

Sealed Lead Acid Battery

# STANDBY APPLICATIONS



Premium Brand of  
Flying Power Group



Certified by





*New factory picture - completed by 2016, covering 300,000 m<sup>2</sup>*

## COMPANY PROFILE

**Genergy Battery Co. Limited** aims to be one of the highest quality suppliers of Industrial batteries in the world. It is also the exclusive overseas sales and marketing company of Flying Power Group, in charge of Europe, Middle East, Africa and Asia markets. After years of steady growth, the factory is now operating out of a 300,000 square meter manufacturing facility. The state-of-the-art factory produces over 100,000 tons of plates and has over 5 million KVA of battery output in 2015. In compliance with IEC60896-21/22 and approved by ISO 9001, ISO 14001 and OHSAS 18000, Genergy products represent the highest quality product range available from the factory, and its global appeal is becoming more and more recognized.

To achieve the highest standard, Genergy is building a global network of quality partners and customers. With this in mind, Genergy has now opened Sales and Technical support offices worldwide, with industrial experts and talented engineers for EMEA strategic projects. It is Genergy's aim to, not only produce high quality and economic products that are fully compliant with International standards, but to also provide excellent service in both the pre-sales and post sales periods.

Genergy has also an extensive product development plan that will engage with our closest partners to create the product road map to counter everything the market throws at us. In today's world, batteries must operate in the most challenging and diverse applications and environments, and Genergy has a full and extensive range that covers all options. Why not join the Genergy journey? We are about to travel far and wide in the global standby power market.


## Genergy Philosophy

**QUALITY IS OUR STANDARD, CUSTOMERS ARE OUR PRIORITY!**

## TABLE OF CONTENT

CONTENT	PAGE
Company Profile .....	1
History .....	2
Manufacture Center .....	3
Products	
NH Series (High rate) .....	4
NF Series (Front terminal) .....	5
NL Series (2 Volt) .....	6
NM Series .....	7
NS Series .....	8
Battery Maintenance Data .....	9
Statement .....	10

## HISTORY

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- 2016 ● New factory was completed.
  - 2015 ● Factory battery output reached over 5 million KVA
  - 2014 ● Cast-on strap machine installed within the upgraded production line.  
First order was received from EMEA market.
  - 2013 ● "GENERGY" premium brand and "FLYING POWER" brand were created.  
300,000 square metre new factory design agreed.
  - 2012 ● Approved by OHSAS 18000
  - 2008 ● Approved by ISO9001:2008 and ISO14000.
  - 2007 ● OEM client list more than 10 major client.
  - 2005 ● Major OEM contract signed for Asian market.
  - 2004 ● Production plate capacity increased to 10,000 tons.
  - 2002 ● Moved to Jiangxi Province and started plate production, two factories.
  - 2000 ● First battery assembly manufacture center in Fujian Province was built



## Manufacture Center

Genergy 300,000 square meter manufacture facility is upgraded to the most up-to-date production lines and machines. Produced by experienced engineers, skilled technicians and workers, Genergy high standard products are in compliance with the international standard.



# NH Series

**HIGH POWER**  
series with EXCELLENT  
CONSISTENCY

Voltage: 12V  
Capacity: 21W - 600W

Genergy NH (high rate) series is primarily for all critical power and UPS applications. Designed with a high-density plate technology, the series battery is featured of high consistency, excellent performance and reliable standby service life. It is widely applied in UPS/EPS, high power backup system and emergency power supply.

### Key Features and Benefits

- High rate output aimed at the UPS market
- Low self-discharge
- Fully tank formed plates
- Low impurity electrolyte
- Spill proof / leak proof
- Multi-position usage
- ABS case and cover VO upon request
- Very high lead purity rate (higher than 99.994%)



