



■ Features :

- Controlled by microprocessor
- 2/3/8 stage charging selectable on output panel
- Universal AC input / Full range
- Built-in active PFC function PF>0.95
- Protection: Reverse Polarity / Short circuit / Over voltage / Over temperature
- Charger for lead-acid batteries
- 3 color LED loading indicator
- Built-in remote ON-OFF control
- 2-Bank charger
- Temperature compensation function
- FAN on/off control (depends on charging current)
- 3 years warranty

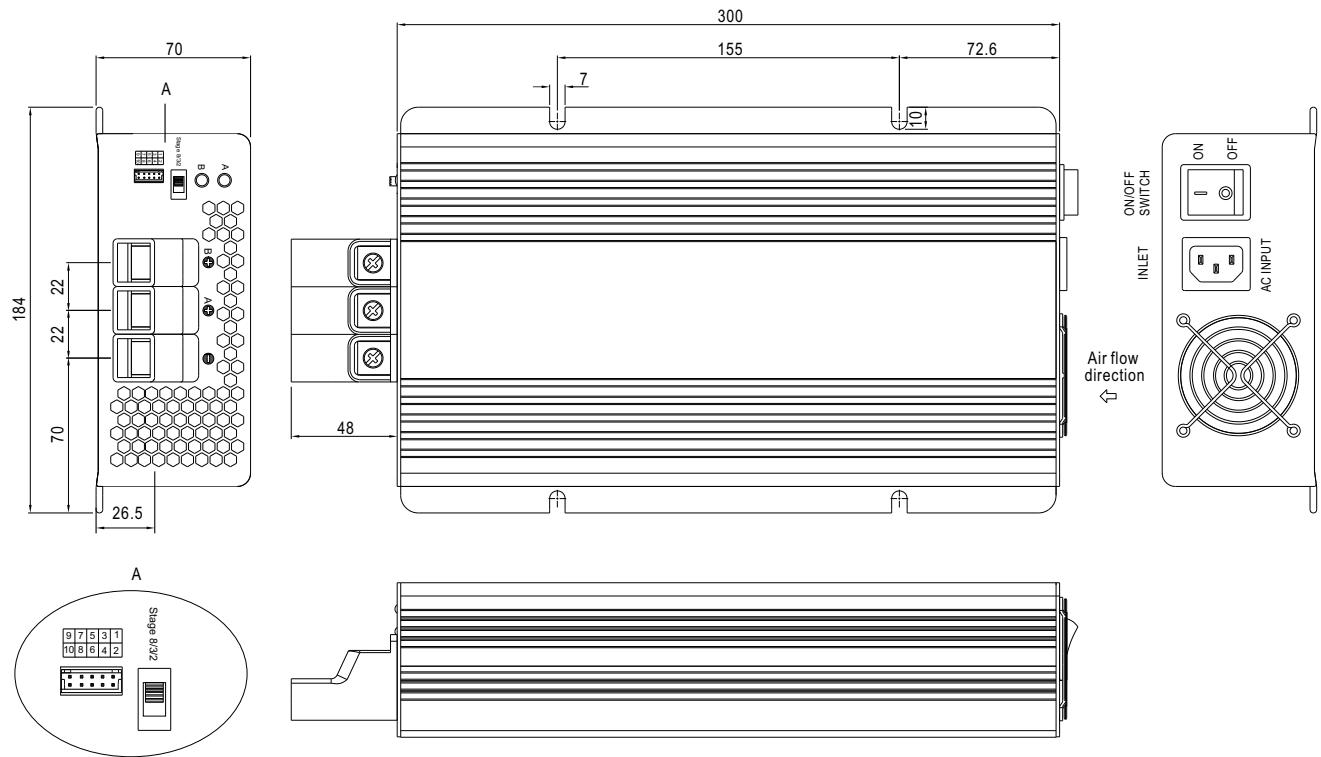


SPECIFICATION

MODEL	PB-1000-12	PB-1000-24	PB-1000-48
OUTPUT	BOOST CHARGE VOLTAGE	14.4V	28.8V
	FLOAT CHARGE VOLTAGE	13.8V	27.6V
	OUTPUT CURRENT	60A	34.7A
	RECOMMENDED BATTERY CAPACITY(AMP HOURS)(Note 3)	200 ~ 600Ah	120 ~ 350Ah
	BATTERY TYPE	Open & Sealed Lead Acid	
	LEAKAGE CURRENT FROM BATTERY (Typ.)	<1mA	
INPUT	VOLTAGE RANGE	90 ~ 264VAC	127 ~ 370VDC
	FREQUENCY RANGE	47 ~ 63Hz	
	EFFICIENCY (Typ.)	85%	88%
	POWER FACTOR (Typ.)	0.95/230VAC	0.98/115VAC at full load
	AC CURRENT (Typ.)	12A/115VAC	5.2A/230VAC
	INRUSH CURRENT (Typ.)	25A/115VAC	50A/230VAC
PROTECTION	LEAKAGE CURRENT	<3.5mA / 240VAC	
	OVER VOLTAGE	16 ~ 18V	32 ~ 35V
		Protection type : Shut down o/p voltage, re-power on to recover	
	OVER TEMPERATURE	80°C±5°C(12V), 85°C±5°C(24V,48V) (TSW1: detect on heatsink of power transistor)	
		85°C±5°C(12V),75°C±5°C(24V,48V) (TSW2 : detect on heatsink of o/p diode)	
FUNCTION		Protection type : Shut down o/p voltage, recovers automatically after temperature goes down	
	SHORT CIRCUIT	YES, protected by internal circuit	
	REVERSE POLARITY	YES, protected by internal circuit	
	REMOTE CONTROL	Open: Normal work	Short: Stop Charging
	BATTER BANKS	2 banks (A & B)	
ENVIRONMENT	FAST CHARGE	2 / 3 / 8 stage selectable	
