



**HRL series**

**HRL 12150W 12V 155W**



**Valve Regulated Lead Acid Battery**

Maintenance-Free Sealed Lead Acid Battery.  
Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

**Design for Standby Power Applications**

**【Design Life】**

Up to 10 Years in Standby Service at 25°C  
Eurobat (20°C) : 10-12 years, Long Life

**【Operating Temperature Range】**

Nominal Operating Temperature : 25°C (77°F)  
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)

**【Float Charging Voltage】**

13.5 ~ 13.8 VDC/Unit at 25°C (77°F)

**【Equalization Charging Voltage】**

14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

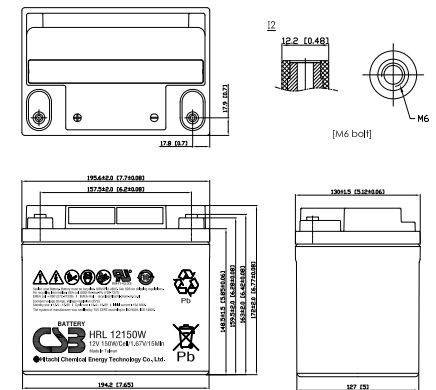
**【Self Discharge】**

Less than 10% after 90 days, can be stored up to 6 months at 25°C (77°F);  
Fully recharging is required before usage, and charged sooner if stored at higher temperature than 25°C (77°F).

**Specification**

Design according with IEC 61056-1/2:2012

Nominal Voltage	12V (6 cells per unit)		
Nominal Capacity	155W @15min-rate to 1.67V per cell @25°C (77°F)		
Weight	Approx. 11.75 Kg (25.90 lbs)		
Maximum Discharge Current	225A (5sec)		
Internal Resistance	Approx. 7.30 mΩ		
Short Circuit Current	1116A		
Maximum Charge Current	15.0A		
Terminal types	I2 thread lead alloy terminal to accept M6 bolt		
Terminal breaking Torque	138.6 Kg·cm / 120.3 lbf·in / 13.58 N·m		
Container Material	ABS (UL 94-HB) & Flame Retardant (94-V0) available upon request		
Dimensions	Length (L)	195.6±2.0 mm	7.70±0.08 inch
	Width (W)	130.0±1.5 mm	5.12±0.06 inch
	Container Height (h)	172.0±2.0 mm	6.77±0.08 inch
	Overall Height (H)	172.0±2.0 mm	6.77±0.08 inch



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

F.V/Time	2MIN	4MIN	5MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	45MIN	60MIN	90MIN
1.60V	--	--	169	153	127	116	86.7	69.6	50.4	36.4	28.9	20.8
1.67V	--	--	152	139	116	107	82.2	66.3	48.4	35.3	28.6	20.5
1.70V	--	--	144	132	112	103	80.0	64.7	47.5	34.8	28.4	20.4
1.75V	--	--	132	122	104	96.8	76.0	62.0	45.7	33.6	27.8	20.0
1.80V	--	--	119	111	96.2	90.0	71.1	58.4	43.8	32.2	26.8	19.5
1.85V	--	--	107	100	88.0	82.8	67.0	55.1	41.7	30.9	25.0	18.6

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

F.V/Time	2MIN	4MIN	5MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	45MIN	60MIN	90MIN
1.60V	--	--	1794	1636	1373	1263	968	788	577	421	335	244
1.67V	--	--	1624	1494	1275	1182	935	753	559	415	334	239
1.70V	--	--	1549	1430	1228	1143	916	737	548	409	332	236
1.75V	--	--	1422	1321	1149	1075	877	704	530	399	325	231
1.80V	--	--	1302	1217	1069	1006	825	675	507	383	314	226
1.85V	--	--	1188	1118	996	943	773	639	486	364	296	222

Please refer to the official site for the latest rating confirmation. URL: [www.csb-battery.com](http://www.csb-battery.com)

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Recognized under UL 1989,  
and certified by ISO 9001, 14001.

