FORM R405-2023

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Gonzalez Res	Builder Name:	Gibraltar Contracting LLC
Street:		Permit Office:	Columbia County
City, State, Zip:	Lake City, FL, 32024	Permit Number:	
Owner:	Ganzalez	Jurisdiction:	
Design Location:	FL, Gainesville	County:	Columbia(Florida Climate Zone 2)

1. New construction or existing	New (From Plans)
2. Single family or multiple family	Detached
3. Number of units, if multiple family	1
4. Number of Bedrooms	4
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	2378
Conditioned floor area below grade (ft²)	0

7. Windows(301.0 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.36	301.00 ft²
SHGC:	SHGC=0.25	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		6.184 ft
Area Weighted Average SHGC:		0.250

8. Skylights	Description	Area
U-Factor:(AVG)	N/A	N/A ft²
SHGC(AVG):	N/A	

9. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R= 0.0	2378.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(2222.3 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1889.30 ft²
b. Frame - Wood, Adjacent	R=13.0	333.00 ft²
c. N/A		
d. N/A		

11. Ceiling Types(2615.8 sqft.)	Insulation	Area
a. Flat ceiling under att (Vented)	R=38.0	2615.80 ft²
b. N/A		
c. N/A		

12. Roof(Comp. Shingles, Vented)	Deck R=0.0	2753 ft²

13. Ducts, location & insulation level	R	ft²
a. Sup: Attic, Ret: Attic, AH: Garage	6	595
b.		
c.		

14. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	28.2	SEER2:15.50

15. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	38.8	HSPF2:8.80

16. Hot Water Systems	
a. Electric	Cap: 50 gallons EF: 0.920
b. Conservation features	None
17. Credits	CV, Pstat

Glass/Floor Area: 0.127

Total Proposed Modified Loads: 57.41

Total Baseline Loads: 60.97

PASS

NOTE: Proposed residence must have annual total normalized Modified Loads that are less than or equal to 95 percent of the annual total loads of the standard reference design in order to comply.

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: _____

DATE: 3 / 16 / 2026

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: _____

DATE: _____

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL: _____

DATE: _____

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.

- Default duct leakage does not require a Duct Leakage Test Report.

- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires a PERFORMANCE envelope leakage test report with envelope leakage no greater than 7.00 ACH50 (R402.4.1.2).

FORM R405-2023

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Gonzalez Res			Address type:	Lot
Building Type:	User	Bedrooms:	4	Lot #:	6
Owner:	Ganzalez	Conditioned Area:	2378	Block/SubDivision:	Hills Of Huntsv
Builder Home ID:		Total Stories:	1	PlatBook:	
Builder Name:	Gibraltar Contracting LLC	Worst Case:	No	Street:	
Permit Office:	Columbia County	Rotate Angle:	0	County:	Columbia
Jurisdiction:		Cross Ventilation:	Yes	City, State, Zip:	Lake City,
Family Type:	Detached	Whole House Fan:	No		FL, 32024
New/Existing:	New (From Plans)	Terrain:	Suburban		
Year Construct:	2026	Shielding:	Suburban		
Comment:					

CLIMATE

√	Design Location	Tmy Site	Design Temp 97.5%	Design Temp 2.5%	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily temp Range
___	FL, Gainesville	FL_GAINESVILLE_REGIONA	32	92	70	75	1305.5	51	Medium

BLOCKS

√	Number	Name	Area	Volume
___	1	Block1	2378	21402 cu ft

SPACES

√	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
___	1	1st Floor	2378	21402	Yes	8	4	Yes	Yes	Yes

FLOORS (Total Exposed Area = 2378 sq.ft.)

