

规格承认书

SPECIFICATION FOR APPROVAL

客 户

Customer

AL00083

客户料号

Customer number.

产品类型

Product Type

DC FAN

本厂型号

Factory Model.

DF1202512B2UN

规 格

Description

120*120*25mm/ DC 12V / 0.65A /3700RPM

样品编号

Sample No.

XYD230329001

送样日期

Sample Date:

2023-04-07

客户承认回签 SIGN FOR CUSTOMER APPROVED		
PLEASE RETURN ONE COPY WITH YOUR APPROVED SIGNATURES 请承认后回签一份		
核准 APPROVED	审核 CHECKED	编制 PREPARED
张晓明	邓靖冈	曾玲

变更记录表

Change record table

版本(REV.)	描述 (DESCRIPTION)	日期 (DATE)
A0	新版本首次发行	2023. 04. 07

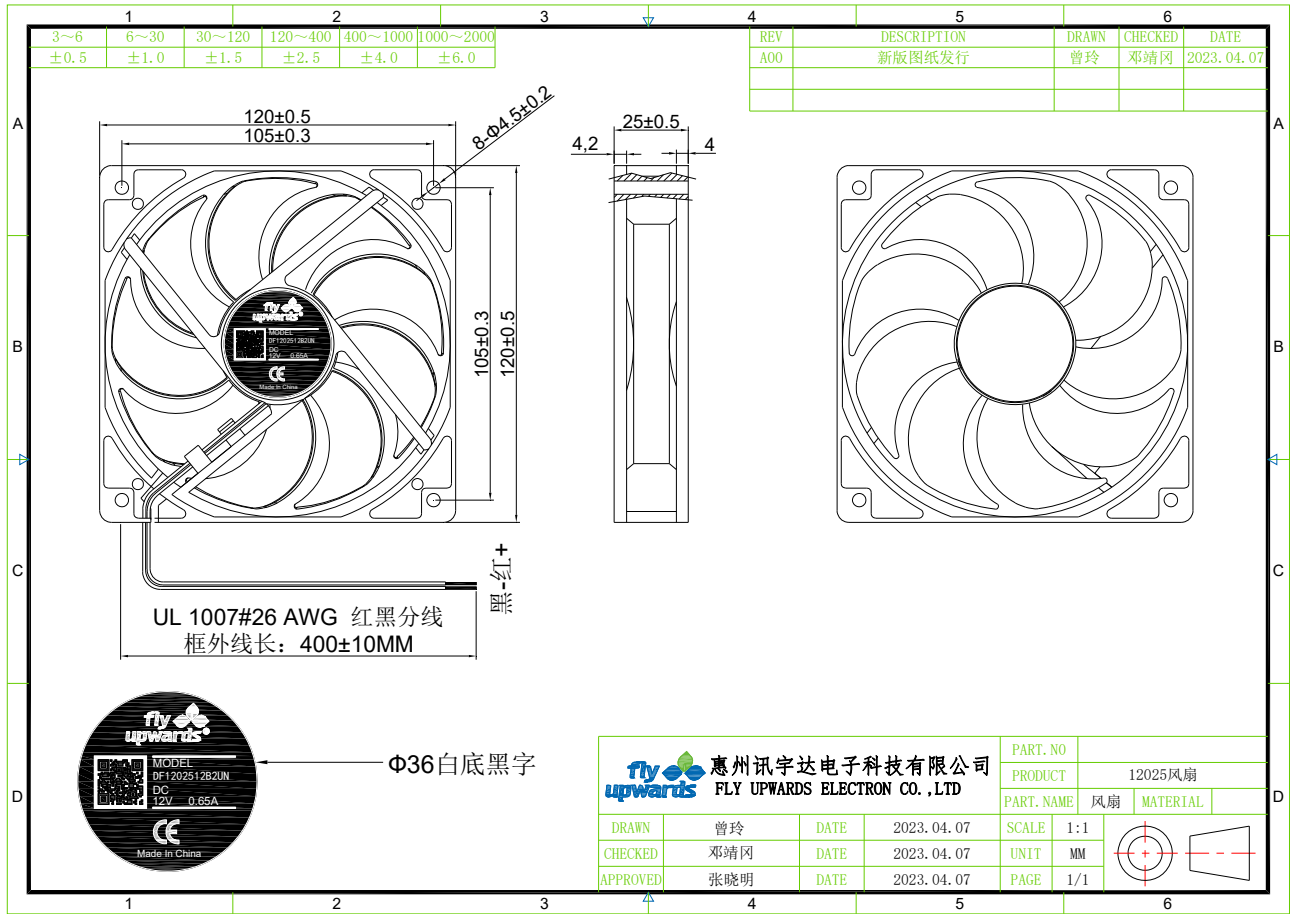
1、一般规格(General Specification)

