RESIDENTIAL ELECTRICAL LOAD ESTIMATING

This worksheet can be used to determine the required size of an electrical panel for an existing dwelling with 120/240 or 120/208 volt, three wire, single phase services (based on the 2013 California Electrical Code Article 220).

1. __ Square footage of existing living area[1] x 3 watts/sq. ft. =_____watts

2. __ 20 amp small appliance circuits @ 1500 watts each =_____ watts

3. __ Laundry circuits @ 1500 watts each =_____ watts

4. Electrcial appliances at nameplate value[2]
   - a. Range =_____ watts
   - b. Oven =_____ watts
   - c. Garbage Disposal =_____ watts
   - d. Clothes Dryer[3] =_____ watts
   - e. Dishwasher =_____ watts
   - f. Other:_____ =_____ watts
   - g. Other:_____ =_____ watts
   - h. Other:_____ =_____ watts

Sub-Total (Lines 1-4)=_____ watts

5. First 8,000 watts @ 100% =_____ watts

6. Balance (sub-total – 8,000) @ 40% =_____ watts

7.[4] Air conditioning @ 100% = _____ watts
Central space heating @ 100% = _____ watts
<4 Space heaters @ 100% = _____ watts
>4 Space heaters @ 100% = _____ watts
=_____ watts

Total (Lines 5-7) =_____ watts

Convert to amps by dividing by 240 volts (A = w/v) =_____ amps

[1] Use outside dimensions
[2] If values are given in amps, multiply by volts to obtain watts (watts = amps x volts)
[3] Minimum 5000 watts
[4] Use larger connected load of A/C or space heating, not both. Heat pumps are calculated at 100% or 65% if the heat pump is supplementary.