

MODEL : DRT-480-48

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 80 mVp-p (Max)	I/P: 400 VAC O/P:FULL LOAD Ta:25°C	V1: 24 mVp-p (Max)	P
2	OUTPUT VOLTAGE ADJUST RANGE	CH1: 48V ~ 55V	I/P: 400 VAC O/P:MIN LOAD Ta:25°C	39.5V~ 56.49 V/400VAC	P
3	OUTPUT VOLTAGE TOLERANCE	V1: -1 %~ 1 % (Max)	I/P: 340 VAC / 550 VAC O/P:FULL/ MIN LOAD Ta:25°C	V1: 0.1 %~ -0.1 %	P
4	LINE REGULATION	V1: -0.5 %~ 0.5 % (Max)	I/P: 340 VAC ~ 550 VAC O/P:FULL LOAD Ta:25°C	V1: 0.05 %~ -0.05 %	P
5	LOAD REGULATION	V1: -0.5 %~ 0.5 % (Max)	I/P: 400 VAC O/P:FULL ~MIN LOAD Ta:25°C	V1: 0.1 %~ -0.1 %	P
6	SET UP TIME	400 VAC/ 1200 ms (Max) 500 VAC/ 800 ms (Max)	I/P: 400 VAC I/P: 500 VAC O/P:FULL LOAD Ta:25°C	400 VAC/ 800 ms 500 VAC/ 750 ms	P
7	RISE TIME	400 VAC/ 40 ms (Max) 500 VAC/ 40 ms (Max)	I/P: 400 VAC I/P: 500 VAC O/P:FULL LOAD Ta:25°C	400 VAC/ 27 ms 500 VAC/ 27 ms	P
8	HOLD UP TIME	400 VAC/ 16 ms (TYP) 500 VAC/ 35 ms(TYP)	I/P: 400 VAC I/P: 500 VAC O/P:FULL LOAD Ta:25°C	400 VAC/ 21 ms 500 VAC/ 42 ms	P
9	OVER/UNDERSHOOT TEST	< ±5%	I/P: 400 VAC O/P:FULL LOAD Ta:25°C	TEST: < 5 %	P
10	DYNAMIC LOAD	V1: 4800 mVp-p	I/P: 400 VAC O/P:FULL /Min LOAD 90%DUTY/1KHZ Ta:25°C	704 mVp-p	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	340VAC~ 550 VAC	I/P:TESTING O/P:FULL LOAD Ta:25°C	280 V~550V	P
			I/P: LOW-LINE-3V= 337 V HIGH-LINE+15%= 600 V O/P:FULL/MIN LOAD ON: 30 Sec . OFF: 30 Sec 10MIN (AC POWER ON/OFF NO DAMAGE)	TEST: OK	
2	EFFICIENCY	90 % (TYP)	I/P: 400 VAC O/P:FULL LOAD Ta:25°C	90.7 %	P
3	INPUT CURRENT	400 V/ 1.7 A (TYP) 500 V/ 1.3 A (TYP)	I/P: 400 VAC I/P: 500 VAC O/P:FULL LOAD Ta:25°C	I = 0.9 A/ 400 VAC I = 0.7 A/ 500 VAC	P
4	INRUSH CURRENT	400 V/ 50 A (TYP) COLD START	I/P: 400 VAC O/P:FULL LOAD Ta:25°C	I = 23 A/ 400 VAC	P
5	LEAKAGE CURRENT	< 3.5 mA / 530 VAC	I/P: 562 VAC O/P:Min LOAD Ta:25°C	L1-FG: 0.5 mA L2-FG: 0.5 mA L3-FG: 0.5 mA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	105 %~ 150 %	I/P: 400 VAC I/P: 500 VAC O/P: TESTING Ta: 25°C	116 %/ 400 VAC 115 %/ 500 VAC Constant Current Limiting	P
2	OVER VOLTAGE PROTECTION	CH1: 59 V~ 66 V	I/P: 400 VAC I/P: 500 VAC O/P: MIN LOAD Ta: 25°C	62.5 V/ 400 VAC 62.5 V/ 500 VAC Shunt down Re- power ON	P
3	OVER TEMPERATURE PROTECTION	SPEC: 110±5 °C O.T.P. NO DAMAGE	I/P: 400 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: 550 VAC O/P: Full LOAD Ta: 25°C	NO DAMAGE Constant Current Limiting	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: 4.29 mA I/P-FG: 3.56 mA O/P-FG: 2.65 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: 9 GΩ I/P-FG: 8 GΩ O/P-FG: 7 GΩ NO DAMAGE	P
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40 A / 2min Ta:25°C	2 mΩ	P
4	APPROVAL	TUV: Certificate NO : R50045858 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: 400 VAC/50HZ O/P:FULL LOAD Ta:25°C	PASS	P
2	CONDUCTION	EN55011 CLASS B	I/P: 400 VAC (50HZ) O/P:FULL/50% LOAD Ta:25°C	PASS Test by certified Lab	P
3	RADIATION	EN55011 CLASS B	I/P: 400 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: 400 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
5	E.F.T	EN61000-4-4 INDUSTRY INPUT: 2KV	I/P: 400 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: 400 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: 400 VAC O/P:FULL LOAD Ta= 25 °C LIFE TIME= 170363 HRS I/P: 400 VAC O/P:FULL LOAD Ta= 50 °C LIFE TIME= 49898 HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 91.1K 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 : 900V 9A	I/P:High-Line +3V = 553 V O/P: (1)Full Load Turn on (2) Full Load (3)Output Short Ta:25°C	(1) 436 V (2) 526 V (3) 820 V	P
2	Diode Peak Voltage	D 53 Rated PA905C6 : 600 V 20 A	I/P:High-Line +3V = 553 V O/P: (1)Full Load Turn on (2) Full Load (3)Output Short Ta:25°C	(1) 336 V (2) 446 V (3) 476 V	P
3	Input Capacitor Voltage	C 5 Rated HSTACH : 330 u/ 400 V 105 °C	I/P:High-Line +3V = 553 V O/P: (1)Full Load Turn on /Off (2) Min load Turn on /Off (3)Full Load /Min load Change (4)Burn-IN Hour Ta:25°C	(1) 394 V (2) 394 V (3) 394 V (4) 384 V	P
4	Control IC Voltage Test	U 1 Rated 2842 : 30 V	I/P:High-Line +3V = 553 V 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) 19 V (2) 19 V (3) 19 V (4) 17.2 V	P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2004/2/11	RD SAMPLE	PASS	VINCENT TSENG	MAX LIN
2004/5/6	PRODUCT SAMPLE A403A04	PASS	VINCENT TSENG	MAX LIN
2004/8/19	PRODUCT SAMPLE A408A03	PASS	VINCENT TSENG	MAX LIN

2003/12/12 A50-F023