

### Solar Series

BSB Solar Series Valve-regulated Lead Acid batteries use particular alloy and material technology design to ensure a excellent performance in various environments, especially high and low temp. BSB Solar series batteries is optimal for storage and conversion of photovoltaic energy and wind energy.

### Application

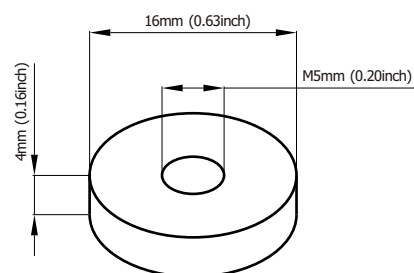
Photovoltaic system  
Alternative Energy System  
Electric Utility  
Outdoor control Equipment  
Railroad Utility

### General Features

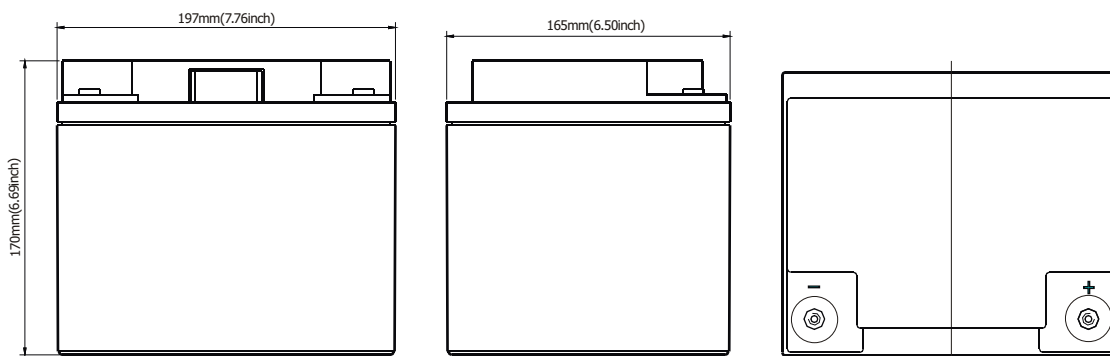
Sealed and maintenance free operation.  
Non-Spillable construction design.  
ABS containers and covers(UL94HB, UL94V-0) optional.  
Safety valve installation for explosion proof.  
High quality and high reliability.  
Exceptional deep discharge recovery performance.  
Low self discharge characteristic.  
Flexibility design for multiple install positions.

### Construction

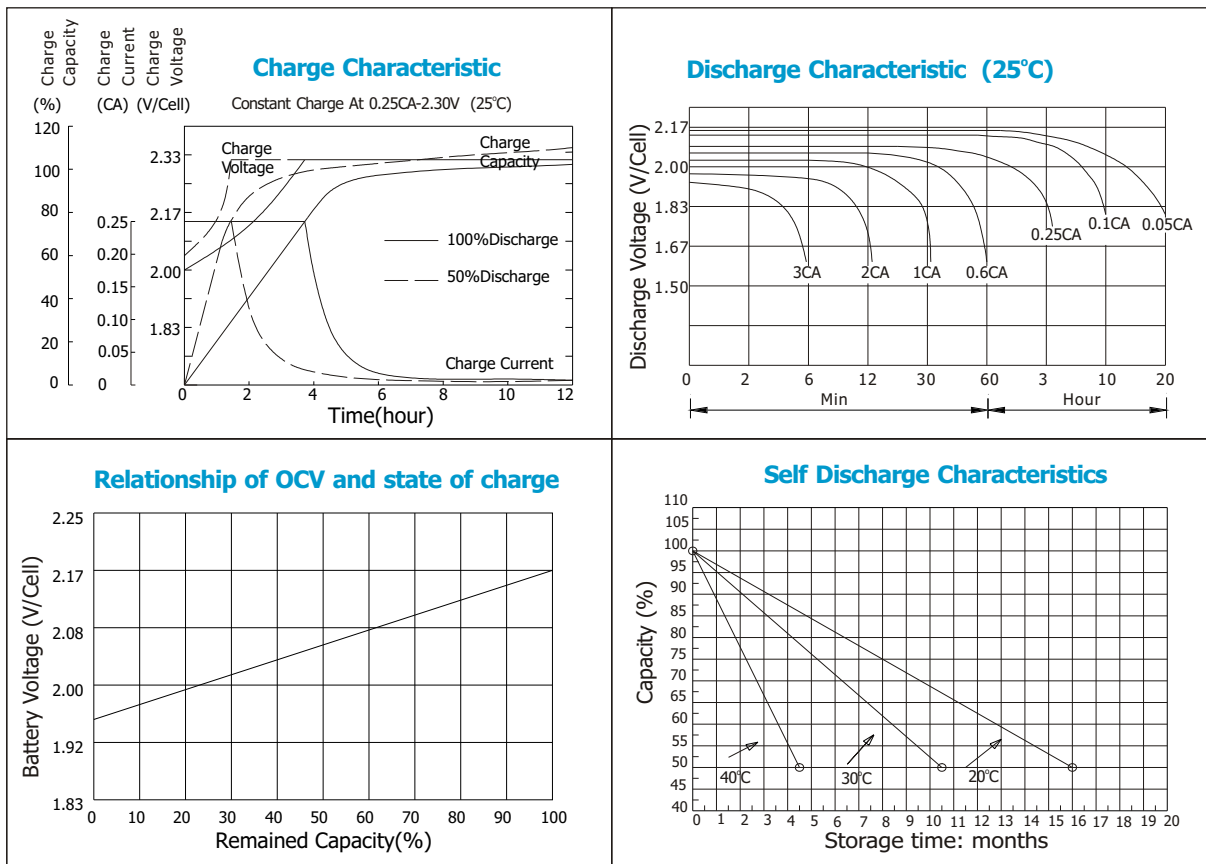
|                 |              |                    |               |
|-----------------|--------------|--------------------|---------------|
| Component ..... | Raw material | Sealant .....      | Epoxy Resin   |
| Positive .....  | Lead dioxide | Safety valve ..... | EPDR          |
| Negative .....  | Lead         | Terminal .....     | Copper        |
| Container ..... | ABS          | Separator .....    | AGM           |
| Cover .....     | ABS          | Electrolyte .....  | sulfuric acid |



