

**ELECTRIC VEHICLE CHARGER SERVICE LOAD CALCULATOR****INSTRUCTIONS:**

Review the list of electrical loads below and provide the information for all that exist in your home (don't forget to include the proposed car charger). For each item, fill in the corresponding "Watts Used". Use the number provided unless the nameplate rating on the specific appliance is larger. Add up all of the numbers that are written in the "Total Watts Used" column and write that number in the "Total of all wattages" line at the bottom. Then go to the next page to determine if your existing electric service will accommodate the new loads.

(Loads shown are code minimums; actual loads may vary. For a more precise analysis, use the nameplate ratings for your specific appliances. Consult with a trained electrical professional if needed.)

GENERAL LIGHTING AND RECEPTACLE OUTLET CIRCUITS:

Description of Load:	Total Wattage Used
Multiply the square footage of the house by 3	
1. Square Footage _____ × 3	_____
2. First 8,000 watts at 100%	_____
3. Total wattage minus 8,000 watts times 40%	_____

Total General Lighting loads is the sum of number two and three:

Total General Lighting Load _____ + _____ = _____

KITCHEN CIRCUITS

Description of Load:	Total Wattage Used
Kitchen Circuits: _____ × 1,500 watts	_____
Electric Oven: _____ × 4,400 watts	_____
Electric Stove Top _____ × 3,600 watts	_____
Microwave _____ × 1,500 watts	_____
Garbage Disposal _____ × 1,000 watts	_____
Dishwasher _____ × 1,000 watts	_____

LAUNDRY CIRCUITS

Laundry Circuit _____ × 1,500 watts	_____
Electric Clothes Dryer _____ × 4,500 watts	_____

HEATING AND AIR CONDITIONING CIRCUITS

Description of Load:	Total Wattage used
Central Heating and Air _____ × 6,000 watts	_____
Window Mounted Cooler _____ × 1,000 watts	_____
Whole-House or Attic Fan _____ × 500 watts	_____
Central Electric Furnace _____ × 8,000 watts	_____

Swamp Cooler _____ × 500 watts _____

OTHER ELECTRIC LOADS

Electric Water Heater _____ × 4,000 watts _____

Tankless Water Heater _____ × 15,000 watts _____

Swimming Pool and Spa _____ × 3,500 watts _____

Other (Describe Below):

_____ × _____ watts _____

_____ × _____ watts _____

_____ × _____ watts _____

_____ × _____ watts _____

ELECTRIC VEHICLE CAR CHARGER

Car Charger Wattage _____ × 7,200 watts _____

Or Name Plate Rating if exceeds 7,200 watts: _____

_____ × _____ watts _____

Total of All Wattages _____

INSTRUCTIONS: Using the “Total of all wattage” number from above, check the information from below to determine the minimum required size of the electrical service panel.

The information below is based on California Electrical Code 220.83(A) and (B), 230.42 and Annex D.

- Total of All Wattages is up to 48,000 watts then the minimum required size of the existing 240 volt service panel's and main over current protection device is to be 100 Amperes Minimum
- Total of All Wattages is up to 48,000 watts then the minimum required size of the existing 240 volt service panel's and main over current protection device is to be 100 Amperes Minimum
- Total of All Wattages is from to 48,000 to 63,000 watts then the minimum required size of the existing 240 volt service panel's and main over current protection device is to be 125 Amperes Minimum
- Total of All Wattages is up to 63,001 to 78,000 watts then the minimum required size of the existing 240 volt service panel's and main over current protection device is to be 150 Amperes Minimum
- Total of All Wattages is up to 78,001 to 108,000 watts then the minimum required size of the existing 240 volt service panel's and main over current protection device is to be 200 Amperes Minimum
- Total of All Wattages is up to 108,001 to 123,000 watts then the minimum required size of the existing 240 volt service panel's and main over current protection device is to be 225 Amperes Minimum

Total of all Wattage

Size of the existing Service panel

Minimum required Size from above

If the existing service panel is smaller than the minimum required size, a new upgraded electrical service panel will be required to handle the added electrical load from the proposed charger.