

Air System Sizing Summary for BF-BATH7

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-BATH7	Number of zones 1
Equipment Class UNDEF	Floor Area 37.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1600
Total coil load 2.3 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 2.1 MBH	Entering DB / WB 77.6 / 57.4 °F
Coil CFM at Jul 1600 52 CFM	Leaving DB / WB 39.9 / 38.3 °F
Max block CFM 52 CFM	Coil ADP 35.7 °F
Sum of peak zone CFM 52 CFM	Bypass Factor 0.100
Sensible heat ratio 0.903	Resulting RH 27 %
CFM/Ton 266.2	Design supply temp. 35.0 °F
ft ² /Ton 190.8	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 62.9	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.47 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 52 CFM	BTU/(hr-ft ²) 22.4
Max coil CFM 52 CFM	Ent. DB / Lvg DB 71.9 / 86.8 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 52 CFM	Fan motor BHP 0.00 BHP
Standard CFM 52 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 1.40 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-BATHROOM6

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name	BF-BATHROOM6	Number of zones	1
Equipment Class	UNDEF	Floor Area	73.0 ft ²
Air System Type	SZCAV	Location	Dubai, United Arab Emirates

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	0.2 Tons	Load occurs at	Jul 1600
Total coil load	2.5 MBH	OA DB / WB	109.4 / 86.6 °F
Sensible coil load	2.2 MBH	Entering DB / WB	77.7 / 57.3 °F
Coil CFM at Jul 1600	55 CFM	Leaving DB / WB	40.0 / 38.4 °F
Max block CFM	55 CFM	Coil ADP	35.8 °F
Sum of peak zone CFM	55 CFM	Bypass Factor	0.100
Sensible heat ratio	0.908	Resulting RH	27 %
CFM/Ton	268.2	Design supply temp.	35.0 °F
ft ² /Ton	357.0	Zone T-stat Check	1 of 1 OK
BTU/(hr-ft ²)	33.6	Max zone temperature deviation	0.0 °F
Water flow @ 10.0 °F rise	0.49 gpm		

Central Heating Coil Sizing Data

Max coil load	0.9 MBH	Load occurs at	Des Htg
Coil CFM at Des Htg	55 CFM	BTU/(hr-ft ²)	12.2
Max coil CFM	55 CFM	Ent. DB / Lvg DB	72.1 / 87.1 °F
Water flow @ 20.0 °F drop	0.09 gpm		

Supply Fan Sizing Data

Actual max CFM	55 CFM	Fan motor BHP	0.00 BHP
Standard CFM	55 CFM	Fan motor kW	0.00 kW
Actual max CFM/ft ²	0.75 CFM/ft ²	Fan static	0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM	0 CFM	CFM/person	0.00 CFM/person
CFM/ft ²	0.00 CFM/ft ²		

Air System Sizing Summary for BF-BEDROOM#6

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-BEDROOM#6	Number of zones 1
Equipment Class UNDEF	Floor Area 238.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.1 Tons	Load occurs at Jul 1900
Total coil load 13.7 MBH	OA DB / WB 104.3 / 85.5 °F
Sensible coil load 13.5 MBH	Entering DB / WB 77.5 / 57.5 °F
Coil CFM at Jul 1900 380 CFM	Leaving DB / WB 44.6 / 42.8 °F
Max block CFM 380 CFM	Coil ADP 40.9 °F
Sum of peak zone CFM 380 CFM	Bypass Factor 0.100
Sensible heat ratio 0.984	Resulting RH 28 %
CFM/Ton 332.3	Design supply temp. 42.1 °F
ft ² /Ton 208.1	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 57.7	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 2.75 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 380 CFM	BTU/(hr-ft ²) 3.9
Max coil CFM 380 CFM	Ent. DB / Lvg DB 73.8 / 76.1 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 380 CFM	Fan motor BHP 0.02 BHP
Standard CFM 380 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.60 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-BEDROOM7

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-BEDROOM7	Number of zones 1
Equipment Class UNDEF	Floor Area 226.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.1 Tons	Load occurs at Jul 1500
Total coil load 13.8 MBH	OA DB / WB 109.9 / 86.7 °F
Sensible coil load 13.6 MBH	Entering DB / WB 77.4 / 58.1 °F
Coil CFM at Jul 1500 400 CFM	Leaving DB / WB 46.0 / 44.3 °F
Max block CFM 400 CFM	Coil ADP 42.5 °F
Sum of peak zone CFM 400 CFM	Bypass Factor 0.100
Sensible heat ratio 0.984	Resulting RH 30 %
CFM/Ton 348.2	Design supply temp. 43.8 °F
ft ² /Ton 196.7	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 61.0	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 2.76 gpm	

Central Heating Coil Sizing Data

Max coil load 1.0 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 400 CFM	BTU/(hr-ft ²) 4.5
Max coil CFM 400 CFM	Ent. DB / Lvg DB 74.0 / 76.3 °F
Water flow @ 20.0 °F drop 0.10 gpm	

Supply Fan Sizing Data

Actual max CFM 400 CFM	Fan motor BHP 0.02 BHP
Standard CFM 400 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.77 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-COORIDOR2

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-COORIDOR2	Number of zones 1
Equipment Class UNDEF	Floor Area 137.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.5 Tons	Load occurs at Jul 1800
Total coil load 5.8 MBH	OA DB / WB 106.5 / 86.0 °F
Sensible coil load 5.6 MBH	Entering DB / WB 77.4 / 62.0 °F
Coil CFM at Jul 1800 220 CFM	Leaving DB / WB 54.0 / 52.6 °F
Max block CFM 220 CFM	Coil ADP 51.4 °F
Sum of peak zone CFM 220 CFM	Bypass Factor 0.100
Sensible heat ratio 0.961	Resulting RH 42 %
CFM/Ton 456.5	Design supply temp. 51.3 °F
ft ² /Ton 284.3	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 42.2	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 1.16 gpm	

Central Heating Coil Sizing Data

Max coil load 1.0 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 220 CFM	BTU/(hr-ft ²) 7.4
Max coil CFM 220 CFM	Ent. DB / Lvg DB 73.8 / 78.0 °F
Water flow @ 20.0 °F drop 0.10 gpm	

Supply Fan Sizing Data

Actual max CFM 220 CFM	Fan motor BHP 0.01 BHP
Standard CFM 220 CFM	Fan motor kW 0.01 kW
Actual max CFM/ft ² 1.61 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-CORRIDOR

