

MODEL : PD-65B

## OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 50 mVp-p (Max) V2: 150 mVp-p (Max)	I/P: 230VAC O/P:FULL LOAD Ta:25°C	V1: 3 mVp-p (Max) V2: 16 mVp-p (Max)	P
2	OUTPUT VOLTAGE ADJUST RANGE	CH1: 4.75 V- 5.5 V	I/P: 230 VAC I/P: 115 VAC O/P:MIN LOAD Ta:25°C	4.35V- 6.02 V/ 230 VAC 4.35V- 6.02 V/ 115 VAC	P
3	OUTPUT VOLTAGE TOLERANCE	V1: 4 %~ -4 % (Max) V2: 7 %~ -7 % (Max)	I/P: 90 VAC / 264 VAC O/P:FULL/ MIN LOAD Ta:25°C	V1: 1.7 %~ -1.7 % V2: 4 %~ -4 %	P
4	LINE REGULATION	V1: 1 %~ -1 % (Max) V2: 2 %~ -2 % (Max)	I/P: 90 VAC ~ 264 VAC O/P:FULL LOAD Ta:25°C	V1: 0 %~ -0.15 % V2: 0.05 %~ -0.25 %	P
5	LOAD REGULATION	V1: 3 %~ -3 % (Max) V2: 4 %~ -4 % (Max)	I/P: 230 VAC O/P:FULL ~MIN LOAD Ta:25°C	V1: 0.3 %~ -0.3 % V2: 0.4 %~ -0.7 %	P
6	CROSS REGULATION	V1: 3 %~ -3 % (Max) V2: 4 %~ -4 % (Max)	I/P: 230 VAC O/P: Testing O/P 60%LOAD Other O/P 40%LOAD Change Ta:25°C	V1: 0.5 %~ -0.5 % V2: 1.1 %~ -1.4 %	P
7	SET UP TIME	230 VAC/ 800 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 601 ms	P
8	RISE TIME	230 VAC/ 20 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 9 ms	P
9	HOLD UP TIME	230 VAC/ 20 ms (Min)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 83 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	116 mVp-p	P

## INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	90VAC~264 VAC	I/P:TESTING O/P:FULL LOAD Ta:25°C	70 V~264V	P
			I/P: LOW-LINE-3V=        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	47HZ ~63 HZ NO DAMAGE OSC	I/P:        VAC ~ 264 VAC O/P:FULL-MIN LOAD Ta:25°C	TEST: OK	P
3	EFFICIENCY	81 % (TYP)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	82 %	P
4	INPUT CURRENT	230V/ 0.9 A (Max) 115V/ 1.5 A (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 0.74 A/ 230 VAC I = 1.2 A/ 115 VAC	P
5	INRUSH CURRENT	230V/ 40 A (Max) 115V/ 20 A (Max) COLD START	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 28 A/ 230 VAC I = 14 A/ 115 VAC	P
6	LEAKAGE CURRENT	< 0.5 mA / 240 VAC	I/P: 254 VAC O/P:Min LOAD Ta:25°C	L-FG: 0.34 mA N-FG: 0.34 mA	P

## PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	73W- 105W	I/P: 230 VAC I/P: 115 VAC O/P: TESTING Ta:25°C	86W/ 230 VAC 86W/ 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	6.16 V/ 230 VAC 6.14 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 : PD-65B 1. ROOM AMBIENT BURN-IN : 3.5 HRS I/P: 230 VAC O/P: FULL LOAD Ta= 33.7 °C 2. HIGH AMBIENT BURN-IN : 38 HRS I/P: 230 VAC O/P: FULL LOAD Ta= 48.4 °C			P
2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR ( MIN )	I/P: 230 VAC O/P: 132 % LOAD Ta:25°C	TEST : OK	P
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P: 230 VAC O/P: 100% LOAD Ta= -10°C	TEST : OK	P
4	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 45 °C NO DAMAGE	I/P: 272 VAC O/P:FULL LOAD Ta= 45°C HUMIDITY= 95 %R.H	TEST : OK	P
5	TEMPERATURE COEFFICIENT	± 0.04 %(0-50°C)	I/P: 230 VAC O/P:FULL LOAD	± 0.01 %(0-50°C)	P
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	P

### SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P: 3 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: 2.67 mA I/P-FG: 2.05 mA O/P-FG: 3.88 mA 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: 6G Ω I/P-FG: 6G Ω O/P-FG: 5G Ω NO DAMAGE	P
3	APPROVAL	TUV: Certificate NO : R9754834 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 C21 IS THE MOST CRITICAL COMPONENT I/P: 230VAC O/P:FULL LOAD Ta= 25 °C LIFE TIME= 75841 HRS I/P: 230VAC O/P:FULL LOAD Ta= 45 °C LIFE TIME= 24849 HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 288.1K 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>	Q 1 Rated K2545 : 600V 6 A	I/P:High-Line +3V =267 V O/P: (1)Full Load Turn on (2) Full Load Ta:25°C	(1) 518 V (2) 478 V	P
2	Diode <b>Peak Voltage</b>	D4 Rated YG802C04 : 40 V 10 A  D5 Rated FMX-12S : 200 V 10 A	I/P:High-Line +3V =267 V O/P: (1)Full Load Turn on (2) Full Load Ta:25°C	(1) 37.8 V (2) 37.8 V  (1) 168 V (2) 171 V	P
3	<b>Input Capacitor Voltage</b>	C5 Rated RUBYCON : 150u / 400V 85°C	I/P:High-Line +3V =267 V O/P: (1)Full Load Turn on /Off (2) Min load Turn on /Off (3)Full Load /Min load Change Ta:25°C	(1) 376 V (2) 392 V (3) 392 V	P
4	<b>Control IC Voltage Test</b>	U 1 Rated TI3842 : 30 V	I/P:High-Line +3V =267V O/P: (1)Full Load Turn on /Off (2) Min load Turn on /Off (3)Full Load /Min load Change (4) Output Short Ta:25°C	(1) 16.3 V (2) 16.5 V (3) 12.4 V (4) 16.1 V	P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
1997/9/24	RD SAMPLE	PASS	GASPAR	MAX LIN
2004/8/12	PRODUCT SAMPLE CA45052710	PASS	VINCENT TSENG	MAX LIN

2003/12/12 A50-F023