

Residential System Sizing Calculation

Summary

TBD

Project Title:
Lot 53 Crosswinds

Lake City, FL 32055

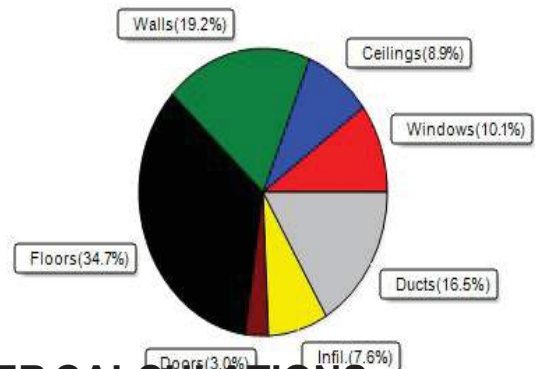
3/16/2025

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 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	23011 Btuh	Total cooling load calculation	20344 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	100.0 23011	Sensible (SHR = 0.75)	98.5 15258
Heat Pump + Auxiliary(0.0kW)	100.0 23011	Latent	104.7 5086
		Total (Electric Heat Pump)	100.0 20344

WINTER CALCULATIONS

Winter Heating Load (for 1600 sqft)

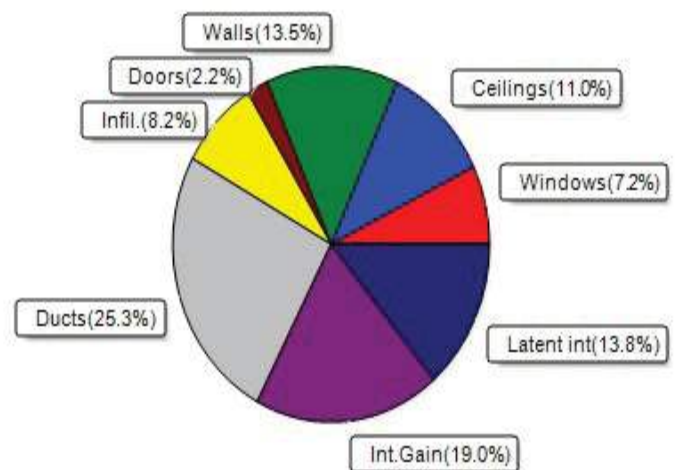
Load component	Load
Window total 145 sqft	2320 Btuh
Wall total 1246 sqft	4422 Btuh
Door total 38 sqft	695 Btuh
Ceiling total 1600 sqft	2038 Btuh
Floor total 1600 sqft	7977 Btuh
Infiltration 40 cfm	1754 Btuh
Duct loss	3805 Btuh
Subtotal	23011 Btuh
Ventilation Ex:0 cfm; Sup:0 cfm	0 Btuh
TOTAL HEAT LOSS	23011 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 1600 sqft)

Load component	Load
Window total 145 sqft	1459 Btuh
Wall total 1246 sqft	2737 Btuh
Door total 38 sqft	443 Btuh
Ceiling total 1600 sqft	2242 Btuh
Floor total	0 Btuh
Infiltration 30 cfm	625 Btuh
Internal gain	3860 Btuh
Duct gain	4120 Btuh
Sens.Ventilation Ex:0 cfm; Sup:0 cfm	0 Btuh
Blower Load	0 Btuh
Total sensible gain	15486 Btuh
Latent gain(ducts)	1021 Btuh
Latent gain(infiltration)	1037 Btuh
Latent gain(ventilation)	0 Btuh
Latent gain(internal/occupants/other)	2800 Btuh
Total latent gain	4858 Btuh
TOTAL HEAT GAIN	20344 Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: *William Freeman*

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