



Test Report: NSP-1000-60

1000W AC/DC High Reliable Multi-Industrial 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

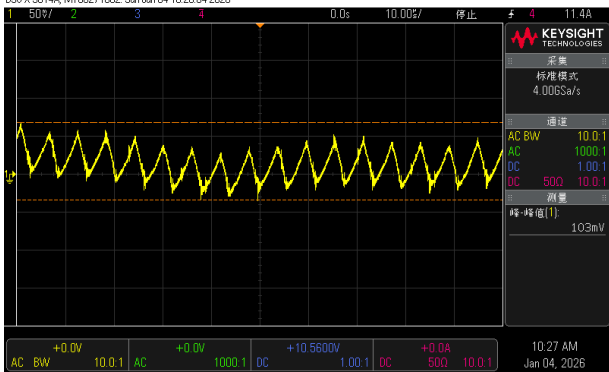
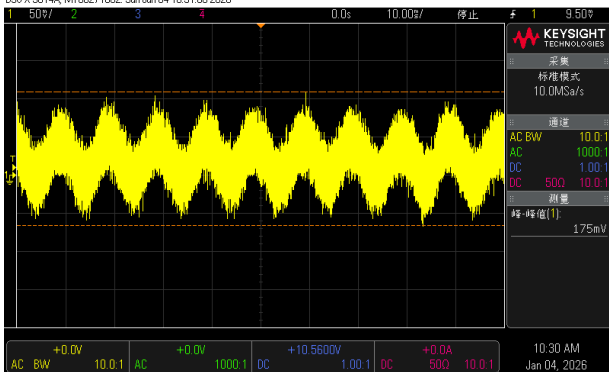
E.M.C. Test

■ RELIABILITY TEST

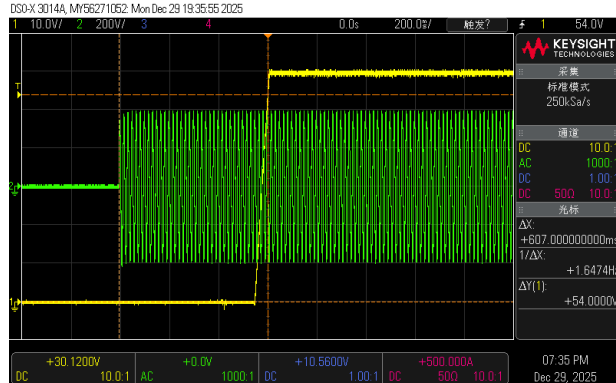
ENVIRONMENT TEST

DESIGN VERIFY TEST

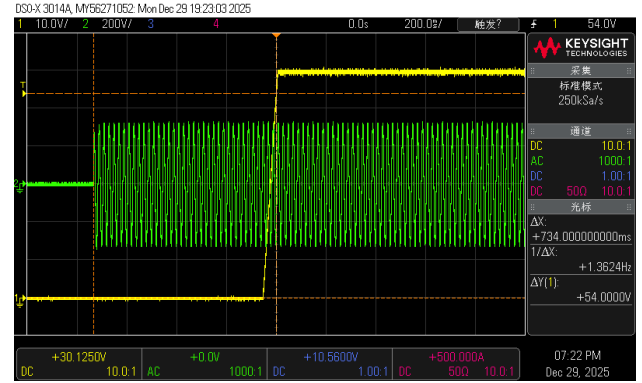
OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OUTPUT VOLTAGE ADJUST RANGE	CH1: 54 V~ 72V	I/P : 230 VAC O/P : MIN LOAD Ta : 25°C	50.1V~73.5V/230VAC
2	OUTPUT VOLTAGE TOLERANCE	V1: -1%~ 1%	I/P: 85VAC /305VAC O/P:FULL/ MIN. LOAD Ta:25°C	V1: -0.07 % ~ + 0.12 %
3	LINE REGULATION	V1: -0.5%~ 0.5%	I/P: 85VAC~ 305VAC O/P:FULL LOAD Ta:25°C	V1: -0.02 % ~ +0.02 %
4	LOAD REGULATION	V1: -0.5%~ 0.5%	I/P: 230VAC O/P:FULL ~MIN LOAD Ta:25°C	V1: -0.02 %~ +0.00 %
5	OVER/UNDERSHOOT TEST	< ± 5%	I/P: 230VAC O/P:FULL LOAD Ta:25°C	2.3 %
6	RIPPLE & NOISE (Max)	V1: 450 mVp-p	I/P: 230 VAC O/P: MIN LOAD—FULL LOAD Ta:25°C	V1: 175 mVp-p / 100% load
high frequency :  low frequency : 				
7	SET UP TIME(Max)	277VAC/1500ms 230VAC/1500ms 115VAC/2500ms	I/P : 277VAC I/P : 230VAC I/P : 115VAC O/P : FULL LOAD Ta : 25°C	277VAC/ 607 ms 230VAC/ 734 ms 115VAC/ 1310 ms

