



#### ■ Features :

- \* 2/3/8 stage charging (Note 4)
- 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
- \* Built-in temperature compensation function
- \* Built-in fan speed control (depends on charging current)
- 3 years warranty

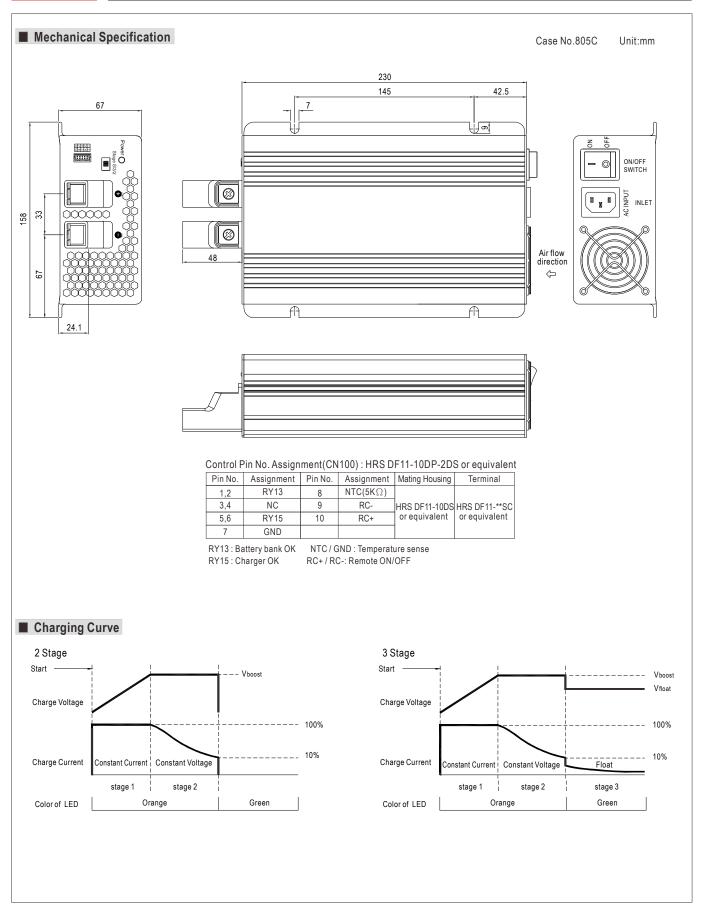




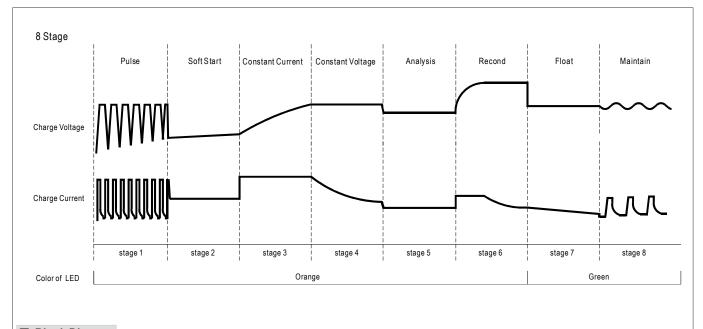


| SPECIFIC      | ATION  |   |   | TFC TAS TAY RPROTE |  |
|---------------|--|---|---|--------------------|--|
| MODEL         |  | PB-600-12   | PB-600-24                               | PB-600-48          |  |
| ОИТРИТ        | BOOST CHARGE VOLTAGE   | 14.4V   | 28.8V                                   | 57.6V              |  |
|               | FLOAT CHARGE VOLTAGE   | 13.8V   | 27.6V                                   | 55.2V              |  |
|               | RECOMMENDED BATTERY  | 135 ~ 400AH   | 70 ~ 210AH                              | 35 ~ 105AH         |  |
|               | CAPACITY(AMP HOURS)(Note 3)  | 100 400AH   | 70 ZIVAII                               |                    |  |
|               | BATTERY TYPE   | Open & Sealed Lead Acid   |   |                    |  |
|               | OUTPUT CURRENT   | 40A   | 21A                                     | 10.5A              |  |
|               | VOLTAGE RANGE  | 90 ~ 264VAC 127 ~ 370VDC  |   |                    |  |
|               | FREQUENCY RANGE  | 47 ~ 63Hz   |   |                    |  |
|               | POWER FACTOR (Typ.)  | 0.95/230VAC 0.98/115VAC at full load  |   |                    |  |
| NPUT          | EFFICIENCY (Typ.)  | 86%   | 87%                                     | 89%                |  |
|               | AC CURRENT (Typ.)  | 6.8A/115VAC 3.4A/230VAC   |   |                    |  |
|               | INRUSH CURRENT (Typ.)  | 25A/115VAC 50A/230VAC   |   |                    |  |
|               | LEAKAGE CURRENT  | <3.5mA / 240VAC   |   |                    |  |
|               | OVERVOLTAGE  | 16 ~ 18V  | 32 ~ 35V                                | 64.5 ~ 69.5V       |  |
| ROTECTION     | OVER VOLTAGE   | Protection type: Shut down o/p voltage, r   | e-power on to recover                   |                    |  |
|               | OVER TEMPERATURE   | Protection type: Shut down o/p voltage, recovers automatically after temperature goes down  |   |                    |  |
