

STARMAX

OPzS FLOODED TUBULAR BATTERIES

OPzS1500-2

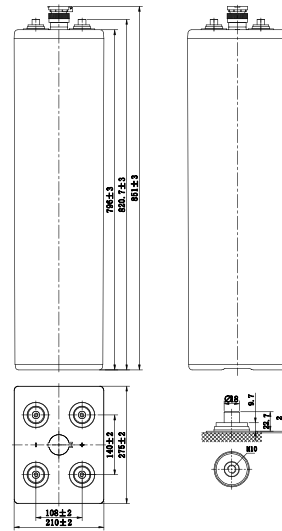


www.starmaxbatteries.com

OPzS1500-2 (2V 1500Ah)



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 ₁₀ ,1.80V/cell	1500.0Ah
Dimensions	Length	275±2mm (10.83 inches)
	Width	210±3mm (8.27 inches)
	Container height	796±3mm (31.34 inches)
	Total height	851±3mm (33.50 inches)
Approx. weight	Without Electrolyte 83.8kg (184.4lbs) With Electrolyte 113.8 kg (250.4lbs)	
Terminal	M10	
Container material	SAN transparent container	
Rated capacity (25°C)	1500.0 Ah	(10hr,150.0A,1.80V/cell)
	1332.0 Ah	(5hr,266.4A,1.75V/cell)
	1156.5 Ah	(3hr,385.4A,1.75V/cell)
	856.5 Ah	(1hr,856.5A,1.60V/cell)
Max. discharge current	12000A (5s)	
Internal resistance (25°C)	Approx 0.45mΩ	
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	

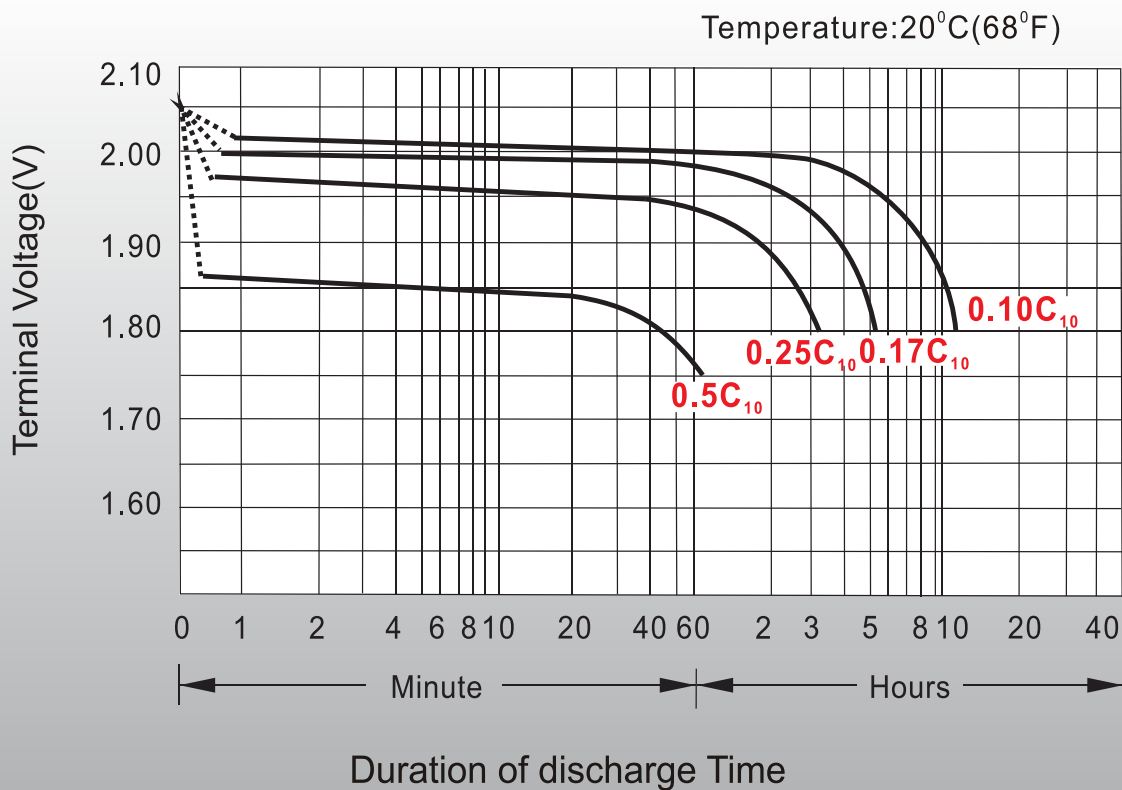
Constant Current Discharge (Amperes) at 20°C (68°F)

