



Test Report: NSP-150-15

150W 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

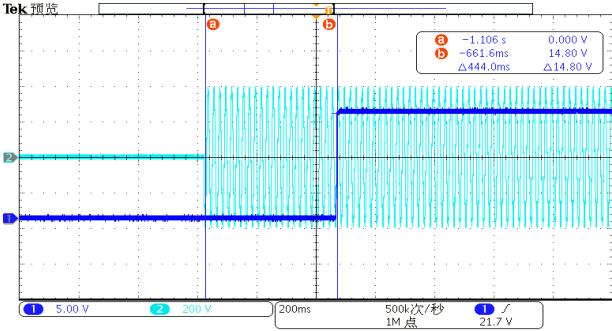
ENVIRONMENT TEST

DESIGN VERIFY TEST

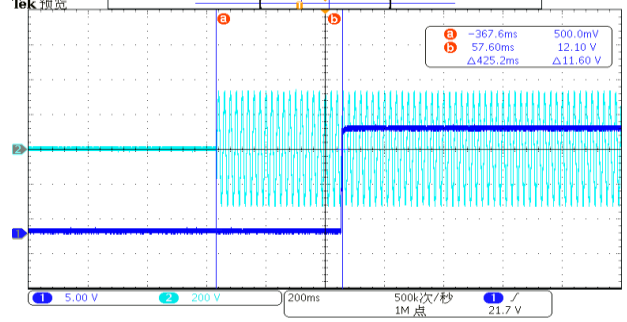
OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OUTPUT VOLTAGE ADJUST RANGE	CH1: 15V~19V	I/P : 230 VAC O/P : MIN LOAD Ta : 25°C	14.69V~19.69V/230VAC
2	OUTPUT VOLTAGE TOLERANCE	V1: -2%~ +2 %	I/P: 85VAC /305VAC O/P:FULL/ MIN. LOAD Ta:25°C	V1: -0.07%~ 0.14%
3	LINE REGULATION	V1: -0.5%~ +0.5%	I/P: 85VAC~ 305VAC O/P:FULL LOAD Ta:25°C	V1: 0%~0%
4	LOAD REGULATION	V1: -0.5%~ +0.5%	I/P: 230VAC O/P:FULL ~MIN LOAD Ta:25°C	V1: -0.2%~ 0%
5	OVER/UNDERSHOOT TEST	< ± 5%	I/P: 230VAC O/P:FULL LOAD Ta:25°C	2.06%
6	RIPPLE & NOISE (Max)	V1: 150 mVp-p	I/P: 230 VAC O/P: MIN LOAD—FULL LOAD Ta:25°C	V1: 71 mVp-p / 100% load
<p>high frequency :</p>		<p>low frequency :</p>		
7	SET UP TIME(Max)	277VAC/1000ms 230VAC/1000ms 115VAC/1500ms	I/P : 277 VAC I/P : 230VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	277VAC/444 ms 230VAC/425.2ms 115VAC/410.2ms

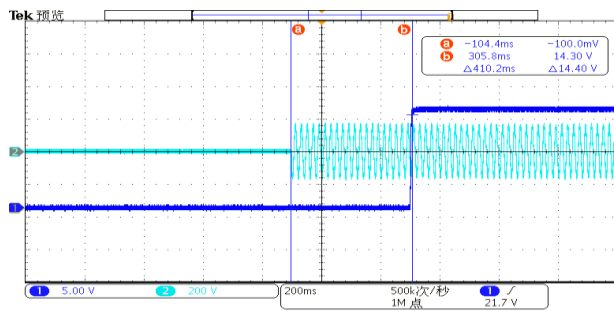
INPUT=277VAC/60HZ @ FULL LOAD
CH1 : Output Voltage CH2 : AC Input Voltage



