

XHRL12475W												
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	768	601	559	501	422	365	270	215	156	110	85.7	60.4
1.67V	683	552	504	461	399	347	261	210	154	109	84.8	59.9
1.70V	647	519	479	441	387	336	256	206	152	108	84.2	59.6
1.75V	587	464	437	409	357	314	243	197	148	105	82.6	58.9
1.80V	500	411	397	370	322	288	225	185	140	101	79.7	57.2
1.85V	403	364	341	319	283	252	203	168	129	93.5	74.4	53.9
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	7700	6127	5630	5143	4414	3859	2940	2368	1746	1250	985	705
1.67V	7081	5758	5281	4846	4232	3700	2869	2323	1725	1238	978	701
1.70V	6811	5582	5081	4690	4122	3604	2824	2294	1711	1230	973	699
1.75V	6181	5133	4715	4399	3849	3403	2707	2216	1671	1208	959	693
1.80V	5589	4619	4317	4041	3513	3150	2524	2092	1605	1168	932	678
1.85V	4632	4129	3776	3509	3127	2859	2276	1916	1503	1099	880	644

XHRL12620W												
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	766	641	601	571	504	458	349	283	206	147	116	81.7
1.67V	660	585	543	511	466	420	326	273	200	144	114	79.8
1.70V	622	545	512	486	448	398	315	267	196	142	113	78.3
1.75V	553	485	465	449	398	356	293	252	188	138	110	78.2
1.80V	494	443	409	383	344	315	270	229	175	131	106	75.6
1.85V	437	360	339	322	298	280	239	201	158	120	97.9	71.1
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	7070	6088	5774	5529	5280	4892	3770	3108	2304	1681	1344	966
1.67V	6439	5680	5542	5432	4894	4387	3720	2983	2249	1654	1329	959
1.70V	6090	5494	5406	5336	4692	4262	3540	2918	2222	1642	1325	957
1.75V	5579	5208	4994	4825	4311	3969	3282	2742	2135	1592	1293	944
1.80V	5235	4660	4427	4246	3894	3639	2956	2515	2017	1522	1247	916
1.85V	4134	3765	3715	3674	3470	3120	2576	2257	1864	1414	1163	867

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

BATTERY



**SALES OFFICE:**

Hitachi Chemical Energy Technology Co., Ltd.  
GLOBAL HQ

11F, No.150, Sec.4, Chengde Rd.,  
Shilin Dist., Taipei City 11167, Taiwan (R.O.C.)  
Tel : +886-2-2880-5600  
Fax : +886-2-2888-3300  
Mail : [service@hitachi-chem-en.com.tw](mailto:service@hitachi-chem-en.com.tw)

Hitachi Chemical Energy Technology (Americas) Co., Ltd.  
AMERICA HQ

4008 Clay Avenue, Suite 210,  
Haltom City, TX 76117, U.S.A  
Tel : +1-817-244-7777 / 1-(800)3-CSB-USA(272872)  
Fax : +1-817-244-4445  
Mail : [service@hitachi-chem-en.us](mailto:service@hitachi-chem-en.us)

Hitachi Chemical Energy Technology (Shanghai) Co., Ltd.  
SHANGHAI OFFICE

Room 2105, Qiang Sheng Tower, Pu Jian Rd.,  
Shanghai, China PC : 200127  
Tel : +86-21-5046-1622 / +86-21-5046-0833  
+86-21-5046-0094  
Fax : +86-21-5046-1046  
Mail : [service@hitachi-chem.en.sh.cn](mailto:service@hitachi-chem.en.sh.cn)

**MANUFACTURING SITE:**

Hitachi Chemical Energy Technology Co., Ltd.  
TAIWAN GUANTIAN FACTORY

No.16, Gongye W. Rd., Erzhen Village,  
Guantian District, Tainan City 72048, Taiwan (R.O.C.)  
Tel : +886-6-698-7600  
Fax : +886-6-698-5734

Hitachi Chemical Energy Technology Co., Ltd (Philippines Branch)  
PHILIPPINES FACTORY

