



Test Report : SGA25x05

25W AC-DC High Reliability Slim Wall-mounted 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 | 80mVp-p (Max) | I/P:230VAC O/P:FULL LOAD Ta:25°C | 36 mVp-p | P |
| 2 | VOLTAGE TOLERANCE | -5% ~ +5% (Max) | I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C | -0% ~ +4.94% | P |
| 3 | LINE REGULATION | -1% ~ +1% (Max) | I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C | -0% ~ +0.02% | P |
| 4 | LOAD REGULATION | -5% ~ +5% (Max) | I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C | -1.93% ~ +1.93% | P |
| 5 | SET UP TIME | 300 mS | I/P:230VAC O/P:FULL LOAD Ta:25°C | 202.5 mS | P |
| 6 | RISE TIME | 60 mS | I/P:230VAC O/P:FULL LOAD Ta:25°C | 2.74 mS | P |
| 7 | HOLD UP TIME | 18 mS (Min) | I/P:115VAC O/P:FULL LOAD Ta:25°C | 23.5 mS | P |

INPUT FUNCTION TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|---------------------------|---|--|------------------------------------|---------|
| 1 | VOLTAGE RANGE | 90VAC ~ 264VAC | I/P:TESTING O/P:FULL LOAD Ta:25°C | 59V ~ 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 | 82.5% | I/P:230VAC O/P:FULL LOAD Ta:25°C | 83.265% | P |
| 4 | AVERAGE EFFICIENCY | 83.08% (LEVEL VI) 83.68% (LEVEL 5) | I/P:115/230VAC O/P:25% 、 50% 、 75% 、 100% LOAD Ta:25°C | 84.09% (115VAC) 84.01% (230VAC) | P |
| 5 | AC CURRENT | 0.65A (Max) | I/P: 100VAC O/P:FULL LOAD Ta:25°C | 0.43 A | P |
| 6 | NO LOAD POWER CONSUMPTION | < 0.075W (Max) | I/P:230VAC O/P: NO LOAD Ta:25°C | 0.0550 W | P |

| | | | | | |
|---|-----------------|---------------------|--|------------------------------|---|
| 7 | INRUSH CURRENT | < 60A COLD START | I/P:230VAC O/P:FULL LOAD Ta:25°C | 49.3 A | P |
| 8 | LEAKAGE CURRENT | < 0.25mA | I/P:240VAC O/P:Min LOAD Ta:25°C | L-FG: 0.02mA N-FG: 0.02mA | P |

PROTECTION FUNCTION TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT | VERDICT |
|----|-------------------------|----------------------------------|--|--|---------|
| 1 | OVER LOAD PROTECTION | 120% ~ 180% | I/P:230VAC O/P:TESTING Ta:25°C | 144% HICCUP MODE RESET : AUTO RECOVER | P |
| 2 | OVER VOLTAGE PROTECTION | 110% ~ 140% | I/P:230VAC O/P:MIN LOAD Ta:25°C | Clamp by ZENER diode 1N4736A (6.8V) | 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 | SPECIFICATION | TEST CONDITION | RESULT | VERDICT |
|----|----------------------|----------------------|---------------------------------|------------------------------|---------|
| 1 | WITHSTAND VOLTAGE | I/P-O/P:4242 VDC/min | I/P-O/P:4242 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
ENVIRONMENT TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|------------------------------|--|--|-----------|---------|
| 1 | TEMPERATURE RISE TEST | 1. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:100% LOAD Ta=25°C 2. HI AMBIENT BURN-IN : 16HRS I/P:230VAC O/P:100% LOAD Ta=40°C 3. HI AMBIENT BURN-IN : 16HRS I/P:230VAC O/P: 50% LOAD Ta=70°C | | | P |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 2 | LOW TEMPERATURE TURN ON TEST | TURN ON AFTER 2 HOURS | I/P : 230VAC O/P : 100% LOAD Ta= -20°C | TEST : OK | P |

OTHER

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|----------------------|---|----------------|--------|---------|
| 1 | CAPACITOR LIFE CYCLE | SUPPOSE C9 IS THE MOST CRITICAL COMPONENT I/P:230 VAC O/P:100% LOAD Ta=25°C LIFE TIME=92242HRS I/P:230 VAC O/P:100% LOAD Ta=40°C LIFE TIME=32387HRS | | | P |
| 2 | MTBF | MIL-KDBK-217F NOTICES 2 PARTS COUNT TOTAL FAILURE RATE : 2.205426 M.T.B.F : 453427 HRS | | | P |

| TEST RESULT | TESTER | APPROVAL |
|-------------|-------------|---------------|
| PASS | PETER CHENG | VINCENT TSENG |