

Powered by



HRL 12330W ▶ 12V 330W

HRL 12330W 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 10 years in standby service.



Specification

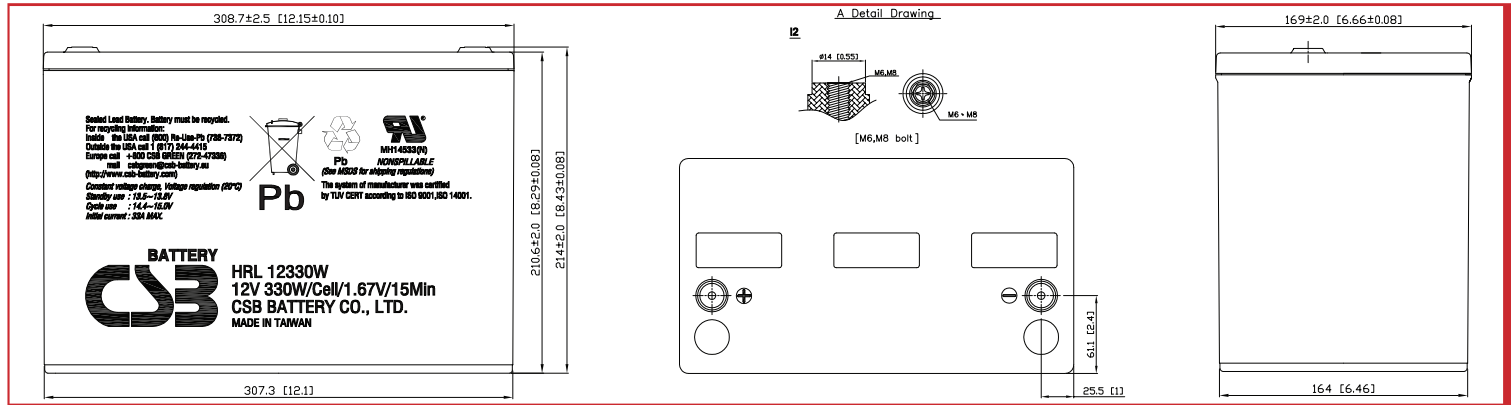
Cells per unit	6
Voltage per unit	12
Capacity	330 W@15min-rate to 1.67V per cell @25°C(77°F)
Weight	Approx.29.6 kg (65.26 lbs)
Maximum Discharge Current	800A(5sec)
Internal Resistance	Approx. 3.5 mΩ
Operating Temperature Range	Discharge: -15°C~50°C (5°F~122°F) Charge: -15°C~40°C(5°F~104°F) Storage: -15°C~40°C(5°F~104°F)
Nominal Operating Temperature Range	25°C±3°C (77°F±5°F)
Float Charging Voltage	13.5 to 13.8 VDC/unit Average at 25°C (77°F)
Recommended Maximum Charging Current Limit	33A
Equalization and Cycle Service	14.4 to 15.0 VDC/unit Average at 25°C (77°F)
Self Discharge	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.
Terminal	I2-Thread lead alloy recessed terminal to accept M6/M8 bolt
Container Material	Polypropylene(UL 94-HB) & Flammability resistance of (UL 94-V0) can be available upon request.



CSB-manufactured **VRLA** (Absorbent Glass Mat type) batteries are UL-recognized components under UL1989.

CSB is also certified by ISO 9001 and ISO 14001.

Dimensions :	Overall Height (H)	Container height (h)	Length (L)	Width (W)
Unit: mm (inch)	214±2 (8.43±0.08)	210.6±2 (8.29±0.08)	308.7±2.5 (12.15±0.10)	169±2.0 (6.66±0.08)



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

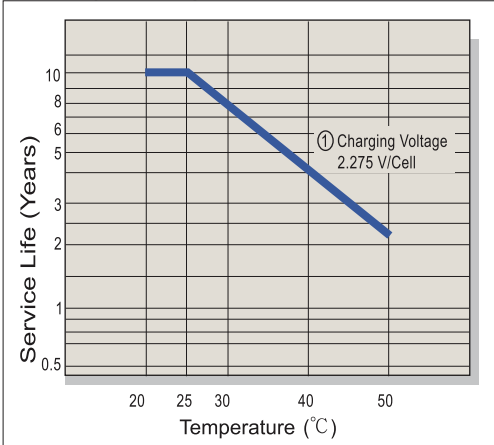
F.V/Time	2MIN	4MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	530	444	373	317	271	202	162	119	68.4	49.6
1.67V	482	405	341	293	256	196	158	117	67.9	49.4
1.70V	454	382	326	280	248	191	155	116	67.5	49.3
1.75V	405	340	293	257	230	181	149	112	66.4	48.9
1.80V	337	294	257	230	206	168	139	106	64.1	47.7
1.85V	252	243	219	196	180	150	125	97.1	59.9	45.1

