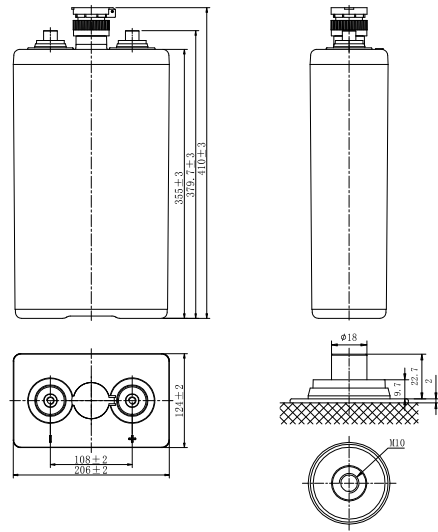




# OPzS250-2 (2V 250Ah)



## LAYOUT



## General Features

- ✓ 20 years design life(20°C)
- ✓ Lower self discharge
- ✓ Higher thermal capacity, no thermal runaway will occur
- ✓ Superior deep cycle performance
- ✓ Wide operation temperature range

## Applications

- ✓ Telecommunications
- ✓ Buoy lighting
- ✓ Standby power
- ✓ Railway signalling
- ✓ Emergency lighting systems
- ✓ Alternative power (solar, wind)
- ✓ Maritime standby power on ships and ashore

## Standards

- ✓ ACC. to IEC60896, DIN 40736
- ✓ Manufactured by Starmax ISO 45001, ISO 9001 and ISO 14001 certified production facilities



# SPECIFICATIONS

Rated Voltage	2V	
Nominal Capacity	C <sub>10</sub> ,1.80V/cell	250.0Ah
Dimensions	Length	124±2mm (4.88 inches)
	Width	206±2mm (8.11 inches)
	Container height	355±3mm (13.98 inches)
	Total height	410±3mm (16.14 inches)
Approx. weight	Without Electrolyte 15.4kg (33.9lbs)   With Electrolyte 20.4 kg (45.0lbs)	
Terminal	M10	
Container material	SAN transparent container	
Rated capacity (25°C)	250.0 Ah	(10hr,25.0A,1.80V/cell)
	222.0 Ah	(5hr,44.4A,1.75V/cell)
	192.9 Ah	(3hr,64.3A,1.75V/cell)
	142.8 Ah	(1hr,142.8A,1.60V/cell)
Max. discharge current	2000A (5s)	
Internal resistance (25°C)	Approx 1.10mΩ	
Operating temp. range	Discharge	-15~55°C (5~131°F)
	Charge	0~45°C (32~113°F)
	Storage	-15~45°C (5~113°F)
Nominal operating temp. range	25±5°C (77±9°F)	
Cycle Use	Initial Charging Current less than 0.15CA.Voltage 2.40V~2.45V at 20°C(68°F)Temp. Coefficient -5mV/°C	
Standby Use	Initial Charging Current less than 0.15CA. Voltage 2.23V~2.25V at 20°C(68°F)Temp. Coefficient -3mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	20°C (68°F)	100%
	0°C (32°F)	86%
Self discharge	≤4% per month at 20°C	

