



# Jaro Thermal

We keep the world cool™

## SPECIFICATION FOR APPROVAL

Customer

Description A C F A N

Part No. \_\_\_\_\_

Jaro Model No. JDA1203811HB0A2W(R2T6N) REV. 0

Sample Issue No. \_\_\_\_\_

Sample Issue Date \_\_\_\_\_

PLEASE SEND ONE COPY OF THIS SPECIFICATION  
BACK AFTER YOU SIGNED APPROVAL FOR  
PRODUCTION PRE-ARRANGMENT.

PREPARED BY : Adam.Hung DATE : 01/26/2012

CHECKED BY : Jay.Su DATE : 01/26/2012

APPROVED BY : Claire.Wang DATE : 01/26/2012

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# SPECIFICATION



<b>Customer</b>	:		Ref: (RoHS)
<b>Jaro Model</b>	:	JDA1203811HB0A2W(R2T6N)	
<b>Samples attached</b>	:	pcs	
<b>Safety Approval</b>	:	UL,CUL,CE	

## Description

<b>DIMENSIONS</b>	:	120x120x38	mm
<b>BEARING TYPE</b>	:	BALL	
<b>RATED VOLTAGE</b>	:	115	VAC 60 Hz
<b>OPERATING VOLTAGE</b>	:	110	VAC — 120 VAC 60 Hz
<b>RATED CURRENT</b>	:	0.14	Amp (at25 °C ±1.5°C)
<b>RATED CURRENT</b>	:	0.19	Amp (at45 °C ±1.5°C)
<b>REAL POWER</b>	:	9.00	Watt (at25 °C ±1.5°C)
<b>REAL POWER</b>	:	16.50	Watt (at45 °C ±1.5°C)
<b>RATED CURRENT</b>	:	0.26	Amp + 10%
<b>RATED POWER</b>	:	27.60	Watt
<b>RATED SPEED</b>	:	1250~1750	RPM (at25 °C ±1.5°C)
<b>RATED SPEED</b>	:	2650	RPM ± 10 % (at45 °C ±1.5°C)
			(IN FREE AIR AT RATED VOLTAGE)
<b>AIR FLOW</b>	:	95.000 / 85.000	CFM (at 2800 rpm)
		2.690 / 2.421	CMM (at 2800 rpm)
			(IN FREE AIR AT RATED VOLTAGE)
<b>STATIC AIR PRESSURE</b>	:	0.205 / 0.184	Inch H <sub>2</sub> O (at 2800 rpm)
		5.200 / 4.680	mm H <sub>2</sub> O (at 2800 rpm)
			(IN FREE AIR AT RATED VOLTAGE)
<b>NOISE LEVEL</b>	:	43.6	dB (A) (MAX 47.6 dB(A)) (at 2800 rpm)
<b>MOTOR PROTECTION</b>	:	BY IMPEDANCE	
<b>Operation Temperature °C</b>	:	-10 ~ +70	°C at @65% relative humidity
	:		
<b>LIFE EXPECTANCY</b>	:	50000	Hours at 25°C / 65%
<b>NET WEIGHT</b>	:	550	Gram.
<b>PACKING</b>	:	40	pcs. Per Export Carton.

Unless otherwise stated, the relative humidity is 65%, and the temperature is 25°C for the standard testing.

Should you have any doubt, please refer to the environmental conditions specified in the acknowledgement document.

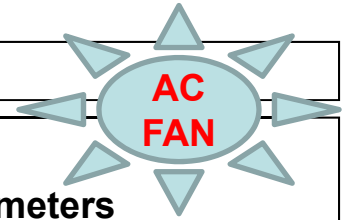




# DIMENSION DRAWING



JARO MODEL: JDA1203811HB0A2W(R2T6N)



