

# Life Test Report

Date: Mar.17.2008

Model NO.		SF23080AT-2082HSL.GN		Test Condition		Test Result			
Spec.	Speed	2,750	RPM	Input voltage	230VAC 60Hz	Failed Q`ty		5	
	Current	0.07	AMP	Temperature	70°C	Life Expectancy	L10 (hours)	17,108	
Sample tested		50	Pcs	Orientation	Vertical		MTTF (hours)	45,460	
Test hours/Each		16,464	Hours	Running	In Free Air				
Failure Definition				Test Result , (Including Time To Failure , Datum , Statistics ..... etc)					
1. No function.				<u>Accu.F/Q</u>	<u>TTF(Hrs)</u>	<u>UUT</u>	<u>Accu.F/R</u>	<u>Finding</u>	
2. RPM under 15% of original				1	6,384	49	2.00%	Speed under 15%	
3. Current over 15% of original				2	9,744	48	4.00%	Speed under 15%	
4. Noise over 3dB(A) of original				3	12,432	47	6.00%	Speed under 15%	
				4	14,616	46	8.00%	Speed under 15%	
※ The Life Expectancy of this fan has not been evaluated for use in combination with any end application. Therefore, the Life Expectancy Test Report( L10/ MTTF Report) that relates to this fan is only for reference.				5	16,464	45	10.00%	Speed under 15%	
Life calculation according to the equation for <u>Weibull distribution</u> to obtain relevant data				Accelerate Factor ; AF = 1.5 (Testing Temp. - Operating Temp.)/10					
Shape parameter;β	2.0487	Temp. Range	30°C	40°C	50°C	60°C	70°C		
Characteristic parameter; θ	51,315 hrs	AF (Multiple)	5.06	3.38	2.25	1.50	1.00		
$MTTF = \theta x \Gamma(1 + \frac{1}{\beta})$	45,460 hrs	MTTF (hours)	230,141	153,428	102,285	68,190	45,460		
$L10 = \theta x (0.10536)^{\frac{1}{\beta}}$	17,108 hrs	L10 (hours)	86,609	57,740	38,493	25,662	17,108		
Approved by: <i>Andy Liao</i>			Checked by: <i>Tony-chiu</i>			Tested by: <i>Dobbie</i>			