

Residential System Sizing Calculation

Summary

Project Title:
Ward Residence

Lake City, FL 32025

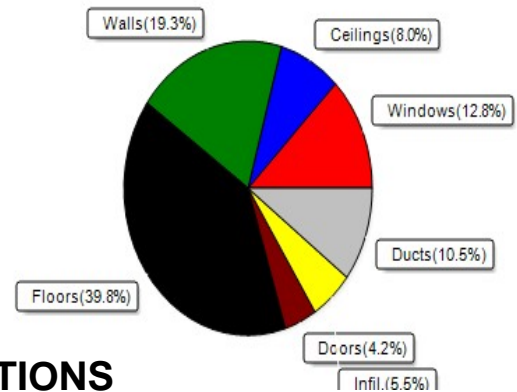
5/24/2022

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	35327	Btuh	Total cooling load calculation	19668	Btuh
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	100.2	35400	Sensible (SHR = 0.85)	104.2	16839
Heat Pump + Auxiliary(0.0kW)	100.2	35400	Latent	84.5	2972
			Total (Electric Heat Pump)	100.7	19811

WINTER CALCULATIONS

Winter Heating Load (for 2068 sqft)

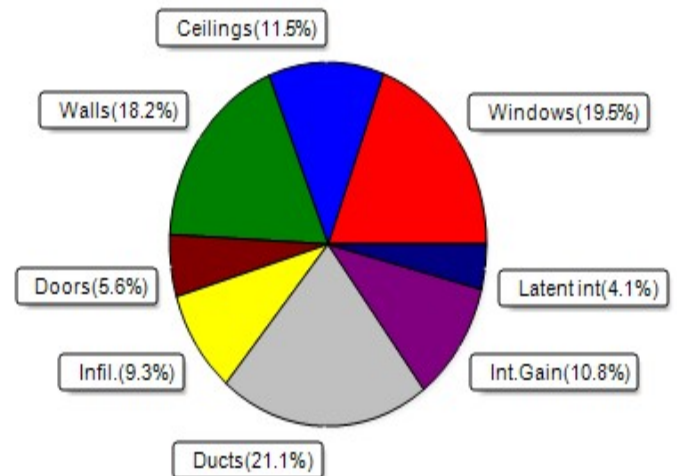
Load component	Load	
Window total	205 sqft	4510 Btuh
Wall total	2201 sqft	6802 Btuh
Door total	80 sqft	1472 Btuh
Ceiling total	2068 sqft	2833 Btuh
Floor total	2068 sqft	14066 Btuh
Infiltration	44 cfm	1926 Btuh
Duct loss		3719 Btuh
Subtotal		35327 Btuh
Ventilation	Ex:0 cfm; Sup:0 cfm	0 Btuh
TOTAL HEAT LOSS		35327 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 2068 sqft)

Load component	Load	
Window total	205 sqft	3826 Btuh
Wall total	2201 sqft	3572 Btuh
Door total	80 sqft	1104 Btuh
Ceiling total	2068 sqft	2266 Btuh
Floor total	0	0 Btuh
Infiltration	33 cfm	686 Btuh
Internal gain		2120 Btuh
Duct gain		2579 Btuh
Sens.Ventilation	Ex:0 cfm; Sup:0 cfm	0 Btuh
Blower Load		0 Btuh
Total sensible gain		16153 Btuh
Latent gain(ducts)		1577 Btuh
Latent gain(infiltration)		1139 Btuh
Latent gain(ventilation)		0 Btuh
Latent gain(internal/occupants/other)		800 Btuh
Total latent gain		3516 Btuh
TOTAL HEAT GAIN		19668 Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: _____