

YFIAM

High Efficient Axial Fan

To provide the most reliable and user-friendly air movement & control and air conditioning service.



Due to continuing research, Shanghai Nautilus reserves the right to change specifications without notice.

Performance range: Volume: 230,000m³/h, Total Pressure: 2,000Pa

COSMOPOLIS Series Principle Product

SHANGHAI NAUTILUS GENERAL EQUIPMENT MANUFACTURING CO LTD

Add: No. 55 Qingneng Road, Waigang Town, Jiading District, Shanghai
P.C: 201806

Tel: 86 21 39185688

Toll free number: 400 821 3316

Fax: 86 21 69168759

Http: //www.infinair.com

- Cast aluminum axial wheel with wing type vane to increase efficiency
- Variable angle vane make selection more accurate
- Balance up to G2.5 level to reduce noise and vibration
- Big hub ratio design to send air further
- General air supply& exhaust, Explosion-proof supply& exhaust, Smoke removal duty

G2.5

SHANGHAI NAUTILUS GENERAL EQUIPMENT MANUFACTURING CO LTD

Company Profile

Shanghai Nautilus General Equipment Manufacturing Co., Ltd. is a middle and high-end solution provider of air supply and gas heating and air cleaning equipment that integrates R&D, production and sales. Established in September, 2003, it is located in the Jiading District of Shanghai. The company is the member of the US Green Building Council (USGBC) and International Air Movement and Control Association (AMCA), the high and new tech enterprise of Shanghai, **INFINAIR®** won the famous trademark in Shanghai.

Vision statement: To become the most trustworthy brand of professional air movement & control and air conditioning.

Mission statement: To provide the most reliable and user-friendly air movement & control and air conditioning service.

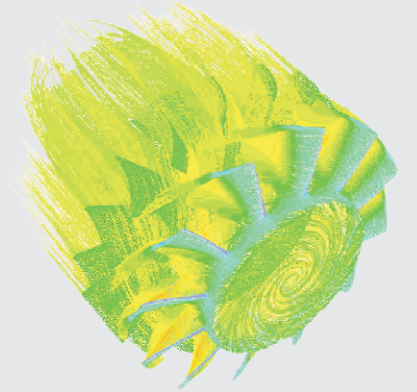
The collage features several key elements:

- Logos:** US Green Building Council Member, CNEX, CNAS, and others.
- Facilities:** Photos of modern office buildings and industrial production areas.
- Products:** Images of large industrial fans and their components.
- Certifications:** A grid of various certificates, including ISO 9001, ISO 14001, and others, along with a 'Shanghai Famous Trademark Certificate' and a 'High-tech Enterprise Certificate'.

WING-SOAR Series High Efficient Axial Wheel

High Efficient aerodynamic performance

- To adopt optimum aerodynamic characteristics of the wing type vanes
- Streamlined wheel hub type design
- Optimized design of CFD flow field simulation and experimental verification repeatedly
- Advanced process to reduce clearance of the wheel and cylinder
- High efficiency saves the operation cost



Unique hub ratio design

- Hub ratio up to 0.56
- High pressure rise to improve airflow conveying capacity
- To reduce the air flow loss caused by insufficient pressure
- Particularly suitable for long distance pipeline



High balancing level

- Balance level up to G2.5 (Typical products are balanced to G6.3 only)
- To reduce the vibration of the fan operation, to improve reliability
- To reduce the running noise

Reliable structure design

- Advanced casting process to ensure the accuracy and stability
- Computer-aided design of CAE for optimizing repeatedly
- High strength of the spiral wheel hub makes the operation more reliable
- Innovative hub connecting structure makes the operation safely

Multi-angle selection

- 500-1400mm, a total of 10 kinds of wheel specifications
- 0-35angle, a total of 8 kinds of angles
- 2/4/6/8 poles, a total of 4 kinds speed
- More precise selection to reduce risk
- Optimal selection to reduce the upfront investment and running cost

Product feature

High efficiency saves the operation cost greatly

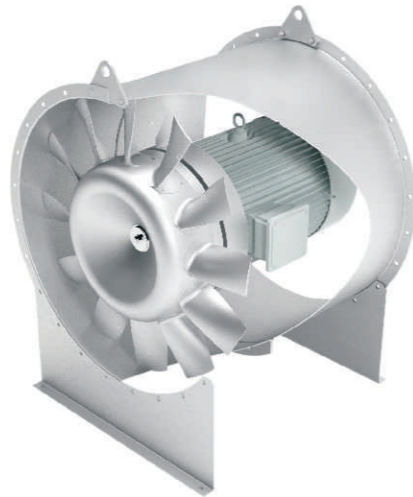
- To adopt optimum aerodynamic characteristics of the wing type vanes
- Smooth the spiral wheel hub to reduce turbulence
- Advanced process reduce clearance of the wheel and cylinder to improve efficiency
- Be equipped with guide vanes of the wheel

High reliability, long service life for long-term operation

- Optimized design of FEA and experimental verification repeatedly
- Core component adopts casting process to improve the strength
- Mold a molding, high precision and good consistency
- High balancing level makes the running more smoothly

Complete functions

- General air supply& exhaust
- Explosion-proof supply& exhaust
- Positive pressure air supply, Smoke removal duty
- Two-speed supply& exhaust



Convenient and flexible installation

- Floor-mounted: horizontal or vertical
- Ceiling-mounted: horizontal or vertical
- Rooftop: Outdoor roof installation with flag-cloud wind band

Advantages of direct drive: efficient, maintenance-free

- Higher transmission efficiency
- No wearing parts, low maintenance
- Easier and more effective of maintenance
- Sealed self-lubricating bearing for motor, increasing service life
- Compact design to save installation space

INFI-KOAT Molecular Film™, long-lasting coating

- Pickling, phosphating and caustic washing to ensure clean surface
- Electrostatic incorporation of solid powder to obtain uniform coating
- High-adhesion film melt within high temperature furnace
- Resistance to ultraviolet, moisture and marine climate
- Resistance to large area of uniform corrosion and local pitting corrosion

Options

● Flexible joint and companion flange

Flexible joints and companion flanges used for air inlet and outlet, convenient for field installation and configuration.

● Air volume regulating damper

Square galvanized steel damper for air volume regulation, optionally equipped electric or manual actuators.

● Fireproof regulating damper (constantly open)

The regulator is normally open. Once the temperature reaches 280°C (can be selected according to different temperature requirements), the valve could automatically close and the signal will be sent out to the control system at the same time. Except for fire resisting ,it has the function pf adjusting air volume.

● Fire damper (constantly closed)

The regulator is normally closed .when the air temperature reaches 70°C, the valve opens and meanwhile, outputs signal to realize smoke exhaust by equipment interlocking. When the smoke temperature reaches 280°C, the valve and the fan will close simultaneously.

● Vibration isolators

Vibration isolators can be hung or floor-mounted, material can be neoprene or spring type.

● Silencer

Be installed at the inlet or outlet and is made of galvanized steel. By adopting the silencer, the noise of the fan can be reduced effectively, and the operating efficiency of the fan can be increased.

● Selection of colors

The coat colors can be selected according to the customer's requirements to better coordinate with the installation site.

Laboratory Introduction

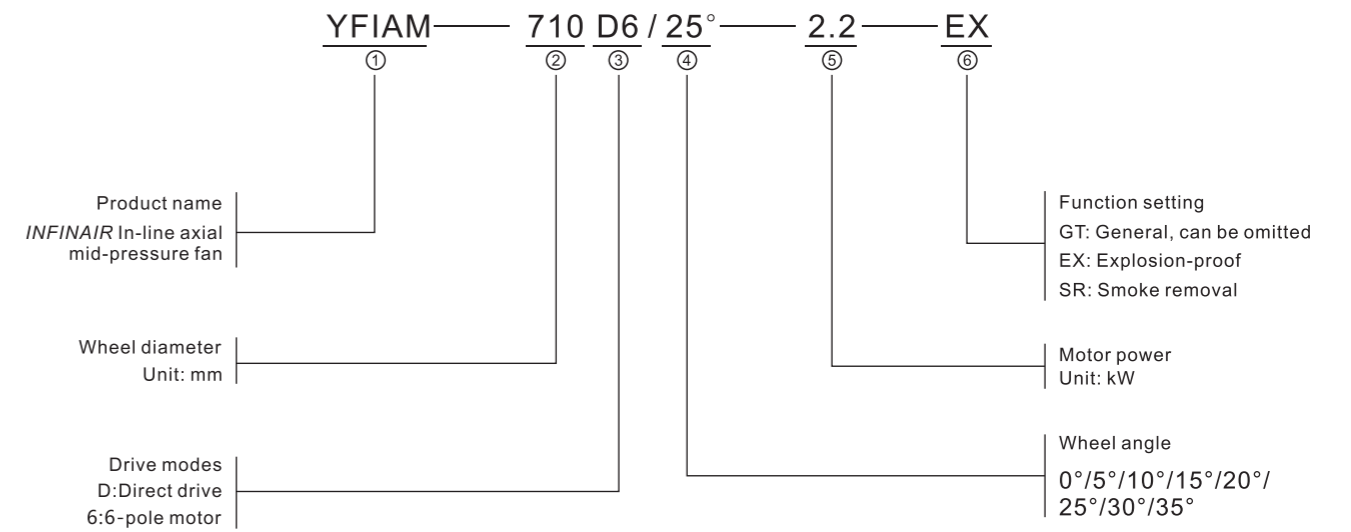
- INFINAIR possesses a testing laboratory of large draft fan, which is China's unique first that passes USA AMCA Certification.
- Following methods are used to increase Infinair aerodynamic laboratory's test accuracy.

- (1) Strictly following AMCA-210 standards to design and fabricate
- (2) Traditional Pitot tube method is replaced by high precision nozzle matrix to increase accuracy.
- (3) State of the art instruments and equipments are widely used in the lab.
- (4) Test instruments are strictly calibrated, the calibration is repeated in time.

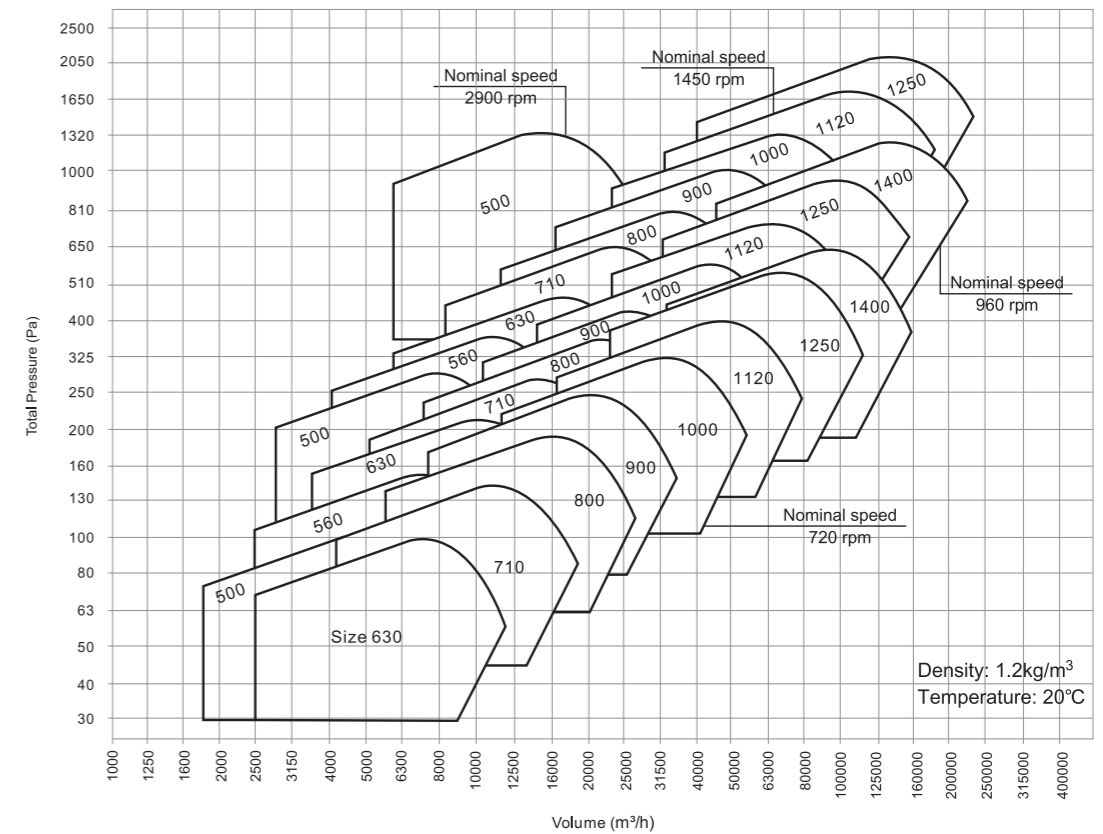
The lab assures INFINAIR is capable to test different product design, increase the accuracy and liability of products, and become a good reason why you trust INFINAIR.



Naming convention

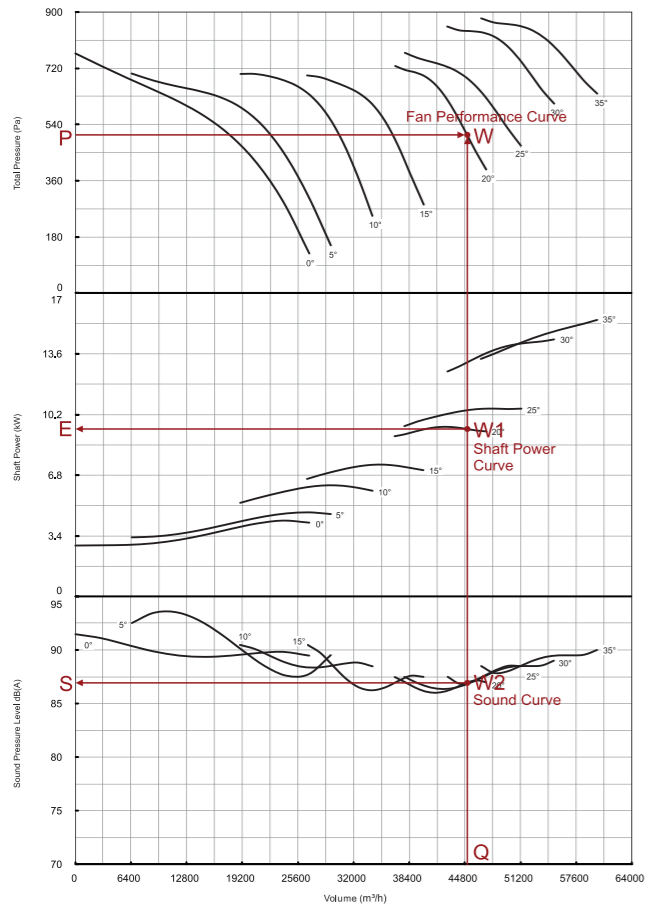


Quick selection



Catalogue introduction

- Each fan performance is symbolized by a group of curves for different RPM.
- The curves indicate the fan is direct drive which means the wheel is installed on the motor shaft directly. All direct drive models shall have a suffix letter D followed by motor pole number. The attached table shows motor RPM at different number of poles.
- Shaft Power Curve displays the fan actual power consumption.
- The sound pressure level curve indicated the noise level at 1.5 meter distance.



Example: 45,000m³/h Volume, 490Pa Total Pressure

Step1: From given volume (Point Q: 45,000m³/h) draw a vertical line upwards. From given total pressure (Point P: 490Pa) draw a horizontal line to the right, the intersection point W is the working point. Find a fan curve close to the point, which would be curve 20°. As highlighted in the RPM table, it is 1,450RPM.

Step2: The intersection point between the vertical line and the curve 20° in diagram 2 is marked as point W1. Draw a horizontal line from point W1 to the left coordinate, which makes point E. The point E (about 9.35 Kw) is the shaft power, according to the shaft power, a 11kW motor shall be equipped.

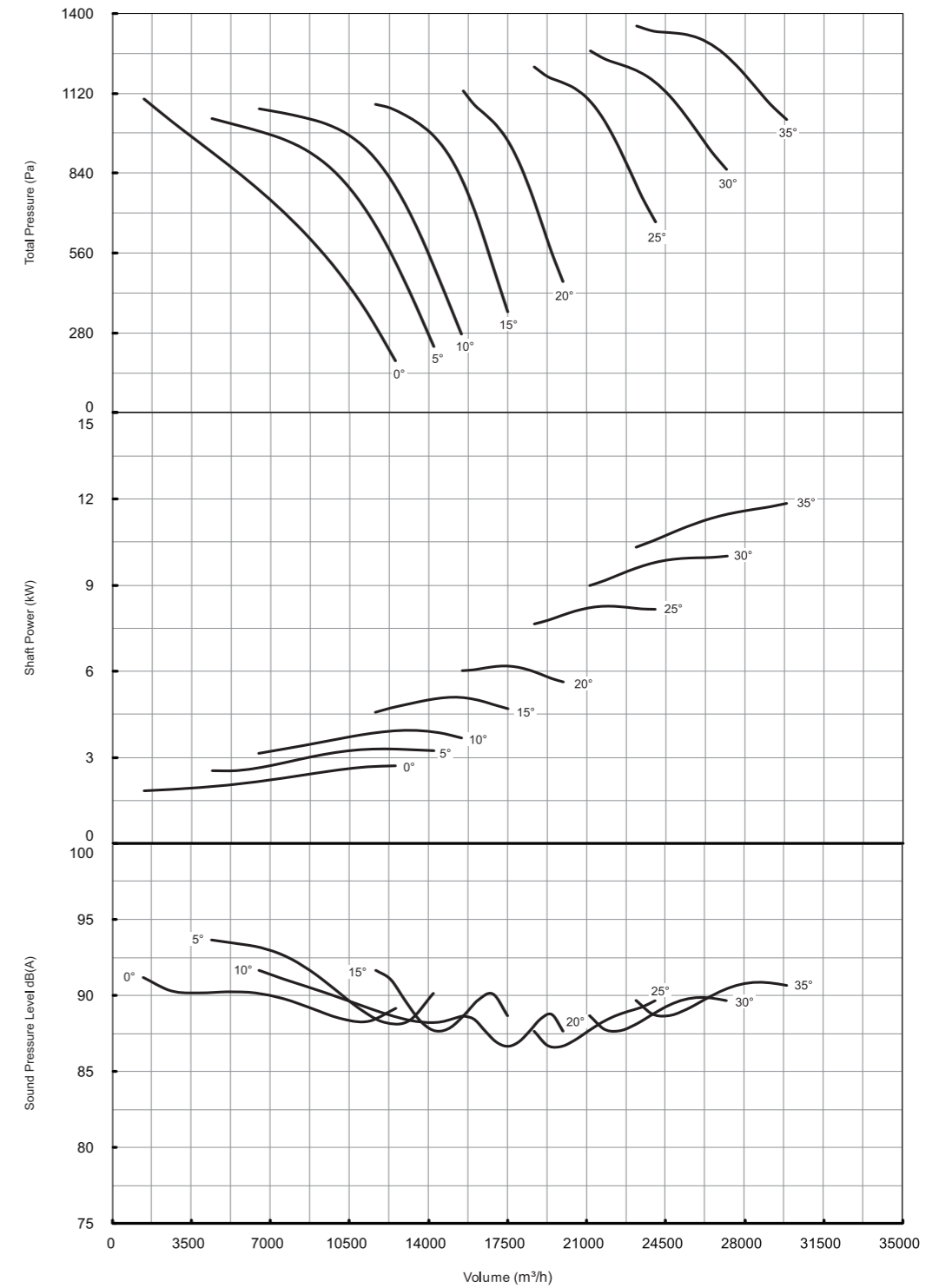
Step3: The intersection point between the vertical line and the curve 20° in diagram 3 is marked as point W2. Draw a horizontal line from point W2 to be left coordinate, which makes point S (about 87dB(A)). It is the fan sound pressure level.

Step4: According to above steps, the primary model selection would be YFIAM-800D 4/20°-11, direct drive, and factory set to 1,450RPM. If lower shaft power or noise is expected. You may compare with another larger fan. However a larger fan would increase primary investment.

Motor Speed

No. of poles	RPM (About)
2	2900
4	1450
6	960
8	720

Model : YFIAM500 YFIAM-500D2

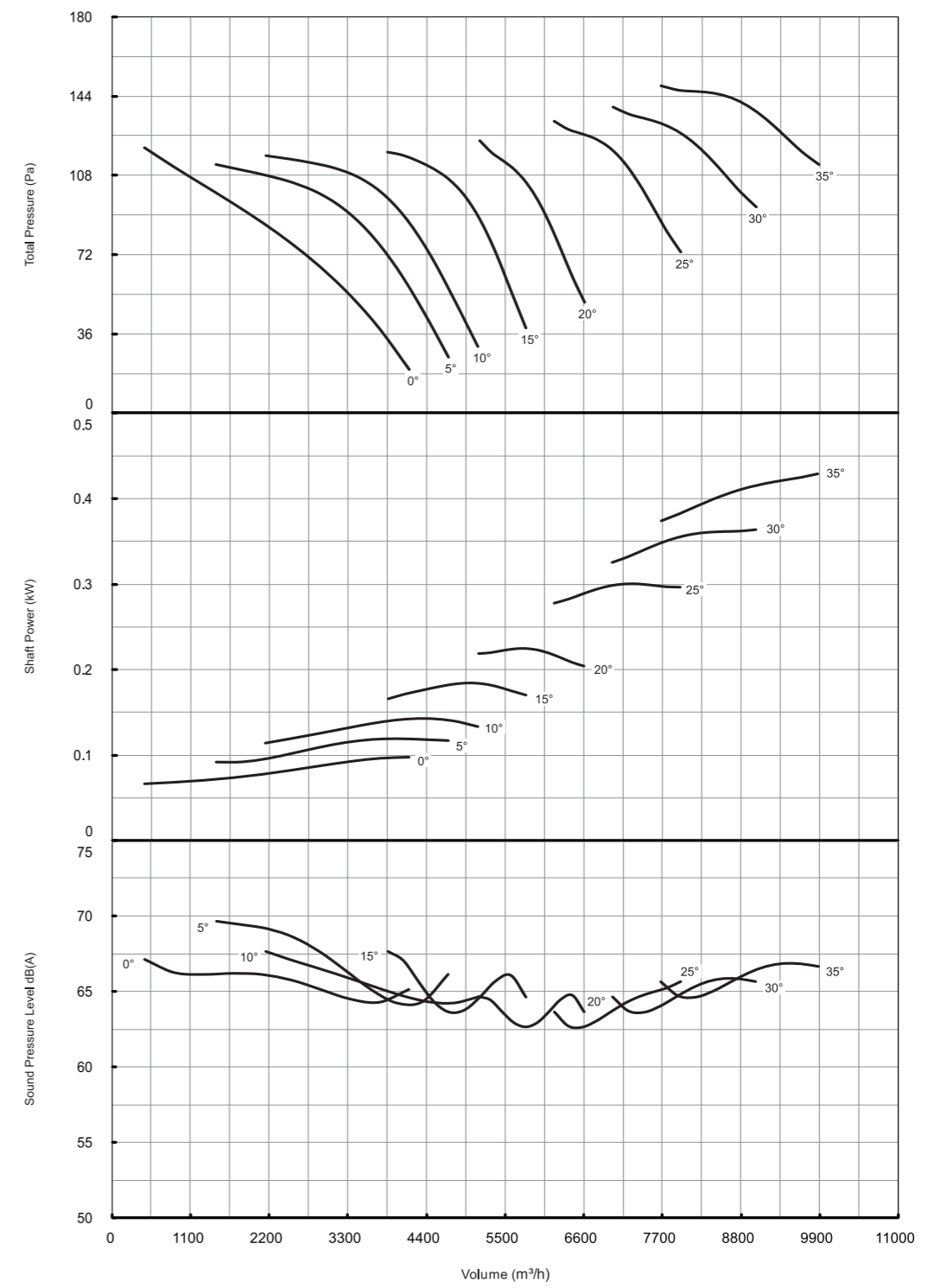
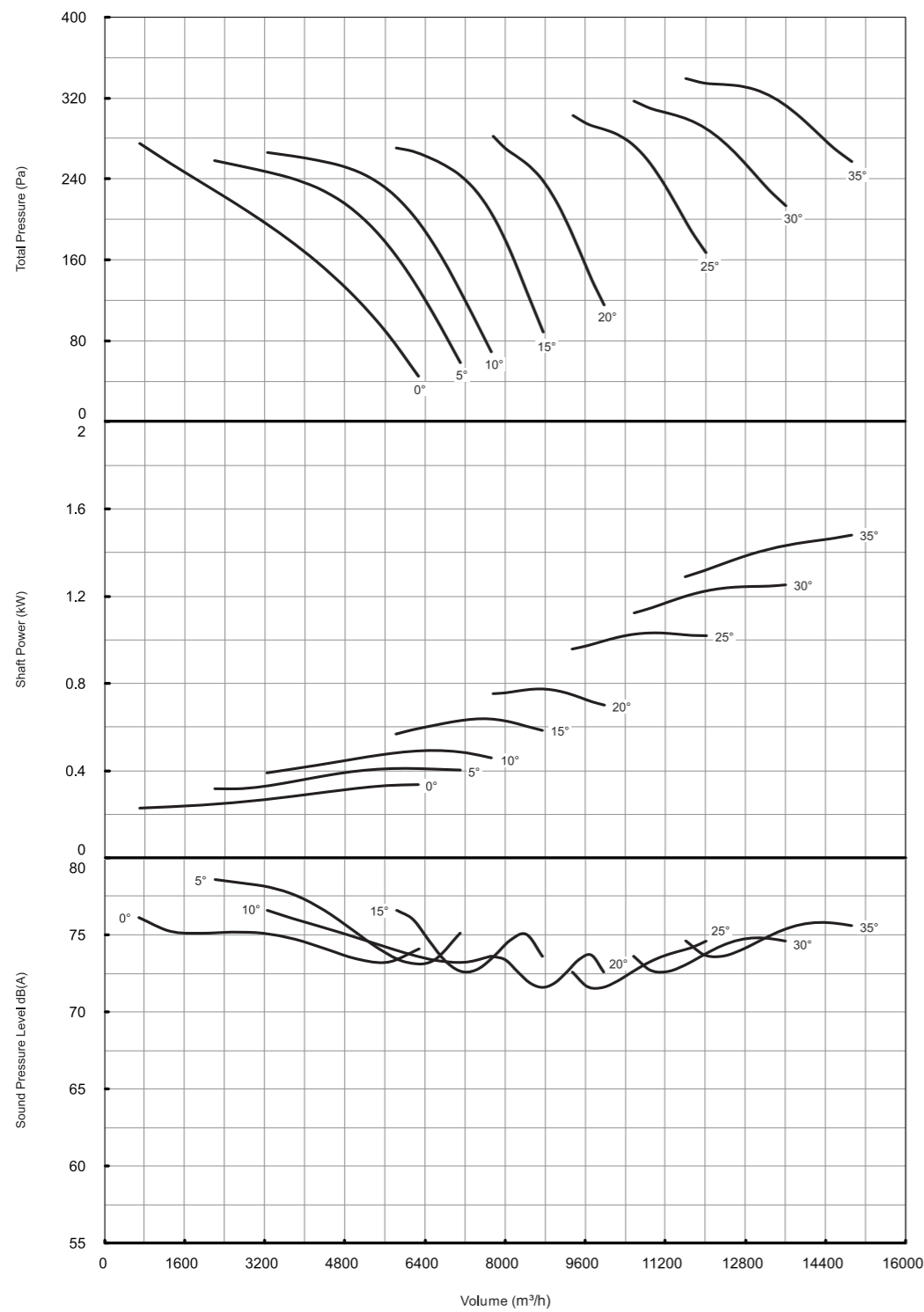


Performance shown is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). Values shown are for inlet LwA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

YFIAM-500D4

Model : YFIAM500

YFIAM-500D6



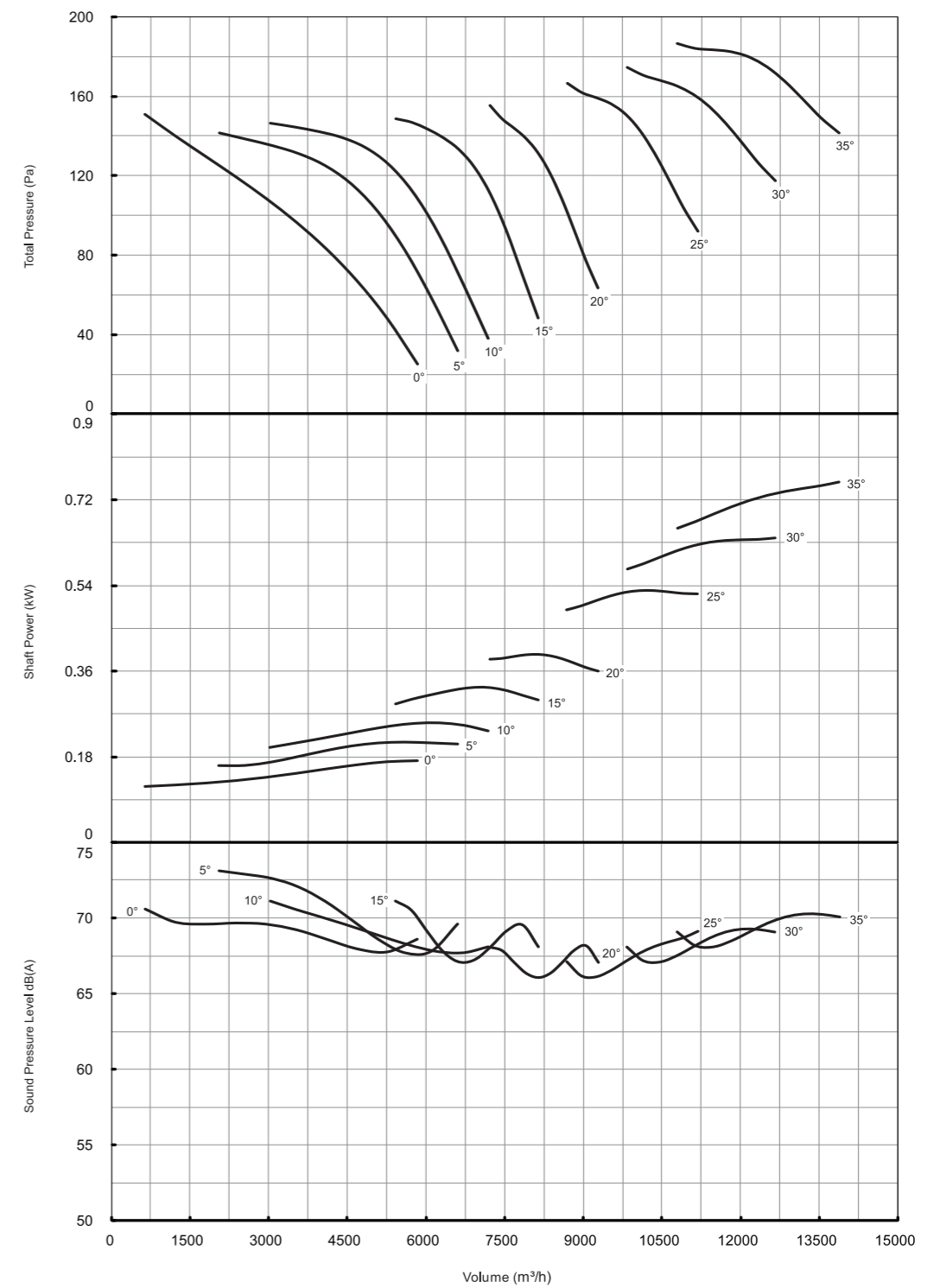
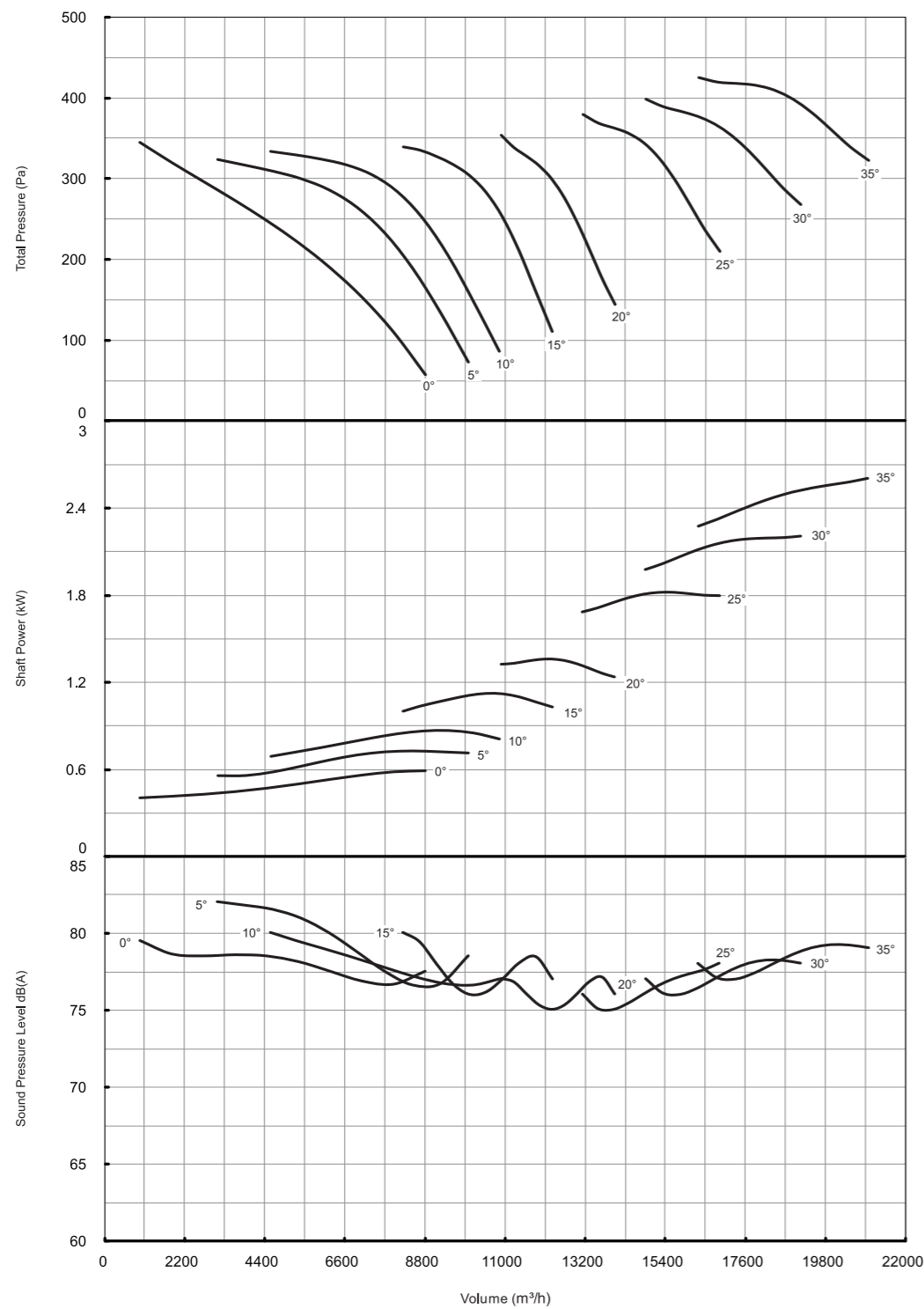
Performance shown is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

Performance shown 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) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

YFIAM-560D4

Model : YFIAM560

YFIAM-560D6



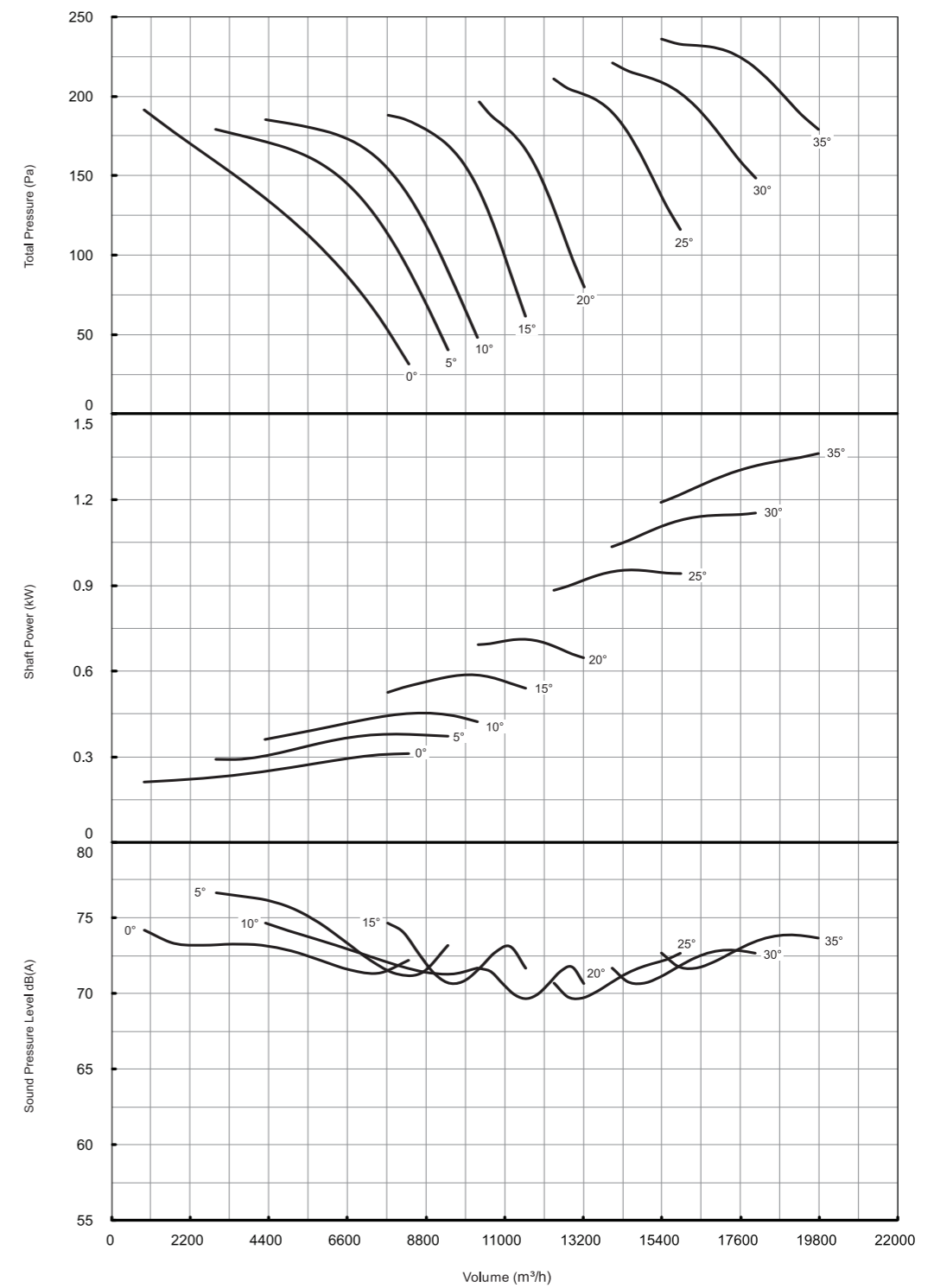
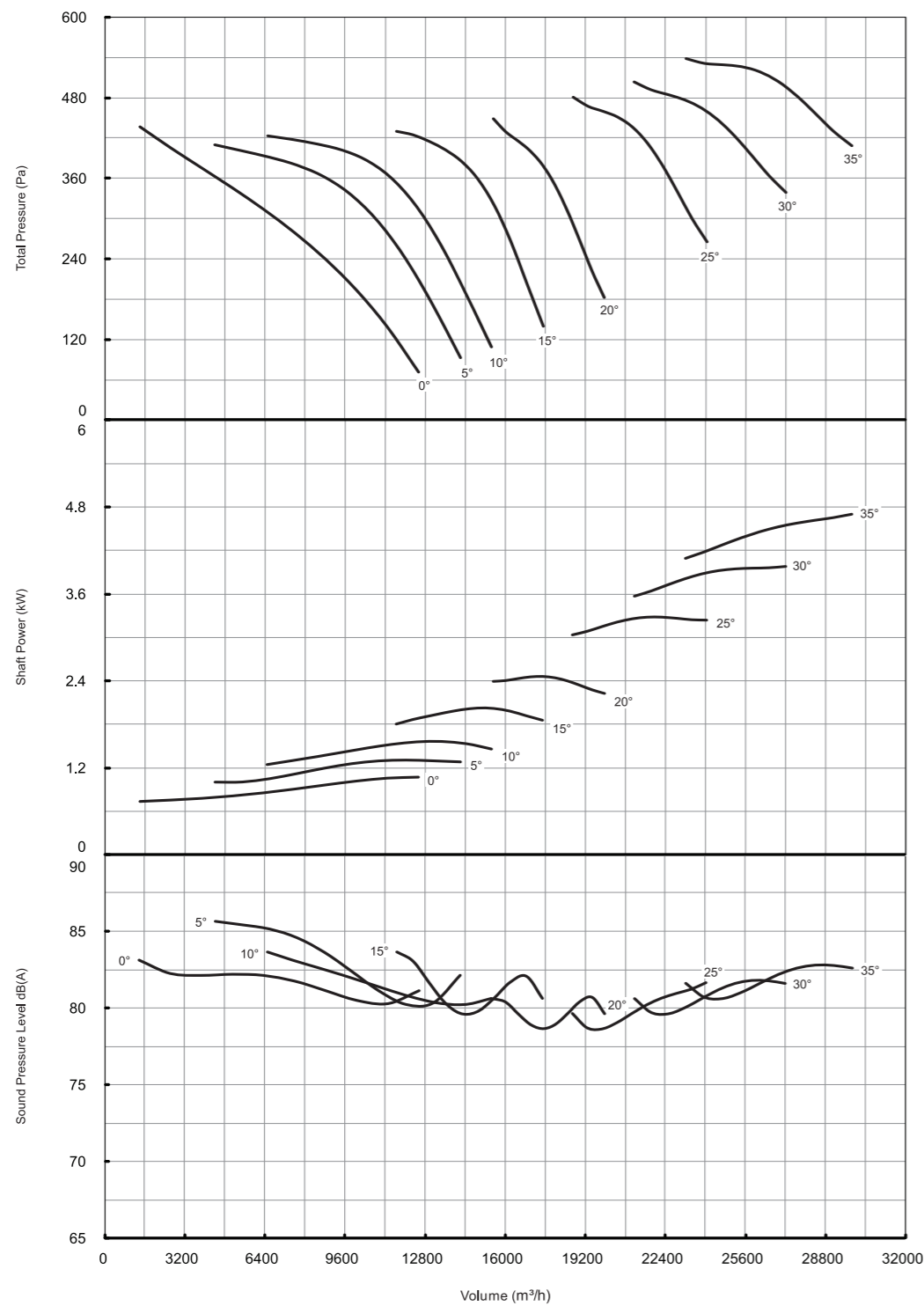
Performance shown is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

