Community Development Department
300 Richards Boulevard 3rd Floor Sacramento, CA 95811
Help Line: (916) 264-5011
www.cityofsacramento.org/dsd

Electrical Load Calculation Worksheet
N.E.C. 220.82

THIS SHALL BE ON THE JOB SITE AT ALL TIMES **SUBMIT TWO COPIES**

Permit # _____ **Date:** _____
Contractor/Owner: _____
Job Address: _____ **Total SF** _____
Phone # _____ **Email:** _____

Number	Item	Watts
	Sq. Ft, @ 3 Watts per Sq. Ft - 220.12	
	20 Amp. Appliance circuits @ 1500 watts each - 220.52(A)	
	Range (Nameplate Rating = N.P.R.)	
	Oven (N.P.R.)	
	Cooking Units (N.P.R.)	
	Water Heater (N.P.R.)	
	Dishwasher (N.P.R.)	
	Disposal (N.P.R.)	
	Washer [(1500 watts min. N.E.C. 220.52(B)]	
	Dryer [(5000 watts min. or N.P.R. if larger) N.E.C. 220.54]	
	Motors (N.P.R.)	
	Other (N.P.R.)	
	Other (N.P.R.)	

Air Conditioning Example
(not heat pump)

Compressor 20 amps
Fan 5 amps
Unit Total Load = 25 amps x 240V
Elec. Furnace @ N.P.R.= 6000 watts x 65% = 3900 watts
Use 6000 watts since it is larger
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Heat Pump Example

Compressor 20 amps
Fan 5 amps
Unit Total Load = 25 amps x 240V = 6000 watts
Aux. Heat Strip = 6000 watts x 65% = 3900 watts
Total Heat Pump Load = 9900 watts

Heat Pump Note:
When doing load calculations where heat pumps are installed, the load for most heat pumps that are equipped with auxiliary heat strips will be larger under the demand for heat. For purposes of load calculations only, on heat pump compressor and fans use 65% of auxiliary heat load to show total heat pump load.

Air Conditioning Equipment Air Conditioning [cooling @ (N.P.R. x 100%)] =	Subtotal = _____ (Loss 1st 10KW – 10,000 @ 100% = 10,000 Watts
Electrical Heating @ (N.P.R. x 65% =	Remainder @ 40% _____ @ 40% _____Watts
NOTE: Use the largest load - Heat or Cool =	Total Air Cond. and/or heat pump load = _____Watts
Heat pump (compressor & fans) x 100% =	Total Service Load = _____Watts
Aux. Heat strips (or elect. furnace) x 65% =	Total Service Load _____Watts÷240V = _____Amps
Total Heat Pump Load =	Service Size _____
NOTE: Amps x Circuit Voltage = Watts	

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CDD-0213 Revised 10-07-2009
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