

NPFC series

48V 10Ah to 60AH

LiFePO₄ Battery System for standby applications

Narada NPFC series battery system is 48V system for communications standby type LiFePO₄ (lithium iron phosphate) battery products, the system uses the advanced LiFePO₄ battery technology with the benefit of long cycle life, small size, light weight, safety and environmental protection, and has a strong environmental adaptability, it is idea for harsh outdoor environments.

The system also integrates a smart battery management and monitoring module, support for remote centralized monitoring and remote battery management and maintenance, to meet the requirements of unattended. Therefore, the NPFC system can fully meet the backup power supply requirements of the access network equipment, mobile communications equipment, transmission equipment, micro base stations and microwave communication equipment.



48NPFC10 and 48NPFC50

Features and Benefits

- With the latest development technology trends of international communications battery, adopt advanced Fe lithium battery system.
- Advanced intelligent lithium battery management technology to ensure the intelligent automatic management.
- With "Energy transfer" balanced patented technology, Narada Fe lithium provide high efficiency balanced and prolong system operate life.
- Excellent electromagnetic compatibility. The outdoor power system with this product comply with the main equipment when they working together, no interfere with each other.
- Complete intelligent design, centralized monitoring unit have function of "three remote" (remote measure, remote communication, remote control), The system managed by computer, communicate with the remote monitoring center, unattended, in line with the requirements of the development of modern communications technology.
- Combine the power control technology and computer technology, real-time monitoring and control the rectifier, AC and DC power distribution.
- Configuration flexibility, support parallel connection expansion.

General Specifications

Type	48NPFC10	48NPFC20	48NPFC30	48NPFC40	48NPFC50	48NPFC60
Nominal voltage (V)	48	48	48	48	48	48
Nominal capacity	10	20	30	40	50	60
Charge Voltage (V)	54.0 +/- 0.5	54.0 +/- 0.5	54.0 +/- 0.5	54.0 +/- 0.5	54.0 +/- 0.5	54.0 +/- 0.5
Max. Charge current (A)	5.0	10.0	10.0	20.0	20.0	20.0
Optional charging current limit(A)	2.0	5.0	5.0	10.0	10.0	10.0
Output Voltage (V)	40.5 to 54	40.5 to 54	40.5 to 54	40.5 to 54	40.5 to 54	40.5 to 54
Max. Output current (A)	10.0	20.0	20.0	20.0	20.0	20.0
Dimensions (WxDxH in mm)	442x245x44	442x245x88	442x358x88	442x390x132	442x390x132	442x390x132
Weigh (kg)	7.3	13.4	19.0	33.0	35.0	36.5

Note: (1)Nominal voltage---cell nominal voltage 3.2V, 48V battery consist of 15 cells.

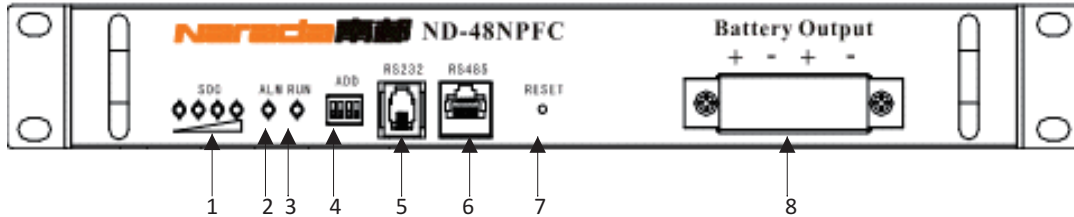
(2)Nominal capacity---discharge with constant current (0.2CA) to end voltage (40.5V) at 25°C.

