SIN12-24H EV [12V 24AH]

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	24Ah@20hr-rate to 1.75V per cell @25˚C
Weight	Approx. 7.0 Kg (Tolerance±3%)
Internal Resistance	Approx. 10.0 mΩ
Terminal	F18(M5) T23
Max. Discharge Current	288A (5 sec)
Cold Cranking Ampere(CCA)	205A
Maximum Charging Current	7.2A
Reference Capacity	C3 18.7AH C5 20.6AH C10 22.6AH C20 24.0AH
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.

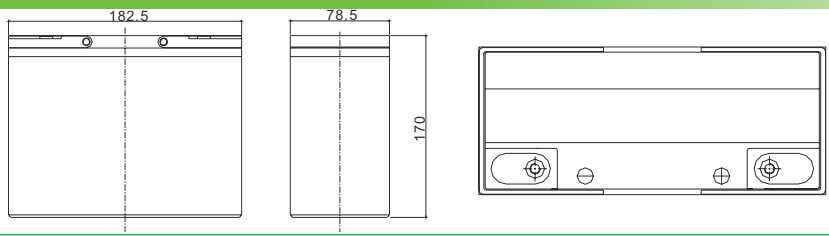
SINERGY BATTERIES

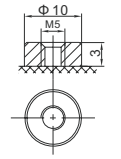
SIN12-24H is a EV(Electric Vehicle) series, it is specially designed for frequent discharge deep cycle application. By using the specially designed active material, strong grids and thick plate construction, the EV series battery offers reliable performance in high load situations and could provide competitive 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





F18TERMINAL

Length	182.5±2mm (7.19 inches)
Width	78.5±2mm (3.09 inches)
Height	170±2mm (6.69 inches)
Total Height	170±2mm (6.69 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	28.17	16.53	9.43	6.66	5.21	4.35	2.94	2.43	1.248
1.65V	27.58	16.22	9.27	6.56	5.14	4.29	2.91	2.41	1.237
1.70V	26.79	15.81	9.06	6.42	5.04	4.22	2.86	2.37	1.222
1.75V	25.73	15.24	8.77	6.24	4.91	4.12	2.80	2.33	1.201
1.80V	24.27	14.47	8.37	5.98	4.73	3.99	2.72	2.26	1.171
1.85V	22.21	13.36	7.79	5.61	4.46	3.79	2.59	2.17	1.129

Constant Power Discharge Characteristics : WPC(25˚C)

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	51.16	30.92	17.88	12.73	10.00	8.38	5.74	4.78	2.46
1.65V	50.83	30.65	17.70	12.61	9.92	8.32	5.69	4.74	2.44
1.70V	49.67	29.97	17.35	12.38	9.75	8.20	5.61	4.68	2.41
1.75V	48.19	29.05	16.87	12.07	9.54	8.03	5.50	4.59	2.37
1.80V	45.92	27.70	16.18	11.62	9.21	7.79	5.35	4.48	2.32
1.85V	42.43	25.76	15.14	10.95	8.73	7.42	5.12	4.30	2.24

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

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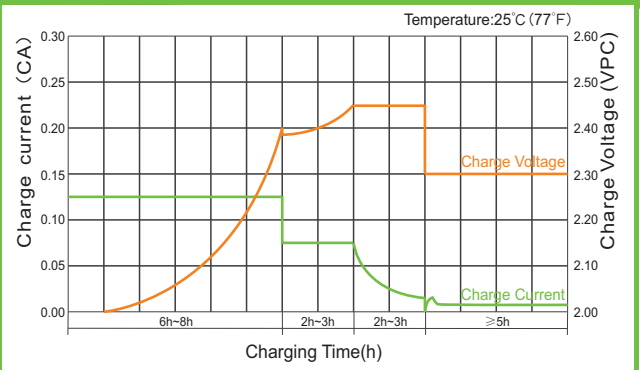
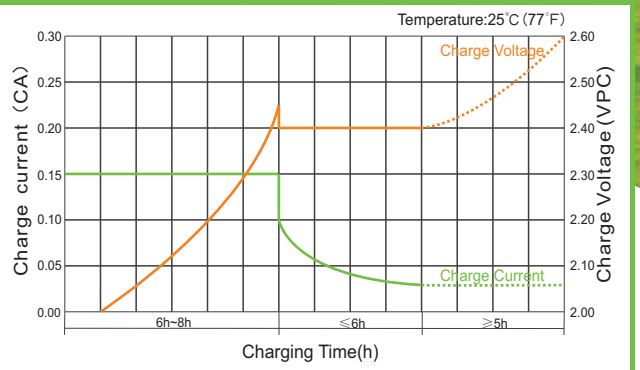
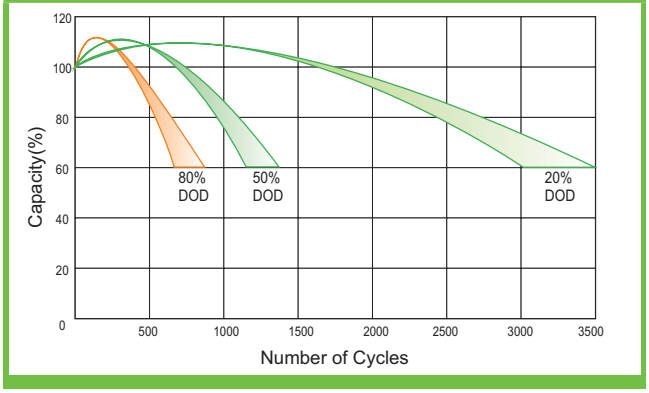
Charge Characteristic Curve for Cycle Use(IIUU)



