



Test Report: ELG-100-C1400

100W 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 | 700mA~1400mA | I/P: 230VAC O/P: LED MODE Ta: 25°C | 0.632A~1.489A |
| 2 | OUTPUT CURRENT TOLERANCE | ±5% | I/P: 230VAC O/P: FULL/ MIN LOAD Ta: 25°C | ±0.97% |
| 3 | CONSTANT CURRENT REGION | 35V~72V | I/P: 230VAC O/P: LED MODE Ta: 25°C | 28.5V~72.5V |
| 4 | NO LOAD OUTPUT VOLTAGE (Max) | 75V | I/P: 230VAC O/P: NO LOAD Ta: 25°C | 73V |
| 5 | OVER/UNDERSHOOT TEST | <±5 % | I/P: 230VAC O/P: FULL LOAD Ta: 25°C | <5 % |
| 6 | RIPPLE & NOISE (Max) | 1.0Vp-p | I/P: 230VAC O/P: FULL LOAD Ta: 25°C | 0.143Vp-p |
| <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p>high frequency:</p> <p>Ch1 Pk-Pk 143mV</p> </div> <div style="width: 45%;"> <p>low frequency:</p> <p>Ch1 Pk-Pk 132mV</p> </div> </div> | | | | |
| 7 | SET UP TIME(Max) | 230VAC/ 500ms | I/P: 230 VAC O/P: FULL LOAD Ta: 25°C | 230VAC/ 270ms |



100W Single Output Switching Power Supply

ELG-100-C series

| | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------------------------------------|---------------|
| <p>INPUT=230VAC/50HZ @ FULL LOAD CH1: Output Voltage CH2: AC Input Voltage Tek Run Trig?</p> <p> Δ: 66.0 V @: 65.2 V Δ: 270ms @: -30.0ms </p> <p>Ch1 20.0 V Ch2 250 V M 100ms A Ch1 66.0 V</p> <p>50.40%</p> | | | | |
| 8 | RISE TIME (Max) | 230VAC/ 100ms | I/P: 230 VAC O/P: FULL LOAD Ta: 25°C | 230VAC/7.9ms |
| <p>INPUT=230VAC/50HZ @ FULL LOAD CH1: Output Voltage Tek PreVu Trig?</p> <p> Δ: 55.2 V @: 64.8 V Δ: 14.4ms @: -32.0ms </p> <p>Ch1 Rise 7.906ms</p> <p>Ch1 20.0 V M 40.0ms A Ch1 66.0 V</p> <p>54.60%</p> | | | | |
| 9 | HOLD UP TIME(Typ) | 230VAC/ 10ms | I/P: 230 VAC O/P: FULL LOAD Ta: 25°C | 230VAC/20.0ms |
| <p>INPUT=230VAC/50HZ @ FULL LOAD CH1: Output Voltage CH2: AC Input Voltage Tek PreVu Trig?</p> <p> Δ: 5.20 V @: 65.2 V Δ: 20.0ms @: -400μs </p> <p>Ch1 20.0 V Ch2 250 V M 20.0ms A Ch1 64.8 V</p> <p>54.60%</p> | | | | |



