佛山市顺炫风机电有限公司
FOSHAN SUNWIND ELECTRIC CO.,Ltd.

产品规格书/Product Spec

产品名称 Name	前倾式双进风离心风机 EC double inlet centrifugal fan, forward curved
产品型号 Model No.	SF146D-E092B3-03
客户型号 Customer Code	定制
版　　本 Version No.	A/0
编制/日期 Established by	陈晓夫 Xiaohui Chen
审核/日期 Checked by	王晓辉 Xiaohui Wang
批准/日 Approved by	周 亮 Liang Zhou

客户承认/Customer Approval

☐样机版本(SAMPLE)　☐试制版本(TRIAL PRODUCTION)　☑批量版本(PRODUCTION)

确认签名/Customer confirmation ： _____

日　　期(Date)： _____

变更记录/Modification Record

版本 Version	变更内容 Content	变更原因 Reason	变更时间 Date

感谢选择我司此款产品，如果以下性能符合贵司要求，请将首页签章回传。
Thank you for choosing this item, please sign on the first page and return to us if this product meets your requirement.

产品规格书/Product Spec

1. 概述/ Introduction ：

本风机规格书主要描述产品标准、使用环境、技术参数及使用要求等.

This specification describes the standard, operation environment and technical requirements of the product

2. 适用范围/Application：

2.1. 产品标准和安规要求/Requirement of production standard and safety regulations

GB 12350 《小功率电动机的安全要求》

GB 12350 《Safety requirements of low-power motor

JB/T 10563《一般用途离心通风机技术条件》

JB/T 10563 《Technical requirements of centrifugal fan on General Use》

EN60335-1《家电和类似用途电器的安全要求》

EN60335-1 《Safety requirements of home appliances and related appliances》

2.2. 本产品通过的认证 /The fan has Safety regulations certificate.

本产品通过 CCC CE 的认证

The fan has CCC、CE Safety Regulations certificate.

3. 产品结构/ Structure:

3.1. 风轮及蜗壳 /Fan blade and scroll housing:

风轮及蜗壳采用增强PP塑料注塑而成。
The fan blade and scroll housing are made by PP.

3.2. 电机/Motor:

电机采用外转子永磁同步电机，转子外壳采用电镀处理及铝合金压铸;
Permanent magnet synchronous rotor motor, the motor cover is made by ADC12 die-casting.

3.3. 电源线/Power lead:

电源线采用22AGW RVV电缆线，引出线与电机间满足50N/10s 的静拉力，电源线可根据需求匹配不同型号的端子。
Power lead is # 22AGW RVV lead wire, maximum static tension between the power lead and motor is 50N/10s maximum, it is allowed to supply terminals by request.

3.4. 软起动/Soft start:

电机启动后，在低速开始运转，大约30s到达最高转速。
When the motor starts, it runs at low speed, it takes about 30s to achieve the highest speed.

3.5. 速度控制/ Speed control:

电机可采用以下两种方式进行速度控制./Two optional speed control for selection:

A. 线性电压信号输入：0-10VDC，最低启动电压为1.0±0.2V，9.0±0.2V达到最高转速.
Voltage range: 0-10VDC speed control ; minimum starting voltage is 1.0±0.2V, maximum speed is at 9.0±0.2V.

B. PWM信号输入：频率0.1-2KHz，幅值5-15V，占空比为0%-～100%.
PWM signal :frequency 0.1-2KHz，amplitude 5-15V，duty cycle 0%～100%.

3.6. 速度输出信号/Speed output signal:

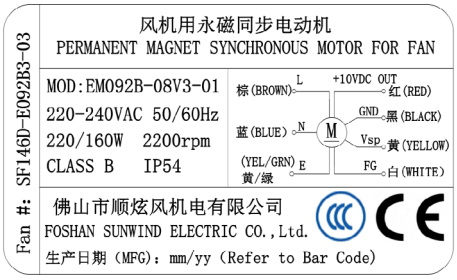
电机具有检测速度的FG信号输出，该信号为风机每旋转一周，包含1个脉冲输出，信号最大幅值电压为15V。
Motor has the FG signal output of testing speed, the signal is 1 pulse output per one fan rotation, the max. voltage is 15V.

3.7. 保护功能/Protection function:

电机具有堵转保护、限流保护、过温保护功能。
Protection function: locked motor protection, current-limit protection, over-temperature protection.

