FORM R405-2020

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	SED625 - 3471 20TH AVE NE	Builder Name:	
Street:	3471 20TH AVE NE	Permit Office:	
City, State, Zip:	NAPLES, FL,	Permit Number:	
Owner:	MICHEL GARCIA	Jurisdiction:	
Design Location:	FL, Lee/Collier	County:	Collier(Florida Climate Zone 1)

1. New construction or existing	New (From Plans)
2. Single family or multiple family	Detached
3. Number of units, if multiple family	1
4. Number of Bedrooms	3
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	1490
Conditioned floor area below grade (ft²)	0

7. Windows(223.7 sqft.)	Description	Area
a. U-Factor:	Sgl, U=1.12	223.66 ft²
SHGC:	SHGC=0.50	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		1.333 ft
Area Weighted Average SHGC:		0.500

8. Skylights	Description	Area
U-Factor:(AVG)	N/A	N/A ft²
SHGC(AVG):	N/A	

9. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R= 0.0	1490.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(1755.8 sqft.)	Insulation	Area
a. Concrete Block - Int Insul, Exterior	R=4.1	1555.80 ft²
b. Frame - Wood, Adjacent	R=19.0	200.00 ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

11. Ceiling Types(1490.0 sqft.)	Insulation	Area
a. Under Attic (Vented)	R=30.0	1490.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

12. Ducts, location & insulation level	R	ft²
a. a. Sup: Main, Ret: Main, AH: Attic	6	298
b.		
c.		

13. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	36.0	SEER:15.00

14. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	20.0	HSPF:15.00

15. Hot Water Systems	
a. Electric	Cap: 50 gallons
	EF: 0.920
b. Conservation features	None
16. Credits	Pstat

Glass/Floor Area: 0.150

Total Proposed Modified Loads: 54.38

Total Baseline Loads: 56.12

PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: _____

DATE: 10/28/2021

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: _____

DATE: 10/28/2021

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL: _____

DATE: _____

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.

- Compliance with a proposed duct leakage Qn requires a PERFORMANCE Duct Leakage Test Report confirming duct leakage to outdoors, tested in accordance with ANSI/RESNET/ICC 380, is not greater than 0.000 Qn for whole house.

- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires a PERFORMANCE envelope leakage test report with envelope leakage no greater than 5.00 ACH50 (R402.4.1.2).

FORM R405-2020

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	SED625 - 3471 20TH AVE NE			Address type:	Street Address
Building Type:	User	Bedrooms:	3	Lot #:	---
Owner:	MICHEL GARCIA	Conditioned Area:	1490	Block/SubDivision:	---
		Total Stories:	1	PlatBook:	---
Builder Name:		Worst Case:	No	Street:	3471 20TH AVE NE
Permit Office:		Rotate Angle:	0	County:	Collier
Jurisdiction:		Cross Ventilation:		City, State, Zip:	NAPLES,
Family Type:	Detached	Whole House Fan:			FL,
New/Existing:	New (From Plans)	Terrain:	Suburban		
Year Construct:		Shielding:	Suburban		
Comment:					

CLIMATE

√	Design Location	Tmy Site	Design Temp 97.5%	Design Temp 2.5%	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily temp Range
___	FL, Lee/Collier	FL_SOUTHWEST_FLORIDA_I	46	91	70	75	321	58	Medium

BLOCKS

√	Number	Name	Area	Volume
___	1	Block1	1490	14900

SPACES

√	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
___	1	Main	1490	14900	Yes	1	3	Yes	Yes	Yes

FLOORS (Total Exposed Area = 1490 sq.ft.)

√	#	Floor Type	Space	Exposed Perim	Perimeter R-Value	Area	U-Factor	Joist R-Value	Tile	Wood	Carpet
___	1	Slab-On-Grade Edge Ins	Main	175.58	0	1490 ft	0.304	---	0.00	0.00	1.00

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
___	1	Hip	Composition shingles	1614 ft²	0 ft²	Medium	N	0.96	No	0.9	No	0	22.62

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
___	1	Full attic	Vented	300	1490 ft²	N	N

CEILING (Total Exposed Area = 1490 sq.ft.)

