

# Main Panel

Monday, Jul. 03, 2006

# Load Summary

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## Project Information :

Prepared By: Dan Laws  
Company: Dolphins Software

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## Service Characterization :

Computation Method : Single Dwelling  
NEC® Table : 310.15(B)(6)  
OCPD Size : Std-400A-2P-240VAC                      1 Phase  
L-L Voltage : 240 VAC                                      L-N Voltage : 110 VAC  
Current-Carrying Conductors : 1 sets of 400 kcmils THHN Copper conductors in parallel  
Ground Conductors : 1 - 1/0 ga. THHN Copper conductor  
Neutral Conductors : 1 - 400 kcmils THHN Copper conductor

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## Service Load Characteristics :

Gross Amperes :    379.17 (A)  
Gross Kilowatts :    29.49 (kW)  
Gross Volt Amperes :                                      39,220.00 (VA)  
Gross Kilovolt Amperes :                                   39.22 (kVA)

## Phase Load Balance :

Phase A : 394.38 A  
Phase B : 239.32 A

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## OCPD Summary :

### Service Size Computation Method : Single Dwelling

General Lighting Load :	Line	Neutral	Notes
Resistive Lighting Load :	21,900.00 VA	21,900.00 VA	10 - circuit(s)
Total Load :	21,900.00 VA	21,900.00 VA	
Total Load with Demand Factor:	<b>9,615.00 VA</b>	<b>9,615.00 VA</b>	per NEC® 220.42, 220.52(A) & (B)
<b>Receptacle Load :</b>			
Continuous Load :	18,050.00 VA	18,050.00 VA	9 - circuit(s)
Non-Continuous Load :	480.00 VA	480.00 VA	
Total Load :	18,530.00 VA	18,530.00 VA	
Total Load with Demand Factor:	<b>14,264.50 VA</b>	<b>14,264.50 VA</b>	per NEC® 220.44
<b>Appliance Load :</b>			
Appliance Load :	2,350.00 VA	2,350.00 VA	1 - circuit(s)
Load with Demand Factor:	<b>2,350.00 VA</b>	<b>2,350.00 VA</b>	per NEC® 220.53
<b>Motor Load :</b>			
Motor Load :	26,740.00 VA	26,740.00 VA	7 - circuit(s)
25% of Largest Motor :	2,400.00 VA	2,400.00 VA	per NEC® 220.18(A)
Total Load :	<b>29,140.00 VA</b>	<b>29,140.00 VA</b>	
<b>Environmental Load :</b>			
A/C Load :	23,090.00 VA	23,090.00 VA	11 - circuit(s)
Applied Load:	<b>23,090.00 VA</b>	<b>23,090.00 VA</b>	per NEC® 220.82(C)

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	Line	Neutral	Notes
<b>Totals :</b>	<u>78,459.00 VA</u> 379.00 A	<u>78,459.00 VA</u> 325.00 A	

### Ampacity Formula

The total load in amperes is computed from the summation of each item utilizing the following formula:

Amperes = (item kW \* 1000) / (panel Voltage \* item power factor \* item efficiency factor \* square root of the panel phase)