



HR series

HR 12120W 12V 120W



Valve Regulated Lead Acid Battery

Maintenance-Free Sealed Lead Acid Battery.
Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

Design for Standby Power Applications

【Design Life】

Up to 5 Years in Standby Service at 25°C
Eurobat (20°C) : 3-5 years, Standard Commercial

【Operating Temperature Range】

Nominal Operating Temperature : 25°C (77°F)
Discharge : -15°C ~ 50°C (5°F~122°F)
Charge: -15°C ~ 40°C (5°F~104°F)
Storage: -15°C ~ 40°C (5°F~104°F)

【Float Charging Voltage】

13.5 ~ 13.8 VDC/Unit at 25°C (77°F)

【Equalization Charging Voltage】

14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

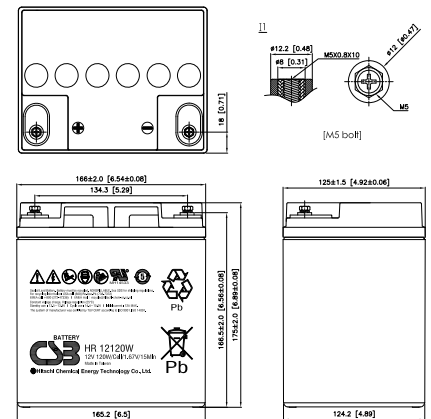
【Self Discharge】

Less than 10% after 90 days, can be stored up to 6 months at 25°C (77°F);
Fully recharging is required before usage, and charged sooner if stored at higher temperature than 25°C (77°F).

Specification

Design according with IEC 61056-1/2:2012

| | | | |
|---------------------------|---|--------------|----------------|
| Nominal Voltage | 12V (6 cells per unit) | | |
| Nominal Capacity | 120W @15min-rate to 1.67V per cell @25°C (77°F) | | |
| Weight | Approx. 10.20 Kg (22.48 lbs) | | |
| Maximum Discharge Current | 225A (5sec) | | |
| Internal Resistance | Approx. 8.2 mΩ | | |
| Short Circuit Current | 928A | | |
| Maximum Charge Current | 12A | | |
| Terminal types | I1 terminal to accept M5 bolt | | |
| Terminal hardware Torque | 59 Kgf-cm / 51 lbf-in / 5.73 N-m | | |
| Container Material | ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request | | |
| Dimensions | Length (L) | 166.0±2.0 mm | 6.54±0.08 inch |
| | Width (W) | 125.0±1.5 mm | 4.92±0.06 inch |
| | Container Height (h) | 175.0±2.0 mm | 6.89±0.08 inch |
| | Overall Height (H) | 175.0±2.0 mm | 6.89±0.08 inch |



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

| F.V/Time | 2MIN | 4MIN | 5MIN | 6MIN | 8MIN | 10MIN | 15MIN | 20MIN | 30MIN | 45MIN | 60MIN | 90MIN |
|----------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V | 169 | 148 | 135 | 125 | 107 | 94.2 | 70.5 | 56.1 | 41.2 | 30.4 | 24.5 | 16.8 |
| 1.67V | 153 | 135 | 124 | 115 | 100 | 88.9 | 67.0 | 53.6 | 39.7 | 29.6 | 24.0 | 16.6 |
| 1.70V | 146 | 128 | 117 | 109 | 95.5 | 85.6 | 65.3 | 52.5 | 39.2 | 29.2 | 23.7 | 16.4 |
| 1.75V | 132 | 117 | 108 | 101 | 88.9 | 80.2 | 62.0 | 50.4 | 37.8 | 28.3 | 23.1 | 16.2 |
| 1.80V | 117 | 105 | 97.2 | 91.2 | 81.3 | 73.3 | 58.3 | 48.0 | 36.0 | 27.1 | 22.2 | 15.8 |
| 1.85V | 100 | 92.5 | 86.8 | 82.4 | 74.3 | 67.3 | 54.3 | 45.7 | 34.6 | 26.0 | 21.2 | 15.2 |

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

| F.V/Time | 2MIN | 4MIN | 5MIN | 6MIN | 8MIN | 10MIN | 15MIN | 20MIN | 30MIN | 45MIN | 60MIN | 90MIN |
|----------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V | 1745 | 1622 | 1507 | 1419 | 1199 | 1030 | 771 | 621 | 462 | 348 | 284 | 197 |
| 1.67V | 1608 | 1495 | 1393 | 1315 | 1119 | 975 | 738 | 600 | 453 | 341 | 279 | 194 |
| 1.70V | 1539 | 1427 | 1333 | 1260 | 1084 | 947 | 724 | 590 | 447 | 337 | 276 | 193 |
| 1.75V | 1412 | 1306 | 1224 | 1161 | 1012 | 895 | 701 | 578 | 435 | 329 | 270 | 190 |
| 1.80V | 1273 | 1181 | 1113 | 1060 | 944 | 853 | 676 | 561 | 418 | 319 | 263 | 186 |
| 1.85V | 1100 | 1045 | 1001 | 966 | 877 | 805 | 648 | 536 | 402 | 307 | 253 | 181 |

Please refer to the official site for the latest rating confirmation. URL: www.csb-battery.com

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Recognized under UL 1989,
and certified by ISO 9001, 14001.