Panorama Compound NO.7, South Avenue,  
Phase3, PEZA, Rosario, Cavite, Philippines 4106  
Tel : 63-46-437-0688 / 63-46-437-0838  
Fax : 63-46-437-0980

CSB BATTERY TECHNOLOGIES (BEIJING) CO., LTD. (CHINA)  
BEIJING OFFICE

Room 1009, 10th Building, Wanda Plaza,  
Jianguo Rd., Chaoyang Dis., Beijing, China PC : 100022  
Tel : +86-10-5820-5336 / +86-10-5820-5338  
Fax : +86-10-5820-3053  
Mail : [chinastl@csb-battery.com](mailto:chinastl@csb-battery.com)

Hitachi Chemical Energy Technology (EMEA) B.V.  
EUROPE HQ

Keurmeesterstraat 28-30,  
2984 BA Ridderkerk, The Netherlands  
Tel : +31-(0)-180-418-140  
Fax : +31-(0)-180-418-327  
Mail : [service@hitachi-chem-en.nl](mailto:service@hitachi-chem-en.nl)

Hitachi Chemical Energy Technology (Shanghai) Co., Ltd.  
SHENZHEN OFFICE

Room 2103-2105, Block East,  
City Professional Hub, Shennan Avenue,  
Futian, Shenzhen, China PC : 518040  
Tel : +86-755-8831-6488 / +86-755-8831-6775  
+86-755-8831-6075  
Fax : +86-755-8831-6548  
Mail : [service@hitachi-chem.en.sh.cn](mailto:service@hitachi-chem.en.sh.cn)

Hitachi Chemical Energy Technology (Vietnam) Co., Ltd.  
VIETNAM FACTORY

Duong so 4, Khu Cong Nghiep Nhon Trach 3 - Giai Doan 2,  
Xa Long Tho, Huyen Nhon Trach, Tinh Dong Nai, Viet Nam  
Tel : +84-61-356-9120  
Fax : +84-61-356-9165



**Extreme High Rate**  
**Long life**

**ENERGY OF INFINITY** ▶

**XHRL** series



# XHRL series

XHRL-series batteries are specially designed for high rate discharge applications and long design life. With new VRLA technology, they are small, lightweight and offer a service life of up to 10 years in standby service life. Because of its innovative design, XHRL-series batteries feature 20% greater power density in the standard footprint. As with all our ISO/UL certified batteries, XHRL series batteries are rechargeable, highly efficient, maintenance free, leakproof and viable in any orientation.



In accordance with IEC60896-21/22:2004  
In accordance with BS6290-4

## Features and Benefits :

- Extreme energy density, small footprint and increased power up to 15% to 20% above standard high-rate batteries.
- Up to 50% greater resistance to grid growth under optimal temperature
- Innovative plate structure greatly increases energy/density ratios
- Reduced internal resistance for superior performance
- Increased current delivery for high-rate discharge
- Uniformed plate formation for consistent capacity
- New paste formula increases active surface area

- Proprietary electrolyte additives
- Highly durable safety valve
- Thermally bonded casing
- TIG terminal welds
- Flame-arresting vents
- Viable in any orientation
- Low self-discharge
- No-spill design
- Maintenance free

## Applications :

- Standby use
- UPS power supply
- Workstation UPS
- Emergency lighting equipment
- Precision instrument backup power
- Fire alarm and security systems
- Communications and electrical equipment
- Office computers, microcomputers and OA equipment
- Robots, control equipment and other FA equipment
- Emergency power supply in power plants and substations

## Long Service Life :

- Up to 10 years of service life in floating charge conditions at 25°C(77°F).

