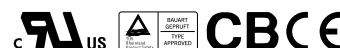


**125W Dual Output Switching Power Supply****RD-125 series****■ Features :**

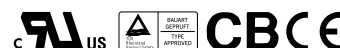
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- All using 105°C long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 70°C
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- 3 years warranty

**SPECIFICATION**

MODEL		RD-125A		RD-125B	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2
	DC VOLTAGE	5V	12V	5V	24V
	RATED CURRENT	7.7A	7.7A	4.6A	4.6A
	CURRENT RANGE Note.6	2 ~ 15A	0.5 ~ 10A	2 ~ 10A	0.4 ~ 5A
	RATED POWER Note.6	130.9W		133.4W	
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	80mVp-p	120mVp-p
	VOLTAGE ADJ. RANGE	CH1: 4.75 ~ 5.5V		CH1: 4.75 ~ 5.5V	
	VOLTAGE TOLERANCE Note.3	±5.0%	±7.0%	±5.0%	±7.0%
	LINE REGULATION Note.4	±1.0%	±2.0%	±1.0%	±2.0%
	LOAD REGULATION Note.5	±3.0%	±4.0%	±3.0%	±4.0%
	SETUP, RISE TIME	500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load			
	HOLD UP TIME (Typ.)	25ms/230VAC 30ms/115VAC at full load			
INPUT	VOLTAGE RANGE	88 ~ 132VAC / 176 ~ 264VAC selected by switch 248 ~ 373VDC(Withstand 300VAC surge for 5sec. Without damage)			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	82%		85%	
	AC CURRENT (Typ.)	3A/115VAC 2A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 40A/230VAC			
	LEAKAGE CURRENT	<2mA / 240VAC			
PROTECTION	OVERLOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed			
	OVER VOLTAGE	CH1: 5.75 ~ 6.75V Protection type : Hiccup mode, recovers automatically after fault condition is removed			
ENVIRONMENT	WORKING TEMP.	-25 ~ +70℃ (Refer to output load derating curve)			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃) on CH1 output			
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 7)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC			
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B			
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3			
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-6-2 (EN50082-2), heavy industry level, criteria A			
OTHERS	MTBF	232.4Khrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	199*98*38mm (L*W*H)			
	PACKING	0.7Kg; 20pcs/15Kg/0.8CUFT			
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 20% to 100% rated load, and other output at 60% rated load. 6. Each output can work within current range. But total output power can't exceed rated output power. 7. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 8. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time.				

**125W Dual Output Switching Power Supply****RD-125 series****■ Features :**

- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- All using 105°C long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 70°C
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- 3 years warranty

**SPECIFICATION**

MODEL		RD-125-1224		RD-125-1248		RD-125-2448	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2	CH1	CH2
	DC VOLTAGE	12V	24V	12V	48V	24V	48V
	RATED CURRENT	3.7A	3.7A	2.3A	2.3A	2A	2A
	CURRENT RANGE Note.6	1 ~ 7A	0.4 ~ 5A	1 ~ 7A	0.2 ~ 2.5A	0.5 ~ 4A	0.2 ~ 2.5A
	RATED POWER Note.6	133.2W		138W		144W	
	RIPPLE & NOISE (max.) Note.2	120mVp-p	200mVp-p	120mVp-p	240mVp-p	200mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	CH1: 11.4 ~ 13.2V		CH1: 11.4 ~ 13.2V		CH1: 22.8 ~ 26.4V	
	VOLTAGE TOLERANCE Note.3	±2.0%	+8,-5%	±2.0%	+8,-5%	±1.0%	±4.0%
	LINE REGULATION Note.4	±0.5%	±1.0%	±0.5%	±1.0%	±0.5%	±1.0%
	LOAD REGULATION Note.5	±1.0%	±5.0%	±1.0%	±5.0%	±1.0%	±3.0%
	SETUP, RISE TIME	500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load					
HOLD UP TIME (Typ.)	25ms/230VAC 30ms/115VAC at full load						
INPUT	VOLTAGE RANGE	88 ~ 132VAC / 176 ~ 264VAC selected by switch 248 ~ 373VDC(Withstand 300VAC surge for 5sec. Without damage)					
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY (Typ.)	85%		86%		86%	
	AC CURRENT (Typ.)	3A/115VAC 2A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 40A/230VAC					
	LEAKAGE CURRENT	<2mA / 240VAC					
PROTECTION	OVERLOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	CH1: 13.8 ~ 16.2V		CH1: 13.8 ~ 16.2V		CH1: 27.6 ~ 32.4V	
		Protection type : Hiccup mode, recovers automatically after fault condition is removed					
ENVIRONMENT	WORKING TEMP.	-25 ~ +70℃ (Refer to output load derating curve)					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃) on CH1 output					
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes					
SAFETY & EMC (Note 7)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved					
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC					
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC					
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B					
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3					
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-6-2 (EN50082-2), heavy industry level, criteria A					
OTHERS	MTBF	218.2Khrs min. MIL-HDBK-217F (25℃)					
	DIMENSION	199*98*38mm (L*W*H)					
	PACKING	0.7Kg; 20pcs/15Kg/0.8CUFT					
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 20% to 100% rated load, and other output at 60% rated load. 6. Each output can work within current range. But total output power can't exceed rated output power. 7. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 8. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time.						



