

SIN12-2.3 [12V 2,3AH]

Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	2.3Ah@20hour-rate to 1.75V per cell @25°C
Weight	Approx. 0.97 Kg (Tolerance ±5.0%)
Internal Resistance	Approx. 60 mΩ
Terminal	F1
Max. Discharge Current	23A (5 sec)
Short Circuit Current	120A
Design Life	6~8 years (Float charging)
Max. Charging Current	0.69 A
Reference Capacity	C3 1.78AH C5 2.01AH C10 2.15AH C20 2.30AH
Standby Use Voltage	13.7 V~13.9 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell
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
Self Discharge	SINERGY Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

SIN series is a general purpose battery with 6~8 years design life in float service. It meets with IEC, JIS, BS, GB/T and YD/T standards. With advanced AGM valve regulated technology and high purity raw material, the SIN series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/EP5, medical equipment, emergency light and security system applications.

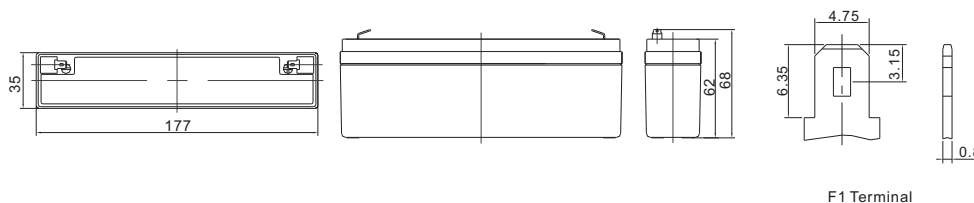


ISO 9001 ISO 14001 OHSAS 18001



MH 28539 G4M20206-0910-E-16

Dimensions



Length	177±1.5mm (6.97 inches)
Width	35±1.5mm (1.38 inches)
Height	62±1.5mm (2.44 inches)
Total Height	68±1.5mm (2.68 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

F1 Terminal

Unit: mm

Constant Current Discharge Characteristics : A (25°C)

F.V./Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	8.727	6.167	4.458	2.561	1.405	0.863	0.649	0.524	0.434	0.279	0.227	0.120
1.65V	8.115	5.828	4.262	2.458	1.357	0.835	0.629	0.509	0.423	0.276	0.224	0.118
1.70V	7.322	5.365	3.992	2.350	1.313	0.808	0.612	0.496	0.412	0.272	0.221	0.116
1.75V	6.560	4.911	3.715	2.246	1.265	0.780	0.593	0.483	0.401	0.268	0.218	0.115
1.80V	5.760	4.446	3.430	2.147	1.217	0.752	0.575	0.469	0.391	0.264	0.215	0.114
1.85V	4.572	3.633	2.847	1.849	1.091	0.689	0.531	0.436	0.365	0.247	0.202	0.108

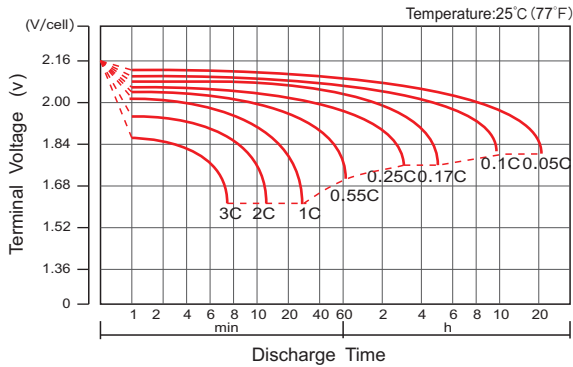
Constant Power Discharge Characteristics : WPC (25°C)

F.V./Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	14.47	10.48	7.794	4.651	2.641	1.635	1.239	1.005	0.836	0.545	0.446	0.236
1.65V	13.61	10.10	7.562	4.512	2.565	1.591	1.206	0.982	0.818	0.540	0.441	0.232
1.70V	12.56	9.466	7.188	4.356	2.497	1.547	1.178	0.959	0.799	0.533	0.435	0.230
1.75V	11.50	8.821	6.786	4.206	2.420	1.500	1.148	0.938	0.782	0.527	0.430	0.227
1.80V	10.31	8.124	6.355	4.061	2.341	1.453	1.117	0.914	0.764	0.519	0.425	0.225
1.85V	8.358	6.758	5.348	3.532	2.113	1.339	1.037	0.853	0.715	0.488	0.400	0.214

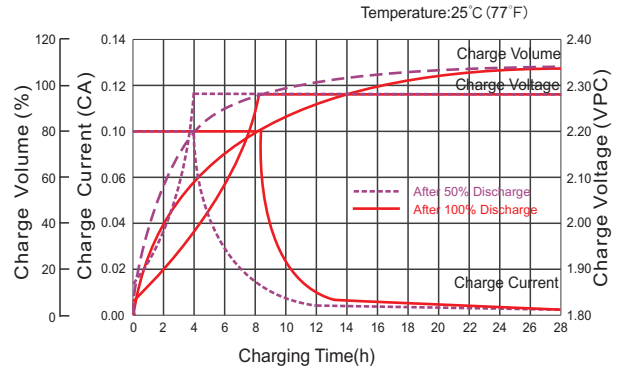
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C₂₀ should reach 95% after the first cycle and 100% after the third cycle.

