



# XHRL12245W

## 12V 245W

XHRL 12245W is specially designed for high efficient discharge and long life application. Its characteristics are high energy density , small footprint and high discharge efficiency. It can be used for more than 260 cycles at 100% discharge in cycle service, up to10 years in standby service.



### Specification

|  |  |
|--|--|
| Cells per unit                             | 6  |
| Voltage per unit                           | 12   |
| Capacity                                   | 245W @15 min-rate to 1.67V per cell @25°C (77°F)<br>50.1Ah @20hr-rate to 1.75V per cell @25°C (77°F)   |
| Weight                                     | Approx. 17.6 kg (38.80 lbs)  |
| Maximum Discharge Current                  | 300A (5sec)  |
| Internal Resistance                        | Approx. 4.3 mΩ   |
| Operating Temperature Range                | Discharge: -20°C~50°C (-4°F~122°F)<br>Charge: -20°C~50°C (-4°F~122°F)<br>Storage: -15°C~40°C (-4°F~122°F)  |
| Nominal Operating Temperature Range        | 25°C±3°C (77°F±5°F)  |
| Float Charging Voltage                     | 13.5 to 13.8 VDC/unit Average at 25°C (77°F)   |
| Recommended Maximum Charging Current Limit | 24.5 A   |
| Equalization and Cycle Service             | 14.4 to 15.0 VDC/unit Average at 25°C (77°F)   |
| Self Discharge                             | CSB Batteries can be stored for more than 6 months at 25°C(77°F). Please charge batteries before using. For higher temperatures the time interval will be shorter. |
| Terminal                                   | I2-Thread lead alloy recessed terminal to accept M6 bolt   |
| Container Material                         | Polypropylene(UL 94-V0/File E50955)*Flammability resistance of (UL 94-HB/File E216959) can be available upon request.  |



MH14533(N)



ISO9001  
No :041005117

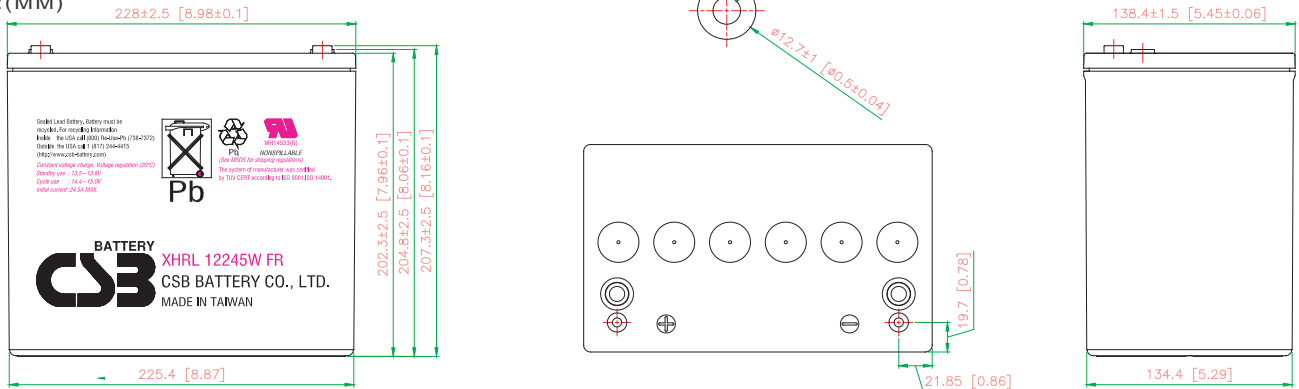


ISO 14001  
NO.UM 1-12-0045

CSB-manufactured batteries are UL-recognized components under UL924 as well as ISO 9001 and ISO 14001 certified.

### Dimensions

unit:(MM)



### Constant Current Discharge Characteristics Unit:Ampere(25°C,77°F)

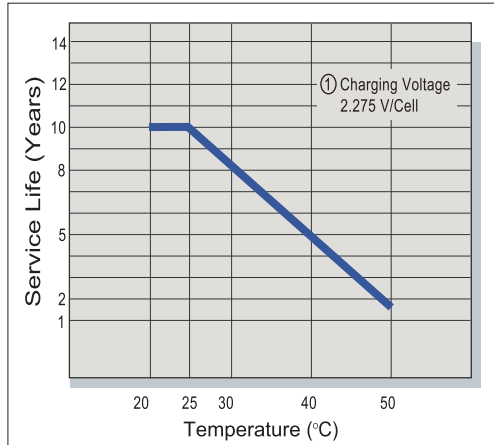
| F.V/Time | 5MIN  | 10MIN | 15MIN | 20MIN | 30MIN | 40MIN | 50MIN | 60MIN | 90MIN |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V    | 252.8 | 176.9 | 133.9 | 108.8 | 79.5  | 61.6  | 51.4  | 44.8  | 31.7  |
| 1.67V    | 233.1 | 168   | 130.9 | 106.4 | 77.7  | 61.6  | 51.4  | 44.2  | 31.1  |
| 1.70V    | 222.9 | 162.6 | 127.9 | 104.6 | 77.1  | 60.4  | 50.8  | 43.6  | 31.1  |
| 1.75V    | 208   | 153   | 121.3 | 101   | 74.1  | 59.2  | 49.6  | 43    | 30.5  |
| 1.80V    | 190.7 | 141.1 | 112.4 | 94.4  | 70.5  | 56.8  | 47.8  | 41.2  | 29.3  |
| 1.85V    | 167.4 | 126.1 | 101.6 | 84.9  | 64.6  | 52    | 44.2  | 38.9  | 26.9  |

