



# Test Report: NGE65U05-P1J

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65W AC-DC Reliable Wall-mounted Interchangeable  
Type Green Adaptor

## ■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

Control Function Test

Component Stress Test

## ■ SAFETY & E.M.C. TEST

Safety Test

E.M.C. Test

## ■ RELIABILITY TEST

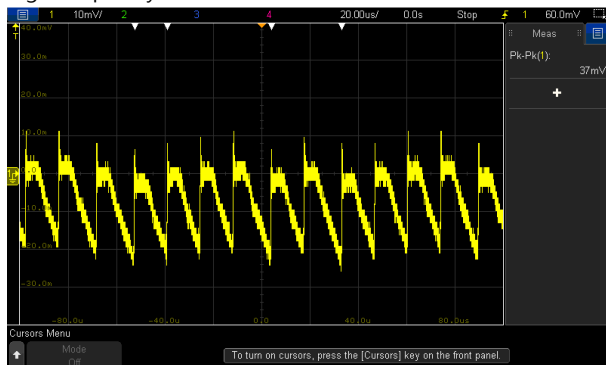
ENVIRONMENT TEST

## DESIGN VERIFY TEST

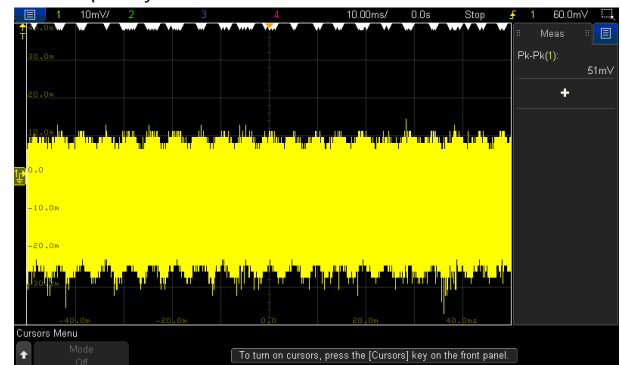
### OUTPUT FUNCTION TEST

| NO | TEST ITEM                | SPECIFICATION | TEST CONDITION                                     | RESULT  |
|----|--------------------------|---------------|--|---|
| 1  | OUTPUT VOLTAGE TOLERANCE | V1: -6%~ +6%  | I/P: 80VAC~264VAC<br>O/P:FULL~MIN. LOAD<br>Ta:25°C | V1: -3.04%~3.01%  |
| 2  | LINE REGULATION          | V1: -1%~ +1%  | I/P: 80VAC~ 264VAC<br>O/P:FULL LOAD<br>Ta:25°C     | V1: 0.02%~0.06%   |
| 3  | LOAD REGULATION          | V1: -6%~ +6%  | I/P: 230VAC<br>O/P:FULL ~MIN LOAD<br>Ta:25°C       | V1: -3.04%~3.01%  |
| 4  | OVER/UNDERSHOOT TEST     | <± 10%        | I/P: 230VAC<br>O/P:FULL LOAD<br>Ta:25°C            | 7.47%   |
| 5  | RIPPLE & NOISE (Max)     | V1: 100mVp-p  | I/P:230VAC<br>O/P:FULL LOAD<br>Ta:25°C             | V1: 37mVp-p / high frequency<br>51mVp-p / low frequency |

high frequency :

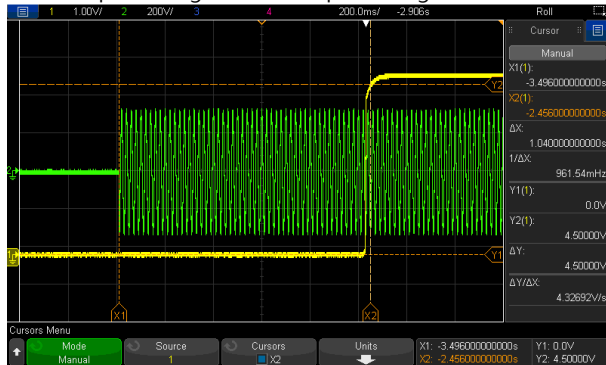


low frequency :

