



Test Report: NSP-750-27

750W AC/DC High Reliable Multi-Industries Enclosed
Type Power Supply

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

Control Function Test

Component Stress Test

■ SAFETY & E.M.C. TEST

Safety Test

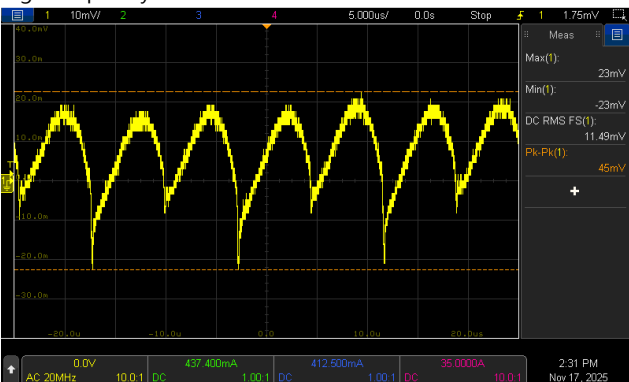
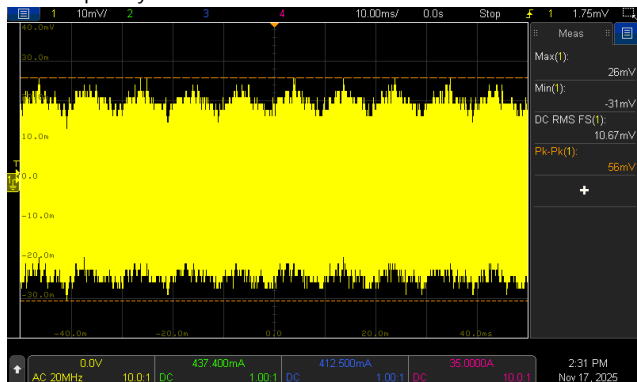
E.M.C. Test

■ RELIABILITY TEST

ENVIRONMENT TEST

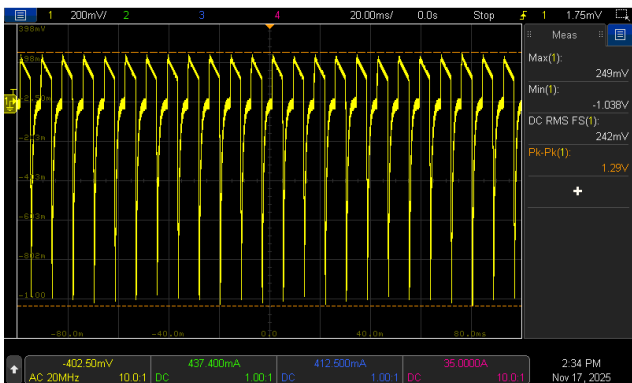
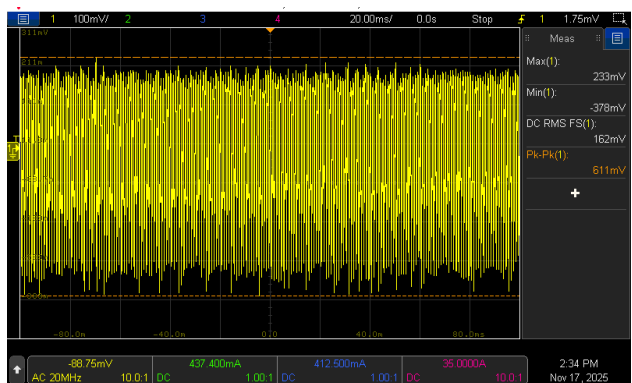
■ DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

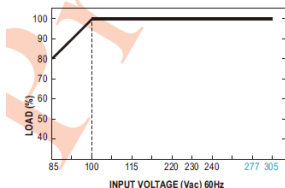
NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OUTPUT VOLTAGE ADJUST RANGE	CH1: 26V~32V	I/P : 277 VAC I/P : 230 VAC I/P : 115 VAC O/P : MIN LOAD Ta : 25°C	25.54V~32.98V/277VAC 25.54V~32.98V/230VAC 25.54V~32.98V/115VAC
2	OUTPUT VOLTAGE TOLERANCE	V1: -1% ~ +1%	I/P: 85VAC~305VAC O/P:FULL~MIN. LOAD Ta:25°C	V1: -0.1333% ~ 0.1667%
3	LINE REGULATION	V1: -0.5% ~ +0.5%	I/P: 85VAC~ 305VAC O/P:FULL LOAD Ta:25°C	V1: -0.0037% ~ 0.0074%
4	LOAD REGULATION	V1: -0.5% ~ +0.5%	I/P: 230VAC O/P:FULL ~MIN LOAD Ta:25°C	V1: -0.0185% ~ 0.0111%
5	OVER/UNDERSHOOT TEST	<± 5%	I/P: 230VAC O/P:FULL LOAD / NO LOAD Ta:25°C	4.61%
6	RIPPLE & NOISE (Max)	V1: 240mVp-p	I/P:230VAC O/P:FULL LOAD Ta:25°C	45mVp-p / high frequency 56mVp-p / low frequency
high frequency :  low frequency : 				
7	SET UP TIME(Max)	277VAC/900ms 230VAC/1000ms 115VAC/1500ms	I/P : 277 VAC I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	277VAC/281.66ms 230VAC/422.8ms 115VAC/855.7ms
INPUT=277VAC/50HZ @ FULL LOAD CH1: Output Voltage CH3: AC Input Voltage			INPUT=230VAC/50HZ @ FULL LOAD CH1: Output Voltage CH3: AC Input Voltage	