## Reliability :

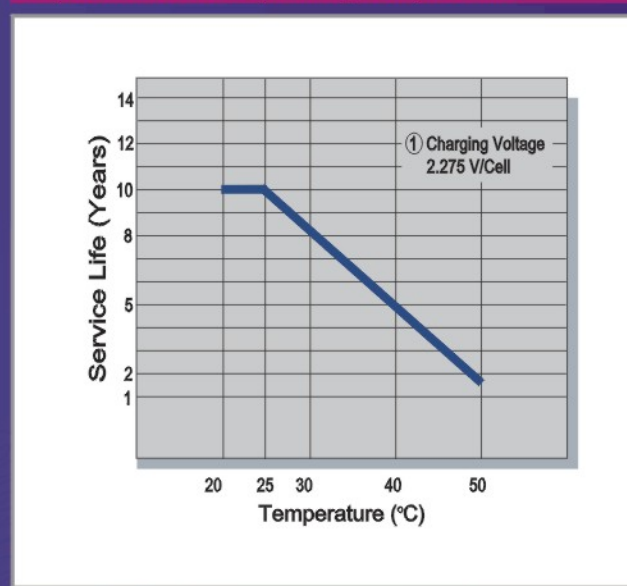
- Our batteries are 100% 2-cycle tested by computer charge and discharge System (CCDS).
- Our batteries are UL-recognized components under UL 1989. (File Number with MH 14533)
- ISO 9001/14001/18001 certified.

## Specifications

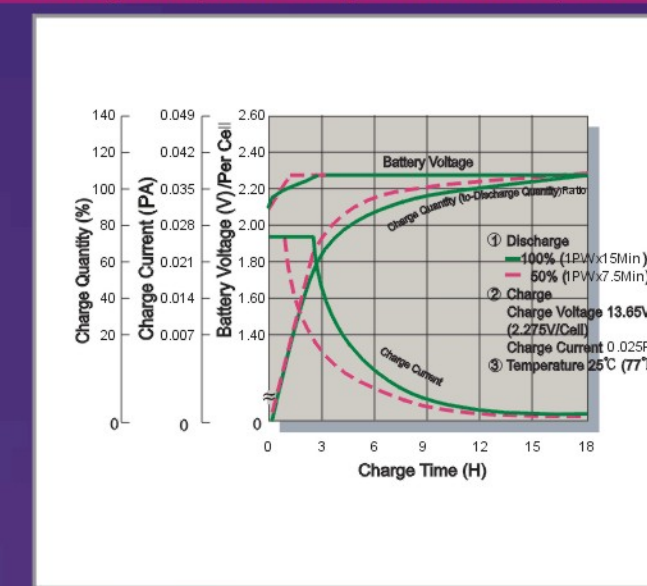
Battery Type	Nominal Voltage (V)	Nominal Capacity (Wclass)	Weight (Approx. Kg)	Internal Resistance (mΩ)	Short Circuit Current (A)	Max. Discharge Current (5sec)(A)	Dimensions (mm)				Terminal Type	Bolt	Max. Charge Current (A)	Max. Screw Torque Value	
							Overall Height (H)	Container Height (h)	Length (L)	Width (W)				Kgf-cm/ lbf-in	N-m
XHRL1260W	12	360	28.30	3.10	2551	800	213.6±2.5	210.6±2.5	261.0±2.5	108.6±2.0	I2	M6	36.0	138.6/120.3	13.58
XHRL12410W	12	410	32.60	2.90	3171	800	213.6±2.5	210.6±2.5	308.7±2.5	109.0±2.0	I2	M6	41.0	138.6/120.3	13.58
XHRL12475W	12	475	36.20	2.30	3446	800	216.9±2.5	213.9±2.5	343.0±2.5	170.0±2.0	I2/ (1/4")	M6/ (1/4")	47.5	138.6(126) 120.3(109.4)	13.58/ (12.35)
XHRL12620W	12	620	47.20	2.40	3722	800	275.7±2.5	273.2±2.5	343.0±2.5	170.0±2.0	I2	M6	62.0	138.6/120.3	13.58

• Nominal capacity 15min-rate to 1.67V per cell @25°C (77°F)  
• Float Charge: 2.275±0.025 V/Cell at 25°C (77°F); Temp. Coefficient: -3.3mV/°C

