EC 风机产品规格书

EC FAN PRODUCT SPECIFICATION

名 称(NAME): EC 离心风机 EC centrifugal fan

型 号(MODEL): EB280ST-A0-03Z

版 本 号(VERSION NUMBER): A/0

客户代码 (CILIENT CODE):

编 制 (MAKE):

校 对 (EDIT):

审 核 (CHECKED):

批 准(APPROVED):

客户确认 (CUSTOMER APPROVE):

日 期(DATE):

1.0 概述/ Introduction

本规格书主要描述了产品标准、使用环境、技术要求等.

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

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

2.1 本产品符合的标准 / The product satisfy requirements

2.1.1 GB12350《小功率电动机的安全要求》

GB12350《Safety requirments of small power motors》

2.1.2 JB/T10563-2006《一般用途离心通风机技术条件》

JB/T10563-2006《General technical requirement for general centrifugal fan》

2.2.3 EN60335-1《家电和类似用途电器的安全要求》

EN60335-1 《Household and similar electrical appliances-safety》

2.2 本产品全部材料符合 RoHS 要求

All material accord with RoHS.

3.0 使用环境/ Operating environment requirements

3.1 工作温度和湿度/ Operating temperature and humidity

工作温度范围：-25℃～+60℃。 工作湿度范围：5%～95% RH。

Operating temperatures from -25℃ to +60℃, Operating humidity from 5% to 95% RH。

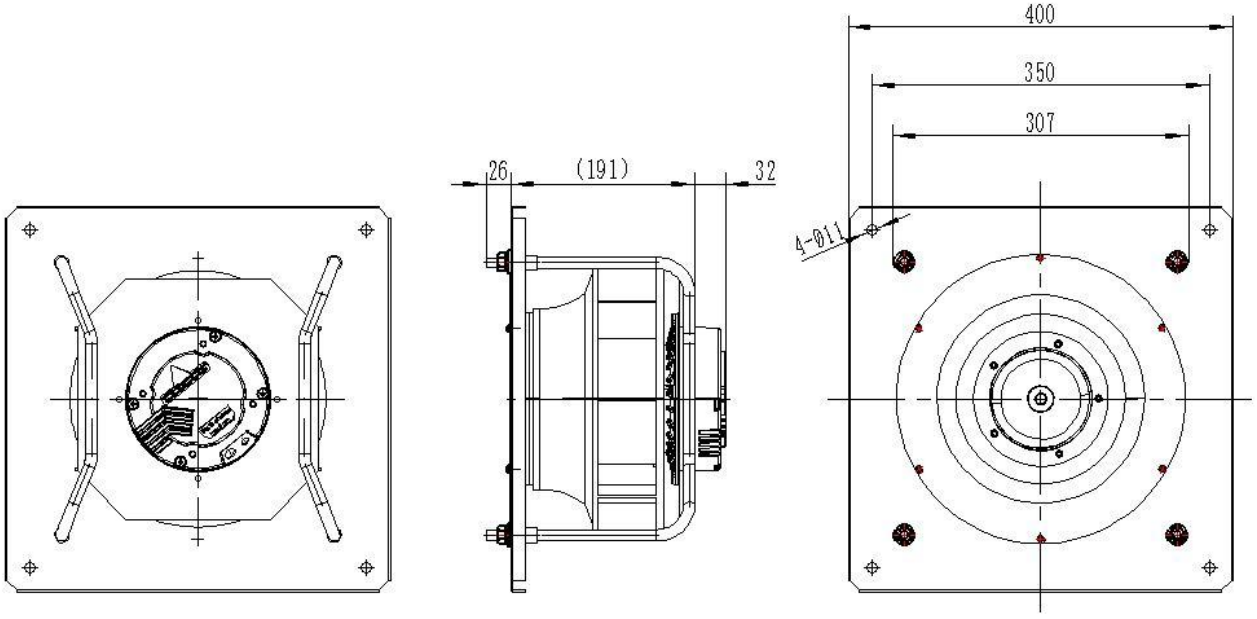
3.2 贮存温度和湿度/Storaging temperature and humidity

贮存温度范围：-35℃～+65℃ ， 贮存湿度范围：5%～90% RH。

Storaging temperatures from -35℃ to +65℃; Storaging humidity from 5% to 90% RH。

4.0 机械要求/ Mechanical requirements

4.1 外形图/Dimension drawing



4.2 叶轮/Impeller

叶轮由铝合金制成，材料符合RoHS。

Impeller made of aluminum alloy, material accord with RoHS。

4.3 电机/Motor

EC电机,电机型号WE102ST-08-00。

EC motor, the motor model is WE102ST-08-00.

