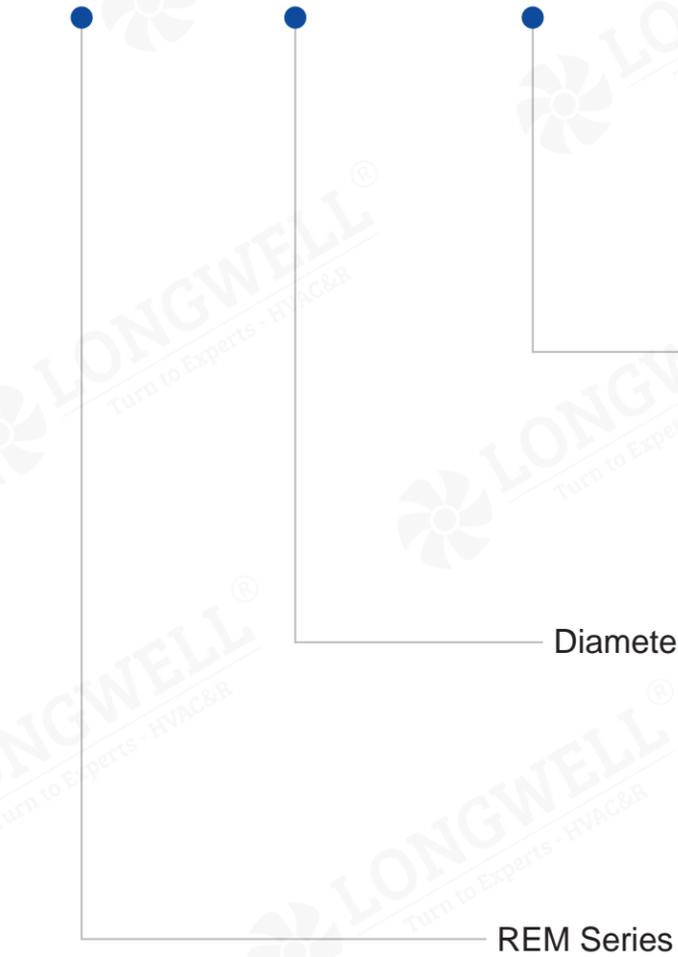
# REM Series Centrifugal Blower

Professional HVAC Fan & Motors Manufacturer



## Type Code

REM 355 - R



- Type R L (Basic model)
- Type K (Enhanced model)
- Type E (Heavy duty model)
- Type C (Handling model)
- Type Z (Heavy duty)

# REM Series Centrifugal Blower

## 1. Summary

The REM Series of centrifugal with backward blade were developed with advanced technologies.

They are licensed to bear the AMCA Seal for air performance, sound, and FEG.

The REM Series includes 15 models as described in this catalogue. The volume flow ranges from 1,000 m³/h to 120,000 m³/h, the total pressure ranges from 200Pa to 3000Pa. Some of the features and characteristics of these fans are: forward wheel blades, a wide range of applications, high efficiency, low noise, and low power consumption. These fans are ideal for use in central air-conditioning systems, in purifiers. They are also suitable for use in a variety of other ventilation applications.

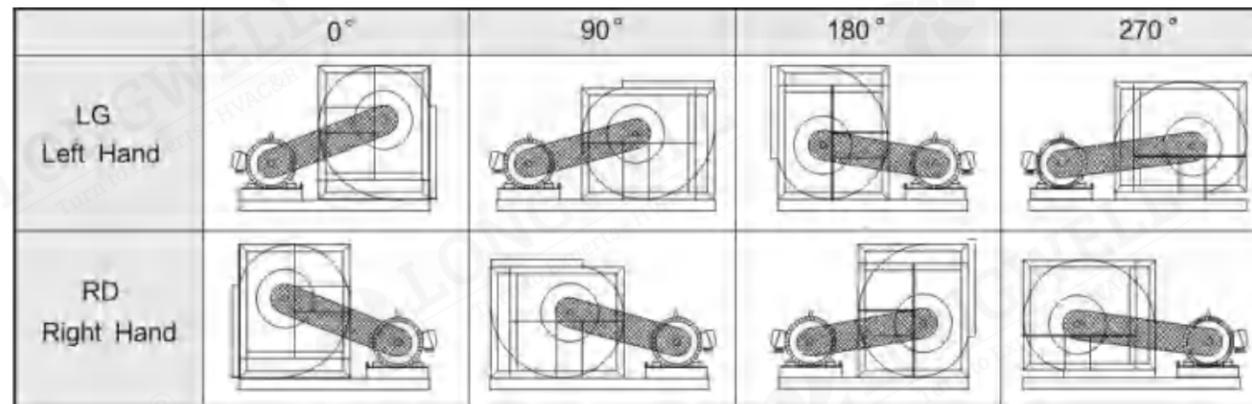
## 2. Product Features

### (1) Rotation

REM series fans have two direction of rotations, left-hand rotation (LG) and right-hand rotation (RD); Viewing from drive side, if the Wheel rotates clockwise, it is left hand (LG) rotation. If the Wheel rotates counter clockwise, it is right-hand (RD).

### (2) Discharge Direction

As shown in Fig1, REM Series fans can be constructed in four discharge directions: 0°, 90°, 180° and 270°.



(Fig 1)

### (3) Type of Construction

As shown in Fig 2, REM series fans can be divided into category R, E, C.

Fan Type	Fan Size	Fan Diagram	Bearing Type
TYPE R	280-710		
TYPE E	280-1000		
TYPE C	280-1000		

(Fig 2)

## 3. Constructon of Product

REM series fans are mainly constructed of housing, Wheel, frame, bearing and shaft. Outlet flange (is optional).

### (1) Housing

The housing is made of hot galvanized steel sheet. The side plates include inlets cones that are designed with the best aerodynamics for inlet condition. The scroll is fixed to the side plates by spot welding or "Pittsburg seam locking".

### (2) Wheel

Backwards curved airfoil Wheel is constructed of high-grade cold-roll steel sheets, according to the three-dimensional flow theory, the Wheel is fixed on the center plate and on the end ring with welding by high precision laser cutting machine. the unity of the Wheel is spraying by plastic. All Wheels are balanced to ANSI/AMCA Standard 204-05. Yilida's internal standard is G2.5 or higher for wheel balancing.

### (3) Frame

The frames for type R construction are made of galvanized steel angle iron bars. The cutting and bending of the frame parts, as well as the TOX connections, are formed with the use of toolings to ensure the high accuracy and the rigidity of the frames; The frames for E and C constructions are welded by angle steel and flat steel with polyester coating in order to ensure sufficient rigidity and strength.

### (4) Bearings

Ball bearings are used in all of the REM Series fans. These are high-quality bearings and selected to minimize the fan noise levels. The bearings are pre-lubricated, sealed, and self-centering. For type R constructions, the bearings are supplied with lubrication fittings. For type E and C constructions, the bearings are supplied with radial bearing. All Yilida bearing service life (L10) are over 100,000 hours (L10 ≥ 100000 hours).

### (5) Shaft

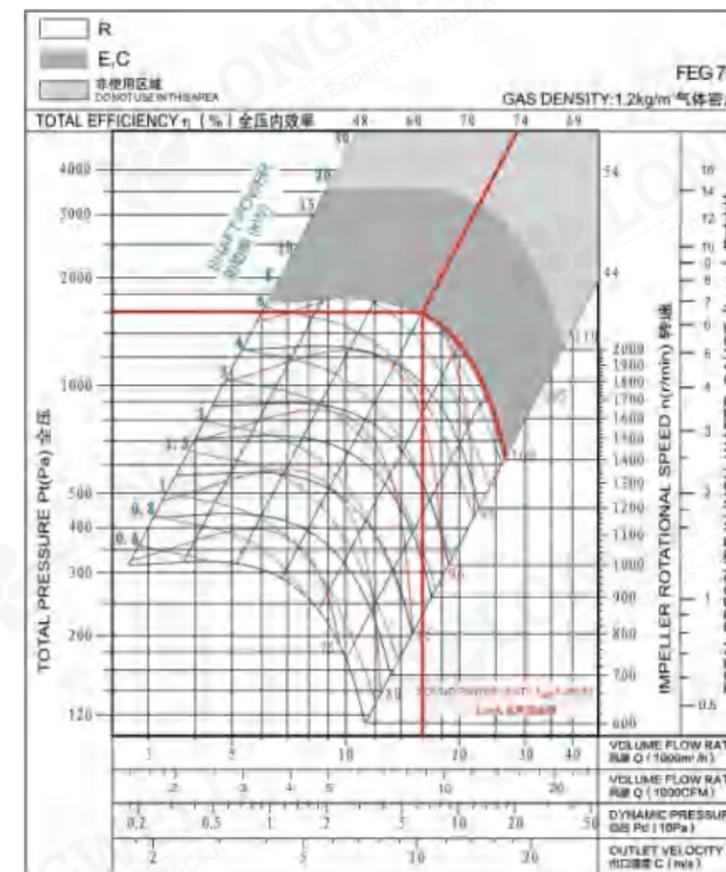
The shafts are made of 40 Cr carbon steel bars. The shafts are rough machined and then stress relieved with heat treatment before final machining. The shaft diameters are machined to very accurate tolerance levels, and they are fully checked to ensure precision fit. Each shaft is made turned, ground and polished. They are coated after assembly to provide corrosion resistance. Shaft size should be designed to meet the first critical speed of at least fan maximum running speed 1.4 times.

### (6) Outlet Flange

The inlet flange is made of high-grade cold-rolling sheet with polyester coating. The outlet flange is made of galvanized steel. The connections of the flange components to the scroll are made using a TOX non-welding process. This maintains a good flange appearance while also providing sufficient strength and rigidity.

## 4. Performance Chart

### (1) Fan Performance Curve



Type	RDHS 710-K
Volume	$q_v = 16000 \text{ m}^3/\text{h}$
Total Pressure	$P_{tF} = 1600 \text{ Pa}$
Dynamic Pressure	$P_{dF} = 64 \text{ Pa}$
Outlet Velocity	$C = 10.35 \text{ m/s}$
Fan Speed	$n = 1430 \text{ r/min}$
Shaft Power	$P_{sh} = 9.5 \text{ KW}$
A Sound Power Level	$L_{wA} = 94 \text{ dB(A)}$
Total Efficiency	$\eta_{tF} = 74\%$

### (2) Motor Selection

The power ( $P_{sh}$ ) on the performance chart refers to the shaft power of the fan. The rated power of the drive motor equals the total required shaft input multiplied by the safety factor:  $P_{sh,p} = P_{sh} \times K \div \eta_{me}$ . The value of mechanical drive efficiency can be obtained from Table 1. The required safety factors is provided in Table 2.

Drive Type	$\eta_{me}$
Motor Direct Drive	1
Coupling Direct Drive	0.98
V-Blet Drive	0.95

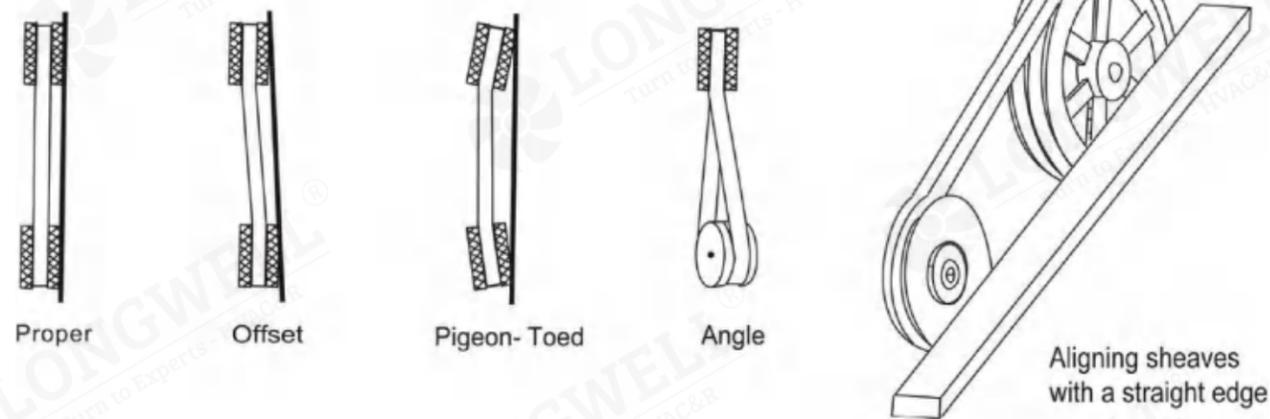
(Table 1)

Power of Electric Motor(KW)	Value K
$\leq 0.75 \text{ KW}$	1.3
$\leq 2.2 \text{ KW}$	1.2
$\leq 7.5 \text{ KW}$	1.15
$\geq 11 \text{ KW}$	1.1

(Table 2)

## 5.V-Belt Drive Installation

- 1.Remove the protective coating from the ends of the fan shaft and ensure that the shaft ends are free of nick and burrs.
- 2.Check fan and motor shafts for alignment.
- 3.The center distance must be controlled as  $0.7(d1+d2) < a < 2(d1+d2)$ ;the belt speed of forward curve fan should be more than 10m/s,but less than 15m/s,( $10 < v < 15\text{m/s}$ );the belt speed of backward curve fan should be more 25m/s,but less than 35m/s,( $25 < v < 35\text{m/s}$ ).
- 4.Slide sheaves on to the shafts, Do not hammer the sheaves on to the shafts with force as this may result in bearing damage.
- 5.Align fan and motor sheaves with a straight-edge, and tighten the sheaves.
6. Place belts over the sheaves with care. Do not bend or squeeze the belts or it might get damaged.
7. Adjust the belt tension until the belts appear snug. Run the unit for a few minutes and allow the belts to set properly.
8. Switch off the fan, adjust the belt tension by moving the motor base. When in operation, the tight side of the belts should be in a straight line from sheave to sheave and there should be a slight bow on the slack side.



## 6.Belt Tension

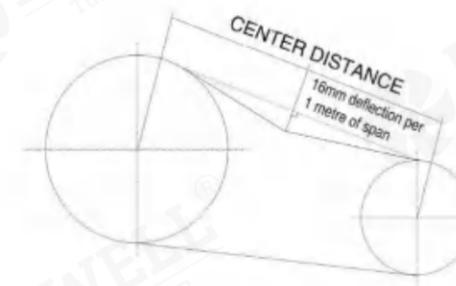
A proper level of belt tension is required in order to obtain a satisfactory belt life. If the belt tension level is too high,excessive loads will be imposed on the belts and the bearings, and this will reduce the lives of both of these components. If the belt tension level is too low,the belt will slip.Belt slippage generates a large amount of heat,and this heat will drastically reduce the life of a belt.

Belt-tensioning gauges can be used to determine whether the belts are tensioned properly.A chart is normally supplied with the gauge which indicates the ranges of forces required to deflect the belts by a given amount to obtain the proper belt tension level.The required forces are based upon the center distance of the sheaves and the belt cross-section. the belts are properly tensioned when the forces required to deflect the belt are within the specified range. see Fig 4 and Table 3.

If a belt-tensioning gauge is not available,then the belt should be tightened just enough so that the belt does not squeal when the ventilator is started. A very short period of noise during the starting of a ventilator is allowable,but a squeal lasting several seconds or longer is not acceptable. After tensioning the belts and before starting the fan,check to make sure that the sheaves are properly aligned.

Realign the sheaves if necessary.note that new belts may stretch a little during initial use,so the belt tension level should be checked after a few days of operation.

Belt tension indicator applied to mid centre distance.



(Fig 4)

Belt Section	Force required to deflect belt 16mm per metre of span		
	Small Pulley/Diameter(mm)	Newton(N)	Kilogram Force (Kgf)
SPZ	56-95	13-20	1.3-2.0
	100-140	20-25	2.0-2.5
SPA	80-132	25-35	2.5-3.6
	140-200	35-45	3.6-4.6
SPB	112-224	45-65	4.6-6.6
	236-315	65-85	6.6-8.7
SPC	224-335	85-115	8.7-11.7
	375-560	115-150	11.7-15.3
A	80-140	10-15	1.1-1.5
B	125-200	20-30	2.0-3.1

(Table3)

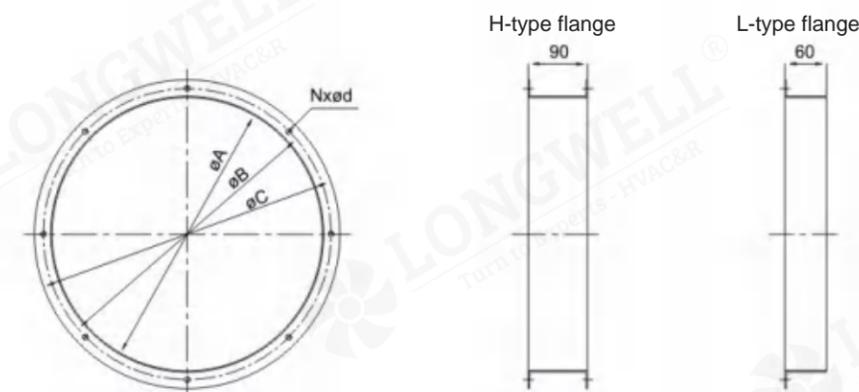
## 7.Bearing Lubrication

The allowable period of time between lubrication of these bearings depends upon the operating speeds and temperatures of the bearing as well as on the type of lubrication, It is recommended to inspect the condition of the grease that is discharged from the bearings when new grease is added. If the discharged grease looks similar to the new grease, then a longer period of time between lubrications is possible. If the discharged grease is much darker than the new grease, this indicates that the grease is being oxidized and more frequent lubrications of the bearings are required.

## 8. Instructions

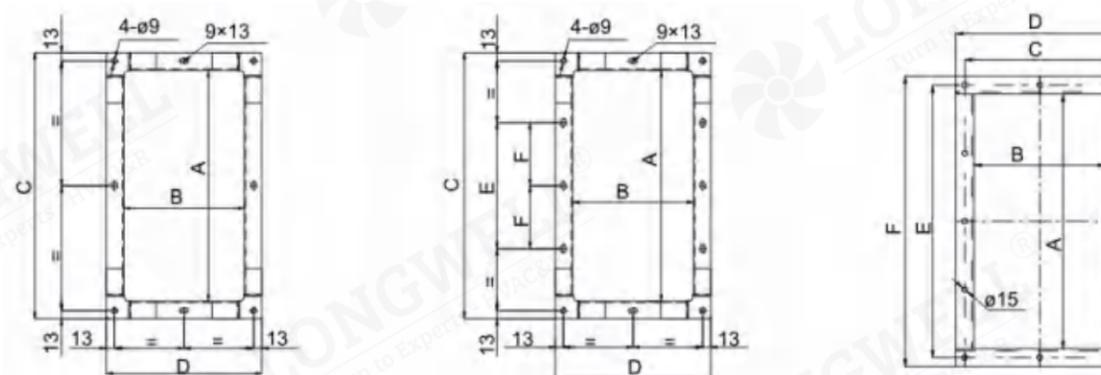
- (1) When placing the order, it is necessary to state the type of fan, speed, air volume, air pressure, discharge direction, rotation direction, type of electric motor and its specifications.
- (2) Prior to installation, the fan should be carefully inspected. Special care should be taken in checking the shaft, Wheel and bearings. If there is an indication of any damage, the damaged parts should be repaired or replaced before the fan is installed or commissioned.
- (3) The inside of the scroll and casing need to be checked to make sure that there are no foreign objects inside the housing, such as tools or loose parts.
- (4) The rotational directions of the motor and Wheel should be checked to ensure that they are in compliance with the specification and purchase orders.
- (5) A flexible connector should be used between the fan out let flange and its mating ductwork. The flex connector should not be over-stretched.
- (6) Following the installation, the Wheel should be turned by hand or with the use of a wrench to make sure that it turns freely without colliding with other parts of the fan. Once all this is done, the fan can be commissioned normally.
- (7) The rated motor power as calculated herein might not be sufficient to drive the fan with an unrestricted discharge flow. Operating the fan with an unrestricted discharge outlet will result in flow rate that exceeds the specified fan capabilities. Such operation will quickly burn the motor and damage the fan. Great care must be taken in operating the fan to make sure that the maximum rated flows, as provided on the performance charts in this catalog, are not exceeded.
- (8) The fan is limited for use in areas where air substances are non-corrosive, non-toxic and non-erosive and where dust particles are less than 150mg/m<sup>3</sup> with a temperature between -20°C and 85°C. Special care should be taken during transportation, load and unload.

