



Test Report: ELG-150-C1750

150W Single Output Switching Power Supply

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

Component Stress Test

■ SAFETY & E.M.C. TEST

Safety Test

E.M.C. Test

■ RELIABILITY TEST

Environment Test



■ DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT |
|---|------------------------------|---------------|--|-----------------|
| 1 | OUTPUT CURRENT ADJUST RANGE | 875mA~1750mA | I/P: 230VAC O/P: LED MODE Ta: 25°C | 0.6421A~1.8204A |
| 2 | OUTPUT CURRENT TOLERANCE | ±5% | I/P: 230VAC O/P: FULL/ MIN LOAD Ta: 25°C | ±0.93 % |
| 3 | RIPPLE CURRENT | ±5% | I/P: 230VAC O/P: LED MODE Ta: 25°C | 4.57% |
| 4 | CONSTANT CURRENT REGION | 43V~86V | I/P: 230VAC O/P: LED MODE Ta: 25°C | 10V~88V |
| 5 | NO LOAD OUTPUT VOLTAGE (Max) | 94V | I/P: 230VAC O/P: NO LOAD Ta: 25°C | 89V |
| 6 | OVER/UNDERSHOOT TEST | <±5 % | I/P: 230VAC O/P: FULL LOAD Ta: 25°C | <5 % |
| 7 | RIPPLE & NOISE (Max) | 0.8Vp-p | I/P: 230VAC O/P: FULL LOAD Ta: 25°C | 0.148Vp-p |
| <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>high frequency:</p> </div> <div style="text-align: center;"> <p>low frequency:</p> </div> </div> | | | | |
| 8 | SET UP TIME(Max) | 230VAC/ 500ms | I/P: 230 VAC O/P: FULL LOAD Ta: 25°C | 230VAC/ 250ms |



150W Single Output Switching Power Supply

ELG-150-C series

| | | | |
|----|---|--------------|--|
| | <p>INPUT=230VAC/50HZ @ FULL LOAD CH1: Output Voltage CH2: AC Input Voltage</p> <p>Δ: 77.2 V @: 78.4 V Δ: 250ms @: 200µs</p> <p>Ch1 20.0 V Ch2 250 V M 100ms A Ch1 77.2 V</p> <p>-103.800ms</p> | | |
| 9 | RISE TIME (Max) | 230VAC/ 85ms | <p>I/P: 230 VAC O/P: FULL LOAD Ta: 25°C</p> <p>230VAC/9.2ms</p> |
| | <p>INPUT=230VAC/50HZ @ FULL LOAD CH1: Output Voltage</p> <p>Δ: 68.0 V @: 77.6 V Δ: 9.20ms @: 1.40ms</p> <p>Ch1 20.0 V M 20.0ms A Ch1 70.0 V</p> <p>-1.80000ms</p> | | |
| 10 | HOLD UP TIME(Typ) | 230VAC/ 10ms | <p>I/P: 230 VAC O/P: FULL LOAD Ta: 25°C</p> <p>230VAC/25.6ms</p> |
| | <p>INPUT=230VAC/50HZ @ FULL LOAD CH1: Output Voltage CH2: AC Input Voltage</p> <p>Δ: 8.40 V @: 77.6 V Δ: 25.6ms @: -200µs</p> <p>Ch1 20.0 V Ch2 250 V M 20.0ms A Ch1 77.2 V</p> <p>-1.80000ms</p> | | |



