



General Features

- ◆ Nanosilica colloidal electrolyte and high-tin positive plate alloy design to enhance battery performance
- ◆ Relatively rich electrolyte; superior high and low temperature performance
- ◆ Long cycle life, excellent deep-cycle discharge ability
- ◆ Excellent charge acceptance
- ◆ Precision sealing technology
- ◆ Long service life



RoHS



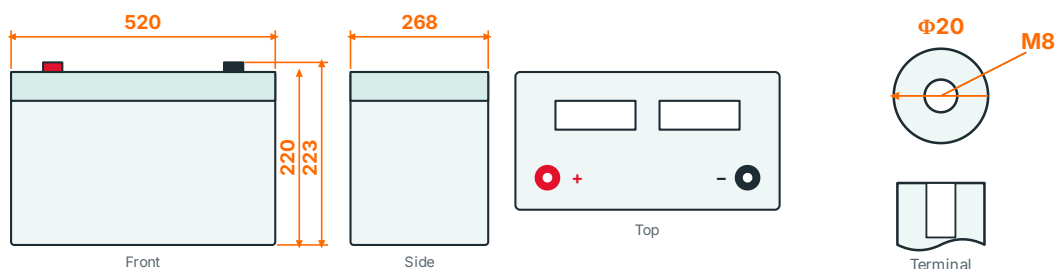
Applications

- ◆ Solar / wind energy and other new energy storage
- ◆ UPS / EPS
- ◆ Power systems
- ◆ Telecommunications systems
- ◆ Emergency lighting, auto control systems
- ◆ Other general purpose

Specification

Nominal Voltage	12 V		
Nominal Capacity	250 Ah		
Design Life	10 years		
Terminal	M8		
Approx. Weight	Approx. 68.0 kg ±3% (149.9 lbs)		
Container Material	ABS (UL94-HB; UL94-V0 optional)		
Rated Capacity	250 Ah	10 Hour Rate	25.0 A to 10.8 V
	199.5 Ah	3 Hour Rate	66.5 A to 10.2 V
	158.1 Ah	1 Hour Rate	158.1 A to 9.6 V
Internal Resistance	Fully charged at 25°C: 3.8 mΩ		
Short-circuit Current	3157 A		
Operating Temperature	Discharge	-20 ~ 50°C (-4 ~ 122°F)	
	Charge	-20 ~ 50°C (-4 ~ 122°F)	
	Storage	-20 ~ 50°C (-4 ~ 122°F)	
Charge Method (25°C)	Charge current	Max. 62.5 A; recom. 25 A	
	Float	13.5–13.8 V, recom. 13.8 V (-18 mV/°C)	
	Equalize	13.8–14.1 V, recom. 14.1 V (-24 mV/°C)	
	Cycle	14.4–15.0 V, recom. 14.7 V (-30 mV/°C)	
Self Discharge	3% of capacity declined per month at 25°C		

Dimensions 520 (L) × 268 (W) × 220 (H) × 223 (TH) ±2 · Unit: mm

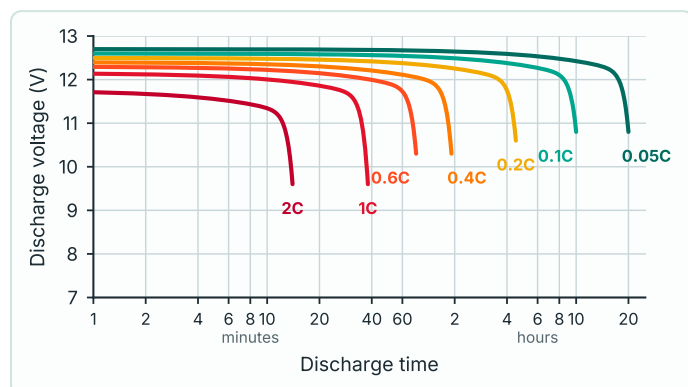


Constant Current Discharge Characteristics

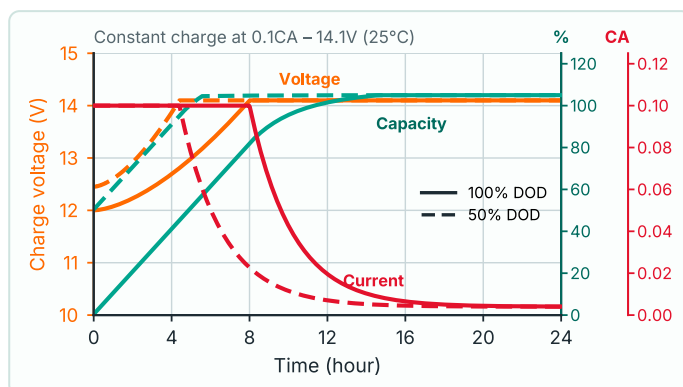
Unit: A (25°C, 77°F)

