



## 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 safe and long-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	76 A peak	152 A peak	228 A peak

## General specifications

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

## Compliance information

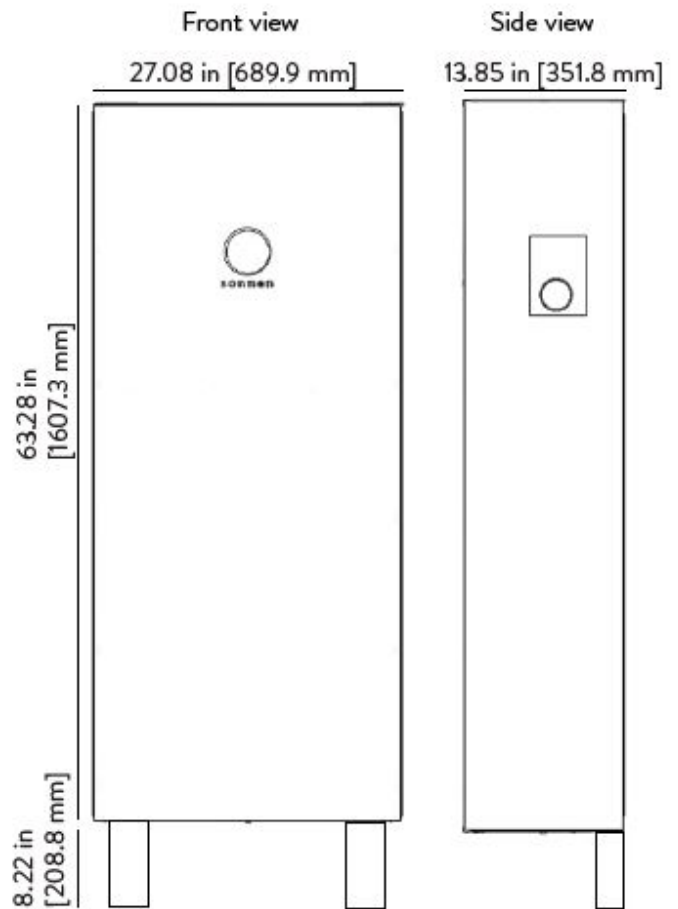
Certifications	UL1741, UL1973, UL9540, UN38.3, UL9540A
Grid code	UL1741SA, UL1741SB, IEEE 1547, Prepa 2013
Emissions	FCC Part 15 Class B (inverter)
Immunity	IEC 61000-4-2:2008, IEC 61000-4-3:2010, IEC 61000-4-4:2012, IEC 61000-4-5:2014, IEC 61000-4-6:2013, IEC 61000-4-8:2009
Transient protection	IEEE C62.41 Class B
Warranty <sup>3</sup>	10 year or 10,000 cycle system warranty – includes inverter, battery modules, cabinet and components
Enclosure rating	IP30

## Battery specification



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

## Measurements

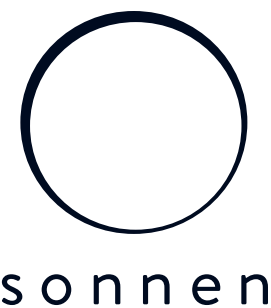


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- 1 Maximum round trip efficiency shown is calculated using the single cycle round trip efficiency (SCRTE) formula used by SGIP administration in the State of California, as of the date of publication of this Spec Sheet.
- 2 In off-grid mode, the battery 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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(310) 853-2404



## Especificaciones técnicas de diseño de ingeniería: sonnenCore+

sonnenCore+ es una solución apilable para interiores que ofrece hasta 60 kWh de capacidad de batería. Su elegante diseño combina la gestión inteligente de la energía con las baterías más seguras y duraderas para gestionar eficientemente el consumo de energía solar a lo largo del día, almacenar el exceso de energía solar para su consumo por la noche y proporcionar energía de reserva fiable durante los cortes de energía planificados y no planificados.

