

MODEL : NET-75C

### OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1:80 mVp-p (Max) V2:150 mVp-p (Max) V3:150 mVp-p (Max)	I/P: 230VAC O/P:FULL LOAD Ta:25°C	V1: 12 mVp-p (Max) V2: 25 mVp-p (Max) V3: 25 mVp-p (Max)	P
2	OUTPUT VOLTAGE ADJUST RANGE	CH1: 4.75V- 5.5 V	I/P: 230 VAC I/P: 115 VAC O/P:MIN LOAD Ta:25°C	4.55 V- 5.89 V/ 230 VAC 4.55 V- 5.89 V/ 115 VAC	P
3	OUTPUT VOLTAGE TOLERANCE	V1: 2 %- -2 % (Max) V2: 8 %- -8 % (Max) V3: 5 %- -5 % (Max)	I/P: 115 VAC / 264 VAC O/P:FULL/ 40% LOAD Ta:25°C	V1: 0.2 %- -0.2 % V2: 2.2 %- -2.2 % V3: 0.05 %- -0.05 %	P
4	LINE REGULATION	V1: 0.5 %- -0.5 % (Max) V2: 1 %- -1 % (Max) V3: 1 %- -1 % (Max)	I/P: 115 VAC ~ 264 VAC O/P:FULL LOAD Ta:25°C	V1: 0 %- 0 % V2: 0.7 %- -0.7 % V3: 0.05 %- -0.05 %	P
5	LOAD REGULATION	V1: 1.5 %- -1.5 % (Max) V2: 3 %- -3 % (Max) V3: 1 %- -1 % (Max)	I/P: 230 VAC O/P:FULL ~MIN LOAD Ta:25°C	V1: 0.12 %- -0.12 % V2: 0.6 %- -0.6 % V3: 0.05 %- -0.05 %	P
6	CROSS REGULATION	V1: 1.5 %- -1.5 % (Max) V2: 3 %- -3 % (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 %- 0 % V2: 1.7 %- -1.7 % V3: 0.05 %- -0.05 %	P
7	SET UP TIME	230VAC: 500 ms (Max) 115 VAC: 1200 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 194 ms 115VAC/ 354 ms	P
8	RISE TIME	230VAC: 30 ms (Max) 115VAC: 30 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 7 ms 115VAC/ 7 ms	P
9	HOLD UP TIME	230VAC: 50 ms (TYP) 115VAC: 10 ms (TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	230VAC/ 76 ms 115VAC/ 15 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	282 mVp-p	P

### INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	85VAC~264 VAC	I/P:TESTING O/P:FULL LOAD Ta:25°C	67V~264V	P
			I/P: LOW-LINE-3V= 82 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: 85VAC ~ 264 VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: OK	P
3	EFFICIENCY	78 % (TYP)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	78.8 %	P
4	INPUT CURRENT	230V/ 0.9 A (TYP) 115V/ 1.5 A (TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 0.8 A/ 230 VAC I = 1.3 A/ 115 VAC	P
5	INRUSH CURRENT	230V/ 45 A (TYP)  COLD START	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 42 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	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	110 %~ 150 %	I/P: 230 VAC I/P: 115 VAC O/P:TESTING Ta:25°C	136 %/ 230 VAC 132 %/ 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	6.35 V/ 230 VAC 6.35 V/ 115 VAC Shunt down Re- power ON	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 : NET-75A 1. ROOM AMBIENT BURN-IN : 2 HRS I/P: 230VAC O/P: FULL LOAD Ta= 31.5 °C																																																																			
		<table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>P/N</th> <th>ROOM AMBIENT Ta= 31.5 °C</th> </tr> </thead> <tbody> <tr><td>1</td><td>R5</td><td>68K/2W R/MO</td><td>86.5°C</td></tr> <tr><td>2</td><td>C5</td><td>150U/400V CAPX 85°C</td><td>61.0°C</td></tr> <tr><td>3</td><td>BD1</td><td>D3SB60 4A/600V SHI</td><td>72.5°C</td></tr> <tr><td>4</td><td>LF1</td><td>LF-132</td><td>63.7°C</td></tr> <tr><td>5</td><td>D300</td><td>SR-360 3A/60V</td><td>89.3°C</td></tr> <tr><td>6</td><td>D1</td><td>HER306 3A/600V REC</td><td>92.1°C</td></tr> <tr><td>7</td><td>U1</td><td>1203P</td><td>73.5°C</td></tr> <tr><td>8</td><td>Q1</td><td>K2628 6A/600V IR</td><td>81.4°C</td></tr> <tr><td>9</td><td>D200</td><td>SF10SC6 10A/60V SHI</td><td>76.6°C</td></tr> <tr><td>10</td><td>T1 COIL</td><td>TF-1032</td><td>105.8°C</td></tr> <tr><td>11</td><td>C36</td><td>100U/35V RUB 105°C YXF</td><td>68.2°C</td></tr> <tr><td>12</td><td>C205</td><td>1200U/16V CAPX 105°C</td><td>84.7°C</td></tr> <tr><td>13</td><td>C105</td><td>2200U/10V CAPX 105°C</td><td>85.8°C</td></tr> <tr><td>14</td><td>D100</td><td>MBR1545CT 15A/45V</td><td>77.6°C</td></tr> <tr><td>15</td><td>RG1</td><td>7905 1A/5V M</td><td>90.9°C</td></tr> </tbody> </table>	NO	Position	P/N	ROOM AMBIENT Ta= 31.5 °C	1	R5	68K/2W R/MO	86.5°C	2	C5	150U/400V CAPX 85°C	61.0°C	3	BD1	D3SB60 4A/600V SHI	72.5°C	4	LF1	LF-132	63.7°C	5	D300	SR-360 3A/60V	89.3°C	6	D1	HER306 3A/600V REC	92.1°C	7	U1	1203P	73.5°C	8	Q1	K2628 6A/600V IR	81.4°C	9	D200	SF10SC6 10A/60V SHI	76.6°C	10	T1 COIL	TF-1032	105.8°C	11	C36	100U/35V RUB 105°C YXF	68.2°C	12	C205	1200U/16V CAPX 105°C	84.7°C	13	C105	2200U/10V CAPX 105°C	85.8°C	14	D100	MBR1545CT 15A/45V	77.6°C	15	RG1	7905 1A/5V M	90.9°C			P
NO	Position	P/N	ROOM AMBIENT Ta= 31.5 °C																																																																		
1	R5	68K/2W R/MO	86.5°C																																																																		
2	C5	150U/400V CAPX 85°C	61.0°C																																																																		
3	BD1	D3SB60 4A/600V SHI	72.5°C																																																																		
4	LF1	LF-132	63.7°C																																																																		
5	D300	SR-360 3A/60V	89.3°C																																																																		
6	D1	HER306 3A/600V REC	92.1°C																																																																		
7	U1	1203P	73.5°C																																																																		
8	Q1	K2628 6A/600V IR	81.4°C																																																																		
9	D200	SF10SC6 10A/60V SHI	76.6°C																																																																		
10	T1 COIL	TF-1032	105.8°C																																																																		
11	C36	100U/35V RUB 105°C YXF	68.2°C																																																																		
12	C205	1200U/16V CAPX 105°C	84.7°C																																																																		
13	C105	2200U/10V CAPX 105°C	85.8°C																																																																		
14	D100	MBR1545CT 15A/45V	77.6°C																																																																		
15	RG1	7905 1A/5V M	90.9°C																																																																		
2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR ( MIN )	I/P: 230 VAC O/P: 117 % 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 30 °C NO DAMAGE	I/P: 272 VAC O/P:FULL LOAD Ta= 30°C HUMIDITY= 95 %R.H	TEST : OK	P																																																																
5	TEMPERATURE COEFFICIENT	± 0.03 %(0-45°C)	I/P: 230 VAC O/P:FULL LOAD	± 0.01 %(0-45°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: 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: 4.51 mA I/P-FG: 3.79 mA O/P-FG: 2.21 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: 2 GΩ I/P-FG: 2 GΩ O/P-FG: 3 GΩ NO DAMAGE	P
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40 A / 2min Ta:25°C	3 mΩ	P
4	APPROVAL	TUV: Certificate NO : UL: File NO :			N/A

### 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 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	SUPPOSE C105 IS THE MOST CRITICAL COMPONENT I/P: 230VAC O/P:FULL LOAD Ta= 25 °C LIFE TIME= 28899 HRS I/P: 230VAC O/P:FULL LOAD Ta= 30 °C LIFE TIME= 20432 HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 361.6K HRS			P



## COMPONENT STRESS TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	Power Transistor (D to S) or (C to E) <b>Peak Voltage</b>	Q1 Rated K2545 : 600V 6A	I/P:High-Line +3V = 267 V O/P: (1)Full Load Turn on (2) Full Load (3)Output Short Ta:25°C	(1) 534 V (2) 536 V (3) 578 V	P
2	Diode Peak <b>Voltage</b>	D100 Rated MBR1545CT : 45V 15A  D200 Rated BYQ28X-200 : 200V 10A  D300 Rated HER303 : 200V 3A	I/P:High-Line +3V = 267 V O/P: (1)Full Load Turn on (2) Full Load (3)Output Short Ta:25°C	(1) 34 V (2) 38 V (3) 33 V  (1) 78 V (2) 77 V (3) 71 V  (1) 160 V (2) 118 V (3) 127 V	P
3	Clamp Diode Peak <b>Voltage</b>	D1 Rated HER306 : 600V 3A	I/P:High-Line +3V = 267 V O/P: (1)Full Load (2) Dynamic Load 90%Duty/1KHz Ta:25°C	(1) 516 V (2) 516 V	P
4	<b>Input Capacitor Voltage</b>	C5 Rated : 150u /400V/ 85°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 (4)Burn in 1hour Ta:25°C	(1) 382 V (2) 380 V (3) 380 V (4) 366 V	P
5	<b>Control IC Voltage Test</b>	U1 Rated 1203 : 18V	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) 10.6 V	P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2005/4/1	RD SAMPLE	PASS	VINCENT TSENG	MAX LIN
2005/7/8	PRODUCT SAMPLE	PASS	VINCENT TSENG	MAX LIN

2003/12/12 A50-F023