

MODEL : MPT-65C

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1:60 mVp-p (Max) V2:180 mVp-p (Max) V3:100 mVp-p (Max)	I/P: 230VAC O/P:FULL LOAD Ta:25°C	V1: 10 mVp-p (Max) V2: 47 mVp-p (Max) V3: 12 mVp-p (Max)	P
2	OUTPUT VOLTAGE ADJUST RANGE	CH1: 4.5V~ 5.5V	I/P: 230 VAC I/P: 115 VAC O/P:MIN LOAD Ta:25°C	4.11 V~ 6.03 V/ 230 VAC 4.11 V~ V/ 115 VAC	P
3	OUTPUT VOLTAGE TOLERANCE	V1: 4 %- -4 % (Max) V2: 10 %- -7 % (Max) V3: 5 %- -5 % (Max)	I/P: 100 VAC / 264 VAC O/P:FULL/ MIN LOAD Ta:25°C	V1: 0.6 %- -2.5 % V2: 6.16 %- -1.53 % V3: 0.09 %- 0 %	P
4	LINE REGULATION	V1: 1 %- -1 % (Max) V2: 2 %- -2 % (Max) V3: 1 %- -1 % (Max)	I/P: 100 VAC ~ 264 VAC O/P:FULL LOAD Ta:25°C	V1: 0.12 %- -0.5 % V2: 1.53 %- -0.08 % V3: 0 %- -0.04 %	P
5	LOAD REGULATION	V1: 3 %- -3 % (Max) V2: 4 %- -4 % (Max) V3: 1 %- -1 % (Max)	I/P: 230 VAC O/P:FULL ~MIN LOAD Ta:25°C	V1: 0.5 %- -0.62 % V2: 1.3 %- -0.96 % V3: 0 %- 0 %	P
6	CROSS REGULATION	V1: 3 %- -3 % (Max) V2: 4 %- -4 % (Max) V3: 1 %- -1 % (Max)	I/P: 230 VAC O/P: Testing O/P 60%LOAD Other O/P 40%LOAD Change Ta:25°C	V1: 0.12 %- -0.73 % V2: 1.6 %- -1.9 % V3: 0 %- 0 %	P
7	SET UP TIME	230VAC: 800 ms (Max) 115 VAC: 800 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 265 ms 115VAC/ ms	P
8	RISE TIME	230VAC: 20 ms (Max) 115VAC: 20 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 12 ms 115VAC/ ms	P
9	HOLD UP TIME	230VAC: 80 ms (TYP) 115VAC: 12 ms (TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 86.7 ms 115VAC/ 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: 1000 mVp-p	I/P: 230 VAC O/P:FULL /Min LOAD 90%DUTY/1KHZ Ta:25°C	233 mVp-p	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	90VAC~264 VAC	I/P:TESTING O/P:FULL LOAD Ta:25°C	62V~264V	P
			I/P: LOW-LINE-3V= 87 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: 90 VAC ~ 264 VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: OK	P
3	EFFICIENCY	74 % (TYP)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	76.05 %	P
4	INPUT CURRENT	230V/ 1 A (TYP) 115V/ 1.6 A (TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 0.77 A/ 230 VAC I = 1.28 A/ 115 VAC	P
5	INRUSH CURRENT	230V/ 40 A (TYP) 115V/ 20 A (TYP) COLD START	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 30.5 A/ 230 VAC I = 15 A/ 115 VAC	P
6	LEAKAGE CURRENT	< 0.3 mA / 264 VAC	I/P: 264 VAC O/P:Min LOAD Ta:25°C	L-FG: 0.1 mA N-FG: 0.1 mA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	73W~ 95W	I/P: 230 VAC I/P: 115 VAC O/P:TESTING Ta:25°C	79.6 W/ 230 VAC 81.6 W/ 115 VAC Hiccup Mode	P
2	OVER VOLTAGE PROTECTION	CH1: 5.75 V~ 6.75 V	I/P: 230 VAC I/P: 115 VAC O/P:MIN LOAD Ta:25°C	6.17 V/ 230 VAC 6.17 V/ 115 VAC Hiccup Model	P
3	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 : MPT-65A 1. ROOM AMBIENT BURN-IN : 14 HRS I/P: 230VAC O/P: FULL LOAD Ta= 25.4 °C 2. HIGH AMBIENT BURN-IN : 4 HRS I/P: 230VAC O/P: FULL LOAD Ta= 41.1 °C			P
2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P: 230 VAC O/P: 141 % LOAD Ta:25°C	TEST : OK	P
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 5 HOUR	I/P: 230 VAC O/P: 100 % LOAD Ta= -9.5 °C	TEST : OK	P
4	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 25 °C NO DAMAGE	I/P: 272 VAC O/P:FULL LOAD Ta= 25.4 °C HUMIDITY= 95 %R.H	TEST : OK	P
5	TEMPERATURE COEFFICIENT	± 0.04 %(0-50°C)	I/P: 230 VAC O/P:FULL LOAD	± 0.02 %(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	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P: 4 KVAC/min I/P-FG: 1.5 KVAC/min O/P-FG: 0.5 KVAC/min	I/P-O/P:4.2KVAC/min I/P-FG: 1.8 KVAC/min O/P-FG: 0.6 KVAC/min Ta:25°C	I/P-O/P: 1.855 mA I/P-FG: 0.86 mA O/P-FG: 3.29 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: 3.14 GΩ I/P-FG: 5.07 GΩ O/P-FG: 1 GΩ NO DAMAGE	P

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	HARMONIC	EN61000-3-2	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	PASS	P
2	CONDUCTION	EN55011 CLASS B	I/P: 230 VAC (50HZ) O/P:FULL/50% LOAD Ta:25°C	PASS Test by certified Lab	P
3	RADIATION	EN55011 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 LIGHT 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 LIGHT INDUSTRY INPUT: 1KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
6	SURGE	IEC61000-4-5 LIGHT INDUSTRY L-N :1KV L,N-PE:2KV	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	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	MPT-65A :SUPPOSE C 54 I/P: 230VAC O/P:FULL LOAD I/P: 230VAC O/P:FULL LOAD	IS THE MOST CRITICAL COMPONENT Ta= 25 °C LIFE TIME= 36299 HRS Ta= 40 °C LIFE TIME= 15367 HRS		P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 275.1K HRS			P

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