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-CORRIDOR	Number of zones 1
Equipment Class UNDEF	Floor Area 137.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.1 Tons	Load occurs at Jul 1700
Total coil load 13.2 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 13.0 MBH	Entering DB / WB 78.3 / 56.6 °F
Coil CFM at Jul 1700 325 CFM	Leaving DB / WB 41.2 / 39.4 °F
Max block CFM 325 CFM	Coil ADP 37.1 °F
Sum of peak zone CFM 325 CFM	Bypass Factor 0.100
Sensible heat ratio 0.983	Resulting RH 24 %
CFM/Ton 295.1	Design supply temp. 37.6 °F
ft ² /Ton 124.4	Zone T-stat Check 0 of 1 OK
BTU/(hr-ft ²) 96.5	Max zone temperature deviation 0.1 °F
Water flow @ 10.0 °F rise 2.64 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 325 CFM	BTU/(hr-ft ²) 6.3
Max coil CFM 325 CFM	Ent. DB / Lvg DB 73.5 / 76.0 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 325 CFM	Fan motor BHP 0.02 BHP
Standard CFM 325 CFM	Fan motor kW 0.01 kW
Actual max CFM/ft ² 2.37 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-EXCERSISE ROOM

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-EXCERSISE ROOM	Number of zones 1
Equipment Class UNDEF	Floor Area 278.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.5 Tons	Load occurs at Aug 1700
Total coil load 17.7 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 17.4 MBH	Entering DB / WB 77.7 / 56.2 °F
Coil CFM at Aug 1700 440 CFM	Leaving DB / WB 41.0 / 39.2 °F
Max block CFM 440 CFM	Coil ADP 37.0 °F
Sum of peak zone CFM 440 CFM	Bypass Factor 0.100
Sensible heat ratio 0.987	Resulting RH 24 %
CFM/Ton 299.0	Design supply temp. 38.3 °F
ft ² /Ton 188.9	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 63.5	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 3.53 gpm	

Central Heating Coil Sizing Data

Max coil load 1.0 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 440 CFM	BTU/(hr-ft ²) 3.7
Max coil CFM 440 CFM	Ent. DB / Lvg DB 74.0 / 76.2 °F
Water flow @ 20.0 °F drop 0.10 gpm	

Supply Fan Sizing Data

Actual max CFM 440 CFM	Fan motor BHP 0.02 BHP
Standard CFM 440 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.58 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-FINISHED STORAGE

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-FINISHED STORAGE	Number of zones 1
Equipment Class UNDEF	Floor Area 813.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 2.9 Tons	Load occurs at Jun 1500
Total coil load 35.0 MBH	OA DB / WB 108.9 / 86.7 °F
Sensible coil load 34.8 MBH	Entering DB / WB 77.6 / 58.8 °F
Coil CFM at Jun 1500 1080 CFM	Leaving DB / WB 47.8 / 46.1 °F
Max block CFM 1080 CFM	Coil ADP 44.5 °F
Sum of peak zone CFM 1080 CFM	Bypass Factor 0.100
Sensible heat ratio 0.994	Resulting RH 31 %
CFM/Ton 370.1	Design supply temp. 45.4 °F
ft ² /Ton 278.6	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 43.1	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 7.01 gpm	

Central Heating Coil Sizing Data

Max coil load 1.2 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 1080 CFM	BTU/(hr-ft ²) 1.5
Max coil CFM 1080 CFM	Ent. DB / Lvg DB 74.3 / 75.4 °F
Water flow @ 20.0 °F drop 0.12 gpm	

Supply Fan Sizing Data

Actual max CFM 1080 CFM	Fan motor BHP 0.06 BHP
Standard CFM 1079 CFM	Fan motor kW 0.05 kW
Actual max CFM/ft ² 1.33 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-FOYER

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-FOYER	Number of zones 1
Equipment Class UNDEF	Floor Area 262.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.2 Tons	Load occurs at Jul 1600
Total coil load 13.8 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 13.6 MBH	Entering DB / WB 77.6 / 58.1 °F
Coil CFM at Jul 1600 400 CFM	Leaving DB / WB 46.1 / 44.3 °F
Max block CFM 400 CFM	Coil ADP 42.6 °F
Sum of peak zone CFM 400 CFM	Bypass Factor 0.100
Sensible heat ratio 0.984	Resulting RH 29 %
CFM/Ton 346.7	Design supply temp. 43.5 °F
ft ² /Ton 227.1	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 52.8	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 2.77 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 400 CFM	BTU/(hr-ft ²) 3.1
Max coil CFM 400 CFM	Ent. DB / Lvg DB 73.7 / 75.5 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 400 CFM	Fan motor BHP 0.02 BHP
Standard CFM 400 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.53 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-GAME ROOM

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-GAME ROOM	Number of zones 1
Equipment Class UNDEF	Floor Area 492.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.9 Tons	Load occurs at Aug 1600
Total coil load 22.3 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 22.1 MBH	Entering DB / WB 77.6 / 60.4 °F
Coil CFM at Aug 1600 780 CFM	Leaving DB / WB 51.3 / 49.7 °F
Max block CFM 780 CFM	Coil ADP 48.4 °F
Sum of peak zone CFM 780 CFM	Bypass Factor 0.100
Sensible heat ratio 0.990	Resulting RH 36 %
CFM/Ton 419.0	Design supply temp. 48.9 °F
ft ² /Ton 264.3	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 45.4	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 4.47 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 780 CFM	BTU/(hr-ft ²) 1.6
Max coil CFM 780 CFM	Ent. DB / Lvg DB 74.0 / 74.9 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 780 CFM	Fan motor BHP 0.04 BHP
Standard CFM 780 CFM	Fan motor kW 0.03 kW
Actual max CFM/ft ² 1.59 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-LOUNGE

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-LOUNGE	Number of zones 1
Equipment Class UNDEF	Floor Area 532.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 2.2 Tons	Load occurs at May 1800
Total coil load 26.3 MBH	OA DB / WB 103.5 / 84.4 °F
Sensible coil load 26.1 MBH	Entering DB / WB 77.5 / 55.9 °F
Coil CFM at May 1800 650 CFM	Leaving DB / WB 40.4 / 38.5 °F
Max block CFM 650 CFM	Coil ADP 36.3 °F
Sum of peak zone CFM 650 CFM	Bypass Factor 0.100
Sensible heat ratio 0.991	Resulting RH 23 %
CFM/Ton 296.7	Design supply temp. 38.1 °F
ft ² /Ton 242.8	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 49.4	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 5.26 gpm	

Central Heating Coil Sizing Data

Max coil load 0.6 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 650 CFM	BTU/(hr-ft ²) 1.2
Max coil CFM 650 CFM	Ent. DB / Lvg DB 73.6 / 74.5 °F
Water flow @ 20.0 °F drop 0.06 gpm	