4. 电气性能/Electrical performance:

4.1. 产品铭牌/Product Nameplate:



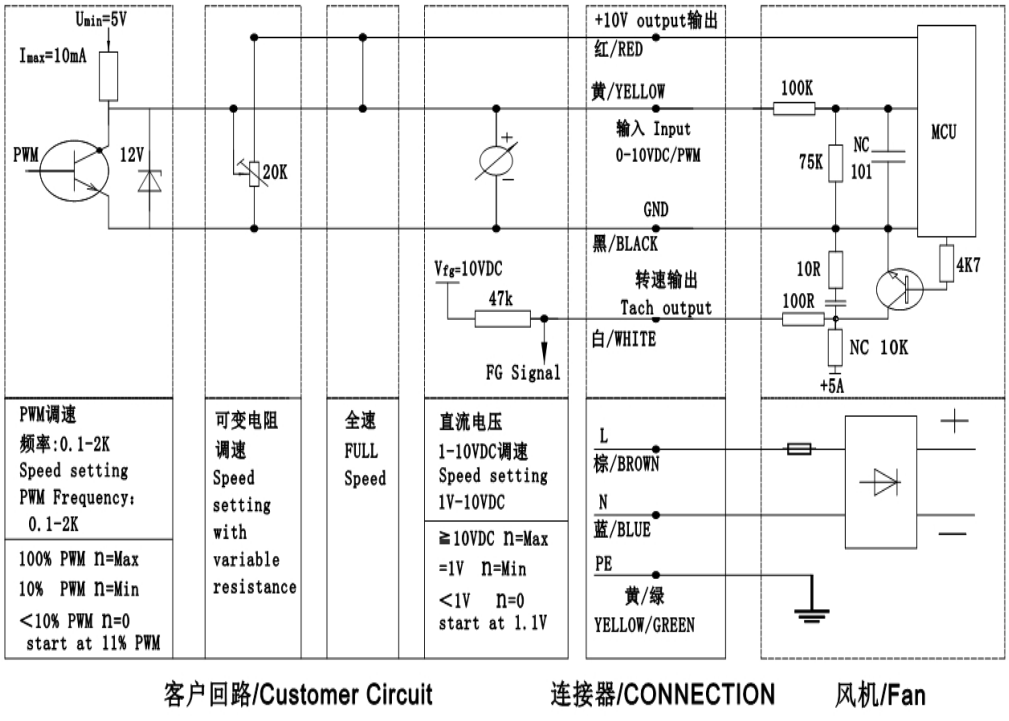
4.2. 四芯电缆线（线长800mm）/Four-core cable in length of 800mm:

引出线2	1	2	3	4
颜色(Color)	红(Red)	黑(Black)	黄(Yellow)	白(White)
功能(Function)	+10VDC输出 +10VDC Output	负极 (GND)	Vsp/PWM (0-10VDC/PWM)	FG速度反馈 (1 Pulses/R)

4.3. 三芯电缆线（线长800mm）/Three-core cable in length of 800mm:

引出线1	1	2	3
颜色(Color)	棕色(Brown)	蓝(Blue)	黄/绿线(GRE/YEL)
功能(Function)	火线（L）	零（N）	地线（PE）

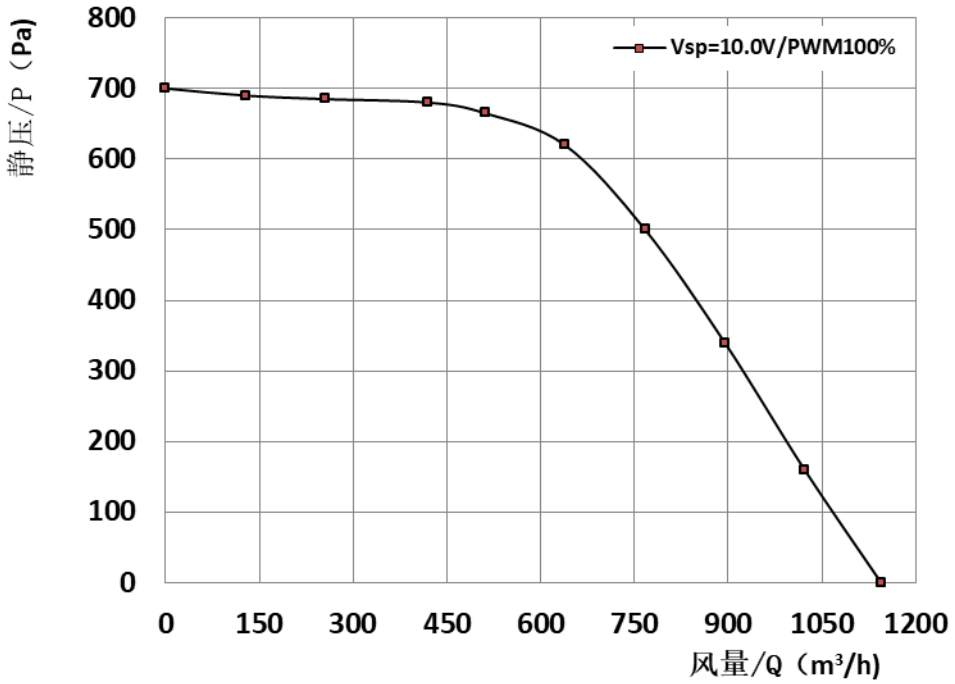
4.4. 电气接线图/Connection Screen:



5. 一般规格参数/Technical parameter:

序号/No.	项 目/Item	指 标/Spec	备 注/Remark
1	风机类型 Type of fan	塑料壳前倾双进风离心风机 Double inlet centrifugal fan with plastic housing, forward curved	
2	电机类型 Type of motor	永磁同步电机 Permanent magnet synchronous motor	
3	风叶尺寸 Impeller size	φ146X150 [mm]	塑料前倾式离心风轮 Plastic forward curved fan blade
4	工作电压 Working voltage	230[VAC]	范围：198-254V，频率50/60Hz Voltage: 198-254V， 50/60Hz
5	工作电流 Working current	1.6±7% [A]	
6	输入功率 Input power	220±7% [W]	
7	空载转速 Speed without load	2200±100 [r/min]	最高转速3300rpm Speed Max 3300rpm
8	额定风量 Rated airflow	1150±7% [m3/h]	自由大气 Free air
9	噪音 Noise	72±2 [dB（A）]	单风机测试 Only fan motor
10	电机绝缘等级 Insulation class	F级 Class F	
11	电机防护等级 Motor IP Class	IP42	
12	平衡等级 Balancing grade	符合G4.0级 Conform to G4.0	
13	工作制 Mode of operation	连续S1 Continuous operation S1	
14	寿命 Life expectation	40000 [h]	额定电压，风机全速，40℃环境/At nominal supply voltage, running at full speed, environment temperature 40℃
15	允许使用环境 Working environment	-25~+50 ℃] /湿度小于RH85 -25~+50 ℃] / Humidity<RH85	
16	允许储存环境 Storage environment	-40℃~+80℃/湿度小于RH95 -40℃~+80℃ / Humidity<RH95	

6. P-Q曲线/P-Q curve:



实测试数据:

