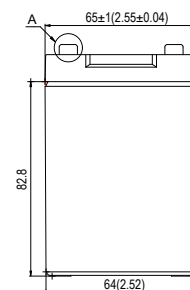
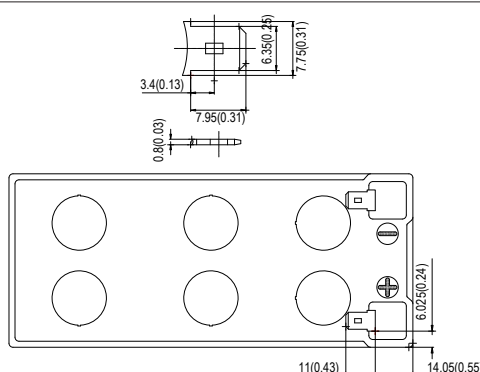
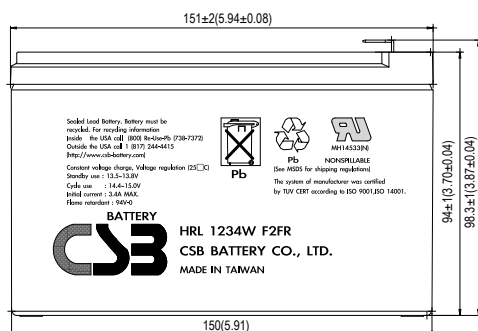


HRL 1234W F2FR is specially designed for high efficient discharge and long life.application. It's characteristics are small volume, light weight and high discharge efficiency. It can be used for more than 260 cycles at 100% discharge in cycle service.



