

# POWERWALL

Tesla Powerwall is a fully-integrated AC battery system for residential or light commercial use. Its rechargeable lithium-ion battery pack provides energy storage for solar self-consumption, time-based control, and backup.

Powerwall's electrical interface provides a simple connection to any home or building. Its revolutionary compact design achieves market-leading energy density and is easy to install, enabling owners to quickly realize the benefits of reliable, clean power.



## PERFORMANCE SPECIFICATIONS

<b>AC Voltage (Nominal)</b>	120/240 V
<b>Feed-In Type</b>	Split Phase
<b>Grid Frequency</b>	60 Hz
<b>Total Energy</b>	14 kWh <sup>1</sup>
<b>Usable Energy</b>	13.5 kWh <sup>1</sup>
<b>Real Power, max continuous</b>	5 kW (charge and discharge)
<b>Real Power, peak (10s, off-grid/backup)</b>	7 kW (charge and discharge)
<b>Apparent Power, max continuous</b>	5.8 kVA (charge and discharge)
<b>Apparent Power, peak (10s, off-grid/backup)</b>	7.2 kVA (charge and discharge)
<b>Maximum Continuous Current</b>	24 A
<b>Maximum Output Fault Current</b>	32 A
<b>Overcurrent Protection Device</b>	30 A
<b>Load Start Capability</b>	88 - 106 A LRA <sup>2</sup>
<b>Imbalance for Split-Phase Loads</b>	100%
<b>Power Factor Output Range</b>	+/- 1.0 adjustable
<b>Power Factor Range (full-rated power)</b>	+/- 0.85
<b>Internal Battery DC Voltage</b>	50 V
<b>Maximum Supply Fault Current</b>	10 kA
<b>Round Trip Efficiency</b>	90% <sup>1,3</sup>
<b>Warranty</b>	10 years

<sup>1</sup>Values provided for 25°C (77°F), 3.3 kW charge/discharge power.

<sup>2</sup>Load start capability may vary.

<sup>3</sup>AC to battery to AC, at beginning of life.

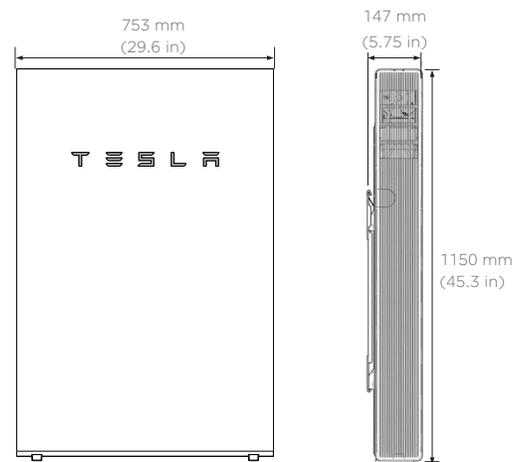
## COMPLIANCE INFORMATION

<b>Certifications</b>	UL 1642, UL 1741, UL 1741 SA, UL 1741 SB, UL 1973, UL 9540, IEEE 1547-2018, UN 38.3
<b>Grid Connection</b>	Worldwide Compatibility
<b>Emissions</b>	FCC Part 15 Class B, ICES 003
<b>Environmental</b>	RoHS Directive 2011/65/EU
<b>Seismic</b>	AC156, IEEE 693-2005 (high)
<b>Fire Testing</b>	Meets the unit level performance criteria of UL 9540A

## MECHANICAL SPECIFICATIONS

<b>Dimensions</b>	1150 x 753 x 147 mm (45.3 x 29.6 x 5.75 in) <sup>4</sup>
<b>Weight</b>	114 kg (251.3 lbs) <sup>4</sup>
<b>Mounting options</b>	Floor or wall mount

<sup>4</sup>Dimensions and weight differ slightly if manufactured before March 2019. Contact Tesla for additional information.



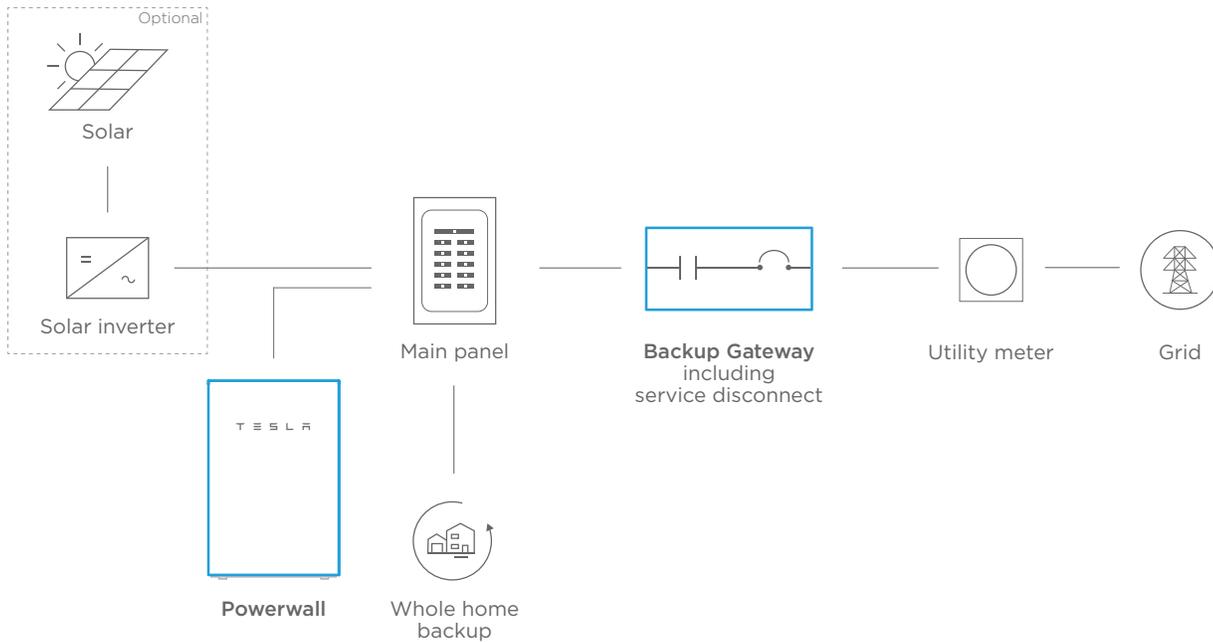
## ENVIRONMENTAL SPECIFICATIONS

<b>Operating Temperature</b>	-20°C to 50°C (-4°F to 122°F) <sup>5</sup>
<b>Operating Humidity (RH)</b>	Up to 100%, condensing
<b>Storage Conditions</b>	-20°C to 30°C (-4°F to 86°F) Up to 95% RH, non-condensing State of Energy (SoE): 25% initial
<b>Maximum Elevation</b>	3000 m (9843 ft)
<b>Environment</b>	Indoor and outdoor rated
<b>Enclosure Type</b>	NEMA 3R
<b>Ingress Rating</b>	IP67 (Battery & Power Electronics) IP56 (Wiring Compartment)
<b>Wet Location Rating</b>	Yes
<b>Noise Level @ 1m</b>	< 40 dBA at 30°C (86°F)

<sup>5</sup>Performance may be de-rated at operating temperatures below 10°C (50°F) or greater than 43°C (109°F).

# TYPICAL SYSTEM LAYOUTS

## WHOLE HOME BACKUP



## PARTIAL HOME BACKUP