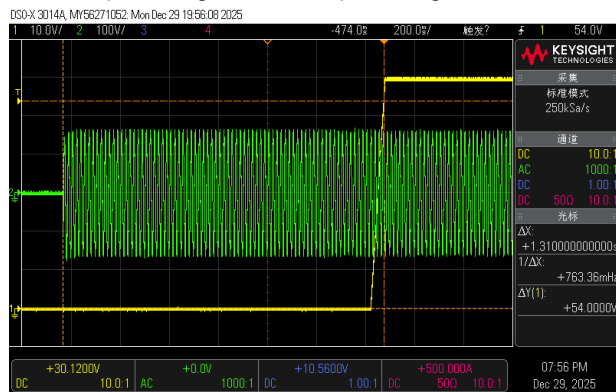
INPUT=277VAC/60HZ @ FULL LOAD
CH1 : Output Voltage CH2 : AC Input Voltage



INPUT=230VAC/50HZ @ FULL LOAD
CH1 : Output Voltage CH2 : AC Input Voltage

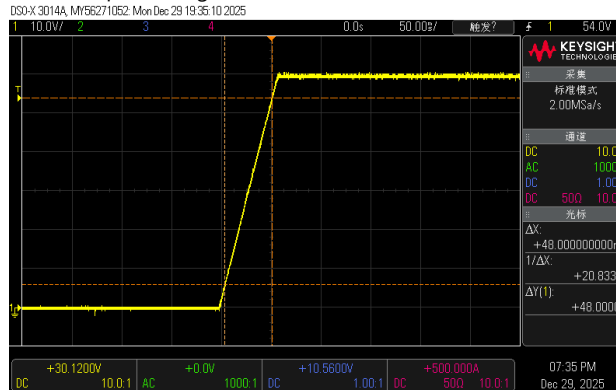


INPUT=115VAC/60HZ @ FULL LOAD
CH1 : Output Voltage CH2 : AC Input Voltage

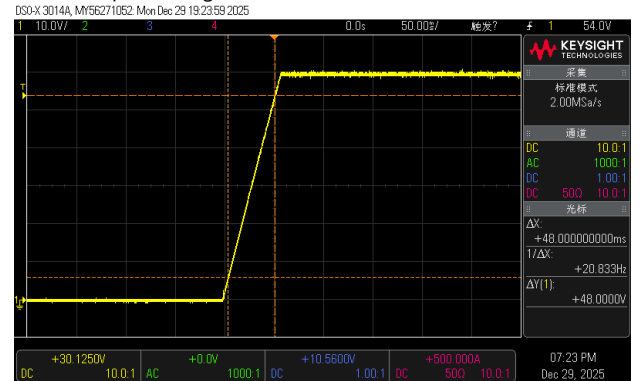


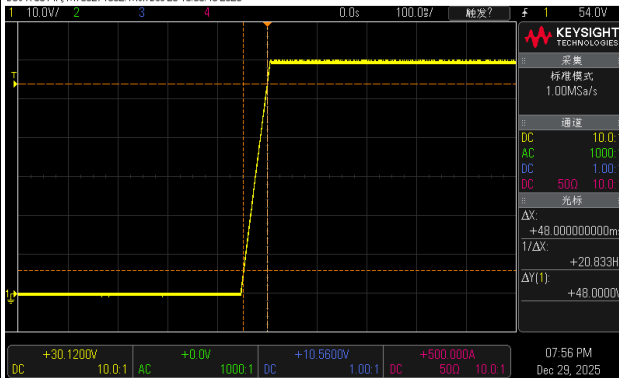
