

stored energy solutions for a demanding world

**Narada**

Model: 48NPFC150--Draft

NPFC Series

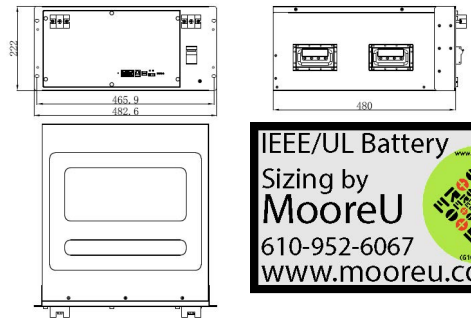
Narada NPFC series is a complete range of 48V LiFePO (Lithium Iron phosphate) battery products, for a wide variety of applications, such as telecom base station, UPS, renewable energy system, etc., with advanced life, standard size, light weight and strong environmental adaptability.



### 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 RS485 to set parameters or read monitoring data.



### Specifications

Battery Specification		
Rated Voltage	48V	
Rated Capacity	150Ah (0.5C to 40.5V @ 25 C°)	
Discharge Current (Max.)	100A	
Discharge End Voltage	40.5V	
Charge Current (Recomm.)	30A	
Charge Current (Max.)	100A	
Charge Voltage	54.0±0.5V	
Dimensions	Width	465.9 mm
	Depth	480 mm
	Height	222 mm
Typical Weight	65.0Kg	
Layout of Front Panel		
Status Indicators	SOC / ALM / RUN	
Communication Ports	RS232 / RS485*2	
Communication in Parallel	8 modules in maximum	
Reset Key	Available	
Terminal Size	M8 (Screw size)	
LCD Screen	Available	
Breaker	Available	
Dry Contact	Available	
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%	

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

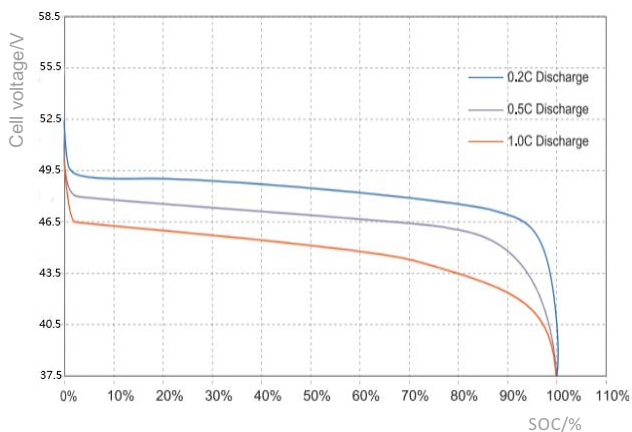
End voltage	Current(A) Time	0.1C	0.15C	0.2C	0.25C	0.3C	0.4C	0.5C	0.6C
		Hours							
46.5V		9.56	6.35	4.75	3.78	3.12	2.29	1.79	1.45
45.0V		9.76	6.49	4.85	3.87	3.21	2.39	1.89	1.57
43.5V		9.89	6.58	4.92	3.92	3.25	2.42	1.93	1.60
42.0V		9.98	6.64	4.96	3.96	3.29	2.45	1.94	1.61
40.5V		10.04	6.68	5.00	3.99	3.31	2.46	1.96	1.63

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

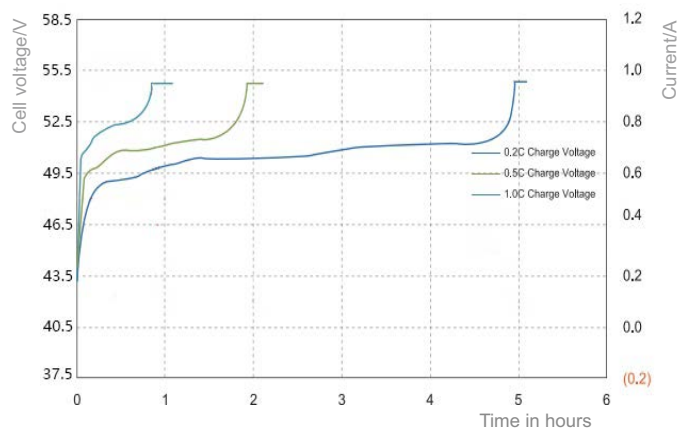
End voltage	Power Time	450W	900W	1350W	1800W	2250W	2700W	3150W
		Hours						
46.5V		10.35	5.11	3.36	2.46	1.92	1.53	1.27
45.0V		10.55	5.22	3.45	2.55	2.02	1.66	1.40
43.5V		10.66	5.28	3.49	2.58	2.06	1.69	1.43
42.0V		10.75	5.32	3.52	2.61	2.07	1.70	1.45
40.5V		10.79	5.35	3.54	2.62	2.09	1.72	1.46

Performance Curves

CC Discharge to 2.5V at different current rate



CC-CV Charge with 3.65V constant voltage and different current rate



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