

Residential System Sizing Calculation

Summary

Haskew
SW Custom Made Cir
Lake City, FL

Project Title:
260123 Haskew Pool House

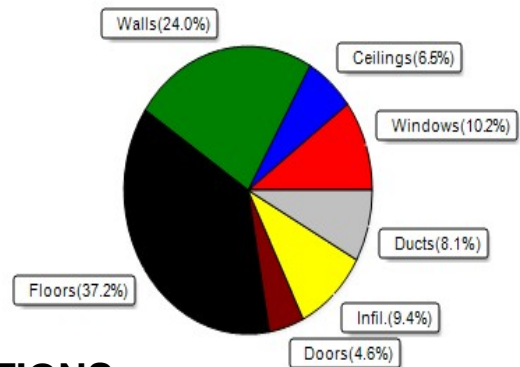
2/14/2026

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	13945	Btuh	Total cooling load calculation	11793	Btuh
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	107.6	15000	Sensible (SHR = 0.75)	112.8	11250
Heat Pump + Auxiliary(0.0kW)	107.6	15000	Latent	206.4	3750
			Total (Electric Heat Pump)	127.2	15000

WINTER CALCULATIONS

Winter Heating Load (for 750 sqft)

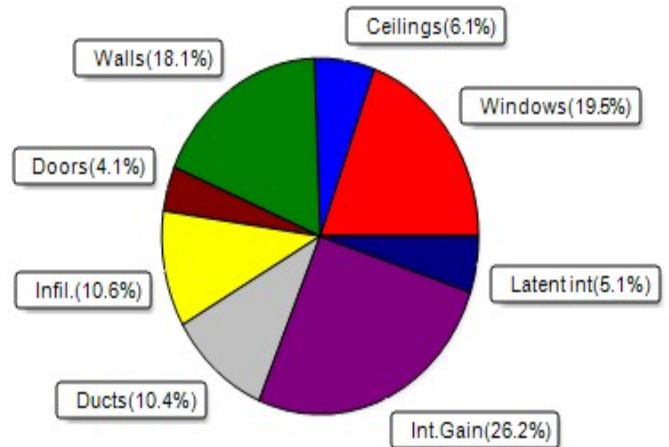
Load component	Load	
Window total	119 sqft	1428 Btuh
Wall total	941 sqft	3341 Btuh
Door total	40 sqft	640 Btuh
Ceiling total	750 sqft	904 Btuh
Floor total	750 sqft	5192 Btuh
Infiltration	30 cfm	1316 Btuh
Duct loss		1124 Btuh
Subtotal		13945 Btuh
Ventilation	Ex:0 cfm; Sup:0 cfm	0 Btuh
TOTAL HEAT LOSS		13945 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 750 sqft)

Load component	Load	
Window total	119 sqft	2295 Btuh
Wall total	941 sqft	2130 Btuh
Door total	40 sqft	480 Btuh
Ceiling total	750 sqft	723 Btuh
Floor total		0 Btuh
Infiltration	22 cfm	469 Btuh
Internal gain		3090 Btuh
Duct gain		790 Btuh
Sens.Ventilation	Ex:0 cfm; Sup:0 cfm	0 Btuh
Blower Load		0 Btuh
Total sensible gain		9976 Btuh
Latent gain(ducts)		439 Btuh
Latent gain(infiltration)		778 Btuh
Latent gain(ventilation)		0 Btuh
Latent gain(internal/occupants/other)		600 Btuh
Total latent gain		1817 Btuh
TOTAL HEAT GAIN		11793 Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: _____

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Haskew
SW Custom Made Cir
Lake City, FL

