

Load Short Form

Entire House

New Age Dimensions, LLC.

Job: Cannon Residence Date: 01/22/2024

By: John Pirkl
Plan: Manual J and D

14080 S,E, 122nd Lane Road, Ocklawaha, FL 32179 Phone: (352) 288 - 0686 Fax: (352) 288 - 0684 Email: john.newage@gmail.com

Project Information

For:

Newmans Heating and Air Conditioning, Inc. P.O. Box 5425, Gainesville, FL 32627

Phone: (352) 375 - 8555 Fax: (352) 375 - 0275

Web: www.newmansac.com Email: ed@newmansac.com

	H B	Desig	n Information		
	Htg	Clg		Infiltration	
Outside db (°F)	33	92	Method		Simplified
Inside db (°F)	68	75	Construction quality		Average
Design TD (°F)	35	17	Fireplaces		0
Daily range	-	M	•		
Inside humidity (%)	50	50			
Moisture difference (gr/lb)	29	47			

HEATING EQUIPMENT

COOLING EQUIPMENT

Make	Carrier		_	Make	Carrier		
Trade	PERFORMANCE 1	5 SEER2 H	0	Trade	PERFORMANCE 15 S	SEER2 H	5
Model	25SPA530AC0300			Cond	25SPA530AC0300		
AHRI ref	210998600			Coil	FJ4DNXB30L		
				AHRI ref	210998600		
Efficiency		7.5 HSPF2		Efficiency	12.0 EER2,14	I.3 SEER:	2
Heating inp	ut			Sensible co	ooling	19880	Btuh
Heating out	put	28600	Btuh @ 47°F	Latent cool		8520	Btuh
Temperatur	e rise	26	°F	Total coolir	ng	28400	Btuh
Actual air fle	wc	1000	cfm	Actual air f	low	1000	cfm
Air flow fact	or	0.046	cfm/Btuh	Air flow fac	tor	0.049	cfm/Btuh
Static press	ure	0.51	in H2O	Static press	sure	0.51	in H2O
Space therr	nostat			•	ble heat ratio	0.85	

Capacity balance point = 28 °F

Backup:

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

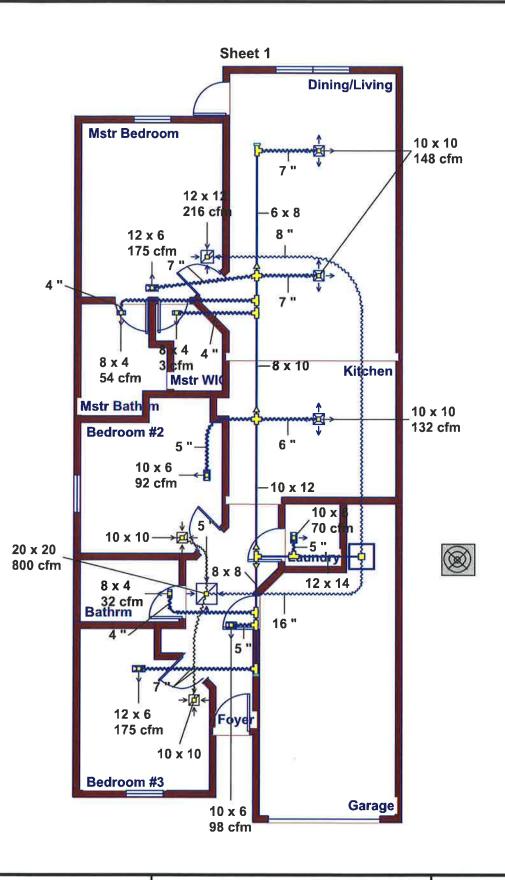
ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Mstr Bedroom	171	3529	3595	161	175
Mstr Bathrm	62	1176	445	54	22
Mstr WIC	36	41	67	2	3
Bedroom #2	140	1690	1899	77	92
Bathrm	47	693	278	32	14
Bedroom #3	134	3836	3077	175	150
Laundry	28	954	1441	43	70
Foyer	105	2146	954	98	46
Kitchen	163	1920	2715	87	132
Dining/Living	328	5958	6082	272	296

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



Entire House Other equip loads Equip. @ 0.97 RSM Latent cooling	1213	21943 0	20552 1707 21591 3975	1000	1000
TOTALS	1213	21943	25566	1000	1000





Job #: Cannon Residence Performed by John Pirkl for:

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Scale: 1:89

Page 1 Right-Suite® Universal 2023 23.0.05 RSU02050 2024-Jan-22 11:18:33 ...VAC\Newmans\Cannon Residence.ru



Manual S Compliance Report

Entire House

New Age Dimensions, LLC.

