



**HRL series**

**HRL 1280W 12V 80W**

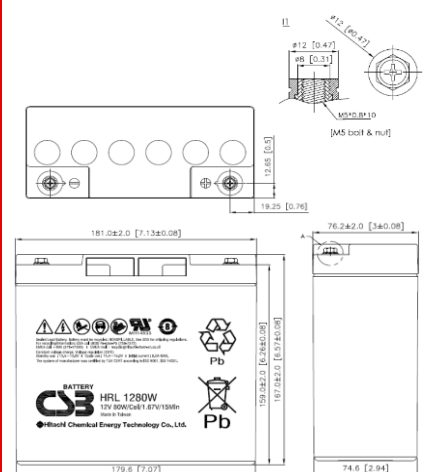
**Valve Regulated Lead Acid Battery**

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