

## Project Information

For: Rowland  
Columbia County

## Cooling Equipment

### Design Conditions

Outdoor design DB: 92.00F	Sensible gain: 24960 Btuh	Entering coil DB: 76.90F
Outdoor design WB: 76.30F	Latent gain: 3018 Btuh	Entering coil WB: 63.40F
Indoor design DB: 75.00F	Total gain: 27978 Btuh	
Indoor RH:	Estimated airflow: 953 cfm	

### Manufacturer's Performance Data at Actual Design Conditions

Equipment type: split ASI-IP

Manufacturer: Trane Model: 4TWR6030H1+TEM6AOB30H21++TDR  
Actual airflow: 953 cfm

Sensible capacity: 24403 Btuh 98% of load  
Latent capacity: 3941 Btuh 131% of load  
Total capacity: 28344 Btuh 101% of load SHR: 8 6%



## Heating Equipment

### Design Conditions

Outdoor design DB: 33.4°F	Heat loss: 26647 Btuh	Entering coil DB: 69.10F
Indoor design DB: 70.00F		

### Manufacturer's Performance Data at Actual Design Conditions

Equipment type: split ASHP

Manufacturer: Trane Model: 4TWR6030H1+TEM6AOB30H21++TDR

Actual airflow: 953 cfm

Output capacity: 21907 Btuh 82% of load

Supplemental heat required: 4740 Btuh

Capacity balance: 32

Economic balance: .

Backup equipment type: Elec strip  
Manufacturer: cfm

Model:

Actual airflow: 953

Output capacity: 7.9 kW 102% of load Temp. rise: 50. F

Meets all requirements of ACCA Manual S.

wrightsoft

# Project Summary

Entire House

Job: Rowland  
Date: Dec 21, 2020  
By: DJM

## Pro-ect Information

For: Rowland  
Columbia County

Notes:

## Desi n Information

Weather: Gainesville Regional AP, FL, US

### Winter Design Conditions

Outside db 33 Outside db 92 °F OF Inside db 70 Inside db 75 OF  
Design °F TD37 Design TD

### Summer Design Conditions

17 OF

Daily range  
Relative humidity 50 0/0  
Moisture difference 47 gr/lb

### Heating Summary

Structure 23606 Btuh  
Ducts 3041 Btuh  
Central vent (0 0 Btuh  
cfm)  
(none)  
Humidification 0 Btuh  
Piping 0 Btuh  
Equipment load 26647 Btuh

### Sensible Cooling Equipment Load Sizing

Structure 20819 Btuh  
Ducts 4141 Btuh  
Central vent (0 cfm) 0 Btuh  
(none)  
Blower 0 Btuh

### Infiltration

Method Simplified  
Construction quality Avera e  
Fireplaces

	Heatin	Coolin
kea (ft²)	15759	15759
Volume (ft³)	14175	14175

Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	90	47

### Heating Equipment Summary

Make Trane

Use manufacturer's data n  
Rate/swing multiplier 0.97  
Equipment sensible load 24211 Btuh

### Latent Cooling Equipment Load Sizing

Structure 2114 Btuh  
Ducts 903 Btuh  
Central vent (0 cfm) o Btuh  
(none)  
Equipment latent load 3018 Btuh

Equipment Total Load (Sen+Lat) 27229 Btuh  
Req. total capacity at 0.80 SHR 2.5 ton

### Cooling Equipment Summary


Make Trane

Trade TRANE  
Model 4TWR6030H1  
AI-IRI ref 7562380

Efficiency 9 HSPF  
Heating input  
Heating output 27800 Btuh @ 47°F  
Temperature rise 27 ° F  
Actual air flow 953 cfm  
Air flow factor 0.036 cfm/Btuh  
Static pressure 0.53 in H2O  
Space thermostat  
Capacity balance point = 32 ° F  
Backup:  
Input = 8 kW, Output = 27081 Btuh, 100 AFUE

Trade TRANE  
Cond 4TWR6030H1  
Coil TEM6AOB30H21 ++TDR  
AI-IRI ref 7562380  
Efficiency 13.0 EER, 16 SEER  
Sensible cooling 22880 Btuh  
Latent cooling 5720 Btuh  
Total cooling 28600 Btuh  
Actual air flow 953 cfm  
Air flow factor 0.038 cfm/Btuh  
Static pressure 0.53 in 1-120  
Load sensible heat ratio 0.89

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

 Right-Suite® Universal 2019 19.0.20 RSUI11033  
Right-Suite® Universal 2019 19.0.20 RSUI1033  
... J4065\Rowland Residence - C-1309 - J-4065.rup Calc = MJ8 Front Door faces: W

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This combination qualifies for a Federal Energy Efficiency Tax Credit when placed in service between 1/1/2015 and 12/31/2020.

# Certificate of Product Ratings

AHRI Certified Reference Number : 7562380

Date : 12-22-2020

Model Status : Active

AHRI Type : HRCU-A-CB (Split System: Heat Pump with Remote Outdoor Unit-Air-Source)

Series : XR16

Outdoor Unit Brand Name : TRANE

Outdoor Unit Model Number (Condenser or Single Package) : 4TWR6030H1

Indoor Unit Model Number (Evaporator and/or Air Handler) : TEM6AOB30H21 +TDR

The manufacturer of this TRANE product is responsible for the rating of this system combination.

Rated as follows in accordance with the latest edition of AI-IRI 210/240 with Addendum 1, Performance Rating of Unitary Air-Conditioning & Air-Source Heat Pump Equipment and subject to rating accuracy by AHRI-sponsored, independent, third party testing:

Cooling Capacity (A2) - Single or High Stage (95F), btuh : 28600

SEER : 16.00

EER (A2) - Single or High stage (95F) : 13.00

Heating Capacity (H12) - Single or High Stage (47F) : 27800

HSPF (Region IV) : 9.00

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~~Ratings that are accompanied by WAS indicate an involuntary re-rate. The new published rating is shown along with the previous (i.e. WAS) rating.~~

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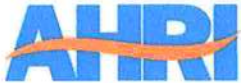
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