



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

Off-grid specification	eco 5¹	eco 7.5	eco 10¹	eco 12.5	eco 15	eco 17.5	eco 20
Continuous AC output current	12.5 A	16.67 A			33.3 A		
Max power	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				
Max AC current (charge/discharge)	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

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

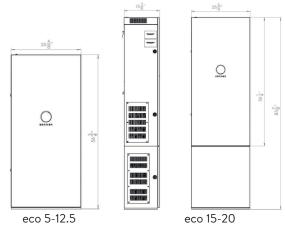
## Battery specification

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

### AC specification

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

#### Measurements



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

#### sonnen Inc.

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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.