

stored energy solutions for a demanding world

Narada

Model: 48NPFC100 (19")

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.

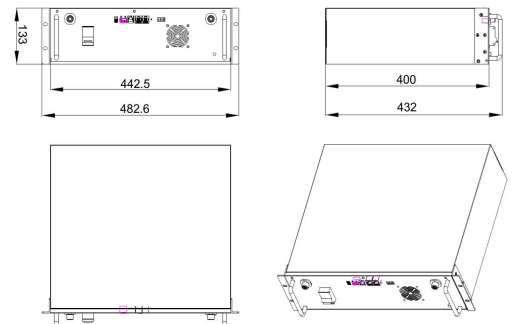


Battery Management System(BMS)

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 RS485 to set parameters or read monitoring data.

Dimensions-mm



Specifications

Battery Specification		15S
Rated Voltage		48V
Rated Capacity		100Ah (0.5C to 40.5V @ 25°C)
Discharge Current (Max.)		100A
Discharge End Voltage		40.5V
Charge Current (Recomm.)		20A
Charge Current (Max.)		100A
Charge Voltage		54.0±0.5V
Dimensions	Width	442.5 mm
	Depth	400 mm
	Height	133 mm
Typical Weight		Approximate 39.5 Kg
Layout of Front Panel		
Status Indicators		SOC / ALM / RUN
Communication Ports		RS232 / RS485*2
Communication in Parallel		8 modules in parallel maximum
Reset Key		Available
Terminal Size		M8 (Screw size)
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 for one module (25 °C,77 °F)

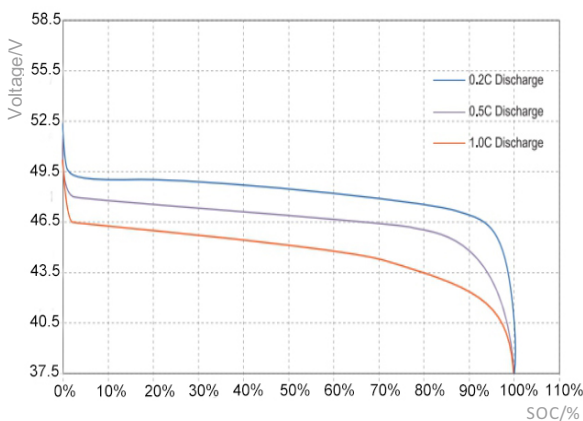
End voltage	Current(A) Time	0.1C	0.15C	0.2C	0.25C	0.3C	0.4C	0.5C	0.6C	0.8C
		Hours								
46.5V		9.56	6.35	4.75	3.78	3.12	2.29	1.79	1.45	1.02
45.0V		9.76	6.49	4.85	3.87	3.21	2.39	1.89	1.57	1.15
43.5V		9.89	6.58	4.92	3.92	3.25	2.42	1.93	1.60	1.19
42.0V		9.98	6.64	4.96	3.96	3.29	2.45	1.94	1.61	1.21
40.5V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

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

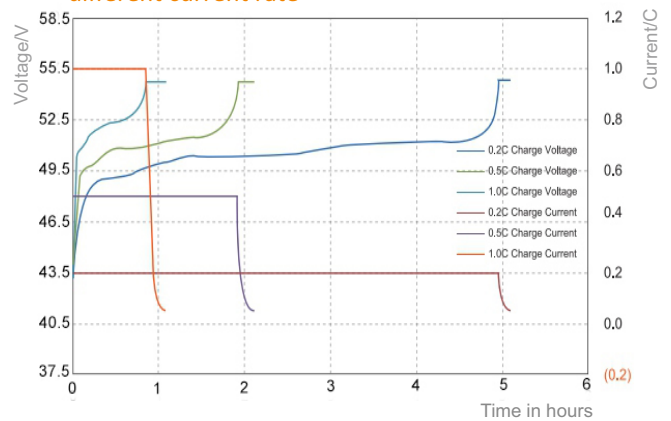
End voltage	Power Time	450W	900W	1350W	1800W	2250W	2700W	3150W
		Hours						
46.5V		10.35	5.11	3.36	2.46	1.92	1.53	1.27
45.0V		10.55	5.22	3.45	2.55	2.02	1.66	1.40
43.5V		10.66	5.28	3.49	2.58	2.06	1.69	1.43
42.0V		10.75	5.32	3.52	2.61	2.07	1.70	1.45
40.5V		10.79	5.35	3.54	2.62	2.09	1.72	1.46

Performance Curves

CC Discharge to 37.5V at different current rate



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



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