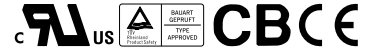


## ■ Features :

- Universal AC input / Full range
- 5"x3" compact size
- **Optional L-Bracket and cover (PSC-100x-C, x=A,B)**
- Protections: Short circuit / Overload / Over voltage
- Battery low protection / Battery polarity protection by fuse
- Relay contact signal output for AC OK and Battery Low
- Cooling by free air convection
- 100% full load burn-in test
- 2 years warranty

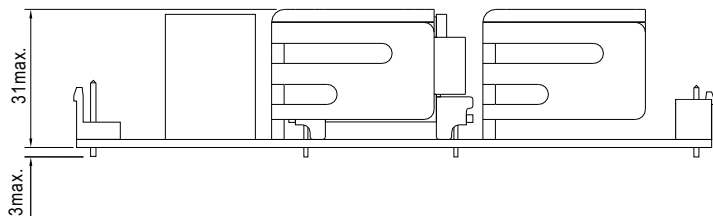
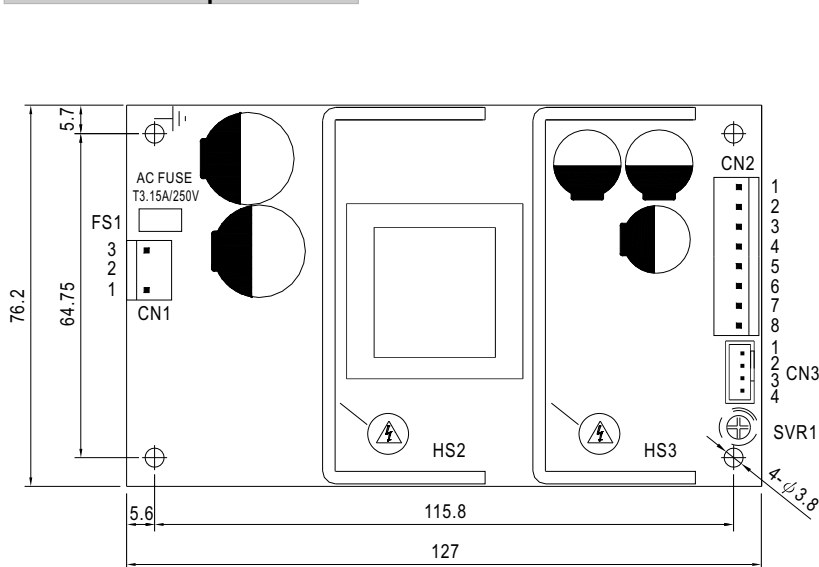


