



Town of Billerica Building Department

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Residential Electrical Load Calculations Worksheet

Electrician's Name _____

Permit# _____

Property Address _____

Date: _____

1. GENERAL LIGHTING LOAD:

(a) _____ Sq. Ft X 3 VA/ft² = _____ VA
Small Appliance Circuits: (sec. 220.52 (a))

(b) _____ Circuits @ 1,500 VA (minimum of 2) = _____ VA

(c) Laundry (sec. 220.52 (b)) = _____ VA

(d) Sub Total: (a+b+c) = _____ VA

Application of Demand Factor (Table 220.45)

(i) First 3,000 VA @ 100% = _____ VA

(ii) From 3,001 to 120,000 VA @ 35% = _____ VA

(iii) Over 120,000 VA @ 25% = _____ VA

Sub Total: = _____ VA

TOTALS

= _____ VA(1)

2. FIXED APPLIANCES (Section 220.53):

Garbage Disposal = _____ VA

Water Heater = _____ VA

Dishwasher = _____ VA

Compactor = _____ VA

Microwave = _____ VA

Water Heater = _____ VA

Central Vac. = _____ VA

_____ = _____ VA

_____ = _____ VA

Sub Total: = _____ VA

= _____ VA(2)

(4 or more appliances, a demand factor of 75% may be used)

3. DRYER (Section 220.54)

5,000 VA or Name Plate Whichever is larger: _____ VA @ 100% = _____ VA(3)

4. Electrical Vehicle Supply Equipment (Section 220.57)

7200VA or Name Plate Whichever is Larger = _____ VA = _____ VA(4)

5. COOKING EQUIPMENT (TABLE 220.55) Notes*

(Number of Appliances) _____ Demand _____ %x Total KW _____ (Column A) X1000 _____ VA

(Number of Appliances) _____ Demand _____ %x Total KW _____ (Column B) X1000 _____ VA

(Number of Appliances) _____ Demand _____ %x Total KW _____ (Column B) X1000 _____ VA

= _____ VA(5)

6. HEATING OR AIR CONDITIONING (Section 220.60)

Total load for supplemental Heating Unit(s) = _____ VA(a)
Total load for A/C Unit(s) = _____ VA (b)
Total Load for Heat Pump(s) = _____ VA (c)
Largest load = _____ @100% = _____ VA(6)

7. LARGEST MOTOR LOAD (Section 220.14 (c))

Single Phase _____ VA @ 25% _____ VA = _____ VA(7)

8. OTHER LOADS (i.e., Pool pump, spa, etc.)

Pool pump, Spa = _____ VA = _____ VA(8)

Total: Add VA (1) through VA (8) = _____ VA(9)

Calculated Load for Service VA (9) /240V = _____ AMPS

SERVICE PANEL SIZE/WIRE SIZE (Section 310.16 &240.6A) = _____

Grounding Electrode Conductor (Section 250.66) = _____