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Catalog YFIMF REV.1 April 2018





### 公司介绍

秉承绿色环保与智能互联的未来发展理念,英飞风机始终坚持在通风领域,坚持不懈投入研发,并以"可靠便利,环保节能,智能互联"作为我们试图为您创造的核心价值。

成立时间:2003年9月 占地面积:33,000 m²

地址:上海市外冈镇清能路55号

#### 服务网络:

公司的营销和服务网络覆盖全国,包括上海、北京、深圳、吉林、辽宁、天津、山西、河南、陕西、山东、江苏、安徽、浙江、福建、重庆、四川、湖南、湖北、广东、广西、海南、贵州、新疆等地区,为客户提供及时的技术支持和可靠的售后服务。

#### 公司愿景:

成为最值得信任的专业空气运动与控制、调节品牌

#### 公司使命:

提供最可靠、便利的空气运动与控制、调节服务

#### 荣誉资质:

高新技术企业

上海市著名商标: INFINAIR®英飞

上海市名牌产品

SGS ISO 9001、ISO 14001、OHSAS 18001管理体系认证

#### 技术实力:

英飞空气动力实验室,荣获CNAS(中国合格评定国家认可委员会)国家实验室认可中国大陆首家荣获AMCA(国际空气运动与控制协会)认可的实验室众多产品具备国际AMCA认证、TUV认证、CE认证,国家防爆及消防认证等



#### **Company Info**

INFINAIR is an innovative company which provides environmental and intelligence solutions for all aspects of ventilation systems in both private and public sector. They have been INFINAIR's core values and commitments to our customers over the years.

Established: September, 2003

Area: 33,000m<sup>2</sup>

Company Address: 55 Qingneng Road, Waigang Town, Jiading District, Shanghai, China PRC.

#### Sales & Service Office:

Our sales and after-sale service network promise easy access to customers anywhere in mainland China. They are located in various locations:

Shanghai, Beijing, Shenzhen, Jilin, Liaoning, Tianjin, Shanxi, Henan, Shaanxi, Shandong, Jiangsu, Anhui, Zhejiang, Fujian, Chongqing, Sichuan, Hunan, Hubei, Guangdong, Guangxi, Hainan, Guizhou and XinJiang.

#### **Company Vision:**

To be the most trusted brand in ventilation industry.

#### Company Mission:

Provide reliable, convenient air movement controls, operations and services.

#### Awards and Achievements:

High-tech Enterprises

Renowned Shanghai trademark: INFINAIR®英飞

Famous Shanghai brand name

SGS ISO 9001, ISO 14001, OHSAS 18001 Management Certificates

#### Technological Strength:

INFINAIR's Air Movement & Sound Laboratory is the first Air Movement and Control Association (AMCA) accredited laboratory in mainland China

It is also certified by Chinese National Accreditation Service for Conformity Assessment (CNAS).

Most of the INFINAIR's products are tested and certified by many international certification bodies such as AMCA, TUV, CE, CCC, CNEX, etc.



中国合格评定国家认可委员会(CNAS) 国家实验室认可



Certified by Chinese National Accreditation Service for Conformity Assessment (CNAS)



从可实验室 AMCA(Air Movement and Control Association) accredited laboratory

#### 英飞智能通风技术

智能需求感知:随荷载变动、环境变化动态确定运行目标。

智能工况调整:变频技术与永磁同步技术在智能调速软件的动态控制下,紧密贴近真实需求。

**智能实时通讯:**通过多种通讯技术,链接互联网或局域网,实现与中控系统及移动终端的智能通讯。

智能预警:可靠的传感器提供了故障的早期征兆,实现智能预警,保证系统稳定运行。

#### 飞鹰服务

●联合研发:通过与客户共同开发,以及质量的先期策划,来快速提供真正有效的解决方案。

● **配套定制**:我们的定制服务通过渐进明晰的过程,帮助您找到精确的需求。

●敏捷服务:遍布全国的英飞售后服务工程师,敏捷提供专业服务。

#### 绿色智能环保技术

● 流场模拟分析技术:

对叶轮气动模型的性能(风量,风压,功耗,噪音)预测提供模拟计算,不必制作样机而预知性能,快速优化。

● 有限元分析技术:

针对受力和材料特性进行结构可靠性分析。

#### 英飞仿生技术

英飞节能仿生

鹦鹉螺为什么可以轻松浮动和游走?鸟类是如何以极低的能耗翱翔干里?

●英飞降噪仿生

猫头鹰的静音飞行,为什么敏感的老鼠也毫无察觉? 自然界生物在千万年进化过程中,如何节约能量进行迁徙,或者在 抓捕猎物的时候做到悄无声息?

仿生技术对于英飞风机的研发,提供了重要的灵感。

#### 英飞智能制造技术

- ●智能化生产流水线
- ●在线测功、动平衡和通讯检测
- ●机器人焊接工艺
- 敏捷的精益生产
- 6Σ体系

#### 认证及检测

●产品普遍通过国际认证:

CCCf, AMCA, TUV, UL, RoSH, Erp2015等

●性能及可靠性产品检测:

风量,风压, 功率,噪音, 高低温交变,盐雾,淋雨等。 物联

●矩阵互联

中控互联∮终端互联

#### **INFINAIR's Intelligent Ventilation Technology**

#### Intelligent Adaption:

We can quickly adapt to changes in the business environment.

#### • Intelligent Adjustment:

The combined use of Inverter and permanent magnet synchronous technologies can achieve best results with the use of logic controller.

#### Intelligent Real-time Information:

Individual workstations are linked to the central control system through internet or local area network

#### Intelligent Detection system:

Reliable sensors can detect early symptoms and notify the user. Ensuring stable operation.

#### **INFINAIR's After-sales Service**

#### Joint Research & Develop

The Joint R&D can provide customer the necessary support and guidance during the initial research progress

#### Customization

Our products are fully customizable. We are able to satisfy customer requirements on an individual basis

#### **Green Smart Technology**

#### CFD Simulation & Analysis

A computer-aided air movement simulation model which can calculate the efficiency of the fan based on thenumber of blades, blade angle, width, and noise level.

#### • Finite Element Analysis Technology

To analyze and provide accurate prediction of how material is likely to respond when subjected to structural and/or thermal loads.

#### **INFINAIR's Bionic Technology**

#### • INFINAIR's Bionic Energy Conservation

We develop energy saving products by observing behaviors from the animal kingdom. For example, birds can glide for thousands of kilometers without flapping.

#### • INFINAIR's Bionic Noise Reduction

Why Owls can fly so silently? Even mice are not being able to detect their approach?

The research and development of INFINAIR's products are heavily inspired by the animal evolution over the past millenniums. We have learnt how energy and sound are being able to conserve from their amazing changes .

#### **INFINAIR's Intelligent Fabrication**

- Intelligent fabrication process
- Capable to carry out online performance, balance level and communication testing.
- Robotic welding technology
- Agile Manufacturing, responds quickly to customer desires
- 6ΣSystems

#### **Certifications and Testing**

 Most of the products are certificated by: CCCf, AMCA, TUV, UL, RoSH and Erp2015

Performance and Reliability Testing:
 Air Volume, Air Pressure, Power, Noise

Level, Temperature Deviation, Corrosion and Water Proof Test, etc

#### Connectivity

Matrix Connection

Central Connection

• Terminal Connection





#### "猎风者"系列全混流叶轮

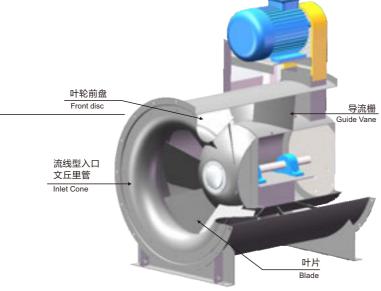
'Wind Hunter" series Mixed Flow Impeller

#### 全新的叶轮形式 Brand New Impeller Design

全混流叶轮自带与入口文丘里管精密配合的前盘,减少气流泄漏和紊流,提升效率、降低噪声。

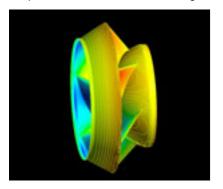
The inlet bell and the shroud cover are precisely connected, minimizing the backflow and leakage caused by pressure difference.

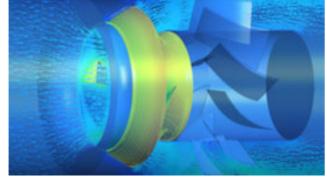




#### 先进的设计方法 Advanced Design

采用CFD流场模拟与实验验证的方法,反复优化的气体流道设计,使得该系列叶轮效率较传统混流叶轮大幅提升。Unique airflow characteristics. Our engineers have repeatedly optimized the wheel with countless CFD simulations.





#### 先进的加工工艺 Advanced Fabrication

叶轮及过流部件采用模具成型,专机定位连续焊接,强度高,定位准确,确保加工的精度,产品性能更可靠。
The wheel and other fixtures are made from a special designed mold and are continuously welded. Ensuring maximum strength is maintained.

#### 高平衡等级 High Balancing Level

叶轮经过两次动平衡校验,分别是在焊接完工后及表面环氧喷涂处理后,其平衡等级高达G2.5 (AMCA 204标准),远高于国标要求的G6.3等级,大幅提升叶轮运转的平稳性,降低振动和噪声。

The balancing level of the wheel is up to G2.5 (AMCA 204) which is much higher than the standard G6.3 required internationally. Stability is greatly increased thus lowering the vibrations and noise.

#### 最佳的声音特性

#### Lowest Noise Level

性能介于轴流与离心叶轮之间的全混流叶轮,我们通过AMCA噪声实验室(AMCA 300标准)检验发现,全混流拥有最佳的声音特性,人耳感受更轻。

The YFIMF has the lowest noise level over the axial and the centrifugal fan.

# 产品特点 Product Characteristics

#### 全混流的性能特性 Performance Characteristics

全混流的性能介于轴流与管道离心风机之间,区别于传统混流偏轴流的性能特性,拥有更高的效率和更低的噪声,与管道离心式相比,风量更大,与轴流式相比,压力更高。在图示AB区间选型时,相同转速下全混流比管道离心式机号小,在相同机号下全混流比轴流式转速低。

The mixed flow fan has larger air volume over the centrifugal fan and higher air pressure over the axial fan. When placing them under the same working conditions, the mixed flow fan has more advantages over the others in terms of performanceand noise level.

#### 高效率,大大节省运行成本 High Efficiency

通过反复优化的叶轮以及内风筒上导流栅的设计,确保气体在输送过程中拥有最佳的流动特性,减少紊流、泄漏损失,提升效率。

获得AMCA能效认证和中国能效等级1级认证。

The design of the wheel and guide vane has been repeatedly optimized to assure high efficiency, leakage free and low turbulence.

