



HR series

**HR 1290W 12V 90W**



**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)

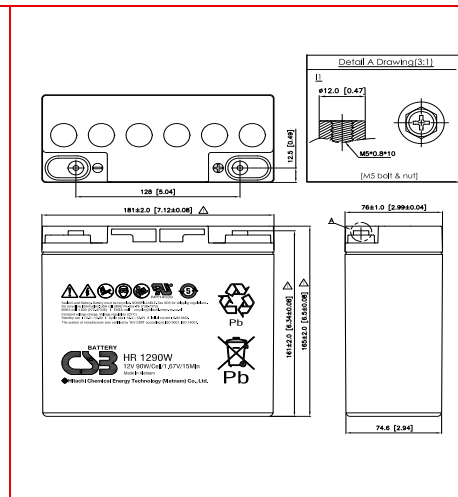
**【Self Discharge】**

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	90W @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. 9.9 mΩ		
Short Circuit Current	836A		
Maximum Charge Current	9.0A		
Terminal types	I1 terminal to accept M5 bolt		
Terminal breaking 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)	181.0±2.0 mm	7.13±0.08 inch
	Width (W)	76.2±2.0 mm	3.00±0.08 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	177	124	108	95.8	79.4	68.0	48.7	38.4	27.3	19.8	15.8	11.5
1.67V	156	114	100	90.2	77.6	65.2	48.4	38.1	27.0	19.7	15.7	11.4
1.70V	147	109	96.8	87.8	76.4	63.9	47.6	37.7	26.9	19.6	15.6	11.3
1.75V	131	102	91.0	82.9	72.8	61.1	46.2	37.0	26.3	19.3	15.5	11.2
1.80V	115	92.5	83.7	77.2	67.7	58.0	44.0	35.5	25.5	18.8	15.2	11.1
1.85V	98.6	82.9	76.0	70.8	60.8	53.3	40.7	32.6	23.8	17.8	14.5	10.6

**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	1701	1282	1143	1041	868	753	544	429	309	227	183	133
1.67V	1570	1193	1076	989	850	734	540	428	307	226	182	132
1.70V	1509	1155	1044	962	838	726	534	426	305	225	181	131
1.75V	1398	1087	987	913	802	704	520	416	300	222	179	130
1.80V	1282	1011	926	862	756	665	501	402	295	219	177	129
1.85V	1166	926	853	797	687	608	461	375	277	207	168	124

Please refer to the official site for the latest rating confirmation. URL: [www.csb-battery.com](http://www.csb-battery.com)

Issued: 180323

**Sales Offices**

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

**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

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

