规格书

SPECIFICATION

MODEL

K-DC17251-A24-55

参数规格(PRODUCT SPECIFICATION)

A.一般规格(General Specification)

项目/ITEM		规格.条件/Specification Condition		
01	型　　号 / Part No.	K-DC17251-A24-55		
02	外型尺寸 / Dimension	172×51mm		
03	额定电压 / Rated Voltage	24VDC		
04	启动电压 / Start-up Voltage	13VDC		
05	操作电压 / Operating Voltage	13~27.5 VDC		a.额定电压 / Rated Voltage
06	额定转速 / Rated Speed	5500rpm	±10%	b. 25℃
07	额定电流 / Rated Current	1.7A	±10%	c. 65% RH
08	额定功率 / Rated Power	40.8W		d. Measured after 5 Mins
09	最大风量 / Max Airflow	353.0	CFM	a. 风洞测试仪/PQ Measurement Apparatus : (LW9266-SR) b. 标准/Standard : AMCA c. 额定电压/Rated Voltage d. 额定电流/Rated Current
		10.02	M3/Min	
10	最大静压 / Max Static Pressure	2.57	Inch-H_2O	
		640	Pa	
11	寿命预估 / Life Expectancy	70000hrs at 35℃		a.L10 at Conf. Level 90% b.额定电压 / Rated Voltage
12	噪音测试/Noise Level	60.0dB		a.额定电压/Rated Voltage b.无响室/Non-Echo Chamber c.标准/Standard:CNS 8753/ISO3744 d.Test Condition:ISO 7779 e.距离/Distance: 1.0M
13	马达极数/ No. of Pole	8 极/Poles		
14	防水功能/Waterproof	马达组泡三防漆		

B.电气规格(Electrical Specification)

项目/ITEM		规格.条件/Specification. Condition	
01	锁定扇叶保护功能 Locked Rotor Protection	☐ 安规条件/ Safety Condition	
		■ 额定电压锁住扇叶 1 秒，自动断电，自动断电后，2~6 秒后尝试重新启动/Auto power off after locked at rated voltage for 1sec After auto power off ,circuit attempt restart in 2 to 6sec	
02	极性保护 Polarity Protection	■ Vcc 与 GND 反接时，不导通 Open circuit when Vcc&GND are exchanged	
		☐ Vcc 与 GND 反接时 ,5 秒内不烧毁/Circuit won't be burned within 5 seconds when Vcc &GND are exchanged	
03	绝缘阻抗 Insulation Resistance	10MΩ裸线与外框间测量，500VDC/min 10MΩ Between unshielded wire and frame at 500VDC/min	
04	绝缘耐压 Dielectric Strength	5mA Max/ 裸线与外框间测量，500VAC/min 5mA Max/ Measured b/w lead wire(+)and frame at 500VAC/min	
05	特殊功能 Special Function	■ 软启动/Soft Start	☐ 限流 /Current Limiter

