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# EVH 12240 ▶ 12V 24Ah

EVH 12240x2 (2<sup>nd</sup> generation) is designed specially with increase cycle performance and reliability from previous generations in electric vehicles application. It has high cycling life, high efficiency and long service life.



## ► Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	24Ah @ 20hr-rate to 1.75V per cell @25 °C (77°F)
Weight	Approx. 7.55 kg (16.64 lbs)
Maximum Discharge Current	320A(5sec)
Internal Resistance	Approx. 9 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	7.2A
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	I1-Thread lead alloy recessed terminal to accept M5 bolt
Container Material	ABS(UL 94-HB) & Flammability resistance of (UL 94-V0) can be available upon request.

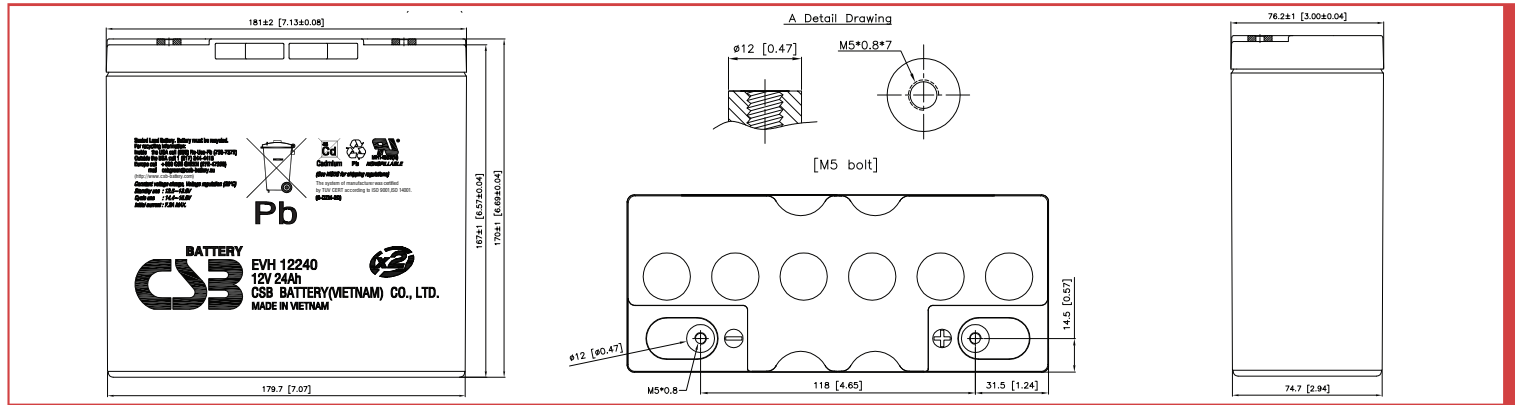


CSB-manufactured **VRLA** (Absorbent Glass Mat type) batteries are UL-recognized components under UL1989.

CSB is also certified by ISO 9001 and ISO 14001.

## ► Dimensions :

Overall Height (H)	Container height (h)	Length (L)	Width (W)	
Unit: mm (inch)	170±1 (6.69 ±0.04)	170±1 (6.69 ±0.04)	181±2 (7.13±0.08)	76.2±1 (3.0±0.04)



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

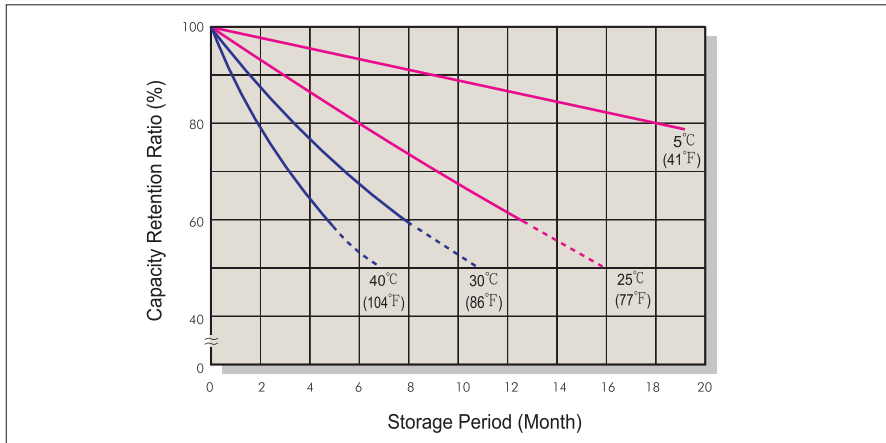
F.V/Time	30MIN	60MIN	90MIN	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	29.9	17.7	13.0	10.3	7.50	5.84	4.84	3.16	2.57	1.31
1.67V	29.6	17.5	12.9	10.2	7.44	5.83	4.78	3.15	2.56	1.30
1.70V	29.4	17.4	12.8	10.1	7.41	5.82	4.77	3.14	2.55	1.29
1.75V	29.0	17.2	12.7	10.0	7.32	5.74	4.73	3.09	2.52	1.28
1.80V	28.4	17.0	12.5	9.98	7.16	5.65	4.64	3.06	2.49	1.27
1.85V	27.0	16.2	11.9	9.56	6.85	5.44	4.47	2.91	2.34	1.17