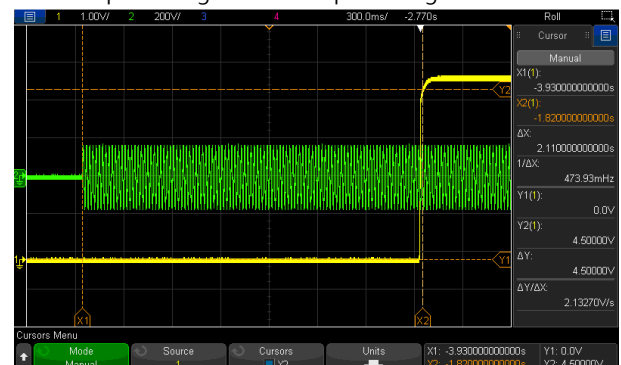


|   |                  |                                |  |                                 |
|---|------------------|--------------------------------|--|---------------------------------|
| 6 | SET UP TIME(Max) | 230VAC/1500ms<br>115VAC/3000ms | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C | 230VAC/1040ms<br>115VAC/ 2110ms |
|---|------------------|--------------------------------|--|---------------------------------|

INPUT=230VAC/50HZ @ FULL LOAD  
CH1: Output Voltage CH2: AC Input Voltage



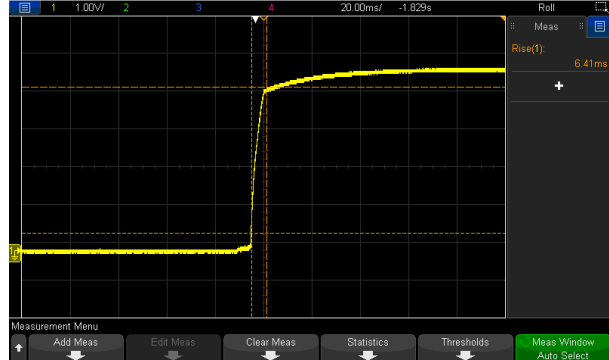
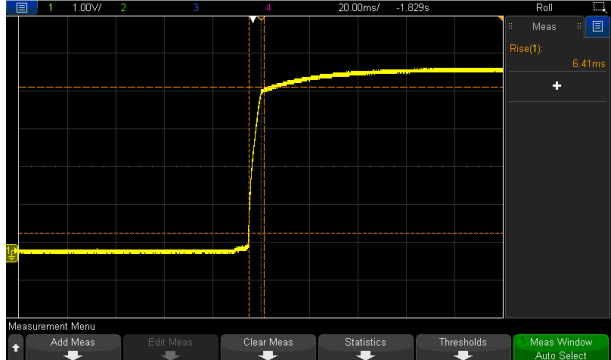
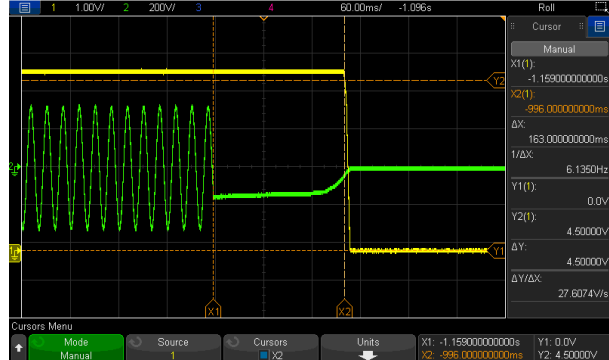
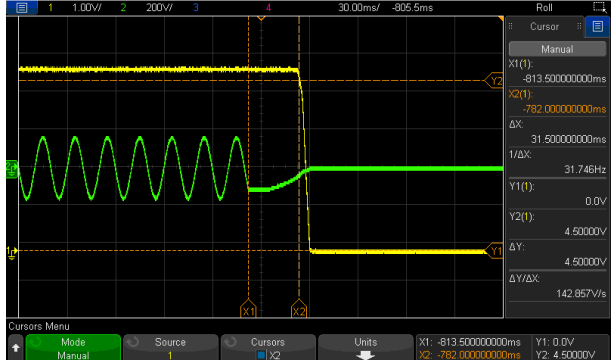
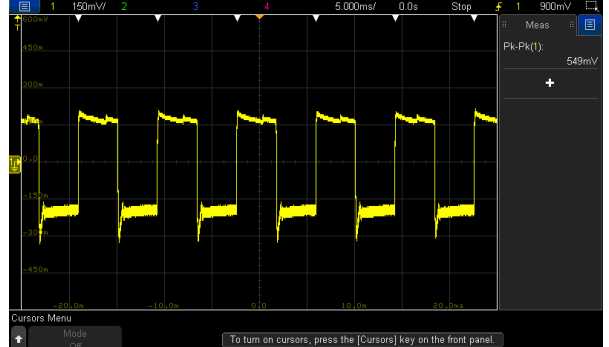
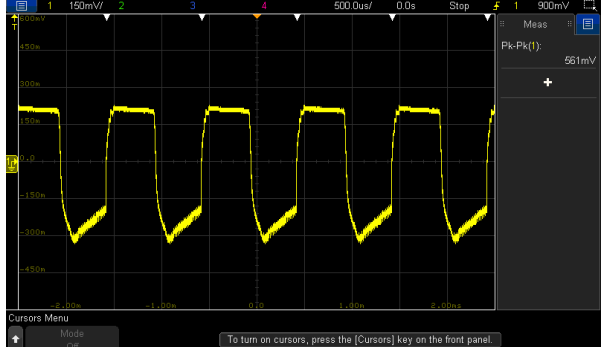
INPUT=115VAC/60HZ @ FULL LOAD  
CH1: Output Voltage CH2: AC Input Voltage