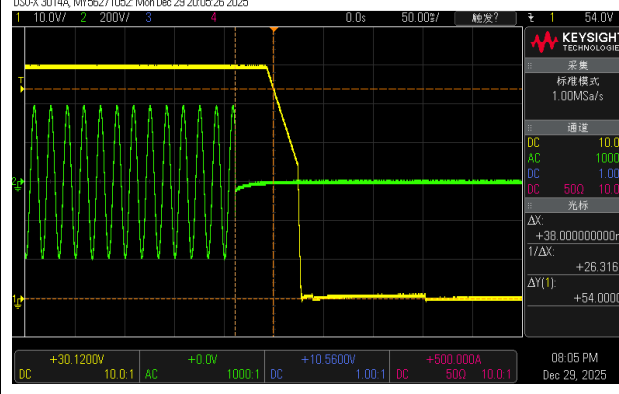
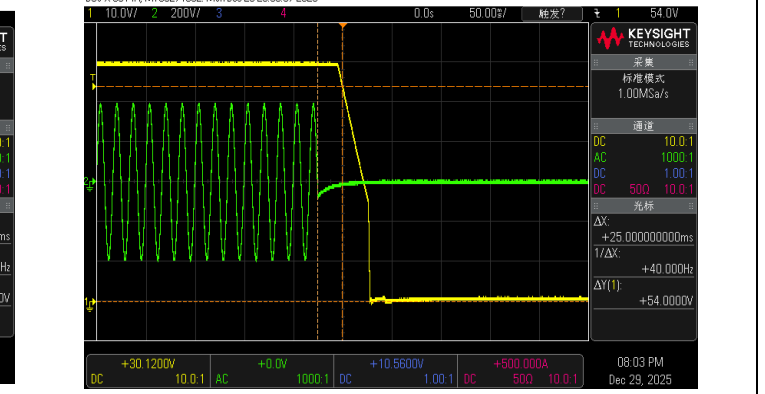
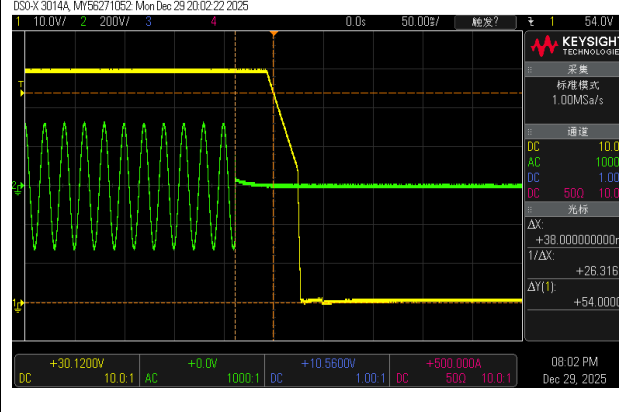
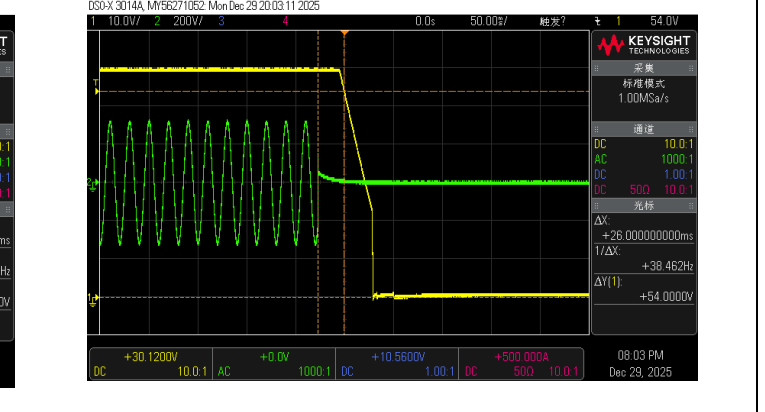
8	RISE TIME (Max)	277VAC/80ms 230VAC/80ms 115VAC/80ms	I/P : 277VAC I/P : 230VAC I/P : 115VAC O/P : FULL LOAD Ta : 25°C	277VAC/ 48 ms 230VAC/ 48 ms 115VAC/ 48 ms
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INPUT=277VAC/60HZ @ FULL LOAD
CH1 : Output Voltage

