



Test Report : SGA25x12

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	52 mVp-p	P
2	VOLTAGE TOLERANCE	-3% ~ +3% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	-0.37% ~ +0.45%	P
3	LINE REGULATION	-1% ~ +1% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	-0% ~ +0%	P
4	LOAD REGULATION	-3% ~ +3% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	-0.39% ~ +0.37%	P
5	SET UP TIME	300 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	139.5 mS	P
6	RISE TIME	60 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	7.05 mS	P
7	HOLD UP TIME	18 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	29.9 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	61V ~ 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	87.773%	P
4	AVERAGE EFFICIENCY	86.35 % (DoE Level VI) 86.97% (CoC Version 5)	I/P:115/230VAC O/P:25% 、 50% 、 75% 、 100% LOAD Ta:25°C	87.07% (115VAC) 87.48% (230VAC)	P
5	AC CURRENT	0.65A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.55 A	P
6	NO LOAD POWER CONSUMPTION	< 0.075W (Max)	I/P:230VAC O/P: NO LOAD Ta:25°C	0.0708 W	P

7	INRUSH CURRENT	< 60A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	31.45 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	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	120% ~ 180%	I/P:230VAC O/P:TESTING Ta:25°C	164% 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 1N4744A (15V)	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: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	SPECIFICATION	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	<table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>1</th> <th>2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>I/P C3</td> <td>61.4°C</td> <td>73.5°C</td> </tr> <tr> <td>2</td> <td>Q2</td> <td>84.5°C</td> <td>97.2°C</td> </tr> <tr> <td>3</td> <td>T1</td> <td>79.0°C</td> <td>92.5°C</td> </tr> <tr> <td>4</td> <td>O/P C9</td> <td>63.9°C</td> <td>76.5°C</td> </tr> <tr> <td>5</td> <td>O/P D1</td> <td>87.6°C</td> <td>99.9°C</td> </tr> </tbody> </table>	NO	Position	1	2	1	I/P C3	61.4°C	73.5°C	2	Q2	84.5°C	97.2°C	3	T1	79.0°C	92.5°C	4	O/P C9	63.9°C	76.5°C	5	O/P D1	87.6°C	99.9°C		P
NO	Position	1	2																										
1	I/P C3	61.4°C	73.5°C																										
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4	O/P C9	63.9°C	76.5°C																										
5	O/P D1	87.6°C	99.9°C																										
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	SPECIFICATION	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=51802HRS I/P:115 VAC O/P:100% LOAD Ta=25°C LIFE TIME=21630HRS			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