Performance shown 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) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

YFIAM-630D4

Model : YFIAM630

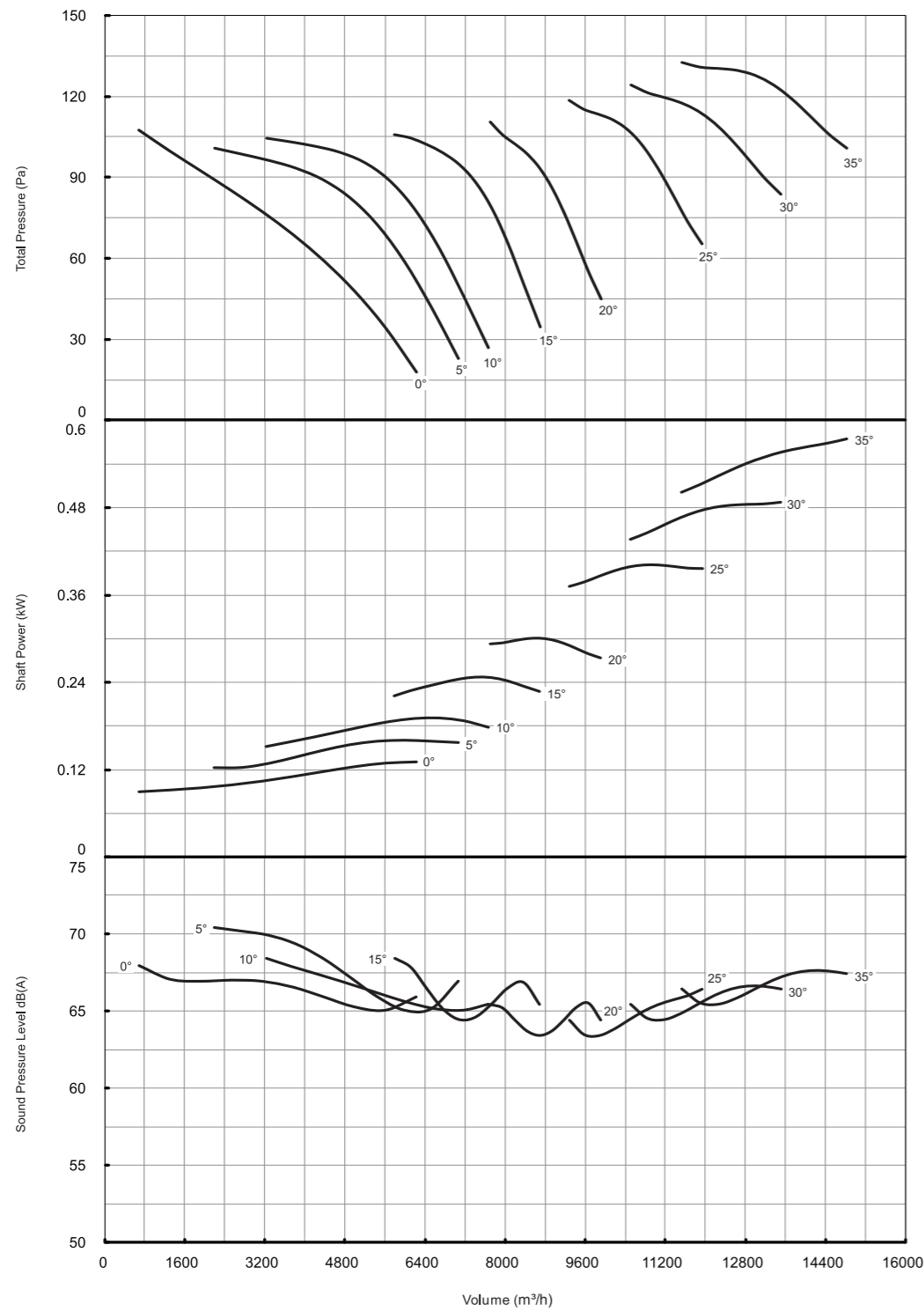
YFIAM-630D6



Performance shown 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) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

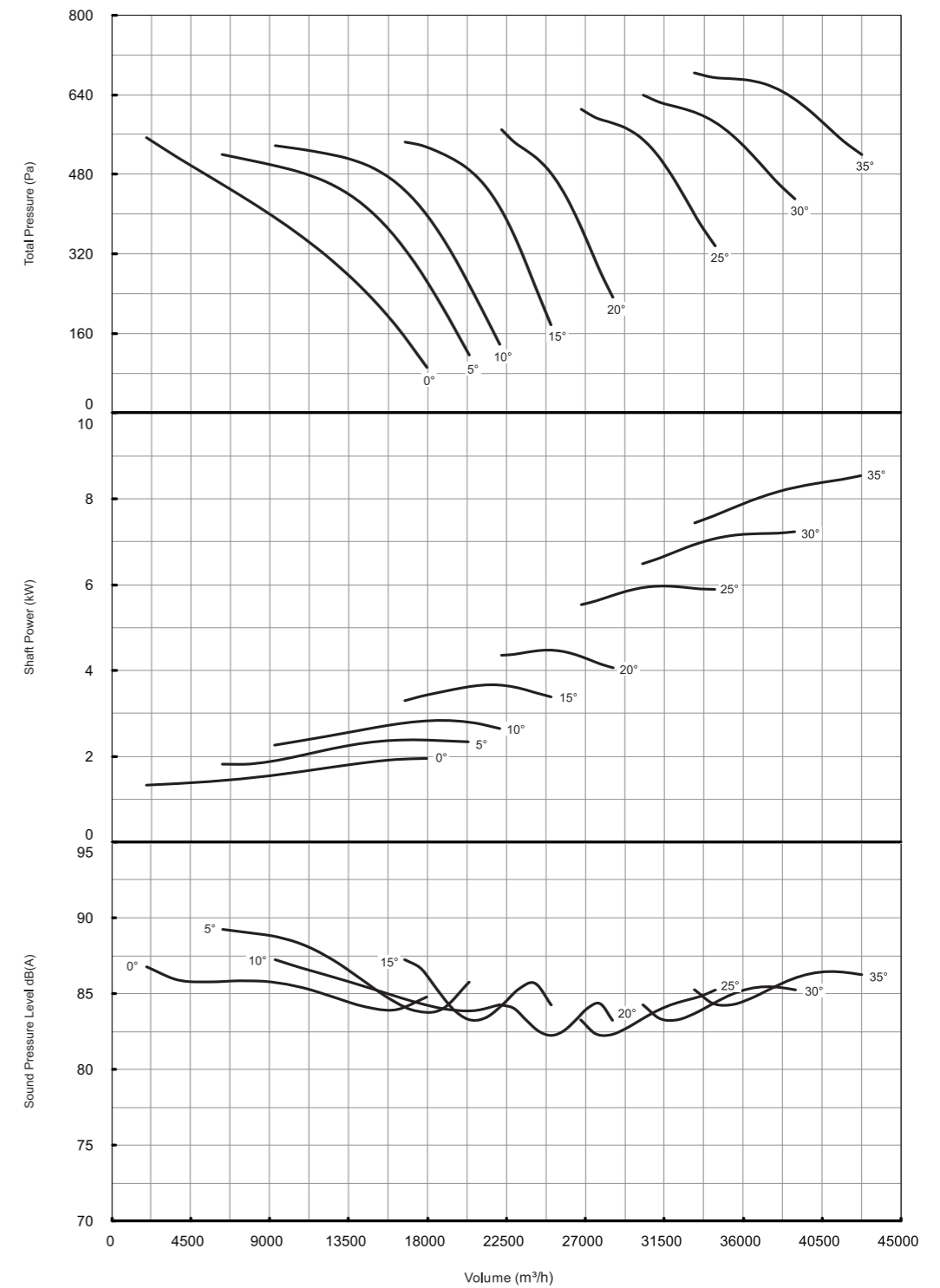
Performance shown is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

Model : YFIAM630
YFIAM-630D8



Performance shown 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) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

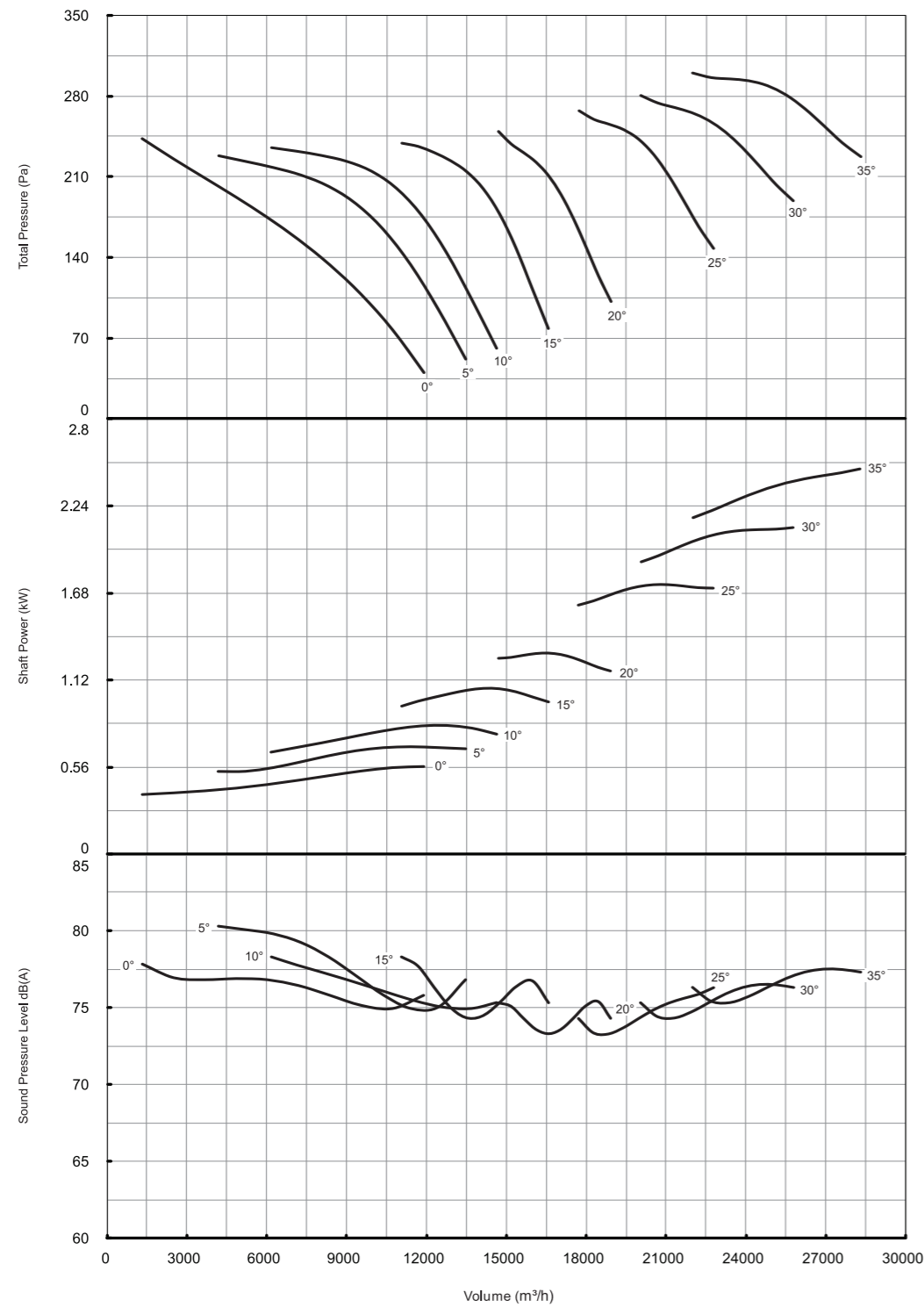
Model : YFIAM710
YFIAM-710D4



Performance shown 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) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

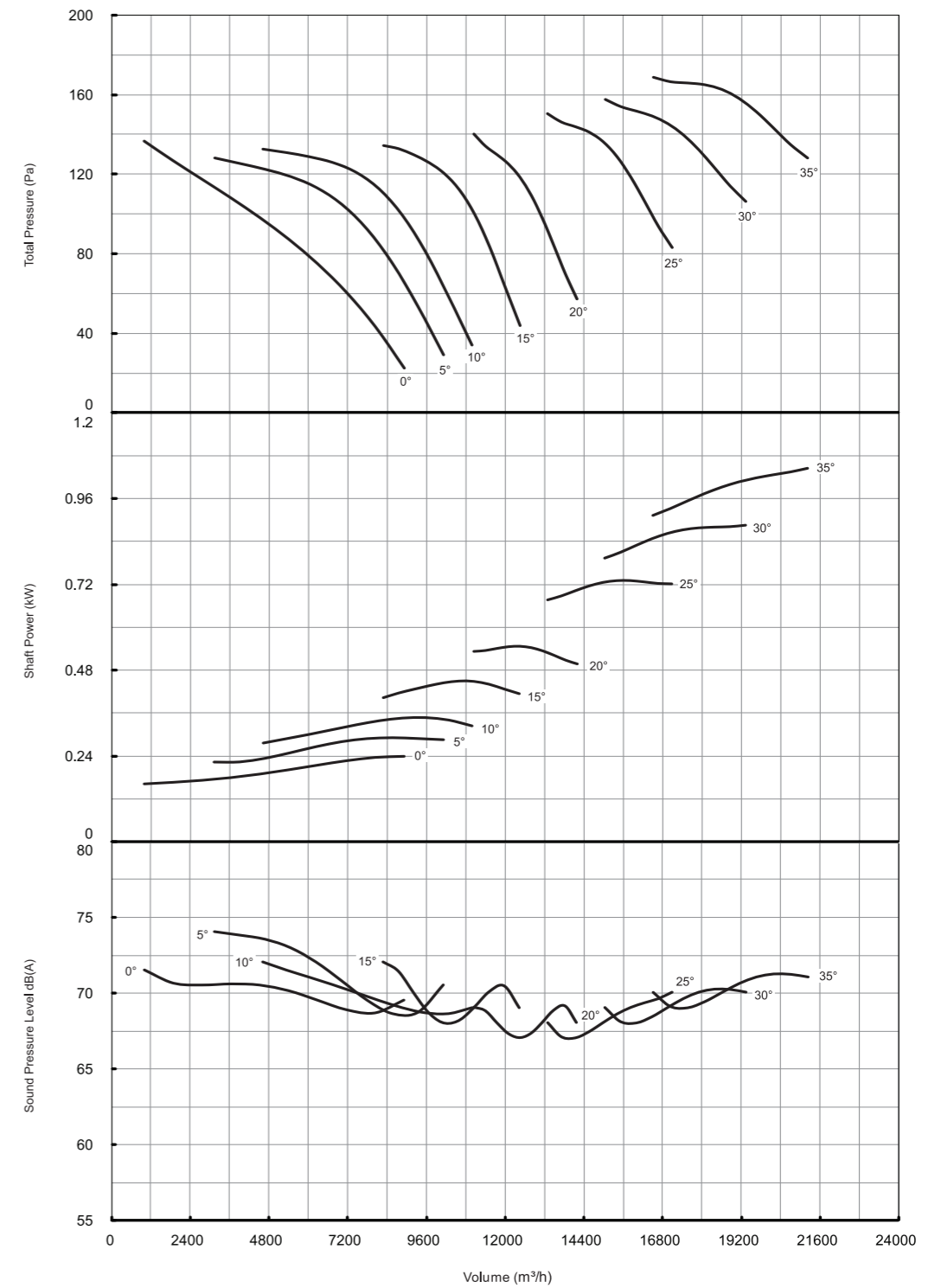
Model : YFIAM710

YFIAM-710D6



Performance shown 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) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

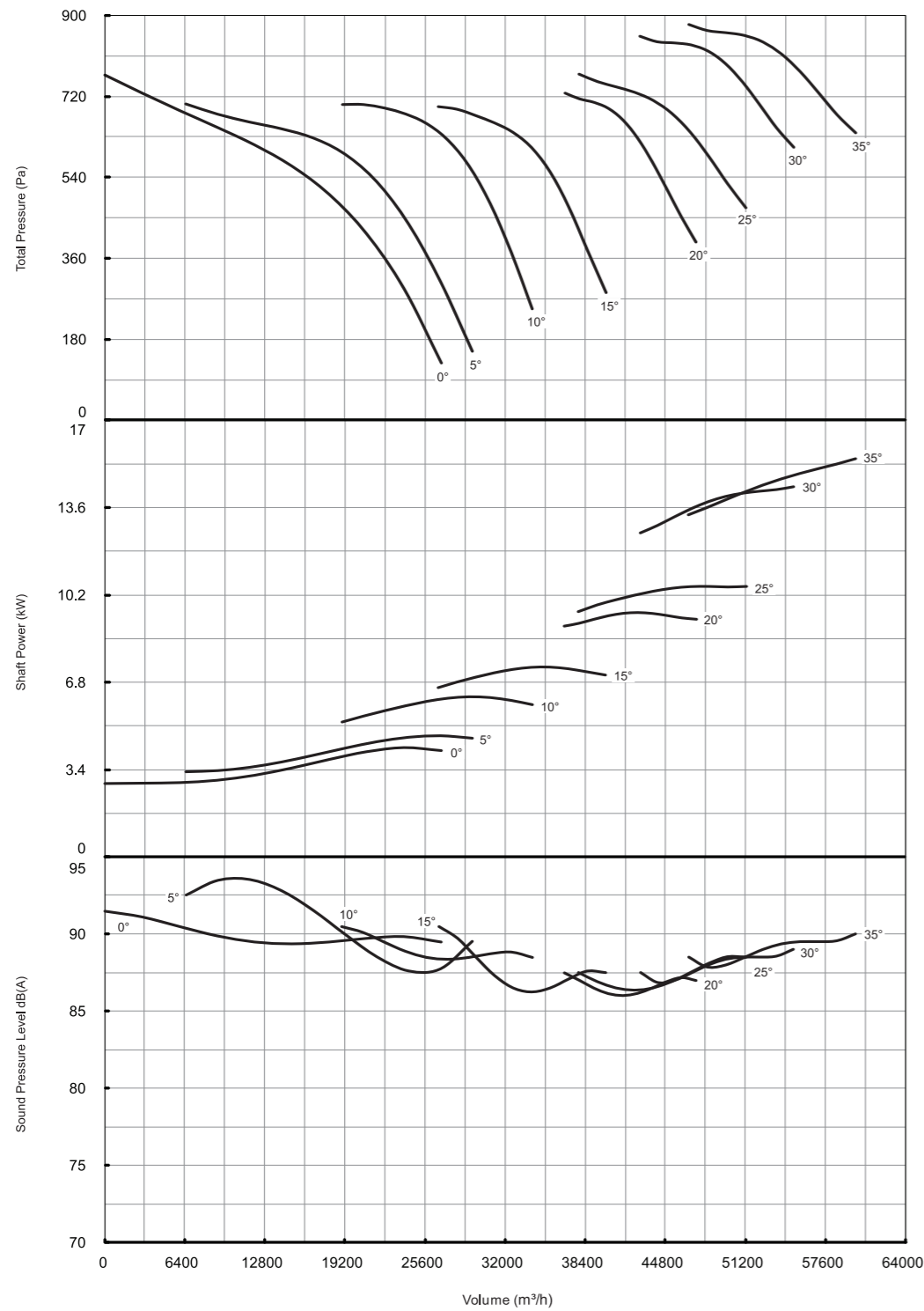
YFIAM-710D8



Performance shown 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) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

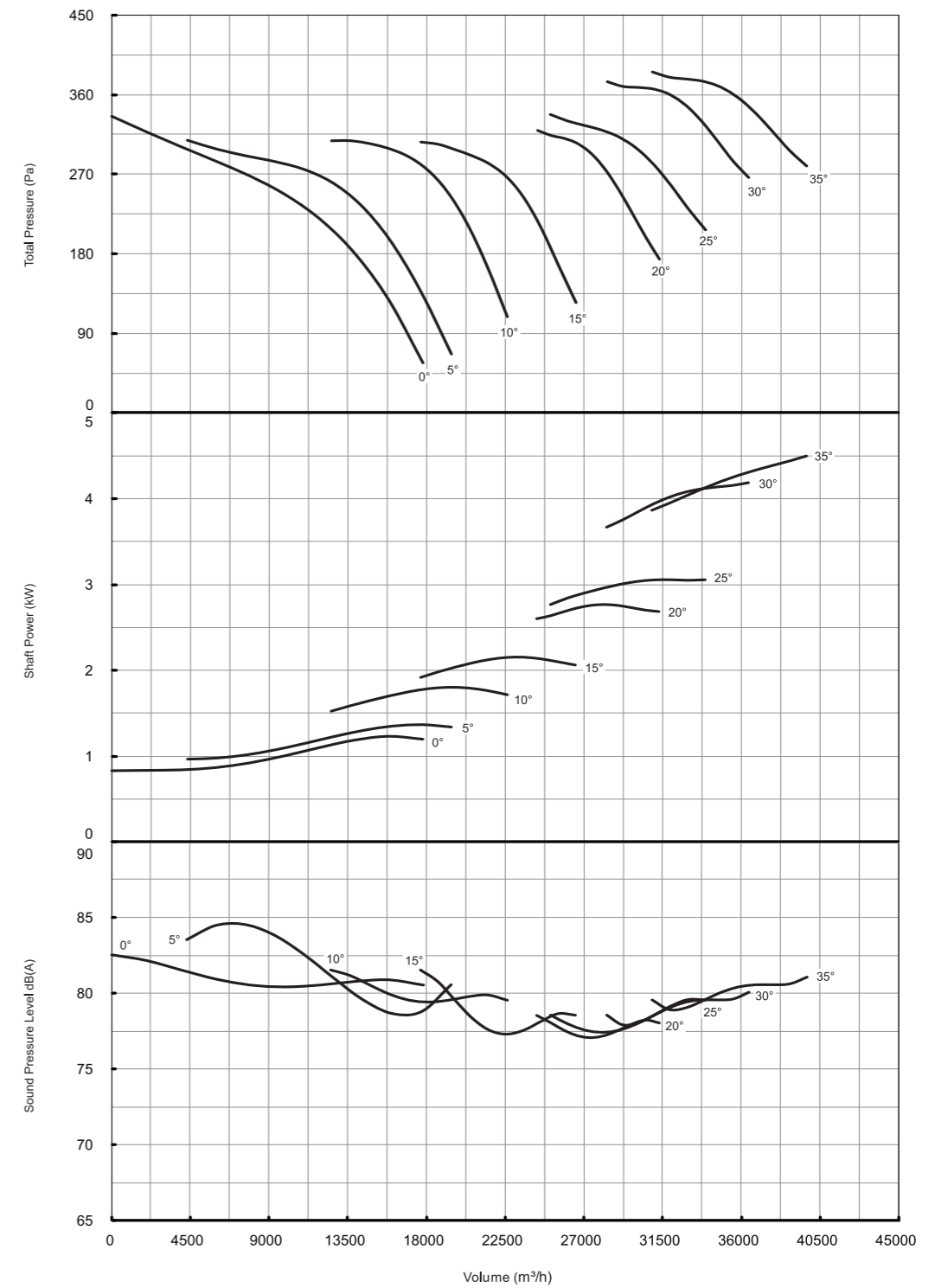
Model : YFIAM800

YFIAM-800D4



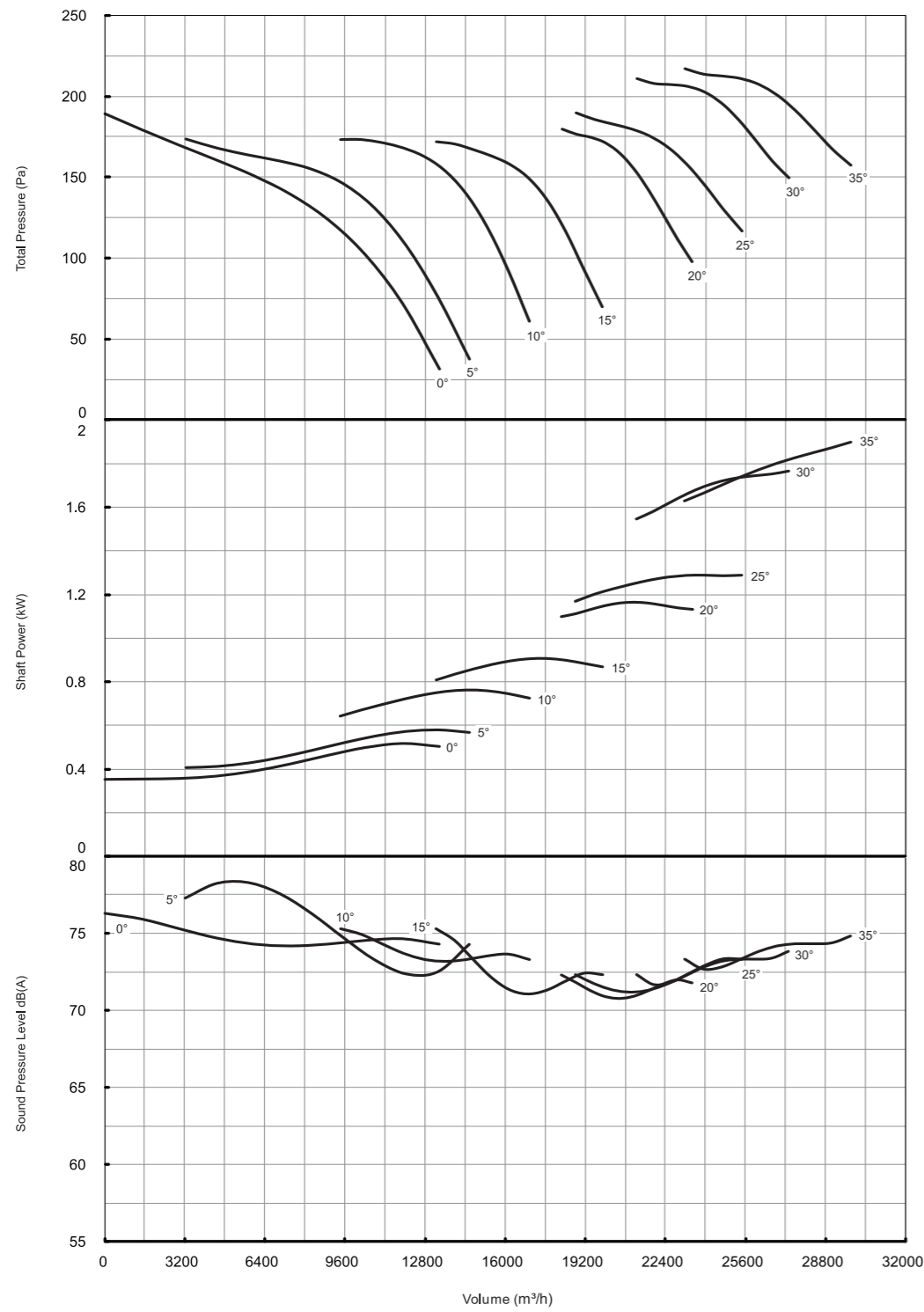
Performance shown is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories) . Values shown are for inlet LwA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

YFIAM-800D6



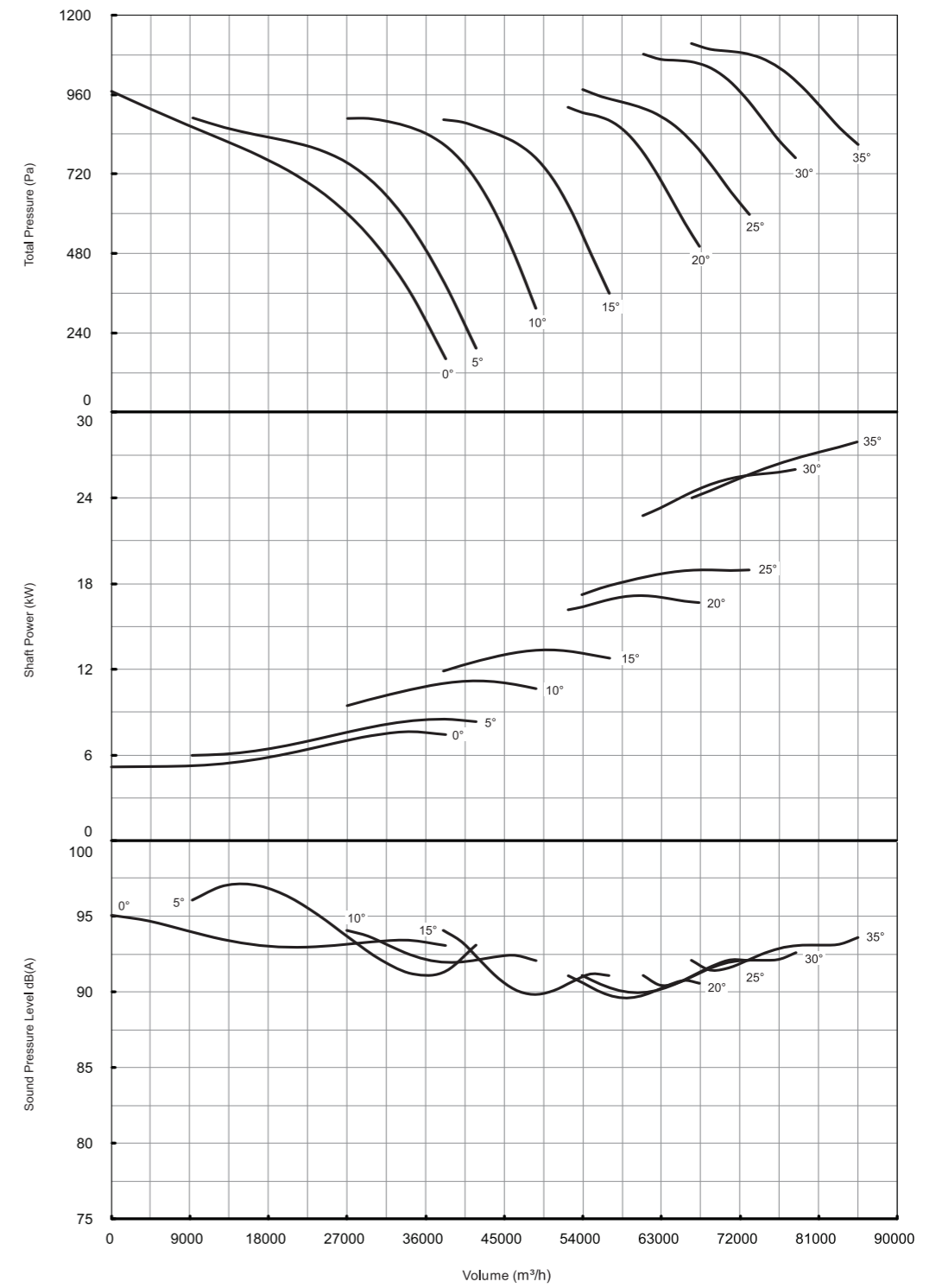
Performance shown is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories) . Values shown are for inlet LwA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

Model : YFIAM800
YFIAM-800D8



Performance shown 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) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

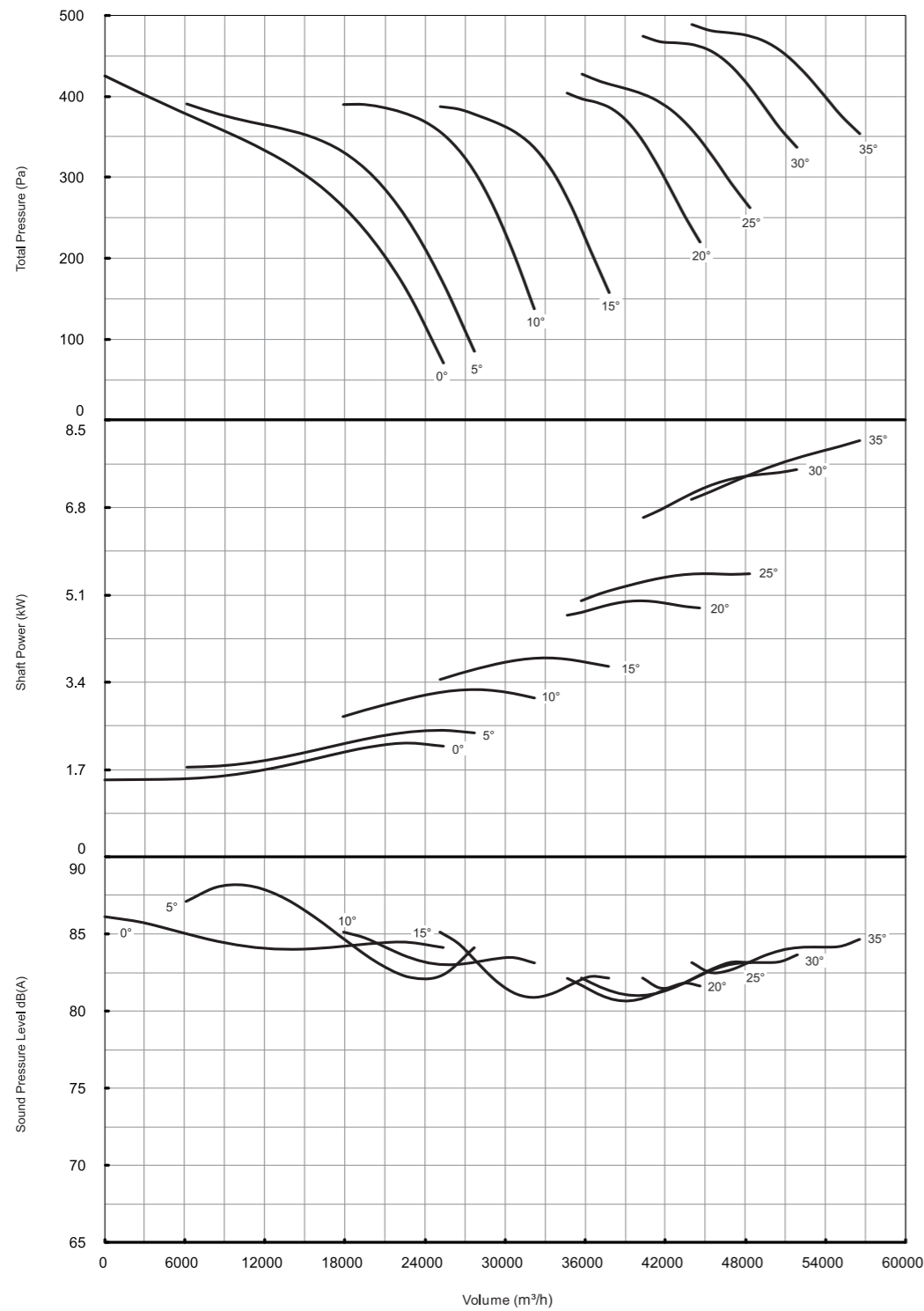
Model : YFIAM900
YFIAM-900D4



Performance shown 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) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

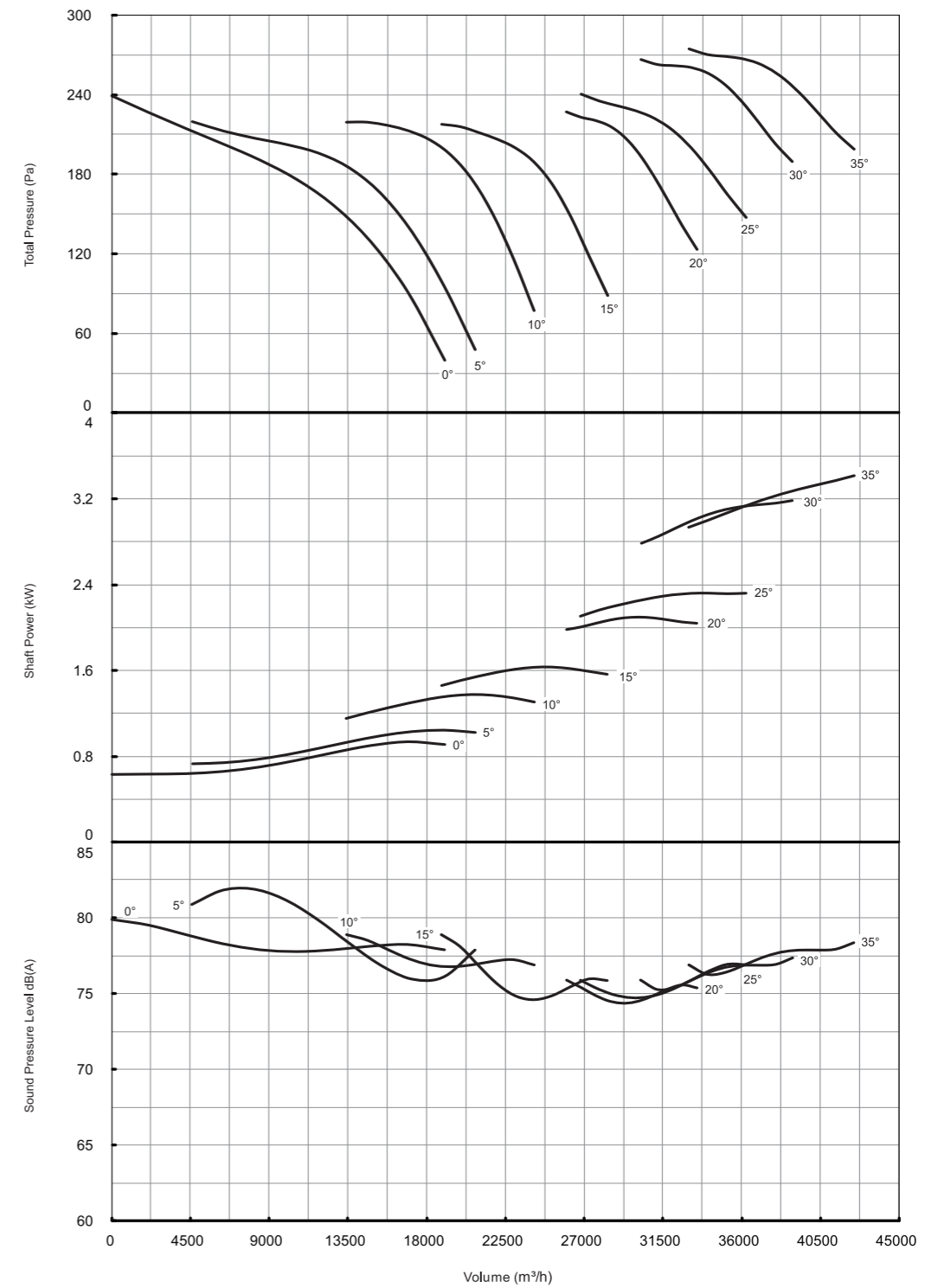
Model : YFIAM900

YFIAM-900D6



Performance shown 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) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

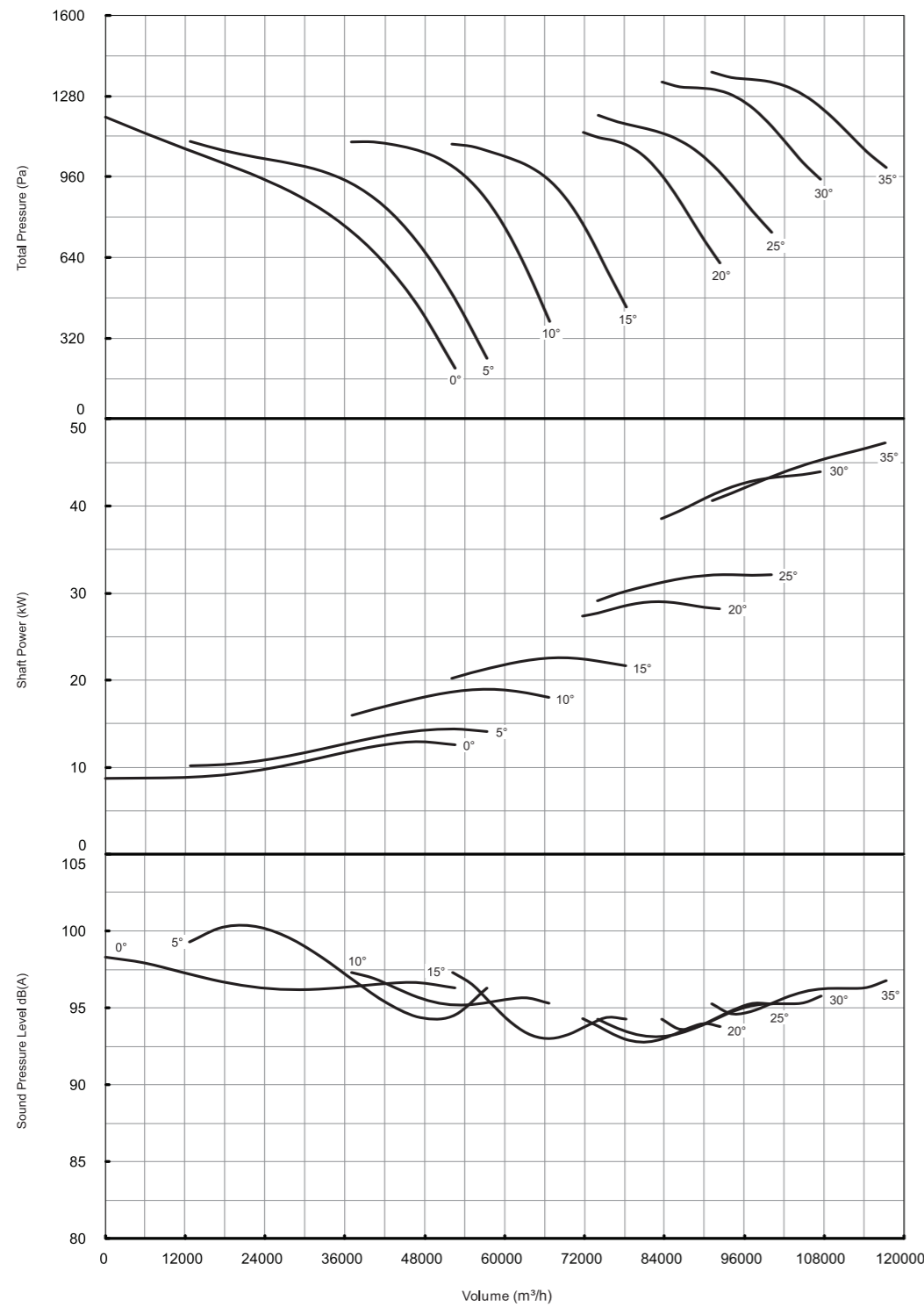
YFIAM-900D8



Performance shown 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) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

