



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



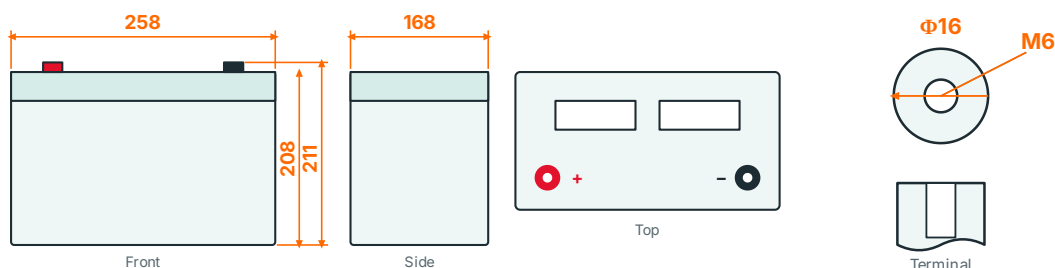
Applications

- ◆ 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	80 Ah		
Design Life	12 years		
Terminal	M8		
Approx. Weight	Approx. 25.0 kg (55.2 lbs)		
Container Material	ABS		
Rated Capacity	80.0 Ah	10 Hour Rate	8.00 A to 10.8 V
	63.3 Ah	3 Hour Rate	21.1 A to 10.8 V
	51.3 Ah	1 Hour Rate	51.3 A to 10.5 V
Internal Resistance	Fully charged at 25°C: 7.8 mΩ		
Max. Discharge Current	960 A (5 s)		
Operating Temperature	Discharge	-40 ~ 60°C (-40 ~ 140°F)	
	Charge	-20 ~ 50°C (-4 ~ 122°F)	
	Storage	-20 ~ 50°C (-4 ~ 122°F)	
Charge Method (25°C)	Charge current	Max. 20.0 A; recom. 8.0 A	
	Float (-3 mV/°C)	13.5–13.8 V, recom. 13.5 V (full floating system)	
		13.5–13.8 V, recom. 13.62 V (cycle use system)	
	Equalize	13.8–14.1 V, recom. 14.1 V (-4 mV/°C)	
	Cycle	14.4–15.0 V, recom. 14.4 V (-5 mV/°C)	
Self Discharge	3% of capacity declined per month at 25°C		

Dimensions 258 (L) × 168 (W) × 208 (H) × 211 (TH) · Unit: mm

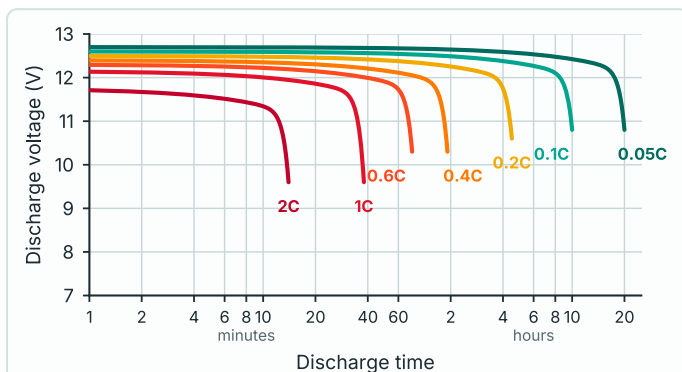


Constant Current Discharge Characteristics

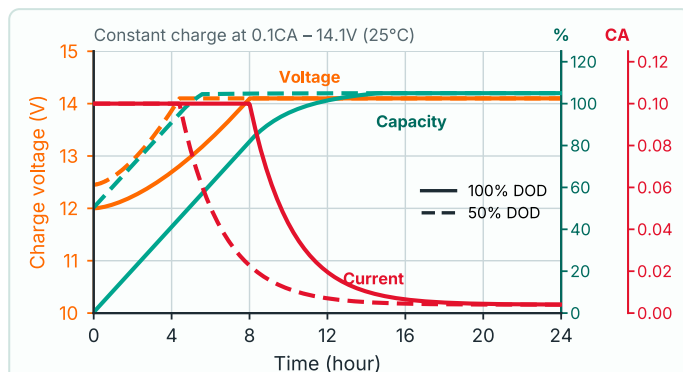
Unit: A (25°C, 77°F)

