



Residential Electrical Load Calculation Worksheet (CD-B307)

The below table is a guide to calculate the electrical load in a single-family residence. Check all applicable loads on the left and calculate the watts used on the right. (Volt-Amps, VA and Watts, W may generally be used interchangeably for these calculations)

Check All Applicable Loads (✓)	Description of Load	Typical Usage	Watts Used
GENERAL LIGHTING AND RECEPTACLE OUTLET CIRCUITS			
	Multiply the square footage of house x 3	3 watts/sq. ft.	
KITCHEN CIRCUITS			
	Kitchen circuits	3,000 watts	
	Electric oven	2,000 watts	
	Electric stove top	5,000 watts	
	Microwave	1,500 watts	
	Garbage disposal under kitchen sink	1,000 watts	
	Automatic dish washer	3,500 watts	
	Garbage compactor	1,000 watts	
	Instantaneous hot water at sink	1,500 watts	
LAUNDRY CIRCUITS			
	Laundry circuit	1,500 watts	
	Electric clothes dryer	4,500 watts	
HEATING AND AIR CONDITIONING CIRCUITS			
	Central heating and air conditioning	6,000 watts	
	Window mounted air conditioning	1,000 watts	
	Whole house or attic fan	500 watts	
	Central electric furnace	8,000 watts	
	Evaporative cooler	500 watts	
OTHER ELECTRICAL LOADS			
	Electric water heater (storage type)	4,000 watts	
	Electric tankless water heater	15,000 watts	
	Swimming pool or spa	3,500 watts	
	Other (describe)		
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ELECTRIC VEHICLE CHARGER CIRCUIT			
		TOTAL WATTS USED	

Calculated Load:

Total Amperage= _____ Watts / 240Volts = _____ Amps

Electrical components must be rated for the calculated load per CEC 220.40. Rating of components must be shown in plans including:

- Rating of conductor overcurrent protection is per CEC 240.4.
- Rating of feeders per CEC 310.15 (310.12 for residential only).
- Rating of service disconnects per CEC 230.79.
- Rating of panelboards per CEC 408.30.