65W AC-DC Reliable Wall-mounted  
Interchangeable Type Green Adaptor

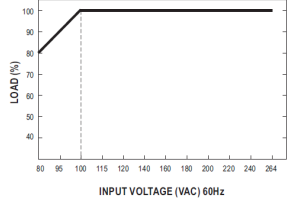
NGE65 series

|   |                     |  |   |                                  |
|---|---------------------|--|---|----------------------------------|
| 7   | RISE TIME (Max)     | 230VAC/50ms<br>115VAC/50ms   | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C  | 230VAC/ 6.41ms<br>115VAC/ 6.41ms |
| INPUT=230VAC/50HZ @ FULL LOAD<br>CH1: Output Voltage<br>                         |                     | INPUT=115VAC/60HZ @ FULL LOAD<br>CH1: Output Voltage<br>                         |   |                                  |
| 8   | HOLD UP TIME (Typ.) | 230VAC/30ms<br>115VAC/10ms   | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C  | 230VAC/163ms<br>115VAC/ 31.5ms   |
| INPUT=230VAC/50HZ @ FULL LOAD<br>CH1: Output Voltage CH2: AC Input Voltage<br> |                     | INPUT=115VAC/60HZ @ FULL LOAD<br>CH1: Output Voltage CH2: AC Input Voltage<br> |   |                                  |
| 9   | DYNAMIC LOAD        | V1: 1000mVp-p  | I/P: 230VAC<br>O/P:<br>(1) FULL/0% LOAD 50%DUTY / 120HZ<br>(2) FULL/0% LOAD 50%DUTY / 1KHZ<br>Ta:25°C | 549mVp-p<br>561mVp-p             |
| FULL /0% LOAD 50%DUTY / 120HZ<br>  |                     | FULL /0% LOAD 50%DUTY / 1KHZ<br>   |   |                                  |

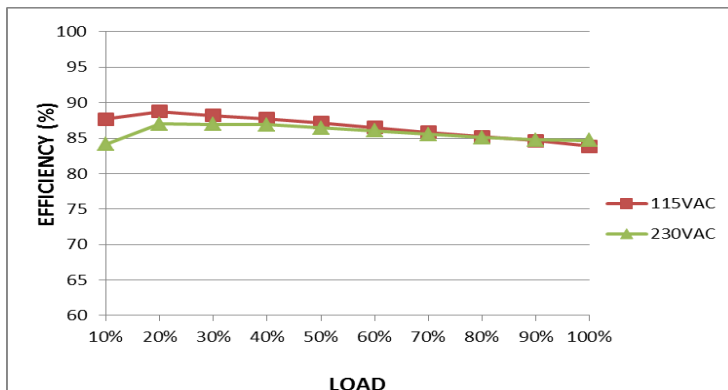


|    |                         |                          |  |                  |
|----|-------------------------|--------------------------|--|------------------|
| 10 | TRANSIENT RECOVERY TIME | V1: 1000mVp-p<br>< 500us | I/P: 230VAC<br>O/P:40% LOAD CHANGE<br>50%DUTY/120HZ 1.25A/us | 221 mVp-p<br>0us |
|----|-------------------------|--------------------------|--|------------------|

