

■ Features :

- Universal AC input / Full range
- 5"x3" compact size
- Models with L-Bracket and cover available (PSC-100x-C, x=A,B)
- Protections: Short circuit / Overload / Over voltage
- Battery low protection / Battery reverse 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



■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

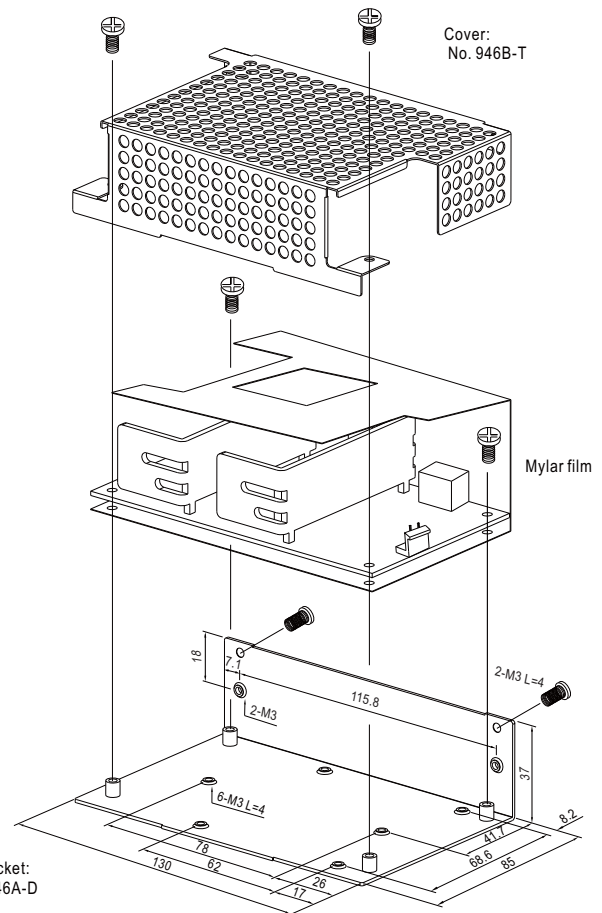
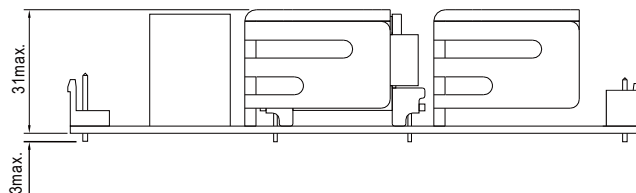
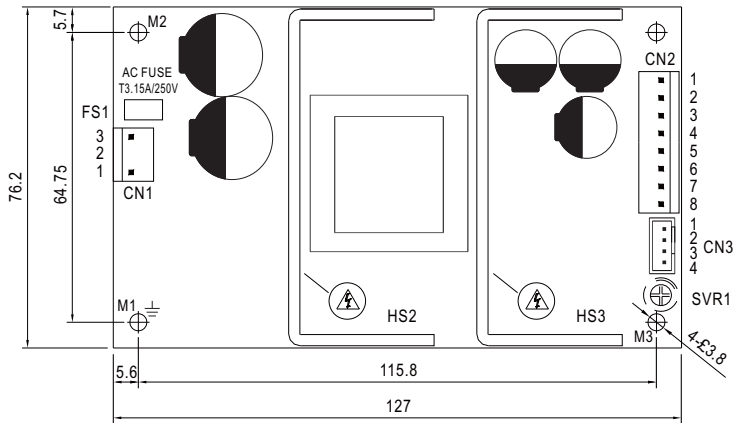
SPECIFICATION

