sgwy@harnettcorp

RESIDENTIAL ELECTRICAL LOAD WORKSHEET

OWNER: Mickey McQueen

ADDRESS: 25 BRAE DR

LIGHTING LOAD

Article 220-3(a)
Total square footage of habitable living area: 2659 @3 watts per sq. foot = 7977 watts

Article 220-16(a)
Two small appliance branch circuits @ 1500 watts each: 2 @ 1500 watts each = 3000 watts

Article 220-16(a)
Additional small appliance circuits each: @ 1500 watts each = _____ watts

Article 220 -16(b)
Laundry circuit @ 1500 watts each: @ 1500 watts each = 1500 watts

Lighting Load Subtotal = 12477 watts

Table 220-11

First 3000 watts of lighting load: 12477 @ 100% = 3000 watts

Remainder from 3001watts to 120,000 watts: 9477 @ 35% = 3316.95 watts

Remainder over 120,000 watts: 3316.95 @ 25% = 829.23 watts

Lighting Load Total = 7146.18 watts

APPLIANCE LOAD

Article 220-17

Garbage disposal @ 600 watts each:	@ 600 watts each =	600 watts
Microwave @ 1500 watts each:	@ 1500 watts each =	1500 watts
Trash compactor @ 1200 watts each:	@ 1200 watts each =	0 watts
Dishwasher @ 1200 watts each:	@ 1200 watts each =	1200 watts
Refrigerator @ 600 watts each:	@ 600 watts each =	600 watts

Name Plate Rating of Miscellaneous Appliances:

_____ @_____watts each = _____watts

_____ @_____watts each = _____watts

Appliance Subtotal = 3900 watts

Appliance subtotal: 3900 watts x 75% = 2925 watts

(Less than 4 appliances @ 100%; 4 or more appliances @ 75%)

ELECTRIC CLOTHES DRYER

Article 220-18 5000 watts or name plate rating: (Whichever is Larger) Dryer Total = 5000 watts

WATER HEATER (If Electric)

Article 220-3(b) @ Nameplate Rating: Water Heater Load = tankless 600 watts

HOUSEHOLD COOKING EQUIPMENT

Table 220-19 Cooking Units-Includes ranges, wall mounted ovens, countertop units, and other household cooking units.

Number of Units- ONE unit use= 8000 watts
TWO unit use = 11,000 watts
THREE unit use = 14,000 watts
FOUR unit use = 17,000 watts
FIVE unit use = 20,000 watts

COOKING TOTAL= 8000 watts

SPACE HEATING/AIR CONDITIONING

Article 220-4(a) Air conditioner nameplate rating @ 125%: _____watts x 125% = _____watts

OR

Article 220-15 Electric Heat nameplate rating @ 100%: _____watts x 100% = smart mod watts

(Whichever is Larger)

HEAT PUMP

Article 220-4(a) Largest condensing unit nameplate @ 125%: _____ watts @ 125% = Smart mod watts

Article 440-33 AND
Article 220-15 Supplementary heat (resistance) @ 100%: _____watts @ 100% = _____watts

ADDITIONAL HVAC EQUIPMENT

Article 440-33 Condensing units or A/C @ 100%: _____watts @ 100% = _____watts

SPACE HEATING/AIR CONDITIONING TOTAL= smart mds watts

OPTIONAL EQUIPMENT

Article 220-3(b) Swimming Pool and/ or
Spa and Article 430-24 Largest motor nameplate: _____watts @ 125% = _____watts
Remaining motor(s) nameplate(s): _____watts @ 100% = _____watts
Lights and other miscellaneous equipment: _____watts @ 100% = _____watts

POOL/SPA TOTAL = 2500 watts

Article 220-3(b) Welders, Kilns, Etc.

Name or description of equipment @ rated nameplate: _____watts x 100% = _____watts

Name or description of equipment @ rated nameplate: _____watts x 100% = _____watts

Name or description of equipment @ rated nameplate: _____watts x 100% = _____watts

MISCELLANEOUS EQUIPMENT TOTAL = X watts

TOTAL DEMAND ON SYSTEM

Article 220-10 Sum of all totals:

LIGHTING LOAD TOTAL = 7146.18 WATTS
APPLIANCE TOTAL = 2925 WATTS
DRYER TOTAL = 5000 WATTS
WATER HEATER TOTAL = 600 WATTS
COOKING TOTAL = 8000 WATTS
SPACE HEATING/AIR CONDITIONING TOTAL = smarts Mds WATTS
POOL/SPA TOTAL = 2500 WATTS
MISCELLANEOUS EQUIPMENT TOTAL = _____ WATTS

TOTAL LOAD FOR DWELLING = 21,671.18 WATTS

MAIN SERVICE SIZING

Article 220-2

Total load 21,671.18 divided by 240 volts = 90.29 amps
(NOTE: For 120/240 volt systems divide by 240volts; for 120/208 volts use 208 volts)

Article 220-10 MINIMUM SERVICE SIZE _____AMPS

Table 310-16

SERVICE ENTRANCE CONDUCTOR SIZE _____AWG,Cu, _____AWG,Al

Table 250-94 GROUNDING ELECTRODE CONDUCTOR SIZE _____AWG, Copper

OPTIONAL CALCULATION METHOD FOR DWELLING UNITS

Table 220-30

100% of the nameplate rating(s) of the air conditioning = _____watts

100% of the first 10kVA of all other loads = _____watts

40% of the remainder of all other loads = _____watts

TOTAL OPTIONAL LOAD _____watts

Article 220-2

TOTAL OPTIONAL LOAD _____DIVIDED BY _____VOLTS = _____AMPS
(NOTE: For 120/240 volt systems divide by 240; for 120/208 volt systems divide by 208)