



Test Report: RSP-1600-27

1600W Power Supply with Single Output

■ 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

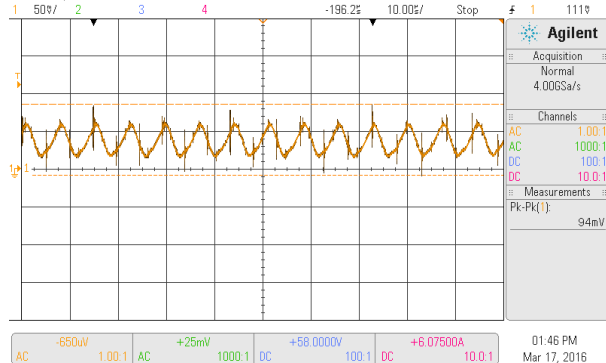
DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OUTPUT VOLTAGE ADJUST RANGE	CH1: 26.5 V~ 33.5V	I/P : 230 VAC I/P : 90 VAC O/P : MIN LOAD Ta : 25°C	25.65V~34.83V/230VAC 25.66V~34.83V/90VAC
2	OUTPUT VOLTAGE(Max) TOLERANCE	V1: 1 %~ -1 %	I/P: 180VAC /264VAC O/P:FULL/ MIN. LOAD Ta:25°C	V1: -0.15 %~ 0 %
3	LINE REGULATION (Max)	V1: 0.5 %~ -0.5 %	I/P: 180VAC~ 264VAC O/P:FULL LOAD Ta:25°C	V1:-0.03 %~ 0 %
4	LOAD REGULATION(Max)	V1: 0.5 %~ -0.5 %	I/P: 230VAC O/P:FULL ~MIN LOAD Ta:25°C	V1:-0.03 %~ -0.07 %
5	OVER/UNDERSHOOT TEST	< ±5%	I/P: 230VAC O/P:FULL LOAD Ta:25°C	0.48 %
6	RIPPLE & NOISE(Max)	V1: 200 mVp-p	I/P:230VAC O/P:FULL LOAD Ta:25°C	V1: 157 mVp-p

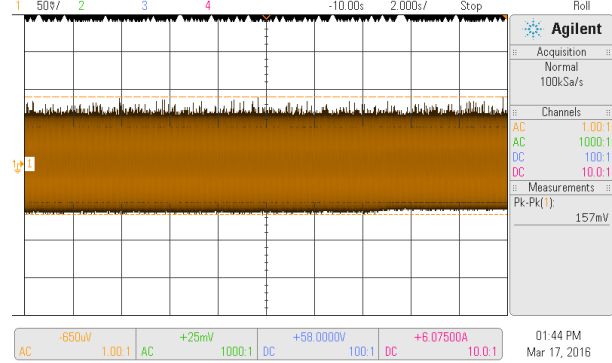
high frequency :

D30-X 3014A, MY54100664, Thu Mar 17 13:46:38 2016



low frequency :

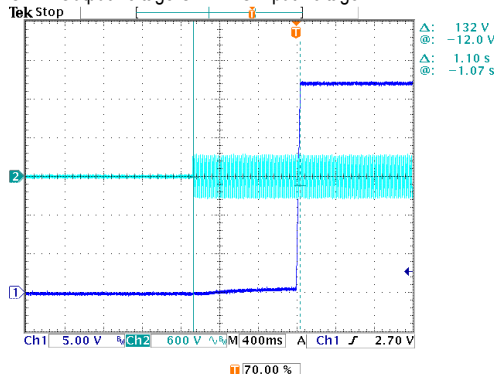
D30-X 3014A, MY54100664, Thu Mar 17 13:44:17 2016

