



Test Report : SGAS06x12

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	-5% ~ +5% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	-0.90% ~ -0.29%
3	LINE REGULATION	-0.5% ~ +0.5% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	+0.1% ~ -0.12%
4	LOAD REGULATION	-5% ~ +5% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	+0.03% ~ +0.64%
5	SET UP TIME	1500 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	558.228 mS
6	RISE TIME	50 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	10.864 mS
7	HOLD UP TIME	5 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	20.581 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	42V ~ 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	79%	I/P:230VAC O/P:FULL LOAD Ta:25°C	79.15%
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	80.91% (115VAC) 79.18% (230VAC)
5	AC CURRENT	0.2A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.132 A
6	NO LOAD POWER CONSUMPTION	< 0.1W (Max)	I/P:230VAC O/P: NO LOAD Ta:25°C	0.0724 W

7	INRUSH CURRENT	<50A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	37.859A
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	144.0% HICCUP MODE RESET : AUTO RECOVER
2	OVER VOLTAGE PROTECTION	>120%	I/P:230VAC O/P:MIN LOAD Ta:25°C	122.5% (MMSZ5244BF) 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;">55.8°C</td><td style="text-align: center;">69.3°C</td><td style="text-align: center;">84.8°C</td></tr> <tr><td style="text-align: center;">2</td><td style="text-align: center;">C1</td><td style="text-align: center;">60.9°C</td><td style="text-align: center;">74.0°C</td><td style="text-align: center;">87.0°C</td></tr> <tr><td style="text-align: center;">3</td><td style="text-align: center;">C2</td><td style="text-align: center;">62.8°C</td><td style="text-align: center;">75.7°C</td><td style="text-align: center;">87.8°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;">57.1°C</td><td style="text-align: center;">70.5°C</td><td style="text-align: center;">85.2°C</td></tr> <tr><td style="text-align: center;">5</td><td style="text-align: center;">U1</td><td style="text-align: center;">86.6°C</td><td style="text-align: center;">100.1°C</td><td style="text-align: center;">100.4°C</td></tr> <tr><td style="text-align: center;">6</td><td style="text-align: center;">T1 coil</td><td style="text-align: center;">76.0°C</td><td style="text-align: center;">88.7°C</td><td style="text-align: center;">95.4°C</td></tr> <tr><td style="text-align: center;">7</td><td style="text-align: center;">T1 core</td><td style="text-align: center;">71.0°C</td><td style="text-align: center;">83.7°C</td><td style="text-align: center;">91.7°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;">74.6°C</td><td style="text-align: center;">86.9°C</td><td style="text-align: center;">92.9°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;">53.0°C</td><td style="text-align: center;">65.1°C</td><td style="text-align: center;">83.8°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;">62.0°C</td><td style="text-align: center;">74.3°C</td><td style="text-align: center;">86.7°C</td></tr> <tr><td style="text-align: center;">11</td><td style="text-align: center;">CASE</td><td style="text-align: center;">46.8°C</td><td style="text-align: center;">61.3°C</td><td style="text-align: center;">80.6°C</td></tr> </tbody> </table>					NO	Position	1	2	3	1	BD1	55.8°C	69.3°C	84.8°C	2	C1	60.9°C	74.0°C	87.0°C	3	C2	62.8°C	75.7°C	87.8°C	4	I/P L1	57.1°C	70.5°C	85.2°C	5	U1	86.6°C	100.1°C	100.4°C	6	T1 coil	76.0°C	88.7°C	95.4°C	7	T1 core	71.0°C	83.7°C	91.7°C	8	O/P D3	74.6°C	86.9°C	92.9°C	9	O/P C6	53.0°C	65.1°C	83.8°C	10	O/P C7	62.0°C	74.3°C	86.7°C	11	CASE	46.8°C	61.3°C	80.6°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=73516.69HRS I/P:230 VAC O/P:100% LOAD Ta=40°C LIFE TIME=31778.96HRS		
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