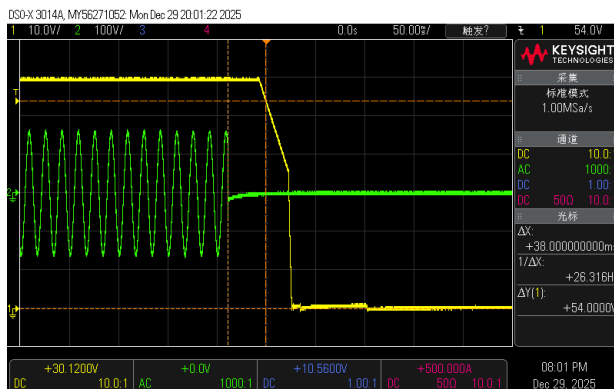


INPUT=230VAC/50HZ @ FULL LOAD
CH1 : Output Voltage

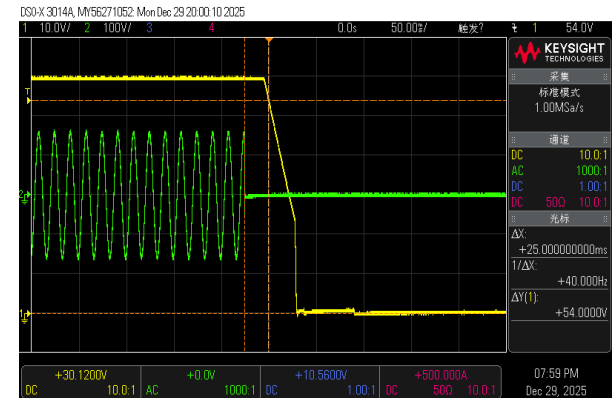


	INPUT=115VAC/60HZ @ FULL LOAD CH1 : Output Voltage 	
9	HOLD UP TIME (Typ.)	12ms@70%load 8ms@full load I/P : 277 VAC I/P : 230VAC I/P : 115 VAC O/P : 70%LOAD/FULL LOAD Ta : 25°C FULL LOAD 277VAC: 25ms 230VAC: 26ms 115VAC: 25ms 70% LOAD 277VAC: 38ms 230VAC: 38ms 115VAC: 38ms
	INPUT=277VAC/60HZ@70%LOAD CH1 : Output Voltage CH2 : AC Input Voltage 	INPUT=277VAC/60HZ@FULL LOAD CH1 : Output Voltage CH2 : AC Input Voltage 
	INPUT=230VAC/50HZ@70% LOAD CH1 : Output Voltage CH2 : AC Input Voltage 	INPUT=230VAC/50HZ@FULL LOAD CH1 : Output Voltage CH2 : AC Input Voltage 

INPUT=115VAC/60HZ@70%LOAD
CH1 : Output Voltage CH2 : AC Input Voltage

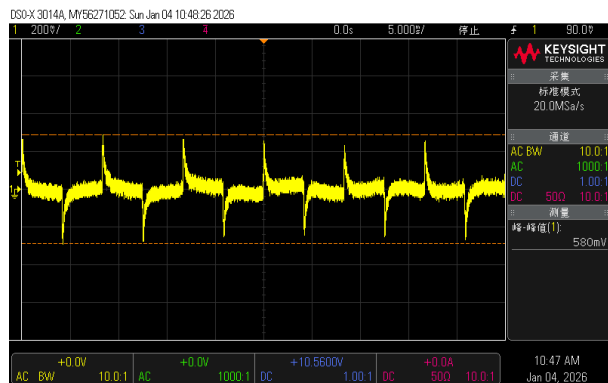


INPUT=115VAC/60HZ@FULL LOAD
CH1 : Output Voltage CH2 : AC Input Voltage

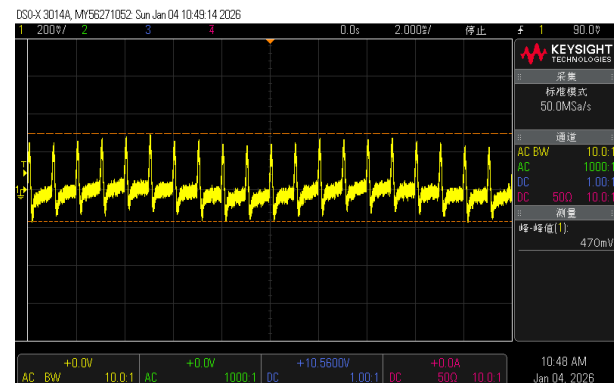


10	DYNAMIC LOAD	V1: 12000 mVp-p	I/P: 230VAC O/P: (1)FULL /50% LOAD 50%DUTY / 120HZ (2)FULL /50% LOAD 50%DUTY / 1KHZ Ta:25°C	580mVp-p 470mVp-p
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FULL /50% LOAD 50%DUTY / 120HZ