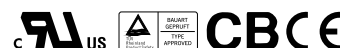
125W Dual Output Switching Power Supply

RD-125 series



■ Features :

- Protections: Short circuit/Overload/Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- All using 105°C long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 70°C
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- 3 years warranty

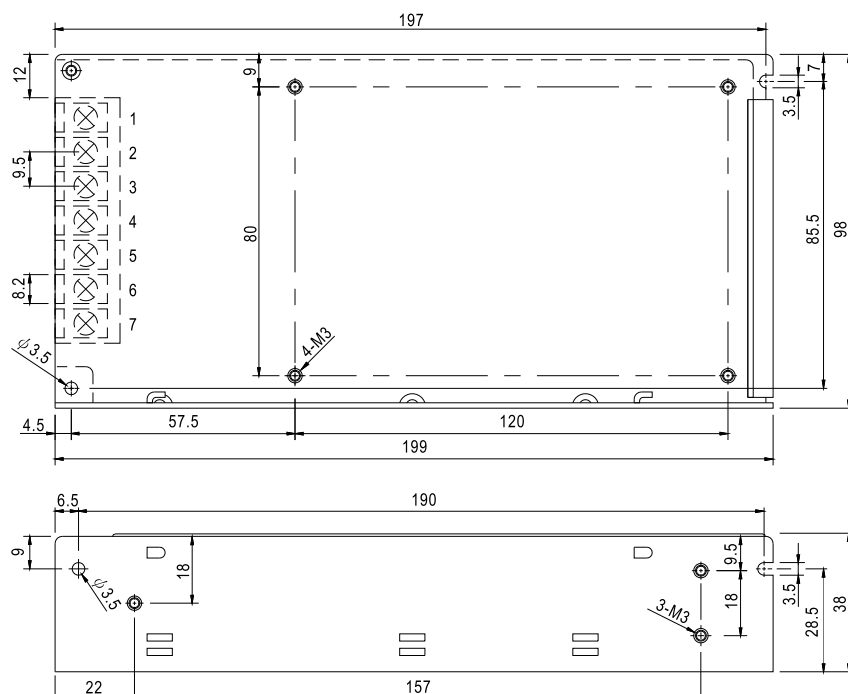


SPECIFICATION

MODEL		RD-125-2412		RD-125-4812		RD-125-4824	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2	CH1	CH2
	DC VOLTAGE	24V	12V	48V	12V	48V	24V
	RATED CURRENT	3.7A	3.7A	2.3A	2.3A	2A	2A
	CURRENT RANGE Note.6	0.5 ~ 5A	1 ~ 7A	0.3 ~ 2.5A	1 ~ 7A	0.3 ~ 2.5A	0.5 ~ 4A
	RATED POWER Note.6	133.2W		138W		144W	
	RIPPLE & NOISE (max.) Note.2	200mVp-p	120mVp-p	240mVp-p	120mVp-p	240mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	CH1: 22.8 ~ 26.4V		CH1: 45.6 ~ 52.8V		CH1: 45.6 ~ 52.8V	
	VOLTAGE TOLERANCE Note.3	±2.0%	±10%	±2.0%	±10%	±1.0%	±8.0%
	LINE REGULATION Note.4	±0.5%	±1.0%	±0.5%	±1.0%	±0.5%	±1.0%
	LOAD REGULATION Note.5	±1.0%	±5.0%	±1.0%	±5.0%	±1.0%	±5.0%
	SETUP, RISE TIME	500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load					
HOLD UP TIME (Typ.)	25ms/230VAC 30ms/115VAC at full load						
INPUT	VOLTAGE RANGE	88 ~ 132VAC / 176 ~ 264VAC selected by switch 248 ~ 373VDC(Withstand 300VAC surge for 5sec. Without damage)					
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY (Typ.)	85%		86%		86%	
	AC CURRENT (Typ.)	3A/115VAC 2A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 40A/230VAC					
	LEAKAGE CURRENT	<2mA / 240VAC					