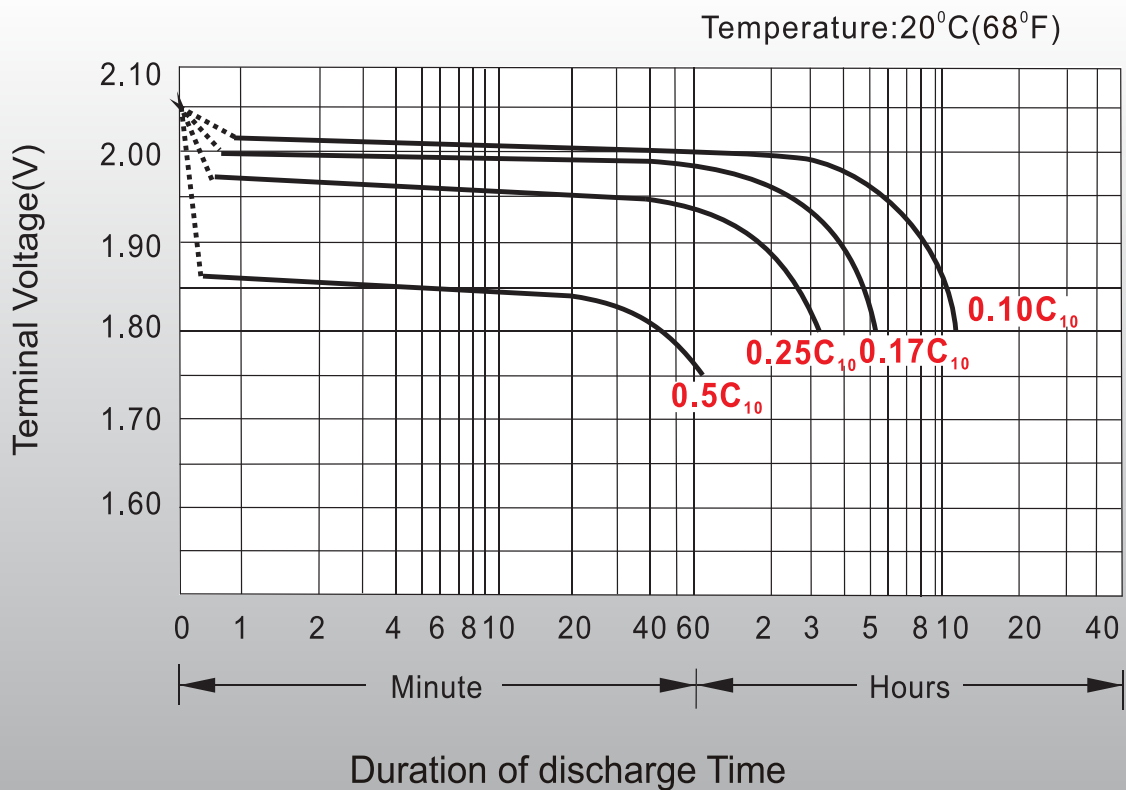
## Constant Current Discharge (Amperes) at 20°C (68°F)

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h	24h	72h	100h	120h
1.85V/cell	99.3	72.5	55.8	46.2	39.9	35.0	28.6	23.9	13.1	11.0	3.95	2.96	2.54
1.80V/cell	116.0	79.9	61.0	50.0	42.6	37.2	30.0	25.0	13.7	11.5	4.13	3.10	2.65
1.75V/cell	126.0	85.0	64.3	52.2	44.4	38.6	30.9	25.6	13.9	11.7	4.19	3.14	2.69
1.70V/cell	132.8	88.8	66.3	53.8	45.6	39.6	31.4	26.0	14.2	/	/	/	/
1.65V/cell	138.0	90.9	68.3	55.1	46.6	40.3	32.0	26.4	14.4	/	/	/	/
1.60V/cell	142.8	93.0	69.5	55.9	47.3	40.9	32.4	26.7	14.5	/	/	/	/

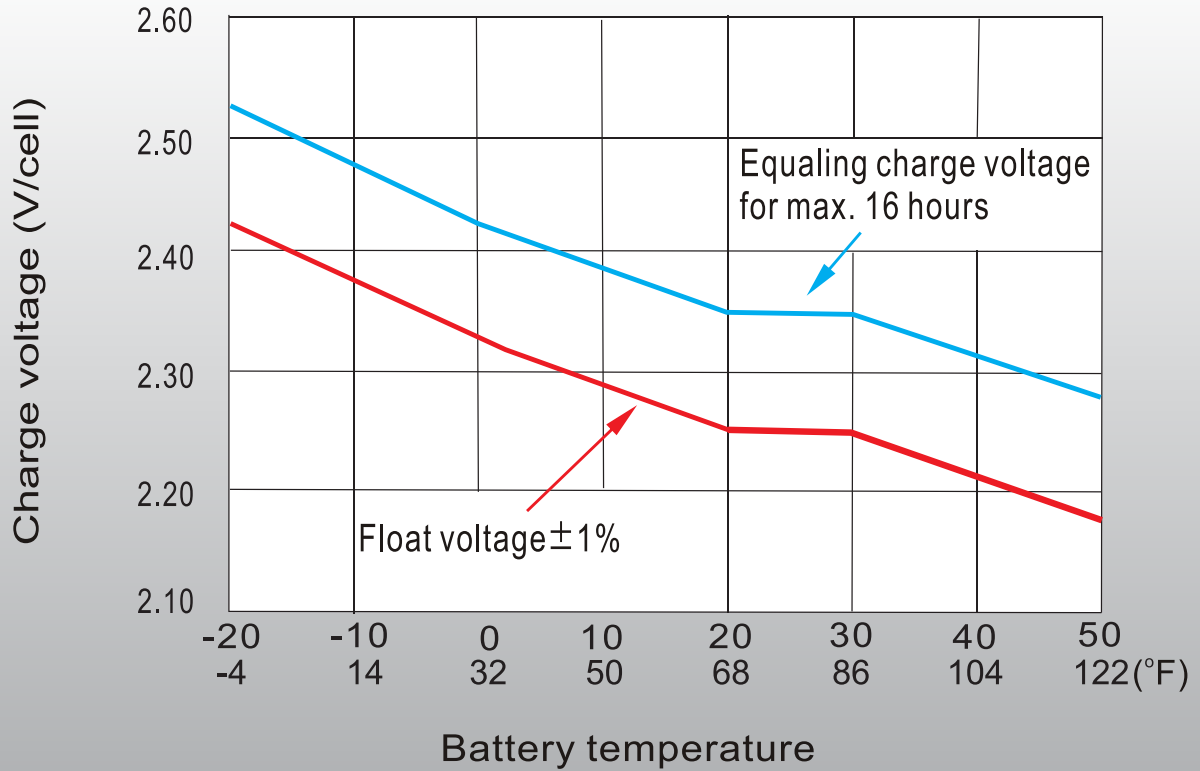
## Constant Power Discharge (Watts/Cell) at 20°C (68°F)

