HG12-90 (12V90Ah)

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	90Ah@10hr-rate to 1.80V per cell @25˚C
Weight	Approx. 28.5 Kg (Tolerance±2%)
Internal Resistance	Approx. 5.2 mΩ
Terminal	F12(M8)/F15(M6)
Max. Discharge Current	900A (5 sec)
Design Life	12 years (floating charge)
Maximum Charging Current	27.0 A
Reference Capacity	C3 70.2AH C5 79.0AH C10 90.0AH C20 94.8AH
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	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.

HG (Deep Cycle) series batteries provide superior high integrity and reliability.

It is specially designed for frequent cyclic charge and discharge.

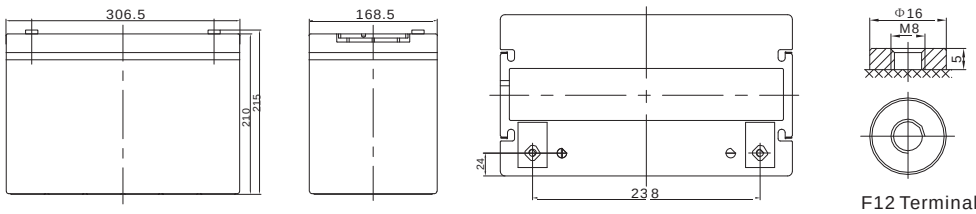
By using strong grids, thick plate and specially active material are designed for repeated deep-discharge applications.

The HG series batteries offers 30% more cyclic life than the standby series. It is suitable for solar and wind renewable energy storage, mobility and medical equipment, RV, telecom, broadband and cable TV, UPS systems etc.

IQNet CERTIFICATE IQNet CERTIFICATE

MH28539 G4M20206-0910-E-16

Dimensions



F12 Terminal

Length	306.5±1mm (12.1 inches)
Width	168.5±1mm (6.63 inches)
Height	210±1mm (8.27 inches)
Total Height	215±1mm (8.46 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	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	232.1	173.2	99.4	57.4	33.6	25.0	19.8	16.7	11.4	9.66	4.92
1.65V	224.4	168.0	97.3	56.3	33.1	24.6	19.6	16.5	11.3	9.56	4.88
1.70V	214.3	161.2	94.5	54.9	32.3	24.1	19.2	16.2	11.1	9.43	4.82
1.75V	200.8	152.1	90.8	52.9	31.3	23.4	18.7	15.8	10.9	9.25	4.74
1.80V	182.7	139.8	85.6	50.2	29.8	22.5	18.0	15.3	10.5	9.00	4.62
1.85V	158.0	122.8	78.4	46.4	27.8	21.1	17.0	14.5	10.1	8.64	4.45

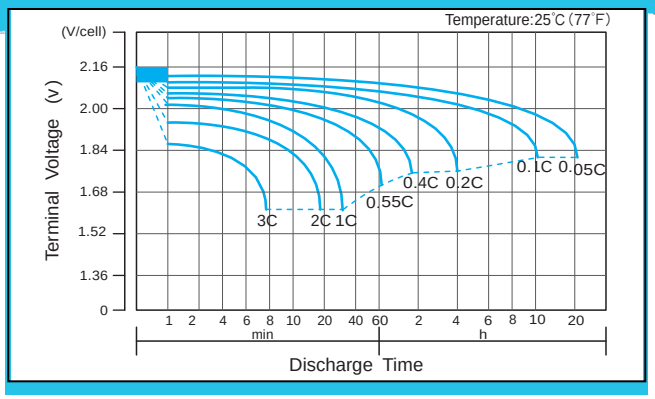
Constant Power Discharge Characteristics : WPC(25˚C)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	395	303	180	107	63.7	47.8	38.1	32.2	22.3	19.0	9.69
1.65V	391	300	179	106	63.1	47.4	37.7	32.0	22.1	18.8	9.62
1.70V	378	290	175	104	61.8	46.5	37.1	31.5	21.8	18.6	9.51
1.75V	361	278	170	101	60.1	45.4	36.3	30.9	21.4	18.3	9.36
1.80V	334	259	162	96.2	57.7	43.6	35.1	29.9	20.8	17.8	9.15
1.85V	294	231	150	89.5	54.0	41.1	33.2	28.5	19.9	17.1	8.82

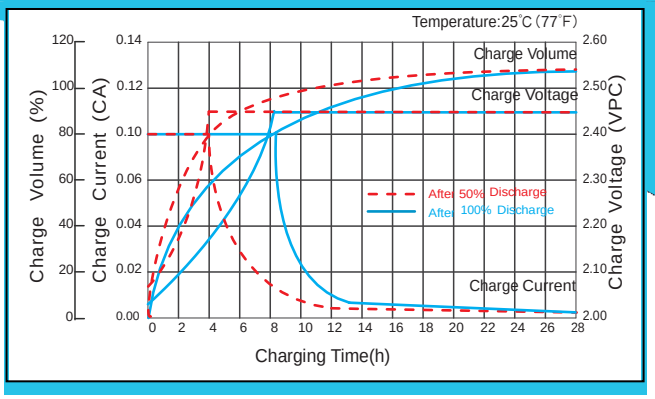
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

HG12-90(12V90Ah)

