

規格書

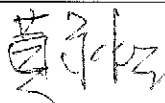

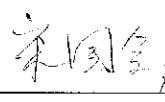
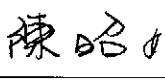
SPECIFICATION

品名 SWITCHING POWER SUPPLY
 STYLE NAME :

型號 PSL-6701P
 MODEL NO. :

料號
 PART NO. :

版次 A5
 REVISION :

APPROVE 核准	 FEB 26 2007	正式 資料 用 章	
CHECK BY 審核	 FEB 26 2007		
FORM MAKER 經辦	 FEB 26 2007		

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Revision

Rev.	Page	Item	Date	Description
A2	8	11.0	JUL-28-2003	Update +12v output current derating characteristic
A3	4 7	3.1 7.1 7.2	NOV-25-2003	Cancel cross regulation Add operating temperature Add humidity
A4	7	9.1	APR-06-2005	Remork burn-in for 1 hour
A5	4	2.0 3.1	FEB-26-2007	Update input requirements Update output requirements

MODEL NO. PSL-6701P

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11.0 +12v output current derating characteristic

1.0 Scope

This specification defines the performance characteristics of a grounded, Ac input, 700 watts, 6 output level power supply. This specification also defines world wide safety requirements and manufactures process test requirements.

2.0 Input requirements

2.1 Voltage (sinusoidal) : 100~240 VAC full range.

2.2 Frequency

The input frequency range will be 50hz~60hz.

2.3 Steady-state current

11/5A at any low/high range input voltage.

2.4 Inrush current

65/125 Amps @ 110/220 VAC

2.5 Power factor correction

PFC can reach the target of 98% @110V, full load, following the standard of EN 61000-3-2, class D.

3.0 Output requirements

3.1 DC load requirements

Normal Output voltage	Load current(A)		Regulation tolerance	
	Min.	Max.	Min.	Max.
+5V	2.5	35	-5%	+5%
+12V	1.0	45	-5%	+5%
-5V	0	0.8	-5%	+5%
-12V	0	1.0	-5%	+5%
+3.3V	1.0	30	-5%	+5%
+5Vsb	0.1	2.0	-5%	+5%

Total power : 700W (Max)

+5V and +3.3V total power max:250W

3.2 Regulation and protection

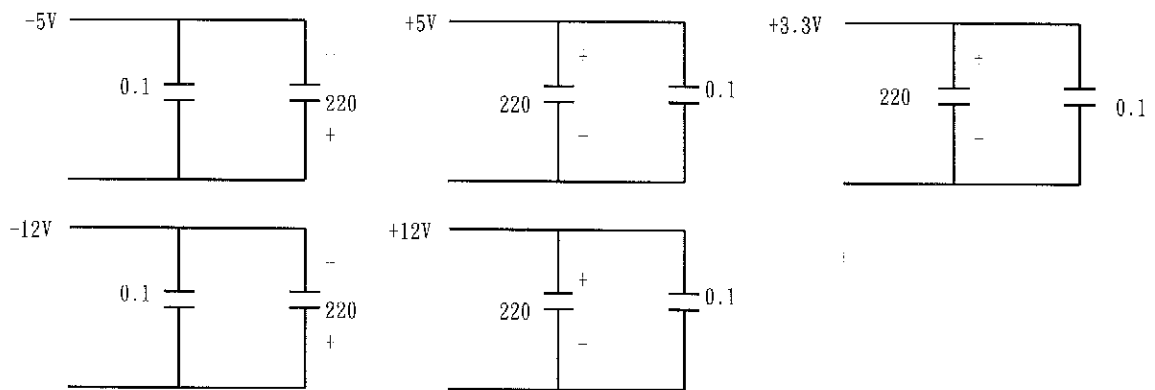
Output DC voltage	Line regulation	Load regulation	Cross regulaion
+5V	±50mV	±250mV	±250mV
-5V	±50mV	±250mV	±250mV
+12V	±50mV	±600mV	±600mV
-12V	±50mV	±600mV	±600mV
+3.3V	±50mV	±165mV	±165mV
+5Vsb	±50mV	±250mV	±250mV

3.3 Ripple and noise

3.3.1 Specification

+5V	60mV (P-P)
+12V	100mV (P-P)
-5V	100mV (P-P)
-12V	100mV (P-P)
+3.3V	60mV (P-P)
+5Vsb	60mV (P-P)

3.3.2 Ripple voltage test circuit



0.1uf is ceramic the other is tantalum.

