

STARMAX

The world's leading battery brand



DEEP CYCLE GEL BATTERIES

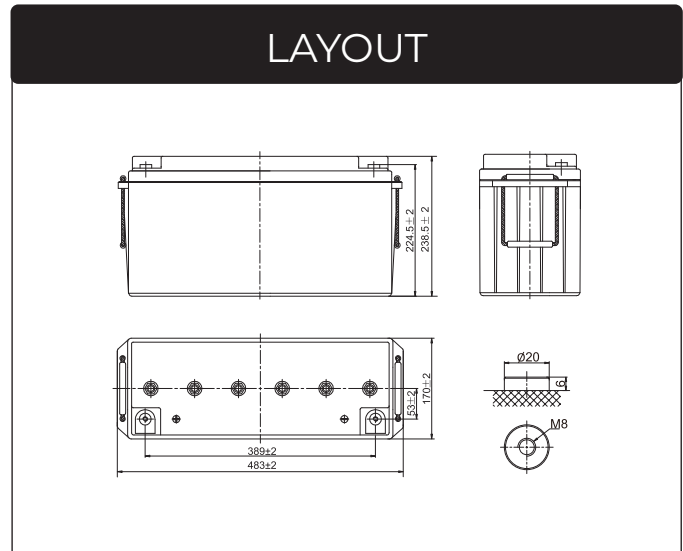
STG12-140 (12V 140AH)



www.starmaxbatteries.com

STG SERIES-GEL BATTERIES

STG12-140



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, CE 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)	140Ah
Dimensions	Length	483±2mm (19.0 inches)
	Width	170±2mm (6.69 inches)
	Container height	238.5±2mm (9.39 inches)
	Total height	238.5±2mm (9.39 inches)
Approx. weight	43.8kg (96.6 lbs)	
Terminal	M8	
Container material	ABS	
Rated capacity (25°C)	140.0 Ah	C20(7.00A,1.80V/cell)
	135.0 Ah	C10(13.5A,1.80V/cell)
	119.5 Ah	C5(23.9A,1.75V/cell)
	106.8 Ah	C3(35.6A,1.75V/cell)
	85.4 Ah	C1(85.4A,1.60V/cell)
Max. discharge current	1400A (5s)	
Internal resistance (25°C)	Approx 5.3mΩ	
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 35A. Voltage 2.23V~2.27V at 25°C (77°F)Temp. Coefficient -3mV/°C	
Equalization Use	Initial Charging Current less than 35A. Voltage 2.30V~2.37V at 25°C (77°F)Temp. Coefficient -4mV/°C	
Cycle Use	Initial Charging Current less than 35A. 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.	