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

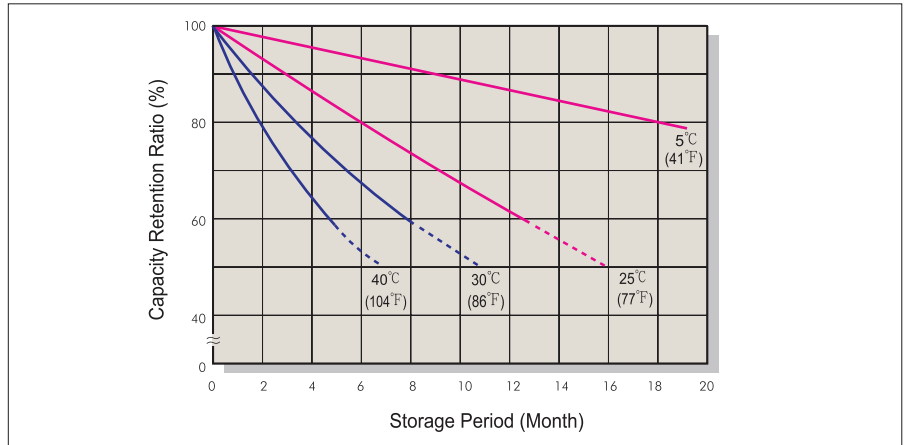
F.V/Time	2MIN	4MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	4,597	4,083	3,730	3,221	2,870	2,187	1772	1318	784	578
1.67V	4,397	3,951	3,474	3,065	2,737	2,131	1738	1304	779	576
1.70V	4,285	3,878	3,345	2,983	2,656	2,093	1713	1292	775	575
1.75V	4,043	3,550	3,109	2,830	2,485	2009	1656	1260	764	571
1.80V	3,660	3,143	2,862	2,515	2,276	1883	1564	1204	742	559
1.85V	2,976	2,795	2,432	2,204	2,042	1676	1416	1116	700	534

Ratings presented herein are subject to revision without notice. Please refer to www.csb-battery.com to confirm the latest version.