Supply Fan Sizing Data

Actual max CFM 650 CFM	Fan motor BHP 0.04 BHP
Standard CFM 650 CFM	Fan motor kW 0.03 kW
Actual max CFM/ft ² 1.22 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-OFFICE2

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-OFFICE2	Number of zones 1
Equipment Class UNDEF	Floor Area 305.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.5 Tons	Load occurs at Jun 1600
Total coil load 17.9 MBH	OA DB / WB 108.4 / 86.6 °F
Sensible coil load 17.6 MBH	Entering DB / WB 77.5 / 56.8 °F
Coil CFM at Jun 1600 470 CFM	Leaving DB / WB 42.8 / 41.0 °F
Max block CFM 470 CFM	Coil ADP 38.9 °F
Sum of peak zone CFM 470 CFM	Bypass Factor 0.100
Sensible heat ratio 0.987	Resulting RH 26 %
CFM/Ton 315.9	Design supply temp. 40.5 °F
ft ² /Ton 205.0	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 58.5	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 3.57 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 470 CFM	BTU/(hr-ft ²) 2.9
Max coil CFM 470 CFM	Ent. DB / Lvg DB 73.9 / 75.6 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 470 CFM	Fan motor BHP 0.03 BHP
Standard CFM 470 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.54 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-OFFICEBATH

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name	BF-OFFICEBATH	Number of zones	1
Equipment Class	UNDEF	Floor Area	37.0 ft ²
Air System Type	SZCAV	Location	Dubai, United Arab Emirates

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	0.2 Tons	Load occurs at	Jul 1600
Total coil load	2.3 MBH	OA DB / WB	109.4 / 86.6 °F
Sensible coil load	2.1 MBH	Entering DB / WB	77.6 / 57.4 °F
Coil CFM at Jul 1600	52 CFM	Leaving DB / WB	39.9 / 38.3 °F
Max block CFM	52 CFM	Coil ADP	35.7 °F
Sum of peak zone CFM	52 CFM	Bypass Factor	0.100
Sensible heat ratio	0.903	Resulting RH	27 %
CFM/Ton	266.2	Design supply temp.	35.0 °F
ft ² /Ton	190.8	Zone T-stat Check	1 of 1 OK
BTU/(hr-ft ²)	62.9	Max zone temperature deviation	0.0 °F
Water flow @ 10.0 °F rise	0.47 gpm		

Central Heating Coil Sizing Data

Max coil load	0.8 MBH	Load occurs at	Des Htg
Coil CFM at Des Htg	52 CFM	BTU/(hr-ft ²)	22.4
Max coil CFM	52 CFM	Ent. DB / Lvg DB	71.9 / 86.8 °F
Water flow @ 20.0 °F drop	0.08 gpm		

Supply Fan Sizing Data

Actual max CFM	52 CFM	Fan motor BHP	0.00 BHP
Standard CFM	52 CFM	Fan motor kW	0.00 kW
Actual max CFM/ft ²	1.40 CFM/ft ²	Fan static	0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM	0 CFM	CFM/person	0.00 CFM/person
CFM/ft ²	0.00 CFM/ft ²		

Air System Sizing Summary for BF-PR3

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-PR3	Number of zones 1
Equipment Class UNDEF	Floor Area 51.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1700
Total coil load 2.4 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 2.2 MBH	Entering DB / WB 77.6 / 57.3 °F
Coil CFM at Jul 1700 53 CFM	Leaving DB / WB 39.8 / 38.2 °F
Max block CFM 53 CFM	Coil ADP 35.6 °F
Sum of peak zone CFM 53 CFM	Bypass Factor 0.100
Sensible heat ratio 0.905	Resulting RH 27 %
CFM/Ton 266.3	Design supply temp. 35.0 °F
ft ² /Ton 256.8	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 46.7	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.48 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 53 CFM	BTU/(hr-ft ²) 16.5
Max coil CFM 53 CFM	Ent. DB / Lvg DB 71.9 / 86.6 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 53 CFM	Fan motor BHP 0.00 BHP
Standard CFM 53 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 1.04 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-RECORD ROOM

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name	BF-RECORD ROOM	Number of zones	1
Equipment Class	UNDEF	Floor Area	535.0 ft ²
Air System Type	SZCAV	Location	Dubai, United Arab Emirates

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	1.9 Tons	Load occurs at	Jun 1600
Total coil load	22.8 MBH	OA DB / WB	108.4 / 86.6 °F
Sensible coil load	22.6 MBH	Entering DB / WB	77.6 / 59.9 °F
Coil CFM at Jun 1600	766 CFM	Leaving DB / WB	50.3 / 48.7 °F
Max block CFM	766 CFM	Coil ADP	47.2 °F
Sum of peak zone CFM	766 CFM	Bypass Factor	0.100
Sensible heat ratio	0.990	Resulting RH	35 %
CFM/Ton	403.3	Design supply temp.	48.2 °F
ft ² /Ton	281.7	Zone T-stat Check	1 of 1 OK
BTU/(hr-ft ²)	42.6	Max zone temperature deviation	0.0 °F
Water flow @ 10.0 °F rise	4.56 gpm		

Central Heating Coil Sizing Data

Max coil load	0.5 MBH	Load occurs at	Des Htg
Coil CFM at Des Htg	766 CFM	BTU/(hr-ft ²)	1.0
Max coil CFM	766 CFM	Ent. DB / Lvg DB	73.7 / 74.3 °F
Water flow @ 20.0 °F drop	0.05 gpm		

Supply Fan Sizing Data

Actual max CFM	766 CFM	Fan motor BHP	0.04 BHP
Standard CFM	766 CFM	Fan motor kW	0.03 kW
Actual max CFM/ft ²	1.43 CFM/ft ²	Fan static	0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM	0 CFM	CFM/person	0.00 CFM/person
CFM/ft ²	0.00 CFM/ft ²		

Air System Sizing Summary for BF-RECORD ROOM 2

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-RECORD ROOM 2	Number of zones 1
Equipment Class UNDEF	Floor Area 535.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.9 Tons	Load occurs at Jun 1400
Total coil load 22.7 MBH	OA DB / WB 108.4 / 86.6 °F
Sensible coil load 22.4 MBH	Entering DB / WB 77.6 / 60.0 °F
Coil CFM at Jun 1400 764 CFM	Leaving DB / WB 50.4 / 48.8 °F
Max block CFM 764 CFM	Coil ADP 47.4 °F
Sum of peak zone CFM 764 CFM	Bypass Factor 0.100
Sensible heat ratio 0.990	Resulting RH 35 %
CFM/Ton 404.5	Design supply temp. 48.1 °F
ft ² /Ton 283.3	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 42.4	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 4.54 gpm	

