

SG 2000H (12V200AH/C₁₀)



Power Solar Gel Premium Battery

Solar Gel Deep Cycle



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

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	
	<ul style="list-style-type: none"> ● 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

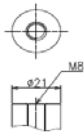
01 Long Life 02 Maintenance Free 03 Leak free 04 Safety

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

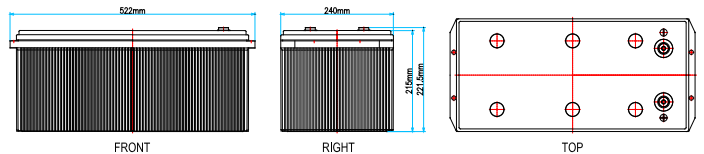
NEWMAX Battery has a gas re-combining design that doesn't need maintenance until the end of its life.

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

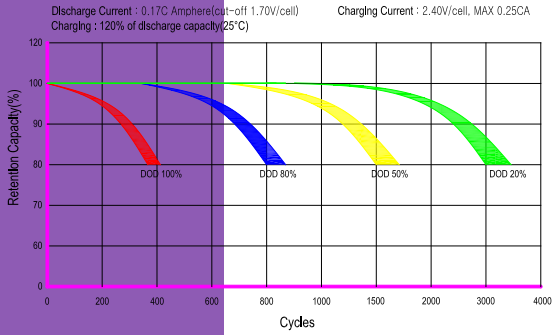


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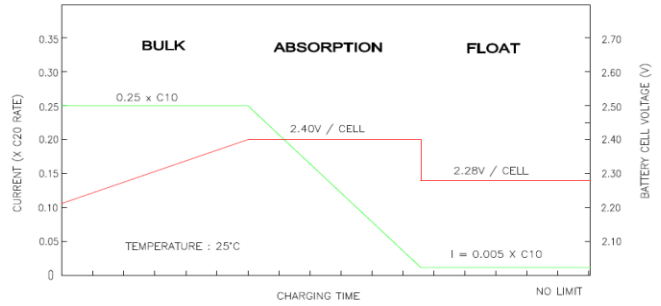
Battery model	SG 2000H (12V200AH / 10 HOUR RATE)			
Capacity (@25°C)	C ₂₀ (1.80VPC)	C ₁₀ (1.75VPC)	C ₅ (1.70VPC)	C ₁ (1.60VPC)
	220Ah	200Ah	191Ah	135Ah
Dimensions (mm/inch)	Length	Width	Height	Total Height
	522(20.55)	240(9.45)	215(8.47)	221(8.70)
Weight (kg/lbs)	59.0kg(130.07 lbs) ± 3%			
Internal resistance (mΩ)	≤ 2.50mΩ (25°C, 77°F)			
Max. discharge current (5sec)	1600 A	Max. discharge current(continuous)		600 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)	4,000A ± 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



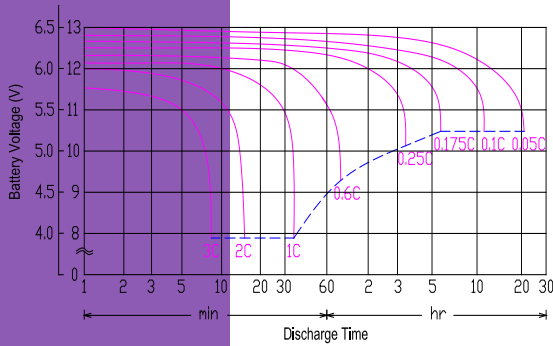
Cycle life characteristics



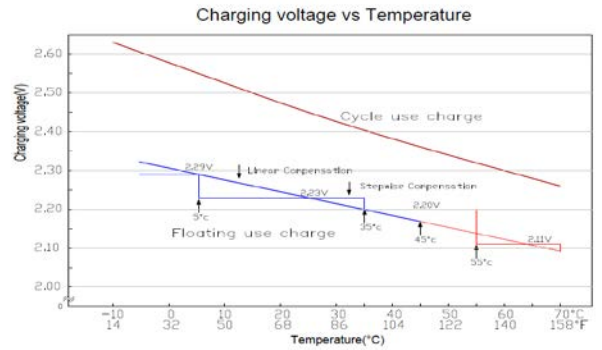
Solar charging characteristics



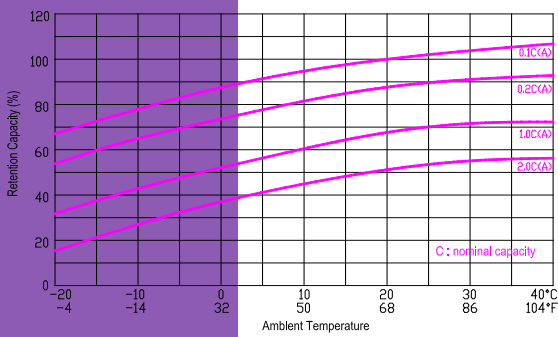
Discharge time vs current



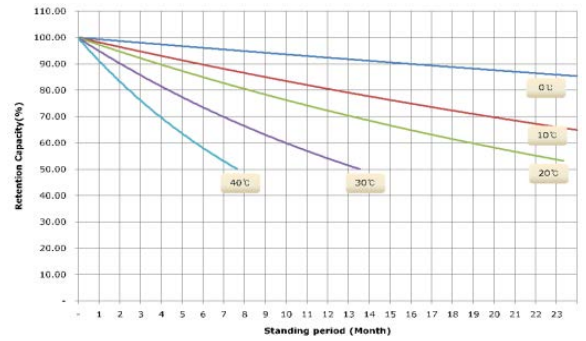
Charge voltage and Temperature



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	386	322	302	246	204	174	127	50.0	33.2	21.8	18.6	10.2
1.85V	460	380	347	282	227	194	131	52.0	34.4	22.8	19.4	10.6
1.80V	536	424	373	299	233	200	132	54.0	35.3	23.6	20.0	11.0
1.75V	578	448	388	308	238	206	133	56.0	36.3	24.2	20.4	11.2
1.70V	624	470	402	314	241	208	134	57.0	38.2	25.0	21.2	11.6
1.65V	644	480	408	320	244	208	134	59.0	38.8	26.0	22.0	12.0
1.60V	662	490	411	322	244	209	135	60.0	40.1	26.6	22.6	12.4

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	749	625	586	477	403	343	250	99	65	44	37	20
1.85V	892	737	673	547	448	382	258	102	68	46	39	21
1.80V	1040	823	724	580	460	394	260	106	69	47	40	22
1.75V	1121	869	753	597	470	406	262	110	72	48	41	22
1.70V	1211	912	780	610	476	409	264	112	75	50	42	23
1.65V	1249	931	792	620	481	410	265	116	76	52	44	24
1.60V	1284	951	797	625	481	411	266	118	79	53	45	25

