



# Test Report: GST25A15-P1J

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25W AC-DC High Reliability Industrial 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(Max )             | V1:100 mVp-p                     | I/P : 230VAC<br>O/P:FULL LOAD<br>Ta:25°C                                                                                                                                                   | V1: 64.4 mVp-p                               | P       |
| 2  | OUTPUT VOLTAGE(Max)<br>TOLERANCE | V1: 3 %~-3 %                     | I/P: 100VAC~264VAC<br>O/P:FULL~MIN. LOAD<br>Ta:25°C                                                                                                                                        | V1: 0 %~-1.03%                               | P       |
| 3  | LINE REGULATION (Max)            | V1: 1 %~-1 %                     | I/P: 100VAC~264VAC<br>O/P:FULL LOAD<br>Ta:25°C                                                                                                                                             | V1: 0 %~-0%                                  | P       |
| 4  | LOAD REGULATION(Max)             | V1:3 %~-3 %                      | I/P: 230VAC<br>O/P:FULL ~MIN LOAD<br>Ta:25°C                                                                                                                                               | V1: -0.52 %~-0.52%                           | P       |
| 5  | SET UP TIME(Max)                 | 230VAC/1000 ms<br>115VAC/1500 ms | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                             | 230VAC/ 652ms<br>115VAC / 828ms              | P       |
| 6  | RISE TIME (Max)                  | 230VAC/30 ms<br>115VAC/30 ms     | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                             | 230VAC/6 ms<br>115VAC /9.8 ms                | P       |
| 7  | HOLD UP TIME(Typ )               | 230VAC/50 ms<br>115VAC/15 ms     | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                             | 230VAC/76 ms<br>115VAC /17.6 ms              | P       |
| 8  | OVER/UNDERSHOOT TEST             | < ±5%                            | I/P: 230VAC<br>O/P:FULL LOAD<br>Ta:25°C                                                                                                                                                    | < ±5%                                        | P       |
| 9  | DYNAMIC LOAD                     | V1: 1500 mVp-p                   | I/P: 230VAC<br>O/P(1)FULL /Min LOAD<br>90%DUTY / 1KHZ<br>(2) (1)FULL /Min LOAD<br>90%DUTY / 3KHZ<br>(3)FULL /Min LOAD<br>90%DUTY / 5KHZ<br>(4)FULL /Min LOAD<br>50%DUTY / 120HZ<br>Ta:25°C | 436mVp-p<br>326mVp-p<br>342mVp-p<br>532mVp-p | P       |

### INPUT FUNCTION TEST

| NO | TEST ITEM             | SPECIFICATION                          | TEST CONDITION                                                                                                                                                                                                              | RESULT                                   | VERDICT |
|----|-----------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------|
| 1  | INPUT VOLTAGE RANGE   | 100VAC~264VAC                          | I/P:TESTING<br>O/P:FULL LOAD<br>Ta:25°C                                                                                                                                                                                     | 77 V ~264V                               | P       |
|    |                       |                                        | I/P:<br>(1)LOW-LINE-3V=97<br>HIGH-LINE+15%=300 V<br>O/P:FULL/MIN LOAD<br>ON: 30 Sec OFF: 30 Sec 10MIN<br>(2)230Vac<br>ON: 0.5 Sec OFF: 0.5 Sec 20MIN<br>(3)230Vac<br>ON:3Sec OFF:3Sec 12HOURS<br>( POWER ON/OFF NO DAMAGE ) | TEST:OK                                  |         |
| 2  | INPUT FREQUENCY RANGE | 47HZ ~63 HZ<br>NO DAMAGE               | I/P:100 VAC ~264 VAC<br>O/P:FULL~MIN LOAD<br>Ta:25°C                                                                                                                                                                        | TEST: OK                                 | P       |
| 3  | EFFICIENCY(TYP)       | 87%                                    | I/P:230 VAC<br><br>O/P:FULL LOAD<br>Ta:25°C                                                                                                                                                                                 | 89.59 %                                  | P       |
| 4  | INPUT CURRENT (Typ)   | 230V/ 0.35 A<br>115V/ 0.60 A           | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                                                              | I = 0.238A/ 230VAC<br>I = 0.411A/ 115VAC | P       |
| 5  | INRUSH CURRENT(Typ)   | 230V/ 65 A<br>115V/ 35 A<br>COLD START | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                                                              | I = 60.7 A/ 230VAC<br>I = 32.5 A/ 115VAC | P       |
| 6  | LEAKAGE CURRENT       | < 0.75 mA / 240 VAC                    | I/P : 240 VAC<br>O/P : Min LOAD<br>Ta : 25°C                                                                                                                                                                                | L-FG: 0.015 mA<br>N-FG: 0.014 mA         | P       |
| 7  | NO LOAD CONSUMPTION   | < 0.075 W                              | I/P : 115VAC<br>I/P : 230VAC<br>O/P : NO LOAD<br>Ta : 25°C                                                                                                                                                                  | < 0.027 W<br>< 0.034 W                   | P       |