### INPUT FUNCTION TEST

| NO | TEST ITEM             | SPECIFICATION   | TEST CONDITION   | RESULT  |
|----|-----------------------|---|--|---|
| 1  | INPUT VOLTAGE RANGE   | 80VAC~264VAC<br>113VDC~ 370VDC<br><br> | (1) I/P: TESTING<br>O/P: FULL LOAD/ 80% LOAD<br>(2) I/P: DC TESTING (L: + N:-)<br>O/P: FULL LOAD/ 80% LOAD<br>(3) I/P: DC TESTING (L: - N: +)<br>O/P: FULL LOAD/ 80% LOAD<br>Ta:25°C | (1) 76.5V~264V/ FULL LOAD<br>76.5V~264V/ 80% LOAD<br>(2) 107.52Vdc~370Vdc/FULL LOAD<br>107.42Vdc~370Vdc/80% LOAD<br>(3) 107.52Vdc~370Vdc/FULL LOAD<br>107.42Vdc~370Vdc/80% LOAD |
|    |                       |   | I/P:<br>HIGH-LINE+15%=300V<br>O/P:FULL LOAD /MIN LOAD<br>(PLEASE CHECK DERATING CURVE)<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  | I/P:80 VAC ~264 VAC<br>O/P:FULL~MIN LOAD<br>Ta:25°C  | TEST: OK  |
| 3  | INPUT CURRENT (Typ.)  | 230V/ 0.8A<br>115V/ 1.5A  | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C   | I =0.40A/ 230VAC<br>I =0.62A/ 115VAC  |
| 4  | LEAKAGE CURRENT       | Touch current 100uA/ 264V<br>for 60601  | I/P : 264 VAC<br>O/P : Min LOAD<br>Ta : 25°C   | 67.0uA  |
| 5  | NO LOAD CONSUMPTION   | < 0.075W  | I/P : 240VAC<br>O/P : NO LOAD<br>Ta : 25°C   | 0.0583W   |
| 6  | EFFICIENCY(Typ.)      | 84%   | I/P:230VAC<br>O/P:FULL LOAD<br>Ta:25°C   | 84.7%/230VAC  |

EFFICIENCY vs LOAD





|   |                      |  |  |   |
|---|----------------------|--|--|---|
| 7   | INRUSH CURRENT(Typ.) | 230V/100A<br>115V/50A<br>COLD START  | I/P : 230 VAC<br>I/P : 115 VAC<br>O/P : FULL LOAD<br>Ta : 25°C | I =80.4A/ 230VAC<br>I =48A/ 115VAC<br>T50= 415us/230V |
| INPUT=230VAC/50HZ @ FULL LOAD<br>CH1: AC Input Voltage CH4: Input current |                      | INPUT=115VAC/ 60HZ @ FULL LOAD<br>CH1: AC Input Voltage CH4: Input current |  |   |
|   |                      |  |  |   |

### PROTECTION FUNCTION TEST

| NO | TEST ITEM               | SPECIFICATION  | TEST CONDITION   | RESULT  |
|----|-------------------------|--|--|---|
| 1  | OVER LOAD PROTECTION    | 110%~150% rated output power<br>Protection type:<br>Hiccup mode, recovers automatically after fault condition is removed           | I/P: 264VAC<br>I/P: 230VAC<br>I/P: 100VAC<br>O/P: TESTING<br>Ta:25°C | 127.38%/ 264VAC<br>128.17%/ 230VAC<br>126.72%/100VAC<br>PROTECTION TYPE :<br>Hiccup mode, recovers automatically after fault condition is removed |
| 2  | OVER VOLTAGE PROTECTION | 110%~140% rated output voltage<br>Protection type:<br>Clamp by zener diode   | I/P: AC OFF<br>O/P: MIN LOAD<br>Ta:25°C                              | 6.50V<br>PROTECTION TYPE : Clamp by zener diode   |
| 3  | SHORT PROTECTION        | SHORT EVERY OUTPUT<br>1 HOUR NO DAMAGE<br>Protection type:<br>Hiccup mode, recovers automatically after fault condition is removed | I/P: 264VAC<br>I/P: 80VAC<br>O/P: FULL LOAD<br>Ta:25°C               | NO DAMAGE OK<br>PROTECTION TYPE :<br>Hiccup mode, recovers automatically after fault condition is removed   |

