

Specification

Nominal Voltage	12V
Number of cell	6
Nominal Capacity	250Ah@10hr-rate (20.0A to 1.80V/cell @25°C)
Weight	Approx.68.50Kg
Terminal	M8,Φ=16&18
Container Material	ABS (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.
Rated Capacity	255.0Ah 20hr-rate (10.25A to 1.80V/cell @25°C)
	200.0Ah 10hr-rate (20.0A to 1.80V/cell @25°C)
	167.0Ah 5hr-rate (33.4A to 1.75V/cell @25°C)
	122.0Ah 1hr-rate (122A to 1.60V/cell @25°C)
Max. Discharge Current	1800A(5sec)
Internal Resistance	Approx.2.6mΩ(Fully charged)
Operating Temp. Range	Discharge: -40°C~60°C
	Charge : -20°C~50°C
	Storage : -40°C~60°C
Cycle Use	Charging Current: ≤62.5A
	Voltage:14.2V ~14.4V
	Temperature compensation:-30mV/°C
Standby Use	Charging Current:No limit
	Voltage:13.6V ~13.8V
	Temperature compensation:-20mV/°C
Self-Discharge	less than 1%at 25°C°
Design Life	12 years (floating charge)



Introduction

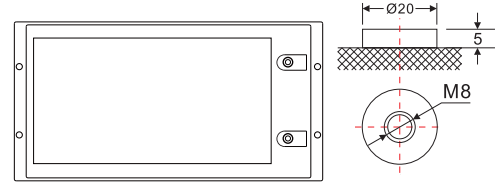
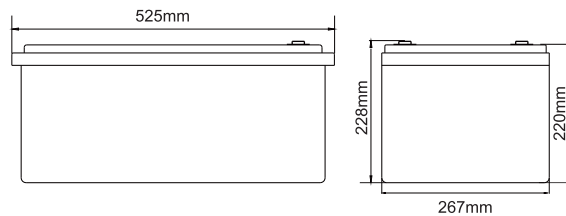
The NIMAC GEL-TECH batteries designed with 15+ years service life. The SOLID-GEL system can avoid corrosion and stratification. The special separator can properly prevent short-circuit. It can offer high deep discharge ability, super thermal stability, good recovery-ability after deep discharging. The 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	525±1mm
Width	267 ±1mm
Height	220 ±1mm
Total Height	228 ±1mm



Unit: mm

BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: A (25°C)

F.V/Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.70V	254	159	95.2	69.2	55.2	46.0	31.3	25.9	13.6
1.75V	245	156	93.5	68.1	54.6	45.4	30.9	25.5	13.4
1.80V	234	151	91.5	66.8	53.3	44.4	30.2	25.0	13.1
1.85V	221	144	88.0	64.6	51.8	43.3	29.5	24.4	12.8

Constant Power Discharge Characteristics: W (25°C)

F.V/Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.70V	475	300	181	132	105	88.9	61.0	50.6	26.9
1.75V	463	297	180	131	104	88.5	60.6	50.3	26.5
1.80V	446	289	177	130	102	87.1	59.7	49.7	26.2
1.85V	425	280	172	127	100	85.7	58.8	48.7	25.8

PARAMETERS FOR SOLAR & WIND APPLICATIONS

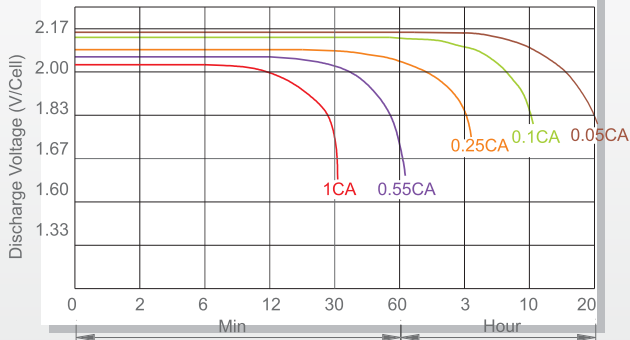
Long time discharge capacity for Solar & Wind applications

Capacity	C ₂₄ (Ah)	C ₄₈ (Ah)	C ₇₂ (Ah)	C ₁₀₀ (Ah)	C ₁₂₀ (Ah)
VHR 12V250AH	268	283	290	303	313
Final Voltage	1.85V				