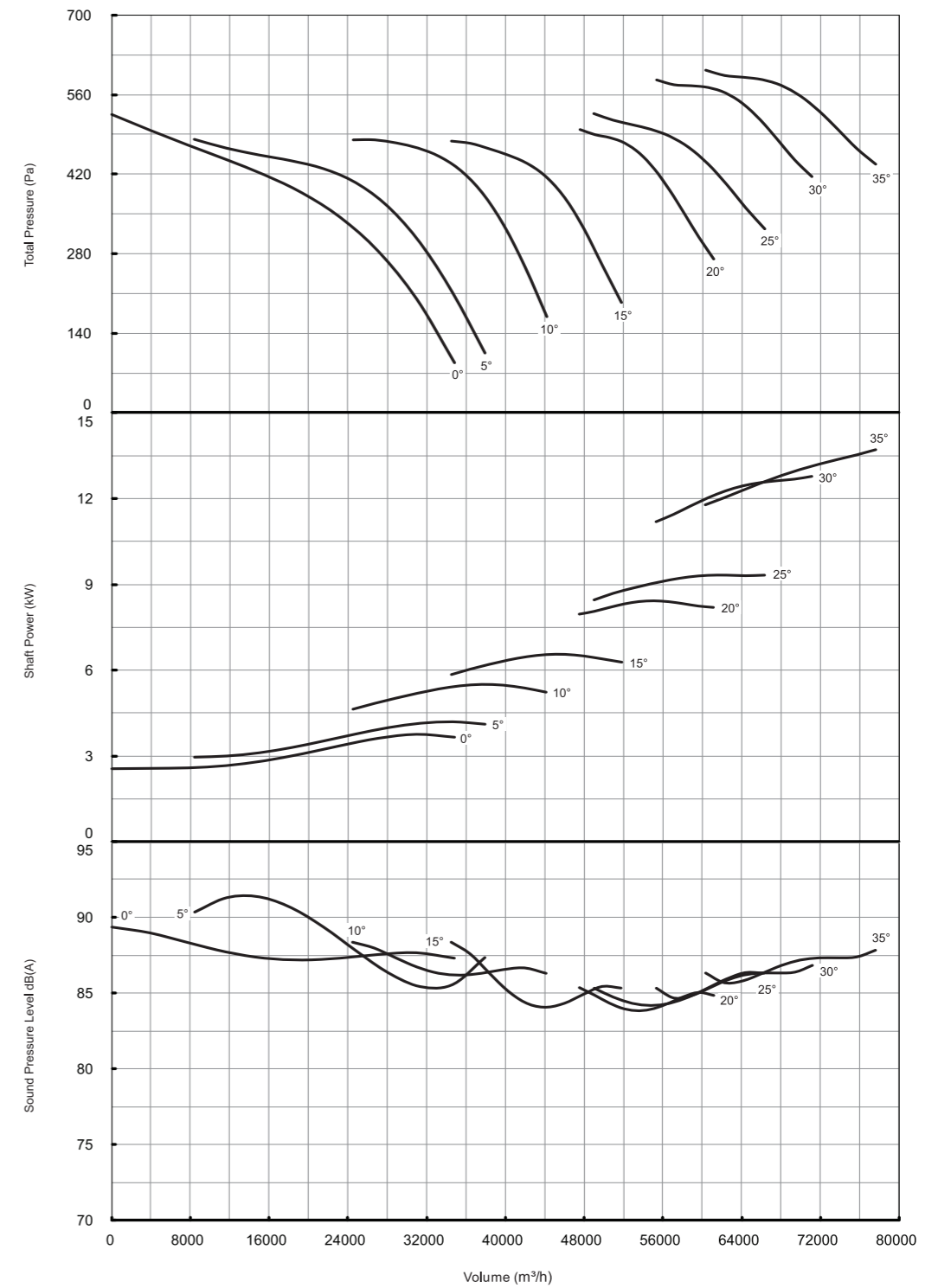
Model : YFIAM1000

YFIAM-1000D4



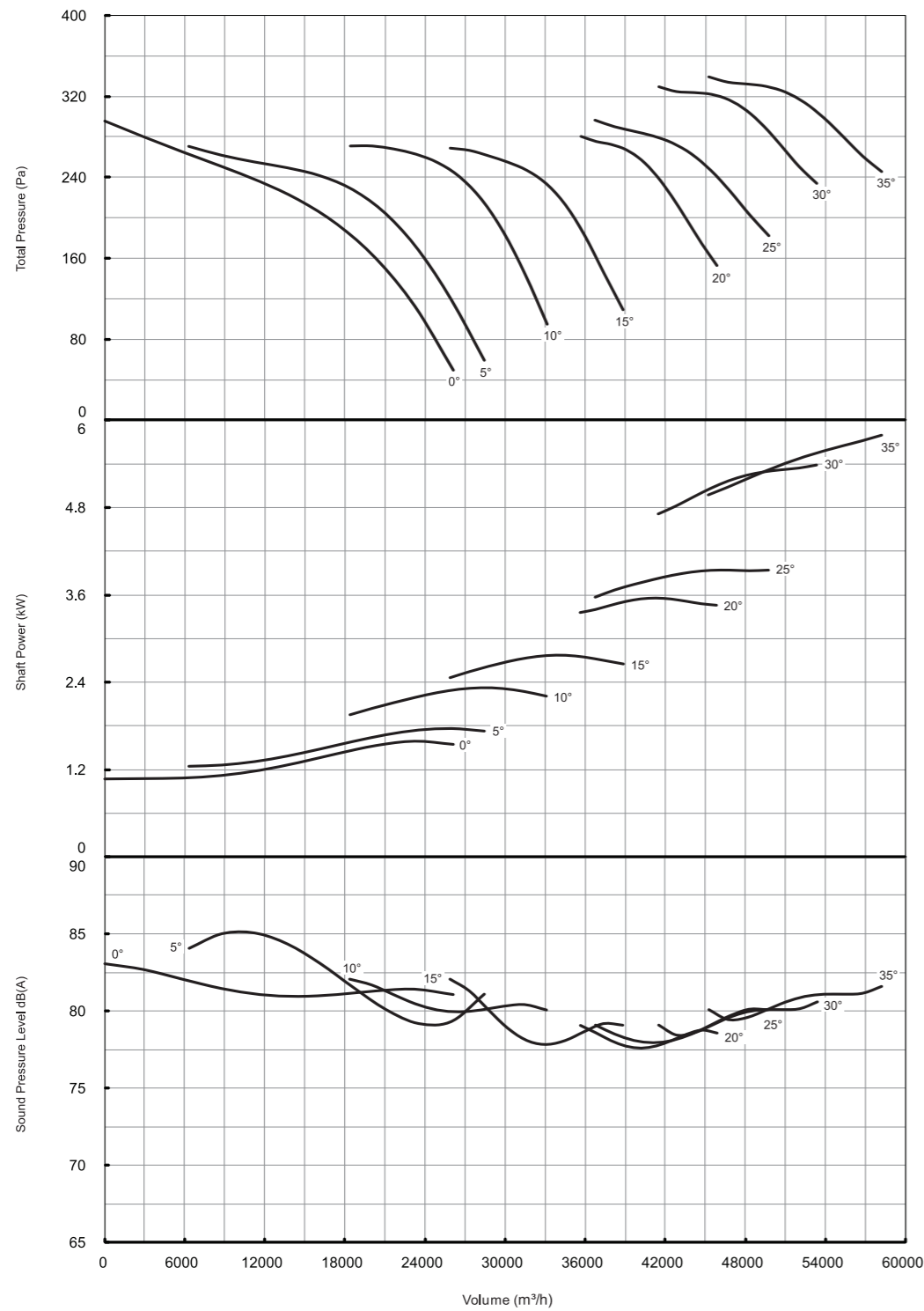
Performance shown is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

YFIAM-1000D6



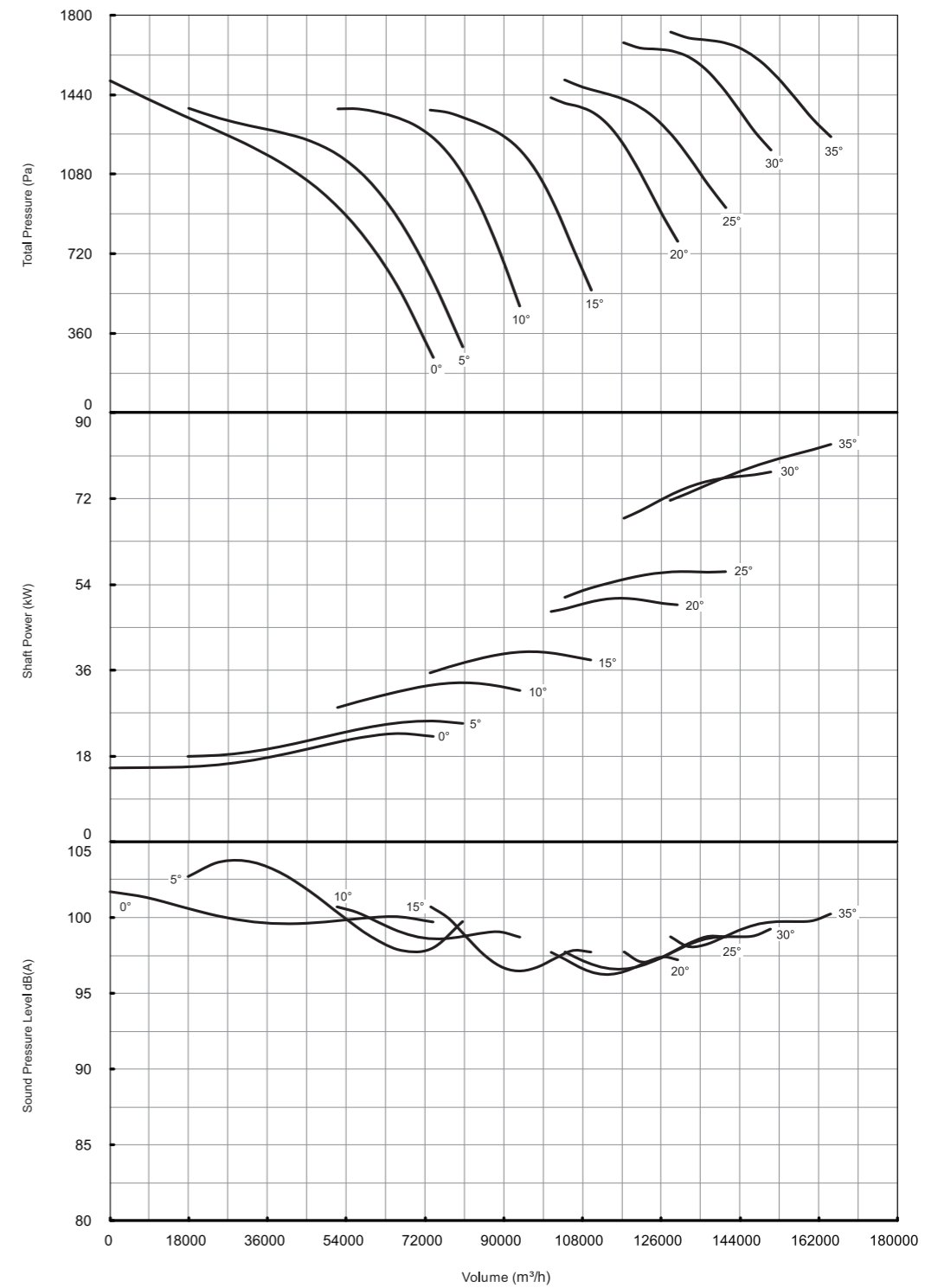
Performance shown is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

Model : YFIAM1000
YFIAM-1000D8



Performance shown 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) . Values shown are for inlet LwA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

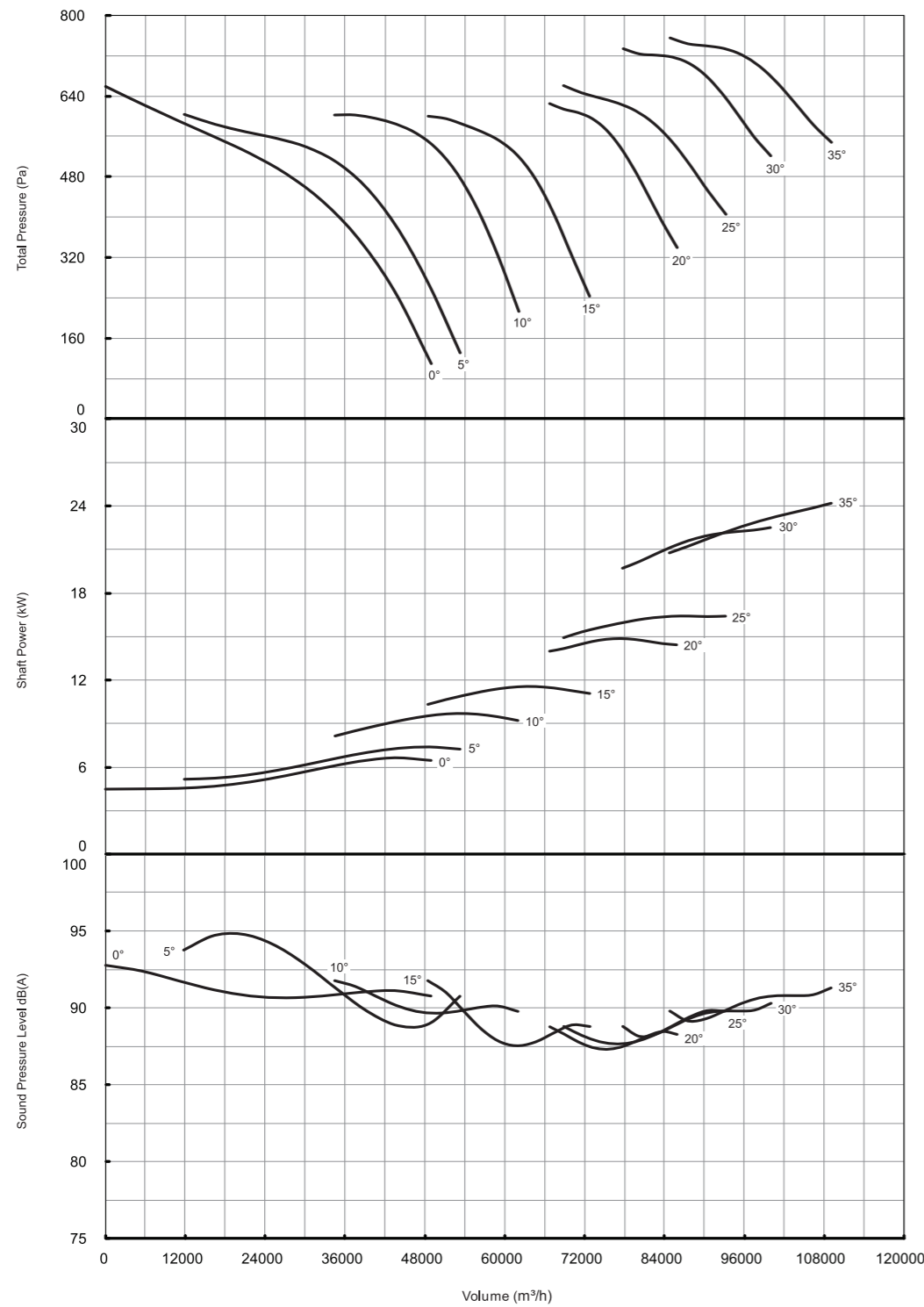
Model : YFIAM1120
YFIAM-1120D4



Performance shown 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) . Values shown are for inlet LwA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

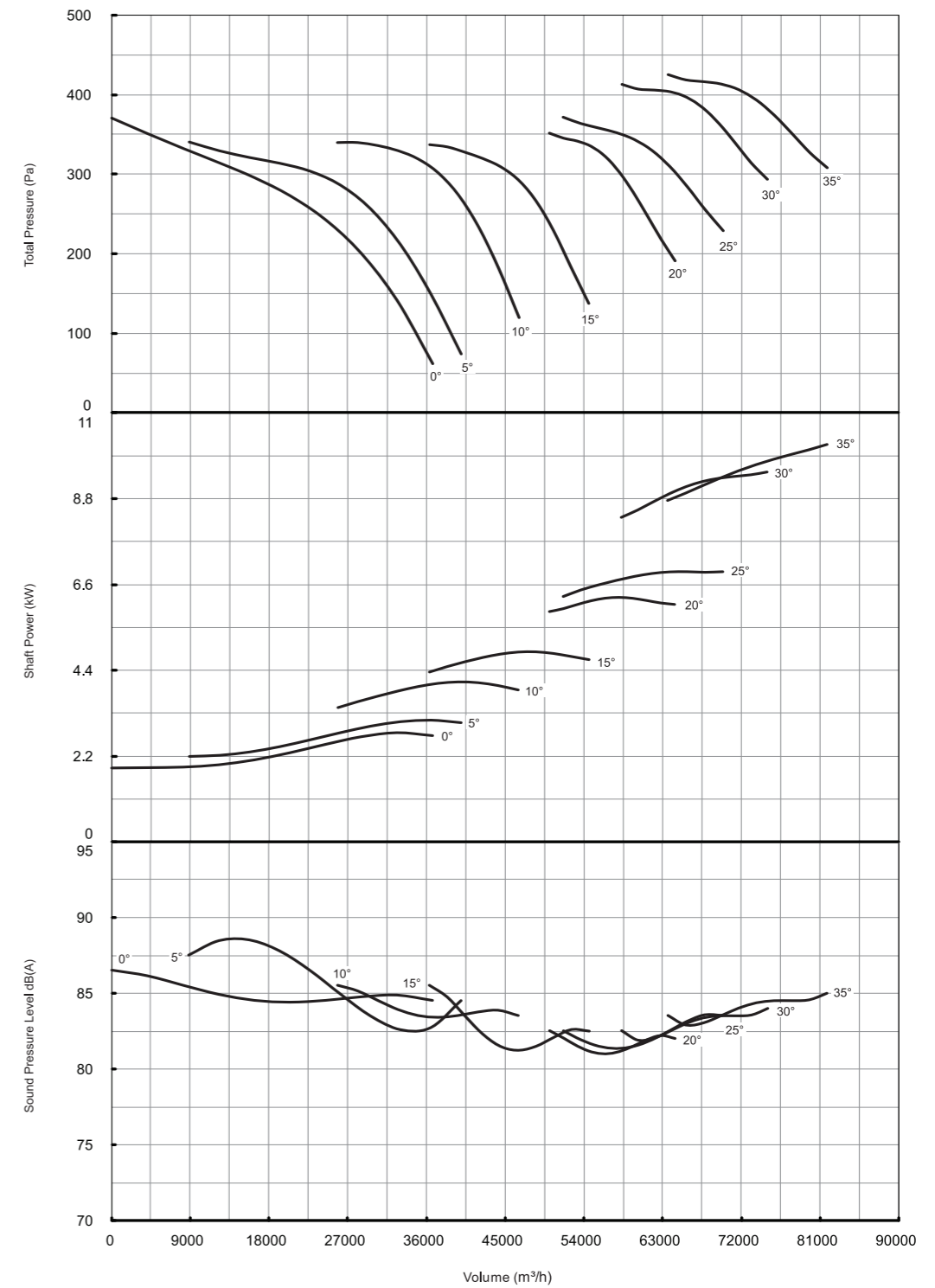
Model : YFIAM1120

YFIAM-1120D6



Performance shown 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) . Values shown are for inlet LwA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

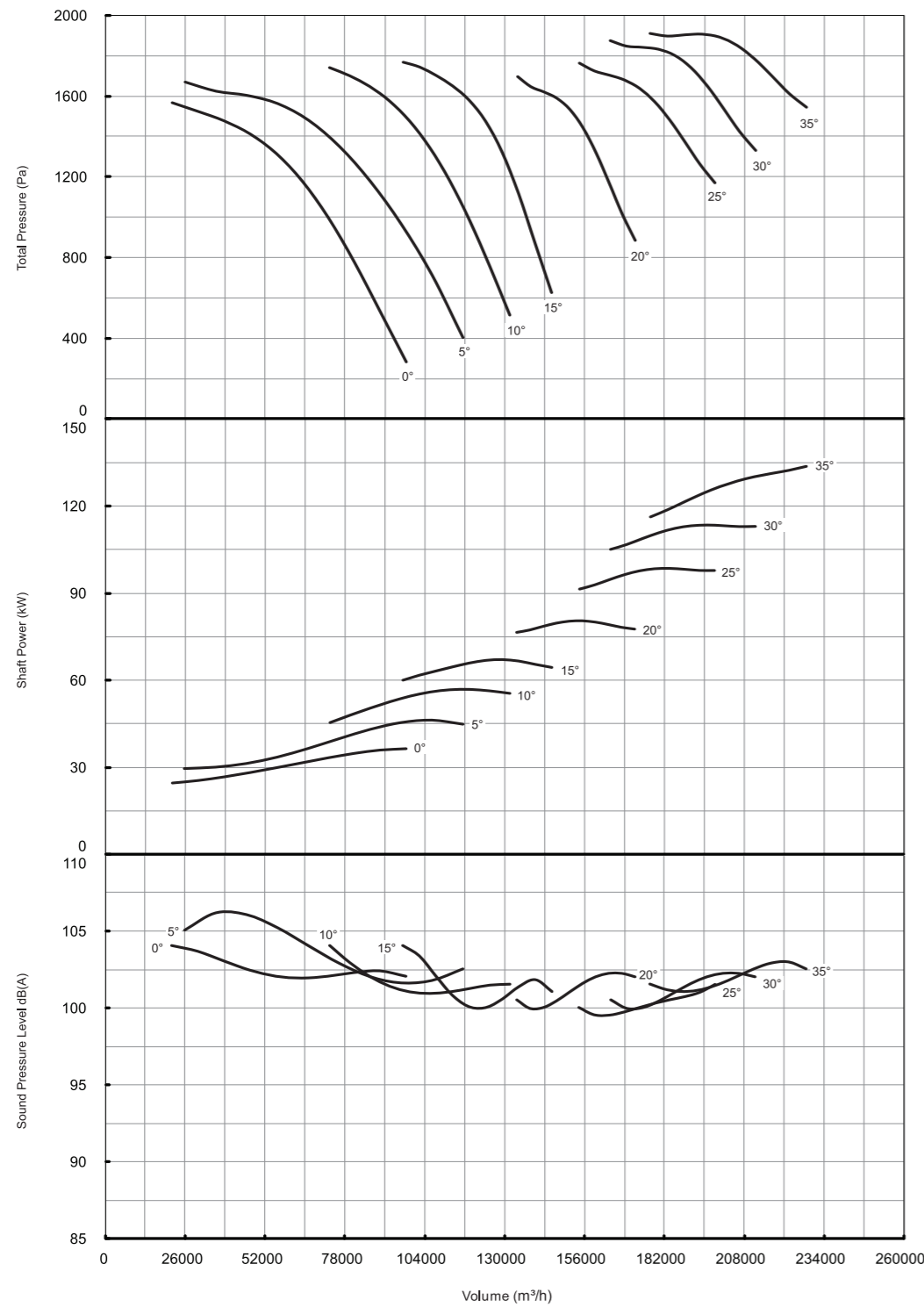
YFIAM-1120D8



Performance shown 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) . Values shown are for inlet LwA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

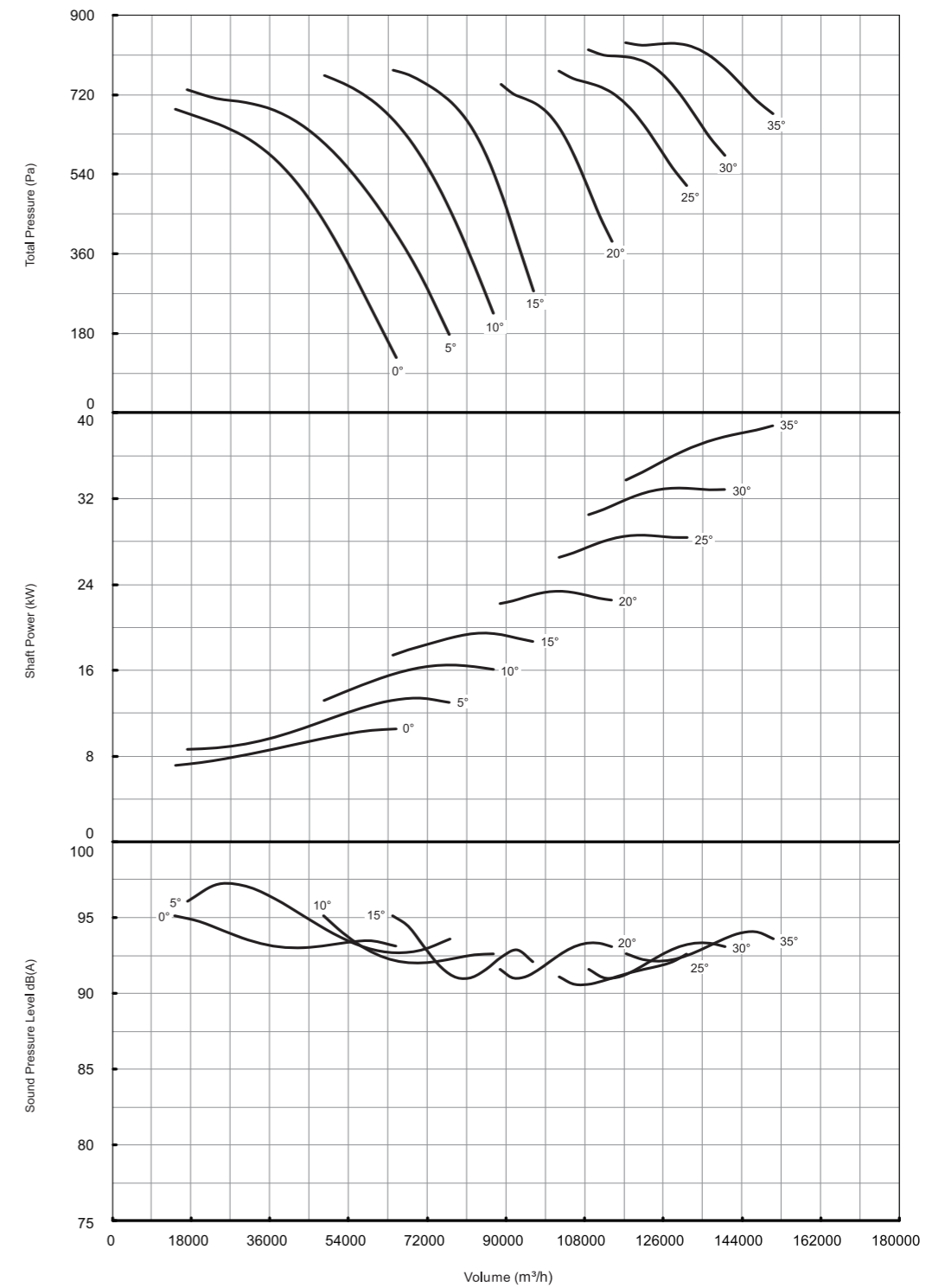
Model : YFIAM1250

YFIAM-1250D4



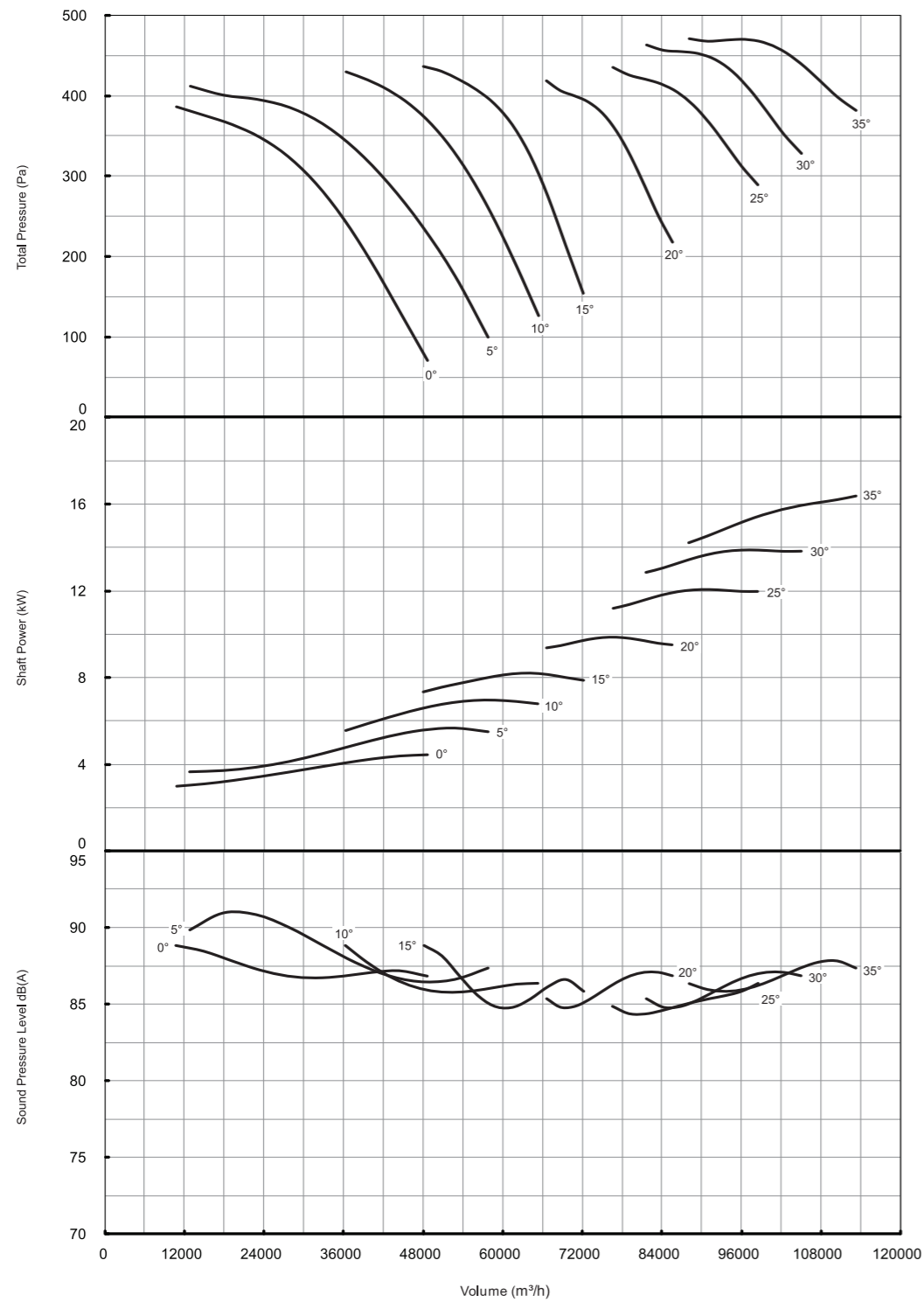
Performance shown is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

YFIAM-1250D6



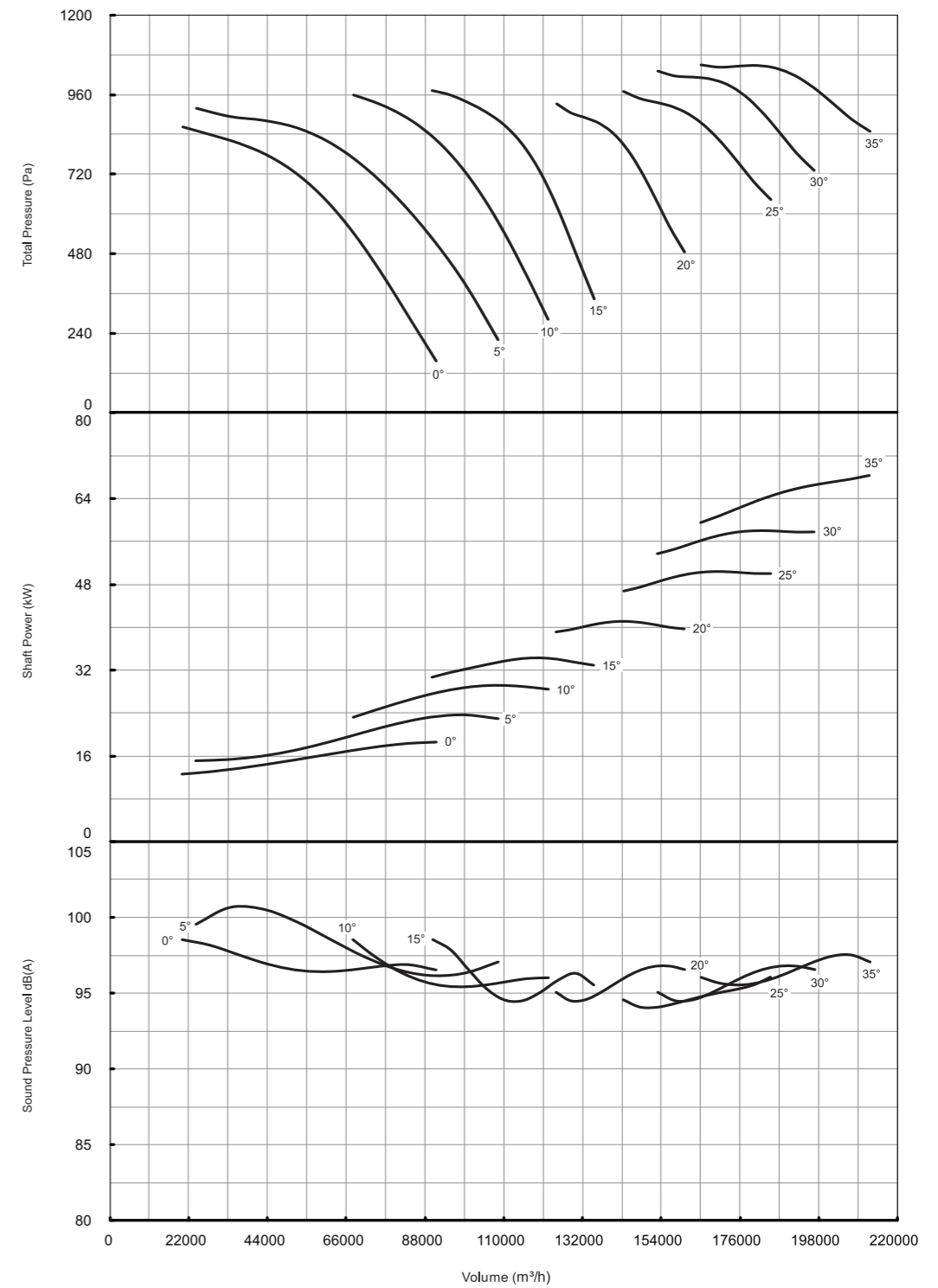
Performance shown is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

Model : YFIAM1250
YFIAM-1250D8



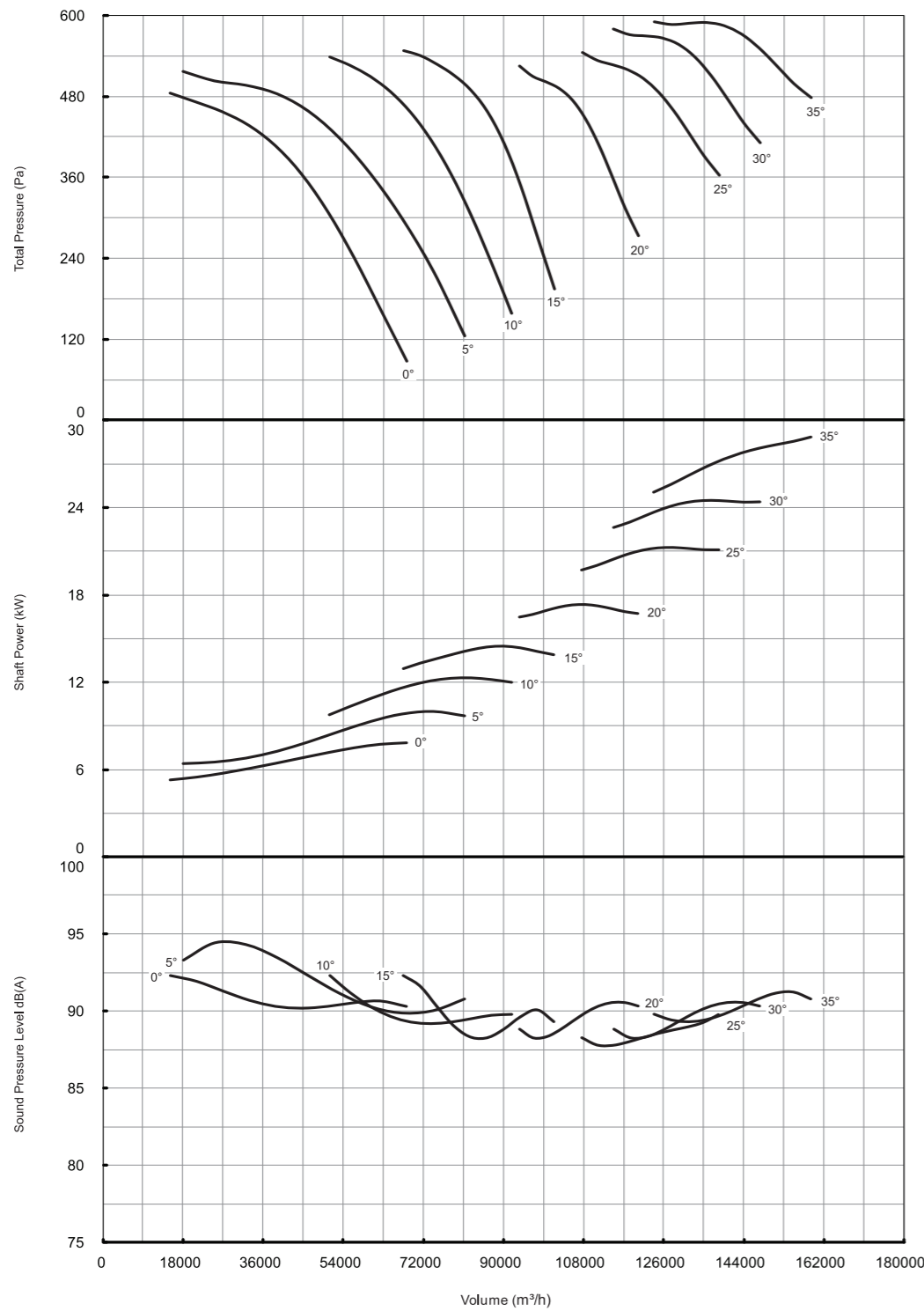
Performance shown is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

Model : YFIAM1400
YFIAM-1400D6



Performance shown 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) . Values shown are for inlet LwIA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

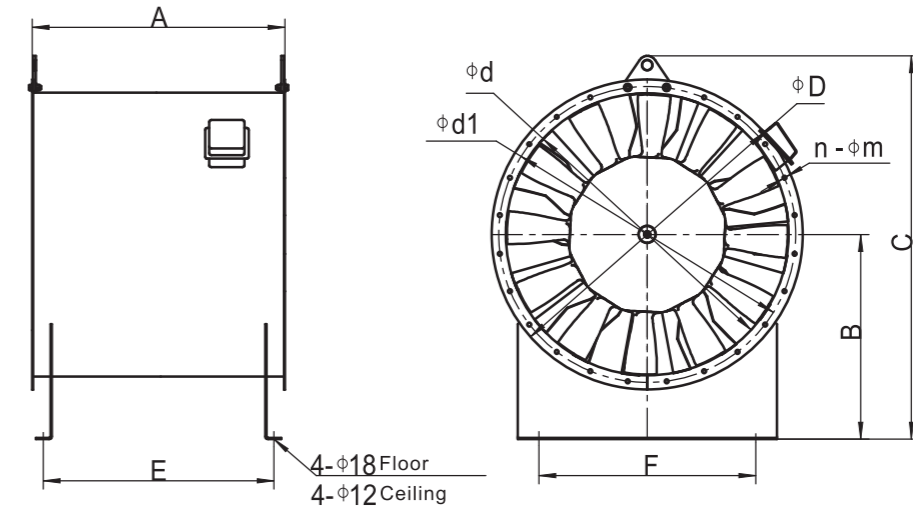
Model : YFIAM1400
YFIAM-1400D8



Performance shown 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). Values shown are for inlet LwA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m.

