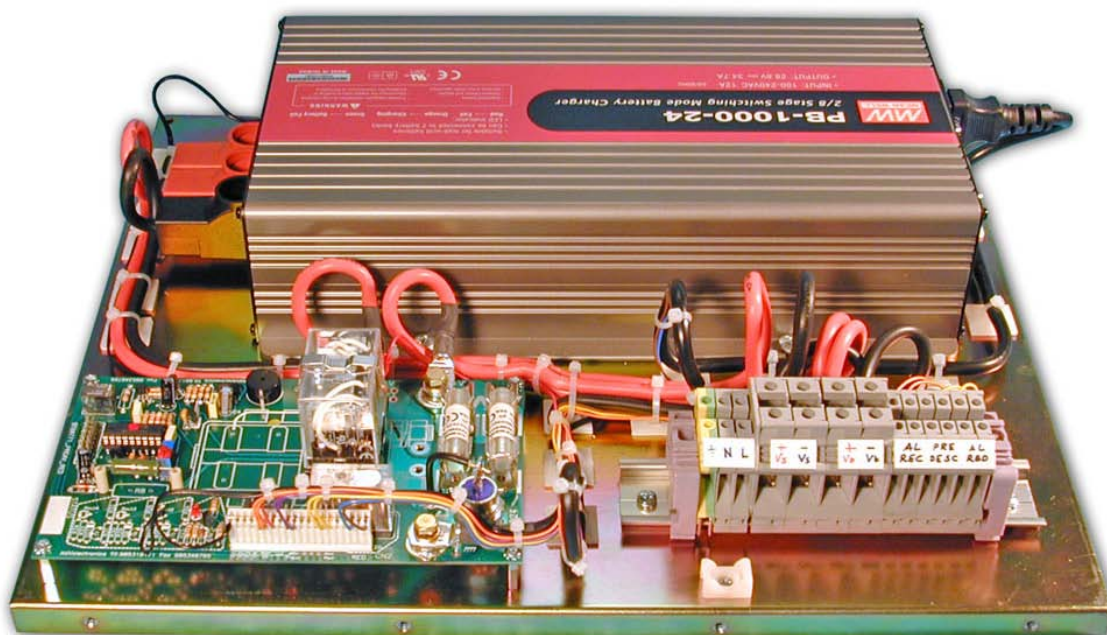


CARGADOR DE BATERÍAS

MODELO AMV PB-1000-24-SAI-ENY

Ve 90 ~ 264 Vca

Baterías de 24 V (120 ~ 350Ah) Alarmas por fallo de rectificador, predesconexión y fallo de red





■ Features :

- Controlled by microprocessor
- 2/8 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)

