

# XHRL12620W

## 12V 620W

XHRL12620W is specially designed for high efficient discharge and long life application. It's 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 to 10 years in standby service.



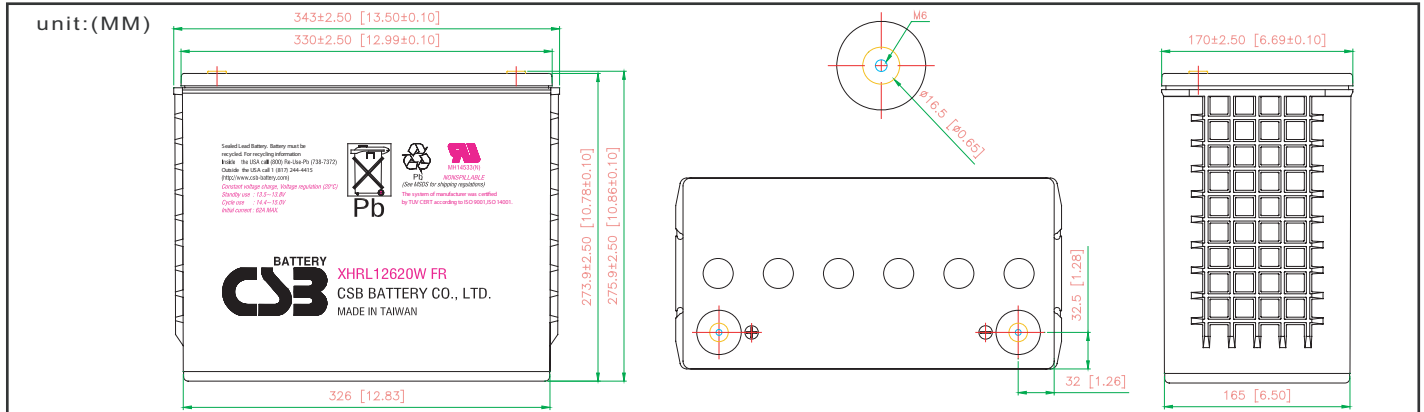
### Specification

|                                            |                                                                                                                                                                    |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cells Per Unit</b>                      | 6                                                                                                                                                                  |
| <b>Voltage Per Unit</b>                    | 12                                                                                                                                                                 |
| <b>Capacity</b>                            | 620W @15 min-rate to 1.67V per cell @25°C (77°F)<br>140Ah @20hr-rate to 1.75V per cell @25°C (77°F)                                                                |
| <b>Weight</b>                              | Approx. 45.7 kg(100.75 lbs)                                                                                                                                        |
| <b>Maximum Discharge Current</b>           | 800A(5sec)                                                                                                                                                         |
| <b>Internal Resistance</b>                 | Approx. 3.4mΩ                                                                                                                                                      |
| <b>Operating Temperature Range</b>         | 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 (5°F~104°F)                                                           |
| <b>Nominal Operating Temperature Range</b> | 25°C ±3°C (77°F ±5°F)                                                                                                                                              |
| <b>Float Charging Voltage</b>              | 13.5 to 13.8 VDC/unit Average at 25°C (77°F)                                                                                                                       |
| <b>Recommended Maximum Charging</b>        | 60A                                                                                                                                                                |
| <b>Current Limit</b>                       |                                                                                                                                                                    |
| <b>Equalization and Cycle Service</b>      | 14.4 to 15.0 VDC/unit Average at 25°C (77°F)                                                                                                                       |
| <b>Self Discharge</b>                      | 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. |
| <b>Terminal</b>                            | I2-Thread lead alloy recessed terminal to accept M6 bolt                                                                                                           |
| <b>Container Material</b>                  | PPE(UL94-V0/File161759)*Flammability resistance can be available upon request.                                                                                     |



