



Test Report: RSP-750-27

750W Single Output Power Supply

■ 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

■ ESIGN VERIFY TEST

OUTPUT FUNCTION TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT | VERDICT |
|----|-----------------------------|--|---|--|---------|
| 1 | RIPPLE & NOISE | V1 : 150 mVp-p (Max) | I/P : 230VAC O/P : FULL LOAD Ta : 25°C | V1 : 67 mVp-p (Max) | P |
| 2 | OUTPUT VOLTAGE ADJUST RANGE | CH1 : 24V ~ 30V | I/P : 230 VAC I/P : 115 VAC O/P : MIN LOAD Ta : 25°C | 22.448 V ~ 31.469 V / 230 VAC 22.451 V ~ 31.469 V / 115 VAC | P |
| 3 | OUTPUT VOLTAGE TOLERANCE | V1 : 1% ~ -1% (Max) | I/P : 100VAC / 264 VAC O/P : FULL / MIN LOAD Ta : 25°C | V1 : 0.05 % ~ -0.05 % | P |
| 4 | LINE REGULATION | V1 : 0.5% ~ -0.5% (Max) | I/P : 100VAC ~ 264 VAC O/P : FULL LOAD Ta : 25°C | V1 : 0.03 % ~ -0.03 % | P |
| 5 | LOAD REGULATION | V1 : 0.5% ~ -0.5% (Max) | I/P : 230 VAC O/P : FULL ~ MIN LOAD Ta : 25°C | V1 : 0.05 % ~ -0.05 % | P |
| 6 | SET UP TIME | 230VAC : 1000 ms (Max) 115VAC : 1000 ms (Max) | I/P : 230 VAC O/P : FULL LOAD Ta : 25°C | 230VAC / 171 ms 115VAC / 340 ms | P |
| 7 | RISE TIME | 230VAC : 50 ms (Max) 115VAC : 50 ms (Max) | I/P : 230 VAC O/P : FULL LOAD Ta : 25°C | 230VAC / 36 ms 115VAC / 35 ms | P |
| 8 | HOLD UP TIME | 230VAC : 16 ms (TYP) 115VAC : 16 ms (TYP) | I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C | 230VAC / 26 ms 115VAC / 27 ms | P |
| 9 | OVER/UNDERSHOOT TEST | < ±5% | I/P : 230 VAC O/P : FULL LOAD Ta : 25°C | TEST : <5 % | P |
| 10 | DYNAMIC LOAD | V1 : 2700 mVp-p | I/P : 230 VAC (1).O/P : FULL / Min LOAD 90%DUTY / 1KHZ (2).O/P : FULL / Min LOAD 90%DUTY / 3KHZ (3).O/P : FULL / Min LOAD 90%DUTY / 5KHZ (4).O/P : FULL / Min LOAD 50%DUTY / 120HZ Ta : 25°C | (1)700 mVp-p (2)659 mVp-p (3)603 mVp-p (4)1.09 Vp-p | P |