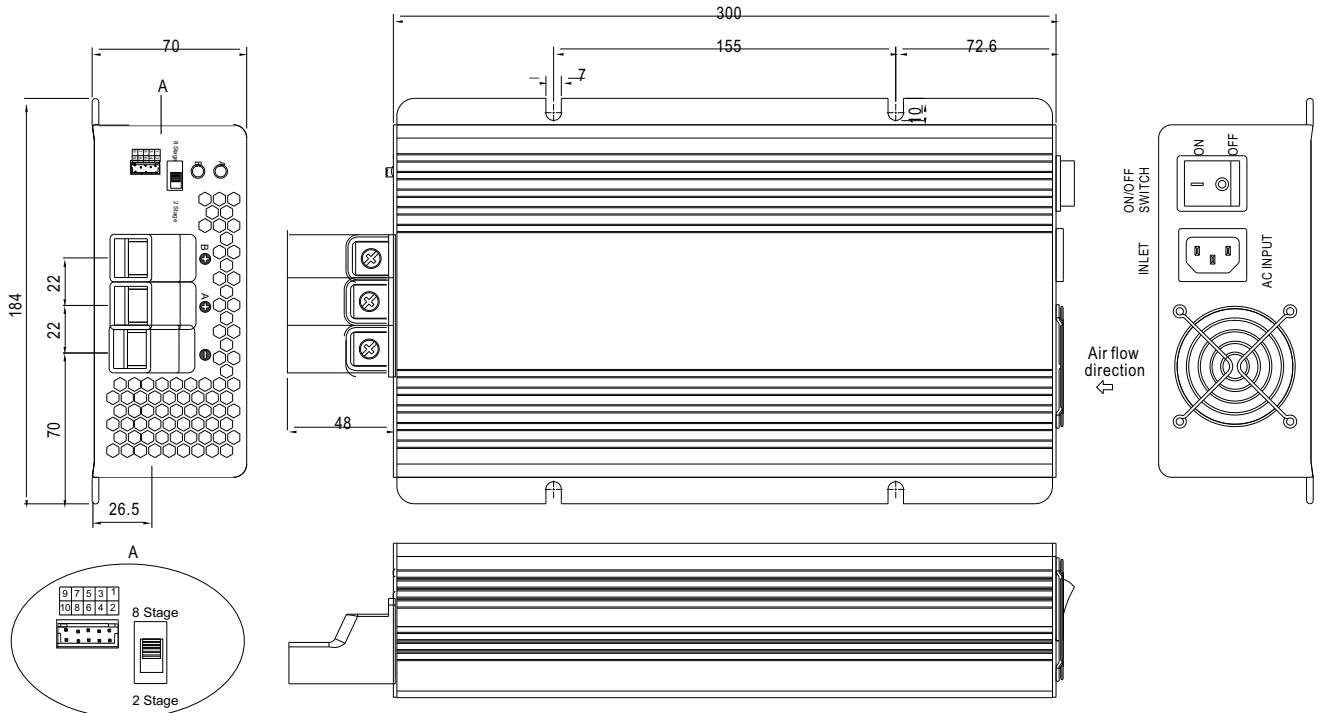


SPECIFICATION

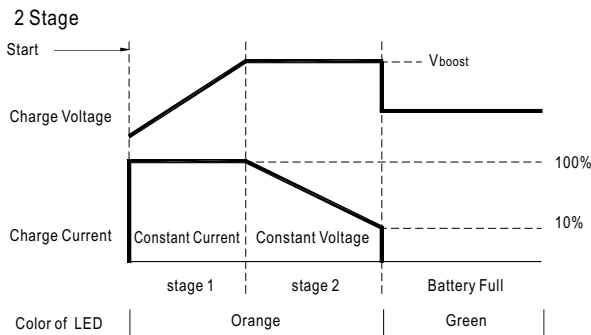
MODEL	PB-1000-12	PB-1000-24	PB-1000-48	
OUTPUT	BOOST CHARGE VOLTAGE	14.4V	28.8V	57.6V
	FLOAT CHARGE VOLTAGE	13.8V	27.6V	55.2V
	OUTPUT CURRENT	60A	34.7A	17.4A
	RECOMMENDED BATTERY CAPACITY(AMP HOURS)(Note 3)	200 ~ 600Ah	120 ~ 350Ah	60 ~ 175Ah
	BATTERY TYPE	Open & Sealed Lead Acid		
	LEAKAGE CURRENT FROM BATTERY (Typ.)	<1mA		
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC		
	FREQUENCY RANGE	47 ~ 63Hz		
	EFFICIENCY (Typ.)	85%	88%	89%
	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	
	LEAKAGE CURRENT	<3.5mA / 240VAC		
PROTECTION	OVER VOLTAGE	16 ~ 18V	32 ~ 35V	64.5 ~ 69.5V
		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)		
		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		
FUNCTION	REMOTE CONTROL	Open: Normal work Short: Stop Charging		
	BATTER BANKS	2 banks (A & B)		
	FAST CHARGE	2 / 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		
ENVIRONMENT	WORKING TEMP.	-20 ~ +60°C (Refer to output load derating curve)		
	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 & EMC (Note 2)	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°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		
OTHERS	MTBF	127.4Khrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	300*184*70mm(L*W*H)		
	PACKING	3.5Kg; 4pcs/15Kg/1.83CUFT		
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>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.</p> <p>3. This is Mean Well's suggested range. Please consult your battery manufacturer for their suggestions about maximum charging current limitation.</p>			