### PROTECTION FUNCTION TEST

| NO | TEST ITEM               | SPECIFICATION                                           | TEST CONDITION                                          | RESULT                                                                                                     | VERDICT |
|----|-------------------------|---------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------|
| 1  | OVER LOAD PROTECTION    | 110 %~ 150 %                                            | I/P: 230VAC<br>I/P: 115VAC<br>O/P: TESTING<br>Ta: 25°C  | 130.7 %/ 230VAC<br>128.3 %/ 115VAC<br>Hiccup mode, recovers automatically after fault condition is removed | P       |
| 2  | OVER VOLTAGE PROTECTION | 110 ~ 140% rated output voltage<br>Clamp by zener diode | I/P: 230VAC<br>I/P: 115VAC<br>O/P: MIN LOAD<br>Ta: 25°C | 117.3 %/ 230VAC<br>117.3 %/ 115VAC<br>Clamp by zener diode                                                 | P       |
| 3  | SHORT PROTECTION        | SHORT EVERY OUTPUT<br>1 HOUR NO DAMAGE                  | I/P: 264VAC<br>O/P: FULL LOAD<br>Ta: 25°C               | NO DAMAGE<br>Hiccup mode, recovers automatically after fault condition is removed                          | P       |

### COMPONENT STRESS TEST

| NO | TEST ITEM                                           | SPECIFICATION                         | TEST CONDITION                                                                                                                                          | RESULT                                    | VERDICT |
|----|-----------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------|
| 1  | PWM Transistor<br>(D to S) or (C to E) Peak Voltage | Q1 Rated<br>6A/600V                   | I/P: High-Line +3V = 267V<br>AC ON/OFF<br>VDS:<br>O/P: (1) Full Load<br>(2) Output Short<br>(3) Full Load Continue<br>Ta: 25°C                          | VDS:<br>(1) 528V<br>(2) 548V<br>(3) 520V  | P       |
| 2  | Diode Peak Voltage                                  | D100 Rated<br>: 20A/120V              | I/P: High-Line +3V = 267V<br>AC ON/OFF<br>O/P: (1) Full Load<br>(2) Output Short<br>(3) Dynamic Load 100% Load/<br>Min. Load 50% Duty/120Hz<br>Ta: 25°C | D100:<br>(1) 114V<br>(2) 118V<br>(3) 114V | P       |
| 3  | Input Capacitor Voltage                             | C5 Rated:<br>47u/400V 105°C           | I/P: High-Line +3V = 267V<br>O/P: (1) Full Load input on/off<br>(2) Min load input on /Off<br>(3) Full Load /Min load Change<br>Ta: 25°C                | (1) 372V<br>(2) 356V<br>(3) 356V          | P       |
| 4  | Control IC Voltage Test                             | PWM IC U1 Rated<br>: 27V<br>10V(MIN.) | I/P: High-Line +3V = 267V<br>AC ON/OFF<br>O/P: (1) FULL LOAD<br>(2) Output Short<br>(3) O.L.P<br>Ta: 25°C                                               | (1) 17.1V<br>(2) 17.1V<br>(3) 17.1V       | P       |
| 5  | Clamp Diode Peak Voltage                            | D1 Rated : 2A/800V                    | I/P : High-Line +3V = 267V<br>AC ON/OFF<br>O/P : (1) Dynamic Load<br>90% Duty/1KHz<br>(2) Full load continue<br>Ta : 25°C                               | (1) 440V<br>(2) 432V                      | P       |