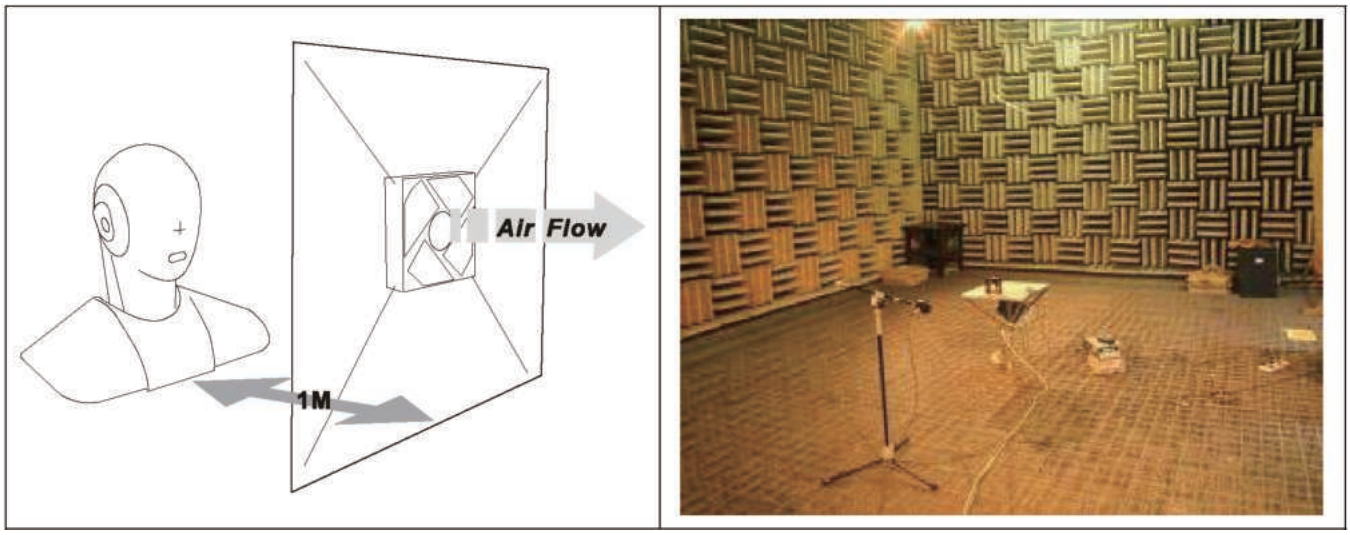
C.主要材料,零件规格(Main Materials, Parts Specification)

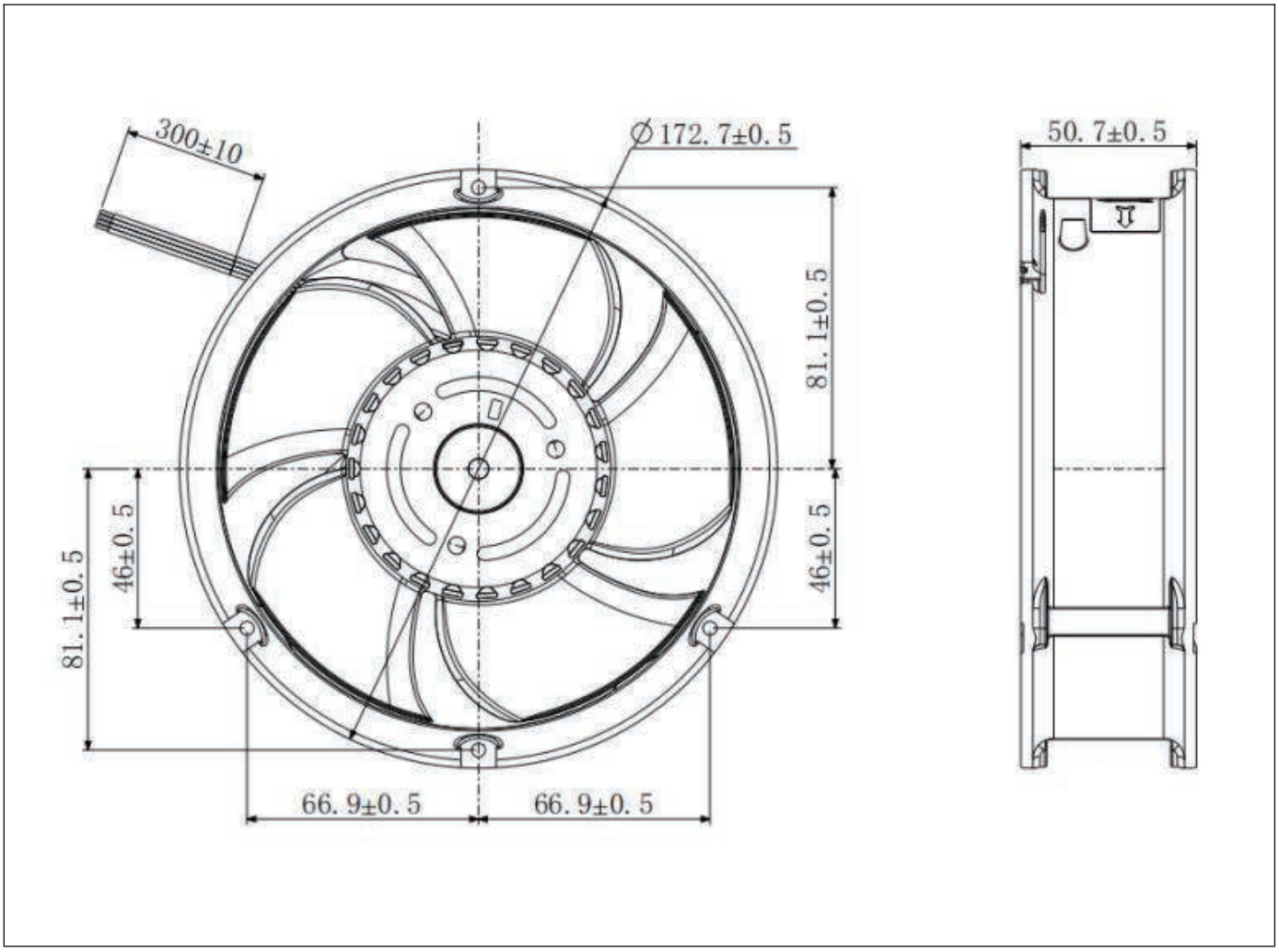
01	轴　　承/Bearing	■双滚珠轴承（Dual Ball Bearing）		□ 含油轴承（Sleeve Bearing）	
02	外框材质/Frame	□ PBT of UL94V-0.		■ Die-cast Aluminum Alloy	
03	扇叶材质/Impeller	■ PPS of UL94V-0.		□ Steel	
04	绝缘套/Bobbin	□ PBT of UL94V-0.			
05	导线/Lead Wire	■ Red(+)	■ Black(-)	■ Blue（FG）	红黑 UL1007 20#，蓝黄 UL1007 22#
		■ Yellow(PWM)	□ White(RD)	4 wires 300±10mm	
06	端子/Connector	无/NO			
07	套管/Tube	无/NO			

