



Load Short Form Entire House Touchstone Heating and Airinc



Job:
Date: May 18, 2013
By:

490 se 3rd Ave, Lake Butler, fl 32054 Phone: (386)496-3467 Fax: (386)496-3147 Email: rmtouchstone@hotmail.com Web: touchstonehatingonline.com License: Caco58099

Project Information

For: Moffitt, Aaron Simque
Lake City, fl 32024
Phone: (386)867-0692

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	33	92	Method	Average
Inside db (°F)	70	75	Construction quality	0
Design TD (°F)	37	17	Fireplaces	
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	11	52		

HEATING EQUIPMENT

Make york
Trade york
Model YHJD36S4
AHRI ref 4465689

Efficiency 7.7 HSPF
Heating input
Heating output 72 Btuh @ 47°F
Temperature rise 0 °F
Actual air flow 1200 cfm
Air flow factor 0.018 cfm/Btuh
Static pressure 0.05 in H2O
Space thermostat

COOLING EQUIPMENT

Make york
Trade york
Cond YHJD36S4
Coil AHR36B3X
AHRI ref 4465689

Efficiency 13 SEER
Sensible cooling 54 Btuh
Latent cooling 23 Btuh
Total cooling 77 Btuh
Actual air flow 1200 cfm
Air flow factor 0.028 cfm/Btuh
Static pressure 0.05 in H2O
Load sensible heat ratio 0.47

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Master Closett	90	3192	1466	56	41
WIC	108	728	401	13	11
Bed Room1	144	5512	3112	97	88
Bath Room	45	1543	1057	27	30
Master Bedroom	323	2566	2233	45	63
HallwayRoom8	85	148	143	3	4
Bed Room2	143	6102	3709	108	105
Living Room	360	15653	9429	276	266
Dining Room	224	10631	6577	188	185
Kitchen	182	7758	5844	137	165
office	182	8679	5580	153	157
utility	133	5423	3022	96	85

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



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Entire House	2019	67936	42573	1200	1200
Other equip loads		0	0		
Equip. @ 0.97 RSM			41295		
Latent cooling			47715		
TOTALS	2019	67936	89010	1200	1200

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Project Summary

Entire House

Touchstone Heating and Airinc

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Phone: (386)867-0692

Notes:

Design Information

Weather: Gainesville, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	70 °F
Design TD	37 °F

Heating Summary

Structure	63499 Btuh
Ducts	4437 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	67936 Btuh

Infiltration

Method	Simplified	
Construction quality	Average	
Fireplaces	0	
Area (ft²)	Heating 2019	Cooling 2019
Volume (ft³)	14393	14393
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	77	38

Heating Equipment Summary

Make york
Trade york
Model YHJD36S4
AHRI ref 4465689

Efficiency	7.7 HSPF
Heating input	
Heating output	72 Btuh @ 47°F
Temperature rise	0 °F
Actual air flow	1200 cfm
Air flow factor	0.018 cfm/Btuh
Static pressure	0.05 in H2O
Space thermostat	

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	52 gr/lb

Sensible Cooling Equipment Load Sizing

Structure	36893 Btuh
Ducts	5680 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh

Use manufacturer's data n
Rate/swing multiplier 0.97
Equipment sensible load 41295 Btuh

Latent Cooling Equipment Load Sizing

Structure	46671 Btuh
Ducts	1044 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	47715 Btuh

Equipment total load 89010 Btuh
Req. total capacity at 0.70 SHR 4.9 ton

Cooling Equipment Summary

Make	york
Trade	york
Cond	YHJD36S4
Coil	AHR36B3X
AHRI ref	4465689
Efficiency	13 SEER
Sensible cooling	54 Btuh
Latent cooling	23 Btuh
Total cooling	77 Btuh
Actual air flow	1200 cfm
Air flow factor	0.028 cfm/Btuh
Static pressure	0.05 in H2O
Load sensible heat ratio	0.47

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wrightsoft Duct System Summary **Entire House** Touchstone Heating and Airinc

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Project Information

For: Moffitt, Aaron Simque
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 Phone: (386)867-0692

External static pressure	Heating	Cooling
Pressure losses	0.05 in H2O	0.05 in H2O
Available static pressure	0 in H2O	0 in H2O
Supply / return available pressure	0.05 in H2O	0.05 in H2O
Lowest friction rate	0.03 / 0.03 in H2O	0.03 / 0.03 in H2O
Actual air flow	0 in/100ft	0 in/100ft
Total effective length (TEL)	1200 cfm	1200 cfm
	0 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
Bath Room	c 1057	27	30	0	0	0x0	ShMt	0	0	
Bed Room1	h 3112	97	88	0	0	0x0	ShMt	0	0	
Bed Room2	h 3709	108	105	0	0	0x0	ShMt	0	0	
Dining Room	h 3289	94	93	0	0	0x0	ShMt	0	0	
Dining Room-A	h 3289	94	93	0	0	0x0	ShMt	0	0	
HallwayRoomB	c 143	3	4	0	0	0x0	ShMt	0	0	
Kitchen	c 2922	69	82	0	0	0x0	ShMt	0	0	
Kitchen-A	c 2922	69	82	0	0	0x0	ShMt	0	0	
Living Room	h 3144	92	89	0	0	0x0	ShMt	0	0	
Living Room-A	h 3143	92	89	0	0	0x0	ShMt	0	0	
Living Room-B	h 3143	92	89	0	0	0x0	ShMt	0	0	
Master Bedroom	c 2233	45	63	0	0	0x0	ShMt	0	0	
Master Closett	h 1466	56	41	0	0	0x0	ShMt	0	0	
WTC	h 401	13	11	0	0	0x0	ShMt	0	0	
office	c 2790	77	79	0	0	0x0	ShMt	0	0	
office-A	c 2790	77	79	0	0	0x0	ShMt	0	0	
utility	h 3022	96	85	0	0	0x0	ShMt	0	0	

Return Branch Detail Table

Name	Grill Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb2	0x0	1200	1200	0	0	0	0	0x 0		ShMt	