



# HRL Series

## HRL12-880W (12V240Ah)

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

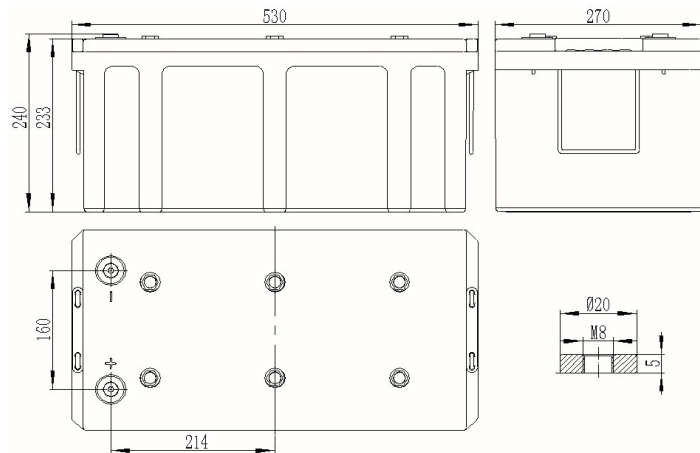
### Applications

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

### Standards

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

### Drawing



### Specifications

Battery Model	HRL12-880W			
Design Life (years, 25°C)	15			
Capacity (Ah, 25°C)	10min (1.60V)	15min (1.67V)	1HR (148A, 1.70V)	10HR(24A, 1.80V)
	1120W	880W	148	240
Dimensions (mm)	Length	Width	Height	Total Height
	530	270	233	240
Approx. Weight (kg)	78.3			
Reference Internal Resistance (mΩ)	1.7 ( fully charged @ 25°C)			
Maximum Discharge Current (A/3 Sec.)	2650			
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: 62.5A		2.25 (-3.5mV/°C/cell)	
Short Circuit Current (A)	6200			

## Discharge Data

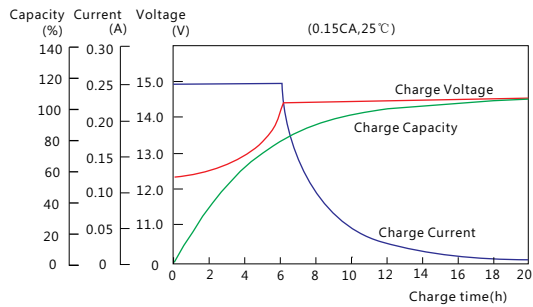
Constant Power Discharge Data (25°C, W/cell)

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	1360	1120	900	740	627	520	397	298	240	200	144	112	92.8	79.8	61.5	49.3
1.65	1300	1106	893	732	622	515	394	295	238	198	143	111	92.4	79.5	61.3	49.2
1.67	1240	1088	880	725	617	512	390	293	236	197	142	110	92.0	79.2	61.0	49.1
1.70	1180	1064	860	717	610	507	387	290	233	196	140	109	91.5	78.8	60.8	49.0
1.75	1140	1000	820	696	590	497	378	282	227	190	138	106	90.3	78.0	60.2	48.7
1.80	1100	935	770	670	570	484	368	273	220	186	134	103	88.0	77.0	59.4	48.4

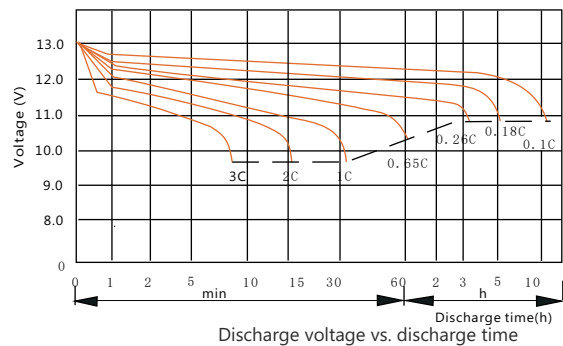
Constant Power Discharge Data (25°C, W/cell)

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	510	408	340	277	208	155	124	104	74.2	57.6	47.6	40.8	31.3	25.0
1.65	760	632	498	400	336	274	207	153	123	102	73.4	56.8	47.2	40.5	31.0	24.9
1.67	700	617	488	396	332	270	204	150	120	101	72.7	56.3	46.8	40.3	30.8	24.8
1.70	670	598	475	388	327	267	202	148	118	100	71.8	55.5	46.5	40.0	30.7	24.7
1.75	630	555	445	372	316	258	195	144	115	97.0	69.7	53.7	45.5	39.2	30.2	24.4
1.80	600	504	410	353	302	240	187	137	110	93.6	67.2	51.6	44.4	38.4	29.5	24.0

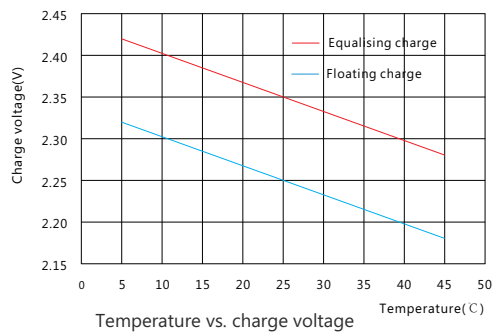
## Performance Curve



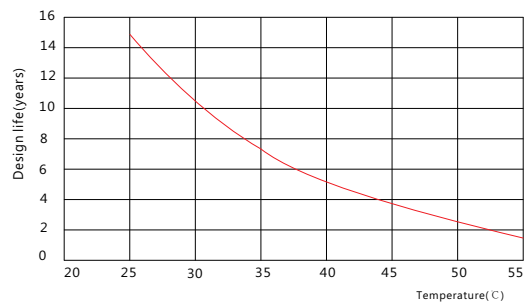
Charge performance



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.)