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|---------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|
| 10 | DIMMING TEST (For B-Type only) | <p>SPEC:</p> <ul style="list-style-type: none"> ※ 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 | | 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% |
| | | <p>※ 0 ~ 10V dimming function for output current adjustment (Typical)</p> | | | | | | | | | | | | | |
| | | 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% |
| | | <p>※ 10V PWM signal for output current adjustment (Typical): Frequency range: 100Hz~3KHz</p> | | | | | | | | | | | | | |
| | | 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% |
| <p>TEST RESULT:</p> <p>I/P: 230 VAC; Ta: 25°C</p> | | | | | | | | | | | | | | | |
| 1 | Resistance value | Short | 10K | 20K | 30K | 40K | 50K | 60K | 70K | 80K | 90K | 100K | OPEN | | |
| | | Output Current | 0 | 0.132 | 0.280 | 0.429 | 0.578 | 0.725 | 0.873 | 1.023 | 1.172 | 1.321 | 1.415 | 1.416 | |
| | | Percentage of rated current | 0% | 9.43% | 20.00% | 30.64% | 41.29% | 51.79% | 62.36% | 73.07% | 83.71% | 94.36% | 101.07% | 101.14% | |
| | 2 | Dimming value | 0V | 1V | 2V | 3V | 4V | 5V | 6V | 7V | 8V | 9V | 10V | OPEN | |
| | | | Output Current | 0 | 0.137 | 0.286 | 0.428 | 0.579 | 0.725 | 0.877 | 1.026 | 1.168 | 1.316 | 1.417 | 1.418 |
| | | | Percentage of rated current | 0% | 9.79% | 20.43% | 30.57% | 41.36% | 51.79% | 62.64% | 73.29% | 83.43% | 94.00% | 101.21% | 101.29% |
| | 3 | Duty value | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | OPEN | |
| | | | Output Current | 0 | 0.147 | 0.291 | 0.439 | 0.583 | 0.729 | 0.873 | 1.018 | 1.165 | 1.308 | 1.415 | 1.417 |
| | | | Percentage of rated current | 0% | 10.50% | 20.79% | 31.36% | 41.64% | 52.07% | 62.36% | 72.71% | 83.21% | 93.43% | 101.07% | 101.21% |

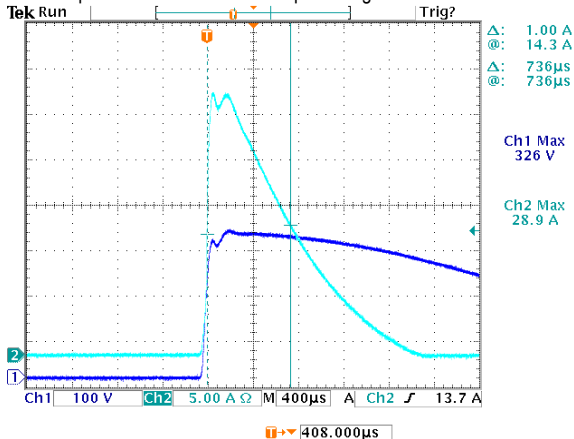


INPUT FUNCTION TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT |
|----|---------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 1 | INPUT VOLTAGE RANGE | 180VAC~295VAC | I/P: TESTING O/P: FULL LOAD Ta: 25°C | 177V~305V |
| | | | I/P: LOW-LINE-3V=177 V HIGH-LINE+10V=305 V O/P: FULL/MIN LOAD ON: 30 Sec OFF: 30 Sec 10MIN (POWER ON/OFF NO DAMAGE) | TEST: OK |
| 2 | INPUT FREQUENCY RANGE | 47HZ ~63 HZ NO DAMAGE | I/P: 180 VAC ~295 VAC O/P: FULL~MIN LOAD Ta: 25°C | TEST: OK |
| 3 | AC CURRENT | 0.5A/277VAC 0.6A/230VAC | I/P: 277 VAC I/P: 230 VAC O/P: FULL LOAD Ta: 25°C | I=0.405A/ 277VAC I=0.482A/ 230VAC |
| 4 | LEAKAGE CURRENT | < 0.75mA / 277VAC | I/P: 277 VAC O/P: NO LOAD Ta: 25°C | L-FG: 0.373 mA N-FG: 0.359 mA |
| 5 | NO LOAD POWER CONSUMPTION | < 0.5W | I/P: 230VAC O/P: NO LOAD Ta: 25°C | 0.196W/ 230VAC |
| 6 | TOTAL HARMONIC DISTORTION | Total harmonic distortion will be lower than 20% when output loading is 60% or higher at 230VAC | I/P: 230VAC O/P: 60% LOAD | THD: 9.63 % |
| | | 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: 10.21 % |
| 7 | INRUSH CURRENT(Typ) | 230V/ 40A τwidth =760 us measured at 50% Ipeak COLD START | I/P: 230 VAC O/P: FULL LOAD Ta: 25°C | I=28.9A/ 230VAC Twidth =736us |