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

### Dimensions



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

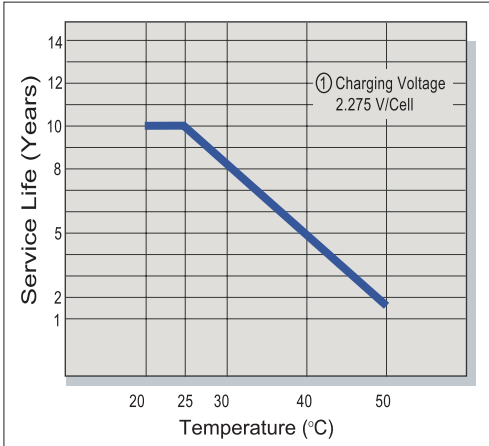
| F.V/Time | 5MIN | 10MIN | 15MIN | 20MIN | 30MIN | 40MIN | 50MIN | 60MIN | 90MIN |
|----------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V    | 619  | 434   | 328   | 266   | 194   | 151   | 126   | 109   | 77.3  |
| 1.67V    | 571  | 411   | 320   | 260   | 191   | 150   | 125   | 108   | 76.7  |
| 1.70V    | 545  | 398   | 313   | 256   | 188   | 148   | 124   | 107   | 75.7  |
| 1.75V    | 509  | 374   | 297   | 247   | 181   | 144   | 121   | 105   | 74.2  |
| 1.80V    | 467  | 345   | 274   | 231   | 172   | 139   | 117   | 101   | 72.0  |
| 1.85V    | 409  | 309   | 249   | 207   | 158   | 127   | 109   | 94.8  | 66.2  |

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

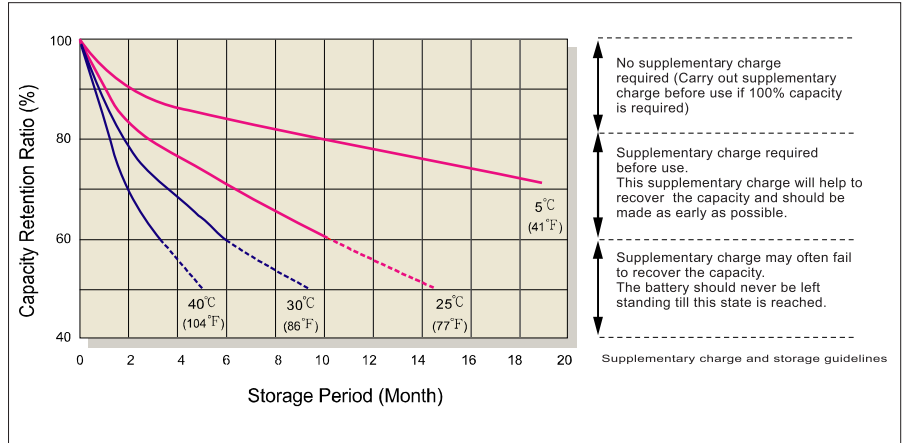
| F.V/Time | 5MIN  | 10MIN | 15MIN | 20MIN | 30MIN | 40MIN | 50MIN | 60MIN | 90MIN |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V    | 6,612 | 4,779 | 3,710 | 3,036 | 2,235 | 1,772 | 1,484 | 1,281 | 911   |
| 1.67V    | 6,200 | 4,596 | 3,600 | 2,969 | 2,205 | 1,747 | 1,463 | 1,277 | 902   |
| 1.70V    | 5,989 | 4,491 | 3,567 | 2,940 | 2,179 | 1,723 | 1,450 | 1,263 | 890   |
| 1.75V    | 5,576 | 4,250 | 3,391 | 2,853 | 2,115 | 1,699 | 1,430 | 1,240 | 878   |
| 1.80V    | 5,163 | 3,948 | 3,187 | 2,669 | 2,039 | 1,631 | 1,375 | 1,223 | 850   |
| 1.85V    | 4,671 | 3,567 | 2,913 | 2,445 | 1,868 | 1,525 | 1,292 | 1,157 | 799   |

- All mentioned values are average values.
- Tolerance: X<6min(+15%~-15%),6min ≤ X<10min(+12%~-12%),10min ≤ X<60min(+8%~-8%),X ≥ 60min(+5%~-5%)

