

BAT Series

51.2/56.3kWh | High Voltage Battery

GoodWe's BAT Series, available in 51.2kWh and 56.3kWh, is a high-voltage lithium battery specially designed for small commercial and industrial (C&I) applications with superior performance. The battery can be combined with GoodWe ET 50kW inverters to form an efficient and cost-effective energy storage system that helps manage energy usage for peak shaving and energy savings.



Powerful Performance

- 1C/1.1C rated battery @Max. Charge/Discharge
- Wide operating temperature range



Superb Safety & Reliability

- Reliable LFP technology with high cycle stability
- Aerosol-based fire suppression system at pack-level¹
- Long cycle life, >6000 times



Scalable & Easy-to-Install Design

- Supports up to 6 battery racks in parallel (337.8kWh)
- Modular design for easy transportation and installation



Smart Control & Monitoring

- On-site upgrade using USB disk via inverter
- Auto reboot after undervoltage

Technical Data	GW51.2-BAT-I-G10	GW56.3-BAT-I-G10
Battery System		
Cell Type	LFP (LiFePO4)	
Capacity (Ah)	100	
Pack Type / Model	GW5.1-PACK-I-G10	
Pack Nominal Energy (kWh)	5.12	
Pack Configuration	1P160S	1P176S
Pack Weight (kg)	42.5	
Number of Packs	10	11
Nominal Energy (kWh)	51.2	56.3
Usable Energy (kWh) ¹	50	55
Nominal Voltage (V)	512	563.2
Operating Voltage Range (V)	459.2 ~ 577.6	505.12 ~ 635.36
Charging Operating Temperature Range (°C)	0 ~ +55	
Discharging Operating Temperature Range (°C)	-20 ~ +55	
Max. Charge / Discharge Current (A) ²	100 / 110	
Max. Charge / Discharge Rate ²	1C / 1.1C	
Max. Charge / Discharge Power (kW) ²	51.2 / 56.3	56.3 / 61.9
Cycle Life	6000 (25 ± 2°C, 0.5C, 90%DOD, 70%EOL)	
Depth of Discharge	100%	
Efficiency		
Round-trip Efficiency	96%@100%DOD, 0.2C, 25 ± 2°C	
General Data		
Storage Temperature (°C)	+35°C ~ +45°C (<6 Months); -20°C ~ +35°C (<1 Year)	
Relative Humidity	5 ~ 85%, No condensation	
Max. Operating Altitude (m)	3000	
Cooling Method	Natural Cooling	
User Interface	LED	
Communication	CAN (RS485 Optional)	
Weight (kg)	495	540
Dimension (W × H × D mm)	543 × 1815 × 520	
Ingress Protection Rating	IP20	
Fire Safety Equipment	Aerosol Optional, Pack Level	
Certification³		
Safety Regulation	IEC62619 / IEC60730-1 / EN62477-1 / IEC63056	
EMC	IEC / EN61000-6-1 / 2 / 3 / 4	

*1: Test conditions, 100% DOD, 0.2C charge & discharge at +25 ±2°C for battery system at beginning life. System Usable Energy may vary with system configuration.

*2: Actual Dis- / Charge Current and power derating will occur related to Cell Temperature and SOC. And, Max C-rate continuous time is affected by SOC, Cell Temperature, Atmosphere environment temperature.

*3: Not all certifications & standards listed, check the official website for detail.

*: Please visit GoodWe website for the latest certificates.