### COMPONENT STRESS TEST

| NO | TEST ITEM   | SPECIFICATION               | TEST CONDITION   | RESULT   |
|----|---|-----------------------------|--|--|
| 1  | PWM Transistor<br>( D to S) or (C to E)<br>Peak Voltage | Q1<br>Rated:<br>10.6A/ 650V | AC ON/OFF<br>I/P: High-Line +3V =267V<br>VDS:<br>O/P: (1)Full Load<br>(2)Output Short<br>(3) Dynamic Load Full Load/ | Q1<br>VDS:<br>(1) 562V<br>(2) 546V<br>(3) 558V<br>(4) 558V |



65W AC-DC Reliable Wall-mounted  
Interchangeable Type Green Adaptor

NGE65 series

|   |                          |  |   |   |
|---|--------------------------|--|---|---|
|   |                          |  | Min. Load 90%Duty/1KHz<br>(4) Dynamic Load Full Load/<br>Min. Load 90%Duty/3KHz<br>(5) Dynamic Load Full Load/<br>Min. Load 90%Duty/5KHz<br>(6) Dynamic Load 100% Load/<br>Min. Load 50%Duty/120Hz<br>(7)0%→400% Load.<br>Ta:25°C   | (5) 562V<br>(6) 554V<br>(7) 546V  |
| 2 | Diode Peak Voltage       | Q100<br>Rated:<br>100A/40V   | AC ON/OFF<br>I/P: High-Line +3V =267 V<br>O/P: (1)Full Load<br>(2)Output Short<br>(3) Dynamic Load Full Load/<br>Min. Load 90%Duty/1KHz<br>(4) Dynamic Load Full Load/<br>Min. Load 90%Duty/3KHz<br>(5) Dynamic Load Full Load/<br>Min. Load 90%Duty/5KHz<br>(6) Dynamic Load 100% Load/<br>Min. Load 50%Duty/120Hz<br>(7)0%→400% Load.<br>(8).NO LOAD<br>Ta:25°C | Q100:<br>VDS:<br>(1) 29.0V<br>(2) 29.0V<br>(3) 28.5V<br>(4) 29.0V<br>(5) 29.0V<br>(6) 28.7V<br>(7) 29.0V<br>(8) 28.2V   |
| 3 | Input Capacitor Voltage  | C5<br>Rated:<br>120μ /400 V  | 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>(4) Full load continue<br>Ta:25°C   | (1) 381V<br>(2) 381V<br>(3) 377V<br>(4) 377V  |
| 4 | Control IC Voltage Test  | PWM IC U3<br>Rated:<br>8V~ 26.5V<br><br>O/P IC U101<br>Rated:<br>4V~ 13V | AC ON/OFF<br>I/P: High-Line +3V =267 V<br>O/P:(1) FULL LOAD<br>(2) Output Short<br>(3) O.L.P<br>(4) NO LOAD VRmin (LOW LINE)<br>Ta:25°C   | U3                      U101<br>(1) 16.2V              (1) 8.5V<br>(2) 16.2V              (2) 8.5V<br>(3) 16.2V              (3) 8.5V<br>(4) 9.4V                (4) 8.3V |
| 5 | Clamp Diode Peak Voltage | D5<br>Rated :<br>600V/1A   | AC ON/OFF<br>I/P : High-Line +3V = 267 V<br>O/P : (1) Dynamic Load<br>90%Duty/1KHz<br>(2) Full load continue<br>Ta : 25°C   | (1) 503V<br>(2) 499V  |



## ■ SAFETY& E.M.C. TEST

### SAFETY TEST

| NO | TEST ITEM            | SPECIFICATION        | TEST CONDITION                   | RESULT                       |
|----|----------------------|----------------------|----------------------------------|------------------------------|
| 1  | WITHSTAND VOLTAGE    | I/P-O/P: 4KVAC/min   | I/P-O/P: 4.4 KVAC/min<br>Ta:25°C | I/P-O/P:1.548mA<br>NO DAMAGE |
| 2  | ISOLATION RESISTANCE | I/P-O/P:500VDC>100MΩ | I/P-O/P: 600 VDC<br>Ta:25°C      | I/P-O/P:50GΩ<br>NO DAMAGE    |

