NIMAC
Power into the Future

VRLA BATTERY | 6-GFM-100J | 12V100Ah

SLA BATTERY—GEL TECHNOLOGY SERIES

Specification

Nominal Voltage	12V
Number of cell	6
Nominal Capacity	100Ah@10hr-rate (10.0A to 1.80V/cell @25℃)
Weight	Approx.28.5Kg
Terminal	M6,Φ=14&18
Container Material	ABS (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.
Rated Capacity	102.8Ah 20hr-rate (5.14A to 1.80V/cell @25℃) 100.0Ah 10hr-rate (10.0A to 1.80V/cell @25℃) 83.0Ah 5hr-rate (16.6A to 1.75V/cell @25℃) 61.2Ah 1hr-rate (61.2A to 1.60V/cell @25℃)
Max. Discharge Current	500A(5sec)
Internal Resistance	Approx.3.5mΩ(Fully charged)
Operating Temp. Range	Discharge: -40 ℃~60℃ Charge : -20℃~50℃ Storage : -40℃~60℃
Cycle Use	Charging Current: ≤20.0A 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

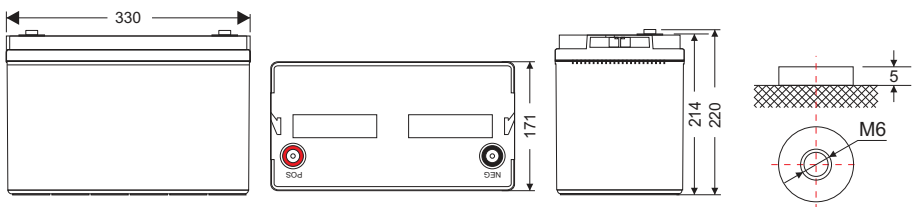
The NIMAC GEL-TECH batteries designed with 15+ years service life. The SOLID-GEL system can avoid corrosion and stratification. The special separator can properly prevent short-circuit. It can offer high deep discharge ability, super thermal stability, good recovery-ability after deep discharging. The 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	330±1mm (12.95 inches)
Width	171±1mm (6.85 inches)
Heigth	214±1mm (8.50 inches)
Total Heigth	220±1mm (8.74 inches)



Unit: mm

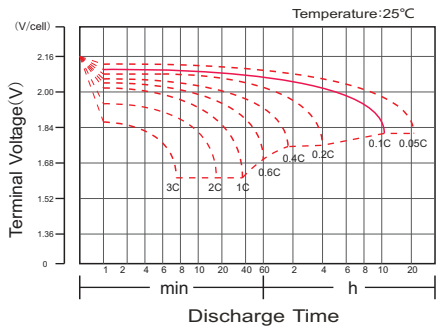
Constant Current Discharge Characteristics: A (25℃)

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	331.1	237.3	172.7	108.4	61.26	34.97	24.60	20.36	17.14	12.17	10.48	5.543
1.65V/cell	322.3	225.8	169.1	106.6	60.98	34.71	24.50	20.26	17.04	12.07	10.38	5.442
1.70V/cell	303.7	217.8	166.5	105.7	60.41	34.45	24.32	20.17	16.94	11.97	10.28	5.341
1.75V/cell	272.7	201.0	158.5	103.0	59.85	34.18	24.22	19.98	16.74	11.87	10.18	5.241
1.80V/cell	246.1	183.3	146.1	98.49	58.43	33.57	23.56	19.51	16.44	11.68	10.08	5.140
1.85V/cell	214.3	163.8	131.0	92.27	55.51	32.08	22.53	18.57	15.73	11.18	9.776	4.837

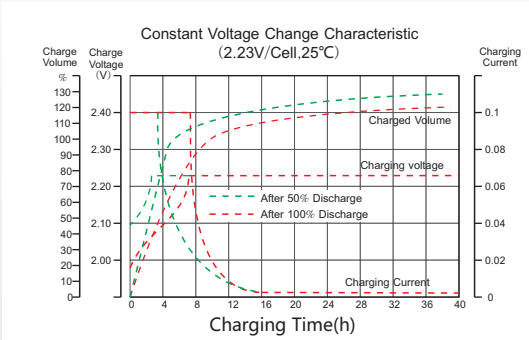
Constant Power Discharge Characteristics: W (25 ℃)