The models IMF shown herein are licensed to bear the AMCA seal and rating 1 of China Energy Label.

# 知流式 Axial 「传统半混流 Traditional half mixed flow 「全混流 Fully mixed flow 「高心士 Centrifugal T况位于A点和B点之间, 全混流是最佳选择

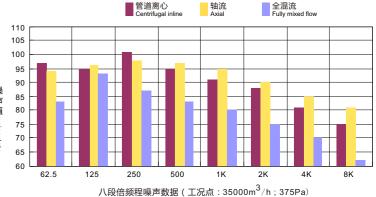




#### 完美的声音品质:低频,更安静 Better Sound Proofing

全混流风机的静音品质来源于它的气动结构设计以及总声功率及的衰减。如图,基于同等出风口尺寸的工况选型,全混流风机在各个频率段噪声都远低于轴流和双进风离心风机箱,且噪声值主要集中在低频区域(62.5-250Hz),人耳感觉更柔和和安静。

The noise of the mixed flow fan is determined by its structural design and changes in acoustical power (see fig. below). The noise generated in each air volume segment is much lower than the axial and centrifugal fan with low acoustical level (62.5-250Hz).



八段倍频桯噪声数据(工况点:35000m~/h;375Pa Octave band ( operating point: 35000m³/h @ 375Pa)



#### 直联、皮带全系列,选型更灵活

#### Flexible Direct or Belt drive Option

直联型每个规格有6种不同叶轮角度的叶轮可选,满足多样化参数选型的需要,且拥有更高的传动效率、无易损件,维护率低、结构紧凑、节省安装空间的特点。

皮带型通过自动配比使选型更优、更精确,可根据现场需要灵活调节,电机维修更换更便捷。

Direct drive type has six different blade angles available for selection. A solid low maintenance product designed for delivering efficient air flow.

Belt drive type has effective blade angle. Since the motor is located outside, maintenance work or replacement can be carried out easily.

#### 产品功能全、应用广 Comprehensive Functionality

功能:普通送排风、防爆送排风、消防排烟、实验室排风等。

安装:座地安装、吊装、屋顶安装。

It can be used in normal air delivery, explosion resistant, fire & smoke or static-free application.

#### 专利和认证

#### **Patent and Certifications**



国家专利产品 lational Patented produ



国家消防认证(CCCf) CCCf China Compulsory certificate



国家防爆认证 ( CNEX) CNEX China explosion resistant certificate

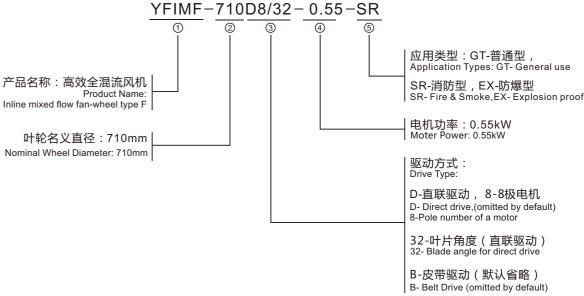


AMCA声音、空气动力性能 及效率等级认证 AMCA Sound and Air Movement certificate



南德消防认证(TUV) 300℃ 120分钟 TUV SUD Fire & Smoke certificate





# 可选附件 Optional Accessories

#### ● 电机防雨罩 ( 仅适合皮带传动型 ) Rain Cover (Belt drive type only)

室外用,环氧喷涂处理,有效防止雨雪侵入电机,隔离电机噪声;

For outdoor use only. The rain cover is epoxy coated It can effectively prevent water from getting inside and is able to reduce noise generated from the motor efficiently.

#### ● 检修开关 Service Switch

安全检修开关可用在维护风机时可靠切断电源,确保人身安全;

It is designed like a master switch for shutting off all power when necessary.

#### ● 减振器 Vibration Isolators

减振器可选吊装或座地安装型,材料可选丁氰橡胶或弹簧;

Rubber or spring vibration isolator. It can either be base-mounted or ceiling hung.

#### ● 软接头和对法兰 Flexible Connector and Companion Flange

进出风口软接头和对法兰,方便现场安装配置;

Inlet/ outlet flexible connector and companion flange. Provide handy solution for on-site installation.

#### ● 进出风口防护网 Inlet/Outlet Guard

保证风机运行安全,防止风机运转时造成人身伤害;

Prevent accidental injuries while the fan is in operation.

#### ● 全封闭皮带护罩 Totally Closed Belt Guard

保证风机运行安全,防止风机运转时造成人身伤害;

Prevent accidental injuries while the fan is in operation.

#### ● 指定颜色 Colors

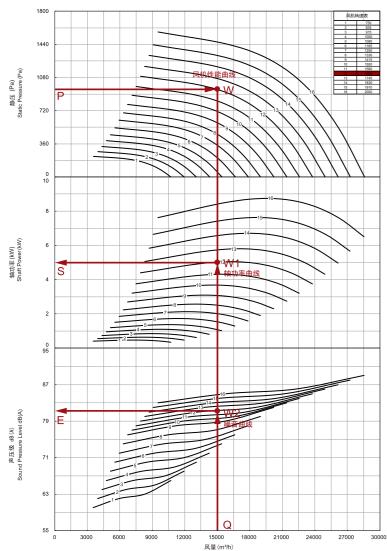
可根据客户需求进行喷涂颜色的选择,与安装现场搭配更协调。

Different color coating can be selected according to customer's installation requirement.

#### 曲线说明

Curve Explanation

- 每个型号风机由一组曲线表示不同传动方式的不同转速下的性能。 The performances of fan of each model in different drive modes at different speeds are represented by a group of curves.
- 静压曲线显示不同风量和转速下风机的静压。
   Static pressure curve indicates static pressures of the fan at different volumes and speeds.
- 轴功率曲线显示风机实际耗用的电能。 Shaft power curve indicates practical power consumption of fan.
- 声压级曲线显示距离风机1.5米的噪声。
   Sound pressure level curve indicated the noise level at 1.5 meter distance.



曲线选型举例:风量:15,000m³/h 静压:950Pa

第一步: 先预选定满足给定风量的风机型号,自给定的风量(图 Q点:15,000m³/h)出发作垂直线,自给定静压点(图P点:950 Pa)作水平线,其交点(图W点)即为"工作点",寻找离该点最接近的性能曲线(图No.12静压曲线),其转速为1,665转/分钟。如"工作点"离性能曲线较远,请选择其他型号重复"第一步"直到找到比较接近"工作点"的性能曲线。

第二步:该垂直线与相应转速的轴功率曲线的交点(图W1点), 自此交点(图W1点)作水平线与轴功率轴相交,其交点(图S点):约为5.02kW,即为实际功耗,代表工作所需的电能,根据功率储备系数(选择1.15)计算出所需功率5.77kW,根据所需功率应选择7.5kW电机。

**第三步:**该垂直线与相应转速的声压级曲线的交点(图W2点), 自此交点(图W2点)作水平线与声压级轴相交,其交点(图E点:约为81dB(A)),即为W工作点的噪声。

**第四步:** 根据上述步骤,该型号初步选定为YFIMF-710-7.5,转速为1,665RPM。如果希望更低的功率,可参考较大型号的风机进行比较,但初期投资会增加。

**第五步:**如果需求参数改变风量为17,500  $m^3/h$ 、静压为950Pa,则容易发现W点距离1,745RPM曲线很近,进一步按箭头查找。

**备注:**储备系数由选型人员根据实际需求自己决定,一般取值1.15。

 $\hbox{\it Curve examples:}$ 

Volume: 15,000m³/h Static pressure: 950Pa

**Step 1:** Select the fan model according to the air volume and the pressure given. Draw a line vertically upwards from the given volume (Pt. Q, 15,000 m³h); then draw a line across towards the "Static Pressure" (Pt. P, 950Pa). The intersection (Pt. W) from both lines is the operating point.

Step 2: drawing a line from the intersection point (Pt. W1) across to the shaft power, calculating needed motor power of 7.5kW, the intersection point (point E in the figure: about 5.02kW) is practical power consumption required for operation.

Step 3: drawing a horizontal line from an intersection point (point W2 in the figure) between the vertical line and Sound pressure level of corresponding rotating speed in a way of intersecting with Sound pressure level, wherein the intersection point (point S in the figure: about 81dB(A)) is the noise level of operating point W.

Step 4: initially selecting the model of YFIMF-710-7.5, the rotating speed of 1,665RPM according to the steps above. If lower power is required, comparison can be made in reference to fan of large model, but initial investment will be increased.

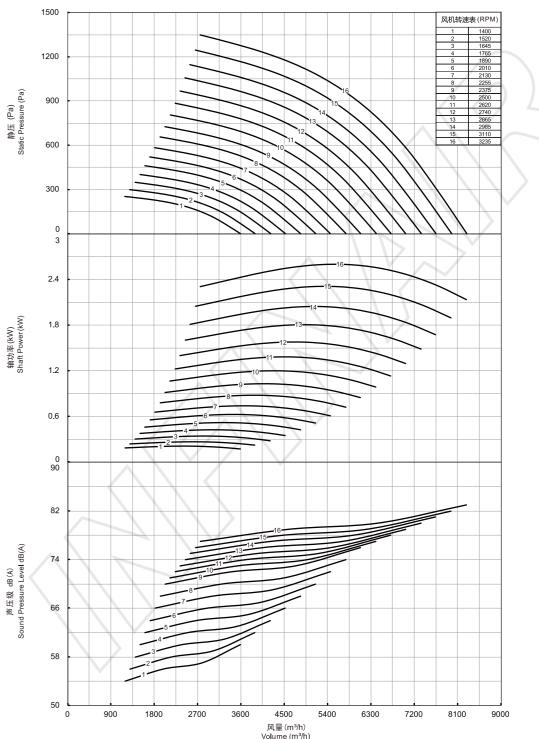
Step 5: further searching according to the arrow. If required parameter change flow is 17,500m³/h and static pressure is 950Pa, the distance between point W and 1,745RPM curve is very small.

