

STARMAX

The world's leading battery brand



DEEP CYCLE GEL BATTERIES

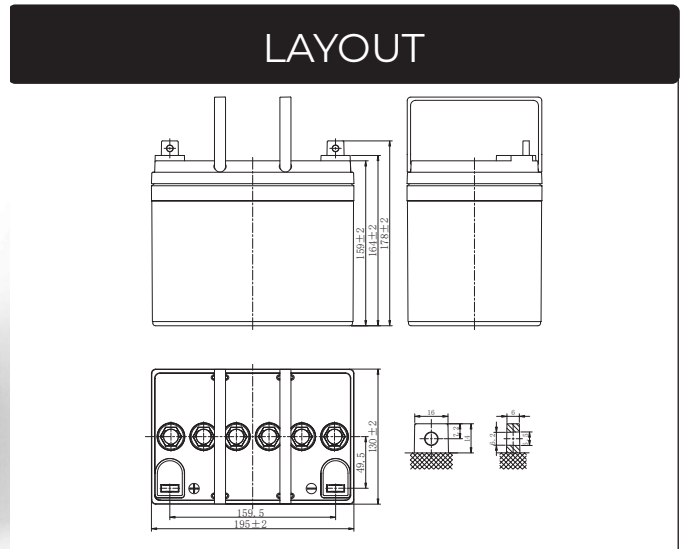
STG12-30 (12V 30Ah)



www.starmaxbatteries.com

STG SERIES-GEL BATTERIES

STG12-30



General Features

- ✓ Battery design life up to 6 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	12V	
Nominal Capacity	(C ₂₀ ,1.80V/cell)	30Ah
Dimensions	Length	195±2mm (7.68 inches)
	Width	130±2mm (5.12 inches)
	Container height	164±2mm (6.47 inches)
	Total height	178±2mm (7.01 inches)
Approx. weight	10.2kg (22.5 lbs)	
Terminal	T5	
Container material	ABS	
Rated capacity (25°C)	30.0 Ah	C20(1.50A,1.80V/cell)
	26.5 Ah	C10(2.65A,1.80V/cell)
	24.0 Ah	C5(4.80A,1.75V/cell)
	20.9 Ah	C3(6.96A,1.75V/cell)
	18.2 Ah	C1(18.2A,1.60V/cell)
Max. discharge current	450A (5s)	
Internal resistance (25°C)	Approx 14.6mΩ	
Operating temp. range	Discharge	-20~55°C (-4~131°F)
	Charge	-20~40°C (-4~104°F)
	Storage	-15~50°C (5~122°F)
Nominal operating temp. range	25±3°C (77±5°F)	
Standby Use	Initial Charging Current less than 7.75A. Voltage 2.23V~2.27V at 25°C (77°F)Temp. Coefficient -3mV/°C	
Equalization Use	Initial Charging Current less than 7.75A.Voltage 2.30V~2.37V at 25°C (77°F)Temp. Coefficient -4mV/°C	
Cycle Use	Initial Charging Current less than 7.75A.Voltage 2.40V~2.50V at 25°C (77°F)Temp. Coefficient -5mV/°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.	

