BLUE NUVA energy

Datasheet : RacPower Series BN52V-100-5.2k BP

Ultra-efficient LiFePO4 electrochemistry

- Capable of 5.2kW (1C) sustained power output. 0
- Fully rechargeable in just 2 hours.

Durability guaranteed with proper use

 Designed to last for 4500+ cycles under recommended operating conditions.

Wide scope of peripheral integrations

- Serial / CAN-compatible with inverters & relevant modules of industry-leading brands.
- Compatible with all other 48V pure sine wave inverters configurable to match voltage setpoints.
- 10 year product warranty.



	GENERAL SPECIFICATIONS
	Battery chemistry
T	
-	Nominal voltage
	Ah rating
	Installed capacity @Vnom
	Cycle life @100% DoD, 1C
oecifications	Cycle life @100% DoD, C2
	Cycle life @80% DoD, C2
	Internal resistance
	VOLTAGE
	Operating voltage range
	Bulk voltage
	Float voltage (recommended)
Ö	Low voltage
O	CURRENT
$\frac{1}{2}$	Charge current (max.)
0)	Discharge current (max.)
cal	Self-discharge rate
i	ENVIRONMENTAL REQUIRE
chnical	Operating temperature tange
0	Recommended operating envi
	Storage environment (if stored

Features

GENERAL SPECIFICATIONS			
Battery chemistry	Lithium Iron Phosphate (LiFePO4)		
Nominal voltage	51.2V		
Ah rating	100Ah @C2, 25°C		
Installed capacity @Vnom	5 120Wh		
Cycle life @100% DoD, 1C	2000 cycles (5 200Wh)		
Cycle life @100% DoD, C2	3000 cycles (5 200Wh)		
Cycle life @80% DoD, C2	4500 cycles (4 160Wh) Recommended continuous use		
Internal resistance	≤ 50mΩ @1kHz AC		
VOLTAGE			
Operating voltage range	48.0V ~ 55.0V		
Bulk voltage	55.0V ± 0.3V		
Float voltage (recommended)	54.0V		
Low voltage	48.0V		
CURRENT			
Charge current (max.)	50A continuous $ \le$ 50A recommended		
Discharge current (max.)	100A for 1 hour $ \le 70A$ recommended		
Salf discharge rate	Residual capacity: \leq 3% per month \leq 15% per year		
Self-discharge rate	Recover capacity: $\leq 1.5\%$ per month $\leq 8\%$ per year		
ENVIRONMENTAL REQUIREMENTS			
Operating temperature tange	@Charge: 0°C ~ +50°C		
Operating temperature tange	@Discharge: –10°C ~ +50°C		
Recommended operating environment	Temp. range: +15 ~ +35°C Humidity: 5 ~ 75%RH		
Storage environment (if stored ≤ 1 month)	Temp. range: $-20 \sim +60^{\circ}$ C Humidity: 5 ~ 75%RH		
Storage environment (if stored \geq 3 months)	Temp. range: +10 ~ +45°C Humidity: 5 ~ 75%RH		
PHYSICAL ATTRIBUTES			
Dimensions (excl. front panel & components*)	442mm x 435mm x 135mm (L x W x H)		
Dimensions – Front panel (excl. components*)	465mm x 133mm (L x H)		
Net weight (unboxed)	43.0kg		
Serial communication compatibility	CAN and RS485		
* Refers to all fitted components protruding from the front plate of the battery, incl. handles, screws, terminal assembly & connectors.			