## Imported Flange



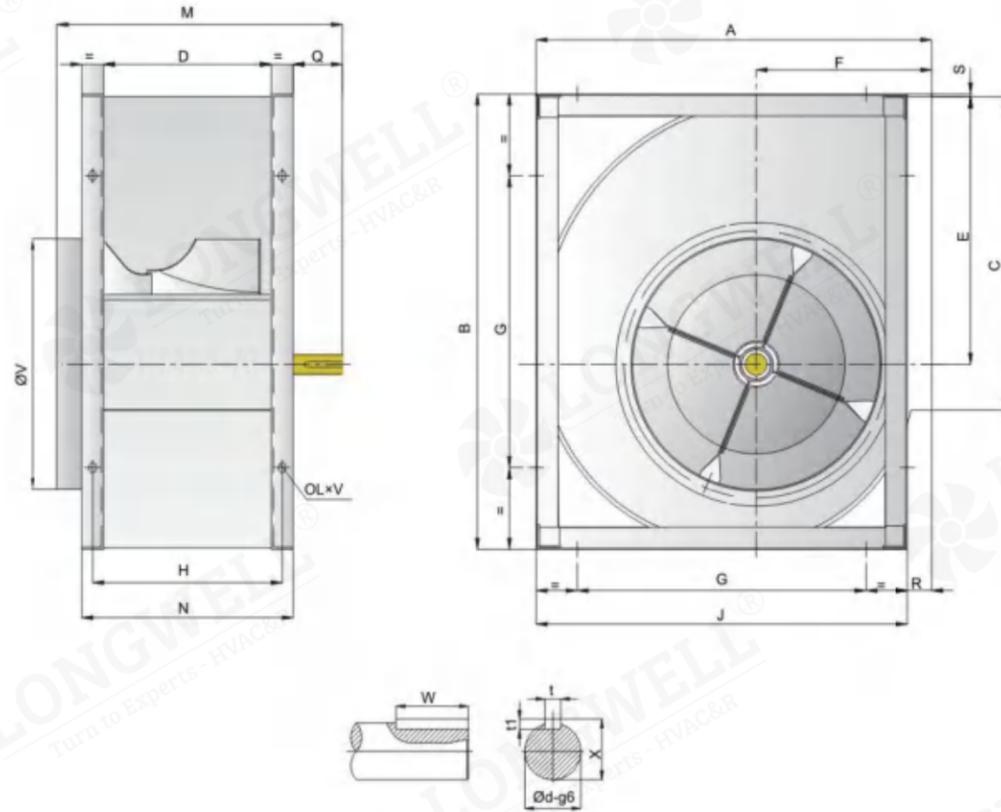
Model	280	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400
A	292	322	362	404	448	510	570	635	722	808	896	996	1130	1264	1404
B	325	344	386	432	485	544	605	670	750	844	945	1044	1180	1310	1450
C	355	383	423	466	515	570	635	700	778	875	980	1080	1226	1360	1500
N-d	6x7	6x7	8x9	8x9	8x9	8x11	8x11	10x13	10x13	12x13	12x13	12x13	12x15	16x17	16x17

Note: Customers can choose H-type flange or L-type flange. The default is the L-type flange

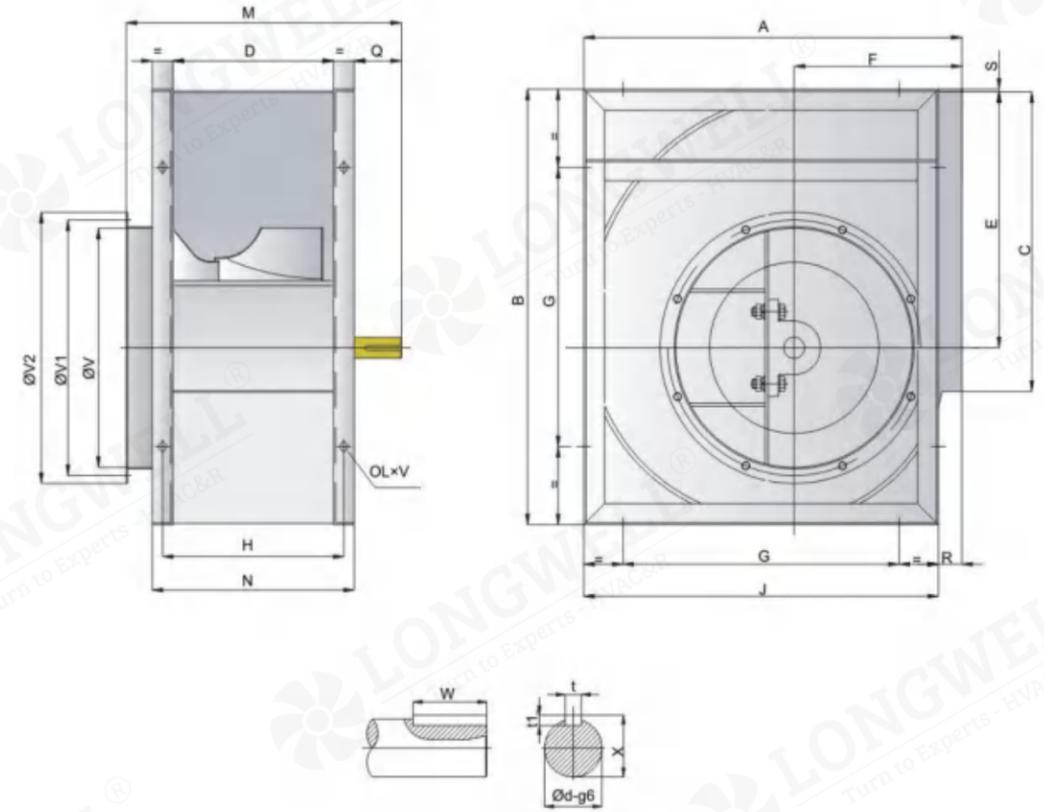


Model	280	315	355	400	450	500	560	630	710	800	900	1000	1120	900	1000
A	361	404	453	507	569	638	715	801	898	1007	1130	1267	725	800	902
B	197	223	238	257	308	344	383	432	478	533	595	663	1426	1588	1776
C	417	460	509	563	625	684	771	857	954	1063	1186	1323	777	850	952
D	253	279	294	330	364	400	439	488	534	589	651	719	825	900	1002
E				200	200	250	250	300	400	500	600	700	1478	1638	1826
F									200	250	300	350	1526	1688	1876

## REM - R



## REM - E



### Technical Specifications

Model	A	B	C	D	E	F	G	H	J	K	M	N	Q	R	S	V	t	t1	W	X	Φd	LxV
REM 280-R	466	518	361	197	302	215	280	227	432	30	360	257	73	34	5	292	8	7	50	28	25	13x18
REM 315-R	518	578	404	223	340	236	280	253	480	30	395	283	83	38	3	322	8	7	60	28	25	13x18
REM 355-R	578	655	453	247	383	261	355	287	548	40	425	327	78	30	6	362	8	7	60	33	30	13x18
REM 400-R	651	736	507	274	431.5	290	355	314	613	40	452	354	78	38	4.5	404	8	7	60	33	30	13x18
REM 450-R	726	827	569	308	486	322	530	348	681	40	500	388	92	45	5	448	10	8	70	38	35	13x18
REM 500-R	800	918	638	344	538	352	530	394	750	40	535	424	92	50	5	510	10	8	70	38	35	13x18
REM 560-R	893	1030	715	383	602	390	530	433	845	50	600	483	87	48	8	570	12	8	70	43	40	13x18
REM 630-R	999	1157	801	432	678.5	434	530	482	946	50	650	532	87	53	7	635	14	9	70	48.5	45	13x18
REM 710-R	1121	1303	898	478	765	485	630	528	1058	50	725	578	115	63	7	722	14	9	90	48.5	50	17x22

Note: the size unit in the form is mm

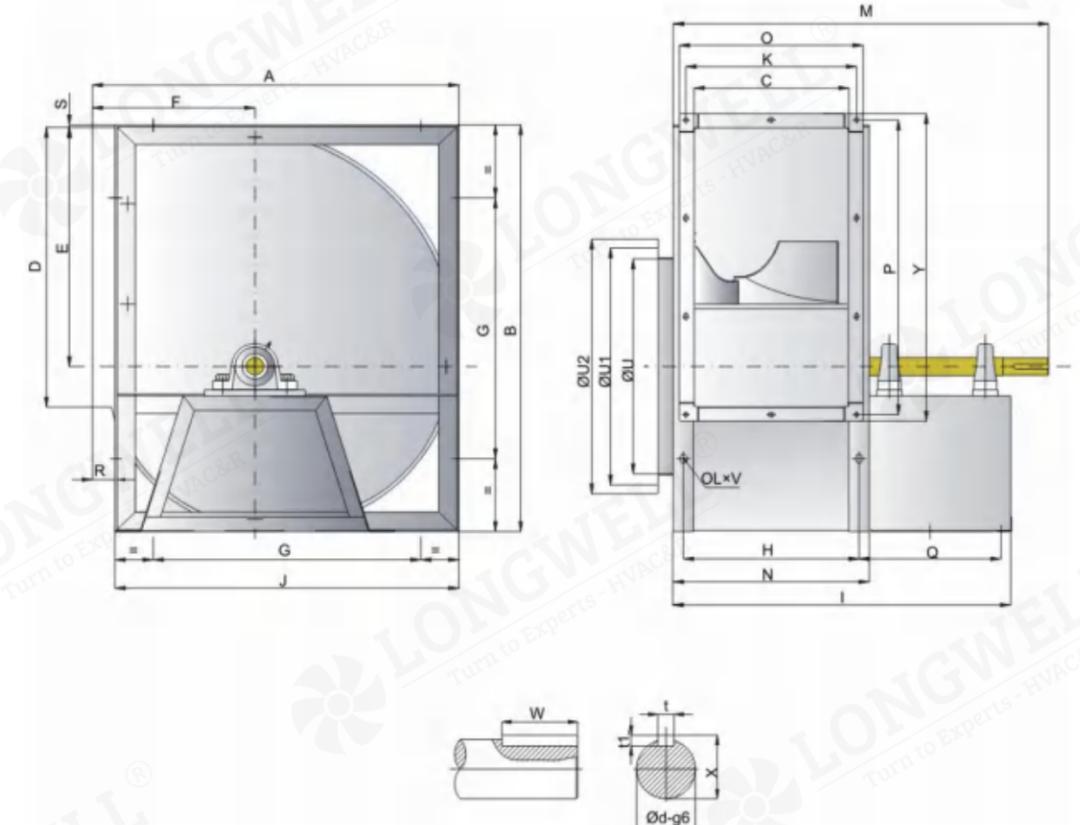
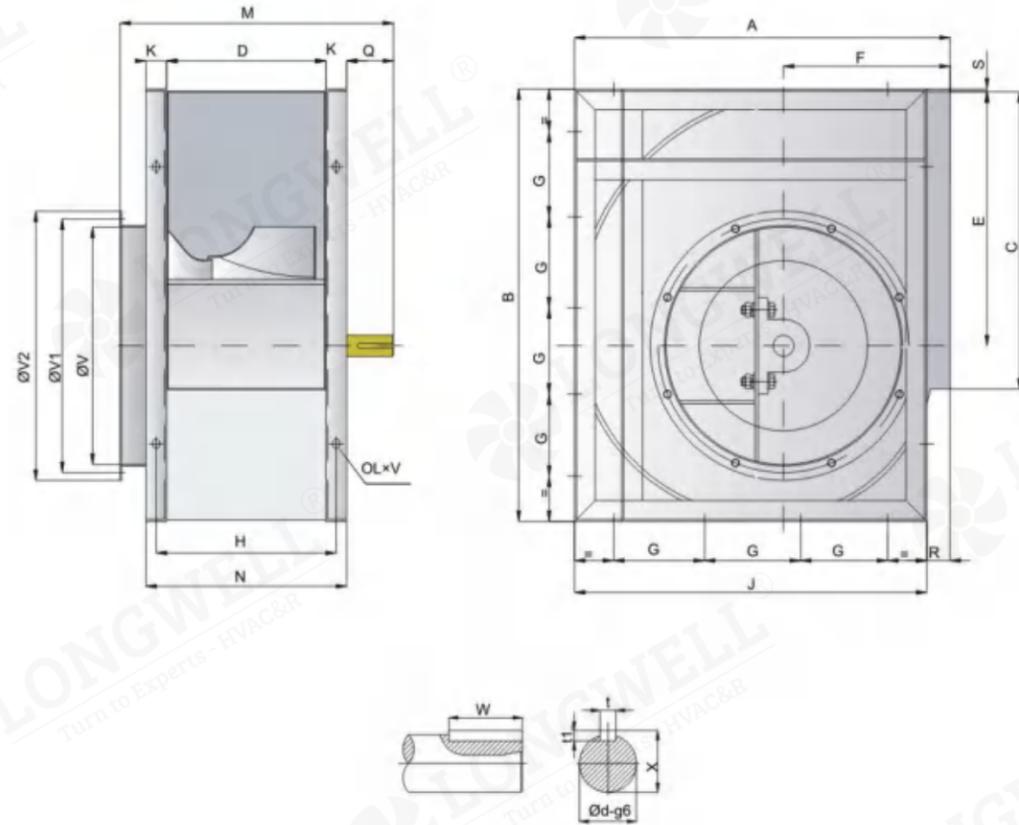
### Technical Specifications

Model	A	B	C	D	E	F	G	H	J	K	M	N	Q	R	S	V	V1	V2	t	t1	W	X	Φd	LxV
REM 280-E	466	518	361	197	302	215	280	227	432	30	405	257	86	34	5	292	325	355	8	7	60	33	30	13x18
REM 315-E	518	578	404	223	340	236	280	253	480	30	440	283	96	38	3	322	344	383	8	7	70	33	30	13x18
REM 355-E	578	655	453	247	383	261	355	287	548	40	470	327	91	30	6	362	386	423	10	8	70	38	35	13x18
REM 400-E	651	736	507	274	431.5	290	355	314	613	40	497	354	91	38	4.5	404	432	466	10	8	70	38	35	13x18
REM 450-E	726	827	569	308	486	322	530	348	681	40	556	388	116	45	5	448	485	515	12	8	90	43	40	13x18
REM 500-E	800	918	638	344	538	352	530	394	750	40	592	424	116	50	5	510	544	570	12	8	90	43	40	13x18
REM 560-E	893	1030	715	383	602	390	530	433	845	50	640	483	115	48	8	570	605	635	14	9	90	53.5	50	13x18
REM 630-E	999	1157	801	432	678.5	434	530	482	946	50	690	532	115	53	7	635	670	700	14	9	90	53.5	50	13x18
REM 710-E	1121	1303	898	478	765	485	630	528	1058	50	746	578	126	63	7	722	750	778	18	11	90	64	60	17x22
REM 800-E	1250	1468	1107	533	862	535	710	583	1181	50	801	633	126	69	7	808	844	875	18	11	90	64	60	17x22
REM 900-E	1408	1648	1130	595	971	604	800	655	1319	60	880	715	135	89	7	896	945	980	18	11	100	69	65	17x22
REM 1000-E	1541	1810	1267	663	1066	657	900	713	1462	60	950	783	135	79	9	996	1044	1080	18	11	100	69	65	17x22

Note: the size unit in the form is mm

# REM - E

# REM - C



## Technical Specifications

Model	A	B	C	D	E	F	G	H	J	K	M	N	Q	R	S	V	V1	V2	t	t1	W	X	Φd	LxV
REM 1120-E	1748	2033	1421	722	1192	758	400	782	1630	60	1135	842	247	188	11	1130	1181	1266	18	11	140	69	65	17x22
REM 1250-E	1950	2270	1588	800	1333	840	450	880	1825	75	1218	950	235	125	12	1265	1361	1361	20	12	140	74.5	70	17x22
REM 1400-E	2160	2535	1744	900	1492	920	500	980	2050	75	1337	1050	255	110	10	1402	1450	1500	22	14	140	85	80	17x22

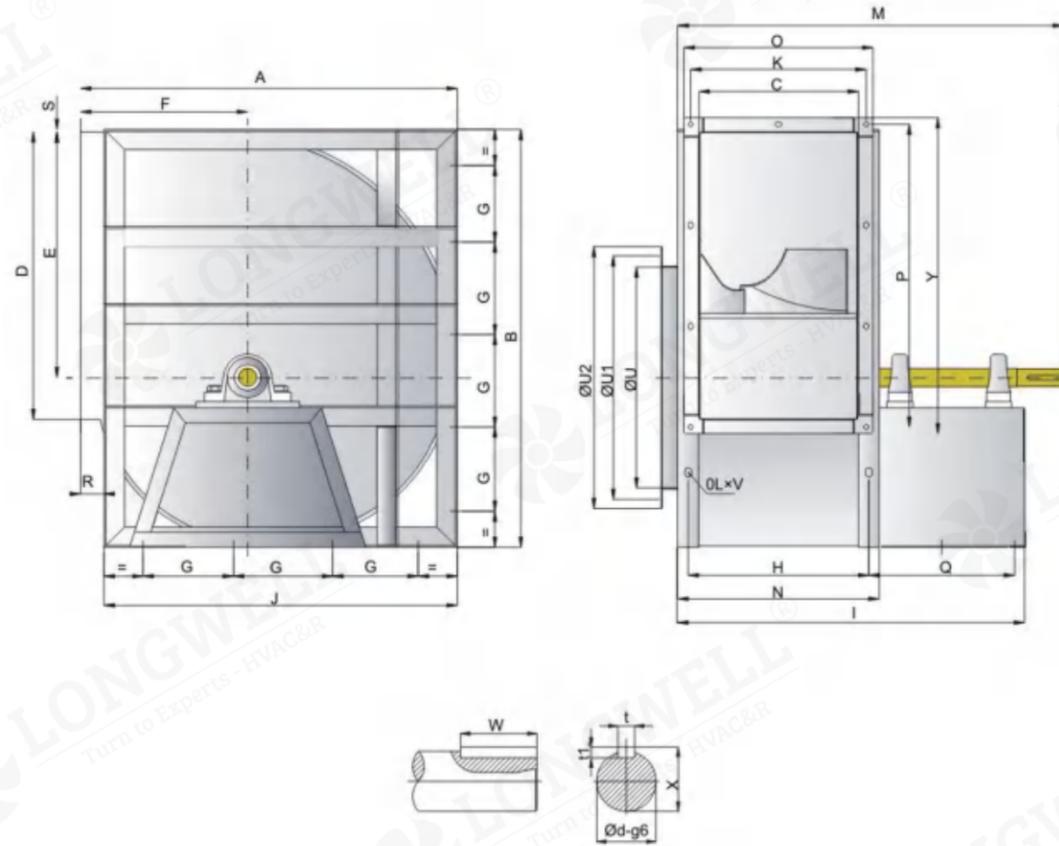
Note: the size unit in the form is mm

## Technical Specifications

Model	A	B	C	D	E	F	G	H	I	J	K	M	N	O	P	Q	R	S	t	t1	U	U1	U2	W	X	Y	Φd	LxV
REM 280-C	466	518	197	361	302	215	280	227	530	432	213	590	257	239	391	274	34	5	8	7	292	325	355	40	28	471	25	13x18
REM 315-C	518	578	223	404	340	236	280	253	556	480	233	612	283	259	434	274	38	3	8	7	322	344	383	40	28	460	25	13x18
REM 355-C	578	655	247	453	383	261	355	287	627	548	260	697	327	286	483	300	30	6	8	7	362	386	423	50	33	509	30	13x18
REM 400-C	651	736	274	507	432	290	355	314	654	613	290	724	354	316	537	300	38	4.5	8	7	404	432	466	50	33	563	30	13x18
REM 450-C	726	827	308	569	486	322	530	348	728	681	318	816	388	344	599	340	45	5	10	8	448	485	515	70	38	526	35	13x18
REM 500-C	800	918	344	638	538	352	530	384	764	750	350	850	424	376	668	340	50	5	10	8	510	544	570	70	38	694	35	13x18
REM 560-C	893	1030	383	715	603	390	530	433	855	845	366	945	483	414	745	378	48	8	12	8	570	605	635	90	43	771	40	13x18
REM 630-C	999	1157	432	801	679	434	530	482	904	946	434	994	532	460	831	378	53	7	12	8	635	670	700	90	43	857	40	13x18
REM 710-C	1121	1303	478	898	765	485	630	528	1005	1058	483	1115	578	512	928	436	63	7	14	9	722	750	778	90	48.5	954	45	17x22
REM 800-C	1250	1468	533	1107	862	535	710	583	1060	1181	541	1170	633	567	1039	440	69	7	14	9	808	844	875	90	48.5	1063	45	17x22
REM 900-C	1408	1648	595	1130	971	604	800	655	1191	1319	602	1313	715	613	1160	510	89	7	16	10	896	945	980	100	58.5	1186	45	17x22
REM 1000-C	1541	1810	663	1267	1066	657	900	713	1259	1462	668	1381	783	694	1297	510	79	9	16	10	996	1044	1080	100	58.5	1323	45	17x22

Note: the size unit in the form is mm

# REM - C



## Technical Specifications

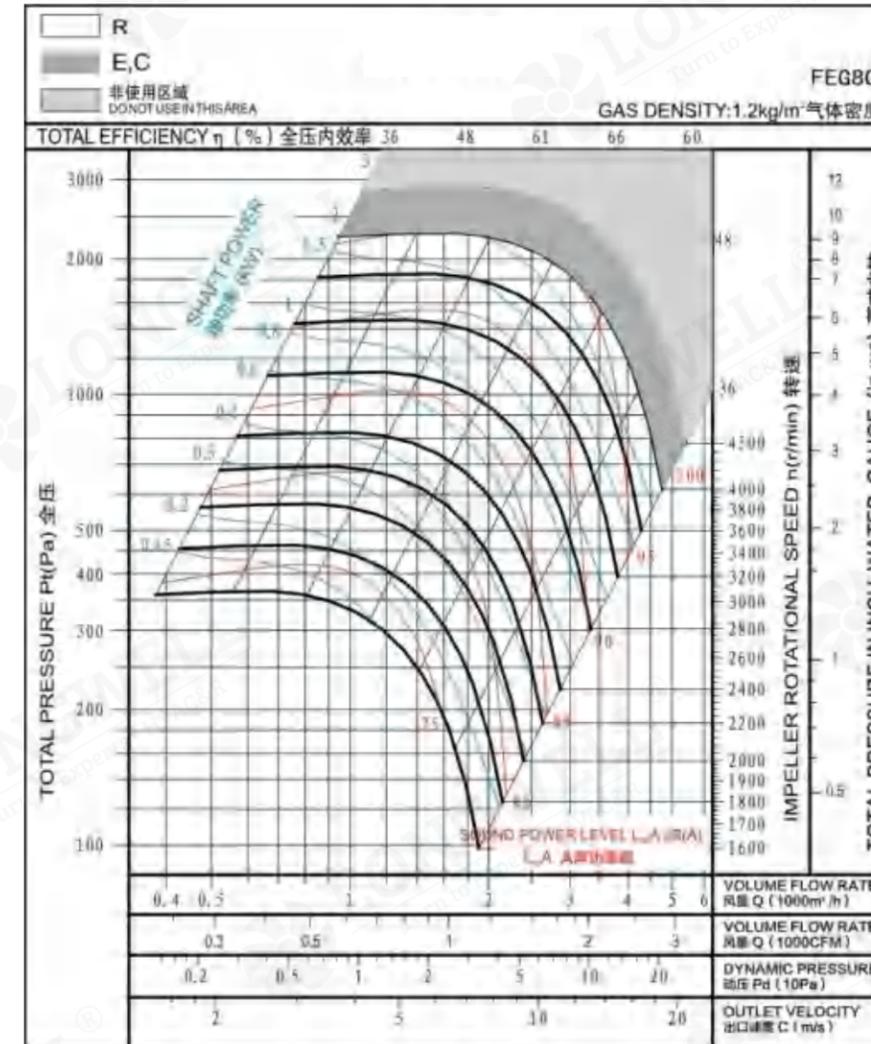
Model	A	B	C	D	E	F	G	H	I	J	K	M	N	O	P	Q	R	S	t	U	U1	U2	W	X	Y	Φd	LxV	
REM 1120-C	1748	2033	722	1421	1192	758	400	782	1397	1630	777	1583	842	825	1478	572	118	11	18	11	1130	1180	1266	120	69	1526	65	17x22
REM 1250-C	1950	2270	800	1588	1333	840	450	880	1565	1825	850	1740	950	900	1638	600	125	12	20	12	1265	1310	1361	140	74.5	1688	70	17x22
REM 1400-C	2160	2535	900	1744	1492	920	500	980	1760	2050	952	1910	1050	1002	1826	695	110	10	22	14	1402	1450	1500	140	85	1876	80	17x22

Note: the size unit in the form is mm

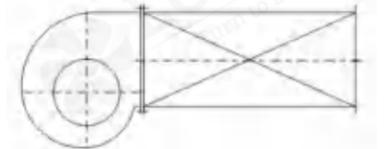
# REM-280

## Performance Curves

Performance certified is for installation type B: free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B: free inlet, ducted outlet.