PSC-100A ☐ ☐ =Blank, -C ; Blank=PCB only, -C=Enclosed type	
MODEL	PSC-100A ☐ PSC-100B ☐
OUTPUT	OUTPUT NUMBER
	CH1 CH2
	DC VOLTAGE
	13.8V 13.8V
	RATED CURRENT
	4.75A 2.5A
	CURRENT RANGE
	0 ~ 7A -----
	RATED POWER
	100.05W 100.74W
INPUT	RIPPLE & NOISE (max.) Note.2
	100mVp-p -----
	VOLTAGE ADJ. RANGE
	CH1: 12 ~ 15V CH1: 24 ~ 29V
	VOLTAGE TOLERANCE Note.3
	±1.0% -----
	LINE REGULATION
	±0.5% -----
	LOAD REGULATION
	±0.5% -----
PROTECTION	SETUP, RISE TIME Note.4
	2400ms, 30ms/230VAC 2400ms, 30ms/115VAC at full load
	HOLD UP TIME (Typ.)
	40ms/230VAC 14ms/115VAC at full load
	VOLTAGE RANGE
	90 ~ 264VAC 127 ~ 370VDC
ALARM FUNCTION	FREQUENCY RANGE
	47 ~ 63Hz
	EFFICIENCY (Typ.)
	86% 88%
	AC CURRENT (Typ.)
	2A/115VAC 1.2A/230VAC
ENVIRONMENT	INRUSH CURRENT (Typ.)
	COLD START 35A/115VAC 70A/230VAC
	LEAKAGE CURRENT
	<1mA / 240VAC
	OVERLOAD
	105 ~ 150% rated output power
SAFETY & EMC (Note 4)	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
OTHERS	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
	WORKING TEMP.
NOTE	-20 ~ +70°C (Refer to "Derating Curve")
	WORKING HUMIDITY
	20 ~ 90% RH non-condensing
	STORAGE TEMP., HUMIDITY
	-20 ~ +85°C, 10 ~ 95% RH
	TEMP. COEFFICIENT
SAFETY STANDARDS	±0.03%/°C (0~50°C) on CH1 output
	VIBRATION
	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes
	SAFETY STANDARDS
	UL62368-1, TUV BS EN/EN62368-1, EAC TP TC 004 approved
	WITHSTAND VOLTAGE
MTBF	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC
	ISOLATION RESISTANCE
	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH
	EMC EMISSION
	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020
	EMC IMMUNITY
DIMENSION	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, light industry level, EAC TP TC 020
	MTBF
	2094.5K hrs min. Telcordia SR-332 (Bellcore) ; 417.7K hrs min. MIL-HDBK-217F (25°C)
	DIMENSION
	PCB:127*76.2*31mm (L*W*H) ; Enclosed type:130*85*37mm (L*W*H)
	PACKING
	PCB:0.23Kg; 63pcs/15.5Kg/1.28CUFT ; Enclosed type:0.44Kg;32pcs/15Kg/0.73CUFT

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 0.1 μ F & 47 μ F parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.
5. Heat sink HS2,HS3 can not be shorted.
6. Heat sink HS2,HS3 must have safety isolation distance from system case.
7. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 230mm*230mm metal plate with 1mm of thickness. 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 https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf)
8. Please refer to suggest application (2) - (4) in page 3.
9. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).
※ Product Liability Disclaimer : For detailed information, please refer to <https://www.meanwell.com/serviceDisclaimer.aspx>

Mechanical Specification

(Unit: mm , tolerance ± 1 mm)



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-		

⏏ : Grounding Required

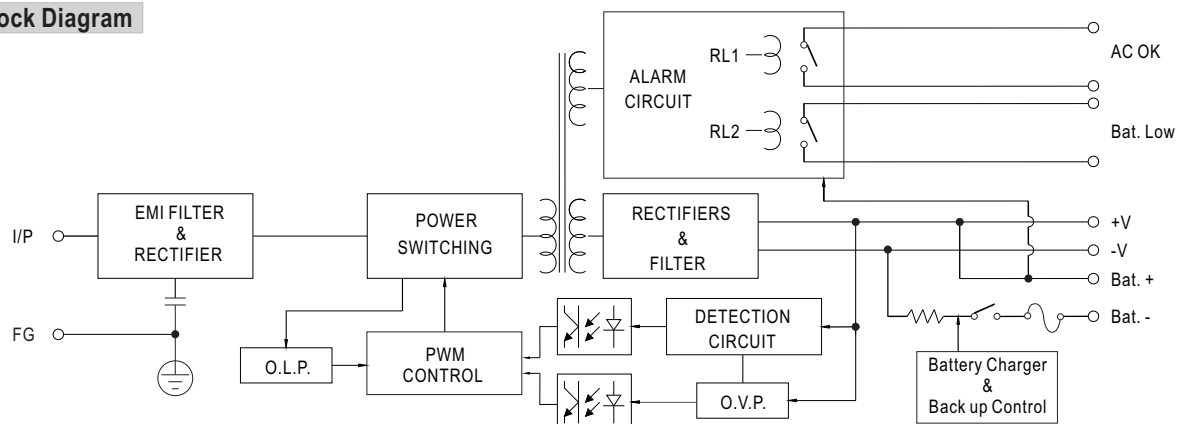
Alarm Output Connector (CN3) : JST B4B-XH or equivalent

