



## RESIDENTIAL ELECTRICAL LOAD CALCULATIONS

[www.LasVegasNevada.gov/BuildingPermits](http://www.LasVegasNevada.gov/BuildingPermits)

Phone: (702) 229-6251

**Standard Calculation: Article 220 NEC****General Lighting Load 220.12**

General Lighting Load 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 \_\_\_\_\_  
Dryer Load (220.54) 100% VA \_\_\_\_\_  
= \_\_\_\_\_ VA  
= \_\_\_\_\_ VA  
**Sub Tot (3)** \_\_\_\_\_ VA

**Heating or A/C 220.60**

Total load for A/C Unit(s) \_\_\_\_\_  
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 \_\_\_\_\_ + 25% LM \_\_\_\_\_  
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.**