Mechanical Specification

Case No. 804B Unit:mm



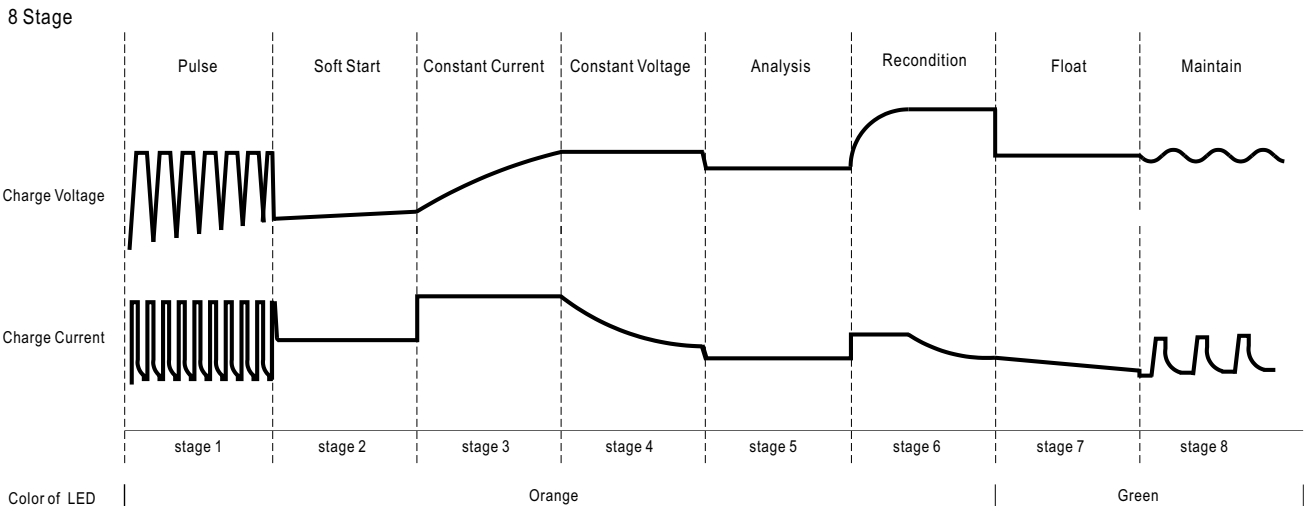
Charging Curve



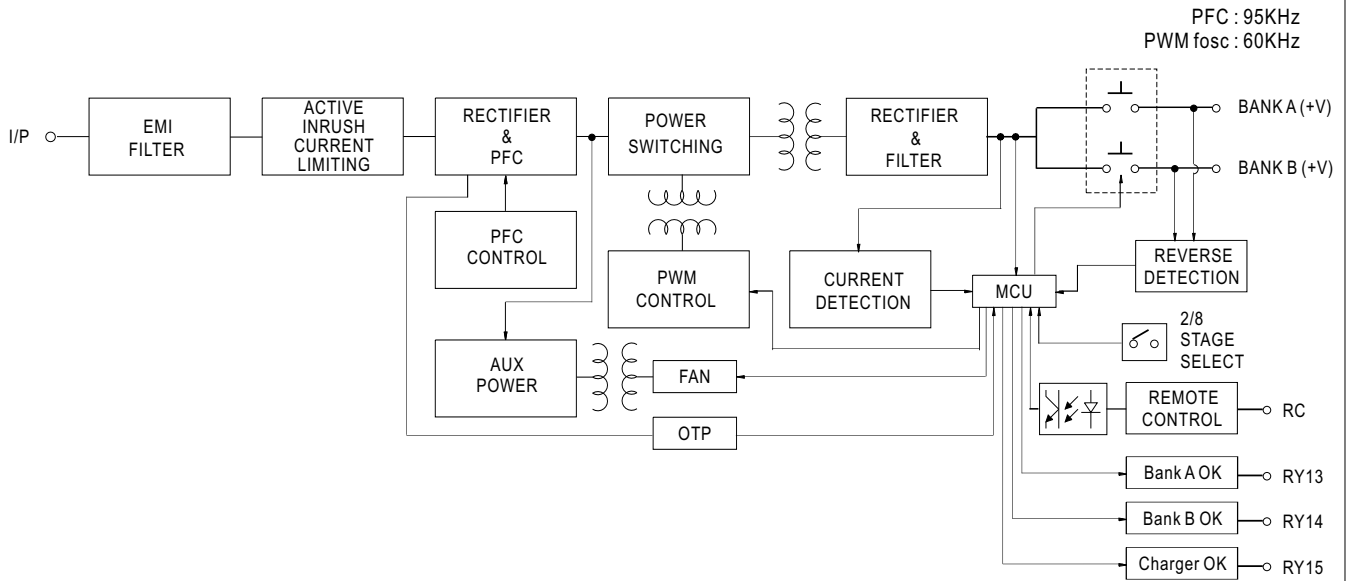
Control Pin No. Assignment(CN100) : HRS DF11-10DP-2DS or equivalent

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

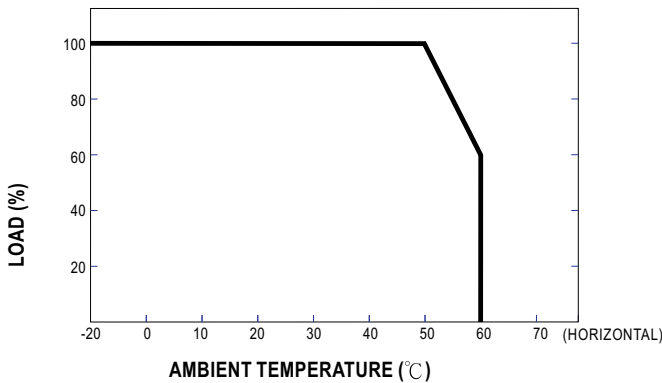
RY13 : Bank A OK NTC / GND : Temperature sense
 RY14 : Bank B OK RC+ / RC- : Remote ON/OFF
 RY15 : Charger OK