Dimensions and weight

YFIAM500-1400
General

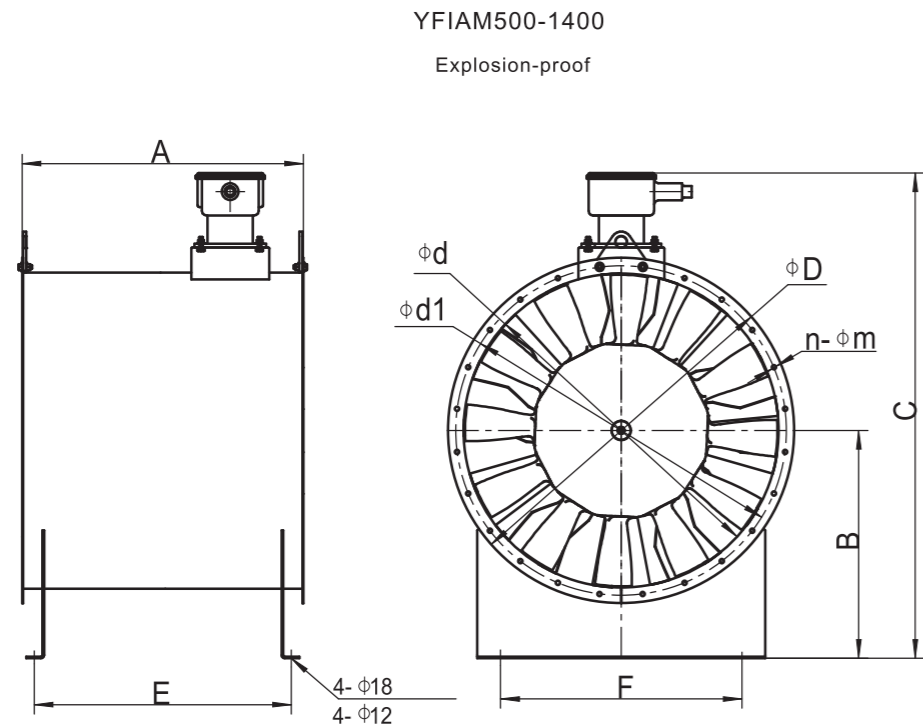


Model	Motor	A	B	C	φD	φd1	φd	E	F	n-φm
YFIAM-500-GT	/	500	340	680	575	540	505	441	350	12-φ12
YFIAM-560-GT	/	500	370	755	635	600	565	441	400	12-φ12
YFIAM-630-GT	71~90	480	400	820	716	676	636	421	470	12-φ12
	100~132	580						521		
YFIAM-710-GT	80~112	550	445	910	796	756	716	491	520	16-φ12
	132~160	720						661		
YFIAM-800-GT	90~132	670	500	1015	887	847	807	608	600	16-φ12
	160~180	830						768		
YFIAM-900-GT	100~132	700	550	1115	988	948	908	638	680	16-φ14
	160~225	940						878		
YFIAM-1000-GT	100~132	720	600	1215	1089	1049	1009	658	730	16-φ14
	160~225	1000						938		
YFIAM-1120-GT	132~180	960	680	1360	1210	1170	1130	895	790	20-φ14
	200~280	1220						1155		
YFIAM-1250-GT	160~225	1070	745	1490	1351	1306	1261	1005	900	20-φ14
	250~280	1250						1185		
YFIAM-1400-GT	160~225	1100	820	1645	1502	1457	1412	1035	1030	20-φ14
	250~280	1290						1225		
	315	1525						1460		

Note:

1. Dimension date is for reference only, subject to drawings confirmation with factory technical confirmation;
2. The fan weight in the above table does not include that of motor; refer motor weight and power to the attached list.

Dimensions and weight



Model	Motor	A	B	C	φD	φd1	φd	E	F	n-φm	Weight (kg)
YFIAM-500-EX	/	500	340	830	575	540	505	441	350	12-φ12	32
YFIAM-560-EX	/	500	370	905	635	600	565	441	400	12-φ12	40
YFIAM-630-EX	80~90	480	400	970	716	676	636	421	470	12-φ12	45
	100~132	580						521			49
YFIAM-710-EX	80~112	550	445	1070	796	756	716	491	520	16-φ12	62
	132~160	720						661			69
YFIAM-800-EX	90~132	670	500	1175	887	847	807	608	600	16-φ12	84
	160~180	830						768			91
YFIAM-900-EX	100~132	700	550	1305	988	948	908	638	680	16-φ14	104
	160~225	940						878			118
YFIAM-1000-EX	100~132	720	600	1405	1089	1049	1009	658	730	16-φ14	126
	160~225	1000						938			142
YFIAM-1120-EX	132~180	960	680	1580	1210	1170	1130	895	790	20-φ14	194
	200~280	1220						1155			217
YFIAM-1250-EX	160~225	1070	745	1710	1351	1306	1261	1005	900	20-φ14	248
	250~280	1250						1185			259
YFIAM-1400-EX	160~225	1100	820	1865	1502	1457	1412	1035	1030	20-φ14	308
	250~280	1290						1225			322

Note:

1. Dimension date is for reference only, subject to drawings confirmation with factory technical confirmation;
2. The fan weight in the above table does not include that of motor; refer motor weight and power to the attached list.

Motor approx. weight and power

Power(kW)	2P		4P		6P		8P	
	Motor	Weight(KG)	Motor	Weight(KG)	Motor	Weight(KG)	Motor	Weight(KG)
0.18	-	-	-	-	-	-	801	16
0.25	-	-	711	14	712	14.5	802	17
0.37	-	-	712	14.5	801	16	90S	24
0.55	-	-	801	15	802	17	90L	28
0.75	-	-	802	18	90S	23	100L1	33
1.1	-	-	90S	22	90L	25	100L2	38
1.5	-	-	90L	27	100L	33	112M	45
2.2	90L	25	100L1	34	112M	45	132S	63
3	100L	33	100L2	38	132S	63	132M	79
4	112M	45	112M	43	132M1	73	160M1	110
5.5	132S1	64	132S	68	132M2	84	160M2	121
7.5	132S2	70	132M	81	160M	121	160L	147
11	160M1	110	160M	118	160L	145	180L	182
15	160M2	120	160L	132	180L	178	200L	290
18.5	-	-	180M	164	200L1	200	225S	376
22	-	-	180L	182	200L2	228	225M	303
30	-	-	200L	245	225M	265	250M	400
37	-	-	225S	258	250M	370	280S	522
45	-	-	225M	290	280S	490	-	-
55	-	-	250M	388	280M	540	-	-
75	-	-	280S	510	315S	900	-	-
90	-	-	280M	606	315M	980	-	-
110	-	-	315S	910	-	-	-	-
132	-	-	315M	1000	-	-	-	-
160	-	-	315L1	1055	-	-	-	-

Notes: Due to different weights of motors of different brands, motor weights in the table are only for reference.

Mounting

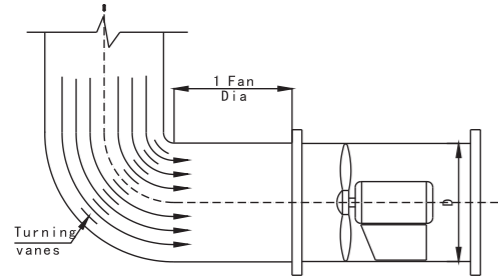


Floor

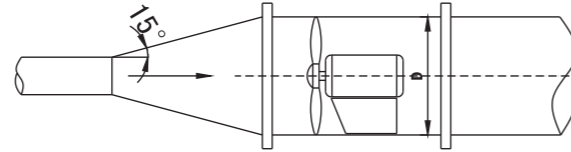


Ceiling

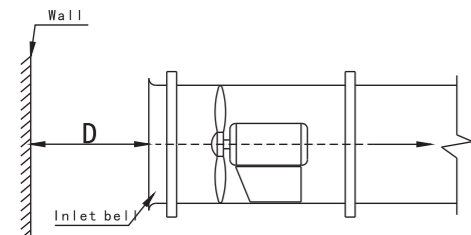
Typical application



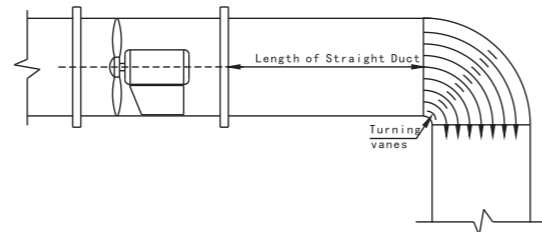
Ducted Inlet Conditions



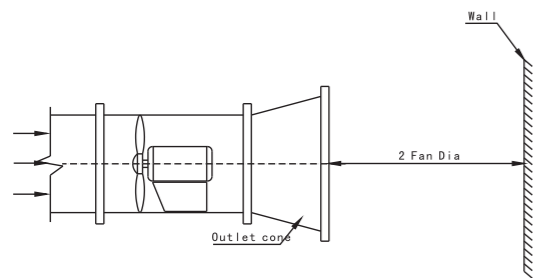
Ducted Inlet Conditions



Non-ducted Inlet Conditions



Ducted outlet Conditions



Non-ducted Outlet Conditions

Technical specifications

● Section I: Fan types

The fan shall be the axial flow fan with cylinder structure, the drive type shall be direct-drive. The manufacturer shall pass the ISO9001-2008 certification.

● Section II: Wheel

Wheel shall be variable angle vane axial wheel to meet the needs of the diverse conditions optimization selection. Vane and hub shall be made in cast aluminum which should be adopted by whole molding mould to ensure the strength of the limit of the tolerance 120% speed and improve the structure reliability and the security of the operation. Vane type shall be the wing to own higher aerodynamic efficiency, the fan shall keep stable airflow and low noise at maximum speed. The wheel shall be balanced to meet G2.5 (according to ISO1940) dynamically. The fan shall effectively avoid performance degradation caused by slide of operating point.

● Section III: Fan housing

Fan housing shall be constructed of continuously welded cold rolled steel panel with epoxy surface, the flange shall be integrated machine shaping.

● Section IV: Surface treatment

The housing of the fan shall be made of steel with epoxy powder coating, the color is silver (RAL9006), the surface after being painted shall have glossiness no less than 70% and shall be no unevenness, sag, fissure, crackle, or shedding.

● Section V: Structure

The wheel shall be directly connected with the motor. The motor shall adopt B5 installation structure, and its protection grade shall be IP54, while insulation class F and temperature rise B. The motor bearing shall be self-lubricating ball bearing. The power reserve coefficient of the motor shall be per 110% so as to improve the safety in using the motor. Fan cylinder internal should be equipped with guide vane to improve aerodynamic performance and static pressure efficiency, smoother air flow is required, and the blades of the guide vane shall be of 3d curved surface in compliance with flow field characteristics.

Junction box of motor: Since the motor is within the fan, the supplier shall provide junction boxes to lead the wire out of the fan, and correct types of junction boxes shall be selected according to the specific application, such as fire protection type, explosion-proof type and common type.

● Section VI: Smoke removal fan and certification (for smoke removal duty only)

The fan shall pass the inspection according to JB/T10562-2006 Technical Specification for General Purposes Axial Fans, their general performance shall meet the requirements of such standard, and relevant test report issued by an institution with corresponding qualification shall be provided. Meanwhile, such type of fans must also pass the inspection performed by a national recognized fire safety testing institution according to the GA211-2009 High Temperature-resistant Test Methods for Fire Fan in Smoke-venting System, ensuring that the fan can continuously run for over 30 minutes and the high temperature resistance can meet the requirements of such standard when the medium temperature in the main air duct is 280°C, and relevant test report issued by an institution with corresponding qualification shall be provided.

● Section VII: Nameplate

Aluminum nameplate shall be permanently fixed and clearly indicate legible fan number, model and product serial number (i.e. unique identification of each machine), ensuring that the customers can conveniently query the historical records of the accessories.

● Section VIII: Qualified suppliers

Qualified suppliers shall have an AAA credit rating, providing **INFINAIR®** or similar products, with their design based on YFIAM models of **INFINAIR®**.

ISQ

Inline Square Centrifugal Fan

To provide the most reliable and user-friendly air movement & control and air conditioning service.



Due to continuing research, Shanghai Nautilus reserves the right to change specifications without notice.

SHANGHAI NAUTILUS GENERAL EQUIPMENT MANUFACTURING CO LTD

Add: No. 55 Qingneng Road, Waigang Town, Jiading District, Shanghai
P.C: 201806
Tel: 86 21 39185688
Toll free number: 400 821 3316
Fax: 86 21 69168759
Http: //www.infinair.com

Formula Series Principle Product

- Performance range: Volume:49,000m³/h, Static Pressure:920Pa
- Inline air supply&exhaust, explosion-proof supply&exhaust, smoke removal duty
- Direct connection with square duct
- Wind-surfer™ design backward inclined centrifugal wheel
- High pressure duct fan: No duct silencer required

G2.5



SHANGHAI NAUTILUS GENERAL EQUIPMENT MANUFACTURING CO LTD

Company Profile

Shanghai Nautilus General Equipment Manufacturing Co., Ltd. is a middle and high-end solution provider of air supply and gas heating and air cleaning equipment that integrates R&D, production and sales. Established in September, 2003, it is located in the Jiading District of Shanghai. The company is the member of the US Green Building Council (USGBC) and International Air Movement and Control Association (AMCA), the high and new tech enterprise of Shanghai, **INFINAIR®** won the famous trademark in Shanghai.

Vision statement: To become the most trustworthy brand of professional air movement & control and air conditioning.

Mission statement: To provide the most reliable and user-friendly air movement & control and air conditioning service.

Shanghai Nautilus General Equipment Manufacturing Co Ltd certifies that the Model ISQ shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



Effect of the 3rd generation Wind-Surfer™ wheel series

✓ Effect of the 3rd generation Wind-Surfer™ wheel series

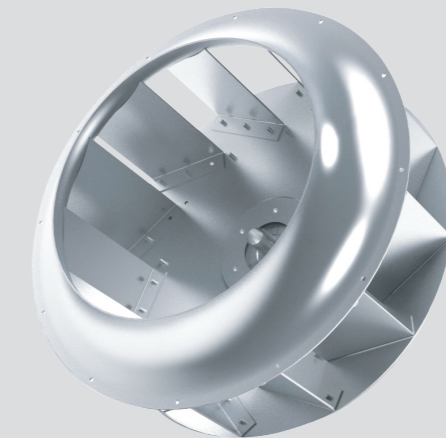
- Excellent aerodynamic characteristics and noise characteristics
- High-efficient area width without overloading
- Balance quality grade up to G2.5 (Typical products are balanced to G6.3 only)

✓ Air performance design

- Optimized design of CFD flow field simulation, repeatedly validated
- Front disc and inlet venture tube according with flow field characteristic
- Flow passage control: matched each other to restrain the air flow better
- Optimize the blade angles

✓ Structure performance design

- Stress analysis of FEA to Improve performance
- Selected the strengthen structure according to different specifications to improve reliability
- Using riveting technology to avoid stress



✓ Advanced process

- Inlet venture tube & Front disc: spun process to ensure streamlines aerodynamic characteristics
- Inlet venture tube: replace bell mouth to ensure smooth air flow
- Blades: once punch forming to ensure process quality
- Tooling: dedicated fixture to ensure precise install of the blades

✓ Improved wheel

- Continues improvement: The wheel has the 3rd generation
- Compared with the 2nd generation: Performance increased by 5-10% in the same parameters
- Compared with the 2nd generation: Noise reduced 2-3 dB(A) in the same parameters

Product Feature

✓ Wide performance range and more economic

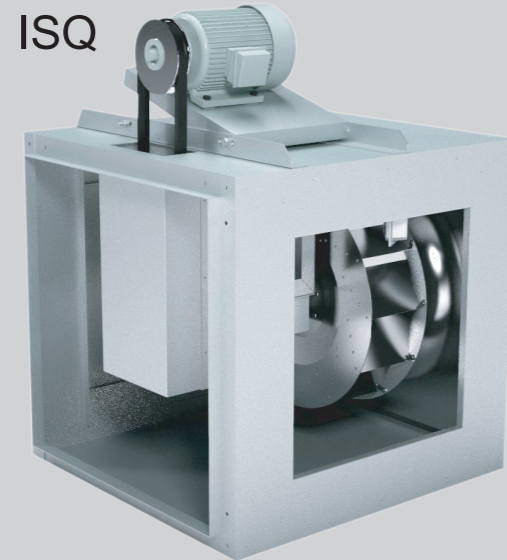
- 2nd Generation Wind-surfer Centrifugal Wheel: low noise while pressurizing compare with 1st generation
- Maximum wheel diameter is 1 meter, reduce fan quantity and primary investment
- The scroll is saved and the cabinet size is reduced

✓ Centrifugal In-line: obvious advantage in RPM and noise

- Compare with axial/mixed flow fans rotation speed is reduced 20~30%
- The sound pressure level range reduced by 10~15 dB(A)
- Fundamental way to reduce noise

✓ Plug fan structure

- Plug fan directly suck air into wheel and pressurize: air flow pattern improved.
- Direct drive no dust generated: suitable for clean rooms of wafer fab, pharmaceutical and food industry.



✓ AMCA Seal: sound and air performance certified

- The sound & air performance is approved by AMCA
- Sound & Air Performance Seal is applied to each fan

✓ Square casing with multi-discharge, easier to connect

- Square inlet/outlet sleeve flange as standard accessories: round/square conversion duct is not needed
- Duct connection cost reduced, and jobsite working time saved
- Motor can be multi-position
- Multi-discharge: More convenient and flexible for design & construction

Optional accessories

Back-draft damper

Professional back-draft damper include inlet/outlet flange and combined box which insures the blade open properly. The damper is installed separately from the fan body.



45° Weather cover(With bird screen)

When fan mounted outdoor, it prevents rain into indoor effectively from inlet or outlet.

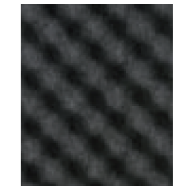


Motor cover (Apply for belt drive type only)

With discharge window to exhaust heat, extend motor life and reduce motor noise.

Acoustical housing

Apply high class acoustical material inside the fan casing to reduce sound pressure level at about 6~8 dB(A).

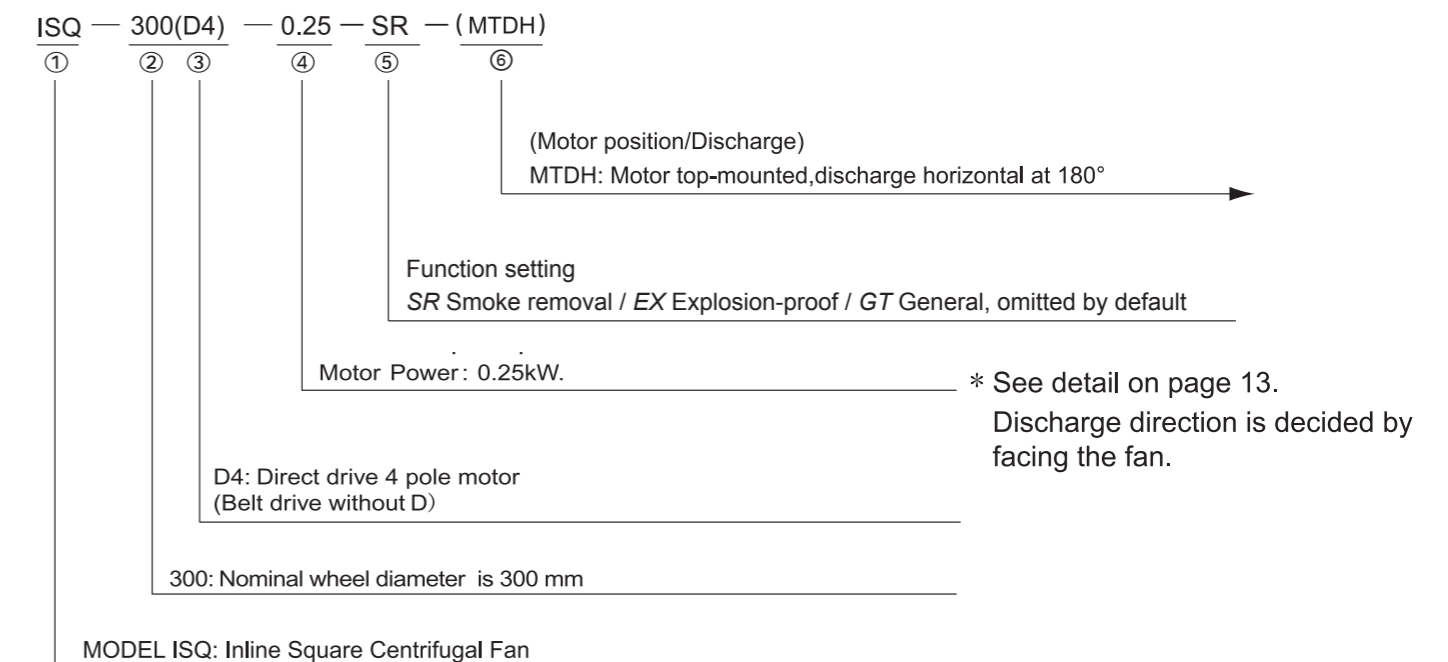


Vibration isolators

Vibration isolators can be hung or floor-mounted, material can be neoprene or spring type.

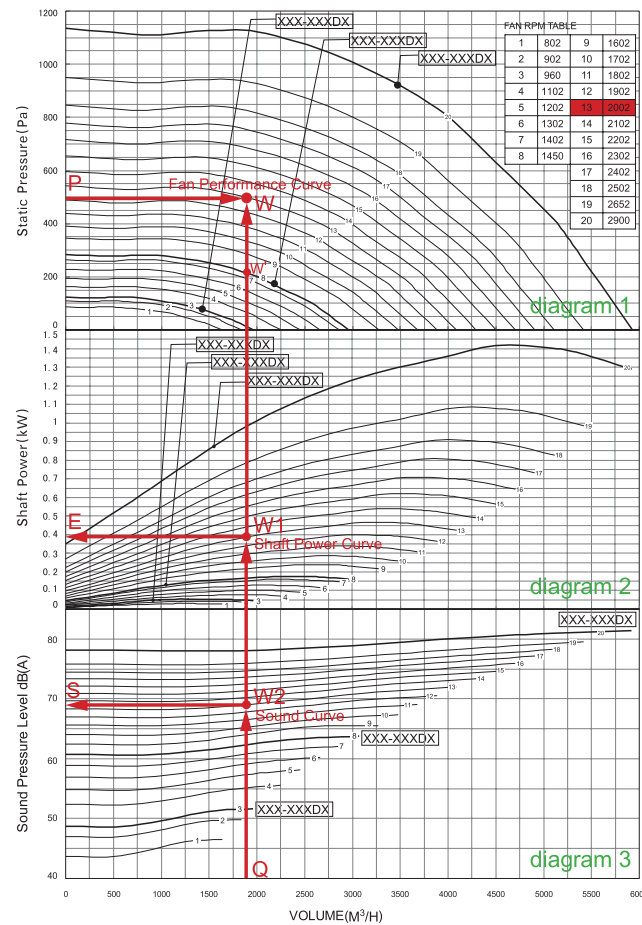


Naming convention



Catalogue Introduction

- Each fan performance is symbolized by a group of curves for different RPM.
- The bolded curves indicate the fan is direct drive which means the wheel is installed on the motor shaft directly. All direct drive models shall have a suffix letter D followed by motor pole number (which is already marked on the drawing). The attached table shows motor RPM at different number of poles.
- The not-bolded curves means the fan is belt drive. The belt drive models establish different RPM by choosing different diameter of the 2 pulleys, while the motor is 2/4/6pole.
- Shaft Power Curve displays the fan actual power consumption.
- The sound pressure level curve indicated the noise level at 1.5 meter distance.



Example: 1800M³/h, 500Pa Static Pressure

Step 1: From given volume (Point Q: 1800M³/H) draw a vertical line upwards, from given static pressure (Point P: 500Pa) draw a horizontal line to the right, the intersection point W is the working point. Find a fan curve close to the point, which would be curve No. 13. As highlighted in the RPM table, it is 2002 RPM.

Step 2: The intersection point between the vertical line and the curve No. 13 in diagram 2 is marked as point W1. Draw a horizontal line from point W1 to the left coordinate, which makes point E. The point E (about 0.39kW) is the shaft power. According to the shaft power, a 0.55kW motor shall be equipped.

Step 3: The intersection point between the vertical line and the curve No. 13 in diagram 3 is marked as point W2. Draw a horizontal line from point W2 to the left coordinate, which makes point S (about 69dB(A)). It is the fan sound pressure level.

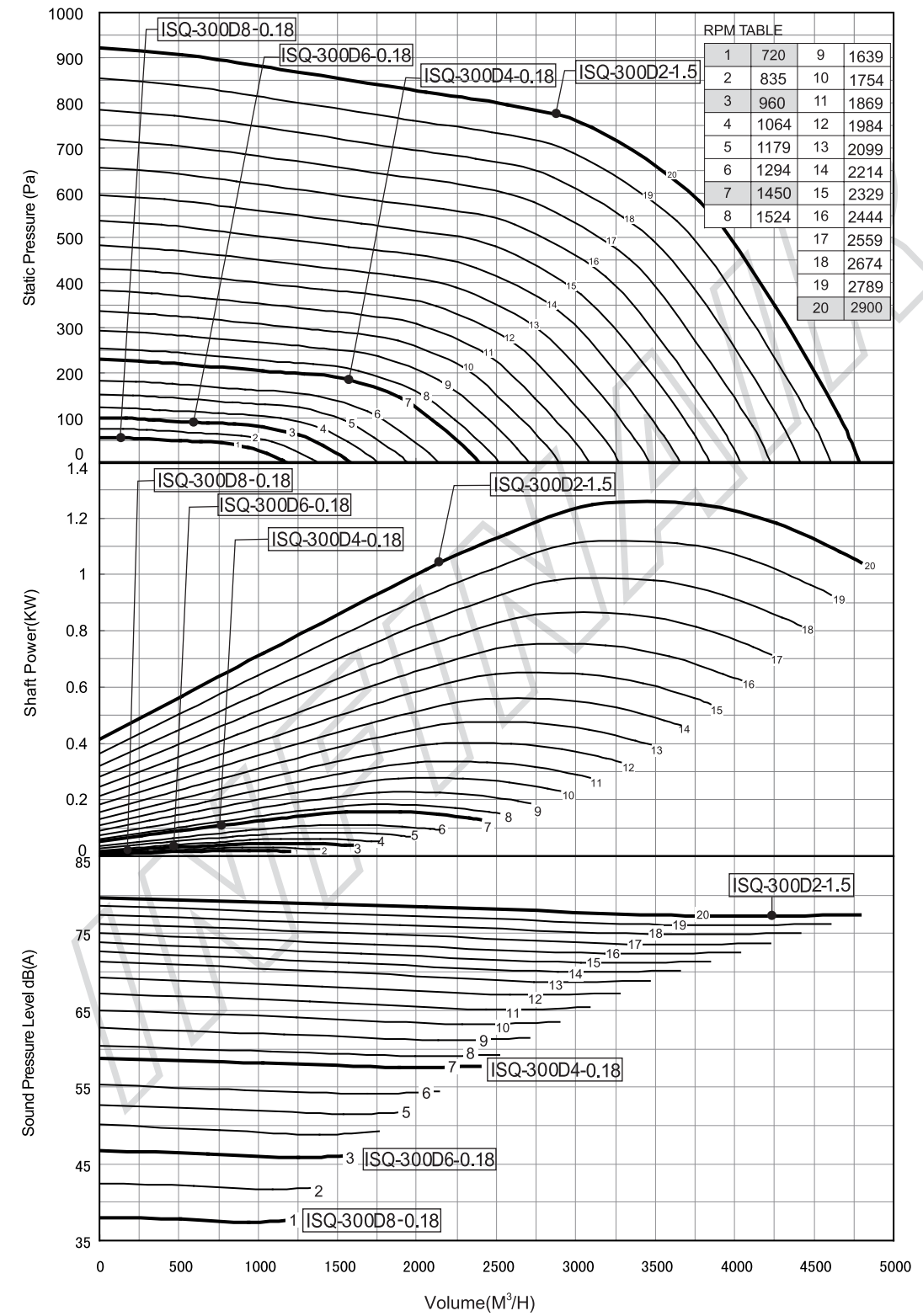
Step 4: According to above steps, the primary model selection would be ISQ-300-0.55, belt drive, and factory set to 2002RPM. If lower shaft power or noise is expected, you may compare with another larger fan. However a larger fan would increase primary investment.

Step 5: Furthermore, if customer needs 1800M³/H at 200Pa static pressure, you would find point W' is close to curve No. 8 (bolded, indicates 1450 RPM 4 pole direct drive). Then a direct drive fan (ISQ-300D4-0.37) can be selected which would be more economic.

Motor Speed

No. of poles	RPM (About)
2	2900
4	1450
6	960
8	720

Model: ISQ-300

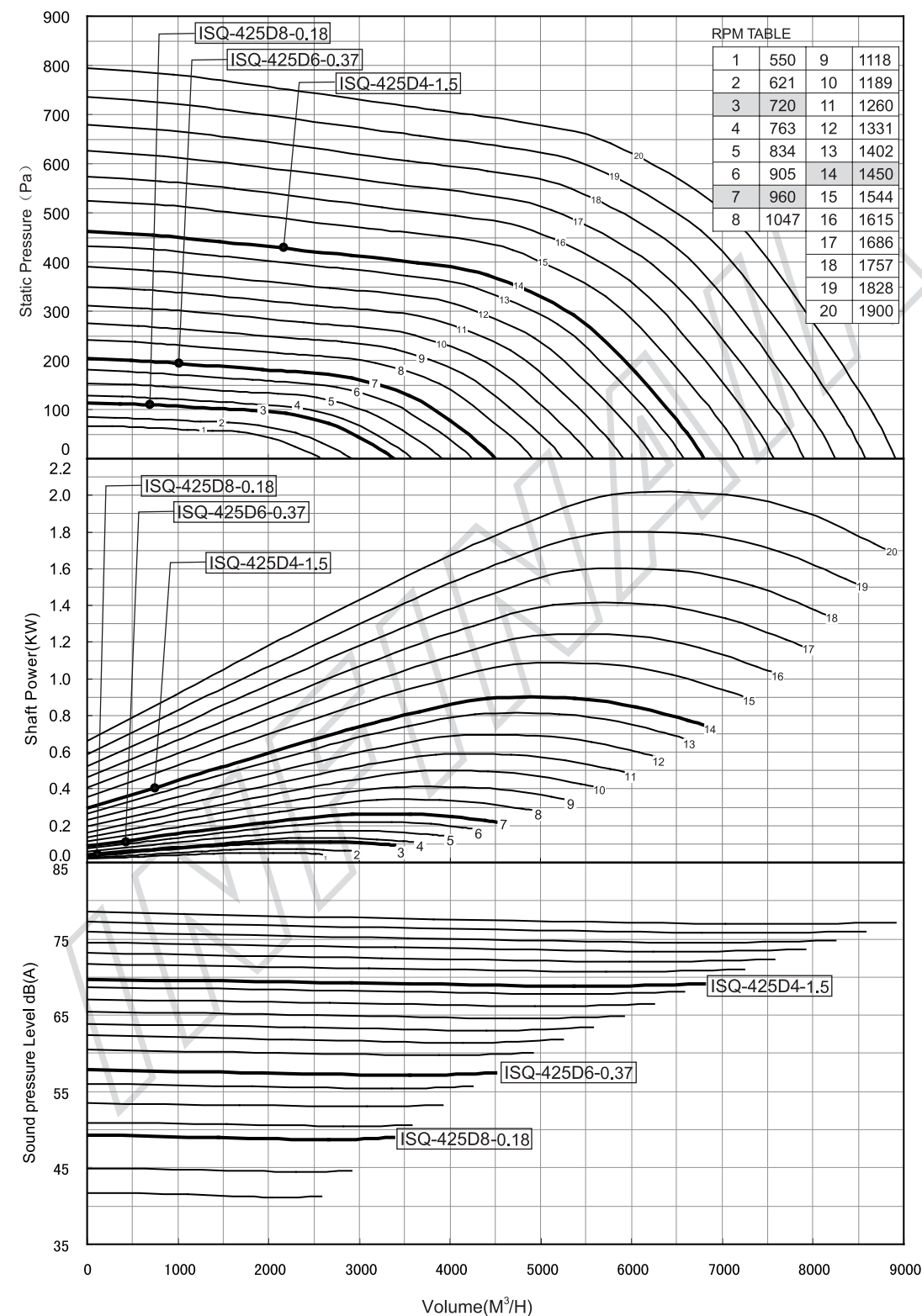


RPM TABLE

1	720	9	1639
2	835	10	1754
3	960	11	1869
4	1064	12	1984
5	1179	13	2099
6	1294	14	2214
7	1450	15	2329
8	1524	16	2444
		17	2559
		18	2674
		19	2789
		20	2900

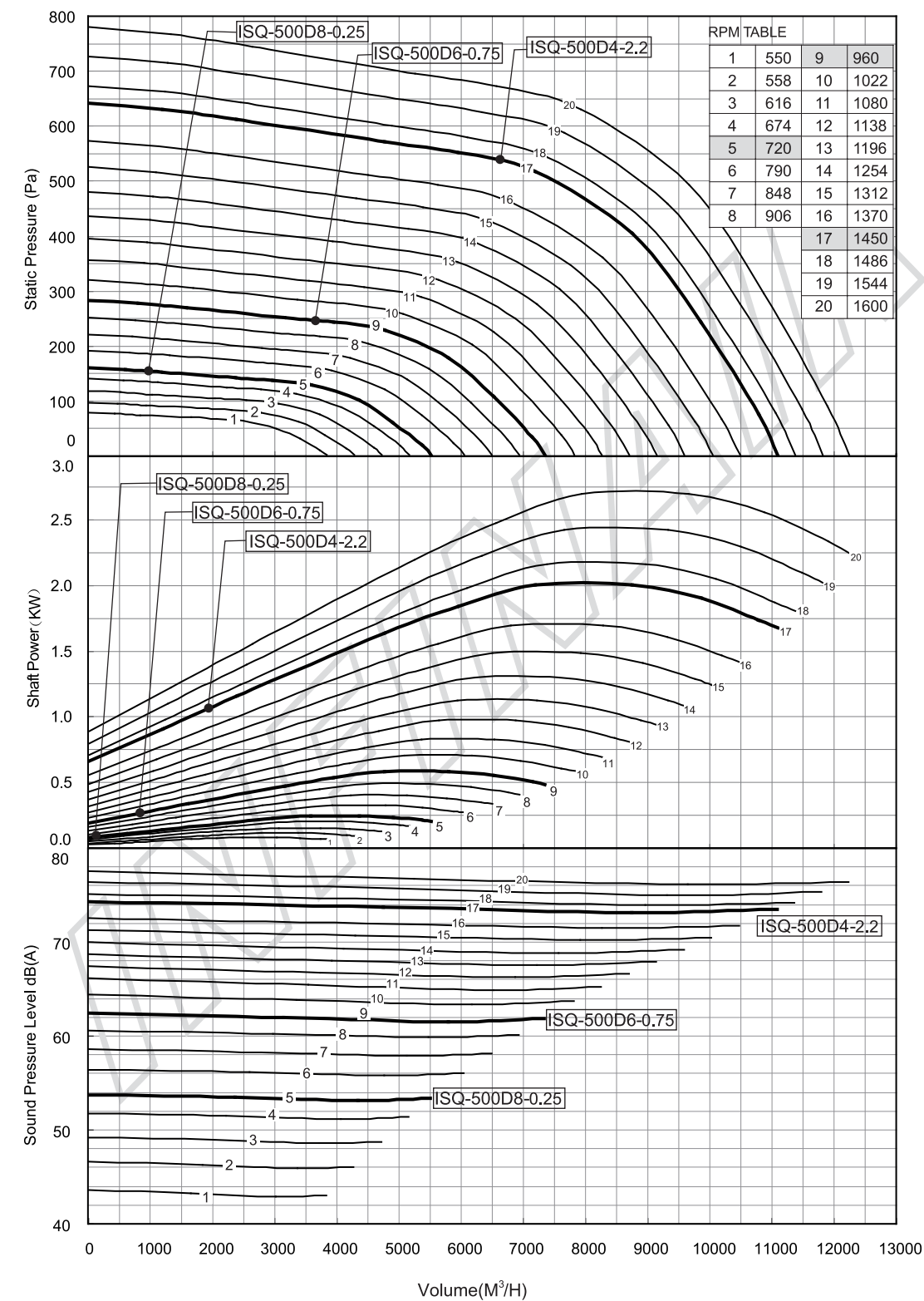
Performance certified is for installation type B - free inlet, duct outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwiA sound power levels for Installation Type B: Free inlet, duct outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: ISQ-425



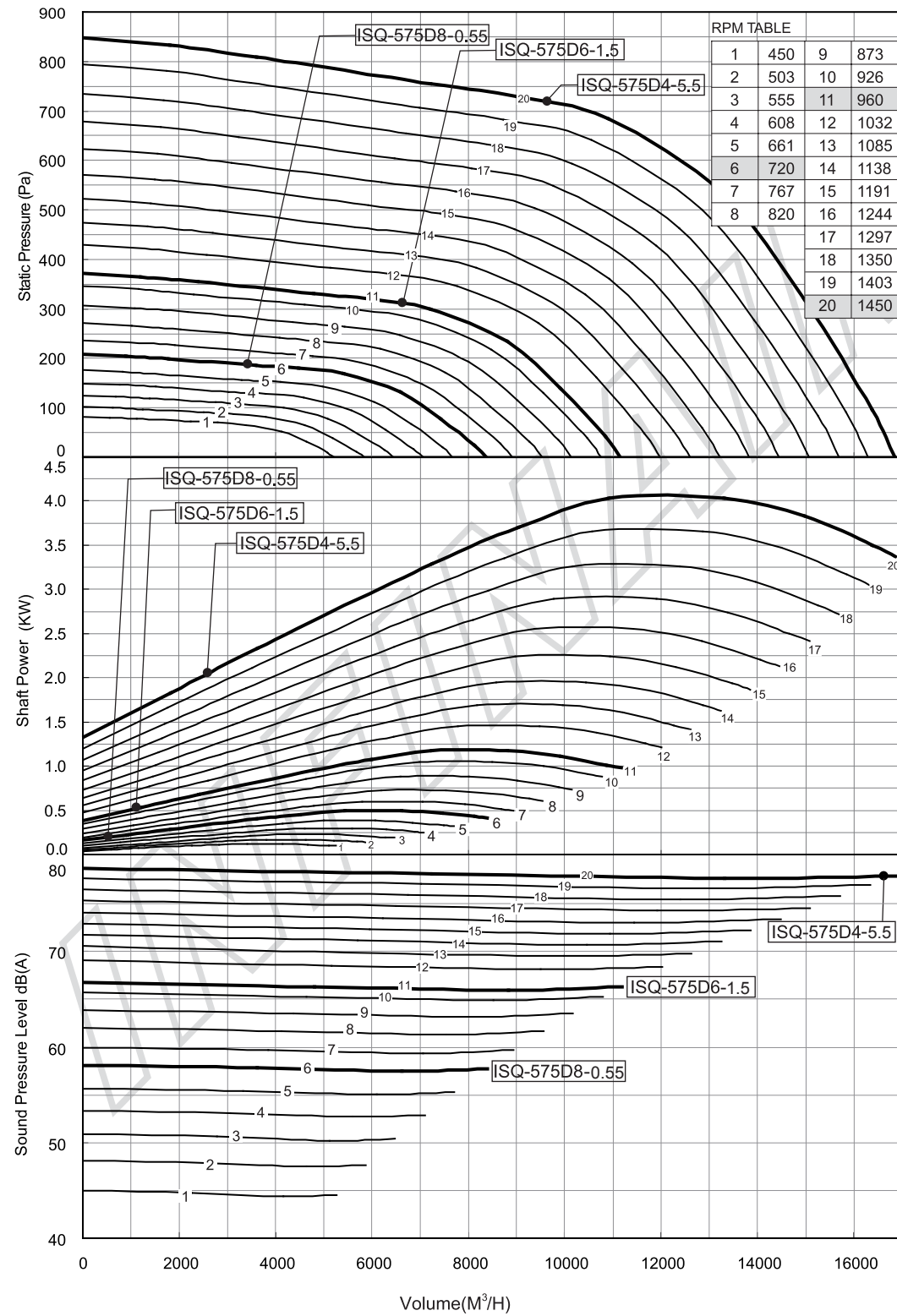
Performance certified is for installation type B - free inlet, duct outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, duct outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: ISQ-500



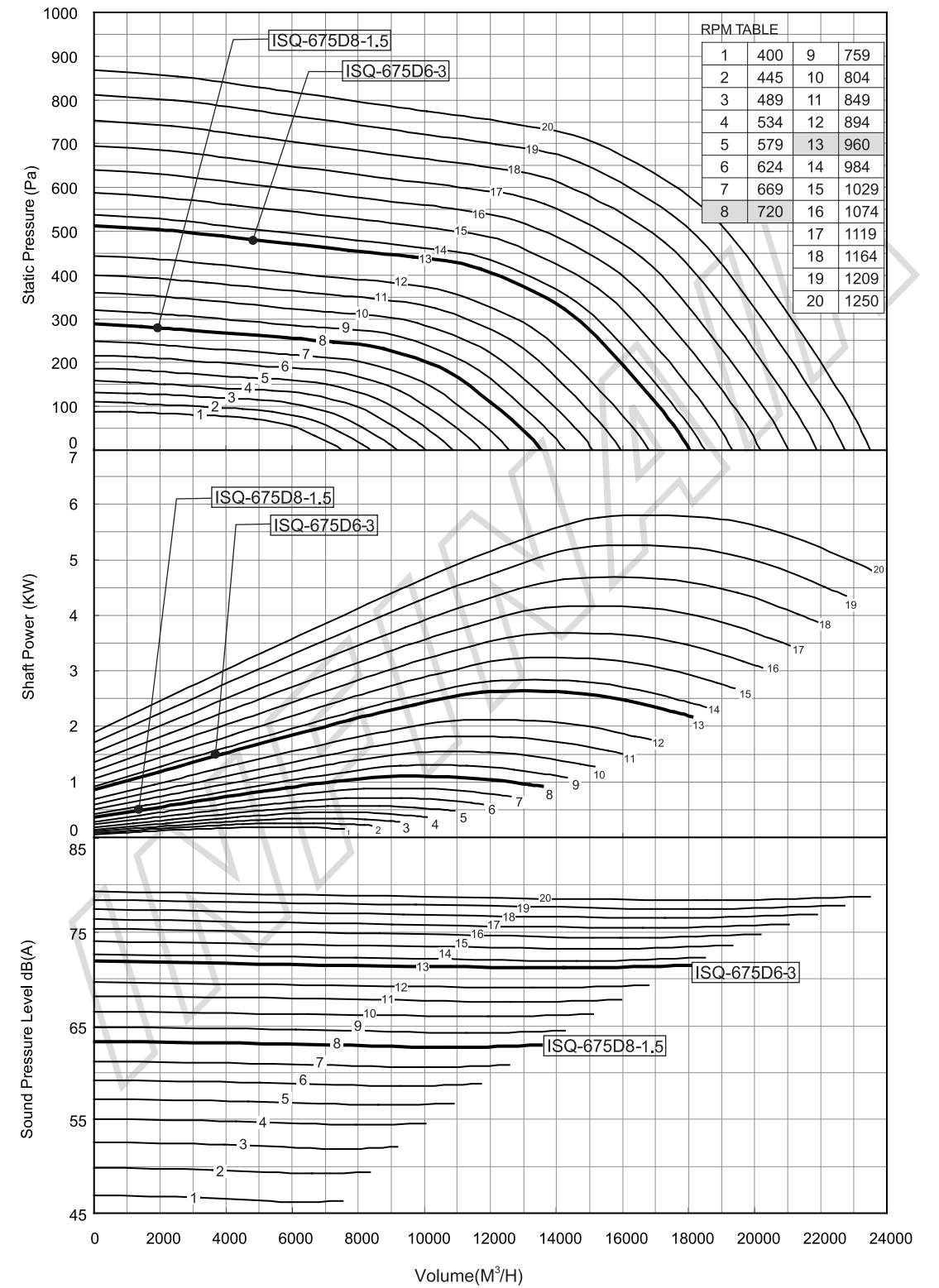
Performance certified is for installation type B - free inlet, duct outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, duct outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: ISQ-575