√	#	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
___	1	Under Attic(Vented)	Main	30.0	Blown	1490.0ft²	0.030	0.11	Wood

FORM R405-2020

INPUT SUMMARY CHECKLIST REPORT

WALLS (Total Exposed Area = 1756 sq.ft.)

√ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
___ 1	N	Exterior	Conc. Blk - Int Ins	Main	4.1	50.0	10	10.0	0	508.3	0.128	1.11	0	0.75	0 %
___ 2	E	Exterior	Conc. Blk - Int Ins	Main	4.1	35.0	1	10.0	0	350.8	0.128	1.11	0	0.75	0 %
___ 3	S	Garage	Frame - Wood	Main	19.0	20.0	0	10.0	0	200.0	0.056	1.2	0.23	0.75	0 %
___ 4	S	Exterior	Conc. Blk - Int Ins	Main	4.1	30.0	10	10.0	0	308.3	0.128	1.11	0	0.75	0 %
___ 5	W	Exterior	Conc. Blk - Int Ins	Main	4.1	38.0	10	10.0	0	388.3	0.128	1.11	0	0.75	0 %

DOORS (Total Exposed Area = 21 sq.ft.)

√ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
___ 1	S	Garage	Wood	Main	None	0.46	2.00	8	8.00	0	21.3ft²

WINDOWS (Total Exposed Area = 224 sq.ft.)

√ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Storm	Area	-----Overhang----- Depth	Separation	Interior Shade	Screening
___ 1	N	1	Metal	Single (Clear)	Yes	1.12	0.50	Y	N	16.2ft²	1.0 ft 4 in	0.0 ft 0 in	Drapes/blinds	None
___ 2	N	1	Metal	Single (Clear)	Yes	1.12	0.50	Y	N	48.0ft²	1.0 ft 4 in	0.0 ft 0 in	Drapes/blinds	None
___ 3	N	1	Metal	Single (Clear)	Yes	1.12	0.50	Y	N	21.0ft²	1.0 ft 4 in	0.0 ft 0 in	Drapes/blinds	None
___ 4	N	1	Metal	Single (Clear)	Yes	1.12	0.50	Y	N	16.2ft²	1.0 ft 4 in	0.0 ft 0 in	Drapes/blinds	None
___ 5	E	2	Metal	Single (Clear)	Yes	1.12	0.50	Y	N	9.8ft²	1.0 ft 4 in	0.0 ft 0 in	Drapes/blinds	None
___ 6	E	2	Metal	Single (Clear)	Yes	1.12	0.50	Y	N	16.2ft²	1.0 ft 4 in	0.0 ft 0 in	Drapes/blinds	None
___ 7	E	2	Metal	Single (Clear)	Yes	1.12	0.50	Y	N	48.0ft²	1.0 ft 4 in	0.0 ft 0 in	Drapes/blinds	None
___ 8	E	2	Metal	Single (Clear)	Yes	1.12	0.50	Y	N	11.0ft²	1.0 ft 4 in	0.0 ft 0 in	Drapes/blinds	None
___ 9	E	2	Metal	Single (Clear)	Yes	1.12	0.50	Y	N	21.0ft²	1.0 ft 4 in	0.0 ft 0 in	Drapes/blinds	None
___ 10	E	2	Metal	Single (Clear)	Yes	1.12	0.50	Y	N	8.0ft²	1.0 ft 4 in	0.0 ft 0 in	Drapes/blinds	None
___ 11	E	2	Metal	Single (Clear)	Yes	1.12	0.50	Y	N	8.3ft²	1.0 ft 4 in	0.0 ft 0 in	Drapes/blinds	None

INFILTRATION

√ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)
___ 1	Wholehouse	Proposed ACH(50)	0.00032	1242	68.12	127.89	0.1043	5.0	All

GARAGE

√ #	Floor Area	Roof Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
___ 1	408 ft²	408 ft²	62 ft	10 ft	1

MASS

√ #	Mass Type	Area	Thickness	Furniture Fraction	Space
___ 1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Main

HEATING SYSTEM

√ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	----Geothermal HeatPump---- Entry	Power	Volt	Current	Ducts	Block
___ 1A	Electric Heat Pump	None/		HSPF: 15.00	20.0		0.00	0.00	0.00	sys#1	1

