

Residential System Sizing Calculation

Summary

SG BUILD COMPANY
155 NW MEADOW LARK DR.
LAKE CITY, FL 32055

Project Title:
LINCOLN MODEL HOME

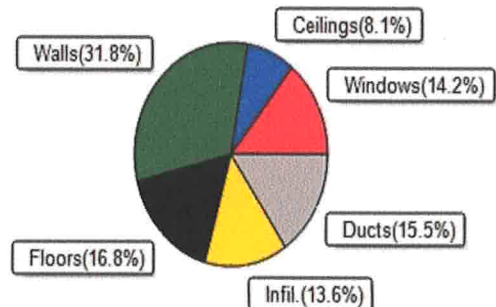
6/19/2020

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(H)					
Humidity data: Interior RH (50%) Outdoor wet bulb (78F) Humidity difference(47gr.)					
Winter design temperature(MJ8 99%)	33	F	Summer design temperature(MJ8 99%)	99	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	37	F	Summer temperature difference	24	F
Total heating load calculation	24839	Btuh	Total cooling load calculation	28266	Btuh
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	144.9	36000	Sensible (SHR = 0.75)	109.9	27000
Heat Pump + Auxiliary(0.0kW)	144.9	36000	Latent	243.7	9000
			Total (Electric Heat Pump)	127.4	36000

WINTER CALCULATIONS

Winter Heating Load (for 1709 sqft)

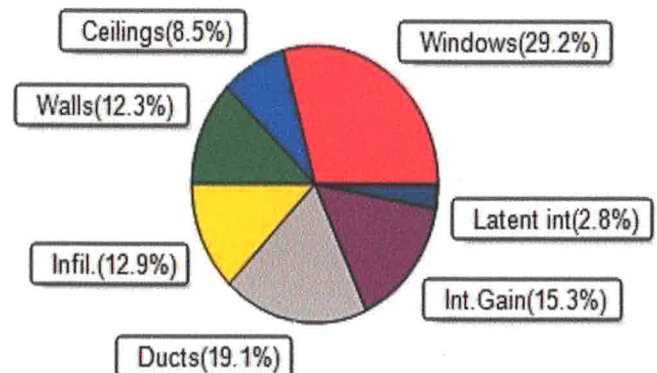
Load component		Load	
Window total	195 sqft	3531	Btuh
Wall total	1806 sqft	7898	Btuh
Door total	36 sqft	0	Btuh
Ceiling total	1709 sqft	2014	Btuh
Floor total	1709 sqft	4172	Btuh
Infiltration	83 cfm	3378	Btuh
Duct loss		3847	Btuh
Subtotal		24839	Btuh
Ventilation	0 cfm	0	Btuh
TOTAL HEAT LOSS		24839	Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 1709 sqft)

Load component		Load	
Window total	195 sqft	8259	Btuh
Wall total	1806 sqft	3471	Btuh
Door total	36 sqft	0	Btuh
Ceiling total	1709 sqft	2395	Btuh
Floor total		0	Btuh
Infiltration	63 cfm	1643	Btuh
Internal gain		4320	Btuh
Duct gain		4486	Btuh
Sens. Ventilation	0 cfm	0	Btuh
Blower Load		0	Btuh
Total sensible gain		24573	Btuh
Latent gain(ducts)		904	Btuh
Latent gain(infiltration)		1989	Btuh
Latent gain(ventilation)		0	Btuh
Latent gain(internal/occupants/other)		800	Btuh
Total latent gain		3693	Btuh
TOTAL HEAT GAIN		28266	Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY:

DATE: 6/19/2020