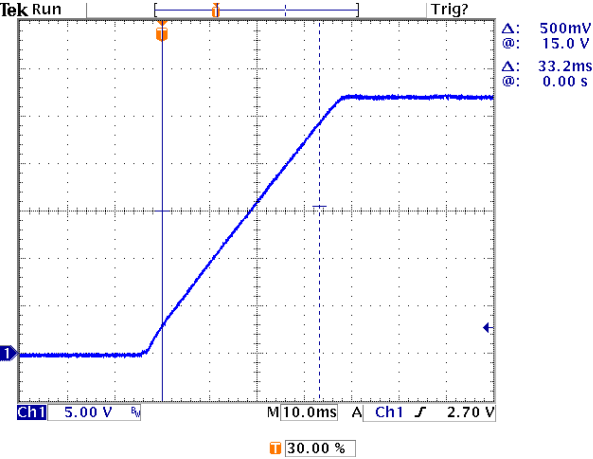
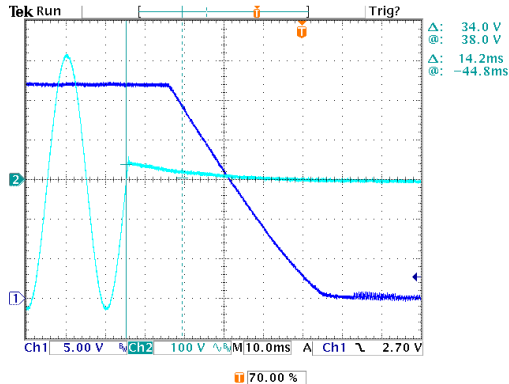
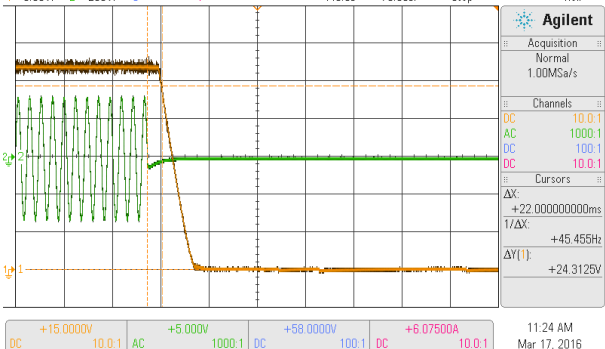


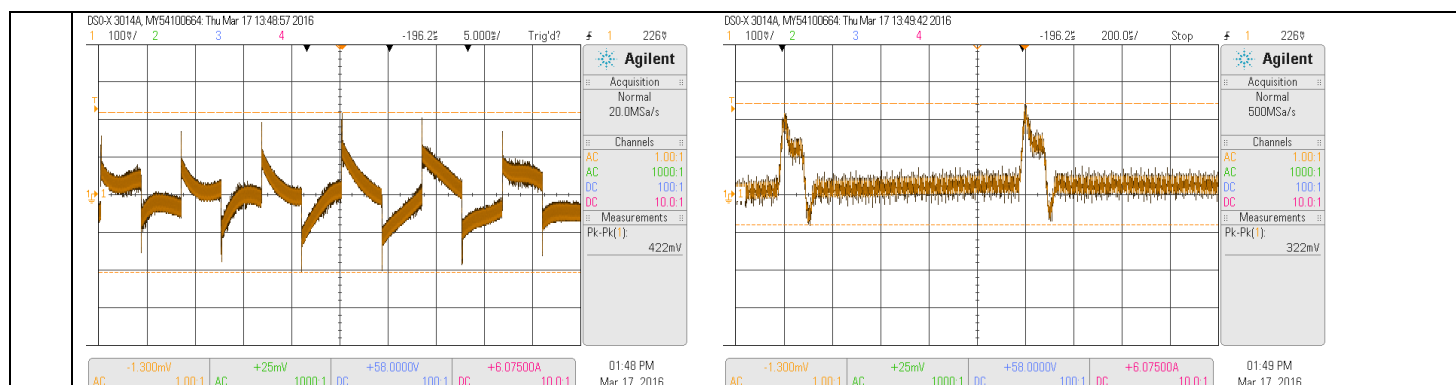
7	SET UP TIME(Max)	230VAC/1500ms	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	230VAC/1104 ms
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INPUT=230VAC/50HZ @ FULL LOAD