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INPUT SUMMARY CHECKLIST REPORT

COOLING SYSTEM

√	#	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
___	1A	Central Unit	None/Single		SEER:15.0	36.0	1080	0.75	sys#1	1

HOT WATER SYSTEM

√	#	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixture Flow	Pipe Ins.	Pipe length
___	1	Electric	None	Garage	0.92 (0.92)	50.00 gal	60 gal	120 deg	Standard	None	99

	Recirculation System	Recirc Control Type	Loop length	Branch length	Pump power	DWHR	Facilities Connected	Equal Flow	DWHR Eff	Other Credits
___ 1	No		NA	NA	NA	No	NA	NA	NA	None

DUCTS

√	Duct #	Supply Location	Supply R-Value	Supply Area	Return Location	Return R-Value	Return Area	Leakage Type	Air Handler	CFM 25 TOT	CFM 25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
___	1 Main		6.0	298 ft²	Main	6.0	75 ft²	Default Leakage	Attic	(Default)	(Default)			1	1

TEMPERATURES

Programable Thermostat: Y Ceiling Fans: N

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cooling	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[X]	[X]	[ ]	[ ]	[ ]
Heating	[X]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]
Venting	[ ]	[ ]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[ ]

Thermostat Schedule: HERS 2006 Reference

√	Schedule Type		Hours 1	2	3	4	5	6	7	8	9	10	11	12
___	Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
		PM	80	80	80	80	78	78	78	78	78	78	78	78
___	Cooling (WEH)	AM	78	78	78	78	78	78	78	78	80	80	80	80
		PM	80	80	80	80	78	78	78	78	78	78	78	78
___	Heating (WD)	AM	65	65	65	65	65	65	65	68	68	68	68	68
		PM	68	68	68	68	68	68	68	68	68	68	68	68
___	Heating (WEH)	AM	65	65	65	65	65	65	65	68	68	68	68	68
		PM	68	68	68	68	68	68	68	68	68	68	68	68

FORM R405-2020

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 97

The lower the EnergyPerformance Index, the more efficient the home.

3471 20TH AVE NE,NAPLES,FL,

1. New construction or existing		New (From Plans)
2. Single family or multiple family		Detached
3. Number of units, if multiple family		1
4. Number of Bedrooms		3
5. Is this a worst case?		No
6. Conditioned floor area above grade (ft²)		1490
Conditioned floor area below grade (ft²)		0

7. Windows**	Description	Area
a. U-Factor:	Sgl, U=1.12	223.66 ft²
SHGC:	SHGC=0.50	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		1.333 ft
Area Weighted Average SHGC:		0.500

8. Skylights	Description	Area
U-Factor:(AVG)	N/A	N/A ft²
SHGC(AVG):	N/A	

9. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R= 0.0	1490.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(1755.8 sqft.)	Insulation	Area
a. Concrete Block - Int Insul, Exterior	R=4.1	1555.80 ft²
b. Frame - Wood, Adjacent	R=19.0	200.00 ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

11. Ceiling Types(1490.0 sqft.)	Insulation	Area
a. Under Attic (Vented)	R=30.0	1490.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

12. Ducts, location & insulation level	R	ft²
a. a. Sup: Main, Ret: Main, AH: Attic	6	298
b.		
c.		

13. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	36.0	SEER:15.00

14. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	20.0	HSPF:15.00

15. Hot Water Systems	
a. Electric	Cap: 50 gallons
	EF: 0.920
b. Conservation features	
	None
16. Credits	Pstat

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: 3471 20TH AVE NE City/FL Zip: NAPLES,FL,

*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Residential System Sizing Calculation

