

SG 1500H (12V150AH/C₁₀)

Power Solar Gel Premium Battery



Solar Gel Deep Cycle

Solar gel PP Series

NEWMAX Solar gel batteries are true maintenance-free sealed batteries engineered specially to satisfy the need for frequent deep cycles from PVs and renewable energy storage applications. We are confident that our technology-intensive, long-lasting, and environment friendly SG batteries will provide stability and efficiency for your everyday renewable energy needs.

General feature

- ❖ Plate Paste type
- ❖ Battery type Sealed and Maintenance free operation / Non-spillable construction design
- ❖ Case/cover material High-stiffness engineering plastic PP (Heat Deflection Temp. 140°C)
RoHS Compliant EU Directive 2002/95/EC
- ❖ Safety performance Safety valve & flame arrestor installation for explosion proof.
- ❖ High quality, high reliability and low self discharge rate / Exceptional deep discharge recovery performance
- ❖ Flexibility design for multiple install positions (Position Free, GEL Technology)
- ❖ Designed in accordance with and published in compliance with applicable IEC and BS EN, KS standards
 - IEC 60896-21/22 Stationary lead-acid batteries – Valve regulated types
 - BS EN 61427 Secondary cells and batteries for photovoltaic energy systems (PVES)
 - KS C 8518 Stationary sealed lead-acid batteries – Valve regulated types



*** The color and the printed specifications of the products are subject to change without prior notice.

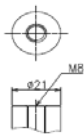
01 Long Life **02 Maintenance Free** **03 Leak free** **04 Safety**

High density, anti-corrosive lead calcium alloy is used in harmony with the GEL electrolyte to reduce the sulfation effect significantly.

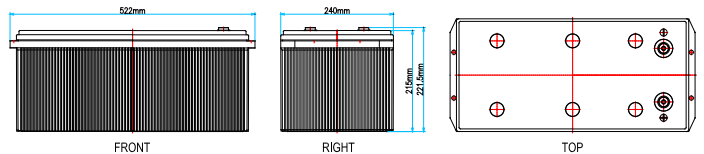
NEWMAX Battery has a gas re-combining design that doesn't need maintenance until the end of its life.

Gel Technology is applied to prevent leakage. They won't spill even if the battery is tipped upside down.

Specially designed anti-explosion filter and safety valves prevent gas leakage when overcharged.



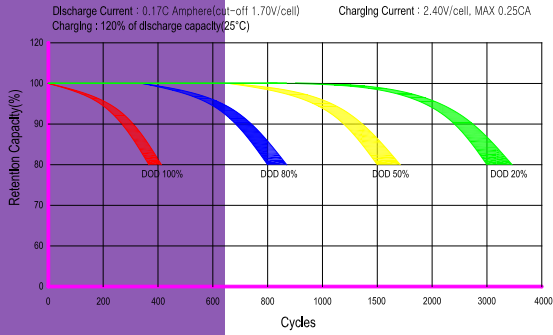
Standard



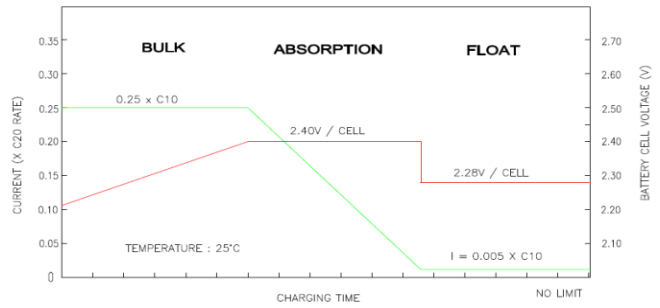
M1-04

Battery model	SG 1500H (12V150AH / 10 HOUR RATE)			
Capacity (@25°C)	C ₁₀ (1.80VPC)	C ₅ (1.70VPC)	C ₃ (1.65VPC)	C ₁ (1.60VPC)
	150Ah	141Ah	137Ah	102Ah
Dimensions (mm/inch)	Length	Width	Height	Total Height
	522(20.55)	240(9.45)	215(8.47)	221(8.70)
Weight (kg/lbs)	47.0kg(103.62lbs) ± 3%			
Internal resistance (mΩ)	≤3.00mΩ (25°C, 77°F)			
Max. discharge current (5sec)	1200 A	Max. discharge current(continuous)		450 A
Capacity affected by Temperature	@30°C (86°F)	@25°C (77°F)	@10°C (50°F)	@-10°C (14°F)
	105%	103%	95%	78%
Self discharge (@25°C, 77°F)	After 1 month 3%		After 3 month 8%	After 6 month 15%
Max. short duration discharge current (0.1sec)	3,000A ± 10%			
Recommended charging (@25°C) Solar system	1 st Bulk step	2 nd Absorption step		3 rd Floating step
	0.20~0.25C CC	2.40V/cell CV, (cut-off A : 0.005C)		2.28V/cell CV