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h	24h	72h	100h	120h
1.85V/cell	595.5	435.0	335.0	277.4	239.4	210.3	171.3	143.6	78.8	66.1	23.7	17.8	15.3
1.80V/cell	696.0	479.3	366.0	299.8	255.4	223.3	180.3	150.0	82.0	68.8	24.7	18.5	15.9
1.75V/cell	756.0	510.0	385.5	313.1	266.4	231.8	185.3	153.3	83.6	70.1	25.2	18.9	16.2
1.70V/cell	796.5	532.5	398.0	322.9	273.7	237.5	188.5	155.9	85.0	/	/	/	/
1.65V/cell	828.0	545.3	410.0	330.4	279.7	242.0	191.8	158.5	86.2	/	/	/	/
1.60V/cell	856.5	558.0	417.0	335.3	283.5	245.4	194.2	160.4	87.0	/	/	/	/

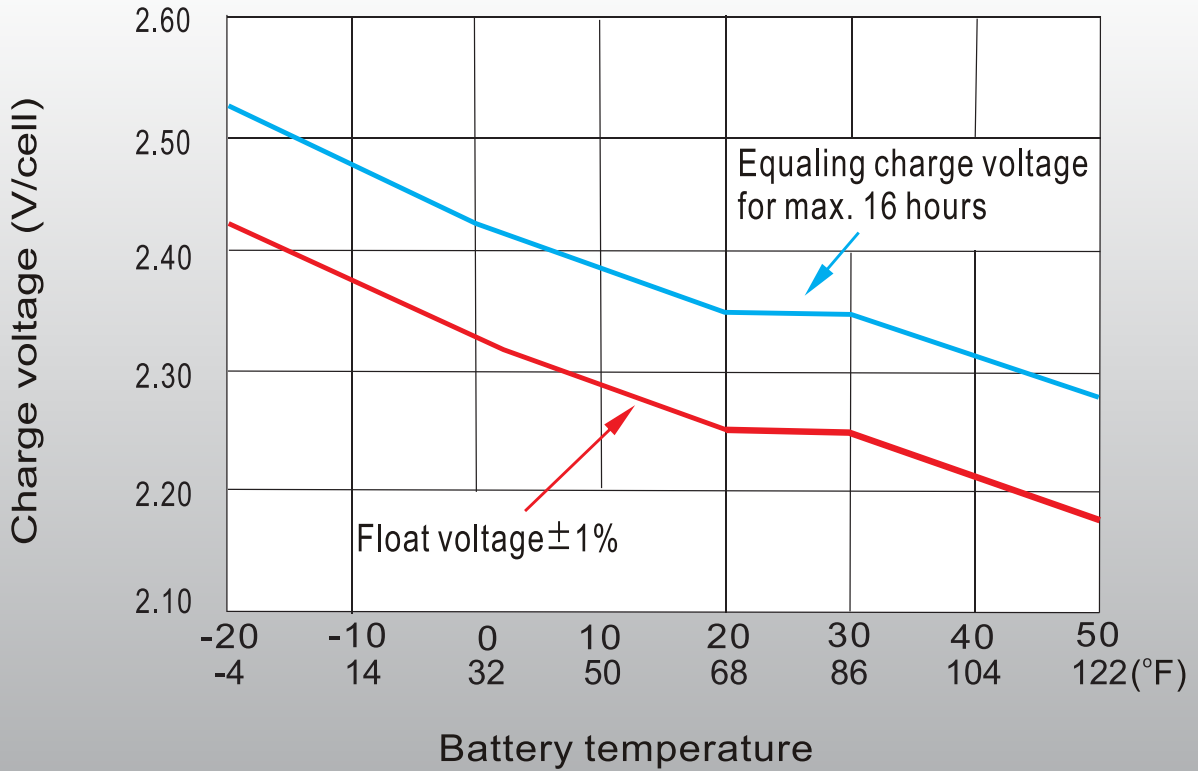
Constant Power Discharge (Watts/Cell) at 20°C (68°F)