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| | | | | | | | | | | | | | | | |
|-----------------------------|-----------------------------------|---|--|--------|---------|---------|---------|---------|---------|---------|---------|----------|---------|----------|----------|
| 11 | DIMMING TEST (For B-Type only) | SPEC: | | | | | | | | | | | | | |
| | | ※ Built-in 3 in 1 dimming function, IP67 rated. Output constant current level can be adjusted through output cable by connecting a resistance or 0 ~ 10Vdc or 10V PWM signal between DIM+ and DIM-. | | | | | | | | | | | | | |
| | | ※ Please DO NOT connect "DIM-" to "-V". | | | | | | | | | | | | | |
| | | ※ Reference resistance value for output current adjustment (Typical) | | | | | | | | | | | | | |
| | | Resistance value | Single driver | Short | 10K Ω | 20K Ω | 30K Ω | 40K Ω | 50K Ω | 60K Ω | 70K Ω | 80K Ω | 90K Ω | 100K Ω | OPEN |
| | | | Multiple drivers (N=driver quantity for synchronized dimming operation) | Short | 10K Ω/N | 20K Ω/N | 30K Ω/N | 40K Ω/N | 50K Ω/N | 60K Ω/N | 70K Ω/N | 80K Ω/N | 90K Ω/N | 100K Ω/N | |
| | | Percentage of rated current | | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | 95%~108% |
| | | ※ 0 ~ 10V dimming function for output current adjustment (Typical) | | | | | | | | | | | | | |
| | | Dimming value | 0V | 1V | 2V | 3V | 4V | 5V | 6V | 7V | 8V | 9V | 10V | OPEN | |
| | | Percentage of rated current | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | 95%~108% | |
| | | ※ 10V PWM signal for output current adjustment (Typical): Frequency range: 100Hz~3KHz | | | | | | | | | | | | | |
| Duty value | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | OPEN | | | |
| Percentage of rated current | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | 95%~108% | | | |
| TEST RESULT: | | | | | | | | | | | | | | | |
| I/P: 230 VAC; Ta: 25°C | | | | | | | | | | | | | | | |
| 1 | Resistance value | Short | 10K | 20K | 30K | 40K | 50K | 60K | 70K | 80K | 90K | 100K | OPEN | | |
| | Output Current | 0 | 0.162 | 0.348 | 0.536 | 0.723 | 0.909 | 1.094 | 1.280 | 1.466 | 1.649 | 1.757 | 1.758 | | |
| | Percentage of rated current | 0% | 9.26% | 19.89% | 30.63% | 41.31% | 51.94% | 62.51% | 73.14% | 83.77% | 94.23% | 100.40% | 100.46% | | |
| 2 | Dimming value | 0V | 1V | 2V | 3V | 4V | 5V | 6V | 7V | 8V | 9V | 10V | OPEN | | |
| | Output Current | 0 | 0.169 | 0.357 | 0.536 | 0.726 | 0.911 | 1.103 | 1.292 | 1.470 | 1.655 | 1.757 | 1.757 | | |
| | Percentage of rated current | 0% | 9.66% | 20.40% | 30.63% | 41.49% | 52.06% | 63.03% | 73.83% | 84.00% | 94.57% | 100.40% | 100.40% | | |
| 3 | Duty value | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | OPEN | | |
| | Output Current | 0 | 0.177 | 0.360 | 0.545 | 0.728 | 0.913 | 1.095 | 1.278 | 1.460 | 1.643 | 1.755 | 1.758 | | |
| | Percentage of rated current | 0% | 10.11% | 20.57% | 31.14% | 41.60% | 52.17% | 62.57% | 73.03% | 83.43% | 93.89% | 100.29% | 100.46% | | |

