



Test Report : SGA12x09

12W 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	24 mVp-p	P
2	VOLTAGE TOLERANCE	-5% ~ +5% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	-0.01% ~ +2.46%	P
3	LINE REGULATION	-1% ~ +1% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	-0.02% ~ +0.03%	P
4	LOAD REGULATION	-5% ~ +5% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	-1.21% ~ +1.22%	P
5	SET UP TIME	1300 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	1158 mS	P
6	RISE TIME	50 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	8.48 mS	P
7	HOLD UP TIME	12 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	19.5 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	50V ~ 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	83%	I/P:230VAC O/P:FULL LOAD Ta:25°C	83.52 %	P
4	AVERAGE EFFICIENCY	82.95 % (DoE Level VI) 83.25% (CoC Version 5)	I/P:115/230VAC O/P:25% 、 50% 、 75% 、 100% LOAD Ta:25°C	83.995% (115VAC) 83.410% (230VAC)	P
5	AC CURRENT	0.5A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.270 A	P
6	NO LOAD POWER CONSUMPTION	< 0.075W (Max)	I/P:230VAC O/P: NO LOAD Ta:25°C	0.0537 W	P

7	INRUSH CURRENT	< 60A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	41.93A	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	110~200%	I/P:230VAC O/P:TESTING Ta:25°C	116% HICCUP MODE RESET : AUTO RECOVER	P
2	OVER VOLTAGE PROTECTION	110~140%	I/P:230VAC O/P:MIN LOAD Ta:25°C	133% (IN4742A) 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: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 : 6HRS 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

RELIABILITY TEST OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C11 IS THE MOST CRITICAL COMPONENT	I/P:230 VAC O/P:100% LOAD Ta=25°C LIFE TIME=51445HRS I/P:230 VAC O/P:100% LOAD Ta=40°C LIFE TIME=25722HRS		P
2	MTBF	MIL-KDBK-217F NOTICES 2 PARTS COUNT TOTAL FAILURE RATE : 3.770846 M.T.B.F : 265192 HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	PETER CHENG	VINCENT TSENG