

stored energy solutions for a demanding world

Narada

Model: 48NPFC80

NPFC Series

Narada NPFC series is a complete range of 48V LiFePO₄ (Lithium Iron phosphate) battery products, for a wide variety of applications, such as telecom base station, UPS, renewable energy system, etc., with advanced life, standard size, light weight and strong environmental adaptability.

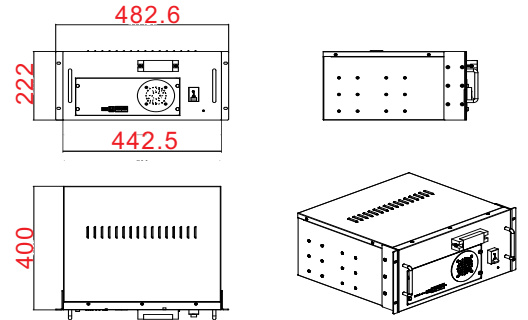


Battery Management System(BMS)

For standard Narada lithium battery module, BMS is applied to monitor voltage, current, temperature of cells and module, take protections against over-charge, over-discharge, over-current, over-temperature, under-temperature and short circuit, etc., and provide cell balancing and current limitation during charging process to ensure a reliable safety and excellent performance.

Meantime, Narada supply customized upper computer software for BMS communication via RS232 or RS485 to set parameters or read monitoring data.

Dimensions-mm



Specifications

| Battery Specification | | |
|----------------------------|-----------|------------------------------|
| Rated Voltage | | 48V |
| Rated Capacity | | 80Ah (0.5C to 40.5V @ 25 °C) |
| Discharge Current (Max.) | | 80A |
| Discharge End Voltage | | 40.5V |
| Charge Current (Recomm.) | | 16A |
| Charge Current (Max.) | | 80A |
| Charge Voltage | | 54±0.5V |
| Dimensions | Width | 442.5 mm |
| | Depth | 400.0 mm |
| | Height | 222 mm (5U) |
| Typical Weight | | 51.0Kg |
| Layout of Front Panel | | |
| Status Indicators | | SOC / ALM / RUN |
| Communication Ports | | RS232 / RS485*2 |
| Communication in Parallel | | 15 modules in maximum |
| Reset Key | | Available |
| Terminal Size | | M6 (Screw size) |
| LCD Screen | | Optional |
| Breaker | | Available |
| Dry Contact | | NC |
| Operation Environments | | |
| Temperature Range | Discharge | -20 to + 60 °C |
| | Charge | 0 to + 60 °C |
| | Storage | 0 to + 40 °C |
| Temperature Recommendation | Discharge | +15 to + 35 °C |
| | Charge | +15 to + 35 °C |
| | Storage | +15 to + 30 °C |
| Humidity | | 5% to 95% |

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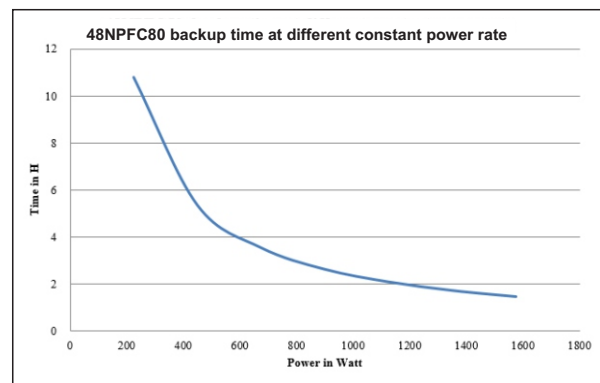
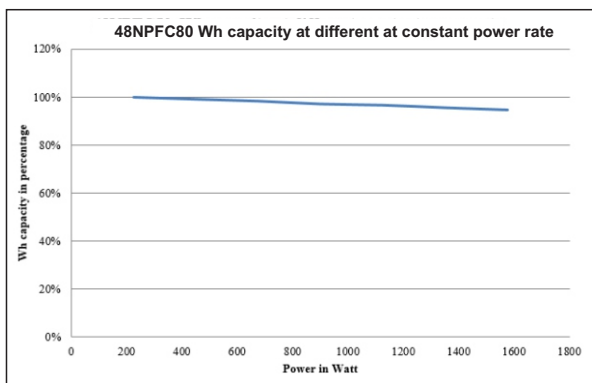
Constant Current Discharge Characteristics (25°C,77°F)

| End voltage | Current(A) Time | 0.1C | 0.15C | 0.2C | 0.25C | 0.3C | 0.4C | 0.5C | 0.6C | 0.8C |
|-------------|--------------------|-------|-------|------|-------|------|------|------|------|------|
| | | Hours | | | | | | | | |
| 46.5 | | 9.59 | 6.34 | 4.71 | 3.70 | 3.02 | 2.21 | 1.70 | 1.34 | 0.87 |
| 45.0 | | 9.78 | 6.49 | 4.85 | 3.87 | 3.20 | 2.39 | 1.89 | 1.55 | 1.13 |
| 43.5 | | 9.91 | 6.57 | 4.92 | 3.92 | 3.26 | 2.44 | 1.95 | 1.61 | 1.19 |
| 42.0 | | 9.99 | 6.64 | 4.97 | 3.96 | 3.29 | 2.47 | 1.97 | 1.64 | 1.22 |
| 40.5 | | 10.05 | 6.68 | 5.00 | 3.99 | 3.32 | 2.49 | 1.98 | 1.66 | 1.24 |
| 39.0 | | 10.08 | 6.71 | 5.03 | 4.01 | 3.34 | 2.50 | 2.00 | 1.66 | 1.24 |

Discharge Data with Constant Power (25°C,77°F)

| End voltage | Power Time | 358W | 715W | 1080W | 1430W | 1800W | 2145W | 2500W |
|-------------|---------------|-------|------|-------|-------|-------|-------|-------|
| | | Hours | | | | | | |
| 46.50 | | 10.46 | 5.06 | 3.21 | 2.34 | 1.76 | 1.40 | 1.13 |
| 45.00 | | 10.65 | 5.21 | 3.39 | 2.52 | 1.97 | 1.62 | 1.35 |
| 43.50 | | 10.77 | 5.28 | 3.45 | 2.57 | 2.03 | 1.68 | 1.43 |
| 42.00 | | 10.85 | 5.32 | 3.48 | 2.60 | 2.05 | 1.71 | 1.45 |
| 40.50 | | 10.90 | 5.35 | 3.50 | 2.61 | 2.07 | 1.71 | 1.46 |
| 39.00 | | 10.93 | 5.37 | 3.51 | 2.63 | 2.08 | 1.73 | 1.47 |

Performance Curves



NARADA POWER SOURCE CO.,LTD.
 Building A, No.822 Wen'er West Road, Hangzhou, China
 Tel:+86-571-56975980/56975956 Fax:+86-571-56975955
 Website:www.naradapower.com E-mail: intl@narada.biz

NARADA ASIA PACIFIC PTE.LTD.
 65 Ubi Crescent #07-05 HOLA centre, Singapore
 Tel: +65-6848 1191 Fax: +65-6749 3498
 E-mail: sales@narada.com.sg

NARADA EUROPE (UK) LIMITED
 Spectrum House, Dunstable Road, Redbourn,
 St. Albans, Herts AL3 7PR
 Tel: +44 (0)845 371 7095 Fax:+44 (0)845 612 2031
 E-mail: sales@naradaeurope.com



TEMPEL GROUP ARGENTINA
 www.tempelgroup.com
 baires@tempelgroup.com
 Tel.+54 11 4897-7184/7178

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