■ **Block Diagram**



■ **Derating Curve**



■ **The Function of LEDs**

Battery	Color of LED
Fail	Red
Charging	Orange
Battery Full	Green

■ **Function Description of CN100**

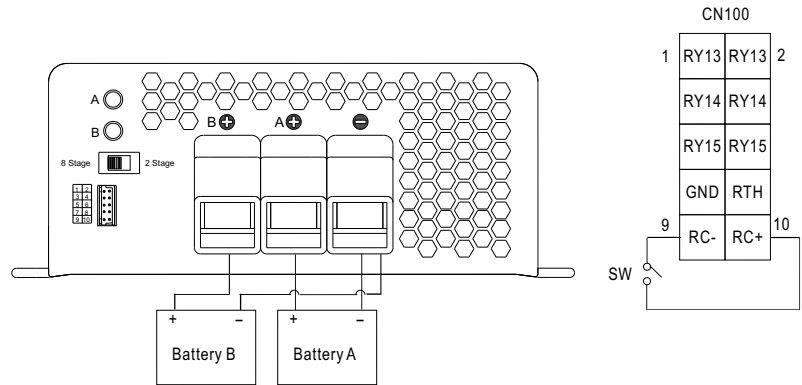
Pin No.	Function	Description
1,2	RY13	Relay contact rating(max.) : 30V/1A resistive. ; "Short" when the battery A is full, "Open" when the battery A is still charging.
3,4	RY14	Relay contact rating(max.) : 30V/1A resistive. ; "Short" when the battery B is full, "Open" when the battery B is still charging.
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

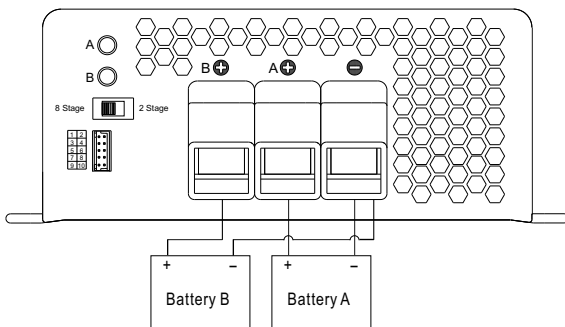
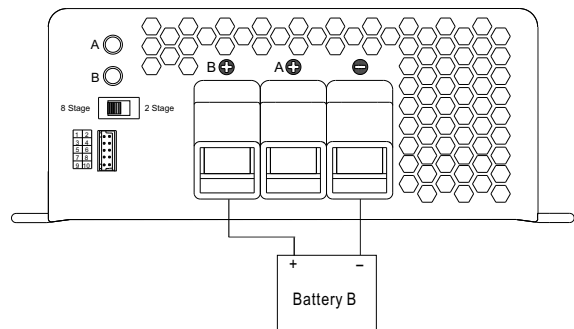
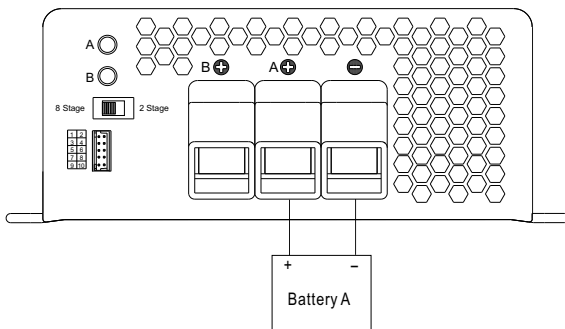
The charger can be turned ON/OFF by using the "Remote Control" function.

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



2. Two Battery Banks

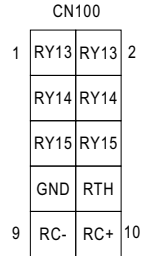
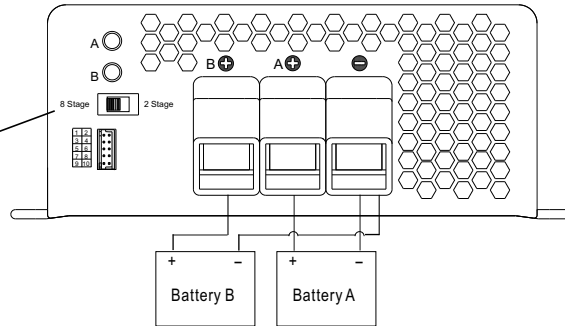
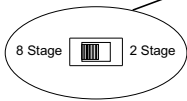
The charger may be hooked up two battery banks (A and/or B). Connect the battery bank(s) as below. If you are connecting 2 battery banks in the same time, keep in mind that they must share a common ground.



