



HRL Series

HRL12-320W (12V75Ah)

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

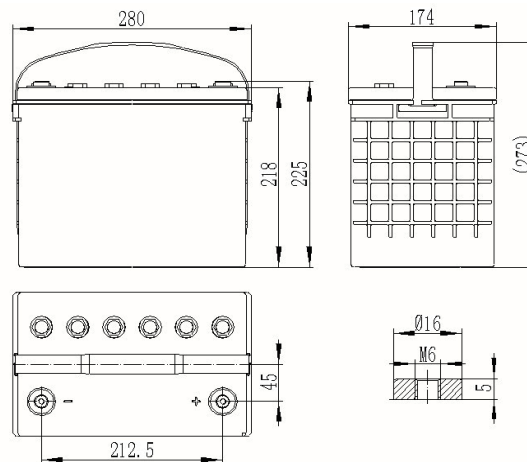
Applications

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

Standards

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

Drawing



Specifications

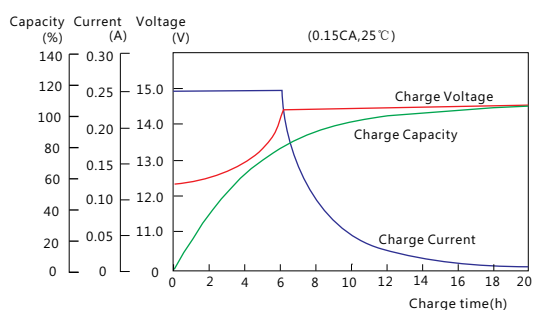
Battery Model	HRL12-320W			
Design Life (years, 25°C)	15			
Capacity (Ah, 25°C)	10min (1.60V)	15min (1.67V)	1HR (48A, 1.70V)	10HR(7.5A, 1.80V)
	410	320	48	75
Dimensions (mm)	Length	Width	Height	Total Height
	280	174	218	225
Approx. Weight (kg)	26			
Reference Internal Resistance (mΩ)	3.3 (fully charged @ 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

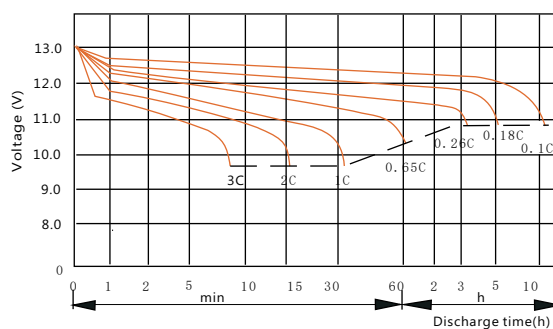
Constant Power Discharge Data (25°C, W/cell)																
End Voltage (V/cell)	min							h								
	5	10	15	20	25	30	45	1	1.5	2	3	4	5	6	8	10
1.60	550	410	337	267	223	182	140	98.0	79.7	63.2	45.6	35.5	29.8	25.8	20.4	16.8
1.65	520	398	328	260	218	178	138	96.0	78.4	62.5	45.0	35.0	29.5	25.5	20.2	16.6
1.67	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

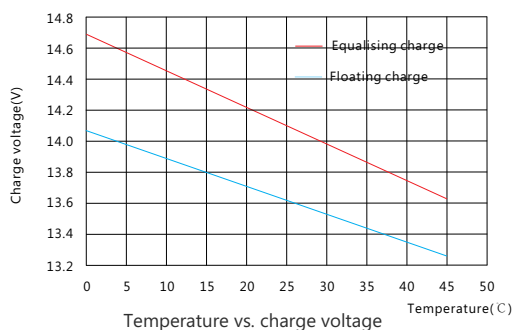
Performance Curve



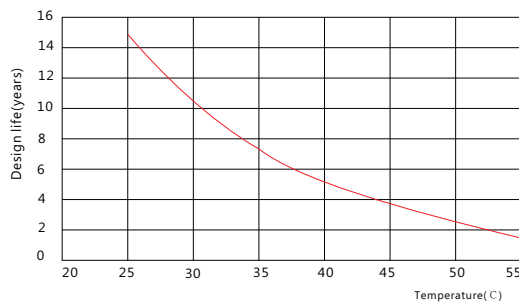
Charge performance



Discharge voltage vs. discharge time



Temperature vs. charge voltage



Design life vs. temperature



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.)