## SPECIFICATION

| MODEL                 |                                           | PSC-100A                                                                                                                |       | PSC-100B                    |       |
|-----------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------|-------|
| OUTPUT                | OUTPUT NUMBER                             | CH1                                                                                                                     | CH2   | CH1                         | CH2   |
|                       | DC VOLTAGE                                | 13.8V                                                                                                                   | 13.8V | 27.6V                       | 27.6V |
|                       | RATED CURRENT                             | 4.75A                                                                                                                   | 2.5A  | 2.4A                        | 1.25A |
|                       | CURRENT RANGE                             | 0 ~ 7A                                                                                                                  | ----- | 0 ~ 3.5A                    | ----- |
|                       | RATED POWER                               | 100.05W                                                                                                                 |       | 100.74W                     |       |
|                       | RIPPLE & NOISE (max.) Note.2              | 100mVp-p                                                                                                                | ----- | 100mVp-p                    | ----- |
|                       | VOLTAGE ADJ. RANGE                        | CH1: 12 ~ 15V                                                                                                           |       | CH1: 24 ~ 29V               |       |
|                       | VOLTAGE TOLERANCE Note.3                  | ±1.0%                                                                                                                   | ----- | ±1.0%                       | ----- |
|                       | LINE REGULATION                           | ±0.5%                                                                                                                   | ----- | ±0.5%                       | ----- |
|                       | LOAD REGULATION                           | ±0.5%                                                                                                                   | ----- | ±0.5%                       | ----- |
|                       | SETUP, RISE TIME Note.5                   | 2400ms, 30ms/230VAC      2400ms, 30ms/115VAC at full load                                                               |       |                             |       |
| HOLD UP TIME (Typ.)   | 40ms/230VAC      16ms/115VAC at full load |                                                                                                                         |       |                             |       |
| INPUT                 | VOLTAGE RANGE                             | 90 ~ 264VAC      127 ~ 370VDC                                                                                           |       |                             |       |
|                       | FREQUENCY RANGE                           | 47 ~ 63Hz                                                                                                               |       |                             |       |
|                       | EFFICIENCY (Typ.)                         | 86%                                                                                                                     |       | 88%                         |       |
|                       | AC CURRENT (Typ.)                         | 2A/115VAC      1.2A/230VAC                                                                                              |       |                             |       |
|                       | INRUSH CURRENT (Typ.)                     | COLD START 35A/115VAC      70A/230VAC                                                                                   |       |                             |       |
|                       | LEAKAGE CURRENT                           | <1mA / 240VAC                                                                                                           |       |                             |       |
| PROTECTION            | OVERLOAD                                  | 105 ~ 150% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |       |                             |       |
|                       | OVER VOLTAGE                              | CH1:14.49 ~ 18.63V                                                                                                      |       | CH1:28.98 ~ 37.26V          |       |
|                       |                                           | Protection type : Shut down o/p voltage, re-power on to recover                                                         |       |                             |       |
|                       | BATTERY CUT OFF                           | 10±0.5V                                                                                                                 |       | 20±1V                       |       |
| ALARM FUNCTION        | AC OK Note.6                              | Relay contact output, ON : AC OK ; OFF : AC Fail ; Max. rating : 30V / 1A                                               |       |                             |       |
|                       | BATTERY LOW                               | Relay contact output, OFF : Battery OK ; ON : Battery Low ; Max. rating : 30V / 1A                                      |       |                             |       |
|                       |                                           | Battery low voltage : < 11V                                                                                             |       | Battery low voltage : < 22V |       |
| ENVIRONMENT           | WORKING TEMP.                             | -20 ~ +70℃ (Refer to "Derating Curve")                                                                                  |       |                             |       |
|                       | WORKING HUMIDITY                          | 20 ~ 90% RH non-condensing                                                                                              |       |                             |       |
|                       | STORAGE TEMP., HUMIDITY                   | -20 ~ +85℃, 10 ~ 95% RH                                                                                                 |       |                             |       |
|                       | TEMP. COEFFICIENT                         | ±0.03%/℃ (0~50℃) on CH1 output                                                                                          |       |                             |       |
|                       | 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 / 25℃ / 70% RH                                                               |       |                             |       |
|                       | EMC EMISSION                              | Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,-3                                                                 |       |                             |       |
|                       | EMC IMMUNITY                              | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A                                       |       |                             |       |
| OTHERS                | MTBF                                      | 417.6K hrs min.    MIL-HDBK-217F (25℃)                                                                                  |       |                             |       |
|                       | DIMENSION                                 | PCB:127*76.2*31mm (L*W*H) ; with optional CASE:130*85*37mm (L*W*H)                                                      |       |                             |       |
|                       | PACKING                                   | PCB:0.23Kg; 63pcs/15.5Kg/1.35CUFT ; with optional CASE:0.44Kg;32pcs/15Kg/0.64CUFT                                       |       |                             |       |

- NOTE**
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C 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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <http://www.meanwell.com>)
  5. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.
  6. Please refer to suggest application (2) 、(4) in page 3.
  7. Heat sink HS2,HS3 can not be shorted.
  8. Heat sink HS2,HS3 must have safety isolation distance from system case.

