

## MODEL : PPT-125B

### OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 100 mVp-p (Max) V2: 120 mVp-p (Max) V3: 120 mVp-p (Max)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	V1: 15 mVp-p (Max) V2: 14 mVp-p (Max) V3: 15 mVp-p (Max)	P
2	OUTPUT VOLTAGE ADJUST RANGE	CH1: 4.75 V- 5.25 V	I/P: 230 VAC I/P: 115 VAC O/P:MIN LOAD Ta:25°C	4.48V~ 5.73 V/230 VAC 4.48V~5.73 V/115 VAC	P
3	OUTPUT VOLTAGE TOLERANCE	V1: -3 %~ 3 % (Max) V2: -5 %~ 5 % (Max) V3: -6 %~ 6 % (Max)	I/P: 264 VAC / 100 VAC O/P:FULL/ 40 % LOAD Ta:25°C	V1: -0.7%~ +0.7 % V2: -2.1%~ 2.1 % V3: -2.2%~ +2.2 %	P
4	LINE REGULATION	V1: -0.5 %~ 0.5 % (Max) V2: -0.5 %~ 0.5 % (Max) V3: -0.5 %~ 0.5 % (Max)	I/P: 264 VAC ~ 100 VAC O/P:FULL LOAD Ta:25°C	V1: 0 %~ -0.2 % V2: 0 %~ -0.05 % V3: +0.05 %~ -0.05 %	P
5	LOAD REGULATION	V1: -3 %~ 3 % (Max) V2: -3 %~ 3 % (Max) V3: -5 %~ 5 % (Max)	I/P: 230 VAC O/P:FULL ~MIN LOAD Ta:25°C	V1: 0.7 %~ -0.5 % V2: 1.2%~ -1.4 % V3: 1.2 %~ -1.6%	P
6	CROSS REGULATION	V1: -3 %~ 3 % (Max) V2: -5 %~ 5 % (Max) V3: -6 %~ 6 % (Max)	I/P: 230 VAC O/P: Testing O/P 60%LOAD Other O/P 40%LOAD Change Ta:25°C	V1: -0.3 %~ -0.4 % V2: -1.8%~ -2.3 % V3: -1.9%~ 2.4%	P
7	SET UP TIME	230 VAC/ 1000 ms (Max) 115 VAC/ 2000 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230 VAC/ 451 ms 115 VAC/ 1038 ms	P
8	RISE TIME	230VAC/ 30 ms (Max) 115VAC/ 30 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230 VAC/ 18 ms 115 VAC/ 18 ms	P
9	HOLD UP TIME	230 VAC/ 20 ms (TYP) 115 VAC/ 20 ms (TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230 VAC/ 30 ms 115 VAC/ 31 ms	P
10	OVER/UNDERSHOOT TEST	< ±5%	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	TEST: < 5 %	P
11	DYNAMIC LOAD	V1: 1000 mVp-p	I/P: 230 VAC O/P:FULL /Min LOAD 90%DUTY/1KHZ Ta:25°C	196 mVp-p	P

## INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	90 VAC~ 264 VAC	I/P:TESTING O/P:FULL LOAD Ta:25°C	66V~ 264 V	P
			I/P: LOW-LINE-3V= 87 V HIGH-LINE+15%= 300 V O/P:FULL/MIN LOAD ON: 30 Sec . OFF: 30 Sec 10MIN ( AC POWER ON/OFF NO DAMAGE )	TEST: OK	
2	INPUT FREQUENCY RANGE	47 HZ ~ 63 HZ NO DAMAGE OSC	I/P: 264 VAC ~ 100 VAC O/P:FULL-MIN LOAD Ta:25°C	TEST: OK	P
3	POWER FACTOR	0.93/ 230 VAC(TYP) 0.98/ 115 VAC(TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	PF= 0.98 / 230 VAC PF= 1 / 115 VAC	P
4	EFFICIENCY	78 % (TYP)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	81.5%	P
5	INPUT CURRENT	230 V/ 0.75 A (TYP) 115 V/ 1.7 A (TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 0.57 A/ 230 VAC I =1.12 A/ 115 VAC	P
6	INRUSH CURRENT	230 V/ 40 A (TYP) COLD START	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	I =13 A/ 230 VAC	P
7	LEAKAGE CURRENT	< 2 mA / 240 VAC	I/P: 254 VAC O/P:Min LOAD Ta:25°C	L-FG:1.2 mA N-FG:1.5 mA	P



PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	130 %~ 160 %	I/P: 230 VAC I/P: 115 VAC O/P: TESTING Ta:25°C	145 %/ 230 VAC 137 %/ 115 VAC Hiccup Mode	P
2	OVER VOLTAGE PROTECTION	CH1: 5.75 V~ 6.75 V	I/P: 230 VAC I/P: 115 VAC O/P: MIN LOAD Ta:25°C	6.12 V/ 230 VAC 6.12 V/ 115 VAC Hiccup Model	P
3	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P: 264 VAC O/P: FULL LOAD Ta:25°C	NO DAMAGE Hiccup Mode	P

## ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT	
1	TEMPERATURE RISE TEST	MODEL : PPT-125B WITH FAN 17.8CFM 1. ROOM AMBIENT BURN-IN : 1.5 HRS I/P: 230 VAC O/P: 125% LOAD Ta= 26.1 °C 2. HIGH AMBIENT BURN-IN : HRS I/P:230 VAC O/P: 125% LOAD Ta=52.4 °C			<b>P</b>	
2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P: 230 VAC O/P: 135% LOAD WITH FAN Ta:25°C	TEST : OK	<b>P</b>	
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P: 230 VAC O/P: 125% LOAD WITH FAN Ta= -20 °C	TEST : OK	<b>P</b>	
4	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 50 °C NO DAMAGE	I/P: 272 VAC O/P: 125% LOAD WITH FAN Ta= 50 °C HUMIDITY= 95 %R.H	TEST : OK	<b>P</b>	
5	TEMPERATURE COEFFICIENT	± 0.05 %(0-50°C)	I/P: 230 VAC O/P: 125% LOAD WITH FAN	± 0.001 %(0-50°C)	<b>P</b>	
6	VIBRATION TEST	1 Carton & 1 Set Operating at I/P: 230 VAC NO LOAD (1) Waveform: Sine Wave (2) Frequency:10-500Hz (3) Sweep Time:10min/sweep cycle (4) Acceleration:2G (5) Test Time:1 hour in each axis (X.Y.Z) (6) Ta:25°C		TEST : OK	<b>P</b>	

### SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P: 3.0 KVAC/min I/P-FG: 1.5 KVAC/min O/P-FG: 0.5 KVAC/min	I/P-O/P: 3.6 KVAC/min I/P-FG: 1.8 KVAC/min O/P-FG: 0.6 KVAC/min Ta:25°C	I/P-O/P: 1.06 mA/ 3 KVAC I/P-FG: 6.15 mA/ 2.88KVAC O/P-FG: 0.19 mA/ 0.103KVAC NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ I/P-FG: 500VDC>100MΩ O/P-FG:500VDC>100MΩ	I/P-O/P: 500 VDC I/P-FG: 500 VDC O/P-FG: 500 VDC Ta:25°C	I/P-O/P: 10.9 G Ω I/P-FG: 10.3 G Ω O/P-FG: 12.8 G Ω NO DAMAGE	P
3	APPROVAL	TUV: Certificate NO : R50038987 UL: File NO : E183223			P

### E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	HARMONIC	EN61000-3-2 CLASS A	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	PASS	P
2	CONDUCTION	EN55022 CLASS B	I/P: 230 VAC (50HZ) O/P:FULL/50% LOAD Ta:25°C	PASS Test by certified Lab	P
3	RADIATION	EN55022 CLASS B	I/P: 230 VAC (50HZ) O/P:FULL LOAD Ta:25°C	PASS Test by certified Lab	P
4	E.S.D	EN61000-4-2 LIGHT INDUSTRY AIR:8KV / Contact:4KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
5	E.F.T	EN61000-4-4 LIGHT INDUSTRY INPUT: 1KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
6	SURGE	IEC61000-4-5 LIGHT INDUSTRY L-N :1KV L,N-PE:2KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
7	Test by certified Lab & Test Report Prepare				



M.T.B.F & LIFE CYCLE CALCULATION

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C 122 IS THE MOST CRITICAL COMPONENT WITH FAN I/P: 230 VAC O/P:125% LOAD Ta=25 °C LIFE TIME= 216645 HRS I/P: 230 VAC O/P:125% LOAD Ta=50 °C LIFE TIME= 33330 HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 94.7K HRS			P

COMPONENT STRESS TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	Power Transistor ( D to S) or (C to E) <b>Peak Voltage</b>	Q2 Rated 2850 : 900 V 6 A	I/P:High-Line +3V = 267 V O/P: (1)Full Load Turn on (2) Full Load (3)Output Short Ta:25°C	(1) 508 V (2) 728 V (3) 860 V	P
2	Diode Peak <b>Voltage</b>	D19 Rated ESA883-004 : 40 V 60 A  D18 Rated BYQ28-200 : 200V 10A  D17 Rated BYQ28-200 : 200V 10A	I/P:High-Line +3V = 267 V O/P: (1)Full Load Turn on (2) Full Load (3)Output Short  (1)Full Load Turn on (2) Full Load (3)Output Short  (1)Full Load Turn on (2) Full Load (3)Output Short Ta:25°C	(1) 24.3 V (2) 22.9 V (3) 29.4 V  (1) 50.8 V (2) 54.6 V (3) 97.6 V  (1) 49.2 V (2) 52.4 V (3) 74.4 V	P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2003/10/20	RD SAMPLE	PASS	VINCENT TSENG	MAX LIN
2003/12/17	PRODUCT SAMPLE A311A39	PASS	VINCENT TSENG	MAX LIN

2003/7/14 A50-F023