

Model : GS12x24 12W  
V1 : +24V / 0.5A

AC-DC Single Output adaptor

**OUTPUT FUNCTION TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	200mVp-p (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	46mVp-p	P
2	VOLTAGE TOLERANCE	-3% - +3% (Max)	I/P:90VAC~264VAC O/P:FULL-MIN. LOAD Ta:25°C	-0.8% ~ +0%	P
3	LINE REGULATION	-1% - +1% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	-0% ~ +0%	P
4	LOAD REGULATION	-2% - +2% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	-0.13% ~ +0.13%	P
5	SET UP TIME	500 mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	13.97 mS	P
6	RISE TIME	20 mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	12.02 mS	P
7	HOLD UP TIME	10 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	26.98 mS	P

**INPUT FUNCTION TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE RANGE	100VAC ~ 240VAC (Typ)	I/P:TESTING O/P:FULL LOAD Ta:25°C	60V ~ 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	80% (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	80.28%	P
4	AVERAGE EFFICIENCY	>72%	I/P:115/230VAC O/P:25%、50%、75%、100% LOAD Ta:25°C	80.1% (115VAC) 76.3% (230VAC)	P
5	AC CURRENT	0.31A	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.264A	P
6	NO LOAD POWER CONSUMPTION	< 0.3W	I/P:230VAC O/P: NO LOAD Ta:25°C	0.15W	P

7	INRUSH CURRENT	< 45A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	40.101A	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	>105%	I/P:230VAC O/P:TESTING Ta:25°C	130% HICCUP MODE RESET AUTO RECOVER	P
2	OVER VOLTAGE PROTECTION	CLAMP BY ZENER DIODE 115 - 135%	I/P:0V O/P:TESTING Ta:25°C	CLAMP BY ZENER DIODE 125.9% (30.2V)	P
3	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P:264VAC O/P:FULL LOAD Ta:25°C	NO DAMAGE HICCUP MODE RESET AUTO RECOVER	P

**ENVIRONMENT TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT																																																						
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 6HRS I/P:230VAC O/P:100% LOAD Ta=25.0°C 2. ROOM AMBIENT BURN-IN : 8HRS I/P:230VAC O/P:100% LOAD Ta=40.9°C 3. ROOM AMBIENT BURN-IN : 4HRS I/P:115VAC O/P:100% LOAD Ta=25.9°C			P																																																						
		<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>LF1</td> <td>UU-9.8 LF509</td> <td>52.6 °C</td> <td>69.4 °C</td> <td>60.4 °C</td> </tr> <tr> <td>2</td> <td>C5</td> <td>CapXon 33uF/400V 13*20 KM 105°C</td> <td>52.7 °C</td> <td>71.0 °C</td> <td>54.3 °C</td> </tr> <tr> <td>3</td> <td>U1</td> <td>TYN279PN</td> <td>96.7 °C</td> <td>115.6 °C</td> <td>82.0 °C</td> </tr> <tr> <td>4</td> <td>T1</td> <td>EI-19 TF1652</td> <td>71.1 °C</td> <td>86.3 °C</td> <td>69.0 °C</td> </tr> <tr> <td>5</td> <td>C110</td> <td>CapXon 100uF/35V 6.3*15 GL 105°C</td> <td>47.6 °C</td> <td>66.4 °C</td> <td>47.8 °C</td> </tr> <tr> <td>6</td> <td>C105</td> <td>CapXon 220uF/35V 8*16 GL 105°C</td> <td>63.7 °C</td> <td>81.0 °C</td> <td>62.9 °C</td> </tr> <tr> <td>7</td> <td>D100</td> <td>UF3004</td> <td>74.3 °C</td> <td>91.3 °C</td> <td>73.9 °C</td> </tr> <tr> <td>8</td> <td>CASE</td> <td>UPON CENTER</td> <td>54.4 °C</td> <td>72.5 °C</td> <td>53.3 °C</td> </tr> </tbody> </table>				NO	Position	P/N	1	2	3	1	LF1	UU-9.8 LF509	52.6 °C	69.4 °C	60.4 °C	2	C5	CapXon 33uF/400V 13*20 KM 105°C	52.7 °C	71.0 °C	54.3 °C	3	U1	TYN279PN	96.7 °C	115.6 °C	82.0 °C	4	T1	EI-19 TF1652	71.1 °C	86.3 °C	69.0 °C	5	C110	CapXon 100uF/35V 6.3*15 GL 105°C	47.6 °C	66.4 °C	47.8 °C	6	C105	CapXon 220uF/35V 8*16 GL 105°C	63.7 °C	81.0 °C	62.9 °C	7	D100	UF3004	74.3 °C	91.3 °C	73.9 °C	8	CASE	UPON CENTER	54.4 °C	72.5 °C	53.3 °C
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**SAFETY & E.M.C TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	SAFETY STANDARDS	TUV: Certificate No : S 50114483 ( ONLY FOR "E" TYPE ) UL: File No : E183223 ( ONLY FOR "U" TYPE ) BSMI: Certificate No : R33100 ( ONLY FOR "U" TYPE )			P
2	HARMONIC	IEC61000-3-2 CLASS A	I/P:230VAC / 50HZ O/P:FULL LOAD Ta:25°C	PASS	P

3	CONDUCTION	EN55022 CLASS B	I/P:230VAC (50HZ) O/P:FULL LOAD Ta:25°C	PASS	P
4	RADIATION	EN55022 CLASS B	I/P:230VAC (50HZ) O/P:FULL LOAD Ta:25°C	PASS	P
5	E.S.D	IEC61000-4-2 LIGHT INDUSTRY AIR:8KV / Contact:4KV	I/P:230VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
6	E.F.T	IEC61000-4-4 LIGHT INDUSTRY INPUT: 1KV	I/P:230VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
7	SURGE	IEC61000-4-5 LIGHT INDUSTRY L-N :1KV	I/P:230VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
8	WITHSTAND VOLTAGE	I/P-O/P:3KVAC/min	I/P-O/P:3KVAC/min Ta:25°C	I/P-O/P:0.685mA NO DAMAGE	P
9	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	I/P-O/P:500VDC Ta:25°C	I/P-O/P:>100MΩ NO DAMAGE	P

**OTHER**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C105 IS THE MOST CRITICAL COMPONENT I/P:230 VAC O/P:FULL LOAD Ta=25°C LIFE TIME=52526HRS I/P:230 VAC O/P:FULL LOAD Ta=40°C LIFE TIME=16853HRS I/P:115 VAC O/P:FULL LOAD Ta=25°C LIFE TIME=59094HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 STRESS ANALYSIS PREDICTION TOTAL FAILURE RATE: 0.7069 M.T.B.F: 1414.6KHRS			P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2007.12.25	第二次試產	PASS	PETER	T.K.CHENG