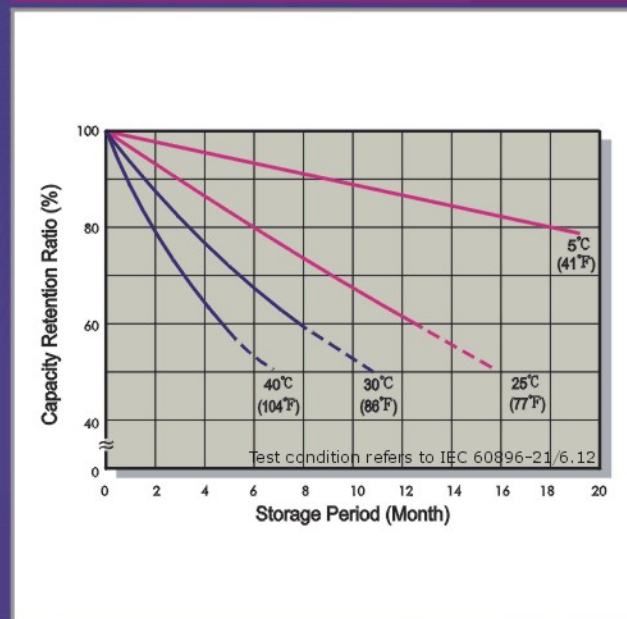
## Expected Life vs. Operating Temperature



## Battery Voltage and Charge Time for Standby Use

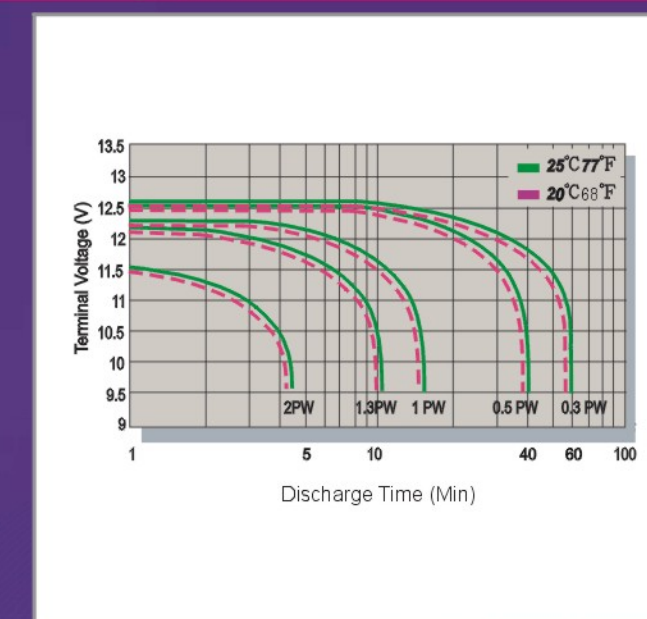


## Capacity Retention Characteristic

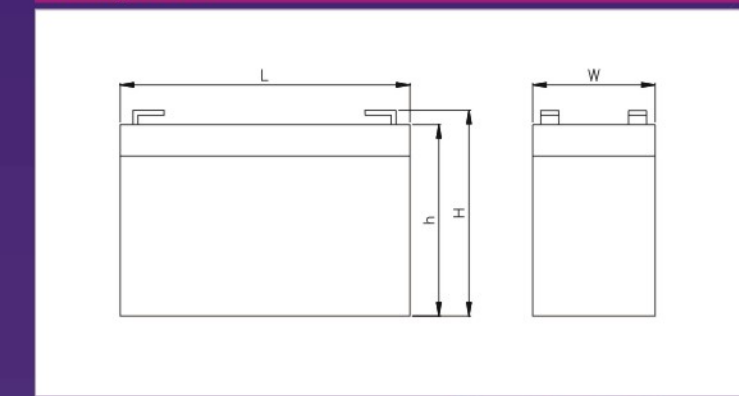


• The above diagrams are typical. For more detailed information please see the specific products sheets.  
• P is the capacity of 15 minute-rate while the final voltage is 1.67V per cell.  
For example, 1PW discharge power of XHRL12360W is: 1 x 360 x 6 = 2160 (W/battery)  
For example, 0.1PA charge current of XHRL12360W is: 0.1 x 360 = 36 (A)

