

# 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

|   |                              |
|---|------------------------------|
| AC Voltage (Nominal)                    | 230 V                        |
| Feed-In Type                            | Single Phase                 |
| Grid Frequency                          | 50 Hz                        |
| Total Energy <sup>1</sup>               | 14 kWh                       |
| Usable Energy <sup>1</sup>              | 13.5 kWh                     |
| Real Power, max continuous <sup>2</sup> | 5 kW (charge and discharge)  |
| Apparent Power, max continuous          | 5 kVA (charge and discharge) |
| Maximum Supply Fault Current            | 10 kA                        |
| Maximum Output Fault Current            | 32 A                         |
| Power Factor Output Range               | +/- 1.0 adjustable           |
| Internal Battery DC Voltage             | 50 V                         |
| Round Trip Efficiency <sup>1,3</sup>    | 90%                          |
| Warranty                                | 10 years                     |

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

<sup>2</sup>In Backup mode, grid charge power is limited to 3.3 kW.

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

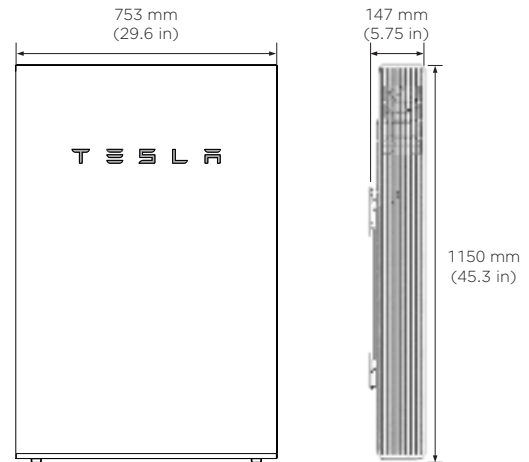
## COMPLIANCE INFORMATION

|                 |  |
|-----------------|--|
| Certifications  | IEC 62109-1, IEC 62109-2, IEC 62619, UN 38.3   |
| Grid Connection | Worldwide Compatibility  |
| Emissions       | IEC 61000-6-1, IEC 61000-6-3   |
| Environmental   | RoHS Directive 2011/65/EU, WEEE Directive 2012/19/EU, Battery Directive 2006/66/EC, REACH Regulation |
| Seismic         | AC156, IEEE 693-2005 (high)  |

## MECHANICAL SPECIFICATIONS

|                         |                           |
|-------------------------|---------------------------|
| Dimensions <sup>1</sup> | 1150 mm x 753 mm x 147 mm |
| Weight                  | 114 kg                    |
| Mounting options        | Floor or wall mount       |

<sup>1</sup>Dimensions and weight differ slightly if manufactured before March 2019. Contact Tesla for additional information.

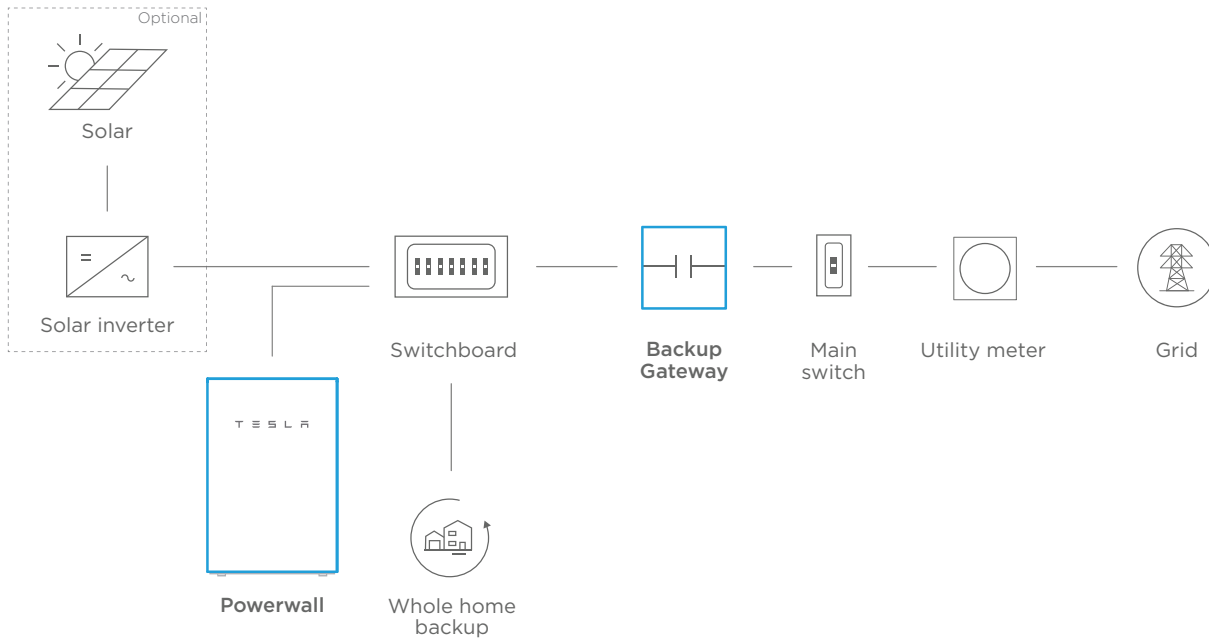


## ENVIRONMENTAL SPECIFICATIONS

|                         |   |
|-------------------------|---|
| Operating Temperature   | -20°C to 50°C   |
| Recommended Temperature | 0°C to 30°C   |
| Operating Humidity (RH) | Up to 100%, condensing  |
| Storage Conditions      | -20°C to 30°C<br>Up to 95% RH, non-condensing<br>State of Energy (SoE): 25% initial |
| Maximum Elevation       | 3000 m  |
| Environment             | Indoor and outdoor rated  |
| Ingress Rating          | IP67 (Battery & Power Electronics)<br>IP56 (Wiring Compartment)                     |
| Wet Location Rating     | Yes   |
| Noise Level @ 1m        | < 40 dBA at 30°C  |

# TYPICAL SYSTEM LAYOUTS

## WHOLE HOME BACKUP



## PARTIAL HOME BACKUP