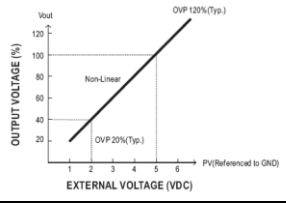
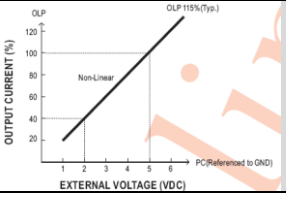
INPUT FUNCTION TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT | VERDICT |
|----|-----------------------|---|--|--|---------|
| 1 | INPUT VOLTAGE RANGE | 90VAC~264 VAC | I/P : TESTING O/P : FULL LOAD Ta : 25°C | 73 V~264V | P |
| | | | I/P : LOW-LINE-3V=87 V HIGH-LINE+15%=300 V O/P : FULL/MIN LOAD ON : 30 Sec . OFF : 30 Sec 10MIN (AC POWER ON/OFF NO DAMAGE) | TEST : OK | |
| 2 | INPUT FREQUENCY RANGE | 47HZ ~63 HZ NO DAMAGE OSC | I/P : 100VAC ~ 264 VAC O/P : FULL~MIN LOAD Ta : 25°C | TEST : OK | P |
| 3 | POWER FACTOR | 0.97 / 230 VAC(TYP) 0.98 / 115 VAC(TYP) | I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C | PF= 0.988 / 230 VAC PF= 0.998 / 115 VAC | P |
| 4 | EFFICIENCY | 90.5% (TYP) | I/P : 230 VAC O/P : FULL LOAD Ta : 25°C | 90.876 % | P |
| 5 | INPUT CURRENT | 230V/ 3.9 A (TYP) 115V/ 8.9 A (TYP) | I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C | I = 3.659 A/ 230 VAC I = 7.546 A/ 115 VAC | P |
| 6 | INRUSH CURRENT | 230V/ 40 A (TYP) 115V/ 25 A(TYP) COLD START | I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C | I = 38 A/ 230 VAC I = 18 A/ 115 VAC | P |
| 7 | LEAKAGE CURRENT | < 2 mA / 240 VAC | I/P : 264 VAC O/P : Min LOAD Ta : 25°C | L-FG : 0.8 mA N-FG : 0.68 mA | P |

PROTECTION FUNCTION TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT | VERDICT |
|----|-----------------------------|---|---|---|---------|
| 1 | OVER LOAD PROTECTION | 105 ~ 125 % | I/P : 230 VAC I/P : 115 VAC O/P : TESTING Ta : 25°C | 115.258% / 230 VAC 115.258% / 115 VAC Constant Current Limiting | P |
| 2 | OVER VOLTAGE PROTECTION | CH1 : 31V ~ 36.5 V | I/P : 230 VAC I/P : 115 VAC O/P : MIN LOAD Ta : 25°C | 33.457V / 230 VAC 33.504V / 115 VAC Shut down Re- power ON | P |
| 3 | OVER TEMPERATURE PROTECTION | SPEC : TSW1 : 80 ± 5°C O.T.P. TSW2 : 85 ± 5°C O.T.P. NO DAMAGE | I/P : 230 VAC O/P : FULL LOAD | O.T.P. Active Shut down o/p voltage , recovers automatically after temperature goes down | P |
| 4 | SHORT PROTECTION | SHORT EVERY OUTPUT 1 HOUR NO DAMAGE | I/P : 264 VAC O/P : FULL LOAD Ta : 25°C | NO DAMAGE CONSTANT CURRENT LIMITING | P |