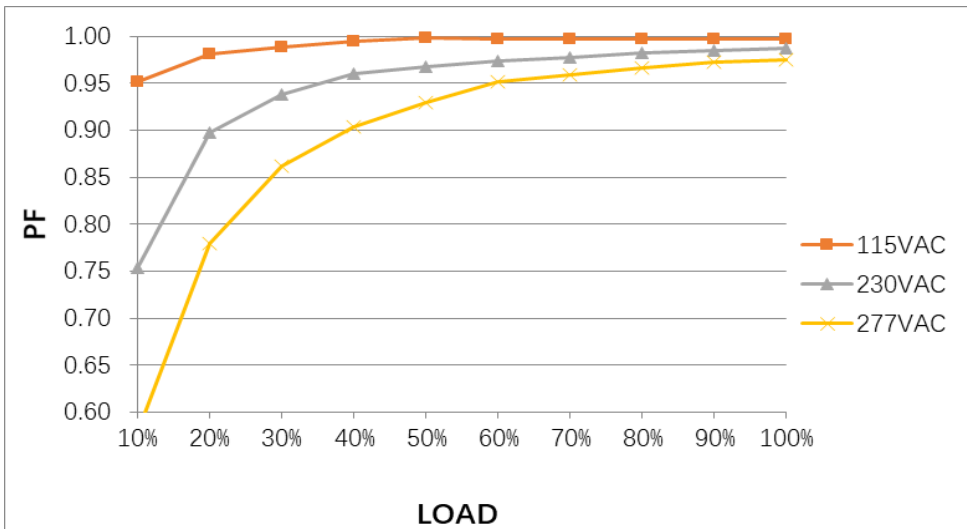
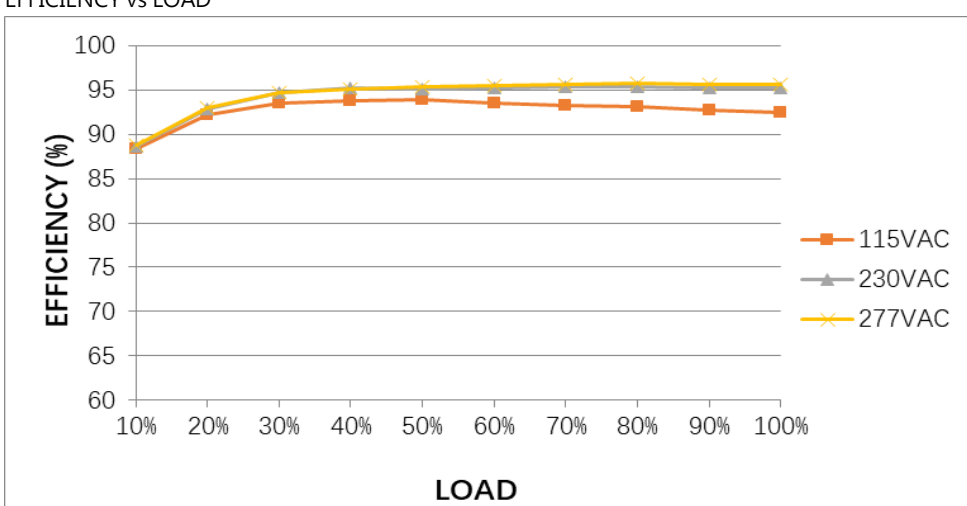
	INPUT=115VAC/60HZ @ FULL LOAD CH1: Output Voltage CH3: AC Input Voltage	
8	RISE TIME (Max) 277VAC/80ms 230VAC/80ms 115VAC/80ms	I/P : 277 VAC I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C 277VAC/4.68ms 230VAC/4.68ms 115VAC/4.7ms
	INPUT=277VAC/50HZ @ FULL LOAD CH1: Output Voltage INPUT=115VAC/60HZ @ FULL LOAD CH1: Output Voltage	INPUT=230VAC/50HZ @ FULL LOAD CH1: Output Voltage