Central Heating Coil Sizing Data

Max coil load 1.0 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 764 CFM	BTU/(hr-ft ²) 2.0
Max coil CFM 764 CFM	Ent. DB / Lvg DB 74.2 / 75.4 °F
Water flow @ 20.0 °F drop 0.10 gpm	

Supply Fan Sizing Data

Actual max CFM 764 CFM	Fan motor BHP 0.04 BHP
Standard CFM 764 CFM	Fan motor kW 0.03 kW
Actual max CFM/ft ² 1.43 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-WET BAR

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-WET BAR	Number of zones 1
Equipment Class UNDEF	Floor Area 73.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.1 Tons	Load occurs at Jul 1500
Total coil load 13.1 MBH	OA DB / WB 109.9 / 86.7 °F
Sensible coil load 12.8 MBH	Entering DB / WB 77.4 / 56.1 °F
Coil CFM at Jul 1500 325 CFM	Leaving DB / WB 40.8 / 39.0 °F
Max block CFM 325 CFM	Coil ADP 36.7 °F
Sum of peak zone CFM 325 CFM	Bypass Factor 0.100
Sensible heat ratio 0.983	Resulting RH 24 %
CFM/Ton 298.4	Design supply temp. 38.3 °F
ft ² /Ton 67.0	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 179.0	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 2.62 gpm	

Central Heating Coil Sizing Data

Max coil load 1.0 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 325 CFM	BTU/(hr-ft ²) 13.1
Max coil CFM 325 CFM	Ent. DB / Lvg DB 73.8 / 76.5 °F
Water flow @ 20.0 °F drop 0.10 gpm	

Supply Fan Sizing Data

Actual max CFM 325 CFM	Fan motor BHP 0.02 BHP
Standard CFM 325 CFM	Fan motor kW 0.01 kW
Actual max CFM/ft ² 4.45 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-WIC

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-WIC	Number of zones 1
Equipment Class UNDEF	Floor Area 69.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1600
Total coil load 2.4 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 2.2 MBH	Entering DB / WB 77.6 / 57.3 °F
Coil CFM at Jul 1600 54 CFM	Leaving DB / WB 40.0 / 38.3 °F
Max block CFM 54 CFM	Coil ADP 35.8 °F
Sum of peak zone CFM 54 CFM	Bypass Factor 0.100
Sensible heat ratio 0.908	Resulting RH 27 %
CFM/Ton 267.9	Design supply temp. 35.0 °F
ft ² /Ton 339.2	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 35.4	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.49 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 54 CFM	BTU/(hr-ft ²) 13.0
Max coil CFM 54 CFM	Ent. DB / Lvg DB 72.1 / 87.3 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 54 CFM	Fan motor BHP 0.00 BHP
Standard CFM 54 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 0.79 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for BF-WIC2

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name BF-WIC2	Number of zones 1
Equipment Class UNDEF	Floor Area 57.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jun 1700
Total coil load 2.4 MBH	OA DB / WB 107.3 / 86.4 °F
Sensible coil load 2.2 MBH	Entering DB / WB 77.5 / 57.2 °F
Coil CFM at Jun 1700 53 CFM	Leaving DB / WB 39.8 / 38.2 °F
Max block CFM 53 CFM	Coil ADP 35.6 °F
Sum of peak zone CFM 53 CFM	Bypass Factor 0.100
Sensible heat ratio 0.906	Resulting RH 27 %
CFM/Ton 267.1	Design supply temp. 35.0 °F
ft ² /Ton 285.0	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 42.1	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.48 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 53 CFM	BTU/(hr-ft ²) 15.7
Max coil CFM 53 CFM	Ent. DB / Lvg DB 72.2 / 87.7 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 53 CFM	Fan motor BHP 0.00 BHP
Standard CFM 53 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 0.94 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF- BATH

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF- BATH	Number of zones 1
Equipment Class UNDEF	Floor Area 36.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1600
Total coil load 2.3 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 2.1 MBH	Entering DB / WB 77.6 / 57.4 °F
Coil CFM at Jul 1600 52 CFM	Leaving DB / WB 39.9 / 38.3 °F
Max block CFM 52 CFM	Coil ADP 35.7 °F
Sum of peak zone CFM 52 CFM	Bypass Factor 0.100
Sensible heat ratio 0.903	Resulting RH 27 %
CFM/Ton 266.4	Design supply temp. 35.0 °F
ft ² /Ton 186.0	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 64.5	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.46 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 52 CFM	BTU/(hr-ft ²) 23.0
Max coil CFM 52 CFM	Ent. DB / Lvg DB 71.9 / 86.8 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 52 CFM	Fan motor BHP 0.00 BHP
Standard CFM 52 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 1.43 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF- BATH3

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF- BATH3	Number of zones 1
Equipment Class UNDEF	Floor Area 43.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1800
Total coil load 2.3 MBH	OA DB / WB 106.5 / 86.0 °F
Sensible coil load 2.1 MBH	Entering DB / WB 77.5 / 57.3 °F
Coil CFM at Jul 1800 52 CFM	Leaving DB / WB 39.9 / 38.2 °F
Max block CFM 52 CFM	Coil ADP 35.7 °F
Sum of peak zone CFM 52 CFM	Bypass Factor 0.100
Sensible heat ratio 0.903	Resulting RH 27 %
CFM/Ton 266.6	Design supply temp. 35.0 °F
ft ² /Ton 219.7	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 54.6	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.47 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 52 CFM	BTU/(hr-ft ²) 19.2
Max coil CFM 52 CFM	Ent. DB / Lvg DB 72.1 / 86.7 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 52 CFM	Fan motor BHP 0.00 BHP
Standard CFM 52 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 1.21 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF- PENTRY

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF- PENTRY	Number of zones 1
Equipment Class UNDEF	Floor Area 55.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1700
Total coil load 2.4 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 2.2 MBH	Entering DB / WB 77.7 / 57.5 °F
Coil CFM at Jul 1700 53 CFM	Leaving DB / WB 40.2 / 38.6 °F
Max block CFM 53 CFM	Coil ADP 36.0 °F
Sum of peak zone CFM 53 CFM	Bypass Factor 0.100
Sensible heat ratio 0.905	Resulting RH 27 %
CFM/Ton 268.3	Design supply temp. 35.0 °F
ft ² /Ton 277.1	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 43.3	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.48 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 53 CFM	BTU/(hr-ft ²) 16.2
Max coil CFM 53 CFM	Ent. DB / Lvg DB 72.2 / 87.7 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 53 CFM	Fan motor BHP 0.00 BHP
Standard CFM 53 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 0.97 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF- WIC

