

# HRL Series

## HRL12-320W 12V75Ah

Sacred Sun HRL batteries adopt new appearance and constructure design, automatically welding+through 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

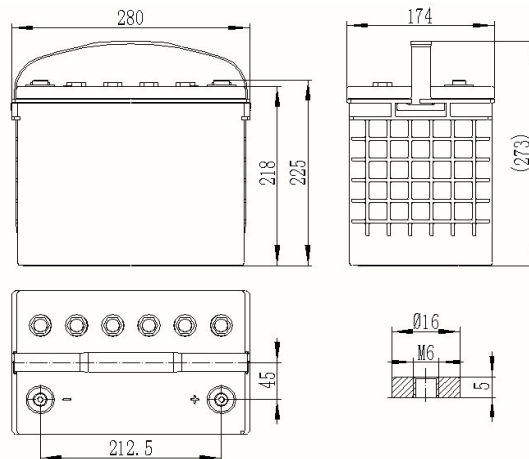
### Applications

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

### Standards

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

### Drawing



### Specifications

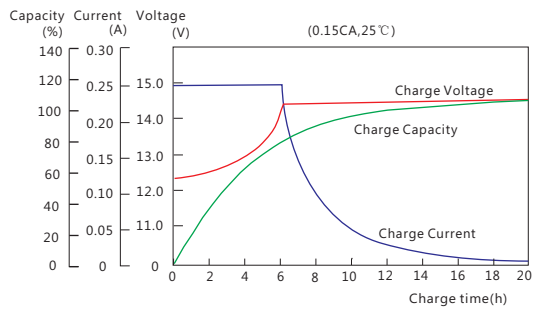
Battery Model	HRL12-320W			
Design Life (years, 25°C)	15			
Capacity (Ah, 25°C)	10min (1.60V)	15min (1.67V)	1HR (48A, 1.70V)	10HR(7.5A, 1.80V)
	410	320	48	75
Dimensions (mm)	Length	Width	Height	Total Height
	280	174	218	225
Approx. Weight (kg)	26			
Reference Internal Resistance (mΩ)	3.3 ( fully charged @ 25°C)			
Maximum Discharge Current (A/3 Sec.)	900			
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: 18.75A		2.25 (-3.5mV/°C/cell)	
Short Circuit Current (A)	2900			

## Discharge Data

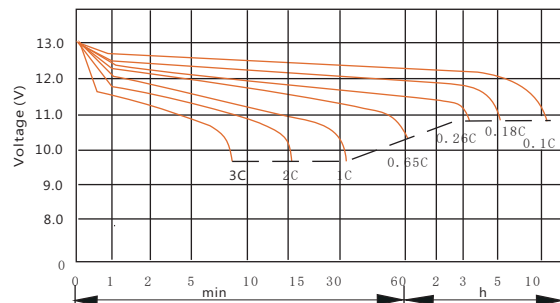
Constant Power Discharge Data (25°C, W/cell)																
End Voltage (V/cell)	min							h								
	5	10	15	20	25	30	45	1	1.5	2	3	4	5	6	8	10
1.60	550	410	337	267	223	182	140	98.0	79.7	63.2	45.6	35.5	29.8	25.8	20.4	16.8
1.65	520	398	328	260	218	178	138	96.0	78.4	62.5	45.0	35.0	29.5	25.5	20.2	16.6
1.67	505	390	320	255	214	176	136	95.0	77.3	61.8	44.7	34.8	29.2	25.2	20.0	16.4
1.70	490	378	310	248	208	172	132	93.0	75.8	61.0	44.0	34.3	28.8	24.8	19.7	16.2
1.75	450	348	286	230	195	162	124	88.0	72.6	59.0	42.8	33.2	28.0	24.2	19.2	15.7
1.80	420	313	257	210	178	150	115	82.0	68.6	56.8	41.2	31.8	27.0	23.3	18.4	15.2

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	326	236	188	147	120	96.8	74.5	51.6	41.3	32.7	23.5	18.3	15.3	13.2	10.4	8.5
1.65	305	228	183	143	118	95.0	72.6	50.3	40.5	32.2	23.2	18.0	15.0	13.0	10.2	8.4
1.67	290	220	178	138	115	92.8	71.0	49.3	39.8	31.8	22.8	17.8	14.8	12.8	10.0	8.3
1.70	280	213	170	134	110	90.3	68.8	48.0	38.8	31.2	22.5	17.5	14.7	12.6	9.8	8.2
1.75	260	192	155	124	103	84.5	64.0	45.0	36.8	30.0	21.6	16.8	14.0	12.2	9.6	7.8
1.80	230	168	137	110	93.0	77.7	58.5	41.5	34.5	28.5	20.6	16.0	13.5	11.6	9.2	7.5

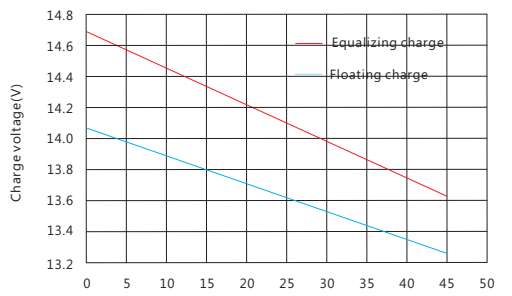
## Performance Curve



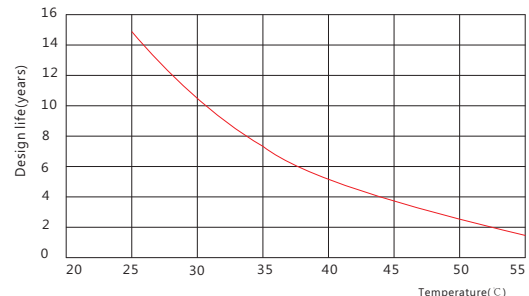
Charge performance



Discharge voltage vs. discharge time



Temperature vs. charge voltage



Design life vs. temperature

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