INPUT=230VAC/50HZ @ FULL LOAD

CH2: Input current CH1: AC Input Voltage



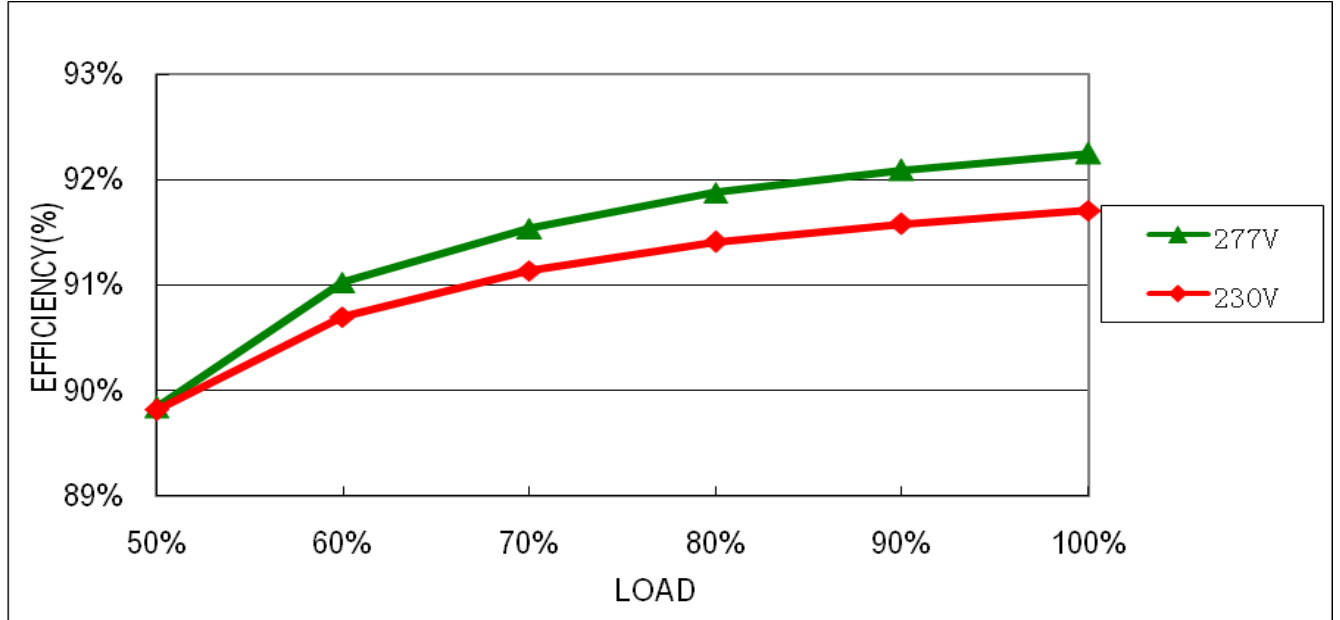


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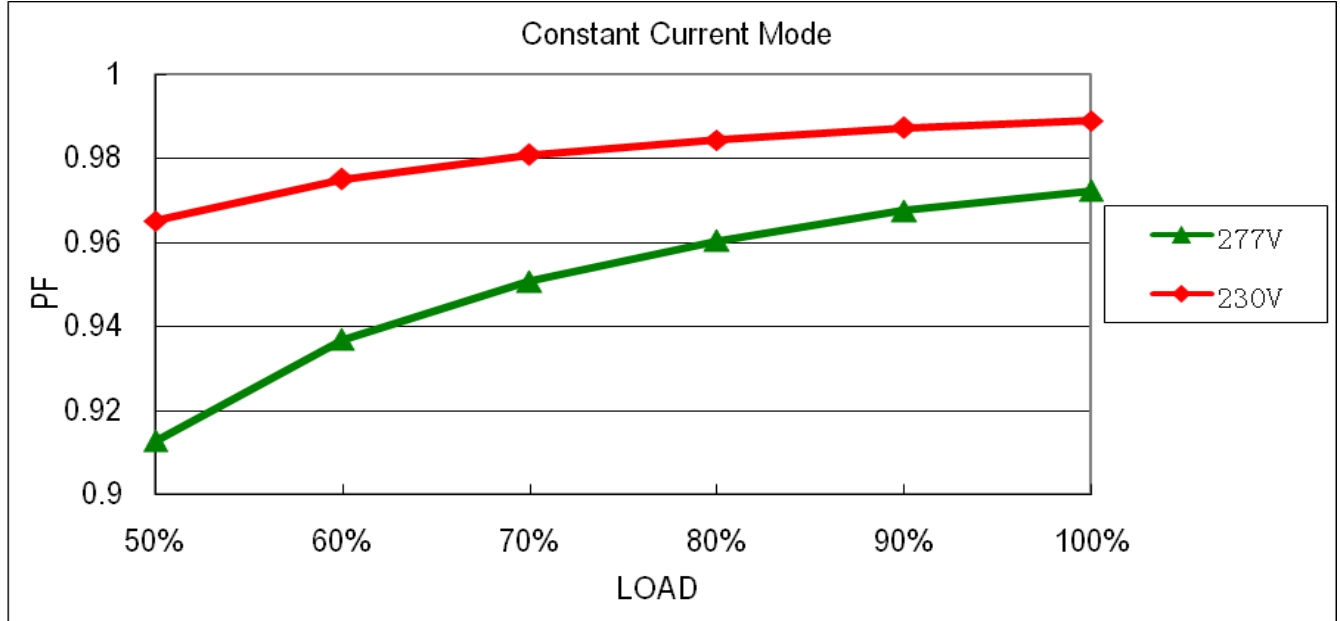
| | | | | |
|---|-----------------|-----|-------------------------------------------|--------|
| 8 | EFFICIENCY(Typ) | 90% | I/P: 230VAC O/P: FULL LOAD Ta: 25°C | 91.71% |
|---|-----------------|-----|-------------------------------------------|--------|

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=0.972/ 277VAC PF=0.989/ 230VAC |
|---|--------------|------------------------------|------------------------------------------------------------|--------------------------------------|

P.F vs LOAD





PROTECTION FUNCTION TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT |
|----|-----------------------------|----------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 1 | OVER VOLTAGE PROTECTION | 79V~95V | I/P: 180VAC I/P: 230VAC I/P: 295VAC O/P: NO LOAD Ta: 25°C | 87.6V/ 180VAC 87.5V/ 230VAC 87.5V/ 295VAC Shut down o/p voltage, re-power on to recover |