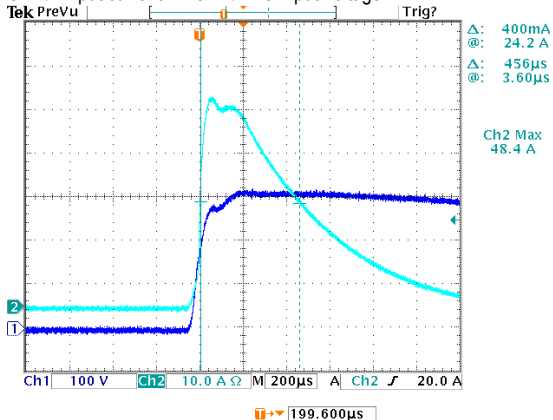


INPUT FUNCTION TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT |
|----|---------------------------|---|---|--------------------------------------|
| 1 | INPUT VOLTAGE RANGE | 100VAC~305VAC | I/P: TESTING O/P: FULL LOAD Ta: 25°C | 97V~305V |
| | | | I/P: (1)LOW-LINE-3V=97 V HIGH-LINE+10V=315 V O/P: FULL/MIN LOAD ON: 30 Sec OFF: 30 Sec 10MIN (2)230VAC ON: 0.5 Sec OFF: 0.5 Sec 20MIN (3)230VAC ON: 3Sec OFF: 3Sec 12HOURS (POWER ON/OFF NO DAMAGE) | TEST: OK |
| 2 | INPUT FREQUENCY RANGE | 47HZ ~63 HZ NO DAMAGE | I/P: 100 VAC ~305 VAC O/P: FULL~MIN LOAD Ta: 25°C | TEST: OK |
| 3 | AC CURRENT | 0.7A/277VAC 0.9A/230VAC | I/P: 277 VAC I/P: 230 VAC O/P: FULL LOAD Ta: 25°C | I=0.589A/ 277VAC I=0.705A/ 230VAC |
| 4 | LEAKAGE CURRENT | < 0.75mA / 277VAC | I/P: 277 VAC O/P: NO LOAD Ta: 25°C | L-FG: 0.357 mA N-FG: 0.324 mA |
| 5 | NO LOAD POWER CONSUMPTION | < 0.5W | I/P: 230VAC O/P: NO LOAD Ta: 25°C | 0.259W/ 230VAC |
| 6 | TOTAL HARMONIC DISTORTION | Total harmonic distortion will be lower than 20% when output loading is 50% or higher at 230VAC | I/P: 230VAC O/P: 50% LOAD | THD: 12.28 % |
| | | Total harmonic distortion will be lower than 20% when output loading is 75% or higher at 277VAC | I/P: 277VAC O/P: 75% LOAD | THD: 10.36 % |
| 7 | INRUSH CURRENT(Typ) | 230V/ 65A Twidth =485 us measured at 50% Ipeak COLD START | I/P: 230 VAC O/P: FULL LOAD Ta: 25°C | I=48.4A/ 230VAC Twidth =456us |

