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## APPROVAL SHEET

**Model : TFD-9225M12S**

**Customer :**

**Date :**

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CUSTOMER APPROVAL SIGNATURE

# PRODUCT SPECIFICATION

## A.GENERAL SPECIFICATION

ITEM		SPECIFICATION/CONDITION
A-1	Part No.	TFD-9225M12S
A-2	Outline Dimension	92*92*25MM
A-3	Rated Voltage	12VDC
A-4	Rated Current	0.15A
A-5	Power Consumption	1.80W
A-6	Rated Speed	2200 ± 10%RPM
A-7	Max. Airflow	38.35CFM
A-8	Max Static Pressure	1.99mmH <sub>2</sub> O
A-9	Noise Level	<25dBA
A-10	No. of Pole	4 Pole
A-11	Rotation Direction	Counter-Clockwise

## B.ELECTRICAL SPECIFICATION

ITEM		SPECIFICATION/CONDITION
B-1	Locked Motor Protection	a. No damage is made for a condition 72-hour rotation lock voltage b. Signal alarm-option
B-2	Polarity Protection	Circuit is protected when Vcc & GND are Exchanged
B-3	Insulation Resistance	10M $\Omega$ /b/w unshielded wire and frame at 500 VDC/min
B-4	Dielectric Strength	5Ma Max./Measured b/w lead wire and frame at 500VAC/min

## C.MAIN MATERIAL/PARTS SPECIFICATION

ITEM	MAJOR COMPONENTS	MATERIAL OR TYPE	GRADE
C-1	FAN FRAME	PBT D202G	94V-0
C-2	FAN BLADE		94V-0
C-3	PLASTIC MAGNET	STRONTIUM FERRITE (BOB14W)	
C-4	LEAD WIRES	POLYVINYL CHLORIDE ENAMELED COPPER WIRE(AWG#26)	94V-0
C-5	CONNECTOR HOUSING		94V-0
C-6	CONNECTOR		

## D.ENVIRONMENTAL SPECIFICATION

ITEM		SPECIFICATION/CONDITION
D-1	Operation Temperature	-10°C~+60°C/66%(RH)
D-2	Storage Temperature	-40°C~+70°C/66%(RH)
D-3	Environment Humidity	10%(RH)45°C for 24hr
D-4	Packing Shock Proof Test	1 comer, 3 edges ,6 face natural drop 80cm high packing
D-5	Temperature Rise In Normal Operation	Temperature rise less than 35°C at external surface Temperature rise less than 65°C at coil surface
D-6	Insulation Resistance	Between fan frame and terminal wires at least 10MΩ at 500VDC
D-7	Dielectric Strength	Must withstand 500 VAC 1second 1m A between fan frame and both wires

## E.LIFE TIME

BEARING TYPE	AMBIENT TEMP	EXPECTANCY
<input type="checkbox"/> SLEEVE BEARING	40°C	25,000HOURS
<input type="checkbox"/> 1B/1S BEARING	40°C	35,000HOURS
<input type="checkbox"/> TWO BALL BEARING	40°C	50,000HOURS

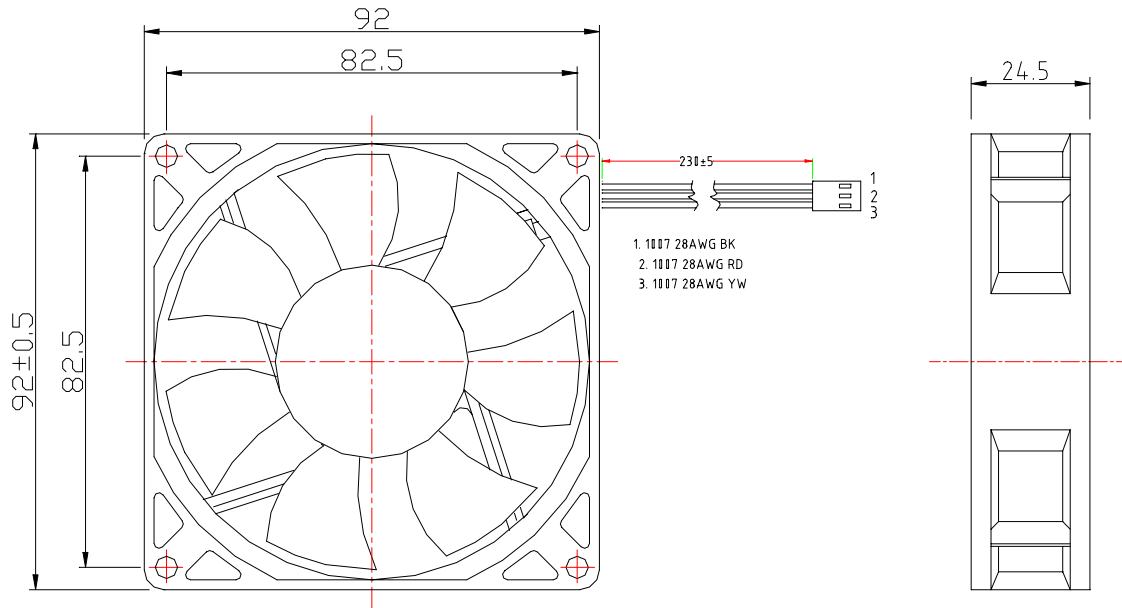
## F.SHOCK TEST

Gravitational acceleration of 50gpeak,duration of pulse,11 mili seconds(half sine wave).