√	#	Floor Type	Space	Exposed Perim(ft)	Area	R-Value Perim.	R-Value Joist	U-Factor	Slab Insul. Vert/Horiz	Tile	Wood	Carpet
___	1	Slab-On-Grade Edge Ins	1st Floor	243.4	2378 sqft	0.0	---	0.304	2 (ft)/0 (ft)	0.00	0.00	1.00

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Framing. Fract.	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
___	1	Hip	Composition shingles	2753 ft²	0 ft²	0.11	Medium	Y	0.96	No	0.9	No	0	30.26

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
___	1	Partial cathedral ceiling	Vented	300	2378 ft²	Y	N

CEILING (Total Exposed Area = 2616 sq.ft.)

√	#	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
___	1	Flat ceiling under attic(Vented)	1st Floor	38.0	Double Batt	2615.8ft²	0.024	0.11	Wood

FORM R405-2023

INPUT SUMMARY CHECKLIST REPORT

WALLS (Total Exposed Area = 2222 sq.ft.)

√ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
___ 1	W	Exterior	Frame - Wood	1st Floor	13.0	13.0	2	9.0	0	118.5	0.084		0.23	0.75	0.0 %
___ 2	S	Exterior	Frame - Wood	1st Floor	13.0	2.0	0	9.0	0	18.0	0.084		0.23	0.75	0.0 %
___ 3	W	Exterior	Frame - Wood	1st Floor	13.0	8.0	0	10.0	0	80.0	0.084		0.23	0.75	0.0 %
___ 4	N	Exterior	Frame - Wood	1st Floor	13.0	2.0	0	10.0	0	20.0	0.084		0.23	0.75	0.0 %
___ 5	W	Exterior	Frame - Wood	1st Floor	13.0	13.0	4	10.0	0	133.3	0.084		0.23	0.75	0.0 %
___ 6	S	Exterior	Frame - Wood	1st Floor	13.0	2.0	0	10.0	0	20.0	0.084		0.23	0.75	0.0 %
___ 7	W	Exterior	Frame - Wood	1st Floor	13.0	9.0	10	9.0	0	88.5	0.084		0.23	0.75	0.0 %
___ 8	S	Garage	Frame - Wood	1st Floor	13.0	12.0	0	9.0	0	108.0	0.084		0.23	0.75	0.0 %
___ 9	W	Garage	Frame - Wood	1st Floor	13.0	25.0	0	9.0	0	225.0	0.084		0.23	0.75	0.0 %
___ 10	S	Exterior	Frame - Wood	1st Floor	13.0	26.0	2	9.0	0	235.5	0.084		0.23	0.75	0.0 %
___ 11	E	Exterior	Frame - Wood	1st Floor	13.0	37.0	8	9.0	0	339.0	0.084		0.23	0.75	0.0 %
___ 12	N	Exterior	Frame - Wood	1st Floor	13.0	8.0	0	10.0	0	80.0	0.084		0.23	0.75	0.0 %
___ 13	E	Exterior	Frame - Wood	1st Floor	13.0	18.0	6	10.0	0	185.0	0.084		0.23	0.75	0.0 %
___ 14	S	Exterior	Frame - Wood	1st Floor	13.0	8.0	0	9.0	0	72.0	0.084		0.23	0.75	0.0 %
___ 15	E	Exterior	Frame - Wood	1st Floor	13.0	13.0	2	9.0	0	118.5	0.084		0.23	0.75	0.0 %
___ 16	N	Exterior	Frame - Wood	1st Floor	13.0	42.0	4	9.0	0	381.0	0.084		0.23	0.75	0.0 %

DOORS (Total Exposed Area = 20 sq.ft.)

√ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
___ 1	W	Garage	Insulated	1st Floor	None	0.46	3.00	0	6.00	8	20.0ft²

WINDOWS (Total Exposed Area = 301 sq.ft.)

√ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Storm	Total Area (ft²)	Same Units	Width (ft)	Height (ft)	--Overhang-- Depth (ft)	Sep. (ft)	Interior Shade	Screen
___ 1	W	1	Vinyl	Low-E Double	Y	0.36	0.25	N	N	15.0	1	3.00	5.00	1.5	1.0	None	None
___ 2	W	3	TIM	Low-E Double	Y	0.36	0.25	N	N	48.0	2	3.00	8.00	10.5	1.0	None	None
___ 3	W	5	Vinyl	Low-E Double	Y	0.36	0.25	N	N	36.0	2	3.00	6.00	7.5	1.0	None	None
___ 4	W	7	Vinyl	Low-E Double	Y	0.36	0.25	N	N	6.0	1	2.00	3.00	1.5	1.0	None	None
___ 5	S	10	Vinyl	Low-E Double	Y	0.36	0.25	N	N	3.0	1	3.00	1.00	1.5	1.0	None	None
___ 6	S	10	Vinyl	Low-E Double	Y	0.36	0.25	N	N	16.0	1	4.00	4.00	1.5	1.0	None	None
___ 7	E	11	Vinyl	Low-E Double	Y	0.36	0.25	N	N	72.0	4	3.00	6.00	1.5	1.0	None	None
___ 8	E	11	Vinyl	Low-E Double	Y	0.36	0.25	N	N	6.0	1	2.00	3.00	1.5	1.0	None	None
___ 9	N	12	TIM	Low-E Double	Y	0.36	0.25	N	N	24.0	1	3.00	8.00	8.5	1.0	None	None
___ 10	E	13	Vinyl	Low-E Double	Y	0.36	0.25	N	N	54.0	3	3.00	6.00	12.5	1.0	None	None
___ 11	E	15	Vinyl	Low-E Double	Y	0.36	0.25	N	N	15.0	1	3.00	5.00	1.5	1.0	None	None
___ 12	N	16	Vinyl	Low-E Double	Y	0.36	0.25	N	N	6.0	1	2.00	3.00	1.5	1.0	None	None

INFILTRATION

√ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
___ 1	Wholehouse	Proposed ACH(50)	0.00040	2497	136.99	257.18	0.1438	7.0	All	21402 cu ft

GARAGE

√ #	Floor Area	Length	Width	Roof Area	Exposed Perimeter	Area Under Uncond.	Avg. Wall Height	Exposed Wall Insulation
___ 1	608 ft²	25.3 ft²	24.0 ft²	608 ft²	63 ft	608 ft	9 ft	1

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INPUT SUMMARY CHECKLIST REPORT

MASS

√	#	Mass Type	Area	Thickness	Furniture Fraction	Space
___	1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	1st Floor

HEATING SYSTEM

√	#	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	----Geothermal HeatPump---- Entry	Power	Volt	Current	Ducts	Block
___	1	Electric Heat Pump	None/Single		HSPF2: 8.80	38.8		0.00	0.00	0.00	sys#1	1

COOLING SYSTEM

√	#	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
___	1	Central Unit	None/Single		SEER2:15.5	28.2	840	0.75	sys#1	1

HOT WATER SYSTEM

√	#	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixt. Flow	Trap	Pipe Ins.	Pipe length
___	1	Electric	None	Garage	0.92 (0.92)	50.0 gal	40 gal	120 deg	Standard	Yes	None	12

		Recirculation System	Recirc Control Type	Loop length	Branch length	Pump power	DWHR	Facilities Connected	Equal Flow	DWHR Eff	Other Credits
___	1	No		NA	NA	NA	No	NA	NA	NA	None

DUCTS

√	Duct #	Supply Location	Supply R-Value	Supply Area	Return Location	Return R-Value	Return Area	Leakage Type	AHU Location	CFM 25 TOT|OUT	QN OUT	AHU SEALED	RLF	HVAC # Heat	HVAC # Cool
___	1	Attic	6.0	595 ft²	Attic	6.0	119 ft²	Default Leakage	Garage	(Default) (Default)				1	1

TEMPERATURES

Programable Thermostat: Y Ceiling Fans: N

Cooling	[ ] Jan	[ ] Feb	[ ] Mar	[ ] Apr	[ ] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[ ] Oct	[ ] Nov	[ ] Dec
Heating	[X] Jan	[X] Feb	[X] Mar	[ ] Apr	[ ] May	[ ] Jun	[ ] Jul	[ ] Aug	[ ] Sep	[ ] Oct	[X] Nov	[X] Dec
Venting	[ ] Jan	[ ] Feb	[X] Mar	[X] Apr	[ ] May	[ ] Jun	[ ] Jul	[ ] Aug	[ ] Sep	[X] Oct	[X] Nov	[ ] Dec

