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Jameco Part Number 1585725



Declaration of RoHS Conformity

To minimize the environmental impact and take more responsibility to the earth we live, MEAN WELL hereby confirms that the following product series comply with Directive 2002/95/EC of the European Parliament - RoHS (Restriction of Hazardous Substances).

Content of Compliance

Lead	<0.1 % by weight (1000 ppm)
Mercury	<0.1 % by weight (1000 ppm)
Cadmium	<0.01 % by weight (100 ppm)
Hexavalent Chrome (Cr ⁺⁶)	<0.1 % by weight (1000 ppm)
PBBs	<0.1 % by weight (1000 ppm)
PBDEs	<0.1 % by weight (1000 ppm)

Product Series

Please refer to the attached list for details.

Delivery

The actual delivery date for RoHS compliance products will depend on our inventory status.

Please contact our sales representatives for details.

How to Recognize

The serial number on each PSU originally was Cxxxxxxxx and right now will be changed to Rxxxxxxxx or Exxxxxxxx (or add "R" for serial number that only specify the production weeks) for RoHS compliance products for the ease of identification.

Jerry Lin / President
MEAN WELL Enterprises Co., Ltd.

Product Family	Series
G3	RS-25/35/50/75/100/150, RD-35/50/65/85/125, RID-50/65/85/125, RT-50/65/85/125, RQ-50/65/85/125
G2	S-25/40/60/100F/150/240, T-40, D/ID/T/IT/Q/IQ-60, D/T/Q-120, SC-150
PFC	SP-75/100/150/200/320/480/500/750, USP-225/350, TP-75/100/150, QP-100/150/200/320/375
AD	ADS-55/155, AD-55/155, ADD-55/155
CL/PL	CLG-60/100, PLN-30/60/100
DIN	MDR-20/40/60, DR-30/45/60/75/100/120, DRH-120, DRP-240/480/480S, DRT-240/480/960, DR-RDN20, DR-UPS40
Modular	MP-450/650/1K0, MS-75/150/300, MD-100
Parallel	PSP-500/600/1000/1500, RSP-1000/1500, RCP-1000, RCP-1U
Open Frame	NFM-05/10/15/20, PM-05/10/15/20, PS/PD-25, PS-35, PS/PD/PT-45, PS/PD/PT-65, RPD/RPT-65, PD-110, PQ-100, PPQ-100, PPS/PPT-125, LPS-50/75/100, LPP-100/150, ASP-150, PPS-200, PID-250, MPS-30, MPS/MPD/MPT-45, RPS/RPD/RPT-60, MPS/MPD/MPT-65, RPS/RPD/RPT-75, MPS/MPD/MPT/MPQ-120, MPS/MPD/MPT/MPQ-200
Charger	GC-30, PA/PB/PS-120, ESC/ESP-120, ESC/ESP-240, PB-300/360
Adaptor	GS-06/15/18/25, ES-18/25, P25, P30, P40, P50, P66, U65S, MES-30/50, ATX-100, AS-120P
PC/IPC Power	YP-350J, IPC-200/250/300
DC/DC Converter	SD-25/50/100/150/200/350, SDM30, ASD10H/15H, NSD10/15, SBT, SFT, DET, SRS, SUS, SPR, SPU, SCW, SLW, SKE SKA, DCW, DLW, DKE, DKA, TKA
Inverter	TN/TS-1500, A301/A302
Power Cord	YP** + YC**

**** For other products not listed above, please contact our sales representatives for availability**

2007.04 update

ISO-9001 CERTIFIED
Your Reliable Power Partner



■ Features :

- Universal AC input / Full range
- AC input active surge current limiting
- Built-in 5V/0.5A auxiliary power
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Output voltage can be trimmed between 40 ~ 110% of the rated output voltage
- Forced air cooling by built-in DC fan
- High power density 10.7w/inch³
- 1U low profile 41mm
- Active current sharing up to 4000W(3+1) (Note.8)
- DC OK Signal
- Built-in remote ON-OFF control
- Built-in remote sense function
- 3 years warranty