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



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



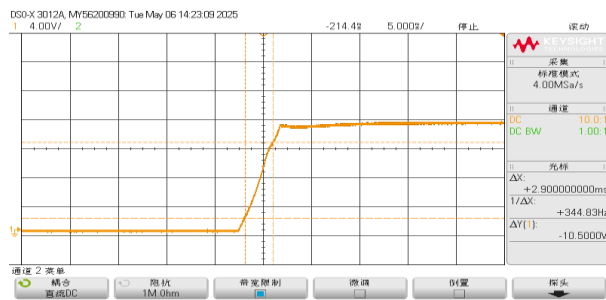
8 RISE TIME (Max)

277VAC/80ms
230VAC/80ms
115VAC/80ms

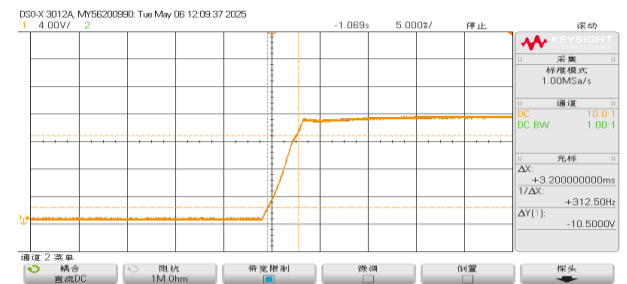
I/P : 277 VAC
I/P : 230VAC
I/P : 115 VAC
O/P : FULL LOAD
Ta : 25°C

277VAC/2.9ms
230VAC/3.2ms
115VAC/3.0ms

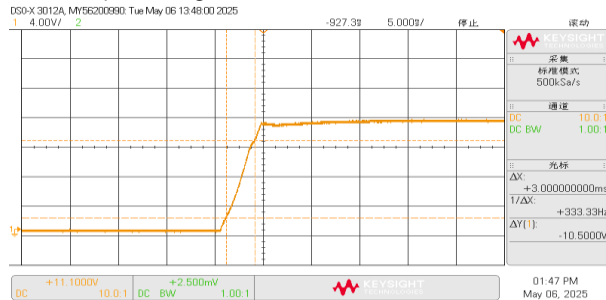
INPUT=277VAC/60HZ @ FULL LOAD
CH1 : Output Voltage



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

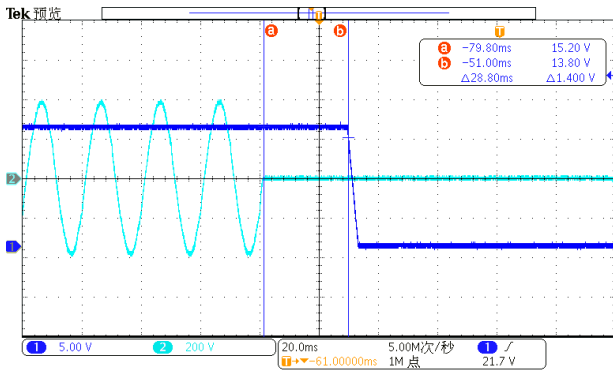


INPUT=115VAC/60HZ @ FULL LOAD
CH1 : Output Voltage

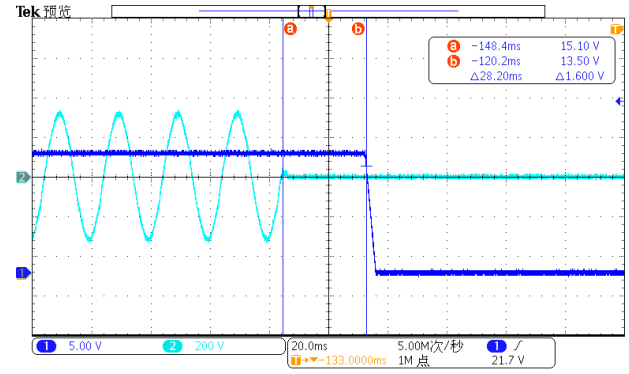


9	HOLD UP TIME (Typ.)	277VAC/16ms	I/P : 277 VAC	277VAC/28.8ms
		230VAC/16ms	I/P : 230VAC	230VAC/28.2ms
		115VAC/16ms	I/P : 115 VAC	115VAC/ 28ms
			O/P : FULL LOAD	
			Ta : 25°C	