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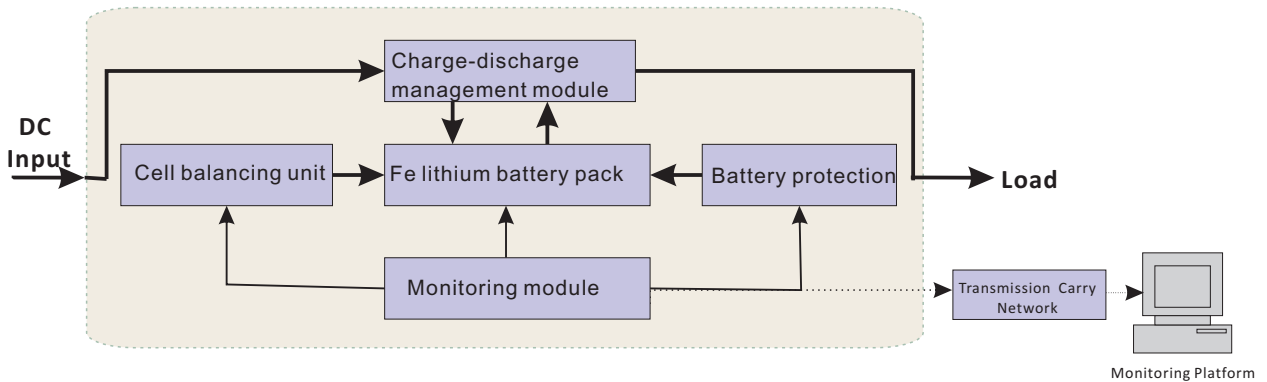
LiFePO4 Battery System for standby applications

Battery System

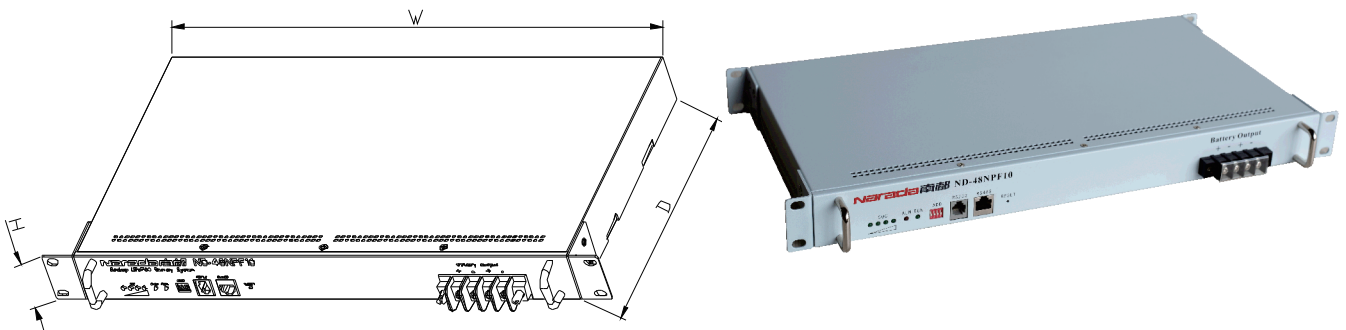


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|---|--|
| 1 Indicator light for Capacity (SOC) | 2 Alarm light(ALM) |
| 3 Run light(RUN), indicate system operation state | 4 Address Dial Number(ADD) |
| 5 Up-link communication(RS-232) | 6 Cascading Telecommunication (RS-485) |
| 7 Reset Button(RESET) | 8 System DC output (Battery Output) |