CONTROL FUNCTION TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT | VERDICT | | | | | | | | | | | | | | | | | | |
|-------|---------------------------------|---|--|---|---------|----|----|----|----|------|------|-----|-----|-----|------|------|------|-------|-------|-------|---------|---------|---|
| 1 | REMOTE ON/OFF CONTROL | Power on : short between on/off (pin13) & 12V-AUX(pin14) on CN50 Power off : open between on/off (pin13) & 12-AUX(pin14) on CN50 | I/P : 230 VAC O/P : FULL LOAD Ta : 25°C | TEST : OK | P | | | | | | | | | | | | | | | | | | |
| 2 | DC OK SIGNAL | The TTL signal out, PSU turn on = 0 ~ 1V PSU turn off = 3.3 ~ 5.6V | I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C | 0 V 4.915 V | P | | | | | | | | | | | | | | | | | | |
| 3 | OUTPUT VOLTAGE PROGRAMMABLE(PV) |  | I/P : 230 VAC O/P : FULL LOAD Ta : 25°C | <table border="1"> <thead> <tr> <th>ADJ V</th> <th>2V</th> <th>3V</th> <th>4V</th> <th>5V</th> <th>5.5V</th> </tr> </thead> <tbody> <tr> <td>SPEC</td> <td>40%</td> <td>60%</td> <td>80%</td> <td>100%</td> <td>110%</td> </tr> <tr> <td>TEST</td> <td>41.5%</td> <td>61.4%</td> <td>81.8%</td> <td>102%</td> <td>111.9%</td> </tr> </tbody> </table> | ADJ V | 2V | 3V | 4V | 5V | 5.5V | SPEC | 40% | 60% | 80% | 100% | 110% | TEST | 41.5% | 61.4% | 81.8% | 102% | 111.9% | P |
| ADJ V | 2V | 3V | 4V | 5V | 5.5V | | | | | | | | | | | | | | | | | | |
| SPEC | 40% | 60% | 80% | 100% | 110% | | | | | | | | | | | | | | | | | | |
| TEST | 41.5% | 61.4% | 81.8% | 102% | 111.9% | | | | | | | | | | | | | | | | | | |
| 4 | OUTPUT CURRENT PROGRAMMABLE(PC) |  | I/P : 230 VAC O/P : 0%~110 LOAD Ta : 25°C | <table border="1"> <thead> <tr> <th>ADJ V</th> <th>2V</th> <th>3V</th> <th>4V</th> <th>5V</th> <th>5.5V</th> </tr> </thead> <tbody> <tr> <td>SPEC</td> <td>40%</td> <td>60%</td> <td>80%</td> <td>100%</td> <td>110%</td> </tr> <tr> <td>TEST</td> <td>38.3%</td> <td>58.3%</td> <td>80.4%</td> <td>101.59%</td> <td>112.39%</td> </tr> </tbody> </table> | ADJ V | 2V | 3V | 4V | 5V | 5.5V | SPEC | 40% | 60% | 80% | 100% | 110% | TEST | 38.3% | 58.3% | 80.4% | 101.59% | 112.39% | P |
| ADJ V | 2V | 3V | 4V | 5V | 5.5V | | | | | | | | | | | | | | | | | | |
| SPEC | 40% | 60% | 80% | 100% | 110% | | | | | | | | | | | | | | | | | | |
| TEST | 38.3% | 58.3% | 80.4% | 101.59% | 112.39% | | | | | | | | | | | | | | | | | | |
| 5 | REMOTE SENSE | >0.5V | I/P : 230 VAC O/P : FULL LOAD Ta : 25°C | >0.54 | P | | | | | | | | | | | | | | | | | | |
| 6 | FAN SPEED | FAN Voltage : 0% LOAD 7~9V 100%LOAD 11.5~12.5V | I/P : 230 VAC O/P : 0%~100%LOAD Ta : 25°C | O/P : 0% LOAD FAN Voltage : 7.968V O/P : 100%LOAD FAN Voltage : 12.078V | P | | | | | | | | | | | | | | | | | | |
| 7 | AUXILIARY POWER | 12V@ 0.1 A(±10%) | I/P : 230 VAC O/P : 0%~100%LOAD Ta : 25°C | O/P : 0% LOAD 12.528 V O/P : 100%LOAD 12.295 V | P | | | | | | | | | | | | | | | | | | |

COMPONENT STRESS TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT | VERDICT |
|----|---|--|--|--|---------|
| 1 | Power Transistor (D to S) or (C to E) Peak Voltage | Q905 Rated : STP7N95K3 7A/950V | I/P : High-Line +3V = 267 V O/P : (1)Full Load Turn on (2) Output Short (3)Full load continue Ta : 25°C | (1) 824 V (2) 816 V (3) 820 V | P |
| 2 | Diode Peak Voltage | D101 Rated : V30100S 30A/100V Q201 Rated : YA868C15RSC 30A/150V | I/P : High-Line +3V = 267 V O/P : (1)Full Load Turn on (2)Output Short (3)Full load continue O/P : (1)Full Load Turn on (2)Output Short (3)Full load continue Ta : 25°C | (1) 53.6 V (2) 55.6 V (3) 51.2 V (1) 99.6 V (2) 98.4 V (3) 98 V | P |
| 3 | Input Capacitor Voltage | C5 Rated : 330u/400V 105°C 30*30 HU | I/P : High-Line +3V = 267 V O/P : (1)Full Load Turn on /Off (2) Min load Turn on /Off (3)Full Load /Min load Change Ta : 25°C | (1) 384 V (2) 382 V (3) 396 V | P |
| 4 | Control IC Voltage Test | U901 Rated : UCC28220D 8V~14V | I/P : High-Line +3V = 267 V O/P : (1)Full Load Turn on /Off (2) Min load Turn on /Off (3)Full Load /Min load Change Ta : 25°C | (1) 12.3 V (2) 12.1 V (3) 12 V | P |
| 5 | Power Transistor (D to S) or (C to E) Peak Voltage | Q 2 Rated : FCP22N60N 22A/600V | I/P : High-Line +3V = 267 V O/P : (1)Full Load Turn on (2) Output Short (3)Full load continue Ta : 25°C | (1) 428 V (2) 400 V (3) 418 V | P |

