

SMART

SD12-120_(12V120Ah)

AGM Deep Cycle

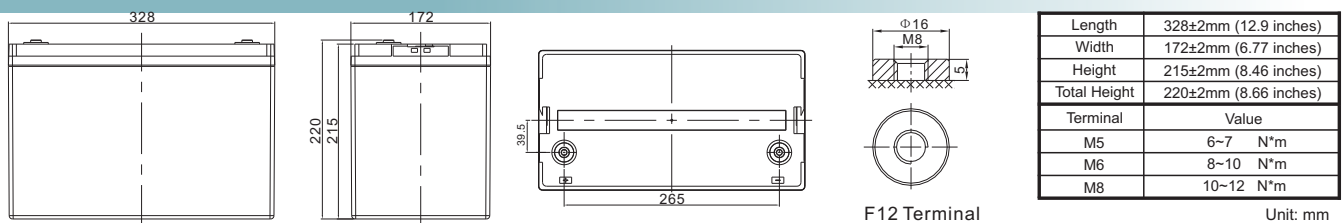
Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	120Ah@100hour-rate to 1.75V per cell @25°C
Weight	Approx. 27.5 Kg (Tolerance ±4.0%)
Internal Resistance	Approx. 5.5 mΩ
Terminal	F14(M8)/F5(M8)
Max. Discharge Current	1000A (5 sec)
Design Life	12 years (Float charging)
Max. Charging Current	30.0 A
Reference Capacity	C20 100.0AH C100 120.0AH
Standby Use 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	SMART 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.



SD series batteries provides superior high integrity and reliability. It is especially designed for frequent cyclic charge and discharging. By using strong grids, thick plate and specially active material are redesigned for repeated deep-discharge applications. The SD series batteries offer 30% more cyclic life than the standby series. It is suitable for solar and wind renewable energy storage, mobility and medical equipment and cable TV etc.

Dimensions



Constant Current Discharge Characteristics : A (25°C)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	228.2	182.7	107.8	60.74	36.17	27.64	22.10	18.80	12.06	10.00	5.183
1.65V	210.2	170.9	102.1	58.67	34.96	26.79	21.44	18.21	11.96	9.905	5.155
1.70V	194.9	160.7	96.83	56.79	34.03	25.66	20.78	17.72	11.77	9.714	5.090
1.75V	178.8	150.5	93.01	55.00	32.72	25.00	20.21	17.22	11.58	9.619	5.000
1.80V	162.7	137.8	89.58	52.56	31.60	24.53	19.74	17.00	11.39	9.524	4.952
1.85V	127.3	114.0	75.96	46.91	28.90	22.83	18.51	15.65	10.73	8.952	4.905

Constant Power Discharge Characteristics : WPC (25°C)

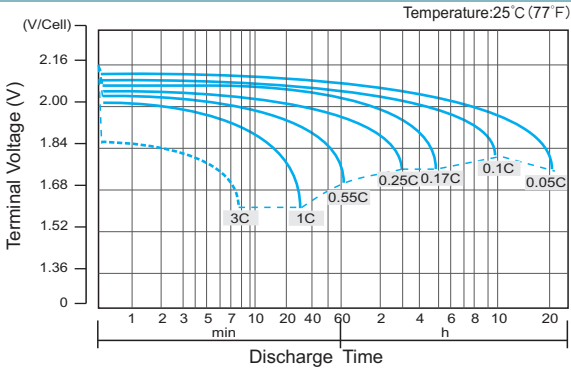
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	388.7	318.7	195.9	114.0	68.39	52.48	42.59	35.58	23.50	19.61	10.35
1.65V	374.2	309.9	191.3	112.1	66.54	51.17	41.56	34.62	23.31	19.42	10.25
1.70V	349.3	293.3	182.1	108.8	64.88	49.21	40.23	33.76	23.03	19.05	10.16
1.75V	325.0	276.9	175.7	105.8	62.57	48.00	39.29	32.99	22.65	18.86	9.977
1.80V	299.5	255.9	170.0	101.4	61.15	47.73	38.53	32.54	22.28	18.67	9.885
1.85V	237.5	215.0	145.8	91.10	56.31	44.52	36.27	30.10	21.05	17.63	9.792

