

Residential System Sizing Calculation

Summary

1450 Tommy Lites Rd
Fort White, FL 32025

Project Title:
Davis residence

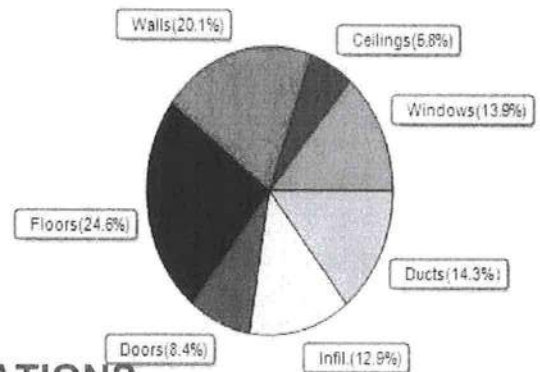


Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(Min-Max)			
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)			
Winter design temperature(TMY3 99%)	30 F	Summer design temperature(TMY3 99%)	94 F
Winter setpoint	70 F	Summer setpoint	75 F
Winter temperature difference	40 F	Summer temperature difference	19 F
Total heating load calculation	53726 Btuh	Total cooling load calculation	41256 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	47.7 25611	Sensible (SHR = 0.75)	40.5 12566
Heat Pump + Auxiliary(0.0kW)	47.7 25611	Latent	40.9 4189
		Total (Electric Heat Pump)	40.6 16754

WINTER CALCULATIONS

Winter Heating Load (for 3214 sqft)

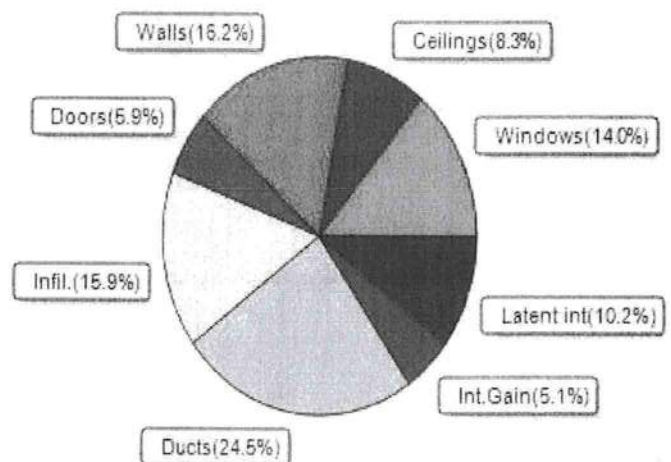
Load component		Load	
Window total	339 sqft	7464	Btuh
Wall total	3041 sqft	10798	Btuh
Door total	246 sqft	4522	Btuh
Ceiling total	2434 sqft	3101	Btuh
Floor total	See detail report	13216	Btuh
Infiltration	158 cfm	6927	Btuh
Duct loss		7699	Btuh
Subtotal		53726	Btuh
Ventilation	0 cfm	0	Btuh
TOTAL HEAT LOSS		53726	Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 3214 sqft)

Load component		Load	
Window total	339 sqft	5757	Btuh
Wall total	3041 sqft	6675	Btuh
Door total	246 sqft	2433	Btuh
Ceiling total	2434 sqft	3411	Btuh
Floor total		0	Btuh
Infiltration	119 cfm	2468	Btuh
Internal gain		2120	Btuh
Duct gain		8153	Btuh
Sens. Ventilation	0 cfm	0	Btuh
Blower Load		0	Btuh
Total sensible gain		31018	Btuh
Latent gain(ducts)		1944	Btuh
Latent gain(infiltration)		4095	Btuh
Latent gain(ventilation)		0	Btuh
Latent gain(internal/occupants/other)		4200	Btuh
Total latent gain		10239	Btuh
TOTAL HEAT GAIN		41256	Btuh



8th Edition

EnergyGauge® System Sizing
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