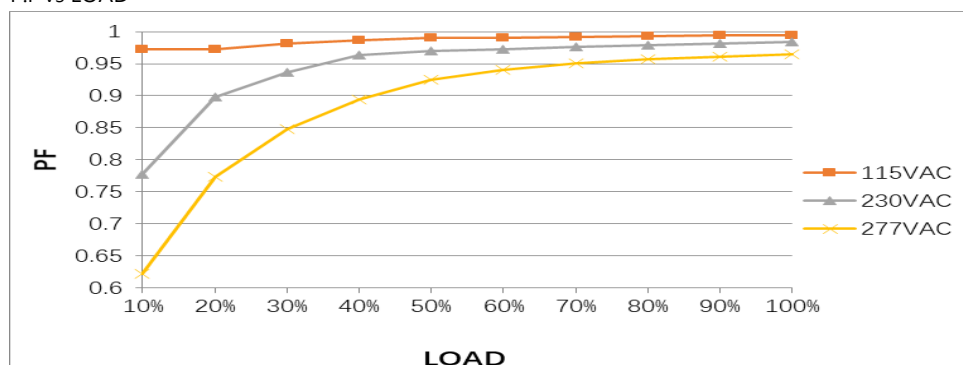
FULL /50% LOAD 50%DUTY / 1KHZ



INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	INPUT VOLTAGE RANGE	85VAC~305VAC 120VDC~ 431VDC	(1) I/P:TESTING O/P:FULL LOAD (2) I/P:DC TESTING(L:+ N:-) O/P: FULL / 50% LOAD (3) I/P:DC TESTING(L:- N:+) O/P: FULL / 50% LOAD Ta:25°C	(1) 85 V ~ 305V (2) 120 Vdc~431Vdc/FULL LOAD 120Vdc~ 431Vdc/50% LOAD (3) 120Vdc~431Vdc/FULL LOAD 120 Vdc~ 431Vdc/50% LOAD
			I/P: LOW-LINE-3V=82V HIGH-LINE+10V=315 V O/P:FULL/MIN LOAD (PLEASE CHECK DERATING CURVE) ON: 30 Sec OFF: 30 Sec 10MIN (POWER ON/OFF NO DAMAGE)	TEST: OK
2	INPUT FREQUENCY RANGE	47HZ ~63 HZ NO DAMAGE	I/P:85VAC ~305 VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: OK
3	INPUT CURRENT (Typ.)	277V/ 5A 230V/ 6A 115V/ 12A	I/P : 277VAC I/P : 230VAC I/P : 115VAC O/P : FULL LOAD Ta : 25°C	I =3.96 A/ 277VAC I =4.71 A/ 230VAC I =9.59 A/ 115VAC
4	LEAKAGE CURRENT	Earth leakage current < 350 μ A(rms)@277VAC	I/P : 277 VAC O/P : Min LOAD Ta : 25°C	L-FG : 221.2 μ A N-FG : 222.3 μ A
		Touch current <100 μ A (rms)@277 VAC		L-V+: 88.0 μ A L-V-: 88.4 μ A N-V+: 77.0 μ A N-V-: 88.2 μ A
5	POWER FACTOR (Typ.)	0.92/277VAC 0.95/ 230VAC 0.98/ 115VAC	I/P : 277VAC I/P : 230VAC I/P : 115VAC O/P : FULL LOAD Ta : 25°C	PF=0.965 /277VAC PF=0.984 /230VAC PF=0.994 /115VAC

P.F vs LOAD

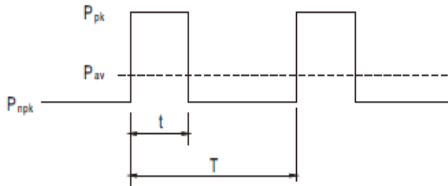


6	EFFICIENCY(Typ.)	94 %	I/P:230 VAC O/P:FULL LOAD Ta:25°C	94.7 %
EFFICIENCY vs LOAD				
7	INRUSH CURRENT(Typ.)	50A/277VAC 40A/230VAC 25A/115VAC COLD START	I/P : 277VAC I/P : 230VAC I/P : 115VAC O/P : FULL LOAD Ta : 25°C	I =36.0A/ 277VAC T50= 2540us/277V I =27.8A/230VAC T50= 2320 us/230V I =13.5A/ 115VAC T50= 810 us/115V
INPUT=277VAC/50HZ @ FULL LOAD CH2 : AC Input Voltage CH4 : Input current DSO-X 3014A, MY56271052, Sun, Jan 04 13:04:27 2026 INPUT=230VAC/50HZ @ FULL LOAD CH2 : AC Input Voltage CH4 : Input current DSO-X 3014A, MY56271052, Sun, Jan 04 11:55:40 2026 INPUT=115VAC/50HZ @ FULL LOAD CH2 : AC Input Voltage CH4 : Input current DSO-X 3014A, MY56271052, Sun, Jan 04 13:31:17 2026				

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OVER LOAD PROTECTION	105 % ~ 200 %	I/P: 305VAC I/P: 230VAC I/P: 85VAC O/P: TESTING Ta: 25°C	107.74% / 305VAC 107.74% / 230VAC 107.74% / 85VAC Protection type : Peak Load Mode: From 105% to 200% of rated output power, unit will shut down after 5 seconds of continuous operation. AC repower on to recover. At >200% of rated output power, constant current limiting is activated. Unit will shut down after 5 seconds of continuous operation. AC repower on to recover. Current Limiting Mode: Constant current limiting, recovers automatically after abnormal condition is removed.
2	OVER VOLTAGE PROTECTION	73 V ~ 86 V	I/P: 305VAC I/P: 230VAC I/P: 85VAC O/P: MIN LOAD Ta: 25°C	80.8 V / 305VAC 81.9 V / 230VAC 81.9 V / 85VAC Protection type : Shut down and latch off output voltage, re-power on to recover
3	OVER TEMPERATURE PROTECTION	NO DAMAGE	I/P: 305VAC I/P: 85VAC O/P: FULL LOAD	O.T.P. Active Protection type : Shut down output voltage, recovers automatically after temperature goes down
4	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P: 305VAC I/P: 85VAC O/P: FULL LOAD Ta: 25°C	NO DAMAGE Protection type : Peak Load Mode: Constant current limiting, unit will shut down after 5 Sec, AC repower on to recover. Current Limiting Mode: Constant current limiting, recovers automatically after abnormal condition is removed.