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

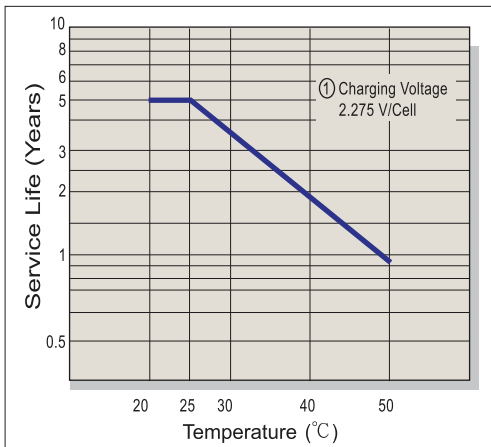
F.V/Time	30MIN	60MIN	90MIN	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	346	208	154	123	88.9	69.9	58.6	38.3	31.4	16.2
1.67V	343	207	153	122	88.7	69.8	57.6	38.1	31.2	16.1
1.70V	340	206	152	121	87.9	69.1	57.4	38.0	31.0	16.0
1.75V	338	205	151	120	87.3	68.4	56.9	37.8	30.7	15.9
1.80V	331	199	147	118	85.1	67.1	55.9	37.2	30.3	15.7
1.85V	313	193	142	115	82.9	65.3	54.4	36.1	29.6	15.4

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.

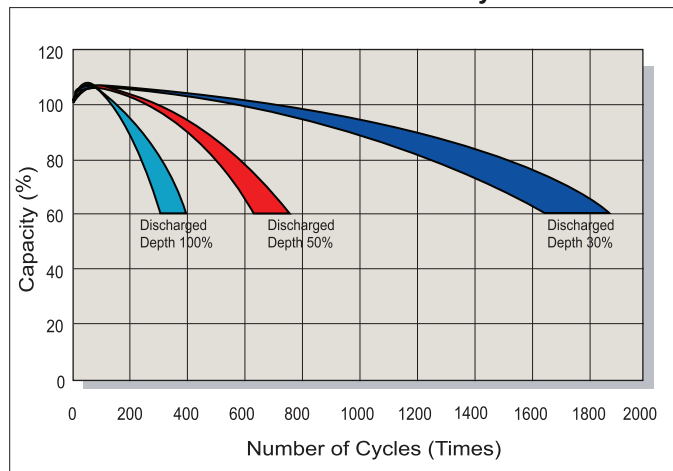
### Capacity Retention Characteristic



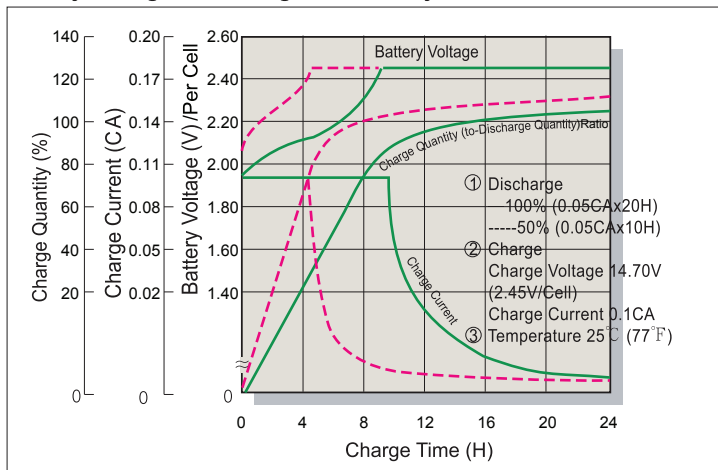
### Trickle (or Float) Service Life



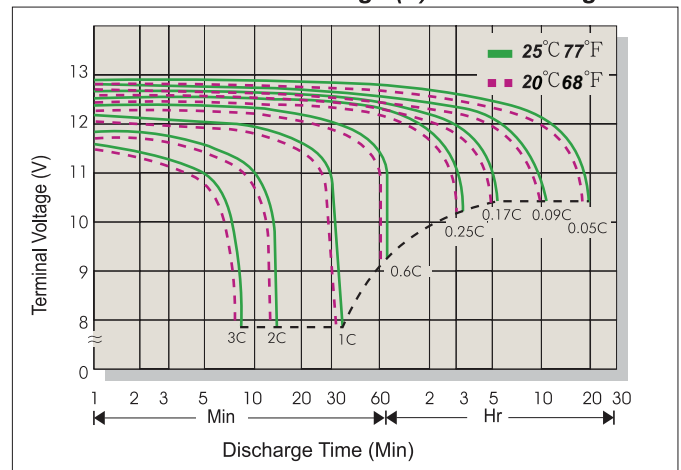
### Series Cycle Service Life



### 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	0.3C
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 Current(A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C

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