



HRL series

HRL 12280W 12V 280W



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 10 Years in Standby Service at 25°C

Eurobat (20°C) : 10-12 years, 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】

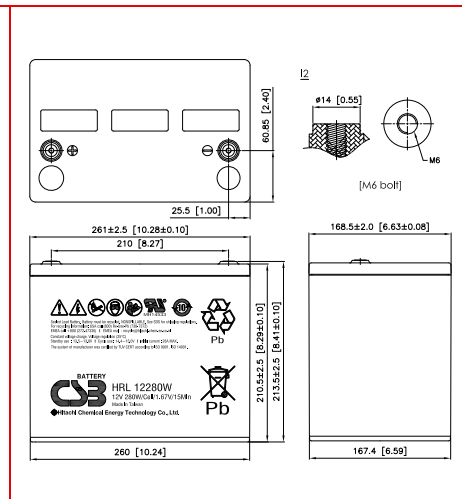
Less than 10% after 90 days, can be stored up to 6 months at 25°C (77°F);

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 | 280W @15min-rate to 1.67V per cell @25°C (77°F) | | |
| Weight | Approx. 25.80 Kg (56.86 lbs) | | |
| Maximum Discharge Current | 800A (5sec) | | |
| Internal Resistance | Approx. 3.50 mΩ | | |
| Short Circuit Current | 2576A | | |
| Maximum Charge Current | 28.0A | | |
| Terminal types | I2 thread lead alloy terminal to accept M6 bolt | | |
| Terminal breaking Torque | 138.6 Kgf-cm / 120.3 lbf-in / 13.58 N-m | | |
| Container Material | PP (UL 94-HB) & Flame Retardant (94-V0) available upon request | | |
| Dimensions | Length (L) | 261.0±2.5 mm | 10.28±0.10 inch |
| | Width (W) | 168.5±2.0 mm | 6.63±0.08 inch |
| | Container Height (h) | 210.5±2.5 mm | 8.29±0.10 inch |
| | Overall Height (H) | 213.5±2.5 mm | 8.41±0.10 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 | -- | -- | 318 | 287 | 237 | 216 | 167 | 137 | 103 | 76.0 | 59.9 | 44.6 |
| 1.67V | -- | -- | 283 | 258 | 217 | 200 | 155 | 128 | 98.3 | 72.9 | 57.7 | 42.1 |
| 1.70V | -- | -- | 266 | 244 | 207 | 192 | 149 | 124 | 96.3 | 71.2 | 55.6 | 40.6 |
| 1.75V | -- | -- | 236 | 218 | 188 | 175 | 141 | 117 | 91.3 | 68.5 | 53.8 | 38.5 |
| 1.80V | -- | -- | 207 | 194 | 171 | 161 | 131 | 111 | 85.4 | 63.7 | 50.1 | 36.3 |
| 1.85V | -- | -- | 178 | 169 | 152 | 145 | 122 | 105 | 81.3 | 59.7 | 47.3 | 34.7 |

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 | -- | -- | 3354 | 3039 | 2519 | 2304 | 1788 | 1476 | 1110 | 822 | 648 | 485 |
| 1.67V | -- | -- | 3036 | 2778 | 2347 | 2166 | 1700 | 1417 | 1079 | 804 | 636 | 466 |
| 1.70V | -- | -- | 2880 | 2650 | 2263 | 2100 | 1643 | 1384 | 1060 | 792 | 618 | 454 |
| 1.75V | -- | -- | 2615 | 2422 | 2095 | 1955 | 1575 | 1326 | 1023 | 780 | 600 | 436 |
| 1.80V | -- | -- | 2329 | 2176 | 1913 | 1800 | 1493 | 1274 | 980 | 738 | 581 | 422 |
| 1.85V | -- | -- | 2016 | 1914 | 1735 | 1656 | 1408 | 1212 | 938 | 694 | 550 | 404 |

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.