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF- WIC	Number of zones 1
Equipment Class UNDEF	Floor Area 55.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1700
Total coil load 2.4 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 2.2 MBH	Entering DB / WB 77.7 / 57.5 °F
Coil CFM at Jul 1700 53 CFM	Leaving DB / WB 40.2 / 38.6 °F
Max block CFM 53 CFM	Coil ADP 36.0 °F
Sum of peak zone CFM 53 CFM	Bypass Factor 0.100
Sensible heat ratio 0.905	Resulting RH 27 %
CFM/Ton 268.3	Design supply temp. 35.0 °F
ft ² /Ton 277.1	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 43.3	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.48 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 53 CFM	BTU/(hr-ft ²) 16.2
Max coil CFM 53 CFM	Ent. DB / Lvg DB 72.2 / 87.7 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 53 CFM	Fan motor BHP 0.00 BHP
Standard CFM 53 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 0.97 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF- WIC2

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF- WIC2	Number of zones 1
Equipment Class UNDEF	Floor Area 43.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1800
Total coil load 2.3 MBH	OA DB / WB 106.5 / 86.0 °F
Sensible coil load 2.1 MBH	Entering DB / WB 77.5 / 57.3 °F
Coil CFM at Jul 1800 52 CFM	Leaving DB / WB 39.9 / 38.2 °F
Max block CFM 52 CFM	Coil ADP 35.7 °F
Sum of peak zone CFM 52 CFM	Bypass Factor 0.100
Sensible heat ratio 0.903	Resulting RH 27 %
CFM/Ton 266.6	Design supply temp. 35.0 °F
ft ² /Ton 219.7	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 54.6	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.47 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 52 CFM	BTU/(hr-ft ²) 19.6
Max coil CFM 52 CFM	Ent. DB / Lvg DB 72.0 / 87.0 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 52 CFM	Fan motor BHP 0.00 BHP
Standard CFM 52 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 1.21 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF- WIC3

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF- WIC3	Number of zones 1
Equipment Class UNDEF	Floor Area 36.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1600
Total coil load 2.3 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 2.1 MBH	Entering DB / WB 77.6 / 57.4 °F
Coil CFM at Jul 1600 52 CFM	Leaving DB / WB 39.9 / 38.3 °F
Max block CFM 52 CFM	Coil ADP 35.7 °F
Sum of peak zone CFM 52 CFM	Bypass Factor 0.100
Sensible heat ratio 0.903	Resulting RH 27 %
CFM/Ton 266.4	Design supply temp. 35.0 °F
ft ² /Ton 186.0	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 64.5	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.46 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 52 CFM	BTU/(hr-ft ²) 23.0
Max coil CFM 52 CFM	Ent. DB / Lvg DB 71.9 / 86.8 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 52 CFM	Fan motor BHP 0.00 BHP
Standard CFM 52 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 1.43 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF-BAH5

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF-BAH5	Number of zones 1
Equipment Class UNDEF	Floor Area 65.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1700
Total coil load 2.4 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 2.2 MBH	Entering DB / WB 77.6 / 57.2 °F
Coil CFM at Jul 1700 54 CFM	Leaving DB / WB 39.7 / 38.1 °F
Max block CFM 54 CFM	Coil ADP 35.5 °F
Sum of peak zone CFM 54 CFM	Bypass Factor 0.100
Sensible heat ratio 0.907	Resulting RH 27 %
CFM/Ton 266.3	Design supply temp. 35.0 °F
ft ² /Ton 319.8	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 37.5	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.49 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 54 CFM	BTU/(hr-ft ²) 12.9
Max coil CFM 54 CFM	Ent. DB / Lvg DB 72.1 / 86.4 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 54 CFM	Fan motor BHP 0.00 BHP
Standard CFM 54 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 0.83 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF-BUTLERS PENTRY

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF-BUTLERS PENTRY	Number of zones 1
Equipment Class UNDEF	Floor Area 120.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1600
Total coil load 2.6 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 2.4 MBH	Entering DB / WB 77.6 / 57.2 °F
Coil CFM at Jul 1600 59 CFM	Leaving DB / WB 40.1 / 38.4 °F
Max block CFM 59 CFM	Coil ADP 35.9 °F
Sum of peak zone CFM 59 CFM	Bypass Factor 0.100
Sensible heat ratio 0.914	Resulting RH 27 %
CFM/Ton 270.6	Design supply temp. 35.0 °F
ft ² /Ton 550.0	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 21.8	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.52 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 59 CFM	BTU/(hr-ft ²) 7.5
Max coil CFM 59 CFM	Ent. DB / Lvg DB 72.2 / 86.4 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 59 CFM	Fan motor BHP 0.00 BHP
Standard CFM 59 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 0.49 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF-CORRIDOR

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF-CORRIDOR	Number of zones 1
Equipment Class UNDEF	Floor Area 562.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.9 Tons	Load occurs at Jun 1900
Total coil load 22.8 MBH	OA DB / WB 103.3 / 85.5 °F
Sensible coil load 22.5 MBH	Entering DB / WB 77.6 / 59.7 °F
Coil CFM at Jun 1900 750 CFM	Leaving DB / WB 49.7 / 48.1 °F
Max block CFM 750 CFM	Coil ADP 46.6 °F
Sum of peak zone CFM 750 CFM	Bypass Factor 0.100
Sensible heat ratio 0.990	Resulting RH 34 %
CFM/Ton 395.3	Design supply temp. 47.5 °F
ft ² /Ton 296.2	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 40.5	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 4.56 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 750 CFM	BTU/(hr-ft ²) 1.5
Max coil CFM 750 CFM	Ent. DB / Lvg DB 73.9 / 75.0 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 750 CFM	Fan motor BHP 0.04 BHP
Standard CFM 750 CFM	Fan motor kW 0.03 kW
Actual max CFM/ft ² 1.33 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF-DINING ROOM

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF-DINING ROOM	Number of zones 1
Equipment Class UNDEF	Floor Area 600.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 2.9 Tons	Load occurs at Jun 1900
Total coil load 34.2 MBH	OA DB / WB 103.3 / 85.5 °F
Sensible coil load 34.0 MBH	Entering DB / WB 77.5 / 59.2 °F
Coil CFM at Jun 1900 1100 CFM	Leaving DB / WB 48.9 / 47.2 °F
Max block CFM 1100 CFM	Coil ADP 45.7 °F
Sum of peak zone CFM 1100 CFM	Bypass Factor 0.100
Sensible heat ratio 0.993	Resulting RH 33 %
CFM/Ton 385.6	Design supply temp. 46.6 °F
ft ² /Ton 210.3	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 57.1	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 6.85 gpm	