项目/Item	规格/Spec	单位/Unit	备注/Notes
1-1 外观尺寸/Shape Dimensions	120×120×25	MM	L×W×Thickness
1-2 额定电压/Rated Voltage	12	VDC	At 25° C/Relative Humidity 65%
1-3 工作电压/Operating Voltage	7.0~13.8	VDC	Do not use it longer under overworking voltage
1-4 启动电压/Starting Voltage	DC7.0V (ON/OFF)	VDC	25°C Switch power ON/OFF
1-5 额定电流/Rated Current	0.56 (MAX:0.65)	A	At rated Voltage Measured after 3Mins
1-6 额定功率/ Rated Power	6.72 (MAX:7.8)	W	At rated Voltage Measured after 3Mins
1-7 标签电流(Label Current)	0.65	A	N/A
1-8 额定转速/ Rated Speed	3700±10%	RPM	At rated Voltage Measured after 3Mins
1-9 额定风量(Rated Airflow)	96.99 (Min: 87.29)	CFM	Maximum In Free Air, Refer to 4-4
1-10 额定风压(Rated Air Pressure)	7.01 (Min: 5.68)	mmH2O	Maximum When Air Flow = 0
1-11 噪音值/Acoustical Noise	50.4 (max:53.4)	dB(A)	At Rated Speed Refer to 4-1
1-12 导线/Lead Wire	框外长 L=400±10MM		UL 1007#26AWG 红黑分线
1-13 套管/Tube	NA		<input type="checkbox"/> White <input type="checkbox"/> Black
1-14 端子型号/Terminal Model	NA		<input type="checkbox"/> White <input type="checkbox"/> Black <input type="checkbox"/> blue <input type="checkbox"/> Red
1-15 轴承 Bearing	<input checked="" type="checkbox"/> 双滚珠轴承 Dual Ball Bearing		Life Expectancy Refer to 8-2
	<input type="checkbox"/> FDB 轴承 FDB Bearing		
	<input type="checkbox"/> 液压轴承 Hydraulic Bearing		
	<input type="checkbox"/> 含油轴承 Sleeve Bearing		
1-16 外框/扇叶要求 Housing/Blade requirement		BLACK PBT (UL94V-0)	ROHS
1-17 产品单重(Product Weight)	146.4	G	
1-18 装箱(Packing)		PCS	

2、产品特性/Product Features

2-1 极性保护/Polarity Protection	YES	Refer to 6-4
2-2 锁机保护/Locked Rotor Protection	YES	Refer to 6-3
2-3 速度感应/Tachometer Output	NO	Refer to 5-2-1 (FG)
2-4 锁机报警/Lock Rotor Alarm	NO	Refer to 5-2-2 (RD)
2-5 PWM 控制/PWM Control	NO	Refer to 5-3
2-6 缓启动功能/Soft Start	NO	NA
2-7 过流保护/Over current Protection	NO	NA
2-8 温度控制功能/Temperature Control	NO	NA
2-9 环保要求/ROHS Compliance	YES	Refer to 9.
2-10 防水等级/IP Class	NO	<input type="checkbox"/> IP44 <input type="checkbox"/> IP55 <input type="checkbox"/> IP56 以上
2-11 安规规格/Safety Approvals	YES	<input type="checkbox"/> UL <input type="checkbox"/> TUV <input checked="" type="checkbox"/> CE

3、产品图 product picture



4、测试&试验/Test

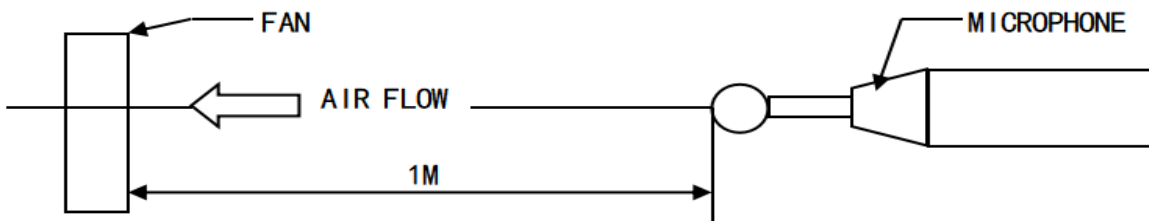
4-1 噪音测试标准/Noise test

4-1-1 参照标准 ISO3745/GB/T6882-2008, 背景噪音 14.2±2dBa, 室内环境下测量;