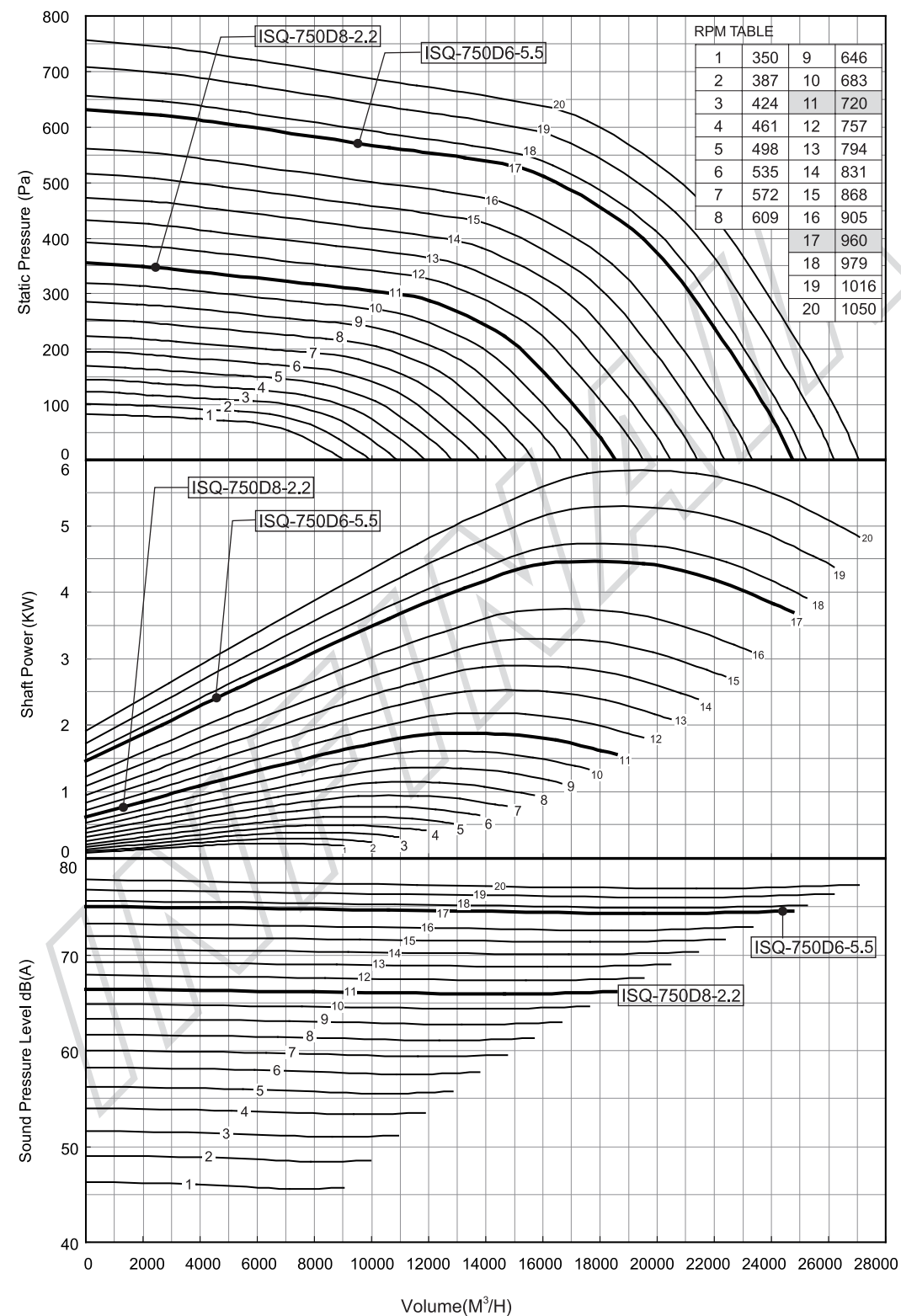
Performance certified is for installation type B - free inlet, duct outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, duct outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: ISQ-675



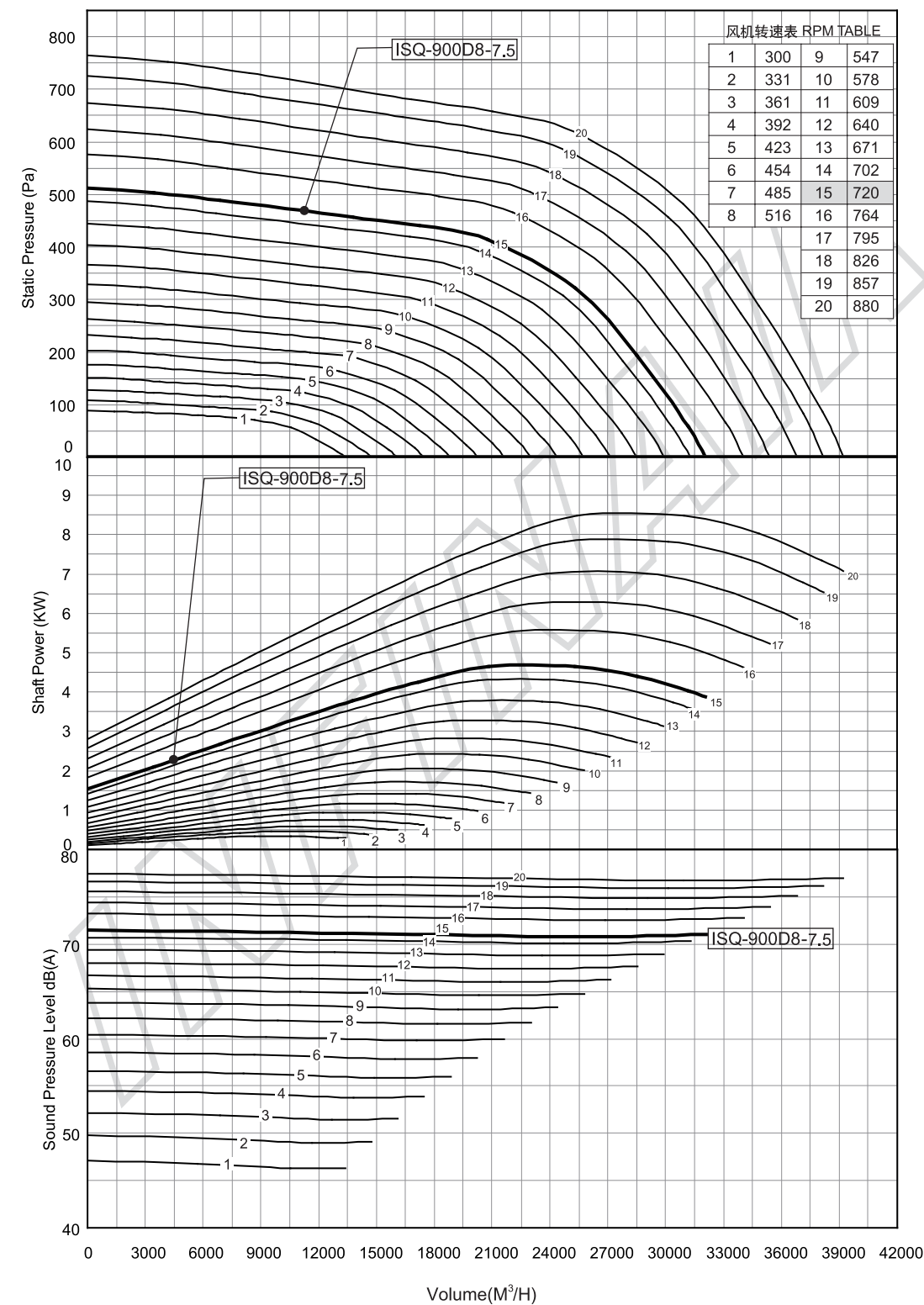
Performance certified is for installation type B - free inlet, duct outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, duct outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: ISQ-750



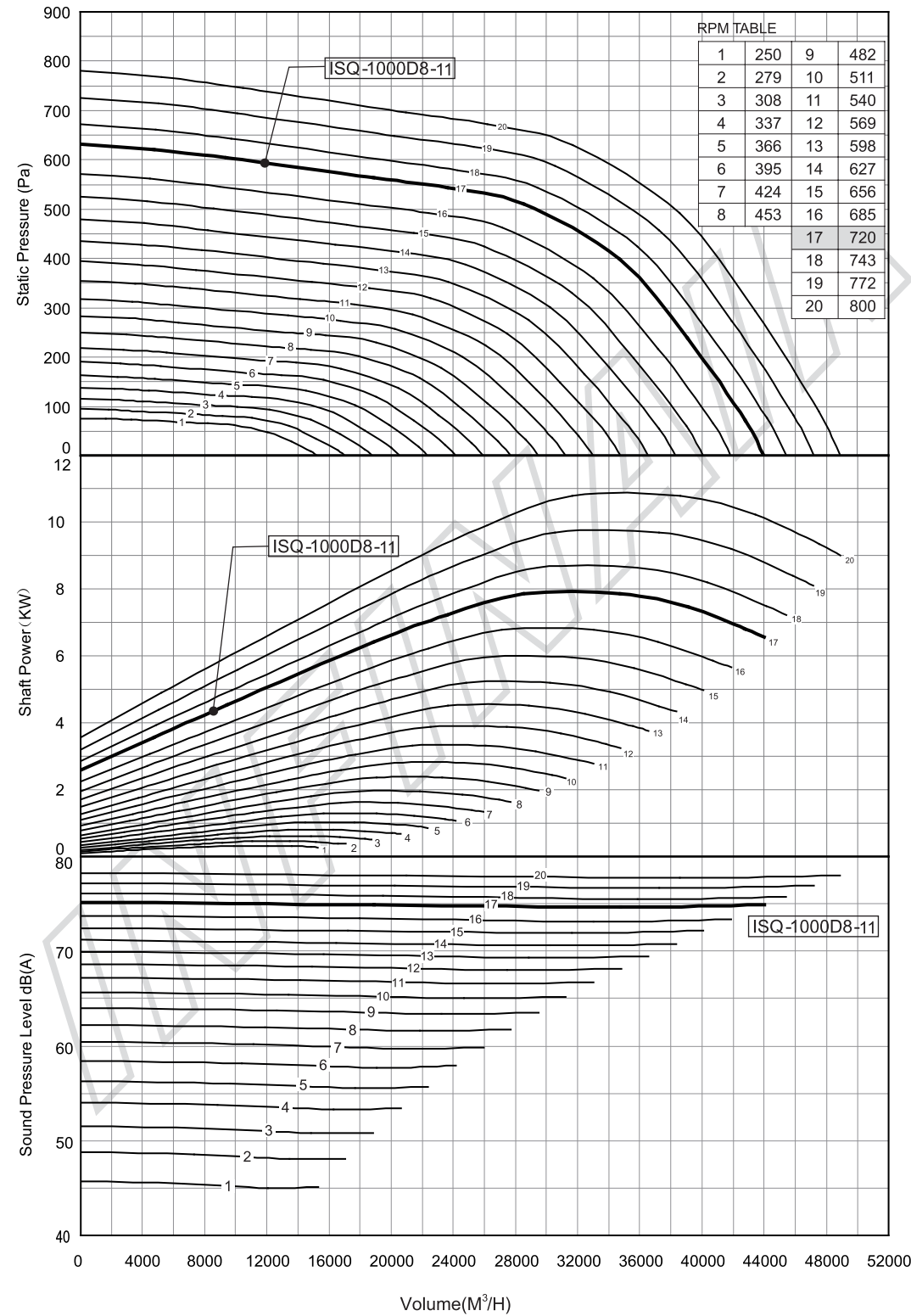
Performance certified is for installation type B - free inlet, duct outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, duct outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: ISQ-900



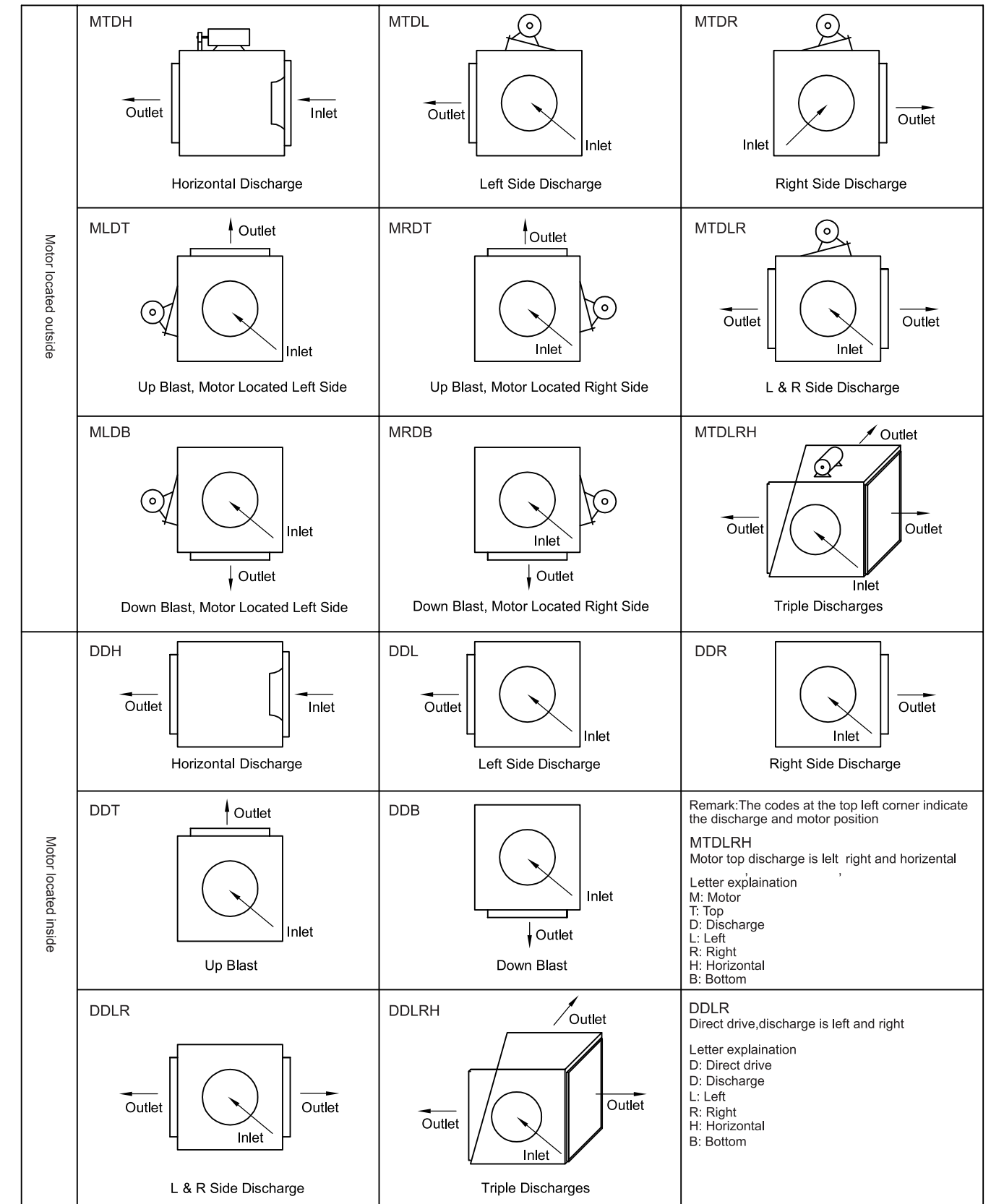
Performance certified is for installation type B - free inlet, duct outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, duct outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: ISQ-1000



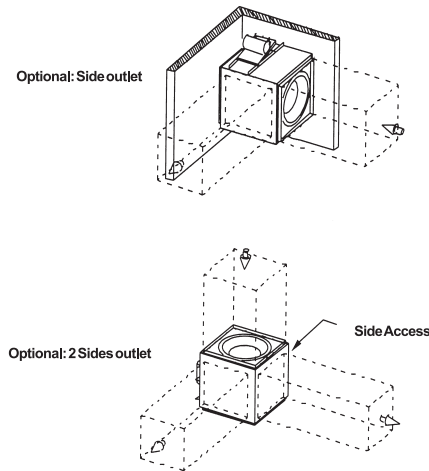
Performance certified is for installation type B - free inlet, duct outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, duct outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Optional discharge



Unit size and installation

Installation sizing info and construction



Motor weight table

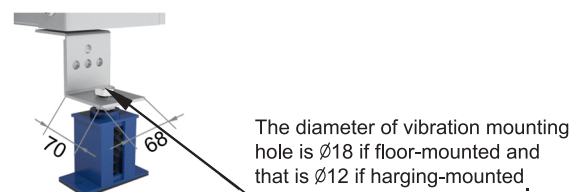
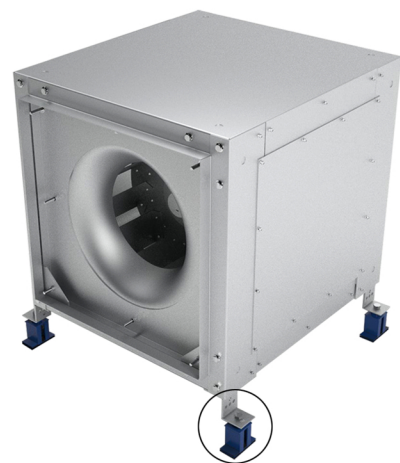
功率 (kW) Power (kW)	电机重量 (kg) Motor Weight (kg)			
	2P	4P	6P	8P
0.18	14	13.5	14	16
0.25	14.5	14	14.5	17
0.37	15	14.5	16	24
0.55	15.5	15	17	28
0.75	15	16	22	30
1.1	16	21	24	32
1.5	21	23	32	40
2.2	24	33	41	64
3	33	35	63	78
4	41	41	72	105
5.5	63	65	81	115
7.5	70	76	118	145
11	110	118	145	160
15	122	137	180	235
18.5	142	170	231	290

How to mount the fan

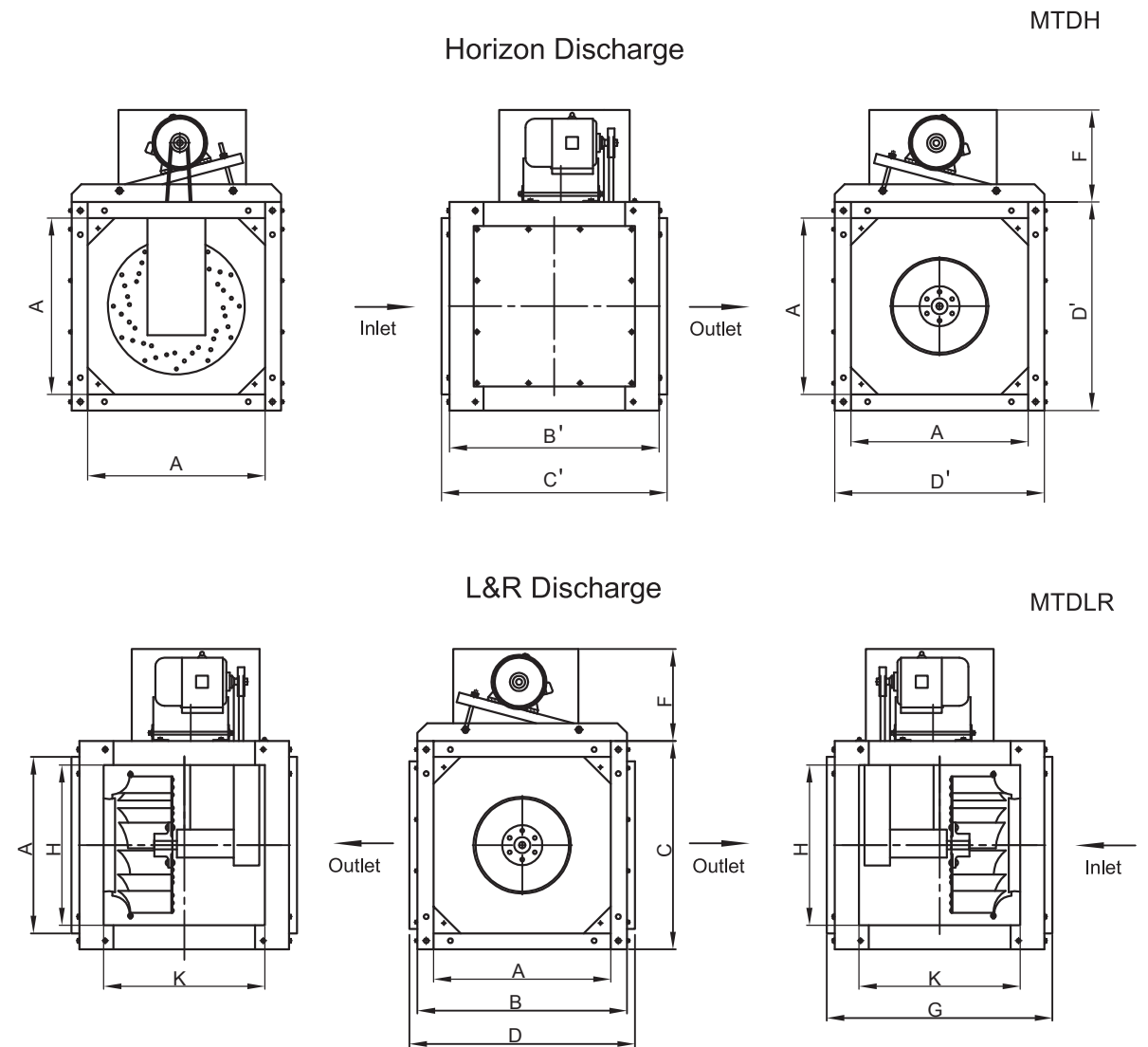
The ISQ is provided with four universal mounting feet, which can be mounted on the top of the fan to connect hanging vibration isolators through threaded rods. The feet can also be mounted on the bottom of the fan for floor-mounted vibration isolators. Meanwhile, the motor can be located on top, side or bottom.

The ISQ is provided with universal mounting feet for installation in any horizontal or vertical position. These feet are shipped loose for field installation in the desired location.

The ISQ configuration allows air to exit from any one sides except the motor & motor oppsite side of the unit at jobsite. Remove the side panel of the desired outlet direction, chang it to flange, and seal the original flange, all the above can be easily finished by contractors at jobsite.



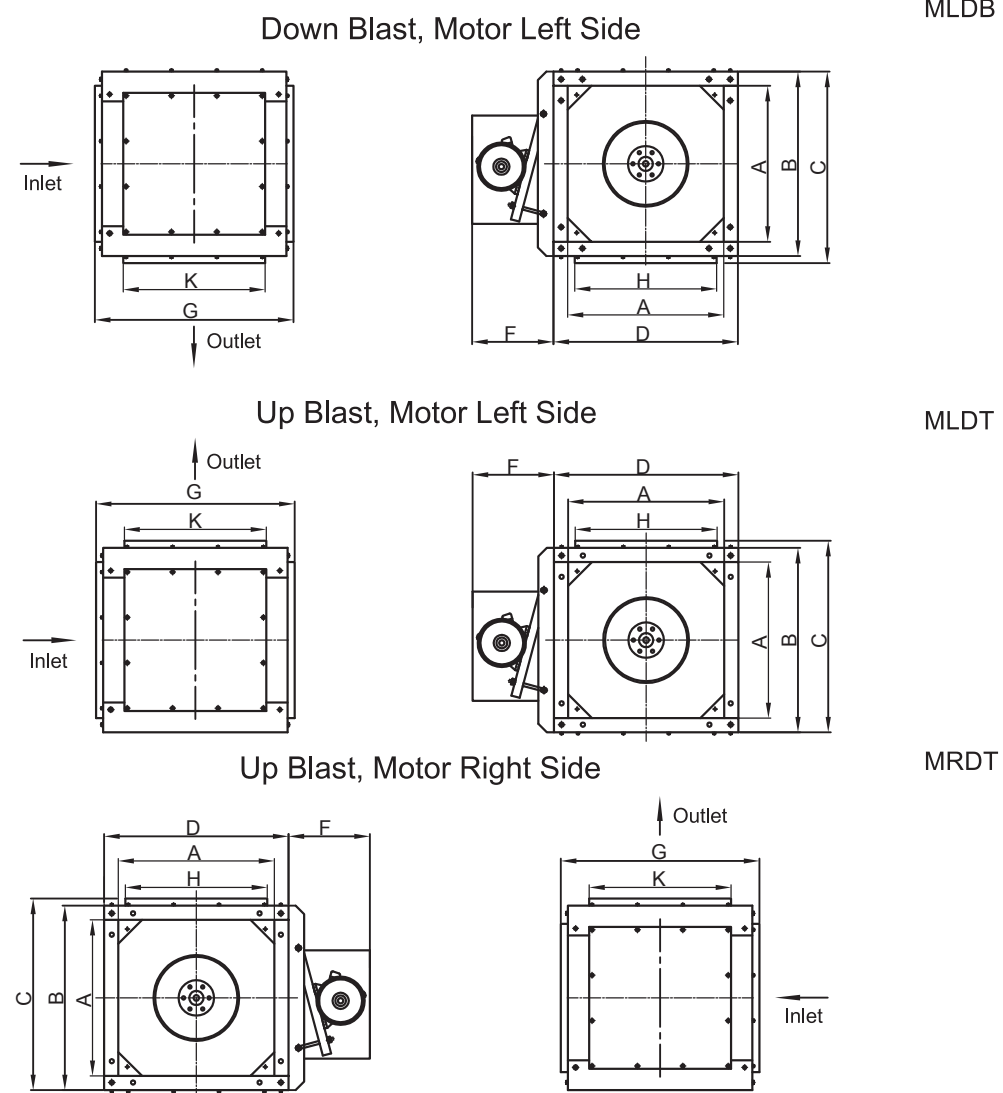
Belt drive



Model	Dimension (mm)											
	A	B	C	D	F	G	H	K	B'	C'	D'	Kg
ISQ-300	400	470	470	530	420	550	328	328	500	550	470	37
ISQ-425	550	650	650	710	460	700	428	428	650	700	650	61
ISQ-500	650	750	750	810	500	830	500	500	780	830	750	89
ISQ-575	750	850	850	910	500	950	575	575	880	950	850	112
ISQ-675	900	1000	1000	1060	550	1020	625	625	950	1020	1000	145
ISQ-750	1000	1100	1100	1170	550	1050	730	630	980	1050	1100	165
ISQ-900	1170	1270	1270	1370	600	1170	825	725	1070	1170	1270	225
ISQ-1000	1300	1400	1400	1500	600	1275	946	816	1175	1275	1400	261

Note : A*A---Inlet Flange Dimension , H*K---Side-Outlet Flange Dimension , *Weight does not include motor's.

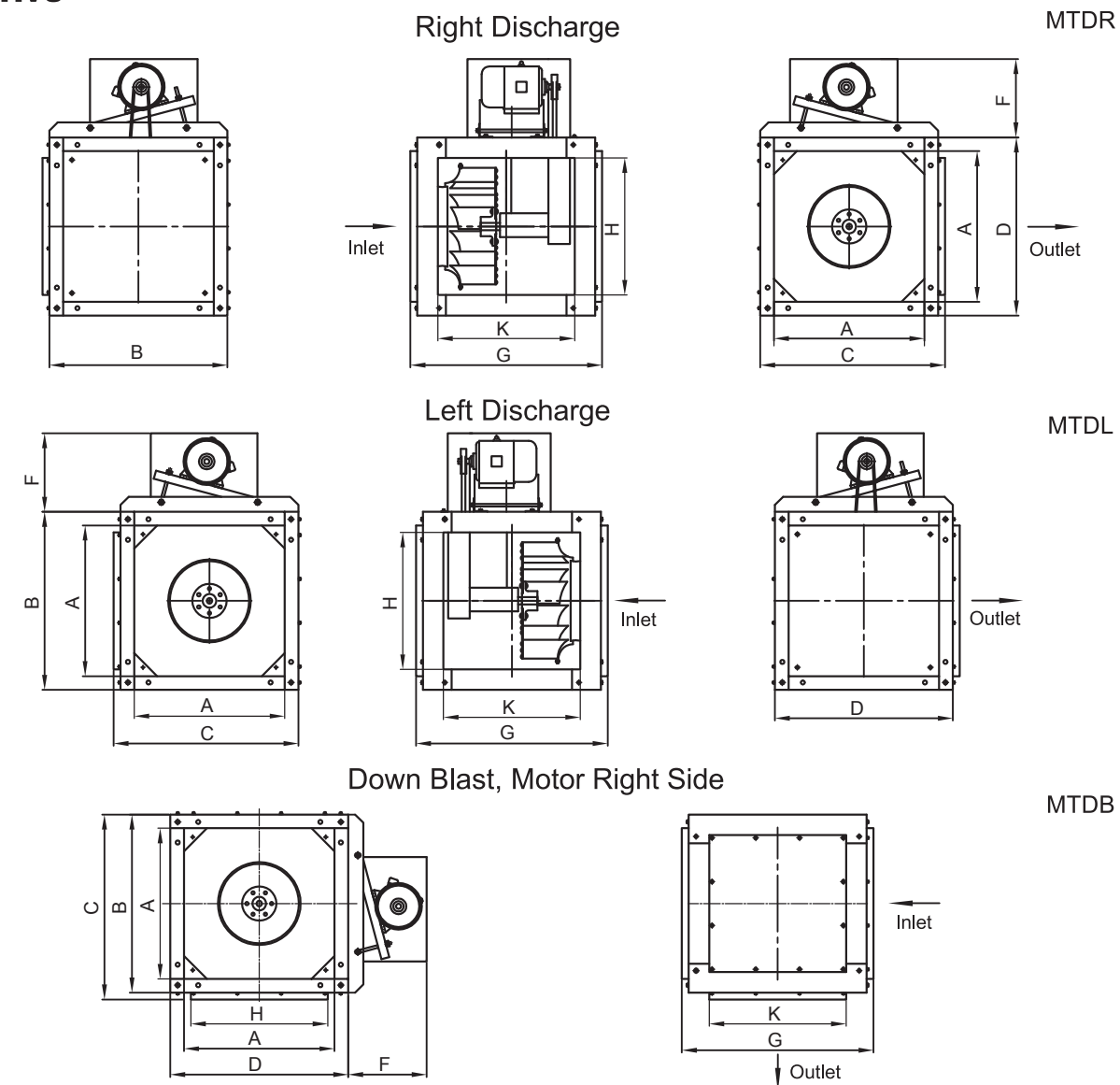
Belt drive



型号 Model	尺寸 Dimension (mm)								重量* Kg
	A	B	C	D	F	G	H	K	
ISQ-300	400	470	500	470	450	550	328	328	37
ISQ-425	550	650	680	650	530	700	428	428	61
ISQ-500	650	750	780	750	530	830	500	500	89
ISQ-575	750	850	880	850	635	950	575	575	112
ISQ-675	900	1000	1030	1000	635	1020	625	625	145
ISQ-750	1000	1100	1135	1100	635	1050	730	630	165
ISQ-900	1170	1270	1320	1270	700	1170	825	725	225
ISQ-1000	1300	1400	1450	1400	700	1275	946	816	261

Note : A*A---Inlet Flange Dimension , H*K---Side-Outlet Flange Dimension, *Weight does not include motor's.

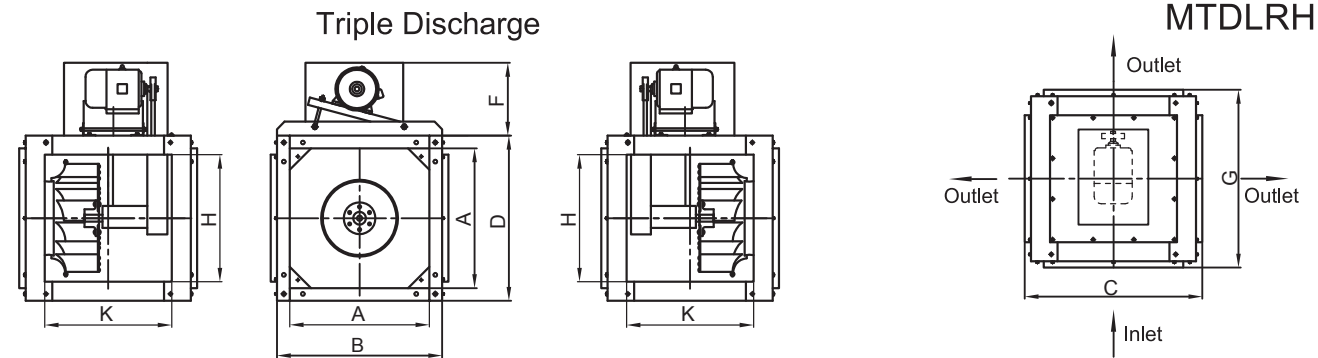
Belt drive



型号 Model	尺寸 Dimension (mm)								重量* Kg
	A	B	C	D	F	G	H	K	
ISQ-300	400	470	500	470	450	550	328	328	37
ISQ-425	550	650	680	650	530	700	428	428	61
ISQ-500	650	750	780	750	530	830	500	500	89
ISQ-575	750	850	880	850	635	950	575	575	112
ISQ-675	900	1000	1030	1000	635	1020	625	625	145
ISQ-750	1000	1100	1135	1100	635	1050	730	630	165
ISQ-900	1170	1270	1320	1270	700	1170	825	725	225
ISQ-1000	1300	1400	1450	1400	700	1275	946	816	261

Note : A*A---Inlet Flange Dimension , H*K---Side-Outlet Flange Dimension, *Weight does not include motor's.

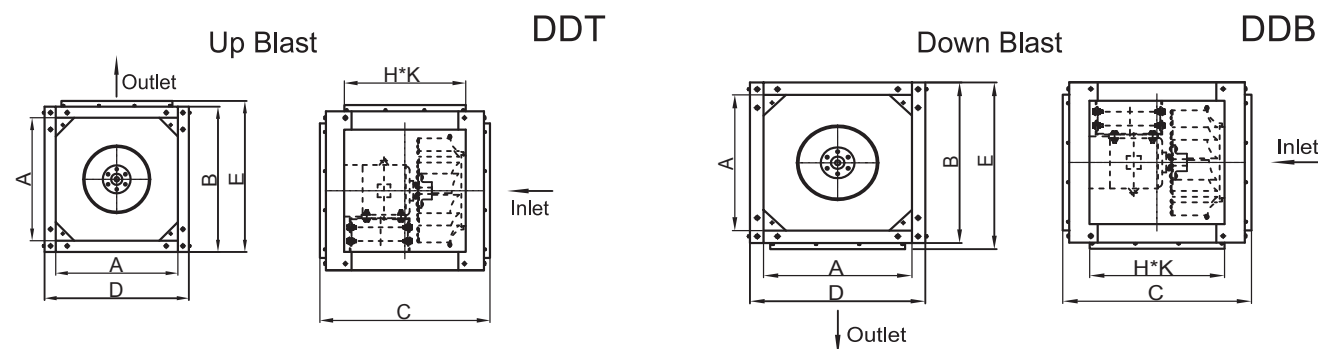
Belt drive



Model	Dimension (mm)								
	A	B	C	D	F	G	H	K	Kg
ISQ-300	400	470	530	470	450	550	328	328	37
ISQ-425	550	650	710	650	530	700	428	428	61
ISQ-500	650	750	810	750	530	830	500	500	89
ISQ-575	750	850	910	850	635	950	575	575	112
ISQ-675	900	1000	1060	1000	635	1020	625	625	145
ISQ-750	1000	1100	1170	1100	635	1050	730	630	165
ISQ-900	1170	1270	1370	1270	700	1170	825	725	225
ISQ-1000	1300	1400	1500	1400	700	1275	946	816	261

Note : A*A---Inlet Flange Dimension , H*K---Side-Outlet Flange Dimension, *Weight does not include motor's.

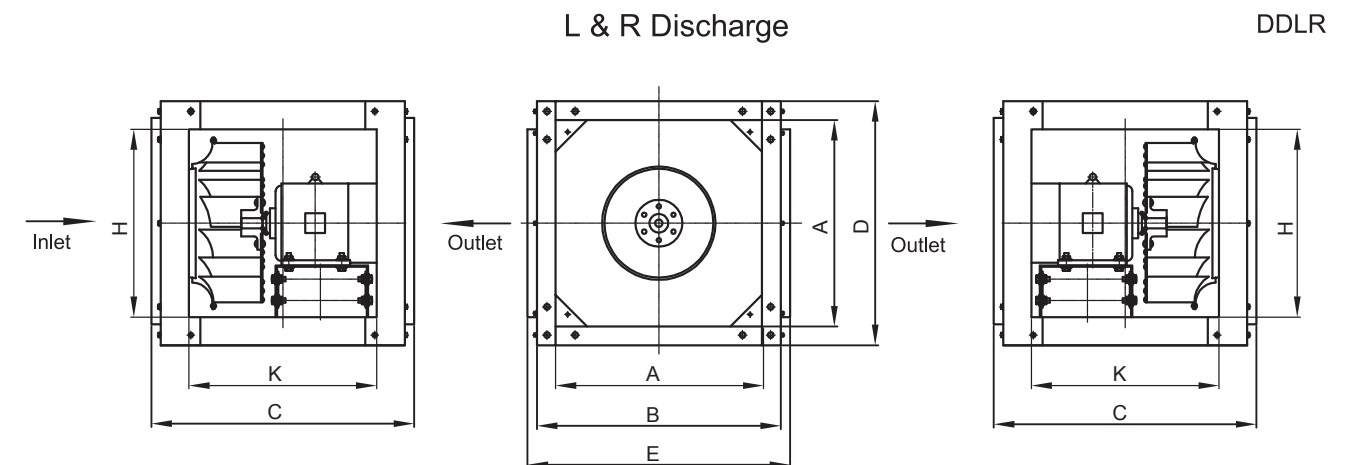
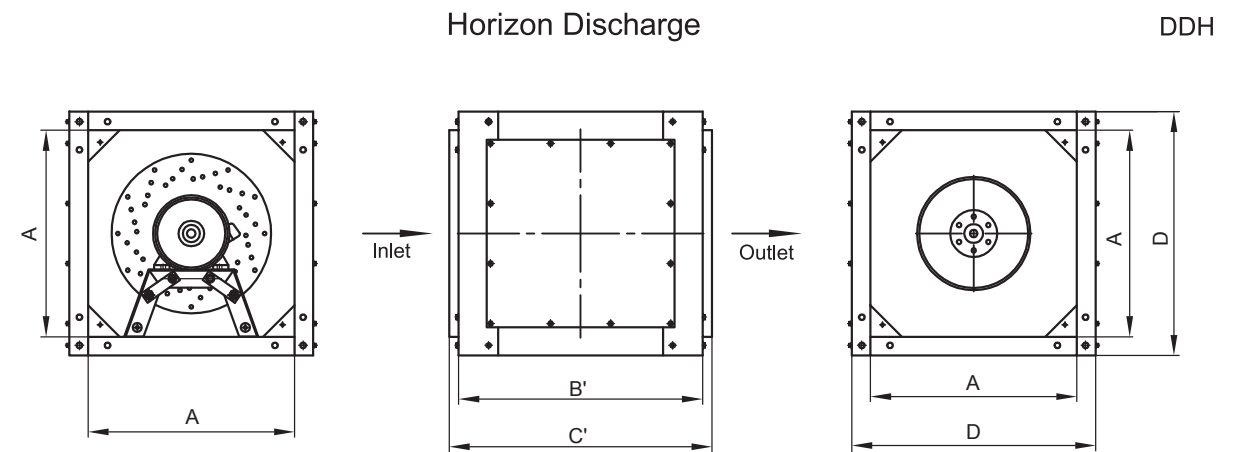
Direct drive



Model	Dimension (mm)								
	A	B	C	D	E	H	K	Kg	
ISQ-300D	400	470	550	470	500	328	328	29	
ISQ-425D	550	650	700	650	680	428	428	50	
ISQ-500D	650	750	700	750	780	500	500	68	
ISQ-575D	750	850	<132S 770	850	880	575	575	92	
ISQ-675D	900	1000	≥132S 950	1000	1030	625	625	111	
ISQ-750D	1000	1100	970	1100	1135	730	630	136	
ISQ-900D	1170	1270	1160	1270	1320	825	725	203	
ISQ-1000D	1300	1400	1275	1400	1450	946	816	282	

Note : A*A---Inlet Flange Dimension , H*K---Side-Outlet Flange Dimension, *Weight does not include motor's.