| 2 | OVER TEMPERATURE PROTECTION | NO DAMAGE | I/P: 200 VAC I/P: 230VAC I/P: 295VAC 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: 200VAC I/P: 295VAC 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 Power Transistor | Q 2 Rated 800V/9A | I/P: High-Line +3V =298V O/P: (1) Full Load Turn on (2) Output Short (3) Full load continue Ta: 25°C | (1) 724V (2) 584V (3) 706V |
| 2 | O/P Diode (MOSFET) | D100 Rated 400V/10A | I/P: High-Line +3V =298V O/P: (1) Full Load Turn on (2) Output Short (3) Full load continue Ta: 25°C | (1) 223V (2) 173V (3) 217V |
| 3 | Input Capacitor | C5 Rated 100u/ 450V | I/P: High-Line +3V =298V O/P: (1) Full Load input on/off (2) Min load input on /Off (3) Full Load /Min load Change Ta: 25°C | (1) 446V (2) 442V (3) 446V |
| 4 | Control IC | U1 Rated 28V (MAX.) | I/P: High-Line +3V =298V O/P: (1) FULL LOAD (2) Output Short (3) O.V.P (4) Low Line No Load Vo(min) Ta: 25°C | (1) 17.2V (2) 11.2V (3) 15.1V (4) 12.7V |
| 5 | PFC Power Transistor | Q 1 Rated 600V/10A | I/P: High-Line +3V =298V O/P: (1) Full Load Turn on (2) Output Short (3) Full load continue Ta: 25°C | (1) 506V (2) 454V (3) 466V |
| 6 | Clamp Diode | D 10 Rated 800V/2A | I/P: High-Line +3V = 298V O/P: (1) Full Load input on/off (2) Output Short Ta: 25°C | (1) 686V (2) 538V |

