



# Test Report: GSM25B48

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25W AC-DC Single Output Medical Adaptor

## ■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

Component Stress Test

## ■ SAFETY & E.M.C. TEST

Safety Test

E.M.C. Test

## ■ RELIABILITY TEST

ENVIRONMENT TEST

## DESIGN VERIFY TEST

### OUTPUT FUNCTION TEST

| NO | TEST ITEM                | SPECIFICATION                                  | TEST CONDITION                                                                                                                                                                                                                 | RESULT                                                                                                                                                                           | VERDICT |
|----|--------------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 1  | RIPPLE & NOISE           | V1 : 240 mVp-p (Max )                          | I/P : 230VAC<br>I/P : 115VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                                                                   | V1 : 50 mVp-p (Max )                                                                                                                                                             | P       |
| 2  | OUTPUT VOLTAGE TOLERANCE | V1 : 2%~ -2 % (Max)                            | I/P : 85 VAC / 264 VAC<br>O/P : FULL/ MIN LOAD<br>Ta : 25°C                                                                                                                                                                    | V1 : 1 %~ -1 %                                                                                                                                                                   | P       |
| 3  | LINE REGULATION          | V1 : 1 %~ -1 % (Max)                           | I/P : 85 VAC ~ 264 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                                                                         | V1 : 0 %~ -0 %                                                                                                                                                                   | P       |
| 4  | LOAD REGULATION          | V1 : 2 %~ -2 % (Max)                           | I/P : 230VAC<br>I/P : 115VAC<br>O/P : FULL ~MIN LOAD<br>Ta : 25°C                                                                                                                                                              | V1 : 1 %~ -1 %                                                                                                                                                                   | P       |
| 5  | SET UP TIME              | 230VAC : 500 ms (Max)<br>115VAC : 1000 ms(Max) | I/P : 230VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                                                                  | 230VAC/ 220 ms<br>115VAC/ 240 ms                                                                                                                                                 | P       |
| 6  | RISE TIME                | 230VAC : 30 ms (Max)<br>115VAC : 30 ms (Max)   | I/P : 230VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                                                                  | 230VAC/ 16 ms<br>115VAC/ 10 ms                                                                                                                                                   | P       |
| 7  | HOLD UP TIME             | 230VAC : 16 ms (TYP)<br>115VAC : 16 ms (TYP)   | I/P : 230VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                                                                  | 230VAC/ 120 ms<br>115VAC/ 60 ms                                                                                                                                                  | P       |
| 8  | OVER/UNDERSHOOT TEST     | < ±5%                                          | I/P : 230VAC<br>I/P : 115VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                                                                   | TEST : <5 %<br>TEST : <5 %                                                                                                                                                       | P       |
| 9  | DYNAMIC LOAD             | V1 : 4800 mVp-p                                | I/P : 230VAC<br>I/P : 115VAC<br>(1).O/P : FULL /Min LOAD 90%DUTY/<br>1KHZ<br>(2).O/P : FULL /Min LOAD 90%DUTY/<br>3KHZ<br>(3).O/P : FULL /Min LOAD 90%DUTY/<br>5KHZ<br>(4).O/P : FULL /Min LOAD 50%DUTY/<br>120HZ<br>Ta : 25°C | (1)370 mVp-p /230V<br>(2)362 mVp-p /230V<br>(3)350 mVp-p /230V<br>(4)380 mVp-p /230V<br><br>(1)370 mVp-p /115V<br>(2)362 mVp-p /115V<br>(3)350 mVp-p /115V<br>(4)380 mVp-p /115V | P       |

## INPUT FUNCTION TEST

| NO | TEST ITEM             | SPECIFICATION                                     | TEST CONDITION                                                                                                                             | RESULT                                       | VERDICT |
|----|-----------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------|
| 1  | INPUT VOLTAGE RANGE   | 85 VAC~264 VAC                                    | I/P : TESTING<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                              | 66.2 V~264V                                  | P       |
|    |                       |                                                   | I/P :<br>LOW-LINE-3V= 82 V<br>HIGH-LINE+15%=300 V<br>O/P : FULL/MIN LOAD<br>ON : 30 Sec . OFF : 30 Sec 10MIN<br>( POWER ON/OFF NO DAMAGE ) | TEST : OK                                    |         |
| 2  | INPUT FREQUENCY RANGE | 47HZ ~63 HZ<br>NO DAMAGE OSC                      | I/P : 85 VAC ~ 264 VAC<br>O/P : FULL~MIN LOAD<br>Ta : 25°C                                                                                 | TEST : OK                                    | P       |
| 3  | EFFICIENCY            | 88 % (TYP)                                        | I/P : 230VAC<br>I/P : 115VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                               | 89.08 % /230V<br>88.755 % /115V              | P       |
| 4  | INPUT CURRENT         | 230V/ 0.35 A (TYP)<br>115V/ 0.7 A (TYP)           | I/P : 230VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                              | I = 0.207 A/ 230 VAC<br>I = 0.403 A/ 115 VAC | P       |
| 5  | INRUSH CURRENT        | 230V/ 55 A (TYP)<br>115V/ 30 A(TYP)<br>COLD START | I/P : 230VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                              | I = 43 A/ 230 VAC<br>I = 27 A/ 115 VAC       | P       |
| 6  | LEAKAGE CURRENT       | < 50 uA / 264 VAC<br><br>TOUCH CURRENT            | I/P : 264 VAC<br>O/P : Min LOAD<br>Ta : 25°C                                                                                               | L-FG : 44 uA<br>N-FG : 43 uA                 | P       |
| 7  | NO LOAD CONSUMPTION   | < 0.1 W                                           | I/P : 115VAC<br>I/P : 230VAC<br>O/P : NO LOAD<br>Ta : 25°C                                                                                 | < 0.022 W<br>< 0.059 W                       | P       |