PROTECTION	OVERLOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	CH1: 27.6 ~ 32.4V		CH1: 55.2 ~ 64.8V		CH1: 55.2 ~ 64.8V	
		Protection type : Hiccup mode, recovers automatically after fault condition is removed					
ENVIRONMENT	WORKING TEMP.	-25 ~ +70℃ (Refer to output load derating curve)					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃) on CH1 output					
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes					
SAFETY & EMC (Note 7)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved					
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC					
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC					
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B					
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3					
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-6-2 (EN50082-2), heavy industry level, criteria A					
OTHERS	MTBF	232.4Khrs min. MIL-HDBK-217F (25℃)					
	DIMENSION	199*98*38mm (L*W*H)					
	PACKING	0.7Kg; 20pcs/15Kg/0.8CUFT					
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 20% to 100% rated load, and other output at 60% rated load. 6. Each output can work within current range. But total output power can't exceed rated output power. 7. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 8. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time.						

■ Mechanical Specification

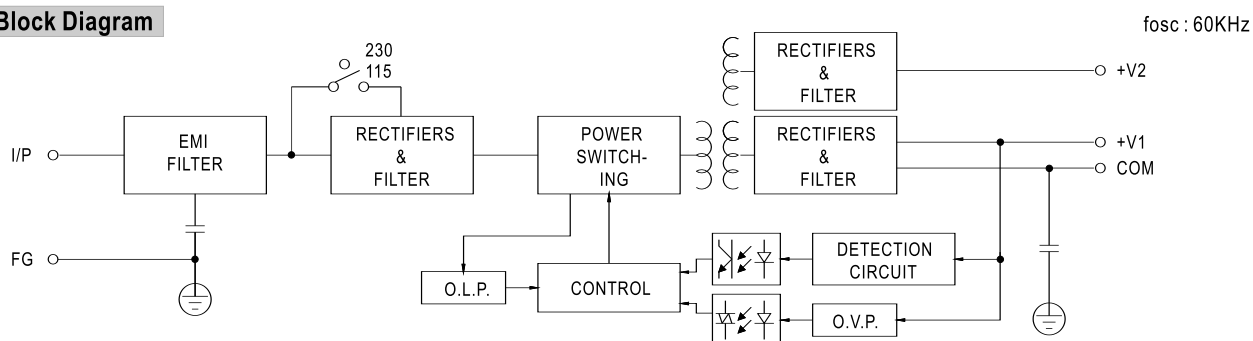
Case No. 902A Unit:mm



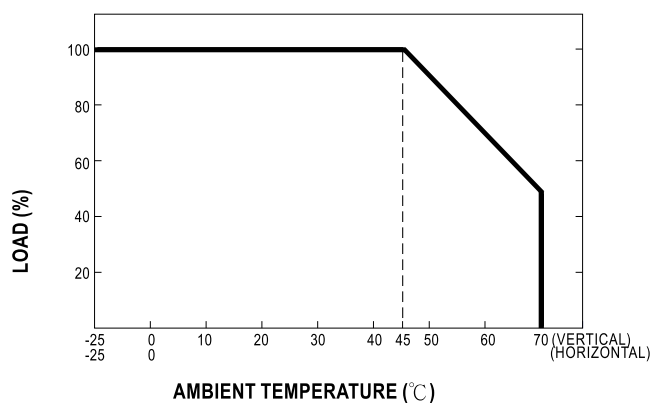
Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,6	DC OUTPUT COM
2	AC/N	5	DC OUTPUT +V2
3	EG $\perp$	7	DC OUTPUT +V1

