



Test Report : GSM12x15

12W AC-DC Reliable Green Medical Adaptor

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

■ SAFETY TEST

Safety Test

■ RELIABILITY TEST

Other test

DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|-------------------|-----------------|---|-----------------|---------|
| 1 | RIPPLE & NOISE | 80mVp-p (Max) | I/P:230VAC O/P:FULL LOAD Ta:25°C | 22mVp-p | P |
| 2 | VOLTAGE TOLERANCE | -3% ~ +3% (Max) | I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C | -0.93% ~ +0.94% | P |
| 3 | LINE REGULATION | -1% ~ +1% (Max) | I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C | -0.03% ~ -0.02% | P |
| 4 | LOAD REGULATION | -3% ~ +3% (Max) | I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C | -0.93% ~ +0.94% | P |
| 5 | SET UP TIME | 500 mS | I/P:230VAC O/P:FULL LOAD Ta:25°C | 881.18mS | P |
| 6 | RISE TIME | 30 mS | I/P:230VAC O/P:FULL LOAD Ta:25°C | 10.491mS | P |
| 7 | HOLD UP TIME | 16 mS (Min) | I/P:115VAC O/P:FULL LOAD Ta:25°C | 18.445mS | 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 | 48.4V ~ 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 | 84% | I/P:230VAC O/P:FULL LOAD Ta:25°C | 84.17% | P |
| 4 | AVERAGE EFFICIENCY | 82.96%(DoE LEVEL VI) 83.26%(CoC Version 5) | I/P:115/230VAC O/P:25%、50%、75%、100% LOAD Ta:25°C | 86.02%(115VAC) 84.28% (230VAC) | P |
| 5 | AC CURRENT | 0.4A (Max) | I/P: 100VAC O/P:FULL LOAD Ta:25°C | 0.258A | P |
| 6 | NO LOAD POWER CONSUMPTION | < 0.075W (Max) | I/P:230VAC O/P: NO LOAD Ta:25°C | 0.0426W | P |

| | | | | | |
|---|-----------------|---------------------|--|--------------------------|---|
| 7 | INRUSH CURRENT | < 60A COLD START | I/P:230VAC O/P:FULL LOAD Ta:25°C | 50.484A | 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 | 110% ~ 200% | I/P:230VAC O/P:TESTING Ta:25°C | 153.88% HICCUP MODE RESET : AUTO RECOVER | P |
| 2 | OVER VOLTAGE PROTECTION | 110% ~ 140% | I/P:230VAC O/P:MIN LOAD Ta:25°C | 127% Clamp by ZENER diode MMSZ5249BF(19V) | 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: 0.02uA 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 : 1.510475 M.T.B.F : 662043 HRS | | | P |

| TEST RESULT | TESTER | APPROVAL |
|-------------|--------|--------------|
| PASS | ARCHEN | VINCENT ZENG |