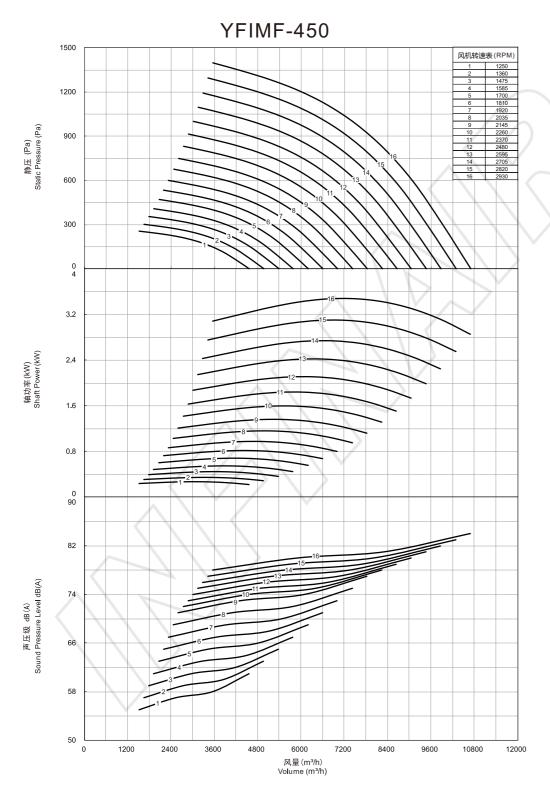
Remark: Coefficient of power reserve is decided according to practical requirement of pattern selection personnel, and is generally 1.15.

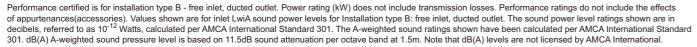
# 性能曲线 Performance Curve

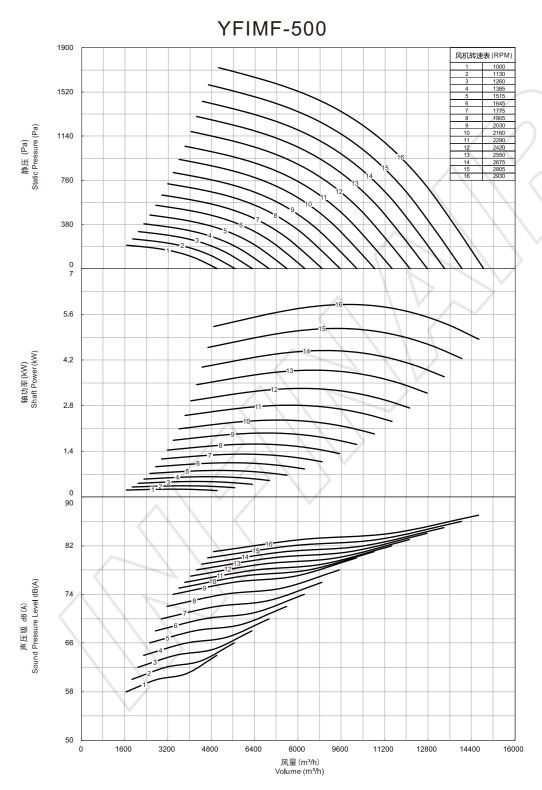
#### 带联型Belt Drive



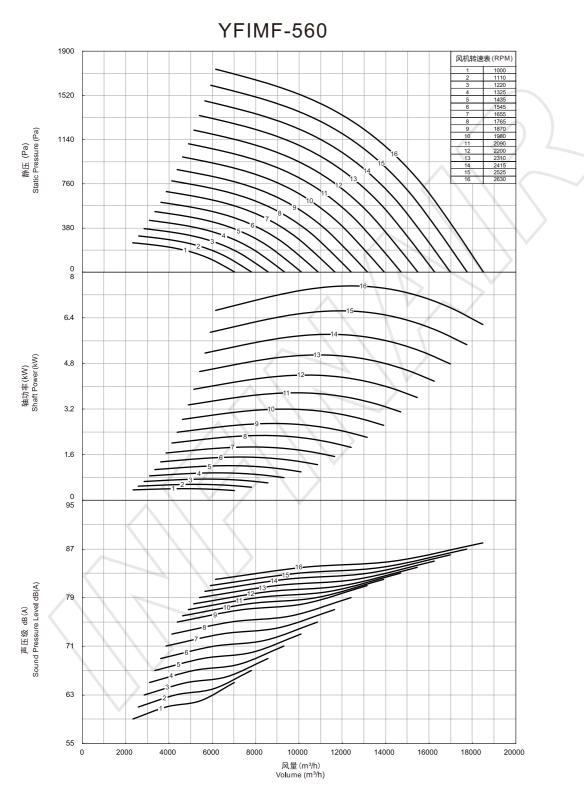


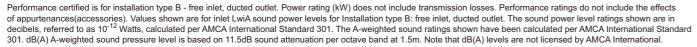


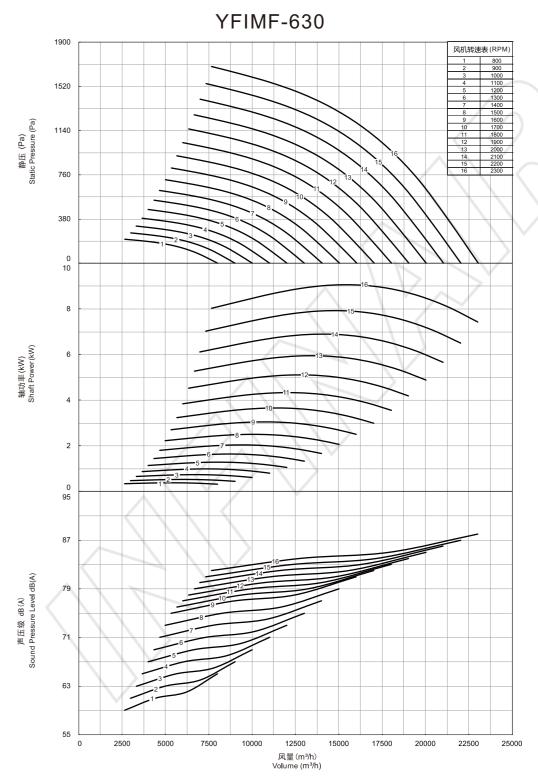




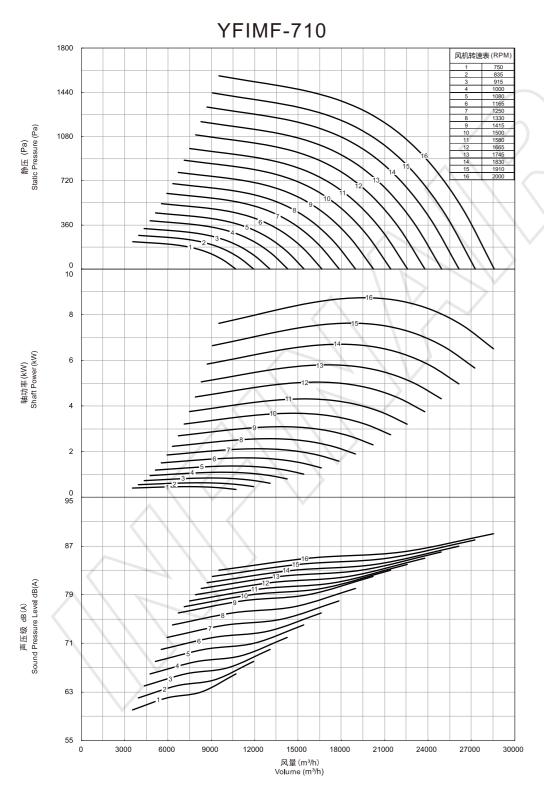
Performance certified is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances(accessories). Values shown are for inlet LwiA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10<sup>-12</sup> Watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. dB(A) A-weighted sound pressure level is based on 11.5dB sound attenuation per octave band at 1.5m. Note that dB(A) levels are not licensed by AMCA International.

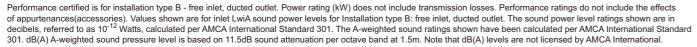


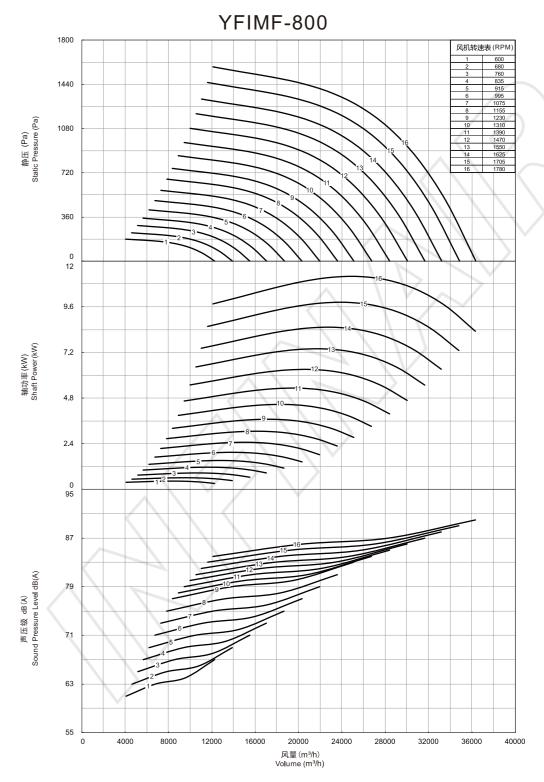




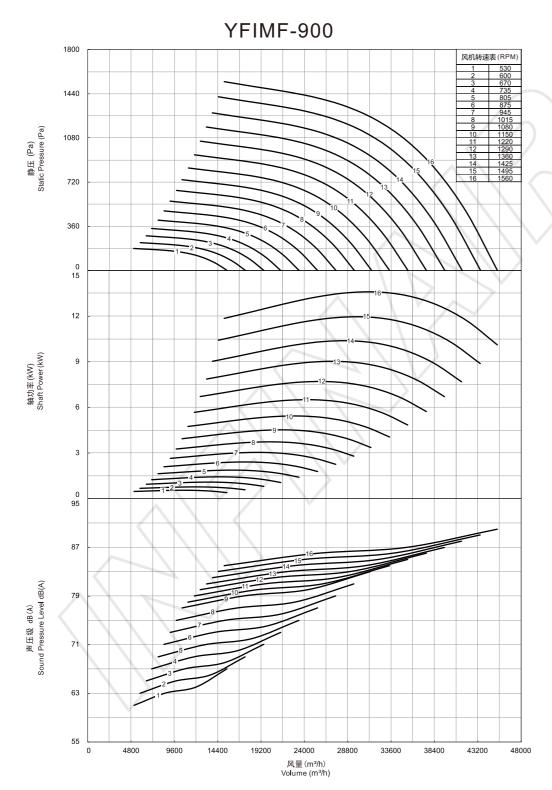
Performance certified is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances(accessories). Values shown are for inlet LwiA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10<sup>-12</sup> Watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. dB(A) A-weighted sound pressure level is based on 11.5dB sound attenuation per octave band at 1.5m. Note that dB(A) levels are not licensed by AMCA International.



