

MODEL : APV-16-12

## OUTPUT FUNCTION TEST

| NO | TEST ITEM                | SPECICATION                                    | TEST CONDITION  | RESULT                                   | VERDICT |
|----|--------------------------|--|---|--|---------|
| 1  | RIPPLE & NOISE           | V1: 120 mVp-p (Max)                            | I/P: 230 VAC<br>O/P:FULL LOAD<br>Ta:25°C  | V1: 40 mVp-p (Max)                       | PASS    |
| 2  | OUTPUT VOLTAGE TOLERANCE | V1: -5%~ +5% (Max)                             | I/P: 100VAC / 264 VAC<br>O/P:FULL/ 0% LOAD<br>Ta:25°C   | V1: -1.225%~ 1.433 %                     | PASS    |
| 3  | LINE REGULATION          | V1: -1%~ +1% (Max)                             | I/P: 100 VAC ~ 264VAC<br>O/P:FULL LOAD<br>Ta:25°C   | V1: 0%~ 0%                               | PASS    |
| 4  | LOAD REGULATION          | V1: -2%~ +2% (Max)                             | I/P: 230 VAC<br>O/P:FULL ~MIN LOAD<br>Ta:25°C   | V1: -0.099%~ 0.099%                      | PASS    |
| 5  | SET UP TIME              | 230VAC/ 1500 ms (Max)<br>115VAC/ 1500 ms (Max) | I/P: 230 VAC<br>I/P: 115 VAC<br>O/P:FULL LOAD<br>Ta:25°C  | 230 VAC/ 590.211 ms<br>115 VAC/972.460ms | PASS    |
| 6  | RISE TIME                | 230VAC/ 30 ms (Max)<br>115VAC/ 30 ms (Max)     | I/P: 230 VAC<br>I/P: 115 VAC<br>O/P:FULL LOAD<br>Ta:25°C  | 230 VAC/14.801 ms<br>115 VAC/15.245ms    | PASS    |
| 7  | HOLD TIME                | 230VAC/ 20 ms (Typ)<br>115VAC/ 12 ms (Typ)     | I/P: 230 VAC<br>I/P: 115 VAC<br>O/P:FULL LOAD<br>Ta:25°C  | 230 VAC/ 78.455ms<br>115 VAC/15.741ms    | PASS    |
| 8  | OVER/UNDERSHOOT TEST     | < ±5 %   | I/P: 230 VAC<br>O/P:FULL LOAD<br>Ta:25°C  | TEST: +1.32%<br>-0.99%                   | PASS    |
| 9  | DYNAMIC LOAD             | V1: 1200 mVp-p                                 | I/P: 230 VAC<br>O/P: (1)FULL /Min LOAD<br>90%DUTY/1KHZ<br>(2)FULL /Min LOAD<br>50%DUTY/120HZ<br>Ta:25°C | (1) 744 mVp-p<br>(2) 896 mVp-p           | PASS    |

## INPUT FUNCTION TEST

| NO | TEST ITEM             | SPECICATION                              | TEST CONDITION  | RESULT                                     | VERDICT |
|----|-----------------------|--|---|--|---------|
| 1  | INPUT VOLTAGE RANGE   | 90 VAC~ 264 VAC                          | I/P:TESTING<br>O/P:FULL LOAD<br>Ta:25°C   | 90 V~ 264 V                                | PASS    |
|    |                       |  | (1)I/P: LOW-LINE-3V= 87 V<br>HIGH-LINE+15%= 300 V<br>O/P:FULL/MIN LOAD<br>ON: 30 Sec . OFF: 30 Sec 10MIN<br>(2) I/P:230VAC<br>ON: 0.5 Sec . OFF: 0.5 Sec 20MIN<br>( AC POWER ON/OFF NO DAMAGE ) | TEST:<br>(1) OK<br>(2) OK                  |         |
| 2  | INPUT FREQUENCY RANGE | 47HZ ~63 HZ<br>NO DAMAGE OSC             | I/P: 90 VAC ~264 VAC<br>O/P:FULL~MIN LOAD<br>Ta:25°C  | TEST: OK                                   | PASS    |
| 3  | EFFICIENCY            | 80 % (Typ)                               | I/P: 230 VAC<br>O/P:FULL LOAD<br>Ta:25°C  | 80.35 %                                    | PASS    |
| 4  | INPUT CURRENT         | 230 V/ 0.3 A (Typ)<br>115 V/ 0.5 A (Typ) | I/P: 230 VAC<br>I/P: 115 VAC<br>O/P:FULL LOAD<br>Ta:25°C  | I =0.190A/ 230VAC<br>I =0.291A/ 115VAC     | PASS    |
| 5  | INRUSH CURRENT        | 230 V/ 70 A<br>115 V/ 35 A<br>COLD START | I/P: 230 VAC<br>I/P: 115 VAC<br>O/P:FULL LOAD<br>Ta:25°C  | I =33.234 A/ 230VAC<br>I =14.218 A/ 115VAC | PASS    |