	CHARGER OK	Relay contact rating(max.): 30V/1A resistive ; "Short" when the unit is working properly, "Open" when the unit is failure or the protection function is activating	
	OUTPUT OK	Relay contact rating(max.): 30V/1A resistive ; "Short" when the battery is full, "Open" when the battery is still charging	
	TEMPERATURE COMPENSATION	By NTC, compensate both banks at the same time	
	WORKING TEMP.	-20 ~ +60°C (Refer to output load derating curve)	
SAFETY & EMC (Note 2)	WORKING HUMIDITY	20 ~ 90% RH non-condensing	
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH	
	TEMP. COEFFICIENT	±0.05%/°C (0 ~ 50°C)	
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes	
	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved	
OTHERS	WITHSTAND VOLTAGE	I/P-O/P:3KVAC	I/P-FG:1.5KVAC
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms	/ 500VDC / 25°C / 70% RH
	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, light industry level, criteria A	
NOTE	MTBF	127.4Khrs min. MIL-HDBK-217F (25°C)	
	DIMENSION	300*184*70mm(L*W*H)	
	PACKING	3.5Kg; 4pcs/15Kg/1.83CUFT	
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. 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. 3. This is Mean Well's suggested range. Please consult your battery manufacturer for their suggestions about maximum charging current limitation.			

■ Mechanical Specification

Case No. 804B Unit:mm



Control Pin No. Assignment(CN100) : HRS DF11-10DP-2DS or equivalent

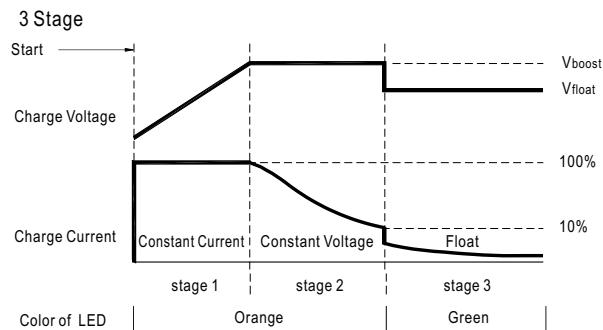
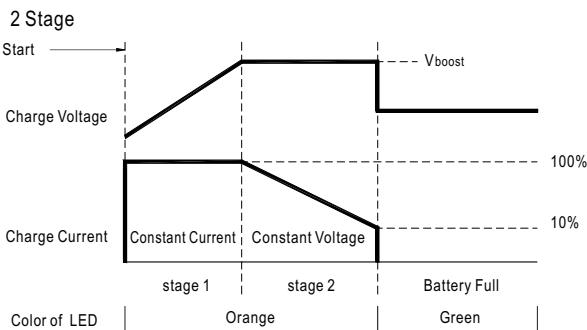
Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1,2	RY13	8	NTC(5KΩ)	HRS DF11-10DS or equivalent	HRS DF11-**SC or equivalent
3,4	RY14	9	RC-		
5,6	RY15	10	RC+		
7	GND				

