

# HRL Series

## HRL12-300W 12V70Ah

Sacred Sun HRL batteries adopt new appearance and constructure design, automaticly welding+through the partition welding+heat sealing technoly, 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

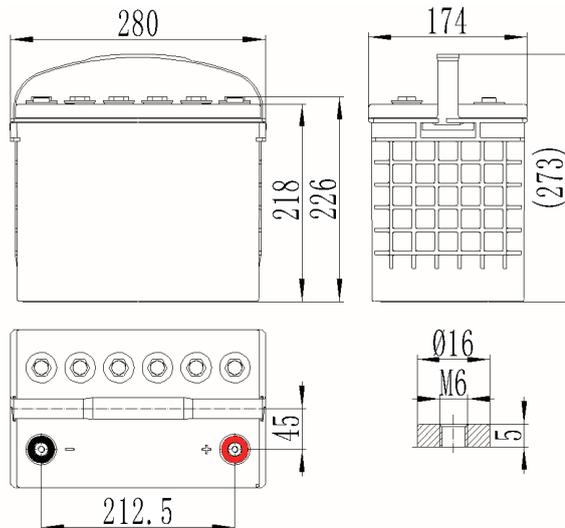
### Applications

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

### Standards

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

### Drawing



### Specifications

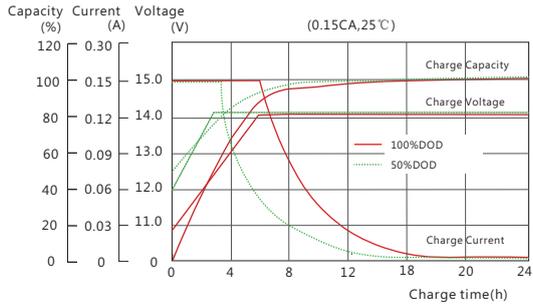
Battery Model	HRL12-300W			
Design Life (years, 25°C)	15			
Capacity (Ah, 25°C)	10min (1.60V)	15min (1.67V)	1HR (45A, 1.70V)	10HR(7.0A, 1.80V)
	360W/cell	300W/cell	45	70
Dimensions (mm)	Length	Width	Height	Total Height
	280	174	218	226
Approx. Weight (kg)	25.4			
Reference Internal Resistance (mΩ)	3.4±15%( full charged @ 25°C,testing device:HIOKIBT3562)			
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:17.5A		2.25 (-3.5mV/°C/cell)	
Short Circuit Current (A)	2800(For reference only)			

## Discharge Data

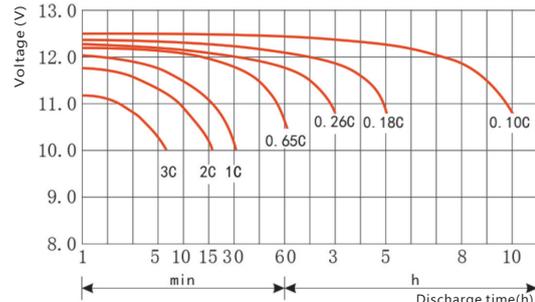
Constant Power Discharge Data (25°C, W/cell)																
End Voltage (V/cell)	min							h								
	5	10	15	20	25	30	45	1	1.5	2	3	4	5	6	8	10
1.60	460	360	310	250	210	176	133	93.0	75.3	59.6	43.0	33.7	28.0	24.4	19.2	15.8
1.65	450	355	305	243	204	174	130	91.0	74.0	58.8	42.4	33.3	27.7	24.2	19.0	15.6
1.67	440	350	300	238	200	172	127	89.0	72.8	58.2	42.0	32.8	27.5	23.8	18.8	15.4
1.70	420	335	280	230	194	168	124	87.0	71.4	57.3	41.4	32.5	27.0	23.5	18.5	15.2
1.75	390	310	260	213	180	157	116	82.3	68.0	55.3	40.0	31.4	26.3	22.8	17.8	14.7
1.80	340	280	230	193	164	145	106	76.3	64.0	53.0	38.4	30.0	25.2	21.8	17.2	14.0

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	224	190	165	133	113	92.0	69.8	48.6	39.0	30.8	22.2	17.4	14.4	12.5	9.8	8.0
1.65	220	187	162	130	110	90.5	68.0	47.4	38.2	30.3	21.8	17.0	14.2	12.3	9.6	7.9
1.67	216	184	158	128	107	89.2	66.4	46.4	37.5	29.8	21.5	16.8	14.0	12.0	9.5	7.8
1.70	203	180	150	125	104	87.7	64.3	45.0	36.6	29.3	21.0	16.5	13.8	11.8	9.3	7.7
1.75	192	165	135	114	95.2	82.3	59.5	42.0	34.6	28.0	20.3	15.8	13.2	11.5	9.0	7.4
1.80	166	144	118	100	85.4	75.5	53.8	38.5	32.2	26.6	19.3	15.0	12.6	10.8	8.5	7.0

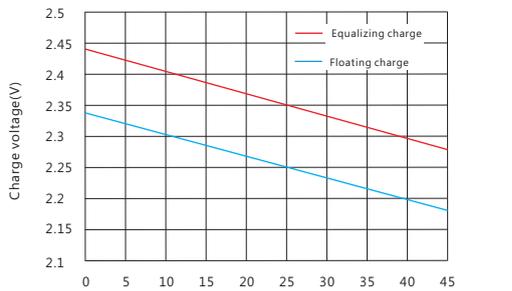
## Performance Curve



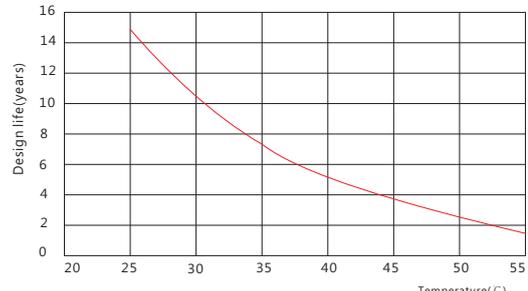
Charge performance



Discharge voltage vs. discharge time



Temperature vs. charge voltage



Design life vs. temperature

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