3. 2 or 8 stage Charging Select

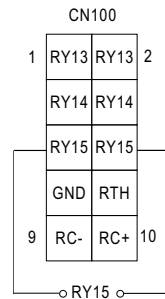
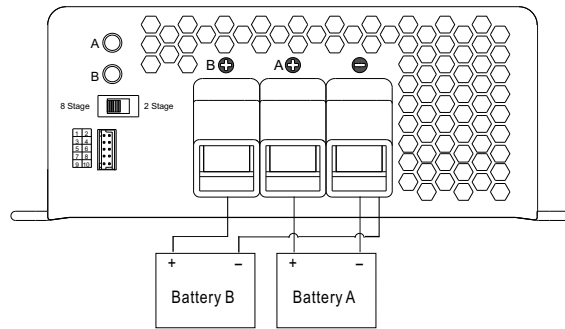
The charger features user selectable 2 or 8 stage charging. The charging profile is selected by moving the slide switch on the back panel.

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



4. Charger OK Relay (RY15)

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



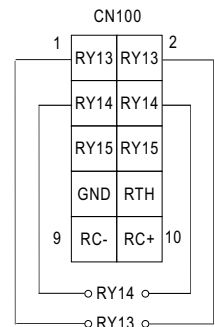
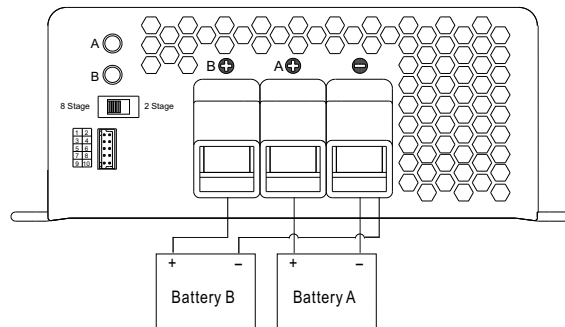
5. Output OK Relay (RY13 & RY14)

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)

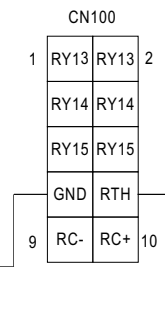
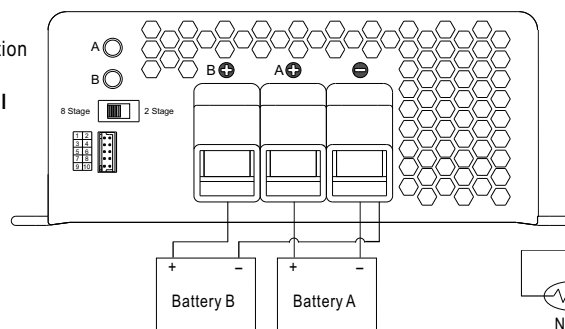
Bank B	Between pin3 and pin4 (RY14)	Color of LED B
Battery B Full	ON (Short)	Green
Charging	OFF (Open)	Orange