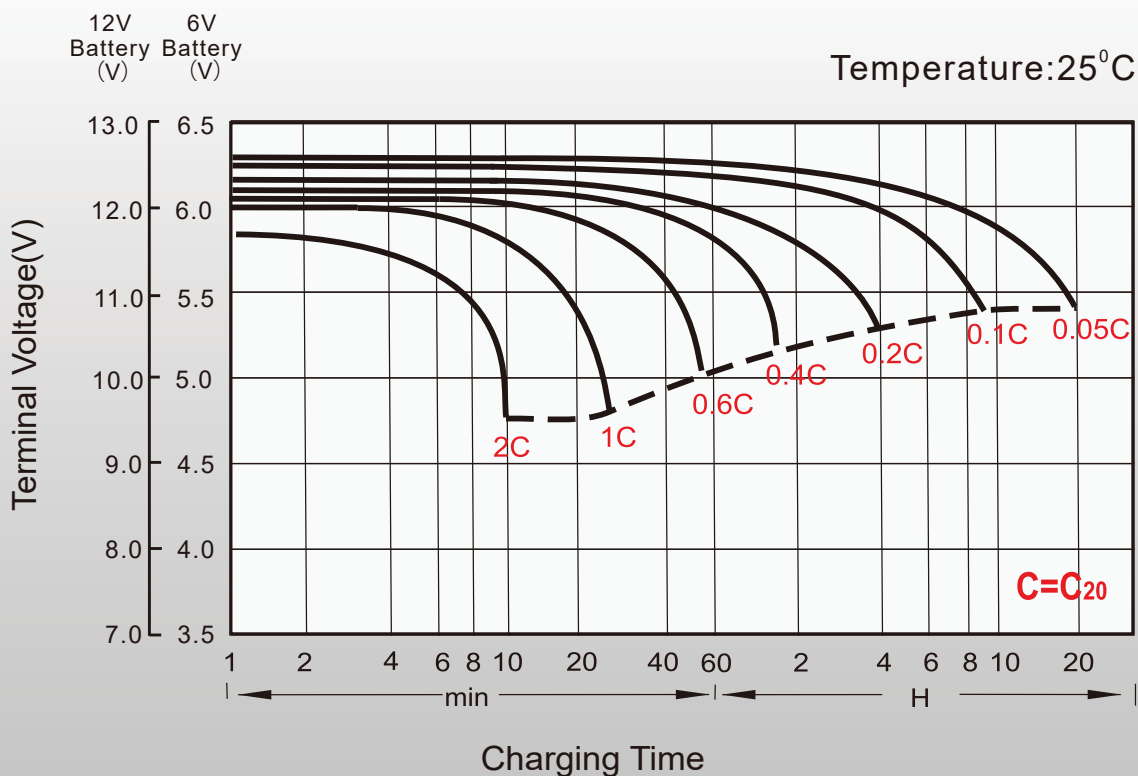
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	177.7	154.0	121.1	109.6	80.1	63.5	49.2	39.2	31.1	25.3	22.0	19.3	15.6	13.2	6.84
1.80V/cell	201.7	174.6	136.9	119.3	84.9	70.2	52.2	43.2	34.2	27.5	23.2	20.4	16.3	13.5	7.00
1.75V/cell	218.7	189.0	147.8	121.7	88.0	78.7	57.1	46.3	35.6	28.4	23.9	21.1	16.6	13.9	7.36
1.70V/cell	228.8	198.5	155.5	122.6	89.3	81.2	58.5	47.2	36.2	28.4	24.2	21.1	16.7	13.9	7.47
1.67V/cell	240.6	206.6	161.0	126.0	91.0	82.8	59.7	48.2	36.7	28.9	24.6	21.4	16.8	14.0	7.53
1.60V/cell	248.8	213.0	165.2	127.8	92.4	85.4	61.3	49.2	37.1	29.4	25.1	21.7	17.0	14.2	7.63

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

F.V/Time	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	334.2	291.6	230.4	209.4	154.1	123.3	95.7	76.7	61.1	49.7	43.3	38.0	30.8	26.2	13.6
1.80V/cell	373.9	326.2	257.7	226.2	162.2	135.5	101.2	84.0	66.8	53.9	45.5	40.0	32.1	26.7	13.9
1.75V/cell	399.0	348.2	275.1	229.0	167.0	150.9	110.0	89.6	69.1	55.3	46.8	41.3	32.6	27.4	14.6
1.70V/cell	410.1	360.8	286.0	228.4	168.3	154.3	112.0	90.8	70.0	55.2	47.2	41.2	32.8	27.4	14.8
1.67V/cell	426.3	372.0	293.9	233.3	170.7	156.8	113.9	92.4	70.8	56.0	47.8	41.7	33.0	27.6	14.9
1.60V/cell	432.3	377.2	298.0	234.3	171.6	160.4	115.9	93.6	71.2	56.7	48.7	42.2	33.2	27.8	15.1