Noise bandwidth is from DC to 20MHz

3.4 Overshoot

Any overshoot at turn on or turn off shall be less 15% of the nominal voltage value , all output shall be within the regulation limit of section 3.2 before issuing the power good signal of section 6.0.

3.5 Efficiency

Power supply efficiency typical 71% at 115V , full load.

4.0 Protection

4.1 Input (primary)

The input power line must have an over power protection device in accordance with safety requirement of section 8.0

4.2 Output (secondary)

4.2.1 Over power protection

The power supply shall provide over power protection on the power supply latches all DC output into a shutdown state. Over power of this type shall cause no damage to power supply , after over load is removed and a power on/off cycle is initiated , the power supply will restart.

Trip point total power min. 110% , max. 150%.

4.2.2 Over voltage protection

If an over voltage fault occurs , the power supply will latch all DC output into a shutdown state.

	Min	Typical	Max
+3.3V	3.9V	4.1V	4.3V
+5V	5.7V	6.1V	6.3V
+12V	13.6V	14.3V	15.0V

4.2.3 Over current protection

The power supply shall latch off if the +5v,+12v & +3.3v output currents are over it's limitation. The limited current is over 110~170% for each output current at each power module. The power module will back to normal condition after over current removed and a power on/off cycle is initiated the power module will restart.

4.2.4 Short circuit

A short circuit placed on +5V,+3.3V,+12V,-5V,-12V output to DC return shall cause no damage and power supply latch.

5.0 Power supply sequencing

5.1 Power on (see fig.1)

5.2 Hold up time

When power shutdown DC output 5V must be maintain 16msec in regulation limit at full load under 90VAC input voltage.

5.3 Power off sequence (see fig. 1)

6.0 Signal requirements

6.1 Power good signal (see fig. 1)

The power supply shall provide a "power good" signal to reset system logic , indicate proper operation of the power supply.

At power on , the power good signal shall have a turn on delay of at least 100ms but not greater than 500ms after the output voltages have reached their respective minimum sense levels.

