

HEL Series

High Energy Long-life Battery

HEL-400



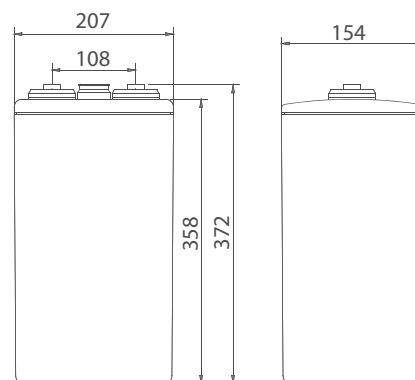
Main Applications

- ▶ 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	400 Ah @ 10hr to 1.80 V @ 25°C(77°F)
Weight	29.7 kg (65.50 lbs)
Dimensions	Length: 154 mm (4.92 in) Width: 207 mm (8.15 in) Height: 358 mm (14.09 in) Total height: 372 mm (14.65 in)
Internal Resistance (full charged)	0.31mΩ
Short- circuit Current	6900 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	60 A
Maximum Charging Current	100 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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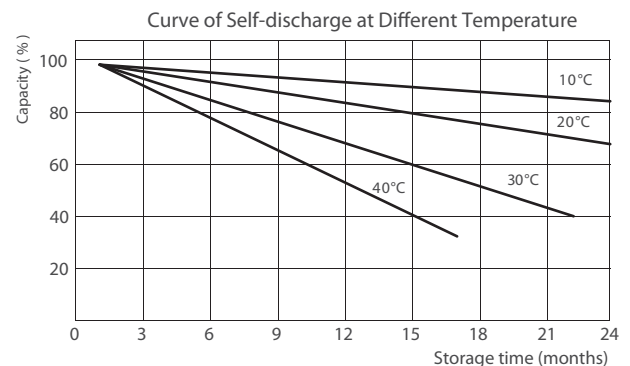
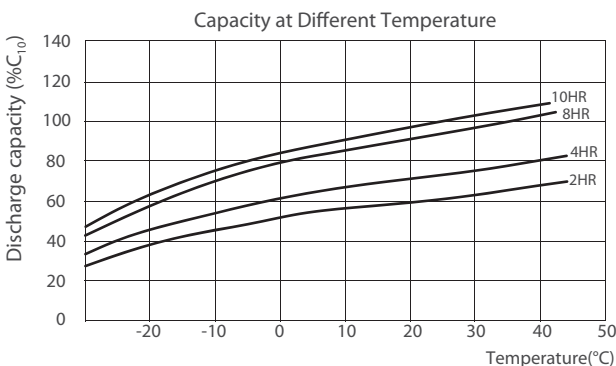
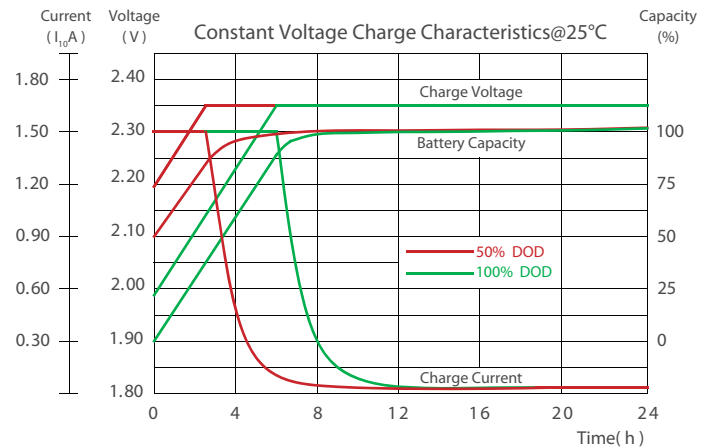
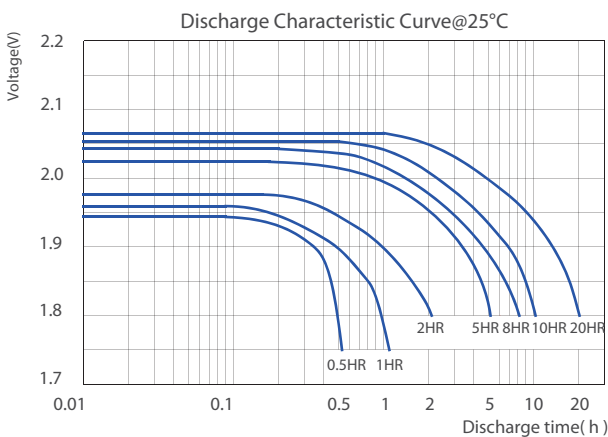
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	15min	30min	1hr	3hr	5hr	8hr	10hr	20hr	48hr
1.75V	502	346	224	106	74	51	42	23.1	9.8
1.80V	454	324	216	103	72	50	42	22.7	9.7
1.85V	392	289	195	98	69	49	41	21.9	9.4
1.90V	298	234	169	82	58	41	34	19.4	9.1

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	865	666	418	208	139	95	84	45.2	20.6
1.80V	824	581	410	203	138	94	82	44.8	20.2
1.85V	750	542	402	199	135	93	79	42.5	19.5
1.90V	573	438	349	174	126	86	74	38.6	18.2

Performance Curve



*Declaration:

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