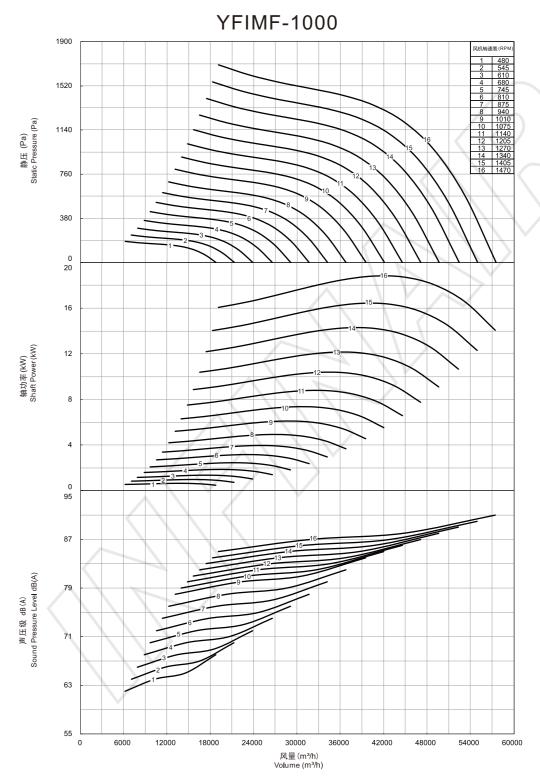




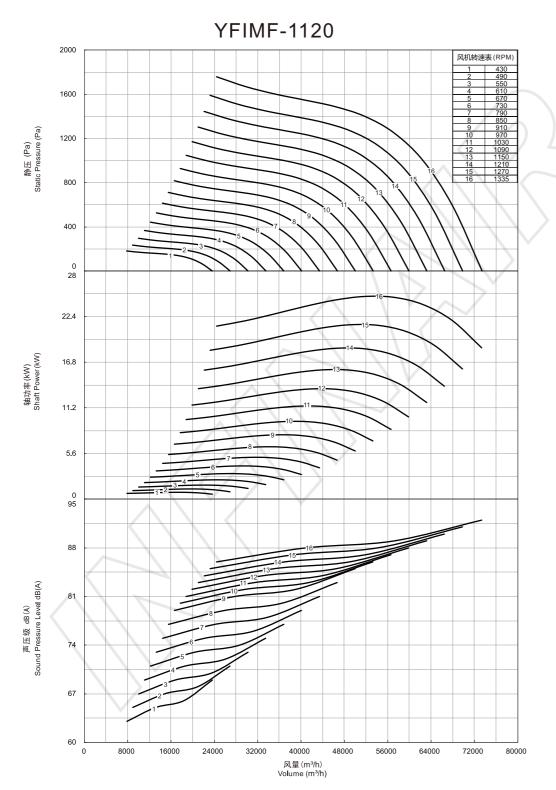
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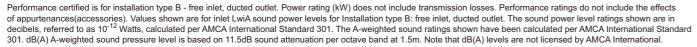


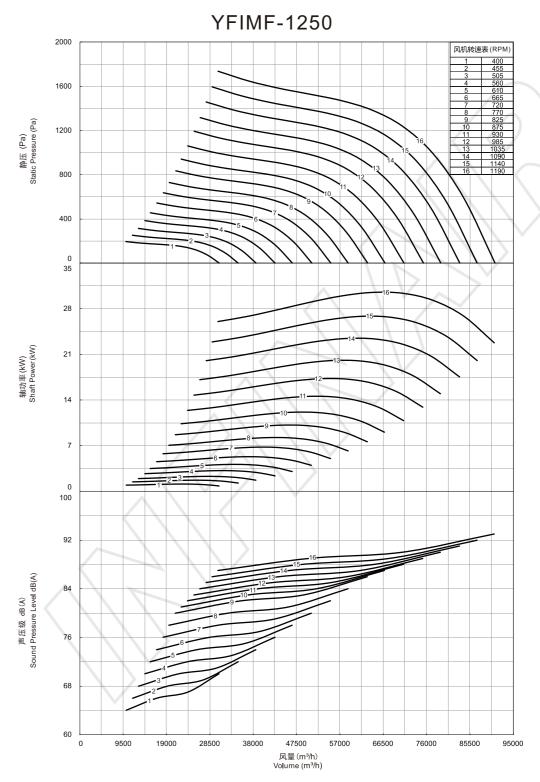
Performance certified is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances(accessories). Values shown are for inlet LwiA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10<sup>-12</sup> Watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. dB(A) A-weighted sound pressure level is based on 11.5dB sound attenuation per octave band at 1.5m. Note that dB(A) levels are not licensed by AMCA International.



Performance certified is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances(accessories). 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<sup>-12</sup> Watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. dB(A) A-weighted sound pressure level is based on 11.5dB sound attenuation per octave band at 1.5m. Note that dB(A) levels are not licensed by AMCA International.

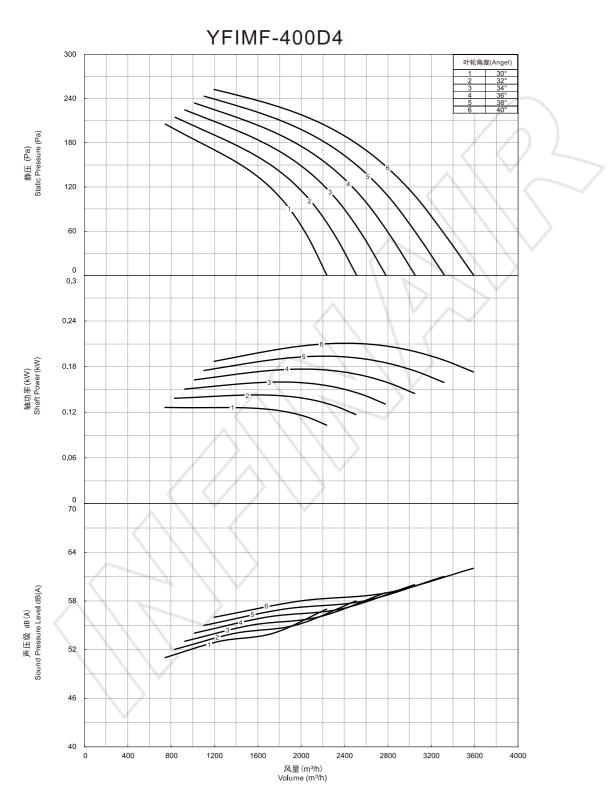




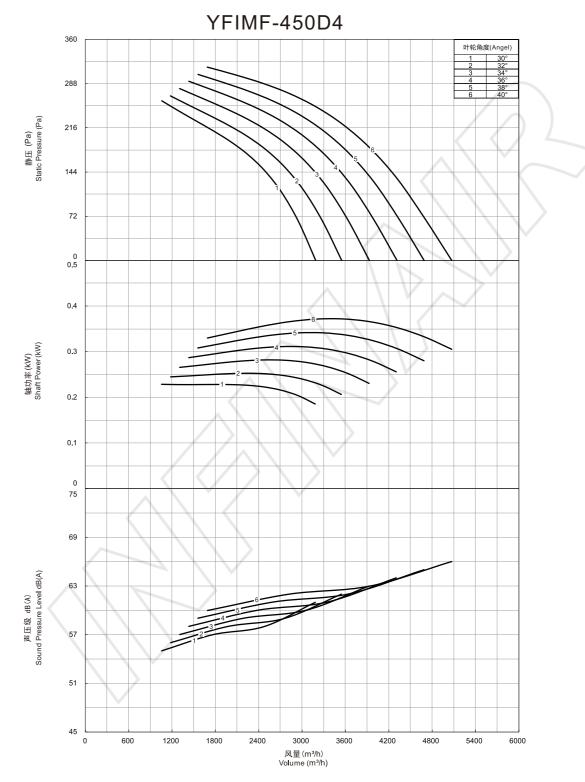


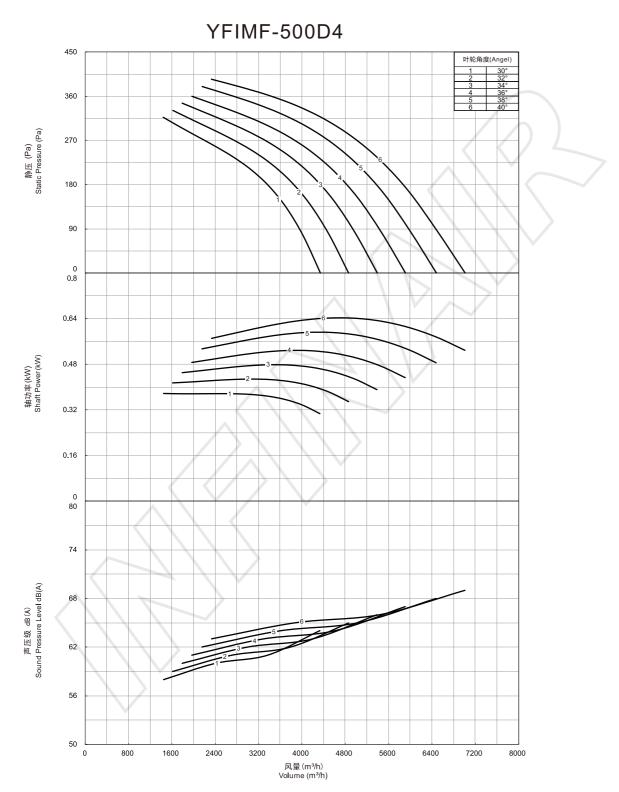
Performance certified is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances(accessories). Values shown are for inlet LwiA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10<sup>-12</sup> Watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. dB(A) A-weighted sound pressure level is based on 11.5dB sound attenuation per octave band at 1.5m. Note that dB(A) levels are not licensed by AMCA International.