### Technical characteristics and data

Battery Model	Dimensions (mm)				Weight (Kg)	Terminal Type	Volts	Capacity - Watts/cell to 1.67V/PC					Internal Resistance (mOhms)	Maximum Charge Current (A)
	L	W	H	TH				10min	15min	20min	30min	45min		
NH12-21W	90	70	101	106	1.8	T2	12	27.44	21.13	16.60	13.05	9.45	25	1.2
NH12-24W	151	51	94	99	1.9	T2	12	31.23	24.05	18.89	14.75	10.71	21	1.3
NH12-27W	151	51	94	99	2.0	T2	12	35.13	27.05	21.26	16.51	11.99	20	1.5
NH12-33W	151	65	94	99	2.3	T2	12	43.08	33.17	26.06	20.08	14.61	19	1.8
NH12-35W	151	65	94	99	2.5	T2	12	45.66	35.16	27.62	21.25	15.47	18	1.9
NH12-37W	151	65	94	99	2.5	T2	12	48.26	37.16	29.20	22.42	16.33	16	2
NH12-55W	151	98	94	100	3.7	T2	12	71.40	55.19	43.36	32.95	24.05	12	3
NH12-77W	181	77	167	167	5.5	T3	12	100.50	77.39	60.80	45.93	33.57	9.5	4.5
NH12-80W	181	77	167	167	6.1	T3	12	104.02	80.09	62.93	47.51	34.73	9.5	4.6
NH12-92W	181	77	167	167	6.2	T10	12	119.62	92.11	72.37	54.53	39.87	9	5.2
NH12-100W	166	175	125	125	8.3	T10	12	129.79	99.94	78.52	59.10	43.23	9	5.6
NH12-120W	165	125	175	175	8.8	T10	12	150.55	119.92	94.23	70.79	51.80	9	6.7
NH12-150W	197	131	161	168	10.6	T11	12	188.19	149.90	117.78	88.31	64.64	7	8.3
NH12-185W	197	165	170	170	15.0	T14	12	231.48	184.92	144.87	108.46	79.42	6	10.2
NH12-250W	229	138	208	212	17.9	T14	12	310.18	250.57	195.58	146.17	107.08	5	13.7
NH12-300W	260	169	208	212	23.5	T14	12	372.21	300.68	234.69	175.27	128.41	4	16
NH12-350W	306	174	208	212	27.5	T12	12	434.25	350.79	273.81	204.36	149.75	4	18
NH12-380W	328	172	216	220	31.2	T13	12	471.16	380.61	297.08	221.67	162.45	4	20
NH12-420W	328	172	216	220	31.8	T13	12	520.29	420.30	328.06	244.71	179.34	4	22
NH12-440W	328	172	216	220	33.7	T13	12	544.74	440.05	343.48	256.18	187.75	4	23
NH12-520W	342	172	283	288	43.0	T14	12	645.17	521.18	406.80	303.28	222.29	4	27
NH12-600W	522	240	218	224	59.5	T13	12	742.49	599.79	468.16	348.92	255.76	4	31

# NF Series

Voltage: 12V

Capacity: 50Ah - 190Ah (C10)

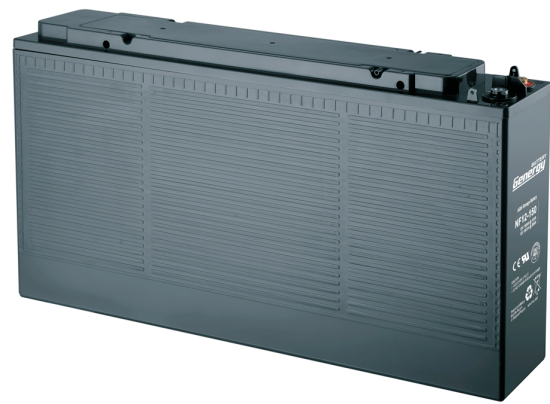
Genergy NF (Front Terminal) series is designed for Telecommunication, UPS/EPS system with 12-year design life in float service. The battery is featured of high consistency, excellent performance and reliable standby service life.

**COMPACTNESS**  
FRONT ACCESS

12 YEARS SERVICE  
**LONG LIFE**

## Key Features and Benefits

- Compactness
- ETSI 19 inch / 23 inch integration
- Modularity
- Rackable standard component
- Long life
- High power to volume ratio
- Front connection and terminal access
- Central gassing system and hinged front covers on all models
- Low self-discharge
- Fully tank formed plates
- Low impurity electrolyte
- Spill proof / leak proof
- Multi-position usage
- ABS case and cover VO upon request
- Very high lead purity rate (higher than 99.994%)



## Technical characteristics and data

Battery Model	Dimensions (mm)				Weight (Kg)	Terminal Type	Volts	Capacity - Amps to 1.75VPC					Internal Resistance (mOhms)	Maximum Charge Current (A)
	L	W	H	TH				1 Hr	3 Hr	5 Hr	10 Hr	20 Hr		
NF12-50	277	106	223	223	18.0	T11	12	37.87	14.15	9.25	5.04	2.65	6	15
NF12-80	563	115	188	188	27.3	T14	12	57.90	22.27	14.88	8.07	4.23	5	24
NF12-100	395	110	286	286	33.4	T14	12	76.03	28.72	18.95	10.09	5.29	5	30
NF12-105	507	110	223	238	32.5	T14	12	81.08	29.45	19.10	10.59	5.56	6	30
NF12-150	552	110	287	287	43.5	T14	12	111.12	42.04	27.84	15.13	7.94	7	45
NF12-155	552	110	287	287	48.5	T14	12	118.42	43.38	28.74	15.63	8.20	7	47
NF12-180	560	125	317	317	55.5	T14	12	138.07	51.14	33.25	18.14	9.52	6	54
NF12-190	560	125	317	317	60.7	T14	12	145.72	53.97	35.10	19.40	10.05	6	60