√	Thermostat Schedule: HERS 2006 Reference Schedule Type		Hours 1	2	3	4	5	6	7	8	9	10	11	12
___	Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
		PM	80	80	78	78	78	78	78	78	78	78	78	78
___	Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
		PM	78	78	78	78	78	78	78	78	78	78	78	78
___	Heating (WD)	AM	66	66	66	66	66	68	68	68	68	68	68	68
		PM	68	68	68	68	68	68	68	68	68	68	66	66
___	Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
		PM	68	68	68	68	68	68	68	68	68	68	66	66

FORM R405-2023

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 94

The lower the EnergyPerformance Index, the more efficient the home.

,Lake City,FL,32024

1. New construction or existing		New (From Plans)
2. Single family or multiple family		Detached
3. Number of units, if multiple family		1
4. Number of Bedrooms		4
5. Is this a worst case?		No
6. Conditioned floor area above grade (ft²)		2378
Conditioned floor area below grade (ft²)		0

7. Windows**	Description	Area
a. U-Factor:	Dbl, U=0.36	301.00 ft²
SHGC:	SHGC=0.25	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		6.184 ft
Area Weighted Average SHGC:		0.250

8. Skylights	Description	Area
U-Factor:(AVG)	N/A	N/A ft²
SHGC(AVG):	N/A	

9. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R= 0.0	2378.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(2222.3 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1889.30 ft²
b. Frame - Wood, Adjacent	R=13.0	333.00 ft²
c. N/A		
d. N/A		

11. Ceiling Types(2615.8 sqft.)	Insulation	Area
a. Flat ceiling under att (Vented)	R=38.0	2615.80 ft²
b. N/A		
c. N/A		

12. Roof(Comp. Shingles, Vented)	Deck R=0.0	2753 ft²

13. Ducts, location & insulation level	R	ft²
a. Sup: Attic, Ret: Attic, AH: Garage	6	595
b.		
c.		

14. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	28.2	SEER2:15.50

15. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	38.8	HSPF2:8.80

16. Hot Water Systems	
a. Electric	Cap: 50 gallons
	EF: 0.920
b. Conservation features	None
17. Credits	CV, Pstat

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: City/FL Zip: Lake City,FL,32024

*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Envelope Leakage Test Report (Blower Door Test)
Residential Prescriptive, Performance or ERI Method Compliance
2023 Florida Building Code, Energy Conservation, 8th Edition

Jurisdiction:	Permit #:

Job Information

Builder: Gibraltar Contracting LLC Community: Lot: 6

Address:

City: Lake City State: FL Zip: 32024

Air Leakage Test Results *Passing results must meet either the Performance, Prescriptive, or ERI Method*

○ **PRESCRIPTIVE METHOD-**The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 7 air changes per hour at a pressure of 0.2 inch w.g. (50 Pascals) in Climate Zones 1 and 2.

● **PERFORMANCE or ERI METHOD-**The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding the selected ACH(50) value, as shown on Form R405-2023 (Performance) or R406-2023 (ERI), section labeled as infiltration, sub-section ACH50.

ACH(50) specified on Form R405-2023-Energy Calc (Performance) or R406-2023 (ERI): 7.000

_____ x 60 ÷ 21402 = _____
CFM(50) Building Volume ACH(50)

☐ **PASS**

☐ When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department.

