



HRL Series

HRL12-820W (12V230Ah)

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



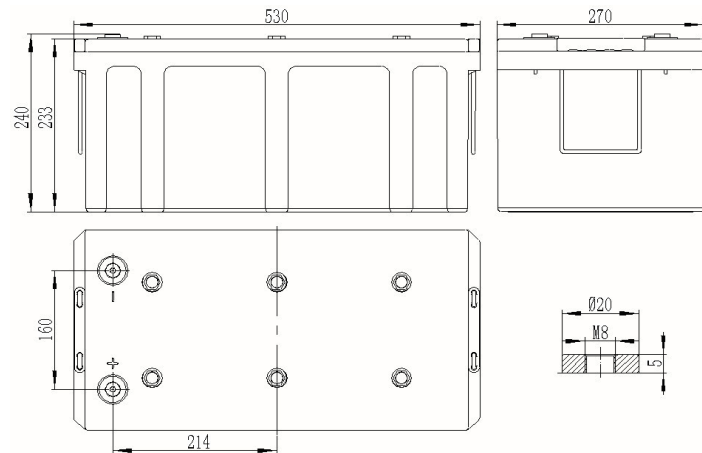
Applications

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

Standards

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

Drawing



Specifications

Battery Model	HRL12-820W			
Design Life (years, 25°C)	15			
Capacity (Ah, 25°C)	10min (1.60V)	15min (1.67V)	1HR (140A, 1.70V)	10HR(23A, 1.80V)
	1013W	820W	157	230
Dimensions (mm)	Length	Width	Height	Total Height
	530	270	233	240
Approx. Weight (kg)	75.3			
Reference Internal Resistance (mΩ)	1.8 (fully charged @ 25°C)			
Maximum Discharge Current (A/3 Sec.)	2550			
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)	6000			

Discharge Data

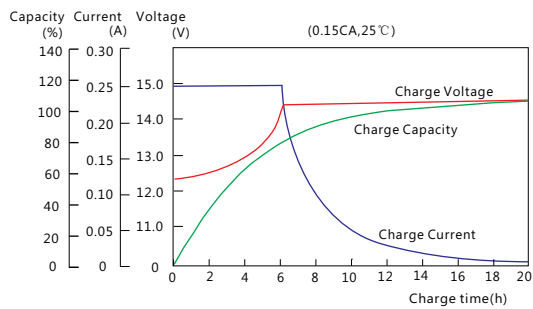
Constant Power Discharge Data (25°C, W/cell)

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	1240	1013	847	703	593	487	362	278	210	172	127	99.7	84.2	73.2	57.3	47.3
1.65	1160	995	832	693	587	484	360	276	208	171	126	99.4	84.1	73.1	57.2	47.2
1.67	1120	980	820	685	582	480	358	275	206	170	125	99.0	84.0	73.0	57.1	47.1
1.70	1090	960	800	673	575	475	356	273	207	168	124	98.7	83.8	72.8	57.0	47.0
1.75	1050	910	760	647	558	464	350	270	205	167	122	97.7	83.4	72.4	56.6	46.7
1.80	1010	855	720	616	536	450	343	265	200	165	118	96.6	82.8	72.0	56.3	46.4

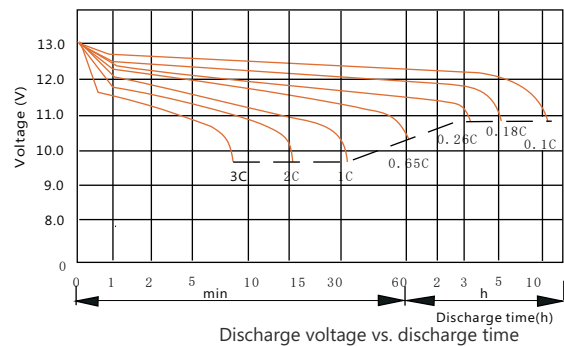
Constant Power Discharge Data (25°C, W/cell)

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	760	585	460	378	318	260	190	145	109	88.8	65.3	51.3	43.2	37.4	29.2	24.0
1.65	700	570	450	373	314	257	188	144	108	88.0	64.6	50.8	43.0	37.2	29.0	23.9
1.67	650	558	443	367	310	254	187	143	107	87.5	64.0	50.6	42.8	37.0	28.8	23.8
1.70	620	543	433	360	305	250	185	140	106	86.7	63.4	50.3	42.6	36.8	28.7	23.7
1.75	580	507	410	344	294	240	180	138	104	84.8	61.7	49.4	42.0	36.4	28.4	23.4
1.80	550	465	385	324	280	232	175	134	100	82.8	59.8	48.3	41.4	35.9	27.8	23.0

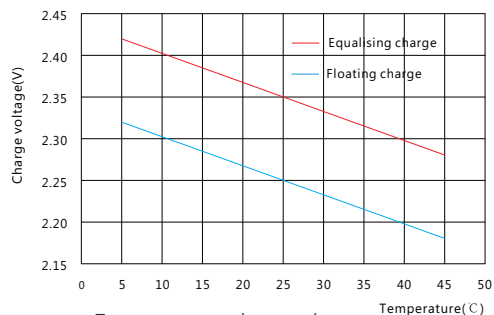
Performance Curve



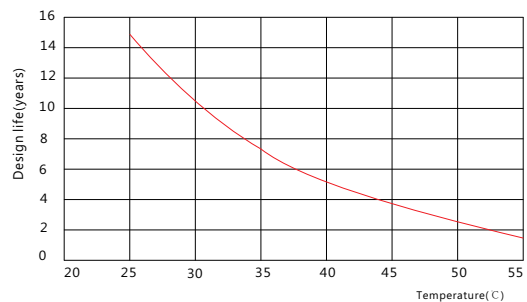
Charge performance



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.)