## ■ Mechanical Specification

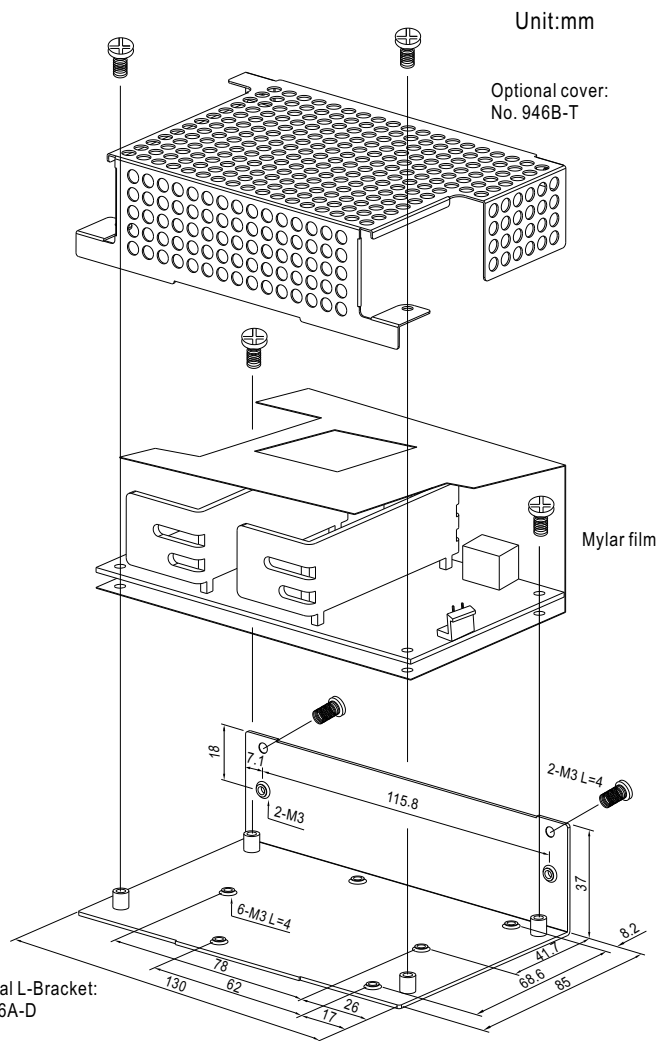


AC Input Connector (CN1) : JST B3P-VH or equivalent

| Pin No. | Assignment | Mating Housing        | Terminal                       |
|---------|------------|-----------------------|--------------------------------|
| 1       | AC/N       | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 2       | No Pin     |                       |                                |
| 3       | AC/L       |                       |                                |

DC Output Connector (CN2) : JST B8P-VH or equivalent

| Pin No. | Assignment | Mating Housing        | Terminal                       |
|---------|------------|-----------------------|--------------------------------|
| 1,2     | -V         | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 3,4     | +V         |                       |                                |
| 5,6     | Bat+       |                       |                                |
| 7,8     | Bat-       |                       |                                |



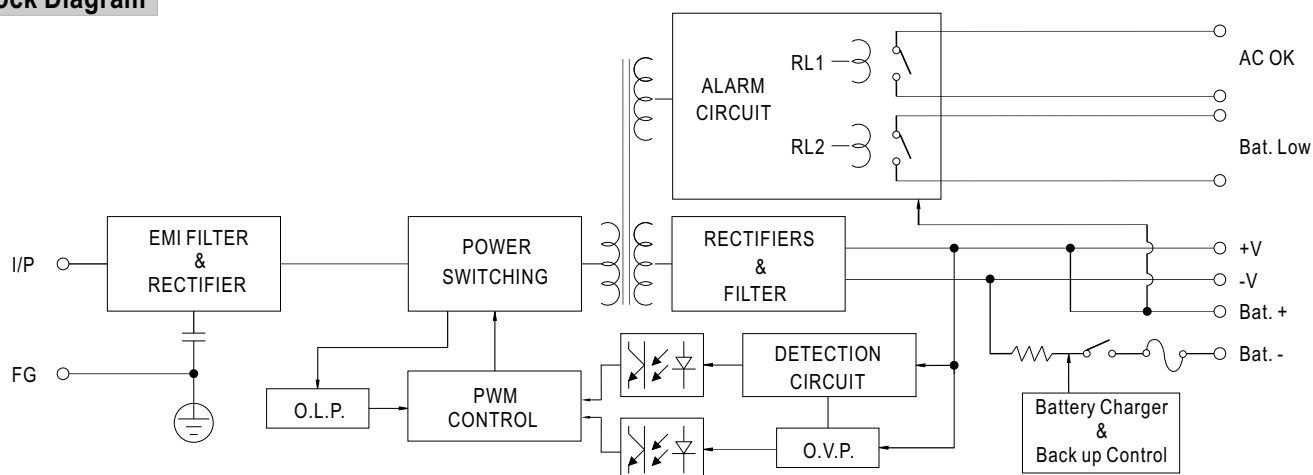
Alarm Output Connector(CN3) : JST B4B-XH or equivalent

| Pin No. | Assignment | Mating Housing        | Terminal                        |
|---------|------------|-----------------------|---------------------------------|
| 1 2     | AC OK      | JST XHP or equivalent | JST SXH-001T-P0.6 or equivalent |
| 3 4     | Bat. Low   |                       |                                 |

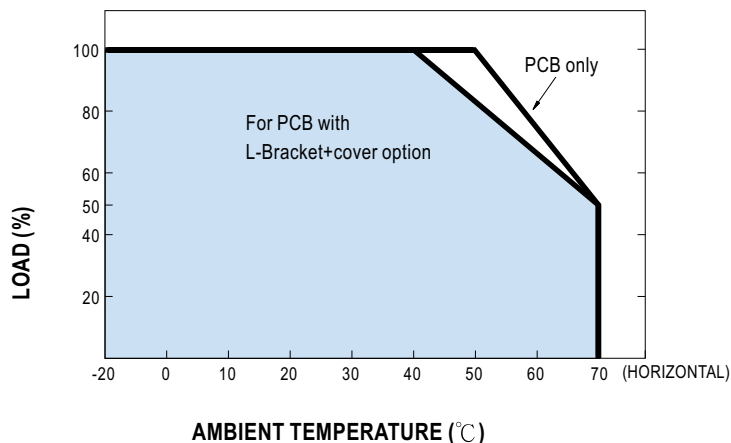


- 1.HS2,HS3 can not be shorted.
- 2.HS2,HS3 must have safety isolation distance from system case.
- 3.-V and Bat- can not be shorted.