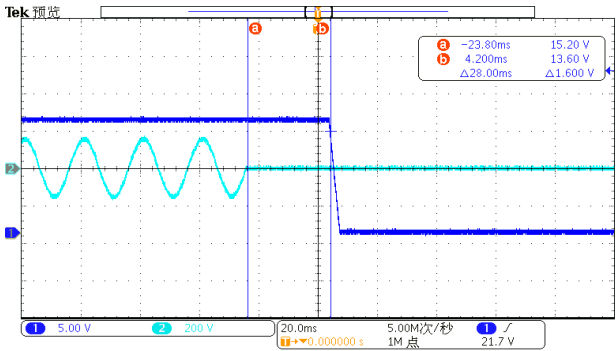
INPUT=277VAC/60HZ @ FULL LOAD
CH1 : Output Voltage CH2 : AC Input Voltage



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

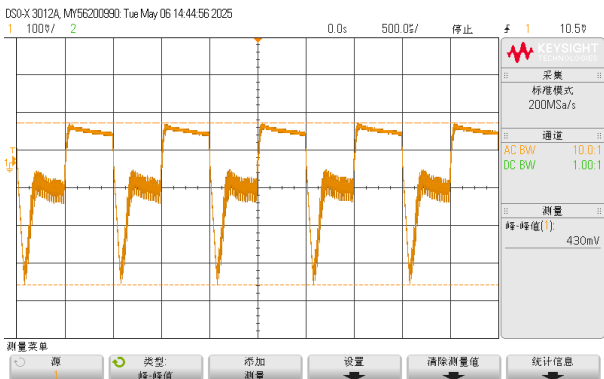


INPUT=115VAC/60HZ @ FULL LOAD
CH1 : Output Voltage CH2 : AC Input Voltage

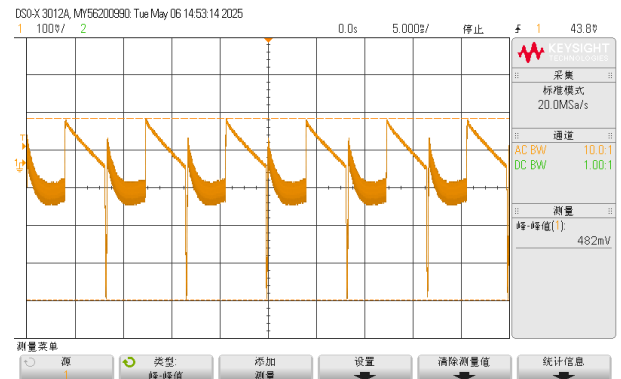


10	DYNAMIC LOAD	V1: 1500mVp-p	I/P: 230VAC	430mVp-p
			O/P:	
			(1)FULL /50% LOAD 50%DUTY / 120HZ	
			(2)FULL /50% LOAD 50%DUTY / 1KHZ	
			Ta:25°C	

