

MODEL: MS-750

OUTPUT FUNCTION TEST

| NO | TEST ITEM                   | SPECIFICATION           | TEST CONDITION  | RESULT   | VERDICT |
|----|-----------------------------|-------------------------|---|--|---------|
| 1  | RIPPLE & NOISE              | V1: 150 mVp-p (Max)     | I/P: 230VAC<br>O/P:FULL LOAD<br>Ta:25°C                       | V1: 11 mVp-p (Max)                                   | P       |
| 2  | OUTPUT VOLTAGE ADJUST RANGE | CH1: 13.2V- 16.8 V      | I/P: 230 VAC<br>I/P: 115 VAC<br>O/P:MIN LOAD<br>Ta:25°C       | 12.8 V- 17.72 V/ 230 VAC<br>12.8 V- 17.72 V/ 115 VAC | P       |
| 3  | OUTPUT VOLTAGE TOLERANCE    | V1: 1 %- -1 % (Max)     | I/P: 85 VAC / 264 VAC<br>O/P:FULL/ MIN LOAD<br>Ta:25°C        | V1: 0.04 %- -0.04 %                                  | P       |
| 4  | LINE REGULATION             | V1: 0.3 %- -0.3 % (Max) | I/P: 85 VAC ~ 264 VAC<br>O/P:FULL LOAD<br>Ta:25°C             | V1: 0 %- 0 %   | P       |
| 5  | LOAD REGULATION             | V1: 0.5 %- -0.5 % (Max) | I/P: 230 VAC<br>O/P:FULL -MIN LOAD<br>Ta:25°C                 | V1: 0.04 %- -0.04 %                                  | P       |
| 6  | SET UP TIME                 | 230VAC: 1500 ms (Max)   | I/P: 230 VAC<br>I/P: 115 VAC<br>O/P:FULL LOAD<br>Ta:25°C      | 230VAC/ 825 ms                                       | P       |
| 7  | RISE TIME                   | 230VAC: 50 ms (Max)     | I/P: 230 VAC<br>I/P: 115 VAC<br>O/P:FULL LOAD<br>Ta:25°C      | 230VAC/ 14 ms  | P       |
| 8  | HOLD UP TIME                | 230VAC: 20 ms (TYP)     | I/P: 230 VAC<br>I/P: 115 VAC<br>O/P:FULL LOAD<br>Ta:25°C      | 230VAC/ 167 ms                                       | P       |
| 9  | OVER/UNDERSHOOT TEST        | < ±5%                   | I/P: 230 VAC<br>O/P:FULL LOAD<br>Ta:25°C                      | TEST: <5 %   | P       |
| 10 | DYNAMIC LOAD                | V1: 1500 mVp-p          | I/P: 230 VAC<br>O/P:FULL /Min LOAD<br>90%DUTY/1KHZ<br>Ta:25°C | 176 mVp-p  | P       |

**INPUT FUNCTION TEST**

| NO | TEST ITEM             | SPECICATION                  | TEST CONDITION   | RESULT   | VERDICT |
|----|-----------------------|------------------------------|--|----------|---------|
| 1  | INPUT VOLTAGE RANGE   | 85VAC~264 VAC                | I/P:TESTING<br>O/P:FULL LOAD<br>Ta:25°C  | 38V~264V | P       |
|    |                       |                              | I/P:<br>LOW-LINE-3V= 82 V<br>HIGH-LINE+15%=300 V<br>O/P:FULL/MIN LOAD<br>ON: 30 Sec . OFF: 30 Sec 10MIN<br>( AC POWER ON/OFF NO DAMAGE ) | TEST: OK |         |
| 2  | INPUT FREQUENCY RANGE | 47HZ ~63 HZ<br>NO DAMAGE OSC | I/P: 85 VAC ~ 264 VAC<br>O/P:FULL-MIN LOAD<br>Ta:25°C  | TEST: OK | P       |

**PROTECTION FUNCTION TEST**

| NO | TEST ITEM               | SPECICATION                            | TEST CONDITION  | RESULT  | VERDICT |
|----|-------------------------|--|---|---|---------|
| 1  | OVER LOAD PROTECTION    | 116 %~ 150 %                           | I/P: 230 VAC<br>I/P: 115 VAC<br>O/P:TESTING<br>Ta:25°C  | 122 %/ 230 VAC<br>122 %/ 115 VAC<br>Constant Current Limiting | P       |
| 2  | OVER VOLTAGE PROTECTION | CH1: 16.9 V~ 22 V                      | I/P: 230 VAC<br>I/P: 115 VAC<br>O/P:MIN LOAD<br>Ta:25°C | 18.5 V/ 230 VAC<br>18.5 V/ 115 VAC<br>Shunt down Re- power ON | P       |
| 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>Constant Current Limiting                        | P       |

**CONTROL FUNCTION TEST**

| NO | TEST ITEM      | SPECICATION   | TEST CONDITION                           | RESULT   | VERDICT |
|----|----------------|---|--|--|---------|
| 1  | REMOTE CONTROL | Rc+ / Rc-<br>open or 0V~0.8V POWER ON<br>4V~12V POWER OFF | I/P: 230 VAC<br>O/P:FULL LOAD<br>Ta:25°C | open or 0V ~ 3 V POWER ON<br>3.1V ~ 12 V POWER OFF | P       |