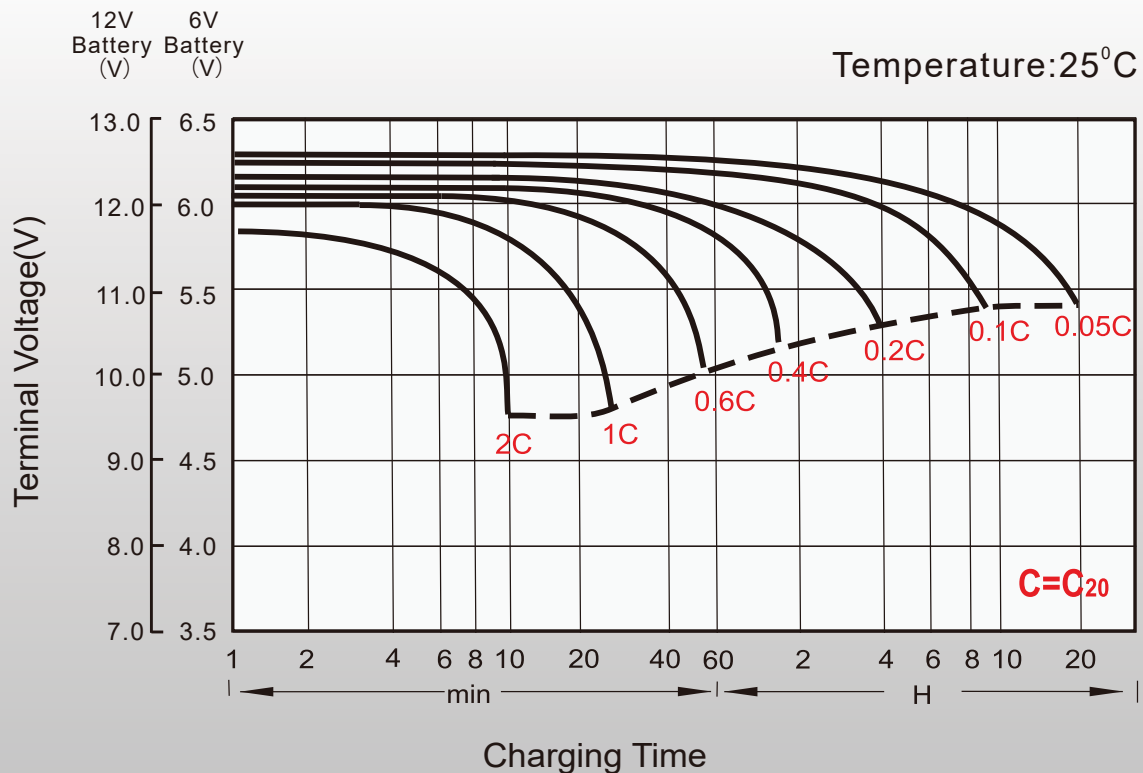
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	25.4	19.9	15.2	13.2	8.07	6.15	5.09	4.40	3.80	3.36	3.03	2.77	2.53	1.44
1.80V/cell	29.1	22.3	16.8	14.6	8.73	6.59	5.40	4.62	3.99	3.52	3.18	2.91	2.65	1.50
1.75V/cell	32.7	24.5	18.1	15.6	9.26	6.96	5.66	4.80	4.13	3.64	3.28	3.00	2.70	1.53
1.70V/cell	35.2	26.2	19.2	16.5	9.81	7.41	5.84	4.95	4.27	3.76	3.38	3.08	2.76	1.55
1.67V/cell	36.6	27.2	19.9	17.1	10.1	7.48	5.99	5.05	4.34	3.82	3.43	3.12	2.80	1.56
1.60V/cell	39.7	29.2	21.4	18.2	10.5	7.78	6.21	5.21	4.45	3.90	3.49	3.19	2.85	1.59

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

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	48.6	38.4	29.5	25.7	15.8	12.0	10.0	8.68	7.52	6.67	6.03	5.52	5.05	2.87
1.80V/cell	54.9	42.5	32.3	28.2	17.0	12.9	10.6	9.09	7.87	6.96	6.30	5.79	5.27	2.99
1.75V/cell	61.0	46.3	34.6	30.0	17.9	13.6	11.0	9.41	8.12	7.19	6.49	5.96	5.37	3.05
1.70V/cell	65.0	49.2	36.5	31.6	18.9	14.1	11.4	9.68	8.39	7.42	6.67	6.11	5.49	3.08
1.67V/cell	66.9	50.5	37.5	32.6	19.3	14.5	11.6	9.85	8.50	7.50	6.76	6.17	5.54	3.11
1.60V/cell	71.7	53.6	40.0	34.4	20.0	15.0	12.0	10.1	8.68	7.64	6.86	6.29	5.64	3.15

