



## Tech Specs - sonnen eco - Gen 3

The sonnenBatterie eco is a smart energy storage solution for your home that uses intelligent software to manage energy throughout the day – providing you with greater energy independence by supplying backup power and enabling you to use your solar power at night.

	eco 5 <sup>1</sup>	eco 7.5	eco 10 <sup>1</sup>	eco 12.5	eco 15	eco 17.5	eco 20
<b>Total capacity (@ 90% DOD)<sup>2</sup></b>	5 kWh	7.5 kWh	10 kWh	12.5 kWh	15 kWh	17.5 kWh	20 kWh
<b>Nominal power rating (off-grid output at 25 deg C)</b>	3 kW	4 kW	8 kW	8 kW	8 kW	8 kW	8 kW
<b>Nominal power rating (grid-tied output at 25 deg C)</b>	3 kW	3.6 kW	7 kW	7 kW	7 kW	7 kW	7 kW
<b>Weight (approximate)</b>	331 lbs	381 lbs	474 lbs	585 lbs	635 lbs	685 lbs	735 lbs
<b>Dimensions W"/H"/D" (approximate)</b>	26/57/16				26/84/16		

Off-grid specification	eco 5 <sup>1</sup>	eco 7.5	eco 10 <sup>1</sup>	eco 12.5	eco 15	eco 17.5	eco 20
<b>Continuous AC output current</b>	12.5 A	16.67 A			33.3 A		
<b>Max power</b>	100 ms - 8.5 KVA 5 s - 6 KVA 30 m - 4.5 KVA				100 ms - 17 KVA 5 s - 12 KVA 30 m - 9 KVA		
<b>Max AC current (charge/discharge)</b>	1 ms - 50A 100 ms - 35.35 A 5 s - 25 A 30 m - 18.75 A				1 ms - 100A 100 ms - 70.7 A 5 s - 50 A 30 m - 37.5 A		

## General specification

<b>Grid integration</b>	AC coupled
<b>Applications</b>	Self-consumption Backup power Time-of-use
<b>Transfer switch</b>	Automatic, integrated
<b>Usable capacity</b>	2.25 kWh per battery module, up to 8 modules
<b>Listed and recognized components</b>	System certified – UL9540; Battery modules – UL1973; Inverter – UL1741; Transfer switch – UL1008; AC Breaker – UL489
<b>Warranty</b>	10 year or 10,000 cycle system warranty – includes inverter, battery modules, cabinet and components <sup>3</sup>
<b>Inverter efficiency</b>	92.5% CEC weighted, 95.0% peak
<b>Roundtrip efficiency % (Grid&lt;&gt;Battery)</b>	>= 86%
<b>Temperature range</b>	41 °F - 113 °F
<b>Ventilation</b>	Forced Air
<b>Comm. ports</b>	Ethernet
<b>Communication protocols / Control</b>	SunSpec Alliance / API available to select partners
<b>Passthrough current rating</b>	200 amps (Switching and overcurrent protection)
<b>EMC / EMI protection</b>	FCC Part 15B

## Battery specification

<b>DC battery input voltage</b>	44.5–53.5 VDC
<b>Max charge current</b>	50 A per module
<b>Cell discharge</b>	2.5kWh with 90% DoD
<b>Overcharge protection</b>	MOSFET & Fuse protection

## AC specification

<b>AC grid voltage</b>	120/240 VAC (Split phase)
<b>Nominal AC input current (grid-tied operation)</b>	
eco 5	12 amps
eco 7.5	15 amps
eco 10-20	29 amps
<b>Nominal frequency</b>	60 Hz
<b>Adjustable frequency range</b>	+/- 0.7 Hz from nominal
<b>Metering capability</b>	Power meter for load and PV production (not revenue grade)
<b>Tare losses (W)</b>	60 watts
<b>Transient protection</b>	IEEE C62.41 Class B

## Measurements



-For Puerto Rico, the sonnen eco comes standard with the front screen.

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1 The eco Gen 3.1 is available in two base models, the eco 5 and the eco 10, with the ability to add battery modules to increase capacity.

2 eco Gen 3.1 battery modules are 2.5kWh in total capacity and at a 90% DoD represent 2.25kWh of usable capacity per module.

3 Please observe our applicable warranty conditions.