

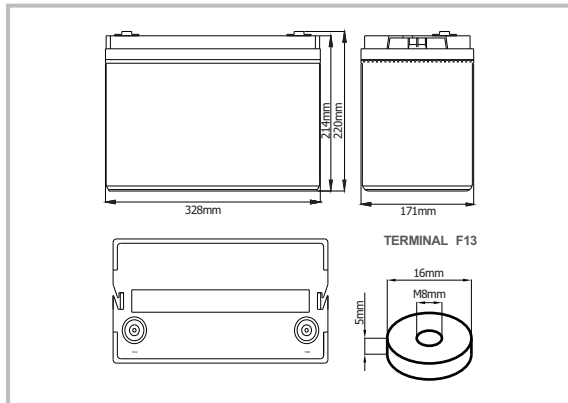
HXG12-100 (12V100Ah)



HXG DEEP CYCLE GEL VRLA BATTERY

HXG Series, with its proprietary grid alloy and paste formulation, provides superior performance in both high cycling and floating applications. By combining the newly developed Nano Gel electrolyte with high density paste, the HXG series offers high recharge efficiency at very low charge current. The acid stratification is highly reduced by adding Nano Gel. It is suitable for off-grid photovoltaic, wind or hydro power application.

BATTERY DIMENSIONS



TECHNICAL SPECIFICATIONS

Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (20°C)	12 Years
Nominal Capacity (20°C)	100 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L328mm x W171mm x H220mm
Approx. Weight	30.0 kg (66.2 lbs)
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 0.0045 Ohm (fully charged @ 20°C)
Max. Charge Current	25A
Max. Discharge Current (5S)	800 A
Short Circuit Current	2600 A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -15~50°C Charge: -15~40°C Storage: -15~40°C
Float Charge Voltage (20~25°C)	13.6-13.8V (-3mV/ cell/ °C)
Equalize and cycle Use Charge Voltage (20~25°C)	14.4-14.8V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)




ISO9001 ISO14001




Complied standards

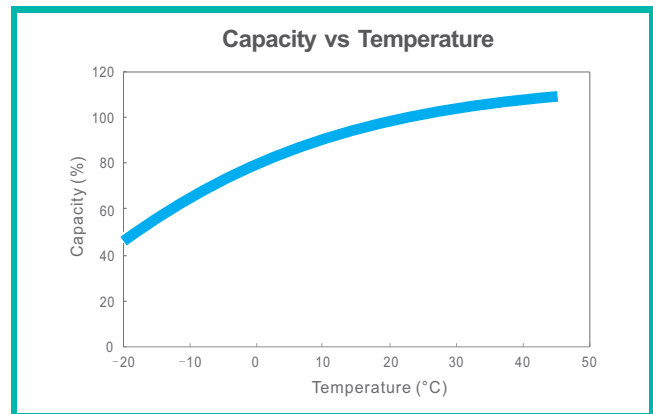
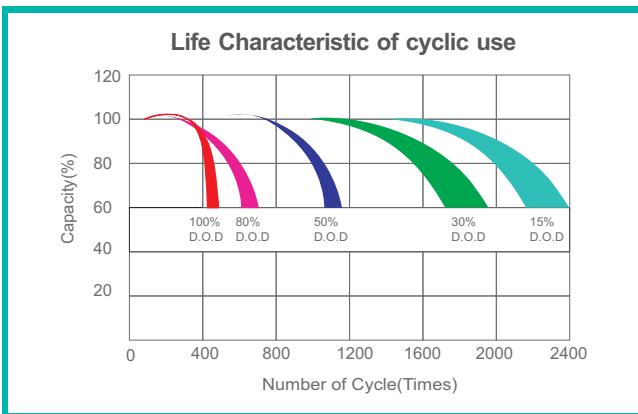
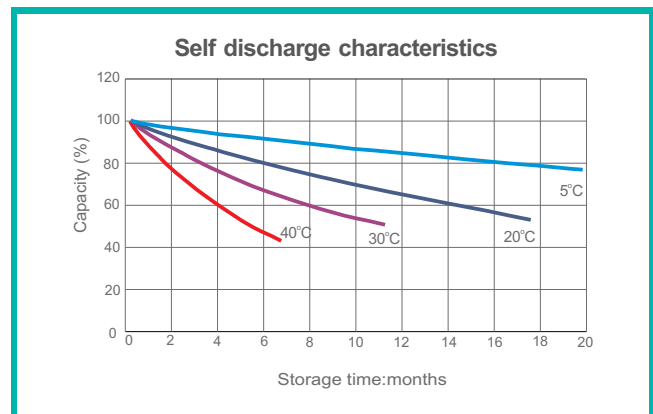
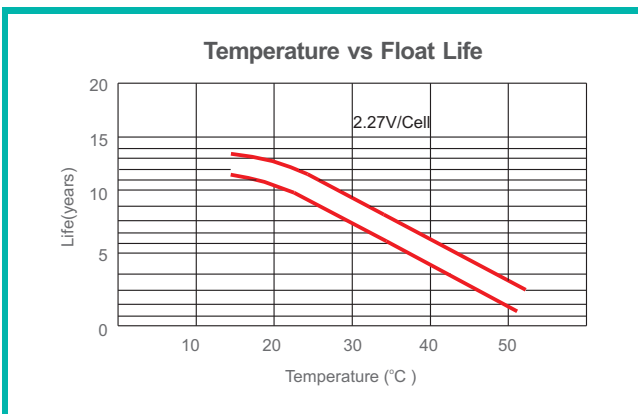
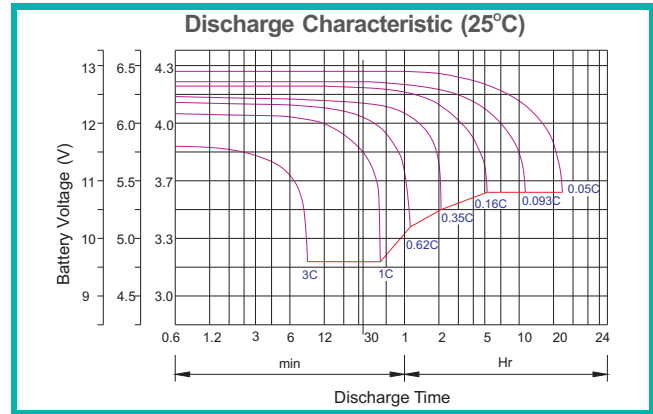
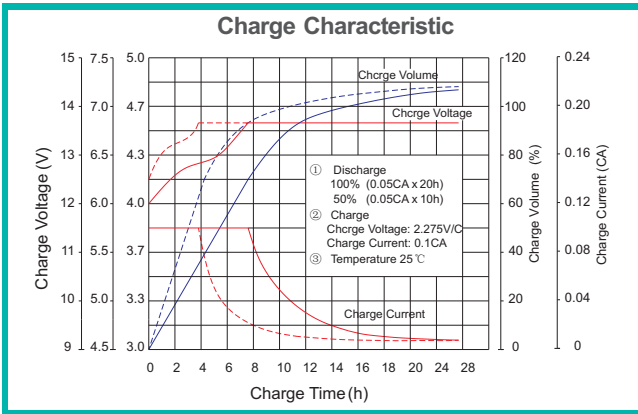
- IEC 60896-21/22
- UL1989
- JIS C8704
- GB/T19639

BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25°C)												
F.V/Time	5 m in	10 m in	15 m in	30 m in	1 h	2 h	3 h	4 h	5 h	8 h	10 h	20 h
1.60V	300	221	183	113	67.6	39.3	28.3	22.6	18.8	12.9	10.6	5.71
1.67V	268	204	172	108	65.8	38.6	28.0	22.3	18.6	12.7	10.5	5.58
1.70V	239	185	163	104	64.3	38.1	27.7	22.1	18.4	12.5	10.3	5.45
1.75V	208	172	151	100	63.0	37.4	27.2	21.8	18.2	12.4	10.2	5.35
1.80V	184	157	141	95.6	60.9	36.6	26.7	21.3	17.7	12.1	10.0	5.25
1.85V	157	141	128	90.2	58.3	35.2	25.8	20.7	17.3	11.8	9.74	5.13

Constant Power Discharge Characteristics: W/cell (25°C)												
F.V/Time	5 m in	10 m in	15 m in	30 m in	1 h	2 h	3 h	4 h	5 h	8 h	10 h	20 h
1.60V	528	398	333	208	126	73.7	53.5	42.8	35.8	24.7	20.5	11.1
1.67V	477	370	316	200	123	72.9	53.2	42.5	35.6	24.5	20.3	10.9
1.70V	431	340	302	194	121	72.5	52.9	42.4	35.5	24.4	20.2	10.7
1.75V	380	320	283	189	120	71.8	52.6	42.3	35.4	24.3	20.1	10.6
1.80V	340	294	267	182	117	70.9	52.0	41.7	34.8	23.9	19.9	10.5
1.85V	296	268	245	174	113	68.8	50.7	40.8	34.3	23.5	19.5	10.3

CHARACTERISTICS



Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.70V	1.60V
Discharge Current I /A	I < 0.2C	0.2C ≤ I < 0.6C	0.6C ≤ I < 1.0C	I ≥ 1.0C

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.25CA
Constant Current	0.2Cx2h+0.1CAx12h
Fast	0.2Cx2h+0.3CAx4.0h

Maintenance & Cautions

Cycle service

- ※ Avoid battery over discharge, especially battery series connection use.
- ※ Charged with recommend voltage, ensure battery can be full recharged.
- In general, recharge capacity should be 1.1-1.15 times discharge capacity.
- ※ Effect of temperature on cycle charge voltage: -5mV/°C/Cell.
- ※ There are a number of factors that will affect the length of cyclic service.
- The most significant are depth of discharge, ambient temperature, discharge rate, and the battery recharge mode.
- Generally speaking, the most important factors is depth of discharge.