Measured in installation B according to AMCA Standard 210:

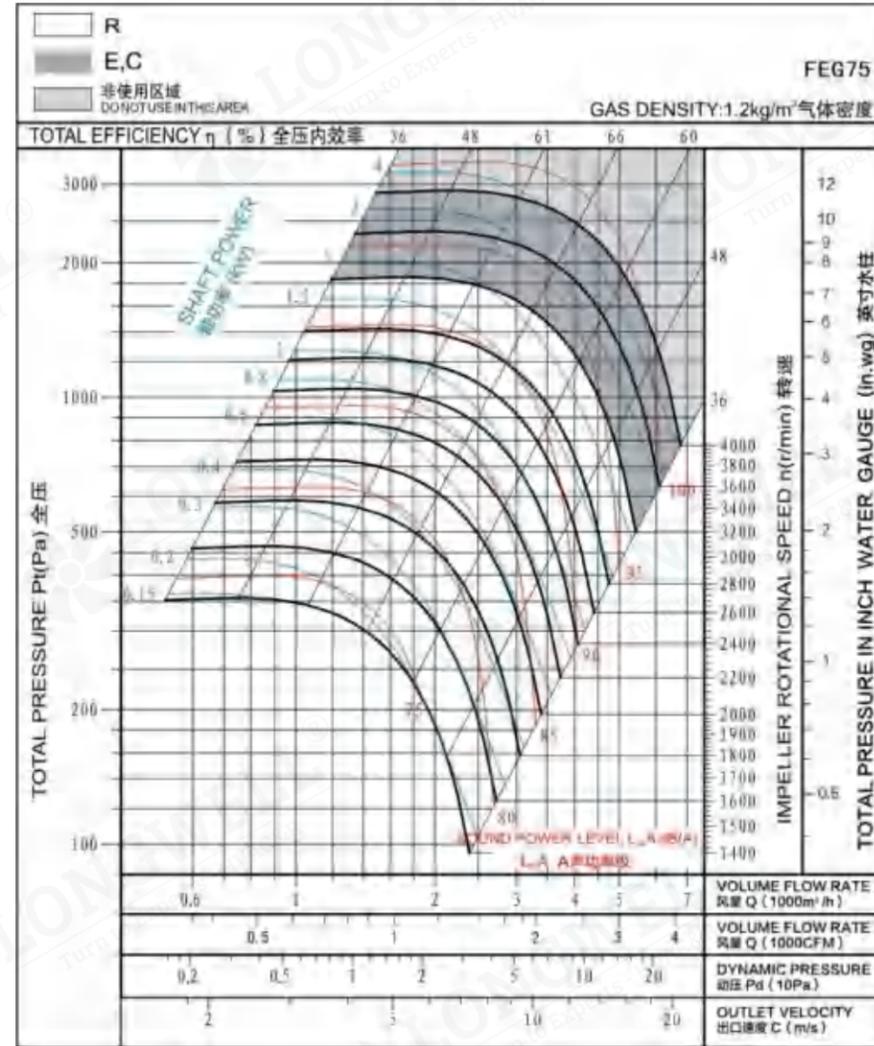


Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
280mm	0.04kg·m <sup>2</sup>	4500r/min	17kg

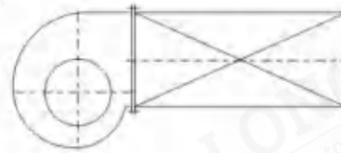
# REM-315

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



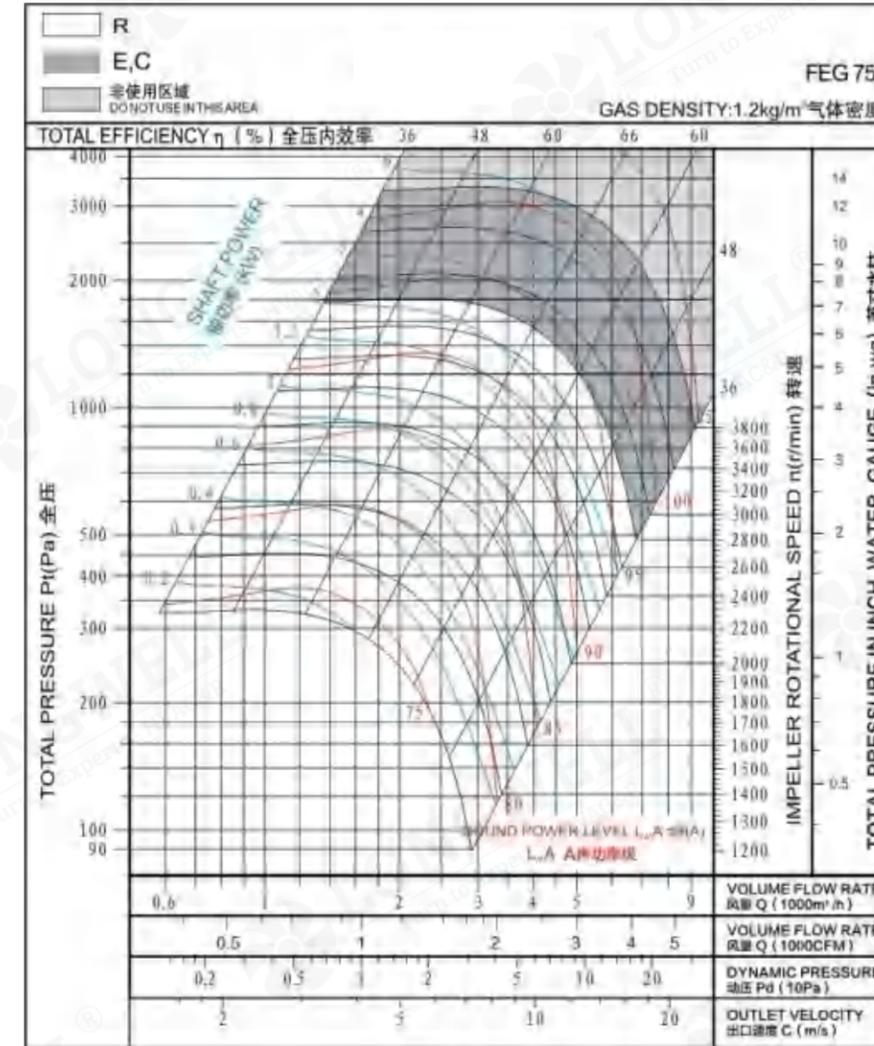
Measured in installation B according to AMCA Standard 210:



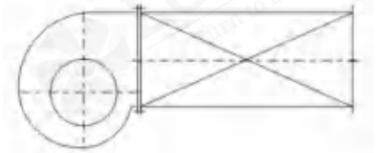
# REM-355

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



Measured in installation B according to AMCA Standard 210:



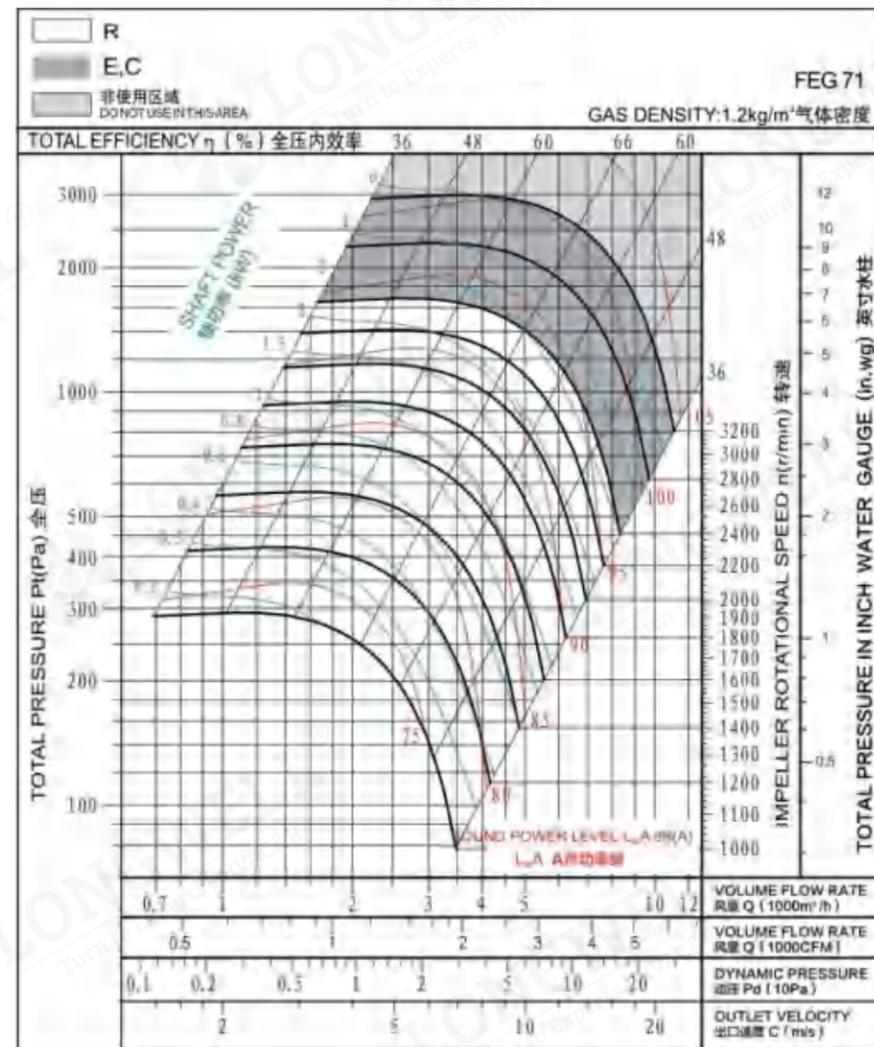
Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
315mm	0.06kg·m <sup>2</sup>	4000r/min	27kg

Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
355mm	0.112kg·m <sup>2</sup>	3800r/min	39kg

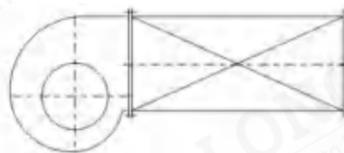
# REM-400

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



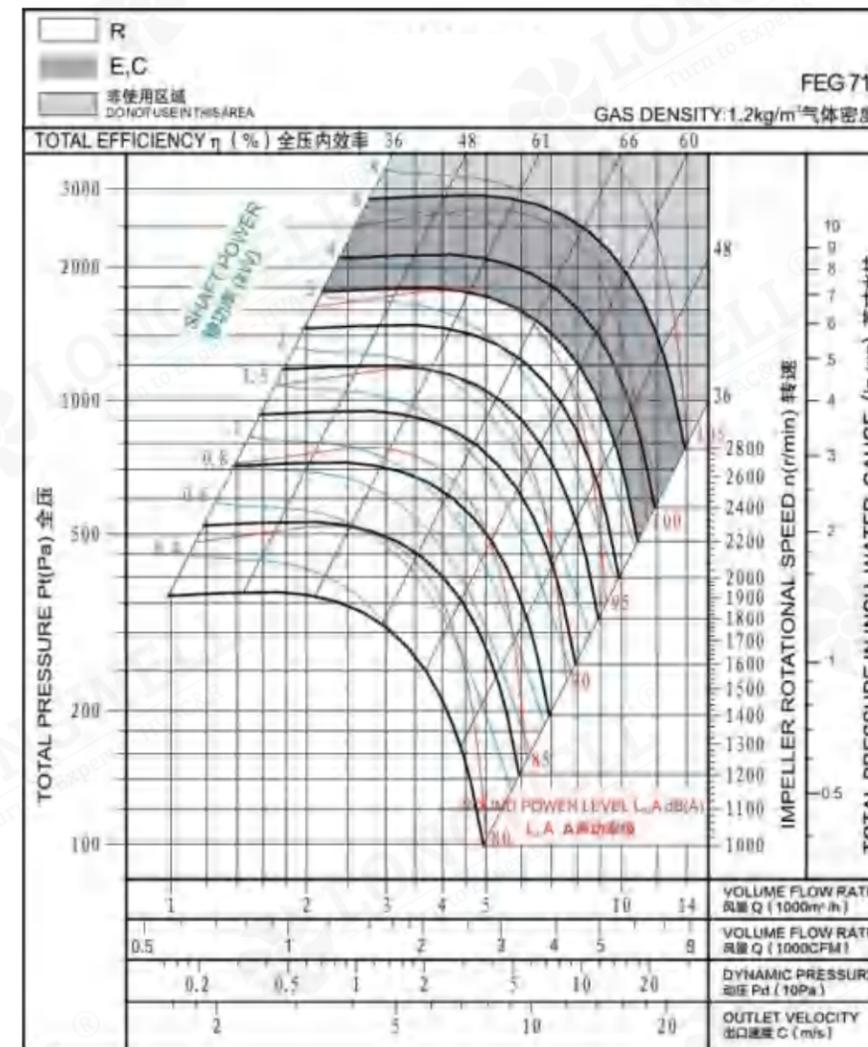
Measured in installation B according to AMCA Standard 210:



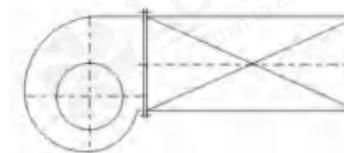
# REM-450

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



Measured in installation B according to AMCA Standard 210:



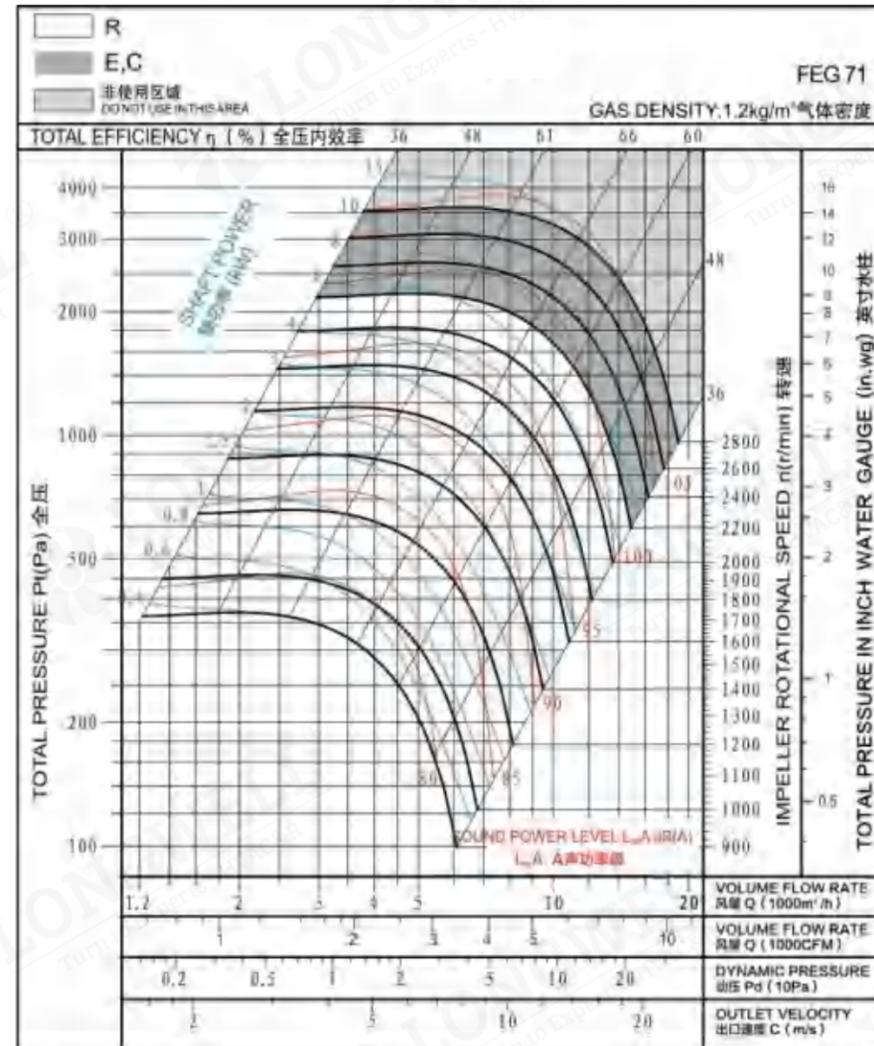
Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
400mm	0.185kg·m <sup>2</sup>	3200r/min	44kg

Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
450mm	0.29kg·m <sup>2</sup>	2800r/min	55kg

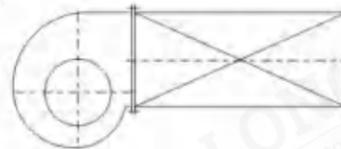
# REM-500

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



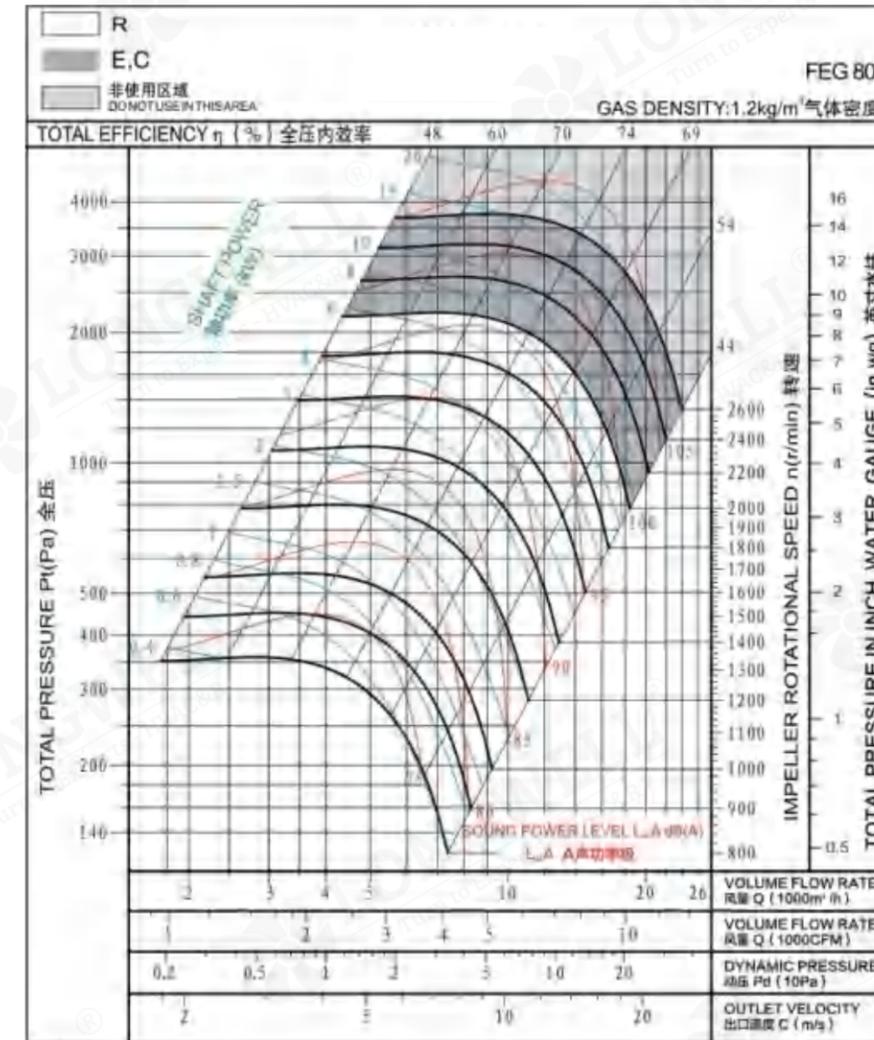
Measured in installation B according to AMCA Standard 210:



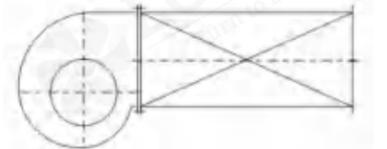
# REM-560

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



Measured in installation B according to AMCA Standard 210:



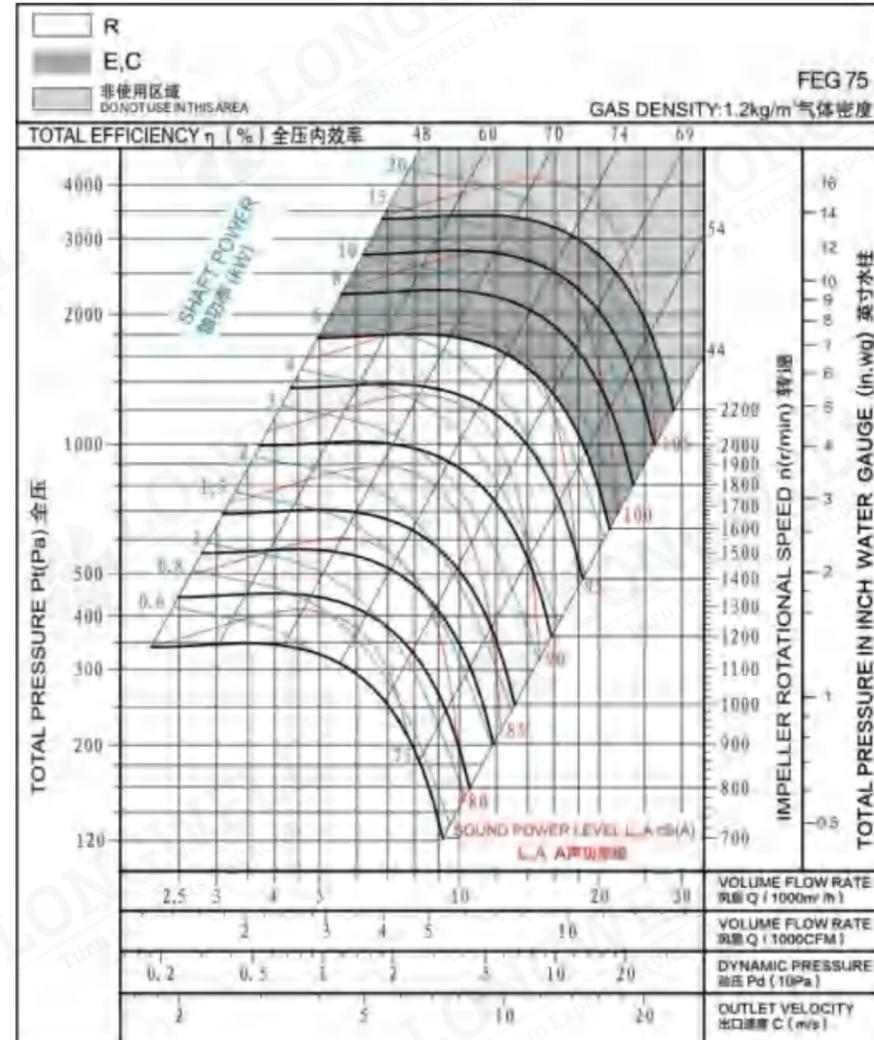
Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
500mm	0.49kg·m <sup>2</sup>	2800r/min	70kg

Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
560mm	0.78kg·m <sup>2</sup>	2600r/min	110kg

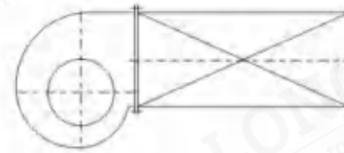
# REM-630

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



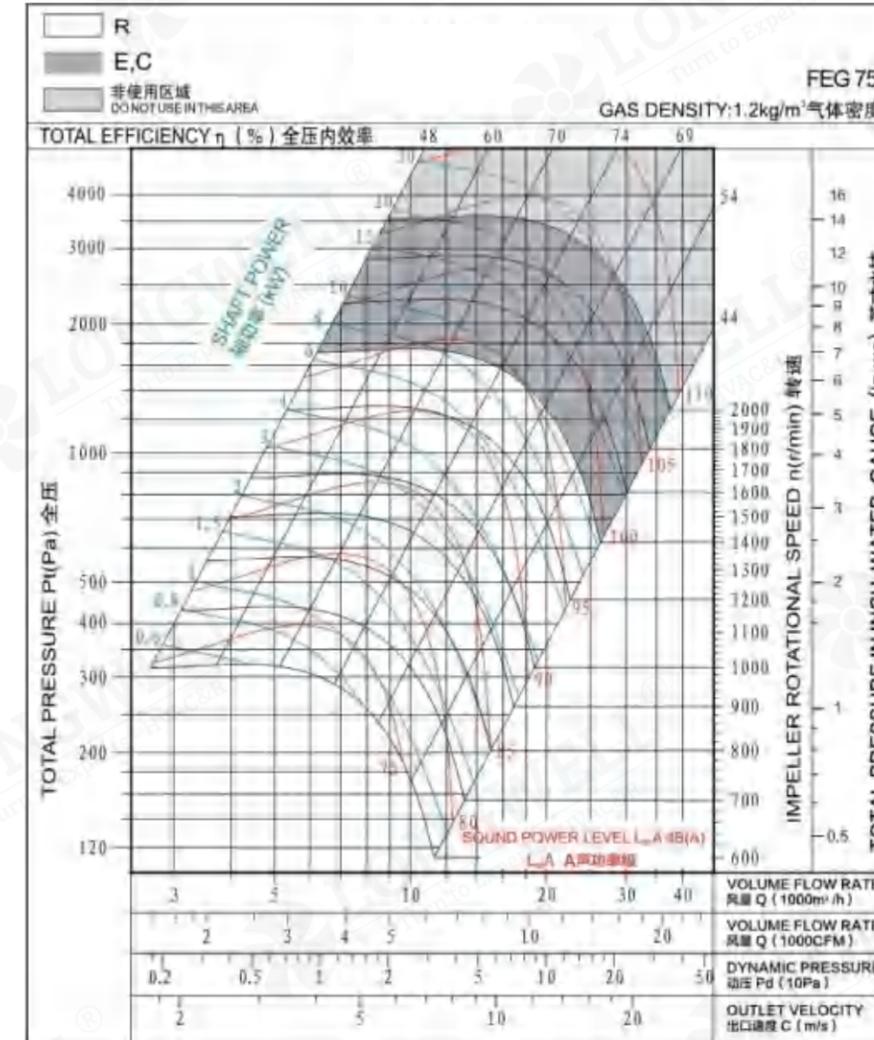
Measured in installation B according to AMCA Standard 210:



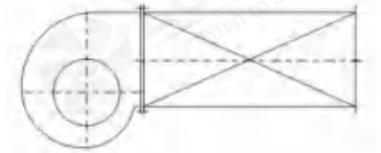
# REM-710

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



Measured in installation B according to AMCA Standard 210:



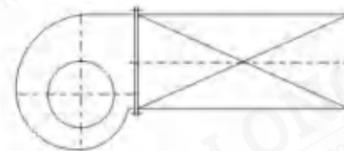
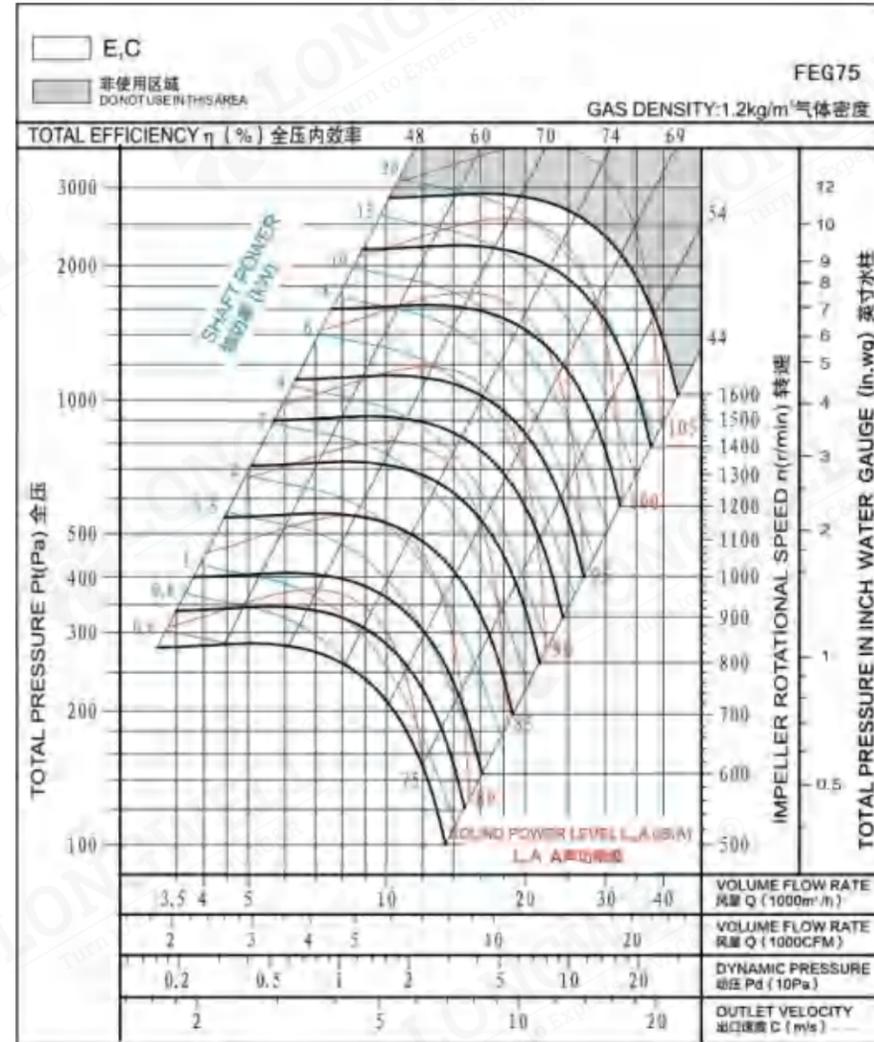
Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
630mm	1.28kg·m <sup>2</sup>	2200r/min	125kg

Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
710mm	2.61kg·m <sup>2</sup>	2000r/min	215kg

# REM-800

## Performance Curves

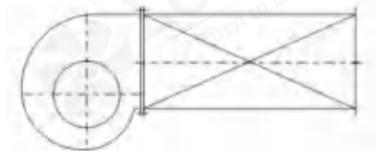
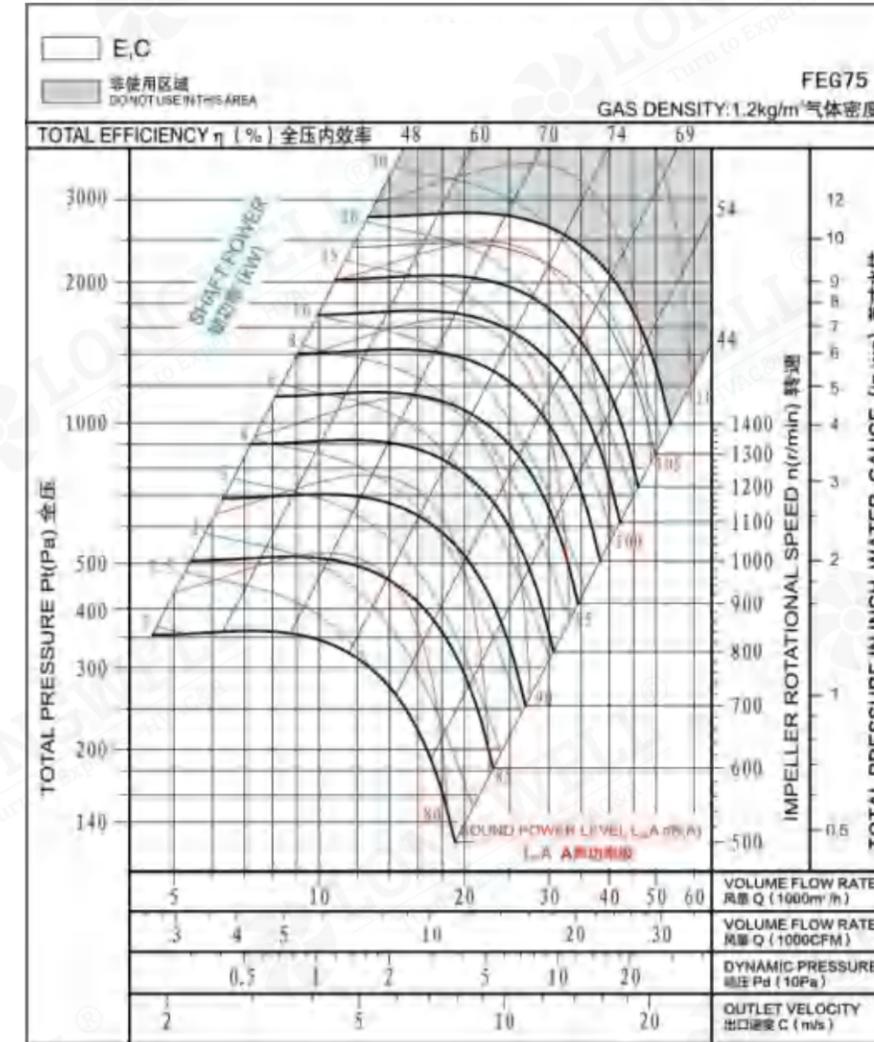
Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



# REM-900

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



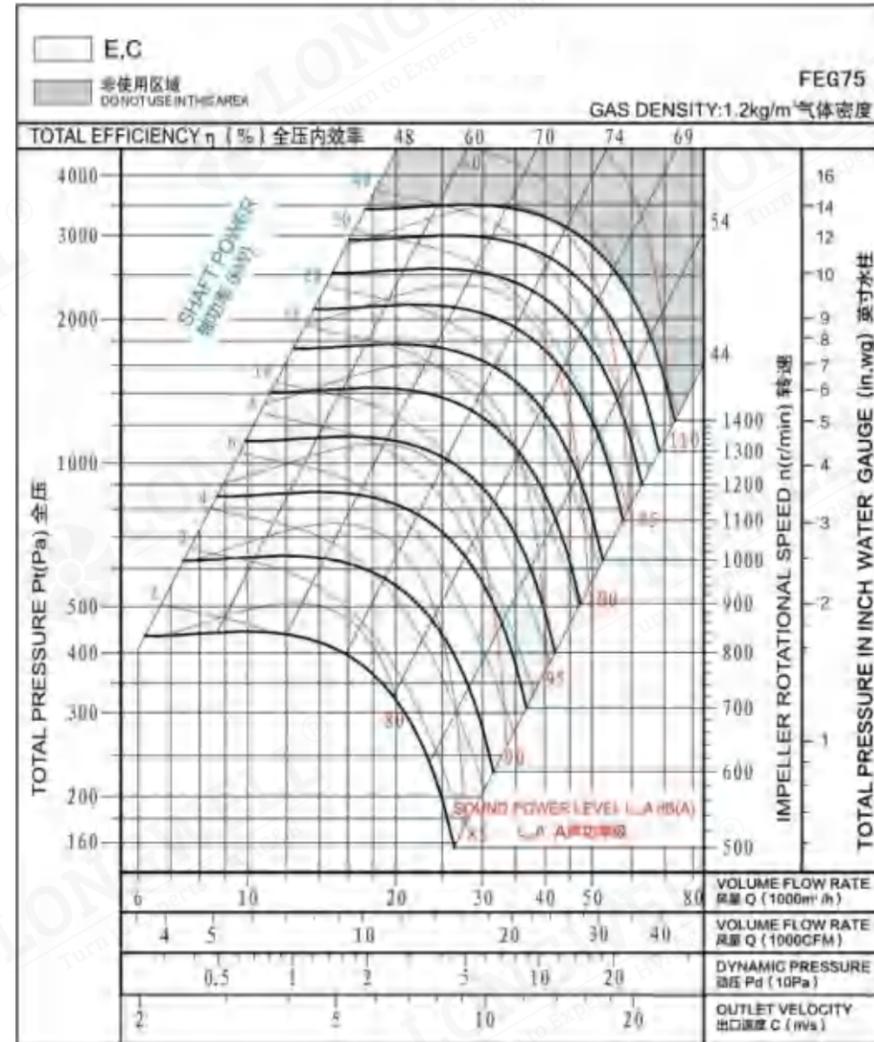
Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
800mm	5.09kg·m²	1400r/min	245kg

Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
900mm	7.59kg·m²	1400r/min	350kg

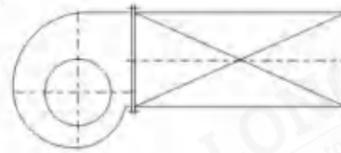
# REM-1000

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



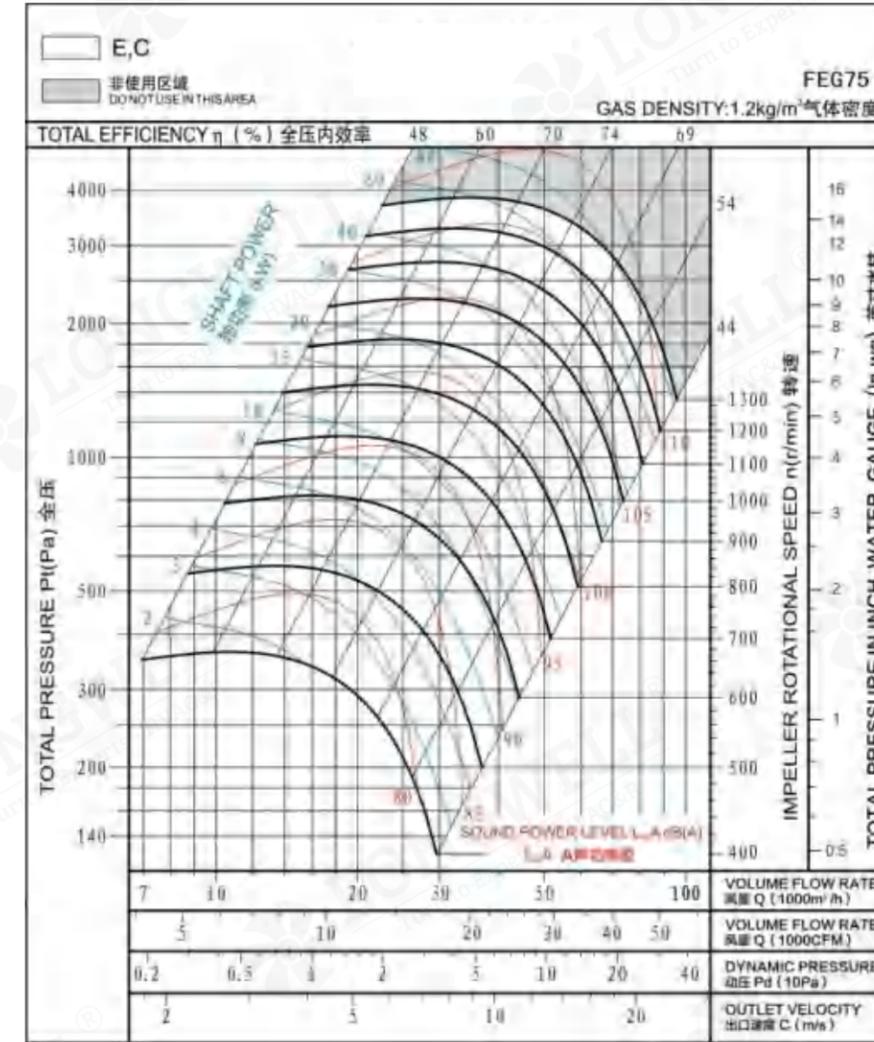
Measured in installation B according to AMCA Standard 210:



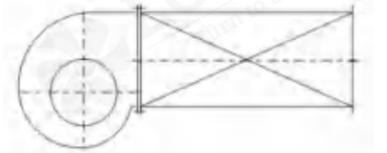
# REM-1120

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



Measured in installation B according to AMCA Standard 210:



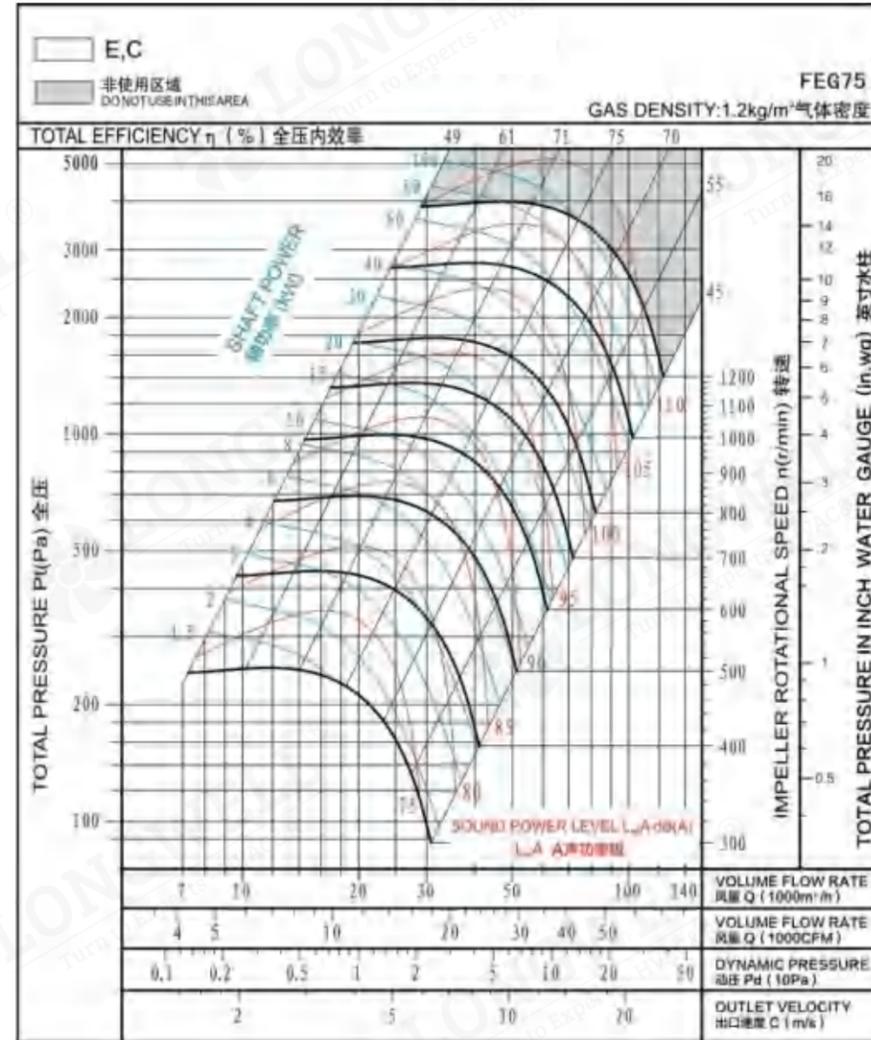
Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
1000mm	13.64kg·m <sup>2</sup>	1400r/min	435kg

Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
1120mm	23.93kg·m <sup>2</sup>	1300r/min	600kg

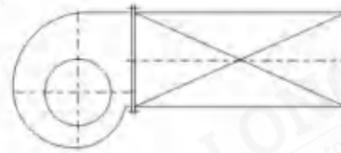
# REM-1250

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



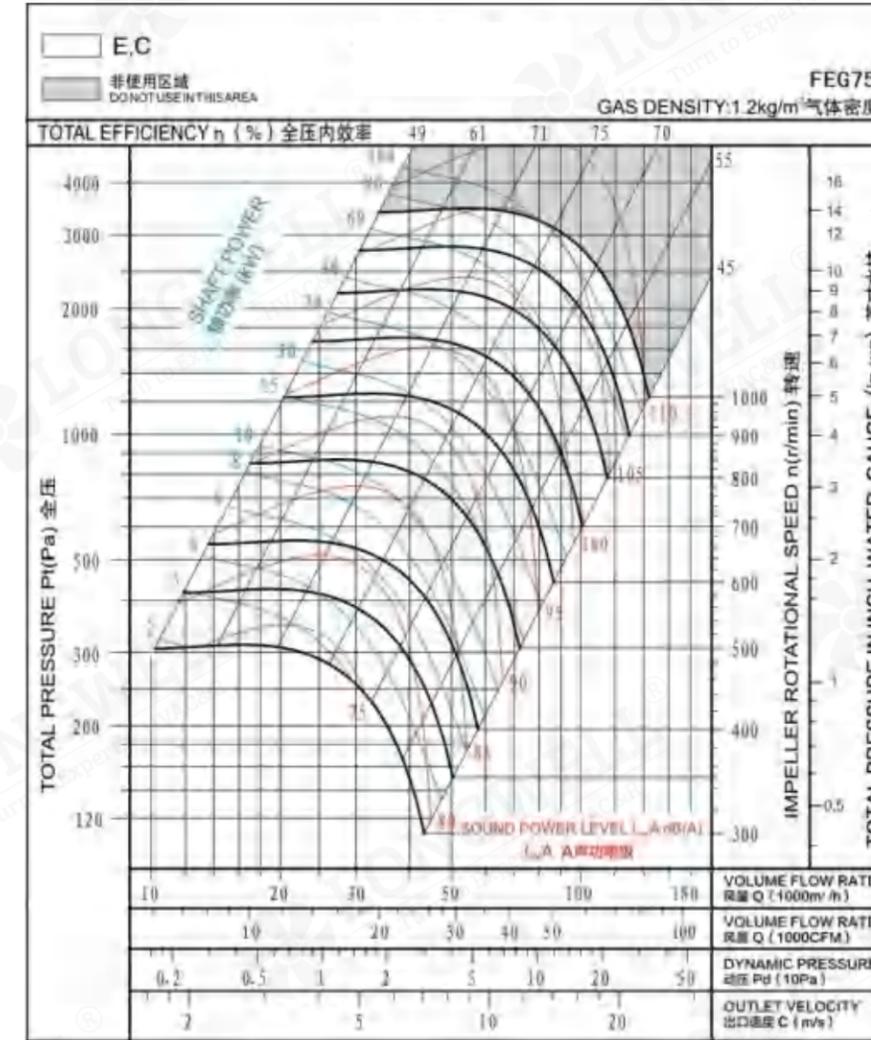
Measured in installation B according to AMCA Standard 210:



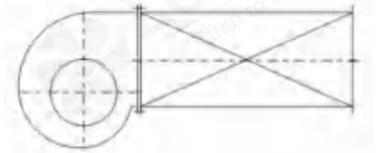
# REM-1400

## Performance Curves

Performance certified is for installation type B:free inlet,ducted outlet.Power rating (kW) does not include transmission losses.Performance ratings do not include the effects of appurtenances (accessories).The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.Values shown are for inlet L<sub>w</sub>A sound power levels for installation type B:free inlet,ducted outlet.



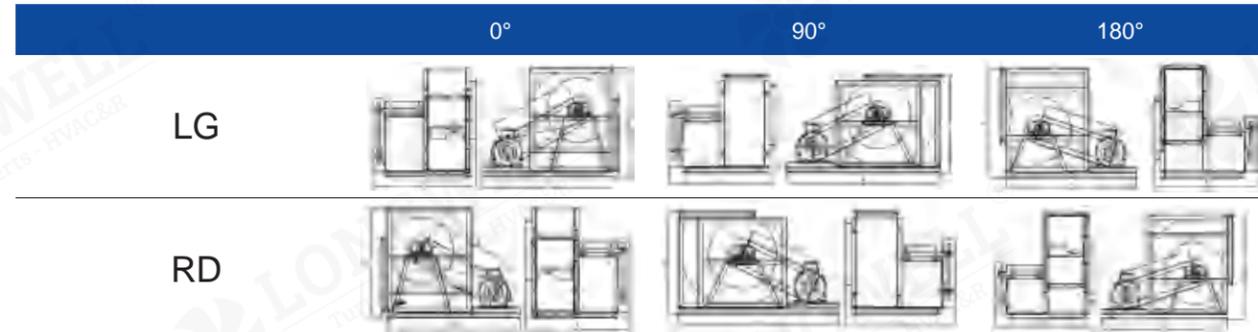
Measured in installation B according to AMCA Standard 210:



Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
1250mm	41.7kg·m <sup>2</sup>	1200r/min	790kg

Wheel Diameter	Moment of Inertia	Speed Limit	Fan Weight
1400mm	77.4kg·m <sup>2</sup>	1000r/min	1080kg

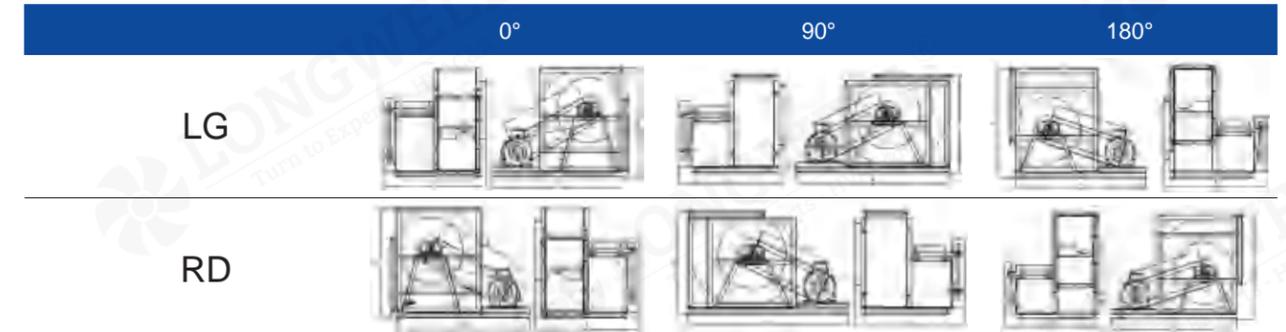
# REM - C



Model	Motor Frame Size	L	A	B	C	L	A	B	C	L	A	B	C
280	80	425	760	675	568	375	850	675	516	410	760	675	568
	90	435	780	675	568	385	860	675	516	420	780	675	568
	100	445	800	675	568	395	880	675	516	430	800	675	568
	112	455	850	675	568	405	930	675	516	440	850	675	568
	132	465	870	675	568	415	950	675	516	450	870	675	568
315	80	465	800	700	628	405	900	700	568	440	800	700	628
	90	475	820	700	627	415	920	700	568	450	820	700	627
	100	485	850	700	628	425	950	700	568	460	850	700	628
	112	495	900	700	628	435	1000	700	568	470	900	700	628
355	132	505	920	700	628	445	1020	700	568	480	920	700	628
	80	515	850	775	705	445	1000	775	628	480	850	775	705
	90	525	860	775	705	455	1000	775	628	490	860	775	705
	100	535	900	775	705	465	1040	775	628	500	900	775	705
	112	545	960	775	705	475	1080	775	628	510	960	775	705
400	132	555	980	775	705	485	1100	775	628	520	980	775	705
	90	585	930	800	786	500	950	800	701	540	930	800	786
	100	595	980	800	786	510	1000	800	701	550	980	800	786
	112	605	1030	800	786	520	1160	800	701	560	1030	800	786
450	132	615	1050	800	786	530	1180	800	701	570	1050	800	786
	160	615	1100	800	786	530	1230	800	701	570	1100	800	786
	90	650	1000	894	877	548	1120	894	776	590	1000	894	877
	100	660	1050	894	877	558	1170	894	776	600	1050	894	877
	112	670	1100	894	877	568	1220	894	776	610	1100	894	877
500	132	680	1120	894	877	578	1270	894	776	620	1120	894	877
	160	680	1200	894	877	578	1350	894	776	620	1200	894	877
	90	720	1100	930	968	610	1250	930	850	650	1100	930	968
	100	730	1130	930	968	620	1280	930	850	660	1130	930	968
	112	740	1180	930	968	630	1330	930	850	670	1180	930	968
560	132	750	1200	930	968	640	1350	930	850	680	1200	930	968
	160	750	1280	930	968	640	1440	930	850	680	1280	930	968
	100	805	1210	1020	1093	680	1370	1020	956	720	1210	1020	1093
	112	815	1260	1020	1093	690	1420	1020	956	730	1260	1020	1093
	132	825	1280	1020	1093	700	1460	1020	956	740	1280	1020	1093
	160	835	1360	1020	1093	710	1540	1020	956	750	1360	1020	1093
	180	845	1400	1020	1093	720	1580	1020	956	760	1400	1020	1093

Note: the size unit in the form is mm

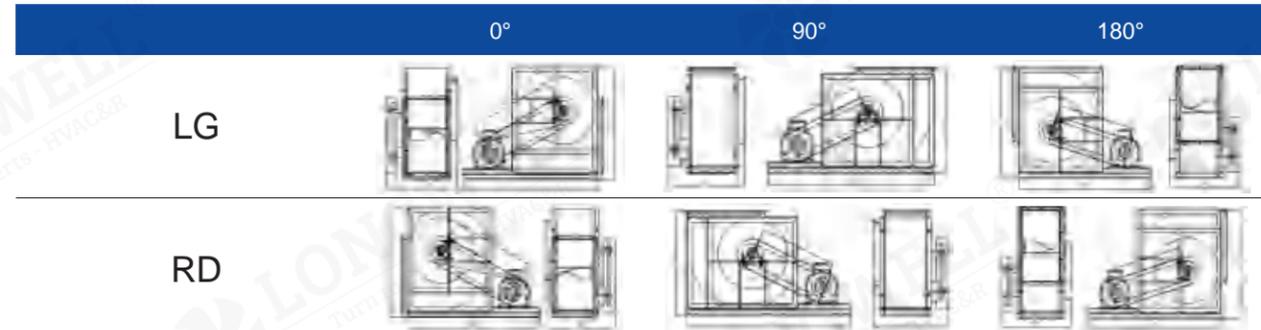
# REM - C



Model	Motor Frame Size	L	B	C	D	L	B	C	D	L	B	C	D
630	100	895	1310	1065	1220	755	1530	1065	1062	795	1310	1065	1220
	112	905	1360	1065	1220	765	1580	1065	1062	805	1360	1065	1220
	132	915	1380	1065	1220	775	1600	1065	1062	815	1380	1065	1220
	160	930	1450	1065	1220	790	1680	1065	1062	830	1450	1065	1220
	180	940	1500	1065	1220	800	1730	1065	1062	840	1500	1065	1220
710	200	950	1550	1065	1220	810	1780	1065	1062	850	1550	1065	1220
	100	1005	1430	1185	1366	840	1670	1185	1184	885	1430	1185	1366
	112	1015	1480	1185	1366	850	1720	1185	1184	895	1480	1185	1366
	132	1025	1500	1185	1366	860	1740	1185	1184	905	1500	1185	1366
	160	1040	1570	1185	1366	875	1800	1185	1184	920	1570	1185	1366
800	180	1050	1620	1185	1366	885	1850	1185	1184	930	1620	1185	1366
	200	1060	1670	1185	1366	895	1900	1185	1184	940	1670	1185	1366
	225	1070	1700	1185	1366	905	1930	1185	1184	950	1700	1185	1366
	112	1130	1580	1245	1548	950	1880	1245	1330	990	1580	1245	1548
	132	1140	1600	1245	1548	960	1900	1245	1330	1000	1600	1245	1548
900	160	1155	1650	1245	1548	975	1950	1245	1330	1015	1650	1245	1548
	180	1165	1720	1245	1548	985	2020	1245	1330	1025	1720	1245	1548
	200	1175	1770	1245	1548	995	2070	1245	1330	1035	1770	1245	1548
	225	1185	1820	1245	1548	1005	2120	1245	1330	1045	1820	1245	1548
	250	1195	1880	1245	1548	1015	2180	1245	1330	1055	1880	1245	1548
1000	112	1270	1730	1375	1728	1060	2060	1375	1488	1110	1730	1375	1728
	132	1280	1750	1375	1728	1070	2080	1375	1488	1110	1750	1375	1728
	160	1295	1800	1375	1728	1085	2130	1375	1488	1125	1800	1375	1728
	180	1310	1880	1375	1728	1095	2220	1375	1488	1135	1880	1375	1728
	200	1320	1920	1375	1728	1105	2250	1375	1488	1145	1920	1375	1728
	225	1330	1980	1375	1728	1115	2320	1375	1488	1155	1980	1375	1728
	250	1340	2050	1375	1728	1125	2380	1375	1488	1165	2050	1375	1728
	132	1400	1900	1450	1890	1175	2250	1450	1621	1215	1900	1450	1890
	160	1415	1950	1450	1890	1190	2300	1450	1621	1230	1950	1450	1890
	180	1425	2030	1450	1890	1200	2380	1450	1621	1240	2030	1450	1890
	200	1435	2070	1450	1890	1210	2420	1450	1621	1250	2070	1450	1890
	225	1445	2130	1450	1890	1220	2480	1450	1621	1260	2130	1450	1890
	250	1455	2200	1450	1890	1230	2550	1450	1621	1270	2200	1450	1890
	280	1465	2250	1450	1890	1240	2600	1450	1621	1280	2250	1450	1890

Note: the size unit in the form is mm

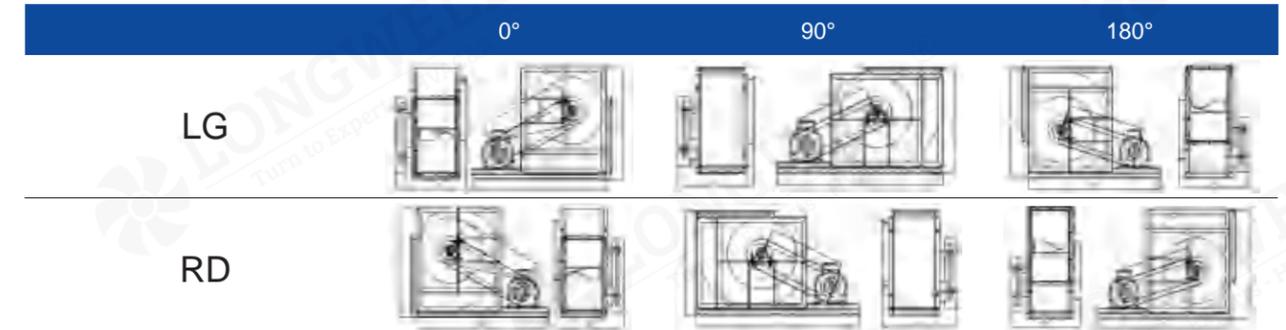
# REM - E



Model	Motor Frame Size	L	A	B	C	L	A	B	C	L	A	B	C
280	80	425	760	430	568	375	850	430	516	410	760	430	568
	90	435	780	430	568	385	860	430	516	420	780	430	568
	100	445	800	430	568	395	880	430	516	430	800	430	568
	112	455	850	430	568	405	930	430	516	440	850	430	568
	132	465	870	430	568	415	950	430	516	450	870	430	568
315	80	465	800	465	628	405	900	465	568	440	800	465	628
	90	475	820	465	627	415	920	465	568	450	820	465	627
	100	485	850	465	628	425	950	465	568	460	850	465	628
	112	495	900	465	628	435	1000	465	568	470	900	465	628
355	132	505	920	465	628	445	1020	465	568	480	920	465	628
	80	515	850	495	705	445	1000	495	628	480	850	495	705
	90	525	860	495	705	455	1000	495	628	490	860	495	705
	100	535	900	495	705	465	1040	495	628	500	900	495	705
	112	545	960	495	705	475	1080	495	628	510	960	495	705
400	132	555	980	495	705	485	1100	495	628	520	980	495	705
	90	585	930	525	786	500	950	525	701	540	930	525	786
	100	595	980	525	786	510	1000	525	701	550	980	525	786
	112	605	1030	525	786	520	1160	525	701	560	1030	525	786
450	132	615	1050	525	786	530	1180	525	701	570	1050	525	786
	160	615	1100	525	786	530	1230	525	701	570	1100	525	786
	90	650	1000	580	877	548	1120	580	776	590	1000	580	877
	100	660	1050	580	877	558	1170	580	776	600	1050	580	877
	112	670	1100	580	877	568	1220	580	776	610	1100	580	877
500	132	680	1120	580	877	578	1270	580	776	620	1120	580	877
	160	680	1200	580	877	578	1350	580	776	620	1200	580	877
	90	720	1100	620	968	610	1250	620	850	650	1100	620	968
	100	730	1130	620	968	620	1280	620	850	660	1130	620	968
	112	740	1180	620	968	630	1330	620	850	670	1180	620	968
560	132	750	1200	620	968	640	1350	620	850	680	1200	620	968
	160	750	1280	620	968	640	1440	620	850	680	1280	620	968
	100	805	1210	665	1093	680	1370	665	956	720	1210	665	1093
	112	815	1260	665	1093	690	1420	665	956	730	1260	665	1093
560	132	825	1280	665	1093	700	1460	665	956	740	1280	665	1093
	160	835	1360	665	1093	710	1540	665	956	750	1360	665	1093
	180	845	1400	665	1093	720	1580	665	956	760	1400	665	1093

