

# Liftech

## Gel Battery

### NPG200-12 [12V200AH]

#### Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	200AH	
Dimensions	Length	522±2mm (20.55 inches)
	Width	240±2mm (9.45 inches)
	Container Height	219±2mm (8.58 inches)
	Total Height (with Terminal)	224±2mm (8.81 inches)
Standard	IEC 60896 / IEC 61427	
Terminal	T5 (M8X16) / Torque: 9.6 ~ 10.7Nm	
Container Material	ABS	
Rated Capacity	208.0 AH/10.4A	(20hr, 1.80V/cell, 25°C/77°F)
	200.0 AH/20.0A	(10hr, 1.80V/cell, 25°C/77°F)
	176.0 AH/35.2A	(5hr, 1.75V/cell, 25°C/77°F)
	159.0 AH/53.0A	(3hr, 1.75V/cell, 25°C/77°F)
	128.0 AH/128.0A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	2000A (5s)	
Internal Resistance	Approx 2.7mΩ	
Operating Temp.Range	Discharge	- 20 ~ 60°C
	Charge	-20 ~ 50°C
	Storage	- 20 ~ 60°C
Nominal Operating Temp. Range	- 20 ~ 60°C	
Cycle Use	Initial Charging Current less than 60.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Standby Use		
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	NPG series of batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



#### Applications

- ◆ All purpose
- ◆ Uninterruptable Power Supply
- ◆ Electric Power System(EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus / equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto control system
- ◆ Solar or wind power system



ISO9001 ISO14001

#### Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	278.4	240.0	204.6	154.8	115.1	94.3	60.1	46.2	37.6	31.3	27.2	22.1	18.9	10.3
1.80V/cell	343.9	282.4	235.8	179.5	133.9	105.6	65.5	50.6	40.6	33.6	29.2	23.4	20.0	10.4
1.75V/cell	377.8	302.0	250.2	189.2	139.0	110.5	68.0	53.0	41.7	35.2	30.0	23.8	20.2	10.5
1.70V/cell	411.8	322.5	264.0	196.4	144.5	114.0	70.7	53.5	42.7	35.3	30.6	24.2	20.4	10.7
1.65V/cell	444.4	342.9	281.4	204.6	148.1	117.8	72.7	55.8	44.2	36.3	31.3	24.7	20.8	10.8
1.60V/cell	476.4	366.7	297.6	216.0	154.4	128.0	75.1	57.5	45.5	37.3	32.0	25.1	21.0	10.9

#### Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	514.3	447.8	385.7	295.0	221.3	181.9	116.6	90.1	73.4	61.3	53.5	43.6	37.4	20.4
1.80V/cell	627.7	519.9	438.0	336.9	255.4	202.6	126.4	98.1	78.9	65.5	57.2	46.1	39.5	20.6
1.75V/cell	678.7	549.2	460.2	352.2	262.5	211.0	130.6	100.5	80.7	67.2	58.6	46.8	39.9	20.7
1.70V/cell	723.0	578.2	482.0	363.5	272.0	217.0	135.6	103.1	82.6	68.6	59.7	47.4	40.2	21.1
1.65V/cell	773.1	610.1	509.9	375.7	276.3	222.7	138.5	107.0	85.1	70.2	60.8	48.4	41.0	21.4
1.60V/cell	809.8	641.7	533.4	393.8	286.4	229.4	142.5	109.8	87.3	72.0	61.9	49.0	41.4	21.5

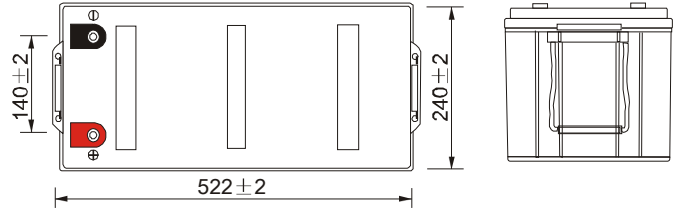
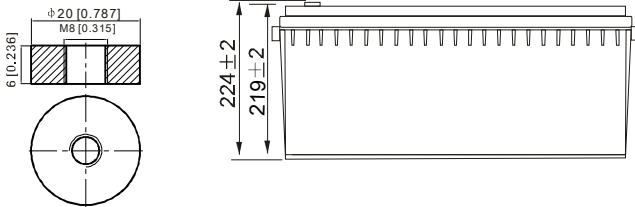
Specifications subject to change without prior notice.