■ SAFETY & E.M.C. TEST

SAFETY TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT | VERDICT |
|----|----------------------|--|---|--|---------|
| 1 | WITHSTAND VOLTAGE | I/P-O/P : 3 KVAC/min I/P-FG : 2KVAC/min O/P-FG : 0.5 KVAC/min | I/P-O/P : 3.6 KVAC/min I/P-FG : 2.4 KVAC/min O/P-FG : 0.6 KVAC/min Ta : 25°C | I/P-O/P : 9. mA I/P-FG : 8.3 mA O/P-FG : 6.7 mA NO DAMAGE | P |
| 2 | ISOLATION RESISTANCE | I/P-O/P : 500VDC>100MΩ I/P-FG : 500VDC>100MΩ O/P-FG : 500VDC>100MΩ | I/P-O/P : 500 VDC I/P-FG : 500 VDC O/P-FG : 500 VDC Ta : 25°C /70%RH | I/P-O/P : 15.5 GΩ I/P-FG : 12.2 GΩ O/P-FG : 13.2 GΩ NO DAMAGE | P |
| 3 | GROUNDING CONTINUITY | FG(PE) TO CHASSIS OR TRACE < 100 mΩ | 40 A / 2min Ta : 25°C / 70%RH | 10 mΩ | P |