### Constant Power Discharge Characteristics Unit:Watt(25°C,77°F)

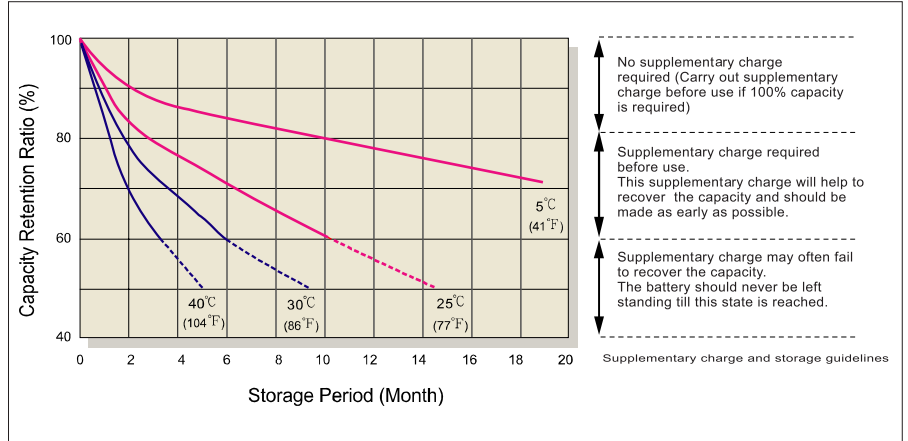
| F.V/Time | 5MIN   | 10MIN  | 15MIN  | 20MIN  | 30MIN | 40MIN | 50MIN | 60MIN | 90MIN |
|----------|--------|--------|--------|--------|-------|-------|-------|-------|-------|
| 1.60V    | 2700.4 | 1951.5 | 1515.2 | 1240.2 | 912.7 | 723.2 | 606.1 | 523   | 371.8 |
| 1.67V    | 2531.9 | 1876.8 | 1470.3 | 1212.1 | 900.1 | 713.7 | 597.7 | 521.8 | 368.8 |
| 1.70V    | 2445.8 | 1834.3 | 1456.6 | 1200.8 | 890   | 703.5 | 592.3 | 515.8 | 363.4 |
| 1.75V    | 2277.2 | 1735.7 | 1384.9 | 1165.5 | 863.7 | 693.9 | 584   | 506.3 | 358.6 |
| 1.80V    | 2108.7 | 1612   | 1301.2 | 1090.2 | 832.6 | 665.8 | 561.8 | 499.7 | 347.3 |
| 1.85V    | 1907.3 | 1456.6 | 1189.4 | 998.8  | 762.7 | 622.8 | 527.8 | 472.8 | 326.3 |

● All mentioned values are average values.