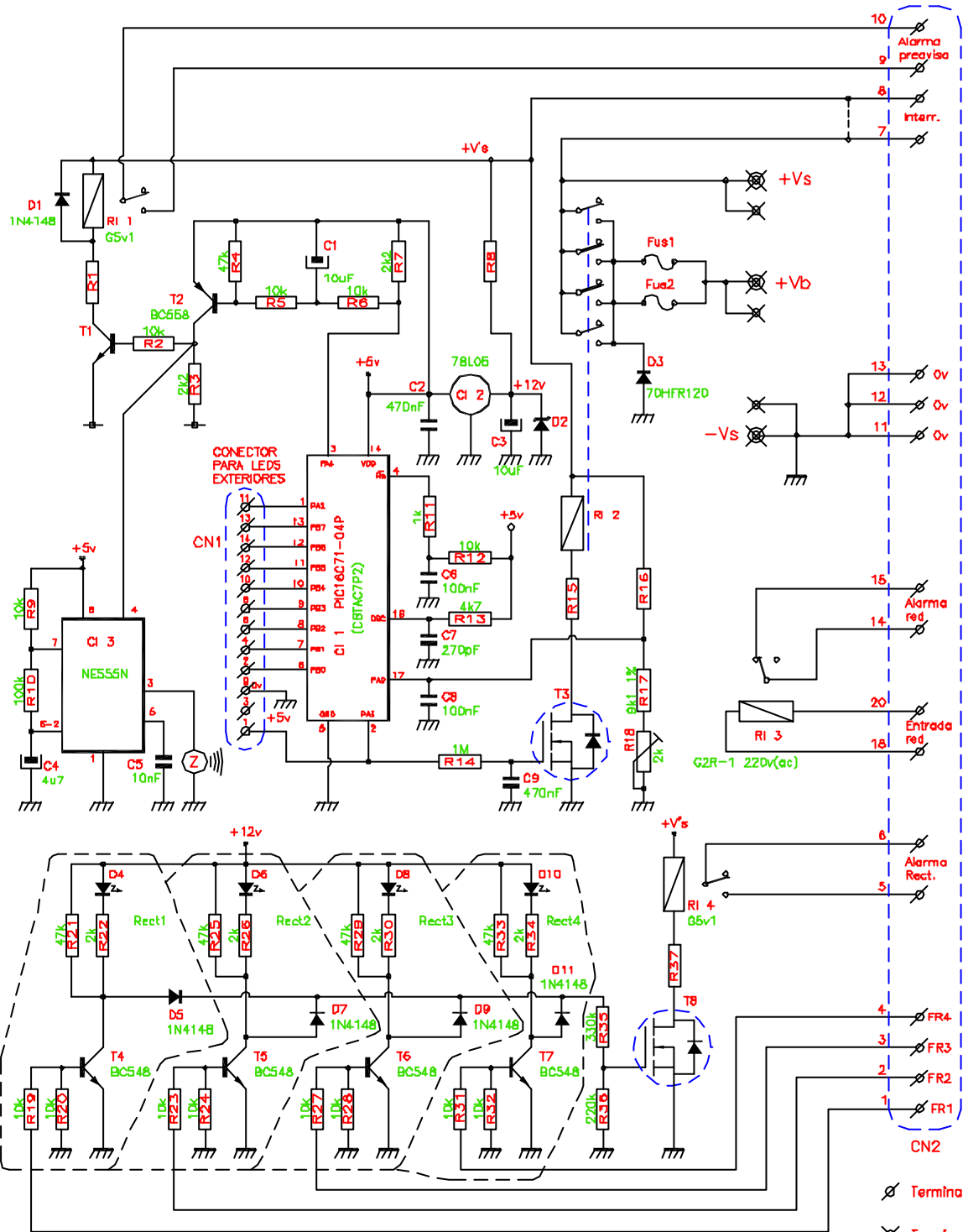
6. Temperature Compensation

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.



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



- Terminal de CN2
- Terminal Faston
- Terminal inserto N5

	D2	R1-R37	R8		R16	R11-R14	T1	T3-T8
13,6v	SIN DIODO	0R	22R		30k 1%	G5v1 12v	ZTX304	IRLU024
27,2v	12v 1w	0R	220R 2,5W		69k8 0,1%	G5v1 24v	ZTX304	IRLU110 IRLU120
54,4v	12v 1w	3k9 1w	B80R 6w		150k 1%	G5v1 24v	ZTX304	IRLU110 IRLU120
68v	12v 1w	5k6 1w	B20R 6w		200k 0,1%	G5v1 24v	WPSA 43	IRLU110 IRLU120
72v	12v 1w	8k2 1w	1k 6w		232k 0,1%	G5v1 24v	WPSA 43	IRLU110 IRLU120
11Dv	12v 1w	15k 1w	1k5 10w		360k 1%	G5v1 24v	WPSA 43	5TD4N 25-1