|               | REMOTE CONTROL   | Open: Normal work Short: Stop Charging  |   |                    |  |
|               | LEAKAGE CURRENT FROM BATTERY (Typ.)  |   |   |                    |  |
| UNCTION       | FAST CHARGE  | 2/3/8 stage selectable  |   |                    |  |
| UNCTION       | CHARGER OK   | Relay contact (RY15)  |   |                    |  |
|               | OUTPUT OK  | Relay contact (RY13)  |   |                    |  |
|               | TEMPERATURE SENSE  | By NTC  |   |                    |  |
|               | WORKING TEMP.  | -20 ~ +60°C (Refer to "Derating Curve")   |   |                    |  |
|               | WORKING HUMIDITY   | 20 ~ 90% RH non-condensing  |   |                    |  |
| ENVIRONMENT   | STORAGE TEMP., HUMIDITY  |   |   |                    |  |
|               | TEMP. COEFFICIENT  | ±0.05%°C (0~50°C)   |   |                    |  |
|               | VIBRATION  | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes  |   |                    |  |
|               | SAFETY STANDARDS   | UL1012, TUV EN60335-1, EN60335-2-29   | 9 (except for 48V), EN60950-1(48V only) | approved           |  |
| SAFETY &      | WITHSTAND VOLTAGE  | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-I  | FG:0.5KVAC                              |                    |  |
| EMC           | ISOLATION RESISTANCE   | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 50  |   |                    |  |
| Note 2)       | EMC EMISSION   | Compliance to EN55022 class B (CISPR22), EN61000-3-2,-3   |   |                    |  |
|               | EMC IMMUNITY   | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024; light industry level, criteria A   |   |                    |  |
|               | MTBF   | 135.6K hrs min. MIL-HDBK-217F (25°C)  |   |                    |  |
| OTHERS        | DIMENSION  | 230*158*67mm(L*W*H)   |   |                    |  |
| O I I I I I I | PACKING  | 2.2Kg; 6pcs/14.2Kg/1.76CUFT   |   |                    |  |
| NOTE          | All parameters NOT specia     The power supply is consided EMC directives.     This is Mean Well's suggestances. | I parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.  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 |   |                    |  |



