



# HRL series HRL 1210W

## 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 8 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】

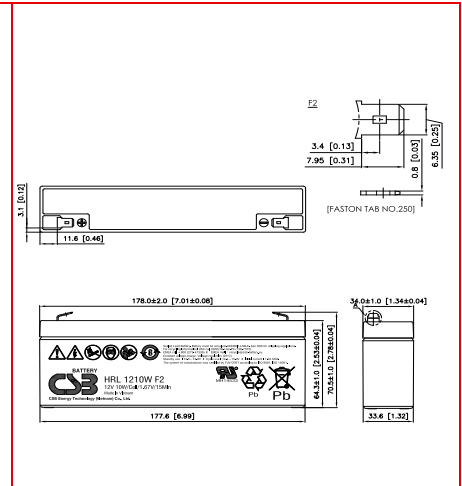
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

#### 【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 61056-1/2:2012

Nominal Voltage	12V (6 cells per unit)		
Nominal Capacity	10W @15min-rate to 1.67V per cell @25°C (77°F)		
Weight	Approx. 1.10 Kg (2.42 lbs)		
Maximum Discharge Current	40A (5sec)		
Internal Resistance	Approx. 32.10 mΩ		
Short Circuit Current	120A		
Maximum Charge Current	1.0A		
Terminal types	F2 terminal -Faston Tab 250		
Terminal tightening torque	--		
Container Material	ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request		
Dimensions	Length (L)	178.0±2.0 mm	7.01±0.08 inch
	Width (W)	34.0±1.0 mm	1.34±0.04 inch
	Container Height (h)	64.3±1.0 mm	2.53±0.04 inch
	Overall Height (H)	70.5±1.0 mm	2.78±0.04 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	19.2	13.7	11.8	10.5	8.84	7.47	5.51	4.24	3.06	2.14	1.66	1.29
1.67V	18.3	13.3	11.5	10.2	8.70	7.37	5.43	4.20	3.03	2.12	1.64	1.28
1.70V	17.9	13.0	11.3	10.1	8.64	7.32	5.39	4.18	3.02	2.11	1.63	1.27
1.75V	17.1	12.5	11.0	9.85	8.37	7.15	5.27	4.10	2.98	2.09	1.62	1.26
1.80V	16.3	11.8	10.5	9.50	8.10	6.98	5.14	4.02	2.93	2.06	1.60	1.25
1.85V	15.6	11.1	10.0	9.15	7.83	6.81	5.02	3.94	2.89	2.04	1.59	1.24

### 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	200	147	127	113	95.6	81.5	60.9	47.0	34.1	24.0	18.7	14.7
1.67V	193	143	124	110	94.0	80.5	60.0	46.5	34.0	23.9	18.6	14.6
1.70V	189	140	121	108	92.9	79.8	59.3	46.3	33.9	23.8	18.5	14.5
1.75V	182	134	118	106	91.0	78.9	58.5	46.0	33.5	23.6	18.4	14.4
1.80V	175	128	114	103	89.1	77.3	57.2	45.2	33.0	23.3	18.2	14.3
1.85V	169	121	109	100	86.6	75.8	55.8	44.5	32.6	23.1	18.1	14.2

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,  
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