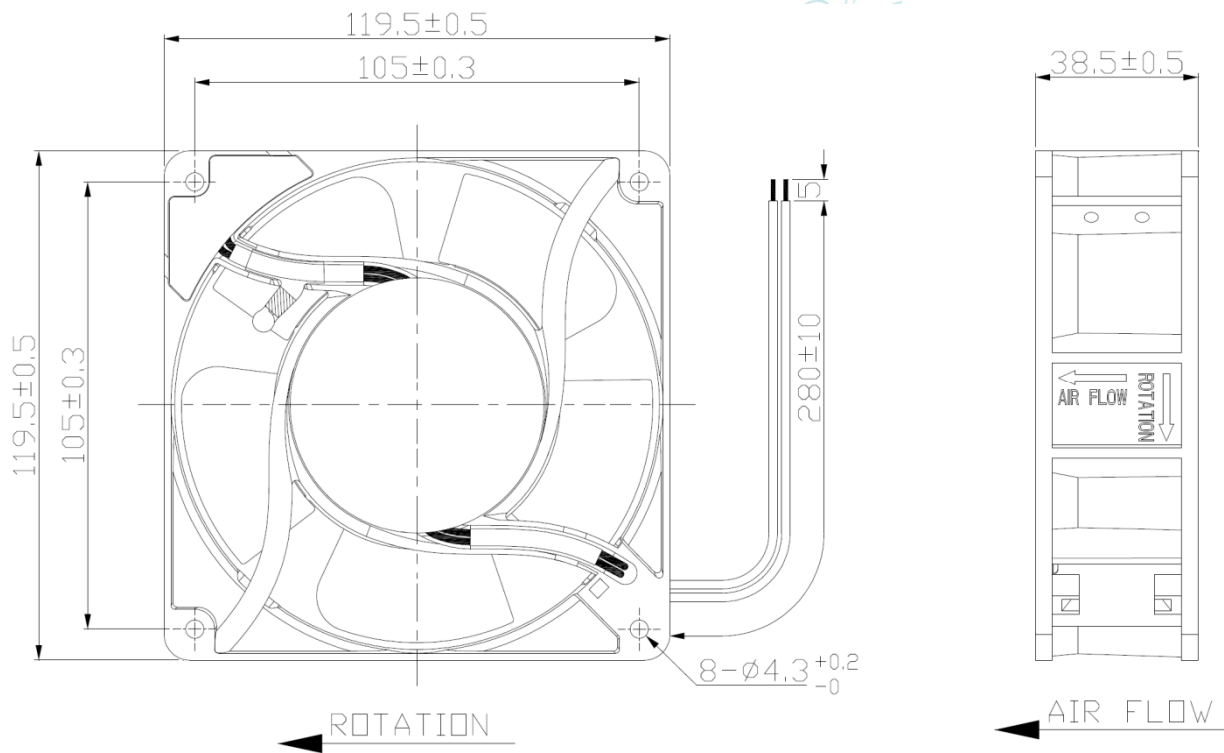
## 10.0 Dimension

### DIAGRAM OF DIMENSIONS: Dimensions in millimeters

#### Description: AC Fan with:

Frame : Die-Cast Aluminum Impeller : Plastic(UL :94V-0)  
 280 +/- 10 mm lead length  
 UL1430 ,22 AWG

NOT TO SCALE. ALL COMPONENTS MUST BE ROHS COMPLIANT.



Drawing Note:  
 Safety : UL,CUL,CE

Revision	CHANGES	DATE	BY
Original Issue		01/26/2012	Adam Hung
Revision A			
Revision B			