# NL Series

Voltage: 2V

Capacity: 100Ah -3000Ah (C10)

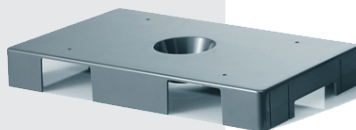
Genergy NL (2V) series is designed for standby use with 15-year design life in float service. The series battery is featured of high consistency, excellent performance and reliable standby service life. It is widely applied in Telecoms, Power Utility, Renewables, UPS/EPS, and medical equipment.

15 YEARS SERVICE  
**LONG LIFE**

**INCREASED  
DURABILITY**

### Key Features and Benefits

- Valve regulated maximum internal pressure 2.5 PSI
- Increase durability and deep cycle ability for heavy demand applications
- Low self-discharge
- Fully tank formed plates
- Low impurity electrolyte
- Spill proof / leak proof
- Multi-position usage
- ABS case and cover VO upon request
- Very high lead purity rate (higher than 99.994%)



### Technical characteristics and data

Battery Model	Dimensions (mm)				Weight (Kg)	Terminal Type	Volts	Capacity - Amps to 1.75VPC					Internal Resistance (mOhms)	Maximum Charge Current (A)
	L	W	H	TH				1 Hr	3 Hr	5 Hr	10 Hr	20 Hr		
NL2-100	171	72	206	211	6.0	T13	2	63.58	26.58	19.80	10.24	5.37	0.7	19
NL2-200	173	111	330	364	13.0	T15	2	124.80	53.22	37.65	20.52	10.76	0.7	40
NL2-250	171	151	330	364	16.8	T15	2	155.87	65.93	48.56	25.65	13.45	0.7	50
NL2-300	171	151	330	364	18.3	T15	2	182.95	78.63	57.48	30.77	16.14	0.7	60
NL2-400	210	176	330	364	25.2	T15	2	239.09	104.04	78.30	41.03	21.52	0.7	80
NL2-500	241	175	330	364	31.6	T15	2	308.24	133.45	96.13	51.29	26.91	0.7	100
NL2-600	302	175	330	364	36.5	T15	2	365.72	159.03	114.06	61.61	32.32	0.7	120
NL2-800	410	175	330	364	51.4	T15	2	493.68	208.68	153.60	82.06	43.05	0.7	160
NL2-1000	471	171	312	342	61.2	T15	2	601.98	263.50	189.25	102.58	53.81	0.5	200
NL2-1500	355	337	312	342	91.7	T15	2	922.72	395.55	288.38	153.87	80.72	0.5	300
NL2-2000	476	337	312	365	121.5	T15	2	1193.18	532.47	377.41	205.10	107.60	0.5	375
NL2-3000	696	340	312	365	185.3	T15	2	1774.53	796.50	575.62	307.66	161.39	0.5	560



# NM Series

**EXCELLENT  
CONSISTENCY**

**INCREASED  
DURABILITY**

Voltage: 12V  
Capacity: 31Ah -250Ah (C10)

Genergy NM series is designed for standby use with 10-year design life in float service. The series battery is featured of high consistency, excellent performance and reliable standby service life. It is widely applied in float service, UPS/EPS, medical equipment, telecom, photovoltaic, control system and security system.

## Key Features and Benefits

- Increase durability and deep cycle ability for heavy demand applications
- Low self-discharge
- Fully tank formed plates
- Low impurity electrolyte
- Spill proof / leak proof
- Multi-position usage
- ABS case and cover VO upon request
- Very high lead purity rate (higher than 99.994%)



