

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 a flexible and cost-effective energy storage system that helps manage energy usage for peak shaving and energy savings.



Flexible & Adaptable Applications

- 1C/1.1C rated battery @Max. Charge/Discharge
- Wide operating temperature range of -20°C to 55°C



Friendly & Thoughtful Design

- Modular design for easy transportation and installation
- Rack design for quick deployment



Superb Safety & Reliability

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



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			
Operating Temperature Range (°C)	0~40°C		
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		
Certification ^{*3}			
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.