**Terminal Dimensions**



| Battery Model                    | Solar 12-38                                 |                  |                       |                  |
|----------------------------------|---------------------------------------------|------------------|-----------------------|------------------|
| Designed Floating Life           | 8 Years                                     |                  |                       |                  |
| Capacity(25°C)                   | 20HR(1.95A,1.75V)                           | 10HR(3.8A,1.75V) | 5HR(6.46A,1.75V)      | 1HR(22.8A,1.75V) |
|                                  | 39AH                                        | 38AH             | 32.3AH                | 22.8AH           |
| Dimensions                       | Length                                      | Width            | Height                | Total Height     |
|                                  | 197mm(7.76inch)                             | 165mm(6.50inch)  | 170mm(6.69inch)       | 170mm(6.69inch)  |
| Approx. Weight                   | 14 Kg (30.87 lbs)                           |                  |                       |                  |
| Internal Resistance              | Full charged at 25°C: 0.0095 Ohm            |                  |                       |                  |
| Self Discharge                   | 3% of capacity declined per month at (25°C) |                  |                       |                  |
| Capacity Affected by Temp.(20HR) | 40°C                                        | 25°C             | 0°C                   | -15°C            |
|                                  | 102%                                        | 100%             | 85%                   | 65%              |
| Charge Voltage(25°C)             | Cycle use                                   |                  | Float use             |                  |
|                                  | 14.4-15V(-30mV/ °C), max. Current: 9.5A     |                  | 13.6-13.8V(-20mV/ °C) |                  |



### Constant current discharge ratings-amperes at 25°C

| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR  | 3HR  | 5HR  | 10HR | 20HR |
|----------|------|-------|-------|-------|------|------|------|------|------|
| 1.60V    | 133  | 91.2  | 66.5  | 39.9  | 25.1 | 10.4 | 7.25 | 4.03 | 2.00 |
| 1.67V    | 120  | 83.2  | 64.6  | 38.8  | 25.0 | 10.3 | 7.19 | 3.97 | 2.00 |
| 1.70V    | 114  | 80.2  | 62.3  | 38.0  | 25.0 | 10.3 | 7.19 | 3.94 | 2.00 |
| 1.75V    | 101  | 74.1  | 58.9  | 37.2  | 24.7 | 10.3 | 7.13 | 3.87 | 1.99 |
| 1.80V    | 91.2 | 68.8  | 56.2  | 36.1  | 24.4 | 10.2 | 7.07 | 3.80 | 1.92 |
| 1.85V    | 69.2 | 56.6  | 48.6  | 33.2  | 24.1 | 10.2 | 7.02 | 3.74 | 1.80 |

### Constant power discharge ratings-watts at 25°C

| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR  | 3HR  | 5HR  | 10HR | 20HR |
|----------|------|-------|-------|-------|------|------|------|------|------|
| 1.60V    | 219  | 151   | 118   | 75.2  | 49.4 | 19.9 | 13.9 | 8.06 | 4.01 |
| 1.67V    | 208  | 149   | 117   | 73.7  | 47.8 | 19.9 | 13.9 | 7.94 | 3.99 |
| 1.70V    | 194  | 146   | 115   | 71.8  | 46.5 | 19.9 | 13.9 | 7.88 | 3.99 |
| 1.75V    | 181  | 136   | 108   | 69.9  | 46.1 | 19.6 | 13.7 | 7.74 | 3.97 |
| 1.80V    | 162  | 127   | 101   | 68.0  | 45.3 | 19.3 | 13.5 | 7.61 | 3.83 |
| 1.85V    | 130  | 105   | 89    | 62.3  | 44.9 | 19.3 | 13.3 | 7.47 | 3.60 |