## PROTECTION FUNCTION TEST

| NO | TEST ITEM               | SPECICATION                            | TEST CONDITION   | RESULT   | VERDICT |
|----|-------------------------|--|--|--|---------|
| 1  | OVER LOAD PROTECTION    | Above 105%<br>RATED OUTPUT POWER       | I/P: 264 VAC<br>I/P: 230 VAC<br>I/P: 100 VAC<br>O/P:TESTING<br>Ta:25°C | 140.3 %/264VAC<br>140.3 %/ 230VAC<br>133.6 %/ 100 VAC<br><br>Hiccup Mode                           | PASS    |
| 2  | OVER VOLTAGE PROTECTION | CH1: 13.8 V~ 16 V                      | I/P: 264 VAC<br>I/P: 230 VAC<br>I/P: 90 VAC<br>O/P:MIN LOAD<br>Ta:25°C | 14.9 V/ 264VAC<br>14.9 V/ 230VAC<br>14.9 V/ 90VAC<br>Shut off O/P voltage, clamping by zener diode | PASS    |
| 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><br>Hiccup Mode   | PASS    |

## ENVIRONMENT TEST

| NO | TEST ITEM   | SPECICATION   | TEST CONDITION   | RESULT                      | VERDICT |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
|----|---|---|--|-----------------------------|---------|-----|-----------------------------|-----------------------------|---|-----|---------|--------|--------|---|----|----------|--------|--------|---|----|--------------|--------|--------|---|----|--------------|--------|--------|---|----|--------|--------|--------|---|----|---------|--------|--------|---|----|--------|--------|--------|---|----|--------------|--------|--------|---|-----|--------|--------|--------|----|-----|---------------|--------|--------|----|-----|--------------|--------|--------|----|-----|--------|--------|--------|----|-----|---------|--------|--------|--|--|
| 1  | TEMPERATURE RISE TEST   | MODEL : APV-16-24<br>1. ROOM AMBIENT BURN-IN : 2 HRS<br>I/P: 230 VAC O/P: 100% LOAD Ta= 29.5 °C<br>2. HIGH AMBIENT BURN-IN : 2 HRS<br>I/P: 230 VAC O/P: 100% LOAD Ta= 46.8 °C   |  |                             | PASS    |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
|    |   | <table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>P/N</th> <th>ROOM AMBIENT<br/>Ta= 29.5 °C</th> <th>HIGH AMBIENT<br/>Ta= 46.8 °C</th> </tr> </thead> <tbody> <tr><td>1</td><td>BD1</td><td>KBP208G</td><td>53.1°C</td><td>70.7°C</td></tr> <tr><td>2</td><td>L1</td><td>DRGZ001D</td><td>55.9°C</td><td>73.4°C</td></tr> <tr><td>3</td><td>C5</td><td>15uF/400V KM</td><td>51.5°C</td><td>68.8°C</td></tr> <tr><td>4</td><td>C6</td><td>15uF/400V KM</td><td>63.2°C</td><td>80.9°C</td></tr> <tr><td>5</td><td>D1</td><td>1N4007</td><td>68.5°C</td><td>85.9°C</td></tr> <tr><td>6</td><td>T1</td><td>TF-6338</td><td>75.9°C</td><td>92.1°C</td></tr> <tr><td>7</td><td>U1</td><td>SD4843</td><td>65.4°C</td><td>83.9°C</td></tr> <tr><td>8</td><td>C9</td><td>220uF/35V KY</td><td>59.4°C</td><td>77.6°C</td></tr> <tr><td>9</td><td>D10</td><td>HER303</td><td>75.1°C</td><td>90.9°C</td></tr> <tr><td>10</td><td>C15</td><td>220uF/35V YXG</td><td>66.4°C</td><td>81.9°C</td></tr> <tr><td>11</td><td>C17</td><td>100uF/35V GL</td><td>63.0°C</td><td>78.5°C</td></tr> <tr><td>12</td><td>L10</td><td>DR006C</td><td>59.4°C</td><td>74.7°C</td></tr> <tr><td>13</td><td>R12</td><td>2W 0.3Ω</td><td>62.0°C</td><td>77.5°C</td></tr> </tbody> </table> | NO   | Position                    |         | P/N | ROOM AMBIENT<br>Ta= 29.5 °C | HIGH AMBIENT<br>Ta= 46.8 °C | 1 | BD1 | KBP208G | 53.1°C | 70.7°C | 2 | L1 | DRGZ001D | 55.9°C | 73.4°C | 3 | C5 | 15uF/400V KM | 51.5°C | 68.8°C | 4 | C6 | 15uF/400V KM | 63.2°C | 80.9°C | 5 | D1 | 1N4007 | 68.5°C | 85.9°C | 6 | T1 | TF-6338 | 75.9°C | 92.1°C | 7 | U1 | SD4843 | 65.4°C | 83.9°C | 8 | C9 | 220uF/35V KY | 59.4°C | 77.6°C | 9 | D10 | HER303 | 75.1°C | 90.9°C | 10 | C15 | 220uF/35V YXG | 66.4°C | 81.9°C | 11 | C17 | 100uF/35V GL | 63.0°C | 78.5°C | 12 | L10 | DR006C | 59.4°C | 74.7°C | 13 | R12 | 2W 0.3Ω | 62.0°C | 77.5°C |  |  |