CH1 : Output Voltage CH2 : AC Input Voltage

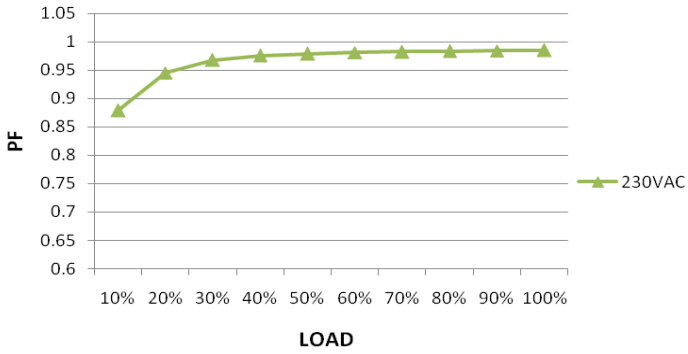
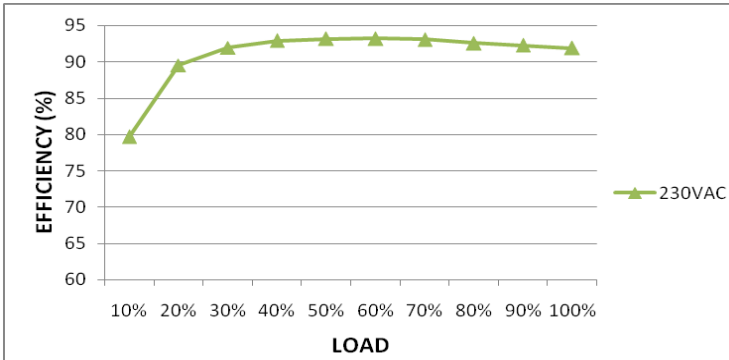
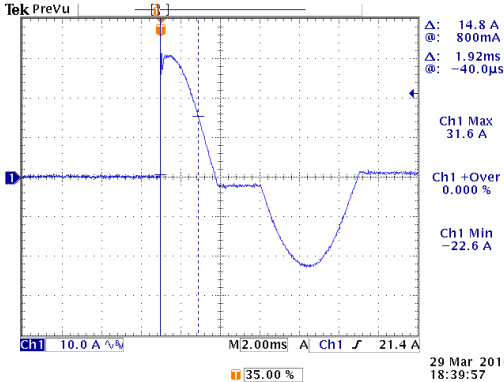


8	RISE TIME (Max)	230VAC/60ms	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	230VAC/33.2 ms
	INPUT=230VAC/50HZ @ FULL LOAD CH1 : Output Voltage 			
9	HOLD UP TIME (Typ.)	230VAC/10ms /FULL LOAD 230VAC/16ms /75% LOAD	I/P : 230 VAC O/P : FULL LOAD /75% LOAD Ta : 25°C	230VAC/ 14.2 ms /FULL LOAD 230VAC/ 22 ms /75% LOAD
	INPUT=230VAC/50HZ @ FULL LOAD CH1 : Output Voltage CH2 : AC Input Voltage  INPUT=230VAC/50HZ @75% LOAD CH1 : Output Voltage CH2 : AC Input Voltage 			
10	DYNAMIC LOAD	V1:2700 mVp-p	I/P: 230VAC O/P: (1)FULL /50% LOAD 50%DUTY / 120HZ (2)FULL /50% LOAD 50%DUTY / 1KHZ Ta:25°C	422mVp-p 322 mVp-p
	FULL /50% LOAD 50%DUTY / 120HZ FULL /50% LOAD 50%DUTY / 1KHZ			



INPUT FUNCTION TEST

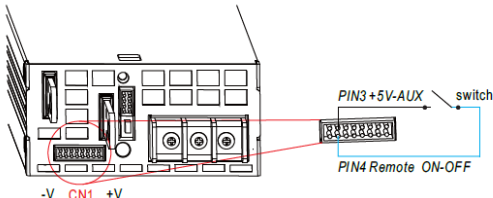
NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	INPUT VOLTAGE RANGE	90VAC/180VAC~264VAC	I/P:TESTING O/P:FULL LOAD/60% Ta:25°C	86V/150 V~264V
			I/P: (1)LOW-LINE-3V=180 V HIGH-LINE+15%=300 V O/P:FULL/MIN LOAD (PLEASE CHECK DERATING CURVE) ON: 30 Sec OFF: 30 Sec 10MIN (2)230Vac ON: 0.5 Sec OFF: 0.5 Sec 20MIN (3)230Vac ON:3Sec OFF:3Sec 12HOURS (POWER ON/OFF NO DAMAGE)	TEST:OK
2	INPUT FREQUENCY RANGE	47HZ ~63 HZ NO DAMAGE	I/P:180 VAC ~264 VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: OK
3	INPUT CURRENT (Typ.)	230V/ 8.5 A 115V/ 15 A	I/P : 230 VAC I/P : 115 VAC O/P : FULL LOAD Ta : 25°C	I =7.88A/ 230VAC I =10.88A/ 115VAC
4	LEAKAGE CURRENT	<2 mA / 230 VAC	I/P : 230 VAC O/P : Min LOAD Ta : 25°C	L-FG : 0.76 mA N-FG : 0.76 mA
5	POWER FACTOR (Typ.)	0.97 / 230VAC	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	PF=0.9854/230VAC
	P.F vs LOAD			