Central Heating Coil Sizing Data

Max coil load 0.5 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 1100 CFM	BTU/(hr-ft ²) 0.9
Max coil CFM 1100 CFM	Ent. DB / Lvg DB 73.8 / 74.2 °F
Water flow @ 20.0 °F drop 0.05 gpm	

Supply Fan Sizing Data

Actual max CFM 1100 CFM	Fan motor BHP 0.06 BHP
Standard CFM 1099 CFM	Fan motor kW 0.05 kW
Actual max CFM/ft ² 1.83 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF-FAMILY DINING

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF-FAMILY DINING	Number of zones 1
Equipment Class UNDEF	Floor Area 281.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.5 Tons	Load occurs at Jun 1700
Total coil load 17.7 MBH	OA DB / WB 107.3 / 86.4 °F
Sensible coil load 17.5 MBH	Entering DB / WB 77.5 / 58.4 °F
Coil CFM at Jun 1700 530 CFM	Leaving DB / WB 46.8 / 45.1 °F
Max block CFM 530 CFM	Coil ADP 43.4 °F
Sum of peak zone CFM 530 CFM	Bypass Factor 0.100
Sensible heat ratio 0.987	Resulting RH 30 %
CFM/Ton 358.3	Design supply temp. 44.5 °F
ft ² /Ton 190.0	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 63.2	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 3.55 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 530 CFM	BTU/(hr-ft ²) 2.8
Max coil CFM 530 CFM	Ent. DB / Lvg DB 73.8 / 75.1 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 530 CFM	Fan motor BHP 0.03 BHP
Standard CFM 530 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.89 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF-FAMILY ROOM

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF-FAMILY ROOM	Number of zones 1
Equipment Class UNDEF	Floor Area 572.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 2.8 Tons	Load occurs at Jul 1700
Total coil load 34.1 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 33.8 MBH	Entering DB / WB 77.6 / 58.8 °F
Coil CFM at Jul 1700 1050 CFM	Leaving DB / WB 47.8 / 46.1 °F
Max block CFM 1050 CFM	Coil ADP 44.5 °F
Sum of peak zone CFM 1050 CFM	Bypass Factor 0.100
Sensible heat ratio 0.993	Resulting RH 31 %
CFM/Ton 369.8	Design supply temp. 45.4 °F
ft ² /Ton 201.5	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 59.6	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 6.82 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 1050 CFM	BTU/(hr-ft ²) 1.5
Max coil CFM 1050 CFM	Ent. DB / Lvg DB 74.0 / 74.8 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 1050 CFM	Fan motor BHP 0.06 BHP
Standard CFM 1049 CFM	Fan motor kW 0.05 kW
Actual max CFM/ft ² 1.84 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF-GUEST SUIT

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF-GUEST SUIT	Number of zones 1
Equipment Class UNDEF	Floor Area 251.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.8 Tons	Load occurs at Jul 1600
Total coil load 21.2 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 21.0 MBH	Entering DB / WB 78.3 / 55.8 °F
Coil CFM at Jul 1600 500 CFM	Leaving DB / WB 39.4 / 37.5 °F
Max block CFM 500 CFM	Coil ADP 35.1 °F
Sum of peak zone CFM 500 CFM	Bypass Factor 0.100
Sensible heat ratio 0.989	Resulting RH 22 %
CFM/Ton 282.9	Design supply temp. 36.0 °F
ft ² /Ton 142.0	Zone T-stat Check 0 of 1 OK
BTU/(hr-ft ²) 84.5	Max zone temperature deviation 0.1 °F
Water flow @ 10.0 °F rise 4.24 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 500 CFM	BTU/(hr-ft ²) 3.2
Max coil CFM 500 CFM	Ent. DB / Lvg DB 73.8 / 75.2 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 500 CFM	Fan motor BHP 0.03 BHP
Standard CFM 500 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.99 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF-KITCHEN

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF-KITCHEN	Number of zones 1
Equipment Class UNDEF	Floor Area 220.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.1 Tons	Load occurs at Jul 1900
Total coil load 13.7 MBH	OA DB / WB 104.3 / 85.5 °F
Sensible coil load 13.4 MBH	Entering DB / WB 77.5 / 58.3 °F
Coil CFM at Jul 1900 400 CFM	Leaving DB / WB 46.4 / 44.7 °F
Max block CFM 400 CFM	Coil ADP 43.0 °F
Sum of peak zone CFM 400 CFM	Bypass Factor 0.100
Sensible heat ratio 0.983	Resulting RH 30 %
CFM/Ton 351.4	Design supply temp. 43.9 °F
ft ² /Ton 193.3	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 62.1	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 2.73 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 400 CFM	BTU/(hr-ft ²) 3.7
Max coil CFM 400 CFM	Ent. DB / Lvg DB 73.5 / 75.4 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 400 CFM	Fan motor BHP 0.02 BHP
Standard CFM 400 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.82 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF-MUD ROOM

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF-MUD ROOM	Number of zones 1
Equipment Class UNDEF	Floor Area 297.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.9 Tons	Load occurs at Aug 1700
Total coil load 10.2 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 10.0 MBH	Entering DB / WB 77.5 / 60.4 °F
Coil CFM at Aug 1700 350 CFM	Leaving DB / WB 51.1 / 49.5 °F
Max block CFM 350 CFM	Coil ADP 48.2 °F
Sum of peak zone CFM 350 CFM	Bypass Factor 0.100
Sensible heat ratio 0.978	Resulting RH 36 %
CFM/Ton 411.7	Design supply temp. 48.6 °F
ft ² /Ton 349.3	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 34.4	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 2.04 gpm	

Central Heating Coil Sizing Data

Max coil load 1.0 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 350 CFM	BTU/(hr-ft ²) 3.5
Max coil CFM 350 CFM	Ent. DB / Lvg DB 73.9 / 76.7 °F
Water flow @ 20.0 °F drop 0.10 gpm	

Supply Fan Sizing Data

Actual max CFM 350 CFM	Fan motor BHP 0.02 BHP
Standard CFM 350 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.18 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF-OFFICE

