

STARMAX

The world's leading battery brand



DEEP CYCLE GEL BATTERIES

STG2-500 (2V 500Ah)



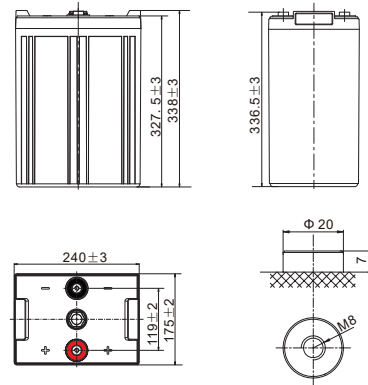
www.starmaxbatteries.com

STG SERIES-GEL BATTERIES

STG2-500



LAYOUT



General Features

- ✓ Battery design life up to 12 years
- ✓ Special plate design guarantees battery floating life more than 4000 times
- ✓ High thermal capacity reduce the risk of thermal out of control and drying hard, and the battery can be used in bad environment
- ✓ Little water losing, and no electrolyte stratification phenomenon

Applications

- ✓ Telecommunications
- ✓ Solar system
- ✓ Wind power system
- ✓ Engine starting
- ✓ Wheelchair, Floor cleaning machines, Golf trolley, Boats

Standards

- ✓ IEC 60896 Certified
- ✓ Classified as "Long Life" according to Eurobat
- ✓ UL Certified
- ✓ Manufactured at Starmax® IATF16949, ISO 9001, ISO 14001 and ISO 45001 certified production facilities



SPECIFICATIONS

Rated Voltage	2V	
Nominal Capacity	500Ah	(C ₁₀ ,1.80V/cell)
Dimensions	Length	240±3mm (9.45 inches)
	Width	175±2mm (6.89 inches)
	Container height	327.5±3mm (12.9 inches)
	Total height	338±3mm (13.3 inches)
Approx. weight	32.8 Kg (72.3 lbs)	
Terminal	M8	
Container material	ABS	
Rated capacity (25°C)	530.0 Ah	C20(26.5A,1.80V/cell)
	500.0 Ah	C10(50.0A,1.80V/cell)
	429.5 Ah	C5(85.9A,1.75V/cell)
	385.5 Ah	C3(128.5A,1.75V/cell)
	236.4 Ah	C1(236.4A,1.60V/cell)
Max. discharge current	4000A (5s)	
Internal resistance (25°C)	Approx 0.55mΩ	
Operating temp. range	Discharge	-20~60°C (-4~140°F)
	Charge	-20~40°C (-4~104°F)
	Storage	-20~50°C (-4~122°F)
Nominal operating temp. range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 125.0A. Voltage 2.40V~2.50V at 25°C (77°F)Temp. Coefficient -5mV/°C	
Standby Use	Initial Charging Current less than 125.0A. Voltage 2.23V~2.27V at 25°C (77°F)Temp. Coefficient -3mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self discharge	STG series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	