E.M.C TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT | VERDICT |
|----|---|---|--|-------------------------------|---------|
| 1 | HARMONIC | EN61000-3-2 CLASS A CLASS D | I/P : 230 VAC/50HZ O/P : FULL LOAD Ta : 25°C | PASS | P |
| 2 | CONDUCTION | EN55022 CLASS B | I/P : 230 VAC (50HZ) O/P : FULL/50% LOAD Ta : 25°C | PASS Test by certified Lab | P |
| 3 | RADIATION | EN55022 CLASS B | I/P : 230 VAC (50HZ) O/P : FULL LOAD Ta : 25°C | PASS Test by certified Lab | P |
| 4 | E.S.D | EN61000-4-2 INDUSTRY AIR : 8KV / Contact : 4KV | I/P : 230 VAC/50HZ O/P : FULL LOAD Ta : 25°C | CRITERIA A | P |
| 5 | E.F.T | EN61000-4-4 INDUSTRY INPUT : 2KV | I/P : 230 VAC/50HZ O/P : FULL LOAD Ta : 25°C | CRITERIA A | P |
| 6 | SURGE | IEC61000-4-5 INDUSTRY L-N : 2KV L,N-PE : 4KV | I/P : 230 VAC/50HZ O/P : FULL LOAD 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 : RSP-750-24 1. ROOM AMBIENT BURN-IN : 1.5 HRS I/P : 230VAC O/P : FULL LOAD Ta=33.6 °C 2. HIGH AMBIENT BURN-IN : 6 HRS I/P : 230VAC O/P : FULL LOAD Ta=48.2 °C | | | | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>PART NUMBER</th> <th>ROOM AMBIENT Ta=33.6 °C</th> <th>HIGH AMBIENT Ta=48.2 °C</th> </tr> </thead> <tbody> <tr><td>1</td><td>LF1</td><td>TR690-R1</td><td>42.1°C</td><td>58.2°C</td></tr> <tr><td>2</td><td>C2</td><td>105/275VAC 20% P=22.5 R46</td><td>41.7°C</td><td>57.5°C</td></tr> <tr><td>3</td><td>BD1</td><td>30A/800V SILICON US30KB80R</td><td>54.0°C</td><td>69.4°C</td></tr> <tr><td>4</td><td>L2</td><td>TF2432</td><td>48.4°C</td><td>64.1°C</td></tr> <tr><td>5</td><td>Q2</td><td>FCP22N60N 22A/600V</td><td>48.0°C</td><td>64.3°C</td></tr> <tr><td>6</td><td>C11</td><td>225/450V 10% P=22 MMX</td><td>40.0°C</td><td>56.9°C</td></tr> <tr><td>7</td><td>C5</td><td>330u/400V 105°C 30*30 HU</td><td>37.2°C</td><td>52.8°C</td></tr> <tr><td>8</td><td>T1</td><td>TF2419</td><td>44.6°C</td><td>58.9°C</td></tr> <tr><td>9</td><td>T2</td><td>TF2420</td><td>51.9°C</td><td>67.0°C</td></tr> <tr><td>10</td><td>Q901</td><td>STP7N95K3 7A/950V</td><td>47.4°C</td><td>62.2°C</td></tr> <tr><td>11</td><td>Q906</td><td>STP7N95K3 7A/950V</td><td>54.7°C</td><td>68.6°C</td></tr> <tr><td>12</td><td>Q100</td><td>V30100S 30A/100V</td><td>49.6°C</td><td>63.1°C</td></tr> <tr><td>13</td><td>Q200</td><td>V30100S 30A/100V</td><td>57.7°C</td><td>71.5°C</td></tr> <tr><td>14</td><td>D101</td><td>M6060C 60A/60V</td><td>58.2°C</td><td>72.3°C</td></tr> <tr><td>15</td><td>D900</td><td>BYV26EGP 1A/1KV DO-204AC</td><td>44.1°C</td><td>58.3°C</td></tr> <tr><td>16</td><td>D70</td><td>ST02D-170 AX078 T-52mm</td><td>46.3°C</td><td>61.5°C</td></tr> <tr><td>17</td><td>C75</td><td>220u/25V UL7Kh 8*11.5 KY</td><td>41.5°C</td><td>56.8°C</td></tr> <tr><td>18</td><td>T3</td><td>TF2431</td><td>43.1°C</td><td>58.0°C</td></tr> <tr><td>19</td><td>C320</td><td>100u/25V L5Kh 6.3*11 KY</td><td>43.3°C</td><td>58.2°C</td></tr> <tr><td>20</td><td>C301</td><td>1500u/16V UL10Kh 10*20 ZLH</td><td>42.1°C</td><td>57.0°C</td></tr> <tr><td>21</td><td>C161</td><td>470u/25V UL7Kh 8*20 KY</td><td>42.1°C</td><td>56.8°C</td></tr> <tr><td>22</td><td>L100</td><td>TF2428</td><td>51.2°C</td><td>66.0°C</td></tr> <tr><td>23</td><td>C110</td><td>1000u/35V UL10Kh 12.5*25 KY</td><td>47.1°C</td><td>61.7°C</td></tr> <tr><td>24</td><td>TSW1</td><td>BW-DCP-R0 80°C 105mm HH (H110)</td><td>41.4°C</td><td>57.2°C</td></tr> <tr><td>25</td><td>TSW2</td><td>BW-DCP-R0 