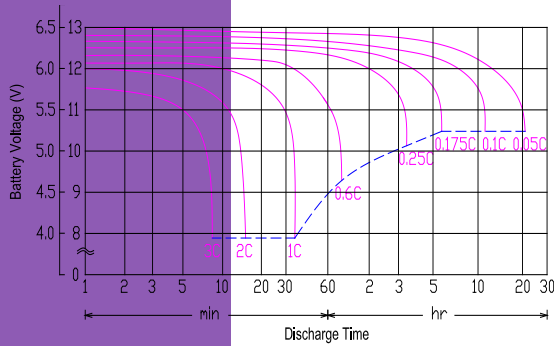
Cycle life characteristics



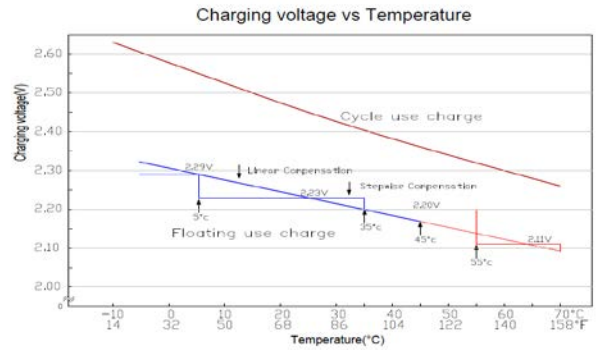
Solar charging characteristics



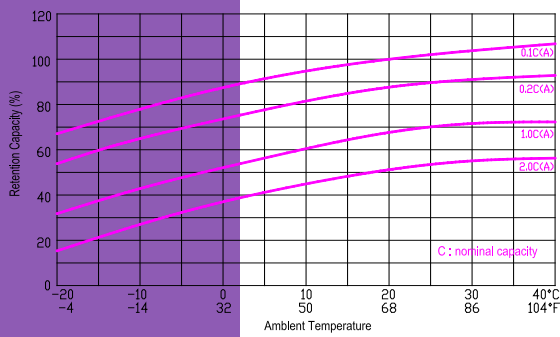
Discharge time vs current



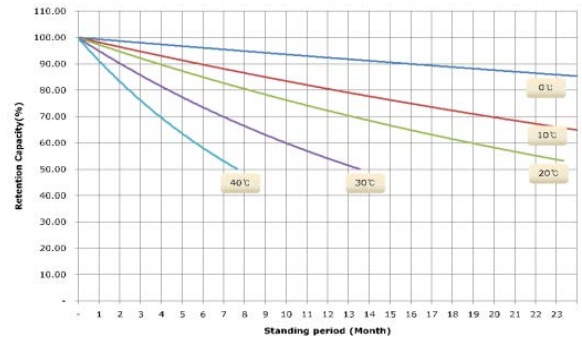
Charge voltage and Temperature



Effect of temperature on capacity



Self discharge



Constant current discharge ratings – Amperes per cell @ 25°C

V/cell	Minutes						Hours					
	5	10	15	20	30	40	1	3	5	8	10	20
1.90V	333	273	256	208	173	147	98	39.0	24.6	16.9	14.4	7.9
1.85V	397	322	294	239	193	164	100	40.5	25.5	17.7	15.0	8.2
1.80V	462	359	316	253	198	169	101	42.1	26.1	18.3	15.2	8.5
1.75V	498	380	329	261	202	175	102	43.7	26.9	18.8	15.8	8.7
1.70V	538	398	341	266	205	176	102	44.4	28.3	19.4	16.4	9.0
1.65V	555	407	346	271	207	176	103	46.0	28.8	20.2	17.0	9.3
1.60V	571	415	348	273	207	177	103	46.8	29.7	20.6	17.5	9.6

Constant power discharge ratings – Watts per cell @ 25°C

V/cell	Minutes						Hours					
	5	10	15	20	30	40	1	3	5	8	10	20
1.90V	646	529	497	404	341	291	192	76.8	48.4	33.8	28.8	15.8
1.85V	769	625	570	464	380	324	197	79.9	50.3	35.4	30.1	16.4
1.80V	896	697	613	492	390	334	199	82.9	51.5	36.6	30.4	17.0
1.75V	967	737	638	506	398	344	200	86.0	53.0	37.5	31.6	17.3
1.70V	1044	773	661	517	403	347	201	87.5	55.8	38.8	32.9	18.0
1.65V	1077	789	671	525	407	348	202	90.6	56.7	40.3	34.1	18.6
1.60V	1107	806	676	529	408	348	203	92.2	58.5	41.3	35.0	19.2