D.环境测试/Environmental Specification

项目/ITEM		规格.条件/Specification. Condition	
01	运转温度、湿度范围 Operating Temp. Range	温度/Temperature	: -15 ℃ ~70℃
		湿度/Humidity	:15%~ 65% RH (Frost Eliminated)
02	保存温度、湿度范围 Storage Temp. Range	温度/Temperature	: -30 ℃ ~70℃
		湿度/Humidity	:15%~ 65% RH (Frost Eliminated)

E.噪音测试条件/Noise Measure Condition

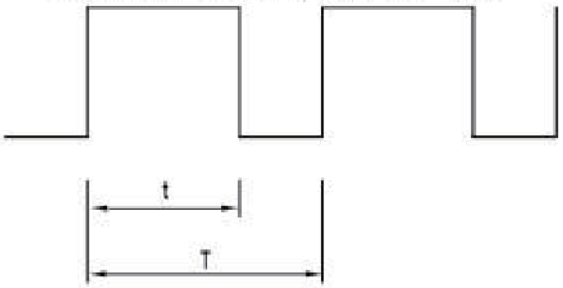




M：PWM 信号

1. PWM CONTROL SIGNAL:

SIGNAL VOLTAGE RANGE: 0~5VDC



HIGH SIGNAL: 5.0 VDC MAX. 2.0 VDC MIN.

LOW SIGNAL: 0.8 VDC MAX. 0 VDC MIN.