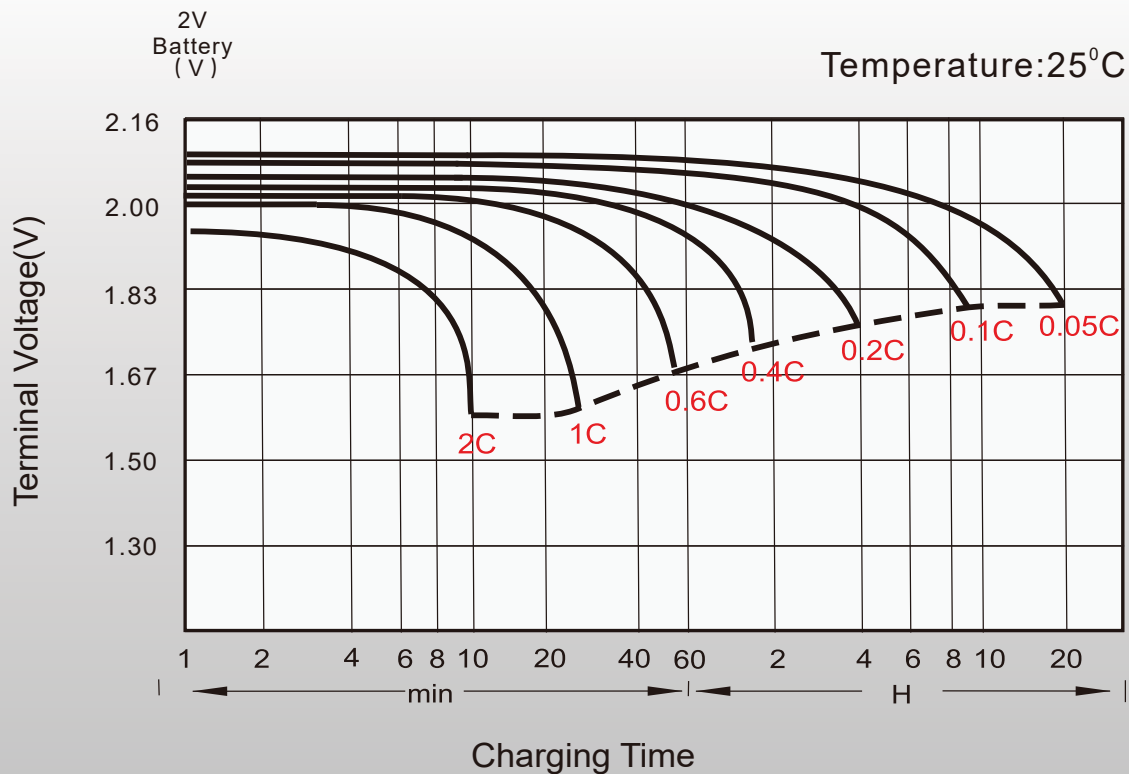
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	480.0	424.6	350.8	281.5	248.6	190.2	152.6	115.7	93.0	78.0	68.2	55.6	46.9	25.1
1.80V/cell	558.2	489.2	396.6	314.8	275.2	208.1	166.0	125.2	100.3	84.0	73.1	59.6	50.0	26.5
1.75V/cell	590.5	513.4	414.5	327.6	285.3	215.1	171.1	128.5	102.8	85.9	74.6	60.6	50.8	26.8
1.70V/cell	624.1	540.2	432.8	340.0	295.8	222.3	176.6	132.3	105.4	87.9	76.3	61.7	51.6	27.2
1.67V/cell	643.8	555.5	443.7	347.6	302.0	226.3	179.5	134.2	106.8	88.9	77.2	62.4	52.0	27.4
1.60V/cell	690.0	591.5	468.8	365.6	316.7	236.4	187.0	139.2	110.4	91.7	79.3	63.8	53.1	27.9

Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	922.2	818.1	678.0	545.8	483.3	370.8	298.3	226.8	182.8	153.5	134.4	109.9	92.7	49.9
1.80V/cell	1061.3	933.6	760.1	605.8	531.3	403.4	322.9	244.4	196.4	164.8	143.8	117.4	98.8	52.6
1.75V/cell	1111.0	970.1	787.7	625.6	547.0	414.4	330.9	249.8	200.6	168.1	146.4	119.4	100.2	53.3
1.70V/cell	1161.0	1010.7	814.9	644.3	563.2	425.8	339.7	256.0	204.9	171.4	149.2	121.2	101.6	53.9
1.67V/cell	1189.6	1032.8	831.1	655.4	572.2	431.9	344.2	259.1	207.2	173.1	150.7	122.3	102.4	54.3
1.60V/cell	1252.6	1082.5	866.7	682.0	594.4	447.4	355.9	267.1	213.0	177.7	154.3	124.8	104.3	55.2

