

# Daily Cycle Powerwall



The Tesla Daily Powerwall system is a wall-mounted battery system for residential or commercial use. Its rechargeable lithium-ion battery pack provides energy storage for solar self-consumption, load shifting, backup power, or any high-throughput application. Powerwall's electrical interface is provided by an internal isolated bi-directional DC/DC converter that controls the charge and discharge of the battery for integration with utility-interactive solar inverters.

Powerwall achieves unprecedented levels of safety in home energy storage. It is a factory assembled, fully certified unit that contains no user-serviceable parts. The micro-processor controlled DC/DC converter is electrically isolated from the internal battery and eliminates any user access to voltage on the unit's field wiring terminals for installation, service, or shutdown.

## ELECTRICAL SPECIFICATIONS

Power, continuous and peak	3.3 kW
Energy <sup>1</sup>	6.4 kWh
Internal Battery Voltage	< 50 VDC
System Operating Voltage	350 V—450 V
Voltage in OFF State	0 VDC
Current	9.5 ADC
Round Trip Efficiency (Beginning of Life) <sup>1</sup>	92.5 % (for a 400V-450V DC bus)
Depth of Discharge	100%
Equivalent Cycles <sup>2</sup>	Equivalent to 1 full cycle per day for 10 years

## ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-20°C to 50°C (-4°F to 122°F)
Storage conditions	
<24 hours	-30°C to 60°C (-22°F to 140°F)
<1 month	-20°C to 45°C (-4°F to 113°F)
<12 months	-20°C to 30°C (-4°F to 86°F), Initial SOE: 50% if stored >1month
Maximum humidity	<95% condensing
Maximum altitude	3000 m (9843 ft)
Impact Rating	IK09
Ingress Rating	IP35 & NEMA 3R (Powerwall) IP67 (battery Pod)

<sup>1</sup> Values provided for 25°C (77°F), 2kW charge/discharge power.

<sup>2</sup> User is not penalized for partial cycles. Two partial 50% cycles are equivalent to one full cycle.

## MECHANICAL SPECIFICATIONS

Dimensions	L: 1302 mm (51.3 in.) W: 862 mm (34 in.) D: 183 mm (7.2 in.)
Weight	95 kg (210 lbs)

## CERTIFICATIONS

- **Powerwall:** UL 9540, AC156 seismic certification, IEEE 693-2005 seismic certification, FCC Part 15 Class B, IEC/EN 61000 Class B
- **Battery/Pod:** UL 1642, UL 1973, UN 38.3, REACH, Battery Directive 2006/66/EC, RoHS Directive 2011/65/EU, WEEE Directive 2012/19/EU, IEC 62109-1, IEC 62619, CSA C22.2.107.1

