

STARMAX

The world's leading battery brand



DEEP CYCLE GEL BATTERIES

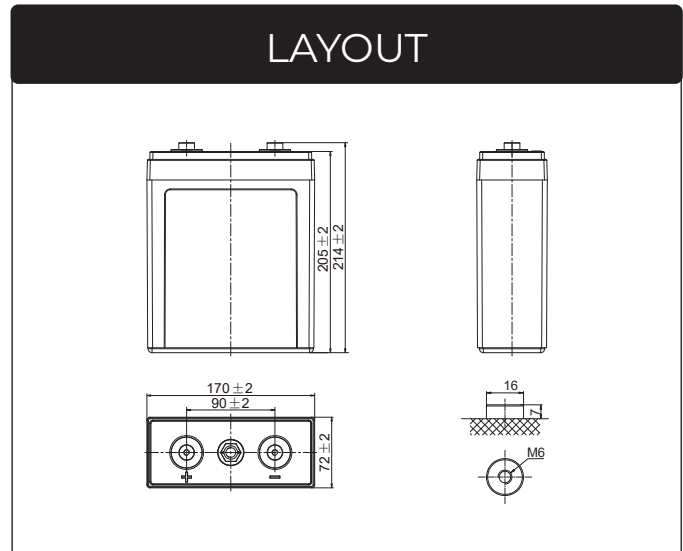
STG2-100 (2V 100Ah)



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STG SERIES-GEL BATTERIES

STG2-100



General Features

- ✓ Battery design life up to 16 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	100Ah	(C ₁₀ ,1.80V/cell)
Dimensions	Length	170±2mm (6.69 inches)
	Width	72±2mm (2.83 inches)
	Container height	205±2mm (8.07 inches)
	Total height	214±2mm (8.43 inches)
Approx. weight	6.0 Kg (13.23 lbs)	
Terminal	M6	
Container material	ABS	
Rated capacity (25°C)	106.6 Ah	C20(5.33A,1.80V/cell)
	100.0 Ah	C10(10.0A,1.80V/cell)
	88.5 Ah	C5(17.7A,1.75V/cell)
	78.9 Ah	C3(26.3A,1.75V/cell)
	63.3 Ah	C1(63.3A,1.60V/cell)
Max. discharge current	800A (5s)	
Internal resistance (25°C)	Approx 1.68mΩ	
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 25.0A. Voltage 2.40V~2.50V at 25°C (77°F)Temp. Coefficient -5mV/°C	
Standby Use	Initial Charging Current less than 25.0A. 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.	

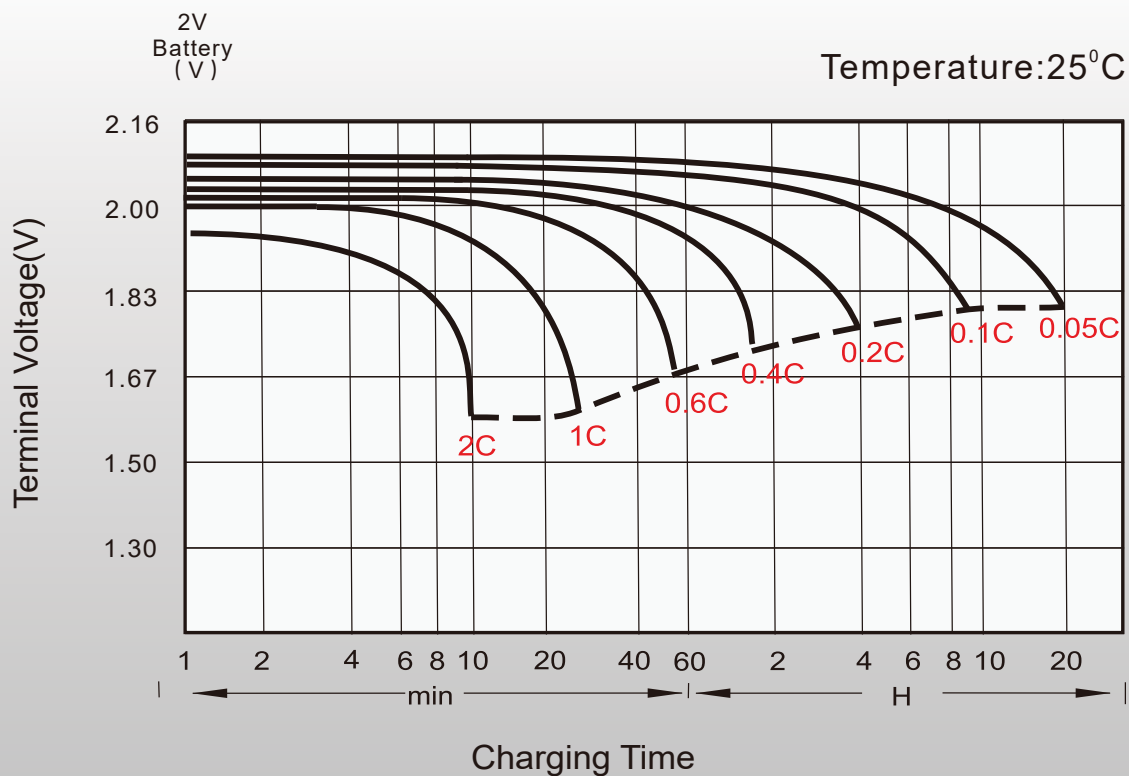
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	83.7	71.6	57.2	47.0	29.1	23.1	18.8	16.3	14.3	11.6	9.80	5.06
1.80V/cell	99.0	84.1	65.1	52.0	32.0	25.3	20.4	17.2	15.1	12.1	10.0	5.33
1.75V/cell	108.4	88.0	69.2	58.3	34.3	26.3	21.0	17.7	15.6	12.3	10.3	5.46
1.70V/cell	115.4	92.3	72.2	60.7	35.2	26.7	21.2	18.0	15.7	12.4	10.4	5.52
1.67V/cell	124.2	98.3	74.2	61.3	35.7	27.2	21.6	18.2	15.8	12.5	10.4	5.58
1.60V/cell	134.1	104.7	77.6	63.3	36.4	27.5	21.8	18.6	16.1	12.6	10.5	5.65

