

Residential System Sizing Calculation

Summary

Project Title:
Hannah Residence

Lake City, FL 32055

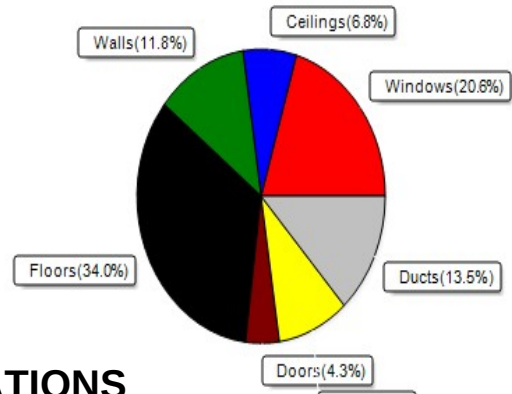
9/29/2021

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	48167 Btuh	Total cooling load calculation	32342 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	100.0 48167	Sensible (SHR = 0.85)	101.0 27490
Heat Pump + Auxiliary(0.0kW)	100.0 48167	Latent	94.8 4851
		Total (Electric Heat Pump)	100.0 32342

WINTER CALCULATIONS

Winter Heating Load (for 2530 sqft)

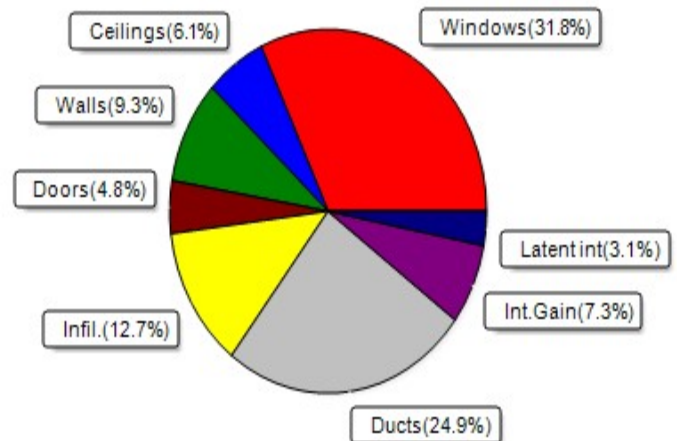
Load component		Load	
Window total	450 sqft	9900	Btuh
Wall total	1844 sqft	5699	Btuh
Door total	112 sqft	2061	Btuh
Ceiling total	2530 sqft	3275	Btuh
Floor total	2530 sqft	16378	Btuh
Infiltration	99 cfm	4341	Btuh
Duct loss		6513	Btuh
Subtotal		48167	Btuh
Ventilation	0 cfm	0	Btuh
TOTAL HEAT LOSS		48167	Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 2530 sqft)

Load component		Load	
Window total	450 sqft	10291	Btuh
Wall total	1844 sqft	3006	Btuh
Door total	112 sqft	1546	Btuh
Ceiling total	2530 sqft	1981	Btuh
Floor total		0	Btuh
Infiltration	74 cfm	1546	Btuh
Internal gain		2350	Btuh
Duct gain		6506	Btuh
Sens. Ventilation	0 cfm	0	Btuh
Blower Load		0	Btuh
Total sensible gain		27227	Btuh
Latent gain(ducts)		1549	Btuh
Latent gain(infiltration)		2566	Btuh
Latent gain(ventilation)		0	Btuh
Latent gain(internal/occupants/other)		1000	Btuh
Total latent gain		5115	Btuh
TOTAL HEAT GAIN		32342	Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: _____