



## ■ Features :

- Charger for lead-acid batteries (flooded, Gel and AGM) and Li-ion batteries (lithium iron and lithium manganese) (Note.1)
- 3 stage charging
- AC 115/230VAC selected by switch
- Built-in passive PFC function compliance to EN61000-3-2 Class A (option)
- Protection: Short circuit / Reverse polarity / Over voltage / Over temperature
- Cooling by free air convection
- 2 color LED loading indicator
- Low cost, High reliability
- 3 years warranty



PB - 300 **P** - 12

P:With Passive PFC  
N:Without Passive PFC

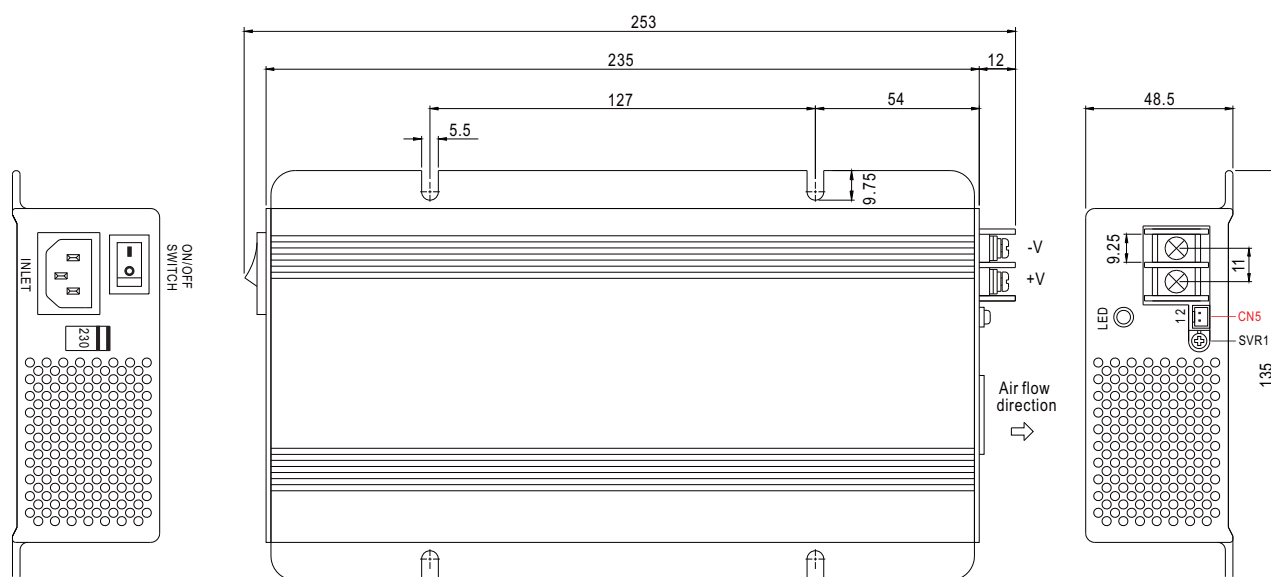
12:14.4V  
24:28.8V  
48:57.6V

## SPECIFICATION

| MODEL                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PB-300□-12                                                                                                                          | PB-300□-24 | PB-300□-48 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------|------------|
| OUTPUT                                  | BOOST CHARGE VOLTAGE V <sub>boost</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 14.4V                                                                                                                               | 28.8V      | 57.6V      |
|                                         | FLOAT CHARGE VOLTAGE V <sub>float</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.6V                                                                                                                               | 27.2V      | 54.4V      |
|                                         | VOLTAGE ADJUSTABLE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 13 ~ 14.7V                                                                                                                          | 26 ~ 28.8V | 52 ~ 58.6V |
|                                         | RECOMMENDED BATTERY CAPACITY(AMP HOURS) <small>Note 6</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 60 ~ 200Ah                                                                                                                          | 30 ~ 100Ah | 15 ~ 50Ah  |
|                                         | BATTERY TYPE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Open & Sealed Lead Acid                                                                                                             |            |            |
|                                         | MAX. OUTPUT CURRENT(Typ.) <small>Note 8</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 20.85A                                                                                                                              | 10.5A      | 5.3A       |
|                                         | CONTINUOUS OUTPUT CURRENT (Typ.) <small>Note 7</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 12.5A                                                                                                                               | 6.25A      | 3.2A       |
| INPUT                                   | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 90 ~ 132VAC / 180 ~ 264VAC selected by switch      127 ~ 187VDC / 254 ~ 370VDC                                                      |            |            |
|                                         | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 47 ~ 63Hz                                                                                                                           |            |            |
|                                         | POWER FACTOR (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | >0.65 (with P type) at 230VAC                                                                                                       |            |            |
|                                         | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 85%                                                                                                                                 | 86%        | 88%        |
|                                         | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6A/115VAC    3A/230VAC                                                                                                              |            |            |
|                                         | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | COLD START 60A                                                                                                                      |            |            |
|                                         | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <3.5mA / 240VAC                                                                                                                     |            |            |
| PROTECTION                              | SHORT CIRCUIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | O/P Built in fuse (FS100) to protect short circuit condition, shut down o/p voltage and can not re-power on                         |            |            |
|                                         | REVERSE POLARITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | By internal fuse                                                                                                                    |            |            |