FV / Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	147	89.4	52.8	30.3	22.0	14.8	9.68	8.28	4.35
1.65V	142	87.8	52.5	30.1	21.7	14.6	9.60	8.20	4.32
1.70V	139	86.3	52.1	29.9	21.4	14.4	9.53	8.12	4.30
1.75V	135	85.6	51.3	29.4	21.2	14.3	9.45	8.04	4.28
1.80V	126	81.8	50.0	28.9	21.1	13.9	9.37	8.00	4.26
1.85V	112	74.7	46.3	27.4	19.8	13.2	8.99	7.72	4.19

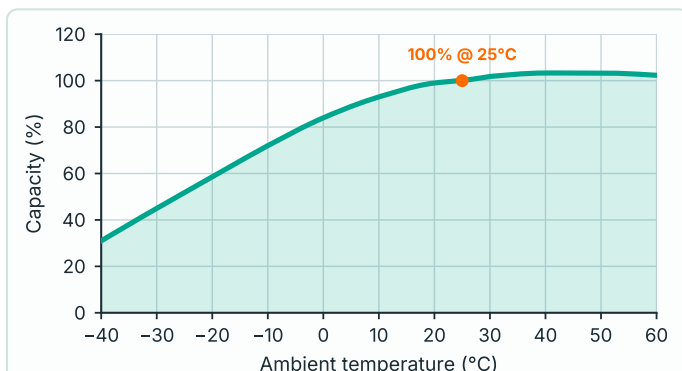
Discharge characteristic



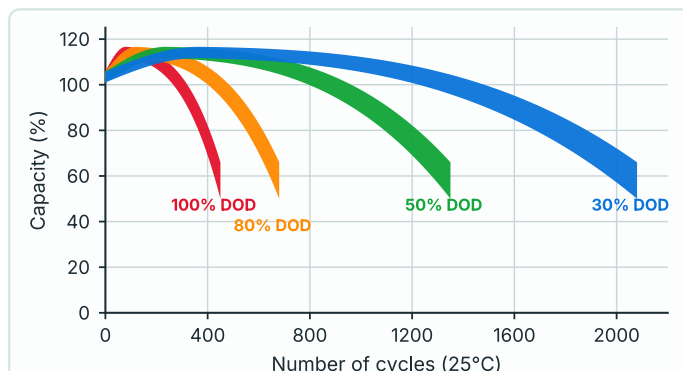
Charging characteristic



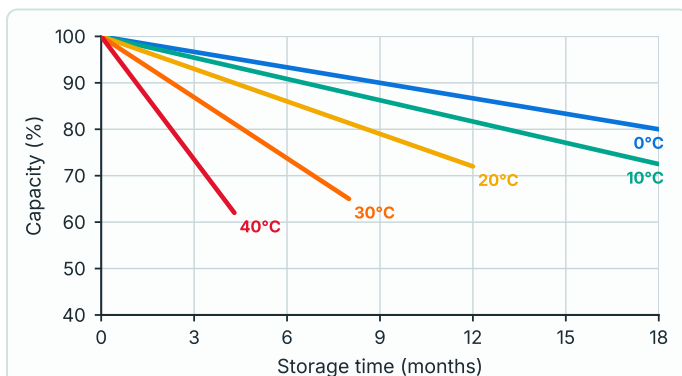
Effect of temperature on capacity



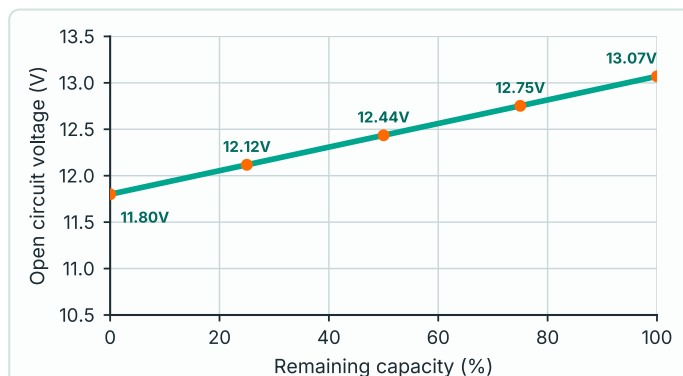
Effect of discharge depth on cycle life



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	259	162	99.8	57.2	41.8	28.0	18.8	15.9	8.60
1.65V	254	160	99.0	57.1	41.3	27.8	18.7	15.8	8.56
1.70V	251	160	98.3	56.9	41.0	27.6	18.6	15.6	8.52
1.75V	250	159	97.5	56.5	40.8	27.4	18.4	15.4	8.48
1.80V	236	156	96.7	56.4	40.6	27.1	18.3	15.3	8.44
1.85V	211	143	89.8	53.9	38.6	25.9	17.7	15.0	8.36

