

SIN12-20 [12V 20AH]

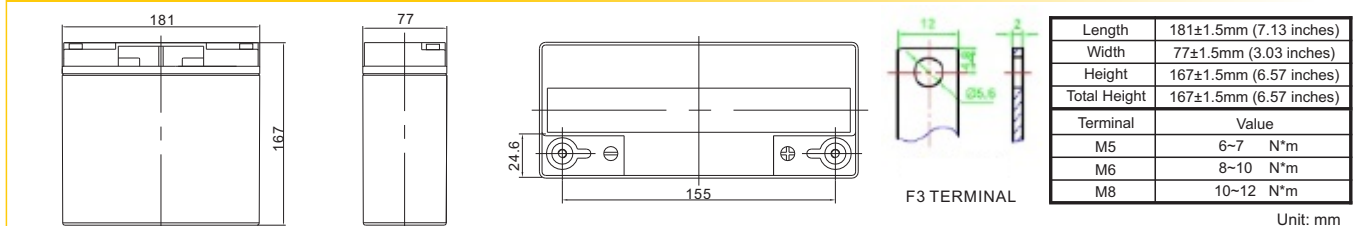
Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	20Ah@20hour-rate to 1.75V per cell @25°C
Weight	Approx. 5.4 Kg (Tolerance \pm 3.0%)
Internal Resistance	Approx. 14 m Ω
Terminal	F3
Max. Discharge Current	200A (5 sec)
Short Circuit Current	800A
Design Life	6~8 years (Float charging)
Recommended Maximum Charging Current	6.0 A
Reference Capacity	C3 15.5AH C5 17.5AH C10 18.8AH C20 20.1AH
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 \pm 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 and YDT 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, Telecom, power grid, medical equipment, emergency light and security system applications.



Dimensions



Constant Current Discharge Characteristics : A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	76.92	50.68	37.77	21.86	12.76	7.527	5.472	4.357	3.678	2.458	2.002	1.041
1.65V	74.14	49.17	36.78	21.38	12.52	7.417	5.399	4.303	3.636	2.433	1.983	1.033
1.70V	70.52	47.19	35.48	20.74	12.21	7.270	5.302	4.231	3.579	2.400	1.957	1.022
1.75V	65.88	44.62	33.78	19.91	11.80	7.076	5.174	4.135	3.504	2.356	1.924	1.007
1.80V	60.02	41.35	31.61	18.84	11.26	6.822	5.004	4.009	3.405	2.298	1.879	0.987
1.85V	52.82	37.25	28.86	17.46	10.57	6.490	4.783	3.844	3.274	2.221	1.820	0.961

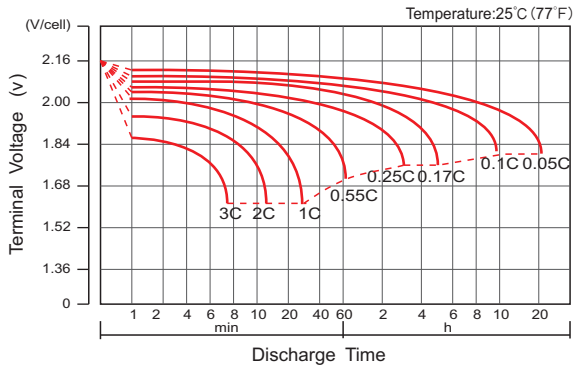
Constant Power Discharge Characteristics : WPC (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	132.4	87.44	67.02	40.30	24.21	14.48	10.61	8.49	7.20	4.87	3.99	2.08
1.65V	131.0	87.08	66.64	40.00	24.01	14.37	10.53	8.43	7.15	4.84	3.96	2.07
1.70V	126.0	84.51	64.84	39.03	23.50	14.13	10.37	8.31	7.05	4.78	3.92	2.05
1.75V	119.8	81.36	62.64	37.85	22.82	13.82	10.16	8.15	6.93	4.70	3.85	2.02
1.80V	111.1	76.70	59.43	36.17	21.88	13.39	9.87	7.93	6.76	4.59	3.77	1.98
1.85V	99.48	70.33	55.03	33.86	20.68	12.81	9.47	7.63	6.52	4.45	3.66	1.93

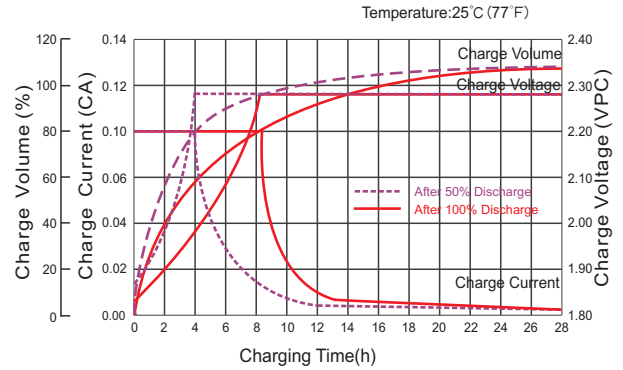
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