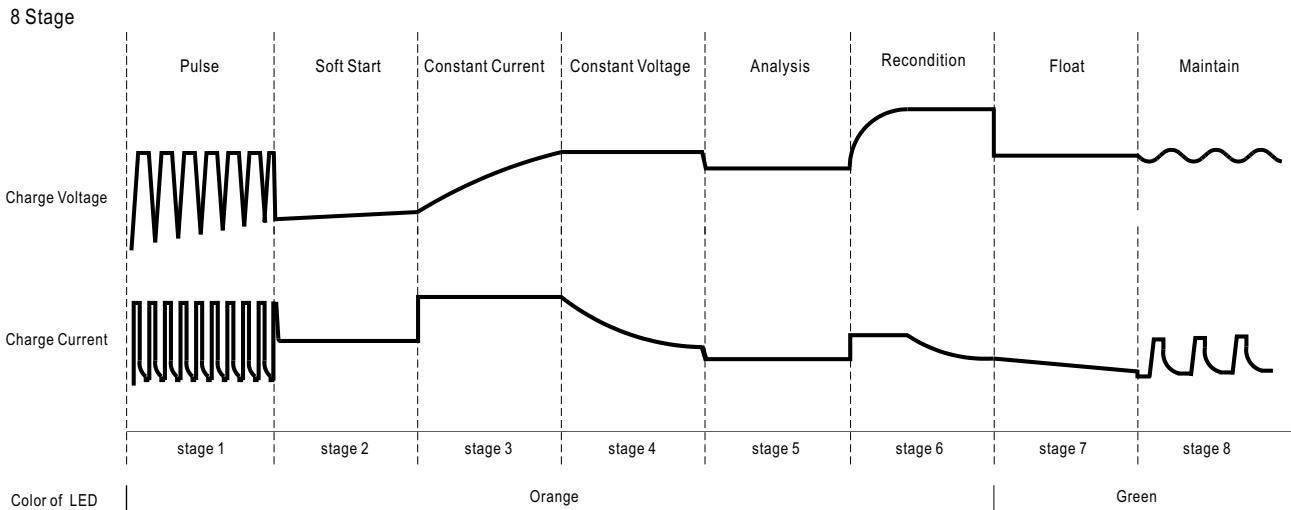
RY13 : Bank A OK NTC / GND : Temperature sense

