

# Residential Optional Calculation

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OGLES 269 Van Winkle St LILLINGTON

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Version 2011 L

## STEP 1 Article 220.82 (B) (1),(2)

|        |      |                              |           |
|--------|------|------------------------------|-----------|
| sq. ft | 3232 | General Lighting load        | 9,696 VA  |
|        | 2    | Small Appliance              | 3,000 VA  |
|        | 1    | Laundry circuit              | 1,500 VA  |
|        |      | Gen.Lgt, Sm App.& Laun. Load | 14,196 VA |

## WIRETECH COMPANY

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## STEP 2 Article 220.82 (C)



General lighting, Sm. Appl. & Laundry

14,196 VA

### A/C Condenser & Fixed Electric Space Heating

QTY

Total 1

|       |          |       |         |           |     |
|-------|----------|-------|---------|-----------|-----|
| 4 ton | 7,797 VA | AHU 1 | 14.4 kW | 16,148 VA | 1   |
|       | VA       | AHU 2 | Select  | VA        | Qty |
|       | VA       | AHU 3 | Select  | VA        | Qty |
|       | VA       | AHU 4 | Select  | VA        | Qty |
|       | VA       | AHU 5 | Select  | VA        | Qty |

|              |           |
|--------------|-----------|
| Heating Load | 11,108 VA |
| CU Load      | 9,545 VA  |

Electric Space Heat @ 65% <4, 40% >3, vs. A/C @ 100% 11,108 VA

## STEP 3 Article 220.82 (B) (3)

Appliance Demand Load

13,302 VA

|          |   |                    |          |
|----------|---|--------------------|----------|
| 4,500 VA | 1 | Water Heater       | 4,500 VA |
| 828 VA   | 1 | Refrigerator       | 828 VA   |
| 690 VA   | 1 | Freezer            | 690 VA   |
| 1,200 VA | 1 | Dishwasher         | 1,200 VA |
| 756 VA   | 1 | Disposal           | 756 VA   |
|          | 0 |                    | 0 VA     |
| 1,800 VA | 1 | Microwave          | 1,800 VA |
|          | 0 |                    | 0 VA     |
| 600 VA   | 2 | Door Opener        | 1,200 VA |
| 1,500 VA | 1 | Gas Top + Hood Fan | 1,500 VA |
|          | 0 |                    | 0 VA     |
|          | 0 |                    | 0 VA     |

Dryer Demand Load

6,240 VA

Range Demand Load

7,600 VA

Service Demand

33,643 VA

Demand Load

140 A

Neutral Demand

88 A

Min.Service Req.

150 A

Min. Feeder size

2/0

Min. Neutral size

2

Eq. Grding Cond.

4



Aluminium

Total Appliance Load

13,302 VA

## STEP 4 Article 220.82 (B) (3)

Electric Clothes Dryers

6,240 VA

## STEP 5 Article 220.82 (B) (3)

Electric Ranges

Col C demand

0

or Number of appliances

☐ Check Box for Gas Range

Cooktop

Col B demand

Cooktop

Col B demand

Oven(s)

7,600 W

Col B demand

Oven(s)

Col B demand

Number of appliances

1 Dem. Factor

Cooktop & Oven Demand Load

Existing 200Amp Service

jmp1jds@comcast.net

### Pool Panel Feeder Calculation (See Note)

|                     |        |       |
|---------------------|--------|-------|
| Continuous Motors   | 0      | ..... |
| Non-continuous      | 0      | ..... |
| Spa heater 11 kVA   |        | ..... |
| Pool heater 3.5 ton |        | ..... |
| Pool heater 5 ton   |        | ..... |
| Pool Light          | select | 0     |
| Blower              | select | 0     |
| other load          |        | 0     |
| other load          |        | 0     |

☐ Min.Copper Pool Feeder

AWG

Minimum Panel Rating

A

| A             | B | N          |
|---------------|---|------------|
| 0             | 0 | 0          |
| 0             | 0 | 0          |
| 0             | 0 | 0          |
| 0             | 0 | 0          |
| 0             | 0 | 0          |
| 0             | 0 | 0          |
| 0             | 0 | 0          |
| 0             | 0 | 0          |
| 0             | 0 | 0          |
| A             | A | A          |
| Phase Amperes |   | Neut. load |

Continuous Motors

|        |      |
|--------|------|
| select | 240v |
| select | 240v |
| select | 240v |
| select | 240v |
| select | 240v |

Non-continuous Motors

|        |      |
|--------|------|
| select | 240v |
| select | 240v |
| select | 240v |
| select | 240v |
| select | 240v |

0.0

Motor Neutral Load

Max.Unbalanced Neutral Load