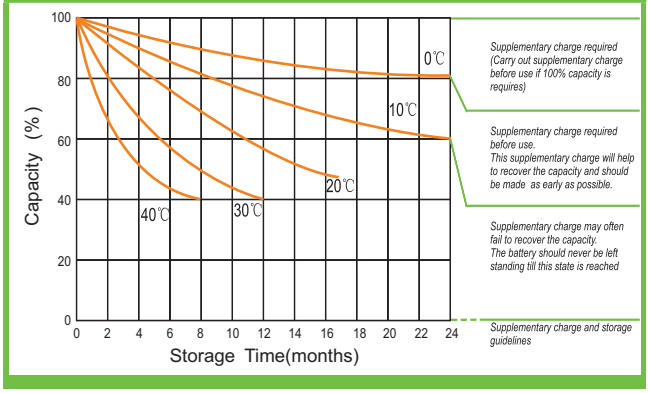
Charge Characteristic Curve For Cycle Use(IUI)



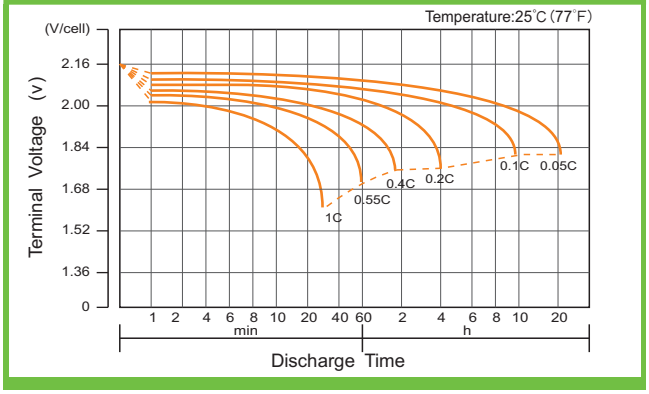
Cycle Life in Relation to Depth of Discharge



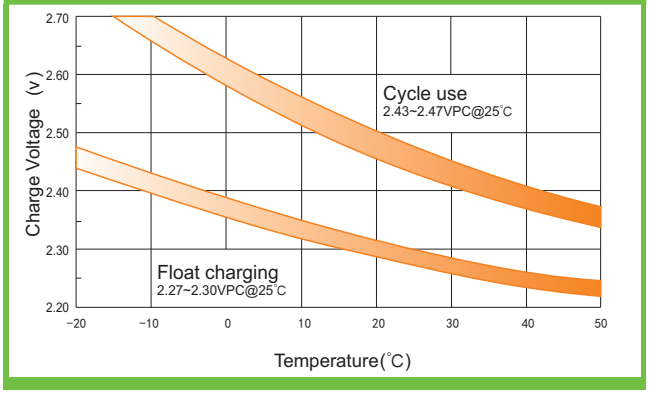
Storage Characteristics



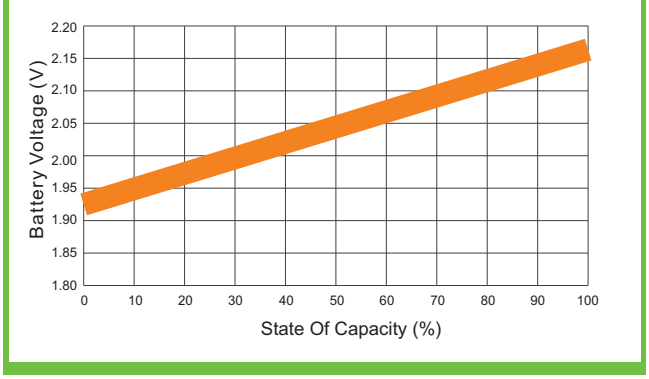
Discharge Characteristics Curve



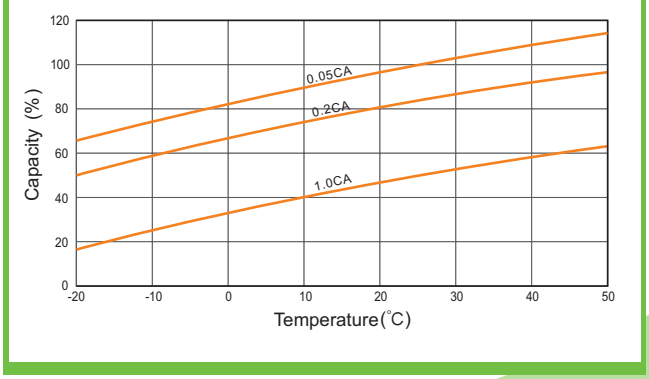
Relationship Between Charging Voltage and Temperature



Relationship of OCV And State of Charge(20℃)



Temperature Effects on Capacity



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

SINERGY BATTERIES

Version 19/01