FULL /50% LOAD 50%DUTY / 120HZ



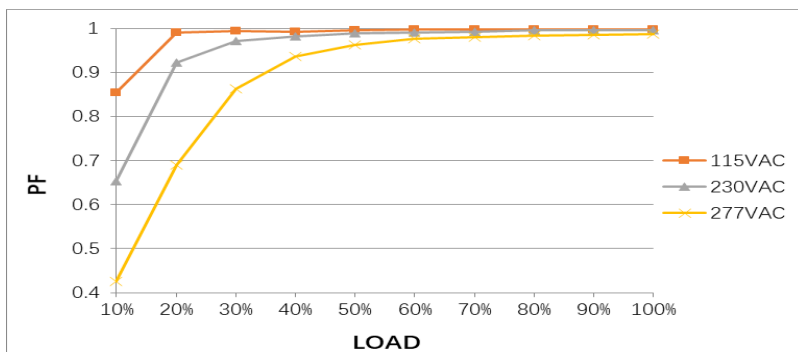
FULL /50% LOAD 50%DUTY / 1KHZ



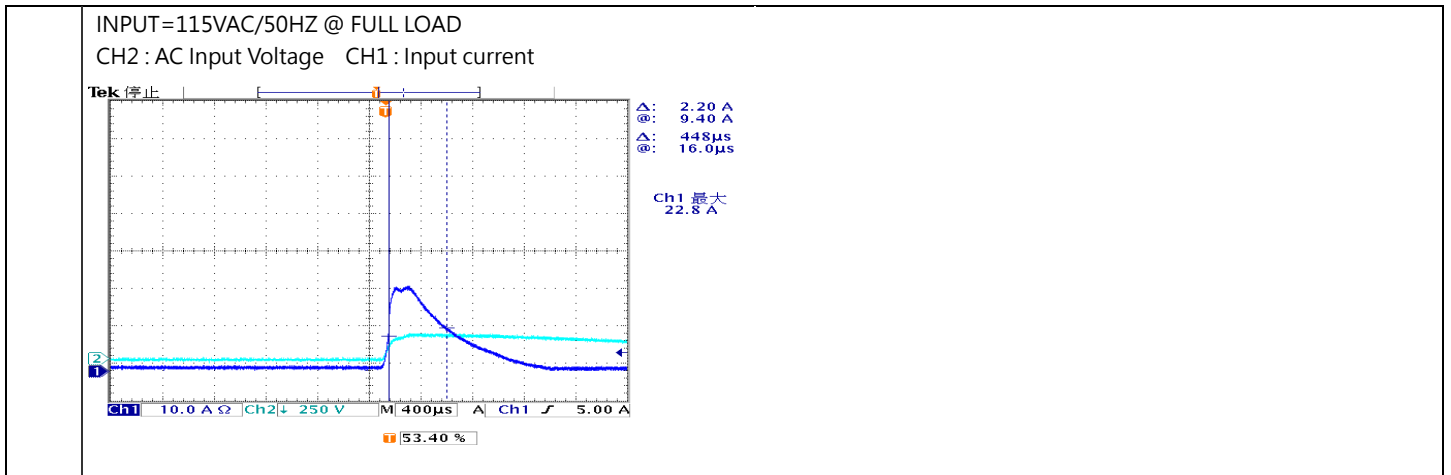
INPUT FUNCTION TEST

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) 120Vdc~ 431 Vdc/FULL LOAD 120 Vdc~ 431Vdc/50% LOAD (3) 120Vdc~ 431Vdc/FULL LOAD 120Vdc~431 Vdc/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:85 VAC ~305VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: OK
3	INPUT CURRENT (Typ.)	277V/ 0.63 A 230V/ 0.75 A 115V/ 1.55 A	I/P : 277VAC I/P : 230 VAC I/P : 115VAC O/P : FULL LOAD Ta : 25°C	I =0.58A/ 277VAC I =0.69A/ 230VAC I =1.43A/ 115VAC
4	LEAKAGE CURRENT	Earth leakage current <350μA(rms)@277Vac	I/P : 277 VAC O/P : Min LOAD Ta : 25°C	L-FG : 221μA N-FG : 215μA
		Touch current <100μA(rms)@277Vac	I/P : 277 VAC O/P : Min LOAD Ta : 25°C	L-V+ : 41μA L-V-: 42μA N-V+ : 41μA N-V-: 42μA
5	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=0.986/277VAC PF=0.996/230VAC PF=0.998/115VAC

