

### Project Information

For: Tompkins Addition  
 257 SW Hudson In, Lake City, FL 32025

Notes:

### Design Information

Weather: Gainesville Regional, FL, US

#### Winter Design Conditions

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

#### Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	44 gr/lb

#### Heating Summary

Structure	20007 Btuh
Ducts	3660 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	23666 Btuh

#### Sensible Cooling Equipment Load Sizing

Structure	22364 Btuh
Ducts	5075 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	27439 Btuh

#### Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

#### Latent Cooling Equipment Load Sizing

Structure	2356 Btuh
Ducts	1045 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Equipment latent load	3400 Btuh

	Heating	Cooling
Area (ft²)	1491	1491
Volume (ft³)	11928	11928
Air changes/hour	0.45	0.23
Equiv. AVF (cfm)	89	46

<b>Equipment Total Load (Sen+Lat)</b>	30840 Btuh
Req. total capacity at 0.80 SHR	2.9 ton

#### Heating Equipment Summary

Make	Trane
Trade	TRANE
Model	4TWR6036H1
AHRI ref	7562981
Efficiency	9 HSPF
Heating input	
Heating output	33000 Btuh @ 47°F
Temperature rise	26 °F
Actual air flow	1160 cfm
Air flow factor	0.049 cfm/Btuh
Static pressure	0.53 in H2O
Space thermostat	
Capacity balance point = 25 °F	
Backup:	
Input = 7 kW, Output = 23168 Btuh, 100 AFUE	

#### Cooling Equipment Summary

Make	Trane
Trade	TRANE
Cond	4TWR6036H1
Coil	TEM6A0C36H31++TDR
AHRI ref	7562981
Efficiency	13.0 EER, 16 SEER
Sensible cooling	27840 Btuh
Latent cooling	6960 Btuh
Total cooling	34800 Btuh
Actual air flow	1160 cfm
Air flow factor	0.042 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.

## Project Information

For: Tompkins Addition  
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## Cooling Equipment

### Design Conditions

Outdoor design DB:	92.2°F	Sensible gain:	27439	Btuh	Entering coil DB:	77.0°F
Outdoor design WB:	75.8°F	Latent gain:	3400	Btuh	Entering coil WB:	63.5°F
Indoor design DB:	75.0°F	Total gain:	30840	Btuh		
Indoor RH:	50%	Estimated airflow:	1160	cfm		

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

Equipment type:	Split ASHP		
Manufacturer:	Trane	Model:	4TWR6036H1+TEM6A0C36H31++TDR
Actual airflow:	1160	cfm	
Sensible capacity:	27840	Btuh	101% of load
Latent capacity:	6960	Btuh	205% of load
Total capacity:	34800	Btuh	113% of load SHR: 80%

## Heating Equipment

### Design Conditions

Outdoor design DB:	33.2°F	Heat loss:	23666	Btuh	Entering coil DB:	69.0°F
Indoor design DB:	70.0°F					

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

Equipment type:	Split ASHP		
Manufacturer:	Trane	Model:	4TWR6036H1+TEM6A0C36H31++TDR
Actual airflow:	1160	cfm	
Output capacity:	33000	Btuh	139% of load
Supplemental heat required:	0	Btuh	
			Capacity balance: 25 °F
			Economic balance: -99 °F

Backup equipment type:	Elec strip		
Manufacturer:		Model:	
Actual airflow:	1160	cfm	
Output capacity:	6.8	kW	98% of load Temp. rise: 50 °F

Meets all requirements of ACCA Manual S.