

Model : GE12I12-P1J 12W
+12V / 0~1.0A

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	120mVp-p (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	8mVp-p	P
2	VOLTAGE TOLERANCE	-3% ~ +3% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	-0.6% ~ +0.6%	P
3	LINE REGULATION	-1% ~ +1% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	-0.05% ~ +0.05%	P
4	LOAD REGULATION	-3% ~ +3% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	-0.6% ~ +0.6%	P
5	SET UP TIME	4000 mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	1842 mS	P
6	RISE TIME	100 mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	4 mS	P
7	HOLD UP TIME	10 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	13 mS	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	57V ~ 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	76% (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	82.2%	P
4	AVERAGE EFFICIENCY	>77.76% (LEVEL V)	I/P:115/230VAC O/P:25% 、 50% 、 75% 、 100% LOAD Ta:25°C	82.387% (115VAC) 79.008% (230VAC)	P
5	AC CURRENT	0.4A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.25A	P
6	NO LOAD POWER CONSUMPTION	< 0.3W	I/P:230VAC O/P: NO LOAD Ta:25°C	0.21W	P

7	INRUSH CURRENT	< 80A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25℃	62A	P
8	LEAKAGE CURRENT	< 0.25mA	I/P:240VAC O/P:Min LOAD Ta:25℃	L-FG:0.02mA N-FG:0.02mA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	110 ~ 200% (Typ)	I/P:230VAC O/P:TESTING Ta:25℃	182.7% HICCUP MODE RESET AUTO RECOVER	P
2	OVER VOLTAGE PROTECTION	CLAMP BY ZENER DIODE 115 ~ 135% (Typ)	I/P:230VAC O/P:MIN LOAD Ta:25℃	CLAMP BY ZENER DIODE	P
3	SHORT PROTECTION	SHORT OUTPUT 1 HOUR NO DAMAGE	I/P:264VAC O/P:FULL LOAD Ta:25℃	NO DAMAGE HICCUP MODE RESET AUTO RECOVER	P

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:4242VDC/min	I/P-O/P:4242VDC/min Ta:25℃	I/P-O/P:0.002 mA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	I/P-O/P:500VDC Ta:25℃	I/P-O/P:>21.5GΩ NO DAMAGE	P

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT																																																												
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 13HRS I/P:230VAC O/P:100% LOAD Ta=25℃ 2. ROOM AMBIENT BURN-IN : 1HRS I/P:230VAC O/P:75% LOAD Ta=40℃ 3. ROOM AMBIENT BURN-IN : 44HRS I/P:230VAC O/P:50% LOAD Ta=50℃			P																																																												
<table><tr><th>NO</th><th>Position</th><th>P/N</th><th>1</th><th>2</th><th>3</th></tr><tr><td>1</td><td>D2</td><td>1N4007</td><td>59.0℃</td><td>67.8℃</td><td>67.9℃</td></tr><tr><td>2</td><td>D8</td><td>FR107</td><td>78.7℃</td><td>86.5℃</td><td>79.5℃</td></tr><tr><td>3</td><td>I/P C4</td><td>10uF/400V 10*16 KM 105℃ SAMXON</td><td>61.5℃</td><td>70.4℃</td><td>69.3℃</td></tr><tr><td>4</td><td>Q1</td><td>STK0260</td><td>78.4℃</td><td>87.1℃</td><td>79.6℃</td></tr><tr><td>5</td><td>T1</td><td>EF-20</td><td>78.5℃</td><td>82.6℃</td><td>78.6℃</td></tr><tr><td>6</td><td>O/P D9</td><td>MBRF 10100CT</td><td>87.8℃</td><td>88.6℃</td><td>83.9℃</td></tr><tr><td>7</td><td>O/P C11</td><td>680uF/16V 8*16 GT 105℃ SAMXON</td><td>75.6℃</td><td>79.2℃</td><td>77.0℃</td></tr><tr><td>8</td><td>C6</td><td>22uF/50V 5*11 RL 105℃ SAMXON</td><td>64.0℃</td><td>71.5℃</td><td>70.9℃</td></tr><tr><td>9</td><td>U1</td><td>OB2263</td><td>66.5℃</td><td>74.8℃</td><td>73.4℃</td></tr></table>						NO	Position	P/N	1	2	3	1	D2	1N4007	59.0℃	67.8℃	67.9℃	2	D8	FR107	78.7℃	86.5℃	79.5℃	3	I/P C4	10uF/400V 10*16 KM 105℃ SAMXON	61.5℃	70.4℃	69.3℃	4	Q1	STK0260	78.4℃	87.1℃	79.6℃	5	T1	EF-20	78.5℃	82.6℃	78.6℃	6	O/P D9	MBRF 10100CT	87.8℃	88.6℃	83.9℃	7	O/P C11	680uF/16V 8*16 GT 105℃ SAMXON	75.6℃	79.2℃	77.0℃	8	C6	22uF/50V 5*11 RL 105℃ SAMXON	64.0℃	71.5℃	70.9℃	9	U1	OB2263	66.5℃	74.8℃	73.4℃
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OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C11 IS THE MOST CRITICAL COMPONENT I/P:230 VAC O/P:FULL LOAD Ta=30℃ LIFE TIME=32558HRS I/P:230 VAC O/P:75% LOAD Ta=40℃ LIFE TIME=35876HRS I/P:230 VAC O/P:50% LOAD Ta=50℃ LIFE TIME=41786HRS			P
2	MTBF	MIL-KDBK-217F NOTICES 2 PARTS COUNT TOTAL FAILURE RATE : 1.6537 M.T.B.F : 604706HRS			P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2009.3.10	PRODUCT SAMPLE	PASS	PETER	VINCENT ZENG