



RESIDENTIAL ELECTRICAL LOAD CALCULATION

Calculations are based on the 2022 California Electrical Code (CEC), Article 220 optional method.

	Quantity			Load	Results	
General Lighting						
1. General Lighting		Sa. Ft.	X	3 VA/Sa. Ft.		
2. Small Appliance		each	X	1500 VA		
3. Laundry		each	X	1500VA		
4. Total General Lighting Load (add Lines 1, 2, 3)						
5. First 3000VA (@ 100%)					3000VA	
6. Total General Lighting Load (@ 35% = (Line 5 - Line 4) x 35% =						
7. Net General Lighting Load (Per CEC 6220.42) (add Lines 5 & 6)						
Fixed Appliances						
Dishwasher		each	X	1200VA		
Disposal		each	X	800VA		
Microwave		each	X	1000 VA		
Compactor		each	X	1000VA		
Freezer		each	X	1200VA		
8. 3 or less appliances, Total Appliance (VA) 4 or more appliances, 75% of Total Appliance (VA) (Per CEC §220.53):						
Other Loads (Cooking Equipment, Motors, EV Chargers, etc.)						
9. Cook top		each	X	4000VA		
10. Oven - single		each	X	8000VA		
11. Oven - double		each	X	12000VA		
12. Range		each	X	12000 VA		
13. Dryer		each	X	5000VA		
14. Spa (electrical)*		each	X	25000 VA		
15. Pool		each	X	4800VA		
16. Electric Vehicle		each	X			
17. 25% of largest motor (CEC 6430.24)						
Total Service Loads Add Lines 7, 8, 9-17)						
First 8000 (@ 100% (CEC 6220.83(A)):					8000VA	
Remainder (@ 40%:						
Total VA:						
AC(@ 100%				Name Plate Rating :		
Total VA + 230 volts:						
Total Load:						amps

General Lighting is total square footage of dwelling times 3 VA per foot.

*If Spa has gas heater use load of 8000 VA.

Values are average loads; if the known load is available it can be considered by the Building Official. Name plate ratings of appliances may be used.