

# HRL Series

## HRL12-550W 12V140Ah

Sacred Sun HRL batteries adopt new appearance and constructure design, automatically welding+throug the partition welding+heat sealing technolgy, full automatic production process with good consistency. It has excellent high power discharge, long floating backup time and fast charging performance. It can be widely used in data center, UPS, IDC room.



### Benefits

- Very long life according to EUROBAT Classification
- High power density, 30% higher than ordinary batteries
- Special lead paste formual and additives improve the battery service life
- Maximum charge efficiency
- Low self-discharge rate
- Wide range of power, easy sizing of batteries
- Easy installation and handling

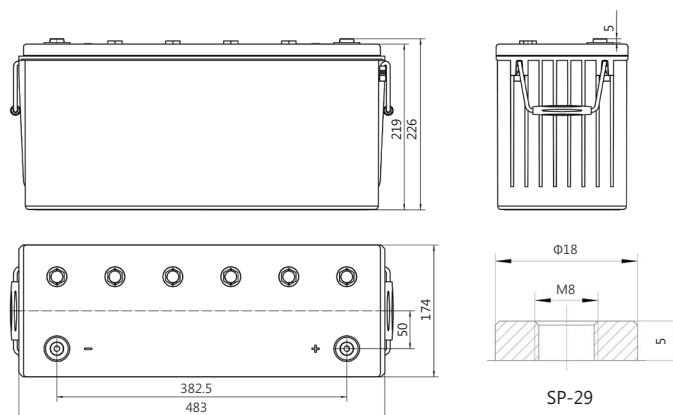
### Applications

- Data center
- UPS
- IDC room
- Emergency power
- HVDC system

### Standards

- IEC 60896-21/22
- JIS C8704-1/2
- EUROBAT guide

### Drawing



### Specifications

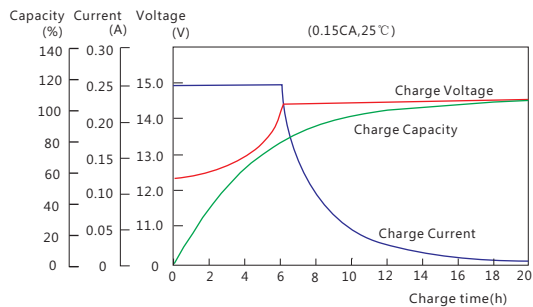
Battery Model	HRL12-550W			
Design Life (years, 25°C)	15			
Capacity (Ah, 25°C)	10min (1.60V)	15min (1.67V)	1HR (87A, 1.70V)	10HR(14.0A, 1.80V)
	700	550	87	140
Dimensions (mm)	Length	Width	Height	Total Height
	483	174	219	226
Approx. Weight (kg)	46.5			
Reference Internal Resistance (mΩ)	2.2 ( fully charged @ 25°C)			
Maximum Discharge Current (A/3 Sec.)	1630			
Self-Discharge (25°C)	≤ 2% per month			
Charge Voltage (V/cell, 25°C)	Cycle use		Float use	
	2.35(-3.5mV/°C/cell), max charge current: 35A		2.25 (-3.5mV/°C/cell)	
Short Circuit Current (A)	4300			

## Discharge Data

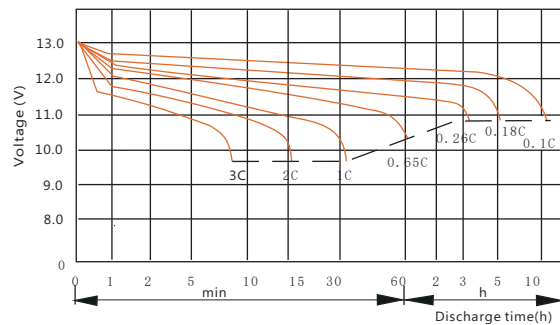
Constant Power Discharge Data (25°C, W/cell)																
End Voltage (V/cell)	min							h								
	5	10	15	20	25	30	45	1	1.5	2	3	4	5	6	8	10
1.60	920	700	560	444	374	312	243	174	140	116	82.4	63.8	52.7	45.4	35.4	29.6
1.65	880	690	555	438	370	308	240	173	139	115	82.0	63.5	52.4	45.2	35.2	29.4
1.67	850	680	550	435	366	306	238	171	138	114	81.6	63.2	52.2	45.0	35.0	29.3
1.70	820	650	530	426	360	302	235	170	137	113	81.2	62.8	51.8	44.7	34.8	29.0
1.75	780	630	510	416	350	294	228	165	134	110	80.0	62.0	51.3	44.2	34.4	28.7
1.80	740	600	480	400	336	283	220	160	131	108	78.8	61.0	50.5	43.5	33.8	28.3

Constant Current Discharge Data (25°C, A)																
End Voltage (V/cell)	min							h								
	5	10	15	20	25	30	45	1	1.5	2	3	4	5	6	8	10
1.60	530	414	315	245	203	166	128	91.0	72.6	59.6	42.5	32.8	27.0	23.2	18.0	15.0
1.65	500	406	310	240	200	164	126	89.0	71.8	59.0	42.0	32.5	26.8	23.0	17.8	14.9
1.67	480	398	305	237	197	162	124	88.0	71.0	58.5	41.8	32.3	26.6	22.8	17.7	14.8
1.70	470	390	298	233	193	158	122	87.0	70.2	57.8	41.4	32.0	26.4	22.7	17.6	14.7
1.75	435	368	286	222	185	153	118	84.0	68.2	56.4	40.5	31.3	25.8	22.2	17.2	14.4
1.80	405	344	270	210	175	145	112	80.5	65.8	54.6	39.5	30.5	25.2	21.7	16.8	14.0

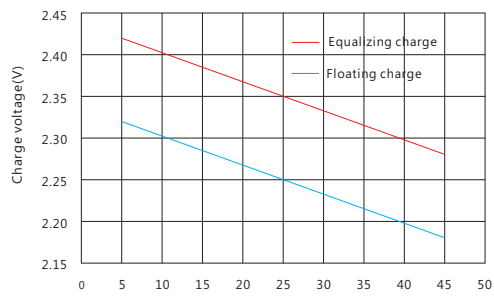
## Performance Curve



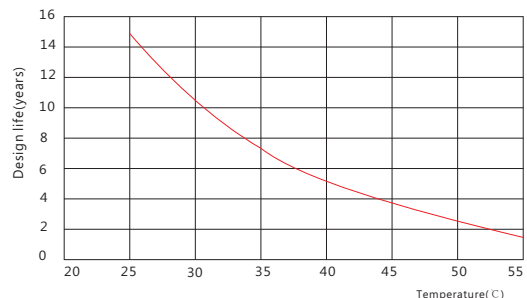
Charge performance



Discharge voltage vs. discharge time



Temperature vs. charge voltage



Design life vs. temperature

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