SIN12-14H EV [12V 14AH]

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	14Ah@20hr-rate to 1.75V per cell @25˚C
Weight	Approx. 4.2 Kg (Tolerance±4%)
Internal Resistance	Approx. 13.0 mΩ
Terminal	F2
Max. Discharge Current	180A (5 sec)
Cold Cranking Ampere(CCA)	120A
Maximum Charging Current	3.6A
Reference Capacity	C3 9.36AH C5 10.3AH C10 11.3AH C20 14.0AH
Float Charging Voltage	13.6 V~13.8 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 charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

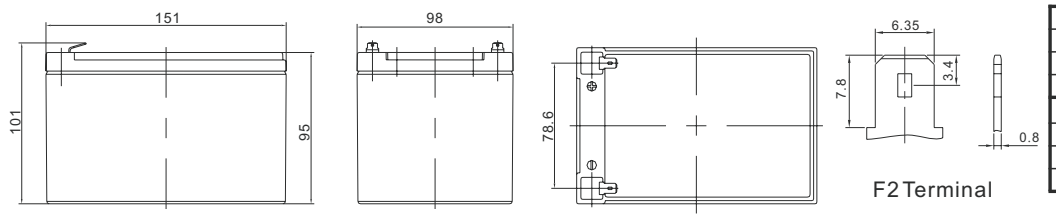
SINERGY BATTERIES

SIN12-14H is a EV(Electric Vehicle) series, it is specially designed for frequent discharge deep cycle application. By using the specially designed active material,strong grids and thick plate construction, the EV series battery offers reliable performance in high load situations and could provide competitive cycle performance. Suitable for Electric Vehicle and Golf cart; Industrial equipment, Floor machines, Forklifts, Aerial lifts, and Robotics; Marine, RV, and no-idle solutions; Mobility and Medical equipment; and most outdoor application.

ISO 9001 ISO 14001 OHSAS 18001

MH 28539 G4M20206-0910-E-16

Dimensions



Length	151±1mm (5.94 inches)
Width	98±1mm (3.86 inches)
Height	95±1mm (3.74 inches)
Total Height	101±1mm (3.98 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

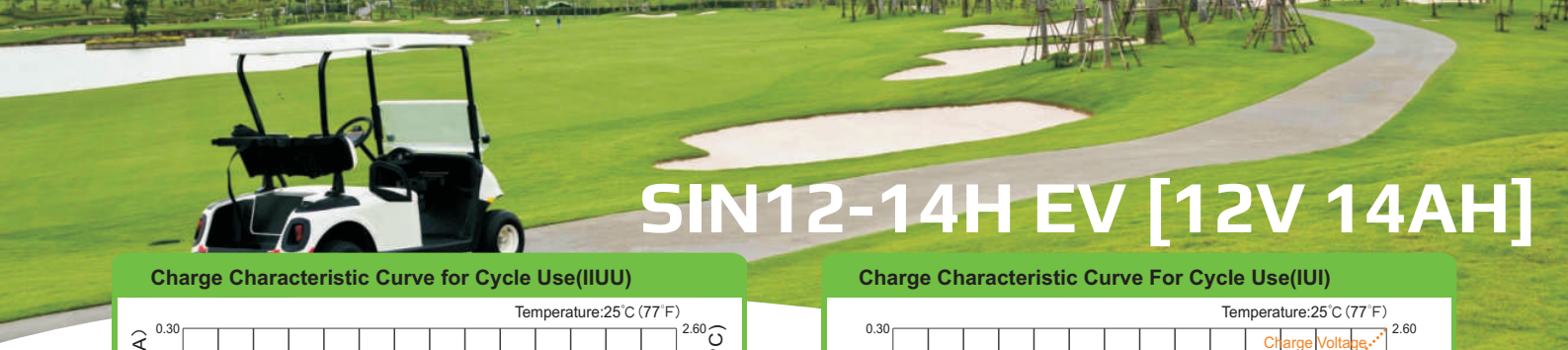
Constant Current Discharge Characteristics : A(25˚C)