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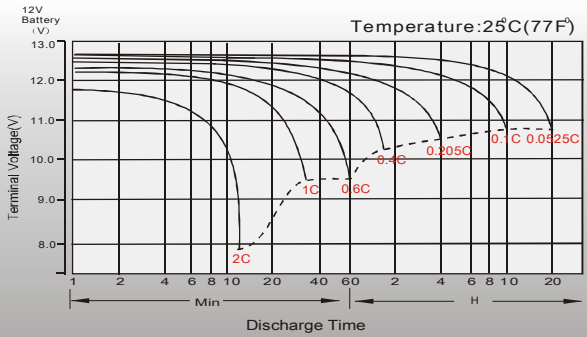
#### Dimensions

##### T5 Terminal

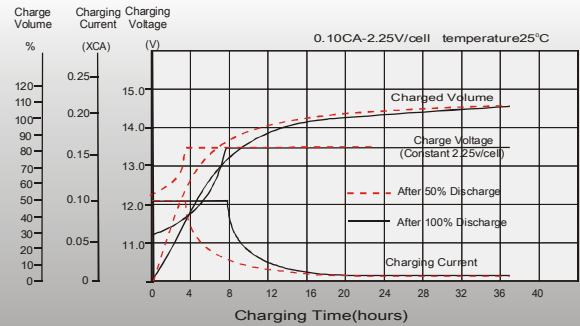
Unit: mm [inches]



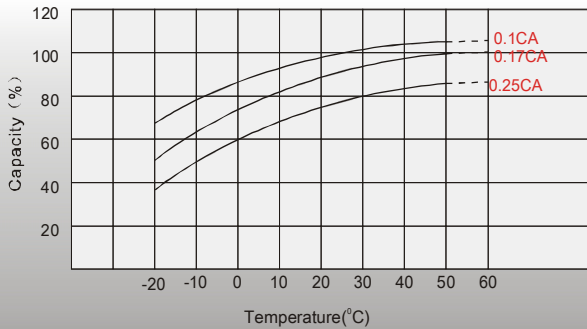
#### Discharge Characteristics



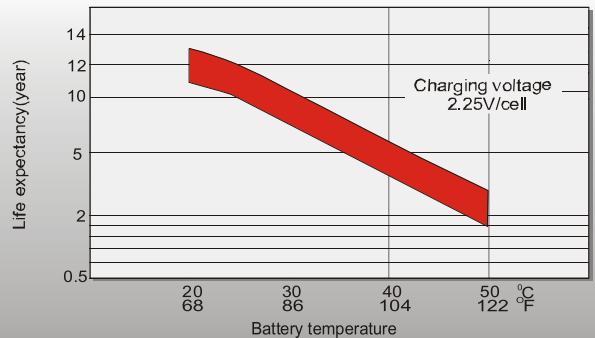
#### Float Charging Characteristics



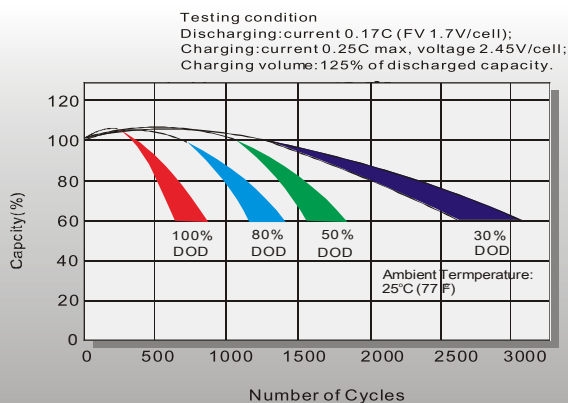
#### Temperature Effects in Relation to Battery Capacity



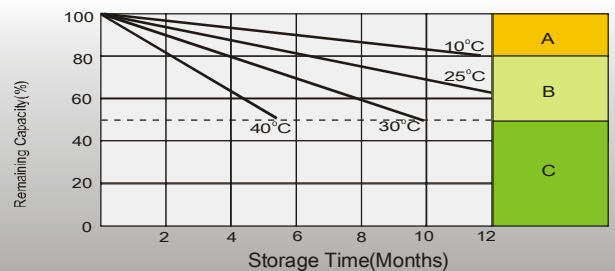
#### Effect of Temperature on Long Term Float Life



#### Cycle Life in Relation to Depth of Discharge



#### Self Discharge Characteristics



- A** No supplementary charge required.  
(Carry out supplementary charge before use if 100% capacity is required)
- B** Supplementary charge required before use. Optional charging way as below:  
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.  
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.  
3. Charged for 8-10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.