## Technical characteristics and data

Battery Model	Dimensions (mm)				Weight (Kg)	Terminal Type	Volts	Capacity - Amps to 1.75VPC					Internal Resistance (mOhms)	Maximum Charge Current (A)
	L	W	H	TH				1 Hr	3 Hr	5 Hr	10 Hr	20 Hr		
NM12-31	197	131	161	168	9.8	T11	12	21.95	8.35	5.63	3.14	1.61	10	7.8
NM12-35	197	131	161	168	10.6	T11	12	25.08	9.60	6.48	3.61	1.86	10	8.8
NM12-38	197	166	176	176	12.3	T12	12	27.03	10.41	7.04	3.93	2.02	10	9.5
NM12-40	197	166	176	176	12.6	T12	12	28.41	10.94	7.41	4.14	2.12	10	10
NM12-42	197	166	176	176	13.2	T12	12	29.83	11.49	7.78	4.34	2.23	9	11
NM12-45S	197	166	170	170	13.7	T12	12	32.20	12.71	8.49	4.74	2.43	8	12
NM12-45	197	166	176	176	14.1	T12	12	32.88	12.98	8.67	4.84	2.48	8	12
NM12-50	229	137	205	210	16.1	T12	12	34.65	13.57	9.22	5.15	2.64	7	13
NM12-55	229	137	205	210	17.5	T12	12	37.88	15.11	10.14	5.66	2.90	7	14
NM12-65S	350	169	179	179	20.3	T11	12	44.26	17.75	11.96	6.68	3.43	7	17
NM12-65	327	172	173	178	20.1	T13	12	44.26	17.75	11.96	6.68	3.43	7	17
NM12-70	260	169	210	215	22.5	T12	12	49.58	19.39	12.88	7.20	3.69	6	18
NM12-80	260	169	210	215	23.5	T12	12	56.02	22.16	14.72	8.23	4.22	6	21
NM12-90	327	172	216	221	27.0	T13	12	61.36	24.43	16.56	9.25	4.74	5	24
NM12-95	304	174	210	215	28.3	T12	12	64.77	25.78	17.48	9.77	5.01	5	27
NM12-100	327	172	216	221	29.4	T13	12	68.40	27.09	18.40	10.28	5.27	5	27
NM12-120	407	173	233	233	34.8	T13	12	86.88	34.75	23.68	13.23	6.78	5	35
NM12-150	485	170	241	241	42.5	T13	12	100.27	41.41	27.51	15.37	7.88	4	40
NM12-200	496	252	208	233	60.7	T9	12	139.70	55.23	37.03	20.69	10.61	3.5	53
NM12-200S	522	240	219	224	59.8	T13	12	138.04	54.58	36.59	20.44	10.48	3.5	53
NM12-250	522	269	220	225	71.0	T14	12	170.00	68.35	45.74	25.55	13.10	3	66



# NS Series



Voltage: 6V, 12V  
Capacity: 4.5Ah -28Ah (C20)

Genergy NS UPS series is designed for standby use with 5-year design life in float service. The series battery is featured of high consistency, excellent performance and reliable standby service life. It is widely applied in UPS/EPS, medical equipment, emergency light and security system.

## Key Features and Benefits

- Low self-discharge
- Fully tank formed plates
- Low impurity electrolyte
- Spill proof / leak proof
- Multi-position usage
- Very good power to weight ratios
- Very high lead purity rate (higher than 99.994%)



## Technical characteristics and data

Battery Model	Dimensions (mm)				Weight (Kg)	Terminal Type	Volts	Capacity - Amps to 1.75VPC					Internal Resistance (mOhms)	Maximum Charge Current (A)
	L	W	H	TH				1 Hr	3 Hr	5 Hr	10 Hr	20 Hr		
NS12-4.5	89	69	101	106	1.45	T2	12	2.55	1.01	0.77	0.42	0.225	30	1.1
NS12-5	89	69	101	106	1.59	T2	12	2.80	1.14	0.85	0.47	0.25	20	1.21
NS12-6.5	151	65	95	99	2.01	T2	12	3.55	1.46	1.11	0.61	0.33	23	1.57
NS12-7	151	65	95	99	2.14	T2	12	4.10	1.62	1.23	0.68	0.36	22	1.7
NS12-7.5	151	65	95	99	2.23	T2	12	4.05	1.68	1.28	0.71	0.38	22	1.7
NS12-8	151	65	95	99	2.28	T2	12	4.50	1.79	1.37	0.75	0.40	21	1.9
NS12-9	151	65	95	99	2.48	T2	12	5.00	2.01	1.54	0.85	0.45	16	2.1
NS12-10	151	98	95	99	3.15	T2	12	5.59	2.26	1.74	0.96	0.51	21	2.4
NS12-12	151	97.5	95	100	3.50	T2	12	6.91	2.71	2.09	1.15	0.61	20	2.9
NS12-17	180	76	167	167	5.20	T3	12	11.88	4.21	2.96	1.63	0.86	16	4.1
NS12-18	180	76	167	167	5.53	T3	12	12.36	4.49	3.10	1.70	0.90	16	4.3
NS12-24	165	125	174	174	8.33	T3	12	16.96	5.97	4.13	2.27	1.20	11	5.7
NS12-24S	166	175	125	125	7.60	T4 /T10	12	16.98	5.95	4.13	2.27	1.20	11	5.7
NS12-26	166	175	125	125	7.85	T4 /T10	12	18.39	6.44	4.47	2.46	1.30	11	6.1
NS12-28	165	125	174	174	8.40	T3	12	20.20	7.00	4.81	2.65	1.40	10	6.7
NS12-28S	166	175	125	125	8.30	T4 /T10	12	19.38	6.92	4.81	2.65	1.40	10	6.7