Direct drive

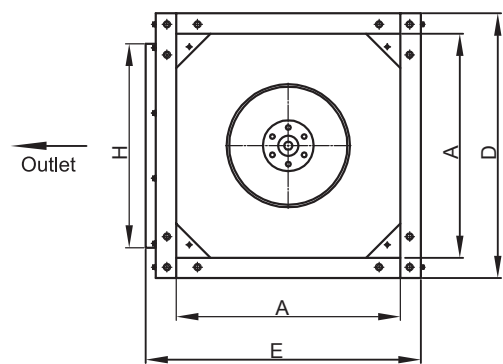


Model	Dimension (mm)											
	A	B	C	D	E	B'	C'	H	K	Kg		
ISQ-300D	400	470	550	470	530	500	550	328	328	29		
ISQ-425D	550	650	700	650	710	650	700	428	428	50		
ISQ-500D	650	750	700	750	810	650	700	500	500	68		
ISQ-575D	750	850	<132S 770	850	910	<132S 700	≥132S 880	<132S 770	≥132S 950	575	575	92
ISQ-675D	900	1000	895	1000	1060	825	895	625	625	111		
ISQ-750D	1000	1100	970	1100	1170	900	970	730	630	136		
ISQ-900D	1170	1270	1160	1270	1370	1060	1160	825	725	203		
ISQ-1000D	1300	1400	1275	1400	1500	1175	1275	946	816	282		

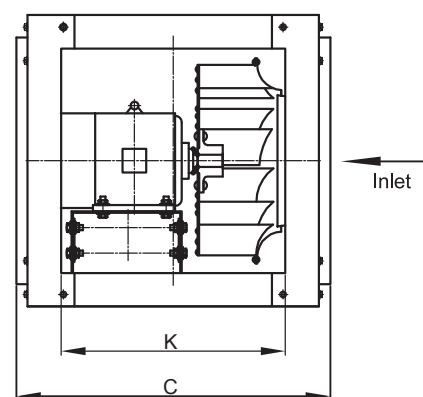
Note : A*A---Inlet Flange Dimension , H*K---Side-Outlet Flange Dimension, *Weight does not include motor's.

Direct drive

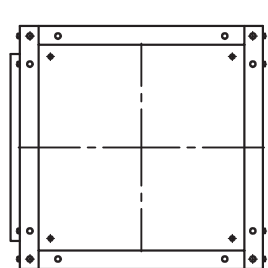
Left Discharge



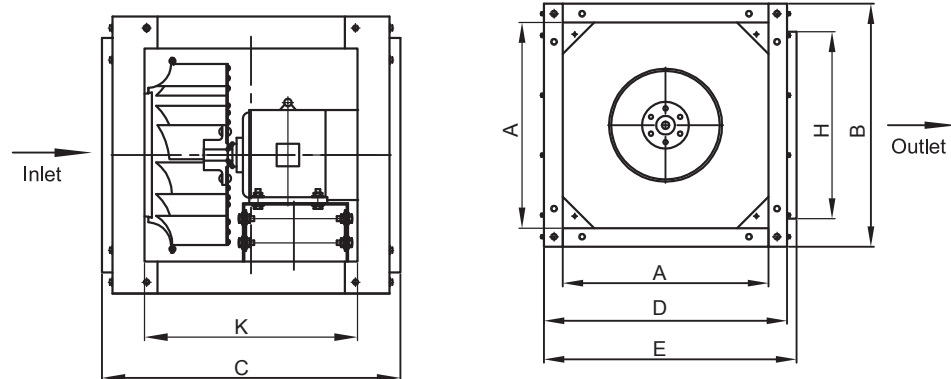
DDL



Right Discharge



DDR

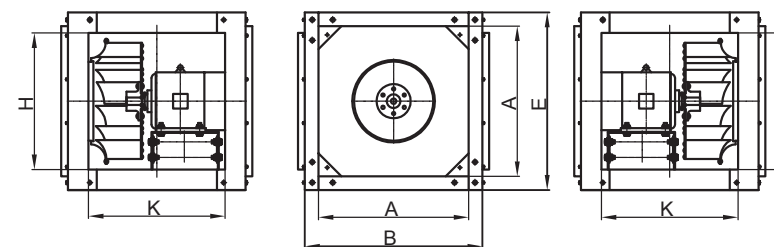


Model	Dimension (mm)							
	A	B	C	D	E	H	K	Kg
ISQ-300D	400	470	550	470	500	328	328	29
ISQ-425D	550	650	700	650	680	428	428	50
ISQ-500D	650	750	700	750	780	500	500	68
ISQ-575D	750	850	<132S 770	850	880	575	575	92
ISQ-675D	900	1000	895	1000	1030	625	625	111
ISQ-750D	1000	1100	970	1100	1135	730	630	136
ISQ-900D	1170	1270	1160	1270	1320	825	725	203
ISQ-1000D	1300	1400	1275	1400	1450	946	816	282

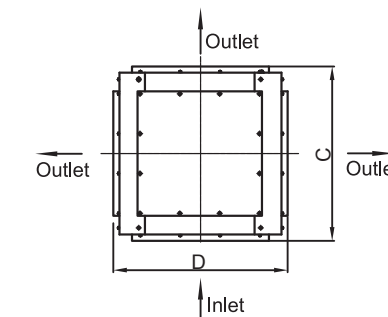
Note : A*A---Inlet Flange Dimension , H*K---Side-Outlet Flange Dimension, *Weight does not include motor's.

Direct drive

Triple Discharges



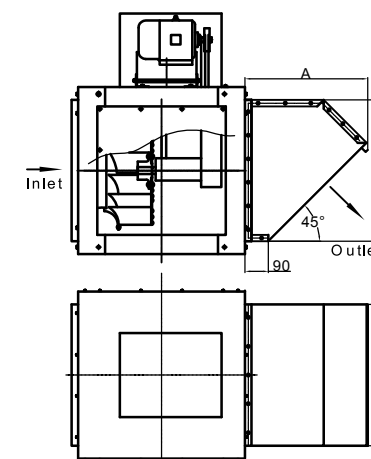
DDLRH



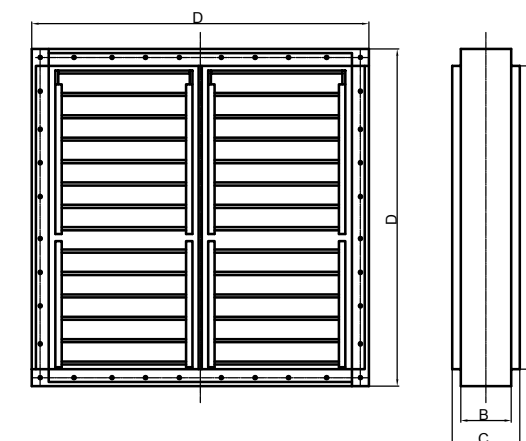
Model	Dimension (mm)							
	A	B	C	D	E	H	K	Kg
ISQ-300D	400	470	550	530	470	328	328	29
ISQ-425D	550	650	700	710	650	428	428	50
ISQ-500D	650	750	700	810	750	500	500	68
ISQ-575D	750	850	<132S 770	910	850	575	575	92
ISQ-675D	900	1000	895	1060	1000	625	625	111
ISQ-750D	1000	1100	970	1170	1100	730	630	136
ISQ-900D	1170	1270	1160	1370	1270	825	725	203
ISQ-1000D	1300	1400	1275	1500	1400	946	816	282

Note : A*A---Inlet Flange Dimension, H*K---Side-Outlet Flange Dimension. *Weight does not include motor's.

Outlet/Inlet weather cover



Gravity back-draft damper



Model	Dimension (mm)		
	A	B	C
ISQ-300	360	412	412
ISQ-425	480	565	565
ISQ-500	550	665	665
ISQ-575	630	765	765
ISQ-675	735	915	915
ISQ-750	810	1015	1015
ISQ-900	930	1185	1185
ISQ-1000	1050	1315	1315

Note:This 45° weather cover is suitable for both belt drive and direct drive.

Model	Dimension (mm)			
	A	B	C	D
ISQ-300	400	150	200	470
ISQ-425	550	150	200	650
ISQ-500	650	150	200	750
ISQ-575	750	150	200	850
ISQ-675	900	150	200	1000
ISQ-750	1000	150	200	1100
ISQ-900	1170	180	240	1270
ISQ-1000	1300	180	240	1400

Note:This gravity back-draft damper is suitable for both belt drive and direct drive.

Product Specification

Section 1: Quality standards.

In-line centrifugal fans shall be tested and approved according to AMCA standard 210 & 300, each fan shall have AMCA Sound & Air Performance Seal. The manufacturer shall be certified by ISO9001:2000.

Section 2: Fan Type

Fan shall be in-line centrifugal type, with aluminum backward inclined centrifugal wheel directly facing incoming air. The fan wheel Venturi shall have round curved section to smoothly transit the air to the wheel cone. The wheel shall be dynamically balanced to Level G2.5 as per AMCA204.

Section 3: Fan Housing

Material : The fan housing shall be constructed of heavy gauge galvanized steel panel (Option: Cold roll steel panel, statically applied epoxy coated) with a rigid internal support structure. The thickness of the panel shall be strong to support the weight of the drive and motor. **Profile:** The profile of the housing shall be square basically, with rectangular sleeve flange to avoid round/square transducer duct. The housing shall have optional discharge direction. Large access door shall be equipped on both sides of the housing, which can be used to replace motor without removing ready made duct.

Section 4: Drive [Apply to belt drive model only]

Shaft: fan shaft shall be heat treated through soaking furnace to the hardness level of HB370, and the surface shall be hard film corrosion treated. The fan shaft shall be balanced together with the wheel. And the shaft design speed shall at least exceed 25% of the maximum fan operation speed.

Pulleys: fan pulleys shall be sized for a minimum of 150% of driven horsepower. Pulleys shall be of cast iron type, keyed and securely attached to the wheel and motor shafts. Conical (QD) type bushings shall be equipped for easy removal of the pulleys.

Bearings: bearings shall be selected for a minimum (L-10) life in excess of 80,000 hours at maximum cataloged operating speed. Bearing type shall be permanently sealed, re-lubricable pillow block metal ball bearings.

Drive support: drive assemblies shall be supported by heavy gauge powder coated steel. The belt tension shall be adjusted through motor support plate, the design shall make sure the fan shaft and motor shaft is always parallel.

Section 5: Motor

Motor shall be carefully matched to the fan load, IP 54, and insulation class F. The motor bearings shall be ball type and need not lubrication.

Section 6: Nameplate

Permanently fixed aluminum nameplate shall be fixed on fan body clearly display fan mark, product model and serial number. The serial number shall be a unique ID for each fan, so that the customer can use this number to find out the parts used to build this fan.

Section 7: Acceptable manufacturers

Acceptable manufacturers: "INFINAIR®" or equivalent. Design based on "INFINAIR®" model ISQ.

Introduction of United States Green Building Committee

What is USGBC?

USGBC is widely known as the United States Green Building Council, the only non-profit (NPO) institution on behalf of the environmental protection construction in the whole construction industry. Its members are made up of leading enterprises from various sectors. Its purpose is to integrate the construction industry agencies, promote sustainable development of green building and construction, guide market mechanism of green building, promote and educate building owners, architects green practice.

What is LEED certificate?

United States Green Building Committee (USGBC) established a set of voluntary national standards LEED (Leadership in Energy and Environmental Design) in 1995. The system is applied to develop sustainable construction of high performance for green building ratings. The entire project includes training, professional recognition, resources support, the third-party certification of construction performance.

Certification Value of LEED

LEED is a rating system certified by third party, maintaining a high degree of authority on technology and management. LEED certification system is a kind of in-depth quantitative analysis based on such as ASHRAE (American Society of Heating Air Conditioning Engineers) standard, which makes design and construction production process tend to be more controllable and practical. That increases green buildings' reputation in the local market and gain excellent valuation of property quality, thus promoting market transition and forming a virtuous circle.

LEED evaluation system

All evaluation indicators in subsystems of LEED have requirements on assessment of air quality indoors. As a member of USGBC, our ventilation equipments provide better solution to the problem of air ventilation indoors. INFINAIR promises you the followings: Improve air quality, provide the overall indoor air quality enhancing solutions, and help customers get a higher assessment scores and successfully pass LEED certification.

To provide the most reliable and user-friendly air movement & control and air conditioning service.



Due to continuing research, Shanghai Nautilus reserves the right to change specifications without notice.

SHANGHAI NAUTILUS GENERAL EQUIPMENT MANUFACTURING CO LTD

Add: No. 55 Qingneng Road, Waigang Town, Jiading District, Shanghai
P.C: 201806
Tel: 86 21 39185688
Toll free number: 400 821 3316
Fax: 86 21 69168759
Http: //www.infinair.com

Formula Series Principle Product

- Special wheel for whole Aluminum Roof Fans
- Efficiency has been greatly improved, energy saving
- Sound has been greatly improved, running quietly
- Patented positive cooling technology, longer life
- Whole aluminum alloy, light weight and save investment

G2.5



Company Profile

Shanghai Nautilus General Equipment Manufacturing Co., Ltd. is a middle and high-end solution provider of air supply and gas heating and air cleaning equipment that integrates R&D, production and sales. Established in September, 2003, it is located in the Jiading District of Shanghai. The company is the member of the US Green Building Council (USGBC) and International Air Movement and Control Association (AMCA), the high and new tech enterprise of Shanghai, **INFINAIR®** won the famous trademark in Shanghai.

Vision statement: To become the most trustworthy brand of professional air movement & control and air conditioning.

Mission statement: To provide the most reliable and user-friendly air movement & control and air conditioning service.



Shanghai Nautilus General Equipment Manufacturing Co Ltd certifies that the Model RTC shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

4G Wind-Surfer™ Wheel: Special for Aluminum Roof Fans

✓ Novel design overturning the tradition

- The first centrifugal wheel in China for aluminum roof fans
- With innovation based on advanced passage through constraint idea from abroad
- Leading efficiency and noise advantage
- Highly efficient area width, no overload

✓ Internationally advanced process is adopted for better conformity with characteristics of the flow field

- Flow passage components are spin formed, in replacement of the traditional process
- The blade is formed at one time by pressing, having ensured the processing quality
- Special machine, mould and tooling design have ensured the molding and positioning precision

✓ Wind-Surfer™ wheel comes to its fourth generation (4G)

- Continuous improvement, constant promotion
- Higher energy efficiency, lower energy waste
- Less noise, more quietness



✓ Whole aluminum alloy, light weight and inborn explosion-proof

- Metal texture promotes the taste
- Light weight accounting for only 1/3 of that of the traditional
- Having reached the highest explosion-proof class SPACK A

✓ Carefully selected materials applicable to fire-fighting and coastal occasions

- The strength is designed to be 200% of the highest rotating speed, and may fully satisfy the fire-fighting requirement
- The material is resistant to neutral salt spray, and is widely used in the coastal regions
- The rigorous experimental tests win trustworthiness

Product Feature

✓ Independent motor chamber:
extra long lifetime

- Drive located in an independent chamber, contamination contact free
- Suitable for lubrication grease, kitchen grease, dust and VOC exhaust
- Stable performance and lifetime longer than 10 years

✓ Blade falling resistant, prevent condensation falling into room

- Even if blades break accidentally, blade pieces shall not fall into inside room without safety guard installation.
- Condensation will flow along blade to the outside instead of inside, available in coastal and humid area.

✓ Patented in design, practical & artistic

- Elegant profile design: balanced proportion and sophisticated craftwork.
- Silver white metallic lustre casing: harmonious with different building colors
- Modernize buildings with enhanced taste



✓ Light: suitable for steel structure roofdeck

- Housing and wheel: aluminum alloy material
- Effectively reduce roof load: investment on steel structure is saved

✓ Patented positive cooling technology

- Auxiliary blades suck in air: negative pressure in drive chamber
- Fresh cool air continuously pushing in to drive chamber: cool the motor bearing
- Motor and bearing life extended effectively

✓ Widely applied to needs

- Explosion prevention exhaust, all aluminum construction: Spark A
- Smoke removal application
- Coastal high-salt condensation

Experiment by Infinair Research Institute

Wind resistant test photo



● Strong wind resistant

The experiment certifies that RTC fan can keep stable performance and structural strength under 33.9 m/s wind speed (The meteorological industry standard QX/T 51-2007 is 12 level typhoon) .

rainstorm resistant photo



● Rainstorm resistant

The experiment certifies that even under extreme conditions that artificial rainfall is 156 mm/h (class: extraordinary rainfall) RTC fan performs excellently without water leakage or deformation whether the fan starts or shut downs.

Aluminum wheel test comparison photo

before



after



● Salt spray corrosion resistant

The experiment in accordance with GB/T10125-1997 standards (salt spray test method) certifies that RTC fan doesn't rust after neutral salt spray corrosion tests and RTC fan can bear salt spray corrosion and be used under certain environments such as marine and island. Test result is as shown below:

smoke removal test photo



● Smoke removal test

The company certifies that it has passed the certification by National Fire Control and Supervision Center. RTC fan can completely meet requirements of smoke removal fan, which can continuously work under temperature of 280°C for 30 minutes

Optional Accessories

- Gravity back-draft damper

The damper whose aluminum blades are mutually coordinated can stop the back flow of external air .



- Curb Adapter

The curb adapter is ordered when roof curb is already made or the size is fixed to match RTC fan. The adapter can be converted from big to small or small to big. However, existing roof curb size must be required in the order.



- Fire resistant damper (for smoke removal)

The regulator is normally open. Once the temperature reaches 280°C, the valve could automatically close and the signal will be sent out to the control system at the same time. Except for fire resisting, it has the function of adjusting air volume.



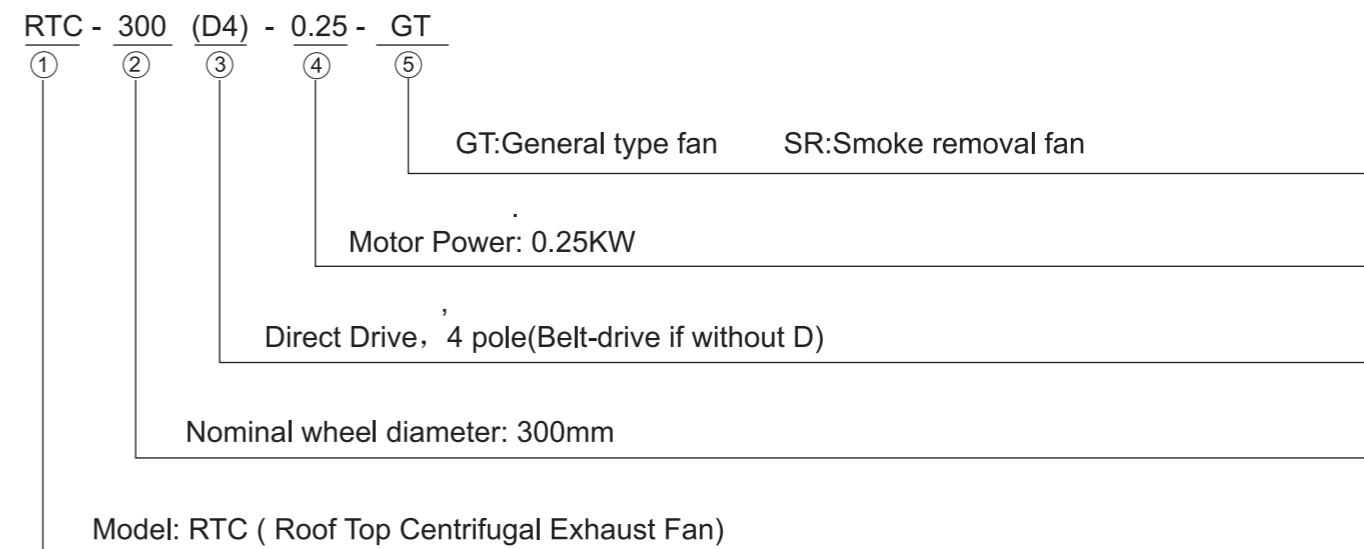
- Rubber isolation pad (not for smoke removal)

The rubber isolation pad is located between curb and curb cap, which is waterproof and sealed and can effectively reduce vibration, lower noise and extend performance life of fan.

- Temperature control auto switch

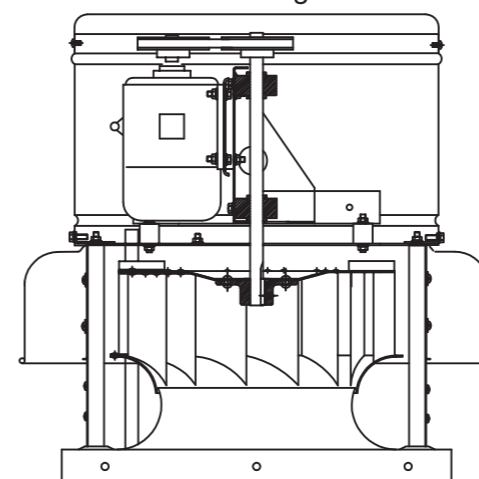
The switch could be automatically controlled to save energy when the ambient temperature reaches the setting value.

Naming convention

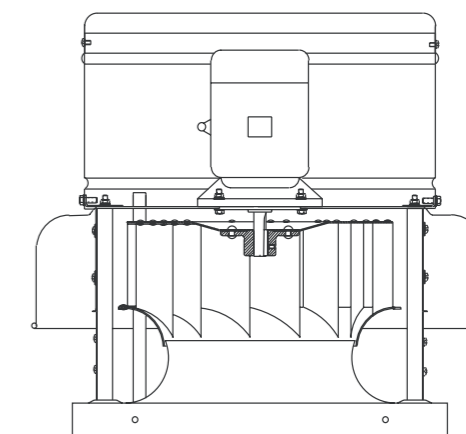


Note: General type and smoke removal type have the same volume and pressure.

RTC Outline Drawing



RTC (Belt - drive)



RTC-D (Direct - drive)

RTC (Belt)	
smoke removal	Optional
explosion proof	No the function
wheel epoxy coated	Optional
fan epoxy coated	Optional

RTC (Direct -drive)	
smoke removal	Optional
explosion proof	Optional
wheel epoxy coated	Optional
fan epoxy coated	Optional

Laboratory Introduction

Laboratory Introduction

Following methods are used to increase Infinair aerodynamic laboratory's test accuracy:

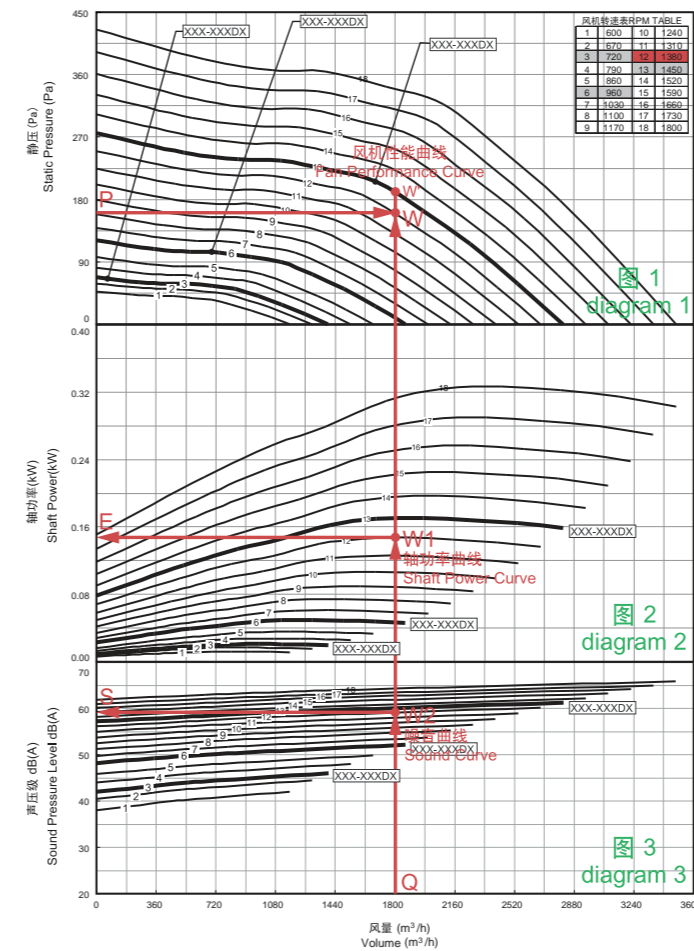
- (1) Strictly following AMCA-210 standards to design and fabricate
- (2) Traditional Pitot tube method is replaced by high precision nozzle matrix to increase accuracy.
- (3) State of the art instruments and equipments are widely used in the lab.
- (4) Test instruments are strictly calibrated, the calibration is repeated in time.

The lab assures INFINAIR is capable to test different product design, increase the accuracy and liability of products, and become a good reason why you trust INFINAIR.



Catalogue introduction

- Each fan performance is symbolized by a group of curves for different RPM.
 - The bolded curves indicate the fan is direct drive which means the wheel is installed on the motor shaft directly.
 - All direct drive models shall have a suffix letter D followed by motor pole number (which is already marked on the drawing). The attached table shows motor RPM at different number of poles.
 - The not-bolded curves means the fan is belt drive. The belt drive models establish different RPM by choosing different diameter of the 2 pulleys, while the motor is 2/4/6 pole.
 - Shaft Power Curve displays the fan actual power consumption.
- The sound pressure level curve indicated the noise level at 1.5 meter distance.



Example: 1800M³/h , 160Pa Static Pressure

Step 1: From given volume (Point Q: 1800M³/H) draw a vertical line upwards, from given static pressure (Point P: 160Pa) draw a horizontal line to the right, the intersection point W is the working point. Find a fan curve close to the point, which would be curve No.12. As highlighted in the RPM table, it is 1380 RPM.

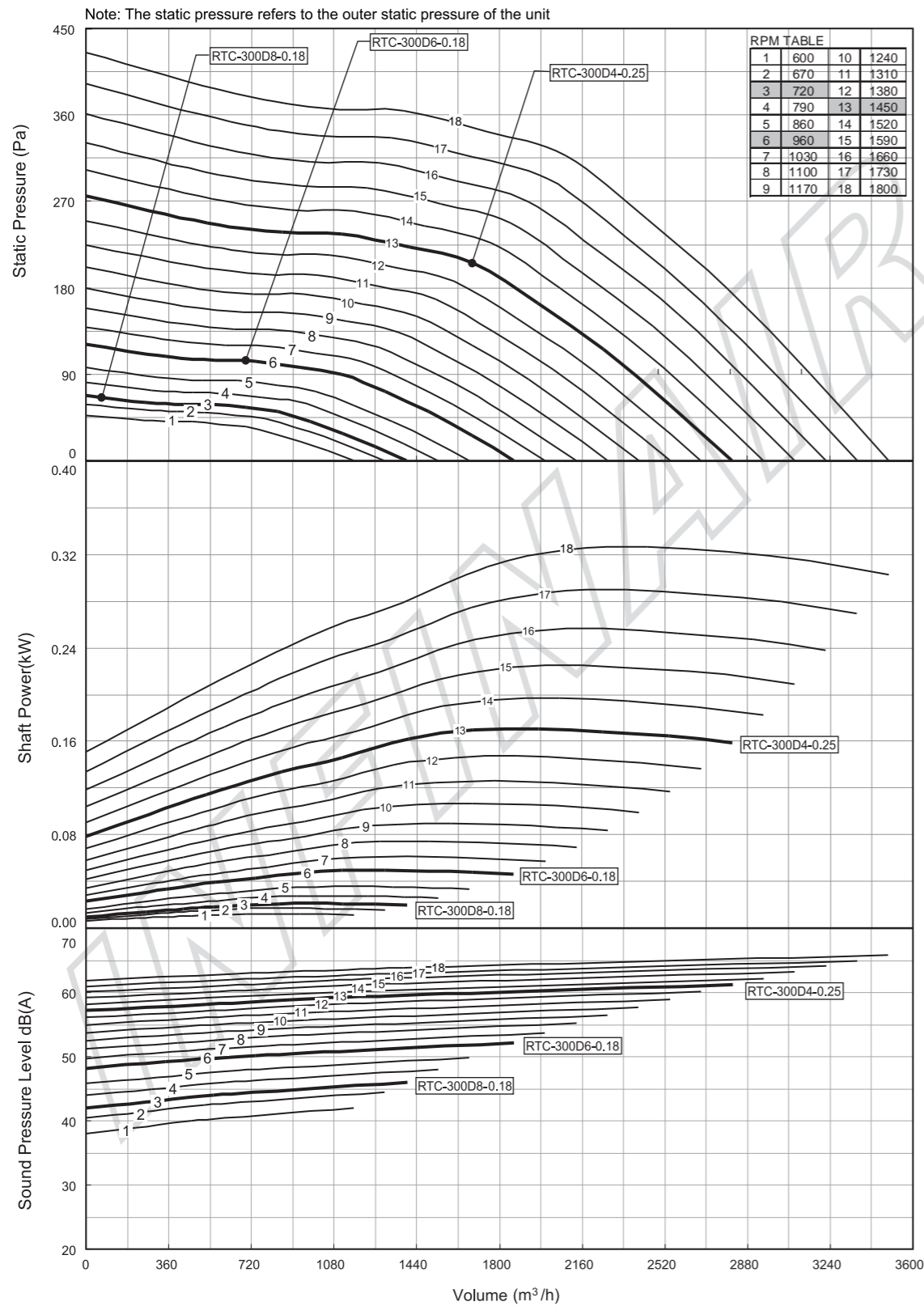
Step 2: The intersection point between the vertical line and the curve No. 12 in diagram 2 is marked as point W1. Draw a horizontal line from point W1 to the left coordinate, which makes point E. The point E (about 0.15kW) is the shaft power. According to the shaft power, a 0.25kW motor shall be equipped.

Step 3: The intersection point between the vertical line and the curve No. 12 in diagram 3 is marked as point W2. Draw a horizontal line from point W2 to the left coordinate, which makes point S (about 59dB(A)). It is the fan sound pressure level.

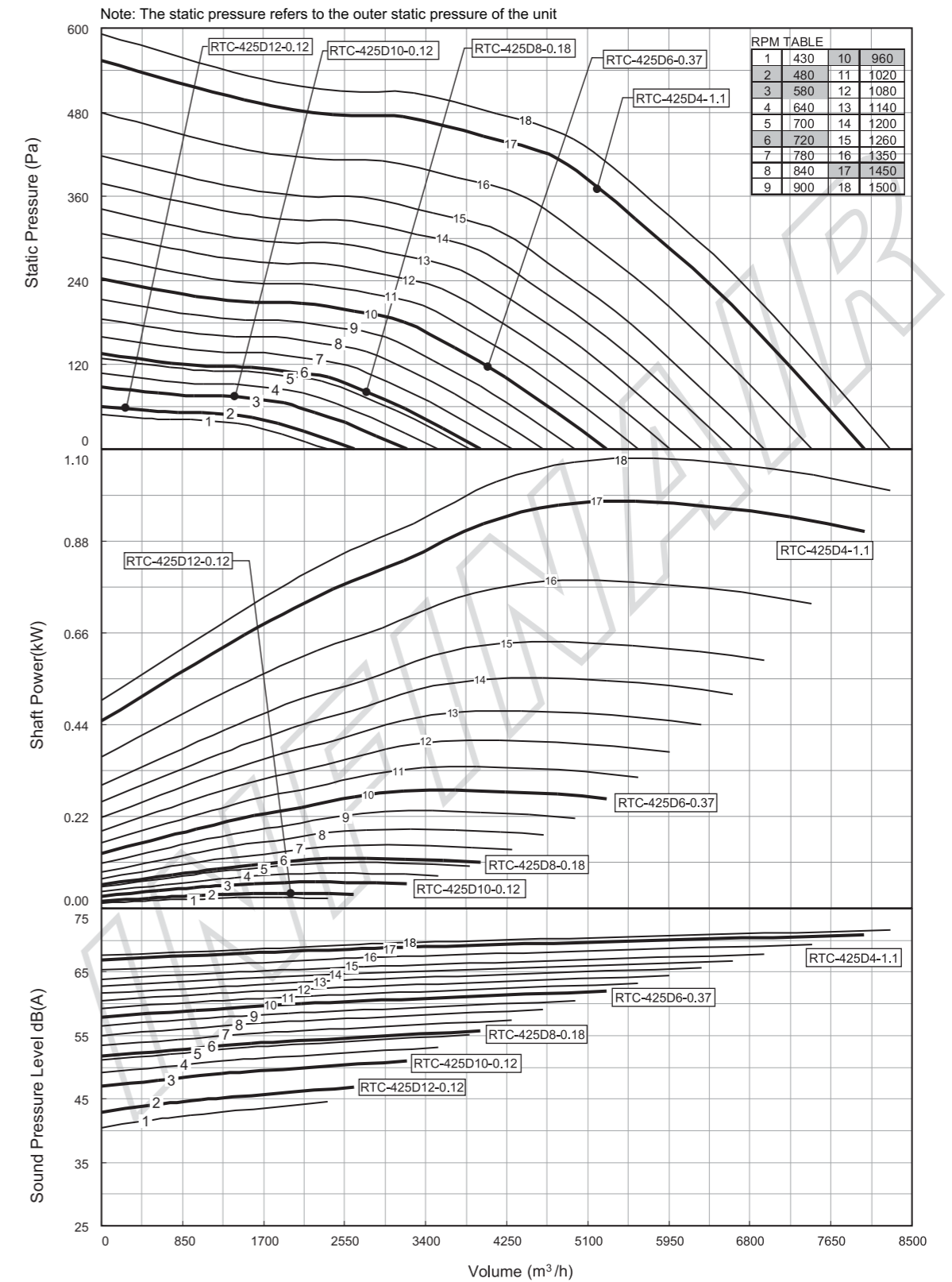
Step 4: According to above steps, the primary model selection would be RTC-300-0.25, belt drive, and factory set to 1380RPM. If lower shaft power or noise is expected, you may compare with another larger fan. However a larger fan would increase primary investment.

Step 5: Furthermore, if customer needs 1800M³/H at 180Pa static pressure, you would find point W' is close to curve No.13(bolded, indicates 1450 RPM 4 pole direct drive). Then a direct drive fan (RTC-300D4-0.25) can be selected which would be more economic.

Model: RTC-300



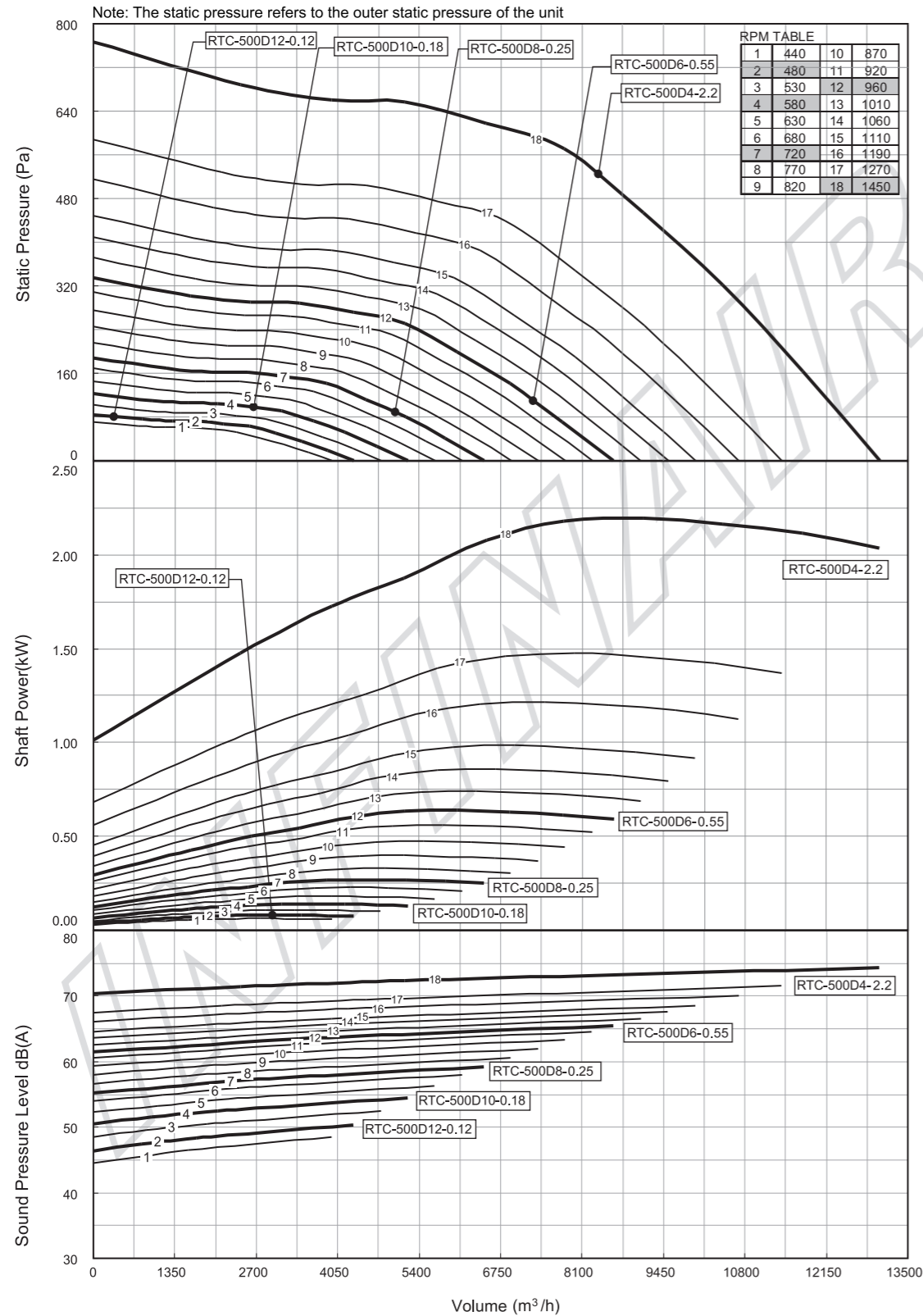
Model: RTC-425



Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwiA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

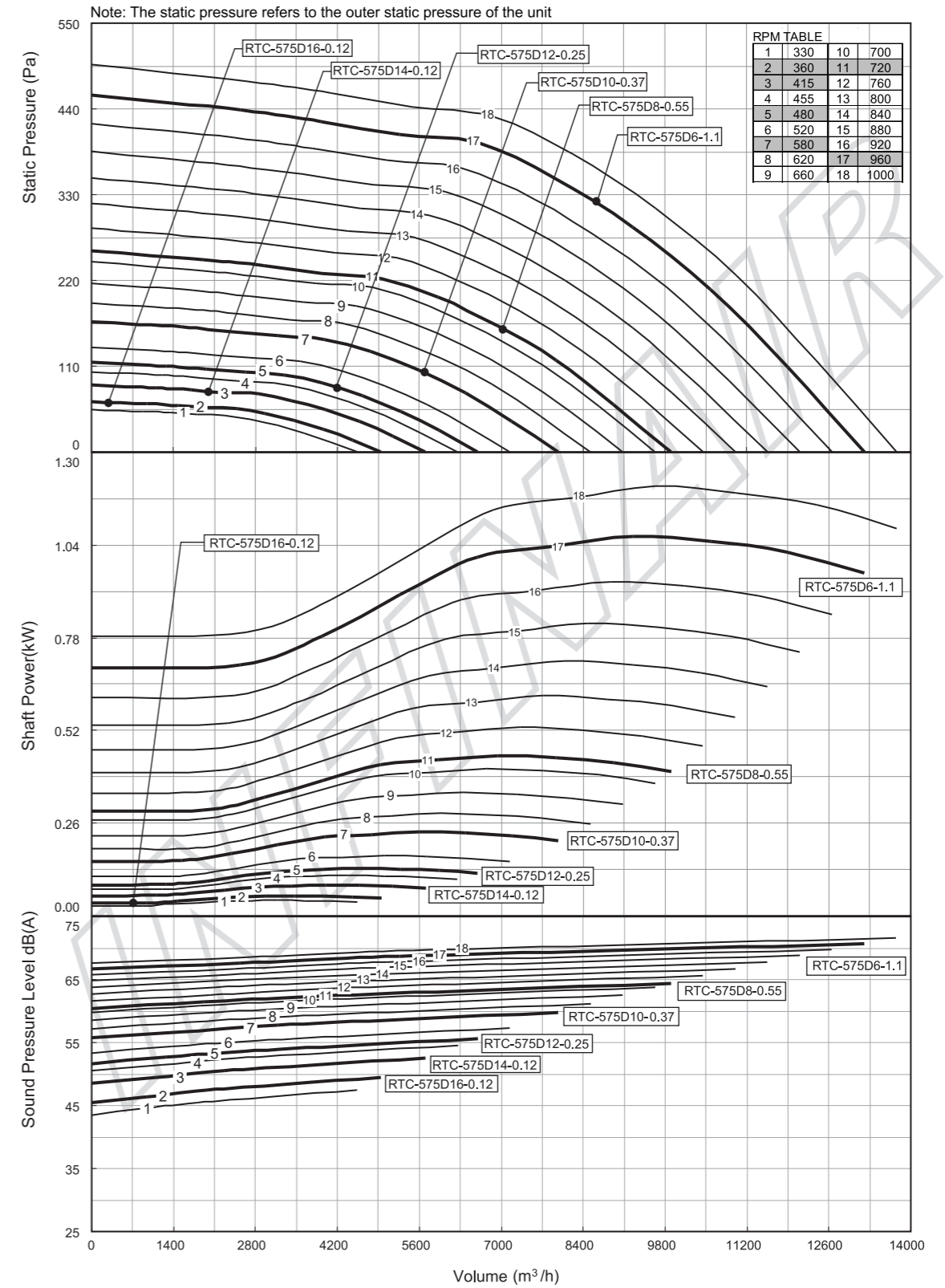
Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwiA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: RTC-500