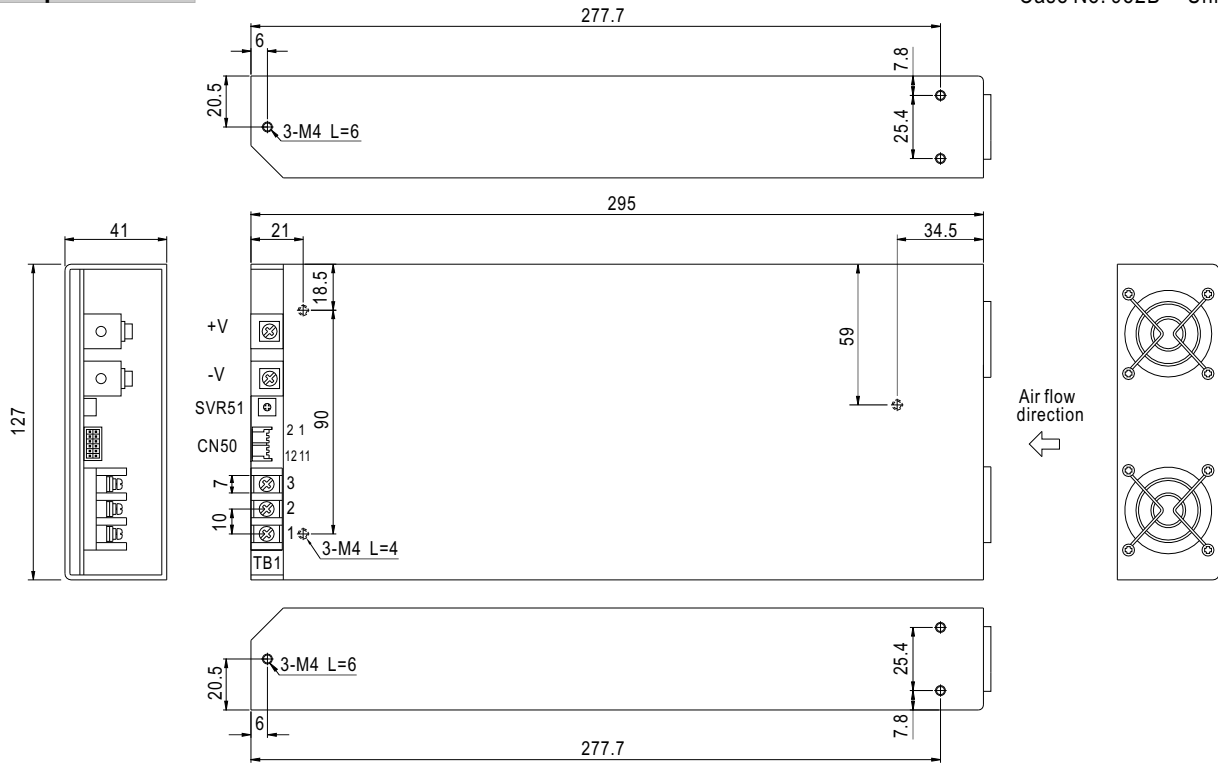


SPECIFICATION

MODEL		RSP-1000-12	RSP-1000-15	RSP-1000-24	RSP-1000-27	RSP-1000-48
OUTPUT	DC VOLTAGE	12V	15V	24V	27V	48V
	RATED CURRENT	60A	50A	40A	37A	21A
	CURRENT RANGE	0 ~ 60A	0 ~ 50A	0 ~ 40A	0 ~ 37A	0 ~ 21A
	RATED POWER	720W	750W	960W	999W	1008W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	10 ~ 13.5V	13.5 ~ 16.5V	20 ~ 26.4V	24 ~ 30V	43 ~ 55V
	VOLTAGE TOLERANCE Note.3	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	300ms, 50ms at full load				
	HOLD UP TIME (Typ.)	16ms/230VAC 16ms/115VAC at full load				
INPUT	VOLTAGE RANGE Note.5	90 ~ 264VAC 127 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz				
	POWER FACTOR (Typ.)	0.95/230VAC 0.98/115VAC at full load				
	EFFICIENCY (Typ.)	83%	85%	88%	88%	90%
	AC CURRENT (Typ.)	12A/115VAC 6A/230VAC				
	INRUSH CURRENT (Typ.)	25A/115VAC 40A/230VAC				
	LEAKAGE CURRENT	<2.0mA / 240VAC				
PROTECTION	OVERLOAD	105 ~ 125% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed				
	OVER VOLTAGE	13.8 ~ 16.8V	17 ~ 20.5V	27.6 ~ 32.4V	31 ~ 36.5V	56.6 ~ 66.2V
	OVER TEMPERATURE	85℃ ±5℃ (TSW2) detect on heatsink of O/P diode; 75℃ ±5℃ (TSW1) detect on heatsink of power transistor				
		Protection type : Shut down o/p voltage, recovers automatically after temperature goes down				
FUNCTION	AUXILIARY POWER(AUX)	5V @ 0.5A (+5%, -8%)				
	REMOTE ON/OFF CONTROL Note.6	Power on : short between on/off(pin6) & -S(pin2) on CN50 Power off : open between on/off(pin6) & -S(pin2) on CN50				
	DC OK SIGNAL	Open collector signal low when PSU turns on, Max. sink current : 10mA				
	OUTPUT VOLTAGE TRIM Note.6	Adjustment of output voltage is possible between 40 ~ 110% of rated output				
	CURRENT SHARING(CS)Note.7	Please refer to function manual				
ENVIRONMENT	WORKING TEMP.	-20 ~ +60℃ (Refer to output load derating curve)				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.02%/℃ (0 ~ 50℃)				
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes				
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved				
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC				
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC				
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22)				
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3				
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN61000-6-2, EN61204-3, heavy industry level, criteria A				
OTHERS	MTBF	35K hrs min. MIL-HDBK-217F (25℃)				
	DIMENSION	295*127*41mm (L*W*H)				
	PACKING	1.95Kg; 6pcs/12.7Kg/0.99CUFT				
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 5. Derating may be needed under low input voltages. Please check the derating curve for more details. 6. The power supply unit will have no output if the shorting connector is not assembled. It contains two shorting wires: one is from on/off(pin6) to -s(pin2) and the other is from Vco(pin8) to Vca(pin10). Please refer to function manual for details. 7. In parallel connection, maybe only one unit operate if the total output load is less than 5% of rated load condition. 8. Please consult MEAN WELL for applications of more units connecting in parallel.					

