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## HR 1218W ▶ 12V 18W

HR 1218W is specially designed for high efficient discharge application. Its characteristics are high energy density, small footprint and high discharge efficiency. It can be used for more than 260 cycles at 100% discharge in cycle service, up to 5 years in standby service.



### ► Specification

<b>Cells Per Unit</b>	6
<b>Voltage Per Unit</b>	12
<b>Capacity</b>	18W @ 15min-rate to 1.67V per cell @25 °C (77°F)
<b>Weight</b>	Approx. 1.53 kg (3.37 lbs)
<b>Maximum Discharge Current</b>	130A(F2)(5sec)
<b>Internal Resistance</b>	Approx. 27.8mΩ
<b>Operating Temperature Range</b>	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)
<b>Nominal Operating Temperature Range</b>	25°C±3°C (77°F±5°F)
<b>Float Charging Voltage</b>	13.5 to 13.8 VDC/unit Average at 25°C (77°F)
<b>Recommended Maximum Charging Current Limit</b>	1.8A
<b>Equalization and Cycle Service</b>	14.4 to 15.0 VDC/unit Average at 25°C (77°F)
<b>Self Discharge</b>	CSB Batteries can be stored for more than 6 months at 25°C (77°F). Please charge batteries before using. For higher temperatures the time interval will be shorter.
<b>Terminal</b>	F2-Faston Tab250
<b>Container Material</b>	ABS(UL 94-HB) & Flammability resistance of (UL 94-V0) can be available upon request.

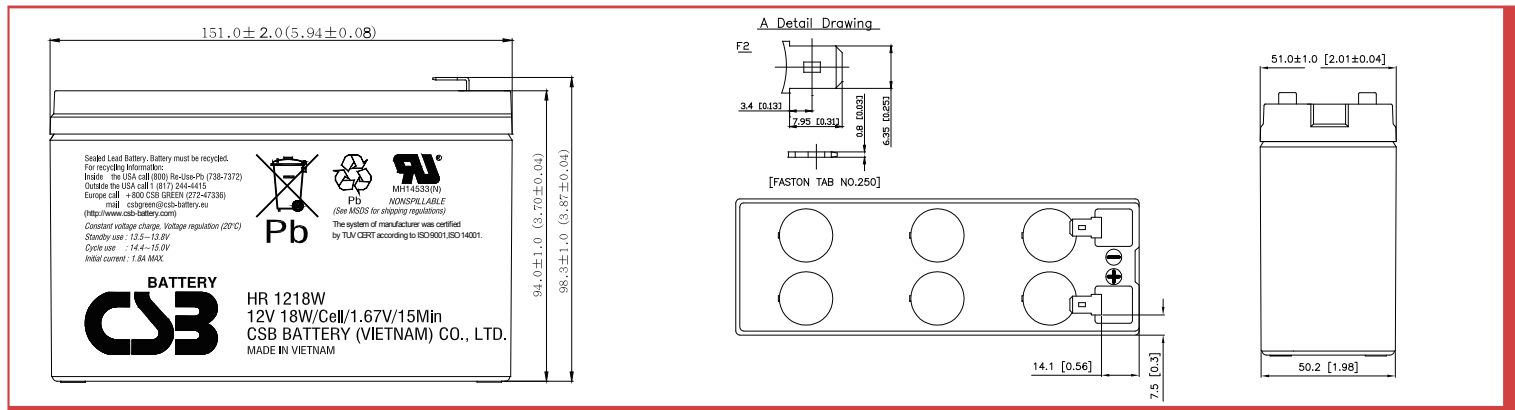


CSB-manufactured **VRLA** (Absorbent **G**lass **M**at type) batteries are UL-recognized components under UL1989.

CSB is also certified by ISO 9001 and ISO 14001.