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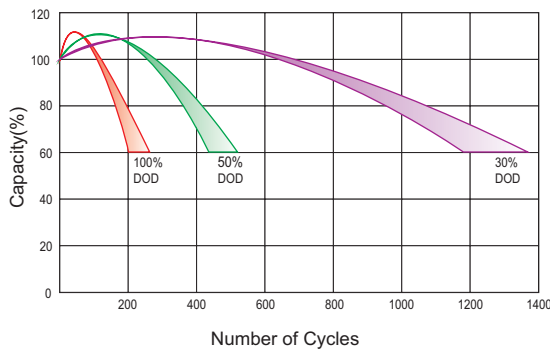
Discharge Characteristics Curve



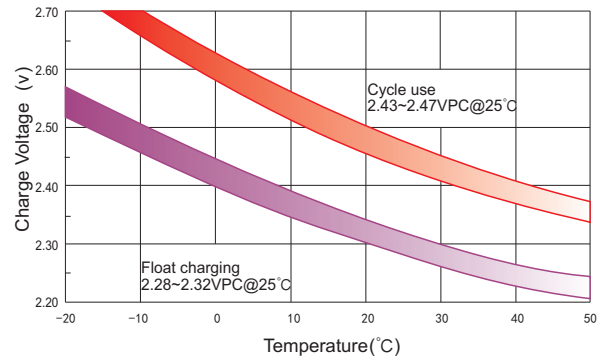
Charge Characteristic Curve For Standby Use



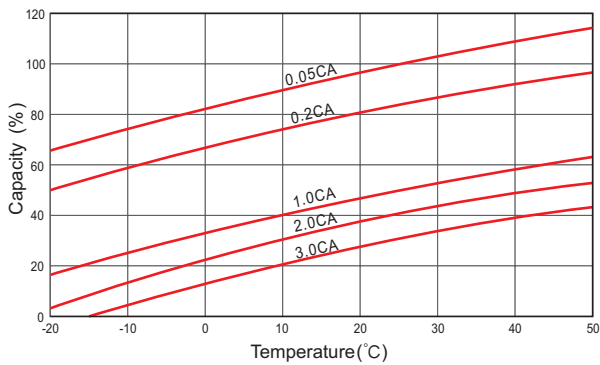
Cycle Life In Relation To Depth Of Discharge



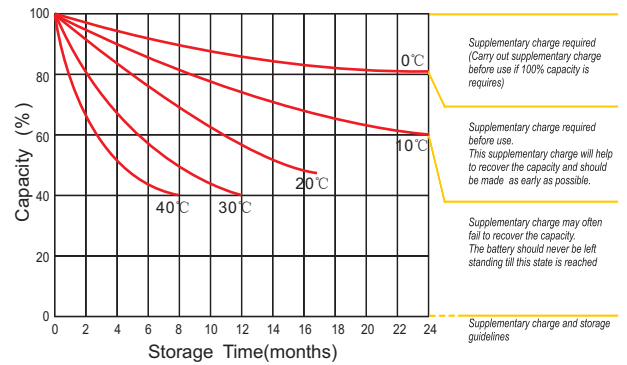
Relationship Between Charging Voltage And Temperature



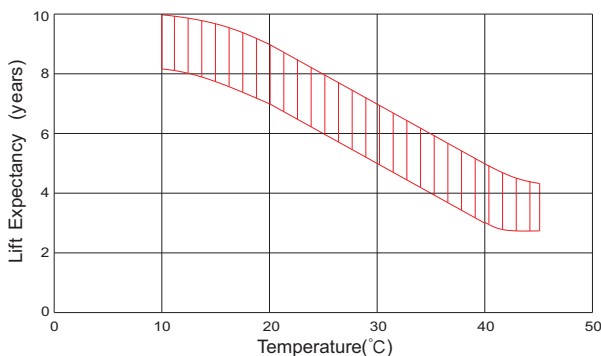
Temperature Effects On Capacity



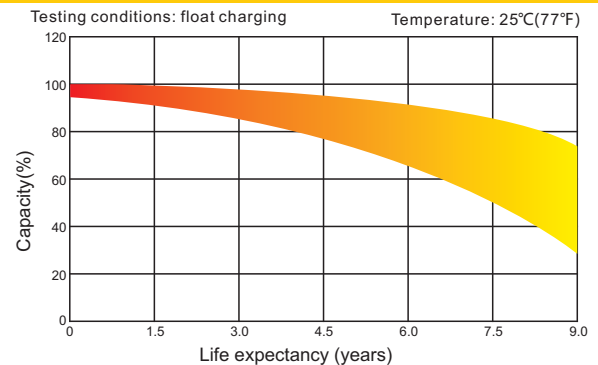
Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use



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