NIMAC
Power into the Future

VRLA BATTERY | 6-GFM-120J | 12V120Ah

SLA BATTERY—GEL TECHNOLOGY SERIES

Specification

Nominal Voltage	12V
Number of cell	6
Nominal Capacity	120Ah@10hr-rate (12.0A to 1.80V/cell @25℃)
Weight	Approx.34.00Kg
Terminal	M8,Φ=16&18
Container Material	ABS (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.
Rated Capacity	123.0Ah 20hr-rate (6.15A to 1.80V/cell @25℃) 120.0Ah 10hr-rate (12.0A to 1.80V/cell @25℃) 103.0Ah 5hr-rate (20.6A to 1.75V/cell @25℃) 75.0Ah 1hr-rate (75.0A to 1.60V/cell @25℃)
Max. Discharge Current	600A(5sec)
Internal Resistance	Approx.3.4mΩ(Fully charged)
Operating Temp. Range	Discharge: -40℃~60℃ Charge : -20℃~50℃ Storage : -40℃~60℃
Cycle Use	Charging Current: ≤24.0A Voltage:14.2V ~14.4V Temperature compensation:-30mV/℃
Standby Use	Charging Current:No limit Voltage:13.6V ~13.8V Temperature compensation:-20mV/℃
Self-Discharge	less than 1% at 25℃
Design Life	15 years (floating charge)

Introduction

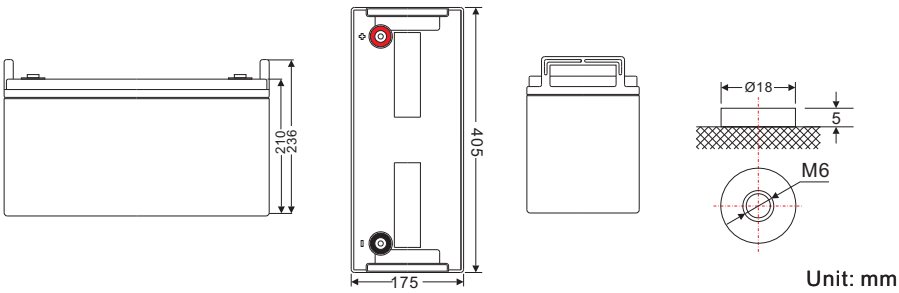
The NIMAC GEL-TECH batteries designed with 15+ years service life. The SOLID-GEL system can avoid corrosion and stratification. The special separator can properly prevent short-circuit. It can offer high deep discharge ability, super thermal stability, good recovery-ability after deep discharging. The deep discharge cycles of GEL-TECH batteries can be more than 30% compared with other normal AGM batteries.

Applications

- Auto control system &ATM machine
- Electronic apparatus and equipment
- Emergency light & Emergency backup power supply & Alarm/Security system
- Power generation system (solar and wind power system,etc.)
- Communication power & DC power
- Electric Power System(EPS)
- Uninterruptable Power System (UPS)
- ……

Dimensions

Length	405±1mm (15.94 inches)
Width	175±1mm (6.89 inches)
Height	210±1mm (8.27 inches)
Total Height	236±1mm (9.29 inches)



Unit: mm

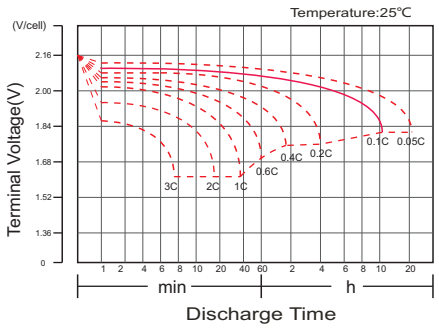
Constant Current Discharge Characteristics: A (25℃)

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	408.70	292.90	213.10	133.80	75.61	43.17	30.36	25.13	21.16	14.60	12.58	6.65
1.65V/cell	397.80	278.70	208.70	131.60	75.26	42.84	30.25	25.01	21.04	14.49	12.46	6.53
1.70V/cell	374.90	268.80	205.50	130.40	74.57	42.52	30.01	24.89	20.91	14.37	12.34	6.41
1.75V/cell	336.60	248.10	195.60	127.10	73.87	42.19	29.90	24.66	20.66	14.25	12.21	6.29
1.80V/cell	303.80	226.20	180.30	121.60	72.12	41.44	29.08	24.08	20.29	14.01	12.09	6.17
1.85V/cell	264.50	202.20	161.70	113.90	68.52	39.60	27.80	22.92	19.42	13.42	11.73	5.81

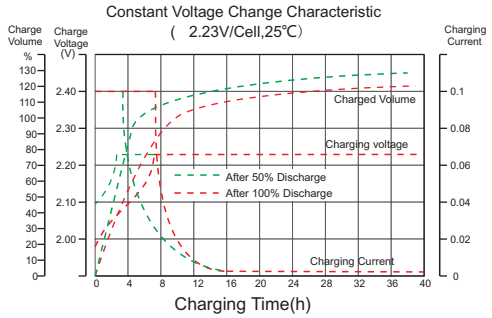
Constant Power Discharge Characteristics: W (25℃)