Project Title:
260123 Haskew Pool House
Building Type: User

2/14/2026

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	E	24.0	12.0	288 Btuh
2	2, NFRC 0.22	Vinyl	0.30	E	27.0	12.0	324 Btuh
3	2, NFRC 0.22	Vinyl	0.30	S	36.0	12.0	432 Btuh
4	2, NFRC 0.22	Vinyl	0.30	S	32.0	12.0	384 Btuh
	Window Total				119.0(sqft)		1428 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM= Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	300	3.55	1065 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	199	3.55	707 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	216	3.55	767 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	226	3.55	802 Btuh
	Wall Total				941(sqft)		3341 Btuh
Doors	Type	Storm	Ueff.		Area	X	HTM= Load
1	Insulated - Exterior,	n	(0.400)		16	16.0	256 Btuh
2	Insulated - Exterior,	n	(0.400)		24	16.0	384 Btuh
	Door Total				40(sqft)		640Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area	X	HTM= Load
1	Flat ceil/D/Shing		(0.241)	0.0/22.0	750	1.2	904 Btuh
	Ceiling Total				750(sqft)		904Btuh
Floors	Type		Ueff.	R-Value	Size	X	HTM= Load
1	Slab On Grade		(1.180)	0.0	110.0 ft(perim.)	47.2	5192 Btuh
	Floor Total				750 sqft		5192 Btuh
					Envelope Subtotal:		11505 Btuh
Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM= Load	
	Natural		0.24	7500	1.00	30.0	1316 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att)					(DLM of 0.088)	1124 Btuh
All Zones	Sensible Subtotal All Zones						13945 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Haskew
SW Custom Made Cir
Lake City, FL

Project Title:
260123 Haskew Pool Houise
Building Type: User

2/14/2026

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	13945 Btuh
	Ventilation Sens. Heat Loss (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Total Heat Loss	13945 Btuh

EQUIPMENT

1. Electric Heat Pump	#	15000 Btuh
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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

Haskew
SW Custom Made Cir
Lake City, FL

Project Title:
260123 Haskew Pool House

2/14/2026

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	E	1.3ft	8.0ft	24.0	0.0	24.0	10	27	646 Btuh	
2	2 NFRC	0.22, 0.30	No	No	E	1.3ft	8.0ft	27.0	0.0	27.0	10	27	727 Btuh	
3	2 NFRC	0.22, 0.30	No	No	S	6.3ft	1.2ft	36.0	36.0	0.0	10	12	372 Btuh	
4	2 NFRC	0.22, 0.30	No	No	S	5.3ft	1.2ft	32.0	32.0	0.0	10	12	330 Btuh	
Excursion													220 Btuh	
Window Total									119 (sqft)					2295 Btuh
Walls	Type	U-Value	R-Value	Area(sqft)		HTM		Load						
						Cav/Sheath								
1	Frame - Wood - Ext	0.09	13.0/0.0	300.0		2.3		679 Btuh						
2	Frame - Wood - Ext	0.09	13.0/0.0	199.0		2.3		450 Btuh						
3	Frame - Wood - Ext	0.09	13.0/0.0	216.0		2.3		489 Btuh						
4	Frame - Wood - Ext	0.09	13.0/0.0	226.0		2.3		512 Btuh						
Wall Total									941 (sqft)			2130 Btuh		
Doors	Type	Area (sqft)		HTM		Load								
1	Insulated - Exterior	16.0		12.0		192 Btuh								
2	Insulated - Exterior	24.0		12.0		288 Btuh								
Door Total									40 (sqft)			480 Btuh		
Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)		HTM		Load						
1	Unvented Attic/DarkShingle	0.241	0.0/22.0	750.0		0.96		723 Btuh						
Ceiling Total									750 (sqft)			723 Btuh		
Floors	Type	R-Value		Size		HTM		Load						
1	Slab On Grade	0.0		750 (ft-perimeter)		0.0		0 Btuh						
Floor Total									750.0 (sqft)			0 Btuh		
Envelope Subtotal:											5628 Btuh			
Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio	CFM=	Load								
	Natural	0.18	7500	1	22.5	469 Btuh								
Internal gain	Occupants	Btuh/occupant	Appliance	Load										
	3	X 230	+ 2400	3090 Btuh										
Sensible Envelope Load:											9187 Btuh			
Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic) (DGM of 0.086)									790 Btuh				
Sensible Load All Zones											9976 Btuh			

Manual J Summer Calculations

Residential Load - Component Details (continued)

Haskew
SW Custom Made Cir
Lake City, FL

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
260123 Haskew Pool House

2/14/2026

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	9187 Btuh
	Sensible Duct Load	790 Btuh
	Total Sensible Zone Loads	9976 Btuh
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Blower	0 Btuh
	Total sensible gain	9976 Btuh
	Latent infiltration gain (for 51 gr. humidity difference)	778 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	439 Btuh
	Latent occupant gain (3.0 people @ 200 Btuh per person)	600 Btuh
	Latent other gain	0 Btuh
	Latent total gain	1817 Btuh
	TOTAL GAIN	11793 Btuh

EQUIPMENT

1. Central Unit	#	15000 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