

# Westell® | NPFC Battery Series

FGP-NPFC50-48

## General Information

Westell's NPFC Battery series by Narada offers 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. A drop-in replacement to legacy lead acid battery strings, the NPFC batteries offer ease of installation, monitoring and maintenance free operation. Offered in 10AH, 20AH, 50AH, and 100AH models.\*

NPFC batteries have a much smaller footprint and much less weight (40-60% less depending on batteries) than sealed lead acid, and are compatible with all standard telecom rectifiers.

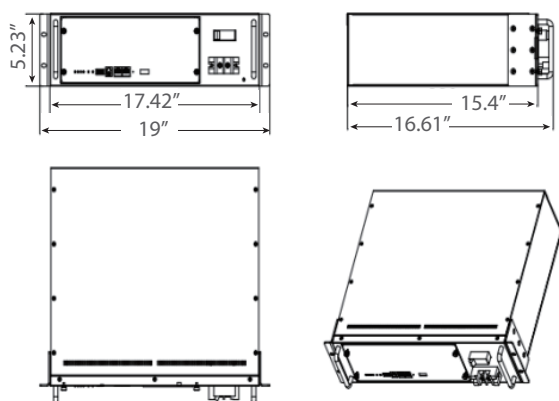
The Battery Management System (BMS) is used to monitor voltage, current, temperature of cells and module, provide protection against over-charge, over-discharge, over-current, over-temperature, undertemperature and short circuit, etc., and provide cell balancing and current limitation during charging process to ensure reliable, safe and excellent performance.

Batteries can be interconnected through the RS485 ports. Software and cable for BMS communication via RS232 to set parameters or read monitoring data is available.

## Ordering Information

Part Number	Description
FGP-NPFC10-48	10AH LiFePO <sub>4</sub> 48V NPFC Battery
FGP-NPFC20-48	20AH LiFePO <sub>4</sub> 48V NPFC Battery
FGP-NPFC50-48	50AH LiFePO <sub>4</sub> 48V NPFC Battery
FGP-NPFC100-48	100AH LiFePO <sub>4</sub> 48V NPFC Battery
FGP-NPFC-RS232	RS232 NPFC Battery Comm Kit

## Product Dimensions (in)



FGP-NPFC50-48

## Product Specifications

Battery Specifications	
Rated Voltage	48V
Rated Capacity	50Ah (C <sub>15</sub> 0.2C to 40.5V at 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 (in)	Width Depth Height
	17.42" 15.4" 5.23" (3 RU)
Typical Weight	65 lbs
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	Not Available
Breaker	Not Available
Dry Contact	NC
Operational 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 +35 °C
Humidity	5% to 95%



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

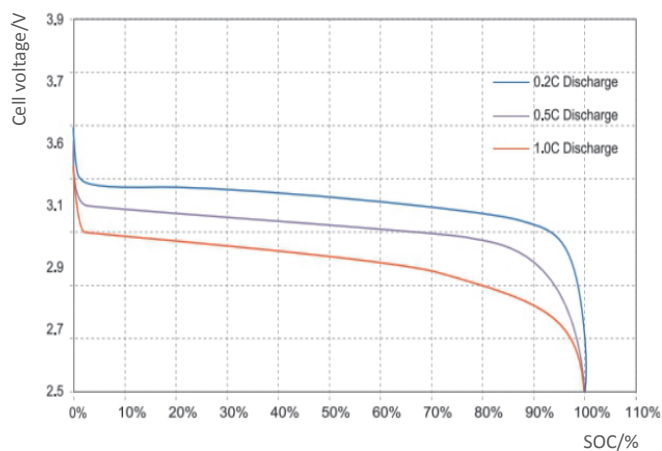
End voltage	Current(A) Time	0.1C	0.15C	0.2C	0.25C	0.3C	0.4C	0.5C	0.6C	0.8C	1C
		Hours									
46.5V		9.56	6.35	4.75	3.78	3.12	2.29	1.79	1.45	1.02	42.2
45.0V		9.76	6.49	4.85	3.87	3.21	2.39	1.89	1.57	1.15	53.2
43.5V		9.89	6.58	4.92	3.92	3.25	2.42	1.93	1.60	1.19	55.5
42.0V		9.98	6.64	4.96	3.96	3.29	2.45	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)

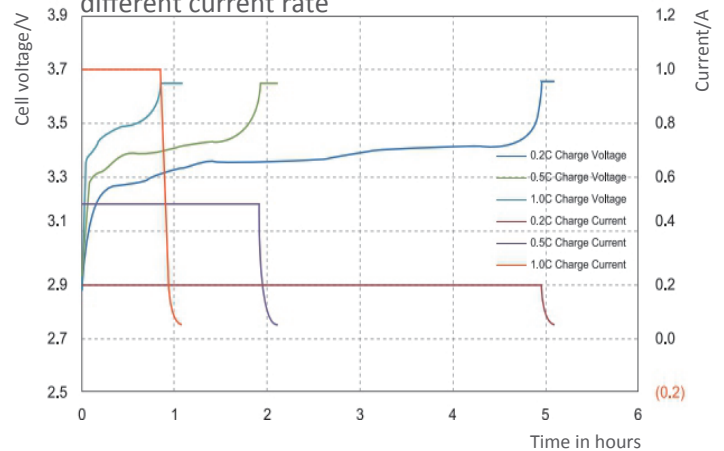
End voltage	Power Time	225W	450W	675W	900W	1125W	1350W	1575W	1800W
		Hours							
46.5V		10.35	5.11	3.36	2.46	1.92	1.53	1.27	1.06
45.0V		10.55	5.22	3.45	2.55	2.02	1.66	1.40	1.21
43.5V		10.66	5.28	3.49	2.58	2.06	1.69	1.43	1.24
42.0V		10.75	5.32	3.52	2.61	2.07	1.70	1.45	1.25
40.5V		10.79	5.35	3.54	2.62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

## Performance Curves

CC Discharge to 2.5V at different Current rate



CC-CV Charge with 3.65V constant voltage and different current rate



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