

Certificate of Product Ratings

AHRI Certified Reference Number: 3595782

Date: 9/6/2012

Product: Single-Package Heat Pump Air-Source

Model Number: 50VT-A42---31

Manufacturer: CARRIER AIR CONDITIONING

Trade/Brand name: CARRIER

Manufacturer responsible for the rating of this system combination is CARRIER AIR CONDITIONING

Rated as follows in accordance with AHRI Standard 210/240-2008 for Unitary Air-Conditioning and Air-Source Heat Pump Equipment and subject to verification of rating accuracy by AHRI-sponsored, independent, third party testing:

Cooling Capacity (Btuh):	40500
EER Rating (Cooling):	12.00
SEER Rating (Cooling):	14.50
Heating Capacity(Btuh) @ 47 F:	41500
Region IV HSPF Rating (Heating):	8.00
Heating Capacity(Btuh) @ 17 F:	23000

* Ratings followed by an asterisk (*) indicate a voluntary rerate of previously published data, unless accompanied with a WAS, which indicates an involuntary rerate.

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CERTIFICATE VERIFICATION

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Air-Conditioning, Heating,
and Refrigeration Institute



31

Project Summary

Entire House

Precision Tech Heating & Air LLC

Job:
Date: August 06, 2012
By:

PO Box 877, Alachua, FL 32616-0877 Phone: 352-378-5111 Fax: 386-462-0714 Email: Dave@PrecisionTechInfo.com Web: www.PrecisionTechInfo.com

Project Information

For: Shaun Fergus
516 SW Hawthorne TERR, Fort White, FL 32038
Phone: 352-872-2761

Notes: Double Wide Mobile Home.

Design Information

Weather: Gainesville Regional AP, 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	47 gr/lb

Heating Summary

Structure	20623 Btuh
Ducts	6315 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	26938 Btuh

Sensible Cooling Equipment Load Sizing

Structure	19664 Btuh
Ducts	10675 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	29429 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft ²)	1512	1512
Volume (ft ³)	13608	13608
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	86	45

Latent Cooling Equipment Load Sizing

Structure	2454 Btuh
Ducts	1803 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	4257 Btuh
Equipment total load	33686 Btuh
Req. total capacity at 0.70 SHR	3.5 ton

Heating Equipment Summary

Make	Carrier
Trade	CARRIER
Model	50VT-A42---31
AHRI ref no	3595782
Efficiency	8 HSPF
Heating input	
Heating output	41500 Btuh @ 47°F
Temperature rise	28 °F
Actual air flow	1350 cfm
Air flow factor	0.050 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	

Cooling Equipment Summary

Make	Carrier
Trade	CARRIER
Cond	50VT-A42---31
Coil	
AHRI ref no	3595782
Efficiency	12.0 EER, 14.5 SEER
Sensible cooling	28350 Btuh
Latent cooling	12150 Btuh
Total cooling	40500 Btuh
Actual air flow	1350 cfm
Air flow factor	0.044 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.88

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

