



# HR series HR 12120W



## 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 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】

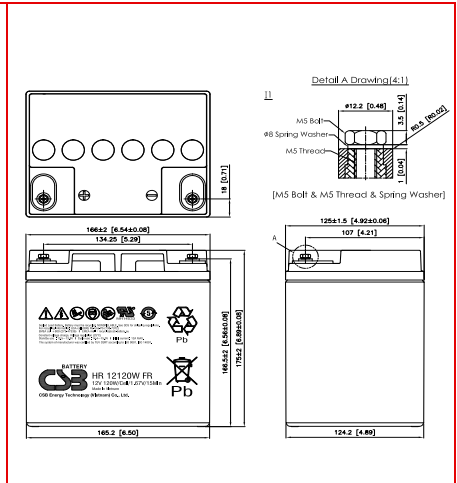
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

#### 【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	120W @15min-rate to 1.67V per cell @25°C (77°F)	
Weight	Approx. 10.20 Kg (22.48 lbs)	
Maximum Discharge Current	225A (5sec)	
Internal Resistance	Approx. 8.2 mΩ	
Short Circuit Current	928A	
Maximum Charge Current	12A	
Terminal types	I1 terminal to accept M5 bolt	
Terminal tightening torque	30.4±6.1 Kgf-cm / 26.4±5.3 Lbf-in / 3.0±0.6 N-m	
Container Material	ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request	
Dimensions	Length (L)	166.0±2.0 mm 6.54±0.08 inch
	Width (W)	125.0±1.5 mm 4.92±0.06 inch
	Container Height (h)	175.0±2.0 mm 6.89±0.08 inch
	Overall Height (H)	175.0±2.0 mm 6.89±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	169	148	135	125	107	94.2	70.5	56.1	41.2	30.4	24.5	16.8
1.67V	153	135	124	115	100	88.9	67.0	53.6	39.7	29.6	24.0	16.6
1.70V	146	128	117	109	95.5	85.6	65.3	52.5	39.2	29.2	23.7	16.4
1.75V	132	117	108	101	88.9	80.2	62.0	50.4	37.8	28.3	23.1	16.2
1.80V	117	105	97.2	91.2	81.3	73.3	58.3	48.0	36.0	27.1	22.2	15.8
1.85V	100	92.5	86.8	82.4	74.3	67.3	54.3	45.7	34.6	26.0	21.2	15.2

### 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	1745	1622	1507	1419	1199	1030	771	621	462	348	284	197
1.67V	1608	1495	1393	1315	1119	975	738	600	453	341	279	194
1.70V	1539	1427	1333	1260	1084	947	724	590	447	337	276	193
1.75V	1412	1306	1224	1161	1012	895	701	578	435	329	270	190
1.80V	1273	1181	1113	1060	944	853	676	561	418	319	263	186
1.85V	1100	1045	1001	966	877	805	648	536	402	307	253	181

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

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



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