

# HRL Series

## HRL12-410W 12V100Ah

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

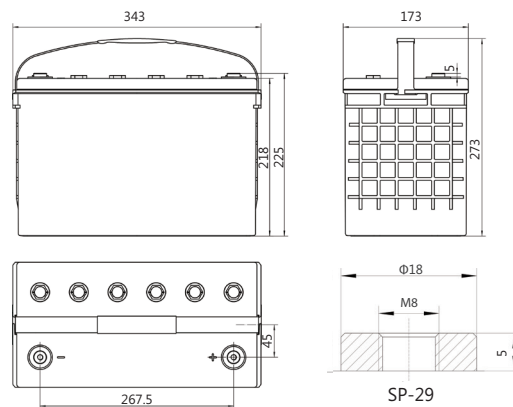
### Applications

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

### Standards

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

### Drawing



### Specifications

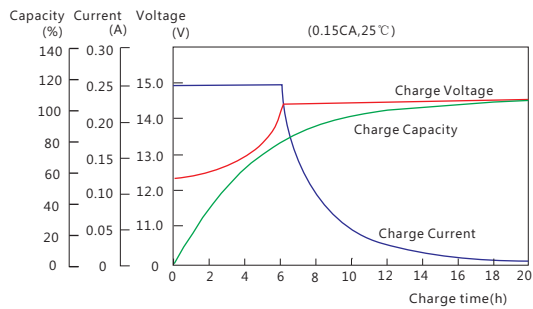
Battery Model	HRL12-410W			
Design Life (years, 25°C)	15			
Capacity (Ah, 25°C)	10min (1.60V)	15min (1.67V)	1HR (69.4A, 1.70V)	10HR(10.0A, 1.80V)
	530	410	69.4	100
Dimensions (mm)	Length	Width	Height	Total Height
	343	173	218	225
Approx. Weight (kg)	32.6			
Reference Internal Resistance (mΩ)	2.4 ( fully charged @ 25°C)			
Maximum Discharge Current (A/3 Sec.)	1230			
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: 25A		2.25 (-3.5mV/°C/cell)	
Short Circuit Current (A)	3180			

## Discharge Data

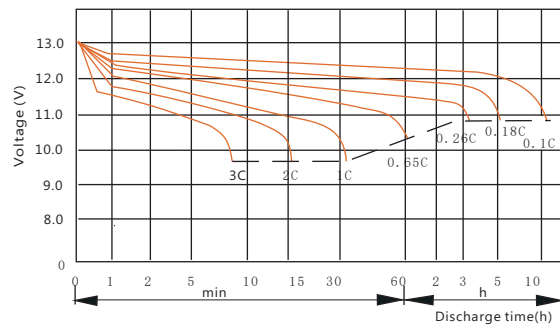
Constant Power Discharge Data (25°C, W/cell)																	
End Voltage (V/cell)	min							h									
	5	10	15	20	25	30	45	1	1.5	2	3	4	5	6	8	10	
1.60	700	530	422	357	309	255	192	140	110	81.6	59.1	45.3	38.6	33.3	26.3	21.7	
1.65	689	522	415	351	304	251	189	139	108	80.9	58.6	44.9	38.3	33.0	26.1	21.5	
1.67	679	515	410	346	299	247	187	137	107	80.4	58.2	44.6	38.1	32.8	26.0	21.4	
1.70	666	506	402	339	292	242	183	135	106	79.6	57.7	44.2	37.7	32.5	25.7	21.2	
1.75	636	485	383	323	277	231	176	130	103	77.8	56.5	43.2	37.0	31.9	25.2	20.7	
1.80	600	460	361	304	259	218	167	125	99.5	75.7	55.0	42.0	36.1	31.1	24.6	20.2	

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	412	303	237	197	168	136	101	72.9	56.8	42.2	30.5	23.3	19.8	17.0	13.4	11.0	
1.65	403	297	232	193	164	133	99.1	71.7	56.0	41.7	30.1	23.0	19.6	16.8	13.3	10.9	
1.67	396	292	227	189	161	131	97.5	70.7	55.3	41.3	29.8	22.8	19.4	16.7	13.1	10.8	
1.70	387	285	221	184	156	128	95.4	69.4	54.4	40.7	29.4	22.5	19.2	16.5	13.0	10.7	
1.75	365	270	208	173	147	120	90.6	66.3	52.4	39.5	28.6	21.8	18.6	16.0	12.6	10.4	
1.80	340	252	192	160	135	112	85.0	62.8	50.0	38.0	27.6	21.0	18.0	15.5	12.2	10.0	

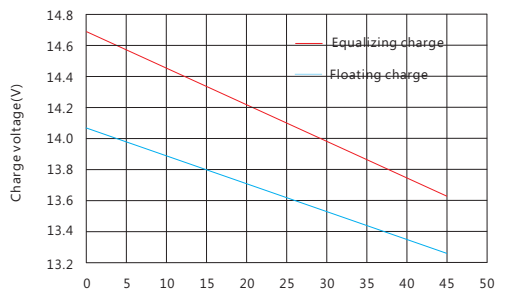
## Performance Curve



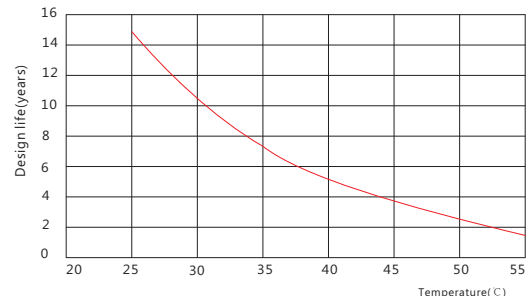
Charge performance



Discharge voltage vs. discharge time



Temperature vs. charge voltage



Design life vs. temperature

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