



# HRL series HRL 12280W



## Valve Regulated Lead Acid Battery

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

### General Design for Standby Power Applications

#### 【Design Life】

Up to 10 Years in Standby Service at 25°C  
Eurobat (20°C) : >12 YEARS VERY 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】

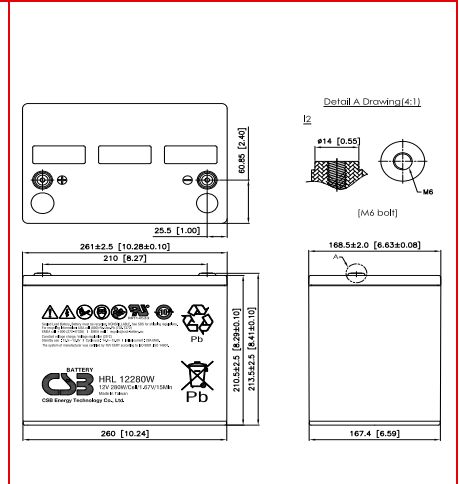
14.4 ~ 15.0 VDC/Unit at 25°C (77°F)

#### 【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 60896-21/22:2004

Nominal Voltage	12V (6 cells per unit)	
Nominal Capacity	280W @15min-rate to 1.67V per cell @25°C (77°F)	
Weight	Approx. 25.80 Kg (56.86 lbs)	
Maximum Discharge Current	800A (5sec)	
Internal Resistance	Approx. 3.50 mΩ	
Short Circuit Current	2576A	
Maximum Charge Current	28.0A	
Terminal types	I2 thread lead alloy terminal to accept M6 bolt	
Terminal tightening torque	51.7±10.3 Kgf·cm / 44.9±9.0 Lbf·in / 5.10±1.0 N·m	
Container Material	PP (UL 94-HB) & Flame Retardant (94-V0) available upon request	
Dimensions	Length (L)	261.0±2.5 mm      10.28±0.10 inch
	Width (W)	168.5±2.0 mm      6.63±0.08 inch
	Container Height (h)	210.5±2.5 mm      8.29±0.10 inch
	Overall Height (H)	213.5±2.5 mm      8.41±0.10 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	--	--	318	287	237	216	167	137	103	76.0	59.9	44.6
1.67V	--	--	283	258	217	200	155	128	98.3	72.9	57.7	42.1
1.70V	--	--	266	244	207	192	149	124	96.3	71.2	55.6	40.6
1.75V	--	--	236	218	188	175	141	117	91.3	68.5	53.8	38.5
1.80V	--	--	207	194	171	161	131	111	85.4	63.7	50.1	36.3
1.85V	--	--	178	169	152	145	122	105	81.3	59.7	47.3	34.7

### 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	--	--	3354	3039	2519	2304	1788	1476	1110	822	648	485
1.67V	--	--	3036	2778	2347	2166	1700	1417	1079	804	636	466
1.70V	--	--	2880	2650	2263	2100	1643	1384	1060	792	618	454
1.75V	--	--	2615	2422	2095	1955	1575	1326	1023	780	600	436
1.80V	--	--	2329	2176	1913	1800	1493	1274	980	738	581	422
1.85V	--	--	2016	1914	1735	1656	1408	1212	938	694	550	404

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Recognized under UL 1989,  
and certified by ISO 9001, 14001, 45001, 50001.

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