

# HEL Series

## High Energy Long-life Battery

### HEL-300



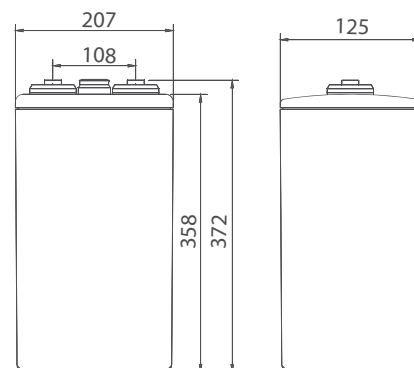
### Main Applications

- 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	300 Ah @ 10hr to 1.80 V @ 25°C(77°F)
Weight	23.4 kg ( 51.60 lbs)
Dimensions	Length: 125 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)	0.38 mΩ
Short- circuit Current	6400 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	45 A
Maximum Charging Current	75 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 <sub>10</sub> )	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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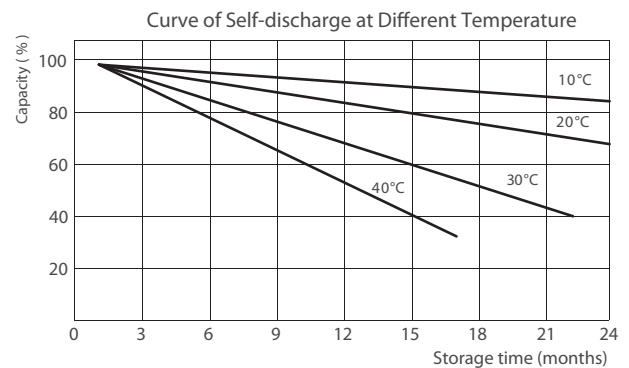
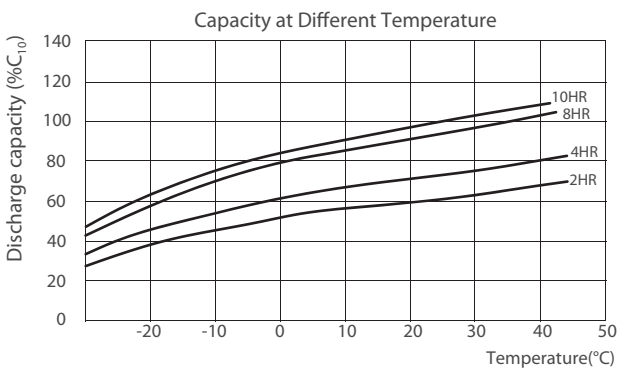
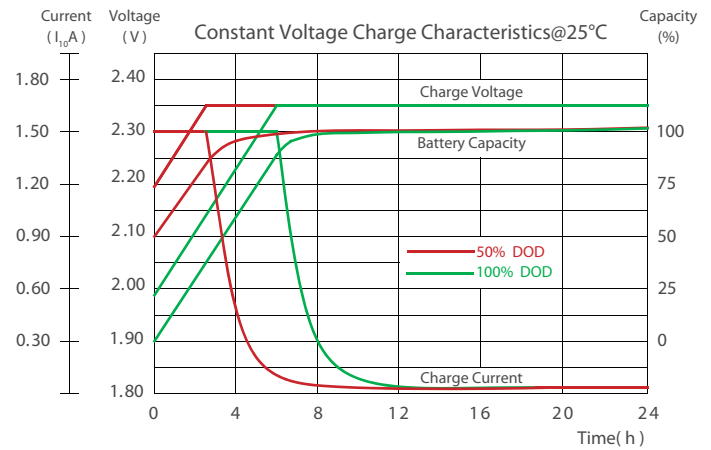
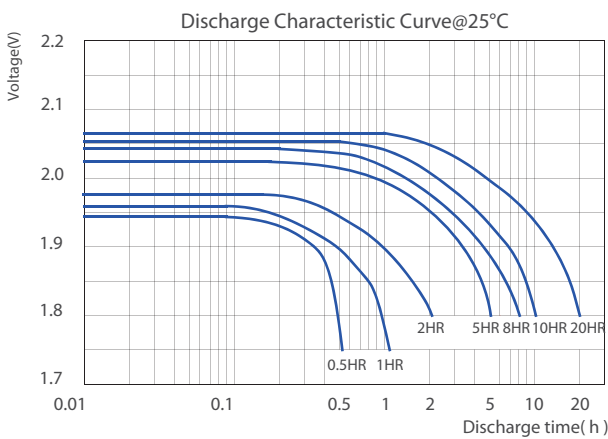
#### Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	15min	30min	1hr	3hr	5hr	8hr	10hr	20hr	48hr
1.75V	377	259	168	80	55	39	33	17.3	7.4
1.80V	340	243	162	77	54	38	32	17.0	7.3
1.85V	294	217	146	73	52	37	31	16.4	7.0
1.90V	223	176	127	62	43	31	25	14.6	6.8

#### 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	649	500	314	156	105	72	63	33.9	15.4
1.80V	618	436	308	152	104	71	62	33.6	15.2
1.85V	563	407	301	149	101	70	59	31.9	14.6
1.90V	430	329	262	131	95	64	55	28.9	13.7

#### Performance Curve



#### \*Declaration:

This information is generally descriptive only and is not intended to make or imply any representation, guarantee or warranty with respect to any cells and batteries. Cell and battery designs/specifications are subject to modification without notice. Contact CHINASHOTO for the latest information.

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