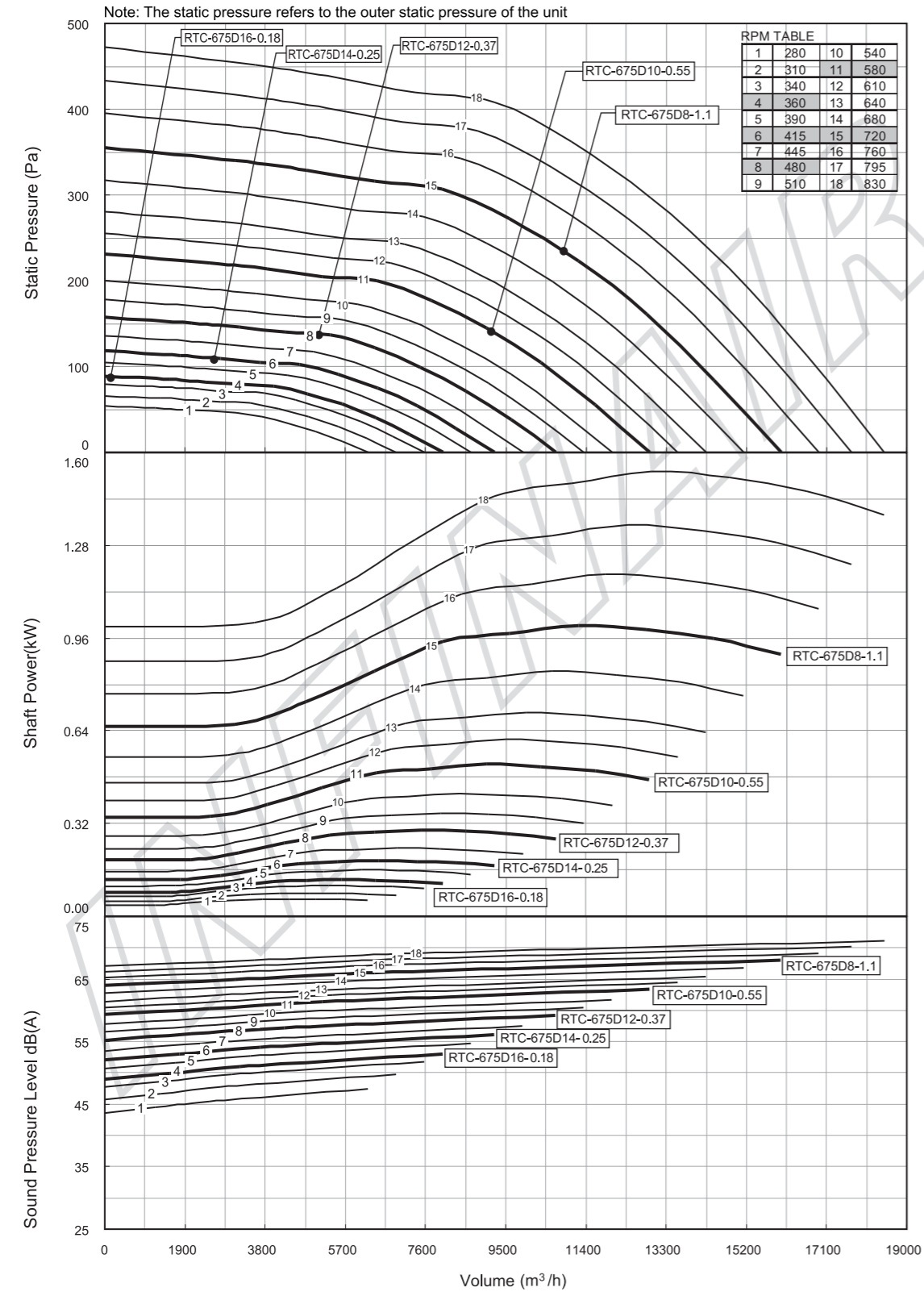
Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: RTC-575

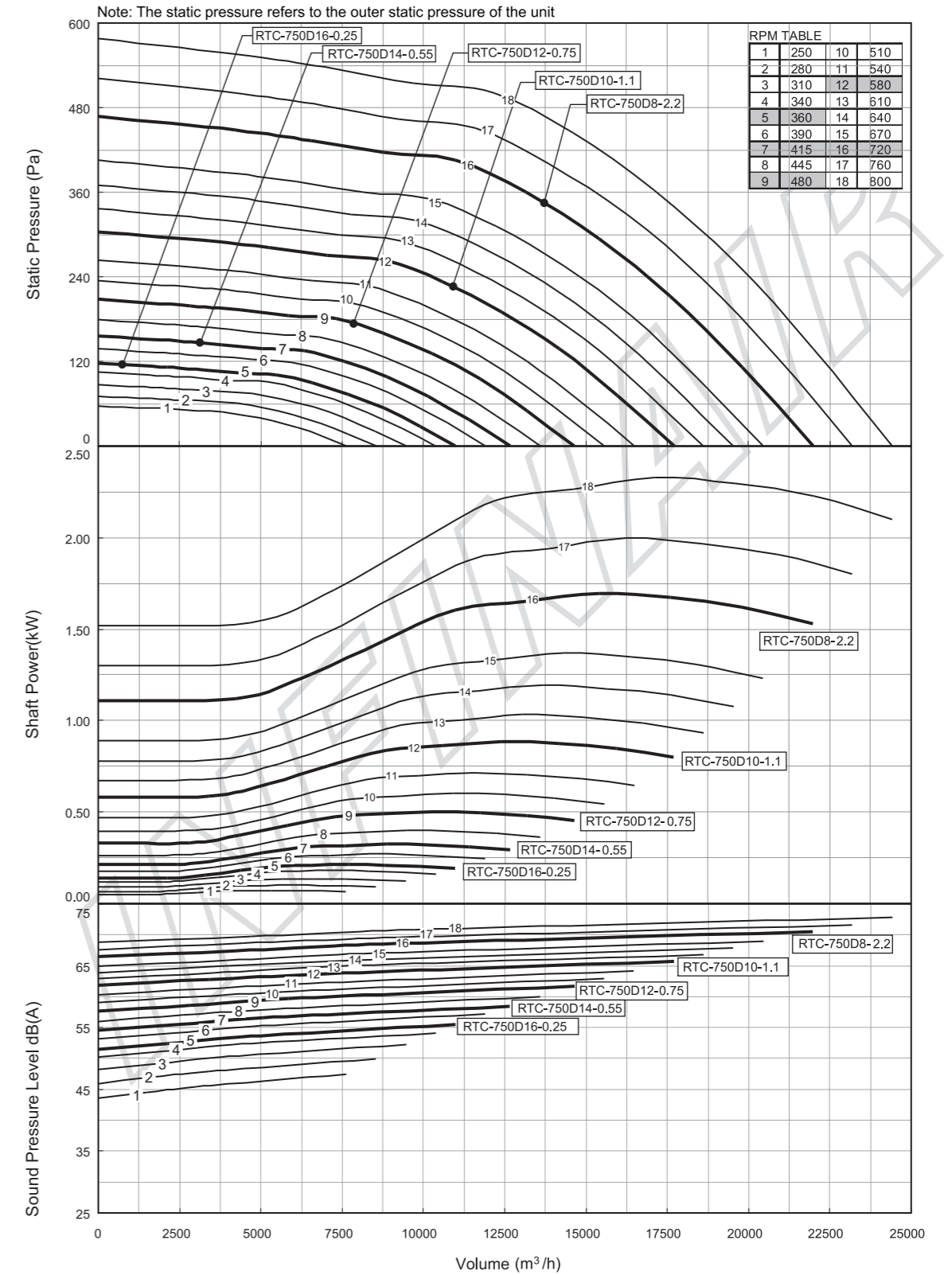


Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: RTC-675



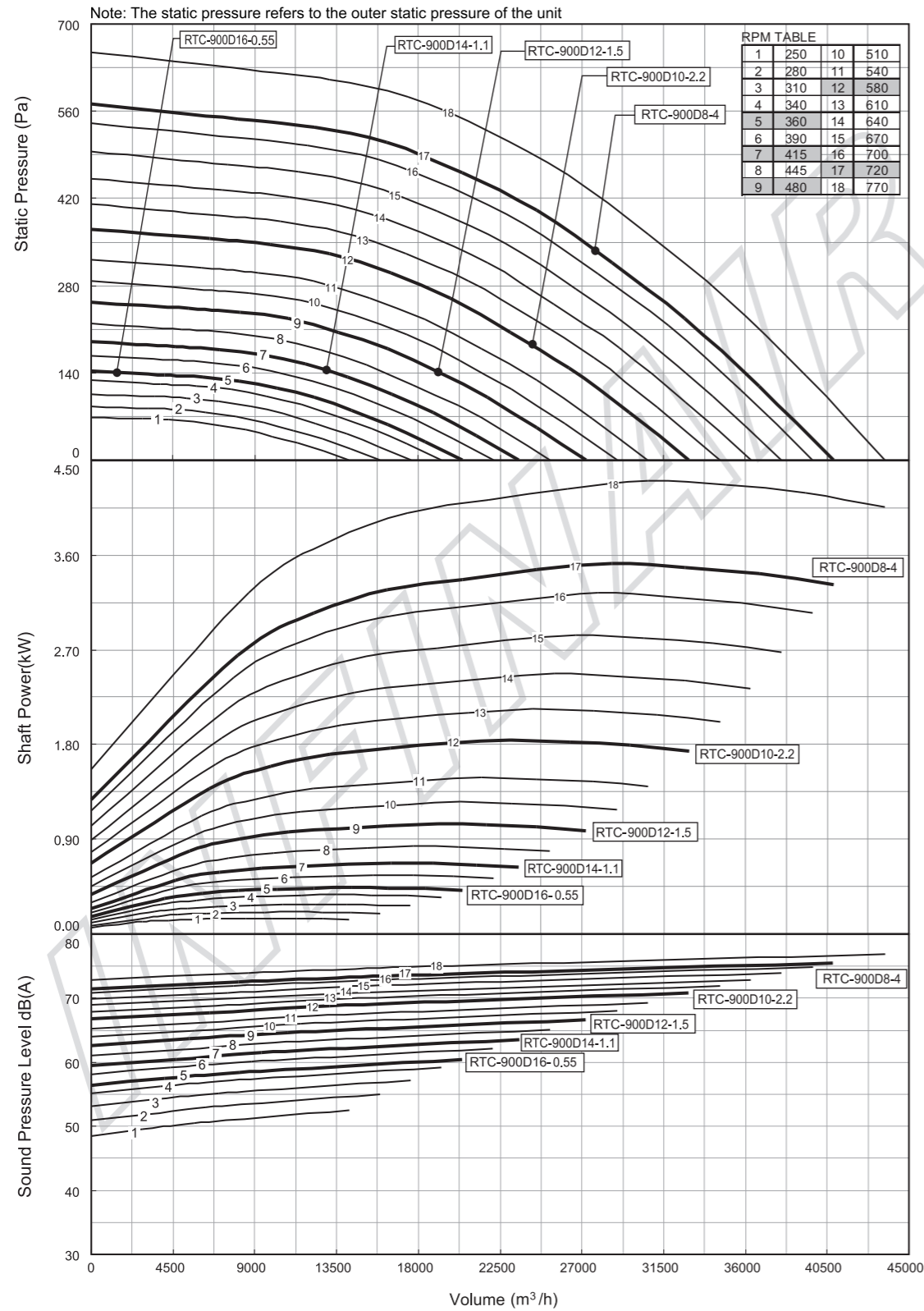
Model: RTC-750



Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwIA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

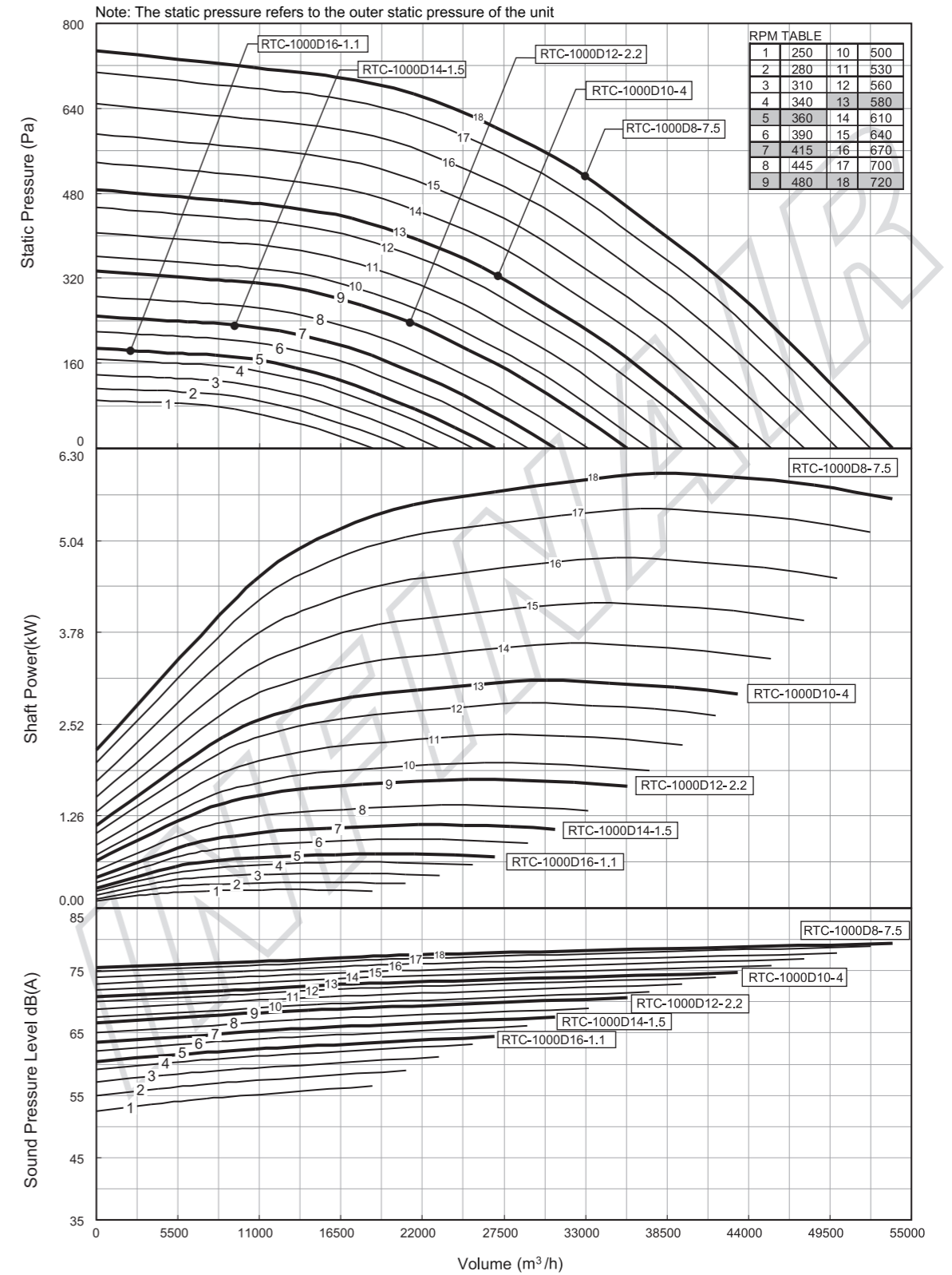
Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwIA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: RTC-900



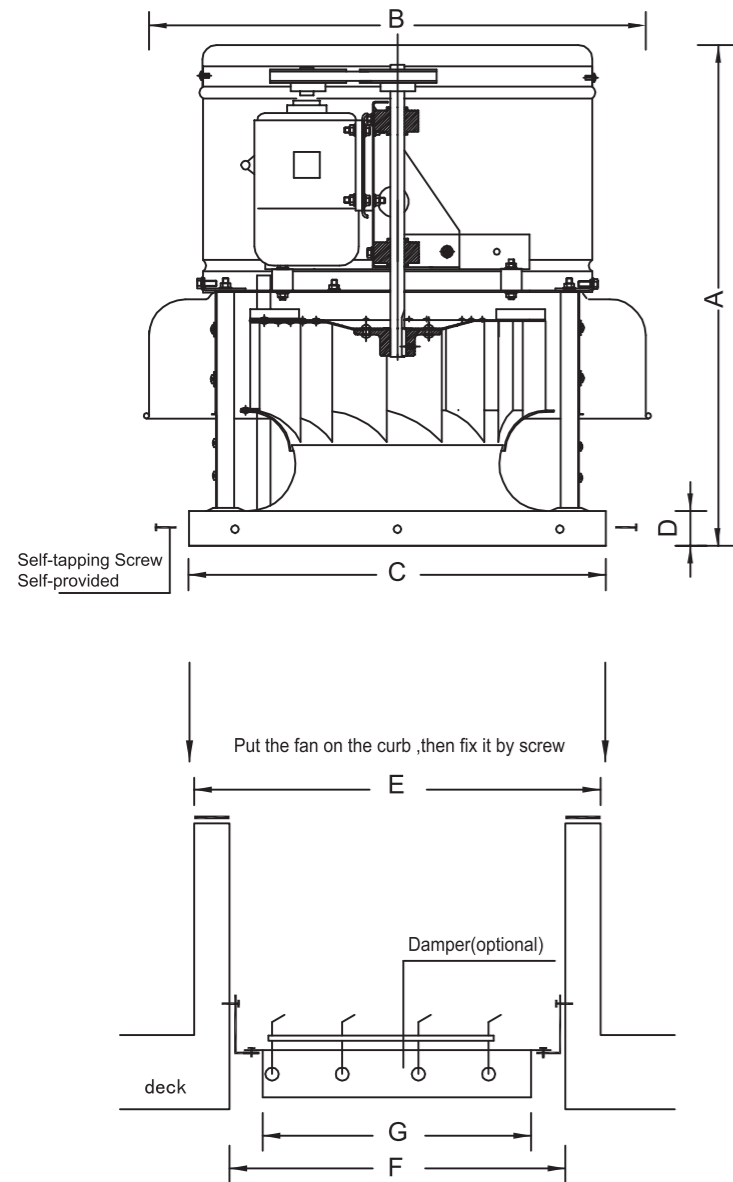
Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: RTC-1000



Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Fan size and weight



Installation instruction

1. The roof curb height shall be defined by design engineer. We suggest the height shall be 300mm-500mm according to local rainfall.
2. Isolation pads, steel angels and screws for roof fans in this drawing are not included in the material lists of standard products by "INFINAIR."
3. The rubber isolation pads should be chosen according to the maximum weight of the fan they can bear without any deformation. Typically, the thickness of pad is 5-8mm.

The below dimensions apply to all RTC types.

Model	A(mm)	B(mm)	C(mm)	D(mm)	weight (kg)
RTC-300	600 _(max)	540	500	50	21
RTC-425	749 _(max)	726	600	50	30
RTC-500	862 _(max)	830	750	70	39
RTC-575	890 _(max)	940	750	70	46
RTC-675	995 _(max)	1100	900	53	67
RTC-750	1064 _(max)	1200	900	53	71
RTC-900	1215 _(max)	1438	1100	70	118
RTC-1000	1338 _(max)	1588	1200	70	141

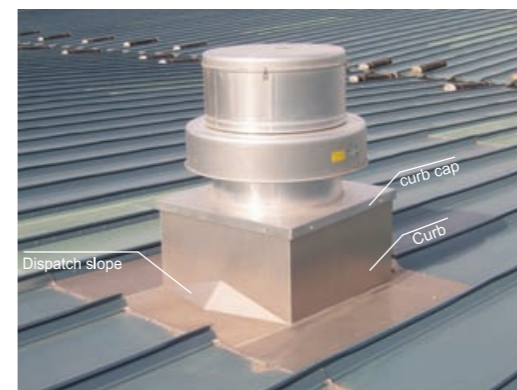
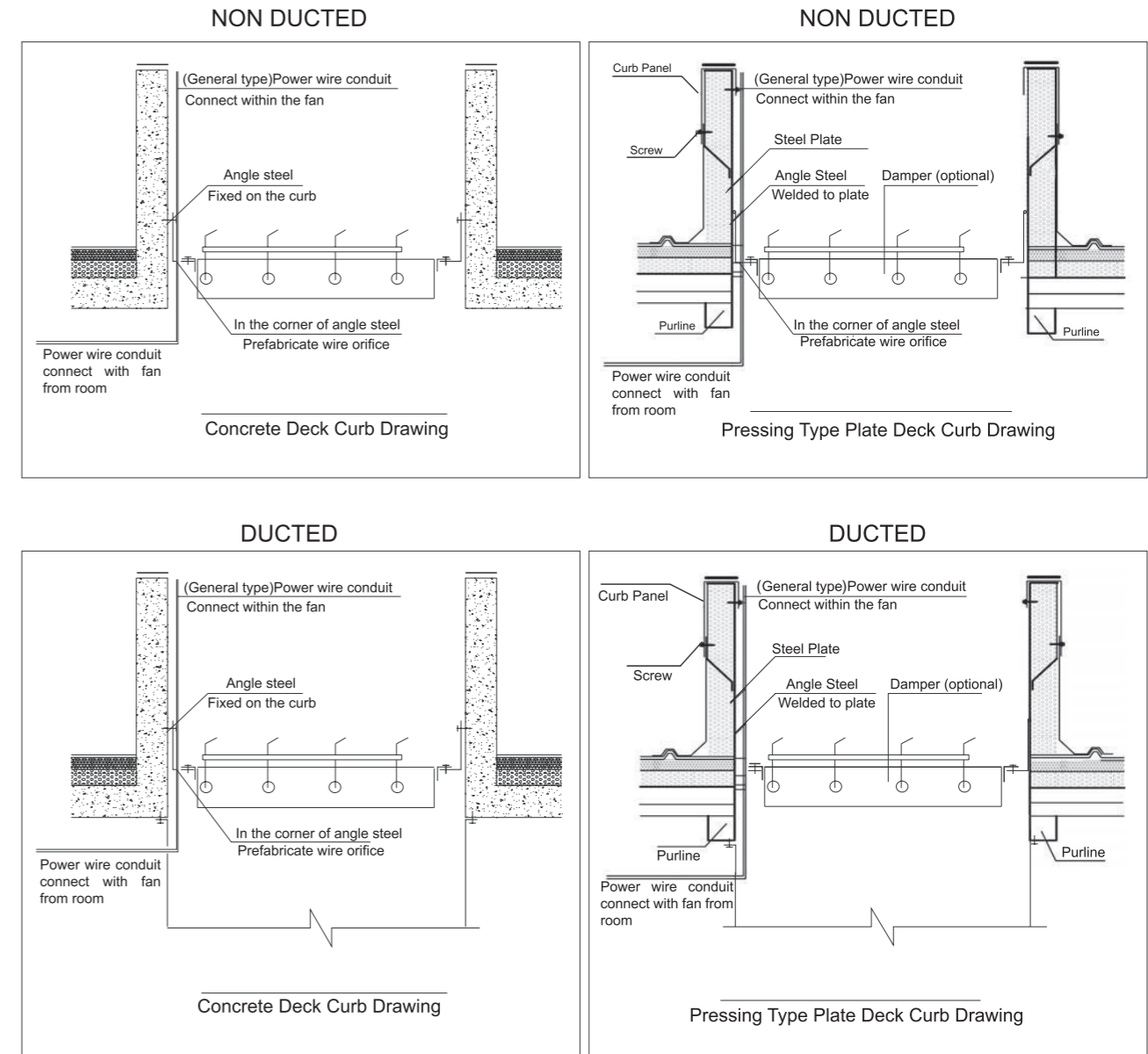
* The weight in the above table does not include that of motor. Refer motor weight to the table below.

(kW)	Motor Weigh (kg)							
	(poles) 2P	4P	6P	8P	10P	12P	14P	16P
0.09	5.5	5		10				
0.12	5.5	6		10	11	13	15	18
0.18	14	13.5	14	16	10	15	17	21
0.25	14.5	14	14.5	17	14	16	20	23
0.37	15	14.5	16	24	17	18	21	30
0.55	15.5	17	17	28	20	21	30	37
0.75	16	18	23	33	23	24	36	41
1.1	17	22	25	38	30	30	42	48
1.5	22	27	33	45	38	42	35	58
2.2	25	34	45	63	39	45	52	62
3	33	38	63	79	40	50	62	67
4	45	43	73	110	56	60	68	70
5.5	64	68	84	121				
7.5	70	81	121	147				
11	118	124	146	182				

The below dimensions apply to all RTC types.

Model	Curb Edge Size	Roof Opening Size	Damper Size	Fire Resistant Damper Size
RTC-300	490	370	300x300	420x420
RTC-425	590	470	400x400	520x520
RTC-500	740	620	550x550	670x670
RTC-575	740	620	550x550	670x670
RTC-675	890	730	650x650	780x780
RTC-750	890	730	650x650	780x780
RTC-900	1090	930	800x800	980x980
RTC-1000	1190	1030	900x900	1080x1080

Roof Curb Fabrication Detail



Used on the slope for water diversion, protect curb from direct rain damage.

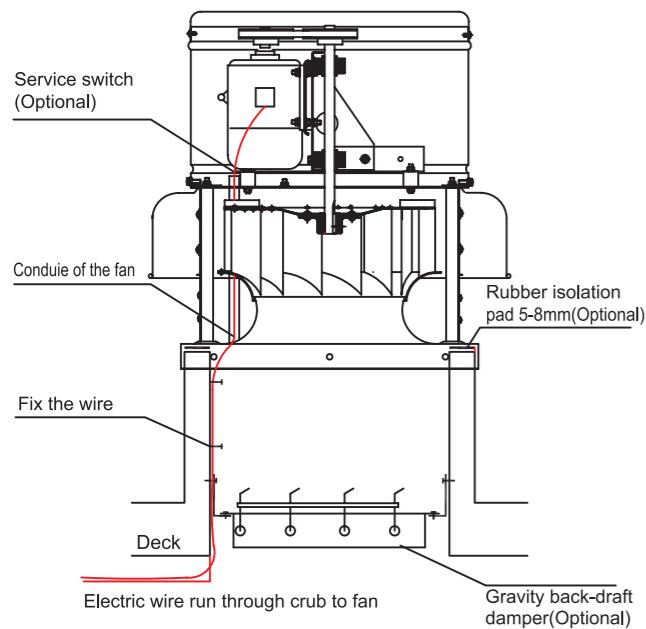


Figure 1: RTC-GT non smoke removal fan installation drawing

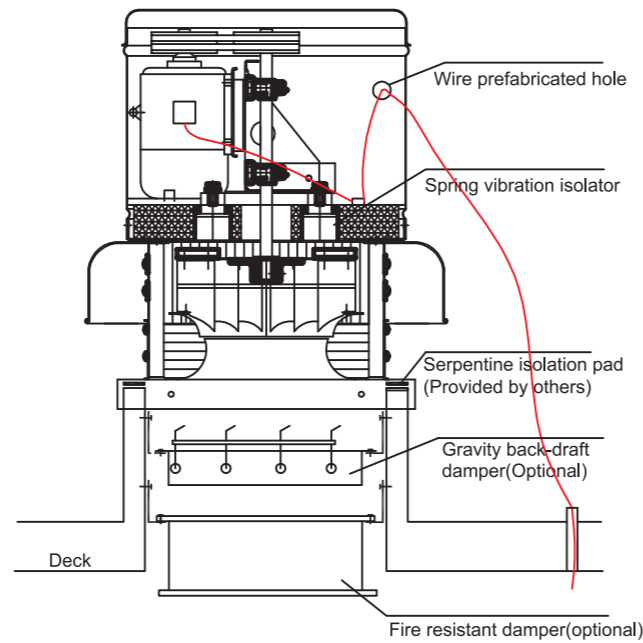


Figure 2: RTC-SR smoke removal fan installation drawing

Installation

Fan & roof installation structure dimension

Please see page 17 for fan size and opening hole size on the roof. The opening hole size on the roof shall be provided to the contractor at early stage when the roof is under construction.

Roof curb fabrication

Roof curb is a kind of structure on the roof, that is, The contractor is the only party who is responsible for the fabrication and procedure of the roof curb, figure 1 and figure 2 are for reference only. The thickness of curb wall shall be different according to the model. The thickness shall be between 60-80mm.

As to the metal where the fan contacts the curb in the top, a linear rubber vibration isolation pad (smoke removal type needs serpentine isolation pad) shall be applied and also acts as seal. The thickness of the pad shall be decided according to the thickness if it still maintains proper elasticity after fan is seated. The pad could be cut by typical carpet type isolation pads from market and shall be provided by contractors.

How to mount the fan

Put the fan curb cap on the curb, and fix it at all four sides by self-tapping screw as shown by figure 1 and figure 2. The fan must be repte level.

Power supply wiring

As general and explosion proof exhaust fan, wiring starts inside the curb and is connected with motor through the tube provided by fan as thown by figure 1. As smoke removal fan, wiring starts on the roof and is connected with motor through provided hole in motor chamber as shown by figure 2.

The rotation must be checked by connecting the electric power strictly according to the direction mark on the machine after the wiring is done. If reverse, inter-change any 2 of the 3 phase lines. Fan reverse rotation is forbidden.

Product Specifications

Section 1: Quality Standards

Centrifugal roof exhaust fans shall be tested and certified in accordance with AMCA Standard 210 &300. Each fan shall bear AMCA Sound & Air Performance Seal.

Section 2: Fan Type

Fan shall be rooftop centrifugal exhaust type with aluminum backward inclined centrifugal wheel. The inlet Venturi shall have round curved section to smoothly transit the air to the wheel cone. The wheel shall be statically and dynamically balanced to Level G2.5 in accordance with ISO Standard No.1940.

Section 3: Fan material

The fan housing, wheel and curb shall be produced by aluminum alloy. And the exterior color of the fan shall be silver white to be harmony with the building.

Section 4: Drive (Apply to belt drive model only)

Shaft: fan shaft shall be heat treated through soaking furnace to reach the hardness level of HB250, and the surface shall be hard film corrosion treated. The fan shaft shall be balanced together with the wheel. And the shaft design speed shall at least exceed 25% of the maximum fan operation speed.

Pulleys: Fan pulleys shall be sized for a minimum of 150% of driven power. Pulleys shall be of cast iron type. Motor pulleys shall be adjustable for final system balancing. Conical (QD) type bushings shall be equipped for easy removal of the pulleys.

Bearings: Bearings shall be chosen of metallic to avoid direct vibration on motor. High quality motor bearings shall be selected for a minimum (L-10) life in excess of 80,000 hours at maximum cataloged operating speed. Bearing type shall be lubricable pillow block metal ball bearings, permanently sealed.

Drive support: Drive assemblies shall be supported by heavy gauge powder coated steel and mounted on vibration isolators. The belt tension shall be adjusted through motor support plate, ensuring the fan shaft and motor shaft are always keeping parallel.

Section 5: Motor

Motor shall be carefully matched to the fan load with IP 54 and insulation class F. The motor bearings shall be lubrication-free ball bearing type. Motor and drives shall be mounted on vibration isolators, and out of the air stream to avoid grease or dirt accumulation. Motor chamber shall be fixed through stainless steel clips for easy access.

Section 6: Structure

The hood shall be rigid enough to bear heavy load and protect the fan from leaking of heavy rain or snow melting.

Motor, drive support panel shall use an anti-corrosion treated steel panel. Using the same material as that of the housing is prohibited. The column shall be aluminum stick to make sure the support is stable.

Internal wiring conduit: Fan shall be furnished with a conduit to lead the power supply wiring through the curb to the motor chamber. (Limited to non smoke removal type)

Roof curb caps with mounting holes: the roof curb cap shall have pre-drilled holes at its side by which the fan could be fixed.

Galvanized bird screen: Galvanized bird screen shall be furnished to protect the fan's discharge from birds when the fan is not running.

Section 7: Smoke removal fan with certificate(apply to smoke remov

The centrifugal fan must be tested OK in accordance with the "General Usage of Centrifugal Fan Technical Specification"(China National Standard JB/T10563-2006) on terms of general performance. A test report issued by licensed authorities shall be provided. The fan must be tested according to "Fire Fighting Smoke Removal Fan High Temperature Testing Method"(China National Standard GA211-2009) by qualified fire safety testing organizations. The high temperature resistance performance-running continuously for over 30 minutes when the main duct air temperature is 280°C-must be identified by presenting an official certificate.

Section 8: Fresh air cooling motor

Fresh air shall be drawn into the motor compartment from an area free of discharge contaminants to cool the motor and drive. The fresh air shall be guided into the motor chamber through auxiliary wheel blades to the gap below the motor cover

Section 9: Nameplate

Each fan shall bear a permanently fixed aluminum nameplate clearly containing fan number, product model and serial number. The serial number shall be a unique ID for each fan, so that customers have an easy access to finding out the records of used parts.

Section 10: Acceptable manufacturers

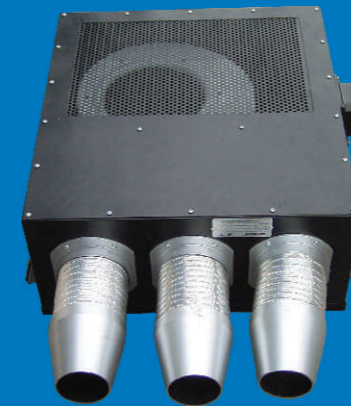
INFINAIR® products or equivalents which are based on **INFINAIR®** RTC Fan are acceptable.

YFPiV/YFPiJ/YFPiM

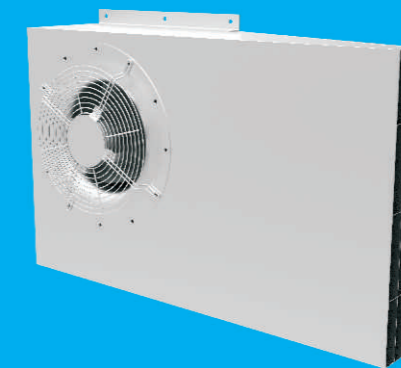
诱导射流通风机 Induced Jet Fan

提供最可靠、便利的空气运动与控制、调节服务。

To provide the most reliable and user-friendly air movement & control and air conditioning service.



YFPiV



YFPiJ



YFPiM

本公司保留更改样本的权利，恕不另行通知。Due to continuing research, Shanghai Nautilus reserves the right to change specifications without notice.

上海诺地乐通用设备制造有限公司

Shanghai Nautilus General Equipment Manufacturing Co Ltd

地址：上海市嘉定区外冈镇清能路55号

Add: No. 55 Qingneng Road, Waigang Town, Jiading District, Shanghai

邮编(P.C): 201806

电话(Tel): 86 21 39185688

售后服务电话：400 821 3316

传真(Fax): 86 21 69168759

Http://www.infinair.com

上海诺地乐通用设备制造有限公司

Shanghai Nautilus General Equipment Manufacturing Co Ltd

公司介绍 Company Profile

上海诺地乐通用设备制造有限公司是集研发、生产、销售为一体的中高端通风、燃气采暖及空气净化设备解决方案供应商。公司成立于2003年9月，坐落于上海市嘉定区。公司是美国绿色建筑委员会（USGBC）会员，国际空气运动与控制协会（AMCA）会员，上海市高新技术企业，**INFINAIR®** 荣获上海市著名商标。

Shanghai Nautilus General Equipment Manufacturing Co., Ltd. is a middle and high-end solution provider of air supply and gas heating and air cleaning equipment that integrates R&D, production and sales. Established in September, 2003, it is located in the Jiading District of Shanghai. The company is the member of the US Green Building Council (USGBC) and International Air Movement and Control Association (AMCA), the high and new tech enterprise of Shanghai, **INFINAIR®** won the famous trademark in Shanghai.

英飞愿景：成为最值得信任的专业空气运动与控制、调节品牌。

Vision statement: To become the most trustworthy brand of professional air movement & control and air conditioning.

英飞使命：提供最可靠、便利的空气运动与控制、调节服务。

Mission statement: To provide the most reliable and user-friendly air movement & control and air conditioning service.



第三方认证
公司场景
专利证书

诱导射流通风机

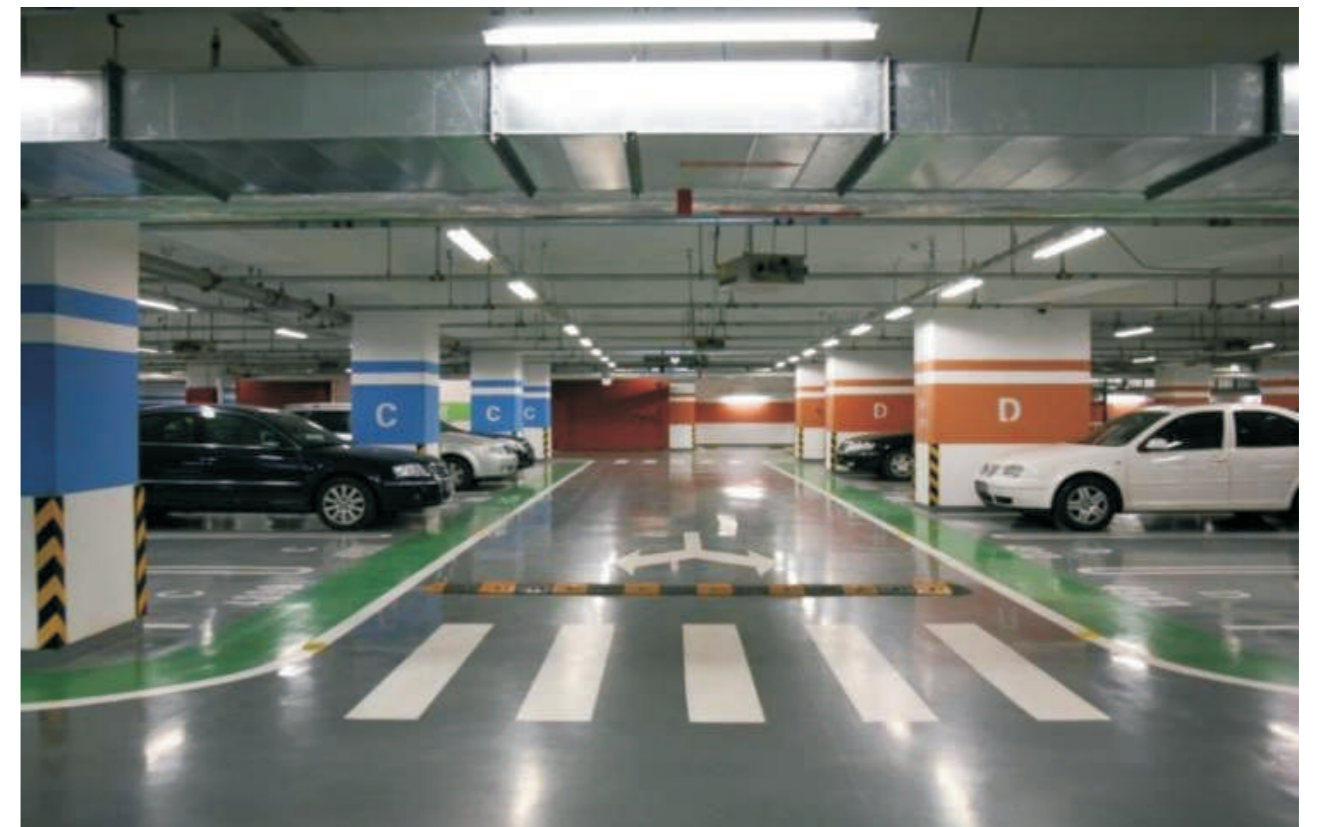
Induced Jet Fan

- 诱导射流通风机的主要运用理论来自于空气动力学中高速喷流的扰动特性，利用喷出带有较高动能的高速气流来诱导及扰拌周围大量空气，并将其带至特定的目标方向。喷流中心速度由喷嘴出口点起逐渐减低，但是喷流宽度逐渐增加，所诱导的周围的空气量也逐渐增加。一方面稀释室内有害气体，另一方面带动室内空气流动，有害气体集中而快速地沿着预设的空气流动道行进至排风机处，由机房内的排风机排走，从而实现室内的良好换气。

Induced jet fans are designed according to air jet theory, working by inducing much surrounding air by high velocity of airflow jetted from fan outlet and leading it to specified direction. The central air velocity is slowing down with the increasing distance away from the fan outlet, but the induced area is bigger and bigger so as to induce more and more airflow. The polluted gas is sent by induced jet fans to the exhaust ventilator intensively and fleetly along specified direction, ensuring a good air environment for the room.

- 诱导射流风机应用的场所，可以有效降低车室内有害气体与烟雾的浓度，以及向室内送入新鲜空气，保持室内的良好空气，改善工作环境，提高工作的安全性和舒适性等。同时，在紧急状态下YFPIJ型风机有消防排烟功能。

Polluted gas or smoke concentration is decreased where it employs induced jet fans, meanwhile fresh air is sent to every corner to provide a safe and comfortable-air environment for working. Especially, PIJ fans are used for fire smoke exhaust under emergent condition.



