



# HRL series HRL 1234W



## 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】

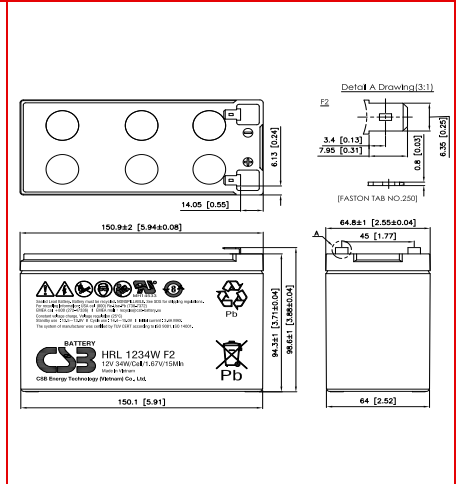
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

#### 【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	34W @15min-rate to 1.67V per cell @25°C (77°F)	
Weight	Approx. 2.70 Kg (5.95 lbs)	
Maximum Discharge Current	130A (5sec)	
Internal Resistance	Approx. 17.0 mΩ	
Short Circuit Current	367A	
Maximum Charge Current	3.4A	
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)	150.9±2.0 mm 5.94±0.08 inch
	Width (W)	64.8±1.0 mm 2.55±0.04 inch
	Container Height (h)	94.3±1.0 mm 3.71±0.04 inch
	Overall Height (H)	98.6±1.0 mm 3.88±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	77.1	50.2	43.1	37.9	30.7	25.9	18.8	14.8	10.7	7.59	5.97	4.26
1.67V	69.6	48.0	41.7	36.9	30.2	25.6	18.6	14.7	10.6	7.56	5.95	4.25
1.70V	66.0	46.6	40.8	36.2	29.7	25.4	18.5	14.6	10.5	7.55	5.94	4.24
1.75V	60.0	43.6	38.5	34.6	28.7	24.6	18.2	14.4	10.4	7.48	5.90	4.22
1.80V	53.2	39.8	35.5	32.3	27.0	23.4	17.5	14.0	10.2	7.32	5.79	4.16
1.85V	45.8	35.3	31.9	29.0	24.8	21.4	16.4	13.2	9.69	6.99	5.55	4.00

### 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	754	530	464	412	339	290	215	171	125	89.4	70.9	51.1
1.67V	699	514	452	404	334	287	213	170	124	89.2	70.7	51.0
1.70V	689	503	443	398	330	284	212	169	123	89.0	70.6	50.9
1.75V	639	477	424	383	321	278	209	167	122	88.3	70.2	50.7
1.80V	582	441	397	359	306	266	203	163	120	86.8	69.1	50.1
1.85V	515	400	359	329	283	247	191	155	115	83.4	66.6	48.5

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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