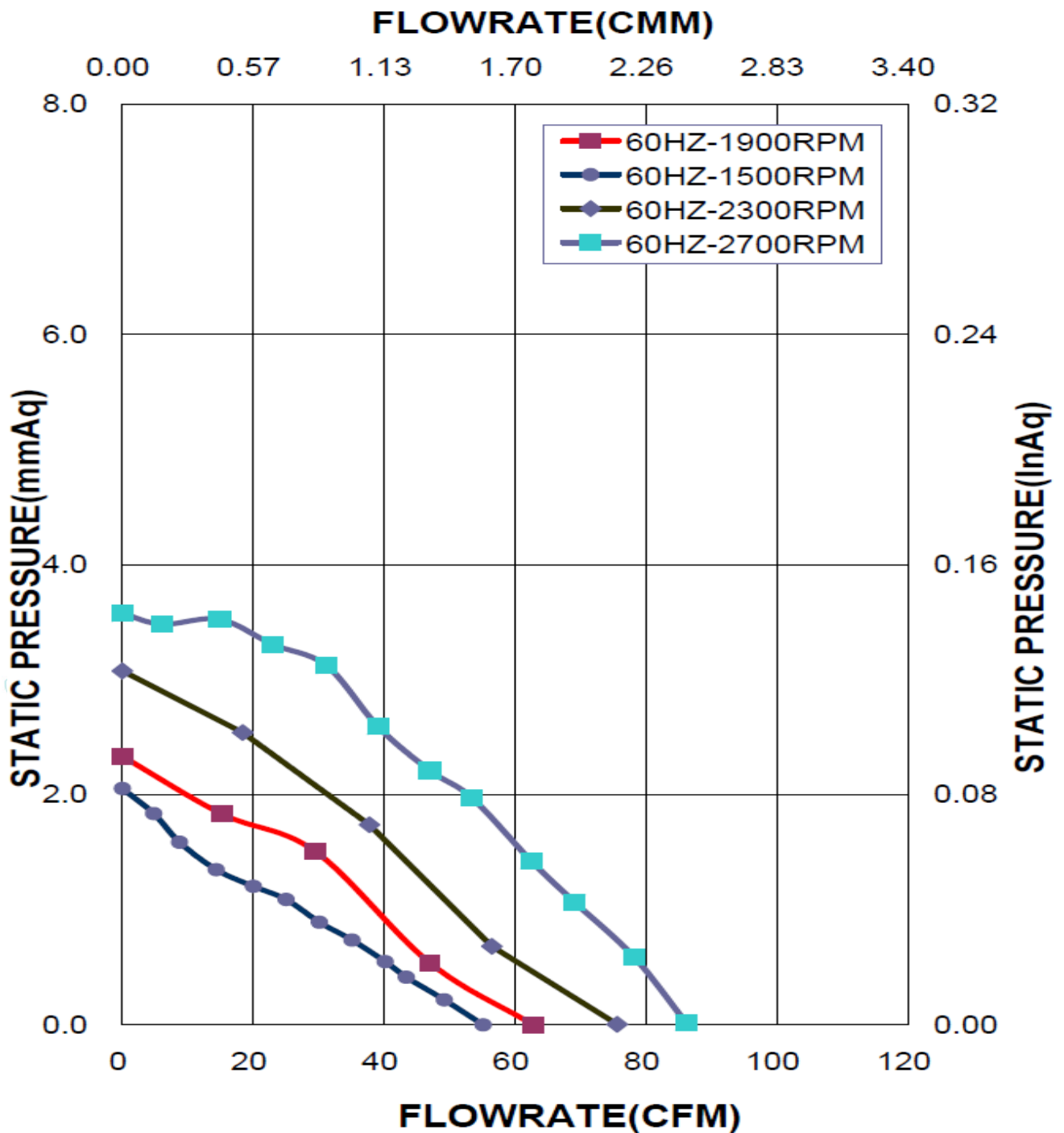


# PERFORMANCE CURVE

JARO MODEL: JDA1203811HB0A2W(R2T6N)

