

Residential System Sizing Calculation

Summary

Jones Res
1067 NW Parnell Ave
Lake City, FL 32055

Project Title:
251054 Jones - 1067 NW Parnell Ave

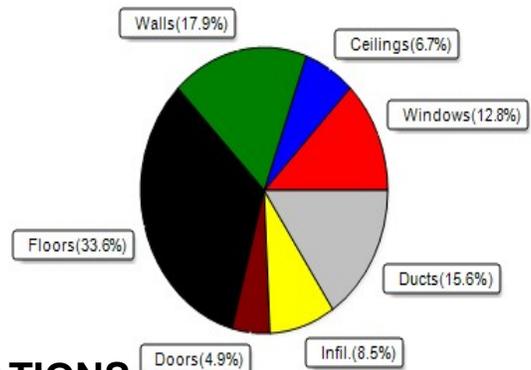
11/28/2025

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(100 ft.) Temp Range(M)					
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)					
Winter design temperature(TMY3 99%)	30	F	Summer design temperature(TMY3 99%)	94	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	40	F	Summer temperature difference	19	F
Total heating load calculation	38823	Btuh	Total cooling load calculation	31974	Btuh
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	108.2	42000	Sensible (SHR = 0.75)	113.4	31500
Heat Pump + Auxiliary(0.0kW)	108.2	42000	Latent	249.5	10500
			Total (Electric Heat Pump)	131.4	42000

WINTER CALCULATIONS

Winter Heating Load (for 2455 sqft)

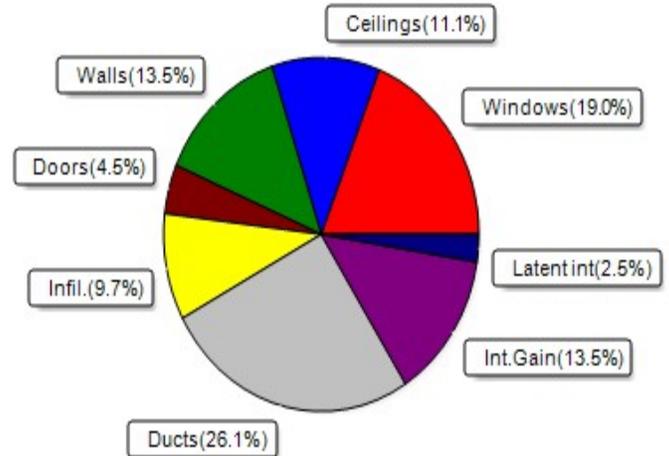
Load component	Load	
Window total	413 sqft	4960 Btuh
Wall total	1955 sqft	6940 Btuh
Door total	120 sqft	1920 Btuh
Ceiling total	2578 sqft	2617 Btuh
Floor total	2455 sqft	13027 Btuh
Infiltration	75 cfm	3284 Btuh
Duct loss		6074 Btuh
Subtotal		38823 Btuh
Ventilation	Ex:0 cfm; Sup:0 cfm	0 Btuh
TOTAL HEAT LOSS		38823 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 2455 sqft)

Load component	Load	
Window total	413 sqft	6082 Btuh
Wall total	1955 sqft	4332 Btuh
Door total	120 sqft	1440 Btuh
Ceiling total	2578 sqft	3533 Btuh
Floor total		0 Btuh
Infiltration	56 cfm	1170 Btuh
Internal gain		4320 Btuh
Duct gain		6888 Btuh
Sens.Ventilation	Ex:0 cfm; Sup:0 cfm	0 Btuh
Blower Load		0 Btuh
Total sensible gain		27766 Btuh
Latent gain(ducts)		1466 Btuh
Latent gain(infiltration)		1942 Btuh
Latent gain(ventilation)		0 Btuh
Latent gain(internal/occupants/other)		800 Btuh
Total latent gain		4208 Btuh
TOTAL HEAT GAIN		31974 Btuh



8th Edition

EnergyGauge® System Sizing
PREPARED BY: Evan Beamsley
DATE: 2025-11-28

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Jones Res
1067 NW Parnell Ave
Lake City, FL 32055