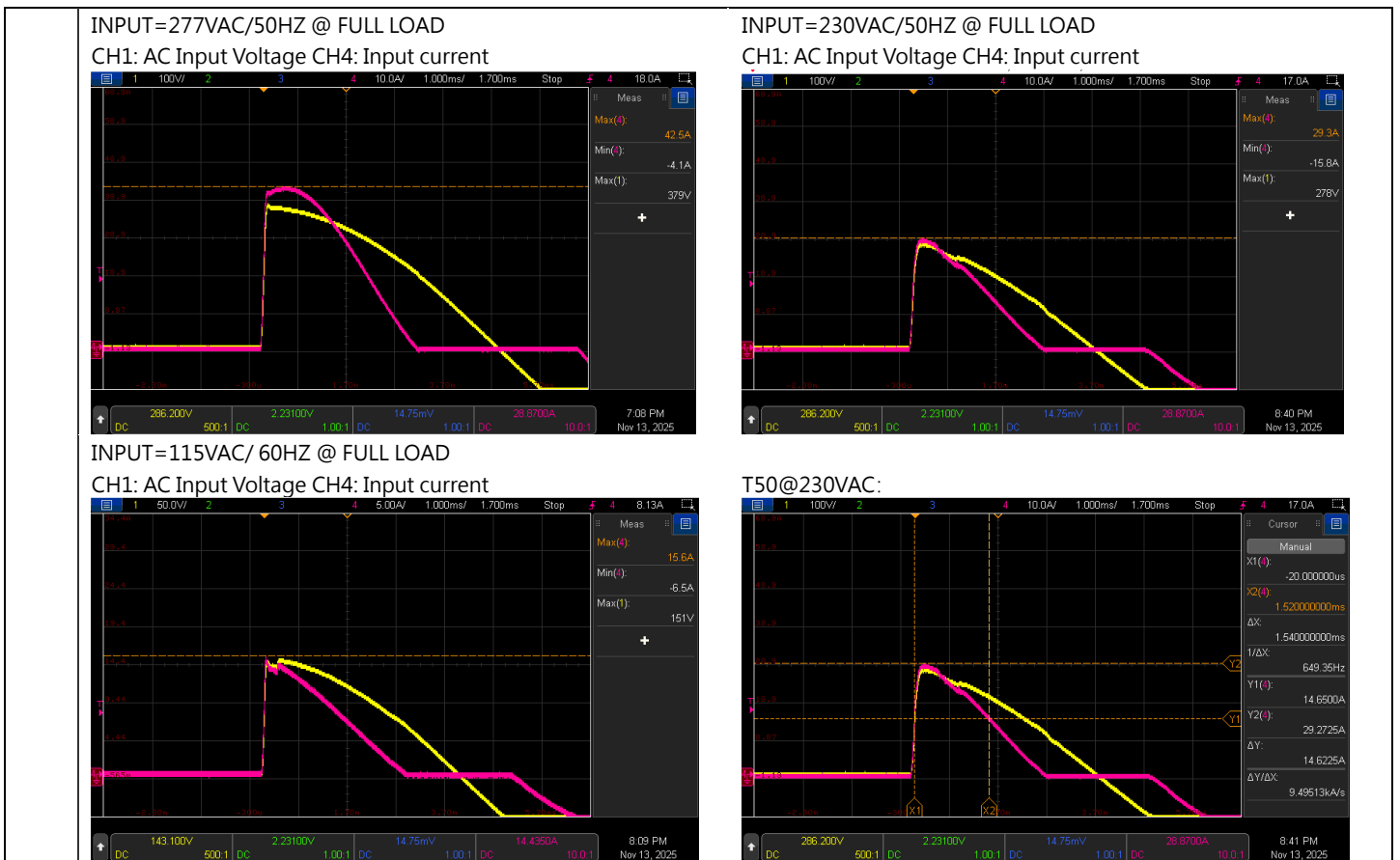
9	HOLD UP TIME (Typ.)	277VAC/16ms 230VAC/16ms 115VAC/16ms	I/P : 277 VAC I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	277VAC/23.8ms 230VAC/23.7ms 115VAC/23.7ms
	INPUT=277VAC/50HZ @ FULL LOAD CH1: Output Voltage CH3: AC Input Voltage INPUT=230VAC/50HZ @ FULL LOAD CH1: Output Voltage CH3: AC Input Voltage INPUT=115VAC/60HZ @ FULL LOAD CH1: Output Voltage CH23: AC Input Voltage			
10	DYNAMIC LOAD	V1: 2700mVp-p	I/P: 230VAC O/P: (1) FULL/ MIN LOAD 50%DUTY / 120HZ (2) FULL/ MIN LOAD 50%DUTY / 1KHZ Ta:25°C	1290mVp-p 611mVp-p