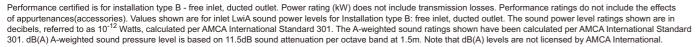
## 直联型 Direct Drive

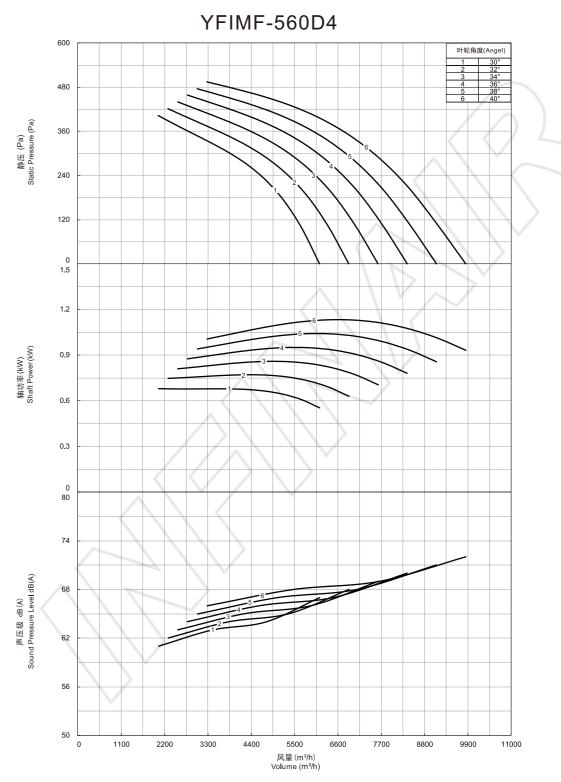


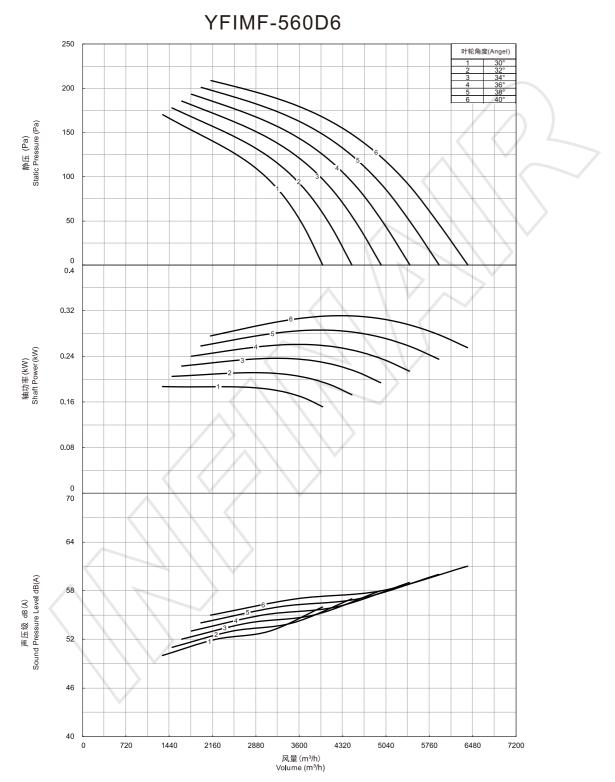
Performance certified is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances(accessories). Values shown are for inlet LwiA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10<sup>-12</sup> Watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. dB(A) A-weighted sound pressure level is based on 11.5dB sound attenuation per octave band at 1.5m. Note that dB(A) levels are not licensed by AMCA International.