Mechanical Specification

Case No. 952B Unit:mm



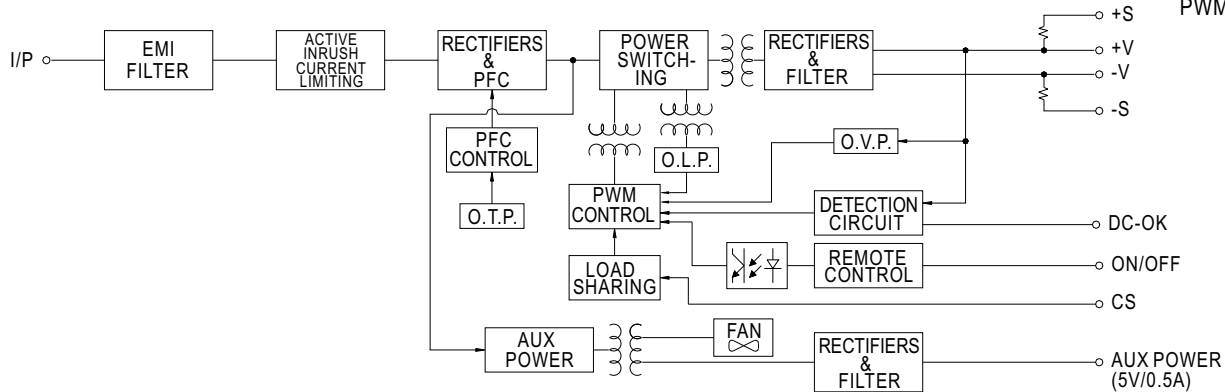
AC Input Terminal Pin No. Assignment

Pin No.	Assignment
1	AC/N
2	AC/L
3	FG $\perp$

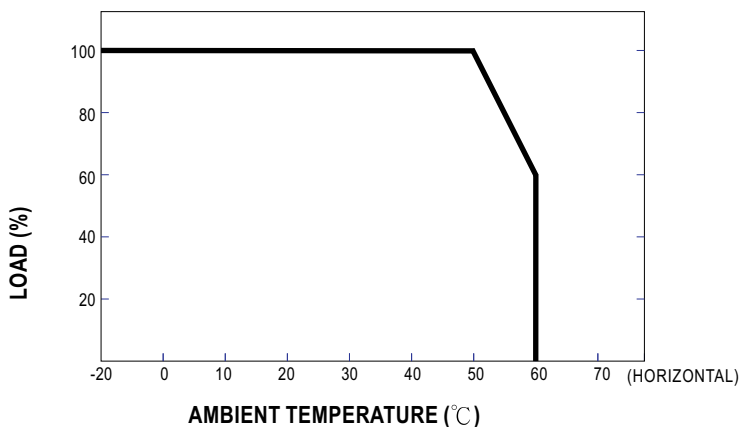
Control pin number assignment (CN50) : JST B12B-PHDS or equivalent

Pin No.	Assignment	Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	+S	5	DC-OK	9	Vci	JST PHDR-12VS or equivalent	JST SPHD-002T-P0.5 or equivalent
2	-S	6	ON/OFF	10	Vca		
3	G-AUX	7	CS	11,12	GND		
4	5V-AUX	8	Vco				

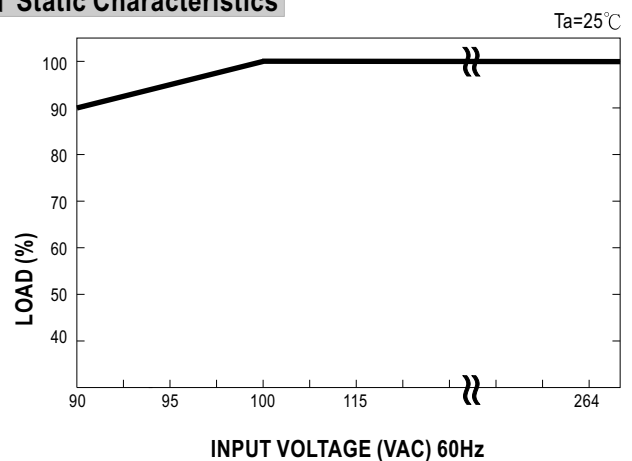
Block Diagram


PFC fosc : 110KHz
PWM fosc : 90KHz

Derating Curve



Static Characteristics



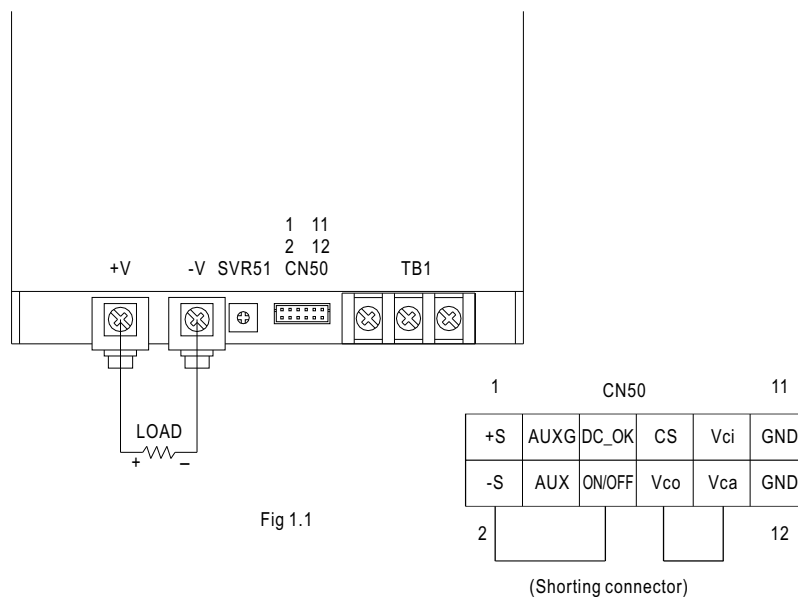
Function Description of CN50

Pin No.	Function	Description
1	+S	Positive sensing. The +S signal should be connected to the positive terminal of the load. The +S and -S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.5V.
2	-S	Negative sensing. The -S signal should be connected to the negative terminal of the load. The -S and +S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.5V.
3	G-AUX	Auxiliary voltage output ground. The signal return is isolated from the output terminals (+V & -V).
4	5V-AUX	Auxiliary voltage output, 4.6~5.25V, referenced to pin 3(G-AUX). The maximum load current is 0.5A. This output has the built-in oring diodes and is not controlled by the "remote ON/OFF control".
5	DC_OK	Open collector signal, referenced to pin11,12(GND). Low when PSU turns on. The maximum sink current is 10mA and the maximum external voltage is 5.6V.
6	ON/OFF	Turns the output on and off by electrical or dry contact between pin 6 (ON/OFF) and pin 2 (-S). Short: Power ON, Open: Power OFF.
7	CS	Current sharing signal. When units are connected in parallel, the CS pins of the units should be connected to allow current balance between units.
8	Vco	Short connecting between Vco (pin8) and Vca (pin10) if output voltage trim function is not used.
9	Vci	Connect to external DC voltage source for output voltage trimming, referenced to pin 2 (-S). Output voltage can be trimmed between 40 ~ 110% of the rated output voltage.
10	Vca	Connect to external resistor (1/8W) for output voltage trimming. Output voltage can be trimmed between 40 ~ 110% of the rated output voltage. Please refer to function manual for details.
11,12	GND	These pins connect to the negative terminal (-V). Return for DC_OK Signal output.

