



## Technical Specifications - sonnenCore+

The sonnenCore+ is a stackable indoor solution that offers up to 60 kWh of battery capacity. The sleek design combines smart energy management with the safest and longest lasting batteries to efficiently manage solar energy usage throughout the day, store excess solar power for use at night and provide reliable backup power during planned and unplanned power outages.

Model number	SCORE-P10 (10 kWh)	SCORE-P20 (20 kWh)
Weight per unit (approximate)	353 lbs (160 kg)	525 lbs (238 kg)
Dimensions per unit W"/H"/D" (adjustable height from ground)		27 / 69.5 / 14 27 / 71.5 / 14 (with legs elevated)
Grid integration	AC coupled	
Ambient temperature	32°F - 113°F (0°C - 45°C) 41°F - 95°F (5°C to 35°C) (MAX power)	
Applications	Time-of-use, Solar self-consumption, Emergency backup power	

### Stacked specifications

Number of stacked units	1	2	3
Usable capacity (SCORE-P10 / SCORE-P20)	10 kWh / 20 kWh	20 kWh / 40 kWh	30 kWh / 60 kWh
Nominal power rating (Grid-tied output at 104°F)	4.8 kW	9.6 kW	14.4 kW
Inverter efficiency	94.4% peak		
Max Round-trip efficiency <sup>1</sup>	85.8% peak		
On-grid pass through	35 A	200 A (requires AC Connections module)	200 A (requires AC Connections module)
Installation restrictions	None	None	External devices and configurations complying with Rule 21 may be required for CA

### Off-grid specifications

No disconnect / continuous operation	0 A - 25 A	0 A - 50 A	0 A - 75 A
5s to disconnect	30 A - 36 A	60 A - 72 A	90 A - 108 A
450ms to disconnect	36 A - 50 A	72 A - 100 A	108 A - 150 A
Immediate shutdown	>50 A	>100 A	>150 A

## General specifications

<b>System cooling</b>	Natural convection
<b>Communication ports</b>	Ethernet
<b>Communication protocols / Control</b>	API available to select partners
<b>Seismic rating</b>	IEEE 693
<b>Noise emission</b>	<25 dB
<b>Total harmonic distortion</b>	<5%
<b>Max operation altitude</b>	6562 ft (2000 m)
<b>Maximum compatible PV inverter<sup>2</sup></b>	6 kW
<b>Smallest room volume SCORE-P20</b>	12.15 m <sup>3</sup>

## Compliance information

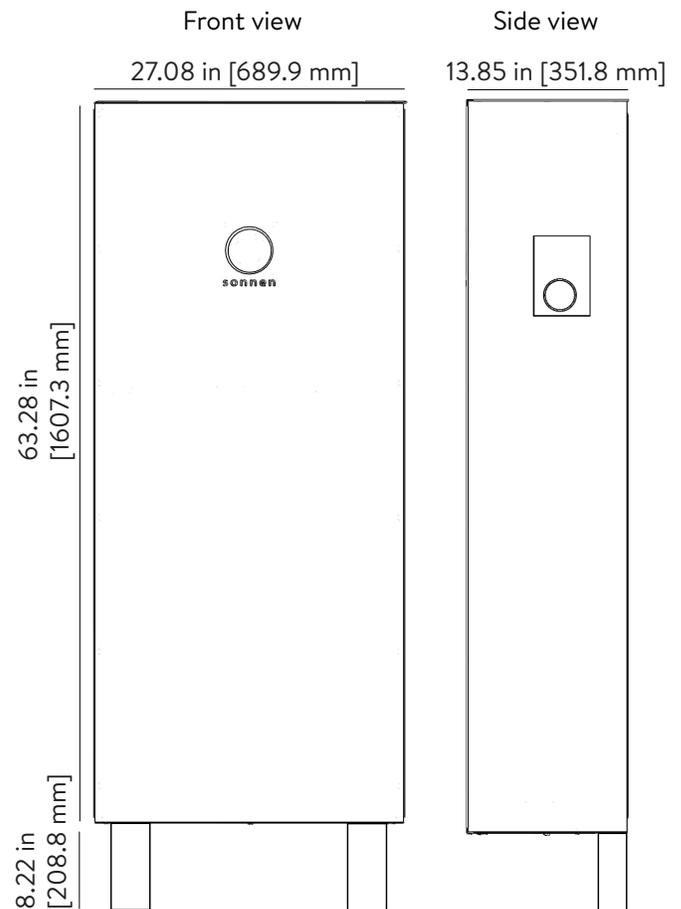
<b>Certifications</b>	UL1741, UL1741SA, UL1973, UL9540, UN38.3
<b>Grid code</b>	IEEE 1547
<b>Emissions</b>	FCC Part 15 Class B (inverter)
<b>Immunity</b>	IEC 61000-4-2:2008, IEC 61000-4-3:2010, IEC 61000-4-4:2012, IEC 61000-4-5:2014, IEC 61000-4-6:2013, IEC 61000-4-8:2009
<b>Transient protection</b>	IEEE C62.41 Class B
<b>Warranty<sup>3</sup></b>	10 year or 10,000 cycle system warranty – includes inverter, battery modules, cabinet and components
<b>Enclosure rating</b>	IP30



## Battery specification

<b>Nominal DC voltage</b>	102 VDC
<b>DC battery input voltage</b>	96 - 112 VDC
<b>Max charge current</b>	39.99 A per module
<b>Cell discharge<sup>4</sup></b>	5 kWh with 100% DoD
<b>Cell chemistry</b>	Lithium iron phosphate
<b>Over-current Protection</b>	Fuse protection

## Measurements



We reserve the right to make technical changes. The values, outputs, other technical data, images, and diagrams in this prospectus and in data sheets, advertisements, and other promotional documents are approximate guidelines in all cases where they have not been identified as binding.

- 1 Maximum round trip efficiency shown is calculated using the single cycle round trip efficiency (SCRTE) formula used by SGIP administration in the State of California, as of the date of publication of this Spec Sheet.
- 2 In off-grid mode, the battery has a maximum charge limitation of 4.48 kW for 1 system, 8.3 kW for a 2 stack system and 11.8 kW for a 3 stack system.
- 3 Please observe our applicable warranty conditions.
- 4 The sM4 battery modules are 5.5kWh in total capacity and represent 5kWh of usable capacity per module.

### sonnen Inc.

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