

stored energy solutions for a demanding world

Narada

Model: 48NPFC50

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. The battery life time at standby mode can be ≥ 10 years @20-25°C .

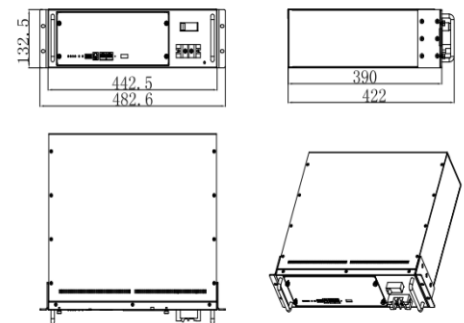


Battery Management System(BMS)

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		50Ah (C ₁₀ , 0.2C to 40.5V @ 25°C)
Discharge Current (Max.)		50A
Discharge End Voltage		40.5V
Charge Current (Recomm.)		10A
Charge Current (Max.)		50A
Charge Voltage		54±0.5V
Dimensions	Width	442.5 mm
	Depth	390.0 mm
	Height	132.5 mm (3U)
Typical Weight		28.5 Kg
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		M6 (Screw size) (M8 optional)
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%

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

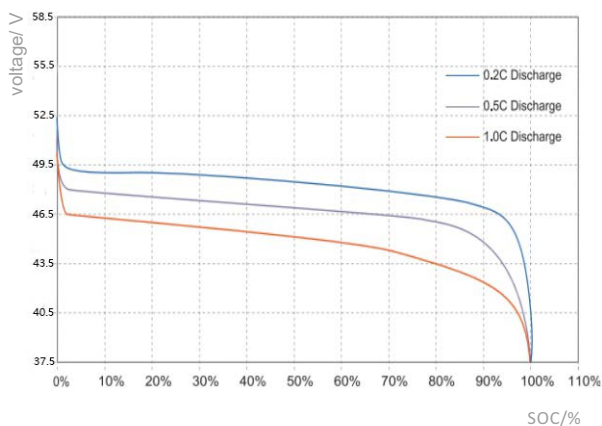
End voltage	Current(A) Time	Hours									Min
		0.1C	0.15C	0.2C	0.25C	0.3C	0.4C	0.5C	0.6C	0.8C	
46.5V		9.56	6.35	4.75	3.78	3.12	2.29	1.79	1.45	1.02	42.2
45.0V		9.76	6.49	4.85	3.87	3.21	2.39	1.89	1.57	1.15	53.2
43.5V		9.89	6.58	4.92	3.92	3.25	2.42	1.93	1.60	1.19	55.5
42.0V		9.98	6.64	4.96	3.96	3.29	2.45	1.94	1.61	1.21	56.4
40.5V		10.04	6.68	5.00	3.99	3.31	2.46	1.96	1.63	1.22	56.9

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

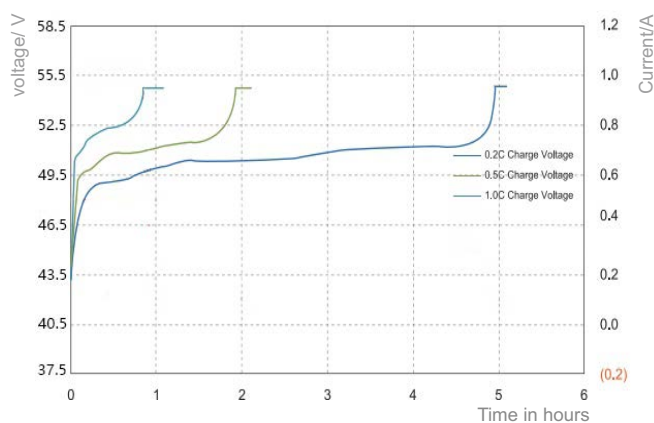
End voltage	Power Time	Hours							
		225W	450W	675W	900W	1125W	1350W	1575W	1800W
46.5V		10.35	5.11	3.36	2.46	1.92	1.53	1.27	1.06
45.0V		10.55	5.22	3.45	2.55	2.02	1.66	1.40	1.21
43.5V		10.66	5.28	3.49	2.58	2.06	1.69	1.43	1.24
42.0V		10.75	5.32	3.52	2.61	2.07	1.70	1.45	1.25
40.5V		10.79	5.35	3.54	2.62	2.09	1.72	1.46	1.27

Performance Curves

CC Discharge to 37.5V at different current rate



CC-CV Charge with 54.5V constant voltage and different current rate



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