

# SINGLE FAMILY DWELLING ELECTRICAL SERVICE LOAD CALCULATION

*OPTIONAL METHOD - 2001 CALIFORNIA ELECTRICAL CODE SECTION 220-30 (Based on 1999 NEC)*

*As an alternative method the STANDARD METHOD found in Article 220 of the National Electrical Code, may be used*

1. GENERAL LIGHTING LOADS

Dwelling \_\_\_\_\_ Sq. Ft. x 3 VA (220-30 (b) (2)) = \_\_\_\_\_ VA  
 Small appliance loads (220-30 (b) (1) 1500 VA x \_\_\_\_\_ circuits = \_\_\_\_\_ VA  
 Laundry load (220-30 (b) (1) 1500 VA x \_\_\_\_\_ circuits = \_\_\_\_\_ VA  
**General Lighting Load Total:** \_\_\_\_\_ VA

2. COOKING EQUIPMENT LOADS (220-30 (b) (3) - Nameplate Value(s))

Cooktop(s) \_\_\_\_\_ VA  
 Oven(s) \_\_\_\_\_ VA  
 Range(s) \_\_\_\_\_ VA  
**Cooking Equipment Load Total:** \_\_\_\_\_ VA

3. ELECTRIC DRYER (220-30 (b) (3), (Nameplate, 5000 VA minimum))

Dryer(s) \_\_\_\_\_ VA  
**Dryer Load Total:** \_\_\_\_\_ VA

4. FIXED APPLIANCE LOADS (220-30 (b) (3))

Compactor \_\_\_\_\_ VA    Water Heater \_\_\_\_\_ VA  
 Dishwasher \_\_\_\_\_ VA    Built-in Vacuum \_\_\_\_\_ VA  
 Disposal \_\_\_\_\_ VA    Hydromassage Bathtub \_\_\_\_\_ VA  
 Microwave \_\_\_\_\_ VA    Other \_\_\_\_\_ VA  
**Fixed Appliance Load Total** \_\_\_\_\_ VA

5. MOTOR LOAD(s) (220-30 (b) (4) - Nameplate Value(s)) \_\_\_\_\_ VA

6. **OPTIONAL LOAD SUBTOTAL (Add all of the above Load Totals)** \_\_\_\_\_ VA

7. APPLYING DEMAND FACTORS - (220-30(b))

First 10,000 VA (Optional Load Subtotal from line 6) x 100% = \_\_\_\_\_ **10,000** VA  
 Remaining optional load (subtotal from line 5-10,000 VA) = \_\_\_\_\_ VA x 40% = \_\_\_\_\_ VA

8. HEATING OR AC LOAD (220-30(c))

**Larger of the Heating or AC Load** = \_\_\_\_\_ VA

9. **OPTIONAL LOADS TOTAL (Total from lines 7 and 8)** = \_\_\_\_\_ VA

10. **COMPUTED LOAD** =  $\frac{\text{Optional Loads Total}}{240 \text{ Volts}}$  = \_\_\_\_\_ Amperes\*

11. **MINIMUM SERVICE SIZE REQUIRED:** \_\_\_\_\_ Amperes

\* (Please put total on front of 'Primary' Circuit Card under Computed Load)