According to Standard ISO3745/GB/T6882-2008, Back ground noise 14.2±2dBa with room condition;

4-1-2 风扇悬吊在无响室, 在额定电压下麦克风距风扇进风口 1 米的距离测试值

Fan is hanged in anechoic chamber, Noise is measured at rated voltage in anechoic chamber with microphone at a distance of one meter from the air intake



4-2 高低温试验: 参考 GB/T2658 3.17&3.18

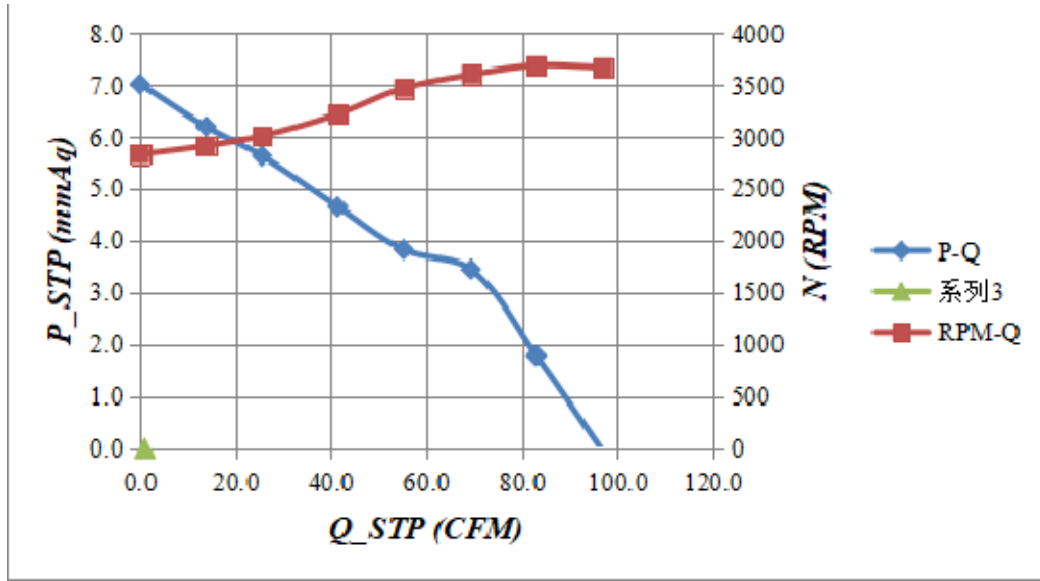
Test of high&low Temperature :Refer to GB/T2658 3.17&3.18

4-3 包装耐振动试验: 参考 GB/T2658 3.20&3.21

Packing Vibration Test: Refer to GB/T2658 3.20&3.21

4-4 风量风压曲线 Performance Curve

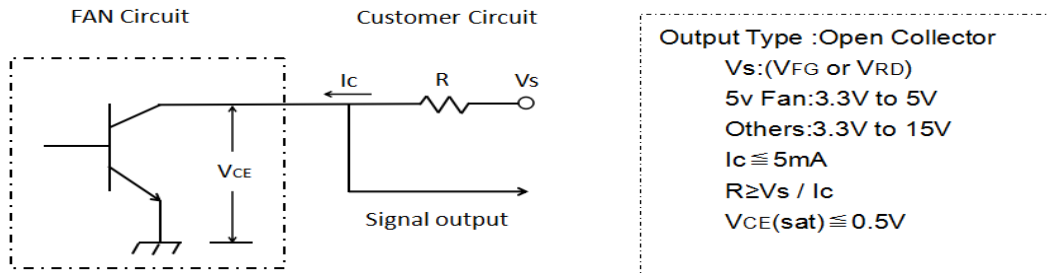
测试条件 Test Conditions: (1). Rated Voltage; (2). Room Temperature, 65% Humidity;



5、功能介绍 Function Instruction

5-1. 信号输出 Signal Output

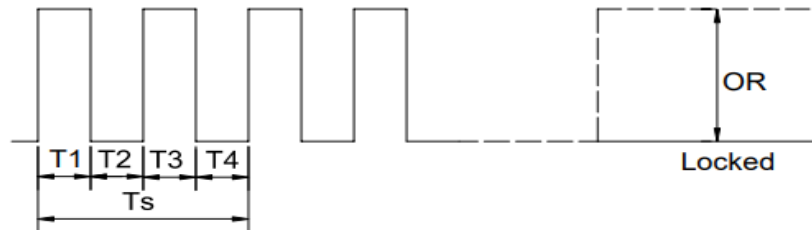
5-1-1. 接线说明 (FG/RD) Connection Instruction (FG/RD)