### ► Dimensions :

Unit: mm (inch)	Overall Height (H)	Container height (h)	Length (L)	Width (W)
	98.3±1.0 (3.87±0.04)	94.0±1.0 (3.70±0.04)	151.0±2.0(5.94±0.08)	51.0±1.0 (2.01±0.04)



### Constant Current Discharge Characteristics Unit:A (25°C, 77°F)

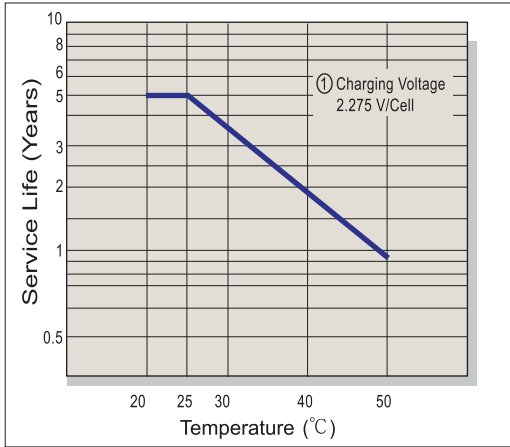
F.V/Time	2MIN	4MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	33.2	26.5	20.2	16.3	13.6	9.86	7.77	5.61	3.17	2.28
1.67V	30.9	24.8	19.6	15.9	13.3	9.74	7.74	5.54	3.12	2.24
1.70V	30.0	24.1	19.2	15.5	13.0	9.59	7.67	5.47	3.10	2.22
1.75V	29.2	22.8	18.1	15.0	12.7	9.46	7.53	5.42	3.07	2.20
1.80V	27.9	20.6	16.6	14.1	12.0	9.11	7.32	5.32	3.04	2.17
1.85V	24.1	18.3	14.9	12.6	10.9	8.43	6.82	5.04	2.92	2.09

### Constant Power Discharge Characteristics Unit:W (25°C, 77°F)

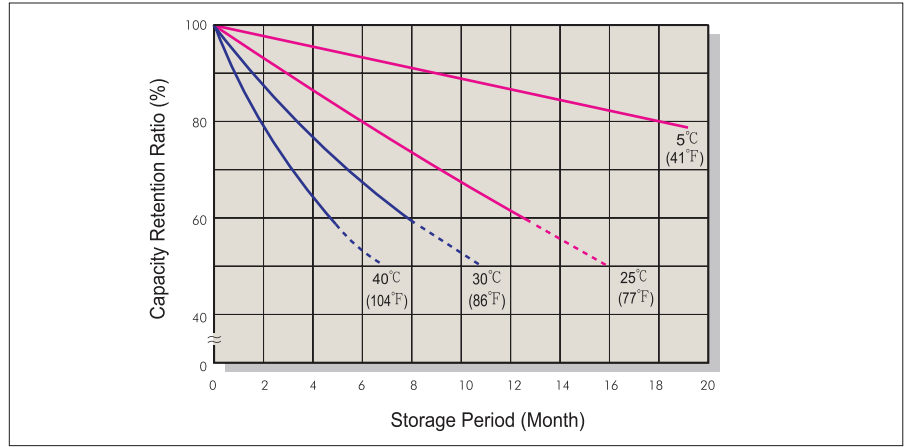
F.V/Time	2MIN	4MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	339	271	213	178	150	108	88.0	64.5	37.0	26.7
1.67V	332	260	206	174	147	107	87.0	64.2	36.8	26.5
1.70V	329	252	202	172	146	106	85.8	63.5	36.4	26.2
1.75V	325	241	194	165	141	105	85.0	62.9	36.0	26.0
1.80V	308	227	183	155	133	102	82.5	61.8	35.6	25.7
1.85V	273	207	170	143	124	94.6	77.9	59.2	34.4	24.8

Ratings presented herein are subject to revision without notice. Please refer to [www.csb-battery.com](http://www.csb-battery.com) to confirm the latest version.

