

stored energy solutions for a demanding world

**Narada**

Model: 48NPFC50

NPFC Series

Narada NPFC series is a complete range of 48V LiFePO<sub>4</sub> (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  $\geq 10$  years @20-25°C .

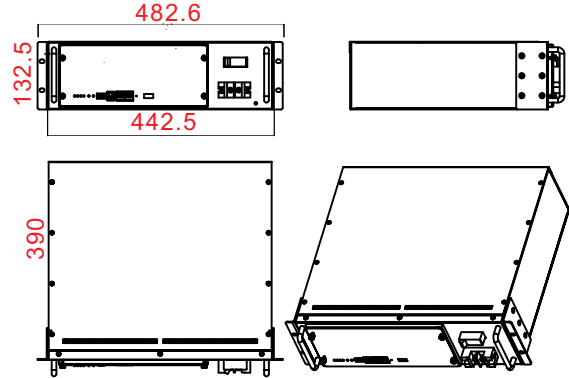


**Battery Management System(BMS)**

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 <sub>5</sub> , 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	29.5 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)	
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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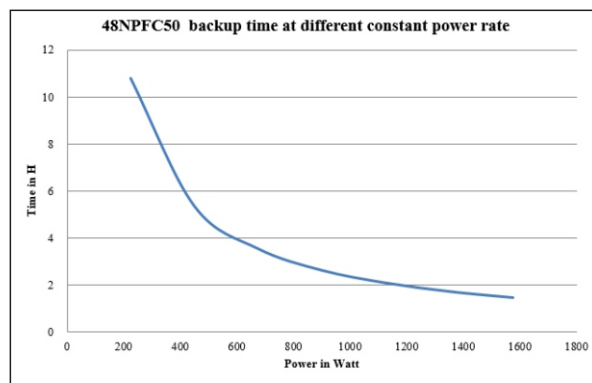
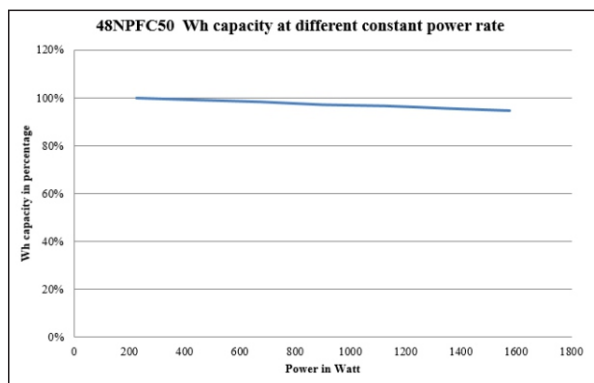
Constant Current Discharge Characteristics (25°C,77°F)

End voltage	Current(A) Time									
	0.1C	0.15C	0.2C	0.25C	0.3C	0.4C	0.5C	0.6C	0.8C	1C
	Hours									
46.5	9.56	6.35	4.75	3.78	3.12	2.29	1.79	1.45	1.02	42.2
45.0	9.76	6.49	4.85	3.87	3.21	2.39	1.89	1.57	1.15	53.2
43.5	9.89	6.58	4.92	3.92	3.25	2.42	1.93	1.60	1.19	55.5
42.0	9.98	6.64	4.96	3.96	3.29	2.45	1.94	1.61	1.21	56.4
40.5	10.04	6.68	5.00	3.99	3.31	2.46	1.96	1.63	1.22	56.9
39.0	10.08	6.70	5.02	4.01	3.33	2.48	1.97	1.64	1.22	57.3

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

End voltage	Power Time								
	225W	450W	675W	900W	1125W	1350W	1575W	1800W	
	Hours								
46.5	10.35	5.11	3.36	2.46	1.92	1.53	1.27	1.06	
45.0	10.55	5.22	3.45	2.55	2.02	1.66	1.40	1.21	
43.5	10.66	5.28	3.49	2.58	2.06	1.69	1.43	1.24	
42.0	10.75	5.32	3.52	2.61	2.07	1.70	1.45	1.25	
40.5	10.79	5.35	3.54	2.62	2.09	1.72	1.46	1.27	
39.0	10.82	5.37	3.55	2.63	2.09	1.73	1.47	1.28	

Performance Curves



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