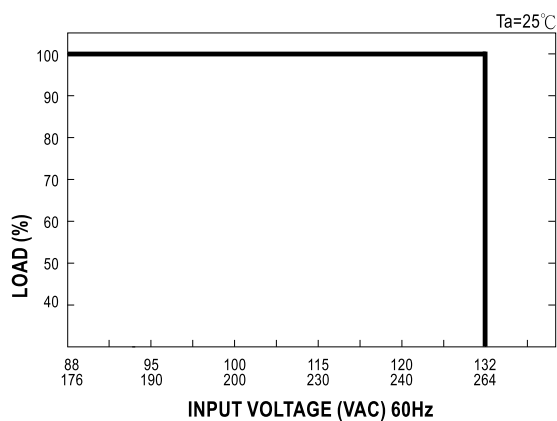
■ Block Diagram



Derating Curve



■ Static Characteristics



MODEL : RD-125-2448

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 200 mVp-p (Max) V2: 240 mVp-p (Max)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	V1: 16 mVp-p (Max) V2: 17 mVp-p (Max)	P
2	OUTPUT VOLTAGE ADJUST RANGE	CH1: 22.8 V~ 26.4 V	I/P: 230 VAC I/P: 115 VAC O/P:MIN LOAD Ta:25°C	21.73V~ 27.67 V/ 230VAC 21.73V~ 27.67 V/115VAC	P
3	OUTPUT VOLTAGE TOLERANCE	V1: 1 %~ -1 % (Max) V2: 4 %~ -4 % (Max)	I/P: 176 VAC / 264 VAC O/P:FULL/ MIN 40 % LOAD Ta:25°C	V1: 0.03 %~ -0.03 % V2: 2.1 %~ -2.1 %	P
4	LINE REGULATION	V1: 0.5%~ -0.5 % (Max) V2: 1%~ -1 % (Max)	I/P: 176 VAC ~ 264 VAC O/P:FULL LOAD Ta:25°C	V1: 0.03 %~ -0.03 % V2: 0.03 %~ -0.03 %	P
5	LOAD REGULATION	V1: 1 %~ -1 % (Max) V2: 3 %~ -3 % (Max)	I/P: 230 VAC O/P:FULL ~MIN LOAD Ta:25°C	V1: 0.03 %~ -0.03 % V2: 0.4 %~ -0.4 %	P
6	CROSS REGULATION	V1: 1 %~ -1 % (Max) V2: 3 %~ -3 % (Max)	I/P: 230 VAC O/P: Testing O/P 60%LOAD Other O/P 40%LOAD Change Ta:25°C	V1: 0 %~ 0 % V2: 0.9 %~ -0.9 %	P
7	SET UP TIME	230 VAC/ 500 ms (Max) 115 VAC/ 1200 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230 VAC/ 204 ms 115 VAC/ 204 ms	P
8	RISE TIME	230 VAC/ 20 ms (Max) 115 VAC/ 30 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230 VAC/ 12 ms 115 VAC/ 12 ms	P
9	HOLD UP TIME	230 VAC/ 30 ms(TYP) 115 VAC/ 22 ms (TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230 VAC/ 37 ms 115 VAC/ 34 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: 2400 mVp-p	I/P: 230 VAC O/P:FULL /Min LOAD 90%DUTY/1KHZ Ta:25°C	225 mVp-p	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	176VAC~264 VAC	I/P: TESTING O/P: FULL LOAD Ta: 25°C	100 V ~ 264 V	P
			I/P: LOW-LINE-3V= 173 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: 176 VAC ~ 264 VAC O/P: FULL-MIN LOAD Ta: 25°C	TEST: OK	P
3	EFFICIENCY	86 % (TYP)	I/P: 230 VAC O/P: FULL LOAD Ta: 25°C	87.2 %	P
4	INPUT CURRENT	230 V/ 2 A (TYP) 115 V/ 3 A (TYP)	I/P: 230 VAC I/P: 115 VAC O/P: FULL LOAD Ta: 25°C	I = 1.4 A/ 230 VAC I = 2.5 A/ 115 VAC	P
5	INRUSH CURRENT	230 V/ 50 A (TYP) COLD START	I/P: 230 VAC O/P: FULL LOAD Ta: 25°C	I = 46 A/ 230 VAC	P
6	LEAKAGE CURRENT	< 2 mA/240 VAC	I/P: 254 VAC O/P: Min LOAD Ta: 25°C	L-FG: 0.5 mA N-FG: 0.5 mA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	110 %~ 150 %	I/P: 230VAC I/P: 115VAC O/P: TESTING Ta: 25°C	121 %/ 230VAC 121 %/ 115VAC Hiccup Mode	P
2	OVER VOLTAGE PROTECTION	CH1: 27.6 V~ 32.4 V	I/P: 230VAC I/P: 115VAC O/P: MIN LOAD Ta: 25°C	31.4 V/ 230 VAC 31.4 V/ 115VAC Hiccup Model	P
3	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P: 264VAC 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 : RD-125-1248 1. ROOM AMBIENT BURN-IN : 1.5 HRS I/P: 230 VAC O/P: Full LOAD Ta= 29 °C 2. HIGH AMBIENT BURN-IN : 4 HRS I/P: 230 VAC O/P: Full LOAD Ta= 49.2 °C <table><tr><th>NO</th><th>Position</th><th>P/N</th><th>ROOM AMBIENT Ta= °C</th><th>HIGH AMBIENT Ta= °C</th></tr><tr><td>1</td><td>LF1</td><td>LF-058</td><td>51.1°C</td><td>69.2°C</td></tr><tr><td>2</td><td>BD1</td><td>RS606M 6A/800V REC</td><td>74.2°C</td><td>91.1°C</td></tr><tr><td>3</td><td>D1</td><td>UF2007 1KV/2A DII</td><td>77.7°C</td><td>95.4°C</td></tr><tr><td>4</td><td>R2</td><td>150K/2W R/MO</td><td>86.1°C</td><td>101.9°C</td></tr><tr><td>5</td><td>C6</td><td>330U/200V RUB 105°C</td><td>63.0°C</td><td>80.9°C</td></tr><tr><td>6</td><td>ZD1</td><td>P6KE300A PAN</td><td>74.9°C</td><td>92.4°C</td></tr><tr><td>7</td><td>Q1</td><td>2SK2082 9A/800V FUJI</td><td>76.7°C</td><td>93.8°C</td></tr><tr><td>8</td><td>U1</td><td>1203 ON</td><td>71.2°C</td><td>88.9°C</td></tr><tr><td>9</td><td>T1 COIL</td><td>TF-1144 LS</td><td>77.5°C</td><td>94.1°C</td></tr><tr><td>10</td><td>C10</td><td>100U/35V RUB 105°C YXF</td><td>63.3°C</td><td>80.4°C</td></tr><tr><td>11</td><td>D60</td><td>FMX12S 200V/10A</td><td>74.2°C</td><td>91.5°C</td></tr><tr><td>12</td><td>D55</td><td>FCF10A40 