## Battery Maintenance Data

### Float Service:

- ※ Every month, recommend inspection every battery voltage.
- ※ Every three month, recommend equalization charge for one line.

### Equalization charge method:

Discharge: 100% rate capacity discharge.

Charge: Max. current 0.3CA, constant voltage 2.4-2.45/Cell charge 24hrs.

※ Effect of temperature on float charge voltage:-  
3mV/°C/Cell.

※ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage.

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current(A)	$(A) \leq 0.2C$	$0.2C < (A) < 1.0C$	$(A) \geq 0.1C$

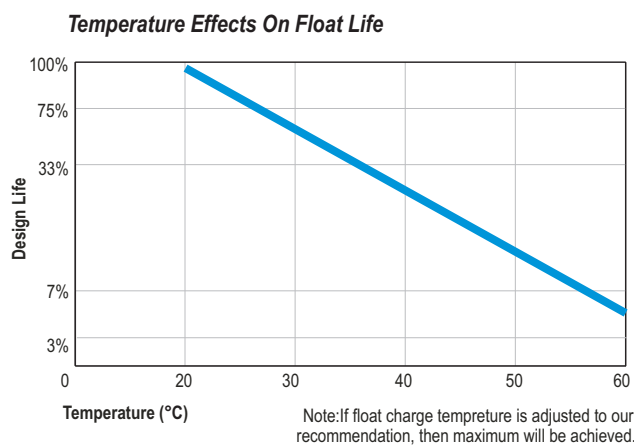
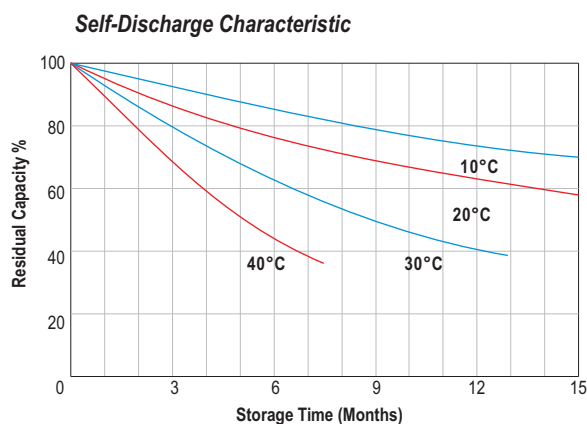
Charge the batteries at least once every six months if they are stored at 25°C.

### Charging Method

Constant Voltage	-0.2C×2h+2.4-2.45V/cell×24h. Max. Current 0.3C
Constant Current	-0.2C×2h+0.1C×12h
Fast	-0.2C×2h+0.3C×4h

### Capacity temperature correction Factor to be applied to Data at 20 Degree C

Discharge Time	-30°C	-20°C	-10°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	50°C
5 minutes to 59 minutes	0.23	0.417	0.605	0.778	0.86	0.91	0.96	1	1.037	1.063	1.085	1.1	1.116
1 Hour to 100 Hours	0.277	0.464	0.647	0.816	0.886	0.93	0.97	1	1.028	1.05	1.063	1.07	1.078



### Capacity Factors With Different Temperature

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
GEL Battery	6V & 12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	6V & 12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

Flying Power Group has issued the following *Statement* to help simplify the relationship between Flying Power Group and Genergy. Flying Power Group strongly supports “Genergy” brand to develop the battery business in the authorized markets and part of Asian markets on behalf of the whole company group.



江西南鹰科技电源有限公司  
FLYING POWER CO., LTD.

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### STATEMENT

We hereby state that Genergy Battery Co., Limited, is our Exclusive commercial partner, for all our extensive range of quality AGM and GEL batteries(except of motorcycle batteries and automotive batteries) in the following territories:

1. Europe
2. The Middle East
3. Africa

The above market territories will be supported by a strong and experienced Genergy team, both here at the factory and throughout our employed Sales network.





**Genergy Battery Co., Limited**

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