|                                         | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 16 ~ 18V                                                                                                                            | 31 ~ 35V   | 59 ~ 64V   |
|                                         | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Protection type : Shut down o/p voltage, re-power on to recover<br>Protection type : Automatically derate charge current until zero |            |            |
| FUNCTION                                | REMOTE CONTROL (CN5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Open: Normal work    Short: Stop Charging                                                                                           |            |            |
| ENVIRONMENT                             | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -10 ~ +50℃ (Refer to "Derating Curve")                                                                                              |            |            |
|                                         | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 20 ~ 90% RH non-condensing                                                                                                          |            |            |
|                                         | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -40 ~ +85℃ , 10 ~ 95% RH non-condensing                                                                                             |            |            |
|                                         | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ±0.05%/℃ (0 ~ 45℃ )                                                                                                                 |            |            |
|                                         | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes                                                                        |            |            |
| SAFETY & EMC<br><small>(Note 5)</small> | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | IEC60335-2-29 CB approved by TUV(except for 48V), UL60950-1, EAC TP TC 004 approved                                                 |            |            |
|                                         | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 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℃ / 70% RH                                                                           |            |            |
|                                         | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3 (only P type), EAC TP TC 020                                                |            |            |
|                                         | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A, EAC TP TC 020                                    |            |            |
| OTHERS                                  | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 115.8Khrs min.    MIL-HDBK-217F (25℃ )                                                                                              |            |            |
|                                         | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 253*135*48.5mm(L*W*H)                                                                                                               |            |            |
|                                         | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1.45Kg; 6pcs/9.7Kg/0.95CUFT                                                                                                         |            |            |
| NOTE                                    | 1. Modification for charger specification may be required for different battery specification. Please contact battery vendor and MEAN WELL for details.<br>2. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>4. Tolerance : includes set up tolerance, line regulation and load regulation.<br>5. 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.<br>6. This is Mean Well's suggested range. Please consult your battery manufacturer for their suggestions about maximum charging current limitation.<br>7. Test condition is at 25℃, charging current will change under different temperature.<br>8. Maximum charging current will be in the range of 90~110% rated output current.<br>9. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). |                                                                                                                                     |            |            |

## Mechanical Specification

Case No.801B Unit:mm

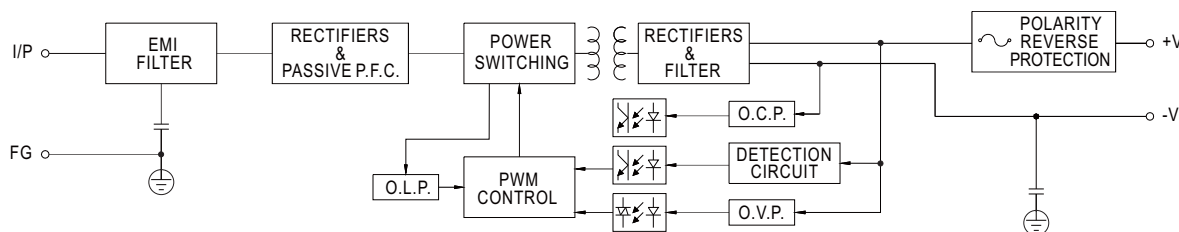


Remote Control(CN5) : JST B2B-XH or equivalent

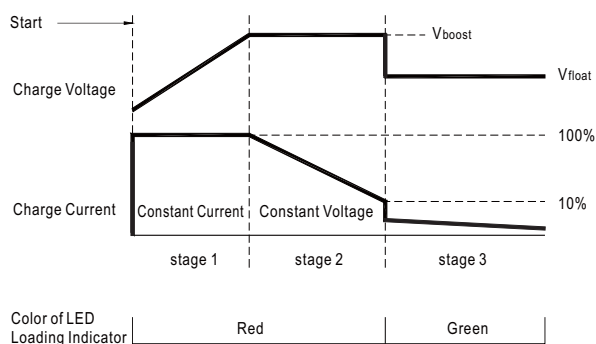
| Assignment                  | Mating Housing        | Terminal                        |
|-----------------------------|-----------------------|---------------------------------|
| PIN1,2 Open: Normal work    | JST XHP or equivalent | JST SXH-001T-P0.6 or equivalent |
| PIN1,2 Short: Stop Charging |                       |                                 |

## Block Diagram

fosc : 70KHz



## Charging Curve



| State  | PB-300-12 | PB-300-24 | PB-300-48 |
|--------|-----------|-----------|-----------|
| Vboost | 14.4V     | 28.8V     | 57.6V     |
| Vfloat | 13.6V     | 27.2V     | 54.4V     |

## Output Load VS Temperature

