

Air System Sizing Summary for AHU-1R [Mens RR]

Project Name: 2021-0153 Telero Clubhouse 06_23_21
 Prepared by: Kamm Consulting

06/30/2021
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Air System Information

Air System Name AHU-1R [Mens RR]	Number of zones 1
Equipment Class UNDEF	Floor Area 196.0 ft ²
Air System Type SZCAV	Location West Palm Beach, Florida

Sizing Calculation Information

Calculation Months Jan to Dec	Zone CFM Sizing Sum of space airflow rates
Sizing Data Calculated	Space CFM Sizing Individual peak space loads

Central Cooling Coil Sizing Data

Total coil load 0.7 Tons	Load occurs at Jul 1800
Total coil load 8.3 MBH	OA DB / WB 88.2 / 77.3 °F
Sensible coil load 6.3 MBH	Entering DB / WB 78.6 / 66.6 °F
Coil CFM at Jul 1800 281 CFM	Leaving DB / WB 57.7 / 57.0 °F
Max block CFM 281 CFM	Coil ADP 56.1 °F
Sum of peak zone CFM 281 CFM	Bypass Factor 0.070
Sensible heat ratio 0.759	Resulting RH 50 %
CFM/Ton 404.6	Design supply temp. 55.0 °F
ft ² /Ton 282.7	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 42.5	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 1.67 gpm	

Central Heating Coil Sizing Data

Max coil load 6.6 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 281 CFM	BTU/(hr-ft ²) 33.5
Max coil CFM 281 CFM	Ent. DB / Lvg DB 64.2 / 85.9 °F
Water flow @ 20.0 °F drop 0.66 gpm	

Supply Fan Sizing Data

Actual max CFM 281 CFM	Fan motor BHP 0.00 BHP
Standard CFM 280 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 1.43 CFM/ft ²	Fan static 0.00 in wg

Outdoor Ventilation Air Data

Design airflow CFM 50 CFM	CFM/person 50.00 CFM/person
CFM/ft ² 0.26 CFM/ft ²	

Air System Sizing Summary for AHU-2R [Womens RR]

Project Name: 2021-0153 Telero Clubhouse 06_23_21
 Prepared by: Kamm Consulting

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Air System Information

Air System Name AHU-2R [Womens RR]	Number of zones 1
Equipment Class UNDEF	Floor Area 225.0 ft ²
Air System Type SZCAV	Location West Palm Beach, Florida

Sizing Calculation Information

Calculation Months Jan to Dec	Zone CFM Sizing Sum of space airflow rates
Sizing Data Calculated	Space CFM Sizing Individual peak space loads

Central Cooling Coil Sizing Data

Total coil load 0.7 Tons	Load occurs at Jul 1600
Total coil load 9.0 MBH	OA DB / WB 90.6 / 77.9 °F
Sensible coil load 6.9 MBH	Entering DB / WB 78.9 / 66.4 °F
Coil CFM at Jul 1600 295 CFM	Leaving DB / WB 57.2 / 56.4 °F
Max block CFM 295 CFM	Coil ADP 55.5 °F
Sum of peak zone CFM 295 CFM	Bypass Factor 0.070
Sensible heat ratio 0.770	Resulting RH 49 %
CFM/Ton 394.4	Design supply temp. 55.0 °F
ft ² /Ton 301.2	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 39.8	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 1.79 gpm	

Central Heating Coil Sizing Data

Max coil load 7.1 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 295 CFM	BTU/(hr-ft ²) 31.3
Max coil CFM 295 CFM	Ent. DB / Lvg DB 64.5 / 86.7 °F
Water flow @ 20.0 °F drop 0.71 gpm	

Supply Fan Sizing Data

Actual max CFM 295 CFM	Fan motor BHP 0.03 BHP
Standard CFM 294 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.31 CFM/ft ²	Fan static 0.50 in wg

Outdoor Ventilation Air Data

Design airflow CFM 50 CFM	CFM/person 50.00 CFM/person
CFM/ft ² 0.22 CFM/ft ²	