| NO | Position  | P/N   | ROOM AMBIENT<br>Ta= 29.5 °C                                      | HIGH AMBIENT<br>Ta= 46.8 °C |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 1  | BD1   | KBP208G   | 53.1°C   | 70.7°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 2  | L1  | DRGZ001D  | 55.9°C   | 73.4°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 3  | C5  | 15uF/400V KM  | 51.5°C   | 68.8°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 4  | C6  | 15uF/400V KM  | 63.2°C   | 80.9°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 5  | D1  | 1N4007  | 68.5°C   | 85.9°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 6  | T1  | TF-6338   | 75.9°C   | 92.1°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 7  | U1  | SD4843  | 65.4°C   | 83.9°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 8  | C9  | 220uF/35V KY  | 59.4°C   | 77.6°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 9  | D10   | HER303  | 75.1°C   | 90.9°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 10 | C15   | 220uF/35V YXG   | 66.4°C   | 81.9°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 11 | C17   | 100uF/35V GL  | 63.0°C   | 78.5°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 12 | L10   | DR006C  | 59.4°C   | 74.7°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 13 | R12   | 2W 0.3Ω   | 62.0°C   | 77.5°C                      |         |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 2  | OVER LOAD BURN-IN TEST  | NO DAMAGE<br>1 HOUR ( MIN )   | I/P: 230 VAC<br>O/P: 138% LOAD<br>Ta:25°C                        | TEST : OK                   | PASS    |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 3  | LOW TEMPERATURE<br>TURN ON TEST                                   | TURN ON AFTER 2 HOUR  | I/P: 264 VAC/100 VAC<br>O/P: 100% LOAD<br>Ta= -30 °C             | TEST : OK                   | PASS    |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 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                   | PASS    |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 5  | TEMPERATURE<br>COEFFICIENT  | ± 0.03 %(0~50°C)  | I/P: 230 VAC<br>O/P: FULL LOAD                                   | ± 0.003 %(0~50°C)           | PASS    |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 6  | STORAGE TEMPERATURE TEST  | 1. Thermal shock Temperature : -45°C~+85°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  |  | TEST : OK                   | PASS    |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 7. | THERMAL SHOCK TEST  | 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 : 10 CYCLE<br>5. Input/Output condition : 230VAC/Full Load 58SEC ON/2SEC OFF   |  | TEST : OK                   | PASS    |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |
| 8  | VIBRATION TEST  | 1 Carton & 1 Set<br>(1) Waveform: Sine Wave<br>(2) Frequency:10~500Hz<br>(3) Sweep Time:10min/sweep cycle<br>(4) Acceleration:2G<br>(5) Test Time:1 hour in each axis (X.Y.Z)<br>(6) Ta:25°C  |  | TEST : OK                   | PASS    |     |                             |                             |   |     |         |        |        |   |    |          |        |        |   |    |              |        |        |   |    |              |        |        |   |    |        |        |        |   |    |         |        |        |   |    |        |        |        |   |    |              |        |        |   |     |        |        |        |    |     |               |        |        |    |     |              |        |        |    |     |        |        |        |    |     |         |        |        |  |  |