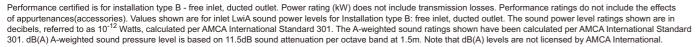


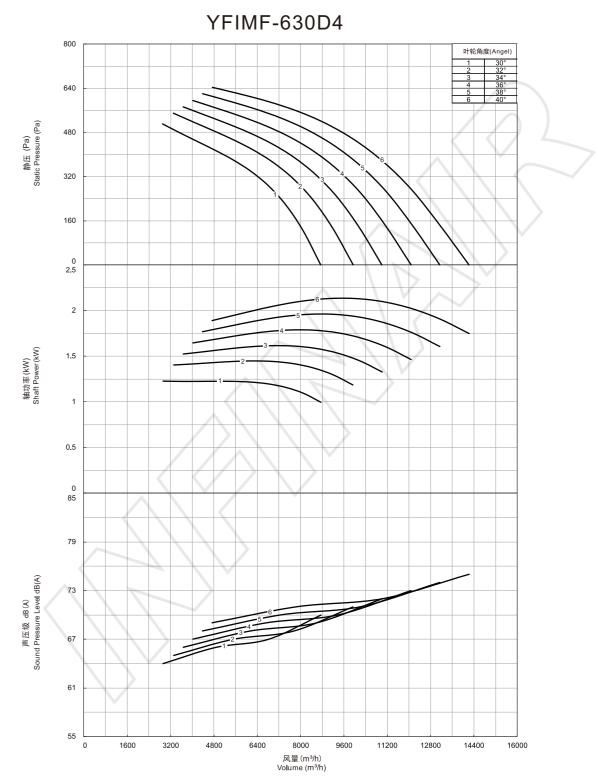


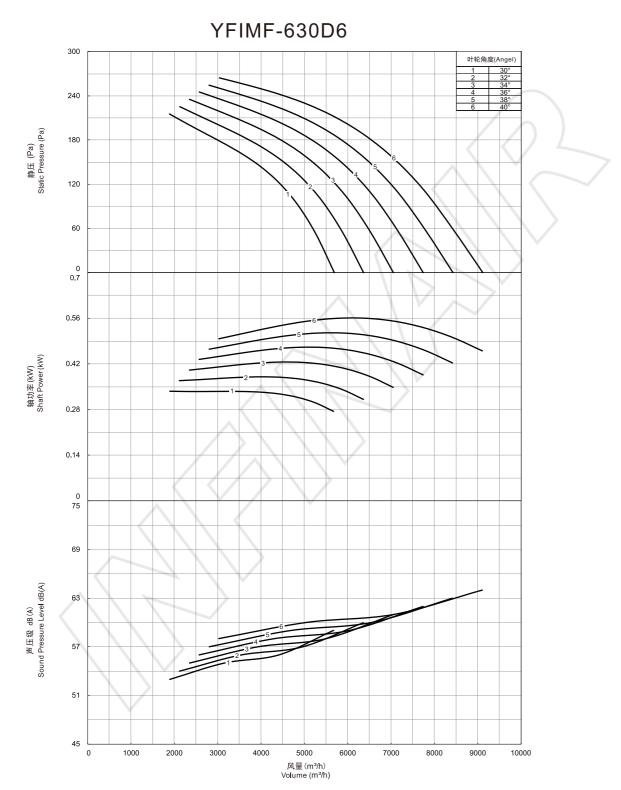


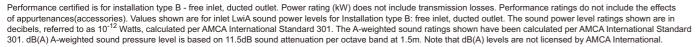


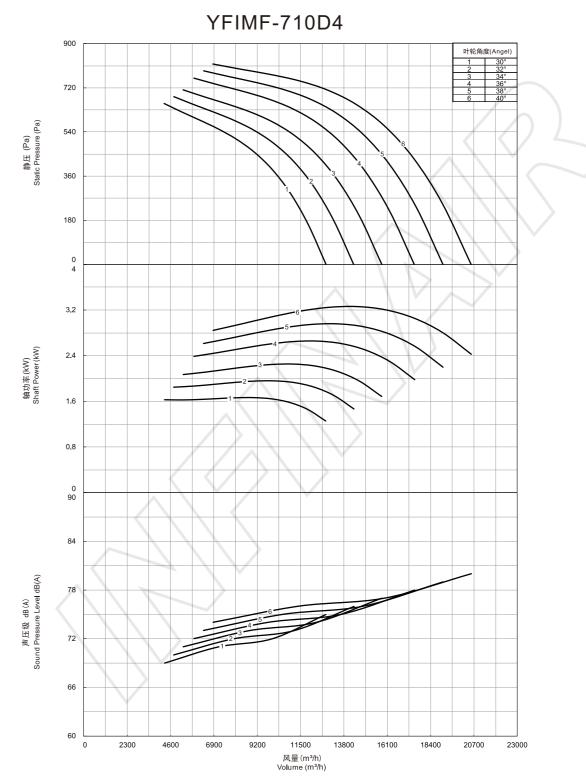


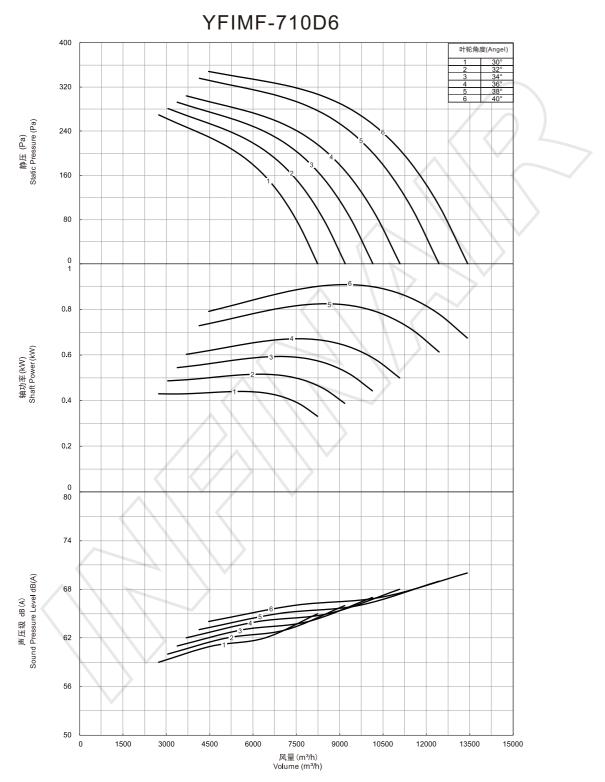


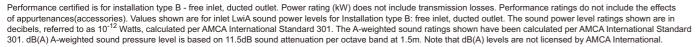


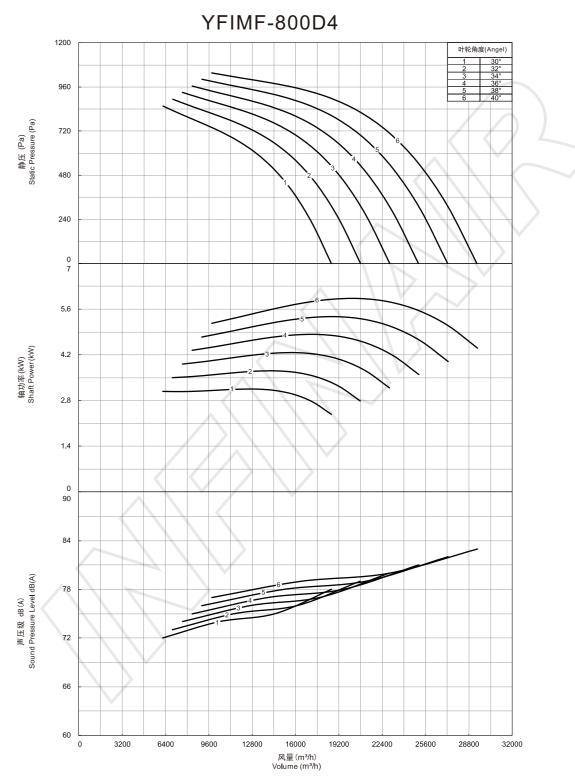


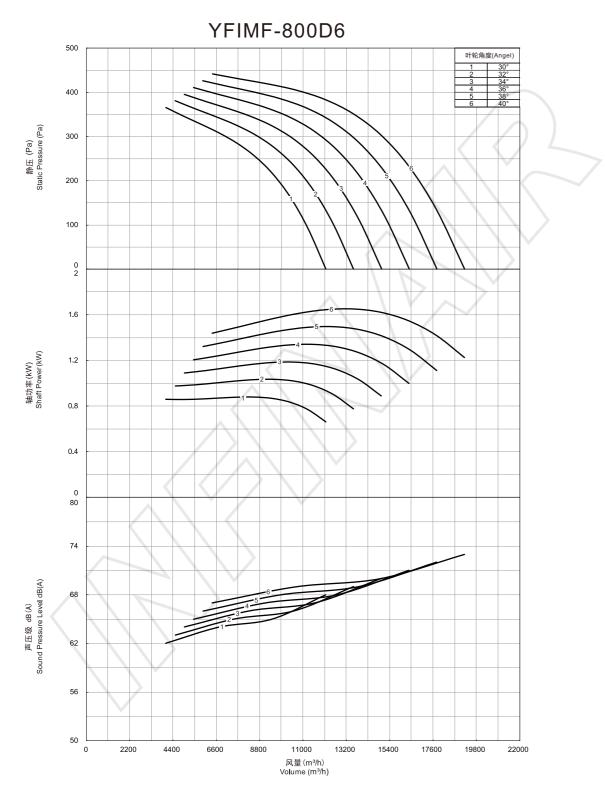


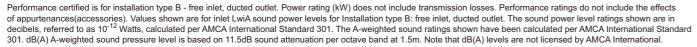


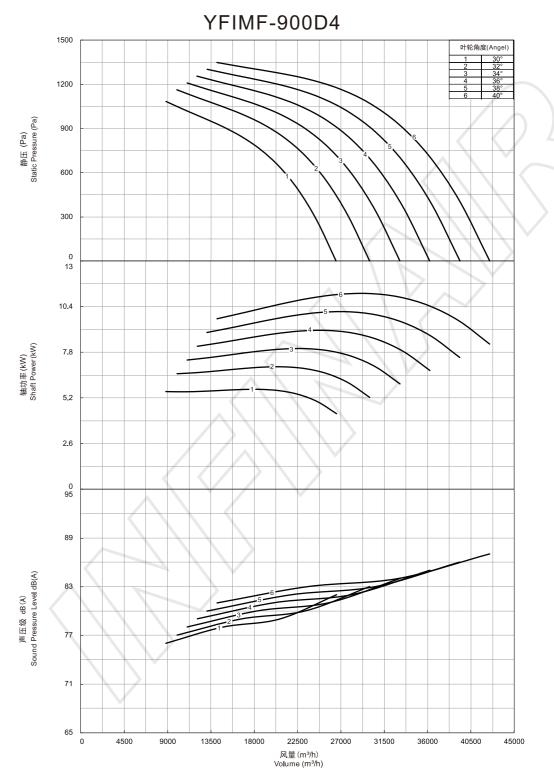




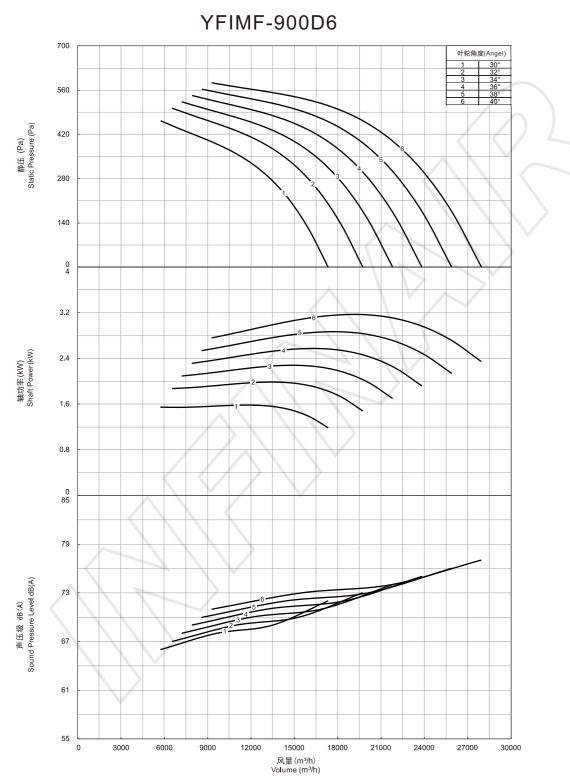


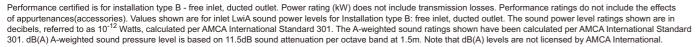


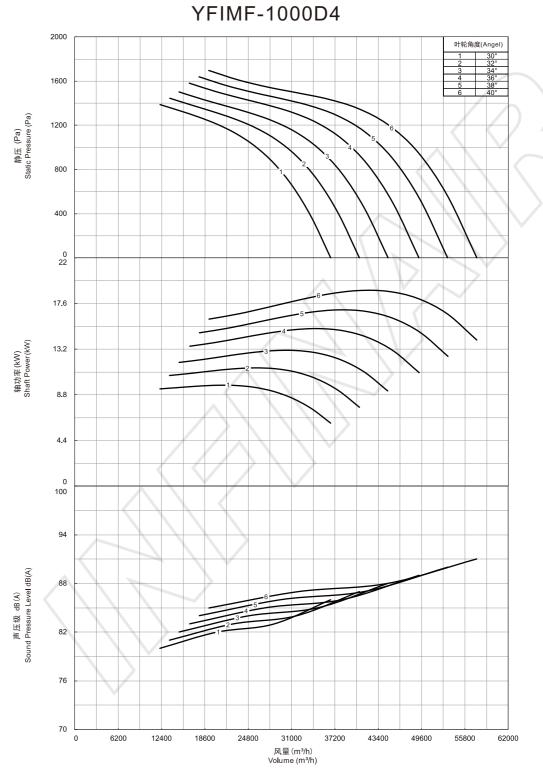


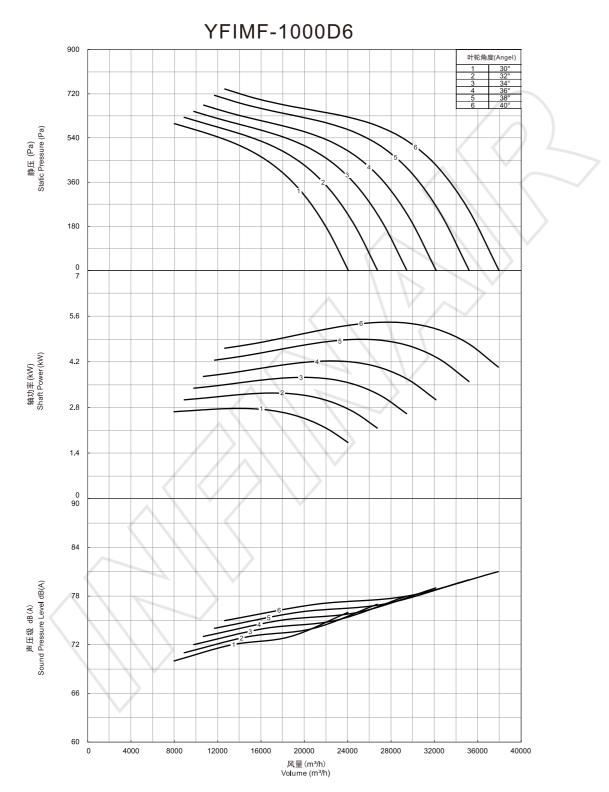


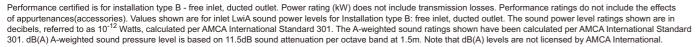
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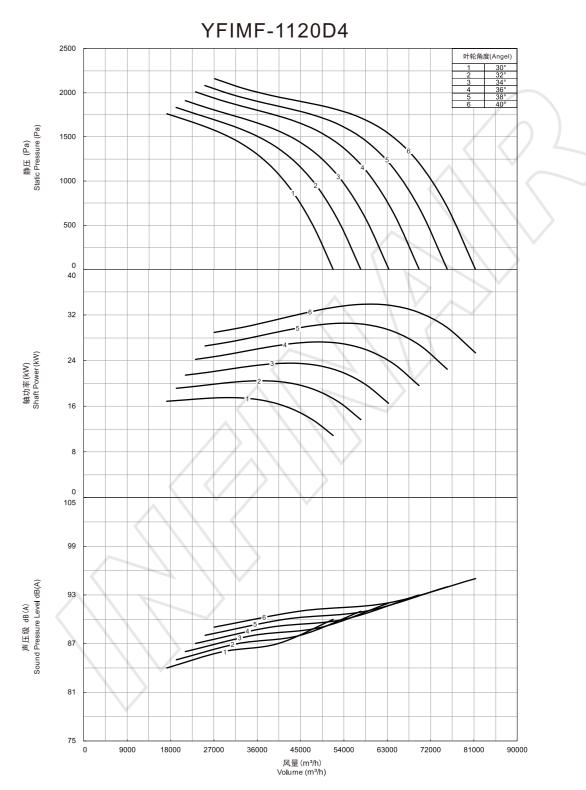




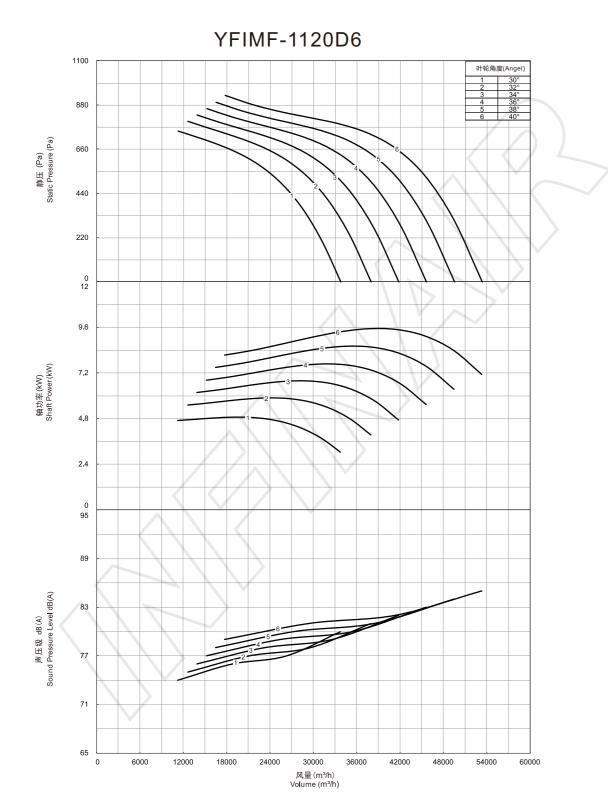






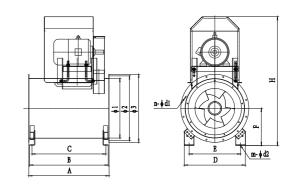


Performance certified is for installation type B - free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances(accessories). Values shown are for inlet LwiA sound power levels for Installation type B: free inlet, ducted outlet. The sound power level ratings shown are in decibels, referred to as 10<sup>-12</sup> Watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. dB(A) A-weighted sound pressure level is based on 11.5dB sound attenuation per octave band at 1.5m. Note that dB(A) levels are not licensed by AMCA International.