Function Manual

1. "Remote ON/OFF" and "Output voltage trim" functions are not used.

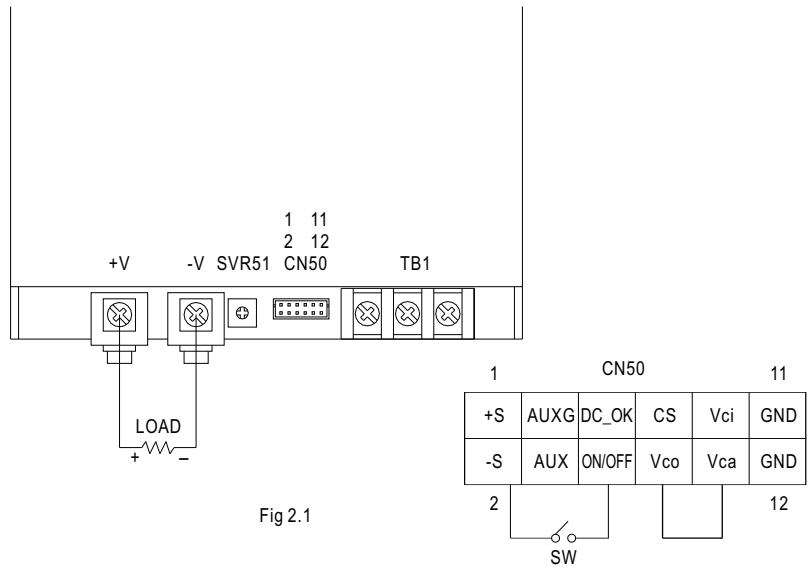
The power supply unit will have no output if the shorting connector (accessory comes along with the PSU) is not assembled. It contains two shorting wires : one is from ON/OFF (pin6) to -S (pin2) and the other is from Vco (pin8) to Vca (pin10).



2.Remote ON/OFF

The PSU can be turned ON/OFF by using the "Remote ON/OFF" function

Between ON/OFF(pin6) and -S(pin2)	Output Status
SW ON (Short)	ON
SW OFF (Open)	OFF



3.DC_OK signal

"DC_OK" is an open collector signal.

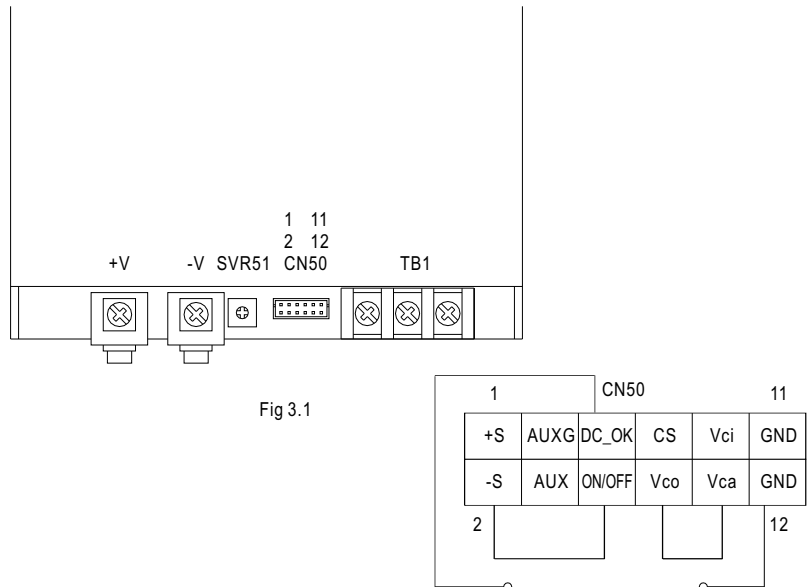
It indicates the output status of the PSU. It can operate in two ways : One is sinking current from external TTL signal ; the other is sending out a TTL voltage signal.

3-1 Sink current :

The maximum sink current is 10mA and the maximum external voltage is 5.6V.

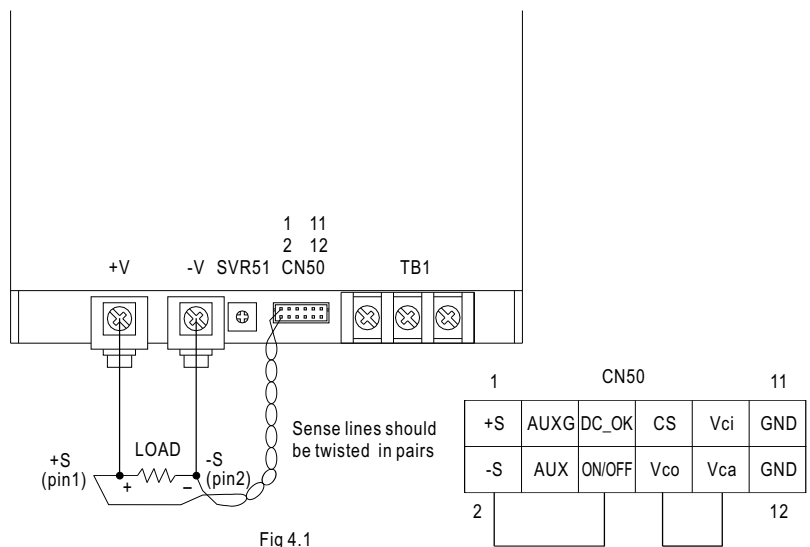
3-2 TTL voltage signal :

Between DC- OK(pin5) and GND(pin11&12)	Output Status
0 ~ 1V	ON
3.3 ~ 5.6V	OFF



4.Remote Sense

The remote sensing compensates voltage drop on the load wiring up to 0.5V.