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	14.08	8.27	4.72	3.33	2.60	2.17	1.47	1.22	0.624
1.65V	13.79	8.11	4.64	3.28	2.57	2.15	1.45	1.20	0.618
1.70V	13.40	7.90	4.53	3.21	2.52	2.11	1.43	1.19	0.611
1.75V	12.87	7.62	4.38	3.12	2.46	2.06	1.40	1.16	0.600
1.80V	12.14	7.23	4.18	2.99	2.36	1.99	1.36	1.13	0.586
1.85V	11.10	6.68	3.89	2.81	2.23	1.89	1.30	1.09	0.564

Constant Power Discharge Characteristics : WPC(25˚C)

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	25.58	15.46	8.94	6.36	5.00	4.19	2.87	2.39	1.23
1.65V	25.42	15.33	8.85	6.30	4.96	4.16	2.85	2.37	1.22
1.70V	24.84	14.99	8.67	6.19	4.88	4.10	2.81	2.34	1.21
1.75V	24.10	14.52	8.43	6.04	4.77	4.02	2.75	2.30	1.19
1.80V	22.96	13.85	8.09	5.81	4.61	3.90	2.68	2.24	1.16
1.85V	21.22	12.88	7.57	5.47	4.37	3.71	2.56	2.15	1.12

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.



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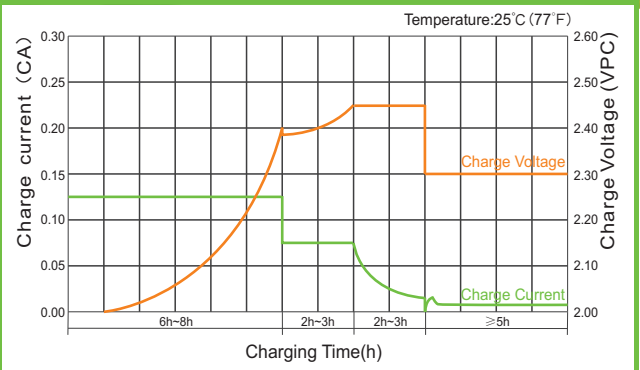
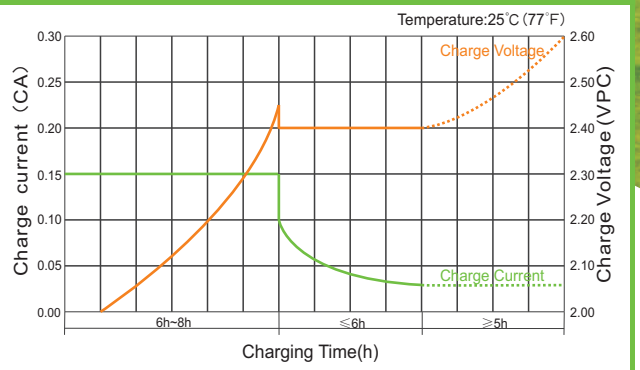
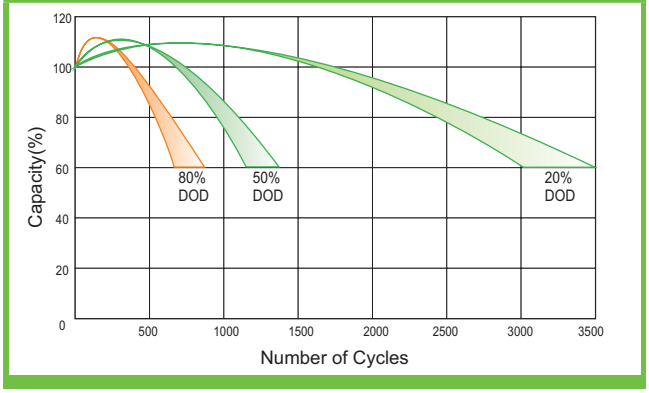
Charge Characteristic Curve for Cycle Use(IIUU)



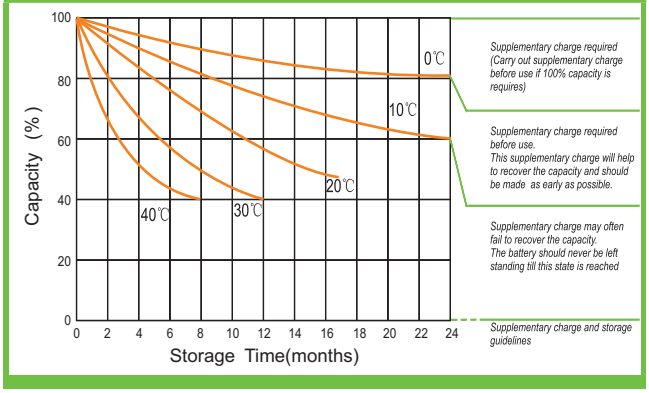
Charge Characteristic Curve For Cycle Use(IUI)



