



Project Summary Entire House E-Calcs Plus, Inc



Job: Alpine A - LH - 137 SW R...
Date: Oct 09, 2024
By: E-Calcs Plus, Inc

Serving all of Florida Phone: 833.322.5271 Email: eric@ecalcsplus.com Web: www.ecalcsplus.com License: HERS Rater ID# 0757810

Project Information

For: Alpine A - LH - 137 SW Roundtable Ct, Happy Home Construction
137 SW Roundtable Ct, Lake City, FL 32025

Notes:

Design Information

Weather: Jacksonville, FL, US

Winter Design Conditions

Outside db	32 °F
Inside db	70 °F
Design TD	38 °F

Ventilation Method ASHRAE 62.2-2010

Heating Summary

Structure	22883 Btuh
Ducts (R-6.0)	3963 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	26846 Btuh

Infiltration

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

	Heating	Cooling
Area (ft²)	1557	1557
Volume (ft³)	15089	15089
Air changes/hour	0.26	0.14
Equiv. AVF (cfm)	65	35

Heating Equipment Summary

Make	Carrier
Trade	15 SEER2 HP
Model	GH5SAN43600AA0
AHRI ref	210998688

Efficiency	7.5 HSPF2
Heating input	34000 Btuh @ 47°F
Heating output	0 °F
Temperature rise	0 cfm
Actual air flow	0 cfm/Btuh
Air flow factor	0.50 in H2O
Static pressure	
Space thermostat	
Capacity balance point = 27 °F	

Backup: Carrier AFAEHL08N
Input = 8 kW, Output = 27297 Btuh, 100 AFUE

Summer Design Conditions

Outside db	93 °F
Inside db	75 °F
Design TD	18 °F
Daily range	M
Relative humidity	50 %
Moisture difference	52 gr/lb

Sensible Cooling Equipment Load Sizing

Structure	17925 Btuh
Ducts (R-6.0)	7658 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	25583 Btuh

Latent Cooling Equipment Load Sizing

Structure	2451 Btuh
Ducts	2027 Btuh
Central vent (0 cfm)	0 Btuh

Equipment latent load 4478 Btuh

Equipment Total Load (Sen+Lat)	30060 Btuh
Req. total capacity at 0.75 SHR	2.8 ton

Cooling Equipment Summary

Make	Carrier
Trade	15 SEER2 HP
Cond	GH5SAN43600AA0
Coil	FJ4DNXB36L
AHRI ref	210998688
Efficiency	12.0 EER2, 14.3 SEER2
Sensible cooling	25650 Btuh
Latent cooling	8550 Btuh
Total cooling	34200 Btuh
Actual air flow	1140 cfm
Air flow factor	0.045 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.85

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



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E-Calcs
Plus, Inc.

Load Short Form Entire House E-Calcs Plus, Inc

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Project Information

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Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	32	93	Method	Simplified
Inside db (°F)	70	75	Construction quality	Semi-tight
Design TD (°F)	38	18	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	34	52		

HEATING EQUIPMENT

Make Carrier
Trade 15 SEER2 HP
Model GH5SAN43600AA0
AHRI ref 210998688

Efficiency 7.5 HSPF2
Heating input
Heating output 34000 Btuh @ 47°F
Temperature rise 0 °F
Actual air flow 0 cfm
Air flow factor 0 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat
Capacity balance point = 27 °F

Backup: Carrier AFAEHL08N

Input = 8 kW, Output = 27297 Btuh, 100 AFUE

COOLING EQUIPMENT

Make Carrier
Trade 15 SEER2 HP
Cond GH5SAN43600AA0
Coil FJ4DNXB36L
AHRI ref 210998688

Efficiency 12.0 EER2, 14.3 SEER2
Sensible cooling 25650 Btuh
Latent cooling 8550 Btuh
Total cooling 34200 Btuh
Actual air flow 1140 cfm
Air flow factor 0.045 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.85

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
MT	15	886	303	0	14
MBA	128	2090	1422	0	63
MBR	195	2963	3729	0	166
MWIC	143	2892	1137	0	51
Mech	35	0	0	0	0
Pantry	28	732	345	0	15
Laundry	35	1321	1389	0	62
BR2	139	3450	3412	0	152
BA2	48	757	377	0	17
BR3	139	3931	2655	0	118
Kit Liv Din	652	7824	10813	0	482

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Entire House	p	1557	26846	25583	0	1140
Other equip loads			0	0		
Equip. @ 1.00 RSM				25583		
Latent cooling				4478		
TOTALS		1557	26846	30060	0	1140

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