

STARMAX

The world's leading battery brand



DEEP CYCLE GEL BATTERIES

STG2-400 (2V 400Ah)



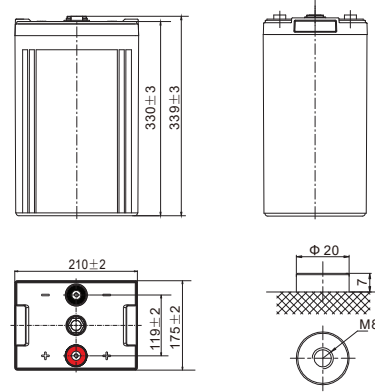
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STG SERIES-GEL BATTERIES

STG2-400



LAYOUT



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	400Ah	(C ₁₀ ,1.80V/cell)
Dimensions	Length	210±2mm (8.27 inches)
	Width	175±2mm (6.89 inches)
	Container height	330±3mm (12.9 inches)
	Total height	339±3mm (13.3 inches)
Approx. weight	27.0 Kg (59.5 lbs)	
Terminal	M8	
Container material	ABS	
Rated capacity (25°C)	424.0 Ah	C20(21.2A,1.80V/cell)
	400.0 Ah	C10(40.0A,1.80V/cell)
	343.5 Ah	C5(68.7A,1.75V/cell)
	308.4 Ah	C3(102.8A,1.75V/cell)
	189.1 Ah	C1(189.1A,1.60V/cell)
Max. discharge current	3200A (5s)	
Internal resistance (25°C)	Approx 0.65mΩ	
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 100.0A. Voltage 2.40V~2.50V at 25°C (77°F)Temp. Coefficient -5mV/°C	
Standby Use	Initial Charging Current less than 100.0A. 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.	

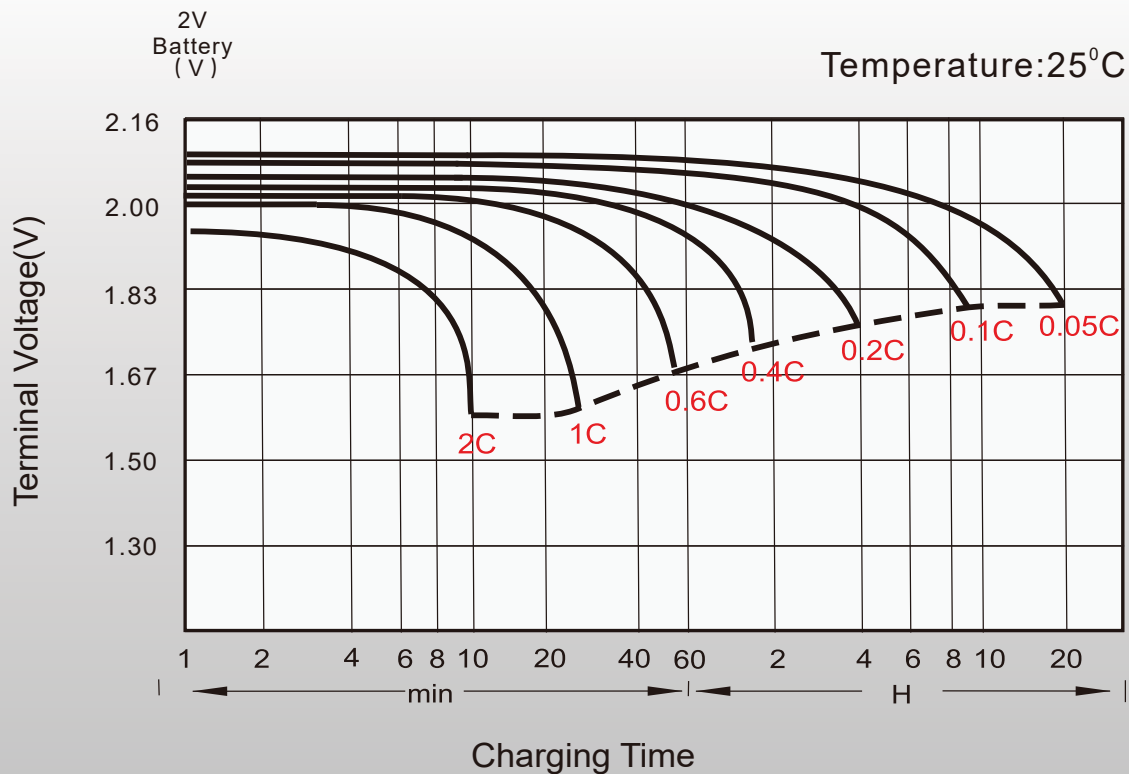
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	384.0	339.7	280.6	225.2	198.9	152.1	122.1	92.5	74.4	62.4	54.5	44.5	37.5	20.1
1.80V/cell	446.6	391.4	317.3	251.8	220.1	166.4	132.8	100.1	80.2	67.2	58.5	47.6	40.0	21.2
1.75V/cell	472.4	410.7	331.6	262.0	228.3	172.0	136.9	102.8	82.2	68.7	59.7	48.5	40.6	21.5
1.70V/cell	499.3	432.2	346.2	272.0	236.7	177.9	141.3	105.8	84.3	70.3	61.0	49.4	41.3	21.7
1.67V/cell	515.0	444.4	355.0	278.1	241.6	181.1	143.6	107.4	85.5	71.2	61.7	49.9	41.6	21.9
1.60V/cell	552.0	473.2	375.0	292.5	253.4	189.1	149.6	111.4	88.3	73.3	63.5	51.1	42.5	22.3

