wrightsoft®

Project Summary
Entire House

Job: J-9735 - C-1309
Date: May 02, 2023
By: LaTisha Furmon

Project Information

For: PARRISH RESIDENCE
157 SE SHADY WAY, LULU, FL

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	15855	Btuh
Ducts	4344	Btuh
Central vent (0 cfm) (none)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	20199	Btuh

Sensible Cooling Equipment Load Sizing

Structure	21159	Btuh
Ducts	6455	Btuh
Central vent (0 cfm) (none)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	26841	Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft²)	1814	1814
Volume (ft³)	14550	14550
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	92	49

Latent Cooling Equipment Load Sizing

Structure	2438	Btuh
Ducts	1350	Btuh
Central vent (0 cfm) (none)	0	Btuh
Equipment latent load	3788	Btuh
Equipment Total Load (Sen+Lat)	30629	Btuh
Req. total capacity at 0.80 SHR	2.8	ton

Heating Equipment Summary

Make	Trane
Trade	TRANE
Model	4TWR4036N1
AHRI ref	209842226

Efficiency	7.5 HSPF2	
Heating input		
Heating output	32600	Btuh @ 47°F
Temperature rise	26	°F
Actual air flow	1153	cfm
Air flow factor	0.057	cfm/Btuh
Static pressure	0.53	in H2O

Space thermostat
Capacity balance point = 20 °F

Backup:
Input = 7 kW, Output = 23269 Btuh, 100 AFUE

Cooling Equipment Summary

Make	Trane
Trade	TRANE
Cond	4TWR4036N1
Coil	TEM4B0C37M31++TDR
AHRI ref	209842226

Efficiency	11.7 EER2,14.3 SEER2	
Sensible cooling	27680	Btuh
Latent cooling	6920	Btuh
Total cooling	34600	Btuh
Actual air flow	1153	cfm
Air flow factor	0.042	cfm/Btuh
Static pressure	0.53	in H2O
Load sensible heat ratio	0.88	

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

Manual S Compliance Report
Entire House

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Cooling Equipment

Design Conditions

Outdoor design DB:	92.2°F	Sensible gain:	27614	Btuh	Entering coil DB:	77.9°F
Outdoor design WB:	75.8°F	Latent gain:	3788	Btuh	Entering coil WB:	63.9°F
Indoor design DB:	75.0°F	Total gain:	31402	Btuh		
Indoor RH:	50%	Estimated airflow:	1153	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP				
Manufacturer:	Trane		Model:	4TWR4036N1+TEM4B0C37M31++TDR	
Actual airflow:	1153	cfm			
Sensible capacity:	27680	Btuh	100% of load		
Latent capacity:	6920	Btuh	183% of load		
Total capacity:	34600	Btuh	110% of load	SHR:	80%

Heating Equipment

Design Conditions

Outdoor design DB:	33.2°F	Heat loss:	20199	Btuh	Entering coil DB:	68.6°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP						
Manufacturer:	Trane			Model:	4TWR4036N1+TEM4B0C37M31++TDR		
Actual airflow:	1153	cfm					
Output capacity:	32600	Btuh	161% of load			Capacity balance:	20 °F
Supplemental heat required:		0	Btuh			Economic balance:	-99 °F

Backup equipment type:		Elec strip					
Manufacturer:				Model:			
Actual airflow:	1153	cfm					
Output capacity:	6.8	kW	115% of load		Temp. rise:	50	°F

Meets all requirements of ACCA Manual S.