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# HRL 12390W ▶ 12V 390W

HRL 12390W 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

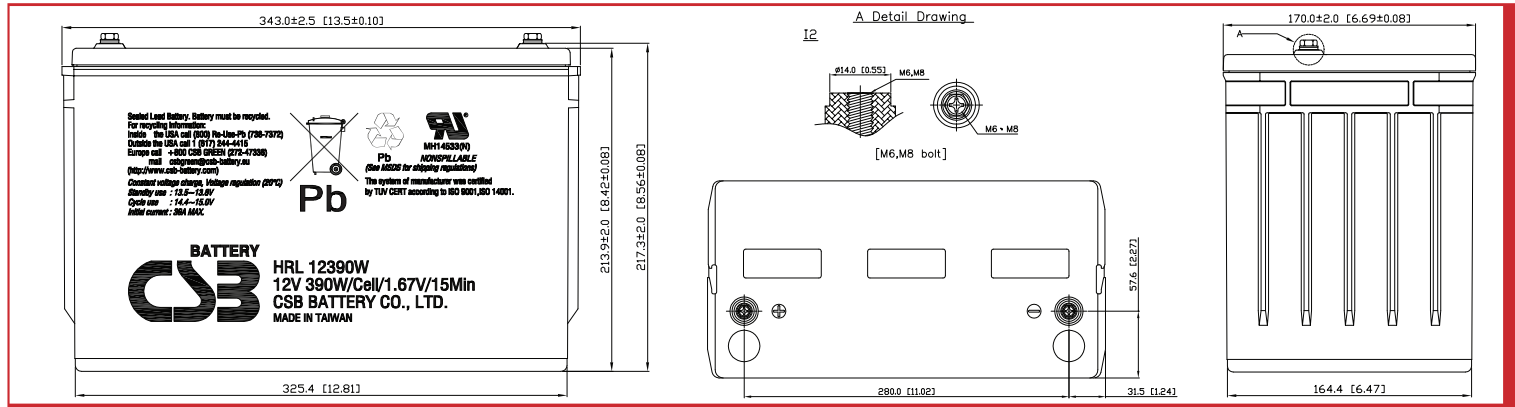
Cells per unit	6
Voltage per unit	12
Capacity	390W @ 15min-rate to 1.67V per cell @25°C(77°F)
Weight	Approx.33 kg (72.75 lbs)
Maximum Discharge Current	800A(5sec)
Internal Resistance	Approx. 3.1 mΩ
Operating Temperature Range	Discharge: -15°C~50°C ( 5°F~122°F) Charge: -15 °C~40°C ( 5°F~104°F) Storage: -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	39A
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)	217.3±2.0 (8.56±0.08)	213.9±2.0 (8.42±0.08)	343.0±2.5 (13.50±0.10)	170.0±2.0 (6.69±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	589	499	423	362	315	239	192	140	79.6	57.1
1.67V	532	456	386	334	298	230	186	138	78.9	56.8
1.70V	504	428	367	320	288	224	183	137	78.2	56.4
1.75V	463	384	330	296	266	212	174	132	76.7	55.7
1.80V	382	330	296	266	239	197	163	125	73.8	54.2
1.85V	296	285	253	228	210	175	147	114	68.8	51.2

## 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	5,767	4,830	4,188	3,683	3,299	2,550	2,083	1,566	913	666
1.67V	5,312	4,557	3,919	3,518	3,141	2,483	2,039	1,545	906	663
1.70V	5,049	4,348	3,787	3,434	3,048	2,440	2,010	1,529	900	660
1.75V	4,583	3,970	3,555	3,190	2,861	2,348	1,943	1,488	885	653
1.80V	4,044	3,587	3,253	2,893	2,641	2,215	1,843	1,423	858	639
1.85V	3,486	3,160	2,804	2,576	2,412	2,006	1,690	1,328	812	609

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.