P.F vs LOAD



6	EFFICIENCY(Typ.)	93%	I/P:230 VAC O/P:FULL LOAD Ta:25°C	93.71 %																																												
<p>EFFICIENCY vs LOAD</p> <table border="1"> <caption>Efficiency vs Load Data</caption> <thead> <tr> <th>LOAD (%)</th> <th>115VAC (%)</th> <th>230VAC (%)</th> <th>277VAC (%)</th> </tr> </thead> <tbody> <tr><td>10</td><td>84</td><td>85</td><td>85</td></tr> <tr><td>20</td><td>88</td><td>90</td><td>91</td></tr> <tr><td>30</td><td>90</td><td>92</td><td>93</td></tr> <tr><td>40</td><td>91</td><td>93</td><td>94</td></tr> <tr><td>50</td><td>91</td><td>93</td><td>94</td></tr> <tr><td>60</td><td>91</td><td>93</td><td>94</td></tr> <tr><td>70</td><td>91</td><td>93</td><td>94</td></tr> <tr><td>80</td><td>91</td><td>93</td><td>94</td></tr> <tr><td>90</td><td>91</td><td>93</td><td>94</td></tr> <tr><td>100</td><td>91</td><td>93</td><td>94</td></tr> </tbody> </table>					LOAD (%)	115VAC (%)	230VAC (%)	277VAC (%)	10	84	85	85	20	88	90	91	30	90	92	93	40	91	93	94	50	91	93	94	60	91	93	94	70	91	93	94	80	91	93	94	90	91	93	94	100	91	93	94
LOAD (%)	115VAC (%)	230VAC (%)	277VAC (%)																																													
10	84	85	85																																													
20	88	90	91																																													
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40	91	93	94																																													
50	91	93	94																																													
60	91	93	94																																													
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80	91	93	94																																													
90	91	93	94																																													
100	91	93	94																																													
7	NO LOAD POWER CONSUMPTION(Typ.)	Remote Power ON : 3W/277VAC 3W/230VAC 3W/115VAC Remote Power OFF : 0.3W/115VAC 0.5W/230VAC 0.5W/277VAC	I/P : 277 VAC I/P : 230 VAC I/P : 115VAC O/P : RC ON/RC OFF Ta : 25°C	Remote Power ON : 0.67W/277VAC 0.68W/230VAC 0.65W/115VAC Remote Power OFF : 0.378W/277VAC 0.30W/230VAC 0.13W/115VAC																																												
8	INRUSH CURRENT(Typ.)	277VAC/55A 230VAC/45A 115VAC/23A COLD START	I/P : 277 VAC I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	I =53A/ 277VAC T50= 488us/277VAC I =43A/ 230VAC T50=504us/230VAC I =22.8A/ 115VAC T50=448 us/115VAC																																												
<div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p>INPUT=277VAC/50HZ @ FULL LOAD CH2 : AC Input Voltage CH1 : Input current</p> <p>Ch1 最大 53.0 A</p> </div> <div style="width: 45%;"> <p>INPUT=230VAC/50HZ @ FULL LOAD CH2 : AC Input Voltage CH1 : Input current</p> <p>Ch1 最大 43.0 A</p> </div> </div>																																																

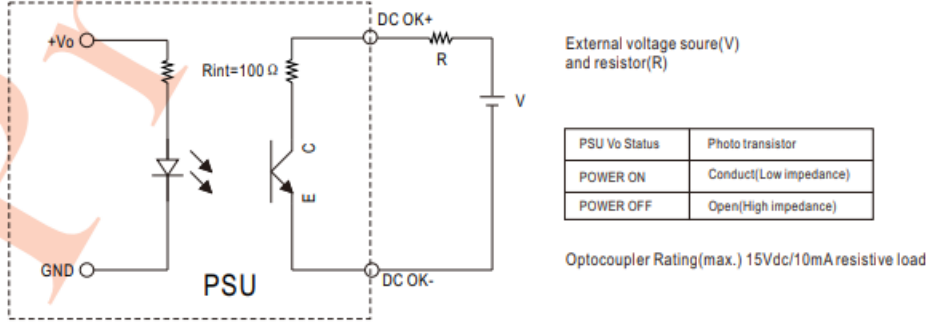


PROTECTION FUNCTION TEST

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	121.2%/ 305VAC 121%/ 230VAC 120.8%/85VAC Protection type : 1、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 2、>200% rated power, constant current limiting ($V_{out}>30\%$) with auto-recovery after fault condition is removed, or shut down o/p voltage when $V_{out} \leq 30\%$, AC re-power on to recover
2	OVER VOLTAGE PROTECTION	20V~25V	I/P: 305VAC I/P: 230VAC I/P: 85VAC O/P: MIN LOAD Ta: 25°C	22.3V/ 305VAC 22.3V/ 230VAC 22.3V/ 85VAC Protection type : Shut down o/p 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 o/p voltage, re-power on to recover
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 : Constant current limiting for more than 5 seconds ($V_{out}<30\%$) and then shut down o/p voltage, AC re-power on to recover

