

Residential System Sizing Calculation

Summary

NW Evergreen Ponds
Lake City, FL 32025

Project Title:
Green Residence

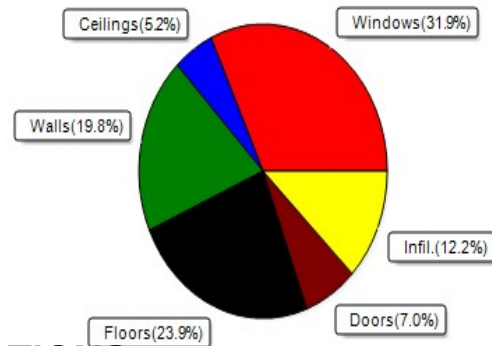
4/19/2022

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	50652 Btuh	Total cooling load calculation	38157 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	100.6 50978	Sensible (SHR = 0.85)	97.1 32701
Heat Pump + Auxiliary(0.0kW)	100.6 50978	Latent	129.3 5771
		Total (Electric Heat Pump)	100.8 38472

WINTER CALCULATIONS

Winter Heating Load (for 3872 sqft)

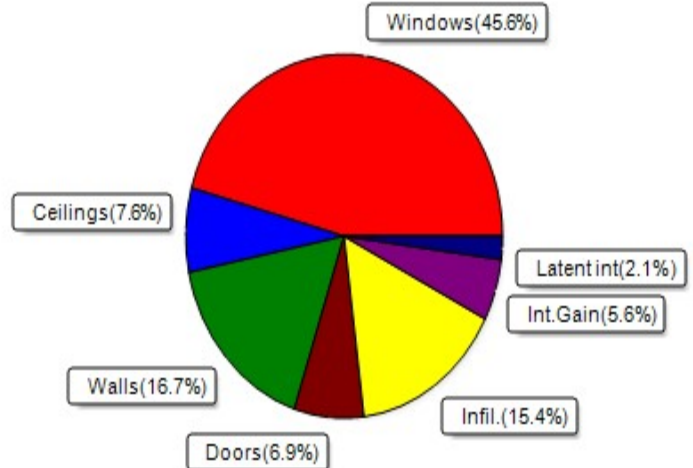
Load component	Load
Window total 734 sqft	16137 Btuh
Wall total 3533 sqft	10021 Btuh
Door total 192 sqft	3533 Btuh
Ceiling total 3872 sqft	2652 Btuh
Floor total See detail report	12130 Btuh
Infiltration 141 cfm	6179 Btuh
Duct loss	0 Btuh
Subtotal	50652 Btuh
Ventilation Ex:250 cfm; Sup:0 cfm	0 Btuh
TOTAL HEAT LOSS	50652 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 3872 sqft)

Load component	Load
Window total 734 sqft	17410 Btuh
Wall total 3533 sqft	6388 Btuh
Door total 192 sqft	2650 Btuh
Ceiling total 3872 sqft	2917 Btuh
Floor total	0 Btuh
Infiltration 106 cfm	2208 Btuh
Internal gain	2120 Btuh
Duct gain	0 Btuh
Sens.Ventilation Ex:250 cfm; Sup:0 cfm	0 Btuh
Blower Load	0 Btuh
Total sensible gain	33693 Btuh
Latent gain(ducts)	0 Btuh
Latent gain(infiltration)	3664 Btuh
Latent gain(ventilation)	0 Btuh
Latent gain(internal/occupants/other)	800 Btuh
Total latent gain	4464 Btuh
TOTAL HEAT GAIN	38157 Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: _____