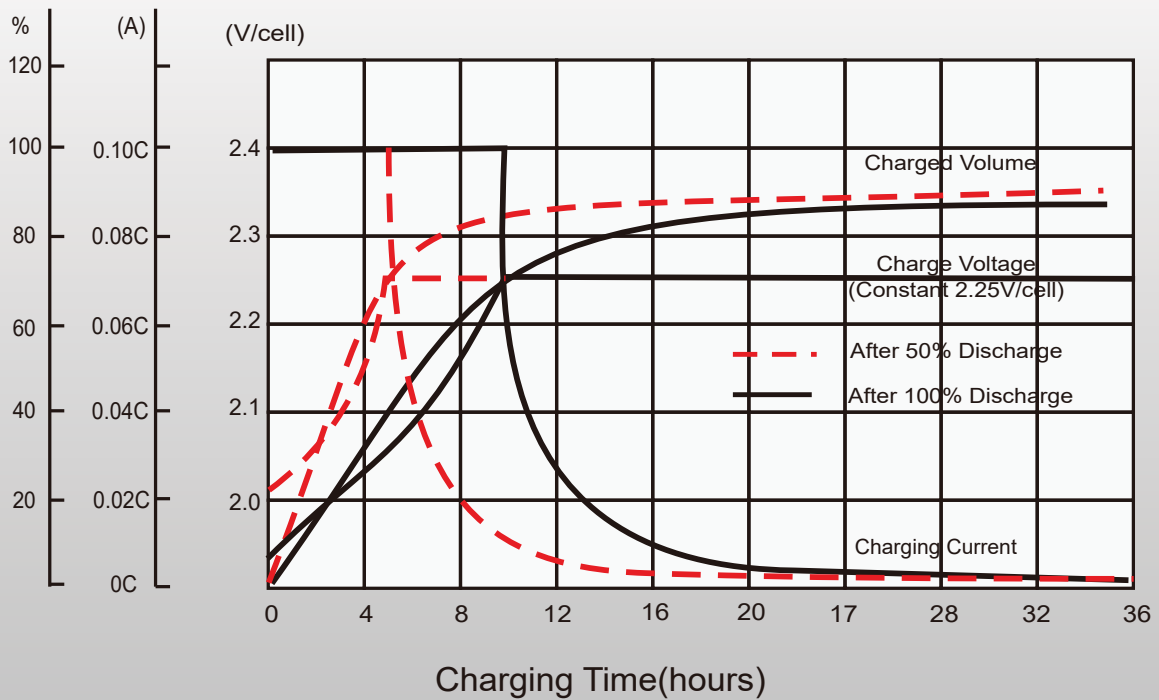
Discharge Characteristics



Float Charging Characteristics

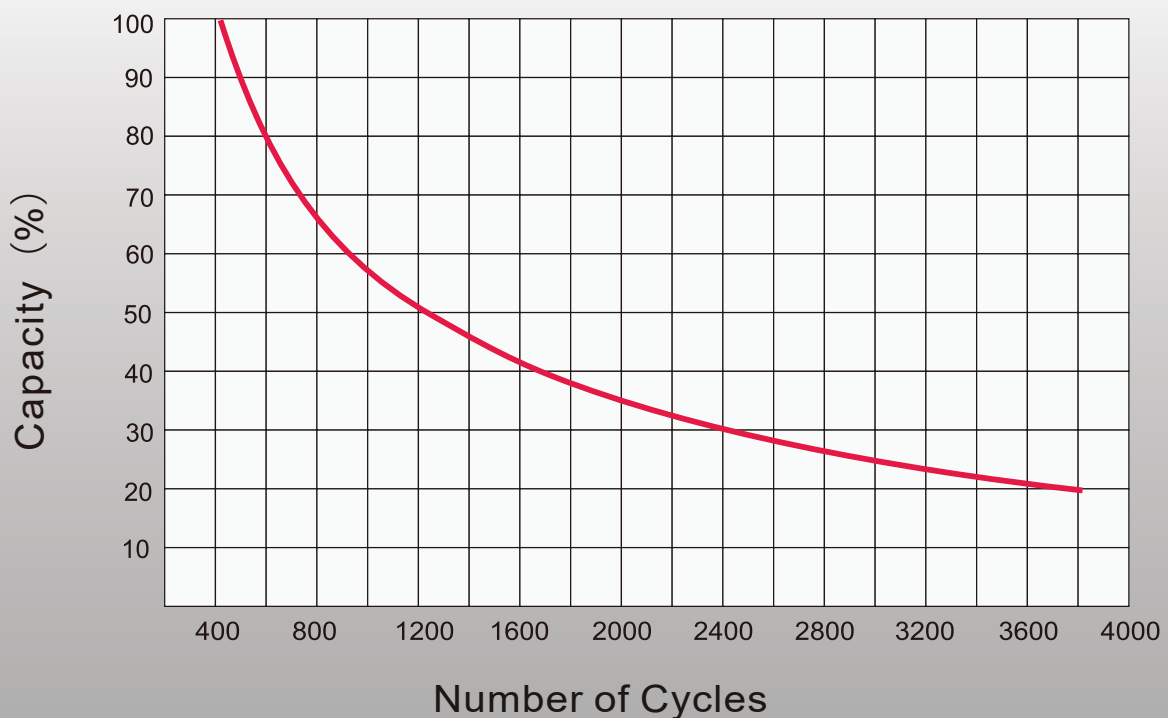
Charge Volume
Charging Current
Charging Voltage