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT						
1	REMOTE ON/OFF CONTROL	<p>2.Remote Control The PSU can be turned ON/OFF by using the "Remote Control" function with external switch and auxiliary power</p> <table border="1"> <tr> <td>PSU Vo Status</td> <td>Between RC-(pin1) and RC+(pin2) on CN1</td> </tr> <tr> <td>POWER ON</td> <td>Keep 0~0.8Vdc or open</td> </tr> <tr> <td>POWER OFF</td> <td>Keep 3.3~10Vdc by external voltage</td> </tr> </table>	PSU Vo Status	Between RC-(pin1) and RC+(pin2) on CN1	POWER ON	Keep 0~0.8Vdc or open	POWER OFF	Keep 3.3~10Vdc by external voltage		
PSU Vo Status	Between RC-(pin1) and RC+(pin2) on CN1									
POWER ON	Keep 0~0.8Vdc or open									
POWER OFF	Keep 3.3~10Vdc by external voltage									
		<p>I/P: 230 VAC O/P:FULL LOAD Ta:25°C Test Result : PASS</p> <table border="1"> <thead> <tr> <th>Between ON/OFF</th> <th>Power Output Status</th> </tr> </thead> <tbody> <tr> <td>POWER ON (0~0.8V)</td> <td>ON</td> </tr> <tr> <td>POWER OFF (3.3~10V)</td> <td>OFF</td> </tr> </tbody> </table>	Between ON/OFF	Power Output Status	POWER ON (0~0.8V)	ON	POWER OFF (3.3~10V)	OFF		
Between ON/OFF	Power Output Status									
POWER ON (0~0.8V)	ON									
POWER OFF (3.3~10V)	OFF									
2	PEAK POWER	<p>1. Peak Power</p> $P_{av} = \frac{P_{pk} \times t + P_{npk} \times (T-t)}{T} \leq P_{rated}$ $Duty = \frac{t}{T} \times 100\% \leq 35\%$ $t \leq 5 \text{ sec}$								
		<p>For example (24V model): Vin = 200Vac Duty_max = 5% P_{av} = P_{rated} = 150W P_{pk} = 300W t < 5 sec $T > \frac{5 \text{ sec}}{5\%} > 100\text{sec}$ $P_{nkp} < \frac{TP_{av} - TP_{pk}}{T-t}$ P_{nkp} < 142W Note: When the output voltage is adjusted to the upper limit, the peak power is 150% rated power</p>								
		<p>I/P: 100/305VAC O/P:PEAK LOAD (1Hour NO DAMAGE) Ta:25°C Test Result: PASS</p>								

3	REMOTE SENSE	The remote sensing compensates voltage drop on the load wiring up to 0.3V	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	> 0.3 V
4	DC_OK Signal	<p>4.DC_OK signal</p> <p>※ DC_OK is a collector shorted signal. It is used by an optocoupler in the power supply which indicates the output status of the power supply as exhibited below.</p>  <p>I/P:230VAC O/P:FULL LOAD Ta:25°C TEST :PASS</p>		

COMPONENT STRESS TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	PWM Transistor (D to S) or (C to E) Peak Voltage	Q6 Rated : 650V/11A	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.	VDS: (1) 451V (2) 490V (3) 450V (4) 446V (5) 438V (6) 442V (7) 494V



			<p>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</p>	<p>VDS: (1) 442V (2) 494V (3) 442V (4) 438V (5) 442V (6) 438V (7) 486V</p>
2	P.F.C Transistor (D to S) or (C to E) Peak Voltage	Q1 Rated : 650V/15A	<p>I/P:High-Line +3V =308V AC ON/OFF 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.</p> <p>I/P:Low-Line -3V =82V AC ON/OFF 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</p>	<p>VDS: (1) 453V (2) 553V (3) 453V (4) 457V (5) 453V (6) 457V (7) 553V</p> <p>VDS: (1) 505V (2) 558V (3) 501V (4) 501V (5) 497V (6) 489V (7) 489V</p>
3	P.F.C DIODE	D8 Rated : 4 A/650V	<p>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</p>	<p>(1) 441V (2) 461V (3) 441V (4) 441V</p>