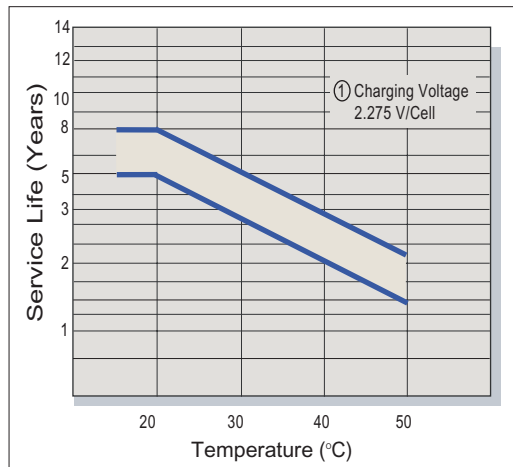
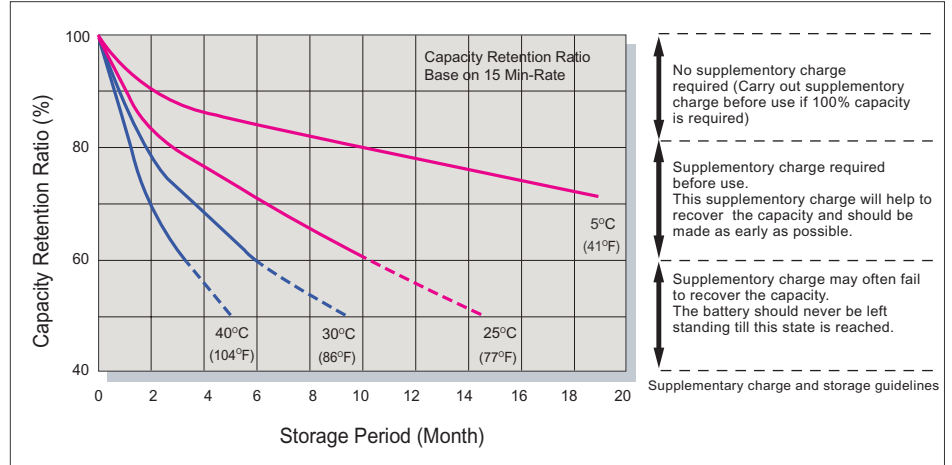
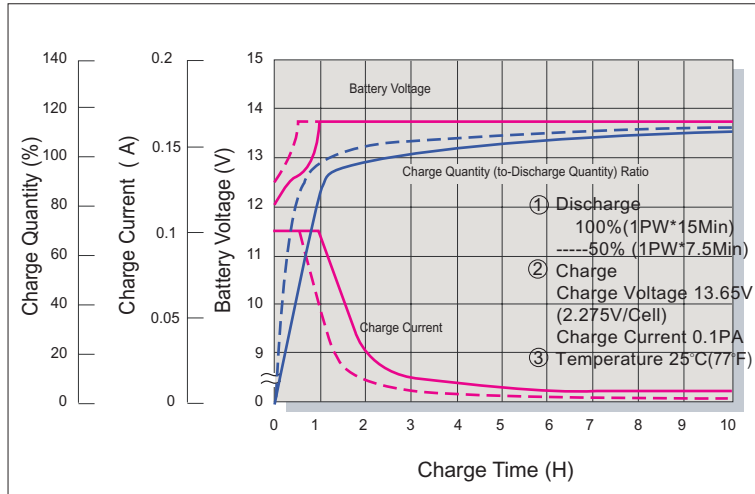
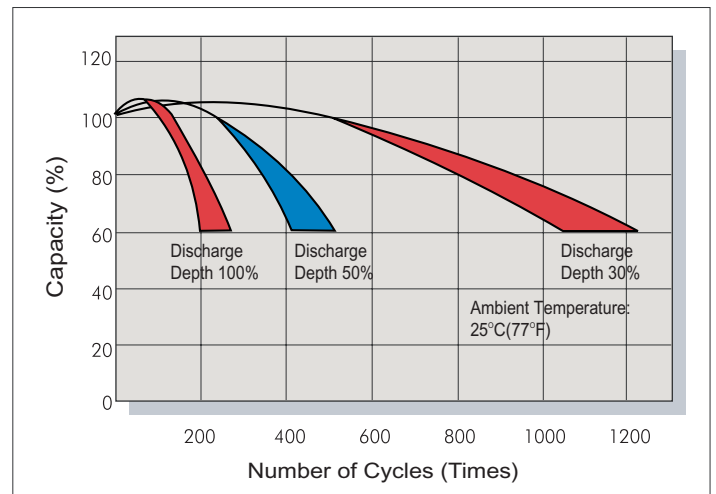
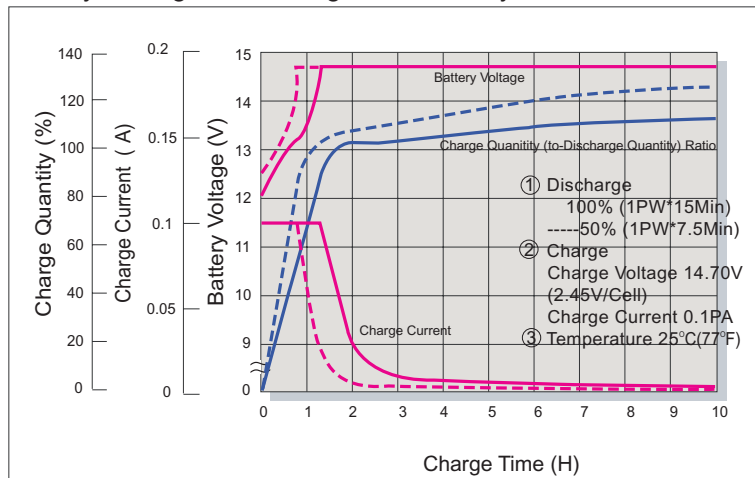
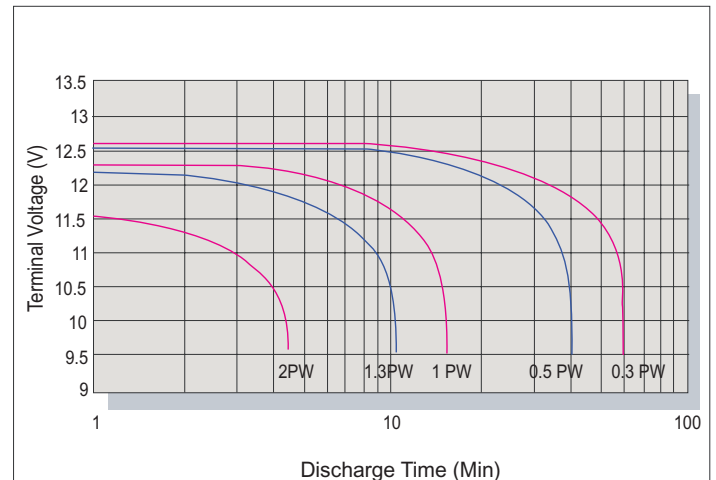
|                                                   |                                                                                                                                                                     |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cells per unit</b>                             | 6                                                                                                                                                                   |
| <b>Voltage per unit</b>                           | 12                                                                                                                                                                  |
| <b>Capacity</b>                                   | 34W @ 15minute-rate to 1.67V per cell @25°C(77°F)                                                                                                                   |
| <b>Weight</b>                                     | Approx. 2.7kg(5.95 lbs)                                                                                                                                             |
| <b>Maximum Discharge Current</b>                  | 130A(5sec)                                                                                                                                                          |
| <b>Internal Resistance Approx.</b>                | Approx. 17m½                                                                                                                                                        |
| <b>Operating Temperature Range</b>                | Discharge: -20°C ~50°C (-4°F~122°F)<br>Charge: 0°C ~40°C (32°F~104°F)<br>Storage: -20°C ~40°C (-4°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 Current Limit</b> | 3.4A                                                                                                                                                                |
| <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>                                   | Faston Tab 250                                                                                                                                                      |
| <b>Container Material</b>                         | -ABS (UL94-VO Flame Retardant Case).                                                                                                                                |