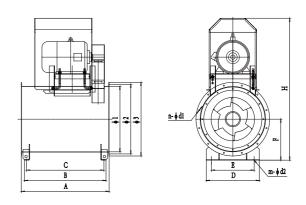


# YFIMF-400~500 带联座装 YFIMF-400~500 Belt drive (Base Mount)



型 <del>号</del>								外	形尺寸	外形尺寸Dimension														
坐亏 Model	φ1	φ2	φ3	Α	В	C	D	Е	F	H(max)	n - <b>φd1</b>	m - <b>φ</b> d2	重量 (kg)											
YFIMF-400	450	494	530	640	624	580	494	404	309	1051	8 - Ψ12	4 - Ψ18	66											
YFIMF-450	510	554	590	715	699	655	538	448	331	1117	8 - Ψ12	4 - Ψ18	77											
YFIMF-500	560	604	640	755	739	695	574	484	349	1212	8 - Ψ12	4 - Ψ18	94											

# YFIMF-560~1250带联座装 YFIMF-560~1250 Belt drive (Base Mount)



型号 -		外形尺寸 Dimension														
Model	φ1	φ2	φ3	А	В	С	D	Е	F	H(max)	n - <b>φd1</b>	m - <b>φ</b> d2	重量 (kg)			
YFIMF-560	630	674	710	845	785	745	550	450	395	1379	12 - Ψ12	4 - φ18	127			
YFIMF-630	712	754	792	940	880	840	620	520	435	1442	12 - Ψ12	4 - Ψ18	169			
YFIMF-710	809	854	889	990	940	890	700	600	485	1565	12 - Ψ12	4 - φ18	193			
YFIMF-800	910	954	990	1110	1020	970	790	690	535	1683	16 - Ψ14	4 - φ18	234			
YFIMF-900	1017	1059	1097	1255	1165	1115	890	790	590	1803	16 - Ψ14	4 - φ18	299			
YFIMF-1000	1130	1182	1230	1300	1180	1130	990	870	655	1986	16 - <i>Φ</i> 14	6 - Ψ18	386			
YFIMF-1120	1270	1322	1370	1450	1330	1280	1110	990	725	2216	20 - Ψ14	6 - Ψ18	499			
YFIMF-1250	1421	1472	1521	1630	1510	1460	1240	1120	800	2432	20 - Φ14	6 - Ø18	627			

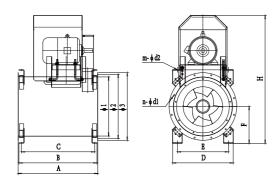
- 注:1.尺寸数据仅供参考,以工厂确认图纸为准。
  - 2. 以上风机重量未包含电机。

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.

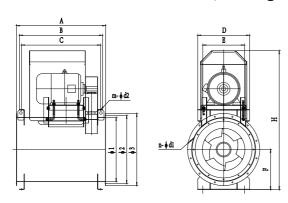


# YFIMF-400~500带联吊装 YFIMF-400~500 Belt drive (Ceiling Hung)



型号 Model		外形尺寸 Dimension														
Wiodei	φ1	φ2	φ3	Α	В	С	D	Е	F	H(max)	n - <b>φ</b> d1	m - <b>φ</b> d2	重量 (kg)			
YFIMF-400	450	494	530	640	624	580	494	404	309	1051	8 - Ψ12	4 - Ψ12	72			
YFIMF-450	510	554	590	715	699	655	538	448	331	1117	8 - Ψ12	4 - Ψ12	83			
YFIMF-500	560	604	640	755	739	695	574	484	349	1212	8 - Ψ12	4 - Ψ12	99			

# YFIMF-560~1250带联吊装 YFIMF-560~1250 Belt drive (Ceiling Hung)



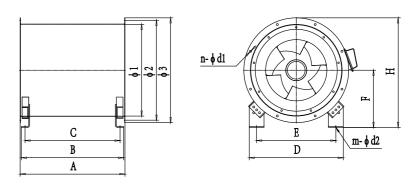
型号		外形尺寸 Dimension														
Model	φ1	φ2	φ3	Α	В	С	D	Е	F	H(max)	n - <b>φ</b> d1	m - <b>φd2</b>	重量 (kg)			
YFIMF-560	630	674	710	878	818	778	550	450	395	1379	12 - φ12	4 - φ12	135			
YFIMF-630	712	754	792	975	915	875	620	520	435	1442	12 - Ψ12	4 - φ12	182			
YFIMF-710	809	854	889	1023	973	923	700	600	485	1565	12 - Ψ12	4 - φ12	206			
YFIMF-800	910	954	990	1165	1075	1025	790	690	535	1683	16 - <i>Φ</i> 14	4 - φ12	258			
YFIMF-900	1017	1059	1097	1308	1218	1168	890	790	590	1803	16 - <i>Φ</i> 14	4 - φ12	320			
YFIMF-1000	1130	1182	1230	1330	1298	1248	990	870	655	1986	16 - <i>Φ</i> 14	6 - Ψ12	408			
YFIMF-1120	1270	1322	1370	1480	1442	1392	1110	990	725	2216	20 - φ14	6 - Ψ12	516			
YFIMF-1250	1421	1472	1521	1660	1618	1568	1240	1120	800	2432	20 - φ14	6 - φ12	643			

- 注:1.尺寸数据仅供参考,以工厂确认图纸为准。
  - 2. 以上风机重量未包含电机。

Note: 1. Dimension date is for reference only, subject to drawings confirmation with factory technical confirmation.

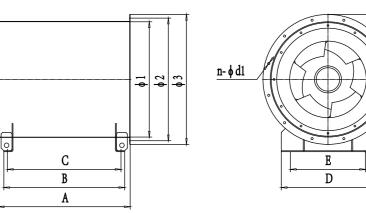
2. The fan weight in the above table does not include that of motor.

# YFIMF-400~500D直联外形尺寸图 YFIMF-400~500 Direct drive Dimension



		外形尺寸 Dimension																
型号 Model	1			Α		В		(	С		_	_	H(max)		m - $arphi$ d2		重量 (kg)	
Wiodei	φ1	φ2	φ3	普通GT	消防SR	普通GT	消防SR	普通GT	消防SR	D		Г	TI(IIIax)	n - φd1	座装 Base Mount	吊装 Ceiling Hung	普通GT	消防SR
YFIMF-400D	450	494	530	585	710	569	694	525	650	494	404	309	574	8 - φ12	4 - Φ18	4 - Ψ12	46	50
YFIMF-450D	510	554	590	670	795	654	779	610	735	538	448	331	626	8 - Ψ12	4 - Ψ18	4 - Ψ12	56	60
YFIMF-500D	560	604	640	725	850	709	834	665	790	574	484	349	669	8 - Ψ12	4 - Φ18	4 - φ12	66	70

## YFIMF-560~1120D直联外形尺寸图 YFIMF-560~1120 Direct drive Dimension



<u>n-</u> ∳ d1	
	E

									:	外形尺	寸 Dim	ension						
型号 Model	m1	φ2	φ3	A		В		С			Е	_	11/		m - <b>φ</b> d2		重量 (kg)	
Wiodei	φ1			普通GT	消防SR	普通GT	消防SR	普通GT	消防SR	D	ı	Г	H(max)	n - <b>φ</b> d1	座装 Base Mount	吊装 Ceiling Hung	普通GT	消防SR
YFIMF-560D	630	674	710	790	915	730	855	690	815	550	450	395	750	12 - φ12	4 - Ψ18	4 - Ψ12	94	101
YFIMF-630D	712	754	792	855	980	795	920	755	880	620	520	435	831	12 - Ψ12	4 - Ψ18	4 - Ψ12	117	125
YFIMF-710D	809	854	889	930	1075	880	1025	830	975	700	600	485	930	12 - Ψ12	4 - Ψ18	4 - Ψ12	143	154
YFIMF-800D	910	954	990	1040	1185	950	1095	900	1045	790	690	535	1030	16 - Ψ14	4 - Ψ18	4 - φ12	179	193
YFIMF-900D	1017	1059	1097	1275	1420	1185	1330	1135	1280	890	790	590	1139	16 - Ψ14	4 - Ψ18	4 - Ψ12	237	254
YFIMF-1000D	1130	1182	1230	1395	1575	1275	1455	1225	1405	990	870	655	1270	16 - Ψ14	4 - Ψ18	4 - Ψ12	332	365
YFIMF-1120D	1270	1322	1370	1475	1655	1355	1535	1305	1485	1110	990	725	1410	20 - Ψ14	4 - Ψ18	4 - Ψ12	419	447

- 注:1.尺寸数据仅供参考,以工厂确认图纸为准。
  - 2. 以上风机重量未包含电机。

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.



# >>技术规范

#### YFIMF(皮带型)技术规范

YFIMF Technical Specifications (Belt-Drive Type)

#### 风机类型 Fan Type

风机类型应为全混流式管道风机,风机整机为圆筒型,其结构应为皮带传动。 Fan type shall be inline mixed flow fan, belt drive.

#### 质量标准 Quality Standards

风机性能应按照国际空气运动与控制协会(AMCA)第210和300号标准进行检测并通过其认证,每台风机出厂时均应贴有AMCA空气性能、声音与能效等级为一体的特许认证标签。生产企业应拥有全国工业品生产许可证和ISO 9001质量体系认证。

The fan performance shall be tested in accordance with AMCA Publications 210 and 300 in an AMCA accredited laboratory and certified for air and sound performance. Fans shall be licensed to bear the AMCA ratings seal for air performance (AMCA 210) and sound performance (AMCA 300). Manufacturer shall own the national manufacturing license together with internationally recognized Quality Management System (ISO 9001) standard.

#### 叶轮 Wheel

叶轮为钢制全混流叶轮,由锥形前盘、半球形轮毂和后倾叶片全焊接而成。叶轮应经过静态和动态平衡, 达到AMCA 204标准的G2.5平衡等级。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。Multiple blade angles shall be available to suit various operating environment. The wheel shall contain a shroud cover and a hemispherical back plate. It shall reach the static and dynamic balancing level of G2.5 per AMCA 204 standard. The wheel and fan inlet shall be carefully matched and shall have precise running tolerances for maximum performance and operating efficiency.

