



# Test Report : GSM06x12

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AC-DC Green Medical 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	100mVp-p (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	60mVp-p	P
2	VOLTAGE TOLERANCE	-5% ~ +5% (Max)	I/P:90VAC~264VAC O/P:FULL-MIN. LOAD Ta:25°C	-1.31% ~ +1.92%	P
3	LINE REGULATION	-0.5% ~ +0.5% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	-0.11% ~ +0.01%	P
4	LOAD REGULATION	-3% ~ +3% (Max)	I/P:230VAC O/P:FULL ~ MIN LOAD Ta:25°C	-1.10% ~ +1.85%	P
5	SET UP TIME	1000mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	694mS	P
6	RISE TIME	50mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	18mS	P
7	HOLD UP TIME	12mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	17.3mS	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	70V ~ 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	77% (Typ.)	I/P:230VAC O/P:FULL LOAD Ta:25°C	78.45%	P
4	AVERAGE EFFICIENCY	73.41% (LEVEL V)	I/P:115/230VAC O/P:25%、50%、75%、100% LOAD Ta:25°C	76.05% (115VAC) 76.37% (230VAC)	P
5	AC CURRENT	0.18A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.141A	P
6	NO LOAD POWER CONSUMPTION	0.3W	I/P:230VAC O/P: NO LOAD Ta:25°C	0.2W	P

7	INRUSH CURRENT	< 30A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	20.1A	P
8	LEAKAGE CURRENT	< 0.05mA	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	>105%	I/P:230VAC O/P:TESTING Ta:25°C	0.96A (192%) 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	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:5656 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>50MΩ	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. ROOM AMBIENT BURN-IN : 4HRS I/P:115VAC O/P:100% LOAD Ta=25°C 3. ROOM AMBIENT BURN-IN : 40HRS I/P:230VAC O/P:100% LOAD Ta=40°C			P																																																
<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr style="background-color: #cccccc;"> <th>NO</th> <th>Position</th> <th>P/N</th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>BD1</td> <td>LT 2B06</td> <td>54.0°C</td> <td>56.8°C</td> <td>67.3°C</td> </tr> <tr> <td>2</td> <td>I/P C2</td> <td>FuhYin 6.8u/400V HFR 105°C 8*16</td> <td>57.1°C</td> <td>59.0°C</td> <td>72.0°C</td> </tr> <tr> <td>3</td> <td>U1</td> <td>OB2536AP</td> <td>71.8°C</td> <td>70.6°C</td> <td>85.0°C</td> </tr> <tr> <td>4</td> <td>T1</td> <td>EE-15</td> <td>68.7°C</td> <td>68.7°C</td> <td>82.5°C</td> </tr> <tr> <td>5</td> <td>O/P D2</td> <td>SB2100</td> <td>73.7°C</td> <td>73.5°C</td> <td>86.2°C</td> </tr> <tr> <td>6</td> <td>O/P C5</td> <td>N.C.C 220u/35V KY 105°C 8*16</td> <td>56.2°C</td> <td>56.3°C</td> <td>70.2°C</td> </tr> <tr> <td>7</td> <td>C7</td> <td>FuhYin 10u/50V HFR 105°C 5*11.5</td> <td>50.5°C</td> <td>50.2°C</td> <td>64.9°C</td> </tr> </tbody> </table>						NO	Position	P/N	1	2	3	1	BD1	LT 2B06	54.0°C	56.8°C	67.3°C	2	I/P C2	FuhYin 6.8u/400V HFR 105°C 8*16	57.1°C	59.0°C	72.0°C	3	U1	OB2536AP	71.8°C	70.6°C	85.0°C	4	T1	EE-15	68.7°C	68.7°C	82.5°C	5	O/P D2	SB2100	73.7°C	73.5°C	86.2°C	6	O/P C5	N.C.C 220u/35V KY 105°C 8*16	56.2°C	56.3°C	70.2°C	7	C7	FuhYin 10u/50V HFR 105°C 5*11.5	50.5°C	50.2°C	64.9°C
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2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P : 230VAC O/P : 100% LOAD Ta= -0°C	TEST : OK	P																																																

### OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C5 IS THE MOST CRITICAL COMPONENT I/P:230 VAC O/P:100% LOAD Ta=25°C LIFE TIME= 176676HRS I/P:115 VAC O/P:100% LOAD Ta=25°C LIFE TIME= 175455HRS			P
2	MTBF	MIL-KDBK-217F NOTICES 2 PARTS COUNT TOTAL FAILURE RATE : 1.127 M.T.B.F : 886925HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	PETER	VINCENT