Número de modelo	SCORE-P10 (10 kWh)	SCORE-P20 (20 kWh)
Peso (aproximado) por unidad	353 lb (160 kg)	525 lb (238 kg)
Dimensiones por unidad An./Al./P. en pulgadas (altura ajustable desde el suelo)	27 / 69,5 / 14 27 / 71,5 / 14 (con las patas elevadas)	
Integración con la red eléctrica	Acoplado para corriente alterna	
Temperatura ambiente	32 °F - 113 °F (0 °C - 45 °C) 41 °F - 95 °F (5 °C a 35 °C) (potencia MÁX.)	
Aplicaciones	Tiempo de uso, autoconsumo de energía solar, Energía de reserva de emergencia	

### Especificaciones de los sistemas apilados

Número de unidades apiladas	1	2	3
Capacidad de uso (SCORE-P10/SCORE-P20)	10 kWh/20 kWh	20 kWh/40 kWh	30 kWh/60 kWh
Potencia nominal (salida conectada a la red eléctrica a 104 °F)	4,8 kW	9,6 kW	14,4 kW
Eficiencia del inversor	94,4 % máximo		
Eficiencia máx. de ida y vuelta <sup>1</sup>	85,8 % máximo		
Corriente pasante de la red	35 A	200 A (requiere módulo de conexiones de corriente alterna)	200 A (requiere módulo de conexiones de corriente alterna)
Restricciones de instalación	Ninguna	Ninguna	Pueden ser necesarios dispositivos externos y configuraciones que cumplan la Norma 21 para corriente alterna

### Especificaciones fuera de la red eléctrica

Sin desconexión/funcionamiento continuo	0 A - 25 A	0 A - 50 A	0 A - 75 A
5 s para desconectar	30 A - 36 A	60 A - 72 A	90 A - 108 A
450 ms para desconectar	36 A - 50 A	72 A - 100 A	108 A - 150 A
Apagado inmediato	76 A peak	152 A peak	228 A peak

## Especificaciones generales

Enfriamiento del sistema	Convección natural
Puertos de comunicaciones	Ethernet
Protocolos de comunicaciones/ Control	API disponible para socios selectos
Clasificación sísmica	IEEE 693
Emisión de ruidos	< 25 dB
Distorsión armónica total	< 5 %
Altitud de funcionamiento máx.	6562 ft (2000 m)
Inversora fotovoltaica máxima recomendada por sistema sonnen <sup>2</sup>	6 kVA
Menor volumen de sala SCORE-P20	12,15 m <sup>3</sup>

## Información sobre cumplimiento

Certificaciones	UL1741, UL1973, UL9540, UN38.3, UL9540A
Código de red eléctrica	UL1741SA, UL1741SB, IEEE 1547, Prepa 2013
Emisiones	FCC Parte 15 Clase B (inversor)
Inmunidad	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
Protección contra corrientes transitorias	IEEE C62.41 Clase B
Garantía <sup>3</sup>	Garantía del sistema de 10 años o 10 000 ciclos: incluye inversor, módulos de baterías, gabinete y componentes

Clasificación de la carcasa IP30

## Especificaciones de las baterías



Voltaje nominal de corriente continua	102 V CC
Voltaje de entrada de baterías de CC	96 - 112 V CC
Corriente de carga máx.	39,99 A por módulo
Descarga de celda <sup>4</sup>	5 kWh con 100 % de profundidad de descarga
Composición química de las celdas	Litio-ferrofosfato
Protección contra sobrecorriente	Protección de fusible