| F.V/Time | 2MIN  | 4MIN  | 6MIN  | 8MIN  | 10MIN | 15MIN | 20MIN | 30MIN | 60MIN | 90MIN |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V    | 60.40 | 47.40 | 36.20 | 30.90 | 26.60 | 18.70 | 14.40 | 11.30 | 5.84  | 4.66  |
| 1.67V    | 57.25 | 44.67 | 33.89 | 29.29 | 25.20 | 18.56 | 14.26 | 11.16 | 5.80  | 4.63  |
| 1.70V    | 55.90 | 43.50 | 32.90 | 28.60 | 24.60 | 18.50 | 14.20 | 11.10 | 5.78  | 4.62  |
| 1.75V    | 52.40 | 40.70 | 30.90 | 27.00 | 22.80 | 18.30 | 14.05 | 10.95 | 5.74  | 4.57  |
| 1.80V    | 48.90 | 37.90 | 28.90 | 25.40 | 21.00 | 18.10 | 13.90 | 10.80 | 5.69  | 4.52  |
| 1.85V    | 45.40 | 35.10 | 26.90 | 23.80 | 19.20 | 17.90 | 13.75 | 10.65 | 5.65  | 4.47  |

| F.V/Time | 2MIN   | 4MIN   | 6MIN   | 8MIN   | 10MIN  | 15MIN  | 20MIN  | 30MIN  | 60MIN | 90MIN |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| 1.60V    | 654.00 | 520.00 | 405.00 | 350.00 | 300.00 | 220.00 | 168.00 | 132.00 | 69.20 | 55.40 |
| 1.67V    | 623.00 | 492.00 | 380.50 | 332.50 | 286.00 | 216.50 | 165.20 | 130.60 | 68.85 | 55.12 |
| 1.70V    | 610.00 | 480.00 | 370.00 | 325.00 | 280.00 | 215.00 | 164.00 | 130.00 | 68.70 | 55.00 |
| 1.75V    | 582.50 | 455.00 | 350.00 | 309.00 | 265.00 | 207.50 | 162.00 | 128.50 | 68.25 | 54.55 |
| 1.80V    | 555.00 | 430.00 | 330.00 | 293.00 | 250.00 | 200.00 | 160.00 | 127.00 | 67.80 | 54.10 |
| 1.85V    | 527.50 | 405.00 | 310.00 | 277.00 | 235.00 | 192.50 | 158.00 | 125.50 | 67.35 | 53.65 |

- 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 (25°C/77°F)****Charging Procedures**

|  |  |  |  |  |       |
|--|--|--|--|--|-------|
|  |  |  |  |  |       |
|  |  |  |  |  |       |
|  |  |  |  |  |       |
|  |  |  |  |  | 0.1PA |