

UP-NIFE SERIES

UP-NF 330

MAXIMUM DIMENSIONS

	mm	(inches)
Width	108	(4.25)
Length	157	(6.19)
Height	360	(14.17)
Terminal Spacing	83	(3.25)

FUSED IRON BATTERY



GENERAL SPECIFICATIONS

Battery Type	Rechargeable, Flooded, Vented
Chemical System	Nickel Iron (NiFe)
Weight (dry)	8.1 kg (17.9 lbs)
Weight (with electrolyte)	11.3 kg (24.8 lbs)
Nominal Discharge Voltage	1.2 - 1.3 Volts (rate dependent)
Nominal Cell Capacity C/10 to 0.9V	330 Ah
Nominal Cell Capacity C/5 to 0.9V	315 Ah
Terminals	M8 x 16 mm
Container	Polypropylene (V0 available)
Vent	Includes Flame Arrestor
DI Water Top Up Frequency	Depends on Application (1 week to 1 year)
Autofill System	Available Separately

ADVANTAGES OVER LEAD ACID TECHNOLOGY

- Energy:**
 - Deeper depth of discharge capability results in significantly more usable capacity.
 - More specific energy at recommended depth of discharge.
 - More volumetric energy density at recommended depth of discharge.
- Charging:**
 - Capable of higher rate charging.
- Life:**
 - Much longer cycle life.
 - Much longer shelf life.
 - Longer float charging life.
- Efficiency:**
 - Higher efficiency (energy out / energy in).
- Temperature:**
 - Higher maximum operating temperature. Air conditioning not required.
 - Higher safe storage temperature.
 - **No air conditioning required.**
- Environment:**
 - No lead content. No acid content.

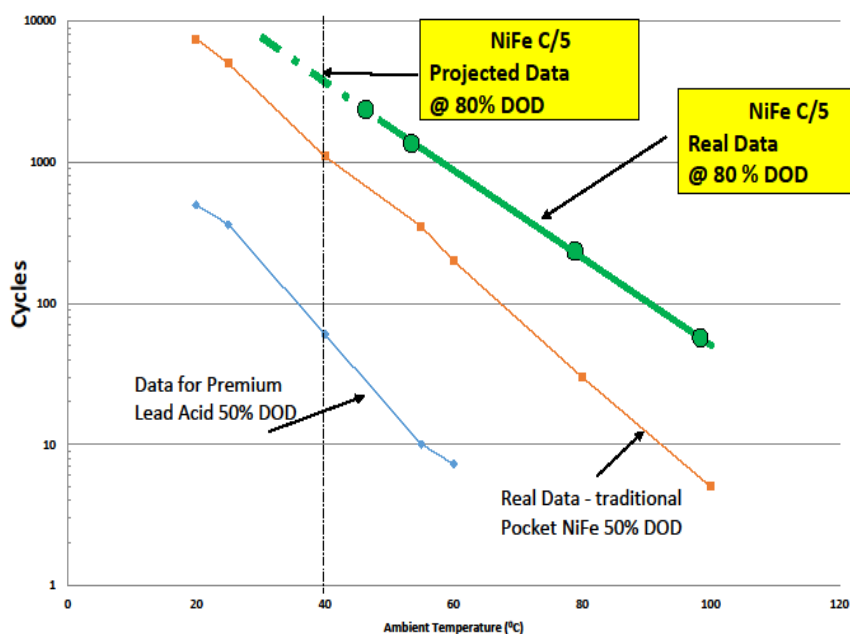


SYSTEM OPERATION	
Recommended Charging	Constant current
Charge Voltage	1.65V - 1.75V
Charged Open Circuit Voltage	1.40 - 1.45V
Optimum Charging Current	C/5 (66 A)
Minimum Charging Current	C/10 (33 A)
Maximum Cont. Charging Current	C/4 (83 A)
Maximum Pulsed Charging Current	C (165 A - 1 minute)
Maintenance Charge	Application Dependent
Initiation Charge	150% min, 200% max.
Optimum Discharge Current	C/4 - C/10 (33 - 83 A)
Maximum Discharge Current	C/2 (165 A)
Battery Cycle Life @25°C	>11.000 cycles @ 100% DOD
Battery Cycle Life @35°C	> 5.500 cycles @ 100% DOD
Battery Life on Float	20 years
Battery Storage Life	85 years

