# Certificate of Product Ratings

AHRI Certified Reference Number: 3646155

Date: 10/2/2012

Product: Split System: Heat Pump with Remote Outdoor Unit-Air-Source

Indoor Unit Model Number: FX4DN(B,F)043 Outdoor Unit Model Number: 25HBC542A\*\*30

Manufacturer: CARRIER AIR CONDITIONING

Trade/Brand name: BASE 15 PURON HP

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:

EER Rating (Cooling) Cooling Capacity (Btuh): 41500 12.50

Heating Capacity(Btuh) @ 47 F: 41500

SEER Rating (Cooling)

15.00

Region IV HSPF Rating (Heating):

Heating Capacity(Btuh) @ 17 F:

26400

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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#### Project Information

For:

Larry Breeden 123 SW Whipoorwill Way, Lake City, FI 32024 Phone: 344-5237

Notes:

#### Design Information

Weather: Gainesville, FL, US

Heating Summar	Winter Design Condition Outside db 33 Inside db 70 Design TD 37
Summary	n Conditions 33 °F 70 °F 37 °F
Sensible Cooling Equipment Load Sizing	Summer Design Condition Outside db Inside db Pesign TD Daily range Relative humidity Moisture difference Summer Design Condition 92 17 17 17 17 18 18 19 19 19 10 10 10 11 11 11 12 12 13 14 15 15 15 16 17 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18
pment Load Sizing	n Conditions 92 °F 75 °F 17 °F M 50 % 52 gr/lb

#### CELISIONE Cooling Ednibilient Foan sizing

Use manufacturer's data Rate/swing multiplier Equipment sensible load	Structure Ducts Central vent (0 cfm) Blower
0.97 33550 Btuh	24090 Btuh 10498 Btuh 0 Btuh 0 Btuh

## Latent Cooling Equipment Load Sizing

Method Construction quality Fireplaces

Simplified (Average)

Infiltration

Area (ft²) Volume (ft³)

Heating 2115 21150 21750 0.47 165

Cooling 2115 21150 21150 0.21 74

Air changes/hour Equiv. AVF (cfm)

**Heating Equipment Summary** 

Structure
Ducts
Central vent (0 cfm)
Humidification

Piping Equipment load

0 0 0 37108

28699 8409

Equipment total load Req. total capacity at 0.84 SHR	Structure Ducts Central vent (0 cfm) Equipment latent load
40137 3.3	4203 2385 0 6587
Btuh	

### Cooling Equipment Summary

Make Carrier
Trade Comfort 15
Model 25HBC542
AHRI ref no3646155

Air flow factor Static pressure Space thermostat

Heating input
Heating output
Temperature rise
Actual air flow

41500 27 1431 0.039 0

Efficiency

8.7 HSPF

	9 cfm/Btuh Air flow f			0 Btuh @ 47°F Latent co		7 HSPF Efficienc	7	. Coil	Cond	Trade	Make
	22					Eff	A	Co	Co	Tra	Ma
atic pressure ad sensible h	r flow factor	Actual air flow	tal cooling	_atent cooling	ensible coolir	iciency	VHRI ref no3646155	ži:	ind 2	ade C	ake C
coad sensible heat ratio		<		9	ing		646155	X4DNF043T00	5HBC542	comfort 15	arrier
0 84	0.041	1431	41500	6640	34860	15 SEER					
in H20	cfm/Btuh	cfm	Btuh	Btuh	Btuh						

7107/7017

Reference:HVAC permit:

Breeden Residence

Material proposal

Mastic

Foil tape

Insulation wrap

Pvc drain piping

Equipment:

Carrier 25HBC542A003, FX4DNF043T00,CE0801n08, TC-NHP01