



Test Report : SGAS06x48

6W AC-DC High Reliable Extreme Small Wall-mounted Industrial 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
1	RIPPLE & NOISE	80mVp-p (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	45 mVp-p
2	VOLTAGE TOLERANCE	-2% ~ +2% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	+0.84% ~ -0.04%
3	LINE REGULATION	-0.5% ~ +0.5% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	-0.01% ~ -0.04%
4	LOAD REGULATION	-2% ~ +2% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	+0.62 ~ -0.26%
5	SET UP TIME	1500 Ms(Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	926.408mS
6	RISE TIME	50 mS(Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	48.723mS
7	HOLD UP TIME	5 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	26.954 mS

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	VOLTAGE RANGE	90VAC ~ 264VAC	I/P:TESTING O/P:FULL LOAD Ta:25°C	44V ~ 264V
2	FREQUENCY RANGE	50HZ - 60HZ (Typ) NO DAMAGE OSC	I/P: 100VAC ~ 240VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: OK
3	EFFICIENCY	83%	I/P:230VAC O/P:FULL LOAD Ta:25°C	83.45%
4	AVERAGE EFFICIENCY	78.88% (LEVEL VI) 79.03% (LEVEL 5)	I/P:115/230VAC O/P:25%、50%、75%、100% LOAD Ta:25°C	83.81% (115VAC) 82.30% (230VAC)
5	AC CURRENT	0.2A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.126 A
6	NO LOAD POWER CONSUMPTION	< 0.1W (Max)	I/P:230VAC O/P: NO LOAD Ta:25°C	0.0807 W

7	INRUSH CURRENT	<50A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	35.359A
8	LEAKAGE CURRENT	< 0.25mA	I/P:240VAC O/P:Min LOAD Ta:25°C	L-FG: 0.02mA N-FG: 0.02mA

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	OVER LOAD PROTECTION	105% ~ 180%	I/P:230VAC O/P:TESTING Ta:25°C	135.2% HICCUP MODE RESET : AUTO RECOVER
2	OVER VOLTAGE PROTECTION	>120%	I/P:230VAC O/P:MIN LOAD Ta:25°C	122.5% (MMSZ5263BF) Clamp by ZENER diode
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

■ SAFETY TEST

SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
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
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

■ RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT																																																												
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																																																														
<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr style="background-color: #cccccc;"> <th style="width: 5%;">NO</th> <th style="width: 15%;">Position</th> <th style="width: 15%;">1</th> <th style="width: 15%;">2</th> <th style="width: 15%;">3</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">1</td><td style="text-align: center;">BD1</td><td style="text-align: center;">51.1°C</td><td style="text-align: center;">63.0°C</td><td style="text-align: center;">83.0°C</td></tr> <tr><td style="text-align: center;">2</td><td style="text-align: center;">C1</td><td style="text-align: center;">56.9°C</td><td style="text-align: center;">68.4°C</td><td style="text-align: center;">85.5°C</td></tr> <tr><td style="text-align: center;">3</td><td style="text-align: center;">C2</td><td style="text-align: center;">58.5°C</td><td style="text-align: center;">69.7°C</td><td style="text-align: center;">86.4°C</td></tr> <tr><td style="text-align: center;">4</td><td style="text-align: center;">I/P L1</td><td style="text-align: center;">53.8°C</td><td style="text-align: center;">65.4°C</td><td style="text-align: center;">83.9°C</td></tr> <tr><td style="text-align: center;">5</td><td style="text-align: center;">U1</td><td style="text-align: center;">75.3°C</td><td style="text-align: center;">86.5°C</td><td style="text-align: center;">96.0°C</td></tr> <tr><td style="text-align: center;">6</td><td style="text-align: center;">T1 coil</td><td style="text-align: center;">73.0°C</td><td style="text-align: center;">83.3°C</td><td style="text-align: center;">92.5°C</td></tr> <tr><td style="text-align: center;">7</td><td style="text-align: center;">T1 core</td><td style="text-align: center;">71.8°C</td><td style="text-align: center;">82.3°C</td><td style="text-align: center;">92.7°C</td></tr> <tr><td style="text-align: center;">8</td><td style="text-align: center;">O/P D3</td><td style="text-align: center;">54.2°C</td><td style="text-align: center;">66.1°C</td><td style="text-align: center;">84.9°C</td></tr> <tr><td style="text-align: center;">9</td><td style="text-align: center;">O/P C6</td><td style="text-align: center;">48.2°C</td><td style="text-align: center;">60.2°C</td><td style="text-align: center;">82.0°C</td></tr> <tr><td style="text-align: center;">10</td><td style="text-align: center;">O/P C7</td><td style="text-align: center;">47.1°C</td><td style="text-align: center;">59.2°C</td><td style="text-align: center;">81.5°C</td></tr> <tr><td style="text-align: center;">11</td><td style="text-align: center;">CASE</td><td style="text-align: center;">43.5°C</td><td style="text-align: center;">54.5°C</td><td style="text-align: center;">77.2°C</td></tr> </tbody> </table>					NO	Position	1	2	3	1	BD1	51.1°C	63.0°C	83.0°C	2	C1	56.9°C	68.4°C	85.5°C	3	C2	58.5°C	69.7°C	86.4°C	4	I/P L1	53.8°C	65.4°C	83.9°C	5	U1	75.3°C	86.5°C	96.0°C	6	T1 coil	73.0°C	83.3°C	92.5°C	7	T1 core	71.8°C	82.3°C	92.7°C	8	O/P D3	54.2°C	66.1°C	84.9°C	9	O/P C6	48.2°C	60.2°C	82.0°C	10	O/P C7	47.1°C	59.2°C	81.5°C	11	CASE	43.5°C	54.5°C	77.2°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																																																												

OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	CAPACITOR LIFE CYCLE	SUPPOSE C6 IS THE MOST CRITICAL COMPONENT I/P:230 VAC O/P:100% LOAD Ta=25°C LIFE TIME=205073.89HRS I/P:230 VAC O/P:100% LOAD Ta=40°C LIFE TIME=89263.59HRS		
2	MTBF	MIL-KDBK-217F NOTICES 2 PARTS COUNT TOTAL FAILURE RATE : 1.210625 M.T.B.F : 826001.20 HRS		

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	PETER CHENG