

Project Information

For: UNIT 102, TOWNHOUSES AT NW 19 AVE
19 NW AVE 15TH ST, POMPAÑO BEACH, FL 33069

Notes:

Design Information

Weather: Fort Lauderdale Hollywood Int, FL, US

Winter Design Conditions

Outside db	51 °F
Inside db	70 °F
Design TD	19 °F

Summer Design Conditions

Outside db	91 °F
Inside db	75 °F
Design TD	16 °F
Daily range	L
Relative humidity	50 %
Moisture difference	62 gr/lb

Heating Summary

Structure	8110 Btuh
Ducts	1998 Btuh
Central vent (12 cfm)	245 Btuh
Outside air	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	10353 Btuh

Sensible Cooling Equipment Load Sizing

Structure	14280 Btuh
Ducts	1507 Btuh
Central vent (12 cfm)	202 Btuh
Outside air	
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	15989 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	2389 Btuh
Ducts	580 Btuh
Central vent (12 cfm)	499 Btuh
Outside air	
Equipment latent load	3468 Btuh

	Heating	Cooling
Area (ft²)	844	844
Volume (ft³)	8436	8436
Air changes/hour	0.51	0.27
Equiv. AVF (cfm)	72	37

Equipment Total Load (Sen+Lat)	19458 Btuh
Req. total capacity at 0.69 SHR	1.9 ton

Heating Equipment Summary

Make	CARRIER
Trade	ELECTRIC HEAT
Model	FJ4DNX24
AHRI ref	
Efficiency	100 AFUE
Heating input	5.0 kW
Heating output	17000 Btuh
Temperature rise	19 °F
Actual air flow	800 cfm
Air flow factor	0.079 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	

Cooling Equipment Summary

Make	CARRIER
Trade	SPLIT-SYSTEM
Cond	24SPA624-3
Coil	FJ4DNX24
AHRI ref	
Efficiency	16.5 SEER
Sensible cooling	17000 Btuh
Latent cooling	7600 Btuh
Total cooling	24600 Btuh
Actual air flow	800 cfm
Air flow factor	0.051 cfm/Btuh
Static pressure	0.50 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	51 °F
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Design TD	19 °F

Summer Design Conditions

Outside db	91 °F
Inside db	75 °F
Design TD	16 °F
Daily range	L
Relative humidity	50 %
Moisture difference	62 gr/lb

Heating Summary

Structure	11277 Btuh
Ducts	2667 Btuh
Central vent (19 cfm)	398 Btuh
Outside air	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	14342 Btuh

Sensible Cooling Equipment Load Sizing

Structure	17879 Btuh
Ducts	2004 Btuh
Central vent (19 cfm)	328 Btuh
Outside air	
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	20211 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	3001 Btuh
Ducts	760 Btuh
Central vent (19 cfm)	812 Btuh
Outside air	
Equipment latent load	4573 Btuh

	Heating	Cooling
Area (ft²)	1146	1146
Volume (ft³)	12172	12172
Air changes/hour	0.49	0.26
Equiv. AVF (cfm)	100	52

Equipment Total Load (Sen+Lat)	24784 Btuh
Req. total capacity at 0.69 SHR	2.4 ton

Heating Equipment Summary

Make	CARRIER
Trade	ELECTRIC HEAT
Model	FJ4DNX030
AHRI ref	
Efficiency	100 AFUE
Heating input	8.0 kW
Heating output	27200 Btuh
Temperature rise	25 °F
Actual air flow	1000 cfm
Air flow factor	0.072 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	Heat/Cool

Cooling Equipment Summary

Make	CARRIER
Trade	SPLIT-SYSTEM
Cond	24SPA630-3
Coil	FJ4DNX030
AHRI ref	
Efficiency	16.5 SEER
Sensible cooling	20000 Btuh
Latent cooling	8800 Btuh
Total cooling	28800 Btuh
Actual air flow	1000 cfm
Air flow factor	0.050 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.82

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