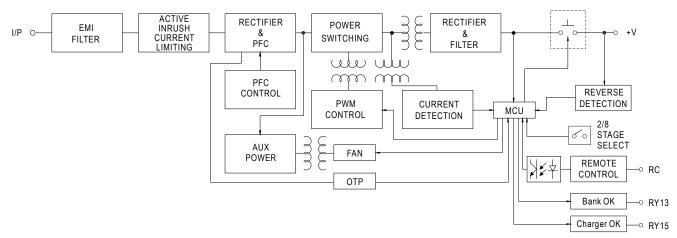


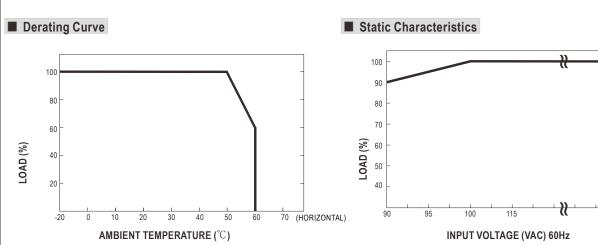




# **■** Block Diagram

PFC: 95KHz PWM fosc: 60KHz







## **■** Function Description of CN100

| Pin No. | Function  | Description   |
|---------|-----------|---|
| 1,2     | RY13      | Relay contact rating(max.): 30V/1A resistive.; "Short" when the battery is full, "Open" when the battery is still charging              |
| 5,6     | RY15      | Relay contact rating(max.): 30V/1A resistive.; "Short" when the unit is working normally; "Open" when the unit is in a faulty condition |
| 7,8     | GND / RTH | temperature compensation of the charging voltage  |
| 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     |

### ■ The Function of LEDs

| Color  | Steady | Flashing |
|--------|--------|----------|
| Red    | Fail   |          |
| Orange |        | Charging |
| Green  | Full   | Charging |

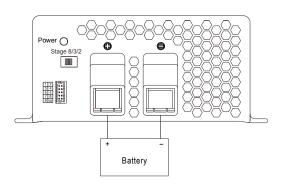
#### ■ Function Manual

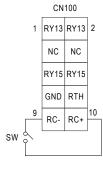
#### 1.Remote Control

The charger can be turned ON/OFF by using the

"Remote Control" function.

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



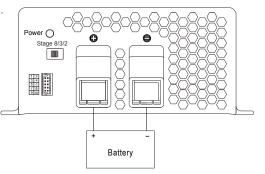


#### 2. 2,3, or 8 stage charging select

(1) The charger features user selectable 2,3, or 8 stage charging. The charging profile is selected by moving the slide switch on the back panel.

| ·      |                  |  |
|--------|------------------|--|
| Switch | Charging mode    |  |
| Right  | 2 stage charging |  |
| Middle | 3 stage charging |  |
| Left   | 8 stage charging |  |

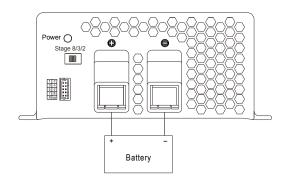
(2)Please choose the "3 stage" selection when the charger is used to charge the batteries and power the loads in the same time.

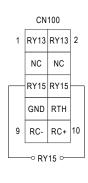


| CN100 |      |      |    |
|-------|------|------|----|
| 1     | RY13 | RY13 | 2  |
|       | NC   | NC   |    |
|       | RY15 | RY15 |    |
|       | GND  | RTH  |    |
| 9     | RC-  | RC+  | 10 |
|       |      |      |    |

#### 3.Charger OK Relay(RY15)

| Charger                                  | Between pin5 and pin6(RY15) |
|--|-----------------------------|
| Work normally                            | ON (Short)                  |
| Failure or protection function activated | OFF (Open)                  |



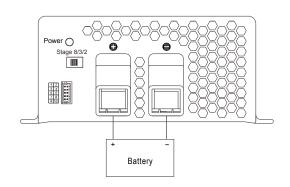


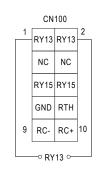


#### 4.Output OK (RY13)

### 1.Bank OK (RY13)

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

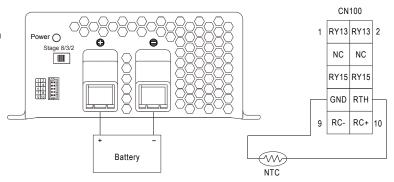




### 5. Temperature compensation

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

If the 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.

# **Mouser Electronics**

**Authorized Distributor** 

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Mean Well:

PB-600-12 PB-600-48 PB-600-24