### E.M.C TEST

| NO | TEST ITEM   | SPECIFICATION  | TEST CONDITION   | RESULT     |
|----|---|--|--|------------|
| 1  | HARMONIC  | BS EN/EN61000-3-2<br>■ CLASS A   | I/P:230VAC/50HZ<br>O/P:FULL LOAD<br>Ta:25°C              | PASS       |
| 2  | CONDUCTION  | BS EN/EN55032(CISPR32)/EN55011,<br>FCC Part15 ,<br>CNS15936, GB/T 9254.1-2021<br>CLASS B | I/P : 230 VAC (50HZ)<br>O/P : FULL/50% LOAD<br>Ta : 25°C | PASS       |
| 3  | RADIATION   | BS EN/EN55032(CISPR32)/EN55011,<br>FCC Part15 ,<br>CNS15936, GB/T 9254.1-2021<br>CLASS B | I/P : 230 VAC (50HZ)<br>O/P : FULL LOAD<br>Ta : 25°C     | PASS       |
| 4  | E.S.D   | BS EN/EN61000-4-2<br>Level 3, 15KV air; Level 2, 8KV contact                             | I/P : 230 VAC/50HZ<br>O/P : FULL LOAD<br>Ta : 25°C       | CRITERIA A |
| 5  | E.F.T   | BS EN/EN 61000-4-4<br>INPUT : 1KV  | I/P : 230 VAC/50HZ<br>O/P : FULL LOAD<br>Ta : 25°C       | CRITERIA A |
| 6  | SURGE   | BS EN/EN 61000-4-5<br>Level 3, 1KV/L-N   | I/P : 230 VAC/50HZ<br>O/P : FULL LOAD<br>Ta : 25°C       | CRITERIA A |
| 7  | Test by certified Lab & Test Report Prepare<br>Any contradictions of the test results, please refer to the latest EMC test report |  |  |            |