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

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	158.7	137.7	110.8	91.4	56.8	45.2	36.8	32.1	28.1	22.8	19.4	10.1
1.80V/cell	185.7	159.3	124.7	100.4	62.2	49.5	39.9	33.7	29.7	23.8	19.8	10.6
1.75V/cell	201.4	165.7	131.7	111.8	66.4	51.2	41.0	34.6	30.6	24.1	20.3	10.8
1.70V/cell	213.2	172.6	136.9	114.7	67.7	51.9	41.3	35.0	30.8	24.3	20.5	11.0
1.67V/cell	227.6	182.3	139.4	116.1	68.4	52.4	41.5	35.4	30.9	24.5	20.5	11.1
1.60V/cell	243.2	193.1	145.0	118.8	69.4	52.8	42.0	36.1	31.3	24.6	20.6	11.2

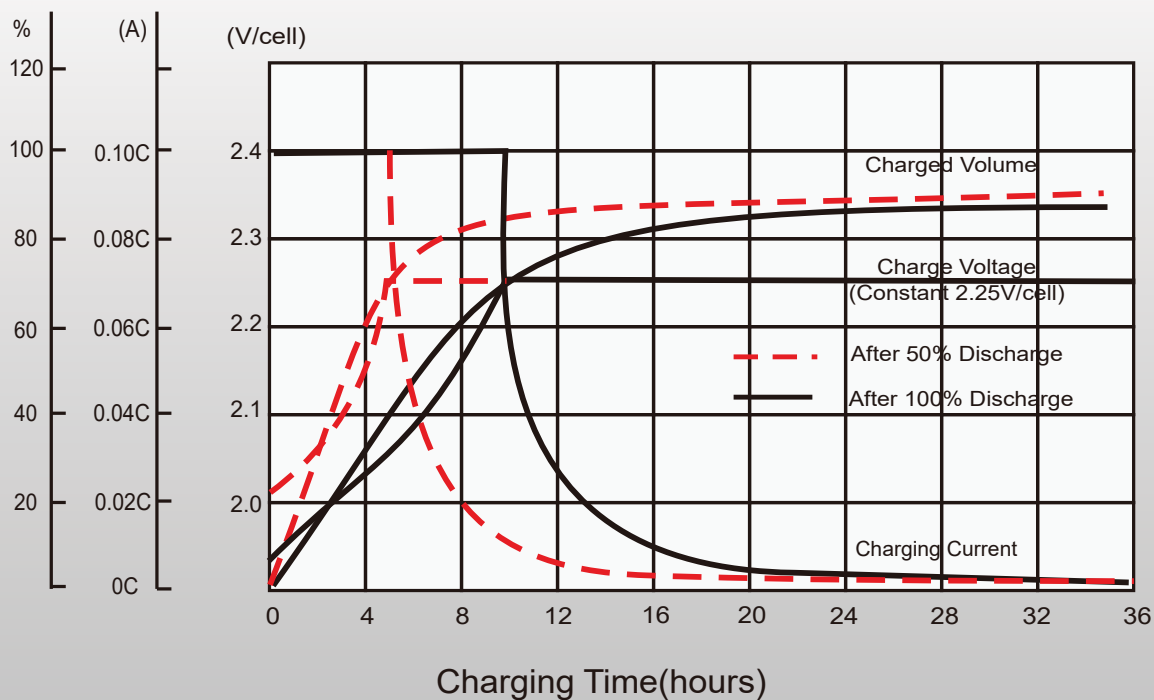
Discharge Characteristics



Float Charging Characteristics

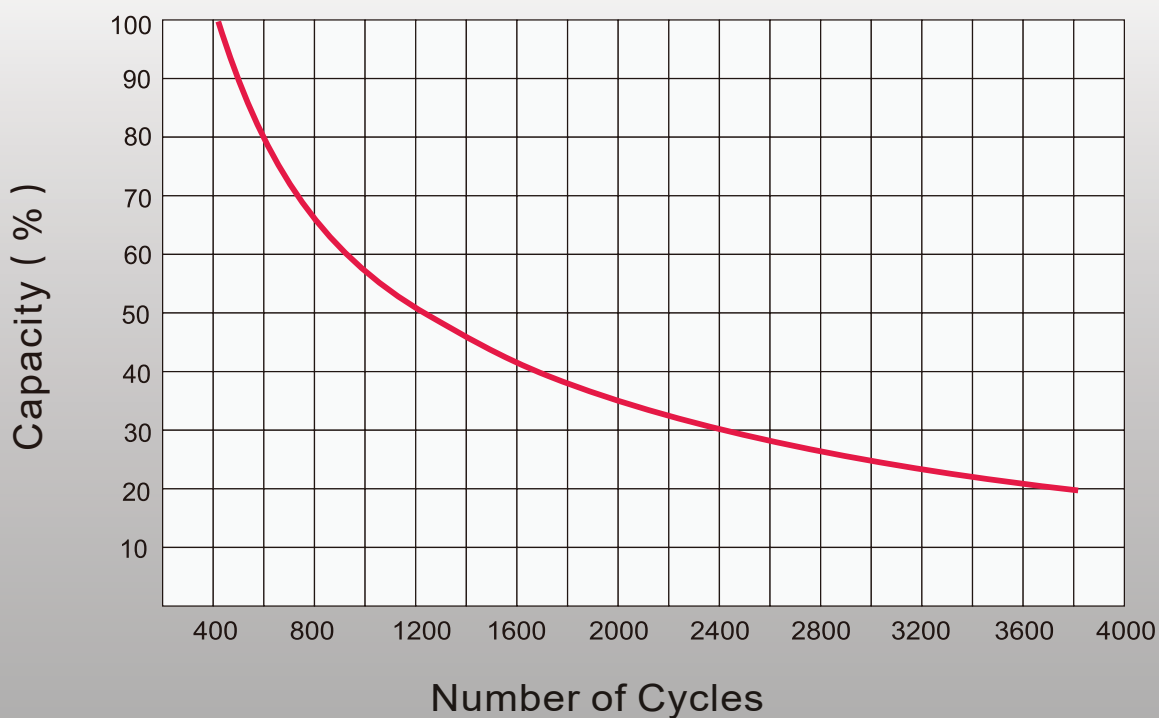
Charge Volume
Charging Current
Charging Voltage

0.1CA-2.25V/cell Temperature: 25°C

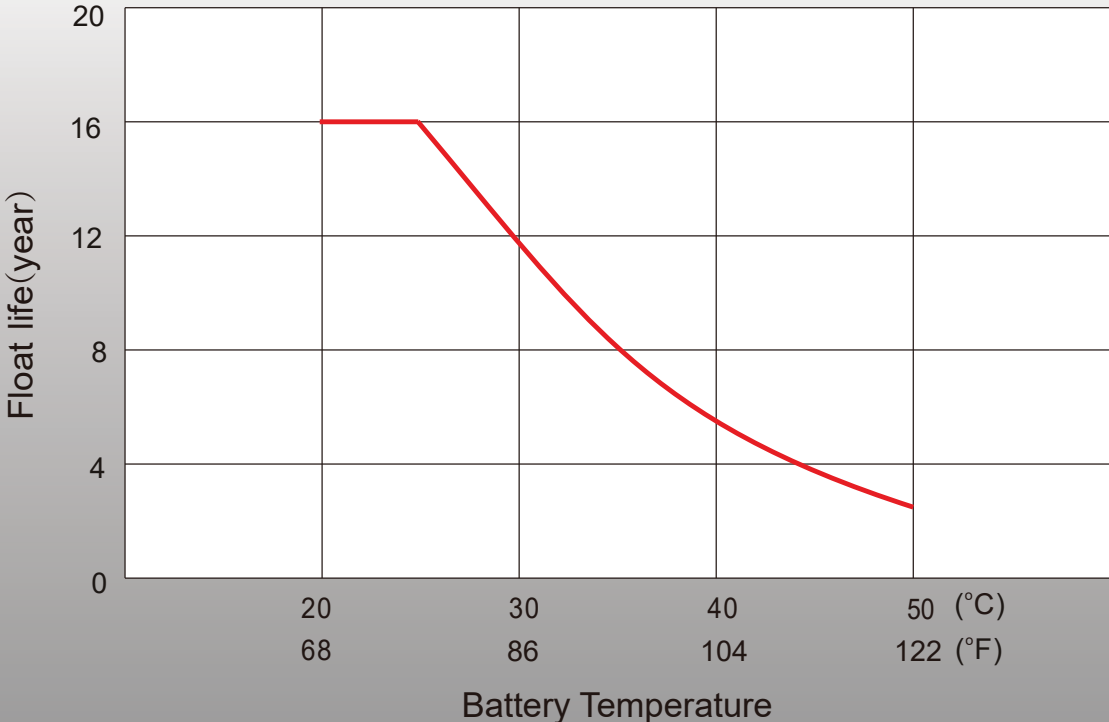


Cycle Life in Relation to Depth of Discharge

Acc.to IEC 896-2 (25 °C / 77°F)



Effect of Temperature on Long Term Float Life





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