YFPIV

离心式诱导风机
Centrifugal Induced Fan



产品特点 Production Features

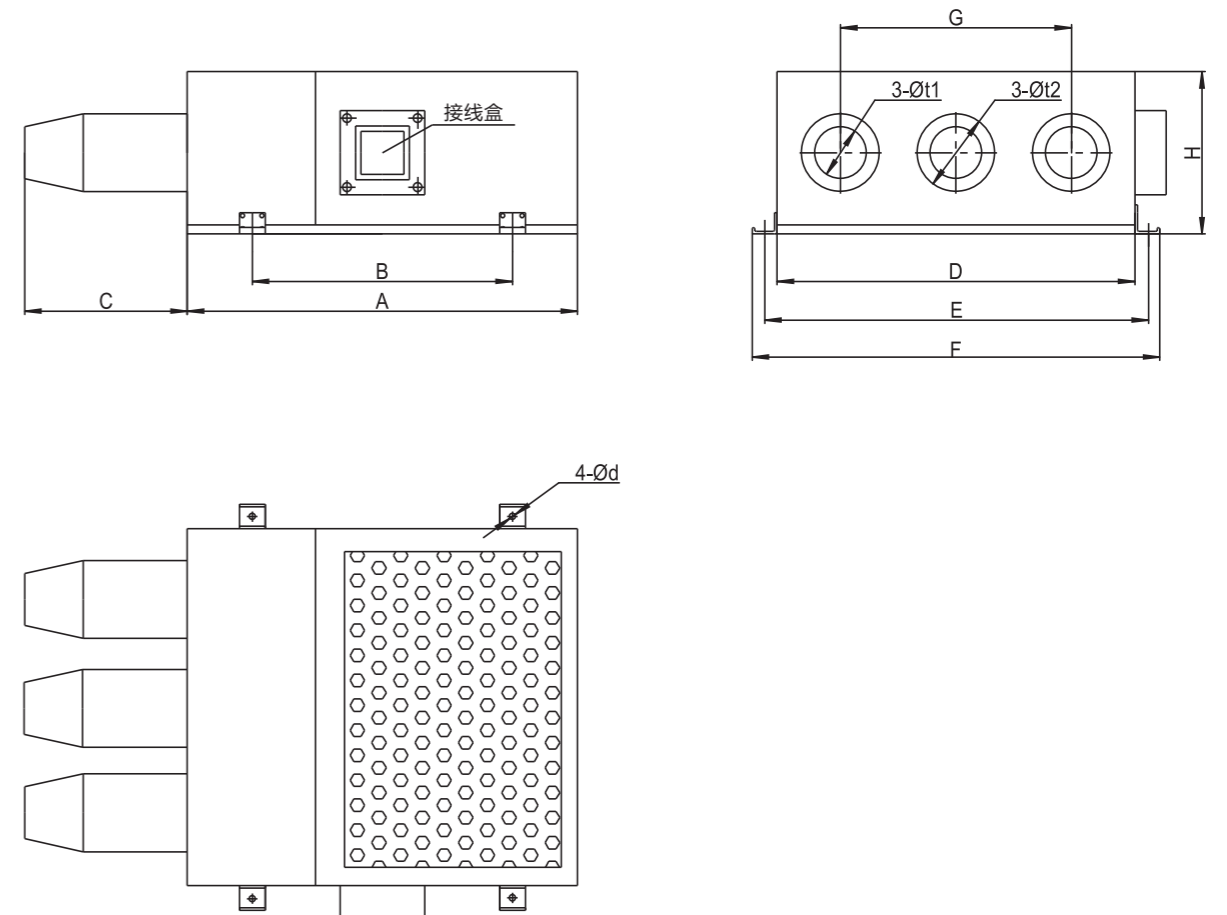
- 体积小，重量轻，节省空间，安装方便，无需管路，减少投资，针对性强，效果好。
Small volume and light weight for saving mounting space and easy installation, having a special effect of ventilation without ducts for saving cost.
- 高效节能：物理特性诱导风量，节省电力，运转成本低。
High efficiency of physically induced airflow, low energy consumption and operating cost.
- 挠性金属喷嘴：可随意调整出风角度。
Flexible metallic nozzle with adjustable jet angle freely.
- 智能诱导功能可选：区域联动，节能可靠。
Providing intelligence inducing option for optimizing zone fit ventilation to reduce energy cost and ensure reliability.
- 优质的镀锌钢板外壳，表面静电环氧喷涂。
Fan casing is featured in quality galvanized sheet with electrostatic epoxy spraying surface

技术参数

Technical Data

风机型号 Model	转速Speed (rpm)	推力Thrust Force (N)	风量Airflow (m³/h)	电机功率 Motor Power (kW)	电压Voltage (V)	相数Phase (Ph)	频率 (Hz)	噪音Sound Pressure Level (dB(A))	出口风速 Outlet Velocity (m/s)	重量Fan Weight (kg)
YFPIV-B-3	1450	6~11	980~1380	0.12	220	1	50	42	17~24	35

外形尺寸图 Outline Dimensions



单位：mm Units：mm

型号 Model	A	B	C	D	E	F	G	H	d	t1	t2
YFPIV-B-3	600	400	250	550	590	630	335	250	9	80	120

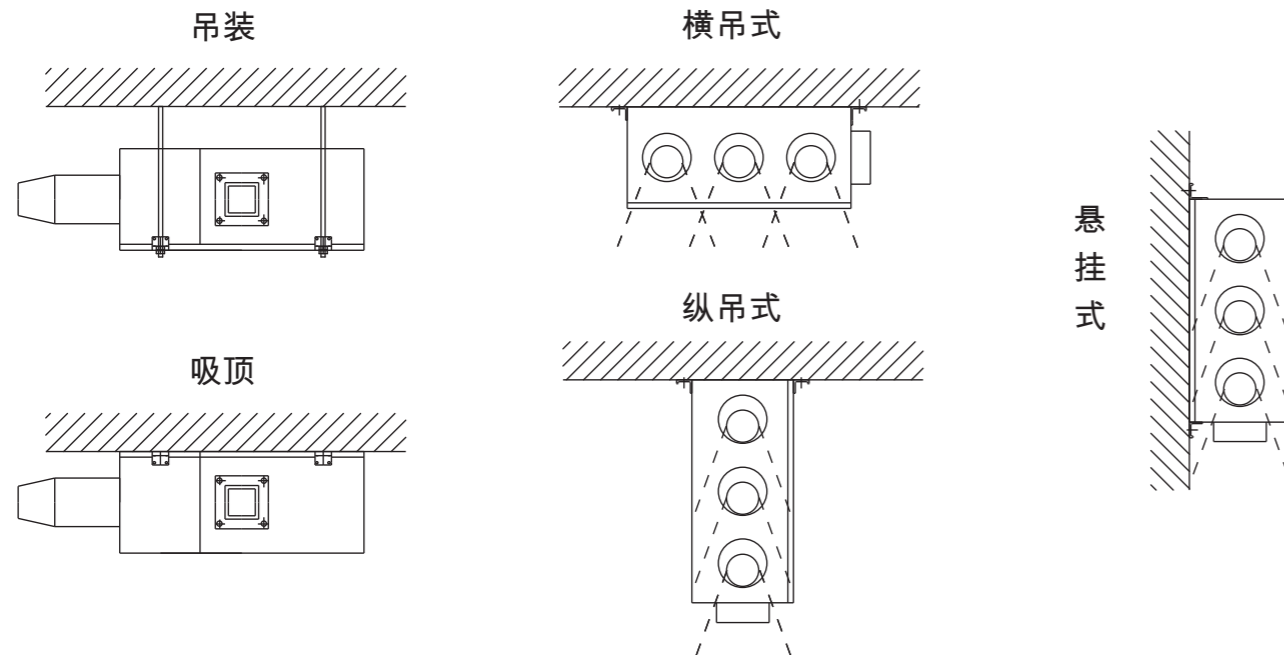
注：尺寸数据仅供参考，以工厂确认图纸为准。
Note: Dimension data is for reference only, subject to drawings confirmed by factory.

风机的安装 Fan Installation

YFPIV诱导风机可采用吊装和吸顶两个安装方式。吸顶安装分为横吊式、纵吊式、悬挂式。安装时，高度不宜太高，离地高度以2.3~3米为宜。风机出风口和进风口500mm内不得有障碍物。安装时在螺钉或丝杆固定处加橡胶减震垫。诱导风机排布距离小于风机射程，出风口不应相互抵触。

YFPIV can be hung or ceiling-mounted. The ceiling-mounted method includes types of horizontal lifting, vertical lifting and suspending lifting. It should be installed at 2.3~3 meters high from the floor, without obstruction within 500mm from inlet and outlet. Rubber cushion shall be used where bolt or screw rod fixed. The fans shall be distributed less than jet range in order to avoid the conflict between the different airstreams.

安装方式如图所示 Mounting styles as following



YFPIJ

离心式射流风机 Centrifugal Jet Fan



产品特点 Production Features

- 结构设计紧凑，风机整体高度低，特别适合层高较低的地下停车场。
Compact structure design, low height of fan body, especially suitable for car park with low head room.
- 钢制后弯离心叶轮，效率高、流量大、射程远、噪音低。
Centrifugal backward curved impeller in quality steel with high efficiency, large volume, long jet distance, low sound level.
- 双用途：日常普通通风和火灾时排烟。
Used for general ventilation and for fire smoke exhaust.
- 工作温度：普通通风：-20°C ~ 55°C。
排烟系统：200°C /120min, 250 °C/120min, 300°C /60min。
Operating temperature: General ventilation: -20°C ~ 55°C, Smoke exhaust system: 200°C /120min, 250 °C/120min, 300°C /60min.
- 电机：防护等级IP55、绝缘等级H(仅用作普通通风时可选用F级绝缘)
Motor: All motors are IP55, Class H (optional Class F for general ventilation).

- 优质的冷轧钢板外壳，表面静电环氧喷涂。
Fan casing in quality cold-roll steel sheets, with surface in electrostatic spraying epoxy.
- 进风口安装有安全防护网，确保风机运转及人员安全。
Inlet cone with safeguard to ensure safe working without injuring human.
- 通过 TUV 耐高温性能测试 (F200 /120min, F250 /120min, F300 /60min)
Certificated by TUV withstand high temperature test (F200 /120min, F250 /120min, F300 /60min) .

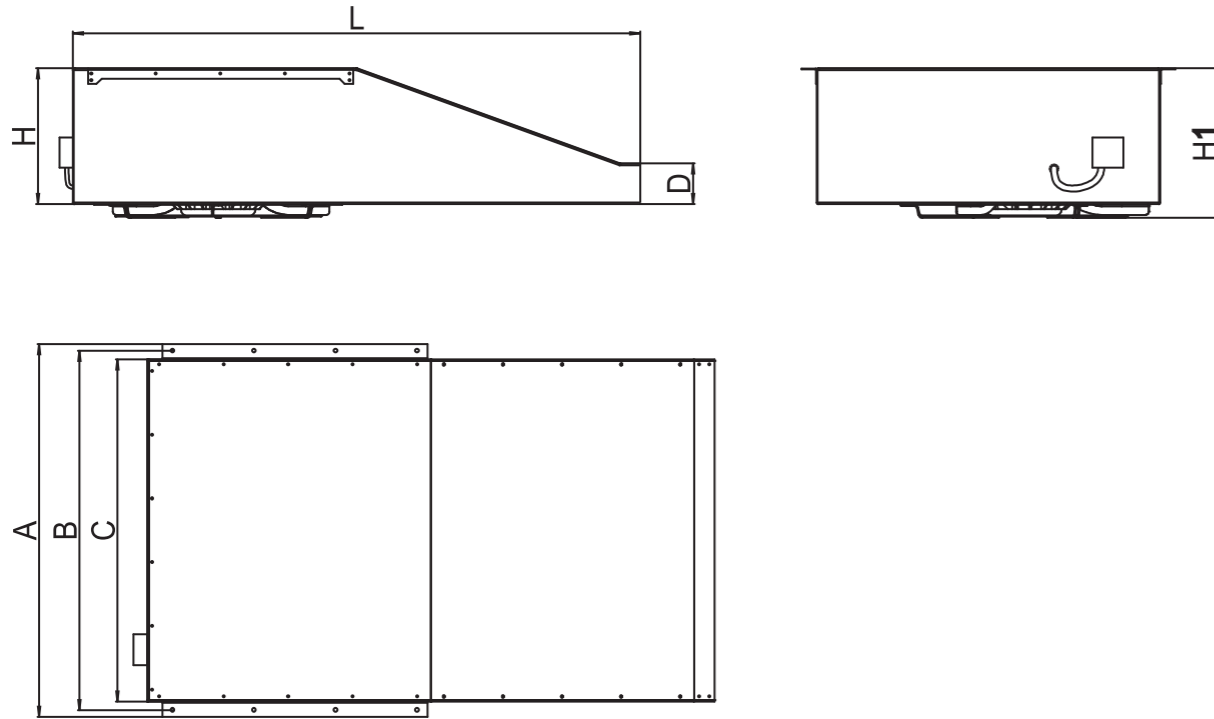
技术参数

Technical Data

风机型号 Model	转速Speed (rpm)	推力Thrust Force (N)	风量Airflow (m³/h)	电机功率 Motor Power (kW)	电压Voltage (V)	相数Phase (Ph)	频率 (Hz)	噪音Sound Pressure Level (dB(A))	出口风速 Outlet Velocity (m/s)	重量Fan Weight (kg)
YFPIJ-450	1668/828	38/9	5200/2600	1.2/0.3	380	3	60	73/60	22.3/11.2	68
YFPIJ-450	1390/690	26/6	4330/2165	0.75/0.18	380	3	50	71/58	18.6/9.3	68
YFPIJ-500	1680/852	60/15	7250/3625	2.1/0.5	380	3	60	78/63	24.9/12.4	89
YFPIJ-500	1400/710	41/10	6040/3020	1.2/0.3	380	3	50	75/60	20.7/10.4	89
YFPIJ-560	1704/852	106/26	10800/5400	3.5/0.9	380	3	60	84/67	29.7/14.9	102
YFPIJ-560	1420/710	74/18	9000/4500	2.1/0.5	380	3	50	81/65	24.8/12.4	102

注：以上风机重量未包含电机重量
Note: The fan weight in the above table does not include that of motor.

外形尺寸图
Outline Dimensions



单位：mm Units：mm

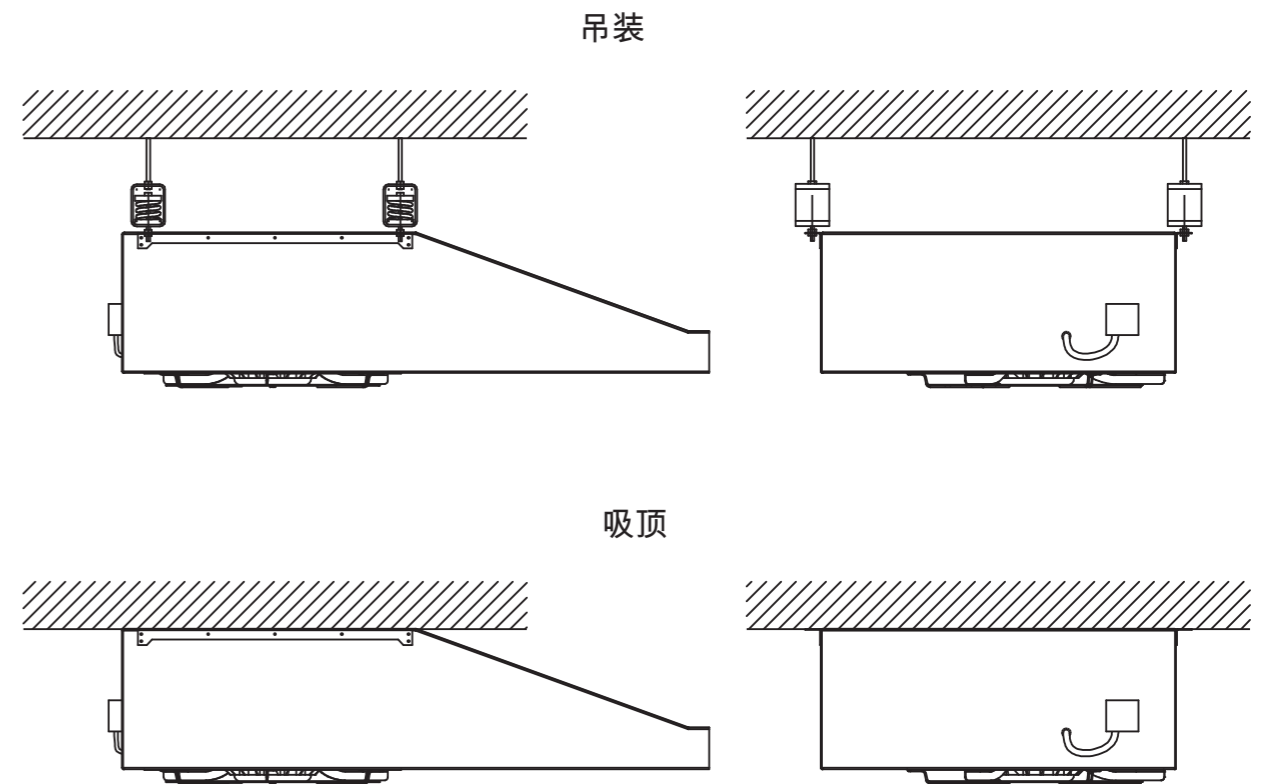
型号 Model	A	B	C	D	L	H	H1
YFPJ-450	898	858	808	80	1340	295	335
YFPJ-500	990	950	900	90	1490	325	365
YFPJ-560	1100	1060	1010	100	1670	365	405

注：尺寸数据仅供参考，以工厂确认图纸为准。
Note: Dimension data is for reference only, subject to drawings confirmed by factory.

风机的安装
Fan Installation

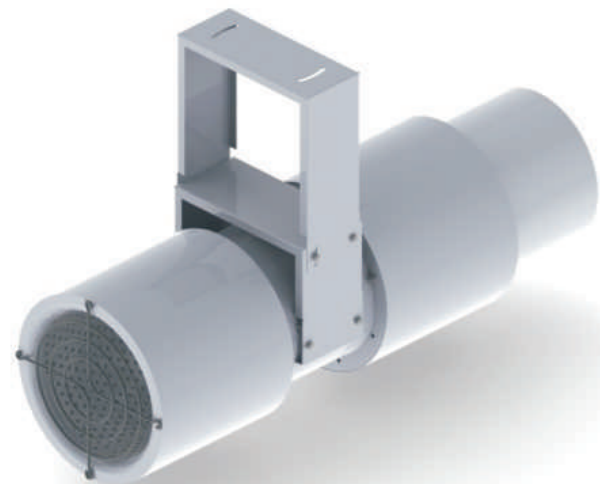
YFPJ离心式射流风机可采用吊装和吸顶两整安装方式。风机出风口和进风口1000mm内不得有障碍物。安装时在螺钉固定处加橡胶减震垫。射流风机排布距离小于风机射程，出风口不应相互抵触。
YFPJ can be hung or ceiling-mounted. It shall have no obstruction in the distance of 1000mm from inlet and outlet. Rubber cushion shall be used where bolt or screw rod fixed. The fans shall be distributed less than jet range in order to avoid the conflict between the different airstreams.

安装方式如图所示
Mounting Styles As Following



YFPIM

轴流式射流风机
Axial Jet Fan



产品特点 Production Features

- 适用于地下停车场、地下娱乐场所诱导通风，降低废气浓度，提高空气品质。
Suitable for ventilation in underground car park and entertainment places, decreasing pollution gas concentration for good air quality.
- 效率高、射程远。
High efficiency, long jet distance
- 风机进、出口均设置有消声段，噪音非常低。
Installing silencers at both inlet and outlet ends for low sound pressure level.
- 电机防护等级IP55、绝缘等级F,在环境温度-20°C ~ 55°C下可长期安全可靠运转。
All motors are IP55, Class F, able to work safely and reliably long time under -20°C ~ 55°C.
- 外形美观，体积小，重量轻，节省安装空间。
Artistic appearance, small dimension, light weight, saving mounting space
- 随机配置有安装支架，可方便调节安装角度，安装方便。
Inherent mounting holder supplied for adjusting mounting angle.

• 进风口安装有安全防护网，确保风机运转及人员安全。
Inlet cone with safeguard to ensure safe working without injuring human.

• 风机自带检修开关，电气部分也可按客户要求提供。
Fans are designed with access door, with electrical parts supplied according to guests.

技术参数

Technical Data

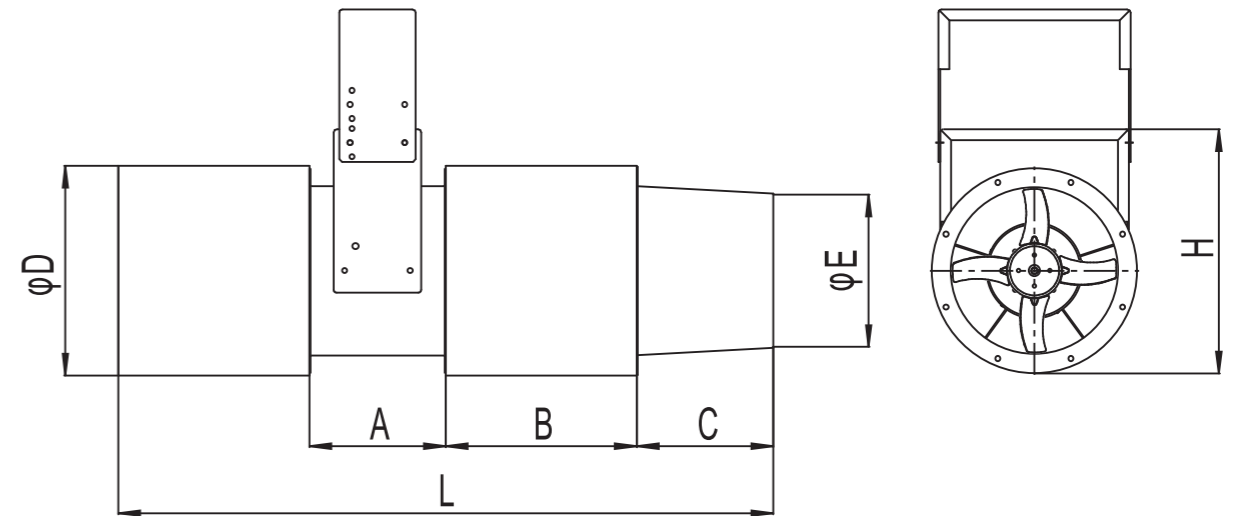
风机型号 Model	转速Speed (rpm)	推力Thrust Force (N)	风量Airflow (m³/h)	电机功率 Motor Power (kW)	电压Voltage (V)	相数Phase (Ph)	频率 (Hz)	噪音Sound Pressure Level (dB(A))	出口风速 Outlet Velocity (m/s)	重量Fan Weight (kg)
YFPIM-280	3360	13	2500	0.37	220	1	60	62	16.5	40
YFPIM-300	3360	18	3400	0.55	220	1	60	66	16.5	48
YFPIM-350	3360	28	5000	1.1	220	1	60	69	17	65

注明：以上参数电机频率为60Hz，50Hz频率电机可根据客户要求提供。

Notes: Motor frequency is 60Hz above, with optional 50Hz according to requirements of guests.

外形尺寸图

Outline Dimensions



单位：mm Units: mm

型号 Model	A	B	C	H	L	φD	φE
YFPIM-280	220	320	220	430	1100	364	230
YFPIM-300	250	350	250	450	1200	385	270
YFPIM-350	300	400	300	500	1400	436	320

注：尺寸数据仅供参考，以工厂确认图纸为准。

Note: Dimension data is for reference only, subject to drawings confirmed by factory.

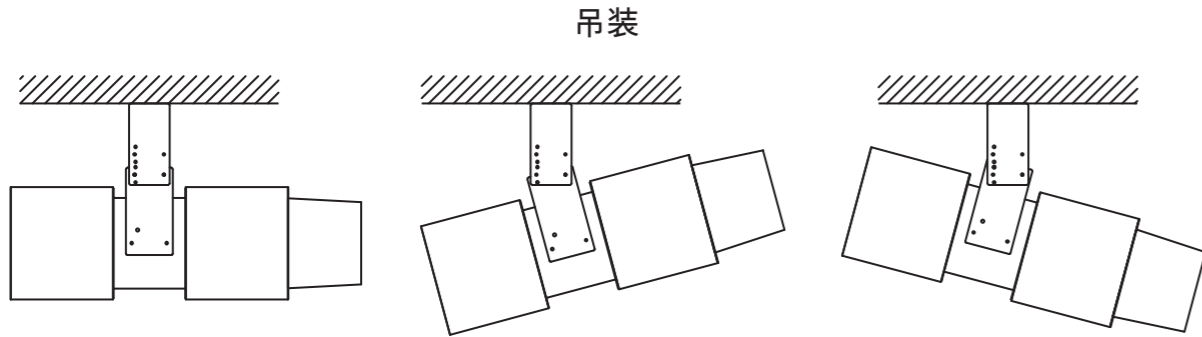
风机的安装

Fan Installation

YFPIM轴流式射流风机采用吸顶安装。风机出风口和进风口1000mm内不得有障碍物。安装时在螺钉固定处加橡胶减震垫。射流风机排布距离小于风机射程，出风口不应相互抵触。此款风机的出风口可以根据客户要求调整±15度。

YFPIM can be hung or ceiling-mounted. It shall have no obstruction in the distance of 1000mm from inlet and outlet. Rubber cushion shall be used where bolt or screw rod fixed. The fans shall be distributed less than jet range in order to avoid the conflict between the different airstreams. The outlet angle can be adjustable among -15° and +15° upon request.

安装方式如图所示
Mounting Styles As Following



诱导风机还有智能型可选
Induced jet fans have intelligent type to choose

- 智能型有自动、手动控制旋钮。
Intelligent jet fans have automatic and manual control knobs.

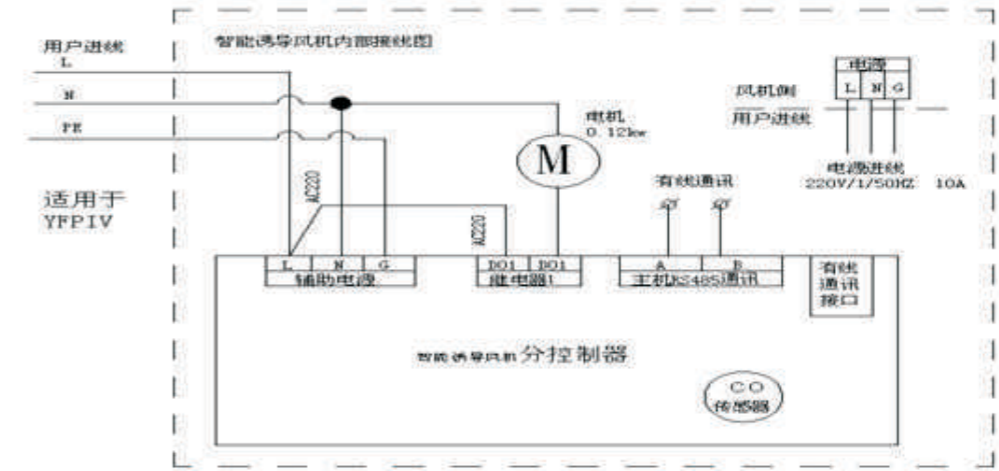
当旋钮打在自动档时，系统控制方式如下：
When the knob is set to automatic control, the system will be controlled as following.

- ▶ 智能诱导风机内部配置灵敏的废气浓度自动感应器探头。当探测到其所在区域的CO废气浓度超过100PPM时，智能风机自动启动，并带动其连锁的多台普通诱导风机，共同运转。当探测到CO浓度降低至30PPM（或自定义阈值）后，风机继续运行10分钟后自动关机。
There is a sensitive pollution gas density probe inside of intelligence induced fan. When CO concentration surpasses 100PPM, intelligence induced fans will automatically start and make other general induced fans run together. Then CO concentration is decreasing under 30PPM (or self-definition valve value), the system will stop automatically after 10 minutes.
- ▶ 普通的诱导风机的电源由其所在区域连锁的智能型诱导风机供给，并且由智能诱导风机控制它的启停。
The power of general induced fans will be provided and controlled by corresponding intelligence induced fans in the same zone.
- ▶ 为配合楼宇自动控制系统或手动控制方式的要求，该系列风机预留有一对远程控制干节点，用来采集楼宇自控系统或手动控制柜控制提供的干节点信号。当此干节点闭路时，强制开启系统；当此干节点开路时，控制器根据感应到的废气浓度进行自动启停控制。
In order to cooperate with the request of the building automatic control system or manual control, these equipments simultaneously gathers the branch pitch point signal which is provided by the building automatic control system or manual control cabinet. When the branch pitch point turns on, the system is forced to start. When the branch pitch point turns off, the controller will automatically start or stop according to the pollution density.

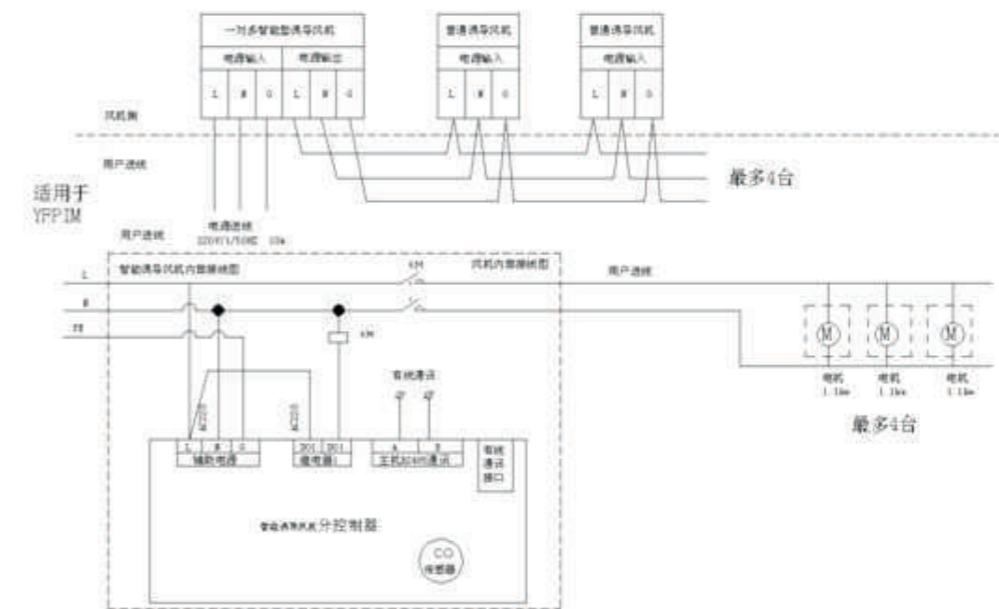
当旋钮打在手动档时，便于调试维修。用户可根据需要自行选择。
When the knob is set to the manual control, it is convenient for debugging and maintenance. Users can choose it according to their requests.

YFPIV

智能（诱导）风机接线实例
Intelligent (induced) fan wiring connection examples



一台智能控制器配一台诱导风机的接线图和内部原理图

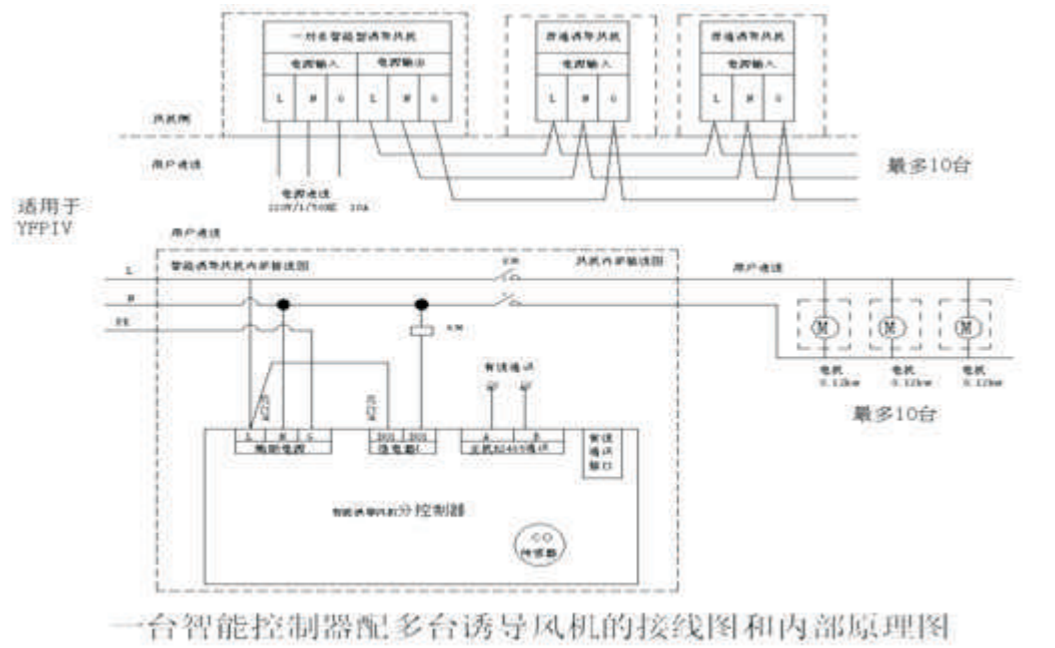
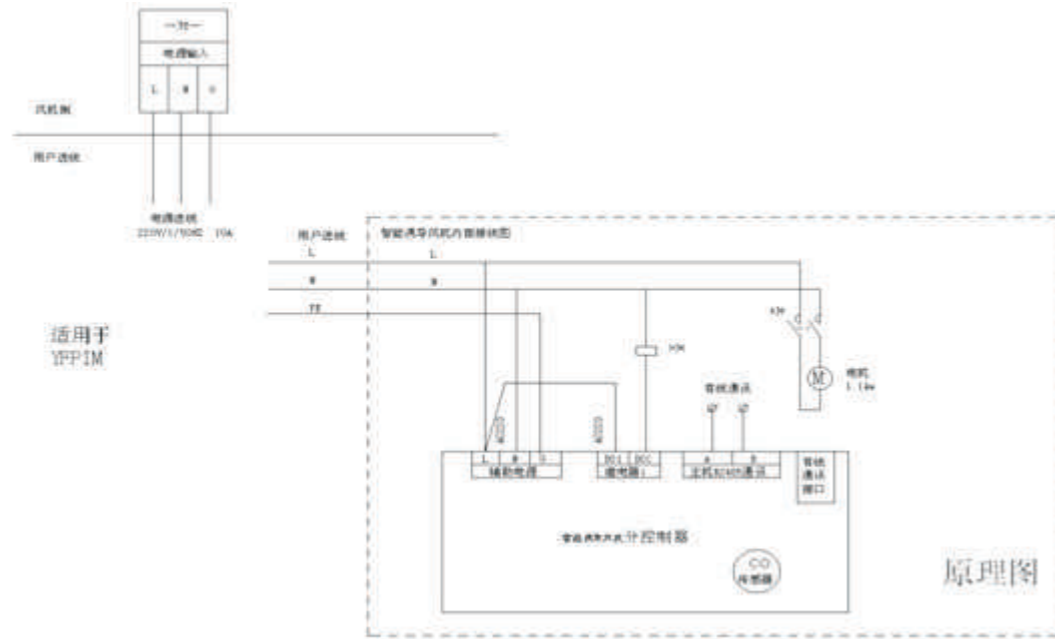


一台智能控制器配多台诱导风机的接线图和内部原理图

YFPIM

智能（诱导）风机接线实例

Intelligent (induced) fan wiring connection examples



一台智能控制器配多台诱导风机的接线图和内部原理图

技术规范

Technical Specifications

YFPIV

- 风机类型

Fan Type

风机类型应为诱导风机。风机叶轮为镀锌钢离心叶轮。叶轮应当经过静态和动态平衡，达到国际标准ISO1940 G2.5。
The fan shall be induced fan with galvanized steel centrifugal impellers. Rotors shall be statically and dynamically balanced to Level G2.5 complying with standard ISO1940.

- 风机外壳

Fan Housing

风机外壳应由镀锌钢板制成，并加环氧树脂静电喷涂，有效防止腐蚀。箱体附可开检修门，方便拆卸，以提供维修检测使用，风机底座应垫有橡胶减震垫或弹簧减震器。风机出口应有隔板，保证各喷口均匀出风。

The fan housing shall be made in galvanized steel and be done with electrostatic epoxy resin spraying for effectively resisting corrosion. The casing has an access door for inspection and maintenance. The motor seat shall be pillowed with rubber or spring vibration isolators. There shall be baffles among the outlet nozzles, insuring uniform airstreams from each nozzle.

- 电机

Motor

应采用直联驱动。与风机负载紧密配合，防护等级IP44，绝缘等级F。

Motor shall be directly driven, well withstanding fan load, IP44, Class F.

- 喷管及喷口

Spray tube and Nozzle

喷管直接嵌在风机外箱，为铝挠管，由铝合金无缝旋压成型。喷口为塑料材质，可任意调整出风方向。

Spray tube shall be directly embedded outside of the fan housing, seamlessly spun by aluminum alloy materials. Nozzles shall be in plastic with adjustable outlet direction.

- 铭牌

Nameplate

永久固定的铝制标牌上应有清晰可辨的风机编号、型号和产品序列号（即每台机器的唯一身份证明），从而可保证客户方便地查询配件的历史记录。

Aluminum nameplate permanently fixed on fan casing shall include clear fan factory number, product model and serial number. The serial number shall be a unique ID for each fan, so that the customer can use this number to find out the parts used to build this fan.

- 可接受供货商

Acceptable Manufacturers

可接受供货商的资信等级为AAA级。英飞或类似产品，设计基于英飞YFPIM型号。

Qualified suppliers shall have an AAA credit rating, providing **INFINAIR**® or similar products, with their design based on YFPIM models of **INFINAIR**®.

YFPIJ

• 风机类型
Fan Type

风机类型应为钢制后弯叶轮离心风机。其相应的驱动方式为直联驱动。英飞YFPIV风机整体外形应为扁平体结构，电机应安装在进风口内，整体空间非常紧凑，高度低，可大幅度降低车库层高，节省土建成本。风机进风口应安装有钢制安全防护网。
The fan shall be backward curved centrifugal fan in quality steel, directly driven. Compact design with motor mounted within the inlet zone and low total height can help you save room construction cost. Steel safeguard wire shall be mounted on the inlet cone.

• 叶轮
Wheel

叶轮应为钢制后弯离心叶轮，全焊接而成。叶轮应经过静态和动态平衡，达到国际标准ISO1940 G4.0水平。叶轮处于最高允许转速时，应能保持平稳的气流和较低的噪声。叶轮特性应能有效避免因工作点滑动造成的性能下降。风机结构应能够允许叶轮方便抽出，以便叶轮维护或清洁。
The wheel shall be steel backward-curved centrifugal and continually welded. The wheel shall be statically and dynamically balanced to level G4.0 in accordance with standard ISO1940. When the wheel is operating at the allowable highest speed, the volume shall be stable and the noise shall be low. Wheel performance shall be able to avoid downgrade resulting from sliding of the working points. Structure of the fan shall allow convenient withdrawal of the wheel for maintenance and cleanings.

• 风机外壳
Fan Housing

风机外壳应为冷轧钢板制成（表面做静电环氧喷涂），扁平体结构。电机支撑结构应紧固，确保有足够的强度与刚度，足以承受运转产生的动负荷。在风机进风口应装有防护网以防护工作人员人身安全。
The fan housing designed by flat structure shall be made in Cold-Roll steel with electrostatic epoxy resin spraying. Motor brackets shall be tightly fastened ensuring enough strength and stiffness for bearing dynamic load. Steel safeguard wire shall be mounted on the inlet cone to ensure personnel safety.

• 进风口
Inlet cone

风机进风口应严格按照空气动力特性设计，表面光滑呈流线形，且具有良好的整流效果，能有效减少紊流，提高风机效率，降低噪声。
Fan inlet cone shall comply with aerodynamic design with streamline profile to smoothly transit air to the wheel, effectively reducing turbulence and noise, improving fan efficiency.

• 消防认证
Fire Certification

风机应通过TUV耐高温性能测试，达到F200 /120min, F250 /120min, F300 /60min的标准，并拥有TUV机构出具的检验报告。
The fan shall be certified by TUV, withstanding F200 /120min, F250 /120min, F300 /60min under high temperature test, TUV test report provided.

• 电机
Motor

电机应与风机负载紧密配合，防护等级IP55，绝缘等级F或H。电机轴承应为滚珠轴承并且免润滑。
The motor shall bear the fan load well, IP 55, and insulation Class F or H, with balling bearings for free lubrication.

• 铭牌
Nameplate

永久固定的铝制标牌上应有清晰可辨的风机编号、型号和产品序列号（即每台机器的唯一身份证明），从而可保证客户方便地查询配件的历史记录。
Aluminum nameplate permanently fixed on fan casing shall include clear fan factory number, product model and serial number. The serial number shall be a unique ID for each fan, so that the customer can use this number to find out the parts used to build this fan.

• 可接受供货商
Acceptable Manufacturers

可接受供货商的资信等级为AAA级，英飞或类似产品，设计基于英飞YFPIJ型号。
Qualified suppliers shall have an AAA credit rating, providing INFINAIR® or similar products, with their design based on YFPIJ models of INFINAIR®.

YFPIM

• 风机类型
Fan Type

风机应由电机直联驱动，采用铝制轴流式叶轮，风机段两端应安装有管式消音器，消音器与风机段采用高强度螺栓连接，为确保运行安全，风机进风口应安装有钢制安全防护网。

The fan shall be directly driven and be composed of axial airfoil blade impeller and streamlined air deflector on both sides of impeller and silencers collected to both sides of fan housing with high strength bolts. Safe guards shall be mounted on both inlet and outlet of the fan to ensure safe running.

• 风机外壳
Fan Housing

风机风筒应采用优质钢板经滚圆、连续焊接后旋压翻边制成。风筒与电机支架采用整体焊接结构，确保有足够的强度与刚度，足以承受运转产生的动负荷。

The fan shell shall be in quality steel and continually welded with flanges turned up using special flange machine. Motor brackets shall be continually welded to fan casing to ensure high strength and stiffness to support dynamic loads.

• 消音器
Silencers

消音器应为两层圆筒结构，内层应为穿孔板，外层应采用优质钢板滚圆、焊接而成；中间填充专用吸音棉材料，该材料应具有阻燃特性，无虫害危险，能抗潮湿。

Silencers shall be installed on both sides of fan shell. It has two cylinder structure layers consisting of inner perforated plate and outer steel shell, and the middle filled with special superfine glass fiber material which has flame retardant properties, without pest risk and anti damp.

• 表面处理
Surface processing

风机外壳应进行静电粉末喷涂处理；喷涂后的表面光泽应大于或等于70%，应无凹凸、流挂、裂纹、皱皮、脱落现象。

The fan shall be made of steel with epoxy powder coating, having glossiness no less than 70% after coating and shall be no unevenness, sag, fissure, crackle, or shedding.

• 电机
Motor

电机应与风机负载紧密配合，防护等级IP54，绝缘等级F。电机轴承应为滚珠轴承并且免润滑。电机引出电缆线应接至风机圆筒上的接线盒内，方便接线。

The motor shall bear the fan load well, IP 54, and insulation Class F, with balling bearings for free lubrication. Motor extension leading wire shall be collected to junction box outside of fan casing for convenient wiring.

• 铭牌
Nameplate

永久固定的铝制标牌上应有清晰可辨的风机编号、型号和产品序列号（即每台机器的唯一身份证明），从而可保证客户方便地查询配件的历史记录。

Aluminum nameplate permanently fixed on fan casing shall include clear fan factory number, product model and serial number. The serial number shall be a unique ID for each fan, so that the customer can use this number to find out the parts used to build this fan.

• 可接受供货商
Acceptable Manufacturers

可接受供货商的资信等级为AAA级，英飞或类似产品，设计基于英飞YFPIM型号。

Qualified suppliers shall have an AAA credit rating, providing INFINAIR® or similar products, with their design based on YFPIM models of INFINAIR®.

飞鹰服务
Eagle Service