## RELIABILITY TEST

### ENVIRONMENT TEST

| NO | TEST ITEM                       | SPECIFICATION  | TEST CONDITION                                     | RESULT    |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
|----|---------------------------------|--|--|-----------|----------------------|----------------------|---|-----|--------|--------|---|----|--------|--------|---|-----|--------|--------|---|----|--------|--------|---|----|--------|--------|---|------|--------|--------|---|----|--------|--------|---|------|--------|--------|---|------|--------|--------|----|-----|--------|--------|----|----|--------|--------|----|-----|--------|--------|----|----|--------|--------|----|-----|--------|--------|----|------|--------|--------|----|-----|--------|--------|----|-----|--------|--------|----|------|--------|--------|----|----|--------|--------|----|----|--------|--------|----|----|--------|--------|----|------|--------|--------|----|------|--------|--------|----|--------|--------|--------|----|--------|--------|--------|----|------|--------|--------|--|--|
| 1  | TEMPERATURE RISE TEST           | MODEL : NGE65U05-P1J<br>1. ROOM AMBIENT BURN-IN : 2 HRS<br>I/P : 230VAC O/P : FULL LOAD Ta= 25 °C<br>2. HIGH AMBIENT BURN-IN : 2 HRS<br>I/P : 230VAC O/P : FULL LOAD Ta=40 °C  |  |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
|    |                                 | <table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>ROOM AMBIENT Ta=25°C</th> <th>HIGH AMBIENT Ta=40°C</th> </tr> </thead> <tbody> <tr><td>1</td><td>R42</td><td>62.4°C</td><td>76.5°C</td></tr> <tr><td>2</td><td>Q1</td><td>71.9°C</td><td>86.2°C</td></tr> <tr><td>3</td><td>D42</td><td>61.3°C</td><td>75.4°C</td></tr> <tr><td>4</td><td>U1</td><td>51.4°C</td><td>65.7°C</td></tr> <tr><td>5</td><td>U2</td><td>58.2°C</td><td>72.3°C</td></tr> <tr><td>6</td><td>Q101</td><td>67.9°C</td><td>82.5°C</td></tr> <tr><td>7</td><td>U3</td><td>60.2°C</td><td>74.3°C</td></tr> <tr><td>8</td><td>C105</td><td>58.7°C</td><td>73.0°C</td></tr> <tr><td>9</td><td>C106</td><td>63.1°C</td><td>77.5°C</td></tr> <tr><td>10</td><td>R40</td><td>66.7°C</td><td>80.7°C</td></tr> <tr><td>11</td><td>C5</td><td>57.5°C</td><td>71.7°C</td></tr> <tr><td>12</td><td>C40</td><td>54.0°C</td><td>68.2°C</td></tr> <tr><td>13</td><td>C1</td><td>51.6°C</td><td>65.9°C</td></tr> <tr><td>14</td><td>LF1</td><td>47.6°C</td><td>61.9°C</td></tr> <tr><td>15</td><td>ZNR1</td><td>48.3°C</td><td>62.5°C</td></tr> <tr><td>16</td><td>LF2</td><td>54.7°C</td><td>68.8°C</td></tr> <tr><td>17</td><td>BD1</td><td>52.4°C</td><td>66.6°C</td></tr> <tr><td>18</td><td>RTH3</td><td>57.6°C</td><td>71.2°C</td></tr> <tr><td>19</td><td>D5</td><td>81.1°C</td><td>95.3°C</td></tr> <tr><td>20</td><td>C8</td><td>68.8°C</td><td>83.0°C</td></tr> <tr><td>21</td><td>R5</td><td>68.6°C</td><td>82.7°C</td></tr> <tr><td>22</td><td>C101</td><td>73.8°C</td><td>88.1°C</td></tr> <tr><td>23</td><td>R101</td><td>76.3°C</td><td>90.9°C</td></tr> <tr><td>24</td><td>T1coil</td><td>64.5°C</td><td>78.7°C</td></tr> <tr><td>25</td><td>T1core</td><td>64.7°C</td><td>78.8°C</td></tr> <tr><td>26</td><td>U101</td><td>72.2°C</td><td>86.7°C</td></tr> </tbody> </table> | NO   | Position  | ROOM AMBIENT Ta=25°C | HIGH AMBIENT Ta=40°C | 1 | R42 | 62.4°C | 76.5°C | 2 | Q1 | 71.9°C | 86.2°C | 3 | D42 | 61.3°C | 75.4°C | 4 | U1 | 51.4°C | 65.7°C | 5 | U2 | 58.2°C | 72.3°C | 6 | Q101 | 67.9°C | 82.5°C | 7 | U3 | 60.2°C | 74.3°C | 8 | C105 | 58.7°C | 73.0°C | 9 | C106 | 63.1°C | 77.5°C | 10 | R40 | 66.7°C | 80.7°C | 11 | C5 | 57.5°C | 71.7°C | 12 | C40 | 54.0°C | 68.2°C | 13 | C1 | 51.6°C | 65.9°C | 14 | LF1 | 47.6°C | 61.9°C | 15 | ZNR1 | 48.3°C | 62.5°C | 16 | LF2 | 54.7°C | 68.8°C | 17 | BD1 | 52.4°C | 66.6°C | 18 | RTH3 | 57.6°C | 71.2°C | 19 | D5 | 81.1°C | 95.3°C | 20 | C8 | 68.8°C | 83.0°C | 21 | R5 | 68.6°C | 82.7°C | 22 | C101 | 73.8°C | 88.1°C | 23 | R101 | 76.3°C | 90.9°C | 24 | T1coil | 64.5°C | 78.7°C | 25 | T1core | 64.7°C | 78.8°C | 26 | U101 | 72.2°C | 86.7°C |  |  |
| NO | Position                        | ROOM AMBIENT Ta=25°C   | HIGH AMBIENT Ta=40°C                               |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 1  | R42                             | 62.4°C   | 76.5°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 2  | Q1                              | 71.9°C   | 86.2°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 3  | D42                             | 61.3°C   | 75.4°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 4  | U1                              | 51.4°C   | 65.7°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 5  | U2                              | 58.2°C   | 72.3°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 6  | Q101                            | 67.9°C   | 82.5°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 7  | U3                              | 60.2°C   | 74.3°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 8  | C105                            | 58.7°C   | 73.0°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 9  | C106                            | 63.1°C   | 77.5°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 10 | R40                             | 66.7°C   | 80.7°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 11 | C5                              | 57.5°C   | 71.7°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 12 | C40                             | 54.0°C   | 68.2°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 13 | C1                              | 51.6°C   | 65.9°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 14 | LF1                             | 47.6°C   | 61.9°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 15 | ZNR1                            | 48.3°C   | 62.5°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 16 | LF2                             | 54.7°C   | 68.8°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 17 | BD1                             | 52.4°C   | 66.6°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 18 | RTH3                            | 57.6°C   | 71.2°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 19 | D5                              | 81.1°C   | 95.3°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 20 | C8                              | 68.8°C   | 83.0°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 21 | R5                              | 68.6°C   | 82.7°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 22 | C101                            | 73.8°C   | 88.1°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 23 | R101                            | 76.3°C   | 90.9°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 24 | T1coil                          | 64.5°C   | 78.7°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 25 | T1core                          | 64.7°C   | 78.8°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 26 | U101                            | 72.2°C   | 86.7°C   |           |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 2  | OVER LOAD BURN-IN TEST          | NO DAMAGE<br>1 HOUR ( MIN )  | I/P : 230 VAC<br>O/P : 131%LOAD<br>Ta : 25°C       | TEST : OK |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |
| 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 |                      |                      |   |     |        |        |   |    |        |        |   |     |        |        |   |    |        |        |   |    |        |        |   |      |        |        |   |    |        |        |   |      |        |        |   |      |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |    |        |        |    |     |        |        |    |      |        |        |    |     |        |        |    |     |        |        |    |      |        |        |    |    |        |        |    |    |        |        |    |    |        |        |    |      |        |        |    |      |        |        |    |        |        |        |    |        |        |        |    |      |        |        |  |  |