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h	24h	72h	100h	120h
1.85V/cell	1114.3	820.5	635.0	527.8	457.6	403.9	330.5	278.4	153.5	128.7	45.9	34.3	29.3
1.80V/cell	1283.5	894.0	686.4	564.7	484.0	425.5	345.0	288.5	158.3	132.7	47.3	35.3	30.2
1.75V/cell	1376.5	942.9	717.5	586.4	502.5	439.0	352.8	293.3	160.5	134.5	47.9	35.8	30.6
1.70V/cell	1436.6	977.4	736.1	601.5	513.7	448.3	357.6	296.9	162.5	/	/	/	/
1.65V/cell	1482.3	996.5	754.7	613.5	523.0	455.5	362.5	300.8	164.2	/	/	/	/
1.60V/cell	1520.7	1014.7	763.7	619.4	527.4	459.5	365.2	302.9	164.9	/	/	/	/

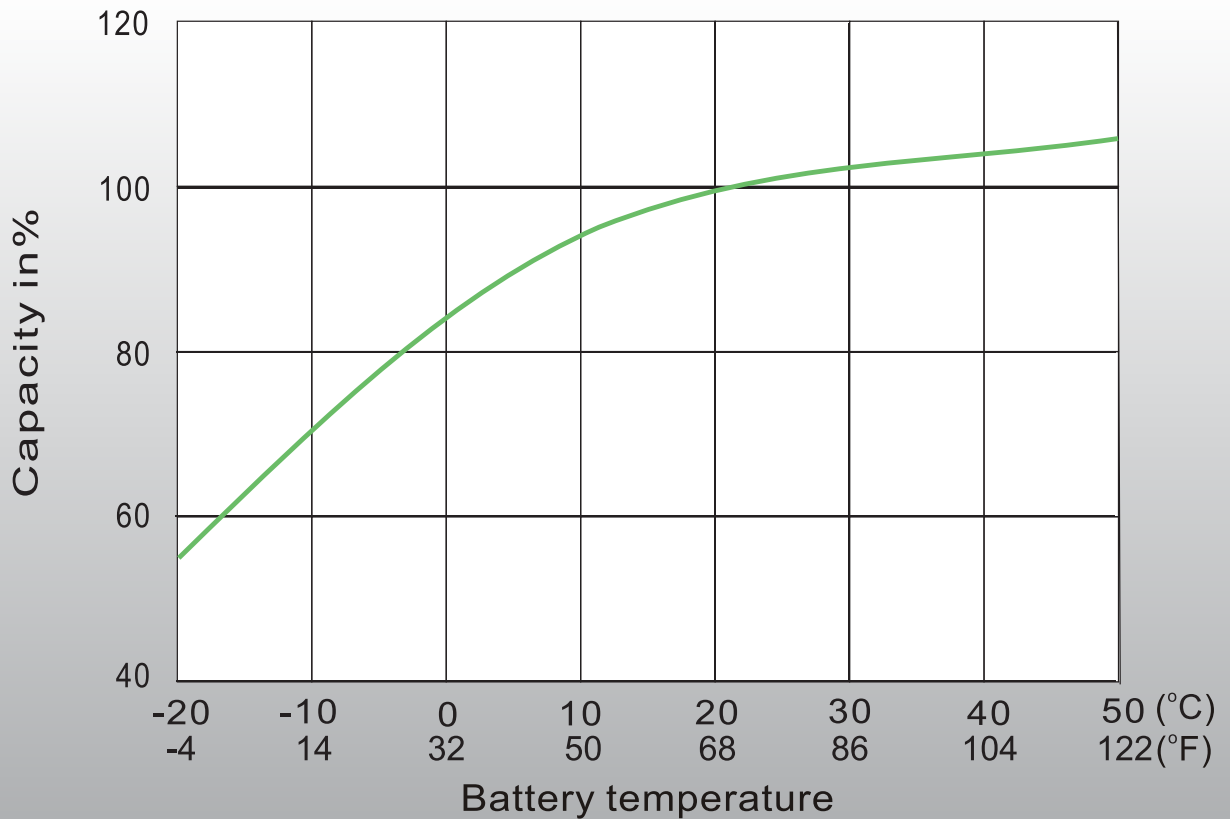
Discharge Characteristics



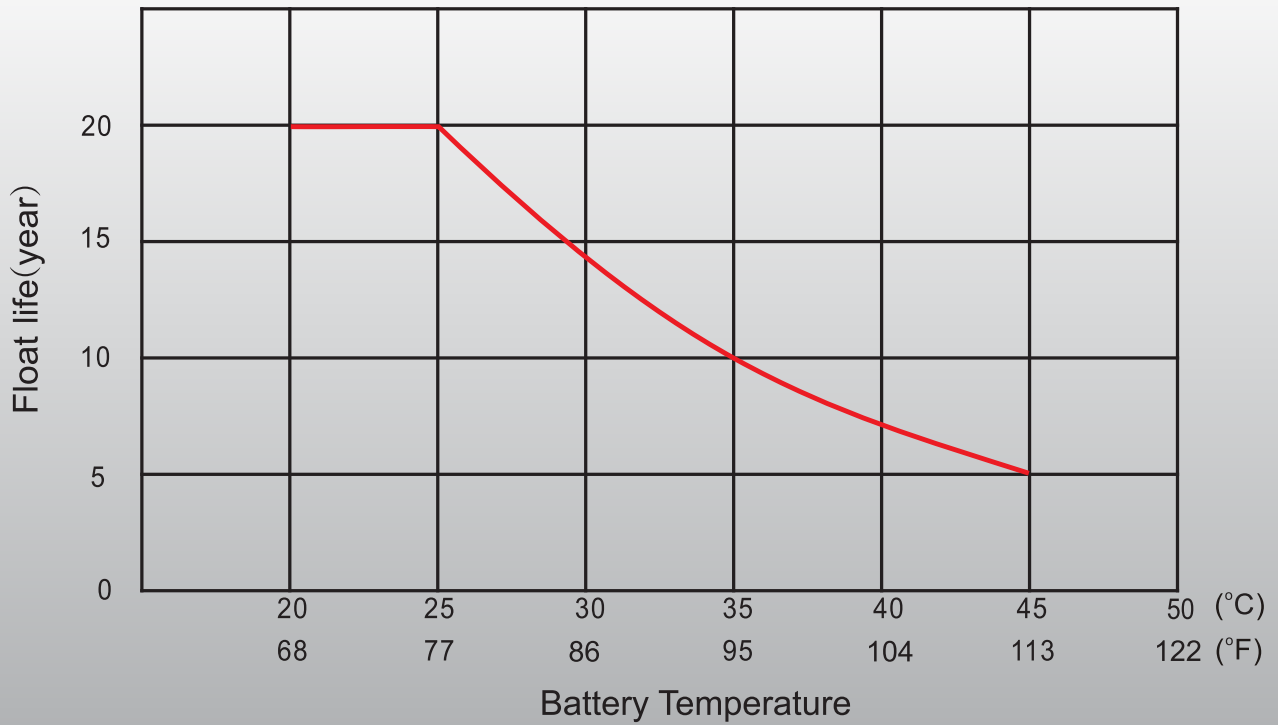
Charge Voltage vs Ambient Temperature Curve



Discharge Capacity vs Ambient Temp. Curve (110A)



Effect of Temp. on Long Term Float Life





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