## 11.0 Performance Curve

### Fan Performance Curve

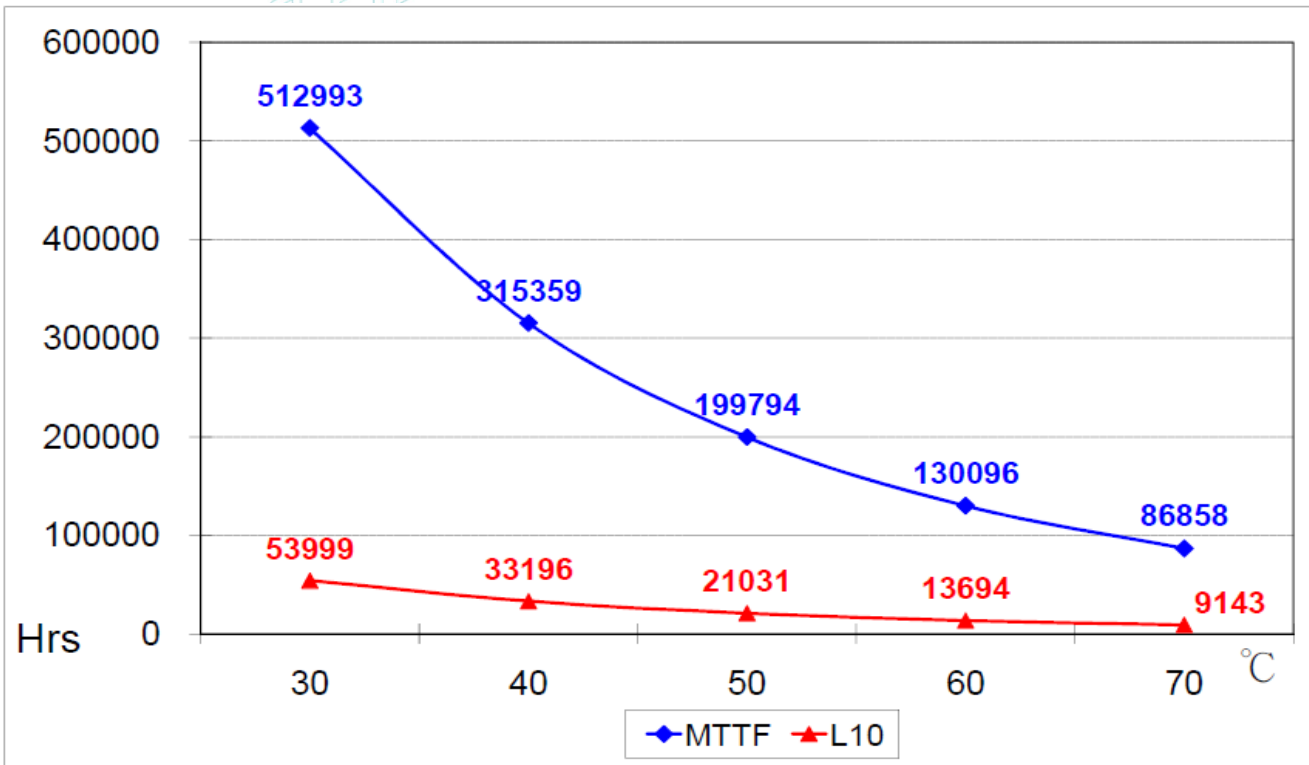




# LIFE DATA

JARO MODEL: JDA1203811HB0A2W(R2T6N)

故障定義 Product Specification & Failure Definition	試驗結果：包含故障時間、數據、統計、...等 Test Result : Including Time Of Failure、Datum、Statistics、... ect.																																														
1.風扇不轉 (Fan Not Work) 2.轉速超出規格30% (Speed Over 30% Origin) 3.電流超出規格30% (Current Over 30% Origin)	• 溫度加速因子 TEMP A.F = $e^{(\Delta H/K) \times (\frac{1}{273+T} - \frac{1}{273+T_h})}$ • 總試驗時間 Total Test Time = 200000 HRS.																																														
Description : 1.性能測試時點 The Time Of Check Point Start : 0Hr, 500Hrs, 1000Hrs And Finished $70^\circ\text{C MTTF} = \frac{\text{Total test time (T)}}{\text{Total failure (r)}}$ <b>GEM TABLE</b> Generalized Exponential Model (for Time-Terminated Test) <table border="1" data-bbox="183 958 561 1064"> <tr> <td>r</td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>M</td> <td>2.3026</td> <td>3.8897</td> <td>5.3223</td> <td>6.6808</td> <td>7.99364</td> <td>9.2747</td> </tr> <tr> <td>r</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td></td> </tr> <tr> <td>M</td> <td>10.6321</td> <td>11.7709</td> <td>12.9947</td> <td>14.2080</td> <td>15.4068</td> <td></td> </tr> </table>	r	0	1	2	3	4	5	M	2.3026	3.8897	5.3223	6.6808	7.99364	9.2747	r	6	7	8	9	10		M	10.6321	11.7709	12.9947	14.2080	15.4068		• 查表得 (MTTF By GEM Table) MTTF = 86858 HRS. • 溫度 / TEMP. / MTTF / L10 <table border="1" data-bbox="778 813 1374 1064"> <thead> <tr> <th>溫度TEMP.</th> <th>信賴水準90% CONFIDENCE LEVEL</th> <th>L10</th> </tr> </thead> <tbody> <tr> <td>30 °C</td> <td>512993</td> <td>53999</td> </tr> <tr> <td>40 °C</td> <td>315359</td> <td>33196</td> </tr> <tr> <td>50 °C</td> <td>199794</td> <td>21031</td> </tr> <tr> <td>60 °C</td> <td>130096</td> <td>13694</td> </tr> <tr> <td>70 °C</td> <td>86858</td> <td>9143</td> </tr> </tbody> </table>	溫度TEMP.	信賴水準90% CONFIDENCE LEVEL	L10	30 °C	512993	53999	40 °C	315359	33196	50 °C	199794	21031	60 °C	130096	13694	70 °C	86858	9143
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3. Herewith, we could assume as right on the basis of above test result. Besides, if the actual test time exceed the required, it comes out that those fans' L <sub>10</sub> expectancy and MTTF are greater than the warrant. MTTF: Mean Time To Failures. It should be used in a non-repairable system setting. Now we show the MTTF in our life report, that's because we will not repair the failed fans during life experiment. MTBF: Mean Time Between Failures. It should be used in a repairable system setting. Basically, MTBF is equal to MTTF, they use same formula to work out a life data.																																															





