



# HRL Series

## HRL12-500W (12V130Ah)

Alpha House powered by Sacred Sun HRL batteries feature a new design and structure, utilising automatic welding, through-partition welding, and heat sealing technology. The fully automated production process ensures excellent consistency. These batteries offer high power discharge, long floating backup time, and fast charging performance, making them ideal for use in data centres, UPS systems, and IDC rooms.



### Benefits

- Very long life according to EUROBAT Classification
- High power density, 30% higher than ordinary batteries
- Special lead paste formula 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

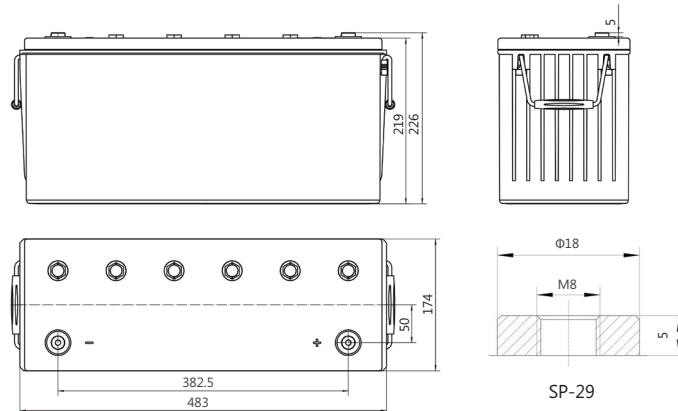
### Applications

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

### Standards

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

### Drawing



### Specifications

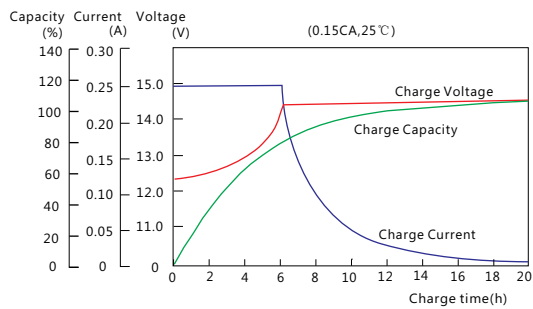
Battery Model	HRL12-500W			
Design Life (years, 25°C)	15			
Capacity (Ah, 25°C)	10min (1.60V)	15min (1.67V)	1HR (89.8A, 1.70V)	10HR(13.0A, 1.80V)
	640	500	89.8	130
Dimensions (mm)	Length	Width	Height	Total Height
	483	174	219	226
Approx. Weight (kg)	43.9			
Reference Internal Resistance (mΩ)	2.6 ( fully charged @ 25°C)			
Maximum Discharge Current (A/3 Sec.)	1500			
Self-Discharge (25°C)	≤ 2% per month			
Charge Voltage (V/cell, 25°C)	Cycle use		Float use	
	2.35(-4mV/°C/cell), max charge current: 39A		2.27 (-3mV/°C/cell)	
Short Circuit Current (A)	3900			

## Discharge Data

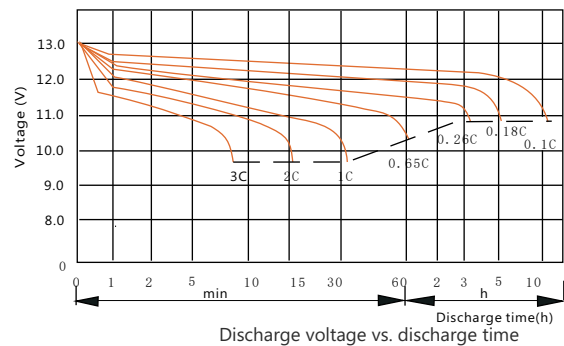
Constant Power Discharge Data (25°C, W/cell)																
End Voltage (V/cell)	min							h								
	5	10	15	20	25	30	45	1	1.5	2	3	4	5	6	8	10
1.60	840	640	512	435	377	306	240	180	139	104	75.6	57.5	49.1	42.3	33.5	27.6
1.65	829	632	505	429	371	301	238	178	138	103	75.2	57.2	48.9	42.1	33.3	27.4
1.67	819	626	500	425	367	296	235	177	137	103	74.8	56.9	48.7	41.9	33.2	27.3
1.70	807	618	493	418	361	290	232	175	135	102	74.4	56.5	48.4	41.7	33.0	27.1
1.75	779	598	476	403	347	276	225	170	133	100	73.3	55.6	47.7	41.1	32.5	26.7
1.80	745	574	455	385	329	259	217	165	129	98.4	72.0	54.6	46.9	40.4	31.9	26.2

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	494	366	287	240	205	163	127	93.3	71.8	53.6	39.0	29.6	25.2	21.7	17.1	14.0
1.65	485	359	282	235	201	160	125	92.1	71.0	53.1	38.6	29.3	25.0	21.5	16.9	13.9
1.67	478	354	277	232	197	157	123	91.1	70.3	52.7	38.3	29.1	24.8	21.3	16.8	13.8
1.70	469	348	271	227	193	153	121	89.8	69.4	52.1	38.0	28.8	24.6	21.1	16.6	13.7
1.75	447	332	258	216	183	144	116	86.7	67.4	50.9	37.1	28.1	24.0	20.7	16.3	13.4
1.80	422	315	242	203	172	133	111	83.2	65.0	49.4	36.1	27.3	23.4	20.2	15.9	13.0

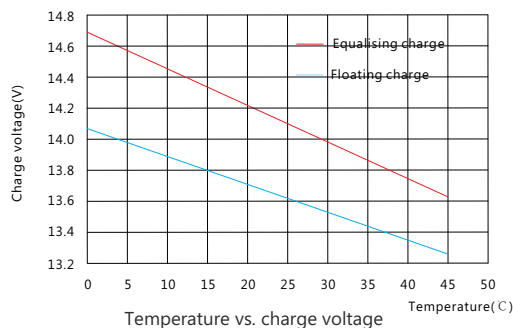
## Performance Curve



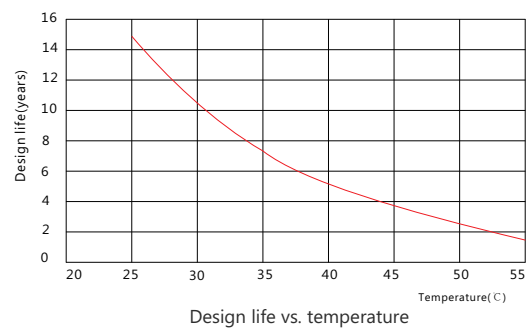
Charge performance



Discharge voltage vs. discharge time



Temperature vs. charge voltage



Design life vs. temperature



Disclaimer: The manufacturer reserves the right to amend and/or vary the specifications and parameters of the product and apply updates accordingly at any time. It is the sole responsibility of the buyer and user of the product to ensure all applicable product specifications referred to are valid, applicable and up to date at all times. All product specifications are available upon written request to Alpha House Ltd. All batteries must be installed, used and maintained at all times in accordance with standard BS EN IEC 62485-2:2018, and specifically installed, used and maintained at all times in accordance with manufacturer's guidelines and product specification documentation. (All top terminal, front terminal and top vented batteries must be positioned horizontally, plumb and level at all times unless specified otherwise by the manufacturer. Further details are available upon written request to Alpha House Ltd.)