

MODEL : PS-15-48

## OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 200 mVp-p (Max )	I/P: 230VAC O/P:FULL LOAD Ta:25°C	V1: 9 mVp-p (Max )	P
2	OUTPUT VOLTAGE TOLERANCE	V1: 2 %- -2 % (Max)	I/P: 100VAC / 264 VAC O/P:FULL/ MIN LOAD Ta:25°C	V1: 0.03 %- 0 %	P
3	LINE REGULATION	V1: 0.5 %- -0.5% (Max)	I/P: 100VAC ~ 264 VAC O/P:FULL LOAD Ta:25°C	V1: 0 %- -0.01 %	P
4	LOAD REGULATION	V1: 0.5 %- -0.5 % (Max)	I/P: 230 VAC O/P:FULL -MIN LOAD Ta:25°C	V1: 0.01 %- 0 %	P
5	SET UP TIME	230VAC: 1200 ms (Max)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 873 ms	P
6	RISE TIME	230VAC: 75 ms (Max)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 23 ms	P
7	HOLD UP TIME	230VAC: 100 ms (TYP)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 144 ms	P
8	OVER/UNDERSHOOT TEST	< ±5%	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	TEST: <5 %	P
9	DYNAMIC LOAD	V1: 4800 mVp-p	I/P: 230 VAC O/P:FULL /Min LOAD 90%DUTY/1KHZ Ta:25°C	80.8 mVp-p	P

## INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	85VAC~264 VAC	I/P:TESTING O/P:FULL LOAD Ta:25°C	42V~264V	P
			I/P: LOW-LINE-3V= 82 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: 85 VAC ~ 264 VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: OK	P
3	EFFICIENCY	77 % (TYP)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	79.9 %	P
4	INPUT CURRENT	230V/ 0.2 A (TYP) 115V/ 0.4 A (TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 0.14 A/ 230 VAC I = 0.31 A/ 115 VAC	P
5	INRUSH CURRENT	230V/ 40 A (TYP) COLD START	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	I = 33 A/ 230 VAC	P
6	LEAKAGE CURRENT	< 0.5 mA / 240 VAC	I/P: 254 VAC O/P:Min LOAD Ta:25°C	L-FG: 0.21 mA N-FG: 0.21 mA	P

## PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	Above 105%	I/P: 230 VAC I/P: 115 VAC O/P:TESTING Ta:25°C	208 %/ 230 VAC 141 %/ 115 VAC Hiccup Mode	P
2	OVER VOLTAGE PROTECTION	CH1: 55.2V~ 64.8 V	O/P:MIN LOAD Ta:25°C	59.7V / 0.05A Other	P
3	OVER TEMPERATURE PROTECTION	Tj 140°C typically (U1) Detect on main control IC	I/P: 230 VAC O/P:FULL LOAD	O.T.P. Active Hiccup Mode	P
4	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	SPECICATION	TEST CONDITION	RESULT	VERDICT																																																												
1	TEMPERATURE RISE TEST	MODEL : PS-15-24 1. ROOM AMBIENT BURN-IN : 1HRS I/P: 230VAC O/P: FULL LOAD Ta= 24.2°C 2. HIGH AMBIENT BURN-IN : 2 HRS I/P: 230VAC O/P: FULL LOAD Ta= 48.9°C																																																															
				<table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>P/N</th> <th>ROOM AMBIENT Ta= 24.2 °C</th> <th>HIGH AMBIENT Ta= 48.9°C</th> </tr> </thead> <tbody> <tr><td>1</td><td>D1</td><td>BVY26C 1A/600V</td><td>43.7°C</td><td>75.4°C</td></tr> <tr><td>2</td><td>U1</td><td>DM0625R</td><td>49.3°C</td><td>79.6°C</td></tr> <tr><td>3</td><td>ZD1</td><td>P6KE200</td><td>35.2°C</td><td>65.9°C</td></tr> <tr><td>4</td><td>C7</td><td>47U/50V CAPX 105°C GL</td><td>34.7°C</td><td>61.8°C</td></tr> <tr><td>5</td><td>LF1</td><td>TF-207</td><td>28.5°C</td><td>56.9°C</td></tr> <tr><td>6</td><td>C5</td><td>47U/400V CAPX 105°C</td><td>27.2°C</td><td>55.6°C</td></tr> <tr><td>7</td><td>BD1</td><td>KBJ208G 2A/800V LT</td><td>29.6°C</td><td>54.7°C</td></tr> <tr><td>8</td><td>D11</td><td>HER305 3A/400V</td><td>60.6°C</td><td>85.8°C</td></tr> <tr><td>9</td><td>C12</td><td>330U/35V CAPX 105°C GL</td><td>29.3°C</td><td>55.8°C</td></tr> <tr><td>10</td><td>R17</td><td>2.7KΩ/1W R/MO</td><td>46.8°C</td><td>70.3°C</td></tr> <tr><td>11</td><td>T1 COIL</td><td>TF-1013</td><td>36.8°C</td><td>71.5°C</td></tr> </tbody> </table>	NO	Position	P/N	ROOM AMBIENT Ta= 24.2 °C	HIGH AMBIENT Ta= 48.9°C	1	D1	BVY26C 1A/600V	43.7°C	75.4°C	2	U1	DM0625R	49.3°C	79.6°C	3	ZD1	P6KE200	35.2°C	65.9°C	4	C7	47U/50V CAPX 105°C GL	34.7°C	61.8°C	5	LF1	TF-207	28.5°C	56.9°C	6	C5	47U/400V CAPX 105°C	27.2°C	55.6°C	7	BD1	KBJ208G 2A/800V LT	29.6°C	54.7°C	8	D11	HER305 3A/400V	60.6°C	85.8°C	9	C12	330U/35V CAPX 105°C GL	29.3°C	55.8°C	10	R17	2.7KΩ/1W R/MO	46.8°C	70.3°C	11	T1 COIL	TF-1013	36.8°C	71.5°C	P
NO	Position	P/N	ROOM AMBIENT Ta= 24.2 °C	HIGH AMBIENT Ta= 48.9°C																																																													
1	D1	BVY26C 1A/600V	43.7°C	75.4°C																																																													
2	U1	DM0625R	49.3°C	79.6°C																																																													
3	ZD1	P6KE200	35.2°C	65.9°C																																																													
4	C7	47U/50V CAPX 105°C GL	34.7°C	61.8°C																																																													
5	LF1	TF-207	28.5°C	56.9°C																																																													
6	C5	47U/400V CAPX 105°C	27.2°C	55.6°C																																																													
7	BD1	KBJ208G 2A/800V LT	29.6°C	54.7°C																																																													
8	D11	HER305 3A/400V	60.6°C	85.8°C																																																													
9	C12	330U/35V CAPX 105°C GL	29.3°C	55.8°C																																																													
10	R17	2.7KΩ/1W R/MO	46.8°C	70.3°C																																																													
11	T1 COIL	TF-1013	36.8°C	71.5°C																																																													
2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR ( MIN )	I/P: 230 VAC O/P: 136 % LOAD Ta:25°C	TEST : OK	P																																																												
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P: 230 VAC O/P: 80% LOAD Ta= -10°C	TEST : OK	P																																																												
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:FULL LOAD Ta= 50 °C HUMIDITY= 95 %R.H	TEST : OK	P																																																												
5	TEMPERATURE COEFFICIENT	± 0.03 %(0-50°C)	I/P: 230 VAC O/P:FULL LOAD	± 0.01 %(0-50°C)	P																																																												
6	VIBRATION TEST	1 Carton & 1 Set (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	SPECICATION	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: 1.07 mA I/P-FG: 0.87 mA O/P-FG: 0.13 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: 30 GΩ I/P-FG: 30 GΩ O/P-FG: 7 GΩ NO DAMAGE	P

### E.M.C TEST

NO	TEST ITEM	SPECICATION	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

### M.T.B.F & LIFE CYCLE CALCULATION

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C12 IS THE MOST CRITICAL COMPONENT I/P: 230VAC O/P:FULL LOAD Ta= 25°C LIFE TIME= 657418 HRS I/P: 230VAC O/P:FULL LOAD Ta= 50°C LIFE TIME= 102578 HRS			P

### COMPONENT STRESS TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
2	Diode Peak Voltage	D11 Rated HER305 : 400 V 3A	I/P:High-Line +3V = 267 V O/P: (1)Full Load Turn on (2) Full Load (3)Output Short Ta:25°C	(1) 310 V (2) 318 V (3) 286 V	P
3	Clamp Diode Peak Voltage	D1 Rated BYC-26C : 600V 1A	I/P:High-Line +3V = 267 V O/P: (1)Full Load (2) Dynamic Load 90%Duty/1KHz Ta:25°C	(1) 448 V (2) 448 V	P
4	Input Capacitor Voltage	C5 Rated :47u / 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 (4)Burn in 1hour Ta:25°C	(1) 406 V (2) 384 V (3) 384 V (4) 392 V	P
5	Control IC Voltage Test	U1 Rated DM0625R : 20V	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) 13.2 V (2) 12.8 V (3) 13 V	P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2005/7/8	RD SAMPLE	PASS	VINCENT TSENG	MAX LIN

2003/12/12 A50-F023