SENMARCK ENERGY

GUARD W Series

Wall-mounted Low Voltage Battery

SENMARCK'S GUARD Home W series are low voltage lithium batteries designed for residential wall-mounted installation applications. The in-built auto recognition function and plug & play design allow for easy installation. Compatible with mainstream inverters, with 15 years design life to support your energy costs savings and green energy transition.

HIGH EFFICIENCY

- 80A/100A/150A charge & discharge capability
- Long life cycle(≥6000 cycles @ 80% DOD)

WIDE COMPATIBILITY

- Support CAN/RS485 and Wifi
- Compatible with multiple main stream inverters
- Monitoring & LED indicators

SAFETY

- High safety lithium iron phosphate (LFP) battery technology
- Battery cells meet UL 1973, IEC 62619, UN38.3 certifications

FLEXIBLE AND UPGRADEABLE

- Battery modules usable capacity of 5.0kWh, 6.0kWh, to 7.5 kWh
- Scalable maximum 14 modules in parallel

EASY INSTALLATION

- Modular design and light weight
- Easy transport and installation
- Mounting racks included

SUSTAINABLE

- Recycle plan in place
- 10 years performance guarantee
- Maximum Safety

LFP Battery Parameters	G51T-W100	G51T-W120	G51T-W150
Nominal voltage	51.2V	51.2V	51.2V
Nominal capacity	100Ah	120Ah	150Ah
Nominal energy	5.12kWh	6.144kWh	7.68kWh
Usable energy	5.0kWh	6.0kWh	7.5kWh
Recommended charge current	50A	≤60A	75A
Max. continuous charge current	80A	100A	150A
Max. continuous discharge current	80A	108A	500A/3s
Peak discharge current	300A/3s	500A/3s	6kW
Max, continuous discharge power	5kW	6kW	24kW/3s
Peak discharge power	15kW/3s	24kW/3s	24kW/3s
Self-discharge rate (Sleep mode)	Capacity: ≤3%/month; ≤20%/years		
Dimension(LWH)	454*206*728mm	470*220*695mm	630*440*590mm
Net weight	-60.7kg	-67kg	-100kg
Cycle life	≥6000cycles		
IP rating	IP55		
Battery housing	SGCC with white coating		
Standard charge voltage	56.0V		
Floating charge voltage	54.0V		
End of discharge voltage	43.2V		
Operating Temperature Range Charge	0 ~ +50 / Discharge: -10 ~ +50		
Operation humidity	5~95%		
Communication port	CAN,RS485,WIFI		
Installation	Wall mounted		
Install altitude	≤4000m		
Install location	Under the roof		
Certification	CE/IEC62619/UL1973/UN38.3		

1. Test conditions : 90% depth of discharge (DOD) , 0.2C rate charge & discharge at 25℃
2. Charge / discharge derating occurs when the operating temperature from -20℃ to 5℃ & 45℃ to 55℃
3. The maximum charge and discharge is 1C , the maximum requested charge and discharge current size according to the agreement when connected to the inverter .

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GUARD R Series

Rack-mounted Low Voltage Battery

SENMARCK'S GUARD R series is a low voltage lithium battery designed for residential and commercial rack-mounted installation applications. The plug & play design allowsfor easy installation and expansion,scalable to 20 modules connection in parallel. It is compatible with mainstream inverters, plus 15 years design life, give you best energy independence solution!

LFP Battery Parameters	G51T-R100
Rated voltage	51.2V
Nominal capacity	100Ah
Nominal energy	5.12kWh
Usable energy	4.92kWh
Operating voltage range	44.8-56.0V
Charge voltage	56V
Float voltage	54.6V
Recommended charge current	50A
Max. charge current	70A
Recommended discharge current	50A
Max. discharge current	100A
Communication	RS485 /CAN
Peak discharge current	101~119A@5mins | 120~149A@15S
IP rating	IP20
Cycle life	≥6000 cycles
Net weight	~47kg (103.6lb)
Dimension(W*H*D)	482*133.5*460mm (18.9*5.2*18.1 inch)
Cell technology	Lithium-iron phosphate(LiFePO4)
Install altitude	≤4000m
Noise emission	<29 dB
Operation temperature	-10~50℃
Storage temperature	-10~45℃
Relative humidity	5%~90%, No condensation
Install location	Indoor
Installation	Rack mounted/ Wall mounted/ Floor mounted/ Stack up
Certification	CE/ IEC62619 / UL1973 / UL9540A / UN38.3

1. Test conditions: 90% depth of discharge (DOD), 0.2C rate charge & discharge at 25℃.
2. System Usable Energy may vary different inverter brand.
3. Derating occurs when the operating temperature from -10℃ to 10℃ & 40℃ to 50℃.

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