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

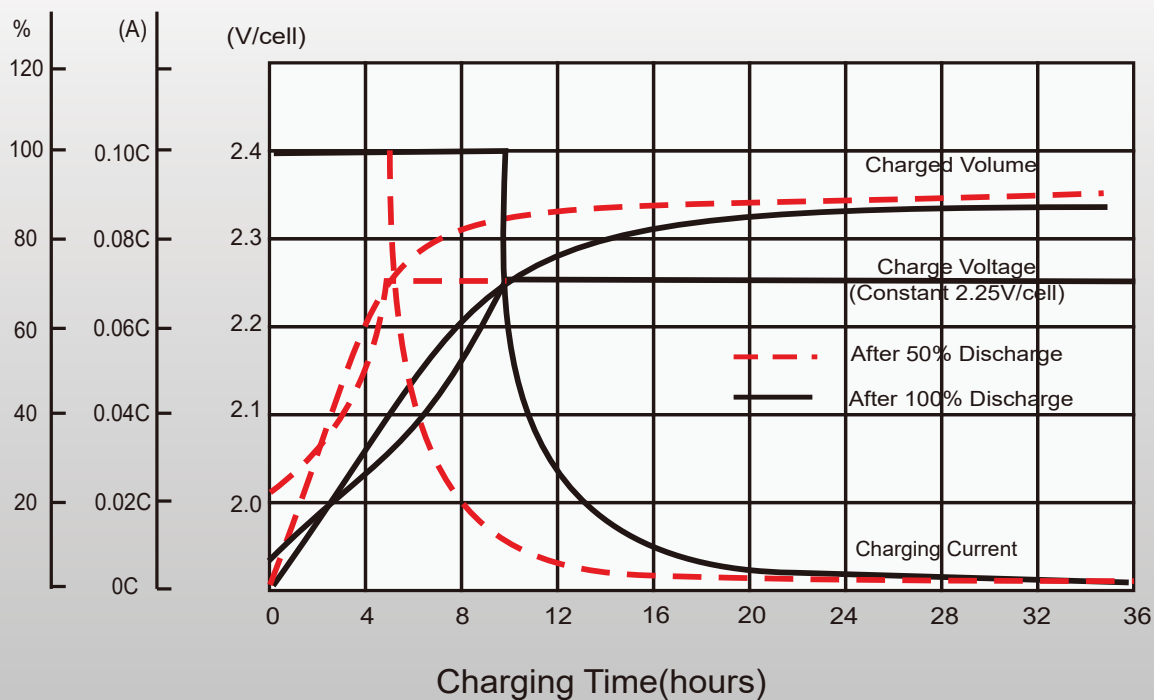
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	737.8	654.5	542.4	436.6	386.6	296.6	238.6	181.4	146.3	122.8	107.5	87.9	74.2	40.0
1.80V/cell	849.0	746.9	608.1	484.7	425.0	322.7	258.3	195.5	157.1	131.9	115.0	94.0	79.0	42.1
1.75V/cell	888.8	776.1	630.1	500.5	437.6	331.5	264.8	199.9	160.4	134.5	117.1	95.5	80.1	42.6
1.70V/cell	928.8	808.6	651.9	515.4	450.6	340.7	271.8	204.8	163.9	137.1	119.3	97.0	81.3	43.1
1.67V/cell	951.7	826.2	664.8	524.4	457.8	345.5	275.4	207.3	165.8	138.5	120.5	97.8	81.9	43.4
1.60V/cell	1002.1	866.0	693.4	545.6	475.5	357.9	284.7	213.7	170.4	142.1	123.4	99.9	83.4	44.2

