



RESIDENTIAL ELECTRICAL LOAD CALCULATIONS

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Phone: (702) 229-6251

Standard Calculation: Article 220 NEC

General Lighting Load 220.12

General Lighting Load:

Home Sq Ft _____ + Garage Sq ft _____ = _____ x 3 Volt Amps = _____ VA
 Small Appliance Circuits @ 1500 VA each, Min of 2 _____ (qty) = _____ VA
 Laundry (Washing Machine) circuit 1500 VA, Min of 1 _____ (qty) = _____ VA
Sub Tot (1) _____ VA

Application of Demand Factor (Table 220.42)

First 3,000 VA of Subtotal (1) at 100% ST _____ = _____ VA
 Remainder of Subtotal (1) at 35% _____ = _____ VA
 If over 120,000 VA use 25% ST _____ = _____ VA
Sub Tot (2) _____ VA

Electrical Cooking Appliances. Use NEC Table 220-55

100% Nameplate Rating _____
 From Table 220.55 _____
 _____ = _____ VA
 Dryer Load (220.54) 100% VA _____ = _____ VA
Sub Tot (3) _____ VA

Heating or A/C 220.60

HVAC Condenser(s) _____ + FAU(s) _____ = Total HVAC Load _____
 (OR use formula: Home sqft/400 sqft per ton x2000va per ton = Total HVAC Load) _____

Total Load for Supplemental Heating _____
 Total Load for Heat Pump _____

Sub Tot (4) _____ VA

Fixed Appliances 220.53

Disposer _____ Water Heater _____
 Compactor _____ Dishwasher _____
 Microwave _____
 (4 or more appliances, a demand of 75% is allowed) Sub Tot 5a _____ x _____ **Sub Tot (5)** _____ VA

EV Chargers - Article 625.41

EV Charger _____ (Continuous load, full circuit value) **Sub Tot (6)** _____ VA

Miscellaneous Motor Loads 220.50

Largest Motor _____ x 25% _____
 Other loads (pool pump, spa, welder) _____ **Sub Tot (7)** _____ VA

Grand Total (2+3+4+5+6+7) _____ VA

Calculated Load (Grand Total/240) _____ AMPS

Panel Size _____

***If there is a subpanel, a separate Electrical Load Calculation is required.**