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 (2013 California Electrical Code Article 220).

1. Square footage of existing living area[1] x 3 watts/sq. =_____watts
2. 20 amp small appliance circuits @ 1500 watts each =_____watts
3. Laundry circuits @ 1500 watts each =_____watts
4. Electrical 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 (w = axv)
[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.

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