Updated Feb. 2017

SG 1500H (12V150AH/C_{20})

Power Solar Gel Battery

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

Solar Gel Deep Cycle

Solar gel 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

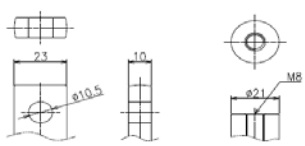
Plate	Paste type
Battery type	Sealed and Maintenance free operation
Structure	Nonspillable construction design
Container/cover	ABS resin (Optional Flame retardant, UL94-V0)
Safety	Safety valve installation for explosion proof.
High quality and high reliability and low self discharge characteristics	
Exceptional deep discharge recovery performance	
Flexibility design for multiple install positions (Position Free)	

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

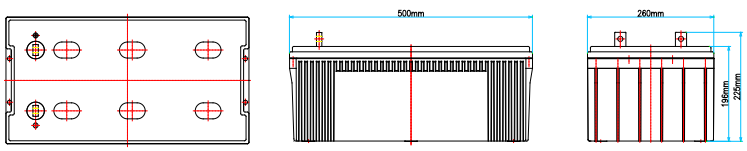
02 Maintenance Free
NEWMAX Battery has a gas re-combining design that doesn't need maintenance until the end of its life.

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

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



Standard Optional



K1-06

Battery model	SG 1500H (12V150AH / 20 HOUR RATE)			
Capacity (@25℃)	20HR (1.80VPC)	10HR (1.75VPC)	5HR (1.70VPC)	1HR (1.60VPC)
	150Ah	143Ah	131Ah	99Ah
Dimensions (mm/inch)	Length	Width	Height	Total Height
	500(19.69)	260(10.24)	196(7.72)	225(8.86)
Weight (kg/lbs)	43.9kg(96.78lbs)±3%			
Internal resistance (mΩ)	≤3.85mΩ (25℃, 77°F)			
Max. discharge current (5sec)	1140 A	Max. discharge current(continuous)		430 A
Capacity affected by Temperature	@30℃(86°F)	@25℃(77°F)	@10℃(50°F)	@-10℃(14°F)
	105%	103%	95%	78%
Self discharge (@25℃,77F)	After 1 month 3%	After 3 month 8%		After 6 month 15%
Max. short duration discharge current (0.1sec)	2,860A±10%			
Recommended charging (@25℃)	Cycle use		Floating use	
	2.40~2.45V/cell (±5.5mV/℃/Cell) / 57.0A max.		2.20~2.24V/cell (±3.3mV/℃/cell)	

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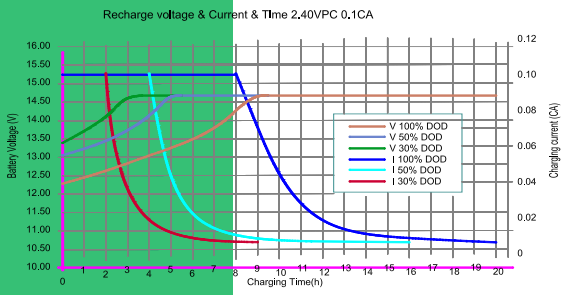
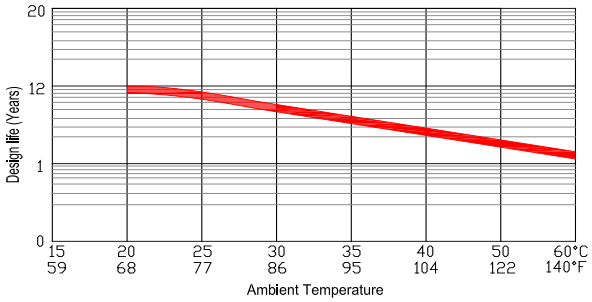
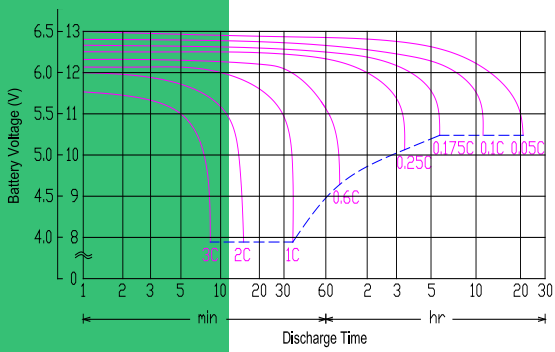
DOD % vs Recharging time curve