65W AC-DC Reliable Wall-mounted  
Interchangeable Type Green Adaptor

NGE65 series

|    |   |   |   |                    |
|----|---|---|---|--------------------|
| 4  | HIGH HUMIDITY<br>HIGH TEMPERATURE<br>HIGH VOLTAGE<br>TURN ON TEST | AFTER 12 HOURS<br>IN CHAMBER ON<br>CONTROL 40°C/95 %R.H<br>NO DAMAGE  | I/P : 272 VAC<br>O/P : FULL LOAD<br>Ta= 40°C<br>HUMIDITY= 95 %R.H   | TEST : OK          |
| 5  | TEMPERATURE<br>COEFFICIENT  | ±0.03%/°C(0~40°C)   | I/P : 230 VAC<br>O/P : FULL LOAD  | ±0.016%/°C(0~40°C) |
| 6  | STORAGE TEMPERATURE<br>TEST                                       | -20~85°C  | 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 : 10 CYCLE<br>5. Input/Output condition : STATIC  |                    |
| 7  | THERMAL SHOCK TEST  | -30~40°C  | 1. Thermal shock Temperature : -35°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 : 16 CYCLE<br>5. Input/Output condition :<br>15cycle:230V/ FULL LOAD AC ON 3sec/AC OFF 1sec TEST<br>1cycle:230V/ FULL LOAD Burn In Test |                    |
| 8  | VIBRATION TEST  | 10 ~ 500Hz, 2G 10min./1cycle,<br>60min. each along X, Y, Z axes   | 1 Carton & 1 Set<br>(1) Waveform : Sine Wave<br>(2) Frequency : 10~500Hz<br>(3) Sweep Time : 10min/sweep cycle<br>(4) Acceleration : 3G<br>(5) Test Time : 180min in each axis (X.Y.Z)<br>(6) Ta : 25°C   |                    |
| 9  | CAPACITOR<br>LIFE CYCLE   | SUPPOSE C106 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) 622257HRS<br>(2) 118569HRS<br>(3) 304768HRS<br>(4) 1020869HRS   |                    |
| 10 | MTBF  | Conducted by Parts Stress Analysis Prediction<br>682.2 Khrs min. MIL-HDBK-217F (25°C) 5852.4 Khrs min.Telcordia TR/SR-332(Bellcore) (25°C)  |   |                    |
| 11 | Ongoing Reliability Test  | I/P : 230VAC O/P : FULL LOAD TA=50°C<br>Demonstration Mean Time Between Failure : 30,000 hours  |   |                    |

| TEST RESULT | TESTER | REVIEW | APPROVAL |
|-------------|--------|--------|----------|
| PASS        | Yuwei  | Liutt  | Wangdz   |

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