

SIN12-33 DC [12V 33AH]

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	33Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 10.2 Kg (Tolerance ±3%)
Internal Resistance	Approx. 9 mΩ
Terminal	F11(M6)
Max. Discharge Current	330A (5 sec)
Cold Cranking Ampere(CCA)	230A
Maximum Charging Current	9.9 A
Reference Capacity	C3 25.8AH C5 29.0AH C10 31.4AH C20 33.0AH
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.



DC (Deep Cycle) series batteries provide superior high integrity and reliability. It is specially designed for frequent cyclic charge and discharge. By using strong grids, thick plate and specially active material are designed for repeated deep-discharge applications. The DC 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, V, telecom, broadband and cable TV, UPS systems etc. For general purpose applications, this is a battery with 6-8 years design life in float service.



ISO 9001



ISO 14001



OHSAS 18001

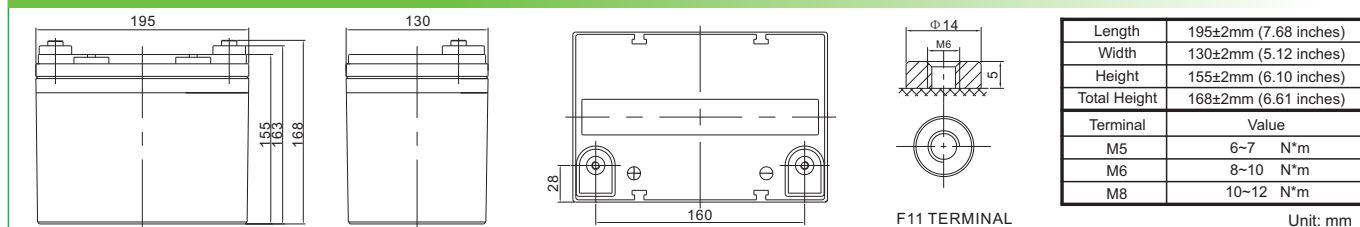


MH 28539



G4M20206-0910-E-16

Dimensions



Constant Current Discharge Characteristics : A(25°C)

F.V / Time	30 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	8 HR	10 HR	20 HR
1.60V	35.32	20.41	12.08	9.19	7.23	6.12	4.06	3.36	1.71
1.65V	34.58	20.02	11.87	9.05	7.13	6.04	4.01	3.33	1.70
1.70V	33.60	19.51	11.60	8.86	7.00	5.94	3.95	3.29	1.68
1.75V	32.27	18.82	11.22	8.61	6.82	5.80	3.87	3.22	1.65
1.80V	30.44	17.86	10.71	8.25	6.56	5.61	3.75	3.14	1.61
1.85V	27.85	16.49	9.97	7.74	6.20	5.33	3.58	3.01	1.55

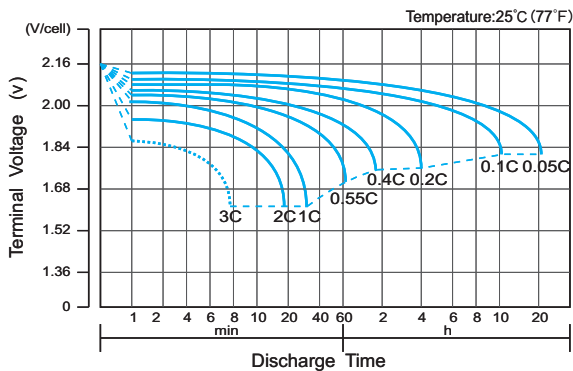
Constant Power Discharge Characteristics : WPC(25°C)

F.V / Time	30 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	8 HR	10 HR	20 HR
1.60V	64.2	38.2	22.9	17.6	13.9	11.8	7.92	6.61	3.38
1.65V	63.7	37.8	22.7	17.4	13.8	11.7	7.86	6.56	3.35
1.70V	62.3	37.0	22.2	17.1	13.5	11.5	7.75	6.48	3.31
1.75V	60.4	35.9	21.6	16.6	13.2	11.3	7.60	6.36	3.26
1.80V	57.6	34.2	20.7	16.0	12.8	11.0	7.39	6.20	3.19
1.85V	53.2	31.8	19.4	15.1	12.1	10.5	7.07	5.95	3.07

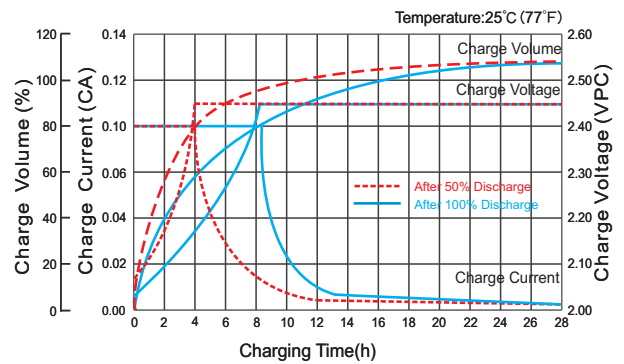
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.