			<p>I/P:Low-Line -3V = 82V AC ON/OFF O/P: (1)Full Load (1) 441V (2)Output Short (2) 457V (3)Dynamic Load Full Load/ Min. Load 90%Duty/5KHz (3) 441V (4)Dynamic Load 100% Load/ Min. Load 50%Duty/120Hz (4) 441V Ta:25°C</p>	
4	Diode Peak Voltage	Q101 Rated :160A/ 60V	<p>AC ON/OFF I/P:High-Line +3V =308 V O/P: (1)Full Load (1) 43.9V (2)Output Short (2) 9.3V (3)Dynamic Load Full Load/ Min. Load 90%Duty/1KHz (3) 44.7V (4)Dynamic Load Full Load/ Min. Load 90%Duty/3KHz (4) 45.1V (5)Dynamic Load Full Load/ Min. Load 90%Duty/5KHz (5) 45.1V (6)Dynamic Load 100% Load/ Min. Load 50%Duty/120Hz (6) 44.7V (7)0%→400% Load. (7) 45.1V (8).NO LOAD (8) 12.1V Ta:25°C</p>	Q101: VDS: (1) 43.9V (2) 9.3V (3) 44.7V (4) 45.1V (5) 45.1V (6) 44.7V (7) 45.1V (8) 12.1V
5	Input Capacitor Voltage	C5 Rated: 82μ/ 450V Surge voltage: 500V	<p>I/P:High-Line +3V =308V O/P: (1)Full Load input on/off (1)430V (2) Min load input on /Off (2)434V (3)Full Load /Min load Change (3)438V (4)Full load continue (4) 430V Ta:25°C</p>	
6	Control IC Voltage Test	PWM IC U1 Rated 9.6V~ 36V O/P IC U100 Rated 3V~30V	<p>AC ON/OFF I/P:High-Line +3V =308 V O/P(1)FULL LOAD (1) 18.8v (2) Output Short (2) 18.8V (3)O.L.P (3) 18.8V (4)O.V.P. (4) 19.2V (5)NO LOAD VRmin(Low LINE) (5) 13V Ta:25°C</p>	<p>U1 (1) 18.8v (2) 18.8V (3) 18.8V (4) 19.2V (5) 13V U100 (6) 11.45V (7) 11.21V (8) 11.45V (9) 11.45V (10) 9.44V</p>

■ 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: 1.727 mA I/P-FG: 1.615 mA O/P-FG: 1.747 mA
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	10 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	BS EN/EN55032(CISPR32),CNS 15936 EN/EN55014-1(CISPR14-1) EN/EN55011(CISPR11)	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 EN/EN55014-1(CISPR14-1) EN/EN55011(CISPR11)	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-150-12 1. ROOM AMBIENT BURN-IN : 2 HRS I/P : 230VAC O/P : FULL LOAD Ta=28 °C 2. HIGH AMBIENT BURN-IN : 2 HRS I/P : 230VAC O/P : FULL LOAD Ta=61.4 °C																																																																																																		
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2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P : 230 VAC O/P : 121 % LOAD Ta : 25°C	TEST : OK																																																																																																
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P : 85VAC/305VAC O/P : 75/100 % LOAD Ta=-35/-45 °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=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	±0.0074 %/°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 C105 IS THE MOST CRITICAL COMPONENT (1) I/P : 230VAC O/P : FULL LOAD Ta=25 °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) 332050HRS (2) 31895HRS (3) 63230HRS (4) 115562HRS	
10	MTBF	Conducted by Parts Stress Analysis Prediction 2159.4K hrs min. Telcordia SR-332 (Bellcore) ; 258.3K 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

2020.10.1 TAG-QA-009