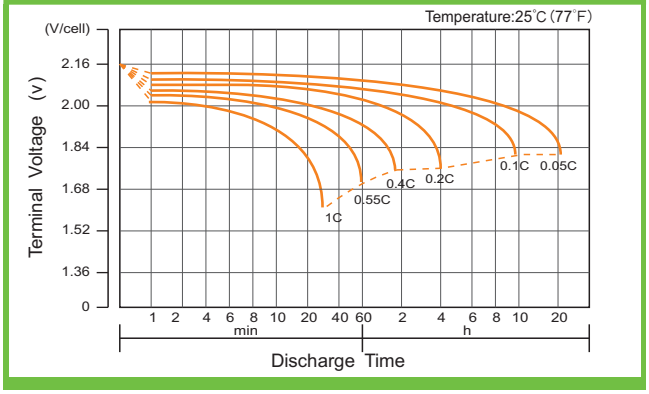
Cycle Life in Relation to Depth of Discharge



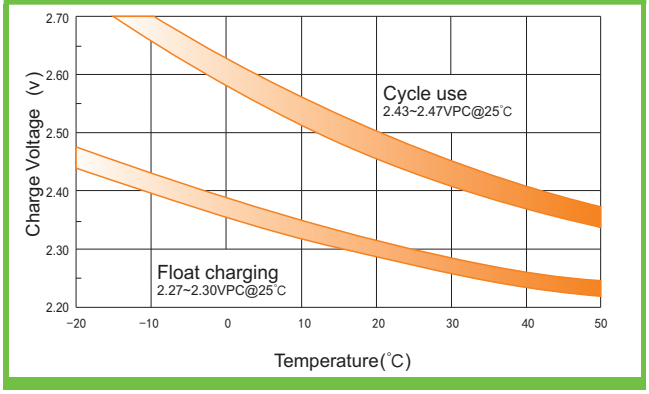
Storage Characteristics



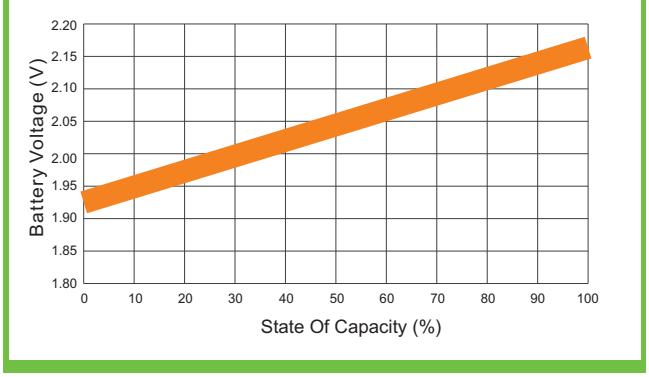
Discharge Characteristics Curve



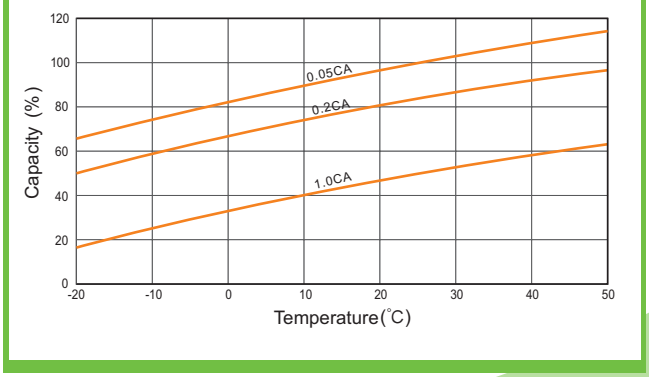
Relationship Between Charging Voltage and Temperature



Relationship of OCV And State of Charge(20℃)



Temperature Effects on Capacity



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

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Version 19/01