



STATIONARY BATTERIES

NiFe Alkaline series

NEW
up to 20 years
design life



NiFe Alkaline series

These NiFe batteries are standby batteries especially designed for photovoltaic systems. It is made out of Nickel hydroxide and iron oxide plates. The wide operating temperature range and long cycle life (max. service life can reach 20 years or more, if operated correctly) are some of the benefits besides low maintenance.

Characteristics

- + environment friendly
- + longer cycle life
- + abnormal operation acceptable
- + harsh environment no problem
- + high / low temperature no problem
- + true 20+ years design life

Ref.	V	C5	C10	C20	Length	Width	Height	Weight (kg)		Terminals
								filled	dry	
NiFe10-S	1.2	10,0	10,2	10,4	38	84	138	0,80	0,60	M6
NiFe20-S	1.2	20,0	20,3	20,6	32	113	220	1,30	1,00	M6
NiFe30-S	1.2	30,0	30,5	31,0	68	134	245	3,00	2,20	M10 x 1
NiFe40-S	1.2	40,0	40,6	41,2	68	134	245	3,10	2,30	M10 x 1
NiFe50-S	1.2	50,0	50,8	51,6	68	134	245	3,20	2,50	M10 x 1
NiFe60-S	1.2	60,0	60,9	61,8	70	134	285	4,20	3,30	M16
NiFe70-S	1.2	70,0	71,1	72,2	80	141	365	5,60	3,80	M10 x 1
NiFe80-S	1.2	80,0	81,2	82,4	80	141	365	5,80	4,10	M10 x 1
NiFe100-S	1.2	100,0	101,5	103,0	80	141	365	6,20	4,60	M10 x 1
NiFe120-S	1.2	120,0	121,8	123,6	80	141	365	6,40	5,00	M10 x 1
NiFe150-S	1.2	150,0	152,3	154,6	106	164	345	10,40	7,90	M20
NiFe200-S	1.2	200,0	203,0	206,0	106	164	345	10,50	8,70	M20
NiFe250-S	1.2	250,0	254,0	258,0	138	276	425	20,20	14,50	2 x M16
NiFe300-S	1.2	300,0	305,0	310,0	138	276	450	22,50	17,00	2 x M16
NiFe350-S	1.2	350,0	355,0	360,0	138	276	450	22,80	18,80	2 x M16
NiFe400-S	1.2	400,0	406,0	412,0	138	276	490	23,00	19,00	2 x M16
NiFe500-S	1.2	500,0	508,0	516,0	138	276	490	26,00	21,00	2 x M16
NiFe600-S	1.2	600,0	609,0	618,0	176	291	510	38,00	28,80	2 x M20
NiFe700-S	1.2	700,0	711,0	722,0	176	291	510	40,00	31,00	2 x M20
NiFe800-S	1.2	800,0	812,0	824,0	186	398	570	60,00	42,00	3 x M20
NiFe900-S	1.2	900,0	914,0	928,0	186	398	570	61,00	45,00	3 x M20
NiFe1000-S	1.2	1000,0	1015,0	1030,0	186	398	570	62,00	47,00	3 x M20

NICKEL-IRON

Our NiFe rechargeable battery has many benefits of low operation cost, low self-discharge, long cycling life, environment-friendly, ...

They also withstand temperatures from -20°C to 60°C, mechanical and electrical abuses and deep discharges. There is no acid so the battery will not corrode and it will still work after being discharged for longer time. This graphic shows the number of cycles of the battery -->

MAIN RANGES OF APPLICATION

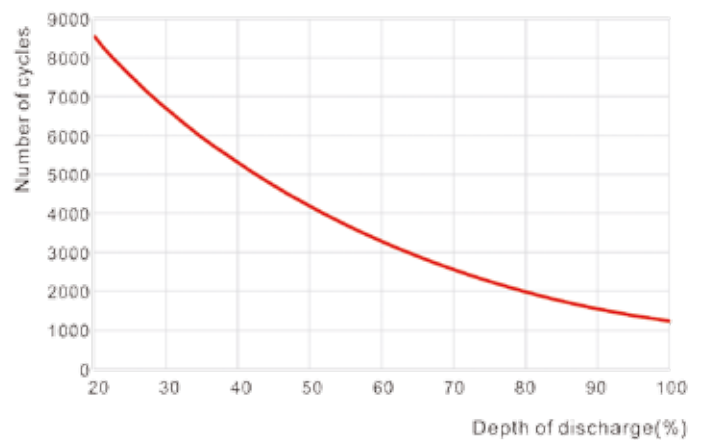
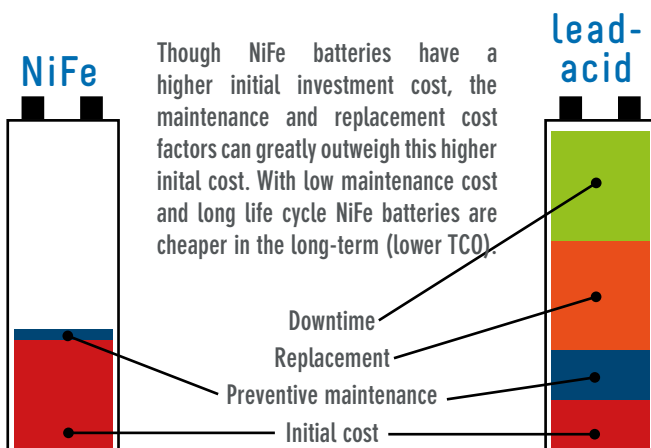
Thanks to the outstanding characteristics, the NiFe batteries are replacing the lead-acid batteries in a wide range of applications, especially for solar PV and renewable energy power systems. Suitable for commercial and residential buildings, railway and light trains (crossing gates, lighting & signage), navigation aids like remote lighthouses, beacons, offshore. Also utilities like electric power supply for remote areas and islands can use these batteries. Likewise oil and gas fields (emergency lighting on offshore platforms and cathodic protection for pipelines) and telecommunication systems (base stations, radio repeaters, emergency telephones, ...)

Speaking of a wide range of applications!

BENEFITS

- Long cycle life
- Low operation cost
- Environmentally friendly (no lead, cadmium or acid) & recyclable
- Almost no possibility of burning or thermal runaway
- High safety, high reliability, low maintenance
- Higher charge ration and utilization ratio
- Easy to transport & install in remote and harsh areas
- No corrosion, no risk of "sudden death"

COST EFFECTIVENESS



Typical Cycle Life Versus DOD (20°C)

COMPARISATION VRLA <> NiFe

Characteristics	Lead acid battery	NiFe battery
Nominal voltage	2V	1.2V
Floating charge volt.	2.23V~2.3V/cell	1.45V~1.5V/cell
Temperature factor during floating charge	-3mV/°C per cell	-3mV/°C per cell
Operating voltage	Average	Good
Standard charge and discharge current	0.1A (C10)	0.25A (C5)
High rate discharge performance	Poor	Good
Overcharge performance	Poor	Good
Over discharge performance	Extremely poor	Good
Effect from floating charge voltage	When charge voltage > 2.35V/cell then service life reduced by 1/2 for every 0.1V/cell increase	Not affected
Operation life	3 years	20 years
Storage life	2 years	4 years
High temperature performance	temp > 50°C = capacity decrease which effect the service life	Not affected
Low temperature performance	will effect the service life	Little effect on the service life
Thermal danger if shorted	Yes	No
Premature capacity loss	Yes	No
Environmentally friendly	No	Yes