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF-OFFICE	Number of zones 1
Equipment Class UNDEF	Floor Area 301.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.8 Tons	Load occurs at Jul 1600
Total coil load 21.6 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 21.3 MBH	Entering DB / WB 77.7 / 57.6 °F
Coil CFM at Jul 1600 600 CFM	Leaving DB / WB 44.7 / 43.0 °F
Max block CFM 600 CFM	Coil ADP 41.1 °F
Sum of peak zone CFM 600 CFM	Bypass Factor 0.100
Sensible heat ratio 0.990	Resulting RH 28 %
CFM/Ton 333.9	Design supply temp. 42.2 °F
ft ² /Ton 167.5	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 71.6	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 4.32 gpm	

Central Heating Coil Sizing Data

Max coil load 0.7 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 600 CFM	BTU/(hr-ft ²) 2.5
Max coil CFM 600 CFM	Ent. DB / Lvg DB 73.6 / 74.7 °F
Water flow @ 20.0 °F drop 0.07 gpm	

Supply Fan Sizing Data

Actual max CFM 600 CFM	Fan motor BHP 0.03 BHP
Standard CFM 600 CFM	Fan motor kW 0.03 kW
Actual max CFM/ft ² 1.99 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF-SPICE KITCHEN

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF-SPICE KITCHEN	Number of zones 1
Equipment Class UNDEF	Floor Area 278.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.5 Tons	Load occurs at Aug 1800
Total coil load 17.6 MBH	OA DB / WB 106.5 / 86.0 °F
Sensible coil load 17.4 MBH	Entering DB / WB 77.6 / 58.3 °F
Coil CFM at Aug 1800 520 CFM	Leaving DB / WB 46.6 / 44.9 °F
Max block CFM 520 CFM	Coil ADP 43.2 °F
Sum of peak zone CFM 520 CFM	Bypass Factor 0.100
Sensible heat ratio 0.987	Resulting RH 30 %
CFM/Ton 354.1	Design supply temp. 44.0 °F
ft ² /Ton 189.3	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 63.4	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 3.53 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 520 CFM	BTU/(hr-ft ²) 3.0
Max coil CFM 520 CFM	Ent. DB / Lvg DB 73.8 / 75.2 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 520 CFM	Fan motor BHP 0.03 BHP
Standard CFM 520 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.87 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for LF-VESTIBULE

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name LF-VESTIBULE	Number of zones 1
Equipment Class UNDEF	Floor Area 200.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.5 Tons	Load occurs at Jun 1600
Total coil load 6.0 MBH	OA DB / WB 108.4 / 86.6 °F
Sensible coil load 5.8 MBH	Entering DB / WB 77.6 / 60.5 °F
Coil CFM at Jun 1600 200 CFM	Leaving DB / WB 50.9 / 49.3 °F
Max block CFM 200 CFM	Coil ADP 47.9 °F
Sum of peak zone CFM 200 CFM	Bypass Factor 0.100
Sensible heat ratio 0.962	Resulting RH 37 %
CFM/Ton 401.1	Design supply temp. 47.9 °F
ft ² /Ton 401.1	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 29.9	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 1.20 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 200 CFM	BTU/(hr-ft ²) 4.4
Max coil CFM 200 CFM	Ent. DB / Lvg DB 73.3 / 77.4 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 200 CFM	Fan motor BHP 0.01 BHP
Standard CFM 200 CFM	Fan motor kW 0.01 kW
Actual max CFM/ft ² 1.00 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-2STORY FROYER

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-2STORY FROYER	Number of zones 1
Equipment Class UNDEF	Floor Area 360.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.9 Tons	Load occurs at Jun 1800
Total coil load 10.5 MBH	OA DB / WB 105.5 / 86.0 °F
Sensible coil load 10.2 MBH	Entering DB / WB 77.6 / 60.5 °F
Coil CFM at Jun 1800 360 CFM	Leaving DB / WB 51.3 / 49.7 °F
Max block CFM 360 CFM	Coil ADP 48.3 °F
Sum of peak zone CFM 360 CFM	Bypass Factor 0.100
Sensible heat ratio 0.978	Resulting RH 37 %
CFM/Ton 413.2	Design supply temp. 48.7 °F
ft ² /Ton 413.2	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 29.0	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 2.09 gpm	

Central Heating Coil Sizing Data

Max coil load 1.0 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 360 CFM	BTU/(hr-ft ²) 2.7
Max coil CFM 360 CFM	Ent. DB / Lvg DB 74.0 / 76.4 °F
Water flow @ 20.0 °F drop 0.10 gpm	

Supply Fan Sizing Data

Actual max CFM 360 CFM	Fan motor BHP 0.02 BHP
Standard CFM 360 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.00 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-BATH

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-BATH	Number of zones 1
Equipment Class UNDEF	Floor Area 34.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1600
Total coil load 2.4 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 2.1 MBH	Entering DB / WB 76.5 / 56.3 °F
Coil CFM at Jul 1600 51 CFM	Leaving DB / WB 37.8 / 36.2 °F
Max block CFM 51 CFM	Coil ADP 33.5 °F
Sum of peak zone CFM 51 CFM	Bypass Factor 0.100
Sensible heat ratio 0.905	Resulting RH 26 %
CFM/Ton 260.0	Design supply temp. 35.0 °F
ft ² /Ton 172.1	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 69.7	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.47 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 51 CFM	BTU/(hr-ft ²) 25.9
Max coil CFM 51 CFM	Ent. DB / Lvg DB 73.0 / 88.9 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 51 CFM	Fan motor BHP 0.00 BHP
Standard CFM 51 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 1.51 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-BATH..

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-BATH..	Number of zones 1
Equipment Class UNDEF	Floor Area 39.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jun 1700
Total coil load 2.4 MBH	OA DB / WB 107.3 / 86.4 °F
Sensible coil load 2.2 MBH	Entering DB / WB 76.4 / 56.2 °F
Coil CFM at Jun 1700 52 CFM	Leaving DB / WB 37.7 / 36.1 °F
Max block CFM 52 CFM	Coil ADP 33.4 °F
Sum of peak zone CFM 52 CFM	Bypass Factor 0.100
Sensible heat ratio 0.906	Resulting RH 26 %
CFM/Ton 260.2	Design supply temp. 35.0 °F
ft ² /Ton 195.8	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 61.3	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.48 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 52 CFM	BTU/(hr-ft ²) 22.5
Max coil CFM 52 CFM	Ent. DB / Lvg DB 73.0 / 88.7 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 52 CFM	Fan motor BHP 0.00 BHP
Standard CFM 52 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 1.33 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-BATH2