**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: 1.566mA I/P-FG: 2.045mA O/P-FG: 1.602mA 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/60% 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: 3KV L,N-PE: 6KV | I/P: 230VAC/50HZ O/P: FULL LOAD L-N: 4KV L,N-PE: 8KV Ta: 25°C | CRITERIA A |
| 7 | Test by certified Lab & Test Report Prepare | | | |

■ **RELIABILITY TEST**

ENVIRONMENT TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 1 | TEMPERATURE RISE TEST | MODEL: ELG-100-C1400 1. ROOM AMBIENT BURN-IN: 2 HRS I/P: 230VAC O/P: FULL LOAD Ta= 30.0℃ 2. HIGH AMBIENT BURN-IN: 2 HRS I/P: 230VAC O/P: FULL LOAD Ta= 62.8℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>ROOM AMBIENT Ta= 30.0 ℃</th> <th>HIGH AMBIENT Ta=62.8 ℃</th> </tr> </thead> <tbody> <tr><td>1</td><td>C11</td><td>64.5℃</td><td>99.6℃</td></tr> <tr><td>2</td><td>L1</td><td>60.9℃</td><td>95.8℃</td></tr> <tr><td>3</td><td>L2</td><td>59.7℃</td><td>91.6℃</td></tr> <tr><td>4</td><td>Q1</td><td>67.6℃</td><td>104.8℃</td></tr> <tr><td>5</td><td>Q2</td><td>66.6℃</td><td>103.2℃</td></tr> <tr><td>6</td><td>D6</td><td>66.7℃</td><td>103.9℃</td></tr> <tr><td>7</td><td>D10</td><td>72.1℃</td><td>110.5℃</td></tr> <tr><td>8</td><td>R15</td><td>64.5℃</td><td>99.9℃</td></tr> <tr><td>9</td><td>C5</td><td>59.7℃</td><td>94.1℃</td></tr> <tr><td>10</td><td>R7</td><td>69.7℃</td><td>106.2℃</td></tr> <tr><td>11</td><td>C45</td><td>59.7℃</td><td>93.9℃</td></tr> <tr><td>12</td><td>T1</td><td>68.4℃</td><td>104.7℃</td></tr> <tr><td>13</td><td>U1</td><td>59.4℃</td><td>92.7℃</td></tr> <tr><td>14</td><td>D100</td><td>71.9℃</td><td>105.5℃</td></tr> <tr><td>15</td><td>Q100</td><td>60.1℃</td><td>96.5℃</td></tr> <tr><td>16</td><td>C205</td><td>61.2℃</td><td>95.9℃</td></tr> <tr><td>17</td><td>C102</td><td>65.1℃</td><td>99.3℃</td></tr> <tr><td>18</td><td>C104</td><td>70.0℃</td><td>99.1℃</td></tr> <tr><td>19</td><td>RTH2</td><td>57.9℃</td><td>91.8℃</td></tr> <tr><td>20</td><td>TC</td><td>52.7℃</td><td>85.1℃</td></tr> </tbody> </table> | NO | Position | ROOM AMBIENT Ta= 30.0 ℃ | HIGH AMBIENT Ta=62.8 ℃ | 1 | C11 | 64.5℃ | 99.6℃ | 2 | L1 | 60.9℃ | 95.8℃ | 3 | L2 | 59.7℃ | 91.6℃ | 4 | Q1 | 67.6℃ | 104.8℃ | 5 | Q2 | 66.6℃ | 103.2℃ | 6 | D6 | 66.7℃ | 103.9℃ | 7 | D10 | 72.1℃ | 110.5℃ | 8 | R15 | 64.5℃ | 99.9℃ | 9 | C5 | 59.7℃ | 94.1℃ | 10 | R7 | 69.7℃ | 106.2℃ | 11 | C45 | 59.7℃ | 93.9℃ | 12 | T1 | 68.4℃ | 104.7℃ | 13 | U1 | 59.4℃ | 92.7℃ | 14 | D100 | 71.9℃ | 105.5℃ | 15 | Q100 | 60.1℃ | 96.5℃ | 16 | C205 | 61.2℃ | 95.9℃ | 17 | C102 | 65.1℃ | 99.3℃ | 18 | C104 | 70.0℃ | 99.1℃ | 19 | RTH2 | 57.9℃ | 91.8℃ | 20 | TC | 52.7℃ | 85.1℃ | | |