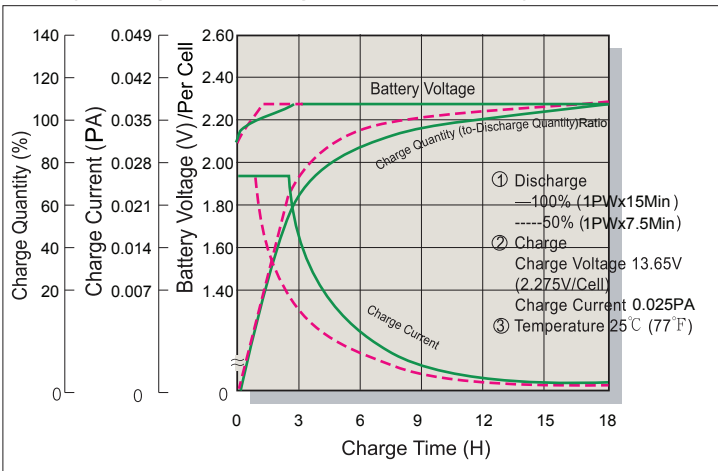
Trickle (or Float) Service Life



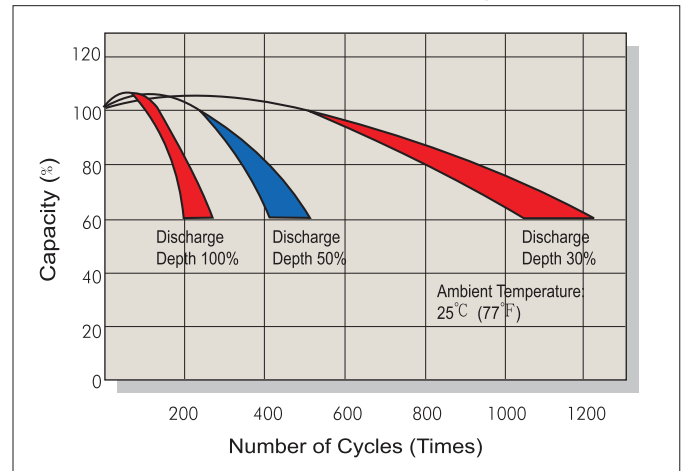
Capacity Retention Characteristic



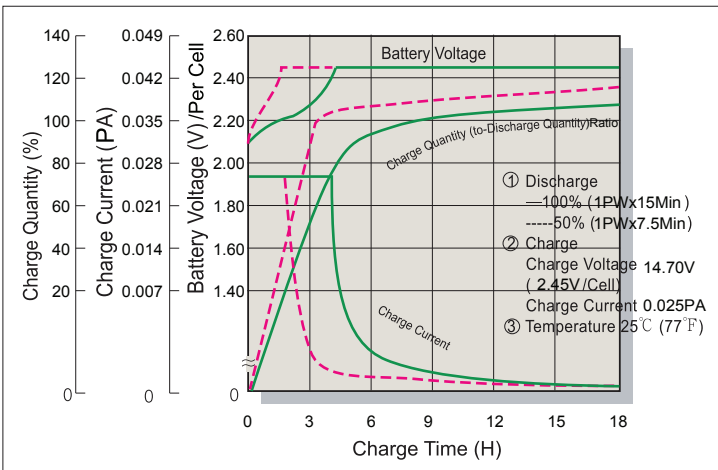
Battery Voltage and Charge Time for Standby Use



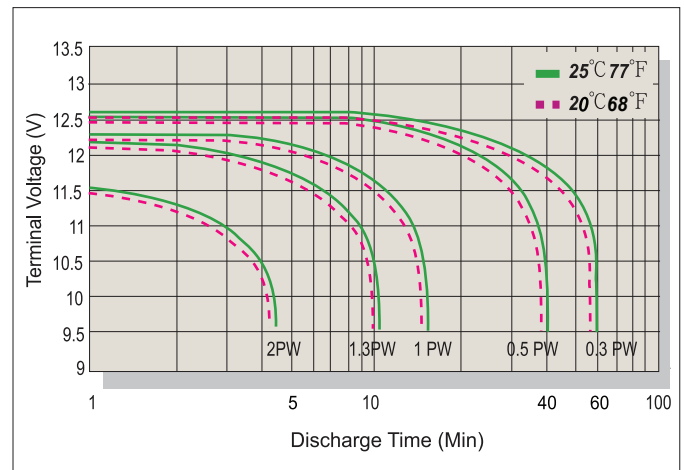
Cycle Service Life



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

Sales Office URL: WWW.CSB-BATTERY.COM

GLOBAL HQ
CSB BATTERY CO., LTD. (TAIWAN)
 Tel : +886-2-2880-5600
 Fax : +886-2-2888-3300
 mail : service@csb-battery.com.tw

BEIJING OFFICE. (CHINA)
CSB BATTERY TECHNOLOGIES (BEIJING) CO., LTD.
 Tel : +86-10-5820-5336/5338
 Fax : +86-10-58203053
 mail : chinasls@csb-battery.com

AMERICA HQ
CSB BATTERY TECHNOLOGIES INC. (U.S.A)
 Tel : +1-817-244-7777/1-(800)3-CSB-USA(272872)
 Fax : +1-817-244-4445
 mail : csb@csb-battery.com

SHANGHAI OFFICE. (CHINA)
CSB BATTERY LOGISTIC (SHANGHAI) CO., LTD.
 Tel : +86-21-5046-1622/5046-0833
 Fax : +86-21-5064-1046
 mail : chinasls@csb-battery.com

EUROPE HQ
CSB Battery Europe BV.
 Tel : +31(0)-180-418-140
 Fax : +31(0)-180-418-327
 mail : eurosales@csb-battery.eu

SHENZHEN OFFICE. (CHINA)
CSB BATTERY LOGISTIC (SHANGHAI) CO., LTD.
 Tel : +86-755-8831-6488/6396/6356
 Fax : +86-755-8831-6548
 mail : she@csb-battery.com.cn