

HEL Series

High Energy Long-life Battery

HEL-1000



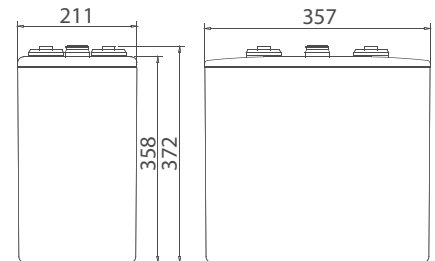
Main Applications

- ▶ Storage for solar, wind and hydroelectricity energy
- ▶ Backup power for UPS, emergency illumination
- ▶ Off-grid & bad-grid environment

Benefits

- ▶ 20 years designed life
- ▶ Excellent deep cycling performance
- ▶ Stable product performance, reduce maintenance cost

Dimensions



Technical Parameters

Nominal Voltage	2 V
Capacity	1000 Ah @ 10hr to 1.80 V @ 25°C(77°F)
Weight	71.4 kg (157.40 lbs)
Dimensions	Length: 357 mm (14.06 in) Width: 211 mm (8.31 in) Height: 358 mm (14.06 in) Total height: 372 mm (14.65 in)
Internal Resistance (full charged)	0.23 mΩ
Short-circuit Current	9100 A
Self Discharge @25°C(77°F)	Less than 7% after 90 days storage
Operating Temperature Range	Discharge: -40°C ~ 50°C(-40°F ~ 122°F) Charge: -20°C ~ 45°C(-4°F ~ 113°F) Storage: -20°C ~ 40°C(-4°F ~ 104°F)
Recommended Operating Temperature	15°C ~ 25°C (59°F ~ 77°F)
Recommended Charging Current	150 A
Maximum Charging Current	250 A
Charging Voltage @25°C(77°F)	Float: 2.25 V/cell Equalize: 2.35 V/cell
Terminal	M8
Container Materials	ABS/ABS V0 (Optional)
Capacity Affected by Temperature(C ₁₀)	105% @ 40°C(104°F) 90% @ 0°C(32°F) 40% @ -40°C(-40°F)
Design life @25°C(77°F)	20 years

Certification

- ISO 9001: 2008
- ISO 14001: 2004
- GB/T 28001- 2011
- UL
- CE

Technical Features

- ▶ Multiple plate grid alloy and special grid structure, extend battery life
- ▶ Low self-discharge, better charge acceptance, high sealed reaction efficiency
- ▶ Special additives for positive plates, improve the charge acceptance
- ▶ Unique plates elongation resistance structure, solve the plates creep elongation

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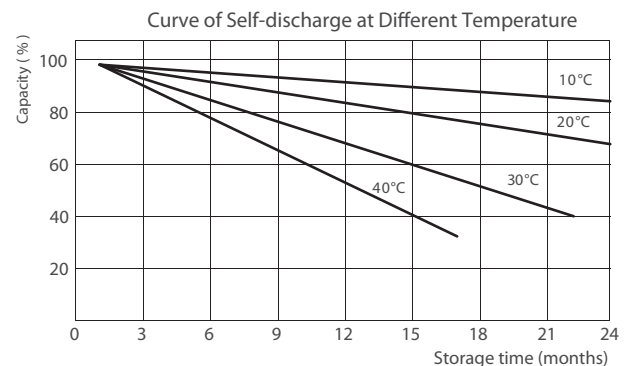
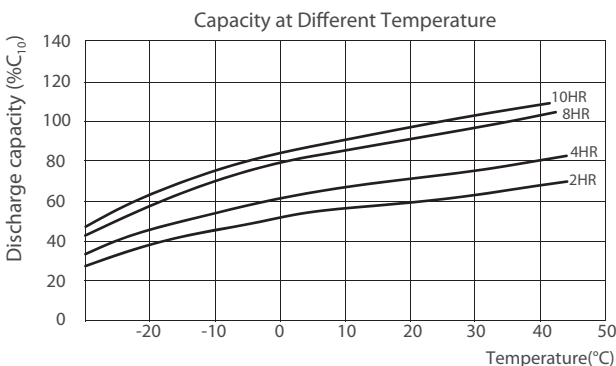
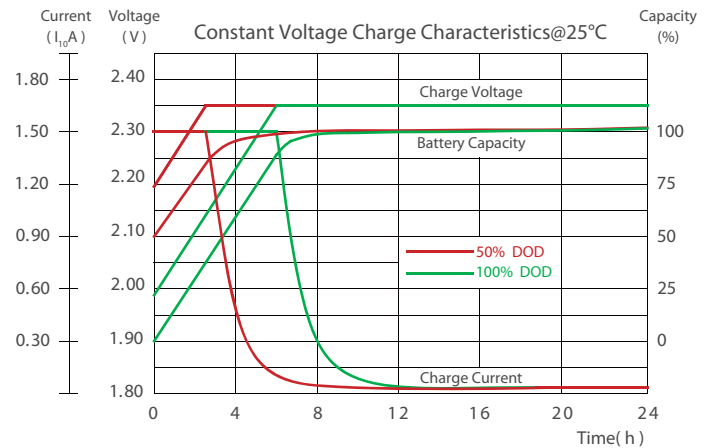
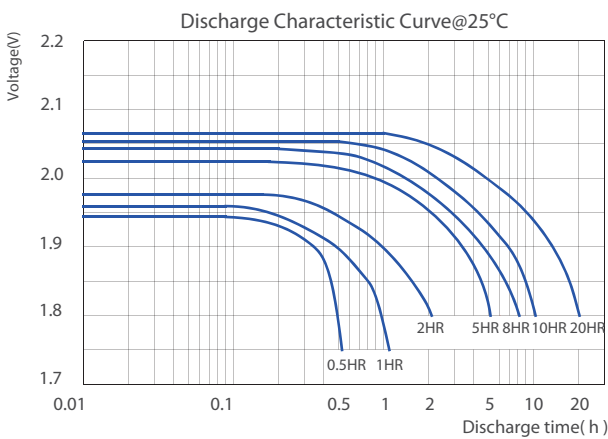
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	15min	30min	1hr	3hr	5hr	8hr	10hr	20hr	48hr
1.75V	1256	842	560	261	181	128	106	57.8	24.6
1.80V	1086	790	540	253	177	125	104	56.8	24.2
1.85V	955	704	488	239	171	120	101	54.8	23.4
1.90V	744	586	422	206	144	102	84	48.6	22.8

Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

F.V/Time	15min	30min	1hr	3hr	5hr	8hr	10hr	20hr	48hr
1.75V	2108	1666	1046	520	348	238	210	113.0	51.4
1.80V	2009	1452	1026	508	345	236	206	112.0	50.6
1.85V	1829	1356	1004	488	333	232	198	106.2	48.7
1.90V	1432	1096	870	453	316	214	184	96.4	45.6

Performance Curve



*Declaration:

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