

Residential System Sizing Calculation

Summary

Project Title:
Terrell Residence

Lake City, FL 32055

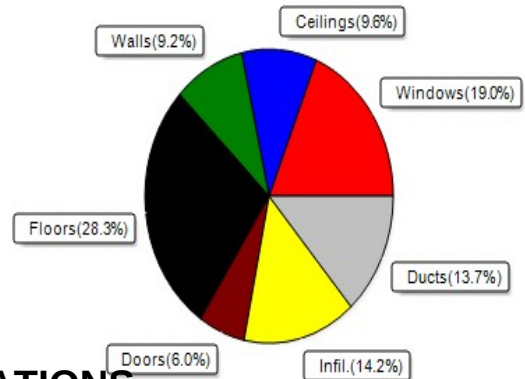
9/23/2020

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	46555 Btuh	Total cooling load calculation	36479 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	100.0 46555	Sensible (SHR = 0.85)	103.3 31007
Heat Pump + Auxiliary(0.0kW)	100.0 46555	Latent	84.6 5472
		Total (Electric Heat Pump)	100.0 36479

WINTER CALCULATIONS

Winter Heating Load (for 3445 sqft)

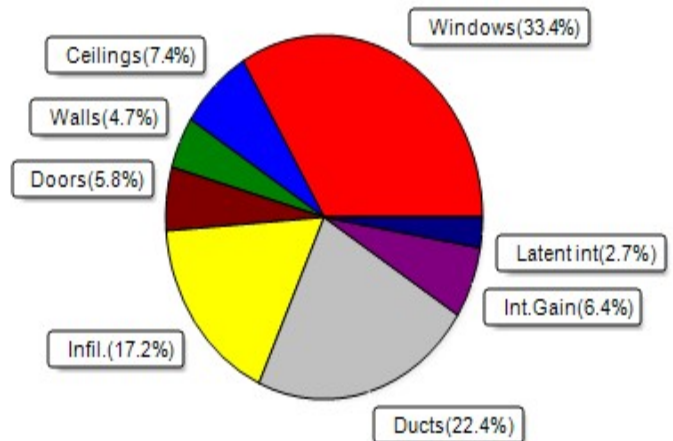
Load component		Load	
Window total	402 sqft	8844	Btuh
Wall total	2181 sqft	4282	Btuh
Door total	152 sqft	2797	Btuh
Ceiling total	3445 sqft	4460	Btuh
Floor total	3445 sqft	13169	Btuh
Infiltration	151 cfm	6609	Btuh
Duct loss		6395	Btuh
Subtotal		46555	Btuh
Ventilation	0 cfm	0	Btuh
TOTAL HEAT LOSS		46555	Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 3445 sqft)

Load component		Load	
Window total	402 sqft	12187	Btuh
Wall total	2181 sqft	1703	Btuh
Door total	152 sqft	2098	Btuh
Ceiling total	3445 sqft	2698	Btuh
Floor total		0	Btuh
Infiltration	113 cfm	2354	Btuh
Internal gain		2350	Btuh
Duct gain		6624	Btuh
Sens. Ventilation	0 cfm	0	Btuh
Blower Load		0	Btuh
Total sensible gain		30014	Btuh
Latent gain(ducts)		1559	Btuh
Latent gain(infiltration)		3907	Btuh
Latent gain(ventilation)		0	Btuh
Latent gain(internal/occupants/other)		1000	Btuh
Total latent gain		6465	Btuh
TOTAL HEAT GAIN		36479	Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: _____