



HRL Series

HRL12-770W (12V200Ah)

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.



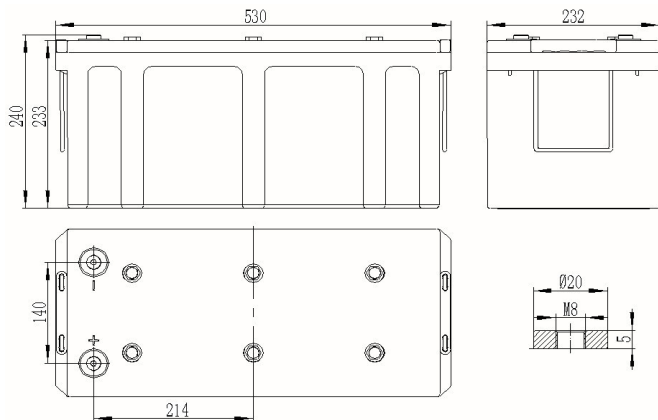
Benefits

- 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

Drawing



Standards

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

Specifications

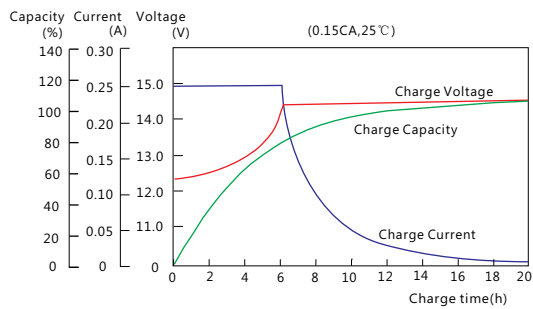
| | | | | |
|--------------------------------------|---|---------------|-----------------------|------------------|
| Battery Model | HRL12-770W | | | |
| Design Life (years, 25°C) | 15 | | | |
| Capacity (Ah, 25°C) | 10min (1.60V) | 15min (1.67V) | 1HR (123A, 1.70V) | 10HR(20A, 1.80V) |
| | 950W | 770W | 123 | 200 |
| Dimensions (mm) | Length | Width | Height | Total Height |
| | 530 | 232 | 233 | 240 |
| Approx. Weight (kg) | 67.5 | | | |
| Reference Internal Resistance (mΩ) | 1.8 (fully charged @ 25°C) | | | |
| Maximum Discharge Current (A/3 Sec.) | 2200 | | | |
| 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: 50A | | 2.25 (-3.5mV/°C/cell) | |
| Short Circuit Current (A) | 5800 | | | |

Discharge Data

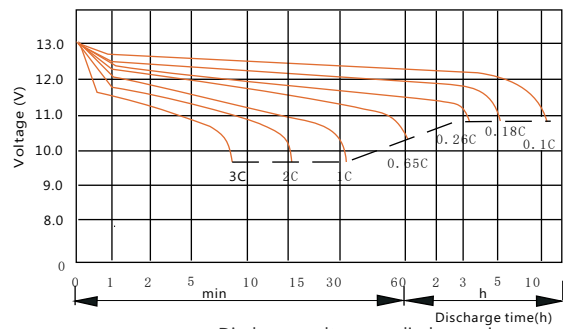
| Constant Power Discharge Data (25°C, W/cell) | | | | | | | | | | | | | | | | |
|--|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| End Voltage (V/cell) | min | | | | | | | h | | | | | | | | |
| | 5 | 10 | 15 | 20 | 25 | 30 | 45 | 1 | 1.5 | 2 | 3 | 4 | 5 | 6 | 8 | 10 |
| 1.60 | 1180 | 950 | 797 | 637 | 534 | 442 | 330 | 243 | 195 | 160 | 120 | 92.0 | 74.8 | 64.8 | 50.3 | 41.4 |
| 1.65 | 1080 | 928 | 782 | 628 | 528 | 437 | 328 | 242 | 194 | 159 | 119 | 91.4 | 74.7 | 64.7 | 50.2 | 41.3 |
| 1.67 | 1060 | 910 | 770 | 620 | 524 | 433 | 326 | 240 | 192 | 158 | 118 | 91.0 | 74.5 | 64.5 | 50.0 | 41.2 |
| 1.70 | 1030 | 886 | 750 | 612 | 517 | 428 | 324 | 238 | 190 | 157 | 117 | 90.5 | 74.2 | 64.4 | 49.8 | 41.0 |
| 1.75 | 990 | 820 | 710 | 586 | 502 | 417 | 318 | 235 | 187 | 155 | 115 | 89.0 | 73.6 | 63.8 | 49.6 | 40.7 |
| 1.80 | 950 | 760 | 670 | 562 | 484 | 403 | 310 | 230 | 183 | 150 | 112 | 87.6 | 72.9 | 63.4 | 49.0 | 40.4 |

| 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 | 650 | 570 | 447 | 350 | 290 | 236 | 174 | 127 | 101 | 83.0 | 62.0 | 47.3 | 38.4 | 33.2 | 25.6 | 21.0 |
| 1.65 | 610 | 553 | 436 | 344 | 285 | 232 | 172 | 126 | 100 | 82.2 | 61.3 | 46.8 | 38.2 | 33.0 | 25.5 | 20.9 |
| 1.67 | 590 | 538 | 427 | 338 | 282 | 228 | 170 | 125 | 99.0 | 81.5 | 60.7 | 46.5 | 38.0 | 32.8 | 25.4 | 20.8 |
| 1.70 | 580 | 520 | 416 | 332 | 277 | 226 | 168 | 123 | 97.8 | 80.6 | 59.8 | 46.0 | 37.7 | 32.6 | 25.2 | 20.7 |
| 1.75 | 550 | 478 | 388 | 315 | 265 | 218 | 164 | 120 | 95.2 | 78.5 | 58.0 | 45.0 | 37.0 | 32.0 | 24.8 | 20.4 |
| 1.80 | 520 | 430 | 357 | 296 | 252 | 207 | 158 | 116 | 92.0 | 76.0 | 56.0 | 43.8 | 36.4 | 31.6 | 24.4 | 20.0 |

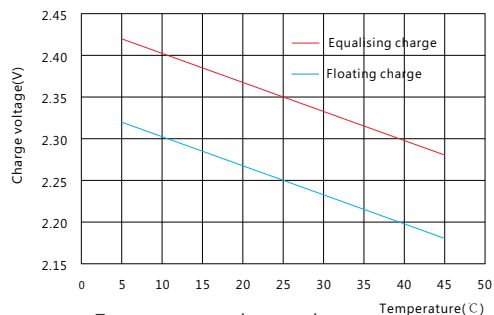
Performance Curve



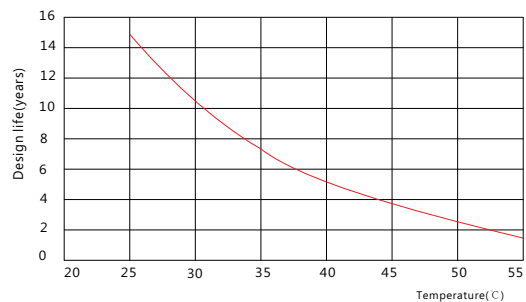
Charge performance



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.)