## PROTECTION FUNCTION TEST

| NO | TEST ITEM               | SPECIFICATION                          | TEST CONDITION                                               | RESULT                                                   | VERDICT |
|----|-------------------------|----------------------------------------|--------------------------------------------------------------|----------------------------------------------------------|---------|
| 1  | OVER LOAD PROTECTION    | 105 % ~ 170 %                          | I/P : 230VAC<br>I/P : 115 VAC<br>O/P : TESTING<br>Ta : 25°C  | 160%/ 230 VAC<br>152 %/ 115 VAC<br>Hiccup Mode           | P       |
| 2  | OVER VOLTAGE PROTECTION | CH1 : 50.4 V ~64.8 V                   | I/P : 230VAC<br>I/P : 115 VAC<br>O/P : MIN LOAD<br>Ta : 25°C | 64 V/ 230 VAC<br>63 V/ 115 VAC<br>Shut down Re- power ON | P       |
| 3  | SHORT PROTECTION        | SHORT EVERY OUTPUT<br>1 HOUR NO DAMAGE | I/P : 264 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                | NO DAMAGE<br>Hiccup Mode                                 | P       |

## COMPONENT STRESS TEST

| NO | TEST ITEM                                              | SPECIFICATION        | TEST CONDITION                                                                                                                               | RESULT                               | VERDICT |
|----|--------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------|
| 1  | Power Transistor<br>( D to S) or (C to E) Peak Voltage | Q 1 Rated : 6A/600V  | I/P : High-Line +3V = 267 V<br>O/P : (1)Full Load Turn on<br>(2) Output Short<br>(3)Full load continue<br>Ta : 25°C                          | (1) 470 V<br>(2) 480 V<br>(3) 472 V  | P       |
| 2  | Diode Peak Voltage                                     | D100 Rated : 6A/400V | I/P : High-Line +3V = 267 V<br>O/P : (1)Full Load Turn on<br>(2)Output Short<br>(3)Full load continue<br>Ta : 25°C                           | (1) 332 V<br>(2) 340 V<br>(3) 332 V  | P       |
| 3  | Input Capacitor Voltage                                | C5 Rated : 56u/400V  | I/P : High-Line +3V = 267 V<br>O/P : (1)Full Load Turn on /Off<br>(2) Min load Turn on /Off<br>(3)Full Load /Min load<br>Change<br>Ta : 25°C | (1) 372 V<br>(2) 380 V<br>(3) 380 V  | P       |
| 4  | Control IC Voltage Test                                | U1 Rated : 10V~27V   | I/P : High-Line +3V = 267 V<br>O/P : (1)Full Load Turn on /Off<br>(2) Min load Turn on /Off<br>(3)Full Load /Min load<br>Change<br>Ta : 25°C | (1) 14.4 V<br>(2) 14 V<br>(3) 14.4 V | P       |

## ■ SAFETY & E.M.C. TEST

### SAFETY TEST

| NO | TEST ITEM            | SPECIFICATION          | TEST CONDITION                        | RESULT                         | VERDICT |
|----|----------------------|------------------------|---------------------------------------|--------------------------------|---------|
| 1  | WITHSTAND VOLTAGE    | I/P-O/P : 4 KVAC/min   | I/P-O/P : 4.4 KVAC/min<br>Ta : 25°C   | I/P-O/P : 0.67 mA<br>NO DAMAGE | P       |
| 2  | ISOLATION RESISTANCE | I/P-O/P : 500VDC>100MΩ | I/P-O/P : 500 VDC<br>Ta : 25°C /70%RH | I/P-O/P : 30 GΩ<br>NO DAMAGE   | P       |

