MODEL：RD-125-2412

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 200 mVp-p (Max) V2: 120 mVp-p (Max)	I/P: 230 VAC O/P:FULL LOAD Ta:25℃	V1: 16 mVp-p (Max) V2: 14 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℃	21.96V~ 27.61 V/ 230VAC 21.96V~ 27.61 V/115VAC	P
3	OUTPUT VOLTAGE TOLERANCE	V1: 2%~ -2 % (Max) V2: 10 %~ -10 % (Max)	I/P: 176 VAC / 264 VAC O/P:FULL/ MIN 40 % LOAD Ta:25℃	V1: 0.03 %~ -0.03 % V2: 3.3 %~ -3.3 %	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℃	V1: 0 %~ 0 % V2: 0.1 %~ -0.1 %	P
5	LOAD REGULATION	V1: 1 %~ -1 % (Max) V2: 5 %~ -5 % (Max)	I/P: 230 VAC O/P:FULL ~MIN LOAD Ta:25℃	V1: 0.03 %~ -0.03 % V2: 0.5 %~ -0.5 %	P
6	CROSS REGULATION	V1: 1 %~ -1 % (Max) V2: 5 %~ -5 % (Max)	I/P: 230 VAC O/P: Testing O/P 60%LOAD Other O/P 40%LOAD Change Ta:25℃	V1: 0 %~ 0 % V2: 1.2 %~ -1.2 %	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℃	230 VAC/ 191 ms 115 VAC/ 191 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℃	230 VAC/ 5 ms 115 VAC/ 5 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℃	230 VAC/ 41 ms 115 VAC/ 37 ms	P
10	OVER/UNDERSHOOT TEST	< ±5%	I/P: 230 VAC O/P:FULL LOAD Ta:25℃	TEST: < 5 %	P
11	DYNAMIC LOAD	V1: 2400 mVp-p	I/P: 230 VAC O/P:FULL /Min LOAD 90%DUTY/1KHZ Ta:25℃	1701 mVp-p	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	176VAC~264 VAC	I/P:TESTING O/P:FULL LOAD Ta:25℃	95 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℃	TEST: OK	P
3	EFFICIENCY	85 % (TYP)	I/P: 230 VAC O/P:FULL LOAD Ta:25℃	85.6 %	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℃	I = 1.4 A/ 230 VAC I = 2.4 A/ 115 VAC	P
5	INRUSH CURRENT	230 V/ 50 A (TYP) COLD START	I/P: 230 VAC O/P:FULL LOAD Ta:25℃	I = 37 A/ 230 VAC	P
6	LEAKAGE CURRENT	< 2 mA /240 VAC	I/P: 254 VAC O/P:Min LOAD Ta:25℃	L-FG: 0.5 mA N-FG: 0.5 mA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	110 %~ 150 %	I/P: 230VAC I/P: 115VAC O/P:TESTING Ta:25℃	119 %/ 230VAC 119 %/ 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℃	31.1 V/ 230 VAC 31.1 V/ 115VAC Hiccup Model	P
3	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P: 264VAC O/P: Full LOAD Ta:25℃	NO DAMAGE Hiccup Mode	P

ENVIRONMENT TEST

<table>
<tr><th>NO</th><th>TEST ITEM</th><th>SPECICATION</th><th>TEST CONDITION</th><th>RESULT</th><th>VERDICT</th></tr>
<tr><td>1</td><td>TEMPERATURE RISE TEST</td><td colspan="3">MODEL：RD-125-1248
1. ROOM AMBIENT BURN-IN： 1.5 HRS
I/P: 230 VAC O/P: Full LOAD Ta= 29 ℃
2. HIGH AMBIENT BURN-IN： 4 HRS
I/P: 230 VAC O/P: Full LOAD Ta= 49.2 ℃