F. V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	3451	2523	1858	1223	700.6	402.3	283.9	235.2	198.5	141.2	117.9	62.25
1.65V/cell	3380	2410	1819	1208	697.2	400.7	283.3	234.7	197.3	140.6	116.6	61.65
1.70V/cell	3191	2330	1795	1194	692.2	397.1	281.6	233.5	196.6	139.4	116.0	61.04
1.75V/cell	2873	2153	1711	1167	685.4	393.4	279.9	231.9	194.8	138.3	114.8	60.44
1.80V/cell	2585	1955	1572	1113	668.4	387.6	273.1	225.6	191.8	135.3	113.6	59.83
1.85V/cell	2231	1736	1404	1043	633.3	369.7	259.6	214.9	182.1	130.5	110.0	57.42

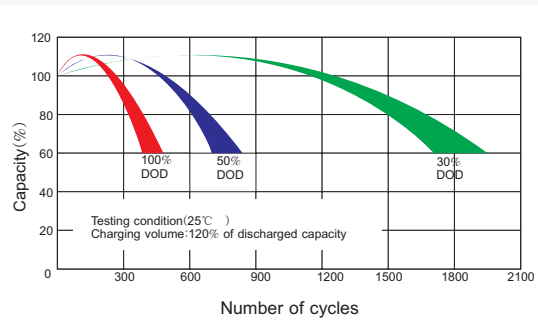
Discharge Characteristics Curve



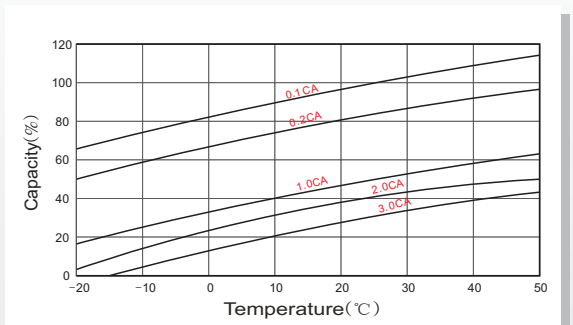
Charging Characteristics Curve



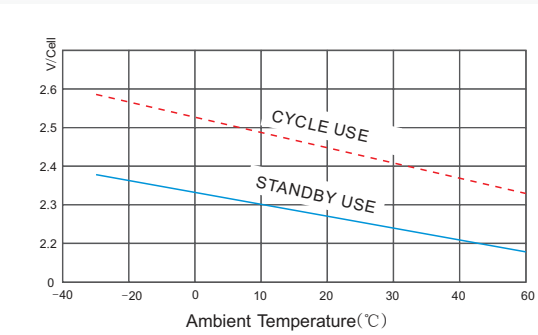
Cycle life in relation to depth of Discharge



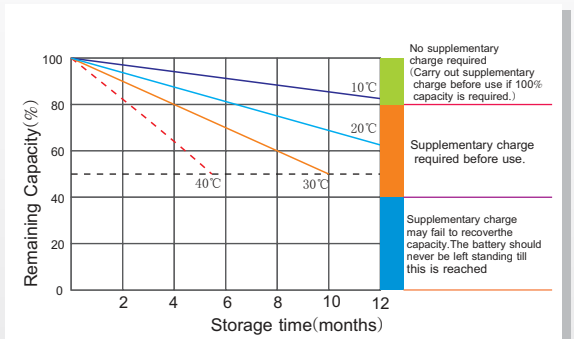
Temperature effects on Capacity



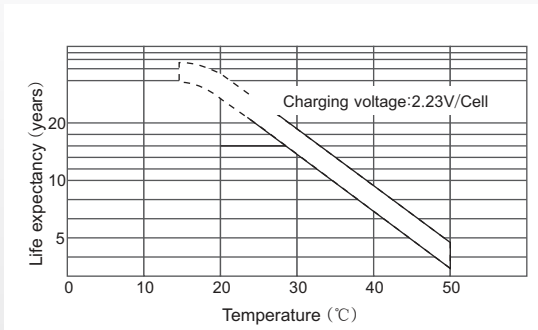
Relationship between charging voltage and temperature



Self-discharge Characteristics



Temperature effects on Float life



Life Characteristics of Standby use

