



Test Report : GSM06x12

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	SPECIFICATION	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	SPECIFICATION	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	SPECIFICATION	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	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:5656 VDC/min	I/P-O/P:5656 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	SPECIFICATION	TEST CONDITION	RESULT	VERDICT																																																
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:100% LOAD Ta=25℃ 2. ROOM AMBIENT BURN-IN : 4HRS I/P:115VAC O/P:100% LOAD Ta=25℃ 3. ROOM AMBIENT BURN-IN : 40HRS I/P:230VAC O/P:100% LOAD Ta=40℃	<table border="1"> <thead> <tr> <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℃</td><td>56.8℃</td><td>67.3℃</td></tr> <tr> <td>2</td><td>I/P C2</td><td>FuhYin 6.8u/400V HFR 105℃ 8*16</td><td>57.1℃</td><td>59.0℃</td><td>72.0℃</td></tr> <tr> <td>3</td><td>U1</td><td>OB2536AP</td><td>71.8℃</td><td>70.6℃</td><td>85.0℃</td></tr> <tr> <td>4</td><td>T1</td><td>EE-15</td><td>68.7℃</td><td>68.7℃</td><td>82.5℃</td></tr> <tr> <td>5</td><td>O/P D2</td><td>SB2100</td><td>73.7℃</td><td>73.5℃</td><td>86.2℃</td></tr> <tr> <td>6</td><td>O/P C5</td><td>N.C.C 220u/35V KY 105℃ 8*16</td><td>56.2℃</td><td>56.3℃</td><td>70.2℃</td></tr> <tr> <td>7</td><td>C7</td><td>FuhYin 10u/50V HFR 105℃ 5*11.5</td><td>50.5℃</td><td>50.2℃</td><td>64.9℃</td></tr> </tbody> </table>	NO	Position	P/N	1	2	3	1	BD1	LT 2B06	54.0℃	56.8℃	67.3℃	2	I/P C2	FuhYin 6.8u/400V HFR 105℃ 8*16	57.1℃	59.0℃	72.0℃	3	U1	OB2536AP	71.8℃	70.6℃	85.0℃	4	T1	EE-15	68.7℃	68.7℃	82.5℃	5	O/P D2	SB2100	73.7℃	73.5℃	86.2℃	6	O/P C5	N.C.C 220u/35V KY 105℃ 8*16	56.2℃	56.3℃	70.2℃	7	C7	FuhYin 10u/50V HFR 105℃ 5*11.5	50.5℃	50.2℃	64.9℃		P
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2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P : 230VAC O/P : 100% LOAD Ta= -0℃	TEST : OK	P																																																

OTHER

NO	TEST ITEM	SPECIFICATION	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℃ LIFE TIME= 176676HRS I/P:115 VAC O/P:100% LOAD Ta=25℃ 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