

## VRLA Rechargeable Battery

# UPS12650W



### FEATURES

- Maintenance free(no water topping-up required)
- No free acid(Non-spillable battery)
- Can be used in any orientation(excluding used inverted)
- The battery is designed with very lower resistance and exceeding high power performance
- Long life expectancy 10 years in float application
- Flame-arrestor is installed to ensure safety
- Carry handles for easy installation
- Absorbent Glass Mat technology for efficient gas recombination

### APPLICATIONS

- UPS
- Cable TV
- Golf-Carts
- Telecom
- Power station
- Marine



### SPECIFICATIONS

|                             |                             |                        |
|-----------------------------|-----------------------------|------------------------|
| Nominal Voltage             | 12V                         |                        |
| Nominal Capacity            | 10 Hour Rate (15.8A, 10.5V) | 158.0 Ah               |
|                             | 5 Hour Rate (27.6A, 10.5V)  | 138.0 Ah               |
|                             | 1 Hour Rate (112A, 9.6V)    | 112.0 Ah               |
|                             | 15 Min Rate (650W, 9.6V)    | 81.25 Ah               |
| Approx. Weight              | 46.8kg(103.1lbs.)           |                        |
| Terminals                   | I3                          |                        |
| Max. Charge Current         | 47A                         |                        |
| Short Circuit Current       | 4000 A                      |                        |
| Operating Temperature Range | Charge                      | 0°C~50°C(32°F~122°F)   |
|                             | Discharge                   | -20°C~60°C(-4°F~140°F) |
|                             | Storage                     | -20°C~50°C(-4°F~122°F) |
| Self Discharge              | < 3% per month (25°C)       |                        |
| Internal Resistance         | ≤ 2.6mΩ (Fully Charged )    |                        |

### CONTAINER MATERIAL

- Standard: PP( UL94 HB)  
Model Name: UPS12650W
- Optional: Flame Retardant PP (UL94 V-0)  
Model Name: UPS12650WFR

Certificate as below:

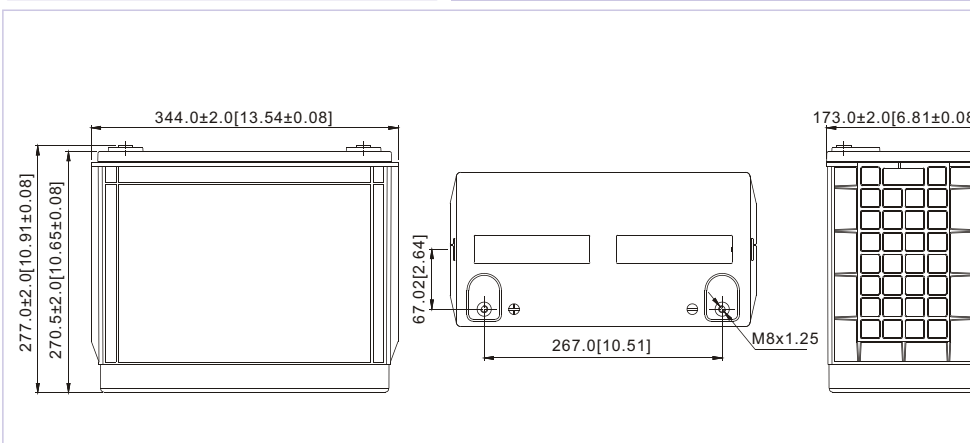


Compliance of the standards as below:

- IEC60896-21/22 ● JIS C 8704-2
- GB/T 19638.2

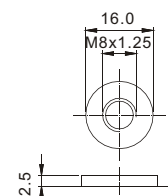
### OUTER DIMENSIONS mm(inch)

| Length (L)          | Width (W)          | Container Height (H)  | Total Height (TH)   |
|---------------------|--------------------|-----------------------|---------------------|
| 344±2.0(13.54±0.08) | 173±2.0(6.81±0.08) | 270.5±2.0(10.65±0.08) | 277±2.0(10.91±0.08) |



