

Tech Specs - sonnenCore

The sonnenCore is an intelligent energy storage solution that combines smart energy management software with safe, long-lasting and cobalt-free batteries to efficiently manage energy usage throughout the day, store excess solar power for use at night and provide reliable emergency backup power to keep homes protected during grid outages.



Usable Capacity¹	10 kWh
Nominal power rating (Grid-tied output at 40°C)	4.8 kW
Weight (approximate)	348 lbs
System dimensions W"/H"/D" (adjustable height from ground)	27 / 68 / 11 27 / 73 / 11 (with legs extended)
Grid integration	AC coupled
Applications	Time-of-use Solar self-consumption Emergency backup power
Usable capacity	5 kWh per battery module
Inverter efficiency	94.4% peak
On-Grid Pass-through	35 A
Round-trip efficiency % (Grid < > Battery)	>85%
Operation temperature range	14°F - 122°F 41°F - 104°F (MAX power)
System Cooling	Natural convection
Comm. Ports	Ethernet
Communication protocols / Control	SunSpec Alliance / API available to select partners
Noise emission	<25 dB
Total harmonic distortion	<5%
Maximum compatible PV inverter	6 kW

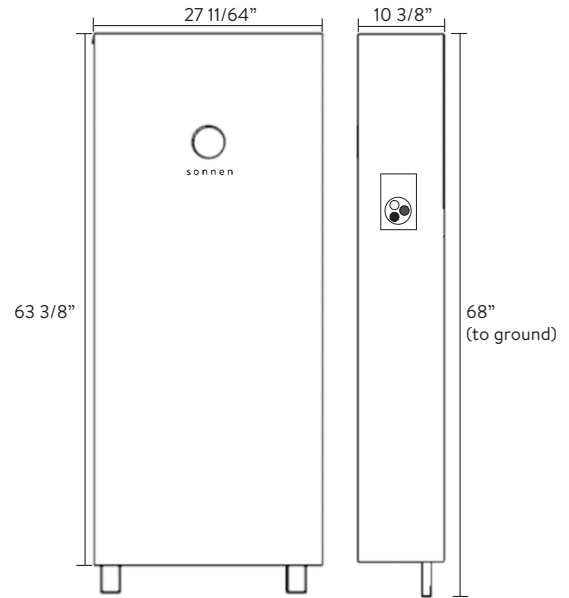
Off-grid specifications

Nominal Off-Grid current (Continuous)	20 A / 4.8 KVA
Max AC Off-Grid current (Max 30min)	23 A / 5.52 KVA
Max AC Off-Grid current (Max 5s)	30 A / 7.2 KVA
Max AC Off-Grid current (Max 100ms)	36 A / 8.64 KVA

Compliance information

Certifications	UL1741, UL1741SA, UL1973, UL9540, UN38.3
Grid Connections	IEEE 1547, IEEE 2030.5, Rule 21
Emissions	FCC Part 15 Class B (inverter)
Transient protection	IEEE C62.41 Class B
Warranty ²	10 year or 10,000 cycle system warranty – includes inverter, battery modules, cabinet and components
Enclosure rating	Type 12

Measurements



Battery specification



Nominal DC voltage	102 VDC
DC battery input voltage	80 - 115 VDC
Max charge current	40 A per module
Cell discharge	5 kWh with 100% DoD
Cell chemistry	Lithium iron phosphate
Over-current Protection	Fuse protection

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1 The sonnenModule4 battery modules are 5.5kWh in total capacity and represent 5kWh of usable capacity per module.

2 Please observe our applicable warranty conditions.