4.4 平衡/ Balancing

风机在3100±10%r/min运转时，每个端面动平衡精度不低于G6.3，符合标准JB/T9101 。

At 3100±10%r/min running speed,the residual unbalance of the fan is not less than G6.3(balancing precision grade) in each plane,according with JB/T9101。

4.5 振动/Vibration of the fan

风机振动值≤3.0mm/s,测试方法按照JB/T 8689标准规定.

Vibration speed virtual value of fans ≤3.0mm/s, test method accord with JB/T 8689.

4.6 跳动/ Runout of impeller

风轮轴向、径向跳动 ≤1.0mm。

Runout of impeller in axial and radial direction≤1.0mm.

4.7 防护等级/Type of protection

电机的防护等级为IP44。

The protection level of the motor is IP44.

4.8 寿命/Life time

风机寿命估算值25000小时（MTTF），（在额定电压、环境温度为40℃、温度小于70%RH、风机全速运转时）

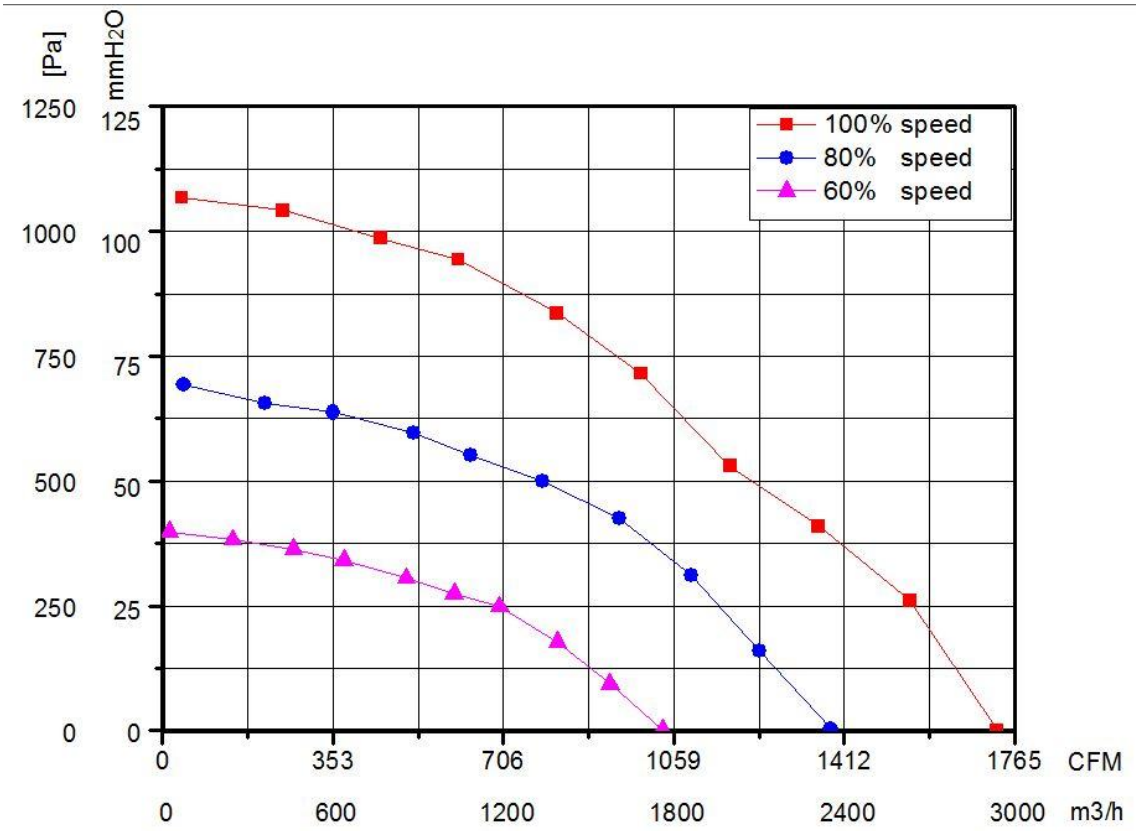
Fan life expectance 25000 hours(At rated voltage,ambient temperature 40℃,humidity less than 70%RH, full speed operation of fan)

5.0 风机性能/Fan performance

5.1 标称参数/Rating data

额定电压/ Voltage[V]	工作电压范围/ Operating[V]	输入电流/ Current draw [A] (±15%A)	输入功率/ Power input[W] (±10%)	转速/ Speed[r/min] (±7%)	风量/ Air flow [m^3/h](±10%)	噪音/ Noise level [LpdB(A)] 进风口1m处	绝缘等级/ Insulalation class
230	200～264	2.7	625	3100	2950	82	F

