Project Summary
Entire House
Energy Vanguard

Job:	JS Matt Potter
Date:	Jun 10, 2022
By:	Jeffrey Sauls
Plan:	22063 Rev0

533 W. Howard Ave., Suite E, Decatur, GA 30030 Phone: (404) 267-1839 Email: hvac@energyvanguard.com Web: www.energyvanguard.com

Project Information

For: Matt Potter
3325 Corner Canyon Rd, Erda, UT 84074
Phone: 218-590-5711

Notes:

Design Information

Weather: Salt Lake City Intl, UT, US

Winter Design Conditions

Outside db	14	°F
Inside db	70	°F
Design TD	56	°F

Summer Design Conditions

Outside db	95	°F
Inside db	75	°F
Design TD	20	°F
Daily range	M	
Relative humidity	50	%
Moisture difference	-32	gr/lb

Heating Summary

Structure	27928	Btuh
Ducts	0	Btuh
Central vent (91 cfm)	2395	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	30323	Btuh

Infiltration

Method	Blower door
Shielding / stories	3 (partial) / 2
Pressure /ACH /AVF	50 Pa / 2.0 / 1089 cfm

	Heating	Cooling
Area (ft²)	4087	4087
Volume (ft³)	32659	32659
Air changes/hour	0.19	0.11
Equiv. AVF (cfm)	105	58

Sensible Cooling Equipment Load Sizing

Structure	19231	Btuh
Ducts	0	Btuh
Central vent (91 cfm)	879	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	1.00	
Equipment sensible load	20190	Btuh

Latent Cooling Equipment Load Sizing

Structure	-292	Btuh
Ducts	0	Btuh
Central vent (91 cfm)	-861	Btuh
Equipment latent load	0	Btuh
Equipment Total Load (Sen+Lat)	20190	Btuh
Req. total capacity at 0.70 SHR	2.4	ton

Heating Equipment Summary

Make	n/a	
Trade	n/a	
Model	n/a	
AHRI ref	n/a	
Efficiency	n/a	
Heating input		
Heating output	0	Btuh
Temperature rise	0	°F
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Space thermostat	n/a	

Cooling Equipment Summary

Make	n/a	
Trade	n/a	
Cond	n/a	
Coil	n/a	
AHRI ref	n/a	
Efficiency	n/a	
Sensible cooling	0	Btuh
Latent cooling	0	Btuh
Total cooling	0	Btuh
Actual air flow	0	cfm
Air flow factor	0	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0	

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

Project Summary
0AH1 Lower
Energy Vanguard

Job:	JS Matt Potter
Date:	Jun 10, 2022
By:	Jeffrey Sauls
Plan:	22063 Rev0

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Project Information

For: Matt Potter
3325 Corner Canyon Rd, Erda, UT 84074
Phone: 218-590-5711

Notes:

Design Information

Weather: Salt Lake City Intl, UT, US

Winter Design Conditions

Outside db	14	°F
Inside db	70	°F
Design TD	56	°F

Summer Design Conditions

Outside db	95	°F
Inside db	75	°F
Design TD	20	°F
Daily range	M	
Relative humidity	50	%
Moisture difference	-32	gr/lb

Heating Summary

Structure	15757	Btuh
Ducts	0	Btuh
Central vent (SER=50% 53 cfm)	1377	Btuh
Energy recovery		
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	17134	Btuh

Infiltration

Method	Blower door
Shielding / stories	3 (partial) / 2
Pressure /ACH /AVF	50 Pa / 2.0 / 1111 cfm

	Heating	Cooling
Area (ft²)	2044	2044
Volume (ft³)	13330	13330
Air changes/hour	0.19	0.10
Equiv. AVF (cfm)	42	23

Sensible Cooling Equipment Load Sizing

Structure	7857	Btuh
Ducts	0	Btuh
Central vent (SER=50% 53 cfm)	505	Btuh
Energy recovery		
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	1.00	
Equipment sensible load	8396	Btuh