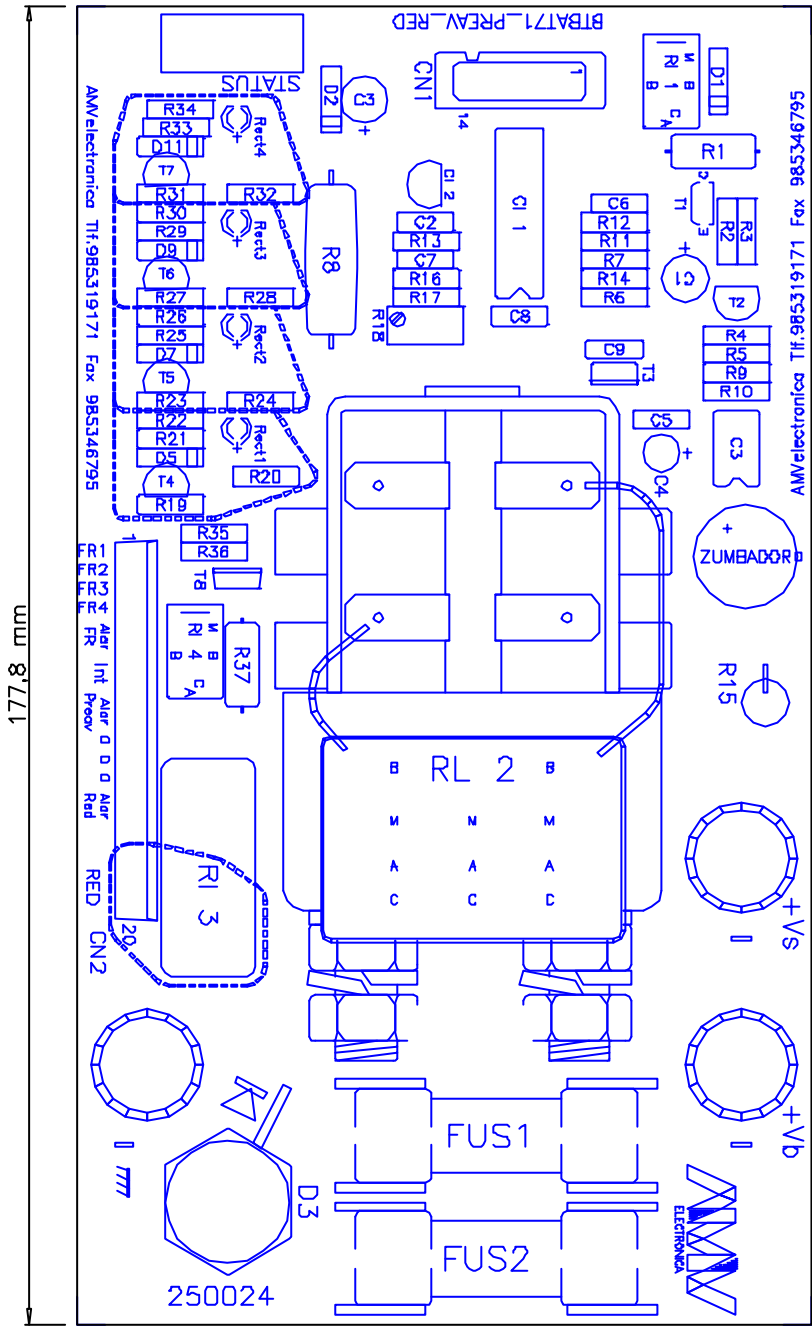
HASTA 40A

	13,6v	27,2v	54,4v	68v
RI 2	LY4 12v	LY4 24v	LY4 48v	LY4 48v
R15	12R-0,5W	47R-0,5W	220R-0,5W	680R-1W

MAS DE 40A

	13,6v	27,2v	54,4v	68v
RI 2	SW8D-12v	SW8D 24v	SW8D-48v	SW8D-6Dv
R15	2R2-2W	BR-2W	33R-2W	47R-2W


ESCALA:	MATERIAL:			ACABADO:
APROBO	FECHA	FIRMA		DESCONECTOR DE BATERIAS E INDICADORES, CON PREVISO DE DESCONEXION, ALARMA POR FALTA DE RED, FALLO DE RECTIFICADOR E INDICADOR DE CONEXION O.K. INDIVIDUAL.
DIBUJO	10/1/2000	VICTOR		
AUTORIZO				
FECHA	13/3/00	17/4/00		
EDICION	1	2	3	
				CODIGO: 15BTBAT00
				NUMERO: 150059