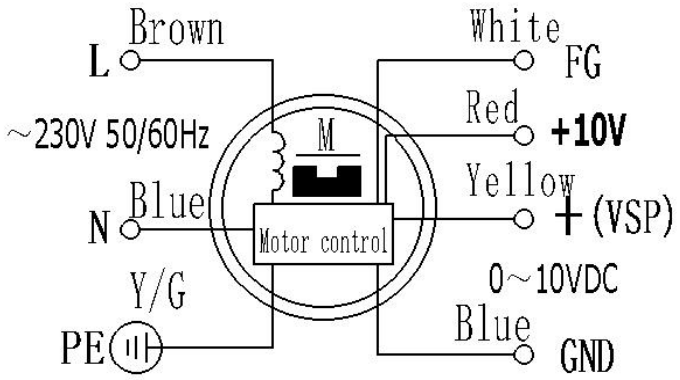
5.2 特性曲线/Performance curve (额定工作电压230V时/Rating voltage 230V)



风量-压力曲线/PQ

6.0 电气性能/Electrical performance

6.1 接线示意图/View lead connection



特殊说明/Special note：

风机的引出线请按此示意图连接，引出线错接会造成产品损坏。

Connect the lead-out wires of the fan according to this diagram. Misconnection of the lead-out wires will cause product damage.

6.2 电压范围/Voltage range

风机额定运行电压为230VAC 50/60Hz，可运行的电压范围是200～264VAC；过压保护电压为284±5VAC，

The fan is designed to operate at a nominal voltage of 230VAC 50/60Hz but can be operated in the AC supply voltage range of 200to 264 VAC;Over-voltage protection voltage is 284±5VAC.

6.3.绝缘电阻/Insulation resistance

产品在室温下，工频试验电压 500V，1S 绝缘电阻≥50MΩ 。试验部位：电机电源引线正极与电机外壳间测试

At room temperature, the power frequency test voltage is 500V,and the 1S insulation resistance is

≥50MΩ. Test site: Test between motor power lead positive and motor casing

6.4 电气强度/Electrical stength

产品在室温下，定子绕组与机壳间外加工频试验电压 1800V 持续 1S 无击穿闪烁现象(泄露电流小于 10mA)；

At room temperature, the external processing frequency test voltage between the stator winding and the casing is 1800V for 1S without breakdown and flicker (leakage current less than 10mA);

6.5 匝间绝缘试验/Turn to turn test

电机定子绕组应能承受匝间绝缘耐冲击电压试验而无击穿，试验电压(峰值为)1200V 持续 3s`

Motor stator winding can withstand turn-to-turn test and Impact resistance voltage test without breakdown impact.Test voltage(peak value) is 1200V for 3s

6.6 电子保护/Electronic protection

● 软启动保护/Soft-start protection

在工作电压下，电机启动后将逐渐加速，直至达到实际工况的最高转速。避免电机瞬间启动受到大电流的冲击而损坏。

Under the working voltage, the motor will gradually accelerate after starting, until it reaches the maximum speed of the actual working conditions. Avoid the momentary start of the motor Damaged by impact.

● 欠压和过压保护/Undervoltage and overvoltage protection

当送电电压低于 184±3V，高于限定电压 284±5V，电机将自动保护

When the power supply voltage is lower than 184±3 V and higher than the limit voltage 284±5V, the motor will automatically protect

● 堵转保护/ Locked-rotor protection

电机在正常运行状态下，转动部件受到外部堵转阻力后会停止运转，电机将自动断电保护。通过软件检测后电机将自动恢复启动。如果过载阻力继续存在，电机将重复上述的启停动作

In the normal running state of the motor, the rotating parts will stop running after being blocked by external resistance, and the motor will automatically power off to protect. After passing the software test The motor will resume automatically. If the overload resistance continues to exist, the motor will repeat the above start-stop action

7.0 质量要求/Quality requests

7.1 产品的基本性能符合朗迪企业标准

The basic performance of the product complies with Landy's corporate standards

8.0 包装和标识/ Packaging and marks

8.1 包装/Packaging

包装必须有确定的尺寸和合适的结构确保风机在运输过程中不会损坏。

The packaging has to be well dimension and structure, so that the fans for on normal transport could not be damaged.

8.2 标识/Marks

制造商名称、产品型号、重量、尺寸等

Markings: Name of manufacturer, type of fan, date of manufacture, weight,Size etc.

