



胜丰电子有限公司

APPROVAL SHEET

Customer:

Customer P/N: C2149485 SFS3007-SH7.2-W

Description: DC FAN

Model NO.: SFS 3007SH7.2 透明框叶, 超宽电压

Version.: A Issue NO.: 13SFH1030

Issue date: 2013-10-30 Quantity:4PCS

*Please sign back this specification for our record upon your approval.

Thanks!

Company Stamp
.....
制作：陈海林
复核：李国安
核准：陈惠

CUSTOMER APPROVAL Stamp
.....
承认：
核准：
日期：

地址：深圳市龙岗区布吉镇京南路京南工业区

电话：0755-82579709 传真：22636467

免费咨询和订购热线：**400-9920-988** 官方网站 <http://www.fancool.net/>

E-Mail: fancool18@163.com

1.0: 一般规格 (General Specification)

项目 (Item)	规格/条件 (Specification/Condition)	
1	型号 (Model No.)	SFS 3007SH7.2
2	外型尺寸 (Outline Dimension)	30*30*7MM
3	工作电压 (Operating Voltage)	DC 3.00-9.00V
4	额定电压 (Rated voltage)	DC 7.2 V
5	起动电压 (Starting Voltage)	DC ≤3.50V on/off
6	额定电流 (Rated current)	0.13A±10% a. 额定电压(Rated .voltage) b.25°C 65% RH c.After testing for 5 minutes
7	消耗功率 (Power consumption)	0.94W
8	转速 (Speed)	10000±15%RPM
9	最大风量 : (Max Airflow)	3.46CFM a. 额定电压(Rated .voltage) b. AMCA 标准 (Standard) C. 额定电流(Rated current)
10	最大静压 : (Air .Static Pressure)	4.13mmH2O
11	最大噪音 (Max Noise)	Max:30.10Db-A a. 额定电压 (Rated Voltage) b. 18dB无响室 (18dB Non-Echo Chamber) c. 标准 (Standard):CNS 8753 / ISO 3744 d. Test Condition :ISO 7779

			e. 距离 (Distance): 1.0 M
12	Life expectancy(期望寿命)	30000 hrs at temp25°C Humidity5%-95%	MTTF (Mean Time To Failure) Conf. Level 90%)
13	扇叶数 (No.of.Blade)	7叶	
14	极数 (No.of.Pole)	4极	
15	锁住保护 Lock Protection	<input type="checkbox"/> 无 NO	
16	极性保护 Polarity Protection	<input type="checkbox"/> 无 NO	
17	过流保护 (Overcurrent protection)	<input type="checkbox"/> 无 NO	
18	恒速功能 fixed constant speed Function	<input type="checkbox"/> 无 NO	
19	PWM 功能 PWM function	<input type="checkbox"/> 无 NO	

2.0:主要材料/零件规格 (Main Materials/parts Specification)

材料/零件 (Materials/parts)		规格(Specification)	
1	塑料材料/扇叶 外框 (Plastic Material/Blade,Housing)	透明白色方框 7 叶, 环保料	
2	轴承 (Bearing Type)	含油轴承 (Sleeve Bearing)	
3	引线 (Lead Wire)	UL1571#26#180MM 分线 两 PIN 两线正端	
4	端子 (Connector)	红色 JST 2PIN	
		黑	红
		GND	VCC
5	环保要求 (EnvironmentalRequirement)	<input checked="" type="checkbox"/> ROHS	<input type="checkbox"/> fireproof

3.0 電性规格 (Electrical Specifically)

