

Residential System Sizing Calculation

Summary

Project Title:
1610 Model

Lake City, FL 32024

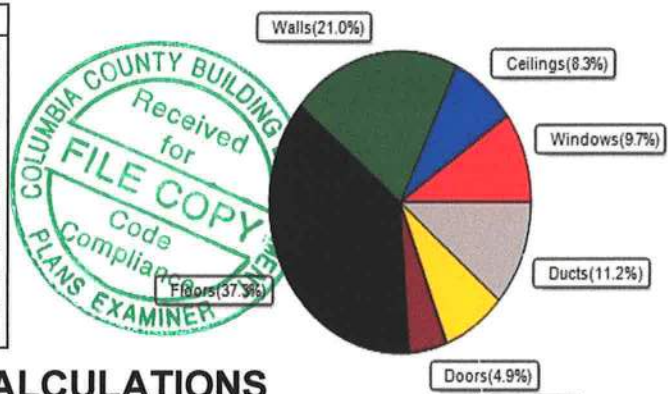
8/30/2019

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	24789 Btuh	Total cooling load calculation	18173 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	121.0 30000	Sensible (SHR = 0.85)	164.7 25500
Heat Pump + Auxiliary(0.0kW)	121.0 30000	Latent	167.3 4500
		Total (Electric Heat Pump)	165.1 30000

WINTER CALCULATIONS

Winter Heating Load (for 1610 sqft)

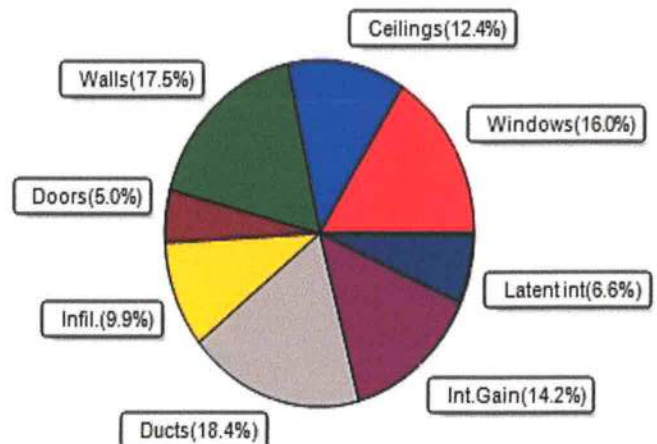
Load component		Load	
Window total	182 sqft	2402 Btuh	
Wall total	1501 sqft	5198 Btuh	
Door total	68 sqft	1203 Btuh	
Ceiling total	1610 sqft	2051 Btuh	
Floor total	1610 sqft	9251 Btuh	
Infiltration	44 cfm	1908 Btuh	
Duct loss		2775 Btuh	
Subtotal		24789 Btuh	
Ventilation	0 cfm	0 Btuh	
TOTAL HEAT LOSS		24789 Btuh	



SUMMER CALCULATIONS

Summer Cooling Load (for 1610 sqft)

Load component		Load	
Window total	182 sqft	2912 Btuh	
Wall total	1501 sqft	3180 Btuh	
Door total	68 sqft	902 Btuh	
Ceiling total	1610 sqft	2256 Btuh	
Floor total		0 Btuh	
Infiltration	33 cfm	680 Btuh	
Internal gain		2580 Btuh	
Duct gain		2973 Btuh	
Sens. Ventilation	0 cfm	0 Btuh	
Blower Load		0 Btuh	
Total sensible gain		15483 Btuh	
Latent gain(ducts)		363 Btuh	
Latent gain(infiltration)		1128 Btuh	
Latent gain(ventilation)		0 Btuh	
Latent gain(internal/occupants/other)		1200 Btuh	
Total latent gain		2690 Btuh	
TOTAL HEAT GAIN		18173 Btuh	



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: _____

3-24-20