



Test Report : GSM60X09

60W AC-DC Reliable Green Slim Wall-mounted Medical Adaptor

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

■ SAFETY TEST

Safety Test

■ RELIABILITY TEST

Environment Test

Other test

DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|-------------------|-----------------|---|-----------------|---------|
| 1 | RIPPLE & NOISE | 100 mVp-p (Max) | I/P:230VAC O/P:FULL LOAD Ta:25°C | 82 mVp-p | P |
| 2 | VOLTAGE TOLERANCE | -5% - +5% (Max) | I/P:90VAC~264VAC O/P:FULL-MIN. LOAD Ta:25°C | +0.53% ~ +2.84% | P |
| 3 | LINE REGULATION | -1% - +1% (Max) | I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C | +0.09% ~ -0.04% | P |
| 4 | LOAD REGULATION | -5% - +5% (Max) | I/P:230VAC O/P:FULL -MIN LOAD Ta:25°C | +1.00% ~ +1.01% | P |
| 5 | SET UP TIME | 1000ms | I/P:230VAC O/P:FULL LOAD Ta:25°C | 542.24ms | P |
| 6 | RISE TIME | 100ms | I/P:230VAC O/P:FULL LOAD Ta:25°C | 1.44ms | P |
| 7 | HOLD UP TIME | 10 ms (Min) | I/P:115VAC O/P:FULL LOAD Ta:25°C | 52.44ms | P |

INPUT FUNCTION TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|---------------------------|--|--|------------------------------------|---------|
| 1 | VOLTAGE RANGE | 80VAC ~ 264VAC | I/P:TESTING O/P:FULL LOAD Ta:25°C | 42.2V ~ 264V | P |
| 2 | FREQUENCY RANGE | 50HZ - 60HZ (Typ) NO DAMAGE OSC | I/P: 100VAC ~ 240VAC O/P:FULL-MIN LOAD Ta:25°C | TEST: OK | P |
| 3 | EFFICIENCY | 87% | I/P:230VAC O/P:FULL LOAD Ta:25°C | 87.61% | P |
| 4 | AVERAGE EFFICIENCY | 87.0% (DoE Level V) 87.0% (CoC Version 4) | I/P:115/230VAC O/P:25% 、 50% 、 75% 、 100% LOAD Ta:25°C | 88.99% (115VAC) 88.32% (230VAC) | P |
| 5 | AC CURRENT | 1.5 A (Max) | I/P: 100VAC O/P:FULL LOAD Ta:25°C | 0.9A | P |
| 6 | NO LOAD POWER CONSUMPTION | < 0.15W (Max) | I/P:230VAC O/P: NO LOAD Ta:25°C | 0.1179W | P |

| | | | | | |
|---|-----------------|----------------------|--|--------------------------|---|
| 7 | INRUSH CURRENT | < 100A COLD START | I/P:230VAC O/P:FULL LOAD Ta:25°C | 72.0A | P |
| 8 | LEAKAGE CURRENT | < 100μA | I/P:264VAC O/P:Min LOAD Ta:25°C | L-FG: 20μA N-FG: 20μA | P |

PROTECTION FUNCTION TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|-------------------------|----------------------------------|--|--|---------|
| 1 | OVER LOAD PROTECTION | 105%~160% | I/P:230VAC O/P:TESTING Ta:25°C | 159.1% HICCUP MODE RESET : AUTO RECOVER | P |
| 2 | OVER VOLTAGE PROTECTION | 110%~140% | I/P:230VAC O/P:MIN LOAD Ta:25°C | 140% (MMSZ5242BF) Clamp by ZENER diode | P |
| 3 | SHORT PROTECTION | SHORT OUTPUT 1 HOUR NO DAMAGE | I/P:264VAC O/P:FULL LOAD Ta:25°C | NO DAMAGE HICCUP MODE RESET AUTO RECOVER | P |

SAFETY TEST

SAFETY TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|----------------------|----------------------|---------------------------------|------------------------------|---------|
| 1 | WITHSTAND VOLTAGE | I/P-O/P:5656 VDC/min | I/P-O/P:5656 VDC/min Ta:25°C | I/P-O/P: 0.03uA NO DAMAGE | P |
| 2 | ISOLATION RESISTANCE | I/P-O/P:500VDC>100MΩ | I/P-O/P:500 VDC Ta:25°C | I/P-O/P>100MΩ NO DAMAGE | P |

RELIABILITY TEST

OTHER

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|--------------------|-----------|---|----------------|-----------------|---------|
| 1 | MTBF | MIL-KDBK-217F NOTICES 2 PARTS COUNT TOTAL FAILURE RATE : 2.042375 M.T.B.F : 489626.05 HRS | | | P |
| TEST RESULT | | TESTER | | APPROVAL | |
| PASS | | Archen Hsiao | | Peter Chen | |