FULL / MIN LOAD 50%DUTY / 120HZ		FULL / MIN LOAD 50%DUTY / 1KHZ	
			
11	TRANSIENT RECOVERY TIME	V1: 2700mVp-p <500us	I/P: 230VAC O/P:40% LOAD CHANGE 50%DUTY/120HZ 1.25A/us 237mVp-p

INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT			
1	INPUT VOLTAGE RANGE	85VAC~305VAC 120VDC~ 431VDC ■ Output Derating vs. Input Voltage 	(1) I/P: TESTING O/P: FULL / 80% LOAD (2) I/P: DC TESTING (L: + N: -) O/P: FULL / 80% LOAD (3) I/P: DC TESTING (L: - N: +) O/P: FULL / 80% LOAD Ta:25°C I/P: HIGH-LINE+10V=315V O/P:FULL/MIN LOAD (PLEASE CHECK DERATING CURVE) ON: 30 Sec OFF: 30 Sec 10MIN (POWER ON/OFF NO DAMAGE)	(1) 80.3V~305V/ FULL LOAD 80.3V~305V/ 80% LOAD (2) 109Vdc~431Vdc/FULL LOAD 109Vdc~431Vdc/80% LOAD (3) 109Vdc~431Vdc/FULL LOAD 109Vdc~431Vdc/80% LOAD			
				TEST : OK			
2	INPUT FREQUENCY RANGE	47HZ ~63 HZ NO DAMAGE	I/P: 85VAC~ 305VAC O/P:FULL~MIN LOAD Ta:25°C	TEST : OK			
3	INPUT CURRENT (Typ.)	277V/ 3.2 A 230V/ 3.9 A 115V/ 8.2 A	I/P : 277 VAC I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	I =2.91A/ 277VAC I =3.48A/ 230VAC I =7.14A/ 115VAC			
4	LEAKAGE CURRENT	Earth leakage current < 350uA (rms)@277Vac ; touch current<100uA(rms) @ 277Vac ;	I/P : 277 VAC/60HZ O/P : Min LOAD Ta : 25°C	For Earth : 218uA For touch : 28uA			
5	NO LOAD CONSUMPTION	Remote Power OFF: 0.75W/115Vac 0.75W/230Vac 1W/277Vac	I/P : 115VAC I/P : 230VAC I/P : 277VAC O/P : NO LOAD	TEST: <table><tr><td></td><td>Remote Power OFF</td><td>Remote Power ON</td></tr></table>		Remote Power OFF	Remote Power ON
	Remote Power OFF	Remote Power ON					

		Remote Power ON: 5W/115Vac 5W/230Vac 5W/277Vac	Ta : 25°C	<table><tr><td>115VAC</td><td>0.27W</td><td>3.85W</td></tr><tr><td>230VAC</td><td>0.44W</td><td>3.49W</td></tr><tr><td>277VAC</td><td>0.57W</td><td>3.24W</td></tr></table>	115VAC	0.27W	3.85W	230VAC	0.44W	3.49W	277VAC	0.57W	3.24W
115VAC	0.27W	3.85W											
230VAC	0.44W	3.49W											
277VAC	0.57W	3.24W											
6	POWER FACTOR (Typ.)	0.90/ 277VAC 0.93/ 230VAC 0.98/115VAC	I/P : 277 VAC I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	PF=0.9785/277VAC PF=0.9875/230VAC PF=0.9975/115VAC									
P.F vs LOAD													
													
7	EFFICIENCY(Typ.)	94%	I/P:230 VAC O/P:FULL LOAD Ta:25°C	95.73%									
EFFICIENCY vs LOAD													
													
8	INRUSH CURRENT(Typ.)	277V/50A 230V/40A 115V/20A COLD START	I/P : 277 VAC I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	I =42.5A/ 277VAC I =29.3A/ 230VAC I =15.6A/ 115VAC T50= 1540us/230V									