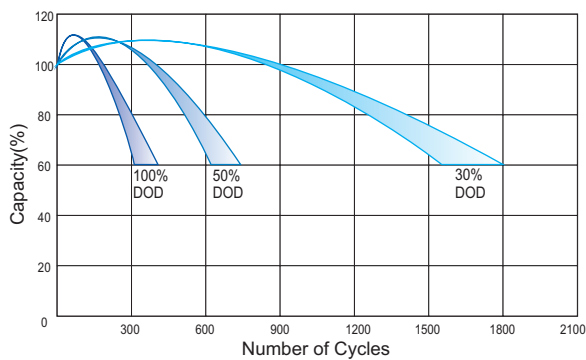
Discharge Characteristics Curve



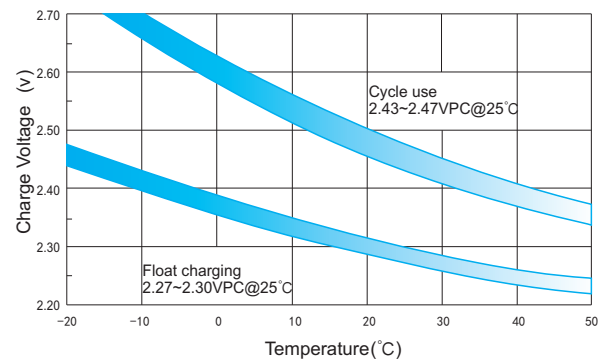
Charge Characteristic Curve for Cycle Use(IU)



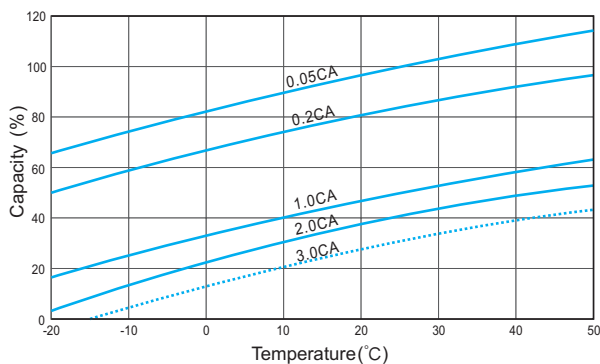
Cycle Life in Relation to Depth of Discharge



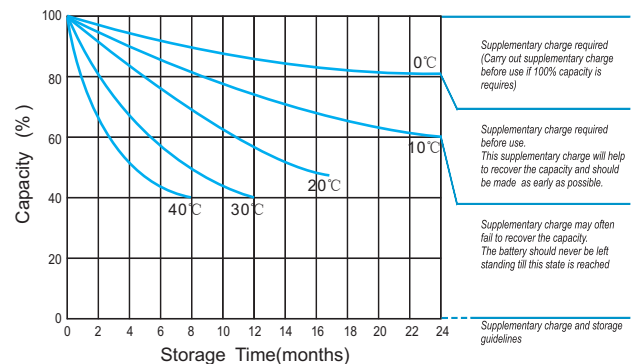
Relationship Between Charging Voltage and Temperature



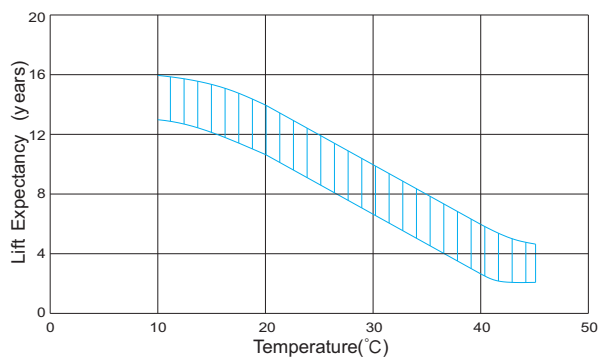
Temperature Effects on Capacity



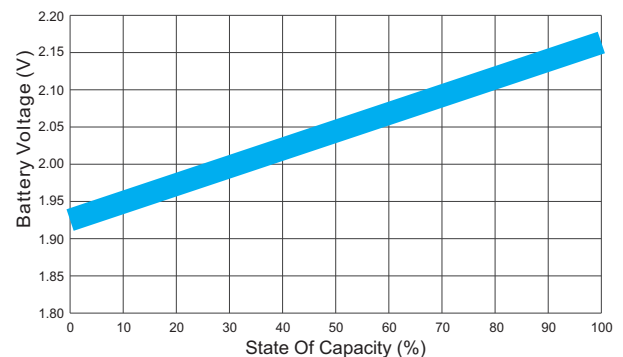
Storage Characteristics



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.