



HRL series HRL 12330W



Valve Regulated Lead Acid Battery

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

General Design for Standby Power Applications

【Design Life】

Up to 10 Years in Standby Service at 25°C
Eurobat (20°C) : >12 YEARS VERY LONG LIFE

【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】

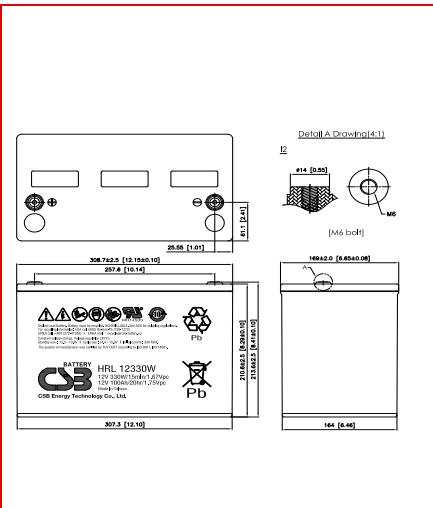
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

【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 60896-21/22:2004

| | | |
|----------------------------|--|-----------------------------------|
| Nominal Voltage | 12V (6 cells per unit) | |
| Nominal Capacity | 330W @ 15min-rate to 1.67V per cell @25°C (77°F) 100AH@ 20hour-rate to 1.75V per cell @ 25°C (77°F) | |
| Weight | Approx. 29.60 Kg (65.24 lbs) | |
| Maximum Discharge Current | 800A (5sec) | |
| Internal Resistance | Approx. 3.50 mΩ | |
| Short Circuit Current | 2386A | |
| Maximum Charge Current | 33.0A | |
| Terminal types | I2 thread lead alloy terminal to accept M6 bolt | |
| Terminal tightening torque | 51.7±10.3 Kg·cm / 44.9±9.0 Lbf·in / 5.10±1.0 N·m | |
| Container Material | PP (UL 94-HB) & Flame Retardant (94-V0) available upon request | |
| Dimensions | Length (L) | 308.7±2.5 mm 12.15±0.10 inch |
| | Width (W) | 169.0±2.0 mm 6.65±0.08 inch |
| | Container Height (h) | 210.6±2.5 mm 8.29±0.10 inch |
| | Overall Height (H) | 213.6±2.5 mm 8.41±0.10 inch |



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

| F.V/Time | 2MIN | 5MIN | 10MIN | 15MIN | 20MIN | 30MIN | 45MIN | 60MIN | 90MIN | 5HR | 10HR | 20HR |
|----------|------|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| 1.60V | 530 | 409 | 271 | 202 | 162 | 119 | 86.0 | 68.4 | 49.6 | 18.7 | 10.0 | 5.16 |
| 1.67V | 482 | 369 | 256 | 196 | 158 | 117 | 85.1 | 67.9 | 49.4 | 18.6 | 9.91 | 5.12 |
| 1.70V | 454 | 350 | 248 | 191 | 155 | 116 | 84.4 | 67.5 | 49.3 | 18.5 | 9.86 | 5.10 |
| 1.75V | 405 | 317 | 230 | 181 | 149 | 112 | 82.6 | 66.4 | 48.9 | 18.2 | 9.74 | 5.06 |
| 1.80V | 337 | 273 | 206 | 168 | 139 | 106 | 79.1 | 64.1 | 47.7 | 17.8 | 9.51 | 4.97 |
| 1.85V | 252 | 234 | 180 | 150 | 125 | 97.1 | 73.2 | 59.9 | 45.1 | 17.0 | 9.09 | 4.77 |

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

| F.V/Time | 2MIN | 5MIN | 10MIN | 15MIN | 20MIN | 30MIN | 45MIN | 60MIN | 90MIN | 5HR | 10HR | 20HR |
|----------|------|------|-------|-------|-------|-------|-------|-------|-------|-----|------|------|
| 1.60V | 4597 | 3930 | 2870 | 2187 | 1772 | 1318 | 972 | 784 | 578 | 217 | 117 | 61.4 |
| 1.67V | 4397 | 3761 | 2737 | 2131 | 1738 | 1304 | 965 | 779 | 576 | 216 | 116 | 61.0 |
| 1.70V | 4285 | 3597 | 2656 | 2093 | 1713 | 1292 | 958 | 775 | 575 | 216 | 116 | 60.9 |
| 1.75V | 4043 | 3300 | 2485 | 2009 | 1656 | 1260 | 941 | 764 | 571 | 214 | 115 | 60.5 |
| 1.80V | 3660 | 2993 | 2276 | 1883 | 1564 | 1204 | 907 | 742 | 559 | 210 | 113 | 59.6 |
| 1.85V | 2976 | 2589 | 2042 | 1676 | 1416 | 1116 | 850 | 700 | 534 | 202 | 108 | 57.6 |

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

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Recognized under UL 1989,
and certified by ISO 9001, 14001, 45001, 50001.



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