5. Output Voltage TRIM

Output voltage of RSP-1000 can be trimmed between 40% ~ 110% of its rated value by the following methods :

(1) Using external voltage source between "Vci"(pin9) and "-S"(pin2) that is shown in Fig5.1

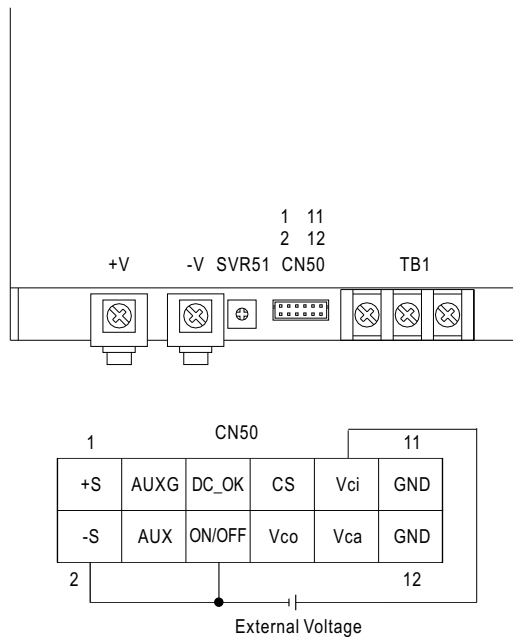
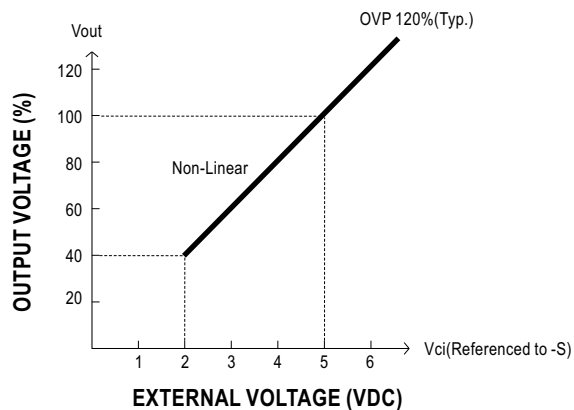


Fig 5.1

(2) Connecting a resistor externally that in shown in Fig 5.2 & Fig 5.3

(A) O/P voltage goes down

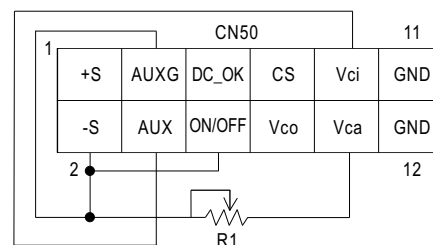
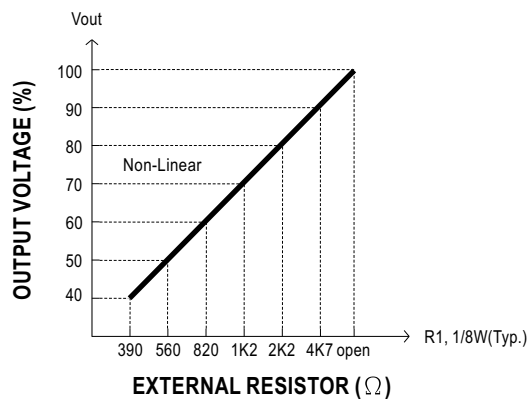


Fig 5.2

(B) O/P voltage goes up

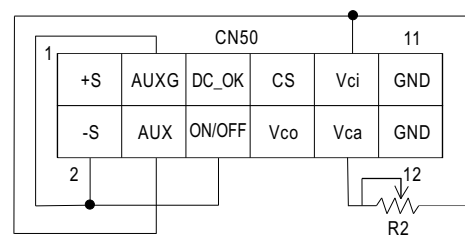
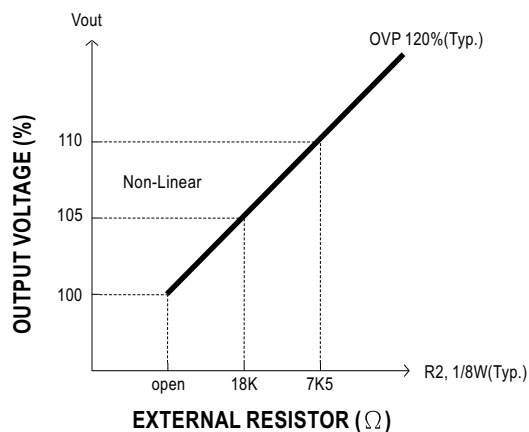


Fig 5.3

6. Current Sharing with Remote Sensing

RSP-1000 has the built-in active current sharing function and can be connected in parallel to provide higher output power :

- (1) Parallel operation is available by connecting the units shown as below.
(+S, -S and CS are connected mutually in parallel).
- (2) Difference of output voltages among parallel units should be less than 2%.
- (3) The total output current must not exceed the value determined by the following equation.
(output current at parallel operation)=(Rated current per unit)×(Number of unit)×0.9
- (4) In parallel operation 4 units is the maximum, please consult the manufacturer for applications of more connecting in parallel.
- (5) The power supplies should be paralleled using short and large diameter wiring and then connected to the load.