|    |                             |  |      |
|----|-----------------------------|--|------|
| 9  | CAPACITOR LIFE CYCLE        | APV-16-24: SUPPOSE C15 IS THE MOST CRITICAL COMPONENT<br>(1) I/P: 230 VAC O/P:FULL LOAD Ta= 25 °C LIFE TIME= 160267 HRS<br>(2) I/P: 230 VAC O/P:FULL LOAD Ta= 40 °C LIFE TIME= 64139 HRS<br>(3) I/P: 230 VAC O/P:75% LOAD Ta= 40 °C LIFE TIME= 101379 HRS<br>(4) I/P: 230 VAC O/P:50% LOAD Ta= 40 °C LIFE TIME= 172950 HRS | PASS |
| 10 | MTBF                        | MIL-HDBK-217F NOTICES2 PARTS COUNT<br>TOTAL FAILURE RATE: 1145.7K HRS  | PASS |
| 11 | DMTBF/Accelerated Life Test | Demonstration Mean Time Between Failure(Expected Life) :<br>20,000 hours @ Tcase 60°C , 50,000 hours @ Tcase 45°C for 5v<br>20,000 hours @ Tcase 70°C , 50,000 hours @ Tcase 55°C or 12v~24v   | PASS |

## SAFETY TEST

|   |                      |                                    |  |                                |      |
|---|----------------------|------------------------------------|--|--------------------------------|------|
| 1 | WITHSTAND VOLTAGE    | I/P-O/P: 3.75 KVAC/min<br>EN 60950 | I/P-O/P: 4.2 KVAC/min<br>Ta:25°C       | I/P-O/P: 1.394 mA<br>NO DAMAGE | PASS |
| 2 | ISOLATION RESISTANCE | I/P-O/P:500VDC>100MΩ               | I/P-O/P: 500 VDC<br>Ta:25°C            | I/P-O/P: >9999 MΩ<br>NO DAMAGE | PASS |
| 3 | LEAKAGE CURRENT      | < 0.25 mA / 240VAC<br>EN 60950     | I/P: 264 VAC<br>O/P:NO LOAD<br>Ta:25°C | L-FG: 2.3 uA<br>N-FG: 2.3 uA   | PASS |

## E.M.C TEST

| NO | TEST ITEM                                   | SPECICATION  | TEST CONDITION  | RESULT                        | VERDICT |
|----|---|--|---|-------------------------------|---------|
| 1  | HARMONIC                                    | EN61000-3-2<br>CLASS A                                 | I/P: 220V/230V/240V AC 50HZ<br>O/P:100%/75%/50%/25% LOAD<br>Ta:25°C | PASS                          | PASS    |
| 2  | CONDUCTION                                  | EN55015  | I/P:230 VAC (50HZ) /115V(60HZ)<br>O/P:FULL/50% LOAD<br>Ta:25°C      | PASS<br>Test by certified Lab | PASS    |
| 3  | RADIATION                                   | EN55015  | I/P: 230 VAC (50HZ)/115V(60HZ)<br>O/P:FULL LOAD<br>Ta:25°C          | PASS<br>Test by certified Lab | PASS    |
| 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                    | PASS    |
| 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                    | PASS    |
| 6  | SURGE                                       | EN61000-4-5<br>LIGHT INDUSTRY<br>L-N :2KV              | I/P: 230 VAC/50HZ<br>O/P:FULL LOAD<br>Ta:25°C                       | CRITERIA A                    | PASS    |
| 7  | Test by certified Lab & Test Report Prepare |  |   |                               |         |