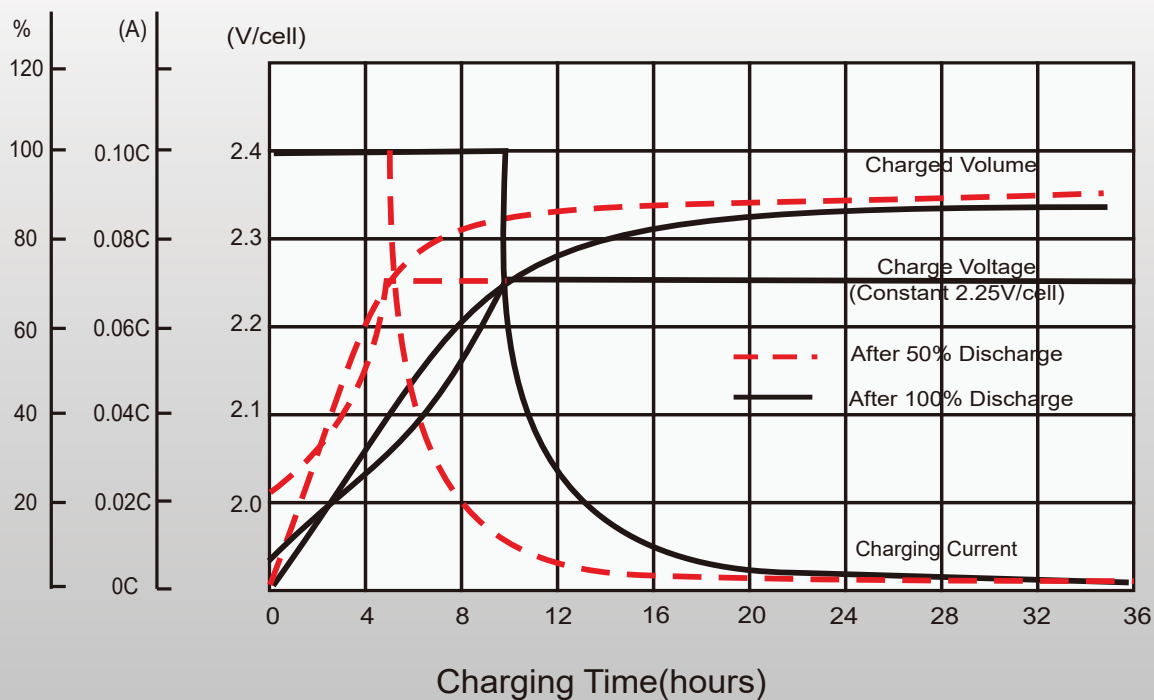
Discharge Characteristics



Float Charging Characteristics

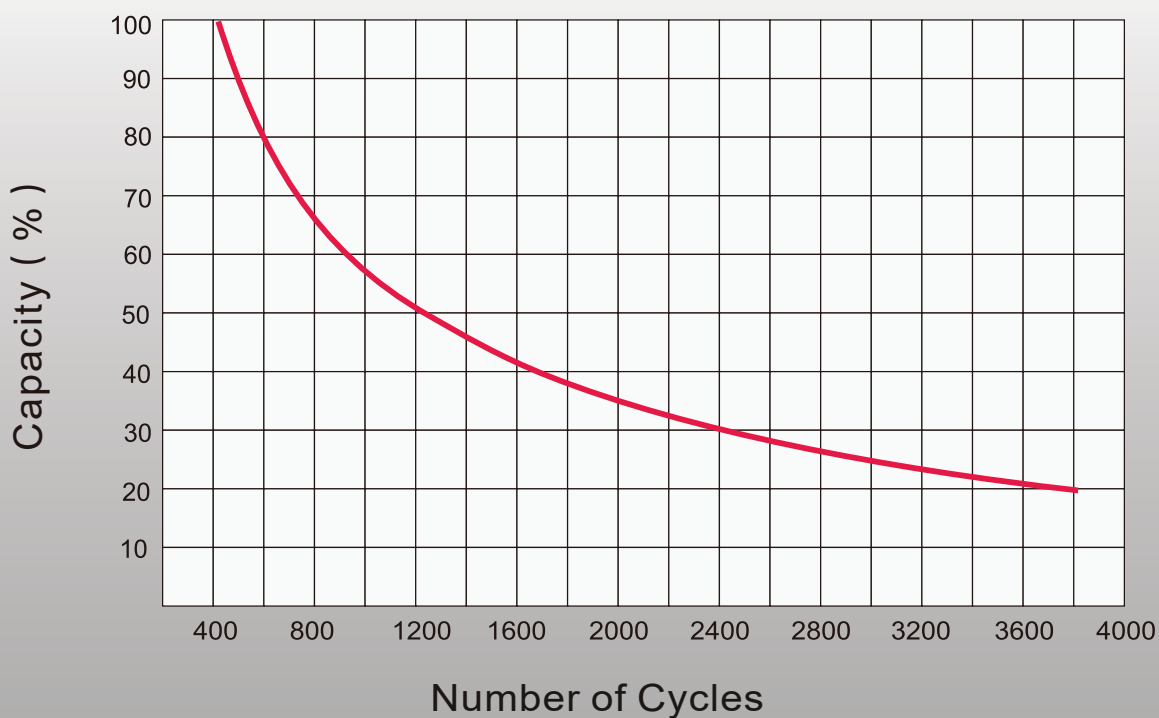
Charge Volume
Charging Current
Charging Voltage