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	3893.00	3558.00	2620.00	1887.00	1081.00	620.70	438.00	362.90	306.20	211.80	176.80	93.38
1.65V/cell	3813.00	2719.00	2052.00	1491.00	860.60	494.60	349.70	289.70	243.50	168.80	140.00	73.98
1.70V/cell	3600.00	2628.00	2025.00	1473.00	854.30	490.10	347.60	288.30	242.70	167.30	139.20	73.25
1.75V/cell	3241.00	2429.00	1930.00	1440.00	845.90	485.50	345.50	286.20	240.50	165.90	137.80	72.53
1.80V/cell	2916.00	2205.00	1774.00	1374.00	825.00	478.40	337.10	278.50	236.70	162.40	136.30	71.80
1.85V/cell	2517.00	1958.00	1584.00	1288.00	781.70	456.30	320.40	265.20	224.80	156.70	132.00	68.90

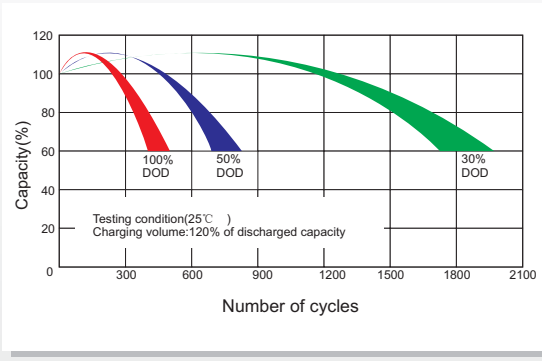
Discharge Characteristics Curve



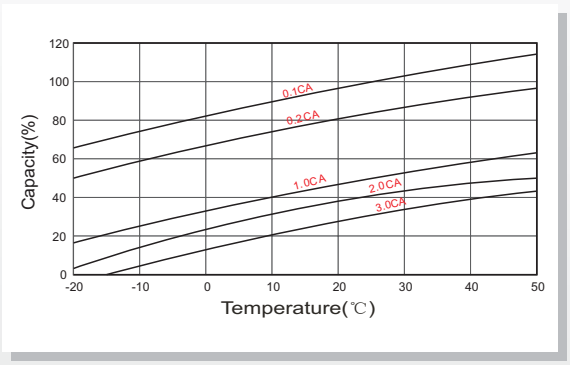
Charging Characteristics Curve



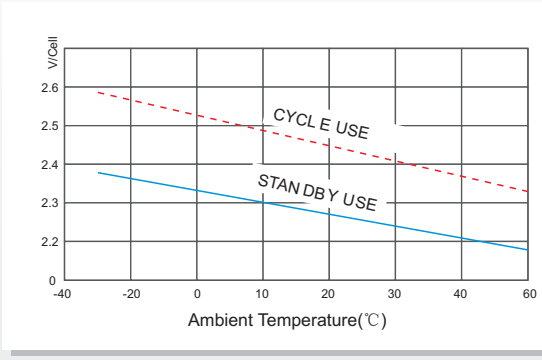
Cycle life in relation to depth of Discharge



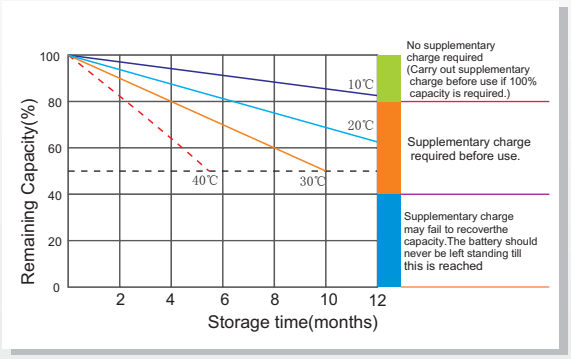
Temperature effects on Capacity



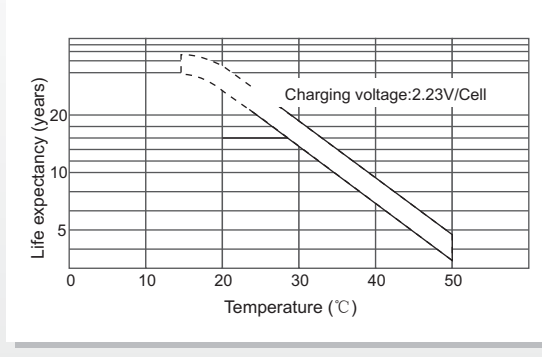
Relationship between charging voltage and temperature



Self-discharge Characteristics



Temperature effects on Float life



Life Characteristics of Standby use