Note: the size unit in the form is mm

# REM - E



Model	Motor Frame Size	L	B	C	D	L	B	C	D	L	B	C	D
630	100	895	1310	715	1220	755	1530	715	1062	795	1310	715	1220
	112	905	1360	715	1220	765	1580	715	1062	805	1360	715	1220
	132	915	1380	715	1220	775	1600	715	1062	815	1380	715	1220
	160	930	1450	715	1220	790	1680	715	1062	830	1450	715	1220
	180	940	1500	715	1220	800	1730	715	1062	840	1500	715	1220
710	200	950	1550	715	1220	810	1780	715	1062	850	1550	715	1220
	100	1005	1430	770	1366	840	1670	770	1184	885	1430	770	1366
	112	1015	1480	770	1366	850	1720	770	1184	895	1480	770	1366
	132	1025	1500	770	1366	860	1740	770	1184	905	1500	770	1366
	160	1040	1570	770	1366	875	1800	770	1184	920	1570	770	1366
800	180	1050	1620	770	1366	885	1850	770	1184	930	1620	770	1366
	200	1060	1670	770	1366	895	1900	770	1184	940	1670	770	1366
	225	1070	1700	770	1366	905	1930	770	1184	950	1700	770	1366
	112	1130	1580	825	1548	950	1880	825	1330	990	1580	825	1548
	132	1140	1600	825	1548	960	1900	825	1330	1000	1600	825	1548
900	160	1155	1650	825	1548	975	1950	825	1330	1015	1650	825	1548
	180	1165	1720	825	1548	985	2020	825	1330	1025	1720	825	1548
	200	1175	1770	825	1548	995	2070	825	1330	1035	1770	825	1548
	225	1185	1820	825	1548	1005	2120	825	1330	1045	1820	825	1548
	250	1195	1880	825	1548	1015	2180	825	1330	1055	1880	825	1548
1000	112	1270	1730	905	1728	1060	2060	905	1488	1110	1730	905	1728
	132	1280	1750	905	1728	1070	2080	905	1488	1110	1750	905	1728
	160	1295	1800	905	1728	1085	2130	905	1488	1125	1800	905	1728
	180	1310	1880	905	1728	1095	2220	905	1488	1135	1880	905	1728
	200	1320	1920	905	1728	1105	2250	905	1488	1145	1920	905	1728
1000	225	1330	1980	905	1728	1115	2320	905	1488	1155	1980	905	1728
	250	1340	2050	905	1728	1125	2380	905	1488	1165	2050	905	1728
	132	1400	1900	975	1890	1175	2250	975	1621	1215	1900	975	1890
	160	1415	1950	975	1890	1190	2300	975	1621	1230	1950	975	1890
	180	1425	2030	975	1890	1200	2380	975	1621	1240	2030	975	1890
1000	200	1435	2070	975	1890	1210	2420	975	1621	1250	2070	975	1890
	225	1445	2130	975	1890	1220	2480	975	1621	1260	2130	975	1890
	250	1455	2200	975	1890	1230	2550	975	1621	1270	2200	975	1890
280	1465	2250	975	1890	1240	2600	975	1621	1280	2250	975	1890	

Note: the size unit in the form is mm

# REM - R



Model	Motor Frame Size	L	A	B	C	L	A	B	C	L	A	B	C
280	71	415	740	400	568	365	830	400	516	400	740	400	568
	80	425	760	400	568	375	850	400	516	410	760	400	568
	90	435	780	400	568	385	860	400	516	420	780	400	568
	100	445	800	400	568	395	880	400	516	430	800	400	568
	112	455	850	400	568	405	930	400	516	440	850	400	568
315	71	455	780	435	628	395	880	435	568	430	780	435	628
	80	465	800	435	628	405	900	435	568	440	800	435	628
	90	475	820	435	628	415	920	435	568	450	820	435	628
	100	485	850	435	628	425	950	435	568	460	850	435	628
355	71	505	830	465	705	435	960	465	628	470	830	465	705
	80	515	850	465	705	445	980	465	628	480	850	465	705
	90	525	860	465	705	455	1000	465	628	490	860	465	705
	100	535	900	465	705	465	1040	465	628	500	900	465	705
400	71	545	960	465	705	475	1080	465	628	510	960	465	705
	80	565	880	495	786	480	900	495	701	520	880	495	786
	90	575	900	495	786	490	920	495	701	530	900	495	786
	100	585	930	495	786	500	950	495	701	540	930	495	786
	112	605	1030	495	786	520	1160	495	701	560	1030	495	786
450	132	615	1050	495	786	530	1180	495	701	570	1050	495	786
	80	640	980	550	877	548	1100	550	776	580	980	550	877
	90	650	1000	550	877	548	1120	550	776	590	1000	550	877
	100	660	1050	550	877	558	1170	550	776	600	1050	550	877
500	112	670	1100	550	877	568	1220	550	776	610	1100	550	877
	132	680	1120	550	877	578	1270	550	776	620	1120	550	877
	80	710	1080	590	968	600	1230	590	850	640	1080	590	968
	90	720	1100	590	968	610	1250	590	850	650	1100	590	968
	10	730	1130	590	968	620	1280	590	850	660	1130	590	968
500	112	740	1180	590	968	640	1330	590	850	670	1180	590	968
	132	750	1200	590	968	630	1350	590	850	680	1200	590	968

Note: the size unit in the form is mm

# REM - R



Model	Motor Frame Size	L	B	C	D	L	B	C	D	L	B	C	D
560	90	795	1160	635	1093	670	1320	635	956	710	1160	635	1093
	100	805	1210	635	1093	680	1370	635	956	720	1210	635	1093
	112	815	1260	635	1093	690	1420	635	956	730	1260	635	1093
	132	825	1280	635	1093	700	1460	635	956	740	1280	635	1093
	160	835	1360	635	1093	710	1540	635	956	750	1360	635	1093
630	90	885	1260	685	1220	745	1480	685	1062	785	1260	685	1220
	100	895	1310	685	1220	755	1530	685	1062	795	1310	685	1220
	112	905	1360	685	1220	765	1580	685	1062	805	1360	685	1220
	132	915	1380	685	1220	775	1600	685	1062	815	1380	685	1220
710	160	930	1450	685	1220	790	1680	685	1062	830	1450	685	1220
	90	995	1380	740	1366	830	1620	740	1184	875	1380	740	1366
	100	1005	1430	740	1366	840	1670	740	1184	885	1430	740	1366
	112	1015	1480	740	1366	850	1720	740	1184	895	1480	740	1366
	132	1025	1500	740	1366	860	1740	740	1184	905	1500	740	1366
710	160	1040	1570	740	1366	875	1800	740	1184	920	1570	740	1366

Note: the size unit in the form is mm

## REM Series Ventilator Operational Limits

		280	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400
Max. absorbed Power	R KW	2	2	2.5	3	4	6	8	8	9	/	/	/	/	/	/
	E KW	4	4	6	7	7	15	18	20	22	25	30	45	80	100	100
	C KW	4	4	6	7	7	15	18	20	22	25	30	45	80	100	100
Max. R.P.M	R rpm	4000	3200	2800	2400	2200	2400	2600	1600	1400	/	/	/	/	/	/
	E rpm	4500	4000	3800	3200	2800	2800	2000	2200	2000	1600	1400	1400	1300	1200	1000
	C rpm	4500	4000	3800	3200	2800	2800	2000	2200	2000	1600	1400	1400	1300	1200	1000
Air Temperature Limits (Min-20°C)	R Max.°C	85	85	85	85	85	85	85	85	85	/	/	/	/	/	/
	E Max.°C	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
	C Max.°C	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Fan Weight	R Kg	17	27	39	44	55	70	110	125	175	/	/	/	/	/	/
	E Kg	29	39	52	58	73	91	140	160	210	245	350	435	600	790	1080
	C Kg	27	37	50	55	72	89	138	161	215	252	360	445	610	800	1100

# Plug Fan - RLM Series

Professional HVAC Fan & Motors Manufacturer



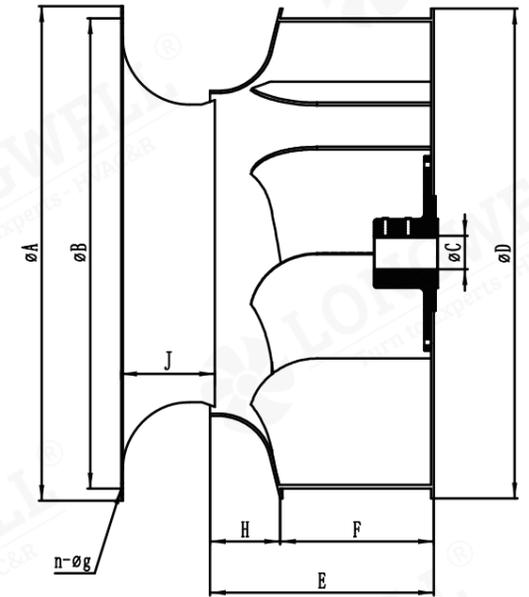
## Plug Fan - RLM Series

### Product Outline

The RLM Series of centrifugal plug fan was developed by using international advanced technologies. The RLM series includes 13 models as described in this brochure. The volume flow ranges of the RLM Series varies from 500 cubic meter per hour to 70000 cubic meters per hour. Some of the features and characteristics of these ventilators are: wide range of applications, high efficiency, low noise, and low power consumption. These ventilators are ideal for use in central air conditioning systems, heating and ventilation air conditioning systems, and in purifiers. They are also suitable for use in a number of other ventilator applications.

### Mounting unit

Impeller, inlet cone and Motor are fit together with mounting unit. Mounting unit is made of galvanized plate. Many sizes of motor could be selected, and Horizontal or vertical shaft. Many sizes of connection of inlet cone.



Model	ΦA	ΦB	ΦC	ΦD	E	F	H	J	Φg	n	MaxPPM
RLM250-R	275	255	14 19 24	272	118	80	38	45	9	6	4500
RLM280-R	300	280	14 19 24 28	308	133	89	44	50	9	6	4300
RLM315-R	355	325	19 24 28	345	146	100	46	57	9	6	4000
RLM355-R	383	344	19 24 28	385	162	112	50	62	9	6	3500
RLM400-R	423	386	19 24 28 38	430	185	126	59	67	9	8	2900
RLM450-R	466	432	19 24 28 38	480	210	142	68	78	11	8	2900
RLM500-R	515	485	19 24 28 38 42	540	235	159	76	84.5	11	8	2500
RLM560-R	570	544	24 28 38 42	603	262	178	84	99	11	8	2200
RLM630-R	635	605	24 28 38 42	680	293	199	94	114	13	8	1900
RLM710-R	700	670	28 38 42 48	762	328	224	104	130	13	10	1600
RLM800-R	778	750	28 38 42 48 55	855	368	252	116	139	13	10	1400
RLM900-R	875	844	38 42 48 55	955	413	282	131	160	13	12	1250
RLM1000-R	980	945	38 42 48 55 60 65	1055	462	316	146	177	13	12	960

# Plug Fan - RLM Series

## Impeller

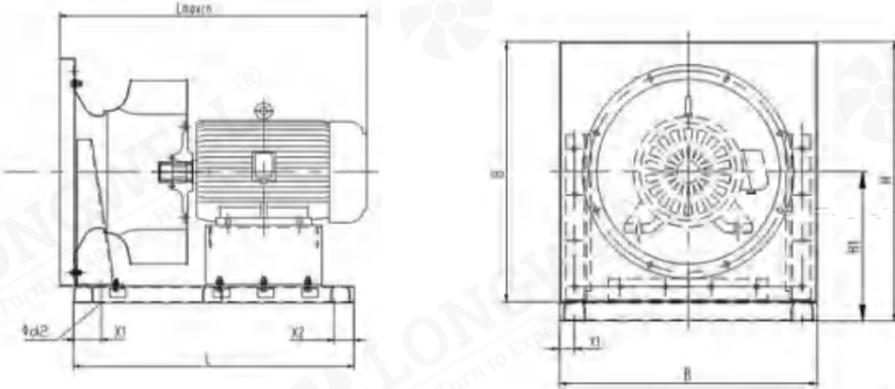
Centrifugal plug fan impellers are made of Aluminium with backward blade, according aerodynamics design the impeller have high efficiency and low power. Maximum tip speed of the impeller is 70m/s. Outstanding characteristic is with stable performance and low noise, and the impeller is balanced according to G 2.5 to DIN ISO 1940/1. Inside of impeller the GG-hub is fixed with locked bush. The blade is made of stainless steel or steel.

## Inlet Cone

The inlet cone is made of sheet steel and is a special part, it can lead air into impeller stably.

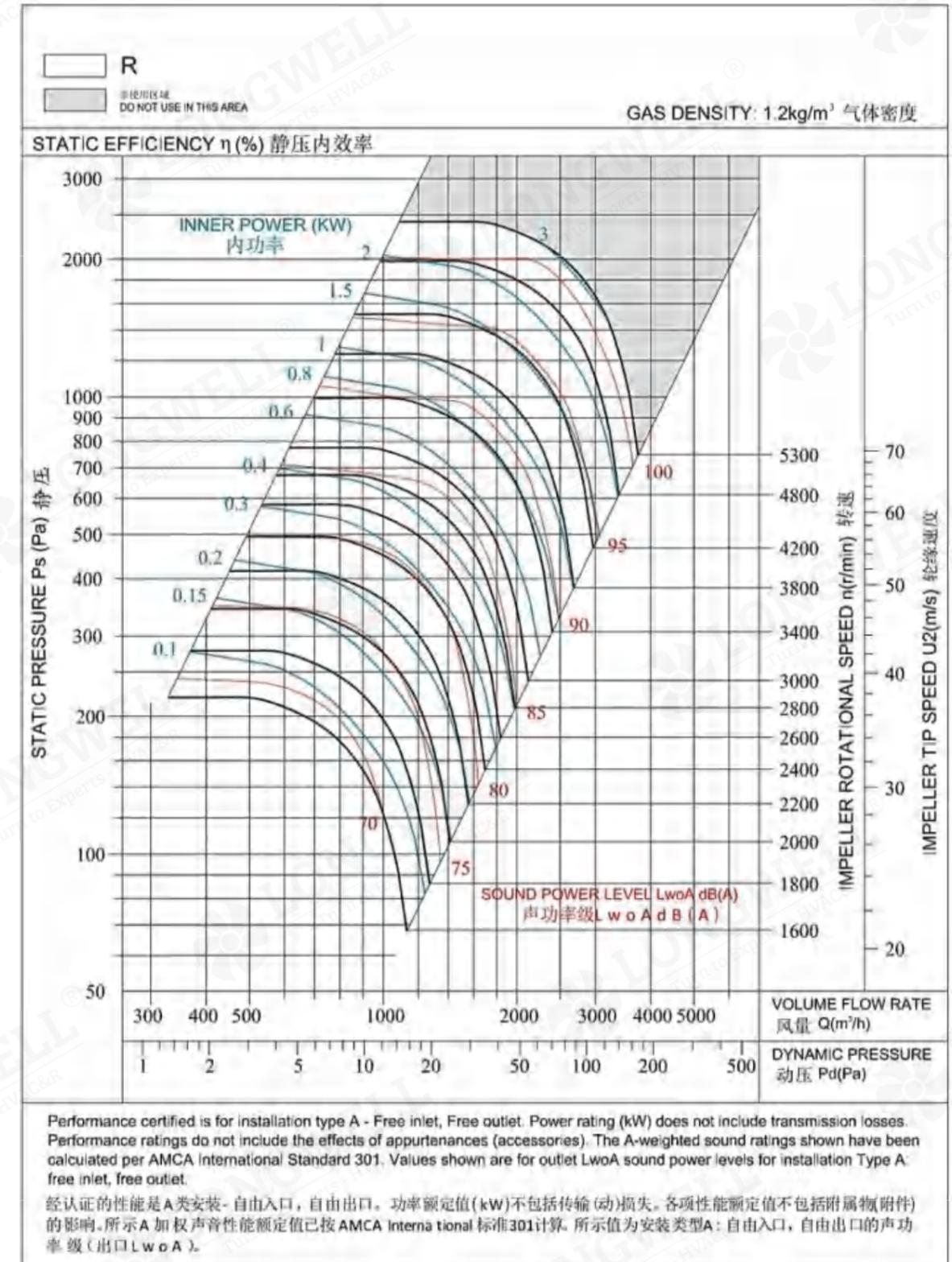
## Wrap part

Wrap part of Impeller and inlet cone is design to ensure impeller performance and take care to protect, this wrap part manufacture with aerodynamic via special testing.

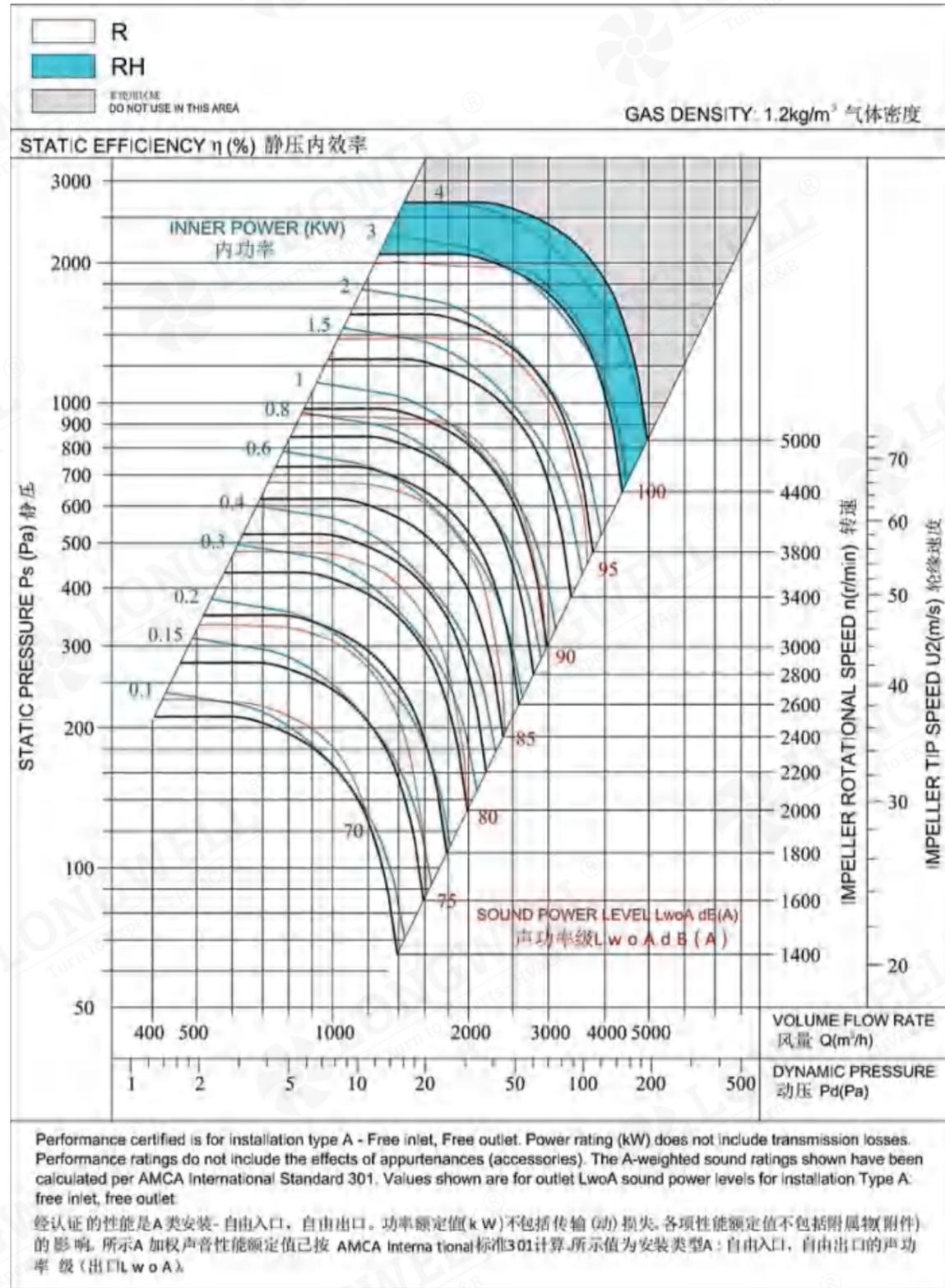


Model	B	H	H1	L	Lmaxca.	X1	X2	X3	Φd2
RLM250-RH	376	414	226	475	610	60	40	24.5	14
RLM280-RH	400	438	238	475	610	60	40	24.5	14
RLM315-RH	430	468	253	520	660	60	40	24.5	14
RLM355-RH	462	500	269	533	680	60	40	25	14
RLM400-RH	502	540	289	586	740	60	40	25	14
RLM450-RH	566	608	325	700	780	69	50	33	14
RLM500-RH	612	654	348	760	800	80	50	31	14
RLM560-RH	688	744	400	870	950	100	50	38	18
RLM630-RH	768	824	440	920	990	100	50	39	18
RLM710-RH	850	935	510	1000	1090	100	50	50	18
RLM800-RH	940	1020	550	1100	1220	100	100	50	20
RLM900-RH	1044	1154	632	1200	1291	100	100	60	20
RLM1000-RH	1140	1250	680	1320	1486	100	100	60	20