## COMPONENT STRESS TEST

| NO | TEST ITEM   | SPECIFICATION   | TEST CONDITION  | RESULT   | VERDICT |
|----|---|---|---|--|---------|
| 1  | Power Transistor<br>(D to S) or (C to E) Peak Voltage | U1 Rated<br>SD4843 : 650 V 11 A                       | I/P:High-Line +3V =267 V<br>O/P: (1)Full Load input on/off<br>(2)Output Short<br>(3)Dynamic Load Full Load/<br>Min. Load 90%Duty/3KHz<br>(4)Dynamic Load 50% Load/<br>Min. Load 50%Duty/120Hz<br><br>I/P:Low-Line -3V = 87 V<br>O/P: (1)Full Load input on/off<br>(2)Output Short<br>(3)Dynamic Load Full Load/<br>Min. Load 90%Duty/3KHz<br>(4)Dynamic Load 50% Load/<br>Min. Load 50%Duty/120Hz<br><br>Ta:25°C  | (1)568V<br>(2)556V<br>(3)554V<br>(4)510V<br><br>(1)330V<br>(2)296V<br>(3)315V<br>(4)270V         | PASS    |
| 2  | Diode Peak Voltage                                    | D10 Rated<br>SR3100 : 100 V 3 A                       | I/P:High-Line +3V = 267 V<br>O/P: (1)Full Load input on/off<br>(2)Output Short<br>(3)Dynamic Load Full Load/<br>Min. Load 90%Duty/3KHz<br>(4)Dynamic Load 50% Load/<br>Min. Load 50%Duty/120Hz<br><br>I/P:Low-Line -3V = 87 V<br>O/P: (1)Full Load input on/off<br>(2)Output Short<br>(3)Dynamic Load Full Load/<br>Min. Load 90%Duty/3KHz<br>(4)Dynamic Load 50% Load/<br>Min. Load 50%Duty/120Hz<br><br>Ta:25°C | (1)71.6V<br>(2)62.0V<br>(3)71.6V<br>(4)71.2V<br><br>(1)33.4V<br>(2)19.2V<br>(3)34.0V<br>(4)32.2V | PASS    |
| 3  | Clamp Diode Peak Voltage                              | D 1 Rated<br>1N4007 : 1000 V 1 A                      | I/P:High-Line +3V = 267 V<br>O/P: (1)Dynamic Load Full Load/<br>Min. Load 90%Duty/3KHz<br>(2)Dynamic Load 50% Load/<br>Min. Load 50%Duty/120Hz<br><br>Ta:25°C   | (1) 526 V<br>(2) 498 V   | PASS    |
| 4  | Input Capacitor Voltage                               | C 6 Rated<br>CAPXON : 15 u/ 400 V<br>105°C/ KM Series | I/P:High-Line +3V =267 V<br>O/P: (1)Full Load input on/off<br>(2)Min load input on /Off<br>(3)Burn-IN 1Hour<br><br>Ta:25°C  | (1) 392 V<br>(2) 352 V<br>(3) 354 V  | PASS    |
| 5  | Control IC Voltage Test                               | U 1 Rated<br>SD4843 : 21 V                            | I/P:High-Line +3V = 267 V<br>O/P:(1).FULL LOAD<br>(2).Output Short<br>(3).O.L.P<br>(4).O.V.P.<br>(5).NO LOAD LOW LINE<br><br>Ta:25°C  | (1)14.4V<br>(2)12.7V<br>(3)12.7V<br>(4)12.7V<br>(5)10.7V   | PASS    |



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| DATE      | SAMPLE                        | TEST RESULT | TESTER | APPROVAL |
|-----------|-------------------------------|-------------|--------|----------|
| 2011/3/4  | RD SAMPLE                     | PASS        | SKY    | HOWAY    |
| 2011/6/10 | PRODUCT SAMPLE<br>(W1106A202) | PASS        | SKY    | HOWAY    |
| 2011/8/22 | PRODUCT SAMPLE<br>(W1108E131) | PASS        | SKY    | HOWAY    |