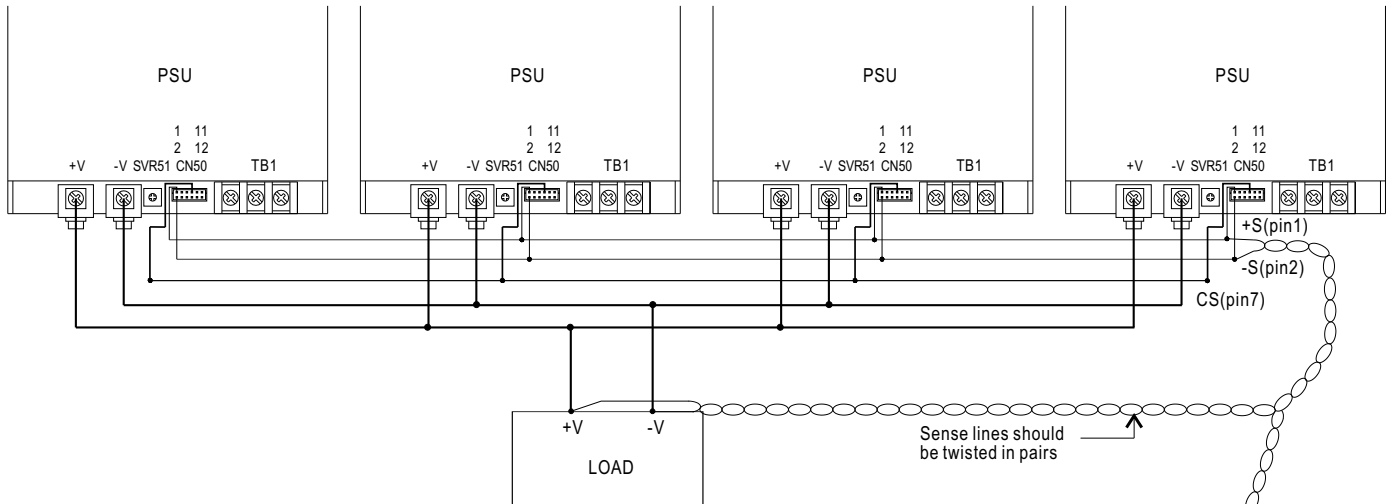
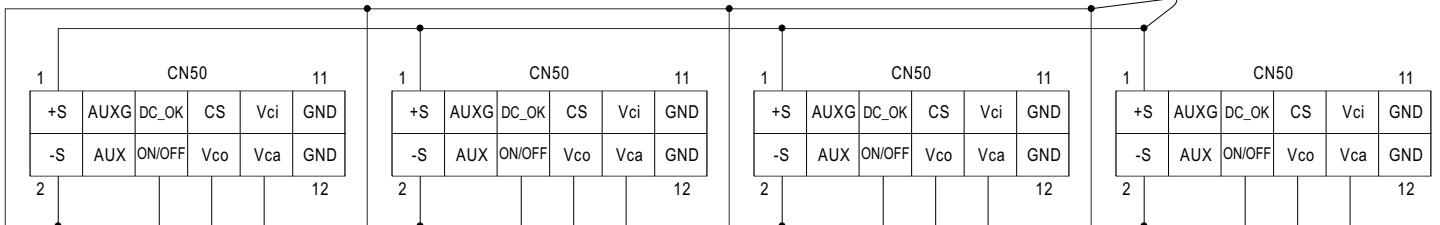


Fig 6.1



Note : In parallel connection, maybe only one unit (master) operate if the total output load is less than 5% of rated load condition.
The other PSUs (slaves) may go into standby mode and their output LEDs will not turn on.

MODEL : RSP-1000-48

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 150 mVp-p (Max)	I/P: 230VAC O/P:FULL LOAD Ta:25℃	V1: 24 mVp-p (Max)	P
2	OUTPUT VOLTAGE ADJUST RANGE	CH1: 43 V~ 55 V	I/P: 230 VAC I/P: 115 VAC O/P:MIN LOAD Ta:25℃	39.99 V~ 56.21 V/ 230 VAC 39.99 V~ 56.21 V/ 115 VAC	P
3	OUTPUT VOLTAGE TOLERANCE	V1: 1 %~ -1 % (Max)	I/P: 100VAC / 264 VAC O/P:FULL/ MIN LOAD Ta:25℃	V1: 0.03 %~ -0.03 %	P
4	LINE REGULATION	V1: 0.5 %~ -0.5 % (Max)	I/P:100 VAC ~ 264 VAC O/P:FULL LOAD Ta:25℃	V1: 0.02 %~ -0.02 %	P
5	LOAD REGULATION	V1: 0.5 %~ -0.5 % (Max)	I/P: 230 VAC O/P:FULL ~MIN LOAD Ta:25℃	V1: 0.03 %~ -0.03 %	P
6	SET UP TIME	230VAC: 300 ms (Max) 115 VAC: 300 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25℃	230VAC/ 54 ms 115VAC/ 80 ms	P
7	RISE TIME	230VAC: 50 ms (Max) 115VAC: 50 ms (Max)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25℃	230VAC/ 19 ms 115VAC/ 18 ms	P
8	HOLD UP TIME	230VAC: 16 ms (TYP) 115VAC: 16 ms (TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25℃	230VAC/ 21.3 ms 115VAC/ 20.5 ms	P
9	OVER/UNDERSHOOT TEST	< ±5%	I/P: 230 VAC O/P:FULL LOAD Ta:25℃	TEST: <5 %	P
10	DYNAMIC LOAD	V1: 4800 mVp-p	I/P: 230 VAC O/P:FULL /Min LOAD 90%DUTY/1KHZ Ta:25℃	843 mVp-p	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	90VAC~264 VAC	I/P:TESTING O/P:FULL LOAD Ta:25°C	83V~264V	P
			I/P: LOW-LINE-3V= 87V 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: 90 VAC ~ 264 VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: OK	P
3	POWER FACTOR	0.95 / 230 VAC(TYP) 0.98 / 115 VAC(TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	PF= 0.971 / 230 VAC PF= 0.997 / 115 VAC	P
4	EFFICIENCY	90 % (TYP)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	90.1%	P
5	INPUT CURRENT	230V/ 6 A (TYP) 115V/ 12 A (TYP)	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 5.1 A/ 230 VAC I = 10.3 A/ 115 VAC	P
6	INRUSH CURRENT	230V/ 40 A (TYP) 115V/ 25 A(TYP) COLD START	I/P: 230 VAC I/P: 115 VAC O/P:FULL LOAD Ta:25°C	I = 36 A/ 230 VAC I = 18 A/ 115 VAC	P
7	LEAKAGE CURRENT	< 2 mA / 240 VAC	I/P: 254 VAC O/P:Min LOAD Ta:25°C	L-FG: 0.98 mA N-FG: 0.98 mA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	105 %~ 125 %	I/P: 230 VAC I/P: 115 VAC O/P:TESTING Ta:25°C	114 %/ 230 VAC 114 %/ 115 VAC Constant Current Limiting	P
2	OVER VOLTAGE PROTECTION	CH1: 57.6V~ 67.2V	I/P: 230 VAC I/P: 115 VAC O/P:MIN LOAD Ta:25°C	59 V/ 230 VAC 59 V/ 115 VAC Shunt down Re- power ON	P
3	OVER TEMPERATURE PROTECTION	SPEC: TSW1: 75 ± 5°C O.T.P. TSW2: 85 ± 5°C O.T.P. NO DAMAGE	I/P: 230 VAC O/P:FULL LOAD	O.T.P. Active Shut down o/p voltage , recovers automatically after temperature goes down	P
4	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P: 264 VAC O/P:FULL LOAD Ta:25°C	NO DAMAGE Constant Current Limiting	P