85°C 60mm HH (H110)</td><td>53.3°C</td><td>67.4°C</td></tr> </tbody> </table> | NO | Position | PART NUMBER | | ROOM AMBIENT Ta=33.6 °C | HIGH AMBIENT Ta=48.2 °C | 1 | LF1 | TR690-R1 | 42.1°C | 58.2°C | 2 | C2 | 105/275VAC 20% P=22.5 R46 | 41.7°C | 57.5°C | 3 | BD1 | 30A/800V SILICON US30KB80R | 54.0°C | 69.4°C | 4 | L2 | TF2432 | 48.4°C | 64.1°C | 5 | Q2 | FCP22N60N 22A/600V | 48.0°C | 64.3°C | 6 | C11 | 225/450V 10% P=22 MMX | 40.0°C | 56.9°C | 7 | C5 | 330u/400V 105°C 30*30 HU | 37.2°C | 52.8°C | 8 | T1 | TF2419 | 44.6°C | 58.9°C | 9 | T2 | TF2420 | 51.9°C | 67.0°C | 10 | Q901 | STP7N95K3 7A/950V | 47.4°C | 62.2°C | 11 | Q906 | STP7N95K3 7A/950V | 54.7°C | 68.6°C | 12 | Q100 | V30100S 30A/100V | 49.6°C | 63.1°C | 13 | Q200 | V30100S 30A/100V | 57.7°C | 71.5°C | 14 | D101 | M6060C 60A/60V | 58.2°C | 72.3°C | 15 | D900 | BYV26EGP 1A/1KV DO-204AC | 44.1°C | 58.3°C | 16 | D70 | ST02D-170 AX078 T-52mm | 46.3°C | 61.5°C | 17 | C75 | 220u/25V UL7Kh 8*11.5 KY | 41.5°C | 56.8°C | 18 | T3 | TF2431 | 43.1°C | 58.0°C | 19 | C320 | 100u/25V L5Kh 6.3*11 KY | 43.3°C | 58.2°C | 20 | C301 | 1500u/16V UL10Kh 10*20 ZLH | 42.1°C | 57.0°C | 21 | C161 | 470u/25V UL7Kh 8*20 KY | 42.1°C | 56.8°C | 22 | L100 | TF2428 | 51.2°C | 66.0°C | 23 | C110 | 1000u/35V UL10Kh 12.5*25 KY | 47.1°C | 61.7°C | 24 | TSW1 | BW-DCP-R0 80°C 105mm HH (H110) | 41.4°C | 57.2°C | 25 | TSW2 | BW-DCP-R0 85°C 60mm HH (H110) | 53.3°C | 67.4°C |
| | | NO | Position | PART NUMBER | ROOM AMBIENT Ta=33.6 °C | | HIGH AMBIENT Ta=48.2 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1 | LF1 | TR690-R1 | 42.1°C | | 58.2°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 2 | C2 | 105/275VAC 20% P=22.5 R46 | 41.7°C | | 57.5°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 3 | BD1 | 30A/800V SILICON US30KB80R | 54.0°C | | 69.4°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 4 | L2 | TF2432 | 48.4°C | | 64.1°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 5 | Q2 | FCP22N60N 22A/600V | 48.0°C | | 64.3°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 6 | C11 | 225/450V 10% P=22 MMX | 40.0°C | | 56.9°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 7 | C5 | 330u/400V 105°C 30*30 HU | 37.2°C | | 52.8°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 8 | T1 | TF2419 | 44.6°C | | 58.9°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 9 | T2 | TF2420 | 51.9°C | | 67.0°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 10 | Q901 | STP7N95K3 7A/950V | 47.4°C | | 62.2°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 11 | Q906 | STP7N95K3 7A/950V | 54.7°C | | 68.6°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 12 | Q100 | V30100S 30A/100V | 49.6°C | | 63.1°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 13 | Q200 | V30100S 30A/100V | 57.7°C | | 71.5°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 14 | D101 | M6060C 60A/60V | 58.2°C | | 72.3°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 15 | D900 | BYV26EGP 1A/1KV DO-204AC | 44.1°C | | 58.3°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 16 | D70 | ST02D-170 AX078 T-52mm | 46.3°C | | 61.5°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 17 | C75 | 220u/25V UL7Kh 8*11.5 KY | 41.5°C | | 56.8°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 18 | T3 | TF2431 | 43.1°C | | 58.0°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 19 | C320 | 