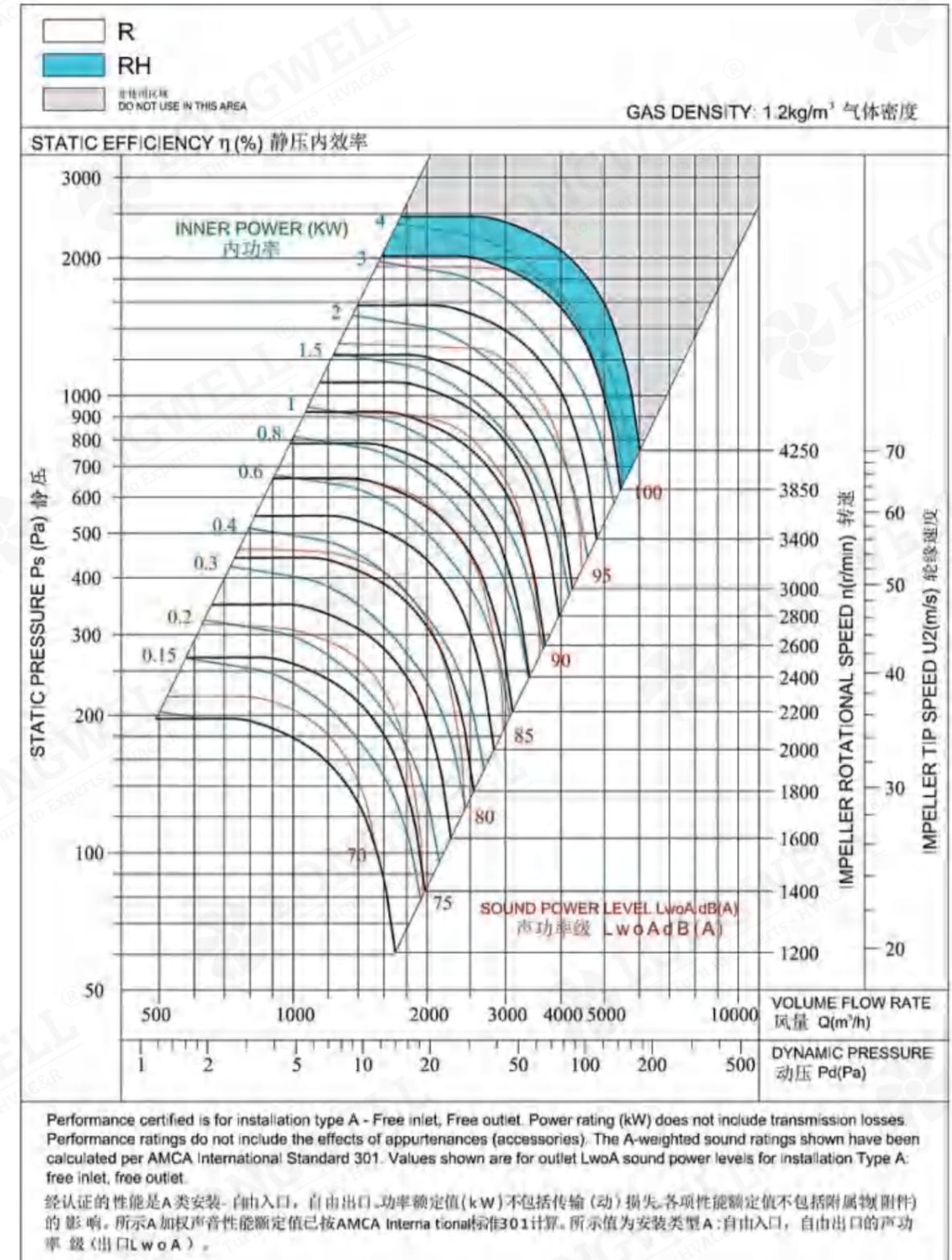
# RLM-250



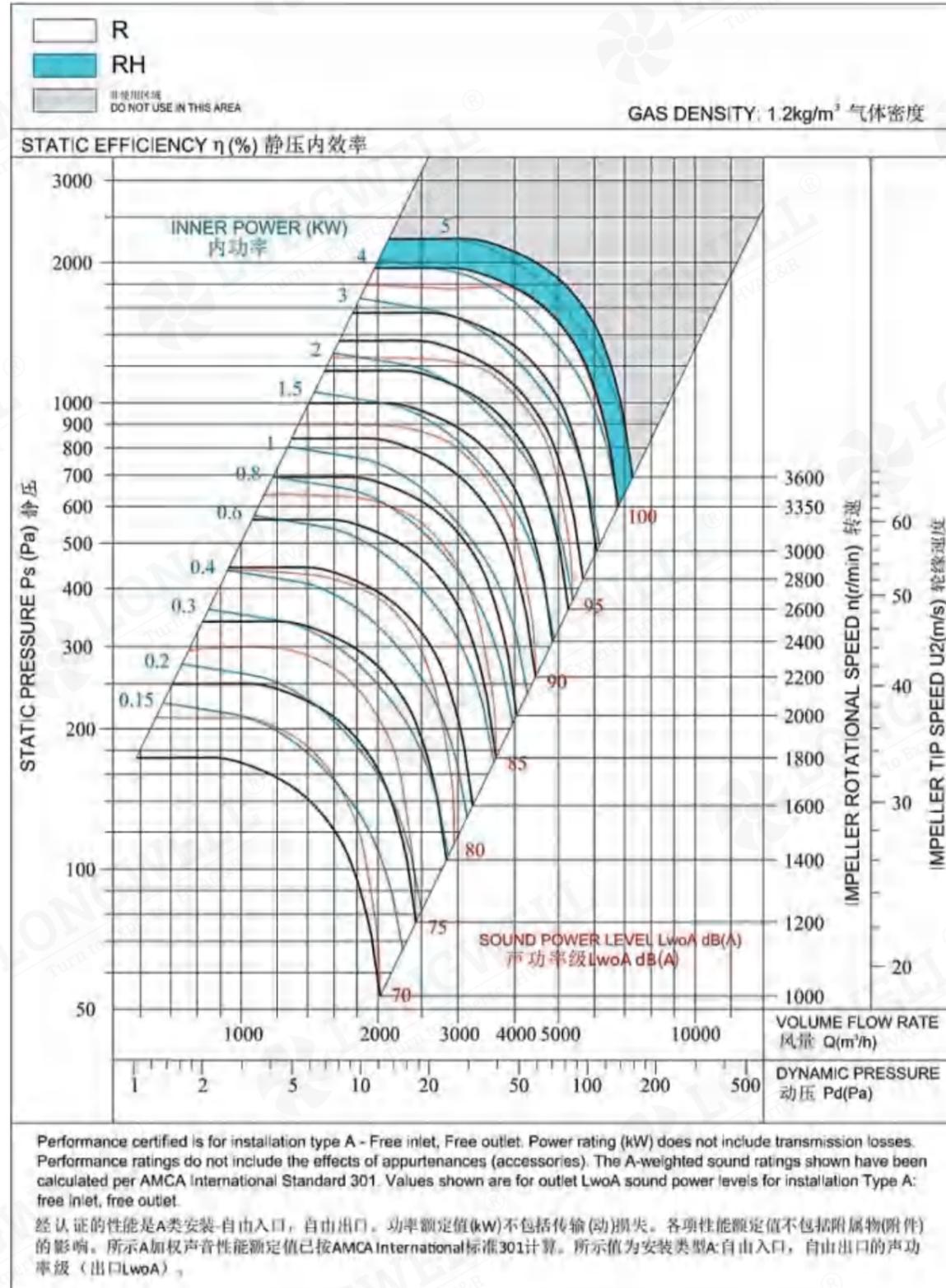
# RLM-280



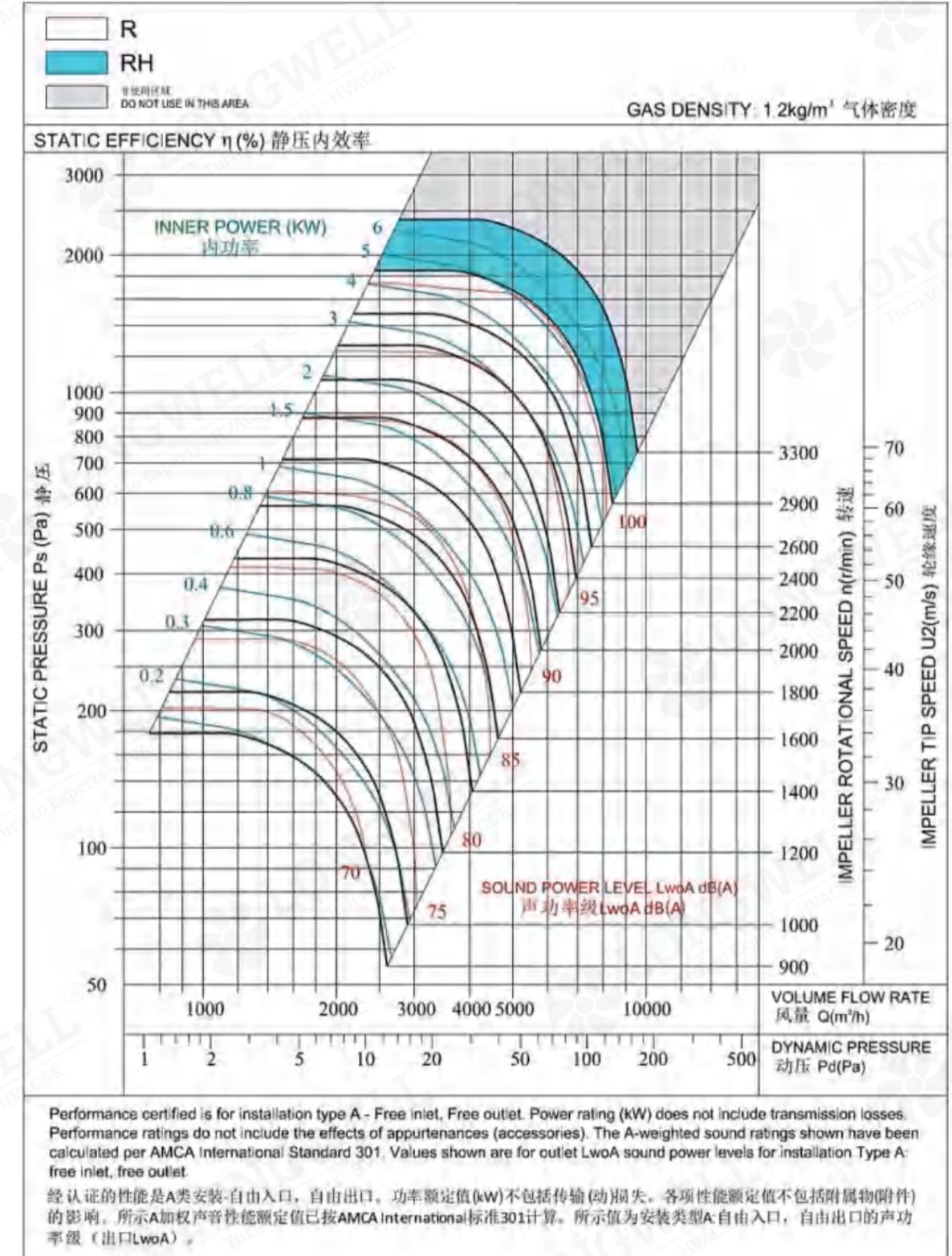
# RLM-315



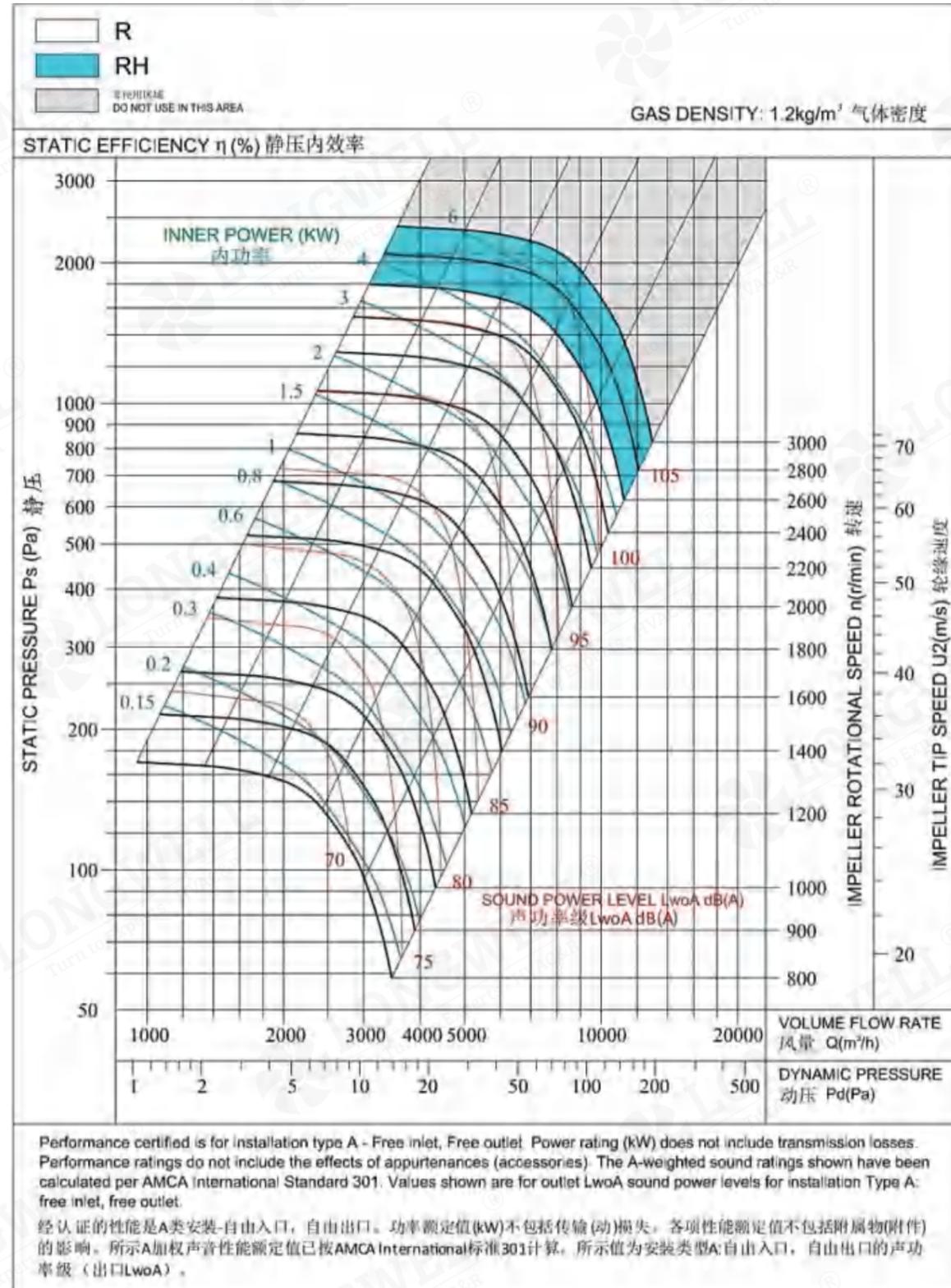
# RLM-355



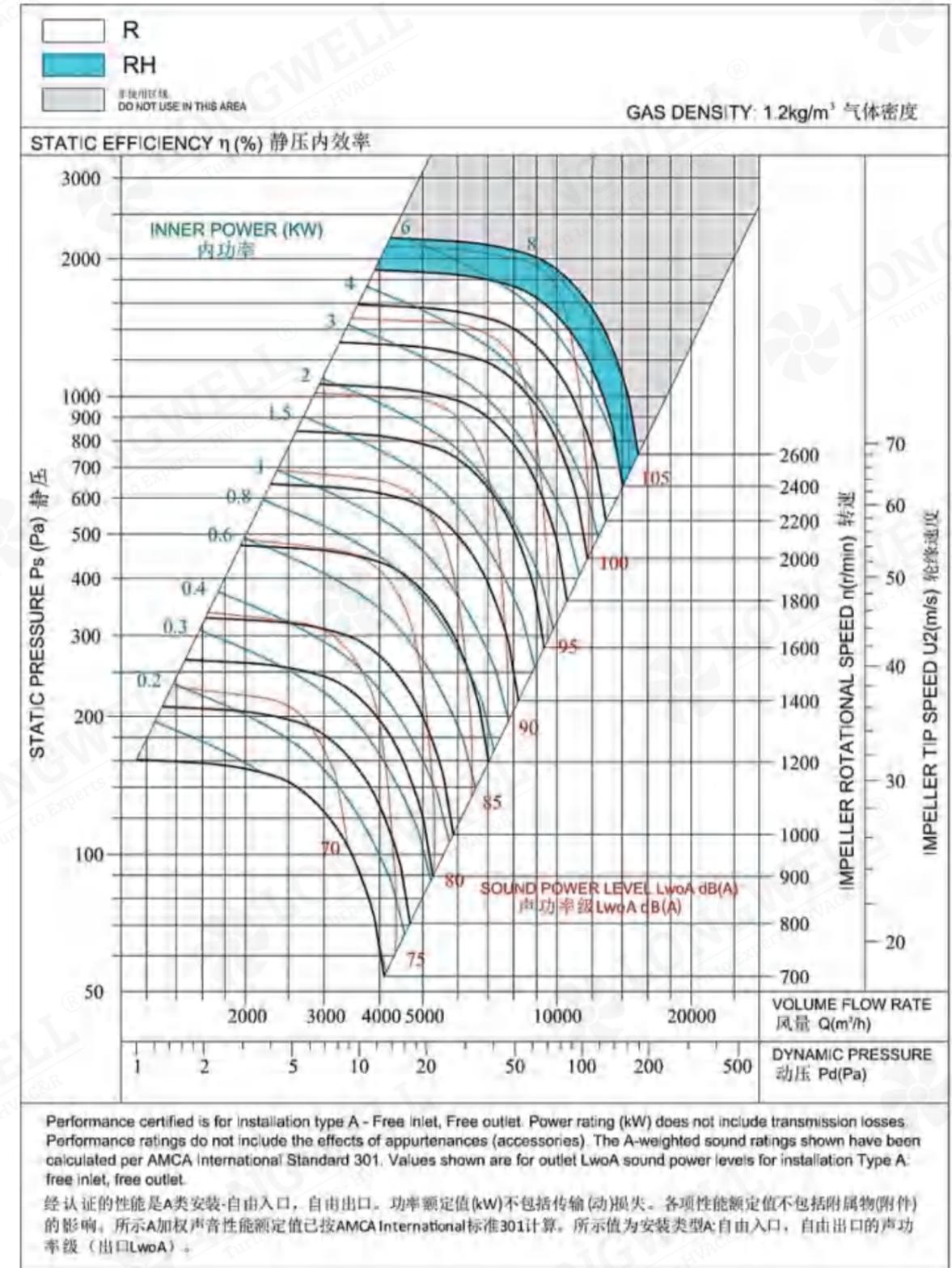
# RLM-400



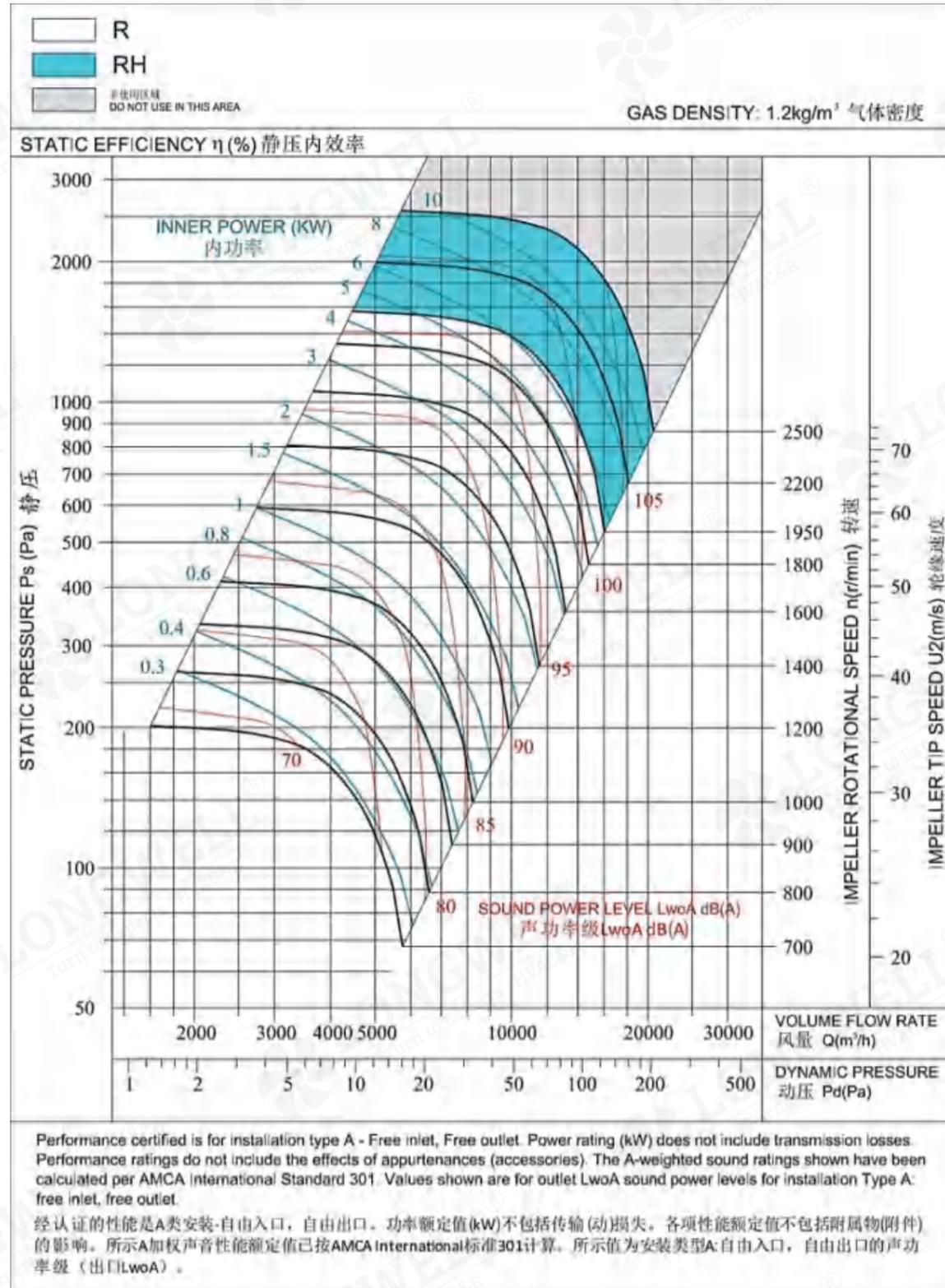
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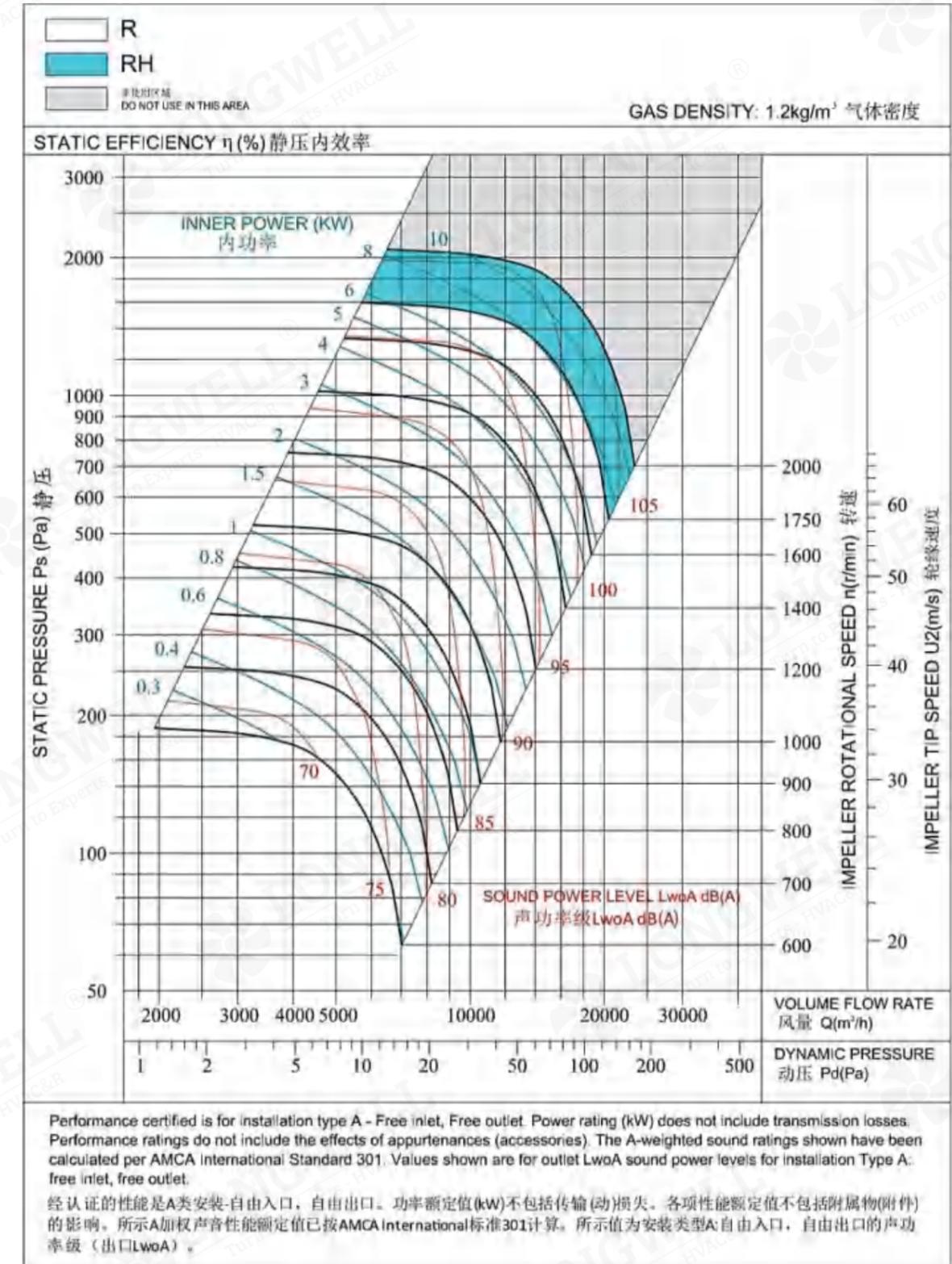
# RLM-500



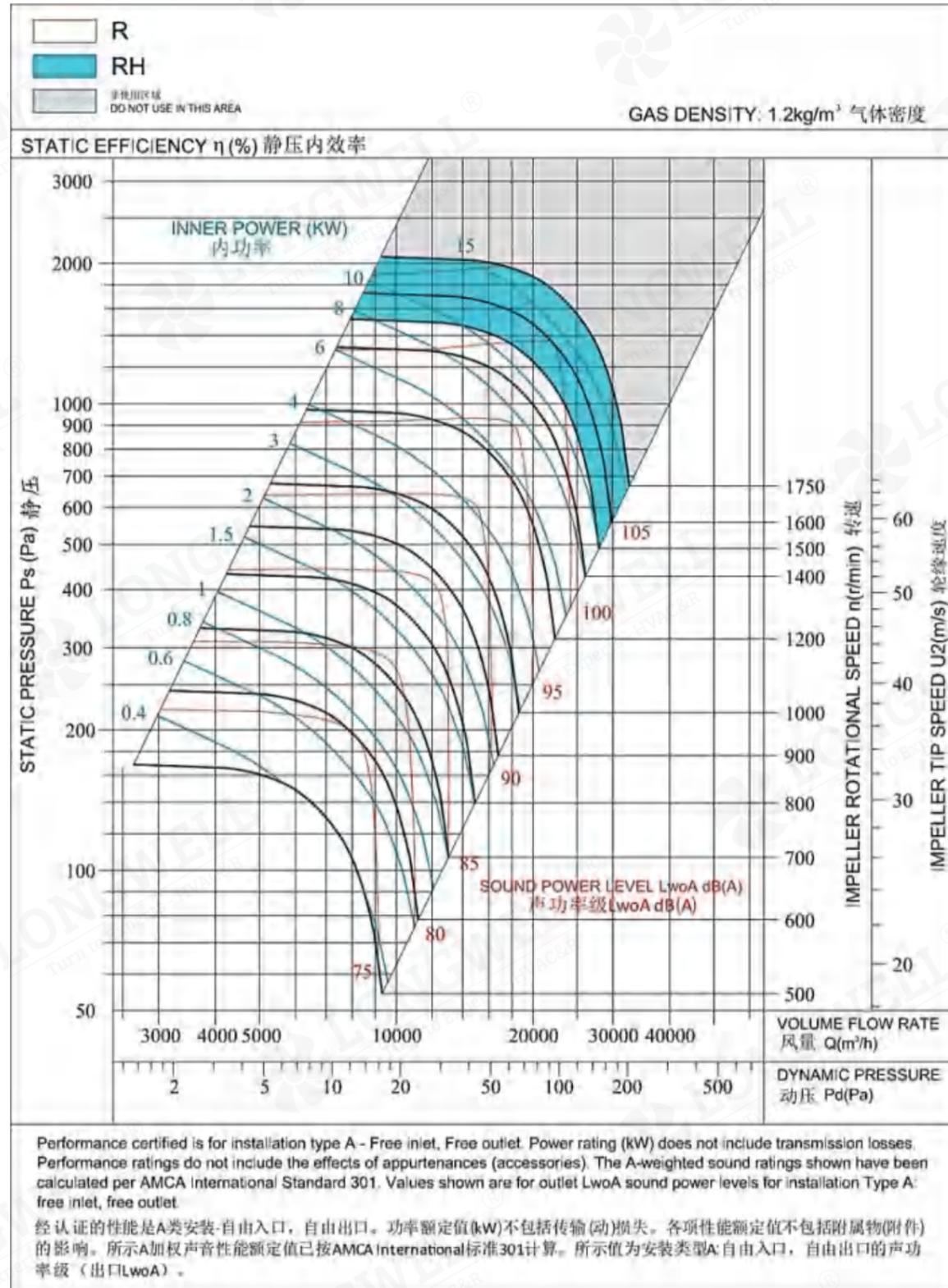
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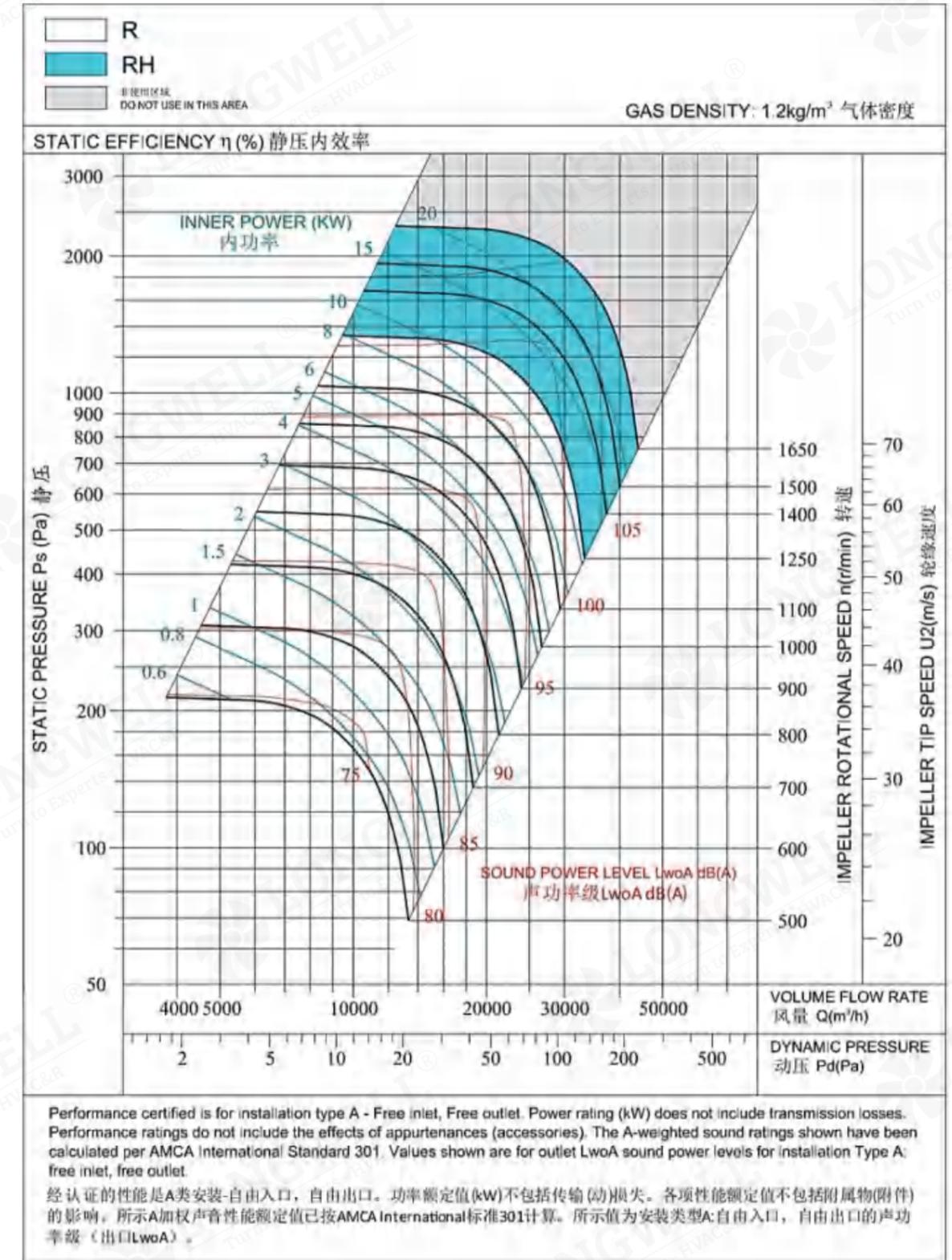
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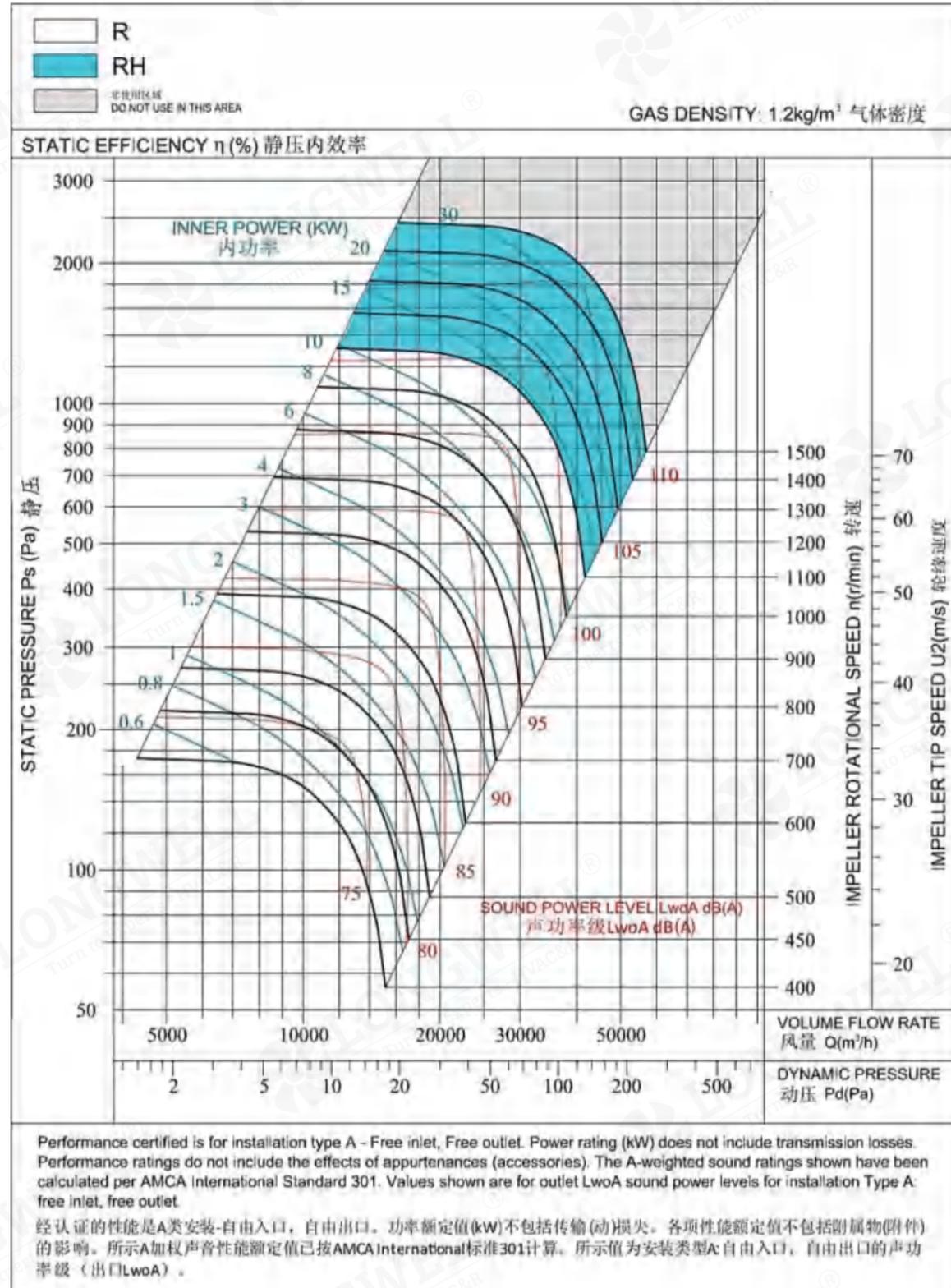
# RLM-710



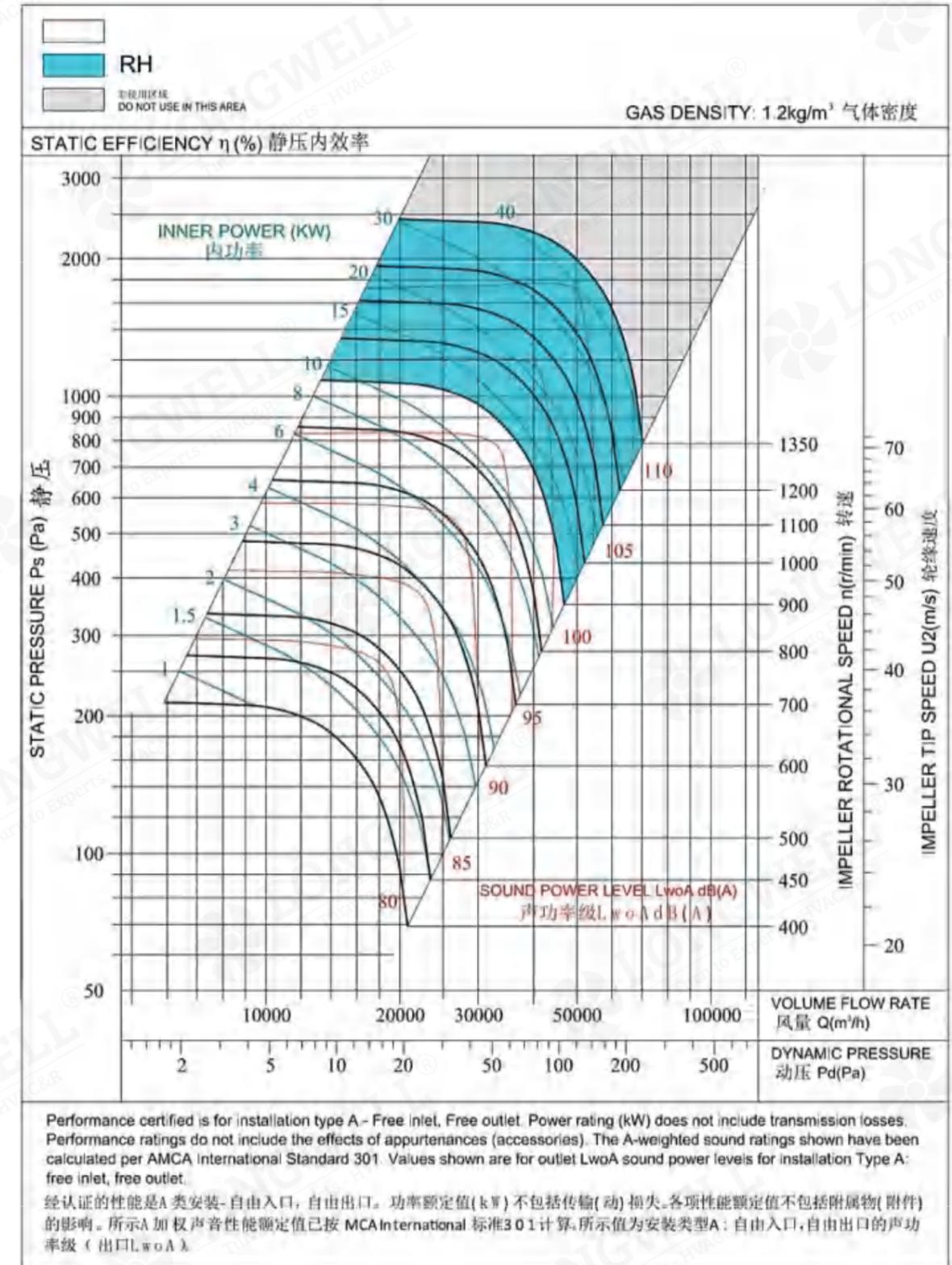
# RLM-800



# RLM-900



# RLM-1000



## Fan Selection Criteria

(1) The selection of high efficiency, the smaller the smaller, the larger the scope of the wind turbine, to meet the system can accept the performance, efficiency and quality requirements.

The fan operating point, should be selected in the vicinity of high efficiency fan, to ensure stable operation, avoid the work of the fan in the surge zone. To reduce the noise, we must reduce the speed of the wind turbine, the choice of a large fan. AV system fan, air pressure should be selected according to the operating time of a longer part of the load conditions.

(2) The choice of a strong wind turbine, often make the wind turbine running in the small wind area, the pressure difference between the inlet and outlet of the wind turbine, will cause the operation of instability and noise pulse, higher noise. After selection of wind machine, will raise the rotation speed of the fan, air leaving the blades have higher speed, also can produce high noise. The average speed of the air blower is M/S 10-15.

(3) Before to the multi blade fan: has the advantages of low speed, light structure, low noise, good speed regulation performance and cheap price, when the design flow and the pressure of small or large volume low pressure should give high priority to the use of wind turbine. After the wind machine, which has the advantages of high efficiency, low noise, high pressure and structure characteristics of strong, when the design pressure of fan is large should give high priority to the use of wind turbine. No shell fan: when the pipe network needs a flexible export position, need to reduce the pipeline outlet noise, or pipe network in the future may change the occasion should be preferred.

(4) Total pressure curve is flat, small steepness, static pressure has a great influence on the wind power, performance and wider range of fan for air volume system, the static pressure sensitive, need air conditioning VAV air conditioning units. Full pressure curve is steep, steep, static pressure of air power influence small wind machine, suitable for fixed volume of air conditioner, before the wind turbine motor is not overloaded. The belt drive fan to pole motor with 4/6.