

stored energy solutions for a demanding world



Model: 48NPFC10

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.

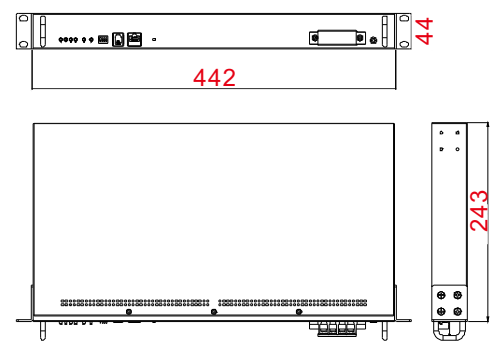


Battery Management System(BMS)

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	10Ah (C ₅ , 0.2C to 40.5V at 25°C)	
Discharge Current (Max.)	10A	
Discharge End Voltage	40.5V	
Charge Current (Recomm.)	2A	
Charge Current (Max.)	10A	
Charge Voltage	54±0.5V	
Dimensions	Width	442mm
	Depth	243mm
	Height	44mm (1U)
Typical Weight	7.3kg	
Layout of Front Panel		
Status Indicators	SOC / ALM / RUN	
Communication Ports	RS232 / RS485	
Communication in Parallel	8 modules in maximum	
Reset Key	Available	
Terminal Size	M4 / 10mm (Screw size / Cable Width)	
LCD Screen	Not Available	
Breaker	Not Available	
Dry contact	Not 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%	

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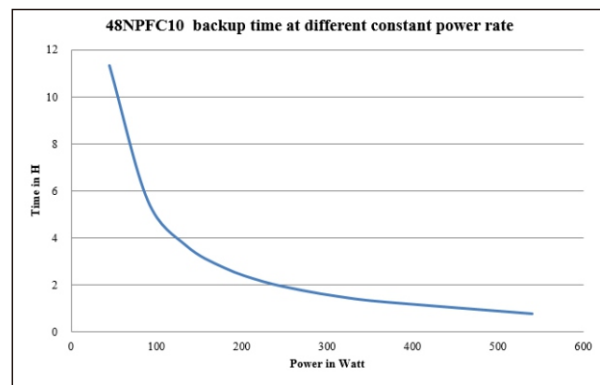
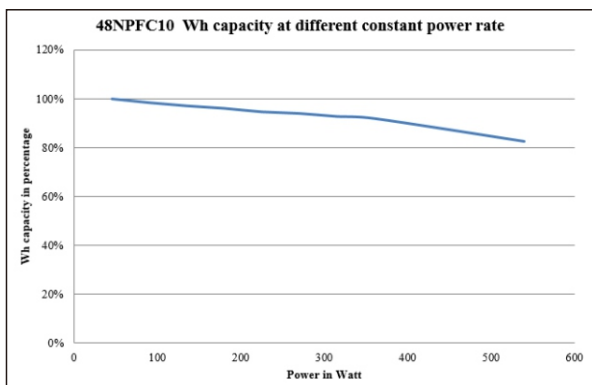
Constant Current Discharge Characteristics (25°C,77°F)

End voltage	Current(A)										1C
	Time										
	0.1C	0.15C	0.2C	0.25C	0.3C	0.4C	0.5C	0.6C	0.8C	1C	Min
46.5V	9.61	6.36	4.74	3.80	3.14	2.21	1.68	1.31	1.02	41.3	
45.0V	9.79	6.49	4.85	3.89	3.23	2.39	1.88	1.53	1.17	52.6	
43.5V	9.91	6.59	4.93	3.98	3.27	2.45	1.94	1.60	1.21	55.7	
42.0V	10.00	6.65	4.97	3.97	3.30	2.48	1.97	1.63	1.23	57.0	
40.5V	10.05	6.69	5.00	4.00	3.33	2.50	1.99	1.65	1.24	57.9	
39.0V	10.07	6.71	5.02	4.02	3.34	2.50	2.00	1.66	1.24	58.3	

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

End voltage	Power									540W
	Time									
	45W	90W	135W	180W	225W	270W	315W	360W	540W	Min
46.5V	10.89	5.34	3.50	2.55	1.96	1.57	1.29	1.07	--	
45.0V	11.09	5.45	3.59	2.65	2.07	1.70	1.44	1.24	0.5	
43.5V	11.22	5.52	3.63	2.68	2.12	1.73	1.47	1.27	33.1	
42.0V	11.30	5.56	3.66	2.71	2.13	1.76	1.49	1.30	43.2	
40.5V	11.35	5.59	3.68	2.73	2.15	1.78	1.50	1.30	46.5	
39.0V	11.38	5.60	3.69	2.74	2.16	1.79	1.51	1.32	47.9	

Performance Curves



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