

Model : ES18x48 18W      AC-DC      Single Output adaptor  
 V1 : +48V / 0.375A

**OUTPUT FUNCTION TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	240mVp-p (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	20mVp-p	P
2	VOLTAGE TOLERANCE	-2% ~ +2% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	-0.05% ~ +0.05%	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	-0.04% ~ +0.04%	P
5	SET UP TIME	300 mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	80.47 mS	P
6	RISE TIME	100 mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	52.14 mS	P
7	HOLD UP TIME	16 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	27.9 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	72V ~ 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	82% (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	82.3%	P
4	AC CURRENT	0.5A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.355A	P
5	INRUSH CURRENT	< 40A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	21.3A	P
6	LEAKAGE CURRENT	< 0.75mA FOR CLASS I < 0.25mA FOR CLASS II	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	130 - 350% (Typ)	I/P:230VAC O/P:TESTING Ta:25°C	205% HICCUP MODE RESET AUTO RECOVER	P
2	OVER VOLTAGE PROTECTION	CLAMP BY ZENER DIODE 105 - 135% (Typ)	I/P:230VAC O/P:MIN LOAD Ta:25°C	CLAMP BY ZENER DIODE (P6KE56A)	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

**ENVIRONMENT TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT	
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 3HRS I/P:115VAC O/P:100% LOAD Ta=27.4°C 2. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:100% LOAD Ta=26.9°C 3. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:100% LOAD Ta=43.9°C 4. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:70% LOAD Ta=52.5°C				P

**SAFETY & E.M.C TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	SAFETY STANDARDS	TUV: Certificate No : S 50050516 CLASS I S 50050512 CLASS II UL: File No : E183223 BSMI: Certificate No : R33100			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: 1.906mA 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 C302 IS THE MOST CRITICAL COMPONENT	I/P:230 VAC O/P:FULL LOAD Ta=25°C LIFE TIME=262279HRS I/P:230 VAC O/P:FULL LOAD Ta=40°C LIFE TIME=82995HRS I/P:230 VAC O/P:70% LOAD Ta=50°C LIFE TIME=63776HRS I/P:115 VAC O/P:FULL LOAD Ta=25°C LIFE TIME=265941HRS		P
2	MTBF	MIL-HDBK-217F NOTICES2 STRESS ANALYSIS PREDICTION TOTAL FAILURE RATE: 1.580515 M.T.B.F: 632705HRS			P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2007.12.25	STOCK	PASS	PETER	T.K.CHENG