RY14 : Bank B OK RC+ / RC- : Remote ON/OFF

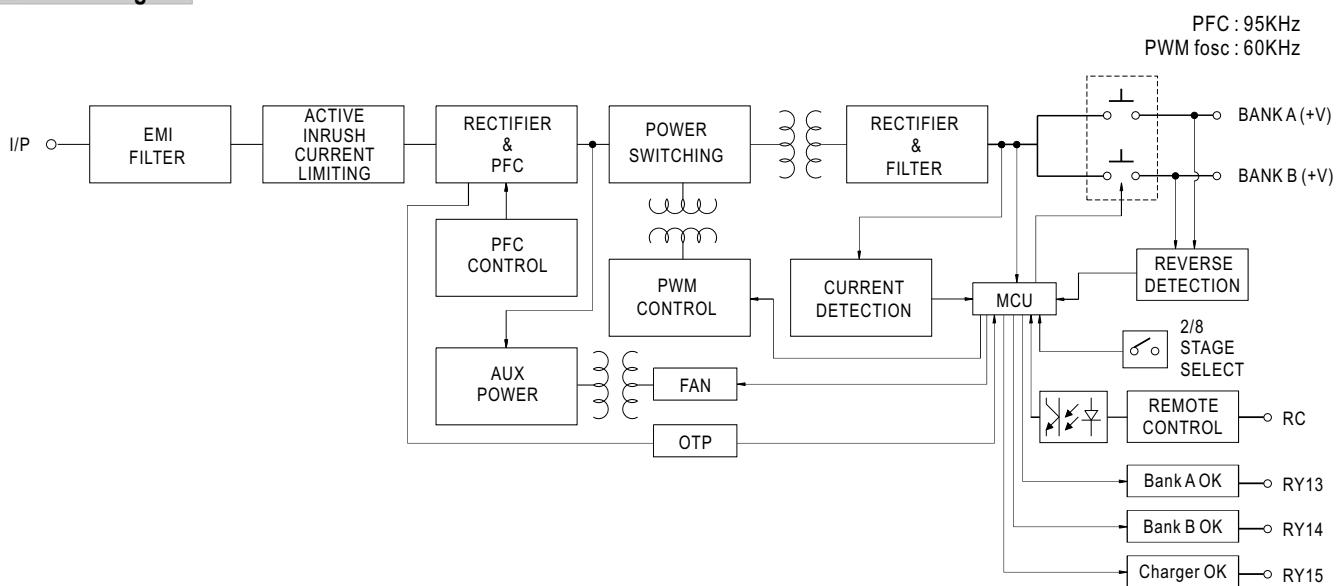
RY15 : Charger OK

■ Charging Curve

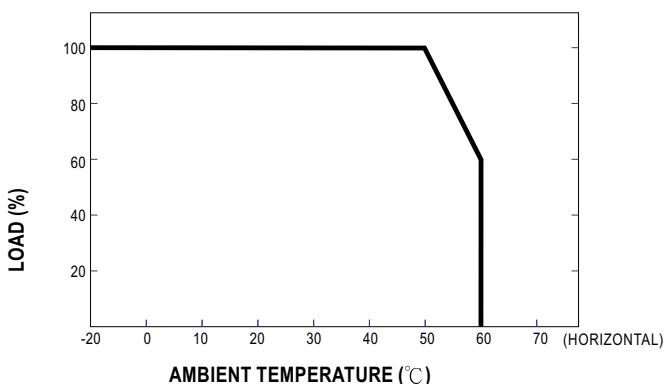




Block Diagram



Derating Curve



The Function of LEDs

Battery	Color of LED
Fail	Red
Charging	Orange
Battery Full	Green

■ Function Description of CN100

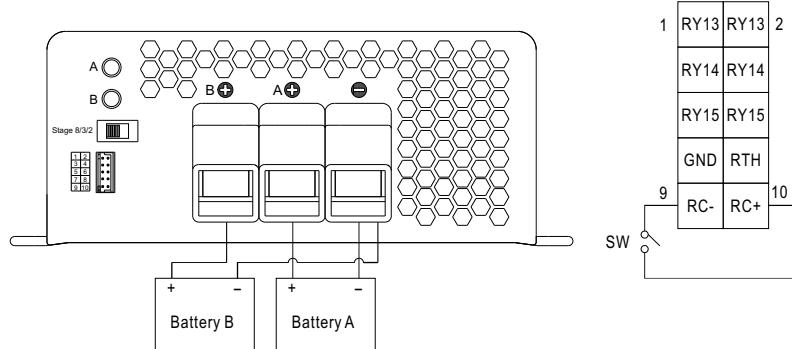
Pin No.	Function	Description
1,2	RY13	Relay contact rating(max.) : 30V/1A resistive. ; "Short" when the battery A is full, "Open" when the battery A is still charging.
3,4	RY14	Relay contact rating(max.) : 30V/1A resistive. ; "Short" when the battery B is full, "Open" when the battery B is still charging.
5,6	RY15	Relay contact rating(max.) : 30V/1A resistive. ; "Short" when the unit is working properly, "Open" when the unit is failure or the protection function is activating.
7,8	GND / RTH	Temperature sensor comes along with the charger can be connected to the unit to allow temperature compensation of the charging voltage. If the temperature sensor is not used, the charger still works normally.
9,10	RC- / RC+	Turn the output on and off by electrical or dry contact between pin 10 (RC+) and pin 9(RC-), "Open" : Normal work , "Short" : Stop charging