<table>
<tr><th>NO</th><th>Position</th><th>P/N</th><th>ROOM AMBIENT Ta= ℃</th><th>HIGH AMBIENT Ta= ℃</th></tr>
<tr><td>1</td><td>LF1</td><td>LF-058</td><td>51.1℃</td><td>69.2℃</td></tr>
<tr><td>2</td><td>BD1</td><td>RS606M 6A/800V REC</td><td>74.2℃</td><td>91.1℃</td></tr>
<tr><td>3</td><td>D1</td><td>UF2007 1KV/2A DII</td><td>77.7℃</td><td>95.4℃</td></tr>
<tr><td>4</td><td>R2</td><td>150K/2W R/MO</td><td>86.1℃</td><td>101.9℃</td></tr>
<tr><td>5</td><td>C6</td><td>330U/200V RUB 105℃</td><td>63.0℃</td><td>80.9℃</td></tr>
<tr><td>6</td><td>ZD1</td><td>P6KE300A PAN</td><td>74.9℃</td><td>92.4℃</td></tr>
<tr><td>7</td><td>Q1</td><td>2SK2082 9A/800V FUJI</td><td>76.7℃</td><td>93.8℃</td></tr>
<tr><td>8</td><td>U1</td><td>1203 ON</td><td>71.2℃</td><td>88.9℃</td></tr>
<tr><td>9</td><td>T1 COIL</td><td>TF-1144 LS</td><td>77.5℃</td><td>94.1℃</td></tr>
<tr><td>10</td><td>C10</td><td>100U/35V RUB 105℃ YXF</td><td>63.3℃</td><td>80.4℃</td></tr>
<tr><td>11</td><td>D60</td><td>FMX12S 200V/10A</td><td>74.2℃</td><td>91.5℃</td></tr>
<tr><td>12</td><td>D55</td><td>FCF10A40 10A/400V N</td><td>75.9℃</td><td>97.3℃</td></tr>
<tr><td>13</td><td>C58</td><td>220U/63V RUB 105℃ YXF</td><td>61.3℃</td><td>77.9℃</td></tr>
<tr><td>14</td><td>L60</td><td>TR-496</td><td>86.1℃</td><td>102.5℃</td></tr>
<tr><td>15</td><td>C62</td><td>470U/16V NCC 105℃ KY</td><td>62.7℃</td><td>79.5℃</td></tr>
</table></td><td>P</td></tr>
<tr><td>2</td><td>OVER LOAD BURN-IN TEST</td><td>NO DAMAGE
1 HOUR (MIN)</td><td>I/P: 230 VAC
O/P: 122% LOAD
Ta:25℃</td><td>TEST： OK</td><td>P</td></tr>
<tr><td>3</td><td>LOW TEMPERATURE
TURN ON TEST</td><td>TURN ON AFTER 2 HOUR</td><td>I/P: 230 VAC
O/P: 100 % LOAD
Ta= -20 ℃</td><td>TEST： OK</td><td>P</td></tr>
<tr><td>4</td><td>HIGH HUMIDITY
HIGH TEMPERATURE
HIGH VOLTAGE
TURN ON TEST</td><td>AFTER 12 HOURS
IN CHAMBER ON
CONTROL 50 ℃
NO DAMAGE</td><td>I/P: 272 VAC
O/P:FULL LOAD
Ta= 50 ℃
HUMIDITY= 95 %R.H</td><td>TEST： OK</td><td>P</td></tr>
<tr><td>5</td><td>TEMPERATURE
COEFFICIENT</td><td>± 0.03 %(0~50℃)</td><td>I/P:230 VAC
O/P:FULL LOAD</td><td>± 0.01 %(0~50℃)</td><td>P</td></tr>
<tr><td>6</td><td>VIBRATION TEST</td><td colspan="2">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℃</td><td>TEST： OK</td><td>P</td></tr>
</table>

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℃	I/P-O/P: 5.33 mA I/P-FG: 4.48 mA O/P-FG: 3.1 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℃	I/P-O/P: 4G Ω I/P-FG: 3G Ω O/P-FG: 6G Ω NO DAMAGE	P
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40 A / 2min Ta:25℃	8 mΩ	P
4	APPROVAL	TUV: Certificate NO ：R50046942 UL: File NO ：E183223			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℃	PASS	P
2	CONDUCTION	EN55022 CLASS B	I/P: 230 VAC (50HZ) O/P:FULL/50% LOAD Ta:25℃	PASS Test by certified Lab	P
3	RADIATION	EN55022 CLASS B	I/P: 230 VAC (50HZ) O/P:FULL LOAD Ta:25℃	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℃	CRITERIA A	P
5	E.F.T	EN61000-4-4 INDUSTRY INPUT: 2KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25℃	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℃	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 ℃ LIFE TIME= 212490 HRS I/P: 230 VAC O/P:FULL LOAD Ta= 50 ℃ LIFE TIME= 47544 HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 218.2 K HRS			P

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

2003/12/12 A50-F023