Method for calculating building volume:

○ Retrieved from architectural plans

● Code software calculated

○ Field measured and calculated

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Dwelling units with an air leakage rate less than three air changes per hour shall be provided with whole-house mechanical ventilation in accordance with Section R403.6.1 of this code and Section M1507.3 if the *Florida Building Code, Residential*. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), *Florida Statues*, or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the *code official*. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope*.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, if installed at the time of the test, shall be open.
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
5. Heating and cooling systems, if installed at the time of the test, shall be turned off.
6. Supply and return registers, if installed at the time of the test, shall be fully open.
7. If an attic is both sealed and insulated at the roof deck, interior access doors and hatches between the conditioned space volume and the attic shall be opened during the test and the volume of the attic shall be added to the conditioned space volume for purposes of reporting the infiltration volume and calculating the air leakage of the home.

Testing Company

Company Name: _____ Phone: _____

I hereby verify that the above Air Leakage results are in accordance with the 2023 8th Edition Florida Building Code Energy Conservation requirements according to the compliance method selected above.

Signature of Tester: _____ Date of Test: _____

Printed Name of Tester: _____

License/Certification #: _____ Issuing Authority: _____

Residential System Sizing Calculation

Summary

Ganzalez

Lake City, FL 32024

Project Title:
Gonzalez Res

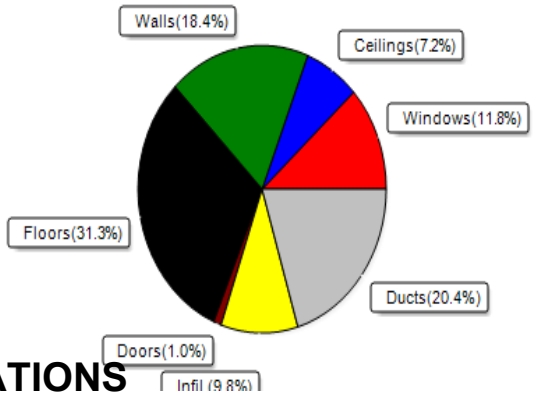
3/16/2026

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M) Humidity data: Interior RH (50%) Outdoor wet bulb (79F) Humidity difference(54gr.)					
Winter design temperature(MJ8 99%/Cu)	33	F	Summer design temperature(MJ8 99%/Cu)	99	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	37	F	Summer temperature difference	24	F
Total heating load calculation	**33916**	**Btuh**	**Total cooling load calculation**	**33390**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	114.4	38793	Sensible (SHR = 0.75)	76.1	21124
Heat Pump + Auxiliary(0.0kW)	114.4	38793	Latent	125.3	7041
			Total (Electric Heat Pump)	84.4	28165

WINTER CALCULATIONS

Winter Heating Load (for 2378 sqft)

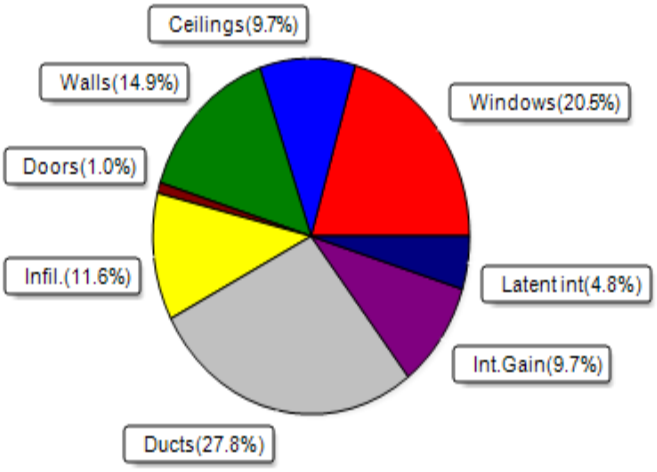
Load component			Load	
Window total	301	sqft	4009	Btuh
Wall total	1901	sqft	6244	Btuh
Door total	20	sqft	340	Btuh
Ceiling total	2616	sqft	2456	Btuh
Floor total	2378	sqft	10627	Btuh
Infiltration	82	cfm	3324	Btuh
Duct loss			6915	Btuh
Subtotal			**33916**	**Btuh**
Ventilation	Ex:0 cfm; Sup:0 cfm		0	Btuh
TOTAL HEAT LOSS			**33916**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 2378 sqft)