INPUT=230VAC/50HZ @ FULL LOAD

CH2: Input current CH1: AC Input Voltage



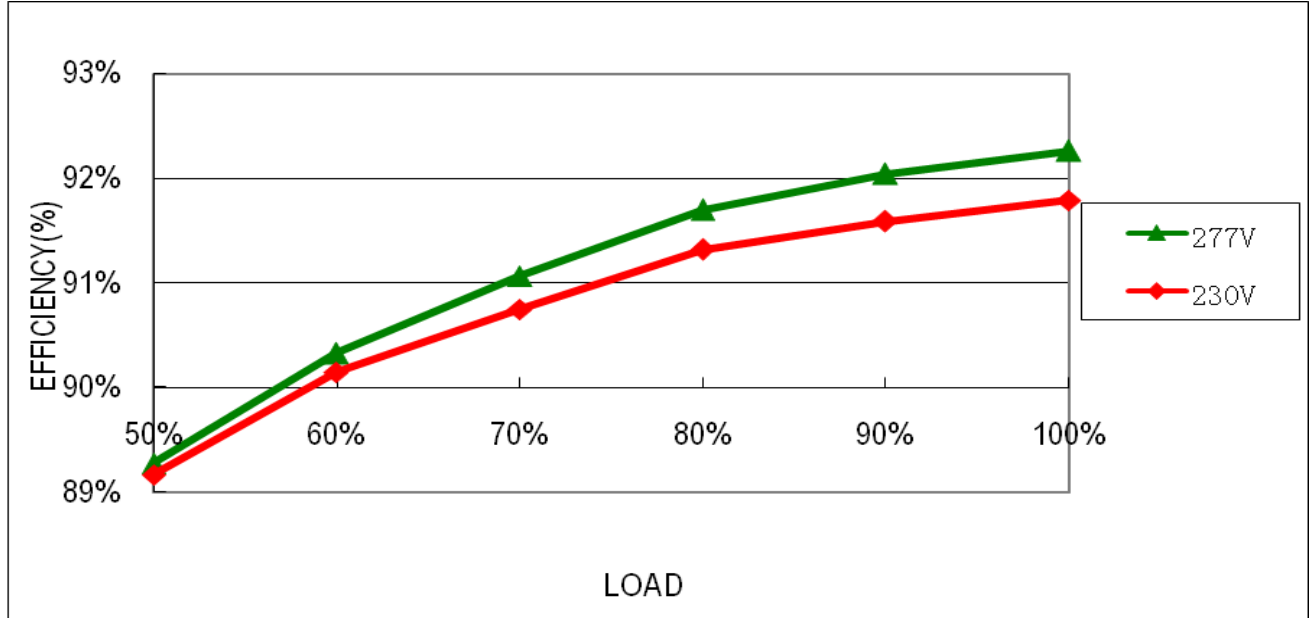


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ELG-150-C series

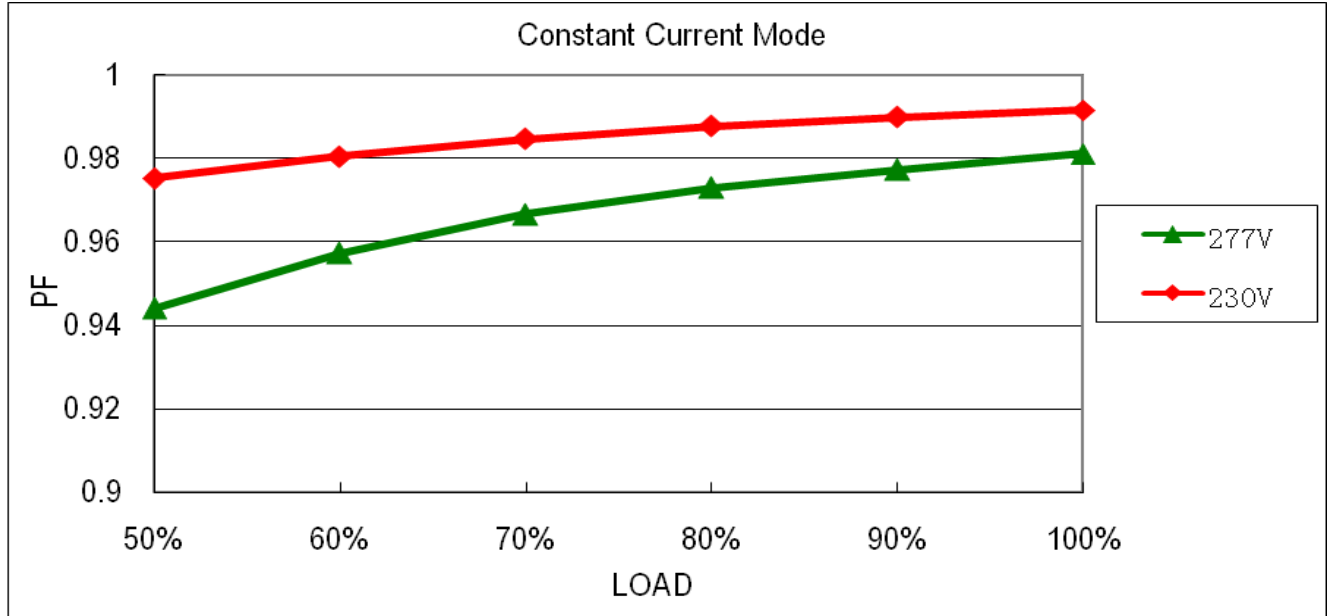
| | | | | |
|---|-----------------|-----|---|--------|
| 8 | EFFICIENCY(Typ) | 91% | I/P: 230VAC O/P: FULL LOAD Ta: 25°C | 91.79% |
|---|-----------------|-----|---|--------|

