

SOFASCO INC.

THE TEST REPORT OF MTTF

試驗機種 SAMPLES P/N	A15055V2HBLM	試驗條件 TEST CONDITION	文件編號 DOCUNEMT NO.	R-8218	
取樣數量 TESTED SAMPLE	150 PCS.	<input checked="" type="checkbox"/> 溫度 TEMP. : 75 °C <input type="checkbox"/> ON : SEC. <input type="checkbox"/> OFF : SEC. <input type="checkbox"/> 其他 OTHER :	試驗時間	開始 START	2003/7/1 _10:00
試驗時間 TESTED HRS/EA	2,500 HRS		TEST PERIOD	結束 FINISHED	2003/11/3 _12:00
總試驗時間 TOTAL TEST HRS	375000 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.

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.)

Description :
 1.性能測試時點 The Time Of Check Point
 Start , 500Hrs, 1000Hrs And Finished

75°C MTTF = $\frac{\text{Total test time (T)}}{\text{Total failure (r)}}$

2. GEM TABLE
 Generalized Exponential Model
 (for Time-Thermiated Test)

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	

$(\Delta H / K) \times \left(\frac{1}{273+Tl} - \frac{1}{273+Th} \right)$

- 溫度加速因子 TEMP A.F = :
- 總試驗時間 TOTAL TEST HF 375000 HRS
- 查表得 (MTTF BY GEM TABLE) MTTF 96408 HRS
- L10 = MTTF / 9.5
- 溫度 / TEMP. / MTTF / L10

溫度TEMP.	信賴水準90% CONFIDENCE LEVEL MTTF	L10
30°C	697994	73473
40°C	428052	45058
50°C	270906	28516
60°C	175463	18470
70°C	116654	12279
75°C	96408	10148
80°C	80019	8423
90°C	55917	5886

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: SAM
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