### E.M.C TEST

| NO | TEST ITEM                                   | SPECIFICATION                                        | TEST CONDITION                                                          | RESULT                        | VERDICT |
|----|---------------------------------------------|------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------|---------|
| 1  | HARMONIC                                    | EN61000-3-2<br>CLASS A                               | I/P:240VAC/230VAC/220VACVAC/60HZ<br>O/P:100%,75%,50%,25%LOAD<br>Ta:25°C | PASS                          | P       |
| 2  | CONDUCTION                                  | EN55011<br>CLASS B                                   | I/P : 230VAC (50HZ)<br>O/P : FULL/50% LOAD<br>Ta : 25°C                 | PASS<br>Test by certified Lab | P       |
| 3  | RADIATION                                   | EN55011<br>CLASS B                                   | I/P : 230VAC (50HZ)<br>O/P : FULL LOAD<br>Ta : 25°C                     | PASS<br>Test by certified Lab | P       |
| 4  | E.S.D                                       | EN61000-4-2<br>MEDICAL<br>AIR : 15KV / Contact : 8KV | I/P : 230VAC /50HZ<br>O/P : FULL LOAD<br>Ta : 25°C                      | CRITERIA A                    | P       |
| 5  | E.F.T                                       | EN61000-4-4<br>MEDICAL<br>INPUT : 2KV                | I/P : 230VAC /50HZ<br>O/P : FULL LOAD<br>Ta : 25°C                      | CRITERIA A                    | P       |
| 6  | SURGE                                       | EN61000-4-5<br>MEDICAL<br>L-N : 1KV<br>L,N-PE : 2KV  | I/P : 230VAC /50HZ<br>O/P : FULL LOAD<br>Ta : 25°C                      | CRITERIA A                    | P       |
| 7  | Test by certified Lab & Test Report Prepare |                                                      |                                                                         |                               |         |