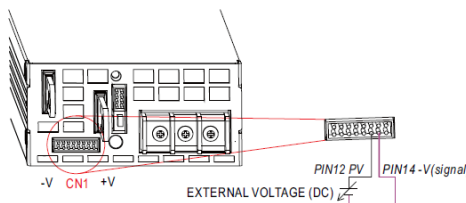
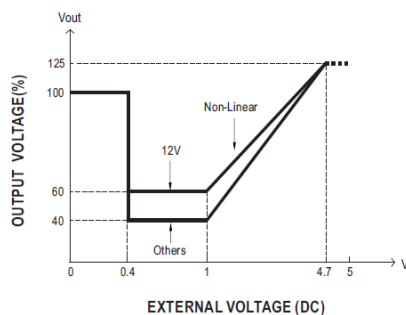
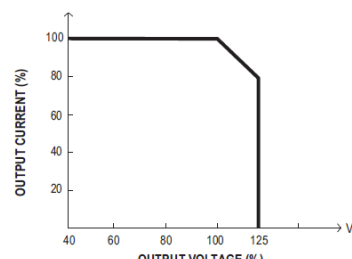
				
6	EFFICIENCY(Typ.)	92%	I/P:230 VAC O/P:FULL LOAD Ta:25°C	92.85%
	EFFICIENCY vs LOAD 			
7	INRUSH CURRENT(Typ.)	230V/35 A COLD START	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	I =31.6A/ 230VAC T50= 1920 us/230V
	INPUT=230VAC/50HZ @ FULL LOAD CH1 : Input current 			

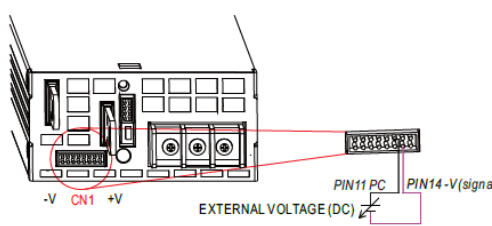
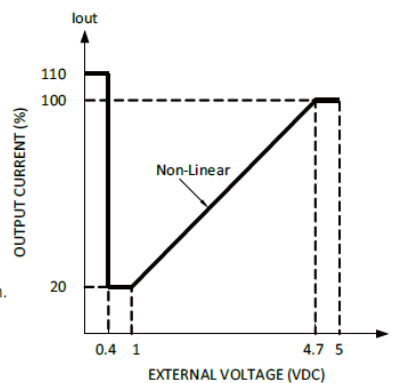
PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OVER LOAD PROTECTION	105 %~ 115 % PROTECTION TYPE : Constant current limiting, unit will shut down when O/P voltage is down very low or shut down after 5 sec. Re-power on to recover	I/P: 264VAC I/P: 230VAC I/P: 180VAC O/P: TESTING Ta:25°C	111.37%/ 264VAC 111.10%/ 230VAC 111.32%/180VAC PROTECTION TYPE : Constant current limiting, unit will shut down when O/P voltage is down very low or shut down after 5 sec. Re-power on to recover
2	OVER VOLTAGE PROTECTION	35.2 V~ 41.9 V PROTECTION TYPE : Shut down o/p voltage, re-power on to recover	I/P: 264VAC I/P: 230VAC I/P: 90VAC O/P: MIN LOAD Ta:25°C	38.6V/ 264VAC 39.0V/230VAC 38.60V/90VAC PROTECTION TYPE : Shut down o/p voltage, re-power on to recover
3	OVER TEMPERATURE PROTECTION	NO DAMAGE PROTECTION TYPE : Shut down o/p voltage, recovers automatically after temperature goes down	I/P: 264VAC I/P: 180VAC O/P: FULL LOAD	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, unit will shut down when O/P voltage is down very low or shut down after 5 sec. Re-power on to recover	I/P: 264VAC I/P: 90VAC O/P: FULL LOAD Ta:25°C	NO DAMAGE PROTECTION TYPE : Constant current limiting, unit will shut down when O/P voltage is down very low or shut down after 5 sec. Re-power on to recover