Project Title:
251054 Jones - 1067 NW Parnell Ave
Building Type: User

11/28/2025

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 40.0 °F (TMY3 99%)
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 0.22	Vinyl	0.30	N	36.0		12.0	432 Btuh
2	2, NFRC 0.22	Vinyl	0.30	E	13.3		12.0	160 Btuh
3	2, NFRC 0.22	Vinyl	0.30	N	72.0		12.0	864 Btuh
4	2, NFRC 0.22	Vinyl	0.30	W	48.0		12.0	576 Btuh
5	2, NFRC 0.22	Vinyl	0.30	N	48.0		12.0	576 Btuh
6	2, NFRC 0.22	Vinyl	0.30	N	32.0		12.0	384 Btuh
7	2, NFRC 0.22	Vinyl	0.30	N	24.0		12.0	288 Btuh
8	2, NFRC 0.22	Vinyl	0.30	E	9.3		12.0	112 Btuh
9	2, NFRC 0.22	Vinyl	0.30	E	20.0		12.0	240 Btuh
10	2, NFRC 0.22	Vinyl	0.30	E	3.0		12.0	36 Btuh
11	2, NFRC 0.22	Vinyl	0.30	E	9.3		12.0	112 Btuh
12	2, NFRC 0.22	Vinyl	0.30	S	4.0		12.0	48 Btuh
13	2, NFRC 0.22	Vinyl	0.30	W	13.3		12.0	160 Btuh
14	2, NFRC 0.22	Vinyl	0.30	S	16.5		12.0	198 Btuh
15	2, NFRC 0.22	Vinyl	0.30	S	24.0		12.0	288 Btuh
16	2, NFRC 0.22	Vinyl	0.30	S	16.5		12.0	198 Btuh
17	2, NFRC 0.22	Vinyl	0.30	W	8.0		12.0	96 Btuh
18	2, NFRC 0.22	Vinyl	0.30	W	16.0		12.0	192 Btuh
	Window Total				413.3(sqft)			4960 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	81		3.55	288 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	139		3.55	494 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	30		3.55	107 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	17		3.55	60 Btuh
5	Frame - Wood	- Ext	(0.089)	13.0/0.0	62		3.55	220 Btuh
6	Frame - Wood	- Ext	(0.089)	13.0/0.0	128		3.55	453 Btuh
7	Frame - Wood	- Ext	(0.089)	13.0/0.0	94		3.55	334 Btuh
8	Frame - Wood	- Ext	(0.089)	13.0/0.0	399		3.55	1418 Btuh
9	Frame - Wood	- Adj	(0.089)	13.0/0.0	105		3.55	373 Btuh
10	Frame - Wood	- Adj	(0.089)	13.0/0.0	54		3.55	192 Btuh
11	Frame - Wood	- Ext	(0.089)	13.0/0.0	64		3.55	225 Btuh
12	Frame - Wood	- Ext	(0.089)	13.0/0.0	21		3.55	73 Btuh
13	Frame - Wood	- Ext	(0.089)	13.0/0.0	78		3.55	277 Btuh
14	Frame - Wood	- Ext	(0.089)	13.0/0.0	52		3.55	185 Btuh
15	Frame - Wood	- Ext	(0.089)	13.0/0.0	63		3.55	224 Btuh
16	Frame - Wood	- Ext	(0.089)	13.0/0.0	122		3.55	431 Btuh
17	Frame - Wood	- Ext	(0.089)	13.0/0.0	447		3.55	1587 Btuh
	Wall Total				1955(sqft)			6940 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Jones Res
1067 NW Parnell Ave
Lake City, FL 32055

Project Title:
251054 Jones - 1067 NW Parnell Ave
Building Type: User

11/28/2025

Doors	Type	Storm Ueff.		Area X	HTM=	Load
1	Insulated - Exterior, n	(0.400)		8	16.0	128 Btuh
2	Insulated - Exterior, n	(0.400)		24	16.0	384 Btuh
3	Insulated - Exterior, n	(0.400)		16	16.0	256 Btuh
4	Insulated - Exterior, n	(0.400)		16	16.0	256 Btuh
5	Insulated - Garage, n	(0.400)		24	16.0	384 Btuh
6	Insulated - Exterior, n	(0.400)		8	16.0	128 Btuh
7	Insulated - Exterior, n	(0.400)		24	16.0	384 Btuh
	Door Total			120(sqft)		1920Btuh
Ceilings	Type/Color/Surface	Ueff.	R-Value	Area X	HTM=	Load
1	Flat ceil/D/Shing	(0.025)	38.0/0.0	2110	1.0	2142 Btuh
2	Sloped ce/D/Shing	(0.025)	38.0/0.0	364	1.0	370 Btuh
3	Knee wall/D/Shing	(0.025)	38.0/0.0	104	1.0	106 Btuh
	Ceiling Total			2578(sqft)		2617Btuh
Floors	Type	Ueff.	R-Value	Size X	HTM=	Load
1	Slab On Grade	(1.180)	0.0	276.0 ft(perim.)	47.2	13027 Btuh
	Floor Total			2455 sqft		13027 Btuh
Envelope Subtotal:						29464 Btuh
Infiltration	Type	Wholehouse ACH	Volume(cuft)	Wall Ratio	CFM=	Load
	Natural	0.20	22586	1.00	74.9	3284 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att)				(DLM of 0.185)	6074 Btuh
All Zones	Sensible Subtotal All Zones					38823 Btuh

