

Voltacon AGM LED Acid Solar Battery HXG6-200 (6V200Ah)

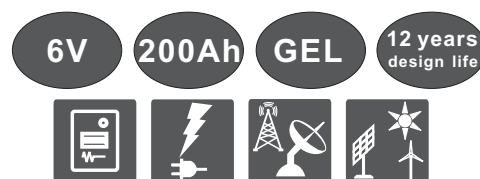
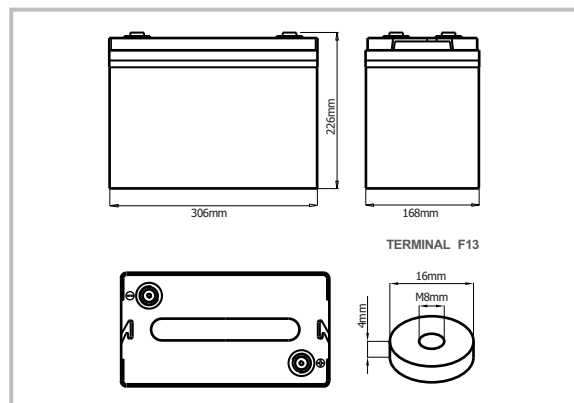
VOLTACON
ENERGY SYSTEMS

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)	6 (3 cells per unit)
Designed Floating Life (20°C)	12 Years
Nominal Capacity (20°C)	200 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L306mm x W168mm x H226mm
Approx. Weight	29.5 kg (65.0 lbs)
Terminal Type	Female Copper Insert M8 (torque:10~12N.m)
Internal Resistance	Approx. 0.0031 Ohm (fully charged @ 20°C)
Max. Charge Current	50 A
Max. Discharge Current (5S)	1000 A
Short Circuit Current	1850 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)	6.8-6.9V (-3mV/ cell / °C)
Equalize and cycle Use Charge Voltage (20~25°C)	7.2-7.4V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)