Load component			Load	
Window total	301	sqft	6848	Btuh
Wall total	1901	sqft	4967	Btuh
Door total	20	sqft	322	Btuh
Ceiling total	2616	sqft	3253	Btuh
Floor total			0	Btuh
Infiltration	62	cfm	1617	Btuh
Internal gain			3240	Btuh
Duct gain			7523	Btuh
Sens.Ventilation	Ex:0 cfm; Sup:0 cfm		0	Btuh
Blower Load			0	Btuh
Total sensible gain			**27770**	**Btuh**
Latent gain(ducts)			1771	Btuh
Latent gain(infiltration)			2249	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			1600	Btuh
Total latent gain			**5620**	**Btuh**
TOTAL HEAT GAIN			**33390**	**Btuh**



Powered by ACCA MANUAL J 8th Edition

EnergyGauge® System Sizing
PREPARED BY: _____
DATE: 3 / 16 / 2026

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Ganzalez
Lake City, FL 32024

Project Title:
Gonzalez Res
Building Type: User

3/16/2026

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 37.0 °F (MJ8 99%/Cu)
Winter Setpoint: 70 °F (Required Manual J default)

Component Loads for Whole House

Window	Panes/Type	Frame	U	Orientation	Area(sqft) X	HTM=	Load
1	2, NFRC 0.25	Vinyl	0.36	W	15.0	13.3	200 Btuh
2	2, NFRC 0.25	TIM	0.36	W	48.0	13.3	639 Btuh
3	2, NFRC 0.25	Vinyl	0.36	W	36.0	13.3	480 Btuh
4	2, NFRC 0.25	Vinyl	0.36	W	6.0	13.3	80 Btuh
5	2, NFRC 0.25	Vinyl	0.36	S	3.0	13.3	40 Btuh
6	2, NFRC 0.25	Vinyl	0.36	S	16.0	13.3	213 Btuh
7	2, NFRC 0.25	Vinyl	0.36	E	72.0	13.3	959 Btuh
8	2, NFRC 0.25	Vinyl	0.36	E	6.0	13.3	80 Btuh
9	2, NFRC 0.25	TIM	0.36	N	24.0	13.3	320 Btuh
10	2, NFRC 0.25	Vinyl	0.36	E	54.0	13.3	719 Btuh
11	2, NFRC 0.25	Vinyl	0.36	E	15.0	13.3	200 Btuh
12	2, NFRC 0.25	Vinyl	0.36	N	6.0	13.3	80 Btuh
	Window Total				301.0(sqft)		4009 Btuh

Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	104	3.28	340 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	18	3.28	59 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	32	3.28	105 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	20	3.28	66 Btuh
5	Frame - Wood	- Ext	(0.089)	13.0/0.0	97	3.28	320 Btuh
6	Frame - Wood	- Ext	(0.089)	13.0/0.0	20	3.28	66 Btuh
7	Frame - Wood	- Ext	(0.089)	13.0/0.0	83	3.28	271 Btuh
8	Frame - Wood	- Adj	(0.089)	13.0/0.0	108	3.28	355 Btuh
9	Frame - Wood	- Adj	(0.089)	13.0/0.0	205	3.28	673 Btuh
10	Frame - Wood	- Ext	(0.089)	13.0/0.0	217	3.28	711 Btuh
11	Frame - Wood	- Ext	(0.089)	13.0/0.0	261	3.28	857 Btuh
12	Frame - Wood	- Ext	(0.089)	13.0/0.0	56	3.28	184 Btuh
13	Frame - Wood	- Ext	(0.089)	13.0/0.0	131	3.28	430 Btuh
14	Frame - Wood	- Ext	(0.089)	13.0/0.0	72	3.28	236 Btuh
15	Frame - Wood	- Ext	(0.089)	13.0/0.0	104	3.28	340 Btuh
16	Frame - Wood	- Ext	(0.089)	13.0/0.0	375	3.28	1232 Btuh
	Wall Total				1901(sqft)		6244 Btuh