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	38823 Btuh
	Ventilation Sens. Heat Loss (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Total Heat Loss	38823 Btuh

EQUIPMENT

1. Electric Heat Pump	#	42000 Btuh
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Manual J Winter Calculations

Residential Load - Component Details (continued)

Jones Res
1067 NW Parnell Ave
Lake City, FL 32055

Project Title:
251054 Jones - 1067 NW Parnell Ave
Building Type: User

11/28/2025

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)



Version 8

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Jones Res
1067 NW Parnell Ave
Lake City, FL 32055

Project Title:
251054 Jones - 1067 NW Parnell Ave

11/28/2025

Reference City: Gainesville, FL (Defaults)
Humidity difference: 51gr.

Temperature Difference: 19.0F(TMY3 99%)
Summer Setpoint: 75 °F (Required Manual J default)

Component Loads for Whole House

Window	Type*					Overhang		Window Area(sqft)			HTM		Load	
	Panes	SHGC	U	InSh	IS Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded		
1	2 NFRC	0.22, 0.30	No	No	N	1.5ft	1.0ft	36.0	1.5	34.5	10	27	944	Btuh
2	2 NFRC	0.22, 0.30	No	No	E	14.0f	0.0ft	13.3	13.3	0.0	10	12	138	Btuh
3	2 NFRC	0.22, 0.30	No	No	N	15.7f	0.0ft	72.0	72.0	0.0	10	27	744	Btuh
4	2 NFRC	0.22, 0.30	No	No	W	14.0f	0.0ft	48.0	0.0	48.0	10	10	496	Btuh
5	2 NFRC	0.22, 0.30	No	No	N	14.2f	0.0ft	48.0	48.0	0.0	10	27	496	Btuh
6	2 NFRC	0.22, 0.30	No	No	N	1.5ft	1.0ft	32.0	1.3	30.7	10	27	839	Btuh
7	2 NFRC	0.22, 0.30	No	No	N	1.5ft	1.0ft	24.0	1.0	23.0	10	27	630	Btuh
8	2 NFRC	0.22, 0.30	No	No	E	1.5ft	1.0ft	9.3	9.3	0.0	10	12	96	Btuh
9	2 NFRC	0.22, 0.30	No	No	E	1.5ft	1.0ft	20.0	20.0	0.0	10	12	207	Btuh
10	2 NFRC	0.22, 0.30	No	No	E	1.5ft	1.0ft	3.0	3.0	0.0	10	12	31	Btuh
11	2 NFRC	0.22, 0.30	No	No	E	1.5ft	1.0ft	9.3	9.3	0.0	10	12	96	Btuh
12	2 NFRC	0.22, 0.30	No	No	S	1.5ft	1.0ft	4.0	0.5	3.5	10	27	100	Btuh
13	2 NFRC	0.22, 0.30	No	No	W	20.5f	0.0ft	13.3	0.0	13.3	10	10	138	Btuh
14	2 NFRC	0.22, 0.30	No	No	S	9.5ft	0.5ft	16.5	16.5	0.0	10	27	170	Btuh
15	2 NFRC	0.22, 0.30	No	No	S	9.5ft	0.5ft	24.0	22.2	1.8	10	27	278	Btuh
16	2 NFRC	0.22, 0.30	No	No	S	1.5ft	1.0ft	16.5	0.7	15.8	10	27	432	Btuh
17	2 NFRC	0.22, 0.30	No	No	W	1.5ft	1.0ft	8.0	0.0	8.0	10	10	83	Btuh
18	2 NFRC	0.22, 0.30	No	No	W	1.5ft	1.0ft	16.0	0.0	16.0	10	10	165	Btuh
Window Total										413 (sqft)		6082 Btuh		
Walls	Type	U-Value	R-Value	Area(sqft)		HTM		Load						
				Cav/Sheath										
1	Frame - Wood - Ext	0.09	13.0/0.0	81.0		2.3		183 Btuh						
2	Frame - Wood - Ext	0.09	13.0/0.0	139.2		2.3		315 Btuh						
3	Frame - Wood - Ext	0.09	13.0/0.0	30.0		2.3		68 Btuh						
4	Frame - Wood - Ext	0.09	13.0/0.0	17.0		2.3		38 Btuh						
5	Frame - Wood - Ext	0.09	13.0/0.0	62.0		2.3		140 Btuh						
6	Frame - Wood - Ext	0.09	13.0/0.0	127.5		2.3		289 Btuh						
7	Frame - Wood - Ext	0.09	13.0/0.0	94.0		2.3		213 Btuh						
8	Frame - Wood - Ext	0.09	13.0/0.0	399.3		2.3		904 Btuh						
9	Frame - Wood - Adj	0.09	13.0/0.0	105.0		1.7		177 Btuh						
10	Frame - Wood - Adj	0.09	13.0/0.0	54.0		1.7		91 Btuh						
11	Frame - Wood - Ext	0.09	13.0/0.0	63.5		2.3		144 Btuh						
12	Frame - Wood - Ext	0.09	13.0/0.0	20.7		2.3		47 Btuh						
13	Frame - Wood - Ext	0.09	13.0/0.0	78.0		2.3		177 Btuh						
14	Frame - Wood - Ext	0.09	13.0/0.0	52.0		2.3		118 Btuh						
15	Frame - Wood - Ext	0.09	13.0/0.0	63.0		2.3		143 Btuh						
16	Frame - Wood - Ext	0.09	13.0/0.0	121.5		2.3		275 Btuh						
17	Frame - Wood - Ext	0.09	13.0/0.0	447.0		2.3		1012 Btuh						
Wall Total				1955 (sqft)				4332 Btuh						