■ Function Manual

1. Remote Control

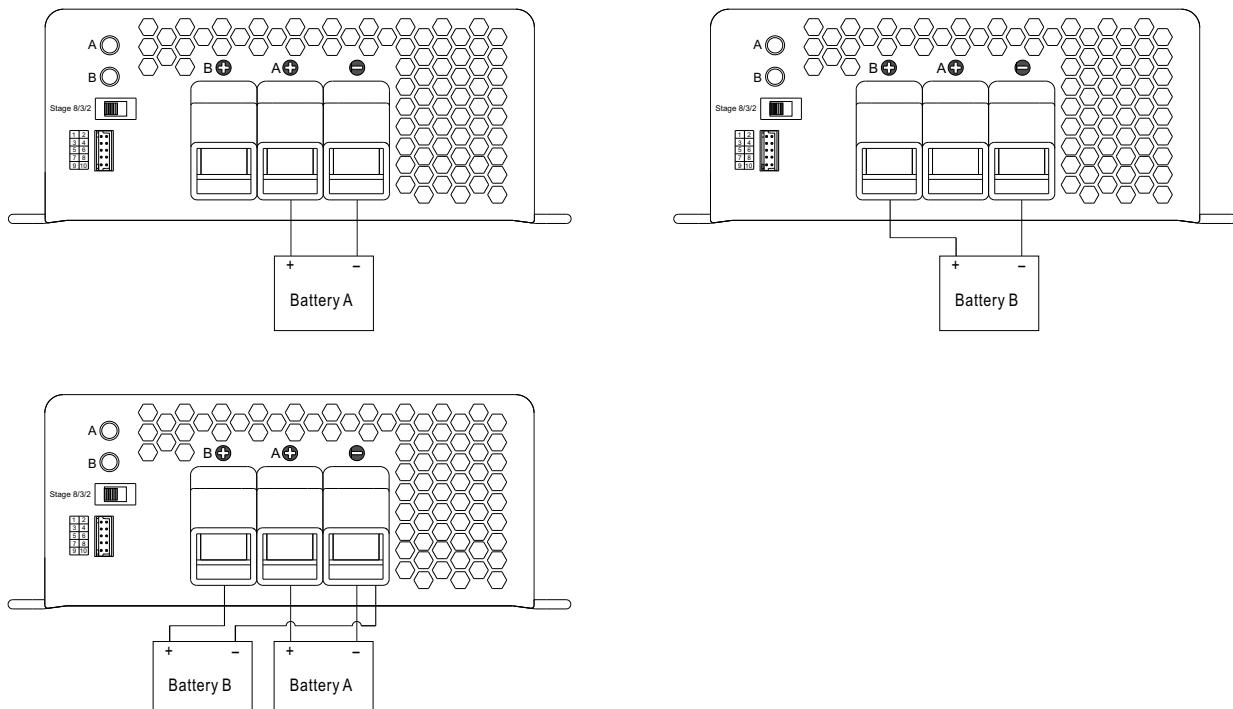
The charger can be turned ON/OFF by using the "Remote Control" function.

Between RC+(pin10) and RC-(pin9)	Charger
SW Open	ON
SW Short	OFF



2. Two Battery Banks

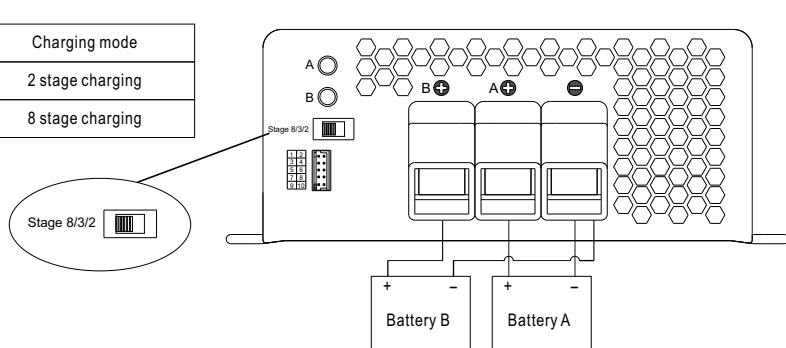
The charger may be hooked up two battery banks (A and/or B). Connect the battery bank(s) as below. If you are connecting 2 battery banks in the same time, keep in mind that they must share a common ground.



