

Residential System Sizing Calculation

Summary

Project Title:
Linda Residence

Lake City, FL 32025

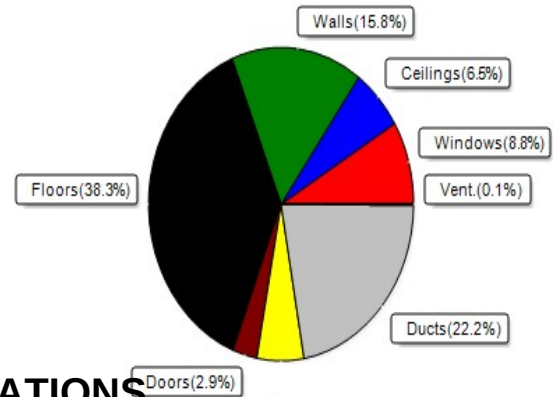
5/18/2022

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	26364 Btuh	Total cooling load calculation	20987 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	100.0 26358	Sensible (SHR = 0.85)	101.6 17808
Heat Pump + Auxiliary(0.0kW)	100.0 26358	Latent	91.0 3143
		Total (Electric Heat Pump)	99.8 20951

WINTER CALCULATIONS

Winter Heating Load (for 1336 sqft)

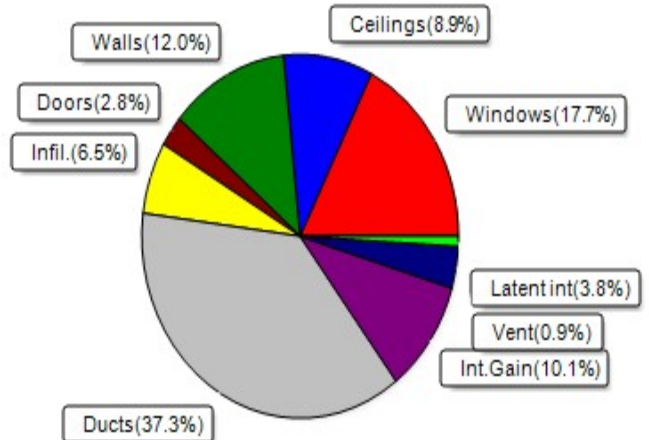
Load component	Load
Window total 105 sqft	2310 Btuh
Wall total 1170 sqft	4154 Btuh
Door total 42 sqft	773 Btuh
Ceiling total 1336 sqft	1702 Btuh
Floor total 1336 sqft	10101 Btuh
Infiltration 33 cfm	1442 Btuh
Duct loss	5850 Btuh
Subtotal	26332 Btuh
Ventilation Ex:50 cfm; Sup:5 cfm	33 Btuh
TOTAL HEAT LOSS	26364 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 1336 sqft)

Load component	Load
Window total 105 sqft	3720 Btuh
Wall total 1170 sqft	2521 Btuh
Door total 42 sqft	580 Btuh
Ceiling total 1336 sqft	1872 Btuh
Floor total	0 Btuh
Infiltration 25 cfm	514 Btuh
Internal gain	2120 Btuh
Duct gain	6192 Btuh
Sens.Ventilation Ex:50 cfm; Sup:5 cfm	16 Btuh
Blower Load	0 Btuh
Total sensible gain	17534 Btuh
Latent gain(ducts)	1628 Btuh
Latent gain(infiltration)	852 Btuh
Latent gain(ventilation)	173 Btuh
Latent gain(internal/occupants/other)	800 Btuh
Total latent gain	3453 Btuh
TOTAL HEAT GAIN	20987 Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: _____