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	PEAK POWER	■ Function Manual 1. Peak Power $P_{av} = \frac{P_{pk} \times t + P_{npk} \times (T-t)}{T} \leq P_{rated}$ $Duty = \frac{t}{T} \times 100\% \leq 35\%$ $t \leq 5 \text{ sec}$  P_{av}: Average output power (W) P_{pk}: Peak output power (W) P_{npk}: Non-peak output power (W) P_{rated}: Rated output power (W) t: Peak power width(sec) T: Period(sec) For example (24V model) $V_{in}=220Vac$, Duty_max=5% $P_{av}=P_{rated}=1000W$ $P_{pk}=2000W$ $t \leq 5sec$ $T \geq \frac{5sec}{5\%} = 100sec$ $P_{npk} \leq \frac{TP_{av}-tP_{pk}}{T-t} = 947.4W$ Note: When the output voltage is adjusted to the upper limit, the peak power is 150% of rated power I/P: 100/200 VAC O/P: PEAK LOAD Ta: 25°C TEST RESULT : PASS		

2

OUTPUT VOLTAGE PROGRAMMABLE(PV)

2

1

16

Pin5 PV

Pin11 GND

External Voltage (Vdc)

CN1

ON

OFF

1

2

3

4

ON

OFF

1

2

3

4

126.7 (15V)

114.6(48V)

120(other)

OUTPUT VOLTAGE(%)

1

0

Non-Linear

4.7

4.8

EXTERNAL VOLTAGE (Vdc)

230 VAC

FULL LOAD

25°C

PASS

External voltage(DC)	<0.4V	1V	2.524V	4.7V	4.8V
SPEC(%)	0%	0%~6%	50%±5%	120%±5%	120%±5%
Vout(%)	0%	0.516V(0.86%)	30.08V(50.13%)	70.39V(117.32%)	72.34V(120.57%)

3

OUTPUT CURRENT PROGRAMMABLE (PC)

2

1

16

Pin6 PC

Pin11 GND

External Voltage (Vdc)

CN1

ON

OFF

1

2

3

4

ON

OFF

1

2

3

4

100

1

0

OUTPUT CURRENT(%)

Non-Linear

4.7

4.8

EXTERNAL VOLTAGE (Vdc)

230 VAC

TESTING

25°C

External voltage(DC)	<0.4V	1V	2.831V	4.7V	4.8V
SPEC(%)	0%	0%~6%	50%±5%	100%±5%	100%±5%
Iout(%)	0%	2.39%	50.12%	97.02%	97.62%

4	REMOTE CONTROL	4.Remote Control ※ The power supply can be turned ON/OFF individually or along with other units by using the "Remote Control" function with external switch, photocoupler or relay. Pin2 +5V-AUX switch Pin1 R.C CN2 +Vo -Vo <table><tr><td>PSU Vo Status</td><td>Between +5V-AUX(Pin 2) and R.C(Pin 1)</td></tr><tr><td>Power ON</td><td>Switch Short</td></tr><tr><td>Power OFF</td><td>Switch Open</td></tr></table> R.C 5V-AUX 5V-AUX R.C 5V-AUX R.C R.C 5V-AUX R.C 5V-AUX 5V-AUX R.C R.C 5V-AUX 5V-AUX R.C R.C 5V-AUX 5V-AUX R.C R.C 5V-AUX 5V-AUX R.C R.C 5V-AUX</			PSU Vo Status	Between +5V-AUX(Pin 2) and R.C(Pin 1)	Power ON	Switch Short	Power OFF	Switch Open
PSU Vo Status	Between +5V-AUX(Pin 2) and R.C(Pin 1)									
Power ON	Switch Short									
Power OFF	Switch Open									

8	LED Status indicators	※ LED Status Indicators		
		Description		Output of alarm
		Normal operation		Green : Steadily lit 
		Remote off		Red : Steadily lit 
		Internal over-temperature		Orange : 1 Blink/Pause  
		Overload/Short		Red : 1 Blink/Pause  
		Over voltage		Red : 2 Blink/Pause  
		Over temperature		Red : 3 Blink/Pause  
		Fan fail		Red : 4 Blink/Pause  
		AC under voltage		Red : 5 Blink/Pause  
		Others (Note)		Red : 6 Blink/Pause  
Note: 1. Others include hardware fault etc. 2. In PC mode, both OLP and SCP operate in constant current limiting, with the indicator steadily lit green.				
I/P:230VAC O/P:FULL LOAD Ta:25°C TEST : NOTE12				