0.1CA-2.25V/cell Temperature: 25°C

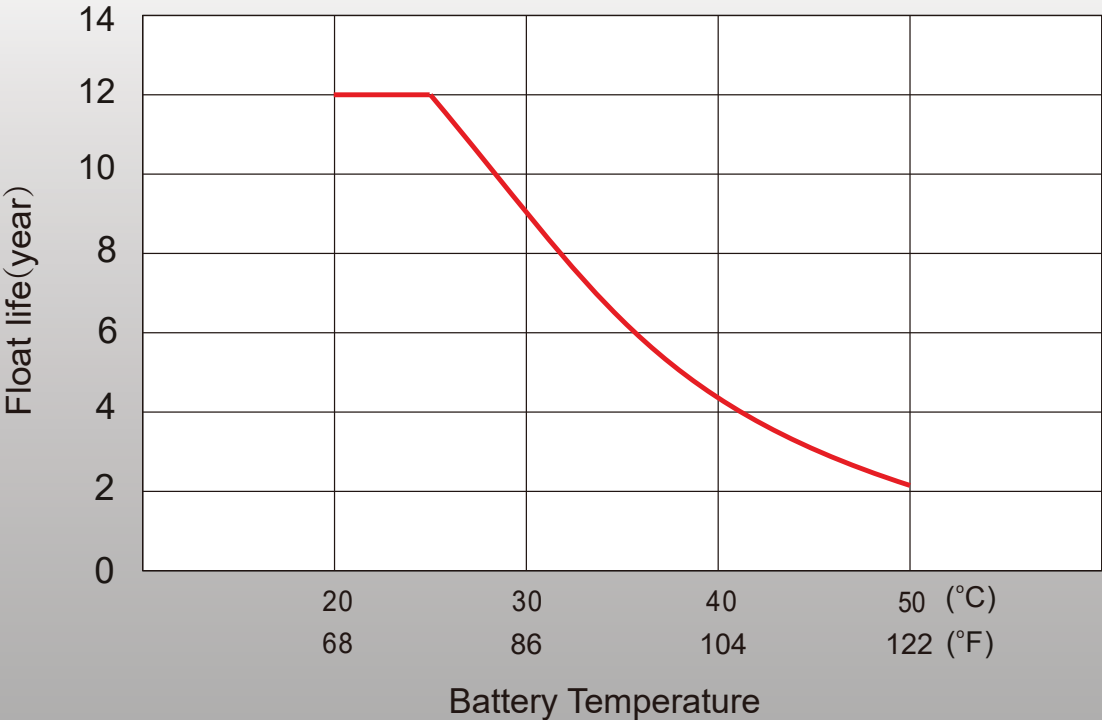


Cycle Life in Relation to Depth of Discharge

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