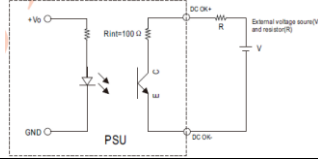
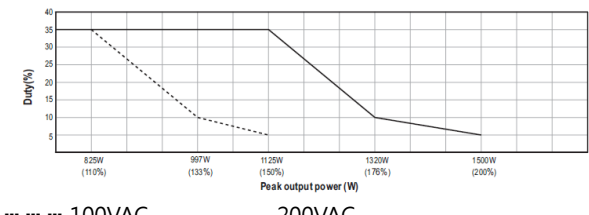
PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OVER LOAD PROTECTION	Protection type: Normally works within 105 ~ 200% rated output power for more than 5 seconds and then constant current limiting without shutdown($V_{out}>30\%$), recovers automatically after fault condition is removed, or shut down o/p voltage when $V_{out}<30\%$, AC re-power on to recover. Protection type: >200% rated power, constant current limiting ($V_{out}>30\%$)with auto-recovery after fault condition is removed, or shut down o/p voltage when $V_{out}<30\%$,AC re-power on to recover.	I/P: 305VAC I/P: 230VAC I/P: 180VAC I/P: 100VAC O/P:TESTING Ta:25°C	TEST : 116.55%/305VAC 116.55%/230VAC 116.19%/100VAC Protection type: Normally works within 105 ~ 200% rated output power for more than 5 seconds and then constant current limiting without shutdown ($V_{out}>30\%$), recovers automatically after fault condition is removed, or shut down o/p voltage when $V_{out}<30\%$, AC re-power on to recover. 219.4 %/305VAC 219.4 %/180VAC 203.6 %/100VAC Protection type:

				>200% rated power, constant current limiting (Vout>30%)with auto-recovery after fault condition is removed, or shut down o/p voltage when Vout<30%,AC re-power on to recover.
2	OVER VOLTAGE PROTECTION	33V~ 42V Protection type: Shut down o/p voltage, AC re-power on to recover	I/P: 305VAC I/P: 85VAC O/P:MIN LOAD Ta:25°C	37.43V/ 305VAC 37.43V/ 85VAC PROTECTION TYPE : Shut down o/p voltage, AC re-power on to recover
3	OVER TEMPERATURE PROTECTION	Protection type: Shut down o/p voltage, recovers automatically after temperature goes down	I/P: 305VAC I/P: 85VAC O/P:FULL LOAD	TEST : <u>OK</u> O.T.P. Active Protection type : Shut down o/p voltage, recovers automatically after temperature goes down
4	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE Protection type: Constant current limiting for more than 5 seconds (Vout<30%) and then shut down o/p voltage, AC re-power on to recover or Hiccup mode, recovery automatically after fault condition is removed. Depends on the user's wire impedance.	I/P: 305VAC I/P: 85VAC O/P:FULL LOAD	NO DAMAGE Protection type: Constant current limiting for more than 5 seconds (Vout<30%) and then shut down o/p voltage, AC re-power on to recover or Hiccup mode, recovery automatically after fault condition is removed. Depends on the user's wire impedance.

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT						
1	AUXILIARY POWER (AUX)	1. 5Vaux @ 0.2A, Tolerance -15% ~ +15% at main output 20% rated current; 2. 12Vaux @ 0.8A, Tolerance -15% ~ +15% at main output 20% rated current. I/P: 230 VAC O/P:FULL LOAD Ta:25°C Test Result : <table><tr><td>AUX</td><td>TOLERANCE</td></tr><tr><td>5V / 0.2A</td><td>-0.46% ~ 0%</td></tr><tr><td>12V / 0.8A</td><td>-0.21% ~ 0%</td></tr></table>	AUX	TOLERANCE	5V / 0.2A	-0.46% ~ 0%	12V / 0.8A	-0.21% ~ 0%		
AUX	TOLERANCE									
5V / 0.2A	-0.46% ~ 0%									
12V / 0.8A	-0.21% ~ 0%									

2	REMOTE CONTROL	POWER ON: short between RC+(pin11)&5V-AUX(pin13) on CN1; POWER OFF: open between RC+(pin11)&5V-AUX(pin13) on CN1	I/P:230VAC O/P:FULL LOAD Ta:25°C	TEST: <u>OK</u>
3	REMOTE SENSE	Compensate voltage drop on the load wiring up to 0.3V.	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	TEST: <u>OK</u>
4	DC OK SIGNAL	15Vdc/10mA resistive load 	I/P:230VAC O/P:FULL LOAD Ta:25°C	TEST: <u>OK</u>
5	FAN CONTROL	(1)Fan ON/OFF control: RTH3 ≥ 50°C ± 10°C FAN ON RTH3 ≤ 40°C ± 10°C FAN OFF	I/P:230VAC O/P:TESTING	TEST: (1) <u>OK</u> (2) <u>44.7</u> dB Ta:25°C
6	PEAK Power	I/P: 100/305VAC O/P:  --- 100VAC — 200VAC		TEST: <u>OK</u>