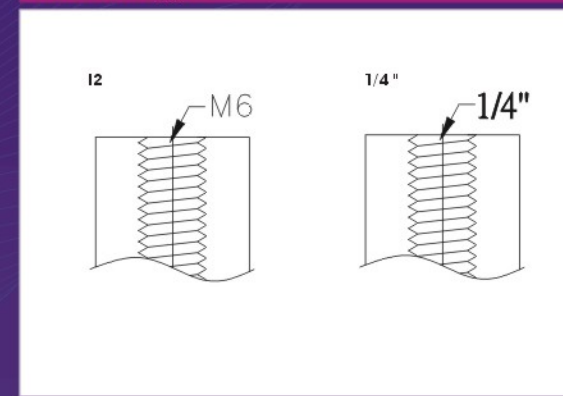
## Discharge Characteristics



## Battery Profile



## Terminal Type



## XHRL12360W

F.V/Time	Constant Current Discharge Characteristics Unit: A (25°C, 77°F)											
	2MIN	4MIN	5MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	45MIN	60MIN	90MIN
1.60V	577	468	422	387	331	287	207	164	117	83.7	65.8	46.9
1.67V	524	421	386	360	308	272	200	159	116	82.8	65.2	46.6
1.70V	490	400	370	342	296	262	195	156	115	82.1	64.8	46.4
1.75V	438	364	334	310	275	240	185	150	111	80.3	63.7	45.9
1.80V	366	316	295	278	243	215	170	140	106	77.1	61.5	44.7
1.85V	294	272	254	235	208	189	150	126	97.8	71.6	57.4	42.0

F.V/Time	Constant Power Discharge Characteristics Unit: W (25°C, 77°F)											
	2MIN	4MIN	5MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	45MIN	60MIN	90MIN
1.60V	5772	4683	4324	3949	3419	3001	2295	1836	1340	966	766	552
1.67V	5399	4381	4003	3701	3270	2864	2236	1799	1324	957	760	550
1.70V	5100	4198	3844	3577	3170	2783	2198	1774	1312	951	757	548
1.75V	4586	3834	3562	3355	2943	2617	2097	1706	1280	933	746	544
1.80V	4067	3454	3277	3047	2671	2411	1936	1601	1225	900	723	531
1.85V	3329	3038	2803	2625	2366	2184	1726	1453	1141	843	680	503

## XHRL12410W

F.V/Time	Constant Current Discharge Characteristics Unit: A (25°C, 77°F)											
	2MIN	4MIN	5MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	45MIN	60MIN	90MIN
1.60V	615	512	469	431	369	319	238	189	136	97.1	76.4	54.6
1.67V	552	463	427	399	341	302	229	183	133	95.7	75.6	54.2
1.70V	522	439	409	378	328	291	223	179	132	94.8	75.0	54.0
1.75V	469	402	370	343	304	269	212	171	128	92.5	73.6	53.3
1.80V	402	349	326	309	272	242	195	160	121	88.3	70.8	51.9
1.85V	311	300	283	263	233	213	171	142	110	81.6	65.9	48.8

F.V/Time	Constant Power Discharge Characteristics Unit: W (25°C, 77°F)											
	2MIN	4MIN	5MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	45MIN	60MIN	90MIN
1.60V	6081	5070	4746	4341	3771	3322	2571	2112	1600	1136	890	632
1.67V	5600	4794	4379	4058	3599	3166	2504	2068	1580	1124	883	628
1.70V	5337	4580	4205	3922	3480	3078	2462	2040	1565	1116	878	626
1.75V	4887	4179	3899	3684	3242	2901	2362	1972	1529	1095	865	620
1.80V	4307	3763	3603	3348	2958	2687	2207	1863	1468	1058	839	605
1.85V	3660	3284	3059	2887	2635	2454	2002	1711	1372	993	790	572