100u/25V L5Kh 6.3*11 KY | 43.3°C | | 58.2°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 20 | C301 | 1500u/16V UL10Kh 10*20 ZLH | 42.1°C | | 57.0°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 21 | C161 | 470u/25V UL7Kh 8*20 KY | 42.1°C | | 56.8°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 22 | L100 | TF2428 | 51.2°C | | 66.0°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 23 | C110 | 1000u/35V UL10Kh 12.5*25 KY | 47.1°C | | 61.7°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | TSW1 | BW-DCP-R0 80°C 105mm HH (H110) | 41.4°C | 57.2°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | TSW2 | BW-DCP-R0 85°C 60mm HH (H110) | 53.3°C | 67.4°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | OVER LOAD BURN-IN TEST | NO DAMAGE 1 HOUR (MIN) | I/P : 230 VAC O/P : 119 % LOAD Ta : 25°C | TEST : OK | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | LOW TEMPERATURE TURN ON TEST | TURN ON AFTER 2 HOUR | I/P : 264VAC/100VAC O/P : 100 % LOAD Ta= -35 °C | TEST : OK | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST | AFTER 12 HOURS IN CHAMBER ON CONTROL 50 °C NO DAMAGE | I/P : 272 VAC O/P : FULL LOAD Ta= 50 °C HUMIDITY= 95%R.H | TEST : OK | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | TEMPERATURE COEFFICIENT | ± 0.03 %/°C (0~50°C) | I/P : 230 VAC O/P : FULL LOAD | ± 0 %/°C (0~50°C) | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | |
|----|-----------------------------|--|---|---|
| 6 | STORAGE TEMPERATURE TEST | <ol style="list-style-type: none"> 1. Thermal shock Temperature : -45°C ~ +90°C 2. Temperature change rate : 25°C / MIN 3. Dwell time low and high temperature : 30 MIN/EACH 4. Total test cycle : 5 CYCLE 5. Input/Output condition : STATIC | OK | P |
| 7 | THERMAL SHOCK TEST | <ol style="list-style-type: none"> 1. Thermal shock Temperature : -35°C ~ +55°C 2. Temperature change rate : 25°C / MIN 3. Dwell time low and high temperature : 30 MIN/EACH 4. Total test cycle : 10 CYCLE 5. Input/Output condition : 230VAC/Full Load AC ON/OFF TEST turn on 58sec ; turn off 2sec | OK | P |
| 8 | VIBRATION TEST | 1 Carton & 1 Set <ol style="list-style-type: none"> (1) Waveform : Sine Wave (2) Frequency : 10~500Hz (3) Sweep Time : 12min/sweep cycle (4) Acceleration : 2G (5) Test Time : 60min in each axis (X.Y.Z) (6) Ta : 25°C | TEST : OK | P |
| 9 | CAPACITOR LIFE CYCLE | RSP-750-24:SUPPOSE C110 IS THE MOST CRITICAL COMPONENT <ol style="list-style-type: none"> (1) I/P : 230VAC O/P : FULL LOAD Ta= 25 °C LIFE TIME (2) I/P : 230VAC O/P : FULL LOAD Ta= 50 °C LIFE TIME (3) I/P : 230VAC O/P : 75% LOAD Ta= 50 °C LIFE TIME (4) I/P : 230VAC O/P : 50% LOAD Ta= 50 °C LIFE TIME | <ol style="list-style-type: none"> (1) 1205160HRS (2) 213000HRS (3) 277200HRS (4) 320640HRS | P |
| 10 | MTBF | Conducted by Parts Stress Analysis Prediction 336.9K hrs min. Telcordia SR-332 (Bellcore) ; 109.1K hrs min. MIL-HDBK-217F (25°C) | | P |
| 11 | DMTBF/Accelerated Life Test | Demonstration Mean Time Between Failure : Above 50,000 hours @ TA 50°C | | P |

| DATE | SAMPLE | TEST RESULT | TESTER | APPROVAL |
|-----------|----------------------------|-------------|------------|---------------|
| 2012/5/16 | RD SAMPLE | PASS | SANFORD SU | VINCENT TSENG |
| 2012/7/11 | PRODUCT SAMPLE | PASS | SANFORD SU | VINCENT TSENG |
| 2012/8/7 | PRODUCT SAMPLE W1207C22 | PASS | SANFORD SU | VINCENT TSENG |

2009/08/04 A50-F023