9	FAN NOISE (Typ.)	10% load @18 dB 70% load @24 dB Built-in intelligent fan speed control detect by PSU' S internal temperature	I/P : 230 VAC O/P : TESTING Ta : 25°C	10% load: 16.27dB 70% load: 21.88dB
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COMPONENT STRESS TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	PWM Transistor (D to S) or (C to E) Peak Voltage	Q53 Rated: 650V/33.7A	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)0%~150%LOAD (9)0%LOAD~SHORT I/P:Low-Line -3V = 82V 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. Ta:25°C	VDS: (1) 444V (2) 448V (3) 448V (4) 444V (5) 444V (6) 448V (7) 460V (8) 32.1V (9) 35.2V VDS: (1) 497V (2) 473V (3) 493V (4) 493V (5) 497V (6) 465V (7) 473V
2	Diode Peak Voltage	Q100 Rated: 72A/300V Q103 Rated: 72A/300V	AC ON/OFF I/P:High-Line +3V =308 V 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 Ta:25°C	Q100: VDS: (1) 236V (2) 248V (3) 244V (4) 234V (5) 236V (6) 250V (7) 240V (8) 258V

				Q103: VDS: (1) 243V (2) 240V (3) 248V (4) 238V (5) 240V (6) 248V (7) 252V (8) 250V
3	Input Capacitor Voltage	C5 Rated: 470μ/450V Surge voltage: 495V	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 Ta:25°C	(1)452V (2)440V (3)456V (4) 452V
4	Control IC Voltage Test	PWM IC U500 Rated: 8V~ 30 V PFC IC U1 Rated: 11.9V~ 25V O/P IC U100 Rated: 4.2 V~ 30 V	AC ON/OFF I/P:High-Line +3V =308 V O/P(1)FULL LOAD (2) Output Short (3)O.L.P (4)O.V.P. (5)NO LOAD VRmin(LOW LINE) Ta:25°C	U500 (1) 17.5V (2) 17.7V (3) 17.5V (4) 17.9V (5) 17.7V U1 (1) 18.4V (2) 18.5V (3) 18.5V (4) 18.7V (5) 19.1V U100 (1) 12.5V (2) 12.3V (3) 12.5V (4) 12.3V (5) 12.4V
5	TOP SWITCHING STAND BY POWER	Q500 Rated:7A/ 700V	AC ON/OFF I/P:High-Line +3V =308V O/P: (1)Full Load (2)Remote On/Off I/P:Low-Line -3V =82 V O/P: (1)Full Load (2)Remote On/Off Ta:25°C	(1) 578V (2) 586V (1) 606V (2) 606V

■ SAFETY& E.M.C. TEST

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	WITHSTAND VOLTAGE	I/P-O/P: 4 K VAC/min I/P-FG : 2 K VAC/min O/P-FG: 1.5 KVAC/min	I/P-O/P: 4.4 KVAC/min I/P-FG: 2.4 KVAC/min O/P-FG: 1.8 KVAC/min Ta:25°C	I/P-O/P: 3.64 mA I/P-FG: 2.40 mA O/P-FG: 2.62 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: 500 VDC I/P-FG: 500 VDC O/P-FG: 500 VDC Ta:25°C	I/P-O/P: >9999 MΩ I/P-FG: >9999 MΩ O/P-FG: >9999 MΩ NO DAMAGE
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40A / 2min Ta:25°C	16 mΩ

