SIN6-12 [6V 12AH]

Specification

Cells Per Unit	3
Voltage Per Unit	6
Nominal Capacity	12.0Ah@20hour-rate to 1.75V per cell @25℃
Weight	Approx. 1.80 Kg (Tolerance±5.0%)
Internal Resistance	Approx. 10.0 mΩ
Terminal	F1 / F2 option
Max. Discharge Current	120A (5 sec)
Short Circuit Current	600A
Design Life	6~8 years (Float charging)
Max. Charging Current	3.60 A
Reference Capacity	C3 9.29AH C5 10.5AH C10 11.2AH C20 12.0AH
Standby Use Voltage	6.85 V~6.94 V @ 25℃ Temperature Compensation: -3mV/℃/Cell
Cycle Use Voltage	7.30 V~7.40 V @ 25℃ Temperature Compensation: -4mV/℃/Cell
Operating Temperature Range	Discharge: -20℃~60℃ Charge: 0℃~50℃ Storage: -20℃~60℃
Normal Operating Temperature Range	25℃±5℃
Self Discharge	SINERGY Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25℃ and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25℃.Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

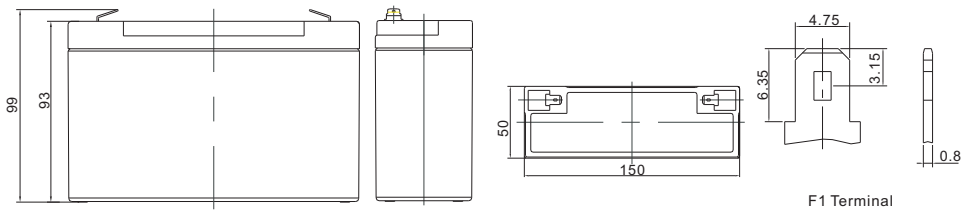
SINERGY BATTERIES

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/EPS, medical equipment, emergency light and security system applications.

ISO 9001 ISO 14001 OHSAS 18001

MH 28539 G4M20206-0910-E-16

Dimensions



Length	150±1.5mm (5.91 inches)
Width	50±1.5mm (1.96 inches)
Height	93±1.5mm (3.66 inches)
Total Height	99±1.5mm (3.90 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

Constant Current Discharge Characteristics : A (25℃)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	45.53	32.18	23.26	13.36	7.332	4.502	3.384	2.732	2.264	1.457	1.183	0.625
1.65V	42.34	30.41	22.24	12.83	7.080	4.358	3.280	2.658	2.205	1.441	1.169	0.615
1.70V	38.20	27.99	20.83	12.26	6.850	4.214	3.190	2.586	2.148	1.418	1.151	0.607
1.75V	34.23	25.62	19.38	11.72	6.600	4.067	3.095	2.520	2.094	1.399	1.136	0.600
1.80V	30.05	23.19	17.90	11.20	6.347	3.921	2.999	2.447	2.040	1.375	1.122	0.594
1.85V	23.85	18.96	14.85	9.646	5.693	3.593	2.773	2.275	1.902	1.291	1.056	0.564

Constant Power Discharge Characteristics : WPC (25℃)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	75.47	54.70	40.66	24.27	13.78	8.532	6.463	5.245	4.363	2.845	2.326	1.230
1.65V	71.00	52.68	39.45	23.54	13.38	8.300	6.290	5.122	4.266	2.819	2.301	1.213
1.70V	65.51	49.39	37.50	22.73	13.03	8.070	6.146	5.002	4.169	2.782	2.269	1.199
1.75V	60.00	46.02	35.41	21.95	12.63	7.825	5.988	4.892	4.079	2.749	2.242	1.186
1.80V	53.81	42.39	33.16	21.19	12.21	7.583	5.826	4.769	3.988	2.708	2.216	1.176
1.85V	43.61	35.26	27.90	18.43	11.02	6.985	5.410	4.449	3.731	2.548	2.089	1.118

(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 C_{20} should reach 95% after the first cycle and 100% after the third cycle.

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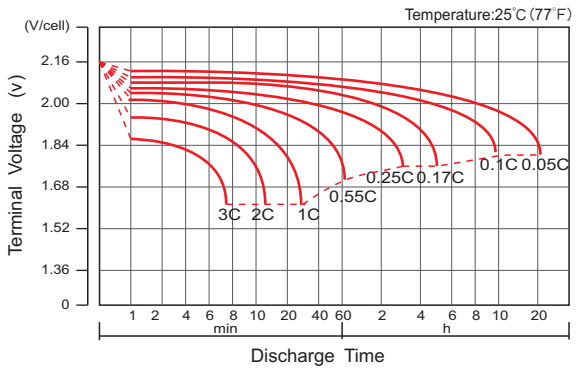
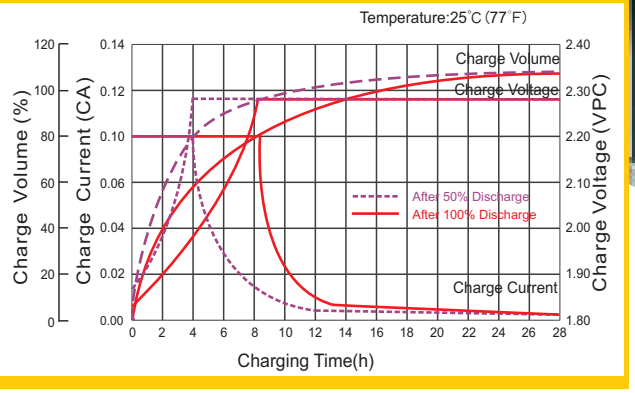
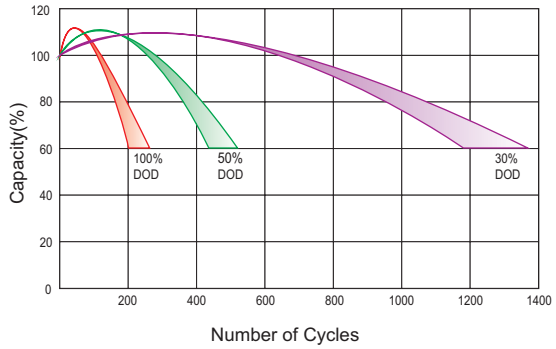
Discharge Characteristics Curve