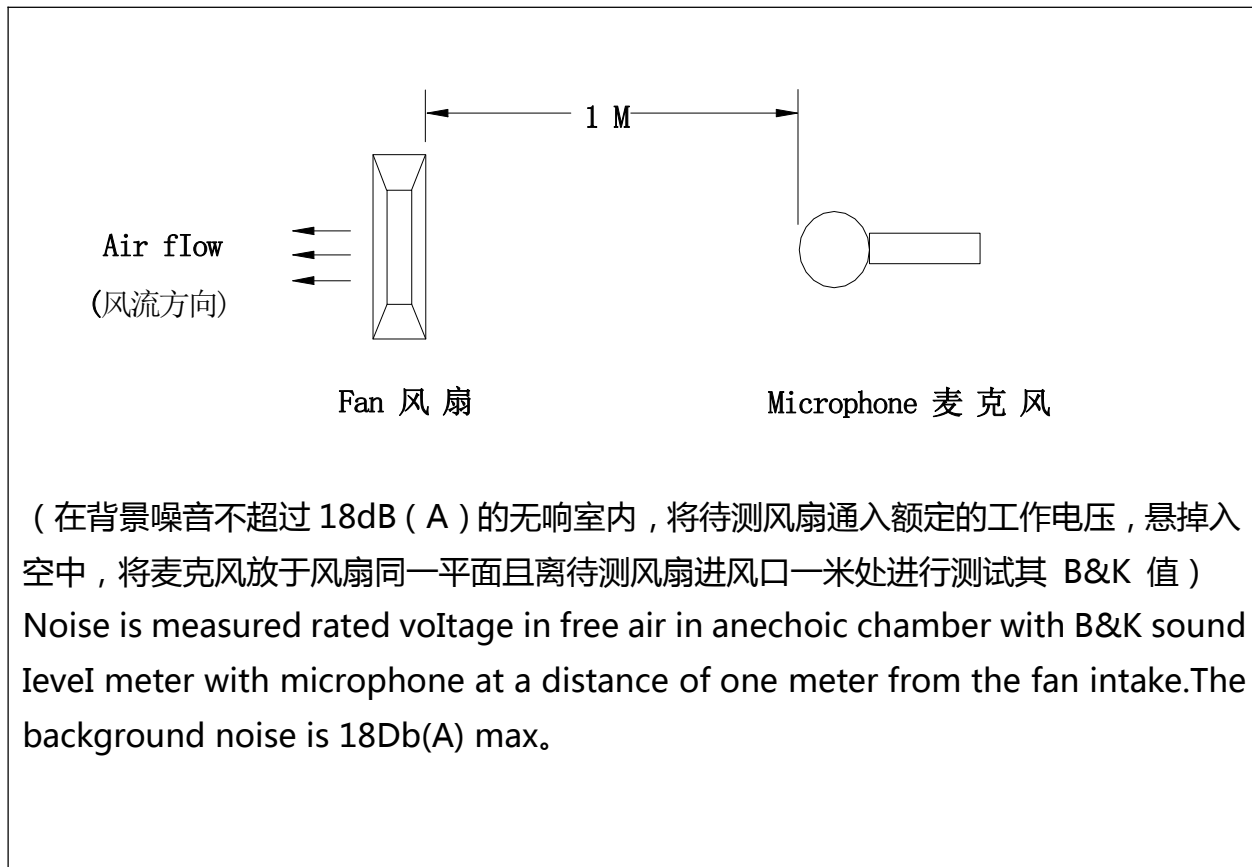
1	絕緣阻抗 Insulation Resistance	10MΩ/裸線与外框間測量，500VDC/min 10MΩ/between unshackled wire and frame at 500VDC/min
2	絕緣耐压 Dielectric Strength	5Ma Max./導線与外框間測量，500VAC/min 5Ma Max./Measured between lead wire(+)and frame at 500VAC/min
3	防水等级 Waterproof level	IP X0

4.0 环境测试 (Environmental Specification)

1	运转温/湿度范围 Operating Temp .Range	温度/Temperature:-10°C - +70°C 湿度/Humidity:5% - 95%RH
2	保存温/湿度范围 Storage Temperature	温度/Temperature:-40°C - +70°C 湿度/Humidity:5% - 95%RH
3	耐湿性 Humidity	电气规格依据 MIL-STD 202F Method 103B 湿度：95%RH 温度：40±2°C
4	热冲击 Thermal Shock	电气规格依据 MIL-STD 202F Method 107D Per MIL-STD 202F Method 107D,Condition D
5	绝缘阶段 Insulation Shock	UL: A 种 UL : Class A
6	包装耐振动试验 Packing Vibration Test	包装后，XYZ 三方向施 1.1G load vibration test for 30min .No serious damage
7	包装耐冲击试验 Packing Shock Proof Test	捆包后，高 60 公分，1 棱角 3 边 6 面自然落下，无严重损坏。 1comer,3edges, 6faces natural drop from 60cm high packing No serious damage

5.0 在无响室额定电压下之噪音测试

(NOISE IS MEASURED AT RATED VOLTAGE IN ANECHOIC)