FV / Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	426.9	262.0	158.1	93.7	70.5	48.3	31.7	26.4	13.8
1.65V	410.1	251.6	151.9	91.6	68.3	47.1	31.3	26.1	13.6
1.70V	384.1	240.4	145.6	87.8	66.5	45.9	30.9	25.7	13.5
1.75V	357.4	227.5	141.0	84.7	64.5	44.7	30.4	25.3	13.4
1.80V	336.6	221.3	134.9	82.1	63.8	43.6	29.9	25.0	13.2
1.85V	279.3	187.3	118.6	72.6	56.0	39.6	28.1	23.1	12.7

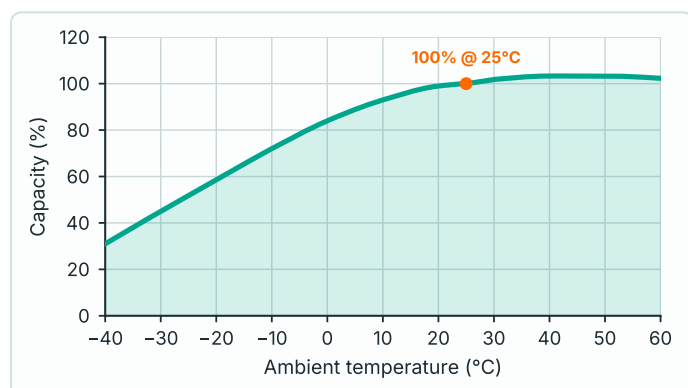
Discharge characteristic



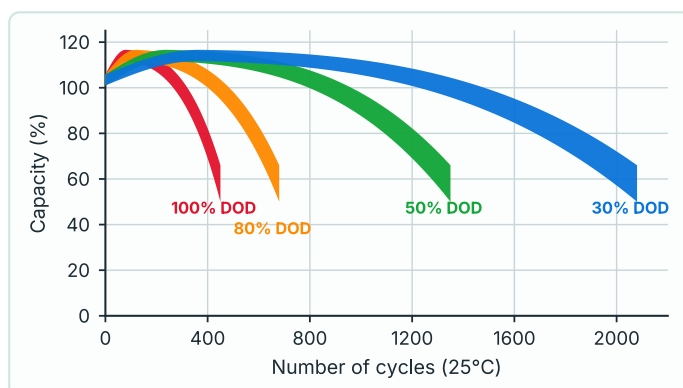
Charging characteristic



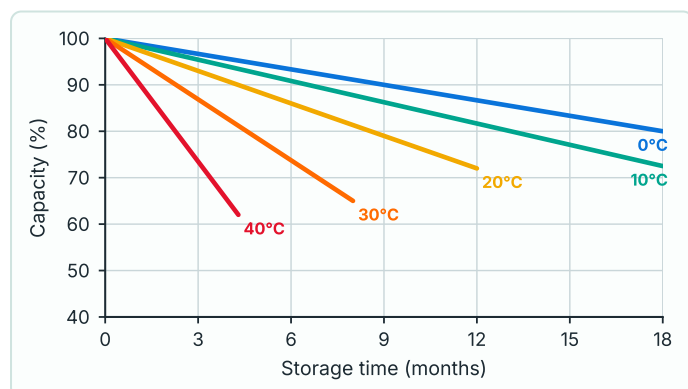
Effect of temperature on capacity



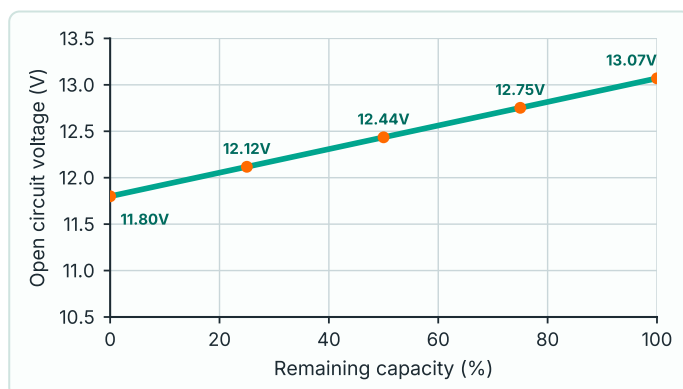
Effect of discharge depth on cycle life



Self-discharge curves



Open circuit voltage vs. capacity



Constant Power Discharge Characteristics

Unit: W/cell (25°C, 77°F)

FV / Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	749.8	475.9	289.5	172.5	133.0	90.9	61.9	51.8	27.2
1.65V	727.5	461.7	281.3	169.5	131.1	88.9	61.3	51.3	26.8
1.70V	691.6	445.7	273.9	164.0	125.6	86.9	60.5	50.6	26.5
1.75V	652.9	430.4	268.1	159.7	124.8	85.0	59.8	50.0	26.4
1.80V	617.5	415.5	257.0	157.1	121.4	83.1	58.9	49.4	26.2
1.85V	514.5	361.5	229.6	143.7	109.0	77.7	55.4	46.6	24.7

