

Project Information

For: [REDACTED]

Notes:

Design Information

Weather: Oakland Co Intl, MI, US

Winter Design Conditions

Outside db	6 °F
Inside db	70 °F
Design TD	64 °F

Summer Design Conditions

Outside db	86 °F
Inside db	75 °F
Design TD	11 °F
Daily range	M
Relative humidity	50 %
Moisture difference	29 gr/lb

Heating Summary

Structure	6715 Btuh
Ducts	456 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	7171 Btuh

Sensible Cooling Equipment Load Sizing

Structure	3398 Btuh
Ducts	133 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.91
Equipment sensible load	3220 Btuh

Infiltration

Method	Simplified
Construction quality	Tight
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	178 Btuh
Ducts	232 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Equipment latent load	411 Btuh

	Heating	Cooling
Area (ft²)	805	805
Volume (ft³)	8732	8732
Air changes/hour	0.13	0.07
Equiv. AVF (cfm)	19	10

Equipment Total Load (Sen+Lat)	3630 Btuh
Req. total capacity at 0.70 SHR	0.4 ton

Heating Equipment Summary

Make	Fujitsu
Trade	FUJITSU
Model	AOU9RLFC
AHRI ref	5751311
Efficiency	13 HSPF
Heating input	
Heating output	12000 Btuh @ 47°F
Temperature rise	38 °F
Actual air flow	300 cfm
Air flow factor	0.042 cfm/Btuh
Static pressure	0.36 in H2O
Space thermostat	
Capacity balance point = 7 °F	

Cooling Equipment Summary

Make	Fujitsu
Trade	FUJITSU
Cond	AOU9RLFC
Coil	AUU9RLF
AHRI ref	5751311
Efficiency	14.5 EER, 24 SEER
Sensible cooling	6300 Btuh
Latent cooling	2700 Btuh
Total cooling	9000 Btuh
Actual air flow	300 cfm
Air flow factor	0.085 cfm/Btuh
Static pressure	0.36 in H2O
Load sensible heat ratio	0.90

Backup:
Input = 2 kW, Output = 6824 Btuh, 100 AFUE

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