### SAFETY TEST

| NO | TEST ITEM            | SPECIFICATION   | TEST CONDITION   | RESULT  | VERDICT |
|----|----------------------|---|--|---|---------|
| 1  | WITHSTAND VOLTAGE    | I/P-O/P: 3 KVAC/min<br>I/P-FG: 1.5 KVAC/min<br>O/P-FG: 0.5 KVAC/min | I/P-O/P: 3.6 KVAC/min<br>I/P-FG: 1.8 KVAC/min<br>O/P-FG: 0.6 KVAC/min<br>Ta:25°C | I/P-O/P: 7.59 mA<br>I/P-FG: 8.07 mA<br>O/P-FG: 2.42 mA<br>NO DAMAGE | P       |
| 2  | ISOLATION RESISTANCE | I/P-O/P:500VDC>100MΩ<br>I/P-FG: 500VDC>100MΩ<br>O/P-FG:500VDC>100MΩ | I/P-O/P: 500 VDC<br>I/P-FG: 500 VDC<br>O/P-FG: 500 VDC<br>Ta:25°C                | I/P-O/P: 22 GΩ<br>I/P-FG: 11 GΩ<br>O/P-FG: 12 GΩ<br>NO DAMAGE       | P       |

### E.M.C TEST

| NO | TEST ITEM                                   | SPECIFICATION  | TEST CONDITION                                      | RESULT                        | VERDICT |
|----|---|--|---|-------------------------------|---------|
| 1  | HARMONIC                                    | EN61000-3-2<br>CLASS A                                   | I/P: 230 VAC/50HZ<br>O/P:FULL LOAD<br>Ta:25°C       | PASS                          | P       |
| 2  | CONDUCTION                                  | EN55022<br>CLASS B                                       | I/P: 230 VAC (50HZ)<br>O/P:FULL/50% LOAD<br>Ta:25°C | PASS<br>Test by certified Lab | P       |
| 3  | RADIATION                                   | EN55022<br>CLASS B                                       | I/P: 230 VAC (50HZ)<br>O/P:FULL LOAD<br>Ta:25°C     | PASS<br>Test by certified Lab | P       |
| 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                    | P       |
| 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                    | P       |
| 6  | SURGE                                       | IEC61000-4-5<br>LIGHT INDUSTRY<br>L-N :1KV<br>L,N-PE:2KV | I/P: 230 VAC/50HZ<br>O/P:FULL LOAD<br>Ta:25°C       | CRITERIA A                    | P       |
| 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) <b>Peak Voltage</b> | Q 501 Rated<br>K2651 : 900 V 6 A       | I/P:High-Line +3V = 267 V<br>O/P: (1)Full Load Turn on<br>(2) Full Load<br>(3)Output Short<br>Ta:25°C                                | (1) 444 V<br>(2) 704 V<br>(3) 536 V    | P       |
| 2  | Diode Peak <b>Voltage</b>                                    | D 550 Rated<br>YG805C10 : 100 V 20 A   | I/P:High-Line +3V = 267 V<br>O/P: (1)Full Load Turn on<br>(2) Full Load<br>(3)Output Short<br>Ta:25°C                                | (1) 58.8 V<br>(2) 59 V<br>(3) 62 V     | P       |
| 3  | Clamp Diode Peak <b>Voltage</b>                              | D 501 Rated<br>HER208 : 1K V 2 A       | I/P:High-Line +3V = 267 V<br>O/P: (1)Full Load<br>(2) Dynamic Load<br>90%Duty/1KHz<br>Ta:25°C  | (1) 696 V<br>(2) 796 V                 | P       |
| 4  | <b>Input Capacitor Voltage</b>                               | C 14 Rated<br>: 330 u / 450 V / 105 °C | I/P:High-Line +3V = 267 V<br>O/P: (1)Full Load Turn on /Off<br>(2) Min load Turn on /Off<br>(3)Full Load /Min load Change<br>Ta:25°C | (2) 436 V<br>(2) 434 V<br>(3) 432 V    | P       |
| 5  | <b>Control IC Voltage Test</b>                               | U202 Rated<br>TL3845 : 30 V            | I/P:High-Line +3V = 267 V<br>O/P: (1)Full Load Turn on /Off<br>(2) Min load Turn on /Off<br>(3)Full Load /Min load Change<br>Ta:25°C | (1) 13.4 V<br>(2) 13.5 V<br>(3) 13.2 V | P       |

| DATE      | SAMPLE                     | TEST RESULT | TESTER        | APPROVAL |
|-----------|----------------------------|-------------|---------------|----------|
| 2004/7/29 | RD SAMPLE                  | PASS        | VINCENT TSENG | MAX LIN  |
| 2004/11/3 | PRODUCT SAMPLE<br>W0408B40 | PASS        | VINCENT TSENG | MAX LIN  |
| 2005/3/8  | PRODUCT SAMPLE<br>W0501D41 | PASS        | VINCENT TSENG | MAX LIN  |

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