

# Residential Optional Calculation

9/25/1997

GARCIA 624 Century Dr CAMERON

by: John Sokolik

Version 2011 L

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

sq. ft	2480	General Lighting load	7,440 VA
	2	Small Appliance	3,000 VA
	1	Laundry circuit	1,500 VA
		Gen.Lgt, Sm App.& Laun. Load	11,940 VA

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## STEP 2 Article 220.82 (C)

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

	QTY		
3 ton	1	AHU 1 8. kW	8,989 VA
		VA AHU 2 Select	VA
		VA AHU 3 Select	VA
		VA AHU 4 Select	VA
		VA AHU 5 Select	VA

General lighting, Sm. Appl. & Laundry **11,940 VA**

Total	1	
Heating Load		6,189 VA
CU Load		5,589 VA

Electric Space Heat @ 65% <4, 40% >3, vs. A/C @ 100% **6,189 VA**

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

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
1,140 VA	1	Disposal	1,140 VA
	0		0 VA
1,800 VA	1	Microwave	1,800 VA
	0		0 VA
720 VA	1	Door Opener	720 VA
2,880 VA	1	RV	2,880 VA
	0		0 VA
	0		0 VA
		select	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 **13,758 VA**

Dryer Demand Load **6,240 VA**

Range Demand Load **14,000 VA**

Service Demand **30,564 VA**

Demand Load **127 A**

Neutral Demand **89 A**

Min.Service Req. **150 A**

Min. Feeder size **2/0**

Min. Neutral size **2**

Eq. Grding Cond. **4**

**Aluminium**

Total Appliance Load **13,758 VA**

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

Electric Clothes Dryers **6,240 VA**

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

Electric Ranges **14,000 W** Col C demand **8800**

or Number of appliances

<input type="checkbox"/> Check Box for Gas Range	Cooktop	Col B demand
	Cooktop	Col B demand
	Oven(s)	Col B demand
	Oven(s)	Col B demand
Number of appliances	<b>0</b> Dem. Factor	
	Cooktop & Oven Demand Load	

**Existing 200Amp Service**

[jmp1jds@comcast.net](mailto:jmp1jds@comcast.net)

### Pool Panel Feeder Calculation (See Note)

	A	B	N
Continuous Motors	0	0	0
Non-continuous	0	0	0
Spa heater 11 kVA			
Pool heater 3.5 ton			
Pool heater 5 ton			
Pool Light	0	0	0
Blower	0	0	0
other load	0	0	0
other load	0	0	0
<input type="checkbox"/> Min. Copper Pool Feeder	<b>AWG</b>	<b>A</b>	<b>A</b>
Minimum Panel Rating	<b>A</b>	Phase Amperes	Neut. load

Continuous Motors

select	<input type="checkbox"/> 240v
select	<input type="checkbox"/> 240v
select	<input type="checkbox"/> 240v
select	<input type="checkbox"/> 240v
select	<input type="checkbox"/> 240v

Non-continuous Motors

select	<input type="checkbox"/> 240v
select	<input type="checkbox"/> 240v
select	<input type="checkbox"/> 240v
select	<input type="checkbox"/> 240v
select	<input type="checkbox"/> 240v

**0.0** Motor Neutral Load

Max.Unbalanced Neutral Load