Summary

MICHEL GARCIA
3471 20TH AVE NE
NAPLES, FL

Project Title:
SED625 - 3471 20TH AVE NE

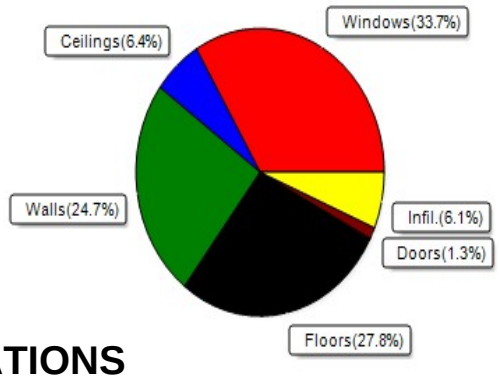
10/28/2021

Location for weather data: Lee/Collier, FL - Defaults: Latitude(26.53) Altitude(15 ft.) Temp Range(M) Humidity data: Interior RH (50%) Outdoor wet bulb (78F) Humidity difference(58gr.)					
Winter design temperature(TMY3 99%)	43	F	Summer design temperature(TMY3 99%)	93	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	27	F	Summer temperature difference	18	F
Total heating load calculation	**20093**	**Btuh**	**Total cooling load calculation**	**17370**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	99.5	20000	Sensible (SHR = 0.75)	169.3	27000
Heat Pump + Auxiliary(0.0kW)	99.5	20000	Latent	631.5	9000
			Total (Electric Heat Pump)	207.3	36000

WINTER CALCULATIONS

Winter Heating Load (for 1490 sqft)

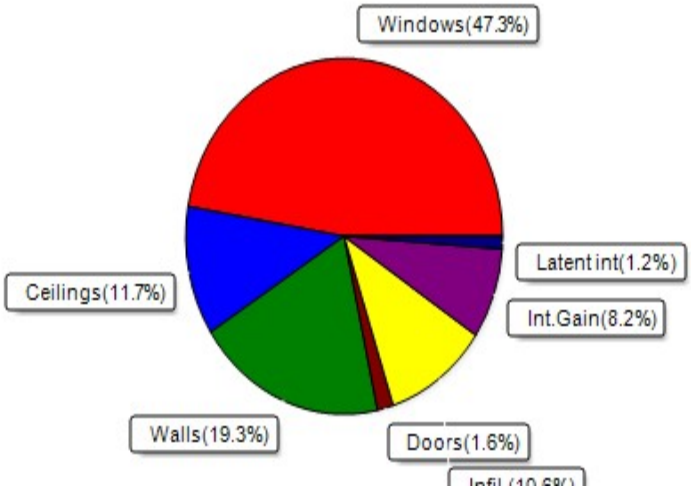
Load component			Load	
Window total	224	sqft	6763	Btuh
Wall total	1511	sqft	4959	Btuh
Door total	21	sqft	265	Btuh
Ceiling total	1490	sqft	1281	Btuh
Floor total	1490	sqft	5594	Btuh
Infiltration	41	cfm	1230	Btuh
Duct loss			0	Btuh
Subtotal			**20093**	**Btuh**
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			**20093**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 1490 sqft)

Load component			Load	
Window total	224	sqft	8217	Btuh
Wall total	1511	sqft	3357	Btuh
Door total	21	sqft	285	Btuh
Ceiling total	1490	sqft	2040	Btuh
Floor total			0	Btuh
Infiltration	31	cfm	615	Btuh
Internal gain			1430	Btuh
Duct gain			0	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Blower Load			0	Btuh
Total sensible gain			**15945**	**Btuh**
Latent gain(ducts)			0	Btuh
Latent gain(infiltration)			1225	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			200	Btuh
Total latent gain			**1425**	**Btuh**
TOTAL HEAT GAIN			**17370**	**Btuh**



Powered by ACCA MANUAL J8 8th Edition

EnergyGauge® System Sizing
PREPARED BY: _____
DATE: _____

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

MICHEL GARCIA
3471 20TH AVE NE
NAPLES, FL

Project Title:
SED625 - 3471 20TH AVE NE
Building Type: User

10/28/2021

Reference City: Lee/Collier, FL (Defaults) Winter Temperature Difference: 27.0 F (TMY3 99%)