EFFICIENCY vs LOAD



| | | | | |
|---|--------------|------------------------------|--|--------------------------------------|
| 9 | POWER FACTOR | 0.92/ 277VAC 0.95/ 230VAC | I/P: 277 VAC I/P: 230 VAC O/P: FULL LOAD Ta: 25°C | PF=0.981/ 277VAC PF=0.991/ 230VAC |
|---|--------------|------------------------------|--|--------------------------------------|

P.F vs LOAD



**PROTECTION FUNCTION TEST**

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT |
|----|-----------------------------|--|---|---|
| 1 | OVER VOLTAGE PROTECTION | 96V~106V | I/P: 230VAC O/P: NO LOAD Ta: 25°C | 99.76V/ 230VAC Shut down o/p voltage, re-power on to recover |
| 2 | OVER TEMPERATURE PROTECTION | NO DAMAGE | I/P: 230 VAC O/P: FULL LOAD | O.T.P. Active Shut down o/p voltage, re-power on to recover |
| 3 | SHORT PROTECTION | SHORT EVERY OUTPUT 1 HOUR NO DAMAGE | I/P: 305VAC O/P: FULL LOAD Ta: 25°C | NO DAMAGE Hiccup mode, recovers automatically after fault condition is removed |

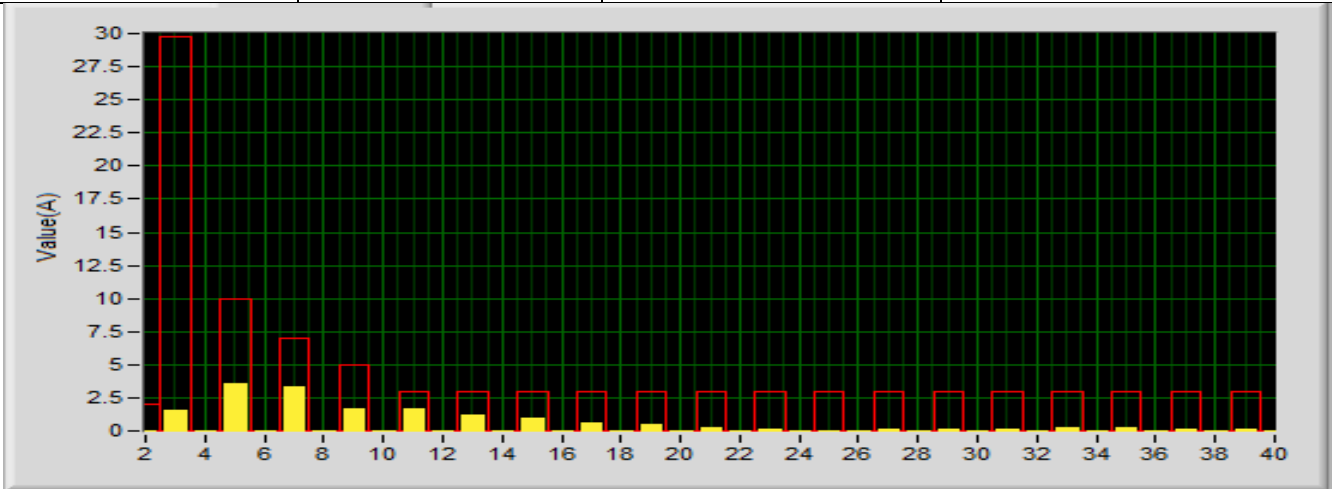
COMPONENT STRESS TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT |
|----|---|------------------------|--|-------------------------------------|
| 1 | PWM Transistor (D to S) or (C to E) Peak Voltage | Q 2 Rated 730V/10A | I/P: High-Line +3V =308V O/P: (1) Full Load Turn on (2) Output Short (3) Full load continue Ta: 25°C | (1) 684V (2) 516V (3) 672V |
| 2 | Diode Peak Voltage | Q101 Rated 600V/10A | I/P: High-Line +3V =308V O/P: (1) Full Load Turn on (2) Output Short (3) Full load continue Ta: 25°C | (1) 382V (2) 280V (3) 374V |
| 3 | Input Capacitor Voltage | C5 Rated 100u/ 450V | I/P: High-Line +3V =308 V O/P: (1) Full Load input on/off (2) Min load input on /Off (3) Full Load /Min load Change Ta: 25°C | (1) 444V (2) 442V (3) 448V |
| 4 | Control IC Voltage Test | U1 Rated 28V (MAX.) | I/P: High-Line +3V =308 V O/P: (1) Full Load input on/off (2) Min load input on /Off (3) Full Load /Min load Change Ta: 25°C | (1) 17.3V (2) 15.9V (3) 17.4V |
| 5 | PFC Transistor (D to S) or (C to E) Peak Voltage | Q 1 Rated 600V/10A | I/P: High-Line +3V =308V O/P: (1) Full Load Turn on (2) Output Short (3) Full load continue Ta: 25°C | (1) 532V (2) 484V (3) 472V |

