

Datasheet: RacPower Series

BN52V-100-5.2k BP

Ultra-efficient LiFePO4 electrochemistry

- Capable of 5.2kW (1C) sustained power output.
- 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

Dimensions - Front panel (excl. components*)

Serial communication compatibility

Net weight (unboxed)

- 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.



GENERAL SPECIFICATIONS	
Battery chemistry	Lithium Iron Phosphate (LiFePO ₄)
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 ≤ 50A recommended
Discharge current (max.)	100A for 1 hour ≤ 70A recommended
Self-discharge rate	Residual capacity: \leq 3% per month \leq 15% per year Recover capacity: \leq 1.5% per month \leq 8% per year
ENVIRONMENTAL REQUIREMENTS	
Operating temperature tange	@Charge: 0° C ~ +50°C @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 ~ +60°C Humidity: 5 ~ 75%RH
Storage environment (if stored ≥ 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)

CAN and RS485

43.0kg

465mm x 133mm (L x H)



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^{*} Refers to all fitted components protruding from the front plate of the battery, incl. handles, screws, terminal assembly & connectors.