

SG12-150D is AGM Deep cycle battery with 10 years floating design life, specially designed for frequent cyclic discharge usage. By using strong grid and specific paste plate, it makes battery have 30% more cyclic life time than standby series. It is applicable for solar energy system, golf cart, electric wheelchair, etc..

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	150Ah@10hr-rate to 1.75V per cell @25°C
Weight	Approx. 44.5 Kg
Max. Discharge Current	1500 A (5 sec)
Internal Resistance	Approx. 4 mΩ
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C±5°C
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	54 A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	Sonnenplus batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	Terminal F5/F12
Container Material	A.B.S. (UL94-HB) , Flammability resistance of UL94-V1 can be available upon request.



Dimensions

Unit: mm Dimension: 483(L)×170(W)×240(H)



Constant Current Discharge Characteristics: A (25°C)

F.V/Time	1HR	2HR	3HR	5HR	8HR	10HR	20HR	30HR	50HR	70HR	100HR	120HR
9.60V	97.50	54.46	39.15	26.52	18.63	15.75	8.33	5.67	3.50	2.62	1.92	1.67
10.0V	97.05	54.05	39.00	26.36	18.48	15.60	8.18	5.56	3.44	2.57	1.88	1.64
10.2V	96.15	53.64	38.70	26.21	18.33	15.45	8.03	5.46	3.37	2.52	1.85	1.61
10.5V	95.25	53.24	38.55	25.90	18.18	15.30	7.88	5.36	3.31	2.48	1.81	1.58
10.8V	93.00	52.28	37.50	25.43	17.88	15.15	7.73	5.25	3.24	2.43	1.78	1.55
11.1V	88.35	49.96	35.85	24.34	17.12	14.69	7.27	4.94	3.05	2.29	1.67	1.45

Constant Power Discharge Characteristics: W (25°C)

F.V/Time	1HR	2HR	3HR	5HR	8HR	10HR	20HR	30HR	50HR	70HR	100HR	120HR
9.60V	1115	626.5	451.8	307.0	216.2	177.1	93.6	63.63	39.30	29.41	21.52	18.71
10.0V	1110	624.1	450.9	305.1	215.3	175.3	92.7	63.01	38.92	29.12	21.31	18.53
10.2V	1102	618.3	448.2	304.2	213.5	174.4	91.8	62.39	38.54	28.84	21.10	18.35
10.5V	1091	612.6	445.5	301.4	211.7	172.6	90.8	61.78	38.16	28.55	20.89	18.17
10.8V	1064	603.6	434.7	296.7	207.1	170.8	89.9	61.16	37.77	28.27	20.69	17.99
11.1V	1008	575.8	413.1	281.7	199.9	165.3	86.3	58.69	36.25	27.12	19.85	17.26

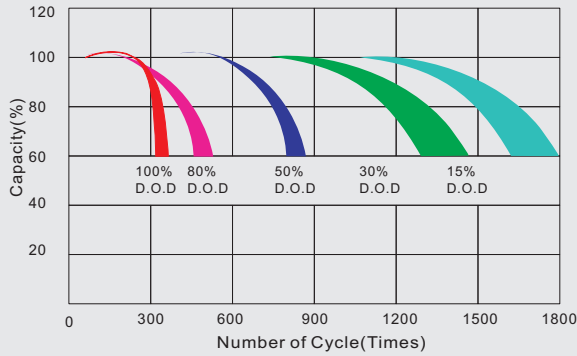
All mentioned values are average values.

SG12-150D

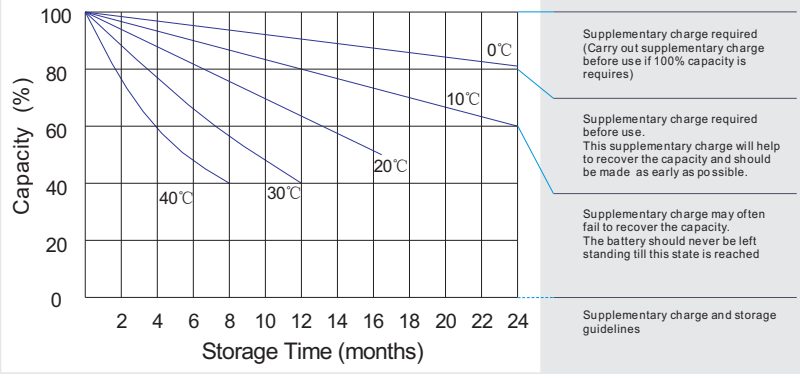


12V150Ah

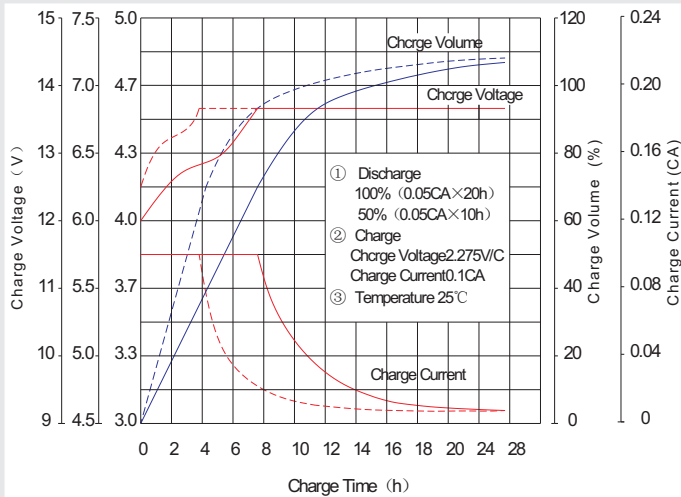
Life characteristics of cyclic use



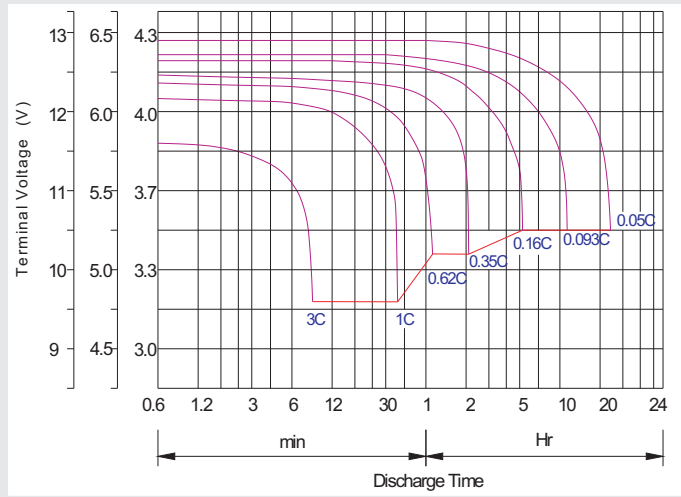
Storage characteristic



Charge characteristic Curve for standby use



Discharge characteristic Curve



Capacity Factors With Different Temperature

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
GEL Battery	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

Maintenance & Cautions

Cycle service

- ※ Avoid battery over discharge, especially battery series connection use.
- ※ Charged with recommend voltage, ensure battery can be full recharged.
- In general, recharge capacity should be 1.1-1.15 times discharge capacity.
- ※ Effect of temperature on cycle charge voltage: -4mV/°C/Cell.
- ※ There are a number of factors that will affect the length of cyclic service.
- The most significant are depth of discharge, ambient temperature, discharge rate, and the manner in which the battery is recharged.
- Generally speaking, the most important factors is depth of discharge.

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	-0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.3CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h