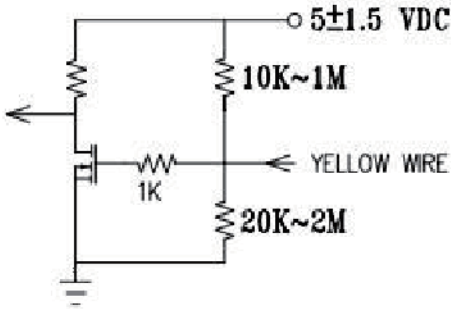
DUTY CYCLE= $\frac{t}{T}$ *100(%)

- THE FREQUENCY FOR CONTROL SIGNAL OF THE FAN SHALL BE ABLE TO ACCEPT A 25KHZ.
- THE PREFERRED OPERATING POINT FOR THE FAN IS 25KHZ.
- AT 100% DUTY CYCLE, THE ROTOR WILL SPIN AT MAXIMUM SPEED.
- AT 0% DUTY CYCLE, THE ROTOR WILL SPIN AT STOP.
- WITH CONTROL SIGNAL LEAD DISCONNECTED, THE FAN WILL SPIN AT MAXIMUM SPEED.
- AT 25KHZ 30% DUTY CYCLE ,THE FAN WILL BE ABLE TO START FROM A DEAD STOP.

2. SPEED VS PWM CONTROL SIGNAL:

(AT RATED VOLTAGE & PWM FREQUENCY=25KHZ & TEMPERATURE AT 25DEGREE C)

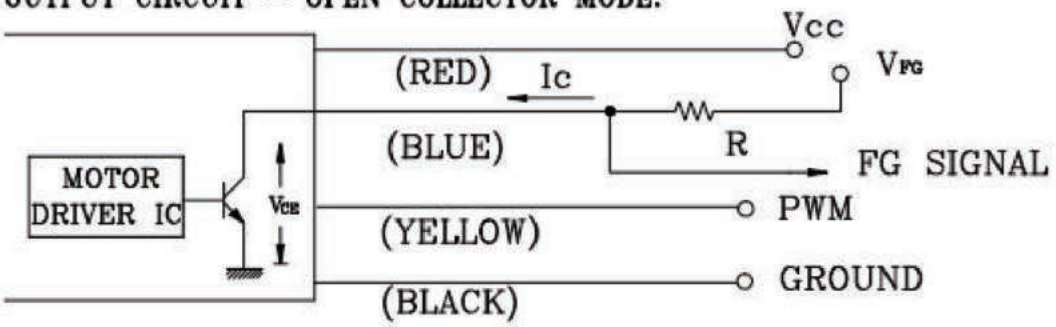
3. PWM CONTROL LEAD WIRE INPUT IMPEDANCE:



13-1. THE FAN SPEED WILL DEFAULT TO MAXIMUM WHEN THE SPEED CONTROL INPUT IS LEFT UNCONNECTED.

N：FG Sigunal:

1. OUTPUT CIRCUIT - OPEN COLLECTOR MODE:



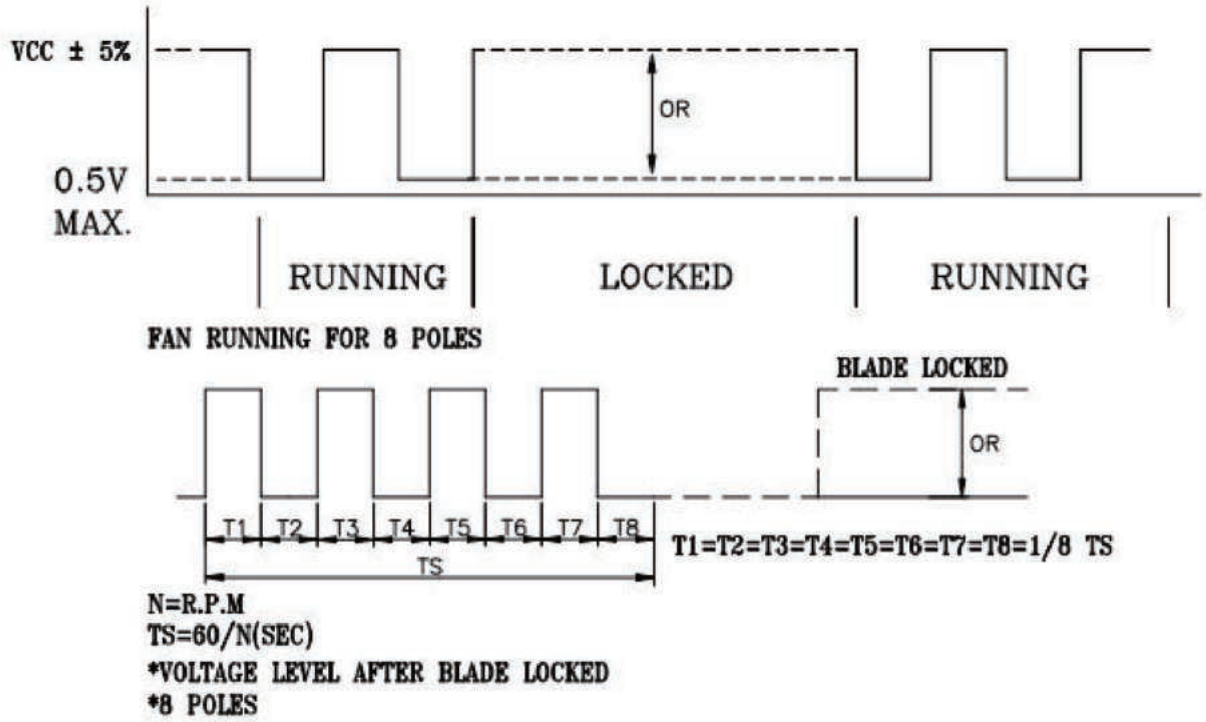
CAUTION: THE FG SIGNAL LEAD WIRE MUST BE KEPT AWAY FROM"+" LEAD WIRE & "−" LEAD WIRE.