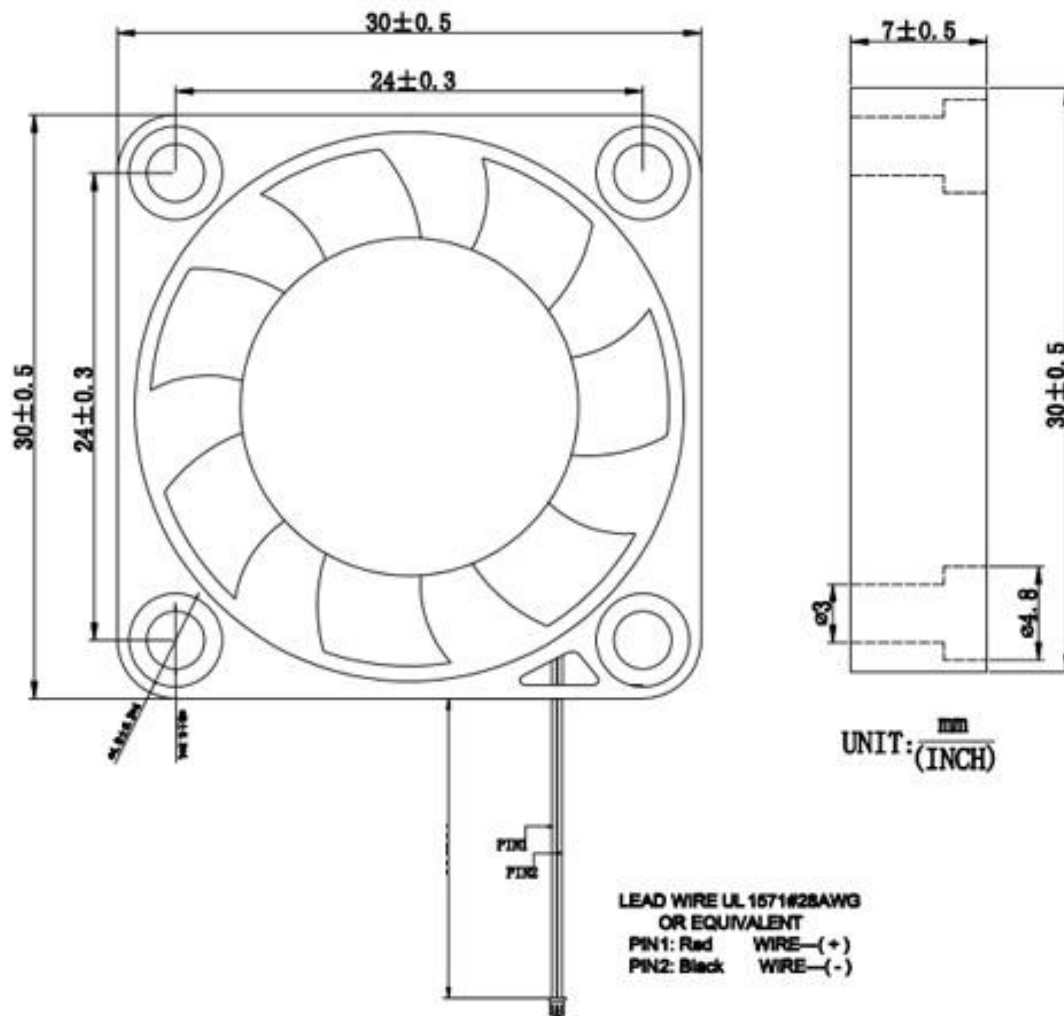


6.0 平均寿命说明 (Life Expectancy Explanation)

在指定恒温下持续工作后，经检验，90%能正常运转即可估算其平均使用寿命 (The continuous duty life at given temperature after which,90% of testing units shall still be running).

Bearing System	Test Temperature	Test time (H)
Hydraulic Bearing	25°C	30000

7.0 外观图:



胜丰电子有限公司

SHENGFENG ELECTRONICS CO.,LTD

400-9920-988

制图: 陈卿伟

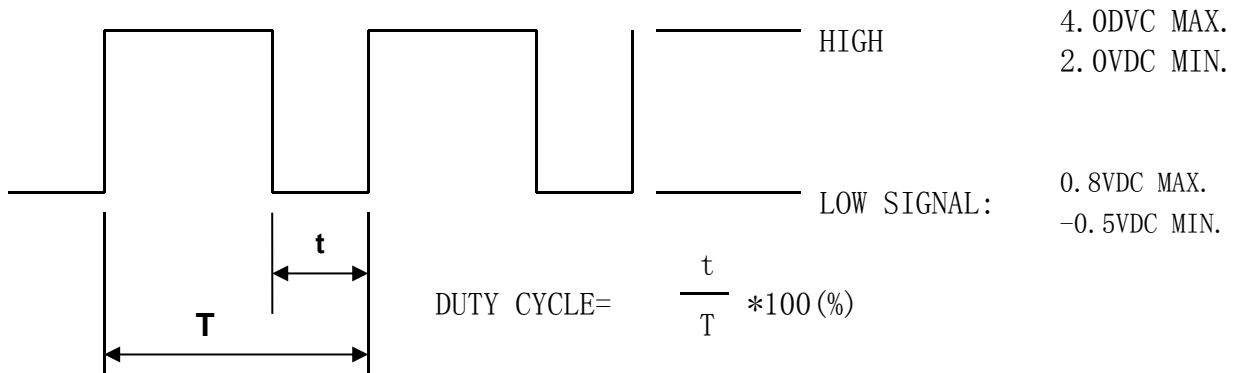
www.fancool.net

审核: 陈惠

8.0 功能描述

Functional description

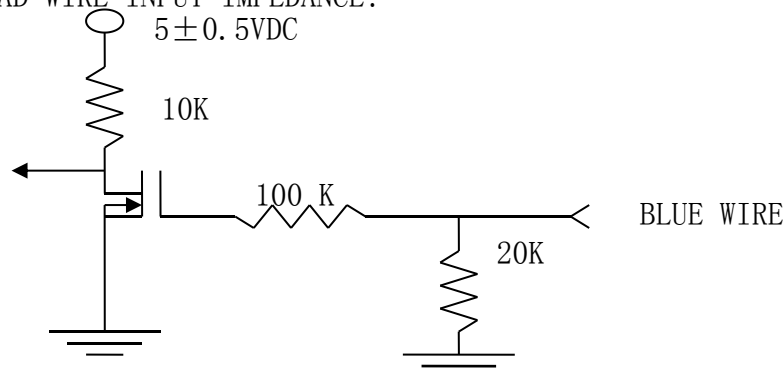
8.1. PWM CONTROL SIGNAL PWM 控制信号:



SIGNAL VOLTAGE RANGE 控制电压输入范围: -0.5~+4.0VDC

- THE FREQUENCY FOR CONTROL SIGNAL OF THE FAN SHALL BE ABLE TO ACCEPT 16K~32 KHZ.
- THE PREFERRED OPERATING POINT FOR THE FAN IS 25K HZ.
- AT 100% DUTY CYCLE, THE ROTOR WILL SPIN AT MAXIMUM SPEED.
- AT 0% DUTY CYCLE, THE ROTOR WILL STOP.
- WHEN CONTROL SIGNAL LEAD DISCONNECTED, THE FAN WILL MAXIMUM SPEED.
- AT 25K 3%~5% DUTY CYCLE, THE FAN WILL BE ABLE TO START FROM A DEAD STOP.
- THE FAN SPEED CONTROL IS CLOSED-LOOP.

8.2. PWM CONTROL LEAD WIRE INPUT IMPEDANCE:



1. THE FAN SPEED WILL DEFAULT TO MAXIMUM WHEN THE SPEED CONTROL INPUT IS LEFT UNCON
2. ABSOLUTELY NO INTERNAL PULL-UP. NECTED.
3. PWM Diagram

