Residential Optional Calculation

9/25/1997

ARMSTRONG 93 Castlebay Dr SANFORD

by: John Sokolik

Version 2011 L

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

WIRETECH COMPANY
3101 Stony Brook Drive Suite148
Raleigh, NC 27604
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4/4/2024 16:42

sq. ft	4116	General Lighting load	12,348 VA
	2	Small Appliance	3,000 VA
	1	Laundry circuit	1,500 VA
		Gen.Lgt, Sm App.& Laun. Load	16,848 VA

STEP 2 Article 220.82 (C) ☑

General lighting, Sm. Appl. & Laundry **16,848 VA**

A/C Condenser & Fixed Electric Space Heating

					QTY
2.5 ton	3,749 VA	AHU 1	5. kW	5,480 VA	1
3 ton	4,577 VA	AHU 2	7.5 kW	7,860 VA	1
	VA	AHU 3	Select	VA	Qty
	VA	AHU 4	Select	VA	Qty
	VA	AHU 5	Select	VA	Qty

Total **2**

Heating Load	8,965 VA
CU Load	9,166 VA

Electric Space Heat @ 65% <4, 40% >3, vs. A/C @ 100% **9,166 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	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	**11,598 VA**
Dryer Demand Load	**6,240 VA**
Range Demand Load	**12,500 VA**
Service Demand	**34,040 VA**
Demand Load	**142 A**
Neutral Demand	**98 A**
Min.Service Req.	**150 A**
Min. Feeder size	**2/0**
Min. Neutral size	**1**
Eq. Grding Cond.	**4**
☑	**Aluminium**

Total Appliance Load **11,598 VA**

STEP 4 Article 220.82 (B) (3)

Electric Clothes Dryers **6,240 VA**

STEP 5 Article 220.82 (B) (3)

Electric Ranges **12,500 W** Col C demand **8400**

or Number of appliances

☐ Check Box for Gas Range

Cooktop	Col B demand
Cooktop	Col B demand
Oven(s)	Col B demand
Oven(s)	Col B demand

Existing 400Amp Service

Number of appliances **0** Dem. Factor

Cooktop & Oven Demand Load

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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