3. 2 or 8 stage Charging Select

The charger features user selectable 2 or 8 stage charging.
The charging profile is selected by moving the slide switch on the back panel.

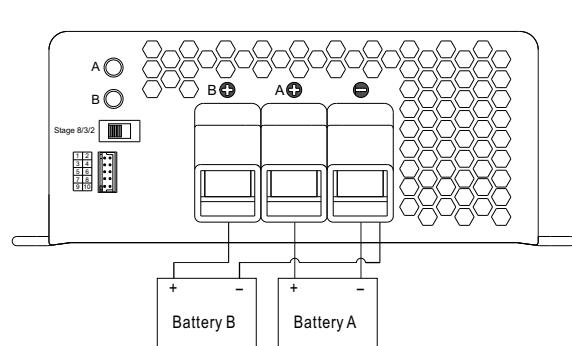
Switch	Charging mode
Turn right	2 stage charging
Turn left	8 stage charging



CN100	
1	RY13
2	RY13
RY14	RY14
RY15	RY15
GND	RTH
9	RC-
10	RC+

4. Charger OK Relay(RY15)

Charger	Between pin5 and pin6(RY15)
Normal work	ON (Short)
Failure or the protection function is activating	OFF (Open)



CN100	
1	RY13
2	RY13
RY14	RY14
RY15	RY15
GND	RTH
9	RC-
10	RC+

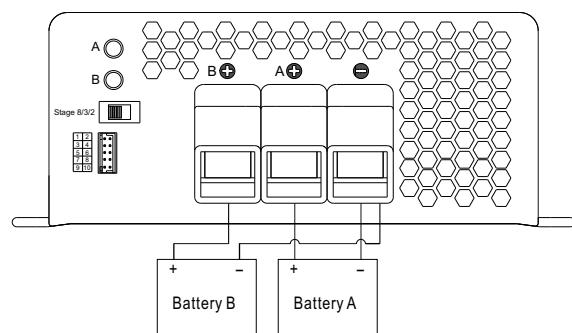
5. Output OK Relay(RY13 & RY14)

1. Bank A OK (RY13)

Bank A	Between pin1 and pin2(RY13)	Color of LED A
Battery A Full	ON (Short)	Green
Charging	OFF (Open)	Orange

2. Bank B OK (RY14)

Bank B	Between pin3 and pin4(RY14)	Color of LED B
Battery B Full	ON (Short)	Green
Charging	OFF (Open)	Orange

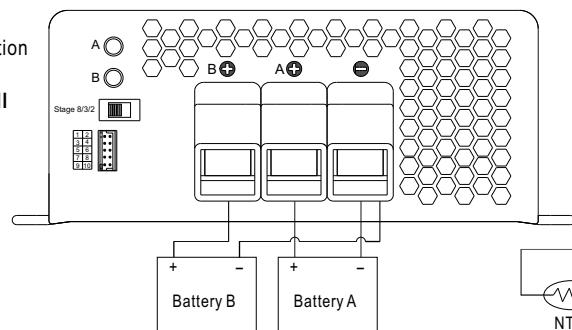


CN100	
1	RY13
2	RY13
RY14	RY14
RY15	RY15
GND	RTH
9	RC-
10	RC+

6. Temperature Compensation

Temperature sensor comes along with the charger can be connected to the unit to allow temperature compensation of the charging voltage.

If the temperature sensor is not used, the charger still works normally.



CN100	
1	RY13
2	RY13
RY14	RY14
RY15	RY15
GND	RTH
9	RC-
10	RC+

The temperature sensor can either be attached to the battery or placed in its surrounding environment.