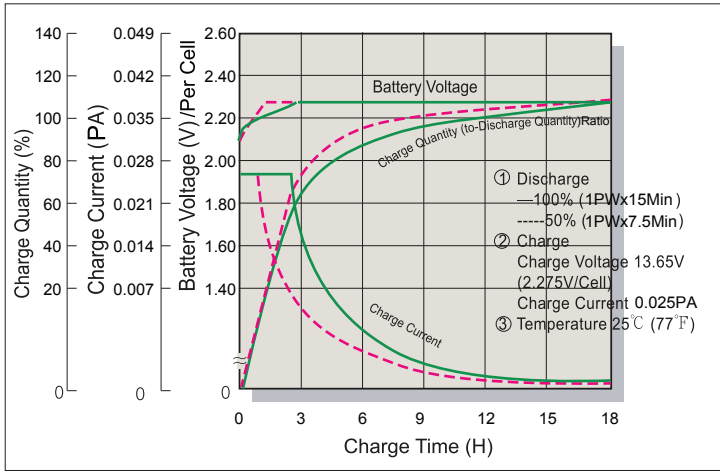
### Trickle (or Float) Service Life



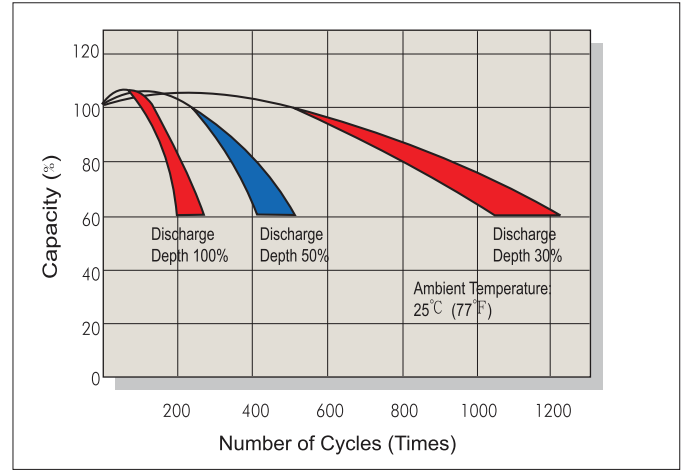
### Capacity Retention Characteristic



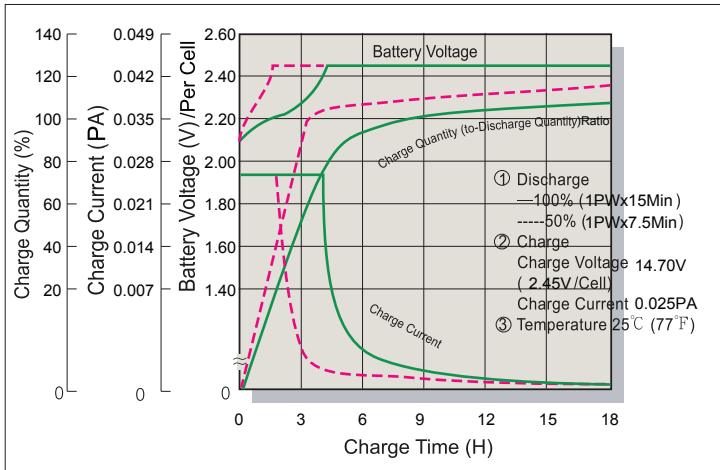
### Battery Voltage and Charge Time for Standby Use



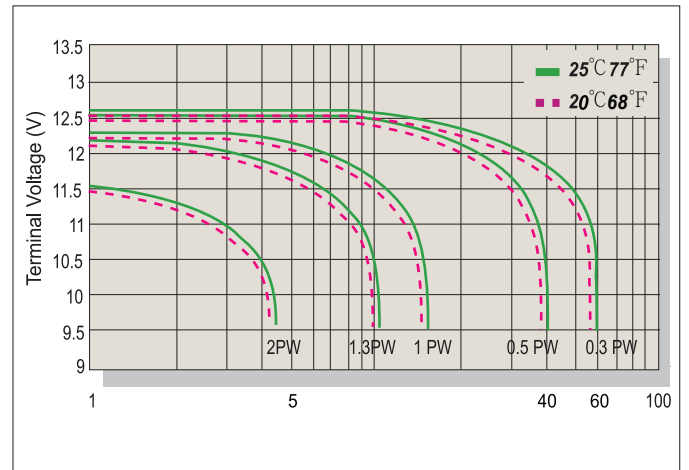
### Cycle Service Life



### Battery Voltage and Charge Time for Cycle Use



### Terminal Voltage (V) and Discharge Time



### Charging Procedures

Application	Charge Voltage(V/Cell)			Max.Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C(77°F)	2.45	2.40~2.50	0.1PA
Standby	25°C(77°F)	2.275	2.25~2.30	

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/Cell	1.75	1.70	1.60	1.30
Discharge Power(W)	0.1P>(W)	0.1P≤(W)<0.25P	0.25P≤(W)<1.0P	(W)≥1.0P

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