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		

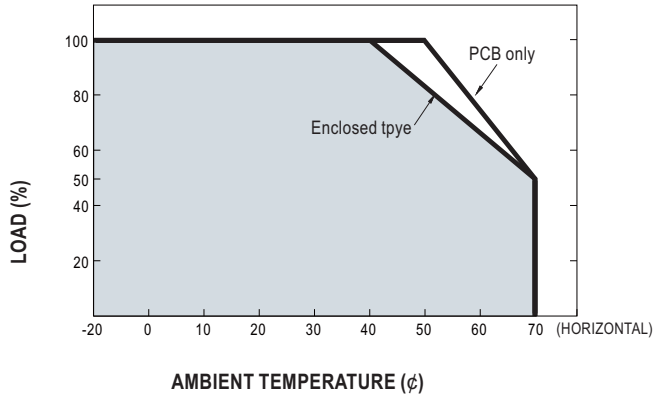


- 1.HS2,HS3 cannot be shorted.
- 2.HS2,HS3 must have safety isolation distance from system case.
- 3.-V and Bat- can not be shorted.
- 4.M1 is safety ground. For better EMC performance,Please secure an electrical connection between M1,M2,M3,and chassis grounding.

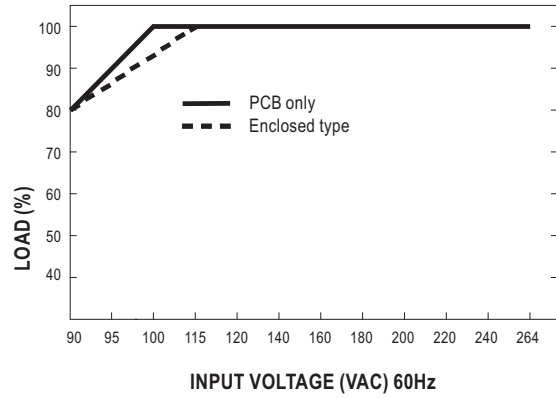
Block Diagram



Output Derating



Output Derating VS Input Voltage



Suggested Application

1.Backup connection for AC interruption

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

The power supply charges the battery and provides energy to the load at the same time when the AC main is OK.

The battery starts to supply power to the load when the AC mains fails.

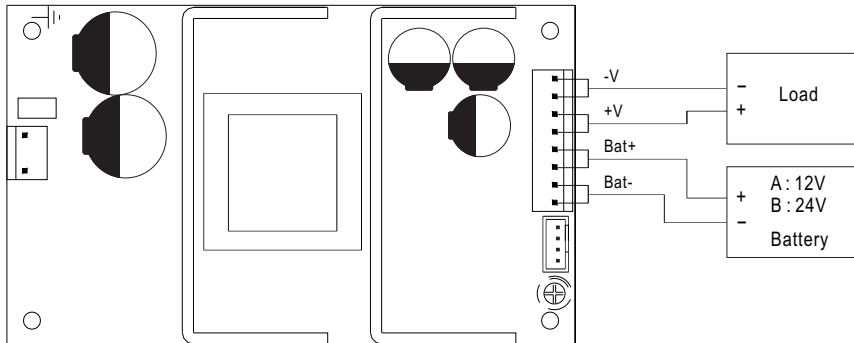


Fig 1.1 Suggested system connection

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.

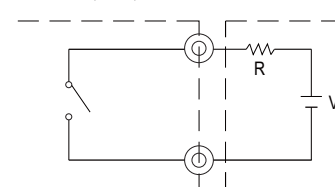
(3) Table2.1 explains the alarm function built in the power supply

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.