SAFETY TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT |
|----|----------------------|---|---|---|
| 1 | WITHSTAND VOLTAGE | I/P-O/P: 3.75KVAC/min I/P-FG : 2.0KVAC/min O/P-FG: 1.5KVAC/min | I/P-O/P: 4.2 KVAC/min I/P-FG: 2.4 KVAC/min O/P-FG: 1.8 KVAC/min Ta: 25°C | I/P-O/P: 1.543mA I/P-FG: 2.289mA O/P-FG: 1.576mA NO DAMAGE |
| 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 | I/P-O/P: >9999MΩ I/P-FG: >9999MΩ O/P-FG: >9999MΩ |

E.M.C TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT |
|---|---|---|---|-------------------------------|
| 1 | HARMONIC | EN61000-3-2 CLASS C | I/P: 230 VAC/50HZ O/P: FULL/50% LOAD Ta: 25°C | PASS |
|  | | | | |
| 2 | CONDUCTION | EN55015 | I/P: 230 VAC (50HZ) O/P: FULL LOAD Ta: 25°C | PASS Test by certified Lab |
| 3 | RADIATION | EN55015 | I/P: 230 VAC (50HZ) O/P: FULL LOAD Ta: 25°C | PASS Test by certified Lab |
| 4 | E.S.D | EN61000-4-2 LIGHT INDUSTRY AIR: 8KV Contact: 4KV | I/P: 230 VAC/50HZ O/P: FULL LOAD Ta: 25°C | CRITERIA A |
| 5 | E.F.T | EN61000-4-4 LIGHT INDUSTRY INPUT: 1KV | I/P: 230VAC/50HZ O/P: FULL LOAD Ta: 25°C | CRITERIA A |
| 6 | SURGE | EN61000-4-5 INDUSTRY L-N: 4KV L,N-PE: 6KV | I/P: 230VAC/50HZ O/P: FULL LOAD L-N: 4KV L,N-PE: 6KV Ta: 25°C | CRITERIA A |
| 7 | Test by certified Lab & Test Report Prepare | | | |

