

Job:

Date: Nov 07, 2013 Josh Putman

1892 Commerce Avenue, Vero Beach, FL 32960 Phone: 800-810-3280 Fax: 888-971-2999 Email: sales@webrepshvac.com Web: www.webrepswholesale.com License: CAC0547...

Project Information

For:

Fredericksburg, TX 78624

Notes:

Design Information

San Antonio Intl AP, TX, US Weather:

Winter Design Conditions

Summer Design Conditions

Outside db Inside db	32 °F 70 °F	Outside db Inside db	97 °F 75 °F
Design TD	38 °F	Design TD Daily range	22 °F M
		Relative humidity	50 %
		Moisture difference	25 gr/lb

Heating Summary

Sensible Cooling Equipment Load Sizing

Structure	25319	Btun	Structure	20722	Btun
Ducts	3507	Btuh	Ducts	2393	Btuh
Central vent (0 cfm)	0	Btuh	Central vent (0 cfm)	0	Btuh
Humidification	0	Btuh	Blower	0	Btuh
Piping	0	Btuh			
Equipment load	28826	Btuh	Use manufacturer's data	}	1
			Rate/swing multiplier	1.00	
Infiltration			Equipment sensible load	23116	Btuh

Infiltration

Method Construction quality		Simplified Tight			
Fireplaces		1 (Tight)	Structure	4616	Btuh
·		`	Ducts	545	Btuh
	Heating	Cooling	Central vent (0 cfm)	0	Btuh
Area (ft²)	2396	2396	Equipment latent load	5161	Btuh
Volume (ft³)	24061	24061	• •		
Air changes/hour	0.10	0.05	Equipment total load	28276	Btuh
Equiv. AVF (cfm)	39	19	Reg. total capacity at 0.70 SHR	2.8	ton

Heating Equipment Summary

Cooling Equipment Summary

Make	Lennox			Make	Lennox		
Trade	XP25 SERIES			Trade	XP25 SERIES		
Model	XP25-036-230-**			Cond	XP25-036-230-**		
AHRI ref	5947679			Coil	CBX40UHV-036*++	·TDR	
				AHRI ref	5947679		
Efficiency		10 l	HSPF	Efficiency	13.5 EER, 2	21.5 SEER	
Heating ing	out			Sensible c	ooling	24080	Btuh
		32000	Btuh @ 47°F			10320	Btuh
Temperatui		26	°F			34400	Btuh
Actual air f	low	1147	cfm	Actual air f		1147	cfm
Air flow fac	tor	0.040	cfm/Btuh	Air flow fac	ctor	0.050	cfm/Btuh
Static pres	sure	0.60	in H2O			0.60	in H2O
Space ther					ible heat ratio	0.82	
Actual air f Air flow fac Static pres	tput re rise low tor sure	32000 26 1147 0.040	Btuh @ 47°F °F cfm cfm/Btuh	Efficiency Sensible c Latent coo Total coolir Actual air f Air flow fac Static pres	13.5 EER, 2 ooling ling ng flow ctor ssure	24080 10320 34400 1147 0.050 0.60	Btuh Btuh cfm cfm/Btuh

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



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San Antonio Intl AP, TX, US Weather:

Winter Design Conditions

Summer Design Conditions

Outside db	32 °F	Outside db	97 °F
Inside db	70 °F	Inside db	75 °F
Design TD	38 °F	Design TD	22 °F
9		Daily range	M
		Relátive ňumidity	50 %
		Moisture difference	25 ar/lb

Heating Summary

Sensible Cooling Equipment Load Sizing

Structure	26452 Btu	n Structure	22056 Btuh
Ducts	2955 Btu	n Ducts	2017 Btuh
Central vent (0 cfm)	0 Btu	n Central vent (0 cfm)	0 Btuh
Humidification	0 Btu	n Blower `´	0 Btuh
Piping	0 Btu	n	
Equipment load	29407 Btu	n Use manufacturer's dat	a y
• •		Rate/swing multiplier	1.00
Infiltr	ation	Equipment sensible loa	d 24073 Btuh

Infiltration

Method Construction quality		Simplified Tight	Latent Cooling Equipment Load Siz		
Fireplaces		1 (Tight)	Structure	4750	Btuh
•		()	Ducts	453	Btuh
	Heating	Cooling	Central vent (0 cfm)	0	Btuh
Area (ft²)	1673	1673	Equipment latent load	5203	Btuh
Volume (ft³)	17842	17842			
Air changes/hour	0.10	0.05	Equipment total load	29276	Btuh
Equiv. AVF (cfm)	31	15	Req. total capacity at 0.70 SHR	2.9	ton

Heating Equipment Summary

Cooling Equipment Summary

Make Lennox		Make Lennox	
Trade XP25 SERIES		Trade XP25 SERIES	
Model XP25-036-230-**		Cond XP25-036-230-**	
AHRI ref 5947679		Coil CBX40UHV-036*	
		AHRI ref 5947679	
Efficiency	10 HSPF	Efficiency 13.5 EER,	21.5 SEER
Heating input		Sensible cooling	24080 Btuh
Heating output	32000 Btuh @ 47°F	Latent cooling	10320 Btuh
Temperature rise	26 °F	Total cooling	34400 Btuh
Actual air flow	1147 cfm	Actual air flow	1147 cfm
Air flow factor	0.039 cfm/Btuh	Air flow factor	0.048 cfm/Btuh
Static pressure	0.60 in H2O	Static pressure	0.60 in H2O
Space thermostat		Load sensible heat ratio	0.82

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