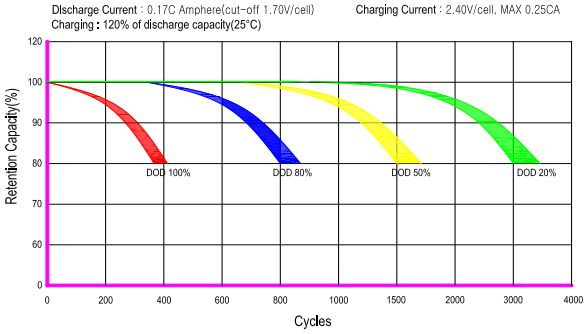
Floating life characteristics



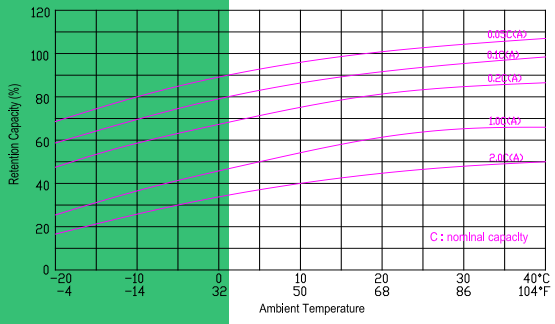
Discharge time vs current



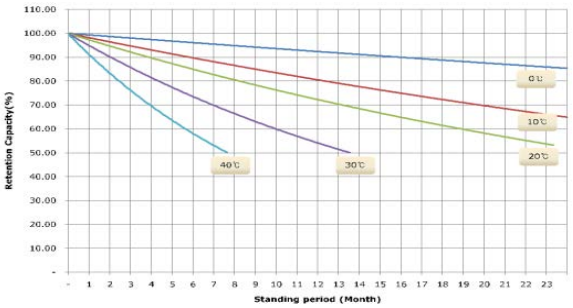
Cycle life characteristics



Effect of temperature on capacity



Self discharge



Constant current discharge ratings – Amperes per cell @ 25℃

V/cell	Minutes						Hours					
	5	10	15	20	30	40	1	3	5	8	10	20
1.90V	283	235	219	178	146.9	124	94	35.1	23.0	15.2	13.2	7.0
1.85V	337	259	252	204	163	139	96	36.5	23.9	15.9	13.8	7.2
1.80V	392	309	271	216	168	143	97	38.0	24.5	16.4	14.2	7.5
1.75V	423	326	281	222	171	147	97	39.4	25.2	16.8	14.5	7.6
1.70V	457	342	292	227	173	149	98	40.1	26.5	17.4	15.1	7.9
1.65V	471	350	296	231	175	149	98	41.5	27.0	18.1	15.7	8.2
1.60V	484	357	298	232	176	149	99	42.2	27.8	18.5	16.1	8.5

Constant power discharge ratings – Watts per cell @ 25℃

V/cell	Minutes						Hours					
	5	10	15	20	30	40	1	3	5	8	10	20
1.90V	548	455	425	345	289	245	184	69	45	30	26	14
1.85V	653	503	488	395	322	273	189	72	47	32	28	14
1.80V	761	599	525	419	330	282	190	75	48	33	28	15
1.75V	821	633	546	431	338	290	192	78	50	34	29	15
1.70V	886	664	566	440	342	293	193	79	52	35	30	16
1.65V	914	678	574	448	345	293	193	82	53	36	31	16
1.60V	940	693	578	451	346	294	195	83	55	37	32	17