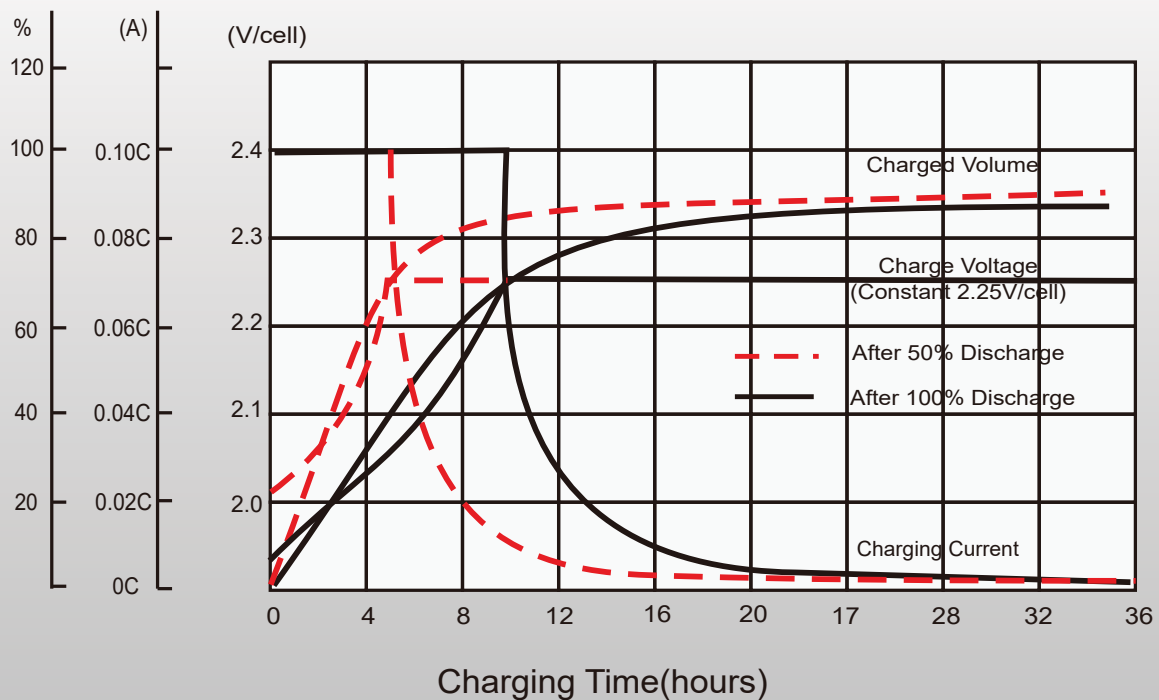
Discharge Characteristics



Float Charging Characteristics

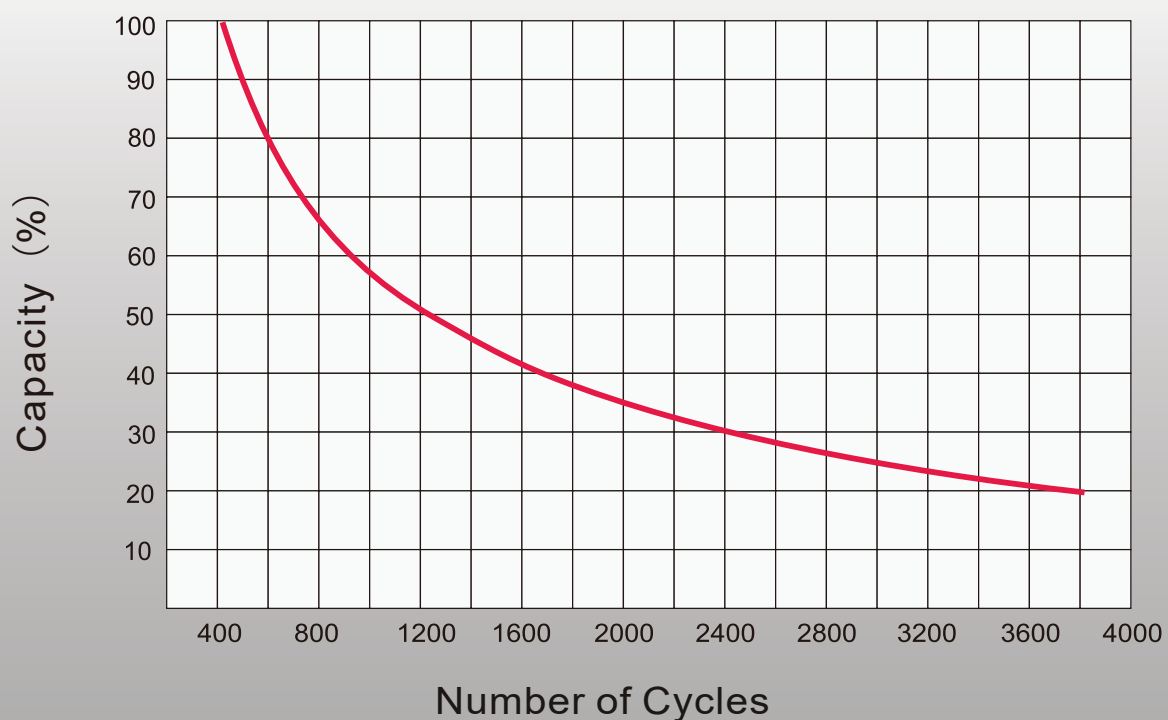
Charge Volume
Charging Current
Charging Voltage