Manual J Summer Calculations

Residential Load - Component Details (continued)

Jones Res
1067 NW Parnell Ave
Lake City, FL 32055

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
251054 Jones - 1067 NW Parnell Ave

11/28/2025

Doors	Type	Area (sqft)	HTM	Load		
1	Insulated - Exterior	8.0	12.0	96 Btuh		
2	Insulated - Exterior	24.0	12.0	288 Btuh		
3	Insulated - Exterior	16.0	12.0	192 Btuh		
4	Insulated - Exterior	16.0	12.0	192 Btuh		
5	Insulated - Garage	24.0	12.0	288 Btuh		
6	Insulated - Exterior	8.0	12.0	96 Btuh		
7	Insulated - Exterior	24.0	12.0	288 Btuh		
	Door Total	120 (sqft)		1440 Btuh		
Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	0.025	38.0/0.0	2110.0	1.37	2892 Btuh
2	Vented Attic/DarkShingle	0.025	38.0/0.0	364.0	1.37	499 Btuh
3	Knee wall to attic/DarkShingle	0.025	38.0/0.0	104.0	1.37	143 Btuh
	Ceiling Total			2578 (sqft)		3533 Btuh
Floors	Type	R-Value	Size	HTM	Load	
1	Slab On Grade	0.0	2455 (ft-perimeter)	0.0	0 Btuh	
	Floor Total		2455.0 (sqft)		0 Btuh	
Envelope Subtotal:					15388 Btuh	
Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio	CFM=	Load
	Natural	0.15	22586	1	56.2	1170 Btuh
Internal gain	Occupants	Btuh/occupant	Appliance	Load		
	4	X 230	+ 3400	4320 Btuh		
Sensible Envelope Load:					20878 Btuh	
Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic)			(DGM of 0.330)	6888 Btuh	
Sensible Load All Zones					27766 Btuh	

Manual J Summer Calculations

Residential Load - Component Details (continued)

Jones Res
1067 NW Parnell Ave
Lake City, FL 32055

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
251054 Jones - 1067 NW Parnell Ave

11/28/2025

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	20878 Btuh
	Sensible Duct Load	6888 Btuh
	Total Sensible Zone Loads	27766 Btuh
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Blower	0 Btuh
	Total sensible gain	27766 Btuh
	Latent infiltration gain (for 51 gr. humidity difference)	1942 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	1466 Btuh
	Latent occupant gain (4.0 people @ 200 Btuh per person)	800 Btuh
	Latent other gain	0 Btuh
	Latent total gain	4208 Btuh
	TOTAL GAIN	31974 Btuh

EQUIPMENT

1. Central Unit	#	42000 Btuh
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*Key: Window types (Panels - 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)



Version 8