Discharge Characteristics



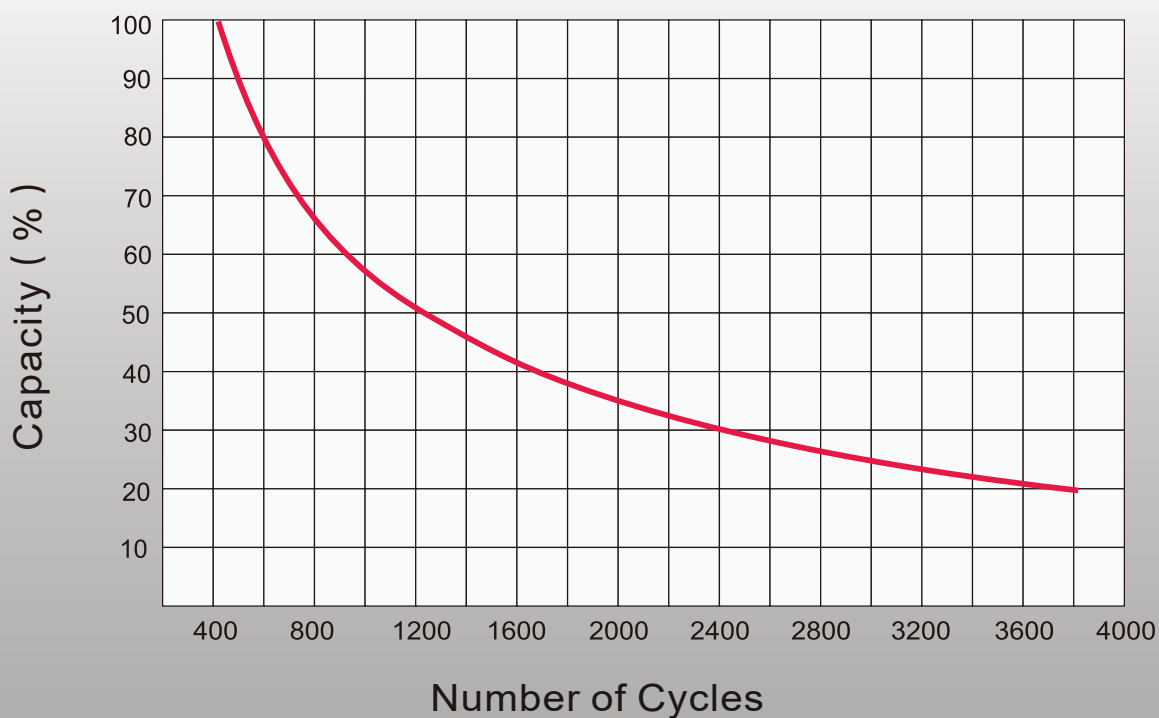
Float Charging Characteristics

Charge Volume Charging Current Charging Voltage 0.1CA-2.25V/cell Temperature: 25°C

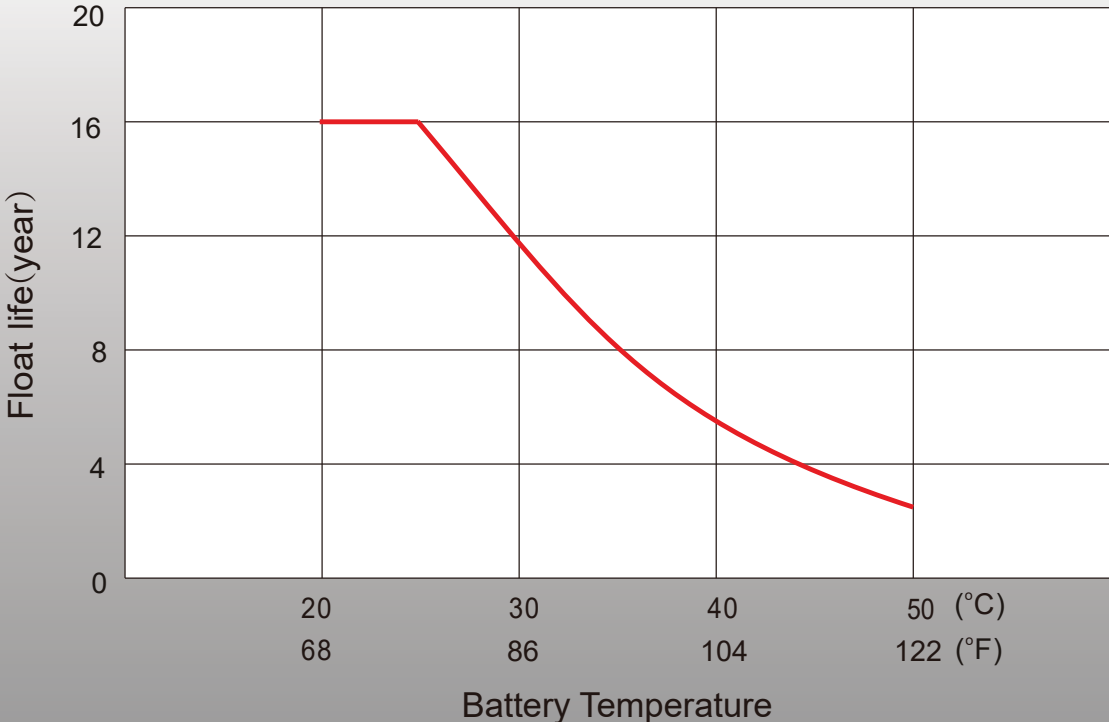


Cycle Life in Relation to Depth of Discharge

Acc.to IEC 896-2 (25 °C / 77°F)



Effect of Temperature on Long Term Float Life





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