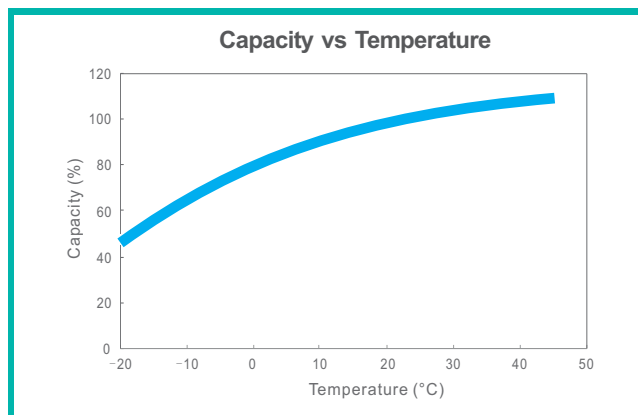
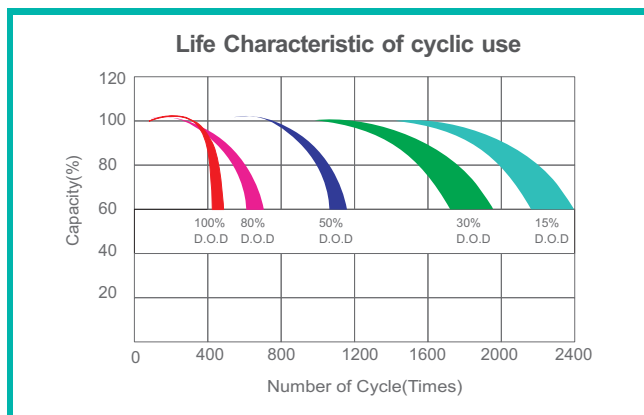
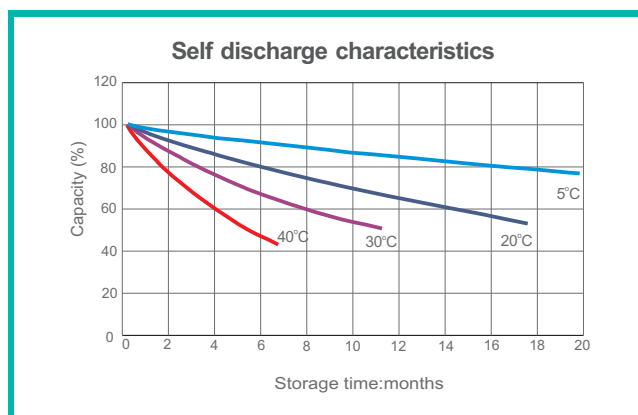
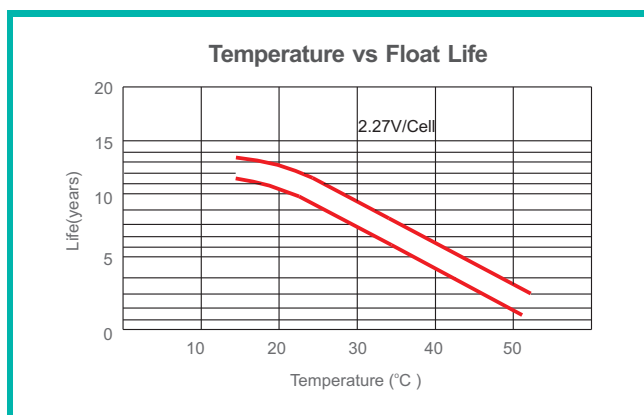
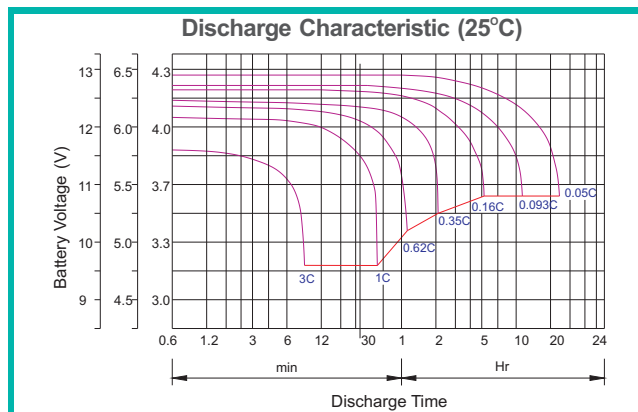
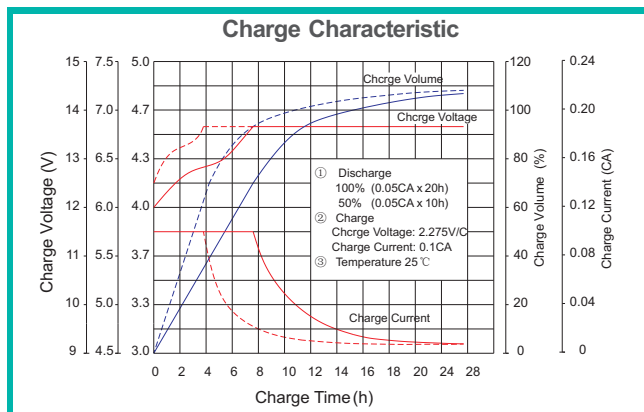
BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25°C)												
F.V/Time	5 min	10 min	15 min	30 min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	570	425	355	221	134	78.5	56.7	45.2	37.6	25.7	21.2	11.4
1.67V	509	392	334	211	130	77.2	56.0	44.6	37.1	25.4	20.9	11.2
1.70V	454	356	316	203	127	76.1	55.3	44.1	36.8	25.1	20.7	10.9
1.75V	395	331	293	196	125	74.8	54.5	43.6	36.4	24.7	20.4	10.7
1.80V	349	301	273	187	121	73.2	53.4	42.6	35.5	24.1	20.0	10.5
1.85V	299	271	249	177	115	70.4	51.7	41.4	34.6	23.6	19.5	10.3

Constant Power Discharge Characteristics: W/cell (25°C)												
F.V/Time	5 min	10 min	15 min	30 min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	1004	764	647	408	249	141	100	82.0	70.3	48.3	40.7	21.4
1.67V	907	711	614	392	244	140	99.1	81.3	70.0	48.3	40.3	21.3
1.70V	820	653	585	380	240	139	98.7	81.0	69.3	48.0	40.3	21.3
1.75V	722	614	549	370	237	137	98.0	80.1	69.0	47.7	40.0	21.1
1.80V	646	564	517	357	232	133	95.2	78.0	67.3	46.1	39.5	21.0
1.85V	563	514	476	340	224	128	93.4	76.7	64.8	44.8	38.7	20.4

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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 sereis 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 specking, the most important factors is depth of discharge.