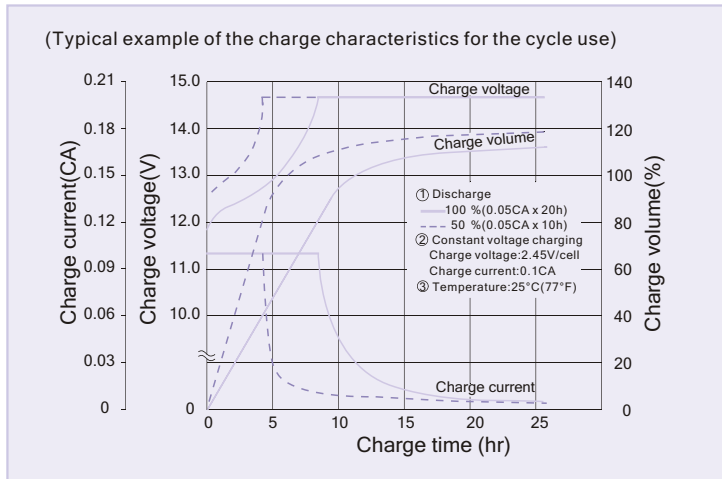
### TERMINAL TYPE

- Terminal I3

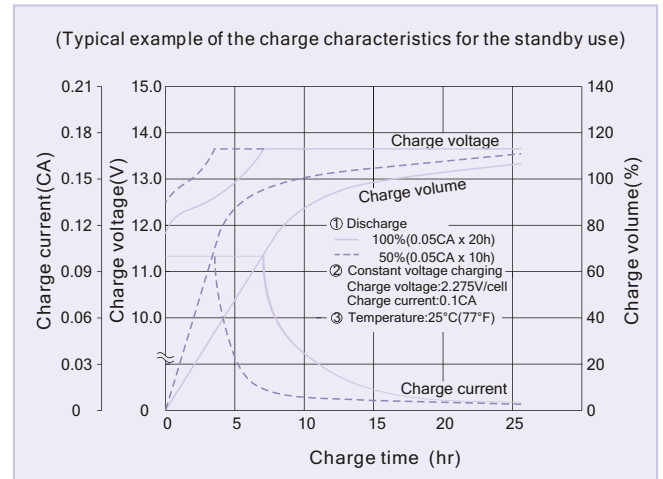


Terminal Hardware Initial Torque:  
I3(10.0N.m±5%)

**UPS12650W (UPS12650WFR) Charging Characteristics**



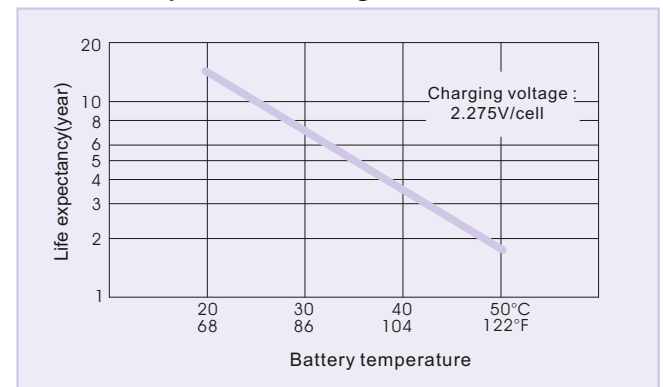
**Battery Charging Characteristics**



**Charging Procedure**

| Application              | Charging method   | Charging Voltage at 25°C (V/cell) | Temperature compensation coefficient of charging voltage (mV/°C/cell) | Max. charging current (CA) | Charging time 0.1CA, 25°C (h) |               | Temp (°C)       |
|--------------------------|---|-----------------------------------|---|----------------------------|-------------------------------|---------------|-----------------|
|                          |   |                                   |   |                            | 100% discharge                | 50% discharge |                 |
| For standby power Source | Constant voltage & Constant current charging (with current restriction) | 2.25~2.30                         | -3  | 0.3                        | 24                            | 20            | 0~50 (32~122°F) |
| For cycle service        |   | 2.40~2.50                         | -4  | 0.3                        | 16                            | 10            |                 |

