

Residential System Sizing Calculation

Summary

TBD
SW
Lake City, FL 32055

Project Title:
Lot 29 Crosswinds

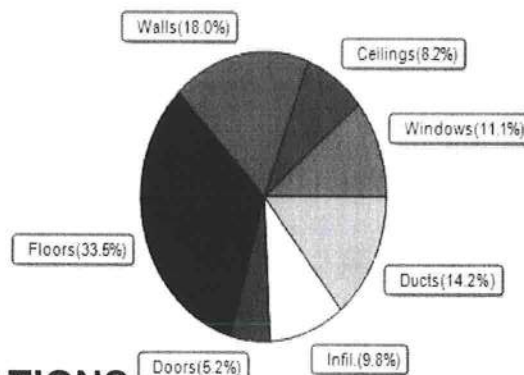
8/6/2022

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	25666 Btuh	Total cooling load calculation	16460 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	100.0 25666	Sensible (SHR = 0.75)	88.8 12345
Heat Pump + Auxiliary(0.0kW)	100.0 25666	Latent	160.5 4115
		Total (Electric Heat Pump)	100.0 16460

WINTER CALCULATIONS

Winter Heating Load (for 1660 sqft)

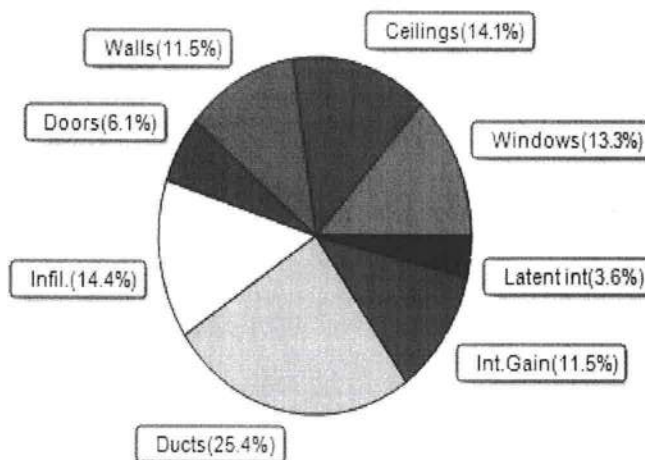
Load component		Load	
Window total	131 sqft	2846	Btuh
Wall total	1430 sqft	4620	Btuh
Door total	78 sqft	1335	Btuh
Ceiling total	1660 sqft	2115	Btuh
Floor total	1660 sqft	8590	Btuh
Infiltration	57 cfm	2508	Btuh
Duct loss		3652	Btuh
Subtotal		25666	Btuh
Ventilation	0 cfm	0	Btuh
TOTAL HEAT LOSS		25666	Btuh



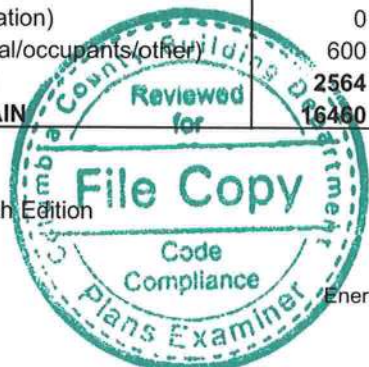
SUMMER CALCULATIONS

Summer Cooling Load (for 1660 sqft)

Load component		Load	
Window total	131 sqft	2188	Btuh
Wall total	1430 sqft	1891	Btuh
Door total	78 sqft	1001	Btuh
Ceiling total	1660 sqft	2326	Btuh
Floor total		0	Btuh
Infiltration	43 cfm	894	Btuh
Internal gain		1890	Btuh
Duct gain		3706	Btuh
Sens. Ventilation	0 cfm	0	Btuh
Blower Load		0	Btuh
Total sensible gain		13896	Btuh
Latent gain(ducts)		481	Btuh
Latent gain(infiltration)		1483	Btuh
Latent gain(ventilation)		0	Btuh
Latent gain(internal/occupants/other)		600	Btuh
Total latent gain		2564	Btuh
TOTAL HEAT GAIN		16460	Btuh



8th Edition



EnergyGauge® System Sizing

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