Component Loads for Whole House

Window	Panes/Type	Frame	U	Orientation	Area(sqft) X	HTM=	Load
1	1, NFRC 0.50	Metal	1.12	N	16.2	30.2	490 Btuh
2	1, NFRC 0.50	Metal	1.12	N	48.0	30.2	1452 Btuh
3	1, NFRC 0.50	Metal	1.12	N	21.0	30.2	635 Btuh
4	1, NFRC 0.50	Metal	1.12	N	16.2	30.2	490 Btuh
5	1, NFRC 0.50	Metal	1.12	E	9.8	30.2	295 Btuh
6	1, NFRC 0.50	Metal	1.12	E	16.2	30.2	490 Btuh
7	1, NFRC 0.50	Metal	1.12	E	48.0	30.2	1452 Btuh
8	1, NFRC 0.50	Metal	1.12	E	11.0	30.2	333 Btuh
9	1, NFRC 0.50	Metal	1.12	E	21.0	30.2	635 Btuh
10	1, NFRC 0.50	Metal	1.12	E	8.0	30.2	242 Btuh
11	1, NFRC 0.50	Metal	1.12	E	8.3	30.2	252 Btuh
	Window Total				223.7(sqft)		6763 Btuh

Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area X	HTM=	Load
1	Conc Blk,Hollow	- Ext	(0.128)	4.1/1.1	407	3.46	1407 Btuh
2	Conc Blk,Hollow	- Ext	(0.128)	4.1/1.1	229	3.46	790 Btuh
3	Frame - Wood	- Adj	(0.073)	19.0/1.2	179	1.98	354 Btuh
4	Conc Blk,Hollow	- Ext	(0.128)	4.1/1.1	308	3.46	1066 Btuh
5	Conc Blk,Hollow	- Ext	(0.128)	4.1/1.1	388	3.46	1342 Btuh
	Wall Total				1511(sqft)		4959 Btuh

Doors	Type	Storm	Ueff.	Area X	HTM=	Load
1	Wood - Garage,	n	(0.460)	21	12.4	265 Btuh
	Door Total			21(sqft)		265Btuh

Ceilings	Type/Color/Surface	Ueff.	R-Value	Area X	HTM=	Load
1	Vented Attic/L/Shing	(0.032)	30.0/0.0	1490	0.9	1281 Btuh
	Ceiling Total			1490(sqft)		1281Btuh

Floors	Type	Ueff.	R-Value	Size X	HTM=	Load
1	Slab On Grade	(1.180)	0.0	175.6 ft(perim.)	31.9	5594 Btuh
	Floor Total			1490 sqft		5594 Btuh

	Envelope Subtotal:	18863 Btuh

Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM=	
	Natural		0.17	14900	1.00	41.4	1230 Btuh

Duct load	Average sealed, R6.0, Supply(Con), Return(Con) (DLM of 0.000)	0 Btuh
All Zones	**Sensible Subtotal All Zones**	**20093 Btuh**

Manual J Winter Calculations

Residential Load - Component Details (continued)

MICHEL GARCIA
3471 20TH AVE NE
NAPLES, FL

Project Title:
SED625 - 3471 20TH AVE NE
Building Type: User

10/28/2021

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sensible Heat Loss Total Heat Loss	20093 Btuh 0 Btuh 20093 Btuh

EQUIPMENT

1. Electric Heat Pump	Multiple #Multiple	20000 Btuh

Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)
U - (Window U-Factor)
HTM - (ManualJ Heat Transfer Multiplier)

Version 8

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

MICHEL GARCIA
3471 20TH AVE NE
NAPLES, FL

Project Title:
SED625 - 3471 20TH AVE NE

10/28/2021

Reference City: Lee/Collier, FL Temperature Difference: 18.0F(TMY3 99%) Humidity difference: 58gr.