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	FAN LOCK TEST	FAN LOCK :POWER OFF FAN UNLOCK :POWER ON	I/P: 230 VAC O/P:FULL LOAD	FAN LOCK :POWER OFF FAN UNLOCK :POWER ON	P
2	FAN SPEED CONTROL	Fan Voltage : NO LOAD: 7.7V ~9.4V 100% LOAD: 11.2V~ 12.2V	I/P: 230 VAC O/P:TESTING Ta:25°C	Fan Voltage: NO LOAD: 7.82 V 100% LOAD: 11.52 V	P
3	REMOTE ON/OFF	ON/OFF~ -S SHORT : POWER ON ON/OFF~ -S OPEN : POWER OFF that is shown in Fig2.1(SPEC)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	ON/OFF& -S SHORT : POWER ON ON/OFF& -S OPEN : POWER OFF	P
4	DC OK Signal	Sink current 10mA DC_OK – GND : 0~1V output ON DC_OK – GND : 3.3~5.6V output OFF that is shown in Fig3.1(SPEC)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	Output ON : 0 V Output OFF : 5 V	P
5	REMOTE SENSE	>0.5V that is shown in Fig4.1(SPEC)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	> 0.5V	P
6	Output voltage TRIM	Adjustment of output voltage is possible between 40 %~110 % of rated output (1)Using external voltage source between Vci ~ -s that is shown in Fig5.1(SPEC) (2)Connecting a resistor externally that in shown in Fig5.2& Fig5.3(SPEC)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	(1) External Voltage 40% Voltage= 2 V 100% Voltage= 5 V (2) External Resistor (A) Fig5.2 40% Voltage=380 Ω 100% Voltage= ∞ Ω (OPEN) (B) Fig5.3 100% Voltage= ∞ Ω (OPEN) 110% Voltage= 6.3 KΩ	P
7	CURRENT SHARING	PSU1-PSU2 < 10% that is shown in Fig6.1(SPEC)	I/P: 230 VAC O/P:FULL/50% LOAD Ta:25°C	O/P:100% PSU1: 1187W PSU2: 1106W PSU3: 1102W O/P:50% PSU1: 594W PSU2: 553W PSU3: 551W	P
8	AUX ILIRY POWER (AUX)	5V @ 0.5A (+5%,-8%)	I/P: 230 VAC O/P:FULL LOAD Ta:25°C	5.06 V	P

