

stored energy solutions for a demanding world

Narada

Model: Micro Box 48NPFC20

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.

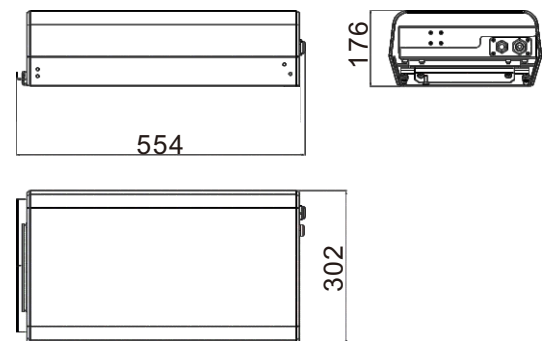


Battery Management System(BMS)

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	20Ah (C ₅ , 0.2C to 40.5V @ 25 °C)	
Discharge Current (Max.)	20A	
Discharge End Voltage	40.5V	
Charge Current (Recomm.)	4A	
Charge Current (Max.)	20A	
Charge Voltage	54±0.5V	
Dimensions	Width	544 mm
	Depth	302 mm
	Height	176 mm
Typical Weight	25 Kg	
Layout of Front Pannel		
Communication Ports	RS485	
Communication in Parallel	8 modules in maximum	
Terminal Size	10 sqmm	
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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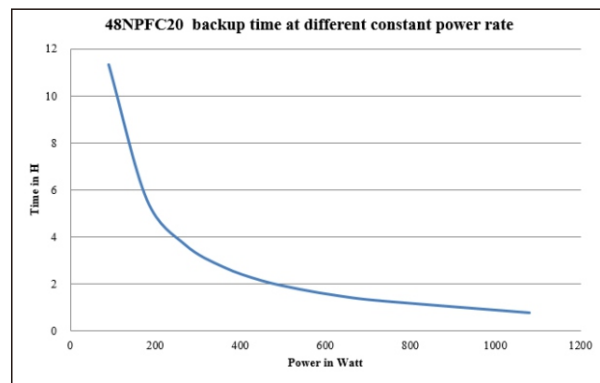
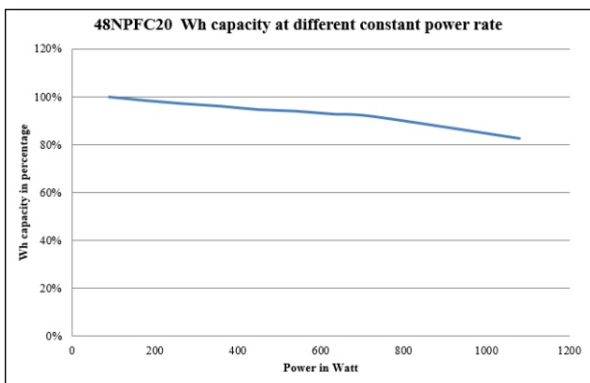
Constant Current Discharge Characteristics (25°C,77°F)

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									1080W
	Time									
	90W	180W	270W	360W	450W	540W	630W	720W	1080W	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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