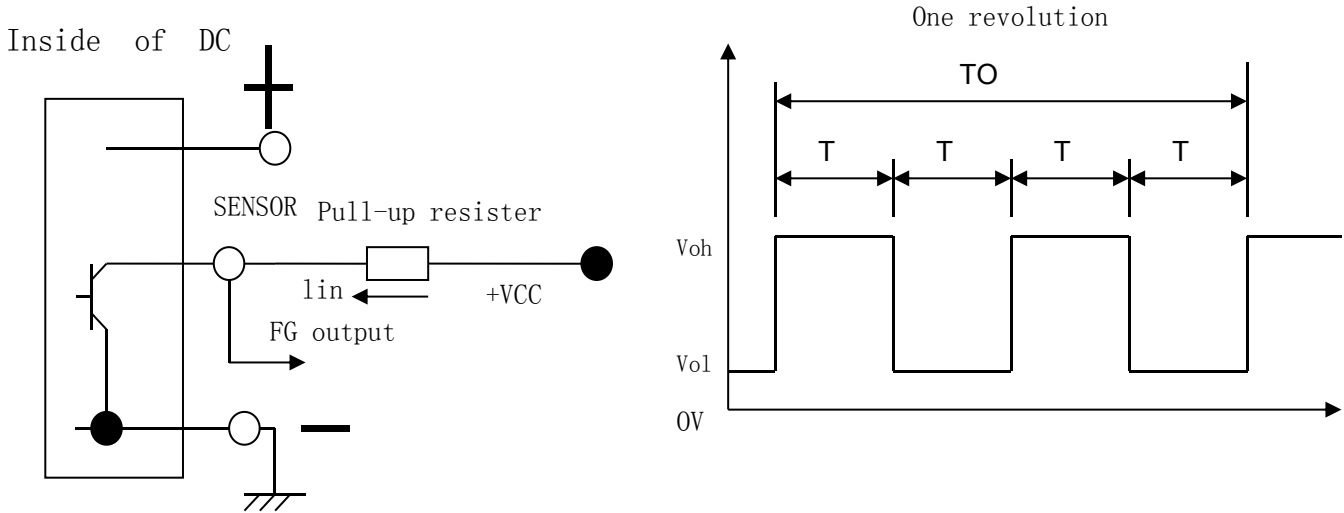
9.0 转速反馈和报警信号反馈介绍

9.1 FG and RD Function Introduction

FG (Tach output type) Connection Diagram 转速反馈连接介绍

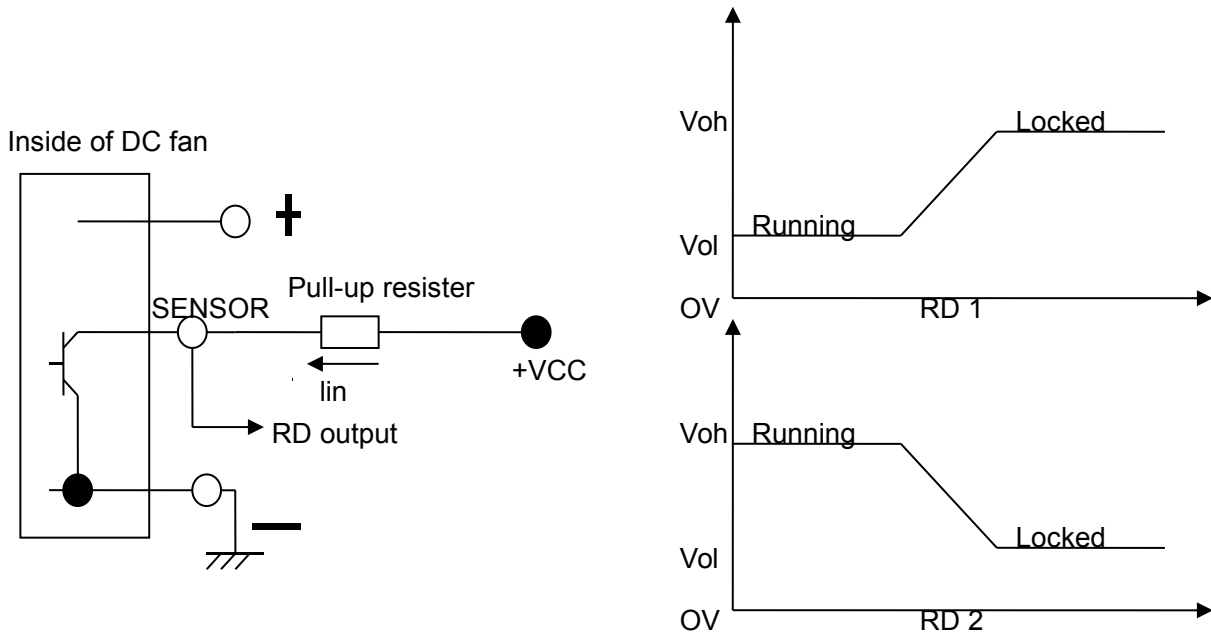
Fan with FG function will create a square wave output. You can know fan speed by sensing the output wave Frequency. Most dc fan have four pole. So when fan run for one round, there will be two high level pulse. About other Multipole brushless fan, high level pulse will be different.

But please notice if you want to sense it's output wave, there is a external circuit. Please check the circuit Diagram below. There is no pull-up and VCC value limit. But please notice the Max I_{in} have to be small than 20mA.