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT																																																																																															
1	TEMPERATURE RISE TEST	MODEL : RSP-1000-24 1. ROOM AMBIENT BURN-IN : 1HRS I/P: 230VAC O/P: FULL LOAD Ta= 29.8℃ 2. HIGH AMBIENT BURN-IN : 2HRS I/P: 230VAC O/P: FULL LOAD Ta= 54.2℃ <table><tr><th>NO</th><th>Position</th><th>P/N</th><th>ROOM AMBIENT Ta= 29.8℃</th><th>HIGH AMBIENT Ta= 54.2℃</th></tr><tr><td>1</td><td>D2</td><td>CSD010060A 10A/600V</td><td>42.0℃</td><td>66.4℃</td></tr><tr><td>2</td><td>TSW1</td><td>ST-75</td><td>36.9℃</td><td>60.4℃</td></tr><tr><td>3</td><td>U1</td><td>IR1150S IR</td><td>33.8℃</td><td>57.2℃</td></tr><tr><td>4</td><td>Q1</td><td>IRFP37N50A 36A/500V IR</td><td>42.5℃</td><td>66.2℃</td></tr><tr><td>5</td><td>BD1</td><td>D25XB60 25A/600V SHI</td><td>48.7℃</td><td>72.3℃</td></tr><tr><td>6</td><td>L2</td><td>TF-1457 LS</td><td>50.4℃</td><td>73.6℃</td></tr><tr><td>7</td><td>LF1</td><td>TR-690</td><td>41.1℃</td><td>65.1℃</td></tr><tr><td>8</td><td>C7</td><td>220U/450V HU 105℃</td><td>34.9℃</td><td>58.5℃</td></tr><tr><td>9</td><td>D901</td><td>BYM26E 2.3A/1KV</td><td>42.3℃</td><td>66.6℃</td></tr><tr><td>10</td><td>T2 COIL</td><td>TF-1458 LS</td><td>40.7℃</td><td>67.5℃</td></tr><tr><td>11</td><td>Q906</td><td>2SK2082 9A/900V FUJI</td><td>52.6℃</td><td>78.8℃</td></tr><tr><td>12</td><td>L100</td><td>TF-1455 LS</td><td>51.6℃</td><td>77.2℃</td></tr><tr><td>13</td><td>D101</td><td>ESAD83-006 60V/30A FUJI</td><td>56.7℃</td><td>81.3℃</td></tr><tr><td>14</td><td>U2</td><td>UCC28220 TI</td><td>39.0℃</td><td>62.8℃</td></tr><tr><td>15</td><td>TSW2</td><td>ST-85</td><td>52.9℃</td><td>77.3℃</td></tr><tr><td>16</td><td>C110</td><td>1000U/35V NCC 105℃ KY</td><td>45.4℃</td><td>70.5℃</td></tr><tr><td>17</td><td>C75</td><td>220U/25V NCC 105℃ KY</td><td>40.5℃</td><td>64.7℃</td></tr><tr><td>18</td><td>T1 COIL</td><td>TF-1452 LS</td><td>44.2℃</td><td>69.3℃</td></tr></table>			NO	Position	P/N	ROOM AMBIENT Ta= 29.8℃	HIGH AMBIENT Ta= 54.2℃	1	D2	CSD010060A 10A/600V	42.0℃	66.4℃	2	TSW1	ST-75	36.9℃	60.4℃	3	U1	IR1150S IR	33.8℃	57.2℃	4	Q1	IRFP37N50A 36A/500V IR	42.5℃	66.2℃	5	BD1	D25XB60 25A/600V SHI	48.7℃	72.3℃	6	L2	TF-1457 LS	50.4℃	73.6℃	7	LF1	TR-690	41.1℃	65.1℃	8	C7	220U/450V HU 105℃	34.9℃	58.5℃	9	D901	BYM26E 2.3A/1KV	42.3℃	66.6℃	10	T2 COIL	TF-1458 LS	40.7℃	67.5℃	11	Q906	2SK2082 9A/900V FUJI	52.6℃	78.8℃	12	L100	TF-1455 LS	51.6℃	77.2℃	13	D101	ESAD83-006 60V/30A FUJI	56.7℃	81.3℃	14	U2	UCC28220 TI	39.0℃	62.8℃	15	TSW2	ST-85	52.9℃	77.3℃	16	C110	1000U/35V NCC 105℃ KY	45.4℃	70.5℃	17	C75	220U/25V NCC 105℃ KY	40.5℃	64.7℃	18	T1 COIL	TF-1452 LS	44.2℃	69.3℃	P
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2	OVER LOAD BURN-IN TEST	NO DAMAGE 1 HOUR (MIN)	I/P: 230 VAC O/P: 110% LOAD Ta:25℃	TEST : OK	P																																																																																															
3	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOUR	I/P: 230 VAC O/P: 100% LOAD Ta= -20℃	TEST : OK	P																																																																																															
4	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 50 ℃ NO DAMAGE	I/P: 272 VAC O/P:FULL LOAD Ta= 50℃ HUMIDITY= 95 %R.H	TEST : OK	P																																																																																															
5	TEMPERATURE COEFFICIENT	± 0.03 %(0-50℃)	I/P: 230 VAC O/P:FULL LOAD	± 0.005 %(0-50℃)	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℃		TEST : OK	P																																																																																															

SAFETY TEST

NO	TEST ITEM	SPECICATION	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: 9.78 mA I/P-FG: 7.82 mA O/P-FG: 7.46 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: 12 GΩ I/P-FG: 12 GΩ O/P-FG: 11 GΩ NO DAMAGE	P
3	GROUNDING CONTINUITY	FG(PE) TO CHASSIS OR TRACE < 100 mΩ	40 A / 2min Ta:25°C	17 mΩ	P
4	APPROVAL	TUV: Certificate NO : R50094068 UL: File NO : R50094068			P

E.M.C TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	HARMONIC	EN61000-3-2 CLASS D	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 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 INDUSTRY INPUT: 2KV	I/P: 230 VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
6	SURGE	IEC61000-4-5 INDUSTRY L-N :2KV L,N-PE:4KV	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	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	RSP-1000-24 : SUPPOSE C110 IS THE MOST CRITICAL COMPONENT I/P: 230VAC O/P:FULL LOAD Ta= 25 °C LIFE TIME= 1025344 HRS I/P: 230VAC O/P:FULL LOAD Ta= 50 °C LIFE TIME= 172662 HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 35K HRS			P

COMPONENT STRESS TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	Power Transistor (D to S) or (C to E) Peak Voltage	Q900 Rated 2SK2082 : 900 V 9A	I/P:High-Line +3V = 267 V O/P: (1)Full Load Turn on (2) Output Short Ta:25℃	(1) 835 V (2) 800 V	P
2	Diode Peak Voltage	D102 Rated ESAD92-02 : 200V 20A	I/P:High-Line +3V = 267 V O/P: (1)Full Load Turn on (2)Output Short Ta:25℃	(1) 196 V (2) 109 V	P
3	Clamp Diode Peak Voltage	D900 Rated BYM26E : 1KV 2.3 A	I/P:High-Line +3V = 267 V O/P: (1) Dynamic Load 90%Duty/1KHz Ta:25℃	(1) 820 V	P
4	Input Capacitor Voltage	C5 Rated : 220u / 450V/ 105℃	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℃	(1) 381 V (2) 390 V (3) 390 V	P
5	Control IC Voltage Test	U2 Rated UCC28220D : 15 V	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℃	(1) 14 V (2) 14.2 V (3) 14 V	P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2006/8/4	RD SAMPLE	PASS	VINCENT TSENG	MAX LIN
2006/11/20	PRODUCT SAMPLE W0609A18	PASS	VINCENT TSENG	MAX LIN
2007/1/5	PRODUCT SAMPLE W0612A26	PASS	VINCENT TSENG	MAX LIN

2003/12/12 A50-F023