2. SPECIFICATION:

$V_{CE}(sat)$=0.5V MAX　　V_{FG}= 13. 5V MAX

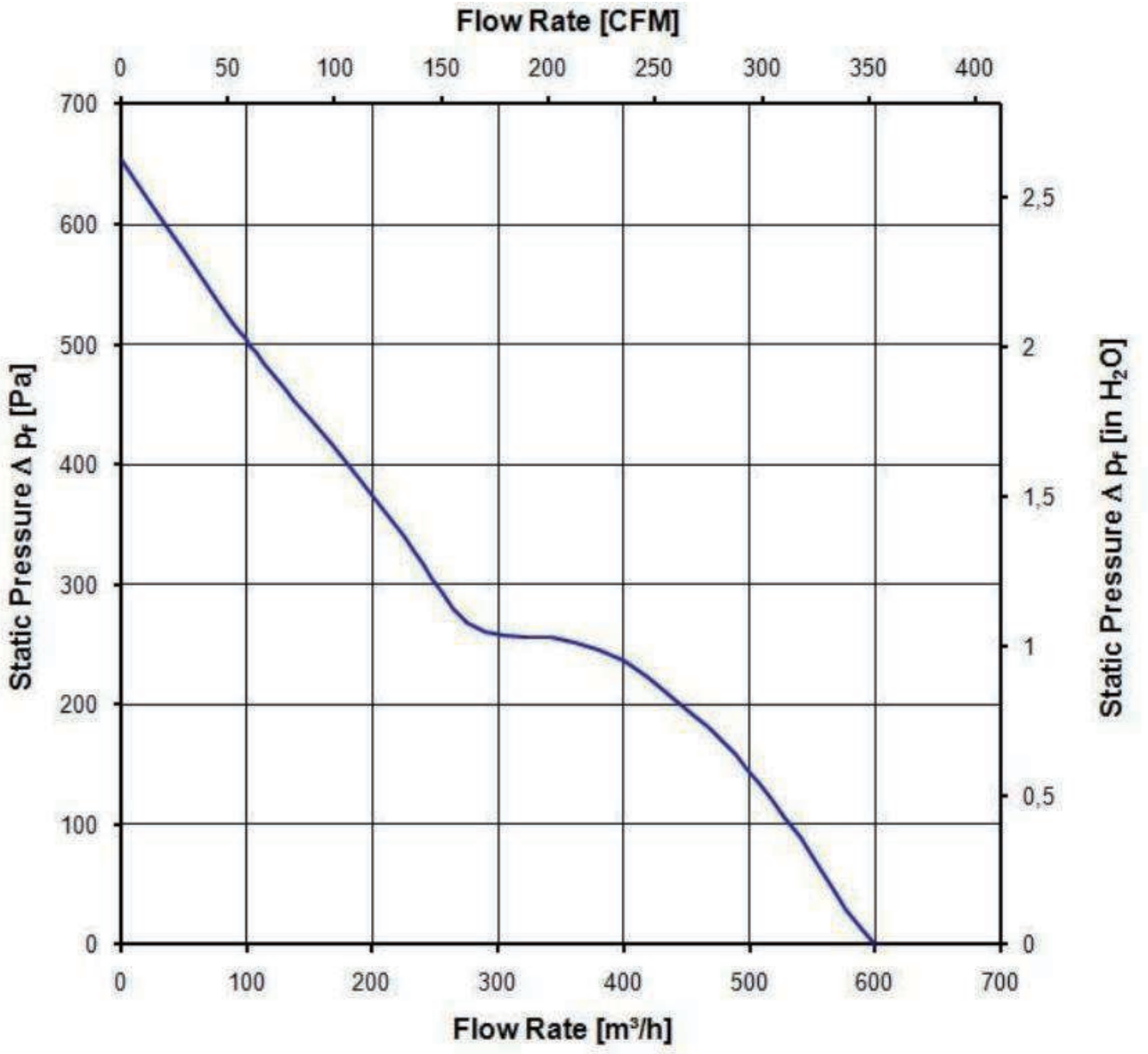
I_C =10mA MAX.　　$R \geq V_{FG}/I_C$

3. FREQUENCY GENERATOR WAVEFORM:



N=R.P.M
TS=60/N(SEC)
*VOLTAGE LEVEL AFTER BLADE LOCKED
*8 POLES

Q：P&Q 曲线


Flow Rate [CFM]
0
50
100
150
200
250
300
350
400
700
600
500
400
300
200
100
0
Static Pressure Δ pf [Pa]
2,5
2
1,5
1
0,5
0
Static Pressure Δ pf [in H2O]
0
100
200
300
400
500
600
700
Flow Rate [m³/h]

Note:

1. We will not guarantee the products if your application exceeds the limitations outlined in this specification.

2. Please do not touch and push fan blade with fingers or others. Fan blade and ball bearings may be damaged. And it caused noise defect.

3. Please avoid operating SFENGDA's products in poisonous material(organic, cyanogens, formalin, phenol, etc.)or corrosive gas environment(H_2S, SO_2, NO_2,etc.)

4. We do not warrant performance safety against accidents caused by dust, water, droplets dew, bugs, etc.

5. Always ensure that fans are stored according to the storage temperatures specified. Do not store in a high humidity environment. If the fans are stored for more than 6 months, we recommend functional testing before using.

6. Please do not damage this product this product including coil and lead wires while installing or wiring. There may be smoking or fire.

7. Avoid the damage, check the correct voltage and proper polarity before connecting with power.

8. Improper mounting may cause harsh resonance, vibration, and noise. Please mount securely.

9. It is very important to notify that avoid to drop from 60cm height when in any movement or operation, it will impact the balance of blade. Especially ball bearing structure is avoided to drop down.

10. Safety is a top priority. Please furnish guard accessories to prevent injury to personnel