



# SPECIFICATION

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**MODEL**  
**K-DC17251-A48-92-68**

Samples Requirement	<input checked="" type="checkbox"/> Engineering Samples
	<input type="checkbox"/> Pre-production Samples
	<input type="checkbox"/> Production Sample
Motor Protection	<input checked="" type="checkbox"/> Polarity Protection
	<input checked="" type="checkbox"/> Auto Restart
Connection Lead Type	<input checked="" type="checkbox"/> Wire
Bearing Type	<input checked="" type="checkbox"/> Ball Bearing
Material Type	<input checked="" type="checkbox"/> PBT+30%FIBER+ A-Aluminumin Black

## 1.Sample Specification

Item		Specification/Condition	
1	Part No.	K-DC17251-A48-92-68	
2	Outline Dimension	172X51mm	
3	Rated Voltage	DC: 48V	
4	Voltage Range	DC: 36V~73V	
5	Starting Voltage	Max:36DCV (on/off)	
6	Rated Current	3.16A±10%	25°C 60~80%RH
7	Power Consumption	152 W±10%	25°C 60~80%RH
8	Speed	9200RPM±10%	25°C 60~80%RH
9	Max. Air flow	546CFM±10%	25°C 60~80%RH Rated Current
10	Max. Static Pressure	133.67mm-H2O	
11	Noise Level	75.5dB	
12	Weight	825g	
13	Life Expectancy	70000	Hours (at 25°C 65%R.H.)
14	Waterproof	IP68	Vacuum coating

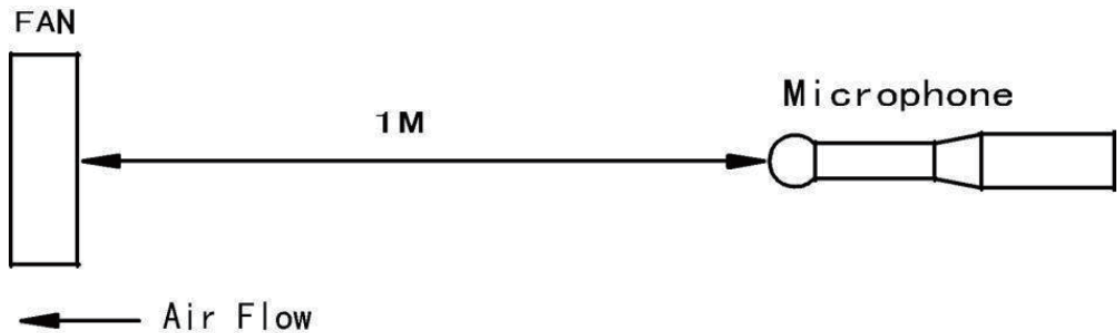
## 2.Electrical Specification

Item	Specification/Condition
Dielectric Strength	500V/1mA/2s
Insulation Resistance	10M (Ambient temperature 25°C )
Temperature Test of Run	$\Delta t \leq 70^{\circ}\text{C}$ Rated Voltage
Locked Rotor Protection	$\Delta t \leq 130^{\circ}\text{C}$ Rated Voltage
Pound resistance	Can wi thstand the shock from all three axis by 60g and two times per
Vibration resistance	Can wi thstand the vilratiom from 5-30Hz,0.04g to 30-500Hz,2g peak
Lock Test	Locked for at least0.2hrs at raetd voltage,the fans run normally after lock released.
Reversla Voleage Test	Test with reversal working voltage for 2minutes,all remain still,but all fans run normally after corrected voltage.

### 3.Acoustical Noise

#### Testing Condition:

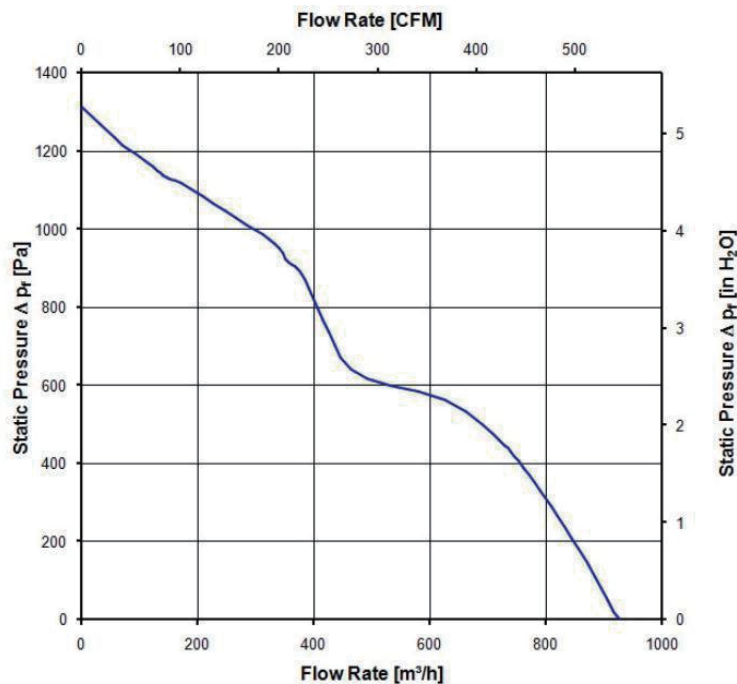
Fan is hanged in anechoic chamber, Noise is measured at rated voltage in anechoic chamber with microphone at a distance of one meter from the air intake ;



### 4.Mechanical Characteristics

#### 4.1 Performance Curve

4.1.1 The performance including air flow and air pressure measured in Double Chamber is measured according to AMCA210-85 standard.