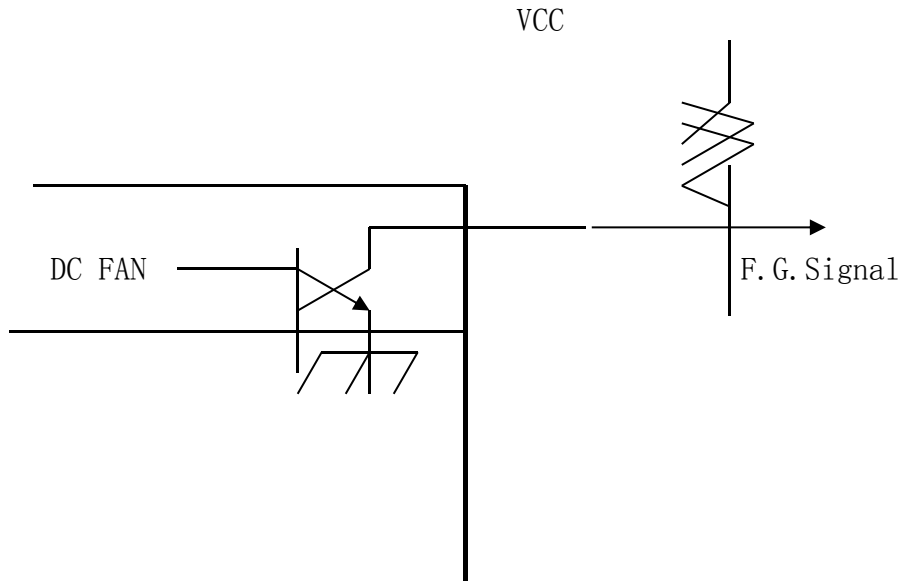


9.2 RD (Alarm output) connection Diagram 报警输出连接方式介绍

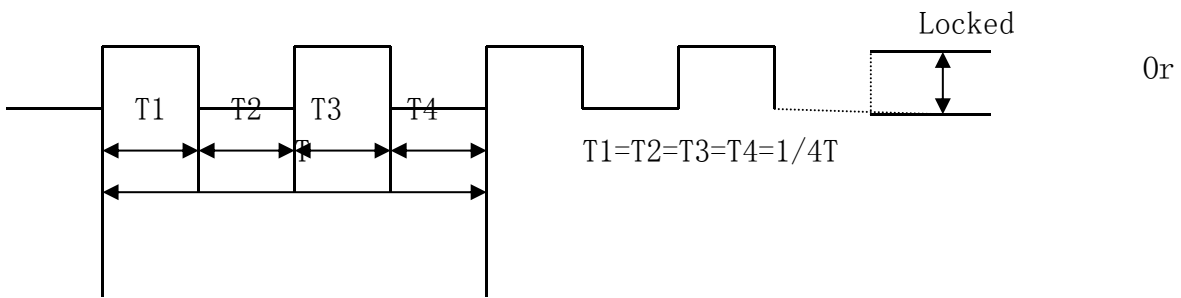
Some fan have RD extra function. There is a alarm signal output when fan stop work. Please notice there are Two kinds of signal output. Different customer will need different alarm type. Please check the diagram below. RD alarm input voltage 3.3V. RD output current 20mA



10.0 頻率測試方式 (Frequency test mode)



11.1 波形 (Wave form)



注意事项 (NOTES)

1 Before use, make sure the supply voltage to meet the use of the product range, line-powered load exceeds the maximum power consumption of this product 120%. And the voltage is stable without clutter

(使用前, 确认供电电压能满足本产品的使用范围, 供电电路负载超过本产品的最大功耗的 120%。且电压是稳定不含杂波干扰)

2 Please when ventilator circular telegram normal work do not use the hand to bump touches fan blade border

(请在风扇通电正常运转时不要用手碰触扇叶边沿)

3 Please do not touch the impeller and never carry the fan the lead wires. The bearings and the lead wires may be damaged. Additionally, static electricity may damage the internal circuits of the fan

(请不要碰触扇叶和拉扯线材, 以免损坏轴承及导线。此外, 静电可能损坏内部的风扇元件)

4 Please do not use the fan in the environment of corrosive gas or liquid.

(请不要将风扇置于腐蚀的气体和液体内)

5 Please do not store the fan in the environment of high humidity. Please avoid storage of the fan over 6 months. For long term storage, please connect power to the fan shortly every 6 months even though the fan is stored in room temperature.

