

Residential System Sizing Calculation

Summary

Project Title:
Reeves Residence

Lake City, FL 32025

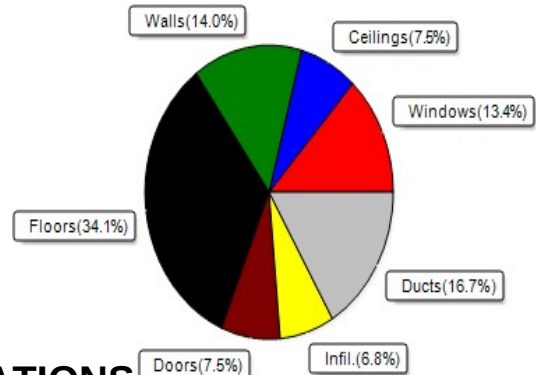
12/1/2022

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	35180 Btuh	Total cooling load calculation	24392 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	100.6 35400	Sensible (SHR = 0.85)	81.5 16839
Heat Pump + Auxiliary(0.0kW)	100.6 35400	Latent	79.8 2972
		Total (Electric Heat Pump)	81.2 19811

WINTER CALCULATIONS

Winter Heating Load (for 2060 sqft)

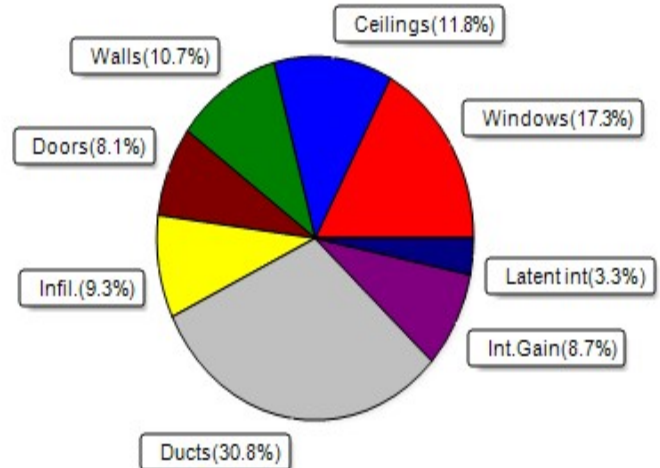
Load component	Load
Window total 215 sqft	4730 Btuh
Wall total 1594 sqft	4927 Btuh
Door total 144 sqft	2650 Btuh
Ceiling total 2060 sqft	2624 Btuh
Floor total 2060 sqft	11989 Btuh
Infiltration 55 cfm	2398 Btuh
Duct loss	5862 Btuh
Subtotal	35180 Btuh
Ventilation Ex:0 cfm; Sup:0 cfm	0 Btuh
TOTAL HEAT LOSS	35180 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 2060 sqft)

Load component	Load
Window total 215 sqft	4215 Btuh
Wall total 1594 sqft	2600 Btuh
Door total 144 sqft	1987 Btuh
Ceiling total 2060 sqft	2887 Btuh
Floor total	0 Btuh
Infiltration 41 cfm	854 Btuh
Internal gain	2120 Btuh
Duct gain	6003 Btuh
Sens.Ventilation Ex:0 cfm; Sup:0 cfm	0 Btuh
Blower Load	0 Btuh
Total sensible gain	20666 Btuh
Latent gain(ducts)	1508 Btuh
Latent gain(infiltration)	1418 Btuh
Latent gain(ventilation)	0 Btuh
Latent gain(internal/occupants/other)	800 Btuh
Total latent gain	3725 Btuh
TOTAL HEAT GAIN	24392 Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: _____