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Specification



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.



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 m Ω
Operating Temperature Range	 Discharge: -15℃~50℃(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





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

CSB is also certified by ISO 9001 and ISO 14001.



Constant Current Discharge Characteristics Unit:A (25° $_{ m C}$,77° $_{ m F}$)											
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	
	С	constant	Power I	Discharg	ge Chara	acteristic	s Unit:V	۷ (25 °C ,	77°F)		
F.V/Time	C 2MIN	onstant 4MIN	Power I 6MIN	Discharg 8MIN	ge Chara 10MIN	acteristic 15MIN	s Unit:V 20MIN	V (25°C , 30Min	77°F) 60MIN	90MIN	
F.V/Time 1.60V	2MIN 5,767	Constant 4MIN 4,830	Power 1 6MIN 4,188	Discharg 8MIN 3,683	e Chara 10MIN 3,299	acteristic 15MIN 2,550	s Unit:V 20MIN 2,083	V (25°⊂ , 30MIN 1,566	77°F) 60MIN 913	90MIN 666	
F.V/Time 1.60V 1.67V	2MIN 5,767 5,312	4MIN 4,830 4,557	6MIN 4,188 3,919	Sischarg 8MIN 3,683 3,518	10MIN 3,299 3,141	15MIN 2,550 2,483	20MIN 2,083 2,039	V (25°℃, 30MIN 1,566 1545	77°F) 60MIN 913 906	90MIN 666 663	
F.V/Time 1.60V 1.67V 1.70V	2MIN 5,767 5,312 5,049	4MIN 4,830 4,557 4,348	Power I 6MIN 4,188 3,919 3,787	BMIN 3,683 3,518 3,434	10MIN 3,299 3,141 3,048	15MIN 2,550 2,483 2,440	20MIN 2,083 2,039 2,010	V (25°C, 30MIN 1,566 1545 1529	77°F) 60MIN 913 906 900	90MIN 666 663 660	
F.V/Time 1.60V 1.67V 1.70V 1.70V	2MIN 5,767 5,312 5,049 4,583	4MIN 4,830 4,557 4,348 3,970	Power I 6MIN 4,188 3,919 3,787 3,555	BMIN 3,683 3,518 3,434 3,190	10MIN 3,299 3,141 3,048 2,861	15MIN 2,550 2,483 2,440 2,348	20MIN 2,083 2,039 2,010 1,943	V (25°C, 30MIN 1,566 1545 1529 1488	60MIN 913 906 900 885	90MIN 666 663 660 653	
F.V/Time 1.60V 1.67V 1.70V 1.75V 1.80V	2MIN 5,767 5,312 5,049 4,583 4,044	4MIN 4,830 4,557 4,348 3,970 3,587	Power I 6MIN 4,188 3,919 3,787 3,555 3,253	BMIN 3,683 3,518 3,434 3,190 2,893	10MIN 3,299 3,141 3,048 2,861 2,641	Image: constraint of the second sec	20MIN 2,083 2,039 2,010 1,943 1843	V (25°C) 30MIN 1,566 1545 1529 1488 1423	60MIN 913 906 900 885 858	90MIN 666 663 660 653 639	

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