10A/400V N</td><td>75.9°C</td><td>97.3°C</td></tr><tr><td>13</td><td>C58</td><td>220U/63V RUB 105°C YXF</td><td>61.3°C</td><td>77.9°C</td></tr><tr><td>14</td><td>L60</td><td>TR-496</td><td>86.1°C</td><td>102.5°C</td></tr><tr><td>15</td><td>C62</td><td>470U/16V NCC 105°C KY</td><td>62.7°C</td><td>79.5°C</td></tr></table>			NO	Position	P/N	ROOM AMBIENT Ta= °C	HIGH AMBIENT Ta= °C	1	LF1	LF-058	51.1°C	69.2°C	2	BD1	RS606M 6A/800V REC	74.2°C	91.1°C	3	D1	UF2007 1KV/2A DII	77.7°C	95.4°C	4	R2	150K/2W R/MO	86.1°C	101.9°C	5	C6	330U/200V RUB 105°C	63.0°C	80.9°C	6	ZD1	P6KE300A PAN	74.9°C	92.4°C	7	Q1	2SK2082 9A/800V FUJI	76.7°C	93.8°C	8	U1	1203 ON	71.2°C	88.9°C	9	T1 COIL	TF-1144 LS	77.5°C	94.1°C	10	C10	100U/35V RUB 105°C YXF	63.3°C	80.4°C	11	D60	FMX12S 200V/10A	74.2°C	91.5°C	12	D55	FCF10A40 10A/400V N	75.9°C	97.3°C	13	C58	220U/63V RUB 105°C YXF	61.3°C	77.9°C	14	L60	TR-496	86.1°C	102.5°C	15	C62	470U/16V NCC 105°C KY	62.7°C	79.5°C	P
NO	Position	P/N	ROOM AMBIENT Ta= °C	HIGH AMBIENT Ta= °C																																																																																	
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2	BD1	RS606M 6A/800V REC	74.2°C	91.1°C																																																																																	
3	D1	UF2007 1KV/2A DII	77.7°C	95.4°C																																																																																	
4	R2	150K/2W R/MO	86.1°C	101.9°C																																																																																	
5	C6	330U/200V RUB 105°C	63.0°C	80.9°C																																																																																	
6	ZD1	P6KE300A PAN	74.9°C	92.4°C																																																																																	
7	Q1	2SK2082 9A/800V FUJI	76.7°C	93.8°C																																																																																	
8	U1	1203 ON	71.2°C	88.9°C																																																																																	
9	T1 COIL	TF-1144 LS	77.5°C	94.1°C																																																																																	
10	C10	100U/35V RUB 105°C YXF	63.3°C	80.4°C																																																																																	
11	D60	FMX12S 200V/10A	74.2°C	91.5°C																																																																																	
12	D55	FCF10A40 10A/400V N	75.9°C	97.3°C																																																																																	
13	C58	220U/63V RUB 105°C YXF	61.3°C	77.9°C																																																																																	
14	L60	TR-496	86.1°C	102.5°C																																																																																	
15	C62	470U/16V NCC 105°C KY	62.7°C	79.5°C																																																																																	
2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P: 230 VAC O/P: 122% 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= -20 °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 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:5G (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: 6.17 mA I/P-FG: 5.48 mA O/P-FG: 4.02 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: 6 G Ω I/P-FG: 3 G Ω O/P-FG: 6 G Ω NO DAMAGE	P
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40 A / 2min Ta:25°C	8 mΩ	P
4	APPROVAL	TUV: Certificate NO : R50046942 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 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 INDUSTRY INPUT: 2KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
6	SURGE	IEC61000-4-5 INDUSTRY L-N :2KV L,N-PE:4KV	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 C62 IS THE MOST CRITICAL COMPONENT I/P: 230 VAC O/P: FULL LOAD Ta= 25 °C LIFE TIME= 212490 HRS I/P: 230 VAC O/P: FULL LOAD Ta= 50 °C LIFE TIME= 47544 HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 218.2 K HRS			P