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT												
1	AUXILIARY POWER (AUX)	1. 5V±10%@0.3A ripple:150mVp-p 2. 12V±10%@0.8A ripple:250mVp-p	I/P: 230 VAC O/P:FULL LOAD Ta:25℃	5.02V 0.3A / 72mVp-p 11.28V 0.8 A / 201mVp-p												
2	REMOTE ON/OFF CONTROL	※ The power supply can be turned ON/OFF individually or along with other units by using the "Remote ON-OFF" function.  -V CN1 +V PIN3+5V-AUX → switch PIN4 Remote ON-OFF <table border="1"><thead><tr><th>Between Remote ON-OFF and +5V-AUX</th><th>Power Supply Status</th></tr></thead><tbody><tr><td>Switch Short</td><td>ON</td></tr><tr><td>Switch Open</td><td>OFF</td></tr></tbody></table> I/P: 230 VAC O/P:FULL LOAD Ta:25℃ Test Result : <table border="1"><thead><tr><th>Between Remote ON-OFF and +5V-AUX</th><th>Power Supply Status</th></tr></thead><tbody><tr><td>SW SHORT</td><td>ON</td></tr><tr><td>SW OPEN</td><td>OFF</td></tr></tbody></table>			Between Remote ON-OFF and +5V-AUX	Power Supply Status	Switch Short	ON	Switch Open	OFF	Between Remote ON-OFF and +5V-AUX	Power Supply Status	SW SHORT	ON	SW OPEN	OFF
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Switch Short	ON															
Switch Open	OFF															
Between Remote ON-OFF and +5V-AUX	Power Supply Status															
SW SHORT	ON															
SW OPEN	OFF															
3	REMOTE SENSE	S+ / S- >0.5V Compensate voltage drop on the	I/P: 230 VAC O/P:FULL LOAD Ta:25℃	> 0.5 V												

		load wiring up to 0.5V.																							
4	ALARM SIGNAL	1. DC OK SIGNAL High (4.5 ~ 5.5V) : When the $V_{out} \leq 80\% \pm 5\%$. Low (-0.1 ~ 0.5V) : When $V_{out} \geq 80\% \pm 5\%$. The maximum sourcing current is 10mA and only for output. I/P: 230 VAC O/P: FULL LOAD Ta: 25°C <table><tr><th>Vout</th><th>DC OK SIGNAL</th></tr><tr><td>$V_{out} \leq 75\%$</td><td>5.34 V</td></tr><tr><td>$V_{out} \geq 85\%$</td><td>0.003V</td></tr></table> 2. T-ALARM <table><tr><th>P.S.U STATUS</th><th>Vo</th><th>T-ALARM</th></tr><tr><td>NORMAL</td><td>100%±2%</td><td>-0.1 ~0.5V</td></tr><tr><td>OTP OR FAN LOCK</td><td>0V</td><td>4.5~5.5V</td></tr></table> I/P: 230 VAC O/P: FULL LOAD Ta: 25°C Test Result : <table><tr><th>P.S.U STATUS</th><th>T-ALARM</th></tr><tr><td>NORMAL</td><td>-0.09 V</td></tr><tr><td>OTP OR FAN LOCK</td><td>4.936V</td></tr></table>			Vout	DC OK SIGNAL	$V_{out} \leq 75\%$	5.34 V	$V_{out} \geq 85\%$	0.003V	P.S.U STATUS	Vo	T-ALARM	NORMAL	100%±2%	-0.1 ~0.5V	OTP OR FAN LOCK	0V	4.5~5.5V	P.S.U STATUS	T-ALARM	NORMAL	-0.09 V	OTP OR FAN LOCK	4.936V
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OTP OR FAN LOCK	4.936V																								
5	OUTPUT VOLTAGE PROGRAMMABLE(PV)	※ In addition to the adjustment via the built-in potentiometer, the output voltage can be trimmed by applying EXTERNAL VOLTAGE.  ◎ For Remote Sense / Local Sense, please refer to "Voltage Drop Compensation" section.   ◎ The rated current should change with the Output Voltage Programming accordingly. ◎ For Remote Sense / Local Sense, please refer to "Voltage Drop Compensation" section. I/P: 230 VAC O/P: FULL LOAD Ta: 25°C Test Result : <table><tr><th>PV</th><th><0.4V</th><th>1V</th><th>4.7V</th></tr><tr><td>MODEL</td><td></td><td></td><td></td></tr><tr><td>SPEC</td><td>27V±5%</td><td>10.8V±5%</td><td>33.5V±5%</td></tr><tr><td>Vout</td><td>27.054V</td><td>11.178V</td><td>34.02V</td></tr></table>			PV	<0.4V	1V	4.7V	MODEL				SPEC	27V±5%	10.8V±5%	33.5V±5%	Vout	27.054V	11.178V	34.02V					
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Vout	27.054V	11.178V	34.02V																						

