



HRL series

HRL 1280W 12V 80W

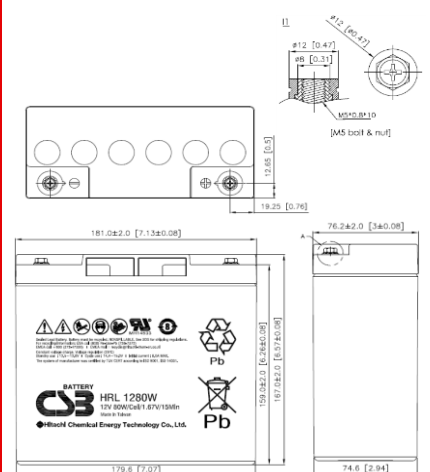
Valve Regulated Lead Acid Battery

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

Design for Standby Power Applications

| | |
|--|---|
| <p>【Design Life】 Up to 8 Years in Standby Service at 25°C Eurobat (20°C) : 6-9 years, General Purpose</p> <p>【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)</p> | <p>【Float Charging Voltage】 13.5 ~ 13.8 VDC/Unit at 25°C (77°F)</p> <p>【Equalization Charging Voltage】 14.4 ~ 15.0 VDC/Unit at 25°C (77°F)</p> <p>【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).</p> |
|--|---|

| Specification | | Design according with IEC 61056-1/2:2012 | |
|---------------------------|---|--|----------------|
| Nominal Voltage | 12V (6 cells per unit) | | |
| Nominal Capacity | 80W @15min-rate to 1.67V per cell @25°C (77°F) | | |
| Weight | Approx. 6.80 Kg (14.99 lbs) | | |
| Maximum Discharge Current | 300A (5sec) | | |
| Internal Resistance | Approx. 9.40 mΩ | | |
| Short Circuit Current | 776A | | |
| Maximum Charge Current | 8.0A | | |
| Terminal types | I1 thread lead alloy terminal to accept M5 bolt | | |
| Terminal hardware Torque | 59.0 Kgf-cm / 51.0 lbf-in / 5.73 N-m | | |
| Container Material | ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request | | |
| Dimensions | Length (L) | 181.0±2.0 mm | 7.13±0.08 inch |
| | Width (W) | 76.2±1.0 mm | 3.00±0.04 inch |
| | Container Height (h) | 167.0±2.0 mm | 6.57±0.08 inch |
| | Overall Height (H) | 167.0±2.0 mm | 6.57±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 | 165 | 113 | 98.4 | 87.9 | 72.3 | 62.4 | 44.4 | 35.0 | 24.9 | 18.2 | 14.6 | 10.6 | |
| 1.67V | 142 | 103 | 90.7 | 81.7 | 69.5 | 58.7 | 43.5 | 34.0 | 24.6 | 18.0 | 14.4 | 10.4 | |
| 1.70V | 133 | 98.6 | 88.3 | 80.7 | 67.8 | 58.1 | 42.4 | 33.7 | 24.3 | 17.7 | 14.2 | 10.2 | |
| 1.75V | 119 | 92.3 | 82.6 | 75.5 | 64.3 | 54.3 | 41.6 | 32.9 | 23.7 | 17.4 | 14.0 | 10.1 | |
| 1.80V | 105 | 83.2 | 75.7 | 70.0 | 60.8 | 51.8 | 39.8 | 32.1 | 23.0 | 16.9 | 13.6 | 10.0 | |
| 1.85V | 92.3 | 76.6 | 70.1 | 65.2 | 56.8 | 49.2 | 37.6 | 30.1 | 22.1 | 16.6 | 13.5 | 9.84 | |

| 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 | 1584 | 1171 | 1047 | 955 | 790 | 691 | 496 | 391 | 282 | 209 | 169 | 122 | |
| 1.67V | 1431 | 1073 | 971 | 895 | 761 | 661 | 485 | 382 | 280 | 207 | 167 | 121 | |
| 1.70V | 1369 | 1045 | 953 | 884 | 743 | 660 | 475 | 381 | 275 | 204 | 165 | 118 | |
| 1.75V | 1270 | 983 | 897 | 832 | 708 | 626 | 468 | 370 | 270 | 200 | 161 | 117 | |
| 1.80V | 1173 | 909 | 836 | 781 | 679 | 593 | 453 | 364 | 266 | 197 | 159 | 116 | |
| 1.85V | 1091 | 855 | 786 | 734 | 641 | 561 | 426 | 346 | 257 | 192 | 156 | 115 | |

Please refer to the official site for the latest rating confirmation. URL: www.csb-battery.com Issued: 161101

Sales Offices
日立化成能源科技股份有限公司
 Hitachi Chemical Energy Technology Co., Ltd.

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

BUSINESS HEADQUARTERS
 Tel: +886-2-2880-5600
 Fax: +866-2-2888-3300

USA OFFICE
 Tel: +1-817-244-7777 / 1-(800)3-CSB-USA (272872)
 Fax: +1-817-244-4445

SHENZHEN OFFICE (CHINA)
 Tel: +86-755-8831-6488, 8831-6775
 Fax: +86-755-8831-6075

EUROPE (EMEA) OFFICE
 Tel: +31(0)180-418-140
 Fax: +31(0)180-418-327

SHANGHAI OFFICE (CHINA)
 Tel: +86-21-5046-1622, 5046-0833
 Fax: +86-21-5046-1046

TAIPEI OFFICE
 Tel: +886-2-2880-5600
 Fax: +866-2-2888-3300

BEIJING OFFICE (CHINA)
 Tel: +86-10-5820-5336, 5820-5338
 Fax: +86-10-5820-3053