

Residential System Sizing Calculation

Summary

Project Title:
Lawrence Residence

Lake City, FL 32055

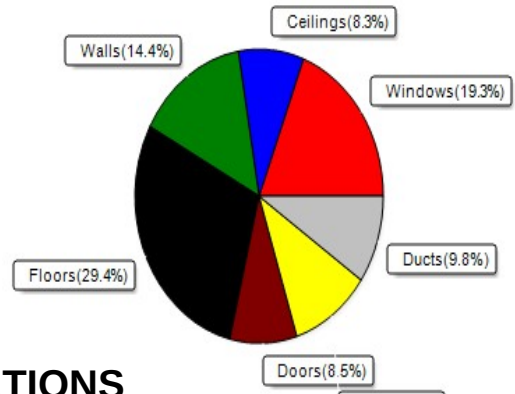
9/22/2021

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	36162 Btuh	Total cooling load calculation	26558 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	100.0 36162	Sensible (SHR = 0.85)	101.4 22574
Heat Pump + Auxiliary(0.0kW)	100.0 36162	Latent	92.8 3984
		Total (Electric Heat Pump)	100.0 26558

WINTER CALCULATIONS

Winter Heating Load (for 2407 sqft)

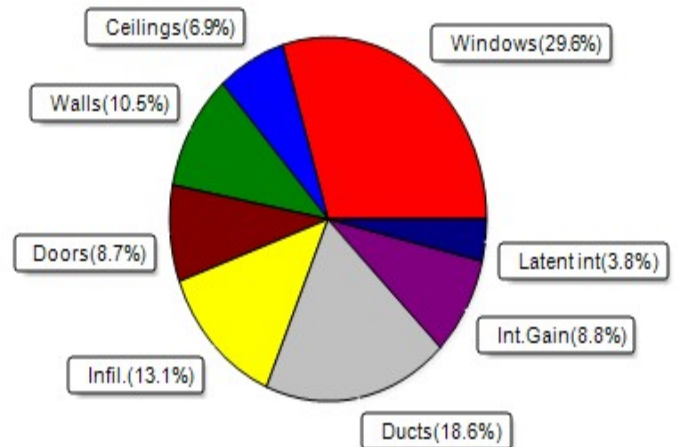
Load component		Load	
Window total	318 sqft	6996	Btuh
Wall total	1684 sqft	5205	Btuh
Door total	168 sqft	3091	Btuh
Ceiling total	2407 sqft	3018	Btuh
Floor total	2407 sqft	10620	Btuh
Infiltration	84 cfm	3673	Btuh
Duct loss		3558	Btuh
Subtotal		36162	Btuh
Ventilation	0 cfm	0	Btuh
TOTAL HEAT LOSS		36162	Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 2407 sqft)

Load component		Load	
Window total	318 sqft	7850	Btuh
Wall total	1684 sqft	2785	Btuh
Door total	168 sqft	2318	Btuh
Ceiling total	2407 sqft	1826	Btuh
Floor total		0	Btuh
Infiltration	63 cfm	1309	Btuh
Internal gain		2350	Btuh
Duct gain		3829	Btuh
Sens. Ventilation	0 cfm	0	Btuh
Blower Load		0	Btuh
Total sensible gain		22267	Btuh
Latent gain(ducts)		1119	Btuh
Latent gain(infiltration)		2171	Btuh
Latent gain(ventilation)		0	Btuh
Latent gain(internal/occupants/other)		1000	Btuh
Total latent gain		4291	Btuh
TOTAL HEAT GAIN		26558	Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: _____