0.1CA-2.25V/cell Temperature: 25°C

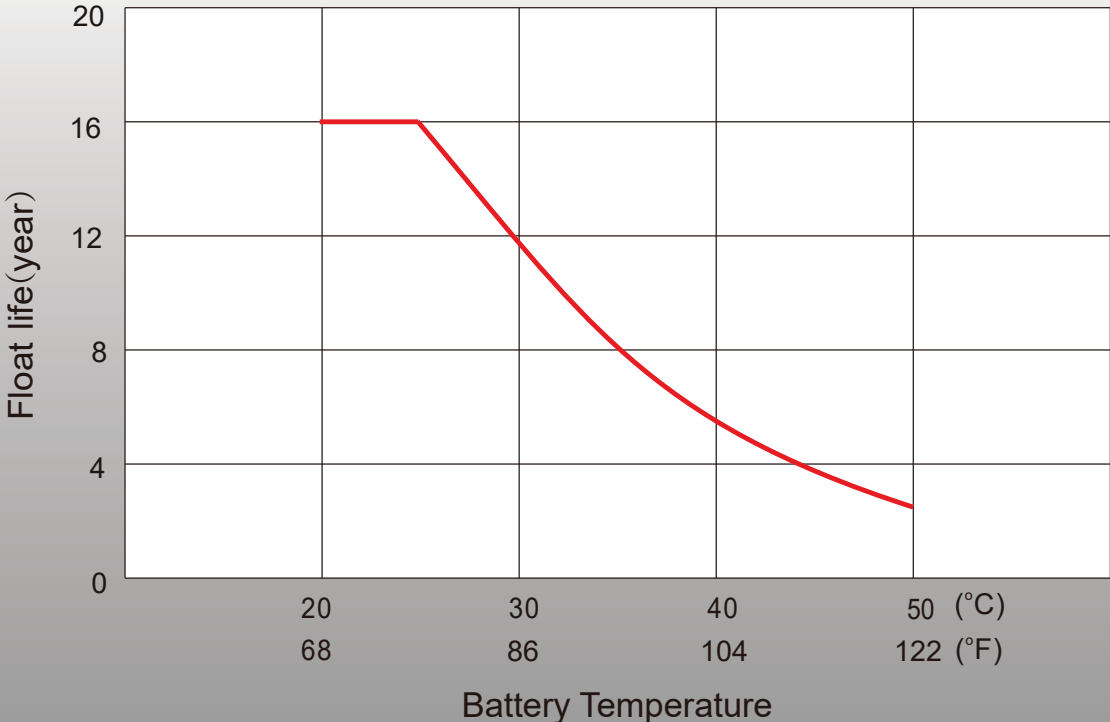


Cycle Life in Relation to Depth of Discharge

Acc.to IEC 896-2 (25 °C / 77°F)



Effect of Temperature on Long Term Float Life





Starmax Corporation

1585 Cliveden Avenue, Delta, British Columbia
V3M 6M1, Canada

Phone: +1 888 669 1310

Email: info@starmaxbatteries.com

Website: www.starmaxbatteries.com