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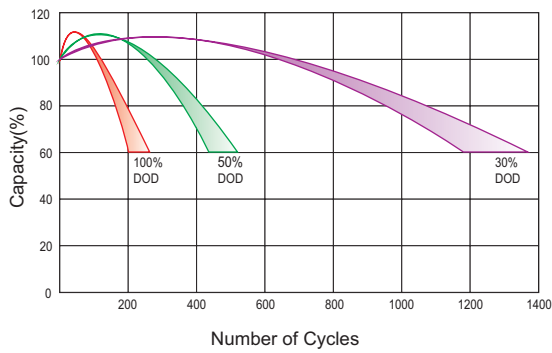
Discharge Characteristics Curve



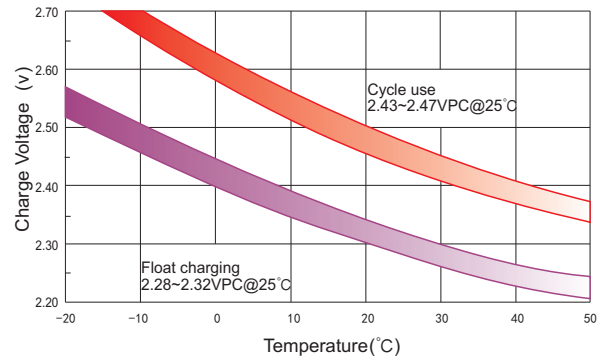
Charge Characteristic Curve For Standby Use



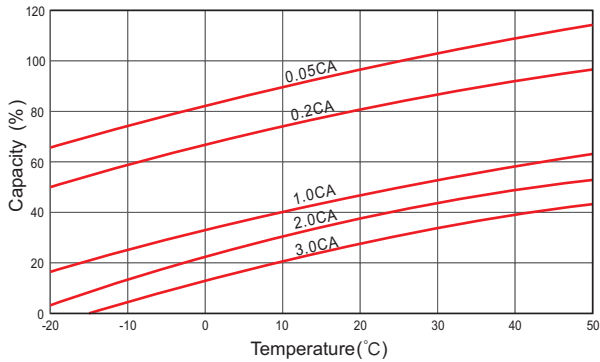
Cycle Life In Relation To Depth Of Discharge



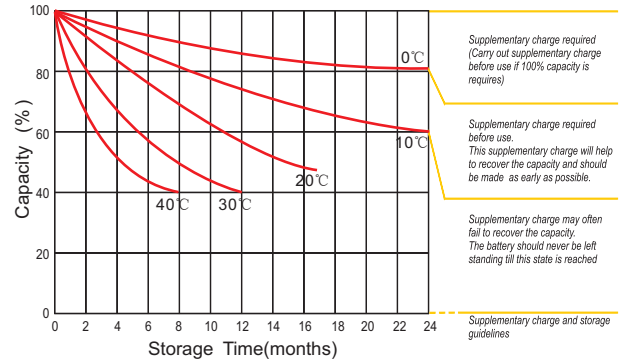
Relationship Between Charging Voltage And Temperature



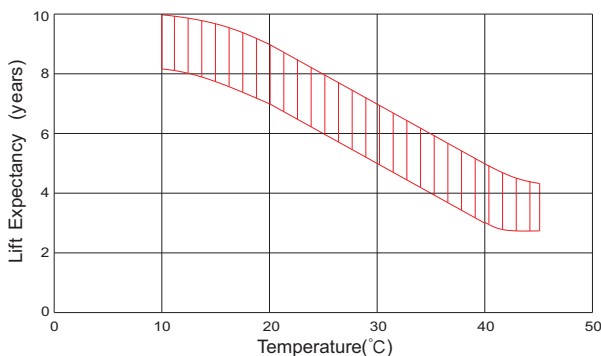
Temperature Effects On Capacity



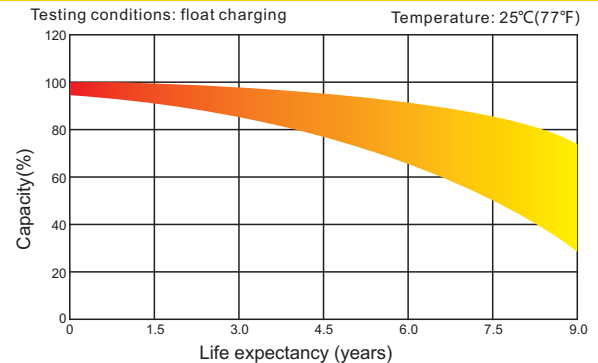
Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use



(Note) All above information shall be changed without prior notice,