



Project Summary Entire House

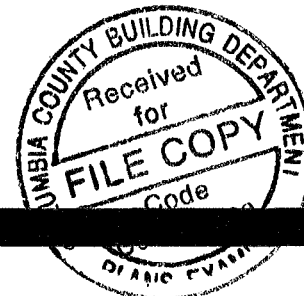
Job: J-12432 - C-1309
Date: Apr 02, 2026
By: David Marrs

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Project Information

For: FORREST ROSSBOROUGH
Columbia County, FL

Notes



Design Information

Weather Gainesville, FL, US

Winter Design Conditions

Outside db 33 °F
Inside db 70 °F
Design TD 37 °F

Ventilation Method MJ8

Heating Summary

Structure 17306 Btuh
Ducts (R-6.0) 1873 Btuh
Central vent (0 cfm) 0 Btuh

Humidification 0 Btuh
Piping 0 Btuh
Equipment load 19180 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 0

	Heating	Cooling
Area (ft ²)	1248	1248
Volume (ft ³)	11606	11606
Air changes/hour	0.45	0.23
Equiv. AVF (cfm)	87	44

Heating Equipment Summary

Make RHEEM
Trade
Model RP14AY24AJ2N
AHRI ref 214568762

Efficiency 9 HSPF2
Heating input
Heating output 22600 Btuh @ 47°F
Temperature rise 26 °F
Actual air flow 800 cfm
Air flow factor 0.042 cfm/Btuh
Static pressure 0.53 in H2O
Space thermostat
Capacity balance point = 0 °F

Backup.
Input = 8 kW, Output = 27777 Btuh, 100 AFUE

Summer Design Conditions

Outside db 92 °F
Inside db 75 °F
Design TD 17 °F
Daily range M
Relative humidity 50 %
Moisture difference 43 gr/lb

Sensible Cooling Equipment Load Sizing

Structure 15973 Btuh
Ducts (R-6.0) 2280 Btuh
Central vent (0 cfm) 0 Btuh

Blower 0 Btuh

Use manufacturer's data n
Rate/swing multiplier 0.97
Equipment sensible load 17778 Btuh

Latent Cooling Equipment Load Sizing

Structure 1909 Btuh
Ducts 414 Btuh
Central vent (0 cfm) 0 Btuh

Equipment latent load 2324 Btuh

Equipment Total Load (Sen+Lat) 20102 Btuh
Req total capacity at 0.70 SHR 2.1 ton

Cooling Equipment Summary

Make RHEEM
Trade
Cond RP14AY24AJ2N
Coil RH2TY2417STANN
AHRI ref 214568762

Efficiency 14.3 SEER2
Sensible cooling 15960 Btuh
Latent cooling 6840 Btuh
Total cooling 22800 Btuh
Actual air flow 800 cfm
Air flow factor 0.044 cfm/Btuh
Static pressure 0.53 in H2O
Load sensible heat ratio 0.89

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed



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Manual S Compliance Report Entire House

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For: FORREST ROSSBOROUGH
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Cooling Equipment

Design Conditions

Outdoor design DB	92.4°F	Sensible gain	18253	Btuh	Entering coil DB	75.8°F
Outdoor design WB:	75.8°F	Latent gain	2324	Btuh	Entering coil WB:	62.9°F
Indoor design DB:	75.0°F	Total gain	20577	Btuh		
Indoor RH	50%	Estimated airflow	800	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type	Split ASHP			
Manufacturer:	RHEEM	Model:	RP14AY24AJ2N+RH2TY2417STANN	
Actual airflow:	800	cfm		
Sensible capacity:	15960	Btuh	87% of load	
Latent capacity	6840	Btuh	294% of load	
Total capacity:	22800	Btuh	111% of load	SHR: 70%

Heating Equipment

Design Conditions

Outdoor design DB:	33.3°F	Heat loss:	19180	Btuh	Entering coil DB:	69.6°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP			
Manufacturer:	RHEEM	Model:	RP14AY24AJ2N+RH2TY2417STANN	
Actual airflow:	800	cfm		
Output capacity:	22600	Btuh	118% of load	Capacity balance: 0 °F
Supplemental heat required	0	Btuh		Economic balance: 0 °F

Backup equipment type	Elec strip			
Manufacturer:		Model:		
Actual airflow:	800	cfm		
Output capacity	8.1	kW	145% of load	Temp. rise: 0 °F

Meets all requirements of ACCA Manual S



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