



# Test Report: GSM25E12

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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 : 120 mVp-p (Max )                          | I/P : 230VAC<br>I/P : 115VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                                                                   | V1 : 100 mVp-p (Max )                                                                                                                                                            | P       |
| 2  | OUTPUT VOLTAGE TOLERANCE | V1 : 3 %~ -3 % (Max)                           | I/P : 85 VAC / 264 VAC<br>O/P : FULL/ MIN LOAD<br>Ta : 25°C                                                                                                                                                                    | V1 : 1.5 %~ -1.5 %                                                                                                                                                               | 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 : 3 %~ -3 % (Max)                           | I/P : 230VAC<br>I/P : 115VAC<br>O/P : FULL ~MIN LOAD<br>Ta : 25°C                                                                                                                                                              | V1 : 1.5 %~ -1.5 %                                                                                                                                                               | 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/ 160 ms<br>115VAC/ 390 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/ 12 ms<br>115VAC/ 8 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/ 100 ms<br>115VAC/ 40 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 : 1200 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)390 mVp-p /230V<br>(2)370 mVp-p /230V<br>(3)350 mVp-p /230V<br>(4)385 mVp-p /230V<br><br>(1)390 mVp-p /115V<br>(2)375 mVp-p /115V<br>(3)345 mVp-p /115V<br>(4)385 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            | 86 % (TYP)                                        | I/P : 230VAC<br>I/P : 115VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                               | 86.22 % /230V<br>86.27 % /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 = 0.257 A/ 230 VAC<br>I = 0.439 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 = 44 A/ 230 VAC<br>I = 28 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 : 46 uA<br>N-FG : 46 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                                                                                 | < 0.029 W<br>< 0.035 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  | 155 %/ 230 VAC<br>144 %/ 115 VAC<br>Hiccup Mode              | P       |
| 2  | OVER VOLTAGE PROTECTION | CH1 : 12.6 V ~ 16.8 V                  | I/P : 230VAC<br>I/P : 115 VAC<br>O/P : MIN LOAD<br>Ta : 25°C | 16.2 V/ 230 VAC<br>15.8 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) 532 V<br>(2) 560 V<br>(3) 512 V  | P       |
| 2  | Diode Peak Voltage                                     | D100 Rated : 20A/100V | 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) 90 V<br>(2) 85 V<br>(3) 90 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) 384 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) 18.4 V<br>(2) 14 V<br>(3) 16.8 V | P       |

## ■ SAFETY & E.M.C. TEST

### SAFETY TEST

| NO | TEST ITEM            | SPECIFICATION          | TEST CONDITION                        |                                 | 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 : 0.840 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 : GSM25E05</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><thead><tr><th>NO</th><th>Position</th><th>ROOM AMBIENT<br/>Ta= 28.8 °C</th><th>HIGH AMBIENT<br/>Ta= 44.4°C</th></tr></thead><tbody><tr><td>1</td><td>LF1</td><td>58.4°C</td><td>70.7°C</td></tr><tr><td>2</td><td>BD1</td><td>67.0°C</td><td>80.3°C</td></tr><tr><td>3</td><td>Q1</td><td>77.5°C</td><td>93.8°C</td></tr><tr><td>4</td><td>D1</td><td>77.5°C</td><td>92.4°C</td></tr><tr><td>5</td><td>C5</td><td>64.6°C</td><td>76.8°C</td></tr><tr><td>6</td><td>C40</td><td>73.2°C</td><td>84.3°C</td></tr><tr><td>7</td><td>U1</td><td>66.2°C</td><td>78.3°C</td></tr><tr><td>8</td><td>T1</td><td>77.6°C</td><td>88.8°C</td></tr><tr><td>9</td><td>C105</td><td>71.3°C</td><td>82.4°C</td></tr><tr><td>10</td><td>D100</td><td>84.5°C</td><td>95.0°C</td></tr></tbody></table> |                                                                    |                      | NO      | Position | ROOM AMBIENT<br>Ta= 28.8 °C | HIGH AMBIENT<br>Ta= 44.4°C | 1 | LF1 | 58.4°C | 70.7°C | 2 | BD1 | 67.0°C | 80.3°C | 3 | Q1 | 77.5°C | 93.8°C | 4 | D1 | 77.5°C | 92.4°C | 5 | C5 | 64.6°C | 76.8°C | 6 | C40 | 73.2°C | 84.3°C | 7 | U1 | 66.2°C | 78.3°C | 8 | T1 | 77.6°C | 88.8°C | 9 | C105 | 71.3°C | 82.4°C | 10 | D100 | 84.5°C | 95.0°C |  | P |
| NO | Position                                                          | ROOM AMBIENT<br>Ta= 28.8 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HIGH AMBIENT<br>Ta= 44.4°C                                         |                      |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |      |        |        |  |   |
| 1  | LF1                                                               | 58.4°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 70.7°C                                                             |                      |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |      |        |        |  |   |
| 2  | BD1                                                               | 67.0°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 80.3°C                                                             |                      |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |      |        |        |  |   |
| 3  | Q1                                                                | 77.5°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 93.8°C                                                             |                      |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |      |        |        |  |   |
| 4  | D1                                                                | 77.5°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 92.4°C                                                             |                      |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |      |        |        |  |   |
| 5  | C5                                                                | 64.6°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 76.8°C                                                             |                      |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |      |        |        |  |   |
| 6  | C40                                                               | 73.2°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 84.3°C                                                             |                      |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |      |        |        |  |   |
| 7  | U1                                                                | 66.2°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 78.3°C                                                             |                      |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |      |        |        |  |   |
| 8  | T1                                                                | 77.6°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 88.8°C                                                             |                      |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |      |        |        |  |   |
| 9  | C105                                                              | 71.3°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 82.4°C                                                             |                      |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |      |        |        |  |   |
| 10 | D100                                                              | 84.5°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 95.0°C                                                             |                      |         |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |      |        |        |  |   |
| 2  | OVER LOAD BURN-IN TEST                                            | NO DAMAGE<br>1 HOUR ( MIN )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | I/P : 230VAC<br>O/P : 136 % 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                                    | ± 0.02 %/°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       |          |                             |                            |   |     |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |    |      |        |        |  |   |



# 25W AC-DC Single Output Medical Adaptor **GSM25E** series

|    |                             |                                                                                                                                                                                                                                                                            |                                                                   |   |
|----|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---|
| 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<br>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) 80296 HRS<br>(2) 38805 HRS<br>(3) 62565 HRS<br>(4) 111280 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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