



Test Report : SGA25x24

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	54 mVp-p	P
2	VOLTAGE TOLERANCE	-2% ~ +2% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	-0.13% ~ +0.59%	P
3	LINE REGULATION	-1% ~ +1% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	-0.02% ~ +0%	P
4	LOAD REGULATION	-2% ~ +2% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	-0.40% ~ +0.34%	P
5	SET UP TIME	300 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	210.9 mS	P
6	RISE TIME	60 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	7.41 mS	P
7	HOLD UP TIME	18 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	21.2 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	87.5%	I/P:230VAC O/P:FULL LOAD Ta:25°C	88.288 %	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	87.42 % (115VAC) 87.53 % (230VAC)	P
5	AC CURRENT	0.65A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.56 A	P
6	NO LOAD POWER CONSUMPTION	< 0.075W (Max)	I/P:230VAC O/P: NO LOAD Ta:25°C	0.0625 W	P

7	INRUSH CURRENT	< 60A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	50.2 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	150% ~ 250%	I/P:230VAC O/P:TESTING Ta:25°C	154% 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 1N4751A (30V)	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	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 3. HI AMBIENT BURN-IN : 16HRS I/P:230VAC O/P: 50% LOAD Ta=70°C			P																																			
		<table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>I/P C3</td> <td>61.6°C</td> <td>75.1°C</td> <td>87.4°C</td> </tr> <tr> <td>2</td> <td>Q2</td> <td>72.9°C</td> <td>87.5°C</td> <td>97.5°C</td> </tr> <tr> <td>3</td> <td>T1</td> <td>75.5°C</td> <td>89°C</td> <td>94.1°C</td> </tr> <tr> <td>4</td> <td>O/P C9</td> <td>63.7°C</td> <td>77.2°C</td> <td>88.7°C</td> </tr> <tr> <td>5</td> <td>O/P D1</td> <td>73.6°C</td> <td>86.6°C</td> <td>92.5°C</td> </tr> <tr> <td>6</td> <td>CASE</td> <td>46.5°C</td> <td>61.2°C</td> <td>81.9°C</td> </tr> </tbody> </table>				NO	Position	1	2	3	1	I/P C3	61.6°C	75.1°C	87.4°C	2	Q2	72.9°C	87.5°C	97.5°C	3	T1	75.5°C	89°C	94.1°C	4	O/P C9	63.7°C	77.2°C	88.7°C	5	O/P D1	73.6°C	86.6°C	92.5°C	6	CASE	46.5°C	61.2°C	81.9°C
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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=122560HRS I/P:230 VAC O/P:100% LOAD Ta=40°C LIFE TIME= 48079HRS			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