9.0 附件/Other requirements on accessory

9.1 导风圈/ Inlet cones

■带/Yes, □不带/No, □根据销售订单配备/ For Salers'request;

9.2 蜗壳/ Scroll housing

(□有/YES、■没有/NO)

9.3 连接件组件/Annectent parts

连接器/linker(□有/Yes、■没有/No), 型号为/model:

端子/terminal(□有/Yes、■没有/No), 型号为/model:

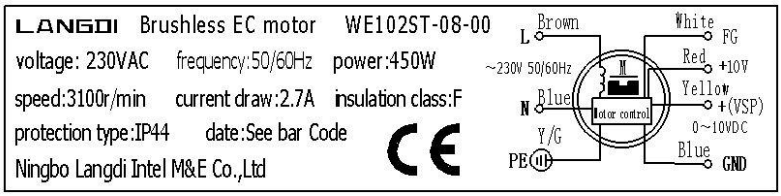
9.4 LANGDI 标志/ Logo LANGDI

■有/ Yes, □取消/ No

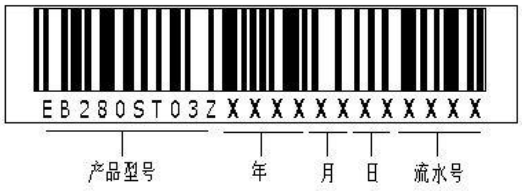
9.5 铭牌标识/Nameplate drawing：



风机铭牌/Fan nameplate



电机铭牌/Motor nameplate



条形码/Bar code

条形码的年月日根据实际生产日期填写，流水号为 0001 顺延至 9999，次日重新从 0001 顺延至 9999；

The year, month, and day of the bar code are filled in according to the actual production date.

10.0警示语/Warning:

1 使用产品前请仔细阅读本《技术规格书》。

Please read this 《Technical Specification》 carefully before using the product.

2 本产品仅限于室内使用。不得用于室外，或不加以任何防护的与室外联通使用。

The product is only indoor used. Do not be outdoor used or be used in indoor locations where it drive outside air to room without any protection (such as louver etc.).

3 电机、风机必须在规定的温度和湿度范围内使用，否则可能造成不可预测的损坏。

The fan and motor must be used within the prescribed scope of temperature and humidity otherwise it will cause an unexpected damage.

4 请务必使用铭牌指示的正确电压接入产品，否则会造成风机损坏。

Provide the right voltage according to the nameplate otherwise it will damage the product.

5 严禁带电安装产品，风机运转时不可直接插/拔电源引线。

It is strictly forbidden to install the product with power on. Do not directly insert / remove the power lead when the fan is running.

6. 本产品不建议长期库存放置，如需长期放置时，建议每3个月通电运行一次。

This product is not recommended for long-term inventory placement,for long-term storage,it is recommended to power on and run once every 3 months.

7 在移动产品的时候，不得以扇叶为受力点。否则会造成扇叶变形而导致风机运转时振动过大的风险。

Be careful when moving the product.Don’t take the blades as a handle because it will cause the distortion and chatter.

8 请不要自主拆装风机，否则将影响扇叶平衡、防水等效果，甚至引起安全问题。

Do not disassemble the fan arbitrarily. It may hurt the capacity of water tightness and dynamic balance or cause other serious problems.

9 风机在接通电源后,禁止用手或物品靠近旋转部件, 防止人身伤害。

After the fan is powered on, it is forbidden to use your hands or objects to approach the rotating parts to prevent personal injury.

10 带导风圈的风机需按照推荐尺寸设计和安装，否则将影响产品性能。

The fan with inlet ring should be installed follow the requirements or it will affect the Performance.

11 风机请安装在儿童不能接触到扇叶和带电部位的地方，也不允许儿童单独使用本产品。

The fan should keep away from the children especially the blade and electric parts. And the children are not allowed to operate the fan alone.

12 建议客户对我司规格书进行签字回传，若批量生产时客户仍未签字回传，我司默认客户已同意本规格书上的所有内容。

It is recommended that customers sign the specifications and return to our company. If the customers have not signed and returned the specifications to our company at the time of mass production, our company default that the customer has agreed to all the contents of the specifications.

13 未按以上条例安装及使用风机，所造成的机器损坏或者事故，我公司均不承担任何责任，敬请知悉！

Please be informed that we are not responsible for any damage or accident caused by violating above rules to install and operate the fan.

14 我司对本规格书拥有最终解释权。

Our company has the final right to interpret this specification.