

MODEL : DRP-480S-48

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 120 mVp-p (Max)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	V1: 13 mVp-p (Max)	P
2	OUTPUT VOLTAGE ADJUST RANGE	CH1: 48 ~ 55	I/P: 230 VAC I/P: 115 VAC O/P:MIN LOAD Ta:25°C	29.75V~56.28 V/230 VAC 29.75V~56.28 V/115 VAC	P
3	OUTPUT VOLTAGE TOLERANCE	V1: 1 %~ -1 % (Max)	I/P: 190 VAC / 264 VAC O/P:FULL/ MIN 0 % LOAD Ta:25°C	V1: 0.06 %~ -0.06 %	P
4	LINE REGULATION	V1: 0.5 %~ -0.5 % (Max)	I/P: 190 VAC ~ 264 VAC O/P:FULL LOAD Ta:25°C	V1: 0.02 %~ -0.02 %	P
5	LOAD REGULATION	V1: 1 %~ -1 % (Max)	I/P:230 VAC O/P:FULL ~MIN LOAD Ta:25°C	V1: 0.03 %~ -0.03 %	P
6	SET UP TIME	230 VAC/ 1200 ms (Max) 115 VAC/ 1200 ms (Max)	I/P:230 VAC I/P:115 VAC O/P:FULL LOAD Ta:25°C	230 VAC/ 1020 ms 115 VAC/ 337 ms	P
7	RISE TIME	230 VAC/ 40 ms (Max) 115 VAC/ 40 ms (Max)	I/P:230 VAC I/P:115 VAC O/P:FULL LOAD Ta:25°C	230 VAC/ 20 ms 115 VAC/ 20 ms	P
8	HOLD UP TIME	230VAC/ 20 ms (Min) 115VAC/ 20 ms (Min)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230 VAC/ 28 ms 115 VAC/ 31 ms	P
9	OVER/UNDERSHOOT TEST	< ±5%	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	TEST: < 5 %	P
10	DYNAMIC LOAD	V1: 4800 mVp-p	I/P: 230 VAC O/P:FULL /Min LOAD 90%DUTY/1KHZ Ta:25°C	792 mVp-p	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	180VAC~264 VAC	I/P:TESTING O/P:FULL LOAD Ta:25°C	159 V~ 264 V	P
			I/P: LOW-LINE-3V= 177 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: 190 VAC ~ 264 VAC O/P:FULL-MIN LOAD Ta:25°C	TEST: OK	P
3	POWER FACTOR	0.7/ 230 VAC (Min)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	PF=0.78 / 230 VAC	P
4	EFFICIENCY	89 % (TYP)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	90.3 %	P
5	INPUT CURRENT	230 V/ 4 A (Max) 115 V/ 11 A (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 3.1 A/ 230 VAC I = 8 A/ 115 VAC	P
6	INRUSH CURRENT	230 V/ 50 A (Max) 115 V/ 30 A (Max) COLD START	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 37 A/ 23 VAC I = 20 A/ 115 VAC	P
7	LEAKAGE CURRENT	< 3.5 mA / 240 VAC	I/P: 254 VAC O/P:Min LOAD Ta:25°C	L-FG: 0.32 mA N-FG: 0.45 mA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	105 %~ 150 %	I/P: 230 VAC I/P: 115 VAC O/P: TESTING Ta:25°C	138%/ 230 VAC 138%/ 115 VAC Constant Current Limiting	P
2	OVER VOLTAGE PROTECTION	CH1: 59 V~ 66 V	I/P: 230 VAC I/P: 115 VAC O/P: MIN LOAD Ta:25°C	63.4V/ 230 VAC 63.4V/ 115 VAC Shunt down Re- power ON	P
3	OVER TEMPERATURE PROTECTION	SPEC: 100°C±5°C O.T.P. NO DAMAGE	I/P: 230 VAC O/P: FULL LOAD	O.T.P. Active Shut down o/p voltage · recovers automatically after temperature goes down	P
4	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P: 264 VAC O/P: Full LOAD Ta:25°C	NO DAMAGE Constant Current Limiting	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: 6.81 mA I/P-FG: 6.35 mA O/P-FG: 4.23 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: 5GΩ I/P-FG: 7GΩ O/P-FG: 14G Ω NO DAMAGE	P
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	30 A / 2min Ta:25°C	4 mΩ	P
4	APPROVAL	TUV: Certificate NO : UL: File NO :			N/A

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
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 C 53 IS THE MOST CRITICAL COMPONENT I/P: 230 VAC O/P:FULL LOAD Ta=25 °C LIFE TIME= 265486 HRS I/P:230 VAC O/P:FULL LOAD Ta=50 °C LIFE TIME= 44061 HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 187.9K 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 24N50 : 500 V 24 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) 254 V (2) 368 V (3) 488 V	P
2	Diode Peak Voltage	D 54 Rated PA905 : 600 V 20 D 51 Rated SF202C : 300 V 20 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) 286 V (2) 386 V (3) 342 V (1) 89 V (2) 166 V (3) 187 V	P
3	Input Capacitor Voltage	C 5 Rated Rubycon : 1000u / 200 V 105 °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) 195 V (2) 143 V (3) 153 V	P
4	Control IC Voltage Test	U 1 Rated 2842 : 30 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) 23.4 V (2) 23.5 V (3) 24.8 V	P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2004/2/6	RD SAMPLE	PASS	VINCENT TSENG	MAX LIN
2004/3/12	PRODUCT SAMPLE A402A02	PASS	VINCENT TSENG	MAX LIN
2004/5/6	PRODUCT SAMPLE A404B38	PASS	VINCENT TSENG	MAX LIN

2003/12/12 A50-F023