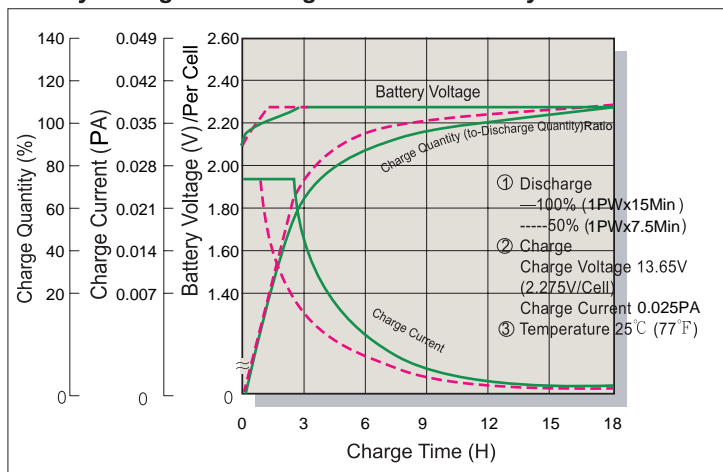
### Trickle (or Float) Service Life



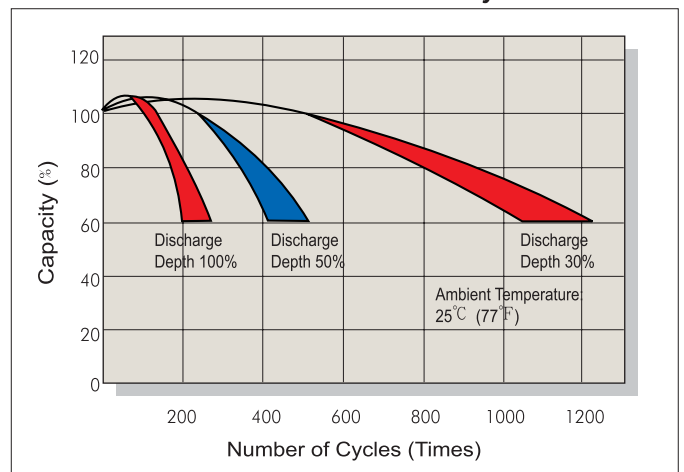
### Capacity Retention Characteristic



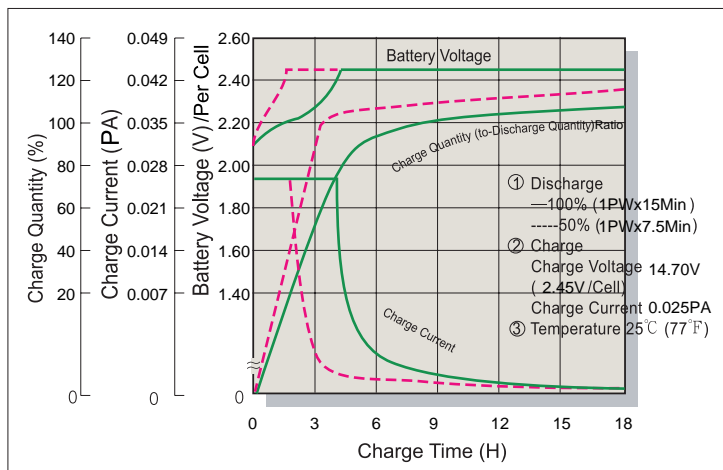
### Battery Voltage and Charge Time for Standby Use



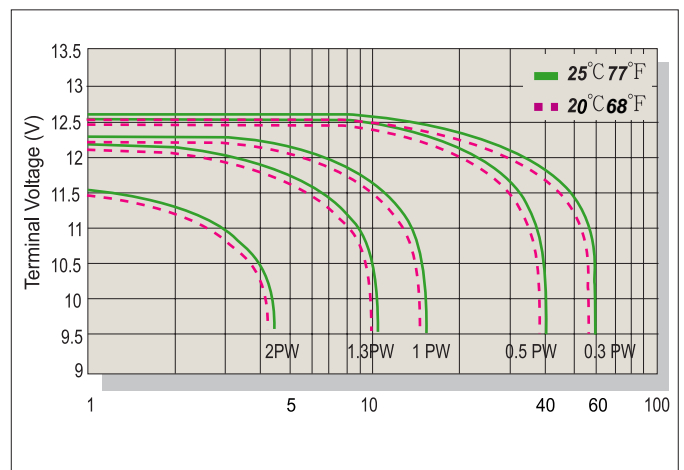
### Cycle Service Life



### Battery Voltage and Charge Time for Cycle Use



### Terminal Voltage (V) and Discharge Time



### Charging Procedures

| Application | Charge Voltage(V/Cell) |           |                 | Max.Charge Current |
|-------------|------------------------|-----------|-----------------|--------------------|
|             | Temperature            | Set Point | Allowable Range |                    |
| Cycle Use   | 25°C(77°F)             | 2.45      | 2.40~2.50       | 0.1PA              |
| Standby     | 25°C(77°F)             | 2.275     | 2.25~2.30       |                    |

### Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.75     | 1.70           | 1.60           | 1.30     |
|--------------------------------|----------|----------------|----------------|----------|
| Discharge Power(W)             | 0.1P>(W) | 0.1P≤(W)<0.25P | 0.25P≤(W)<1.0P | (W)≥1.0P |

**Sales Office** URL: [WWW.CSB-BATTERY.COM](http://WWW.CSB-BATTERY.COM)

**CSB BATTERY CO., LTD.**  
**TAIWAN OFFICE**  
 Tel: +886-2-2555-5600  
 Fax: +886-2-2555-3300  
 E-mail: service@csb-battery.com.tw

**CSB BATTERY LOGISTICS (SHANGHAI) CO., LTD.**  
**SHANGHAI OFFICE**  
 Tel: +86-21-5046-1622, 5046-0833  
 Fax: +86-21-5064-3314

**CSB BATTERY TECHNOLOGIES, INC**  
**USA OFFICE**  
 Tel: +1-817-244-7777/1-8003 CSBUSA(272872)  
 Fax: +1-817-244-4445  
 E-mail: csb@csb-battery.com

**CSB BATTERY LOGISTICS (SHANGHAI) CO., LTD.**  
**BEIJING OFFICE**  
 Tel: +86-10-6597-8060, 6597-8070  
 Fax: +86-10-6597-8050  
 E-mail: chinasisl@csb-battery.com

**CSB BATTERY OF NETHERLANDS B.V**  
**NETHERLANDS OFFICE**  
 Tel: +31(0) 180 418 140  
 Fax: +31(0) 180 418 327  
 E-mail: eurosales@csb-battery.com

**CSB BATTERY LOGISTICS (SHANGHAI) CO., LTD.**  
**SHENZHEN OFFICE**  
 Tel: +86-755-2694-2788/2606/2706  
 Fax: +86-755-2694-2748  
 E-mail: she@csb-battery.com.tw