Latent Cooling Equipment Load Sizing

Structure	-236	Btuh
Ducts	0	Btuh
Central vent (LER=50% 53 cfm)	-495	Btuh
Energy recovery		
Equipment latent load	0	Btuh
Equipment Total Load (Sen+Lat)	8396	Btuh
Req. total capacity at 0.75 SHR	0.9	ton

Heating Equipment Summary

Make	Daikin
Trade	DAIKIN
Model	RXL18UMVJU
AHRI ref	205663343

Efficiency	10.3 HSPF	
Heating input		
Heating output	21600	Btuh @ 47°F
Temperature rise	39	°F
Actual air flow	587	cfm
Air flow factor	0.037	cfm/Btuh
Static pressure	0.60	in H2O
Space thermostat		

Capacity balance point = 13 °F

Cooling Equipment Summary

Make	Daikin
Trade	DAIKIN
Cond	RXL18UMVJU
Coil	FDMQ18RVJU
AHRI ref	205663343

Efficiency	12.7 EER, 19.4 SEER	
Sensible cooling	13200	Btuh
Latent cooling	4400	Btuh
Total cooling	17600	Btuh
Actual air flow	587	cfm
Air flow factor	0.075	cfm/Btuh
Static pressure	0.60	in H2O
Load sensible heat ratio	1.00	

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Project Summary
1AH1 Main
Energy Vanguard

Job: JS Matt Potter
Date: Jun 10, 2022
By: Jeffrey Sauls
Plan: 22063 Rev0

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Project Information

For: Matt Potter
3325 Corner Canyon Rd, Erda, UT 84074
Phone: 218-590-5711

Notes:

Design Information

Weather: Salt Lake City Intl, UT, US

Winter Design Conditions

Outside db	14	°F
Inside db	70	°F
Design TD	56	°F

Summer Design Conditions

Outside db	95	°F
Inside db	75	°F
Design TD	20	°F
Daily range	M	
Relative humidity	50	%
Moisture difference	-32	gr/lb

Heating Summary

Structure	12171	Btuh
Ducts	0	Btuh
Central vent (SER=50% 39 cfm)	1018	Btuh
Energy recovery		
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	13189	Btuh

Infiltration

Method	Blower door
Shielding / stories	3 (partial) / 2
Pressure /ACH /AVF	50 Pa / 2.0 / 1111 cfm

	Heating	Cooling
Area (ft²)	2044	2044
Volume (ft³)	19329	19329
Air changes/hour	0.20	0.11
Equiv. AVF (cfm)	63	35

Sensible Cooling Equipment Load Sizing

Structure	11374	Btuh
Ducts	0	Btuh
Central vent (SER=50% 39 cfm)	373	Btuh
Energy recovery		
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	1.00	
Equipment sensible load	11794	Btuh

Latent Cooling Equipment Load Sizing

Structure	-56	Btuh
Ducts	0	Btuh
Central vent (LER=50% 39 cfm)	-366	Btuh
Energy recovery		
Equipment latent load	0	Btuh
Equipment Total Load (Sen+Lat)	11794	Btuh
Req. total capacity at 0.75 SHR	1.3	ton

Heating Equipment Summary

Make	Daikin
Trade	DAIKIN
Model	RXL18UMVJU
AHRI ref	205663343

Efficiency	10.3 HSPF	
Heating input		
Heating output	21600	Btuh @ 47°F
Temperature rise	39	°F
Actual air flow	587	cfm
Air flow factor	0.048	cfm/Btuh
Static pressure	0.60	in H2O
Space thermostat		

Capacity balance point = 6 °F

Cooling Equipment Summary

Make	Daikin
Trade	DAIKIN
Cond	RXL18UMVJU
Coil	FDMQ18RVJU
AHRI ref	205663343

Efficiency	12.7 EER, 19.4 SEER	
Sensible cooling	13200	Btuh
Latent cooling	4400	Btuh
Total cooling	17600	Btuh
Actual air flow	587	cfm
Air flow factor	0.052	cfm/Btuh
Static pressure	0.60	in H2O
Load sensible heat ratio	1.00	

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