0.1CA-2.25V/cell Temperature: 25°C

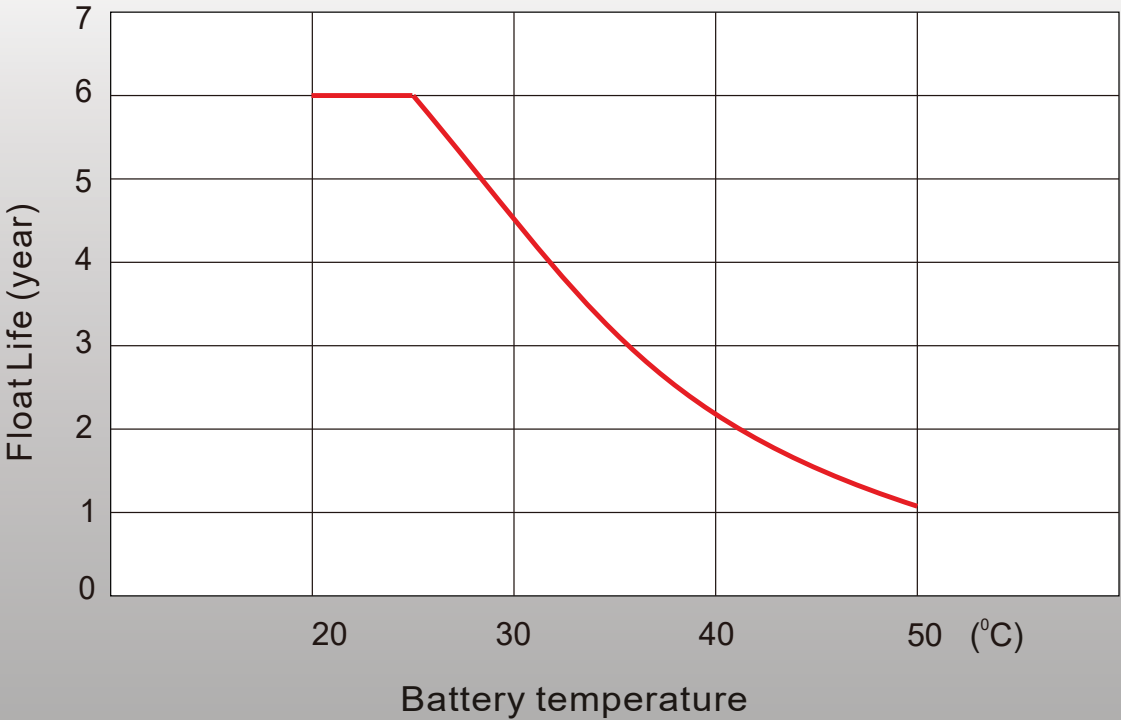


Cycle Life in Relation to Depth of Discharge

Acc.to IEC 896-2 (25 °C / 77°F)



Effect of Temperature on Long Term Float Life





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