| NO | Position | ROOM AMBIENT Ta= 30.0 ℃ | HIGH AMBIENT Ta=62.8 ℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | C11 | 64.5℃ | 99.6℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | L1 | 60.9℃ | 95.8℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | L2 | 59.7℃ | 91.6℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Q1 | 67.6℃ | 104.8℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Q2 | 66.6℃ | 103.2℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | D6 | 66.7℃ | 103.9℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | D10 | 72.1℃ | 110.5℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | R15 | 64.5℃ | 99.9℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | C5 | 59.7℃ | 94.1℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | R7 | 69.7℃ | 106.2℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | C45 | 59.7℃ | 93.9℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | T1 | 68.4℃ | 104.7℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | U1 | 59.4℃ | 92.7℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | D100 | 71.9℃ | 105.5℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | Q100 | 60.1℃ | 96.5℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | C205 | 61.2℃ | 95.9℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | C102 | 65.1℃ | 99.3℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | C104 | 70.0℃ | 99.1℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | RTH2 | 57.9℃ | 91.8℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | TC | 52.7℃ | 85.1℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | LOW TEMPERATURE TURN ON TEST | TURN ON AFTER 2 HOUR | I/P: 295VAC/200VAC O/P: FULL LOAD Ta= -45℃ | TEST: OK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST | AFTER 12 HOURS IN CHAMBER ON CONTROL 60 ℃ NO DAMAGE | I/P: 305VAC O/P: FULL LOAD Ta=60 ℃ HUMIDITY= 95 %R.H | TEST: OK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | TEMPERATURE COEFFICIENT | ±0.03 %/℃ (0~50℃) | I/P: 230 VAC O/P: FULL LOAD | ±0.002%/℃ (0~50℃) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | STORAGE TEMPERATURE TEST | 1. Thermal shock Temperature: -45℃~ +90℃ 2. Temperature change rate : 25℃ / MIN 3. Dwell time low and high temperature : 30 MIN/EACH 4. Total test cycle: 5 CYCLE 5. Input/Output condition: STATIC | | TEST: OK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



100W Single Output Switching Power Supply

ELG-100-C series

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| 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: 16 CYCLE 5. Input/Output condition: 230VAC/Full Load AC ON/OFF TEST AC on 3 sec/AC off 1 sec TEST | 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-100-C1400: SUPPOSE C102 IS THE MOST CRITICAL COMPONENT (1) I/P: 230VAC O/P: FULL LOAD Ta= 25 °C LIFE TIME (2) I/P: 230VAC O/P: FULL LOAD Ta= 60 °C LIFE TIME (3) I/P: 230VAC O/P: 75% LOAD Ta= 60 °C LIFE TIME (4) I/P: 230VAC O/P: 50% LOAD Ta= 60 °C LIFE TIME | (1) 264247 HRS (2) 21168 HRS (3) 30223 HRS (4) 36103 HRS |
| 9 | MTBF | MIL-HDBK-217F TOTAL FAILURE RATE: 300.6K HRS | |
| 10 | DMTBF/Accelerated Life Test | Demonstration Mean Time Between Failure (Expected Life): Above 50000 hours @ Tc 75°C | |

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