

## SOFASCO INC. THE TEST REPORT OF MTTF

試驗機種 SAMPLES P/N	A18065V2HBT-S	試驗條件 TEST CONDITION	文件編號 DOCUNEMT NO.	R-8255	
取樣數量 TESTED SAMPLE	70 PCS.	<input checked="" type="checkbox"/> 溫度 TEMP. : 70 °C <input type="checkbox"/> ON : SEC. <input type="checkbox"/> OFF : SEC. <input type="checkbox"/> 其他 OTHER :	試驗時間	開始 START	2007/3/1 _10:00
試驗時間 TESTED HRS/EA	1,000 HRS		TEST PERIOD	結束 FINISHED	2007/4/12 _12:00
總試驗時間 TOTAL TEST HRS	70000 HRS				

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、...ETC.
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<p>1.風扇不轉 (FAN NOT WORK.) 2.轉速超出規格30% (ROUND SPEED OVER 30% ORIGIN.) 3.電流超出規格30% (CURRENT OVER 30% ORIGIN.)</p> <p>Description : 1.性能測試時點 The Time Of Check Point Start , 500Hrs, 1000Hrs And Finished</p> $70^{\circ}\text{C MTTF} = \frac{\text{Total test time (T)}}{\text{Total failure (r)}}$ <p>2. GEM TABLE Generalized Exponential Model (for Time-Thermiated Test)</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <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>10.5321</td> <td>11.7709</td> <td>12.9947</td> <td>14.206</td> <td>15.4086</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	10.5321	11.7709	12.9947	14.206	15.4086		$(\Delta H / K) \times \left( \frac{1}{273+T_l} - \frac{1}{273+T_h} \right)$ <ul style="list-style-type: none"> <li>• 溫度加速因子 TEMP A.F = 2</li> <li>• 總試驗時間 TOTAL TEST HR: 70000 HRS</li> <li>• 查表得 (MTTF BY GEM TABLE) MTTF = 30400 HRS</li> <li>• L10 = MTTF / 9.5</li> <li>• 溫度 / TEMP. / MTTF / L10</li> </ul> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>溫度TEMP.</th> <th>信賴水準90% CONFIDENCE LEVEL MTTF</th> <th>L10</th> </tr> </thead> <tbody> <tr> <td>30°C</td> <td>442630</td> <td>46593</td> </tr> <tr> <td>40°C</td> <td>212499</td> <td>22368</td> </tr> <tr> <td>50°C</td> <td>106705</td> <td>11232</td> </tr> <tr> <td>60°C</td> <td>55937</td> <td>5888</td> </tr> <tr> <td>70°C</td> <td>30400</td> <td>3200</td> </tr> </tbody> </table>	溫度TEMP.	信賴水準90% CONFIDENCE LEVEL MTTF	L10	30°C	442630	46593	40°C	212499	22368	50°C	106705	11232	60°C	55937	5888	70°C	30400	3200
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3. **MTTF**: Mean Time To Failures. The average life of product from start to totally breakdown, the failure is un-repairable and product is discarded at failure.  
**MTTF**: 平均壽命期間，只產品使用到故障不能再使用為止，產品為無法修復且因故障而丟棄。  
**MTBF**: Mean Time Between Failures. It should be used in a repairable system setting. The average interval of failure after a period of time.  
**MTBF**: 平均故障區間，使用產品於可修復的狀況下，指產品經一段時間使用，計算修復後平均每一次故障的時間有多長。  
 Usually, failure fans will not be repaired, so the fan products are suitable for MTTF report.  
 通常風扇壞掉不被更換。因此，風扇產品適用MTTF試驗報告。

核准 APPROVED BY: MICHAEL WANG	審查 CHECKED BY: PAUL CHEN	製表 PREPARED BY: TONY
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