

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)	120/240 V
Feed-In Type	Split Phase
Grid Frequency	60 Hz
Grid Frequency	14 kWh
Total Energy <sup>1</sup>	13.5 kWh
Usable Energy <sup>2</sup>	5 kW (charge and discharge)
Real Power, max continuous <sup>3</sup>	7 kW (charge and discharge)
Real Power, peak (10s, off-grid/backup) <sup>4</sup>	5.8 kVA (charge and discharge)
Apparent Power, max continuous	7.2 kVA (charge and discharge)
Maximum Supply Fault Current	10 kA
Maximum Output Fault Current	32 A
Overcurrent Protection Device	30 A
Imbalance for Split-Phase Loads	100%
Power Factor Output Range	+/- 1.0 adjustable
Power Factor Range (full-rated power)	+/- 0.85
Internal Battery DC Voltage	50 V
Round Trip Efficiency <sup>1,2</sup>	90%
Warranty	10 years

<sup>1</sup>Values provided for 25°C (77°F), 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	UL 1642, UL 1741, UL 1973, UL 9540, IEEE 1547, UN 38.3
Grid Connection	Worldwide Compatibility
Emissions	FCC Part 15 Class B, ICES 003
Environmental	RoHS Directive 2011/65/EU
Seismic	AC156, IEEE 693-2005 (high)

TESLA

TESLA CONVEYER

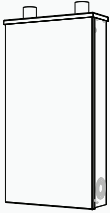
POWERWALL

Backup Gateway

The Backup Gateway for Tesla Powerwall provides energy management and monitoring for solar self-consumption, time-based control, and backup.

The Backup Gateway controls connection to the grid, automatically detecting outages and providing a seamless transition to backup power. When equipped with a circuit breaker, the Backup Gateway can be installed at the service entrance.

The Backup Gateway communicates directly with Powerwall, allowing you to monitor energy use and manage backup energy reserves from any mobile device with the Tesla app.



PERFORMANCE SPECIFICATIONS

AC Voltage (Nominal)	230 V, 120/240 V
Feed-In Type	Single & Split Phase
Grid Frequency	50 and 60 Hz
Disconnect Current	200 A
Maximum Input Short Circuit Current	10 kA
Overcurrent Protection Device <sup>1</sup>	100–200 A; Service Entrance Rated
Overvoltage Category	Category IV
AC Meter	Revenue grade (+/- 1%)
Connectivity	Ethernet, Cellular (3G, 4G, LTE)
User Interface	Tesla App
Operating Modes	Support for solar self-consumption, time-based control, and backup
Backup Operation	Automatic; disconnect for seamless backup transition
Modularity	Supports up to 10 AC-coupled Powerwalls
Warranty	10 years

<sup>1</sup>Circuit breaker required for installation at service entrance.  
<sup>2</sup>Cellular connectivity subject to network operator service coverage and signal strength.

COMPLIANCE INFORMATION

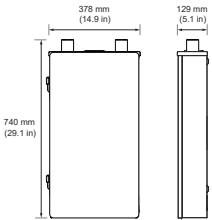
Certifications	UL 1642, UL 1741, IEC 62109-1, CSA C22.2, 107.1
Grid Connection	Worldwide Compatibility
Emissions	FCC Part 15 Class B, ICES 003, IEC 61000-6-3, EN 55024, EN 301489-1, EN 301489-2, EN 301489-17
Environmental	RoHS Directive 2011/65/EU, WEEE Directive 2012/19/EU, Battery Directive 2006/66/EC, REACH Regulation
Seismic	AC156, IEEE 693-2005 (high)

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2017-05-01



MECHANICAL SPECIFICATIONS

Dimensions	740 mm x 378 mm x 129 mm (29.1 in x 14.9 in x 5.1 in)
Weight	16.4 kg (36 lbs)
Mounting options	Wall mount



ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Operating Humidity (RH)	Up to 100%; condensing
Maximum Elevation	3000 m (9843 ft)
Environment	Indoor and outdoor rated
Enclosure Type	NEMA 3R
Ingress Rating	IP44

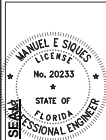
CODE SUMMARY		
STATE	BUILDING	ELECTRICAL
FLORIDA	2020 FBC, 7TH	2017 NEC

REVISIONS:

Project: DE LA ROSA, ANTONIO	2137 51st Street SW Naples, FL 34116	ELECTRICAL DIAGRAM & CALCULATION
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**GO SOLAR**



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I CERTIFY THAT THIS PV SYSTEM  
COMPLIES WITH ALL applicable  
REQUIREMENTS OF NEC 690.

DATE: 6/21/2021  
SCALE: NTS  
DRAWN BY: J.B

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**E-1**

SYSTEM RISER WIRING DIAGRAM  
EQUIPMENT LOCATION