## ■ RELIABILITY TEST

### ENVIRONMENT TEST

| NO | TEST ITEM                                                         | SPECIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | TEST CONDITION                                                     | RESULT                | VERDICT |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
|----|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------|---------|----------|-----------------------------|----------------------------|---|-----|--------|--------|---|-----|--------|--------|---|----|--------|--------|---|----|--------|--------|---|----|--------|--------|---|-----|--------|--------|---|----|--------|--------|---|----|--------|--------|---|------|--------|--------|----|-----|--------|--------|--|---|
| 1  | TEMPERATURE RISE TEST                                             | <div>MODEL : GSM25B24</div> <div>1. ROOM AMBIENT BURN-IN : 2 HRS</div> <div>I/P : 230VAC O/P : FULL LOAD Ta= 28.8 °C</div> <div>2. HIGH AMBIENT BURN-IN : 4 HRS</div> <div>I/P : 230VAC O/P : FULL LOAD Ta= 44.4 °C</div> <table><tr><td>NO</td><td>Position</td><td>ROOM AMBIENT<br/>Ta= 28.8 °C</td><td>HIGH AMBIENT<br/>Ta= 44.4°C</td></tr><tr><td>1</td><td>LF1</td><td>60.1°C</td><td>72.6°C</td></tr><tr><td>2</td><td>BD1</td><td>67.9°C</td><td>80.8°C</td></tr><tr><td>3</td><td>Q1</td><td>81.5°C</td><td>95.6°C</td></tr><tr><td>4</td><td>D1</td><td>77.0°C</td><td>90.6°C</td></tr><tr><td>5</td><td>C5</td><td>61.2°C</td><td>73.4°C</td></tr><tr><td>6</td><td>C40</td><td>66.8°C</td><td>78.8°C</td></tr><tr><td>7</td><td>U1</td><td>63.1°C</td><td>75.6°C</td></tr><tr><td>8</td><td>T1</td><td>76.6°C</td><td>88.4°C</td></tr><tr><td>9</td><td>C105</td><td>69.9°C</td><td>81.8°C</td></tr><tr><td>10</td><td>LF1</td><td>86.4°C</td><td>98.2°C</td></tr></table> |                                                                    |                       | NO      | Position | ROOM AMBIENT<br>Ta= 28.8 °C | HIGH AMBIENT<br>Ta= 44.4°C | 1 | LF1 | 60.1°C | 72.6°C | 2 | BD1 | 67.9°C | 80.8°C | 3 | Q1 | 81.5°C | 95.6°C | 4 | D1 | 77.0°C | 90.6°C | 5 | C5 | 61.2°C | 73.4°C | 6 | C40 | 66.8°C | 78.8°C | 7 | U1 | 63.1°C | 75.6°C | 8 | T1 | 76.6°C | 88.4°C | 9 | C105 | 69.9°C | 81.8°C | 10 | LF1 | 86.4°C | 98.2°C |  | P |
| NO | Position                                                          | ROOM AMBIENT<br>Ta= 28.8 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | HIGH AMBIENT<br>Ta= 44.4°C                                         |                       |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 1  | LF1                                                               | 60.1°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 72.6°C                                                             |                       |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 2  | BD1                                                               | 67.9°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 80.8°C                                                             |                       |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 3  | Q1                                                                | 81.5°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 95.6°C                                                             |                       |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 4  | D1                                                                | 77.0°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 90.6°C                                                             |                       |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 5  | C5                                                                | 61.2°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 73.4°C                                                             |                       |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 6  | C40                                                               | 66.8°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 78.8°C                                                             |                       |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 7  | U1                                                                | 63.1°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 75.6°C                                                             |                       |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 8  | T1                                                                | 76.6°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 88.4°C                                                             |                       |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 9  | C105                                                              | 69.9°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 81.8°C                                                             |                       |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 10 | LF1                                                               | 86.4°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 98.2°C                                                             |                       |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 2  | OVER LOAD BURN-IN TEST                                            | NO DAMAGE<br>1 HOUR ( MIN )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | I/P : 230VAC<br>O/P : 141 % LOAD<br>Ta : 25°C                      | TEST : OK             | P       |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 3  | LOW TEMPERATURE<br>TURN ON TEST                                   | TURN ON AFTER 2 HOUR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | I/P : 264VAC/100VAC<br>O/P : 100 % LOAD<br>Ta= -35 °C              | TEST : OK             | P       |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 4  | HIGH HUMIDITY<br>HIGH TEMPERATURE<br>HIGH VOLTAGE<br>TURN ON TEST | AFTER 12 HOURS<br>IN CHAMBER ON<br>CONTROL 40 °C<br>NO DAMAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | I/P : 272 VAC<br>O/P : FULL LOAD<br>Ta= 40 °C<br>HUMIDITY= 95 %R.H | TEST : OK             | P       |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 5  | TEMPERATURE<br>COEFFICIENT                                        | ± 0.03 %/°C (0~50°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | I/P : 230VAC<br>O/P : FULL LOAD                                    | ± 0.006 %/°C (0~50°C) | P       |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 6  | STORAGE TEMPERATURE TEST                                          | 1. Thermal shock Temperature : -45°C~ +90°C<br>2. Temperature change rate : 25°C / MIN<br>3. Dwell time low and high temperature : 30 MIN/EACH<br>4. Total test cycle : 5 CYCLE<br>5. Input/Output condition : STATIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                    |                       | P       |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |
| 7  | THERMAL SHOCK TEST                                                | 1. Thermal shock Temperature : -30°C~ +45°C<br>2. Temperature change rate : 25°C / MIN<br>3. Dwell time low and high temperature : 30 MIN/EACH<br>4. Total test cycle : 10 CYCLE<br>5. Input/Output condition : 230VAC/Full Load AC ON/OFF TEST<br>turn on 58sec ; turn off 2sec                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                    |                       | P       |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |     |        |        |  |   |

|    |                             |                                                                                                                                                                                                                                                                            |                                                                     |   |
|----|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---|
| 8  | VIBRATION TEST              | 1 Carton & 1 Set<br>(1) Waveform : Sine Wave<br>(2) Frequency : 10~500Hz<br>(3) Sweep Time : 12min/sweep cycle<br>(4) Acceleration : 2G<br>(5) Test Time : 60min in each axis (X.Y.Z)<br>(6) Ta : 25℃                                                                      |                                                                     | P |
| 9  | CAPACITOR LIFE CYCLE        | SUPPOSE C 105 IS THE MOST CRITICAL COMPONENT<br>(1) I/P : 230VAC O/P : FULL LOAD Ta= 25 °C LIFE TIME<br>(2) I/P : 230VAC O/P : FULL LOAD Ta= 40 °C LIFE TIME<br>(3) I/P : 230VAC O/P : 75% LOAD Ta= 40 °C LIFE TIME<br>(4) I/P : 230VAC O/P : 50% LOAD Ta= 40 °C LIFE TIME | (1) 176180 HRS<br>(2) 80427 HRS<br>(3) 138164 HRS<br>(4) 229165 HRS | P |
| 10 | MTBF                        | MIL-HDBK-217F NOTICE S2 PARTS COUNT<br>TOTAL FAILURE RATE : 796.7 KHRS                                                                                                                                                                                                     |                                                                     | P |
| 11 | DMTBF/Accelerated Life Test | Demonstration Mean Time Between Failure (Expected Life): Above 30,000 hours @ TA 40℃                                                                                                                                                                                       |                                                                     | P |

| SAMPLE         | TESTER     | REVIEW     | APPROVAL      |
|----------------|------------|------------|---------------|
| PRODUCT SAMPLE | DANIEL GAO | SANFORD SU | VINCENT TSENG |

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