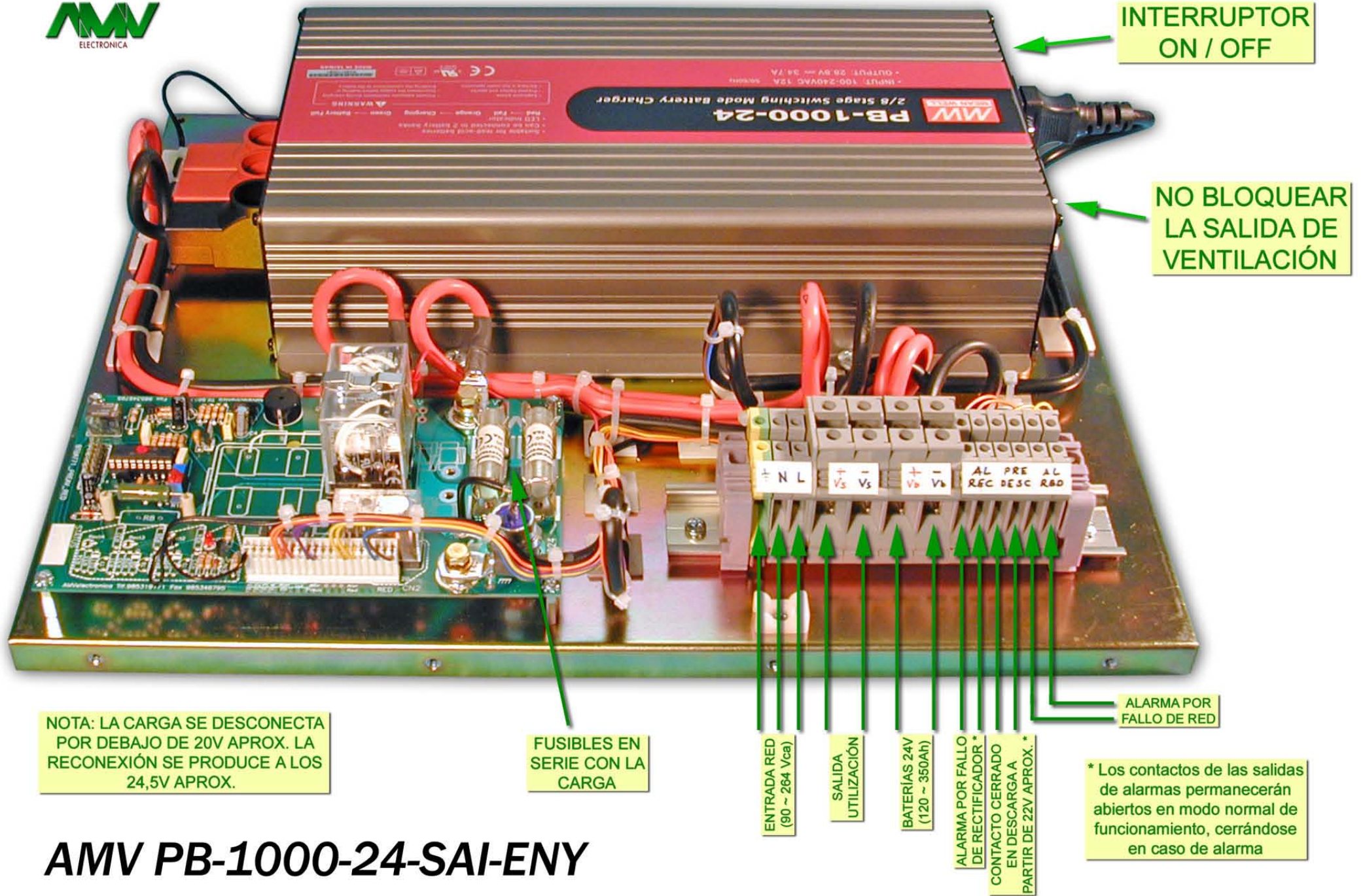


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177.8 mm

ESCALA:	MATERIAL:		ACABADO:	
APROBO	FECHA	FIRMA		
DIBUJO	4/1/2000	VICTOR		
AUTORIZO			CIRCUITO IMPRESO DE CONTROL DE CARGA DE BATERIA CON DESCONEXION POR BAJA BATERIA, PREAVISO DE PROXIMA DESCONEXION Y ALARMA POR FALTA DE RED	
FECHA				
EDICION	1		CODIGO: 25BTBAT2000	NUMERO: 250024



INTERRUPTOR ON / OFF

NO BLOQUEAR LA SALIDA DE VENTILACIÓN

NOTA: LA CARGA SE DESCONECTA POR DEBAJO DE 20V APROX. LA RECONEXIÓN SE PRODUCE A LOS 24,5V APROX.

FUSIBLES EN SERIE CON LA CARGA

ENTRADA RED (90 ~ 264 Vca)

SALIDA UTILIZACIÓN

BATERÍAS 24V (120 ~ 350Ah)

ALARMA POR FALLO DE RECTIFICADOR *

CONTACTO CERRADO EN DESCARGA A PARTIR DE 22V APROX. *

ALARMA POR FALLO DE RED

* Los contactos de las salidas de alarmas permanecerán abiertos en modo normal de funcionamiento, cerrándose en caso de alarma

AMV PB-1000-24-SAI-ENY



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GARANTIA

TODOS LOS EQUIPOS FABRICADOS POR **AMV ELECTRÓNICA** SALEN DE NUESTROS TALLERES AJUSTADOS, NUMERADOS Y CON DOCUMENTACIÓN TÉCNICA, **SIENDO LA GARANTIA TOTAL DE 2 AÑOS.**

LA GARANTÍA CUBRE LAS SITUACIONES DE DAÑO INTRÍNSECO, Y NO LAS PROVOCADAS POR CAUSAS EXTERNAS O LA MANIPULACIÓN POR PARTE DEL USUARIO.

LA GARANTÍA SE ENTIENDE EN NUESTROS TALLERES, SIENDO POR CUENTA DEL USUARIO LOS COSTES DEL TRANSPORTE.

AMV ELECTRONICA



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