6	OUTPUT CURRENT PROGRAMMABLE (PC)	 © For Remote Sense / Local Sense, please refer to "Voltage Drop Compensation" section. I/P: 230 VAC O/P: TESTING Ta: 25°C Test Result : <table><tr><td>ADJ V</td><td>1V</td><td>4.7V</td><td>5V</td></tr><tr><td>SPEC</td><td>20%±10%</td><td>100%±10%</td><td>100%±10%</td></tr><tr><td>Iout</td><td>20.3%</td><td>101.18%</td><td>101.01%</td></tr></table> 			ADJ V	1V	4.7V	5V	SPEC	20%±10%	100%±10%	100%±10%	Iout	20.3%	101.18%	101.01%
ADJ V	1V	4.7V	5V													
SPEC	20%±10%	100%±10%	100%±10%													
Iout	20.3%	101.18%	101.01%													
7	CURRENT SHARING	< ±5%	I/P : 230 VAC O/P : FULL/50% LOAD Ta : 25°C	O/P : 100% PSU1 : 59.7 A PSU2 : 61 A PSU3 : 58.4 A PSU4 : 59.8 A PSU5 : 57.8 A PSU6 : 58.6 A O/P : 50% PSU1 : 29.62 A PSU2 : 29.82 A PSU3 : 28.51 A PSU4 : 29.48 A PSU5 : 28 A PSU6 : 29.12 A												

COMPONENT STRESS TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	PWM Transistor (D to S) or (C to E) Peak Voltage	Q901 Rated 29A/600V	I/P: High-Line +3V =267V AC ON/OFF 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. (6) NO LOAD Ta: 25°C	VDS: (1) 468V (2) 540V (3) 444V (4) 460V (5) 452V (6) 472V (7) 460V

2	P.F.C Transistor (D to S) or (C to E) Peak Voltage	Q52 Rated 52A/ 600V	I/P:High-Line +3V =267 V 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	VDS: (1)452V (2) 408V (3) 444V (4) 448V (5)456 V (6)432V (7)379V
3	Diode Peak Voltage	Q101 Rated 104A/ 150 V Q104 Rated 104A/ 150 V	I/P:High-Line +3V =267 V 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. (8).NO LOAD Ta:25°C	Q101: VDS: (1)100.6V (2)98.2V (3)99.8V (4)98.2V (5)99V (6)105.4V (7)95V (8)114.3V Q104: VDS: (1)99.8V (2)92.6V (3)100.6V (4)99.0V (5)99.0V (6)103.8V (7)93.4V (8)115.9V
4	Input Capacitor Voltage	C5 Rated:: 680μ/400V (450V for Surge Voltage)	I/P:High-Line +3V =267 V O/P: (1)Full Load Ta:25°C	(1)395V
5	Control IC Voltage Test	PWM IC U901 Rated 6.5 V~24V PFC IC U51 Rated 4.5V~ 15V	I/P:High-Line +3V =267 V AC ON/OFF O/P(1)FULL LOAD (2) Output Short (3)O.L.P (4)O.V.P. Ta:25°C	(1) 13.75V (2) 14.2V (3) 14.8V (4) 13.75 (1)14.06V (2)13.87V (3)13.87V (4)13.75V (5)13.37V