COMPONENT STRESS TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	Power Transistor (D to S) or (C to E) Peak Voltage	Q 1 Rated 2SK2082: 900 V 9 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) 440 V (2) 546 V (3) 652 V	P
2	Diode Peak Voltage	D 60 Rated BYQ28X-200 : 200 V 10 A D 55 Rated F10LC40 : 400 V 10 A	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 Ta: 25°C	(1) 143 V (2) 132 V (3) 141 V (1) 272 V (2) 253 V (3) 283 V	P
3	Clamp Diode Peak Voltage	D 1 Rated HER208: 1K V 2 A	I/P: High-Line +3V = 267V O/P: (1) Full Load (2) Dynamic Load 90%Duty/1KHz Ta: 25°C	(1) 544 V (2) 550 V	P
4	Input Capacitor Voltage	C 6 Rated RUBYCON: 330 u / 200V 105°C	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 Ta: 25°C	(1) 187 V (2) 187 V (3) 184 V	P
5	Control IC Voltage Test	U 1 Rated 1203 : 16 V	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) 12.6 V (2) 12.6 V (3) 9.64 V	P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2004/6/7	RD SAMPLE	PASS	VINCENT TSENG	MAX LIN
2004/8/2	PRODUCT SAMPLE A406D21	PASS	VINCENT TSENG	MAX LIN
2004/10/14	PRODUCT SAMPLE W0409C14	PASS	VINCENT TSENG	MAX LIN

2003/12/12 A50-F023