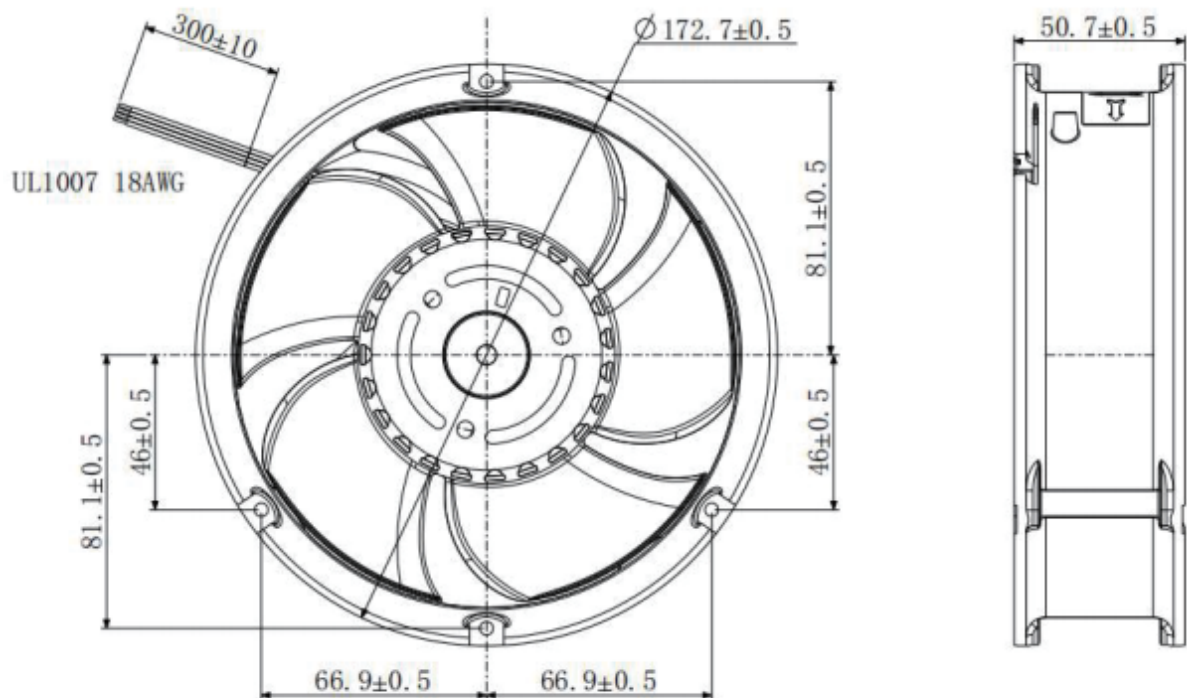
### 5.Environmental Specification

Item	Specification/Condition
Operating Temp. Range	Temperature: -10°C ~70°C Humidity: 20%~85%RH
Storage Temperature	Temperature: -40°C ~80°C Humidity: 20%~95%RH

## 6.Main Materials/Parts Specification

NO.	MAJOR COMPONENTS	MATERIAL OR TYPE	GRADE	UL No
1	FAN HOUSING	A-Aluminumin Black		
2	FAN BLADE	PBT 70%+FIBER30%	94-V0	
3	INSULATOR FRAME	PBT 100%	94-V0	
4	SHAFT	STAINLESS STEEL		
5	BEARING	BALL		
6	PLASTIC MAGNET	STRONTIUM FERRITE		
7	ENAMELED WIRE	2 UEW		
8	SILICON STEEL STRIP	H 23		
9	P.C.B	Single-layer printed circuit		
10	HALL IC			
11	LEAD WIRES	1007 18#AWG L=300±10mm	94-V0	
12	TERMINAL	NO		
13	SINK	NO		
14	CASING	NO		
15	SPRING COIL	YES		

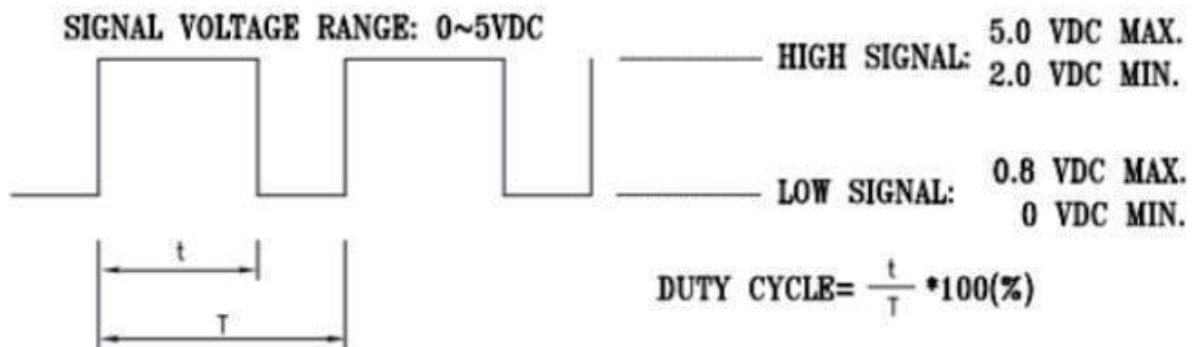
## 7.Outline Dimension



RED WIRE ----- (+)  
 BLACK WIRE ----- (-)  
 YELLOW WIRE ----- (PWM)

## 8.Functional description

### 8.1 PWM CONTROL SIGNAL:



- 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.

### 12. SPEED VS PWM CONTROL SIGNAL:

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

### 13. PWM CONTROL LEAD WIRE INPUT IMPEDANCE:

Frequency range: 300HZ~30KHZ