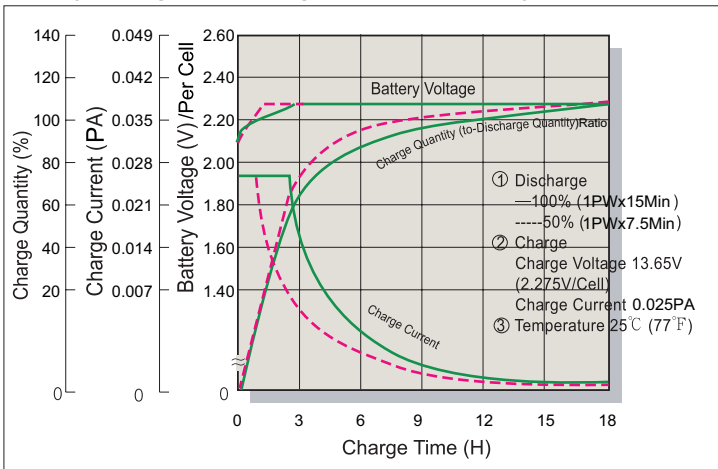
### Trickle (or Float) Service Life



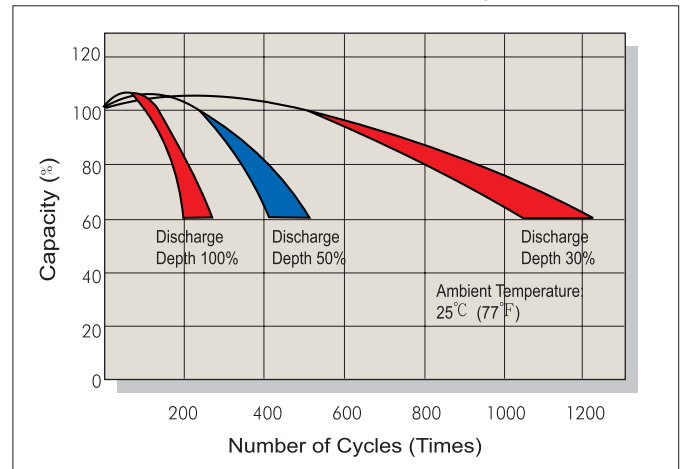
### Capacity Retention Characteristic



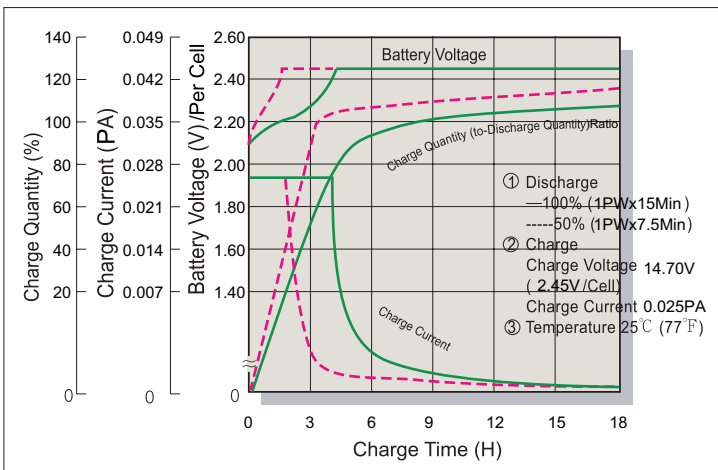
### Battery Voltage and Charge Time for Standby Use



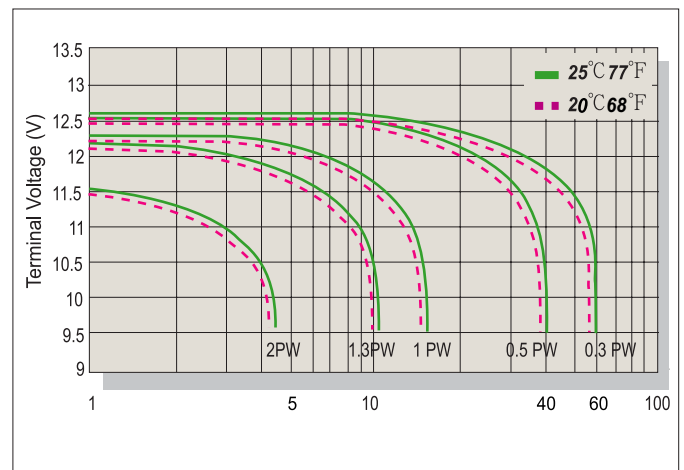
### Cycle Service Life



### 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 TECHNOLOGIES (BEIJING) CO., LTD.**  
**BEIJING OFFICE**  
 Tel: +86-10-59621300/59621301/59621302/59621303  
 Fax: +86-10-59621304  
 mail: chinasis@csb-battery.com

**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.**  
**SHANGHAI OFFICE**  
 Tel: +86-21-5046-1622, 5046-0833  
 Fax: +86-21-5064-3314  
 E-mail: chinasis@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 LOGISTIC (SHANGHAI) CO., LTD.**  
**SHENZHEN OFFICE**  
 Tel: +86-755-8831-6488/6396/16356  
 Fax: +86-755-8831-6548  
 mail: she@csb-battery.com.cn