■ **RELIABILITY TEST**

ENVIRONMENT TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|---|--|--|---|----|----------|--------------------------|-------------------------|---|-----|--------|---------|---|------|--------|---------|---|----|--------|---------|---|----|--------|--------|---|------|--------|---------|---|----|--------|---------|---|----|--------|---------|---|----|--------|---------|---|-----|--------|---------|----|-----|--------|---------|----|----|--------|---------|----|-----|--------|--------|----|----|--------|--------|----|----|--------|---------|----|------|--------|--------|----|------|--------|--------|----|------|--------|--------|----|------|--------|--------|----|------|--------|--------|----|------|--------|--------|----|------|--------|--------|----|------|--------|--------|----|----|--------|--------|
| 1 | TEMPERATURE RISE TEST | MODEL: ELG-150-C1750 1. ROOM AMBIENT BURN-IN: 2 HRS I/P: 230VAC O/P: FULL LOAD Ta= 34.3°C 2. HIGH AMBIENT BURN-IN: 2 HRS I/P: 230VAC O/P: FULL LOAD Ta= 62.0°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | <table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>ROOM AMBIENT Ta= 34.3 °C</th> <th>HIGH AMBIENT Ta=62.0 °C</th> </tr> </thead> <tbody> <tr><td>1</td><td>LF2</td><td>70.5°C</td><td>100.3°C</td></tr> <tr><td>2</td><td>ZNR2</td><td>72.1°C</td><td>101.6°C</td></tr> <tr><td>3</td><td>L1</td><td>71.1°C</td><td>100.9°C</td></tr> <tr><td>4</td><td>L3</td><td>68.9°C</td><td>98.7°C</td></tr> <tr><td>5</td><td>RTH2</td><td>74.7°C</td><td>103.0°C</td></tr> <tr><td>6</td><td>D6</td><td>76.8°C</td><td>108.5°C</td></tr> <tr><td>7</td><td>Q1</td><td>77.1°C</td><td>108.9°C</td></tr> <tr><td>8</td><td>Q2</td><td>80.3°C</td><td>112.0°C</td></tr> <tr><td>9</td><td>D10</td><td>83.6°C</td><td>116.8°C</td></tr> <tr><td>10</td><td>C11</td><td>73.1°C</td><td>103.4°C</td></tr> <tr><td>11</td><td>C5</td><td>70.3°C</td><td>100.5°C</td></tr> <tr><td>12</td><td>C45</td><td>66.7°C</td><td>96.4°C</td></tr> <tr><td>13</td><td>U1</td><td>67.0°C</td><td>96.2°C</td></tr> <tr><td>14</td><td>T1</td><td>76.3°C</td><td>107.8°C</td></tr> <tr><td>15</td><td>Q101</td><td>70.0°C</td><td>99.3°C</td></tr> <tr><td>16</td><td>Q102</td><td>70.3°C</td><td>99.7°C</td></tr> <tr><td>17</td><td>U100</td><td>61.6°C</td><td>90.5°C</td></tr> <tr><td>18</td><td>C201</td><td>66.0°C</td><td>95.3°C</td></tr> <tr><td>19</td><td>C106</td><td>63.5°C</td><td>92.8°C</td></tr> <tr><td>20</td><td>C107</td><td>66.2°C</td><td>95.5°C</td></tr> <tr><td>21</td><td>C110</td><td>60.4°C</td><td>89.5°C</td></tr> <tr><td>22</td><td>RTH3</td><td>66.4°C</td><td>96.0°C</td></tr> <tr><td>23</td><td>TC</td><td>61.7°C</td><td>91.3°C</td></tr> </tbody> </table> | NO | Position | ROOM AMBIENT Ta= 34.3 °C | HIGH AMBIENT Ta=62.0 °C | 1 | LF2 | 70.5°C | 100.3°C | 2 | ZNR2 | 72.1°C | 101.6°C | 3 | L1 | 71.1°C | 100.9°C | 4 | L3 | 68.9°C | 98.7°C | 5 | RTH2 | 74.7°C | 103.0°C | 6 | D6 | 76.8°C | 108.5°C | 7 | Q1 | 77.1°C | 108.9°C | 8 | Q2 | 80.3°C | 112.0°C | 9 | D10 | 83.6°C | 116.8°C | 10 | C11 | 73.1°C | 103.4°C | 11 | C5 | 70.3°C | 100.5°C | 12 | C45 | 66.7°C | 96.4°C | 13 | U1 | 67.0°C | 96.2°C | 14 | T1 | 76.3°C | 107.8°C | 15 | Q101 | 70.0°C | 99.3°C | 16 | Q102 | 70.3°C | 99.7°C | 17 | U100 | 61.6°C | 90.5°C | 18 | C201 | 66.0°C | 95.3°C | 19 | C106 | 63.5°C | 92.8°C | 20 | C107 | 66.2°C | 95.5°C | 21 | C110 | 60.4°C | 89.5°C | 22 | RTH3 | 66.4°C | 96.0°C | 23 | TC | 61.7°C | 91.3°C |
| NO | Position | ROOM AMBIENT Ta= 34.3 °C | HIGH AMBIENT Ta=62.0 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | LF2 | 70.5°C | 100.3°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | ZNR2 | 72.1°C | 101.6°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | L1 | 71.1°C | 100.9°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | L3 | 68.9°C | 98.7°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | RTH2 | 74.7°C | 103.0°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | D6 | 76.8°C | 108.5°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Q1 | 77.1°C | 108.9°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Q2 | 80.3°C | 112.0°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | D10 | 83.6°C | 116.8°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | C11 | 73.1°C | 103.4°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | C5 | 70.3°C | 100.5°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | C45 | 66.7°C | 96.4°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | U1 | 67.0°C | 96.2°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | T1 | 76.3°C | 107.8°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | Q101 | 70.0°C | 99.3°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | Q102 | 70.3°C | 99.7°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | U100 | 61.6°C | 90.5°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | C201 | 66.0°C | 95.3°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | C106 | 63.5°C | 92.8°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | C107 | 66.2°C | 95.5°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | C110 | 60.4°C | 89.5°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | RTH3 | 66.4°C | 96.0°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | TC | 61.7°C | 91.3°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | LOW TEMPERATURE TURN ON TEST | TURN ON AFTER 2 HOUR | I/P: 305VAC/200VAC O/P: FULL LOAD Ta= -45°C | TEST: OK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST | AFTER 12 HOURS IN CHAMBER ON CONTROL 60 °C NO DAMAGE | I/P: 305VAC O/P: FULL LOAD Ta=60 °C HUMIDITY= 95 %R.H | TEST: OK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | TEMPERATURE COEFFICIENT | ±0.03 %/°C (0~50°C) | I/P: 230 VAC O/P: FULL LOAD | ±0.003%/°C (0~50°C) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | STORAGE TEMPERATURE TEST | 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 | | TEST: OK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