(请不要将风扇储存在高湿度的环境中, 请尽量避免将风扇储存期超过 6 个月。如果要长期储存, 请将其在室温的环境下。且每隔 6 个月须上电源让风扇短时间运转。)



CERTIFICATE OF EMC COMPLIANCE

According to Directive: **2004/108/EC**

Ref. No.: **2012NT0507825**

Product: Cooling Fan
Applicant: Qingdao Shengfeng Electronics Co., Ltd.
Address: Houjin Community, Xifu Town, Chengyang Area, Qingdao City, China
Manufacturer: Qingdao Shengfeng Electronics Co., Ltd.
Address: Houjin Community, Xifu Town, Chengyang Area, Qingdao City, China
Model: Refer to attachment
Rating: 48V $\overline{\text{---}}$, 0.75A

The test sample of product has been passed, the test according to requirements of the following standards:

Standard(s):
EN 55022:2010
EN 55024:2010

Test report(s) No.:
NTEK-2012NT0507825E

Based on the voluntary assessment of the product sample and technical file, we confirm that the above-mentioned product meets the requirements of the EC directive.

The CE mark as show below can be used, under the responsibility of the manufacturer or the importer, after completion of an EC declaration of conformity and compliance with all relevant EC directives.



Approved by/Date:



May 11, 2012

Department Manager

NTEK Testing Technology Co., Ltd.

Address: 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao' an District, Shenzhen P.R. China
Tel: (86)-0755-61156588 Fax: (86)-0755-61156599 Http: www.ntek.org.cn



VERIFICATION OF CONFORMITY

According to **FCC part 15**

Ref. No.: **2012NT0507826**

Product: Cooling Fan
Applicant: Qingdao Shengfeng Electronics Co., Ltd.
Address: Houjin Community, Xifu Town, Chengyang Area, Qingdao City, China
Manufacturer: Qingdao Shengfeng Electronics Co., Ltd.
Address: Houjin Community, Xifu Town, Chengyang Area, Qingdao City, China
Model: Refer to attachment
Rating: 48V $\overline{=}$, 0.75A

The test sample of product has been passed, the test according to requirements of the following standards:

Standard(s): CFR, Title 47 FCC Part 15: 2010
Test report(s) No.: NTEK-2012NT0507826E

The Sample was tested to conform to the applicable FCC Rules and Regulations. The method of testing was in accordance to the most accurate measurement standards possible, and that all necessary steps have been enforced to assure that all production units of the same equipment will continue to comply with the Federal Communications Commission's requirements.



Approved by/Date:



May 11, 2012

Department Manager

NTEK Testing Technology Co., Ltd.

Address: 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao' an District, Shenzhen P.R. China
Tel: (86)-0755-61156588 Fax: (86)-0755-61156599 Http: www.ntek.org.cn



CERTIFICATE OF ROHS COMPLIANCE

According to Directive: **2002/95/EC**

Ref. No.: **2012NT0507827**

Product: Cooling Fan
Applicant: Qingdao Shengfeng Electronics Co., Ltd.
Address: Houjin Community, Xifu Town, Chengyang Area, Qingdao City, China
Manufacturer: Qingdao Shengfeng Electronics Co., Ltd.
Address: Houjin Community, Xifu Town, Chengyang Area, Qingdao City, China
Model: Refer to attachment

The test sample of product has been passed, the test according to requirements of the following standards:

Standard(s):
IEC 62321-2008

Test report(s) No.:
NTEK-2012NT0507827R

The Certificate of compliance is based on a test procedure or an evaluation of the above-mentioned product. This is to certify that the above-mentioned product is in compliance with the RoHS Directive (2002/95/EC) of the European parliament and commission Decision 2005/618/EC on the Restriction of the use of certain Hazardous Substances [Lead (pb); Mercury (Hg); cadmium (cd); Hexavalent chromium (cr); polybrominated biphenyls (pBBs) and polybrominated diphenyl ethers (PBDEs)] in Electrical and Electronic equipment.

RoHS

Approved by/Date:



May. 08, 2012

Department Manager

NTEK Testing Technology Co., Ltd.

Address: 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao' an District, Shenzhen P.R. China
Tel: (86)-0755-61156588 Fax: (86)-0755-61156599 Http: www.ntek.org.cn