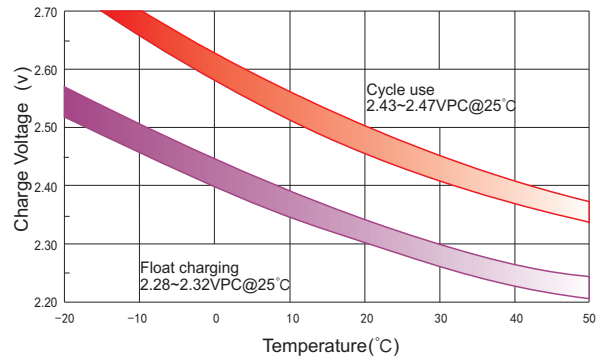
Charge Characteristic Curve For Standby Use



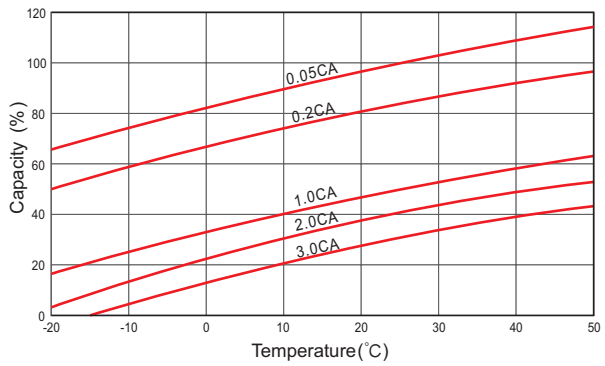
Cycle Life In Relation To Depth Of Discharge



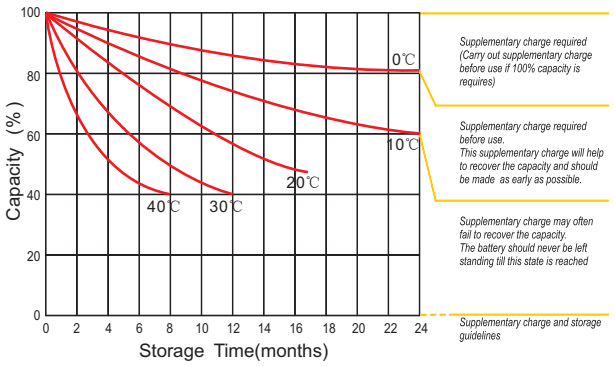
Relationship Between Charging Voltage And Temperature



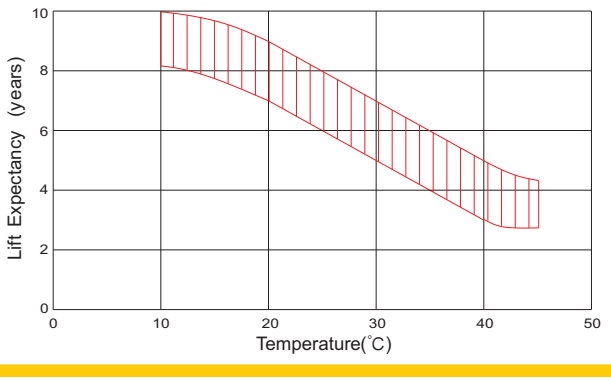
Temperature Effects On Capacity



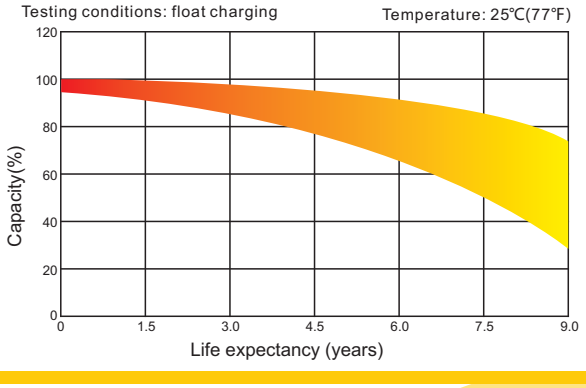
Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use



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

Version 19/01