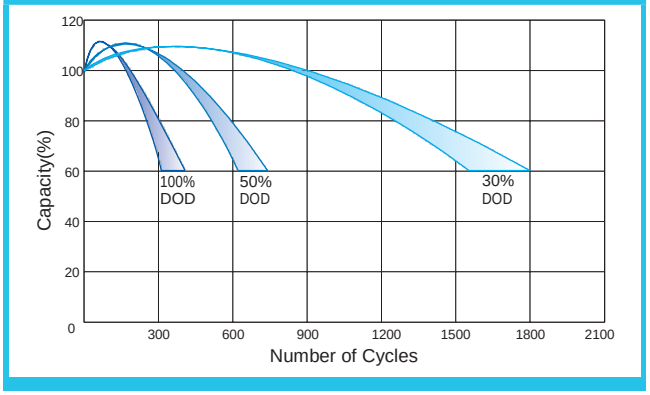
Discharge Characteristics Curve



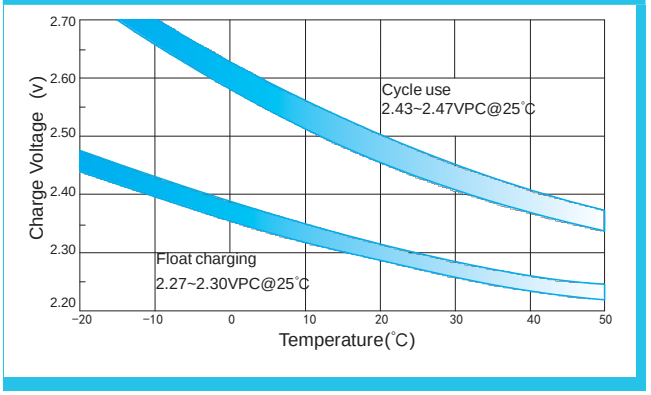
Charge Characteristic Curve for Cycle Use(IU)



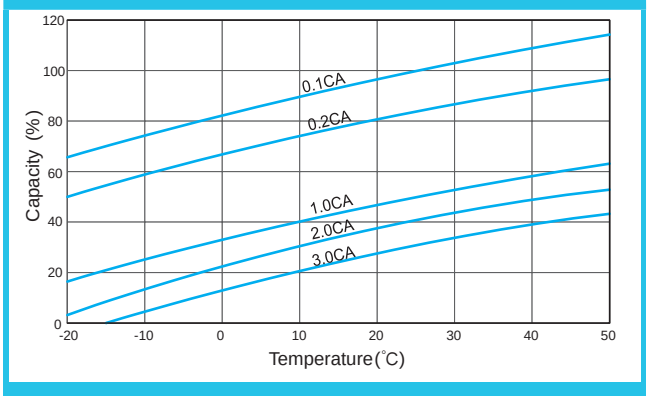
Cycle Life in Relation to Depth of Discharge



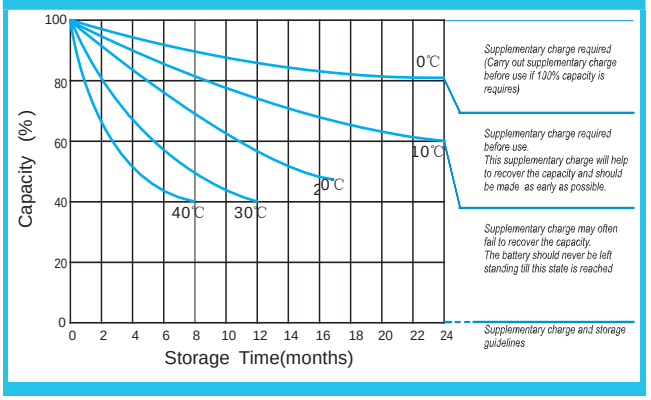
Relationship Between Charging Voltage and Temperature



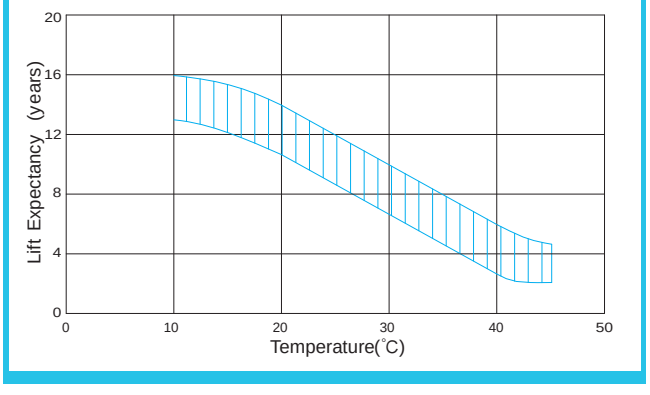
Temperature Effects on Capacity



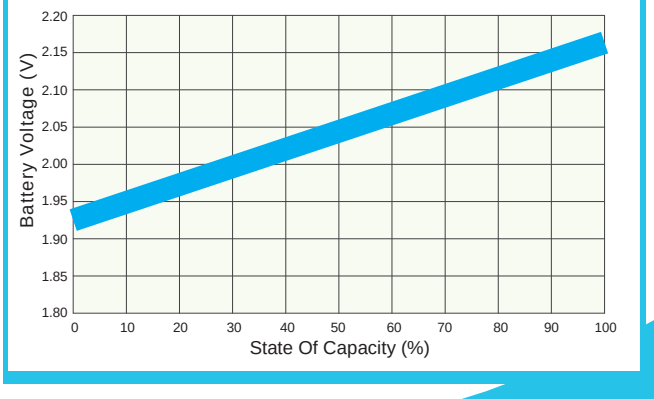
Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20℃)



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