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	WITHSTAND VOLTAGE	I/P-O/P: 3KVAC/min I/P-FG :2KVAC/min O/P-FG:1.5KVAC/min	I/P-O/P: 3.6 KVAC/min I/P-FG: 2.4 KVAC/min O/P-FG:1.8 KVAC/min Ta:25°C	I/P-O/P:7.23mA I/P-FG:6.9mA O/P-FG:7.25mA NO DAMAGE
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: 26.9GΩ I/P-FG: 29GΩ O/P-FG: 11.5GΩ NO DAMAGE
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40A / 2min Ta:25°C	17mΩ

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	HARMONIC	EN61000-3-2 CLASS A	I/P:230VAC/50HZ O/P:100% LOAD Ta:25°C	PASS
2	CONDUCTION	EN55022 CLASS B	I/P : 230 VAC (50HZ) O/P : FULL/50% LOAD Ta : 25°C	PASS Test by certified Lab
3	RADIATION	EN55022 CLASS A	I/P : 230 VAC (50HZ) O/P : FULL LOAD Ta : 25°C	PASS Test by certified Lab
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
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
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
7	Test by certified Lab & Test Report Prepare			

■ RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT																																																																																																								
1	TEMPERATURE RISE TEST	MODEL : RSP-1600-24 1. ROOM AMBIENT BURN-IN : 1 HRS I/P : 230VAC O/P : FULL LOAD Ta= 28.3 °C 2. HIGH AMBIENT BURN-IN : 3 HRS I/P : 230VAC O/P : FULL LOAD Ta= 52.5 °C <table><thead><tr><th>NO</th><th>Position</th><th>ROOM AMBIENT Ta= 28.3 °C</th><th>HIGH AMBIENT Ta= 52.5 °C</th></tr></thead><tbody><tr><td>1</td><td>Q901</td><td>63.0°C</td><td>93.0°C</td></tr><tr><td>2</td><td>Q904</td><td>60.8°C</td><td>89.5°C</td></tr><tr><td>3</td><td>Q52</td><td>63.1°C</td><td>89.3°C</td></tr><tr><td>4</td><td>D50</td><td>70.3°C</td><td>97.8°C</td></tr><tr><td>5</td><td>BD1</td><td>44.2°C</td><td>69.2°C</td></tr><tr><td>6</td><td>L900</td><td>54.9°C</td><td>80.5°C</td></tr><tr><td>7</td><td>T3</td><td>53.4°C</td><td>80.3°C</td></tr><tr><td>8</td><td>RG301</td><td>71.8°C</td><td>98.9°C</td></tr><tr><td>9</td><td>RG302</td><td>66.6°C</td><td>92.5°C</td></tr><tr><td>10</td><td>T1</td><td>60.5°C</td><td>88.0°C</td></tr><tr><td>11</td><td>Q101</td><td>63.9°C</td><td>94.7°C</td></tr><tr><td>12</td><td>Q104</td><td>61.3°C</td><td>90.9°C</td></tr><tr><td>13</td><td>U921</td><td>43.7°C</td><td>68.2°C</td></tr><tr><td>14</td><td>C5</td><td>38.5°C</td><td>62.4°C</td></tr><tr><td>15</td><td>L100</td><td>71.9°C</td><td>96.4°C</td></tr><tr><td>16</td><td>ZNR1</td><td>29.2°C</td><td>53.3°C</td></tr><tr><td>17</td><td>L2</td><td>47.4°C</td><td>71.9°C</td></tr><tr><td>18</td><td>RY1</td><td>33.3°C</td><td>58.0°C</td></tr><tr><td>19</td><td>C101</td><td>31.3°C</td><td>55.1°C</td></tr><tr><td>20</td><td>T52</td><td>41.7°C</td><td>66.6°C</td></tr><tr><td>21</td><td>RTH21</td><td>55.7°C</td><td>82.7°C</td></tr><tr><td>22</td><td>RTH9</td><td>44.4°C</td><td>68.5°C</td></tr><tr><td>23</td><td>U671</td><td>31.3°C</td><td>55.2°C</td></tr><tr><td>24</td><td>U82</td><td>59.7°C</td><td>86.3°C</td></tr><tr><td>25</td><td>Q151</td><td>40.9°C</td><td>65.0°C</td></tr></tbody></table>			