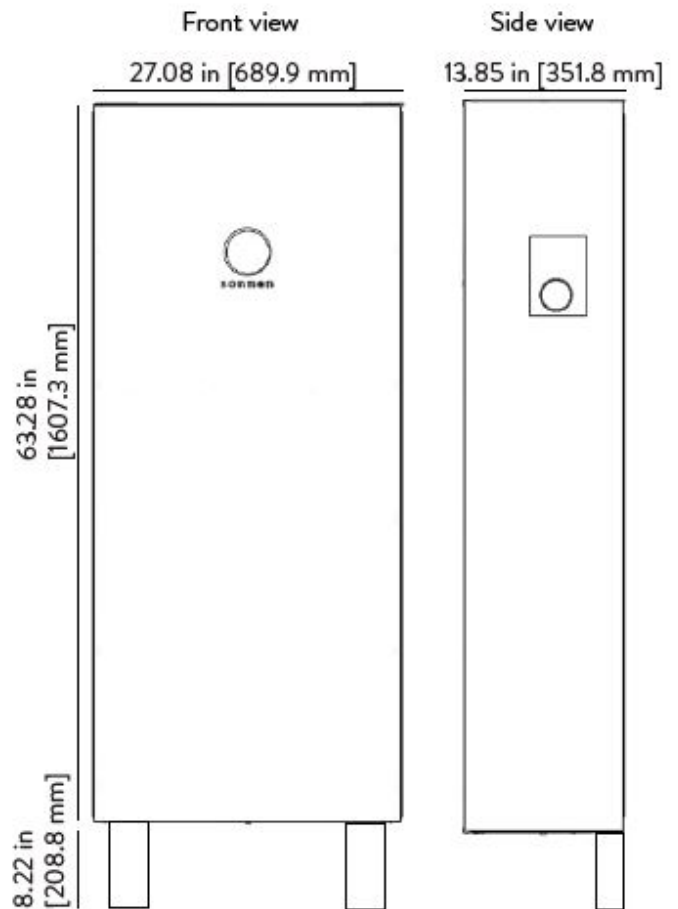
Nos reservamos el derecho a introducir modificaciones técnicas. Los valores, las salidas, otros datos técnicos, las imágenes y los diagramas de este folleto y de las fichas técnicas, los anuncios y demás documentos promocionales son orientativos en todos los casos en que no se han identificado como vinculantes.

- 1 La eficiencia máxima de ida y vuelta mostrada se calcula utilizando la fórmula de eficiencia de ida y vuelta en ciclo único (SCRTE) utilizada por la administración de SGIP en el Estado de California, en la fecha de publicación de esta hoja de especificaciones.
- 2 En modo fuera de la red eléctrica, la batería tiene una limitación de carga máxima de 4,48 kW para 1 sistema, 8,3 kW para un sistema de 2 apilamientos y 11,8 kW para un sistema de 3 apilamientos.
- 3 Tenga en cuenta nuestras condiciones de garantía aplicables.
- 4 Los módulos de batería sM4 tienen una capacidad total de 5,5 kWh y representan 5 kWh de capacidad de uso por módulo.

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## Mediciones





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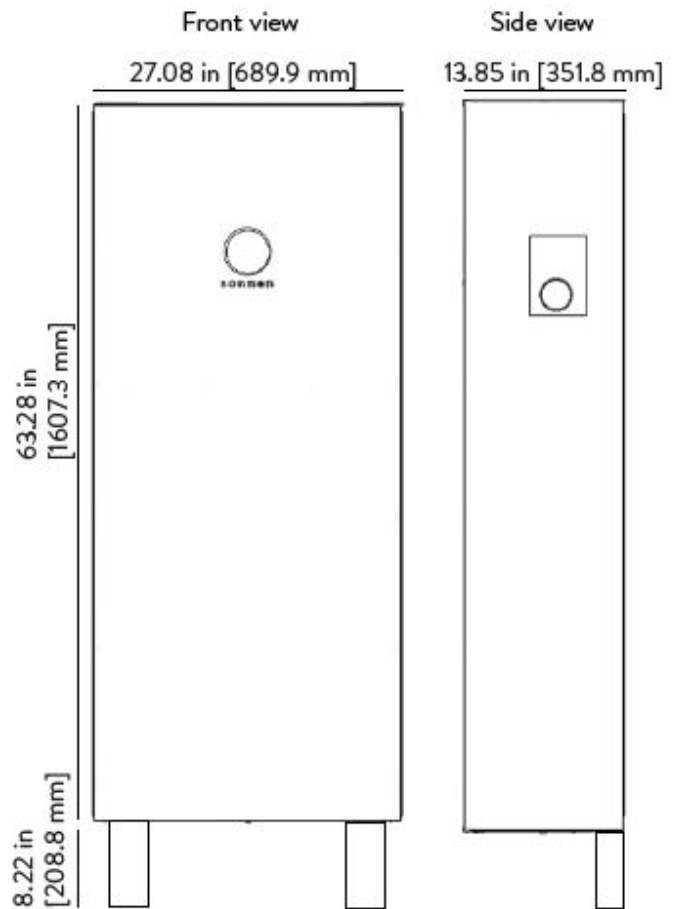
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