7.0 Environment

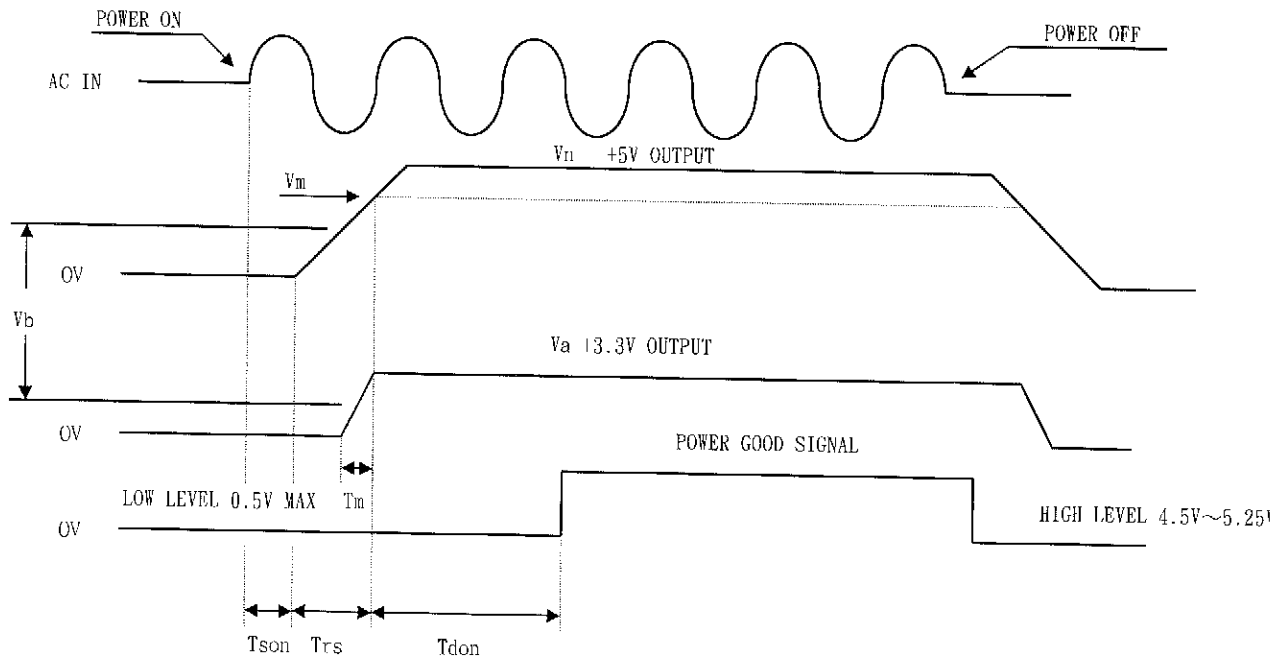
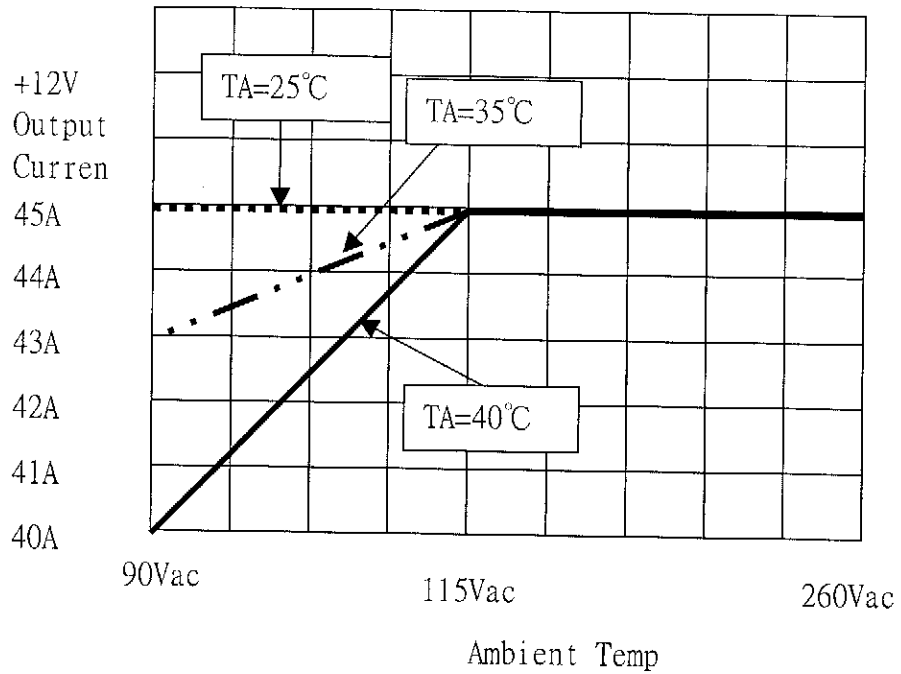
7.1 Operation

Operating temperature	0 to 40 degrees centigrade
Storage temperature	-20 to 80 degrees centigrade
Safety regulation temperature	Applied at room temperature (25°C)
Operating temperature from 0°C	should start from AC 100V

- 7.2 Humidity
Operating humidity 20% to 80%
Non-operating humidity 10% to 90%
- 7.3 Insulation resistance
Primary to secondary : 30 meg. Ohm min. 500 VDC
Primary to FG : 30 meg. Ohm min. 500VDC
- 7.4 Dielectric withstanding voltage
Primary to secondary : 1800 VAC for 60 Second.
Primary to FG : 1800 VAC for 60 Second.
- 7.5 Leakage current
3.5 mA max. at nominal voltage VAC
- 8.0 Safety
- 8.1 Underwriters laboratory (UL).
The power supply designed to meet UL 60950.
- 8.2 Canadian standards association (CUL)
The power supply designed to meet CSA 1402C & CSA 950.
- 8.3 TUV
The power supply shall be designed to meet TUV EN-60950.
- 9.0 Reliability
- 9.1 Burn in
All products shipped to customer must be burn in for 1 hour. The burn in shall be performed at high line voltage.
- 10.0 Mechanical requirements
- 10.1 Physical dimension : 220 mm(D) * 150 mm(W) * 86 mm(H)

11.0 +12v output current derating characteristic

+12V Output Current Derating Characteristic



- Vn Nominal voltages +5V
- Vm Minimum voltages +4.5V
- Va Nominal voltages +3.3V
- Vb +2.0V max
- Tson Switch on time (1000 ms. max.)
- Trs +5V rise time (40ms. max.)
- Tdon Delay turn-on (100ms. < Tdon < 500ms.)
- Tdoff Delay turn-off (1 ms. min.)

《Figure 1》