### SAFETY TEST

| NO | TEST ITEM            | SPECIFICATION                                     | TEST CONDITION                                               | RESULT                                         | VERDICT |
|----|----------------------|---------------------------------------------------|--------------------------------------------------------------|------------------------------------------------|---------|
| 1  | WITHSTAND VOLTAGE    | I/P-O/P: 4.242 KVAC/min<br>I/P-FG: 2.121 KVAC/min | I/P-O/P: 4.666 KVAC/min<br>I/P-FG: 2.545 KVAC/min<br>Ta:25°C | I/P-O/P:1.542mA<br>I/P-FG:1.284mA<br>NO DAMAGE | P       |
| 2  | ISOLATION RESISTANCE | I/P-O/P:500VDC>100MΩ<br>I/P-FG:500VDC>100MΩ       | I/P-O/P: 500 VDC<br>I/P-FG: 500 VDC<br>Ta:25°C               | I/P-O/P:9999MΩ<br>I/P-FG:9999MΩ<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:230VAC/50HZ<br>O/P:100%LOAD<br>Ta:25°C               | PASS                          | P       |
| 2  | CONDUCTION                                  | EN55022<br>CLASS B                                         | I/P : 230 VAC (50HZ)<br>O/P : FULL/50% LOAD<br>Ta : 25°C | PASS<br>Test by certified Lab | P       |
| 3  | RADIATION                                   | EN55022<br>CLASS B                                         | I/P : 230 VAC (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>LIGHT INDUSTRY<br>AIR : 8KV / Contact : 4KV | I/P : 230 VAC/50HZ<br>O/P : FULL LOAD<br>Ta : 25°C       | CRITERIA A                    | P       |
| 5  | E.F.T                                       | EN61000-4-4<br>LIGHT INDUSTRY<br>INPUT : 1KV               | I/P : 230 VAC/50HZ<br>O/P : FULL LOAD<br>Ta : 25°C       | CRITERIA A                    | P       |
| 6  | SURGE                                       | IEC61000-4-5<br>LIGHT INDUSTRY<br>L-N : 1KV                | I/P : 230 VAC/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                                             | MODEL : GST25A12-P1J<br>1. ROOM AMBIENT BURN-IN : 1HRS<br>I/P : 230VAC O/P : FULL LOAD Ta=31.0℃<br>2. HIGH AMBIENT BURN-IN : 1 HRS<br>I/P : 230VAC O/P : FULL LOAD Ta=56.1℃ <table><tr><th>NO</th><th>Position</th><th>ROOM AMBIENT<br/>Ta=31.0℃</th><th>HIGH AMBIENT<br/>Ta=56.1℃</th></tr><tr><td>1</td><td>C5</td><td>60.9℃</td><td>84.5℃</td></tr><tr><td>2</td><td>BD1</td><td>66.1℃</td><td>88.2℃</td></tr><tr><td>3</td><td>T1</td><td>78.4℃</td><td>101.7℃</td></tr><tr><td>4</td><td>Q1</td><td>90.5℃</td><td>113.7℃</td></tr><tr><td>5</td><td>C40</td><td>69.0℃</td><td>92.1℃</td></tr><tr><td>6</td><td>D1</td><td>74.3℃</td><td>97.4℃</td></tr><tr><td>7</td><td>C105</td><td>65.5℃</td><td>89.2℃</td></tr><tr><td>8</td><td>D100</td><td>75.6℃</td><td>97.8℃</td></tr><tr><td>9</td><td>LF1</td><td>61.8℃</td><td>83.2℃</td></tr><tr><td>10</td><td>TC</td><td>49.9℃</td><td>77.9℃</td></tr></table> |                                                                 |               | NO      | Position | ROOM AMBIENT<br>Ta=31.0℃ | HIGH AMBIENT<br>Ta=56.1℃ | 1 | C5 | 60.9℃ | 84.5℃ | 2 | BD1 | 66.1℃ | 88.2℃ | 3 | T1 | 78.4℃ | 101.7℃ | 4 | Q1 | 90.5℃ | 113.7℃ | 5 | C40 | 69.0℃ | 92.1℃ | 6 | D1 | 74.3℃ | 97.4℃ | 7 | C105 | 65.5℃ | 89.2℃ | 8 | D100 | 75.6℃ | 97.8℃ | 9 | LF1 | 61.8℃ | 83.2℃ | 10 | TC | 49.9℃ | 77.9℃ |  | P |
| NO | Position                                                          | ROOM AMBIENT<br>Ta=31.0℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HIGH AMBIENT<br>Ta=56.1℃                                        |               |         |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 1  | C5                                                                | 60.9℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 84.5℃                                                           |               |         |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 2  | BD1                                                               | 66.1℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 88.2℃                                                           |               |         |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 3  | T1                                                                | 78.4℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 101.7℃                                                          |               |         |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 4  | Q1                                                                | 90.5℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 113.7℃                                                          |               |         |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 5  | C40                                                               | 69.0℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 92.1℃                                                           |               |         |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 6  | D1                                                                | 74.3℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 97.4℃                                                           |               |         |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 7  | C105                                                              | 65.5℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 89.2℃                                                           |               |         |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 8  | D100                                                              | 75.6℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 97.8℃                                                           |               |         |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 9  | LF1                                                               | 61.8℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 83.2℃                                                           |               |         |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 10 | TC                                                                | 49.9℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 77.9℃                                                           |               |         |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 2  | OVER LOAD BURN-IN TEST                                            | NO DAMAGE<br>1 HOUR ( MIN )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | I/P : 230 VAC<br>O/P : 132% LOAD<br>Ta : 25℃                    | 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=-30℃              | 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 50℃<br>NO DAMAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | I/P : 272 VAC<br>O/P : FULL LOAD<br>Ta=50℃<br>HUMIDITY= 95 %R.H | TEST : OK     | P       |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 5  | TEMPERATURE<br>COEFFICIENT                                        | ±0.03%/℃ (0~50℃)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | I/P : 230 VAC<br>O/P : FULL LOAD                                | ±0%/℃ (0~50℃) | P       |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 6  | STORAGE TEMPERATURE TEST                                          | 1. Thermal shock Temperature : -40℃~ +85℃<br>2. Temperature change rate : 25℃ / 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                 | OK            | P       |          |                          |                          |   |    |       |       |   |     |       |       |   |    |       |        |   |    |       |        |   |     |       |       |   |    |       |       |   |      |       |       |   |      |       |       |   |     |       |       |    |    |       |       |  |   |
| 7  | THERMAL SHOCK TEST                                                | 1. Thermal shock Temperature : -30℃~ +70℃<br>2. Temperature change rate : 25℃ / 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                 | OK            | 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°C                                                            | TEST : OK                                                      | P |
| 9  | CAPACITOR LIFE CYCLE        | SUPPOSE C105 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=50°C LIFE TIME<br>(3) I/P : 230VAC O/P : 75% LOAD Ta=50°C LIFE TIME<br>(4) I/P : 230VAC O/P : 50% LOAD Ta=50°C LIFE TIME | (1) 257261HRS<br>(2) 50068HRS<br>(3) 76969HRS<br>(4) 129454HRS | P |
| 10 | MTBF                        | MIL-HDBK-217F<br>TOTAL FAILURE RATE : 674.55KHRS                                                                                                                                                                                                                  |                                                                | P |
| 11 | DMTBF/Accelerated Life Test | Demonstration Mean Time Between Failure (Expected Life): Above 50,000 hours @ TA 50°C                                                                                                                                                                             |                                                                | P |

| TEST RESULT | TESTER | REVIEW | APPROVAL |
|-------------|--------|--------|----------|
| PASS        | FRANK  | GESG   | WANGDZ   |

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