NO	Position	ROOM AMBIENT Ta= 28.3 °C	HIGH AMBIENT Ta= 52.5 °C	1	Q901	63.0°C	93.0°C	2	Q904	60.8°C	89.5°C	3	Q52	63.1°C	89.3°C	4	D50	70.3°C	97.8°C	5	BD1	44.2°C	69.2°C	6	L900	54.9°C	80.5°C	7	T3	53.4°C	80.3°C	8	RG301	71.8°C	98.9°C	9	RG302	66.6°C	92.5°C	10	T1	60.5°C	88.0°C	11	Q101	63.9°C	94.7°C	12	Q104	61.3°C	90.9°C	13	U921	43.7°C	68.2°C	14	C5	38.5°C	62.4°C	15	L100	71.9°C	96.4°C	16	ZNR1	29.2°C	53.3°C	17	L2	47.4°C	71.9°C	18	RY1	33.3°C	58.0°C	19	C101	31.3°C	55.1°C	20	T52	41.7°C	66.6°C	21	RTH21	55.7°C	82.7°C	22	RTH9	44.4°C	68.5°C	23	U671	31.3°C	55.2°C	24	U82	59.7°C	86.3°C	25	Q151	40.9°C	65.0°C
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2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P : 230 VAC O/P : 105% LOAD Ta : 25°C	TEST : OK																																																																																																								
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P : 230VAC/180VAC O/P : 100 % LOAD Ta= -35°C/-30°C	TEST : OK																																																																																																								
4	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 50 °C NO DAMAGE	I/P : 272 VAC O/P : FULL LOAD Ta= 50 °C HUMIDITY= 95 %R.H	TEST : OK																																																																																																								
5	TEMPERATURE COEFFICIENT	± 0.03 %/°C (0~50°C)	I/P : 230 VAC O/P : FULL LOAD	± 0.002 %/°C (0~50°C)																																																																																																								

6	STORAGE TEMPERATURE TEST	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 : 5 CYCLE 5. Input/Output condition : STATIC	OK
7	THERMAL SHOCK TEST	1. Thermal shock Temperature : -35°C ~ +55°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 : 15cycle:230V/ FULL LOAD AC ON 3sec/AC OFF 1sec TEST(13500 TIMES) 1cycle:230V/ FULL LOAD Burn In Test	OK
8	VIBRATION TEST	1 Carton & 1 Set (1) Waveform : Sine Wave (2) Frequency : 10~500Hz (3) Sweep Time : 12min/sweep cycle (4) Acceleration : 2G (5) Test Time : 60min in each axis (X.Y.Z) (6) Ta : 25°C	TEST : OK
9	CAPACITOR LIFE CYCLE	SUPPOSE C101 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= 50°C LIFE TIME (3) I/P : 230VAC O/P : 75% LOAD Ta= 50°C LIFE TIME (4) I/P : 230VAC O/P : 50% LOAD Ta= 50°C LIFE TIME	(1) 2451612HRS (2) 445544HRS (3) 480914HRS (4) 490935HRS
10	MTBF	Conducted by Parts Stress Analysis Prediction 160.9K hrs min. Telcordia SR-332 (Bellcore) ; 42.1K hrs min. MIL-HDBK-217F (25°C)	
11	DMTBF/Accelerated Life Test	Demonstration Mean Time Between Failure (Expected Life): Above 50,000 hours @ TA 50°C	

TEST RESULT	TESTER	REVIEW	APPROVAL
PASS	DANIEL GAO	SANFORD SU	VINCENT TSENG

12.10.30 A50-F031