Component Loads for Whole House

Window	Type* Panes	SHGC	U	InSh	IS	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load
1	1 NFRC	0.50,	1.12	B-L	No	N	1.3ft	0.0ft	16.2	0.0	16.2	25	25	412 Btuh
2	1 NFRC	0.50,	1.12	B-L	No	N	1.3ft	0.0ft	48.0	0.0	48.0	25	25	1221 Btuh
3	1 NFRC	0.50,	1.12	B-L	No	N	1.3ft	0.0ft	21.0	0.0	21.0	25	25	534 Btuh
4	1 NFRC	0.50,	1.12	B-L	No	N	1.3ft	0.0ft	16.2	0.0	16.2	25	25	412 Btuh
5	1 NFRC	0.50,	1.12	B-L	No	E	1.3ft	0.0ft	9.8	3.4	6.4	25	53	426 Btuh
6	1 NFRC	0.50,	1.12	B-L	No	E	1.3ft	0.0ft	16.2	3.4	12.8	25	53	769 Btuh
7	1 NFRC	0.50,	1.12	B-L	No	E	1.3ft	0.0ft	48.0	6.6	41.4	25	53	2377 Btuh
8	1 NFRC	0.50,	1.12	B-L	No	E	1.3ft	0.0ft	11.0	6.6	4.4	25	53	402 Btuh
9	1 NFRC	0.50,	1.12	B-L	No	E	1.3ft	0.0ft	21.0	4.4	16.6	25	53	997 Btuh
10	1 NFRC	0.50,	1.12	B-L	No	E	1.3ft	0.0ft	8.0	4.4	3.6	25	53	303 Btuh
11	1 NFRC	0.50,	1.12	B-L	No	E	1.3ft	0.0ft	8.3	5.5	2.8	25	53	290 Btuh
	Excursion													75 Btuh
	Window Total								224 (sqft)					8217 Btuh

Walls	Type	U-Value	R-Value Cav/Sheath	Area(sqft)	HTM	Load
1	Concrete Blk,Hollow - Ext	0.13	4.1/1.1	407.0	2.3	953 Btuh
2	Concrete Blk,Hollow - Ext	0.13	4.1/1.1	228.5	2.3	535 Btuh
3	Frame - Wood - Adj	0.07	19.0/1.2	178.7	1.3	236 Btuh
4	Concrete Blk,Hollow - Ext	0.13	4.1/1.1	308.3	2.3	722 Btuh
5	Concrete Blk,Hollow - Ext	0.13	4.1/1.1	388.3	2.3	910 Btuh
	Wall Total			1511 (sqft)		3357 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Wood - Garage	21.3	13.3	285 Btuh
	Door Total	21 (sqft)		285 Btuh

Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/Light/Shingle	0.032	30.0/0.0	1490.0	1.37	2040 Btuh
	Ceiling Total			1490 (sqft)		2040 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	0.0	1490 (ft-perimeter)	0.0	0 Btuh
	Floor Total		1490.0 (sqft)		0 Btuh

	Envelope Subtotal:	13900 Btuh

Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio	CFM=	Load
	Natural	0.13	14900	1	31.1	615 Btuh

Internal gain	Occupants	Btuh/occupant		Appliance	Load
	1	X 230	+	1200	1430 Btuh

	Sensible Envelope Load:	15945 Btuh
Duct load	Average sealed, Supply(R6.0-Condi), Return(R6.0-Condi) (DGM of 0.000)	0 Btuh
	Sensible Load All Zones	**15945 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

MICHEL GARCIA
3471 20TH AVE NE
NAPLES, FL

Project Title: SED625 - 3471 20TH AVE NE

Climate:FL_SOUTHWEST_FLORIDA_I

10/28/2021

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**15945**	**Btuh**
	Sensible Duct Load	0	Btuh
	Total Sensible Zone Loads	**15945**	**Btuh**
	Sensible ventilation	0	Btuh
	Blower	0	Btuh
	Total sensible gain	**15945**	**Btuh**
	Latent infiltration gain (for 58 gr. humidity difference)	1225	Btuh
	Latent ventilation gain	0	Btuh
	Latent duct gain	0	Btuh
	Latent occupant gain (1.0 people @ 200 Btuh per person)	200	Btuh
	Latent other gain	0	Btuh
	Latent total gain	**1425**	**Btuh**
	TOTAL GAIN	**17370**	**Btuh**

EQUIPMENT

1. Central Unit	Multiple #Multiple	36000 Btuh

*Key: Window types (Panes - Number and type of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value)
(U - Window U-Factor)
(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))
- For Blinds: Assume medium color, half closed
For Draperies: Assume medium weave, half closed
For Roller shades: Assume translucent, half closed
(IS - Insect screen: none(N), Full(F) or Half(½))
(Ornt - compass orientation)

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