5-2. 输出波形 Output Waveform

5-2-1 方形信号 Tachometer Sensor (FG)

Frequency Generator Waveform:



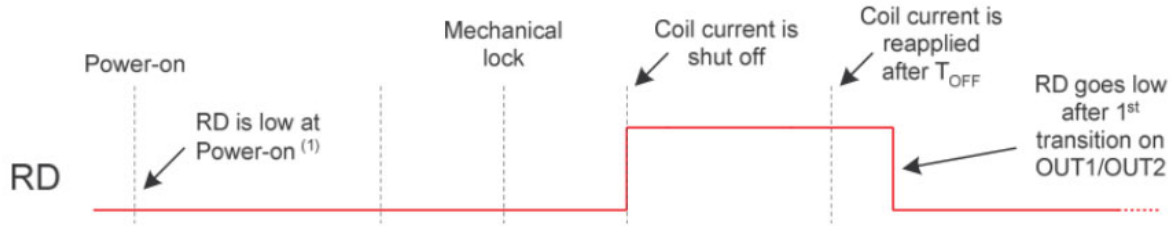
One Fan Rotation

N: Revolution per minute (rpm).

$T1 \sim T4 \approx \frac{1}{4} T_s = \frac{60}{4N}$ (sec).

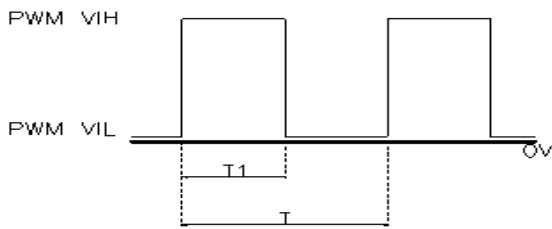
Pulse width duty = $T1 \div (T1 + T2) = 50 \pm 5\%$

5-2-2. 锁机报警 Locked Motor Alarm (RD)



5-3 速度控制 Speed Control (PWM)

PWM INPUT SIGNAL SEPCIFICATION



PWM DUTY CYCLE(%) = $\frac{T_1}{T} \times 100\%$

PWM FREQUENCY RANGE 20K~30KHZ

PWM VIH = 2.8V TO 5.5V

PWM VIL = 0V TO 0.6V

Test conditions:	At rated voltage, PWM frequency=25 KHZ and 25° C	
PWM 占控比 (%)	转速 (RPM)	电流 (A)
0%	—	—
100%	—	—

6. 电气特性/Electrical Specification

6-1	绝缘阻抗 Insulation Resistance	10MΩ/裸线与外框间测量, 500VDC/min 10MΩ/between unshackled wire and frame at 500VDC/min
6-2	绝缘耐压 Dielectric strength	5Ma Max./导线与外框间测量, 500VDC/min 5Ma Max./measured between lead wire(+)and frame at 500VDC/min
6-3	锁住保护 Locked protect	额定电压锁住 72 小时, 风扇不烧毁 Fan is protected when VCC&GND are exchanged
6-4	极性保护 Polarity protect	VCC 与 GND 反接时, 电路不烧毁 Circuit is protected when VCC&GND are exchanged
6-5	极数 No. of pole	4 极 4Poles

7. 环境适应 Environmental

7-1. 运转温度 Operating Temperature	—	-10 ~ +70 °C
7-2. 储存温度 Storage Temperature	—	-40 ~ +75 °C
7-3. 运转湿度 Operating Humidity	—	35% ~ 85%RH
7-4. 储存湿度 Storage Humidity	—	35% ~ 85%RH

8. 预期寿命 Life Expectancy

8-1. Conditions: At Confidence Level 90%; Rated Voltage; 65% Humidity Environment

8-2. B2: Two Ball Bearing System: 70000 Hours At 25°C Environment

FD: FDB Bearing System: 50000 Hours At 25°C Environment

RF: Rifle bearing System:40000 Hours At 25°C Environment

SE: Sleeve Bearing System:30000 Hours At 25°C Environment

9. 环保要求 RoHS Compliance

产品有害物质的含量符合 RoHS 最新版本的要求;

Product is in compliance with RoHS latest version requirement;

10. 安全批准 Safety Approvals

参见第三页 Refer to page 3