Principle Diagram



Drawing



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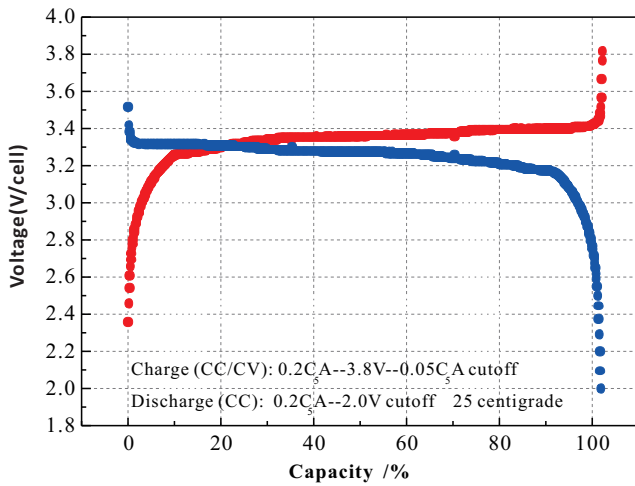
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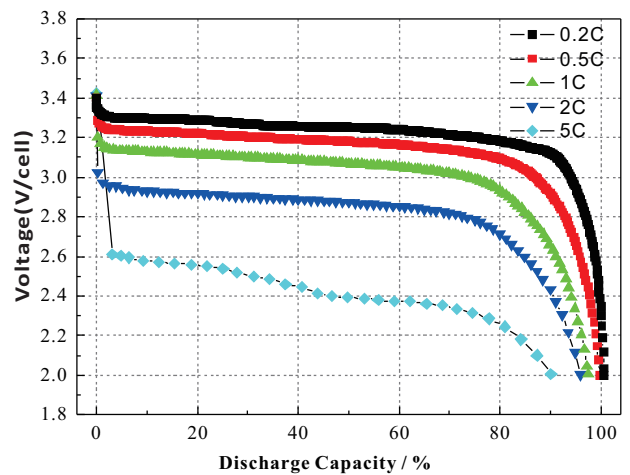
LiFePO4 Battery System for standby applications

Performance Curve

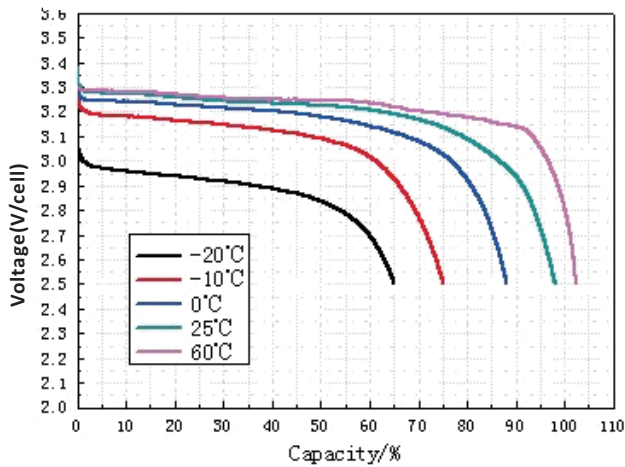
Charge and discharge voltage vs capacity(25DegC)



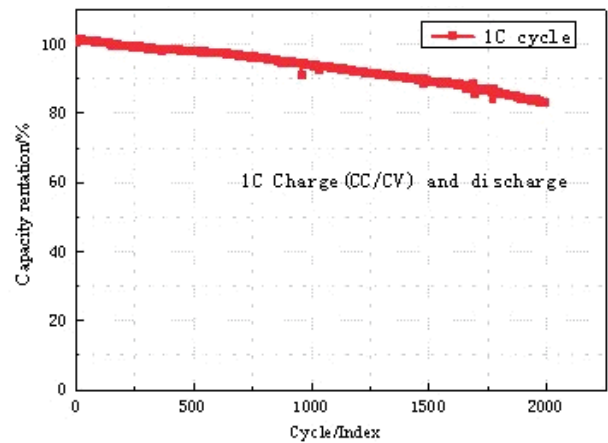
Cell discharge capacity at different discharge rate



Discharge capacity at different temperature



Cell discharge cycle at current 1CA



Operation Environment

- 1) Working temperature: - 20°C ~ + 60°C
- 2) Storage temperature: - 5°C ~ + 40°C
- 3) Relative humidity : 5% ~ 85%, no condensation.
- 4) Altitude : 0 ~ 2000m, if altitude above 2000m, the max working temperature decrease 1°C every 200m.
Max. altitude is 4000m.

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