

Residential System Sizing Calculation

Summary

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

Project Title:
LINCOLN MODEL HOME

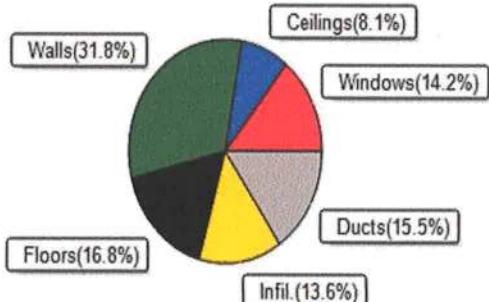
6/19/2020

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)

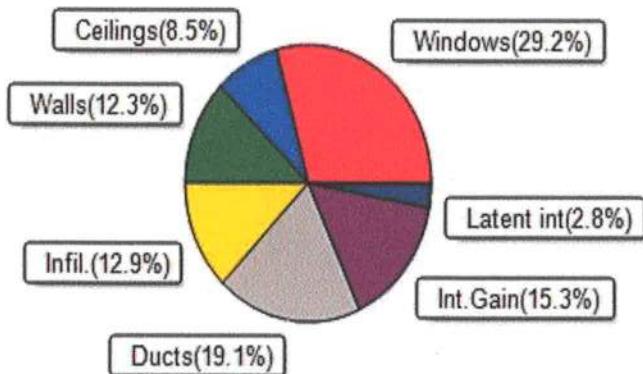
Load component	Load		
Window total	195	sqft	3531 Btuh
Wall total	1806	sqft	7898 Btuh
Door total	36	sqft	0 Btuh
Ceiling total	1709	sqft	2014 Btuh
Floor total	1709	sqft	4172 Btuh
Infiltration	83	cfm	3378 Btuh
Duct loss			3847 Btuh
Subtotal			24839 Btuh
Ventilation	0	cfm	0 Btuh
TOTAL HEAT LOSS			24839 Btuh



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