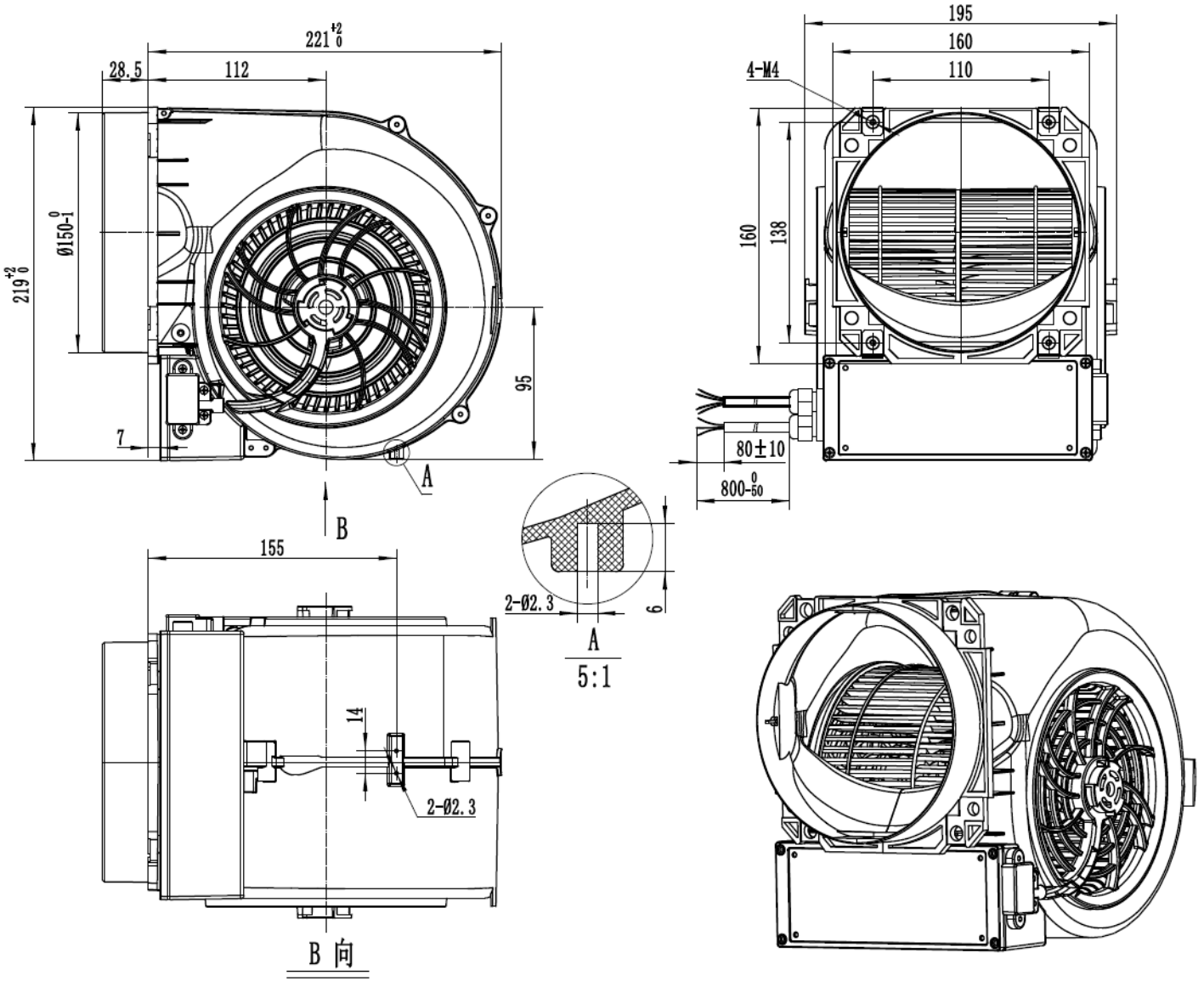
项目	输入电压 Voltage	频率 Frequency	转速 Speed	输入功率 Power input	电流 Current	静压 Pfs	风量 Airflow	速度设定 Speed control
单位	(VAC)	(Hz)	(r/min)	(W)	(A)	(Pa)	(m^3/h)	PWM/Vsp
1	230	50	2300	225	1.5	0	1145	100%

7. 注意事项 / Note:

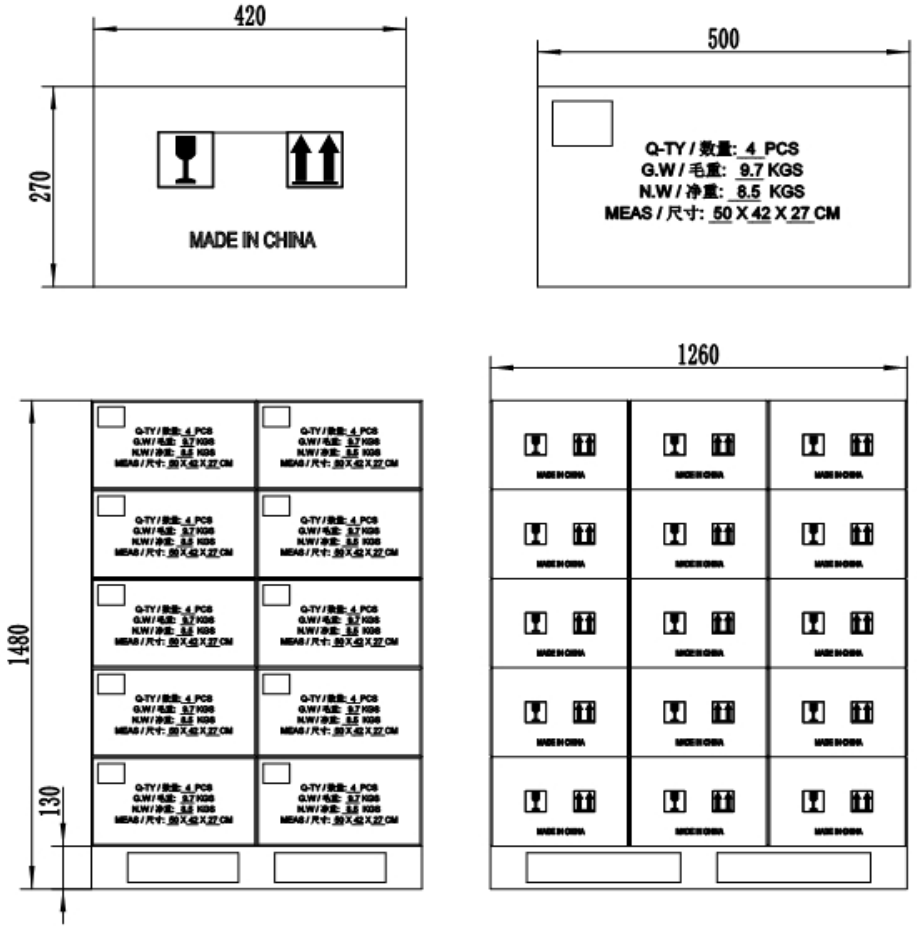
产品规格书 / Product Spec

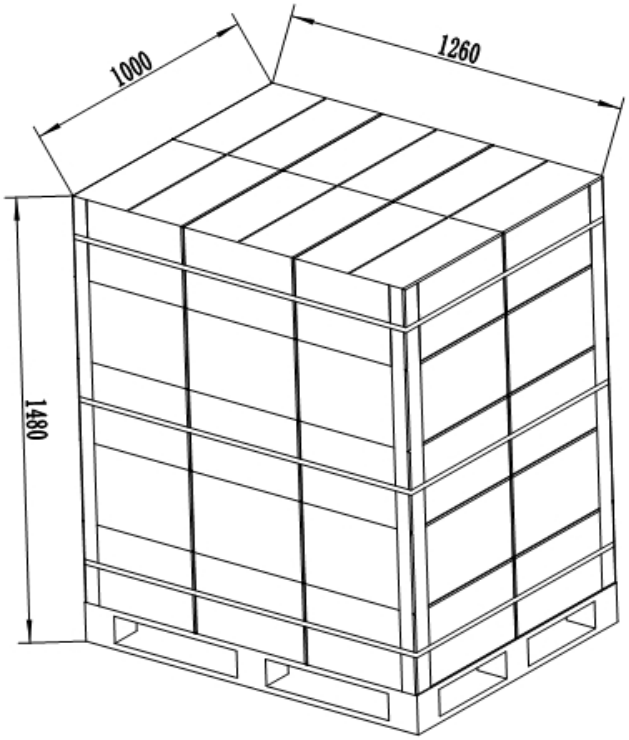
- 本产品应在规格书指定的条件内使用，如果您的使用超出规格极限，我们将对此不保证产品质量。
  Our products should be used within the specification appointed condition, so we will not guarantee this product quality if your application exceeds the limitations outlined in this specification.
- 严禁对产品进行改加装.电源线电缆应进行固定，避免其不会被任何旋转部件触及。
  It is strictly forbidden to modify the products; the power cable should be fixed to avoid being touched by any rotating parts.
- 建议加装风扇防扩装置，以免造成意外伤害；建议安装过滤装置和减振装置以延长风扇使用寿命。
  It is recommended to install fan protection device to avoid accident; to install filter and damper to extend fan life.
- 请严格遵守本产品的IP等级要求并在正常环境下操作。
  The fan motor is specified for use by IP rating level, this fan is designed to operate under normal environmental conditions.
- 本产品应避免接触有毒物质 如：（苯酚、氰、福尔马林等）. 以及在腐蚀性气体环境中使用 如：硫化氢、二氧化硫、二氧化氮等）。
  Please avoid operating products in poisonous materials (organic, cyanogen, formalin, phenol, etc.) or corrosive gas environment (H2S, SO2, NO2, etc.)
- 当风扇在灰尘环境中使用时，请在风扇进风口处。
  Please use filters to clean the air-intake in very dusty air environments for extended fan life.
- 产品建议在海拔高度1500米以下（大气压大于86KPa）环境中使用，高于此海拔高度可能无法达到预期用途。
  The product is recommended to be used in the environment with altitude below 1500m (atmospheric pressure >86kpa), when using above this altitude, the fan expectation function may not be achieved.
- 请确保风机应用在温湿度储存环境规定中并避免产品通电运转时有异物吸入造成危险。
  Always ensure that fans are stored according to the storage temperatures specified.

8. 风机尺寸图/ Fan dimension：



9. 产品包装图/Packing details：





说明 Remark：

1、风机单台净重：2.15KG，一箱4台，包装尺寸：L500*W420*H270mm，毛重：9.7KG；

One pallet size is L1260*W1000*H1480mm, one pallet stacks up 5layers, one layer is 6cartons, one carton is 4pcs. One pallet =5x6x4=120pcs；

2、卡板尺寸：100*126*12CM,卡板每层6箱，每卡板放5层，合计120台风机；

One carton size is L500*W420*H270mm, G.W/CTN is 9.7KG, N.W/CTN is 8.5KG, one pc is 2.15KG。

http://www.sunxfan.com