

Project Information

For: Fredericksburg, TX 78624

Notes:

Design Information

Weather: San Antonio Intl AP, TX, US

Winter Design Conditions

Outside db	32 °F
Inside db	70 °F
Design TD	38 °F

Summer Design Conditions

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

Heating Summary

Structure	25319 Btuh
Ducts	3507 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	28826 Btuh

Sensible Cooling Equipment Load Sizing

Structure	20722 Btuh
Ducts	2393 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	23116 Btuh

Infiltration

Method	Simplified
Construction quality	Tight
Fireplaces	1 (Tight)

Latent Cooling Equipment Load Sizing

Structure	4616 Btuh
Ducts	545 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	5161 Btuh
Equipment total load	28276 Btuh
Req. total capacity at 0.70 SHR	2.8 ton

	Heating	Cooling
Area (ft ²)	2396	2396
Volume (ft ³)	24061	24061
Air changes/hour	0.10	0.05
Equiv. AVF (cfm)	39	19

Heating Equipment Summary

Make	Lennox
Trade	XP25 SERIES
Model	XP25-036-230-**
AHRI ref	5947679
Efficiency	10 HSPF
Heating input	
Heating output	32000 Btuh @ 47°F
Temperature rise	26 °F
Actual air flow	1147 cfm
Air flow factor	0.040 cfm/Btuh
Static pressure	0.60 in H2O
Space thermostat	

Cooling Equipment Summary

Make	Lennox
Trade	XP25 SERIES
Cond	XP25-036-230-**
Coil	CBX40UHV-036*++TDR
AHRI ref	5947679
Efficiency	13.5 EER, 21.5 SEER
Sensible cooling	24080 Btuh
Latent cooling	10320 Btuh
Total cooling	34400 Btuh
Actual air flow	1147 cfm
Air flow factor	0.050 cfm/Btuh
Static pressure	0.60 in H2O
Load sensible heat ratio	0.82

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

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

Heating Summary

Structure	26452 Btuh
Ducts	2955 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	29407 Btuh

Sensible Cooling Equipment Load Sizing

Structure	22056 Btuh
Ducts	2017 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	24073 Btuh

Infiltration

Method	Simplified
Construction quality	Tight
Fireplaces	1 (Tight)

Latent Cooling Equipment Load Sizing

Structure	4750 Btuh
Ducts	453 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	5203 Btuh
Equipment total load	29276 Btuh
Req. total capacity at 0.70 SHR	2.9 ton

	Heating	Cooling
Area (ft ²)	1673	1673
Volume (ft ³)	17842	17842
Air changes/hour	0.10	0.05
Equiv. AVF (cfm)	31	15

Heating Equipment Summary

Make	Lennox
Trade	XP25 SERIES
Model	XP25-036-230-**
AHRI ref	5947679
Efficiency	10 HSPF
Heating input	
Heating output	32000 Btuh @ 47°F
Temperature rise	26 °F
Actual air flow	1147 cfm
Air flow factor	0.039 cfm/Btuh
Static pressure	0.60 in H2O
Space thermostat	

Cooling Equipment Summary

Make	Lennox
Trade	XP25 SERIES
Cond	XP25-036-230-**
Coil	CBX40UHV-036*
AHRI ref	5947679
Efficiency	13.5 EER, 21.5 SEER
Sensible cooling	24080 Btuh
Latent cooling	10320 Btuh
Total cooling	34400 Btuh
Actual air flow	1147 cfm
Air flow factor	0.048 cfm/Btuh
Static pressure	0.60 in H2O
Load sensible heat ratio	0.82

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