COMPONENT STRESS TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	
1	PWM Transistor (D to S) or (C to E) Peak Voltage	Q2/Q3 : Rated: 600V/40A	AC ON/OFF I/P: High-Line +3V =308V VDS: O/P: (1)Full Load (2)Output Short (3) Dynamic Load Full Load/ Min. Load 90%Duty/1KHz (4) Dynamic Load Full Load/ Min. Load 90%Duty/3KHz (5) Dynamic Load Full Load/ Min. Load 90%Duty/5KHz (6) Dynamic Load 100% Load/ Min. Load 50%Duty/120Hz	Q2 VDS: (1) 495V (2) 495V (3) 499V (4) 499V (5) 495V (6) 495V (7) 483V (8) 499V	Q3 VDS: (1) 489V (2) 489V (3) 492V (4) 492V (5) 489V (6) 492V (7) 473V (8) 492V

			(7)0%→400% Load. (8) Peak Load Ta:25°C	
2	P.F.C Transistor (D to S) or (C to E) Peak Voltage	Q1 : Rated: 650V/46A	AC ON/OFF I/P: High-Line +3V =308V VDS: O/P: (1)Full Load (2)Output Short (3) Dynamic Load Full Load/ Min. Load 90%Duty/1KHz (4) Dynamic Load Full Load/ Min. Load 90%Duty/3KHz (5) Dynamic Load Full Load/ Min. Load 90%Duty/5KHz (6) Dynamic Load 100% Load/ Min. Load 50%Duty/120Hz (7)0%→400% Load. (8) Peak Load Ta:25°C	Q1 VDS: (1) 569V (2) 569V (3) 569V (4) 569V (5) 566V (6) 569V (7) 569V (8) 566V
3	P.F.C DIODE	D5 : Rated: 60A/650V	I/P: High-Line +3V =308 V AC ON/OFF O/P: (1)Full Load (2)Output Short (3) Dynamic Load Full Load/ Min. Load 90%Duty/5KHz (4) Dynamic Load 100% Load/ Min. Load 50%Duty/120Hz (5) Peak Load Ta:25°C	(1) 475V (2) 475V (3) 470V (4) 470V (5) 474V
4	Diode Peak Voltage	Q100 / Q104 : Rated: 100V/136A	AC ON/OFF I/P: High-Line +3V =308 V <u>VO=Vomax</u> O/P: (1)Full Load (2)Output Short (3) Dynamic Load Full Load/ Min. Load 90%Duty/1KHz (4) Dynamic Load Full Load/ Min. Load 90%Duty/3KHz (5) Dynamic Load Full Load/ Min. Load 90%Duty/5KHz (6) Dynamic Load 100% Load/ Min. Load 50%Duty/120Hz (7)0%→400% Load. (8).NO LOAD (9) Peak Load <u>VO=Vnormal</u> O/P: (1) Full Load Ta:25°C	Q100: Q104: <u>VO=Vomax</u> <u>VO=Vomax</u> VDS: VDS: (1) 72.5V (1) 73.1V (2) 72.5V (2) 73.1V (3) 72.9V (3) 73.6V (4) 72.9V (4) 73.6V (5) 72.9V (5) 73.6V (6) 73.4V (6) 74.1V (7) 71.1V (7) 71.2V (8) 74.3V (8) 72.7V (9) 76.3V (9) 75.1V <u>VO=Vnormal</u> <u>VO=Vnormal</u> (1) 67.4V (1) 67.4V

5	Input Voltage	Capacitor	C5 : Rated: 100u/450V	I/P: High-Line +3V =308V O/P: (1)Full Load input on/off (2) Min load input on /Off (3) Full Load /Min load Change (4) Full load continue (5) Peak Load on/off (6) Peak Load continue Ta:25°C	(1) 450V (2) 450V (3) 441V (4) 438V (5) 450V (6) 441V
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■ SAFETY& E.M.C. TEST

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	WITHSTAND VOLTAGE	I/P-O/P: 4.2 K VAC/min I/P-FG : 2.1 K VAC/min O/P-FG: 1.5 KVAC/min	I/P-O/P: 4.62 KVAC/min I/P-FG: 2.52 KVAC/min O/P-FG: 1.8 KVAC/min Ta:25°C	I/P-O/P: 1.89 mA I/P-FG: 2.77 mA O/P-FG: 1.23 mA NO DAMAGE
2	ISOLATION RESISTANCE	I/P-O/P: 500 VDC>100MΩ I/P-FG: 500 VDC>100MΩ O/P-FG: 500 VDC >100MΩ	I/P-O/P: 600 VDC I/P-FG: 600 VDC O/P-FG: 600 VDC Ta:25°C	I/P-O/P: 50 GΩ I/P-FG: 33 GΩ O/P-FG: 50 GΩ NO DAMAGE
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40A / 2min Ta:25°C	9mΩ