**Effect Of Temperature On Long Term Float Life**



**Constant power discharge characteristics at 25 °C/77 °F Unit: W**

| F.V. (V/cell) \ Discharge Time | 5 Min | 10 Min | 15 Min | 20 Min | 25 Min | 30 Min | 40 Min | 50 Min | 60 Min | 90 Min |
|--------------------------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1.80V                          | 5171  | 4336   | 3436   | 2873   | 2494   | 2242   | 1760   | 1477   | 1280   | 910    |
| 1.75V                          | 5660  | 4604   | 3635   | 2985   | 2568   | 2299   | 1797   | 1508   | 1300   | 924    |
| 1.70V                          | 6114  | 4793   | 3759   | 3062   | 2619   | 2336   | 1822   | 1526   | 1314   | 935    |
| 1.65V                          | 6529  | 4941   | 3844   | 3120   | 2660   | 2362   | 1843   | 1542   | 1327   | 943    |
| 1.60V                          | 6700  | 5037   | 3900   | 3162   | 2692   | 2385   | 1862   | 1555   | 1338   | 948    |

**Constant current discharge characteristics at 25 °C/77 °F Unit: A**

| F.V. (V/cell) \ Discharge Time | 5 Min | 10 Min | 15 Min | 20 Min | 25 Min | 30 Min | 40 Min | 50 Min | 60 Min | 90 Min |
|--------------------------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1.80V                          | 466   | 374    | 307    | 246    | 210    | 187    | 146    | 123    | 107.6  | 76.4   |
| 1.75V                          | 513   | 401    | 324    | 256    | 218    | 194    | 150    | 126    | 109.2  | 77.6   |
| 1.70V                          | 559   | 428    | 335    | 264    | 225    | 198    | 153    | 128    | 110.5  | 78.5   |
| 1.65V                          | 613   | 453    | 344    | 269    | 228    | 202    | 155    | 130    | 111.6  | 79.3   |
| 1.60V                          | 648   | 476    | 350    | 273    | 231    | 204    | 157    | 132    | 112.3  | 79.8   |

All data and artworks shall be changed without prior notice, BB reserves the right to explain and update the information contained hereinto.

For operation, please refer to the instruction from technical manual.

A/0 REV. Jul. 2021

**USA:**  
 B&B BATTERY(USA) INC.  
 6415 RANDOLPH ST.COMMERCE,CA,90040 U.S.A.  
 TEL:1-323-278-1900.1-800-278-8599  
 FAX:1-323-278-1268  
 E-Mail:sales@bb-battery.com

**CHINA FACTORY:**  
 B.B. BATTERY CO., LTD.  
 No.57 Dongsiroad, Changsha National Economic & Technical Development Zone, Changsha, Hunan PRC  
 TEL:86-731-82955888  
 FAX:86-731-82955111  
 E-Mail:maggy@bb-battery.com

**EUROPE:**  
 B&B BATTERY(EUROPE) B.V.  
 SUITE 8, HAAKSBERGWEG 33, 1101 BP AMSTERDAM, THE NETHERLANDS  
 TEL: 31-30-320-0190  
 MOBILE: 852-9128-2711  
 E-Mail: dliu@bb-battery.com

**HONG KONG:**  
 B&B BATTERY(Hong Kong) Co.  
 TEL:852-2311-4918  
 FAX:852-2739-1182  
 E-Mail:bbhk@hkstar.com

**JAPAN:**  
 B&B BATTERY(JAPAN) CO., LTD.  
 1375-11 NARAHARA-MACHI, HACHIOJI, TOKYO 193-0803, JAPAN.  
 TEL:81-426-25-6375  
 FAX:81-426-25-6375  
 E-Mail:miyata@bb-battery.com

**TAIWAN:**  
 B.B. BATTERY(TAIWAN) CO., LTD.  
 TEL:886-6-502-5150  
 FAX:886-6-589-8087  
 E-Mail:kevinlin@bb-battery.com