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h	24h	72h	100h	120h
1.85V/cell	185.7	136.7	105.8	88.0	76.3	67.3	55.1	46.4	25.6	21.5	7.64	5.70	4.87
1.80V/cell	213.9	149.0	114.4	94.1	80.7	70.9	57.5	48.1	26.4	22.1	7.88	5.88	5.03
1.75V/cell	229.4	157.2	119.6	97.7	83.7	73.2	58.8	48.9	26.7	22.4	7.97	5.95	5.08
1.70V/cell	239.4	162.9	122.7	100.3	85.6	74.7	59.6	49.5	27.1	/	/	/	/
1.65V/cell	247.1	166.1	125.8	102.2	87.2	75.9	60.4	50.1	27.4	/	/	/	/
1.60V/cell	253.5	169.1	127.3	103.2	87.9	76.6	60.9	50.5	27.5	/	/	/	/

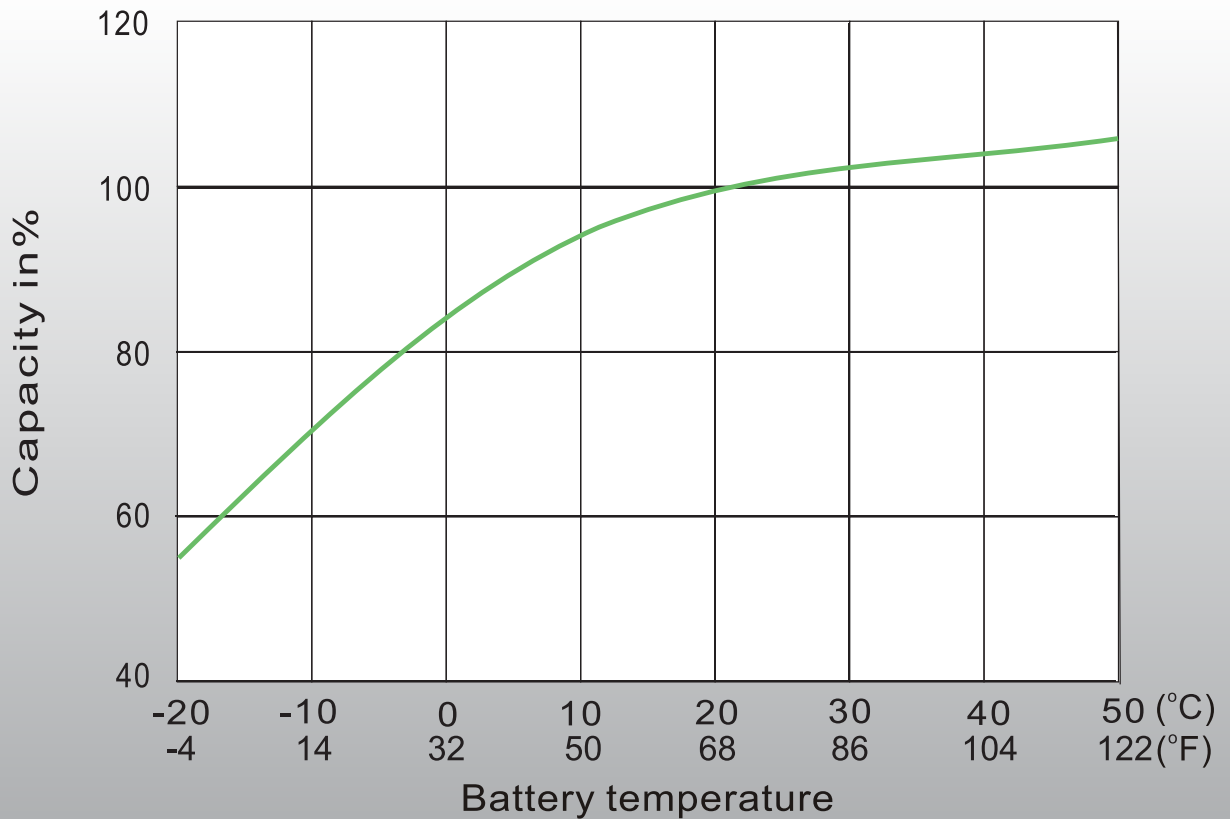
## Discharge Characteristics



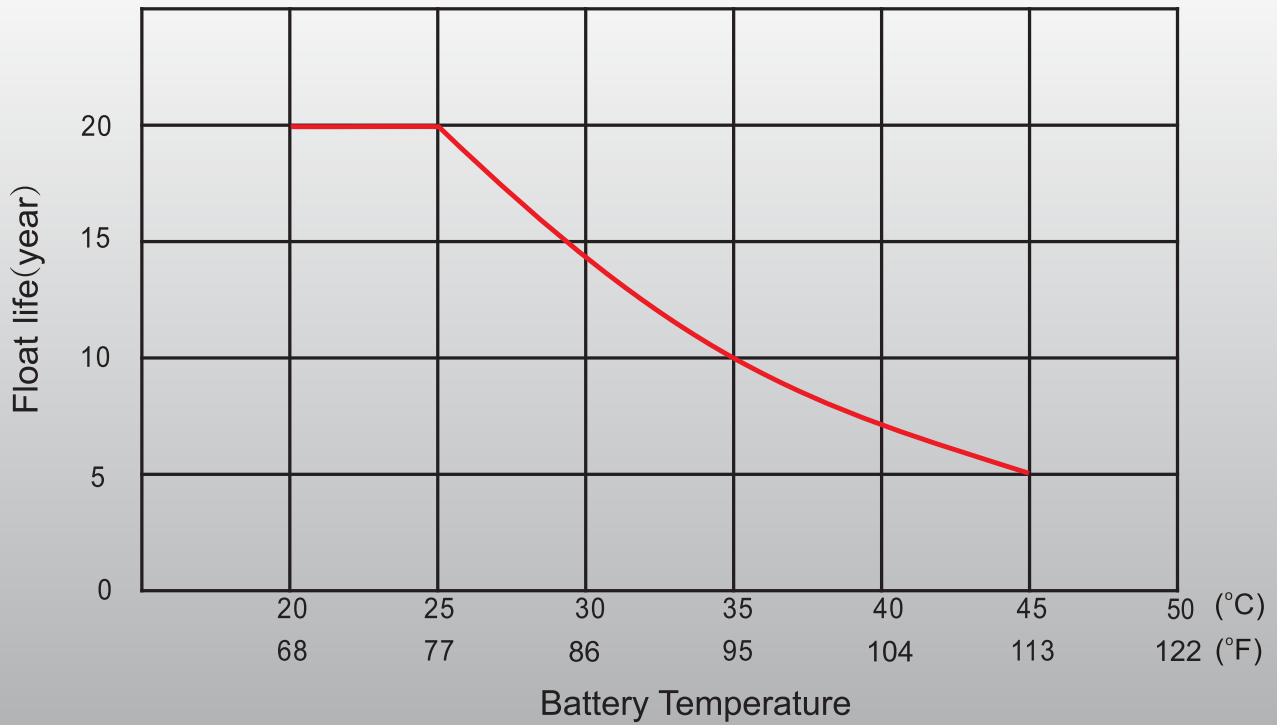
# Charge Voltage vs Ambient Temperature Curve



# Discharge Capacity vs Ambient Temp. Curve (110A)



# Effect of Temp. on Long Term Float Life





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