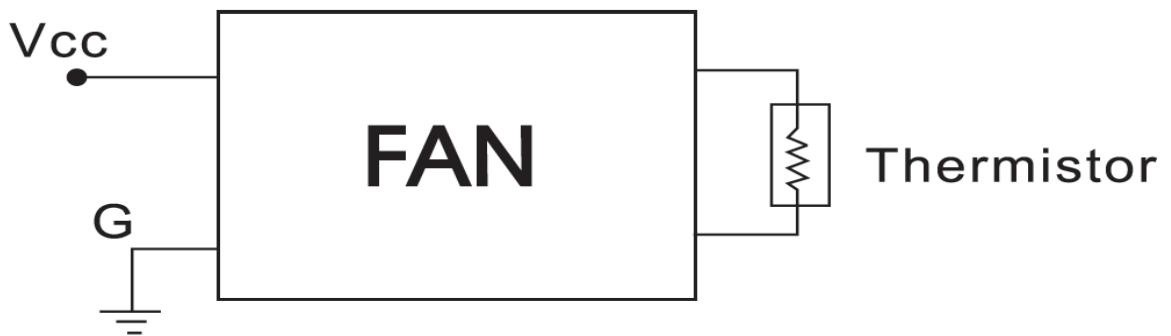
# Lead Wire Design

JARO MODEL: JDA1203811HB0A2W(R2T6N)

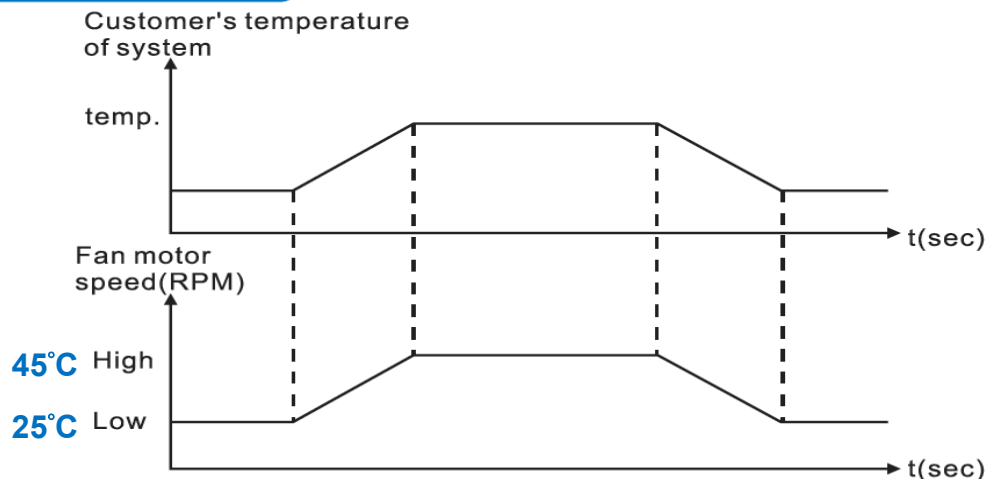
## Version 4(VS)

### Variable Speed by Thermistor

Diagram:



### \*Variable degree



The temperature range is 25°C to 45°C.

Any temperature below 25°C the fan will operate at 1250~1750rpm.

Between 25°C and 45°C, the fan RPM changes linearly with temperature.

Over 45°C, the fan will maintain full speed operation.