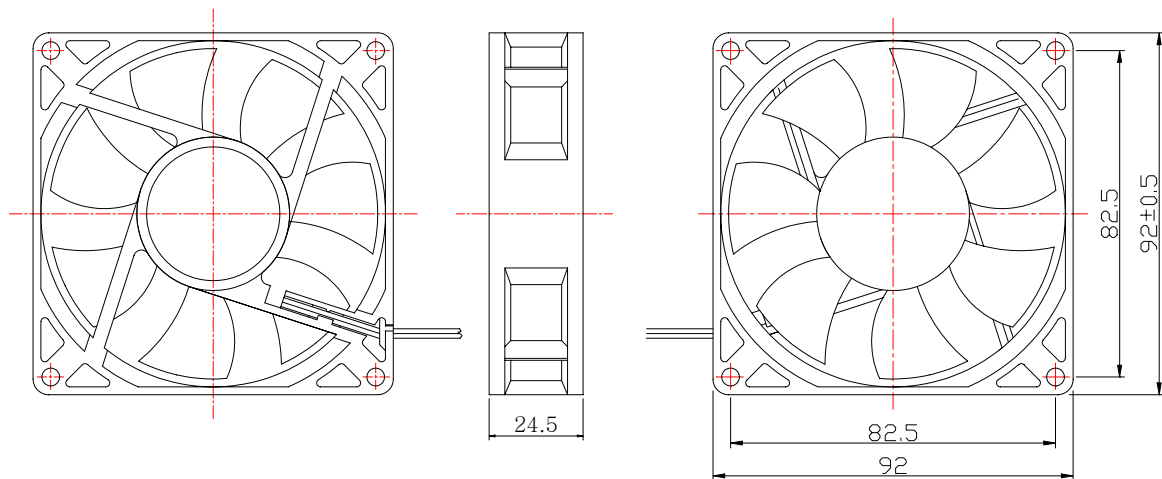
## G.DROP TEST

Prepared in minimum packing condition,fan will withstand one drop each on three surfaces from a 30cm height onto a 10mm thick hard wooden board.

# Figure 1 FAN Assembly



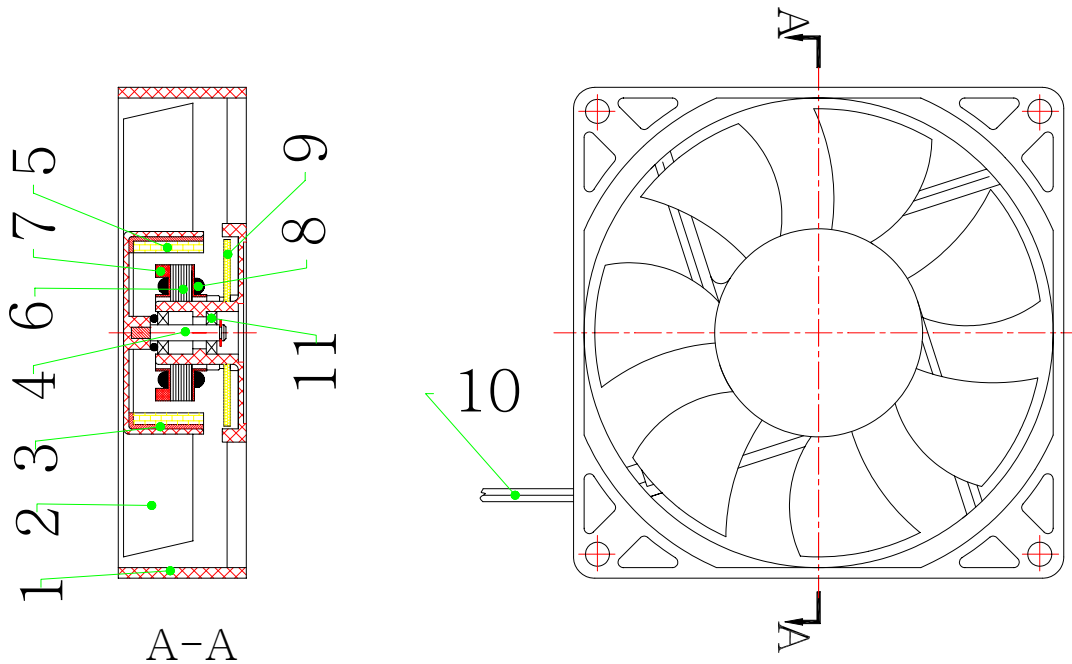
# Figure 2 Mechanical Dimensions



## Notes:

1. Tolerances:  $\pm 0.5$
2. Impeller must not protrude beyond front surface
3. Minimum 0.50 radius at all rib intersections
4. Unit: mm

Figure 3 Bill of Material



No	Components	Material	Flame Class	Grade	Manufacturer	UL File No
1	Case	PBT	94-V0	---	Zhong gang industria-limited	E205196
2	Fan Blade	PBT	94-V0	---	Zhong gang industria-limited	E205196
3	Yoke	Steel	---	---	Kuo chen metal ind co.,ltk	---
4	Shaft	Stainless Steel	---	---	Teng Mao precision on shaft factory.	---
5	Magnet	Rubber	94-V0	---	Best result enter-prise co.,ltd	---
6	Core	Plated Steel Sheets	94-V0	---	Chang yi industry co.,ltd	---
7	Slot Insulation	PBT	94-V0	---	Zhong gang industria-limited	E205196
8	Winding	Polyurethane enameled copper	---	---	Li yan industry co.,ltd	---
9	Printed wiring board	Metal clad idustrial lamination	94-V0	---	Dong jian electronics.,ltd	---
10	Lead wire	UL 2468 AWG26	---	---	Wide cheer enter-prise limited	E108485
11	Ball bearing	Carbon steel	---	---	Nmb isc.tpi	---

# Figure 4 Fan Performance Curve