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

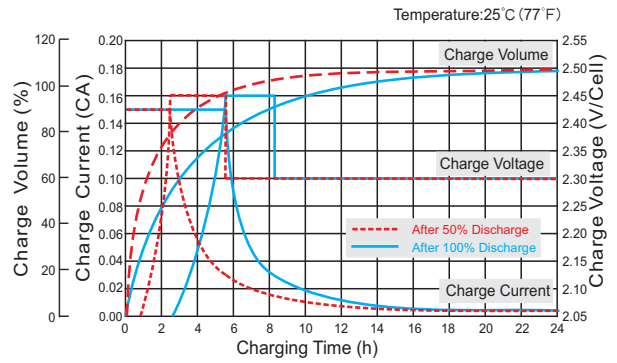
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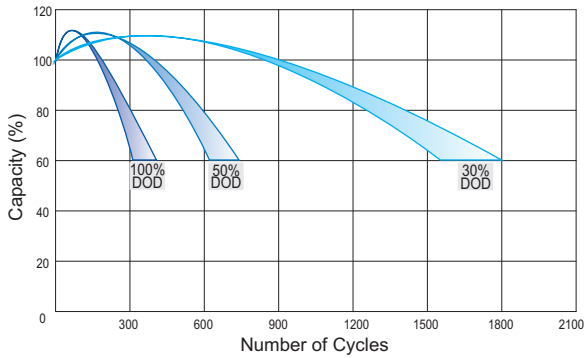
Discharge Characteristics Curve



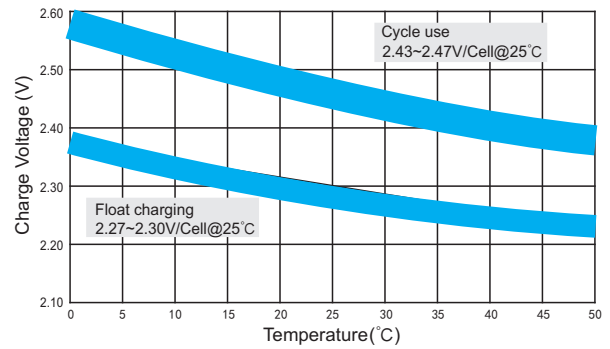
Charge Characteristic Curve for Cycle Use(IUU)



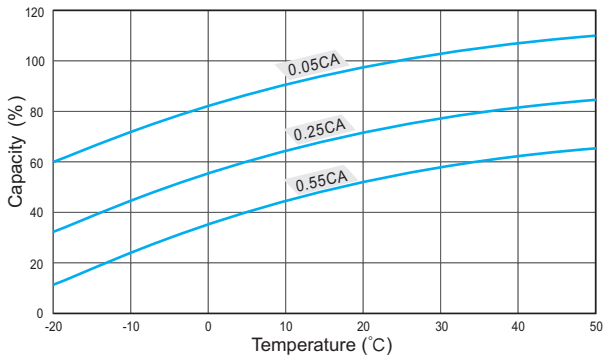
Cycle Life in Relation to Depth of Discharge



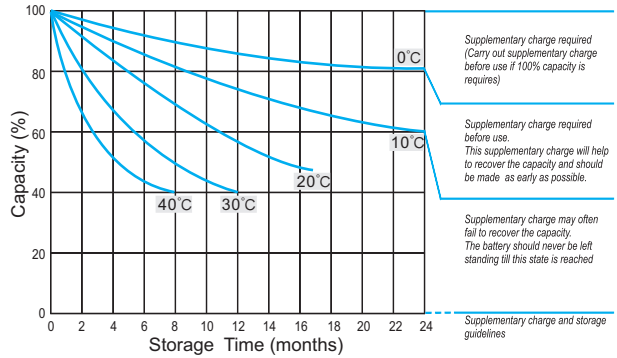
Relationship Between Charging Voltage and Temperature



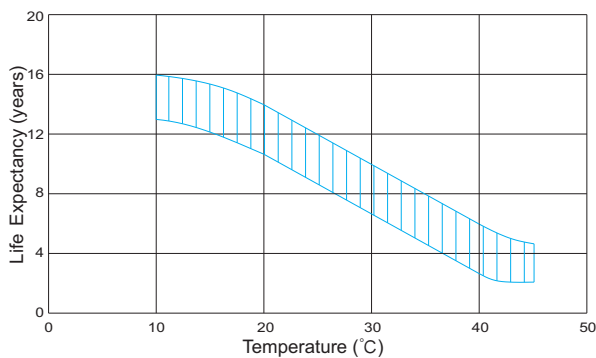
Temperature Effects on Capacity



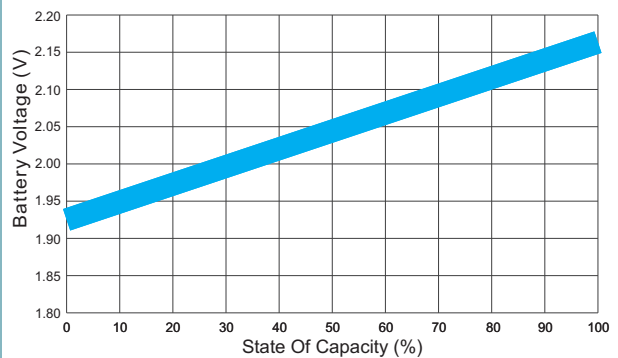
Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20°C)



(Note) All above information shall be changed without prior notice, we reserves the right to explain and update the latest information..