

# Tesla Model S Charging Quick Reference

<http://evtriplanner.com/calcs.php>  
<http://www.teslamotors.com/charging>



**STANDARD**  
110 V | 12 A



**NEMA 14-50**  
240 V | 40 A



**NEMA 14-30**  
240 V | 24 A

Green Lights	Red Light	What it means	What to do
All lights flowing	Off	Charging is in progress.	Nothing. The Mobile Connector is successfully charging.
Top light on	Off	Power on. Mobile Connector is powered, but not charging.	Make sure the Mobile Connector is plugged into the vehicle.
Off	1 flash	Ground fault. Electrical current is leaking through a potentially unsafe path.	This should automatically reset in 15 minutes. If not, ensure no one is touching or inside the vehicle, then press the RESET button.
Off	2 flashes	The Mobile Connector did not pass its internal self check.	Unplug the Mobile Connector from the vehicle and press the RESET button. Plug the Mobile Connector back into the vehicle. If the error persists, unplug the Mobile Connector from both the vehicle and the power outlet, then plug it back in. When plugging back in, always plug it into the outlet first.
Off	3 flashes	Contactors failed	Unplug the Mobile Connector from the vehicle and wait 10 seconds. If the error persists, contact Tesla.
Off	4 flashes	Ground lost	Make sure the power outlet is properly grounded. If uncertain, ask your electrician.
Off	5 flashes	Sense circuit fault	Make sure the Mobile Connector's adapter is attached properly.
Off	6 flashes	Thermal fault	Consider charging in a cooler area, such as indoors or in the shade.
Off	Off	Power lost	Unplug the Mobile Connector and check that the power outlet has power.

			VOLTS / AMPS	KILOWATTS	MILES OF RANGE PER HOUR OF CHARGE
⚡	NEMA 5-15	Standard Outlet	110 V / 12 A	1.4 kW	5
⚡	NEMA 14-50	RVs and Campsites	240 V / 40 A	10 kW	31
⚡	NEMA 6-50	Welding Equipment	240 V / 40 A	10 kW	31
⚡	NEMA 10-30	Older Dryers	240 V / 24 A	5.8 kW	18
⚡	NEMA 14-30	Newer Dryers	240 V / 24 A	5.8 kW	18

## Charging

10 kW capable on-board charger with the following input compatibility: 85-265 V, 45-65 Hz, 1-40 A (Optional 20 kW capable Twin Chargers increases input compatibility to 80 A)

Peak charger efficiency of 92%

10 kW capable Universal Mobile Connector with 110 V, 240 V, and J1772 adapters

## CHARGE RATES/TIMES

### Amps (max)

Charge Volts	120	240	240	240	SUPER	
Circuit Rated Amps	15	30	50	100	CHARGE	
Charge kW	1.4	5.8	9.6	19	90	80% circuit rating max
Charge mph ("rated")	4.0	16	26	53	248	at efficiency above, rated Wh/mi
Charge mph (350 Wh/mi)	3.5	14	23	47	219	at efficiency, Wh/mi above
Full Charge Hrs (85kWh)	69	17	10.4	5.2	1.1	to battery capacity entered above

charge rate is not constant...slower as batt fills

## Charge Hours per Driving Hour (72F, 85% efficiency)

### Driving MPH

	60	65	70	75	80	
1.4	13.7	16.5	19.4	22.7	26.5	120Vx12A (15A circuit)
5.8	3.4	4.1	4.8	5.7	6.6	240Vx24A (30A circuit)
9.6	2.1	2.5	2.9	3.4	4.0	240Vx40A (50A circuit)
19.2	1.0	1.2	1.5	1.7	2.0	240Vx80A (100A circuit)
90.0	0.2	0.3	0.3	0.4	0.4	SUPERCHARGE

## Tesla CA Superchargers

- Folsom Premium Outlets  
13000 Folsom Blvd, Folsom, CA 95630
- Gilroy Premium Outlet, near Sony  
681 Leavesley Road, Gilroy, CA 95020
  - Gilroy Premium Outlets behind the Sony store
- Harris Ranch (Near Harris Ranch Inn and Restaurant)  
24505 W Dorris Ave Coalinga, CA 93210
  - at the Shell station by the mini mart/Subway
- Tejon Ranch (Near Yogurtland)  
5602 Dennis McCarthy Dr., Lebec, CA 93243
  - Petro Shopping Center, located near Yogurtland
- Los Angeles (Hawthorne Municipal Airport)  
3203 Jack Northrop Ave., Hawthorne, CA 90250
- Barstow (Country Inn and Suites)  
2812 Lenwood Rd., Barstow, CA 92311

## Charging Apps/Sites

- [recargo.com](http://recargo.com)
- [carstations.com](http://carstations.com)
- [chargepoint.com](http://chargepoint.com)
- [plugshare.com](http://plugshare.com)
- [blinknetwork.com](http://blinknetwork.com)
- [www.afdc.energy.gov](http://www.afdc.energy.gov)