Residential Optional Calculation

by: John Sokolik — Version 2011 L — 9/25/1997

DOYLE 319 Oak Haven Dr HOLLY SPRINGS

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

sq. ft	3310	General Lighting load	9,930 VA
	2	Small Appliance	3,000 VA
	1	Laundry circuit	1,500 VA
		Gen.Lgt, Sm App.& Laun. Load	14,430 VA

STEP 2 Article 220.82 (C) ☑

General lighting, Sm. Appl. & Laundry **14,430 VA**

A/C Condenser & Fixed Electric Space Heating

					QTY
3.5 ton	5,750 VA	AHU 1	9.6 kW	10,589 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

Total **1**

Heating Load	7,229 VA
CU Load	6,739 VA

Electric Space Heat @ 65% <4, 40% >3, vs. A/C @ 100% **7,229 VA**

STEP 3 Article 220.82 (B) (3)

4,500 VA	1	Water Heater		4,500 VA
817 VA	1	Refrigerator		817 VA
690 VA	1	Freezer		690 VA
1,200 VA	1	Dishwasher		1,200 VA
	0	Disposal		VA
	0		0	VA
1,800 VA	1	Microwave		1,800 VA
☐	0		0	VA
720 VA	2	Door Opener		1,440 VA
☐	0		0	VA
☐	0		0	VA
	0		0	VA
☐ select				VA
☐ select				VA
☐ select				VA
select				VA
select				VA
		Pool Equip. Panel		VA Apply Demand
☐				VA No Demand
☐				VA No Demand

Appliance Demand Load	**10,447 VA**
Dryer Demand Load	**6,240 VA**
Range Demand Load	**15,400 VA**
Service Demand	**31,836 VA**
Demand Load	**133 A**
Neutral Demand	**95 A**
Min.Service Req.	**150 A**
Min. Feeder size	**2/0**
Min. Neutral size	**1**
Eq. Grding Cond.	**4**
☑	**Aluminium**

Total Appliance Load **10,447 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	**7,700 W**	Col B demand
Oven(s)	**7,700 W**	Col B demand
Oven(s)		Col B demand

Number of appliances **2** Dem. Factor

Cooktop & Oven Demand Load

Existing 200Amp Service

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Pool Panel Feeder Calculation		(See Note)	A	B	N
Continuous Motors		0	0	0	0
Non-continuous		0	0	0	0
Spa heater 11 kVA		. . . . . .	0	0	
Pool heater 3.5 ton		. . . . . .	0	0	
Pool heater 5 ton		. . . . . .	0	0	
Pool Light	select	0	0	0	0
Blower	select	0 ☐ 240v	0	0	0
other load		0 ☐ 240v	0	0	0
other load		0 ☐ 240v	0	0	0
☐ Min.Copper Pool Feeder		AWG	A	A	A
Minimum Panel Rating		A	Phase Amperes		Neut. load

Continuous Motors		Non-continuous Motors	
select	☐ 240v	select	☐ 240v
select	☐ 240v	select	☐ 240v
select	☐ 240v	select	☐ 240v
select	☐ 240v	select	☐ 240v
select	☐ 240v	select	☐ 240v

0.0 Motor Neutral Load

Max.Unbalanced Neutral Load