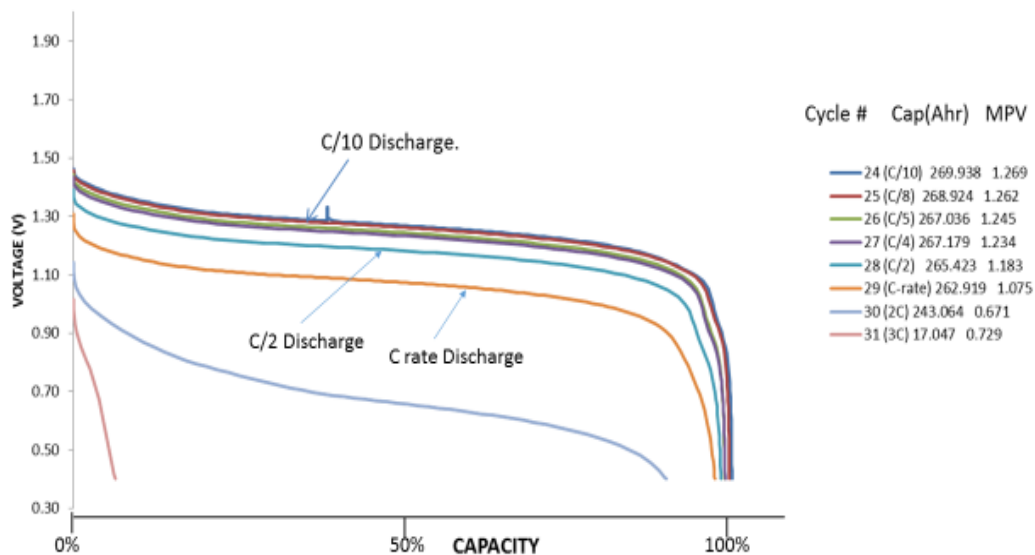
ENVIRONMENT	
Discharge Temperature (°C)	-30 to +60 (-40 available)
Charge Temperature (°C)	-30 to +60 (-40 available)
Storage Temperature (°C)	-30 to +60 (-40 available)
Operating Humidity	5% to 95% non-condensing
Temperature Compensation	None
Ah Efficiency (0 to 80% SOC)	98%
Ah Efficiency (80 to 100% SOC)	75%
Recommended 80% DOD	5% - 85% SOC
Solar Compatible	Yes
Wind Compatible	Yes
Transportation Classification	UN2795 Class 8



Cycle Life is superior to Traditional Nickel Iron

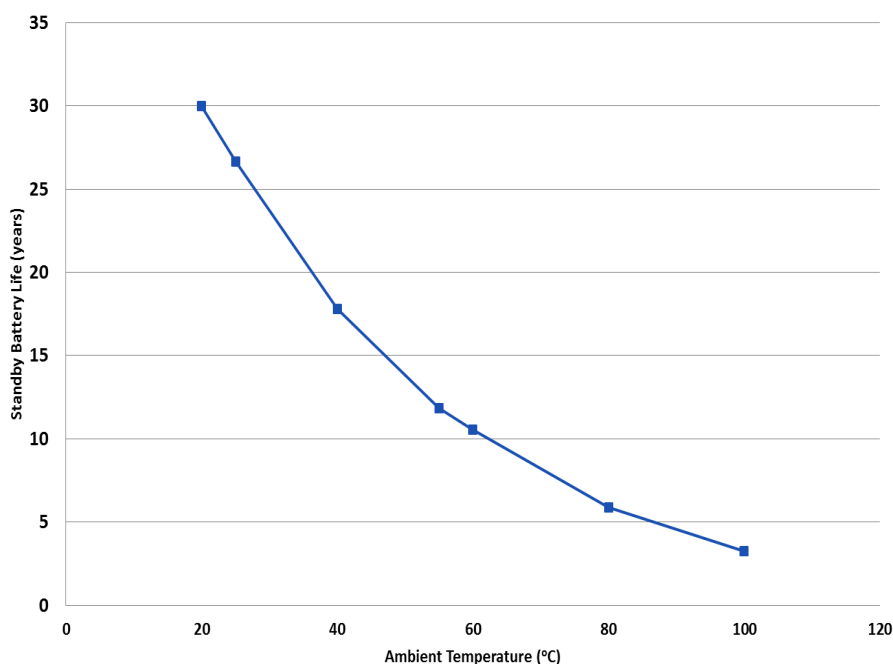


Rate Capability - applies to 260Ah, 300Ah & 350Ah Products



Cycle # Cap(Ahr) MPV

24 (C/10)	269.938	1.269
25 (C/8)	268.924	1.262
26 (C/5)	267.036	1.245
27 (C/4)	267.179	1.234
28 (C/2)	265.423	1.183
29 (C-rate)	262.919	1.075
30 (2C)	243.064	0.671
31 (3C)	17.047	0.729



Temperature	Cycle Life
55C	1,600
50C	2,400
45C	3,300
40C	4,400
35C	6,000
30C	8,100
25C	11,000
20C	15,000
15C	20,000
10C	27,000
5C	36,000
0C	50,000

Cycle Life for 80% Depth of Discharge at different Temperatures