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	HARMONIC	BS EN/EN61000-3-2 (IEC61000-3-2) ■ CLASS A	I/P:230VAC/50HZ O/P:FULL LOAD Ta:25°C	■ PASS
2	CONDUCTION	BS EN/EN55032(CISPR32), CNS 15936 CLASS B BS EN/EN55011 (CISPR11) CLASS B	I/P : 230 VAC (50HZ) O/P : FULL/50% LOAD Ta : 25°C	PASS Test by certified Lab
3	RADIATION	BS EN/EN55032(CISPR32), CNS 15936 CLASS B BS EN/EN55011 (CISPR11) CLASS B	I/P : 230 VAC (50HZ) O/P : FULL LOAD Ta : 25°C	PASS Test by certified Lab
4	E.S.D	BS EN/EN61000-4-2 AIR : 15KV / Contact : 8KV	I/P : 230 VAC/50HZ O/P : FULL LOAD Ta : 25°C	CRITERIA A

5	E.F.T	BS EN/EN61000-4-4 INPUT : 2KV	I/P : 230 VAC/50HZ O/P : FULL LOAD Ta : 25°C	CRITERIA A
6	SURGE	BS EN/EN 61000-4-5 L-N : 2KV L,N-PE : 4KV	I/P : 230 VAC/50HZ O/P : FULL LOAD Ta : 25°C	CRITERIA A
7	Test by certified Lab & Test Report Prepare Any contradictions of the test results, please refer to the latest EMC test report			

■ RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT																																																																				
1	TEMPERATURE RISE TEST	MODEL : NSP-750-24 1. ROOM AMBIENT BURN-IN : 2HRS I/P : 230VAC O/P : FULL LOAD Ta=26.8°C 2. HIGH AMBIENT BURN-IN : 2HRS I/P : 230VAC O/P : FULL LOAD Ta= 60.1°C																																																																						
		<table><tr><th>NO</th><th>Position</th><th>ROOM AMBIENT Ta=26.8°C</th><th>HIGH AMBIENT Ta=60.1°C</th></tr><tr><td>1</td><td>ZNR1</td><td>31.0°C</td><td>64.8°C</td></tr><tr><td>2</td><td>LF1</td><td>35.3°C</td><td>69.6°C</td></tr><tr><td>3</td><td>LF2</td><td>36.1°C</td><td>70.3°C</td></tr><tr><td>4</td><td>C2</td><td>33.2°C</td><td>67.1°C</td></tr><tr><td>5</td><td>BD1</td><td>55.4°C</td><td>88.0°C</td></tr><tr><td>6</td><td>C16</td><td>38.4°C</td><td>72.2°C</td></tr><tr><td>7</td><td>RTH1</td><td>36.1°C</td><td>69.5°C</td></tr><tr><td>8</td><td>RY1</td><td>39.4°C</td><td>72.6°C</td></tr><tr><td>9</td><td>RTH4</td><td>45.5°C</td><td>79.0°C</td></tr><tr><td>10</td><td>L1</td><td>50.5°C</td><td>84.0°C</td></tr><tr><td>11</td><td>Q1</td><td>45.9°C</td><td>79.6°C</td></tr><tr><td>12</td><td>D5</td><td>44.4°C</td><td>78.2°C</td></tr><tr><td>13</td><td>C5</td><td>35.4°C</td><td>69.0°C</td></tr><tr><td>14</td><td>ZNR1</td><td>31.0°C</td><td>64.8°C</td></tr><tr><td>15</td><td>LF1</td><td>35.3°C</td><td>69.6°C</td></tr><tr><td>16</td><td>LF2</td><td>36.1°C</td><td>70.3°C</td></tr></table>			NO	Position	ROOM AMBIENT Ta=26.8°C	HIGH AMBIENT Ta=60.1°C	1	ZNR1	31.0°C	64.8°C	2	LF1	35.3°C	69.6°C	3	LF2	36.1°C	70.3°C	4	C2	33.2°C	67.1°C	5	BD1	55.4°C	88.0°C	6	C16	38.4°C	72.2°C	7	RTH1	36.1°C	69.5°C	8	RY1	39.4°C	72.6°C	9	RTH4	45.5°C	79.0°C	10	L1	50.5°C	84.0°C	11	Q1	45.9°C	79.6°C	12	D5	44.4°C	78.2°C	13	C5	35.4°C	69.0°C	14	ZNR1	31.0°C	64.8°C	15	LF1	35.3°C	69.6°C	16	LF2	36.1°C	70.3°C
NO	Position	ROOM AMBIENT Ta=26.8°C	HIGH AMBIENT Ta=60.1°C																																																																					
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15	LF1	35.3°C	69.6°C																																																																					
16	LF2	36.1°C	70.3°C																																																																					