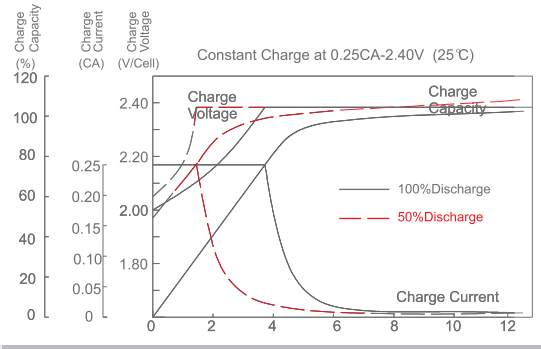
Solar & Wind applications parameters settings

Over voltage disconnect:	2.45±0.01V/cell @ 25°C
Regulation/equalize voltage:	2.40±0.01V/cell @ 25°C
Array reconnection voltage:	2.25±0.005V/cell @ 25°C
Float voltage setting:	2.27±0.005V/cell @ 25°C
Low voltage alarm voltage:	1.95±0.005V/cell @ 25°C
Low voltage disconnect:	1.90±0.005V/cell @ 25°C
Load reconnect voltage:	2.09±0.01V/cell @ 25°C
Temp. compensate coefficient:	-5mV/cell/°C

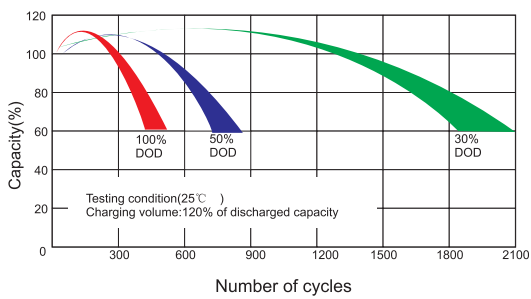
Discharge Characteristics Curve



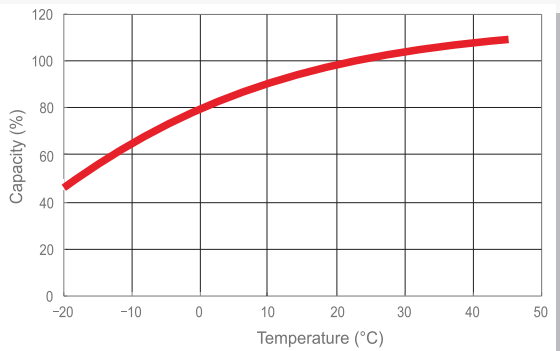
Charging Characteristics Curve



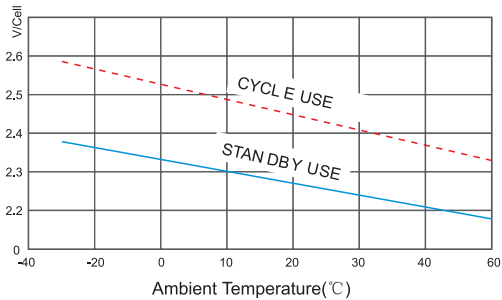
Cycle life in relation to depth of Discharge



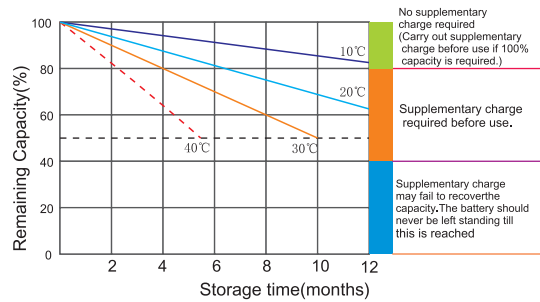
Temperature effects on Capacity



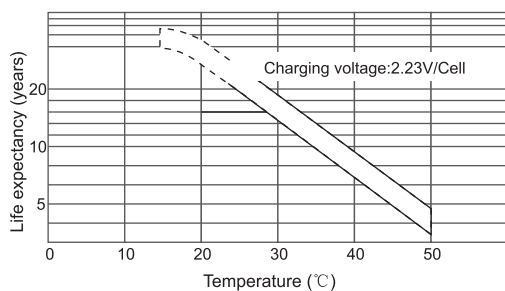
Relationship between charging voltage and temperature



Self-discharge Characteristics



Temperature effects on Float life



Life Characteristics of Standby use