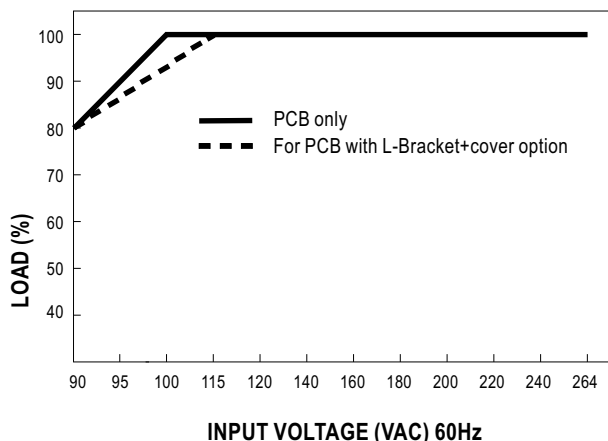
## ■ Block Diagram



## Output Derating



## Output Derating VS Input Voltage



## Suggested Application

### 1.Back up connection for AC interruption

(1) Please refer to the Fig1.1 for suggested connection.

The power supply charge the battery and provide energy to the load in the same time when the AC main is OK.  
The battery start to supply power to the load when the AC main fails.

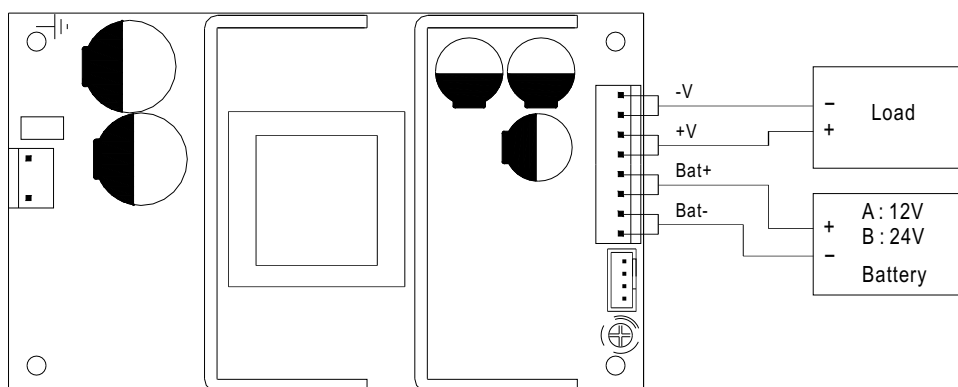


Fig 1.1 Suggested system connection

### 2.Alarm signal for AC OK and Battery Low

(1) Alarm signal is sent out through " AC OK " & " Battery Low " pins.(relay contact type)

(2) An external voltage source is required for this function. The maximum applied voltage is 30V and the maximum sink current is 1A.

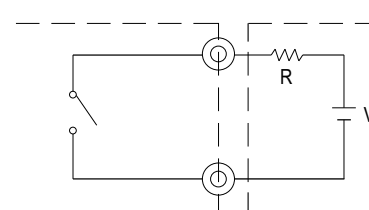
(3) Table2.1 explain the alarm function built-in the power supply

| Function    | Description                                                            | Output of Alarm                                 |
|-------------|------------------------------------------------------------------------|-------------------------------------------------|
| AC OK       | The signal is "Low" when the power supply turns on                     | Low or short                                    |
|             | The signal turns to be "High" when the power supply turns OFF          | High or open(External applied voltage 30V max.) |
| Battery Low | The signal is "Low" when the voltage of battery is under A:11V, B:22V  | Low or short                                    |
|             | The signal is "High" when the voltage of battery is above A:11V, B:22V | High or open(External applied voltage 30V max.) |

Table 2.1 Explanation of Alarm Signal

AC OK (Battery low)

CN3 Pin1(Pin3)



CN3 Pin2(Pin4)

External voltage source (V) and resistor (R)  
(The max. Sink is 1A and 30V)

Fig 2.2 Internal circuit of AC OK (Battery Low)

(4) RL1 (AC OK)signal will go into hiccup mode when the overload protection is activating.