NO	Position	ROOM AMBIENT Ta=26.8°C	HIGH AMBIENT Ta=60.1°C
17	C2	33.2°C	67.1°C
18	BD1	55.4°C	88.0°C
19	C16	38.4°C	72.2°C
20	RTH1	36.1°C	69.5°C
21	RY1	39.4°C	72.6°C
22	RTH4	45.5°C	79.0°C
23	L1	50.5°C	84.0°C
24	Q1	45.9°C	79.6°C
25	D5	44.4°C	78.2°C
26	C5	35.4°C	69.0°C
27	D6	41.7°C	75.6°C
28	U1	47.3°C	82.0°C
29	C7	43.4°C	77.7°C
30	Q3	46.7°C	81.9°C
31	Q2	49.2°C	84.4°C
32	Q4	53.5°C	88.2°C
33	C42	43.2°C	76.6°C
34	T1core	56.4°C	87.0°C
35	T1coil	93.4°C	98.0°C
36	C108	43.5°C	79.0°C
37	U9	49.1°C	82.7°C
38	U2	47.2°C	81.7°C
39	R7	47.9°C	81.5°C
40	C92	48.0°C	82.3°C
41	U5	48.1°C	81.8°C
42	U101	53.5°C	87.6°C
43	Q100	54.2°C	88.8°C
44	Q104	56.2°C	91.1°C
45	J101	47.6°C	80.7°C
46	D13	40.2°C	73.9°C
47	U104	35.9°C	69.1°C
48	RTH5	54.9°C	89.1°C
49	C107	45.5°C	80.7°C
50	C110	43.2°C	76.5°C
51	C135	38.5°C	70.7°C
52	U100	45.4°C	80.9°C
53	U7	41.4°C	75.2°C
54	RTH3	39.0°C	73.3°C
55	T2	40.4°C	74.4°C
56	C158	33.1°C	67.1°C
57	C201	39.3°C	74.1°C
58	U111	39.6°C	73.7°C
59	Q5	41.9°C	75.9°C
60	U100	42.3°C	76.2°C

2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P : 230 VAC O/P : 114%LOAD Ta : 25°C	TEST : OK
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P : 305VAC/100VAC O/P : 80%/100%LOAD Ta= -45°C/-35°C	TEST : OK
4	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 60°C/95 %R.H NO DAMAGE	I/P : 315VAC O/P : FULL LOAD Ta= 60°C HUMIDITY= 95 %R.H	TEST : OK
5	TEMPERATURE COEFFICIENT	± 0.05%/°C(0~60°C)	I/P : 230 VAC O/P : FULL LOAD	± 0.005%/°C(0~60°C)
6	STORAGE TEMPERATURE TEST	-40~85°C	1. Thermal shock Temperature : -45°C~ +90°C 2. Temperature change rate : 25°C / MIN 3. Dwell time low and high temperature : 30 MIN/EACH 4. Total test cycle : 10 CYCLE 5. Input/Output condition : STATIC	
7	THERMAL SHOCK TEST	-30~60°C	1. Thermal shock Temperature : -35°C~ +65°C 2. Temperature change rate : 25°C / MIN 3. Dwell time low and high temperature : 30 MIN/EACH 4. Total test cycle : 16 CYCLE 5. Input/Output condition : 15cycle:230V/ FULL LOAD AC ON 3sec/AC OFF 1sec TEST 1cycle:230V/ FULL LOAD Burn In Test	
8	VIBRATION TEST	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes	1 Carton & 1 Set (1) Waveform : Sine Wave (2) Frequency : 10~500Hz (3) Sweep Time : 10min/sweep cycle (4) Acceleration : 3G (5) Test Time : 180min in each axis (X.Y.Z) (6) Ta : 25°C	
9	CAPACITOR LIFE CYCLE	SUPPOSE C107 IS THE MOST CRITICAL COMPONENT (1) I/P : 230VAC O/P : FULL LOAD Ta= 60°C LIFE TIME (2) I/P : 230VAC O/P : FULL LOAD Ta= 60°C LIFE TIME (3) I/P : 230VAC O/P : 75% LOAD Ta= 60°C LIFE TIME (4) I/P : 230VAC O/P : 50% LOAD Ta= 60°C LIFE TIME		(1) 937548HRS (2) 72642HRS (3) 125350HRS (4) 189547HRS
10	MTBF	Conducted by Parts Stress Analysis Prediction 1047.1K hrs min. Telcordia SR-332 (Bellcore) ; 137.4K hrs min. MIL-HDBK-217F (25°C)		
11	Ongoing Reliability Test	I/P : 230VAC O/P : FULL LOAD TA=50°C Demonstration Mean Time Between Failure : 50,000 hours		

TEST RESULT	TESTER	REVIEW	APPROVAL
PASS	Yuwei	Liutt	Wangzd

2020.10.1 TAG-QA-009