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	HARMONIC	EN61000-3-2 CLASS A	I/P:230VAC/50HZ O/P:FULL LOAD Ta:25°C	PASS
2	CONDUCTION	EN55032 EN55014-1 EN55011	I/P : 230 VAC (50HZ) O/P : FULL/50% LOAD Ta : 25°C	PASS Test by certified Lab
3	RADIATION	EN55032 EN55014-1 EN55011	I/P : 230 VAC (50HZ) O/P : FULL LOAD Ta : 25°C	PASS Test by certified Lab
4	E.S.D	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	EN61000-4-4 INPUT : 2KV	I/P : 230 VAC/50HZ O/P : FULL LOAD Ta : 25°C	CRITERIA A
6	SURGE	IEC61000-4-5 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-1000-60 1. ROOM AMBIENT BURN-IN : 2HRS I/P : 230VAC O/P : FULL LOAD Ta= 30.6 °C 2. HIGH AMBIENT BURN-IN : 2HRS I/P : 230VAC O/P : FULL LOAD Ta= 63 °C <table><tr><th>NO</th><th>Position</th><th>ROOM AMBIENT Ta=30.9 °C</th><th>HIGH AMBIENT Ta=63 °C</th></tr><tr><td>1</td><td>LF2</td><td>39.1°C</td><td>71.5°C</td></tr><tr><td>2</td><td>BD1</td><td>52.9°C</td><td>85.3°C</td></tr><tr><td>3</td><td>Q1</td><td>56.0°C</td><td>88.4°C</td></tr><tr><td>4</td><td>D4</td><td>51.9°C</td><td>84.3°C</td></tr><tr><td>5</td><td>L1</td><td>45.1°C</td><td>77.5°C</td></tr><tr><td>6</td><td>C5</td><td>40.3°C</td><td>72.7°C</td></tr><tr><td>7</td><td>U1</td><td>45.0°C</td><td>77.4°C</td></tr><tr><td>8</td><td>U2</td><td>49.2°C</td><td>81.6°C</td></tr><tr><td>9</td><td>Q50</td><td>55.4°C</td><td>87.8°C</td></tr><tr><td>10</td><td>Q51</td><td>54.6°C</td><td>87.0°C</td></tr><tr><td>11</td><td>Q52</td><td>47.5°C</td><td>79.9°C</td></tr><tr><td>12</td><td>Q53</td><td>47.6°C</td><td>80.0°C</td></tr><tr><td>13</td><td>L3</td><td>80.9°C</td><td>113.3°C</td></tr><tr><td>14</td><td>T1</td><td>86.9°C</td><td>119.3°C</td></tr><tr><td>15</td><td>D100</td><td>74.5°C</td><td>106.9°C</td></tr><tr><td>16</td><td>L100</td><td>55.0°C</td><td>87.4°C</td></tr><tr><td>17</td><td>C110</td><td>43.9°C</td><td>76.3°C</td></tr><tr><td>18</td><td>U100</td><td>63.1°C</td><td>95.5°C</td></tr><tr><td>19</td><td>Q102</td><td>51.5°C</td><td>83.9°C</td></tr><tr><td>20</td><td>R118</td><td>77.5°C</td><td>109.9°C</td></tr><tr><td>21</td><td>RTH5</td><td>39.1°C</td><td>71.5°C</td></tr><tr><td>22</td><td>RTH6</td><td>49.9°C</td><td>82.3°C</td></tr><tr><td>23</td><td>RT31</td><td>47.2°C</td><td>79.6°C</td></tr><tr><td>24</td><td>RT32</td><td>45.3°C</td><td>77.7°C</td></tr><tr><td>25</td><td>C14</td><td>38.8°C</td><td>71.2°C</td></tr></table>			NO	Position	ROOM AMBIENT Ta=30.9 °C	HIGH AMBIENT Ta=63 °C	1	LF2	39.1°C	71.5°C	2	BD1	52.9°C	85.3°C	3	Q1	56.0°C	88.4°C	4	D4	51.9°C	84.3°C	5	L1	45.1°C	77.5°C	6	C5	40.3°C	72.7°C	7	U1	45.0°C	77.4°C	8	U2	49.2°C	81.6°C	9	Q50	55.4°C	87.8°C	10	Q51	54.6°C	87.0°C	11	Q52	47.5°C	79.9°C	12	Q53	47.6°C	80.0°C	13	L3	80.9°C	113.3°C	14	T1	86.9°C	119.3°C	15	D100	74.5°C	106.9°C	16	L100	55.0°C	87.4°C	17	C110	43.9°C	76.3°C	18	U100	63.1°C	95.5°C	19	Q102	51.5°C	83.9°C	20	R118	77.5°C	109.9°C	21	RTH5	39.1°C	71.5°C	22	RTH6	49.9°C	82.3°C	23	RT31	47.2°C	79.6°C	24	RT32	45.3°C	77.7°C	25	C14	38.8°C	71.2°C
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2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P : 230 VAC O/P : 108%LOAD Ta : 25°C	TEST : OK																																																																																																								
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P : 305VAC/90VAC O/P : 60%/ 100%LOAD Ta= -45/-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 : 315 VAC O/P : FULL LOAD Ta= 65 °C HUMIDITY= 95 %R.H	TEST : OK
5	TEMPERATURE COEFFICIENT	±0.03 %/°C(0~60°C)	I/P : 230 VAC O/P : FULL LOAD	± 0.003 %/°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) 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 C110 IS THE MOST CRITICAL COMPONENT (1) I/P : 230VAC O/P : FULL LOAD Ta=25 °C LIFE TIME (1) 980546HRS (2) I/P : 230VAC O/P : FULL LOAD Ta=60 °C LIFE TIME (2) 127773HRS (3) I/P : 230VAC O/P : 75% LOAD Ta=60 °C LIFE TIME (3) 167307HRS (4) I/P : 230VAC O/P : 50% LOAD Ta=60 °C LIFE TIME (4) 207469HRS		
10	MTBF	Conducted by Parts Stress Analysis Prediction 910.8K hrs min. Telcordia SR-332 (Bellcore) ; 87.5K 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	WUWQIN/ZHOUBIAO	WENF	WUWQ

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