#### 讲风口 Inlet

风机进风口应严格按照空气动力特性设计,采用优质碳钢旋压成型,表面光滑呈流线形,且具有良好的集流效果,能有效减少紊流,提高风机效率,降低噪声。

The surface of the aerodynamically designed inlet shall be steamlined and smoothened to ensure the most economical air performance can be achieved. It shall improve the fan efficiency while reducing turbulence and noise.

#### 机壳 Hub

风机应采用双筒体结构机壳,即:内风筒和外筒,两筒体之间应通过导叶连接。内风筒和外风筒都是采用优质碳钢板专机卷圆后全焊接而成,内风筒用于安装承载传动部件,两筒之间用导叶全焊接相连,一方面起到稳固内风筒的作用,另一方面提升风机气动性能和静压效率,使气流更顺畅地流动,导叶应为符合流场特性的三维曲面结构。

3D curved steel guide vanes shall be aerodynamically placed within the hub to minimize turbulence and aid in recover the rotating energy imparted to the air. The hub shall be able to improve the air performance and static pressure efficiency.

#### 表面处理 Surface Coating

风机表面应先经过打磨清理,除去凸起异物、焊渣、毛刺、锐边、铁屑、油污,然后静电喷涂环氧树脂,应无凹凸、流挂、裂纹、皱皮、脱落现象,以保证风机长期运行防腐蚀。

The surface of the fan shall be cleaned thoroughly, free of cracks and finished with electrostatic epoxy coating. No uncoated fan parts shall be allowed.

#### 传动装置(仅适用于皮带传动型)Belt Driven Type

风机轴材质应为40Cr,风机轴应通过精车调质处理的,硬度达到HB250~280,其最大负载应大于风机最大运行速度的25%。 The material of the fan shaft shall be 40Cr steel with the hardness level between HB250-280. Its maximum loading shall be 25% larger than the maximum RPM of the fan.

皮带轮:皮带轮的规格应当按照驱动功率的150%选型,皮带轮应为铸铁材质。皮带轮应当采用退拔形式的轴套进行固定以便拆卸。Wheel: The wheel shall be mixed flow design. The wheel shall be dynamically balanced to G2.5 per AMCA standard. It shall be fabricated with continuously welded steel foils.

皮带:皮带应为防油耐热、防静电型。

Belt: Belt shall be oil resistant and static free.

轴承应采用优质可润滑带紧定螺钉的带座外球面轴承。在样本公布的最大转速下,轴承寿命应不低于L10:80000小时。品牌应采用国际知名轴承品牌,例如FYH、SKF等。

风机应配备延长润滑油管,方便在不拆卸风机的情况下进行轴承加注油脂的操作。油管的材质应为铜制。

Standard bearings shall be ball or roller type, grease lubricated with a basic rating fatigue life (L-10), in excess of 80,000 hours at each level's maximum operating speed. Renowned brand name such as FYH and SKF shall be used to ensure reliability.

Extended Lube Lines Lubrication lines with grease fittings shall allow bearing lubrication without dismounting the fan.

皮带防护罩:应配置半封闭型皮带防护罩,防止造成人身伤害。

Belt Cover:It shall be semi-closed belt guard to prevent injuries. It shall be designed to allow easy access to the belt and pulleys for servicing.

电机应采用B3安装结构。标配电机防护等级应为IP55,绝缘等级F级,温升等级B级,电机轴承应为滚珠式免润滑型。电机功率储备系数应按1.15选取,以提升风机使用的安全性。风机在室外安装时,应配备环氧喷涂的电机防雨罩。

The B3 Motor shall be carefully matched to the fan load. It shall be mounted out of the airsteam. It shall be IP55 dust and water protection class; insulation class shall be F and temperature tolerance shall be class B. It shall be equipped with electrostatic epoxy coated rain cover for outdoor operation.

#### 选配件 Optional Accessories

应根据每台设备的具体要求提供相关配件,例如:减振器、进出口防护网、进出口软接头、进出口弯头、电机防雨罩等。 Accessories shall be available to suit different working conditions such as vibration isolator, inlet/outlet screen, connectors, motor cover, etc.

#### 防爆结构(仅适用于防爆型) Spark Resistant (Options)

风机应符合AMCA 99规定的Spark C防爆结构,进风口镶嵌铜环,电机应采用隔爆电机,整机应通过国家防爆认证,生产企业应拥有防爆电气生产许可证。

Spark-resistant designs shall be available for applications that involve flammable gases. The fan shall be constructed per AMCA 99 Type C.

#### 消防风机及认证(仅适用于消防排烟)

#### Fire and Smoke Certification (Fire & Smoke Extraction & Control only)

该风机作为消防风机应符合公安部消防产品合格评定中心关于消防防烟排烟设备产品认证实施细则CNCA-C18-02:2014的要求, 应达到 GA 211-2009《消防排烟风机耐高温试验方法》产品标准要求,在输送介质温度为280℃时风机持续运转30分钟以上无任何故障,并能提供国家授权检测机构出具的型式试验报告和中国国家强制性产品认证(CCCf)证书。

该风机作为消防风机应当通过EN 12101-3《烟热控制系统部 件第三部分:机械通风排烟设备技术要求》检验,应满足在输送介质温度 300℃时风机持续运转120分钟以上无任何故障,确保耐高温性能满足标准要求,并提供TUV SUD认证机构出具的检测报告和Class 1A级别的一致性认可(CoC)证书。

The fire and smoke ventilation products shall be tested and certified per GA211-2009 standard under CNAC-C18-02:2014 "Heat resistance testing methods for fire and smoke exhaust fans" guidelines. The testing subject shall be able to maintain normal operation for 30 minutes under the temperature of 280°C. The test report shall be issued by the authorized laboratories and certified by the China Certification Center for Fire Products Ministry of Public Security (CCCf).

It shall pass the tests as described in the TUV SUD certification requirements for fire & smoke removal duty where it shall maintain normal operation for 120 minutes under the temperature of 300°C.

#### 铭牌 Nameplate

永久固定的铝制标牌上应标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。

A permanent nameplate shall be mounted onto the fan with its serial number (a unique number for each machine), model number and product number clearly engraved on it.

#### 可接受供货商 Qualified suppliers

永久固定的铝制标牌上应标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。

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

**INFINAIR®** 



#### YFIMF(直联型)技术规范

YFIMF Technical Specifications (Direct-Drive Type)

#### 风机类型 Fan Type

风机类型应为全混流式管道风机,风机整机为圆筒型,其结构应为直联传动。 Fan type shall be inline mixed flow fan, direct driven.

#### 质量标准 Quality Standards

风机性能应按照国际空气运动与控制协会(AMCA)第210和300号标准进行检测并通过其认证,每台风机出厂时均应贴有AMCA空气性能、声音与能效等级为一体的特许认证标签。生产企业应拥有全国工业品生产许可证和ISO 9001质量体系认证。

The fan performance shall be tested in accordance with AMCA Publications 210 and 300 in an AMCA accredited laboratory and certified for air and sound performance. Fans shall be licensed to bear the AMCA ratings seal for air performance (AMCA 210) and sound performance (AMCA 300). Manufacturer shall own the national manufacturing license together with internationally recognized Quality Management System (ISO 9001) standard.

#### 叶轮 Wheel

叶轮应采用具有多种叶片角度可选的钢制全混流叶轮,以满足多样化工况优化选型的需要。叶轮必须配备锥形前盘、半球轮毂和后倾叶片。叶轮应经过静态和动态平衡, 达到AMCA 204标准的G2.5平衡等级。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。

Multiple blade angles shall be available to suit various operating environment. The wheel shall contain a shroud cover and a hemispherical back plate. It shall reach the static and dynamic balancing level of G2.5 per AMCA 204 standard. The wheel and fan inlet shall be carefully matched and shall have precise running tolerances for maximum performance and operating efficiency.

#### 进风口 Inlet

风机进风口应严格按照空气动力特性设计,采用优质碳钢旋压成型,表面光滑呈流线形,且具有良好的集流效果,能有效减少紊流,提高风机效率,降低噪声。

The surface of the aerodynamically designed inlet shall be steamlined and smoothened to ensure the most economical air performance can be achieved. It shall improve the fan efficiency while reducing turbulence and noise.

#### 机壳 Hub

风机应采用双筒体结构机壳,即:内风筒和外筒,两筒体之间应通过导叶连接。内风筒和外风筒都是采用优质碳钢板专机卷圆后全焊接 而成,内风筒用于电机安装,两筒之间用导叶全焊接相连,一方面起到稳固内风筒的作用,另一方面提升风机气动性能和静压效率,使 气流更顺畅地流动,导叶应为符合流场特性的三维曲面结构。

3D curved steel guide vanes shall be aerodynamically placed within the hub to minimize turbulence and aid in recover the rotating energy imparted to the air. The hub shall be able to improve the air performance and static pressure efficiency.

#### 表面处理 Surface Coating

风机表面应先经过打磨清理,除去凸起异物、焊渣、毛刺、锐边、铁屑、油污,然后静电喷涂环氧树脂,应无凹凸、流挂、裂纹、皱皮、脱落现象,以保证风机长期运行防腐蚀。

The surface of the fan shall be cleaned thoroughly, free of cracks and finished with electrostatic epoxy coating. No uncoated fan parts shall be allowed.

#### 电机 Motor

电机应采用B5安装结构,标配电机防护等级应为IP55,绝缘等级F级,温升等级B级。电机轴承应为滚珠式免润滑型。电机功率储备系数应按1.15选取,以提升风机使用的安全性。电机应处于内风筒之内,与气流隔绝,以避免输送介质对电机产生的影响。由于电机位于风机内部,供应商应提供将接线引至风机外部的电机接线盒,并根据消防型、普通型等应用,分别配备正确的接线盒类型。

The B5 Motor shall be carefully matched to the fan load. It shall be mounted out of the airsteam. It shall be IP55 dust and water protection class; insulation class shall be F and temperature tolerance class B. It shall be equipped with electrostatic epoxy coated rain cover for outdoor operation. Since the motor is inside the housing, manufacturer shall provide wiring connection box. It shall be made according to the operation conditions of the fan.

#### 选配件 Optional Accessories

应根据每台设备的具体要求提供相关配件,例如:减振器、进出口防护网、进出口软接头、进出口弯头、电机防雨罩等。 Accessories shall be available to suit different working conditions such as vibration isolator, inlet/outlet screen, connectors, motor cover, etc.

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该风机作为消防风机应当通过 EN 12101 - 《烟热控制系统部件第三部分:机械通风排烟设备技术要求》检验,应满足在输送介质温度 300℃时风机持续运转120分钟以上无任何故障,确保耐高温性能满足标准要求,并提供TUV SUD认证机构出具的检测报告和Class 1A级别的一致性认可(CoC)证书。

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