Doors	Type	Storm	Ueff.	Area X	HTM=	Load
1	Insulated - Garage,	n	(0.460)	20	17.0	340 Btuh
	Door Total			20(sqft)		340Btuh

Ceilings	Type/Color/Surface	Ueff.	R-Value	Area X	HTM=	Load
1	Flat ceil/D/Shing	(0.025)	38.0/0.0	2616	0.94	2456 Btuh
	Ceiling Total			2616(sqft)		2456Btuh

Floors	Type	Ueff.	R-Value	Size X	HTM=	Load
1	Slab On Grade	(1.180)	0.0	243.4 ft(perim.)	43.7	10627 Btuh
	Floor Total			2378 sqft		10627 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Ganzalez
Lake City, FL 32024

Project Title:
Gonzalez Res
Building Type: User

3/16/2026

	Envelope Subtotal:	23677 Btuh
Infiltration	Type Wholehouse ACH Volume(cuft) Wall Ratio CFM= Natural 0.23 21402 1.00 82.1	3324 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.256)	6915 Btuh
All Zones	**Sensible Subtotal All Zones**	**33916 Btuh**

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sens. Heat Loss (Ex:0 cfm; Sup:0 cfm) Total Heat Loss	33916 Btuh 0 Btuh 33916 Btuh

EQUIPMENT

1. Electric Heat Pump	#	38793 Btuh

Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)
U - (Window U-Factor)
HTM - (ManualJ Heat Transfer Multiplier)

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Version 8

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Ganzalez

Project Title:
Gonzalez Res

Lake City, FL 32024

3/16/2026

Reference City: Gainesville, FL (Defaults)
Humidity difference: 54gr.

Temperature Difference: 24.0F(MJ8 99%/Cu)
Summer Setpoint: 75 °F (Required Manual J default)

Component Loads for Whole House

Window	Type* Panes	SHGC	U	InSh	IS	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load
1	2 NFRC	0.25, 0.36	No	No	W	1.5ft.	1.0ft.	15.0	0.7	14.3	14	33	477	Btuh
2	2 NFRC	0.25, 0.36	No	No	W	10.5f	1.0ft.	48.0	46.3	1.7	14	33	699	Btuh
3	2 NFRC	0.25, 0.36	No	No	W	7.5ft.	1.0ft.	36.0	31.3	4.7	14	33	588	Btuh
4	2 NFRC	0.25, 0.36	No	No	W	1.5ft.	1.0ft.	6.0	0.5	5.5	14	33	187	Btuh
5	2 NFRC	0.25, 0.36	No	No	S	1.5ft.	1.0ft.	3.0	3.0	0.0	14	16	42	Btuh
6	2 NFRC	0.25, 0.36	No	No	S	1.5ft.	1.0ft.	16.0	16.0	0.0	14	16	222	Btuh
7	2 NFRC	0.25, 0.36	No	No	E	1.5ft.	1.0ft.	72.0	2.9	69.1	14	33	2302	Btuh
8	2 NFRC	0.25, 0.36	No	No	E	1.5ft.	1.0ft.	6.0	0.5	5.5	14	33	187	Btuh
9	2 NFRC	0.25, 0.36	No	No	N	8.5ft.	1.0ft.	24.0	0.0	24.0	14	14	334	Btuh
10	2 NFRC	0.25, 0.36	No	No	E	12.5f	1.0ft.	54.0	54.0	0.0	14	33	751	Btuh
11	2 NFRC	0.25, 0.36	No	No	E	1.5ft.	1.0ft.	15.0	0.7	14.3	14	33	477	Btuh
12	2 NFRC	0.25, 0.36	No	No	N	1.5ft.	1.0ft.	6.0	0.0	6.0	14	14	83	Btuh
	Excursion												498	Btuh
	Window Total									301 (sqft)			6848	Btuh

