

Product	Powerwall
Last Revised	May 15, 2024
Revision	2



## Powerwall Loads in Backup Cheat Sheet

Included in Backup?		(1) Powerwall	(2) Powerwalls	(3+) Powerwalls
120 V Loads	Lights / plugs / small appliances	✓	✓	✓
	Air conditioner(s)	RLA and LRA confirmed compatible per table below		
	Air handler / forced air unit	✓	✓	✓
	Water pump(s)	≤ 1.5 HP or ≤ 20 A breaker	≤ 3 HP or ≤ 30 A breaker	✓
	EV charging (Tesla / third party)	✓	✓	✓
	Electric range / stove / oven	✓	✓	✓
	Electric water heater	Powerwall 2 / +: ≤ 5.5 kW or ≤ 30 A breaker Powerwall 3: ≤ 11.5 kW or ≤ 60 A breaker		✓
	Tankless electric water heater (typically connected with multiple breakers)	Water heater kW < Storage portion of Powerwall supply Powerwall 2 / +: ≤ 5.5 kW per Powerwall Powerwall 3: ≤ 11.5 kW per Powerwall		
240 V Loads	All other loads	Powerwall 2: ≤ 30 A breaker* Powerwall+: ≤ 50 A breaker Powerwall 3: ≤ 60 A breaker	✓	✓

\*Able to back up all other loads ≤ 50 A if the AHJ does not have an Oversized Loads Prohibited Requirement

### Air Conditioner Compatibility

The rating on each customer appliance must be lower than the sum of the total LRA and total RLA capability of all Tesla products installed. A non-compatible device can be kept in backup but may overload the Powerwall system unless turned off.

Tesla Product	Nameplate LRA	RLA
Powerwall 3	185 A	48 A
Powerwall+	118 A	22 A
Powerwall 2	106 A	22 A
Solar Inverter	0 A	0 A
Powerwall 2 (3012170-xx-A, all other 2012170-xx-y not listed above, 1092170-xx-y)	28 A	18 A

**NOTE:** For AC Units with no nameplate, the following assumptions can be made:

- ≤ 30A breaker = compatible with (1) Powerwall 2 or (2) Powerwall+
- ≤ 50A breaker = compatible with (2) Powerwall 2 / Powerwall+
- ≤ 60A breaker = compatible with (1) Powerwall 3

**NOTE:** See [Powerwall Application Note: Load Start Capability for Troubleshooting and Service](#) for nameplate LRA by Powerwall part number.

### Multiple AC Unit Sizing Requirements

If there are ≤ 3 Powerwall units and ≥ 2 AC units in the backup circuit:

1. Evaluate the AC unit with highest LRA in the backup circuit against the nameplate LRA of the Powerwall unit(s)
2. Evaluate the combined RLA of all AC units in the backup circuit against the RLA of Powerwall