150W Single Output Switching Power Supply

ELG-150-C series

| | | | |
|----|--------------------------|---|---|
| 6 | THERMAL SHOCK TEST | 1. Thermal shock Temperature: -45°C~+65°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 58 sec; turn off 2 sec | TEST: OK |
| 7 | VIBRATION TEST | 1 Carton & 1 Set (1) Waveform: Sine Wave (2) Frequency: 10~500Hz (3) Sweep Time: 12min/sweep cycle (4) Acceleration: 5G (5) Test Time: 72min in each axis (X.Y.Z) (6) Ta: 25°C | TEST: OK |
| 8 | CAPACITOR LIFE CYCLE | ELG-150-C1750: SUPPOSE C107 IS THE MOST CRITICAL COMPONENT (1) I/P: 230VAC O/P: FULL LOAD Tc= 75 °C LIFE TIME (2) I/P: 230VAC O/P: 75% LOAD Tc= 75 °C LIFE TIME (3) I/P: 230VAC O/P: 50% LOAD Tc= 75 °C LIFE TIME | (1) 42948 HRS (2) 45812 HRS (3) 52441 HRS |
| 9 | MTBF | Conducted by Parts Stress Analysis Prediction 3102.4K hrs min. Telcordia SR-332 (Bellcore); 308.5K hrs min. MIL-HDBK-217F (25°C) | |
| 10 | Ongoing Reliability Test | I/P: 230VAC O/P: FULL LOAD TA=50°C Demonstration Mean Time Between Failure : 50,000 hours | |

| TEST RESULT | TESTER | REVIEW | APPROVAL |
|-------------|----------------|--------|----------|
| PASS | ZHANGZJ/ZHUOKB | SKY | LIUWY |