Cannon Residence Date: 01/22/2024

By: John Pirkl Plan: Manual J and D

Entering coil DB:

Entering coil WB:

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Cooling Equipment

Design Conditions

Outdoor design DB:	92.0°F	Sensible gain:	22259	Btuh
Outdoor design WB:	76.3°F	Latent gain:	3975	Btuh
Indoor design DB:	75.0°F	Total gain:	26234	Btuh
Indoor RH:	50%	Estimated airflow:	1000	cfm

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:

Sensible capacity:

Split ASHP

Manufacturer: Actual airflow: Carrier

1000 cfm

19880 Btuh

8520 Btuh

89% of load 214% of load

Latent capacity: Total capacity:

28400 Btuh 108% of load SHR: 70%

Heating Equipment

Model: 25SPA530AC0300+FJ4DNXB30L

Design Conditions

Outdoor design DB: Indoor design DB:

33.4°F 68.0°F Heat loss:

21943

Btuh

Entering coil DB:

67.1°F

78.6°F

64.0°F

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:

Split ASHP

Manufacturer:

Carrier

Model: 25SPA530AC0300+FJ4DNXB30L

Actual airflow:

Output capacity:

1000 cfm 28600 Btuh

130% of load

Model:

Capacity balance:

28 °F

Supplemental heat required:

Btuh

Economic balance: -99 °F

Backup equipment type:

Elec strip

Manufacturer: Actual airflow:

Output capacity:

1000

kW 124% of load 8.0

Temp. rise:

25 °F

Meets all requirements of ACCA Manual S.



wrightsoft Duct System Summary

Entire House

New Age Dimensions, LLC.

Job: Cannon Residence

Date: 01/22/2024 John Pirkl By: Plan: Manual J and D

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Heating Cooling 0.51 in H2O External static pressure 0.51 in H2O Pressure losses 0.18 in H2O 0.18 in H2O Available static pressure 0.33 in H2O 0.33 in H2O Supply / return available pressure 0.261 / 0.069 in H2O 0.261 / 0.069 in H2O Lowest friction rate 0.880 in/100ft 0.880 in/100ft Actual air flow 1000 cfm 1000 cfm Total effective length (TEL) 483 ft

Supply Branch Detail Table

Name		Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
Bathrm	h	693	32	14	0.880	4.0	0x 0	VIFx	21.5	250.0	st3
Bedroom #2	c	1899	77	92	0.880	5.0	0x0	VIFx	28.0	230.0	st2
Bedroom #3	h	3836	175	150	0.880	7.0	0×0	VIFx	27.0	225.0	st3
Dining/Living	c	3041	136	148	0.880	7.0	0x 0	VIFx	36.0	280.0	st2A
Dining/Living-A	c	3041	136	148	0.880	7.0	0x 0	VIFx	46.0	335.0	st2B
Foyer	h	2146	98	46	0.880	5.0	0x 0	VIFx	16.0	235.0	st3
Kitchen	c	2715	87	132	0.880	6.0	0x 0	VIFx	24.5	225.0	st2
Laundry	c	1441	43	70	0.880	5.0	0x 0	VIFx	7.0	140.0	st1
Mstr Bathrm	h	1176	54	22	0.880	4.0	0x 0	VIFx	41.0	295.0	st2A
Mstr Bedroom	С	3595	161	175	0.880	7.0	0x 0	VIFx	39.6	280.0	st2A
Mstr WIC	С	67	2	3	0.880	4.0	0x 0	VIFx	34.5	300.0	st2A

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st2 st2A st2B st3 st1	Peak AVF Peak AVF Peak AVF Peak AVF	652 488 136 304 1000	720 496 148 210 1000	0.880 0.880 0.880 0.880 0.880	864 892 444 685 857	8.3 8.3 8.3 8.0 14.0	12 x 10 10 x 8 8 x 6 8 x 8 14 x 12	RectFbg RectFbg RectFbg RectFbg RectFbg	st1 st2 st2A st1

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x V (in)	V	Stud/Joist Opening (in)	Duct Matl	Trunk
rb2 rb1	12x 8 20x 19	216 784	200 800	101.5 90.5	0.880 0.880	620 748	8.0 14.0	0x 0x	0		VIFx VIFx	rst2

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rst2	Peak AVF	784	800	0.880	573	16.0	0 x 0	VinlFlx	



Certificate of Product Ratings

AHRI Certified Reference Number : 210998600 Date : 01-22-2024 Model Status : Active

AHRI Type: HRCU-A-CB (Split System: Heat Pump with Remote Outdoor Unit-Air-Source)

Series: PERFORMANCE 15 SEER2 HP Outdoor Unit Brand Name: CARRIER

Outdoor Unit Model Number (Condenser or Single Package): 25SPA530A**30* Indoor Unit Model Number (Evaporator and/or Air Handler): FJ4DN*B30L*

The manufacturer of this CARRIER product is responsible for the rating of this system combination.

Rated as follows in accordance with the latest edition of AHRI 210/240 – 2023, Performance Rating of Unitary Air-Conditioning & Air-Source Heat Pump Equipment and subject to rating accuracy by AHRI-sponsored, independent, third party testing:

Cooling Capacity (AFull) - Single or High Stage (95F), btuh: 28400

SEER2: 14.30

EER2 (AFull) - Single or High Stage (95F): 12.00

Heating Capacity (H1Full) - Single or High Stage (47F), btuh: 28600

HSPF2 (Region IV): 7.50



†"Active" Model Status are those that an AHRI Certification Program Participant is currently producing AND selling or offering for sale; OR new models that are being marketed but are not yet being produced."Production Stopped" Model Status are those that an AHRI Certification Program Participant is no longer producing BUT is still selling or offering for sale.

Ratings that are accompanied by WAS indicate an involuntary re-rate. The new published rating is shown along with the previous (i.e. WAS) rating.

The Department of Energy has published updated energy efficiency metrics for central air conditioners and heat pumps. This publication reflects both the 1987 metric (SEER) and the 2023 metric (SEER2), Efficiency requirements are published at 10 C,F,R, 430,32(c), Please refer to www.AHRInet.org for more information about updated energy efficiency metrics.

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