Walls	Type	U-Value	R-Value Cav/Sheath	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	0.09	13.0/0.0	103.5	2.7	280 Btuh
2	Frame - Wood - Ext	0.09	13.0/0.0	18.0	2.7	49 Btuh
3	Frame - Wood - Ext	0.09	13.0/0.0	32.0	2.7	87 Btuh
4	Frame - Wood - Ext	0.09	13.0/0.0	20.0	2.7	54 Btuh
5	Frame - Wood - Ext	0.09	13.0/0.0	97.3	2.7	263 Btuh
6	Frame - Wood - Ext	0.09	13.0/0.0	20.0	2.7	54 Btuh
7	Frame - Wood - Ext	0.09	13.0/0.0	82.5	2.7	223 Btuh
8	Frame - Wood - Adj	0.09	13.0/0.0	108.0	2.1	230 Btuh
9	Frame - Wood - Adj	0.09	13.0/0.0	205.0	2.1	437 Btuh
10	Frame - Wood - Ext	0.09	13.0/0.0	216.5	2.7	586 Btuh
11	Frame - Wood - Ext	0.09	13.0/0.0	261.0	2.7	707 Btuh
12	Frame - Wood - Ext	0.09	13.0/0.0	56.0	2.7	152 Btuh
13	Frame - Wood - Ext	0.09	13.0/0.0	131.0	2.7	355 Btuh
14	Frame - Wood - Ext	0.09	13.0/0.0	72.0	2.7	195 Btuh
15	Frame - Wood - Ext	0.09	13.0/0.0	103.5	2.7	280 Btuh
16	Frame - Wood - Ext	0.09	13.0/0.0	375.0	2.7	1015 Btuh
	Wall Total			1901 (sqft)		4967 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Garage	20.0	16.1	322 Btuh
	Door Total	20 (sqft)		322 Btuh

Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle/RB	0.025	38.0/0.0	2615.8	1.24	3253 Btuh
	Ceiling Total			2616 (sqft)		3253 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	0.0	2378 (ft-perimeter)	0.0	0 Btuh
	Floor Total		2378.0 (sqft)		0 Btuh

		Envelope Subtotal:	15390 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Ganzalez | Project Title: Gonzalez Res | Climate:FL_GAINESVILLE_REGIONAL_A

Lake City, FL 32024

3/16/2026

Infiltration	Type	Average ACH	Volume(cuft)		Wall Ratio		CFM=	Load	
	Natural	0.17	21402		1		61.5	1617	Btuh
Internal gain		Occupants	Btuh/occupant				Appliance	Load	
		8	X	230	+		1400	3240	Btuh
						Sensible Envelope Load:		20247	Btuh
Duct load	Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic)					(DGM of 0.372)		7523	Btuh
						Sensible Load All Zones		**27770**	**Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Ganzalez
Lake City, FL 32024

Project Title: Gonzalez Res
Climate:FL_GAINESVILLE_REGIONAL_A

3/16/2026

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**20247**	**Btuh**
	Sensible Duct Load	7523	Btuh
	Total Sensible Zone Loads	**27770**	**Btuh**
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0	Btuh
	Blower	0	Btuh
	Total sensible gain	**27770**	**Btuh**
	Latent infiltration gain (for 54 gr. humidity difference)	2249	Btuh
	Latent ventilation gain	0	Btuh
	Latent duct gain	1771	Btuh
	Latent occupant gain (8.0 people @ 200 Btuh per person)	1600	Btuh
	Latent other gain	0	Btuh
	Latent total gain	**5620**	**Btuh**
	TOTAL GAIN	**33390**	**Btuh**

EQUIPMENT

1. Central Unit	#	28165 Btuh

*Key: Window types (Panes - Number and type of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value)
(U - Window U-Factor)
(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))
- For Blinds: Assume medium color, half closed
For Draperies: Assume medium weave, half closed
For Roller shades: Assume translucent, half closed
(IS - Insect screen: none(N), Full(F) or Half(½))
(Ornt - compass orientation)

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