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-BATH2	Number of zones 1
Equipment Class UNDEF	Floor Area 78.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jun 1800
Total coil load 2.5 MBH	OA DB / WB 105.5 / 86.0 °F
Sensible coil load 2.3 MBH	Entering DB / WB 76.6 / 56.4 °F
Coil CFM at Jun 1800 55 CFM	Leaving DB / WB 38.3 / 36.7 °F
Max block CFM 55 CFM	Coil ADP 34.0 °F
Sum of peak zone CFM 55 CFM	Bypass Factor 0.100
Sensible heat ratio 0.910	Resulting RH 26 %
CFM/Ton 264.0	Design supply temp. 35.0 °F
ft ² /Ton 372.4	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 32.2	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.50 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 55 CFM	BTU/(hr-ft ²) 11.3
Max coil CFM 55 CFM	Ent. DB / Lvg DB 73.0 / 87.7 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 55 CFM	Fan motor BHP 0.00 BHP
Standard CFM 55 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 0.71 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-BEDROOM2

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-BEDROOM2	Number of zones 1
Equipment Class UNDEF	Floor Area 291.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.8 Tons	Load occurs at Jul 1700
Total coil load 21.4 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 21.2 MBH	Entering DB / WB 78.0 / 57.4 °F
Coil CFM at Jul 1700 580 CFM	Leaving DB / WB 44.1 / 42.3 °F
Max block CFM 580 CFM	Coil ADP 40.4 °F
Sum of peak zone CFM 580 CFM	Bypass Factor 0.100
Sensible heat ratio 0.989	Resulting RH 27 %
CFM/Ton 324.9	Design supply temp. 41.1 °F
ft ² /Ton 163.0	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 73.6	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 4.29 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 580 CFM	BTU/(hr-ft ²) 2.9
Max coil CFM 580 CFM	Ent. DB / Lvg DB 73.7 / 75.1 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 580 CFM	Fan motor BHP 0.03 BHP
Standard CFM 580 CFM	Fan motor kW 0.03 kW
Actual max CFM/ft ² 1.99 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-BEDROOM3

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-BEDROOM3	Number of zones 1
Equipment Class UNDEF	Floor Area 287.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.8 Tons	Load occurs at Jul 1700
Total coil load 21.4 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 21.2 MBH	Entering DB / WB 78.0 / 57.2 °F
Coil CFM at Jul 1700 570 CFM	Leaving DB / WB 43.6 / 41.8 °F
Max block CFM 570 CFM	Coil ADP 39.8 °F
Sum of peak zone CFM 570 CFM	Bypass Factor 0.100
Sensible heat ratio 0.989	Resulting RH 26 %
CFM/Ton 319.7	Design supply temp. 40.5 °F
ft ² /Ton 161.0	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 74.6	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 4.28 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 570 CFM	BTU/(hr-ft ²) 2.9
Max coil CFM 570 CFM	Ent. DB / Lvg DB 73.8 / 75.2 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 570 CFM	Fan motor BHP 0.03 BHP
Standard CFM 570 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.99 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-BEDROOM4

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name	UF-BEDROOM4	Number of zones	1
Equipment Class	UNDEF	Floor Area	309.0 ft ²
Air System Type	SZCAV	Location	Dubai, United Arab Emirates

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	1.9 Tons	Load occurs at	Jul 1700
Total coil load	23.4 MBH	OA DB / WB	108.3 / 86.4 °F
Sensible coil load	23.1 MBH	Entering DB / WB	78.0 / 57.1 °F
Coil CFM at Jul 1700	616 CFM	Leaving DB / WB	43.2 / 41.4 °F
Max block CFM	616 CFM	Coil ADP	39.3 °F
Sum of peak zone CFM	616 CFM	Bypass Factor	0.100
Sensible heat ratio	0.990	Resulting RH	25 %
CFM/Ton	316.2	Design supply temp.	40.2 °F
ft ² /Ton	158.6	Zone T-stat Check	1 of 1 OK
BTU/(hr-ft ²)	75.7	Max zone temperature deviation	0.0 °F
Water flow @ 10.0 °F rise	4.68 gpm		

Central Heating Coil Sizing Data

Max coil load	1.1 MBH	Load occurs at	Des Htg
Coil CFM at Des Htg	616 CFM	BTU/(hr-ft ²)	3.7
Max coil CFM	616 CFM	Ent. DB / Lvg DB	74.2 / 75.9 °F
Water flow @ 20.0 °F drop	0.11 gpm		

Supply Fan Sizing Data

Actual max CFM	616 CFM	Fan motor BHP	0.03 BHP
Standard CFM	616 CFM	Fan motor kW	0.03 kW
Actual max CFM/ft ²	1.99 CFM/ft ²	Fan static	0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM	0 CFM	CFM/person	0.00 CFM/person
CFM/ft ²	0.00 CFM/ft ²		

Air System Sizing Summary for UF-CORRIDOR

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-CORRIDOR	Number of zones 1
Equipment Class UNDEF	Floor Area 378.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.9 Tons	Load occurs at Jul 1400
Total coil load 10.5 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 10.3 MBH	Entering DB / WB 77.6 / 59.3 °F
Coil CFM at Jul 1400 330 CFM	Leaving DB / WB 48.7 / 47.0 °F
Max block CFM 330 CFM	Coil ADP 45.4 °F
Sum of peak zone CFM 330 CFM	Bypass Factor 0.100
Sensible heat ratio 0.979	Resulting RH 33 %
CFM/Ton 376.1	Design supply temp. 46.1 °F
ft ² /Ton 430.8	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 27.9	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 2.11 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 330 CFM	BTU/(hr-ft ²) 2.5
Max coil CFM 330 CFM	Ent. DB / Lvg DB 73.9 / 76.6 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 330 CFM	Fan motor BHP 0.02 BHP
Standard CFM 330 CFM	Fan motor kW 0.01 kW
Actual max CFM/ft ² 0.87 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-LAUNDY

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-LAUNDY	Number of zones 1
Equipment Class UNDEF	Floor Area 140.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.8 Tons	Load occurs at Jul 1500
Total coil load 9.6 MBH	OA DB / WB 109.9 / 86.7 °F
Sensible coil load 9.4 MBH	Entering DB / WB 76.4 / 57.5 °F
Coil CFM at Jul 1500 280 CFM	Leaving DB / WB 45.3 / 43.6 °F
Max block CFM 280 CFM	Coil ADP 41.9 °F
Sum of peak zone CFM 280 CFM	Bypass Factor 0.100
Sensible heat ratio 0.977	Resulting RH 30 %
CFM/Ton 349.4	Design supply temp. 44.0 °F
ft ² /Ton 174.7	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 68.7	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 1.92 gpm	

Central Heating Coil Sizing Data

Max coil load 1.0 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 280 CFM	BTU/(hr-ft ²) 7.0
Max coil CFM 280 CFM	Ent. DB / Lvg DB 74.1 / 77.4 °F
Water flow @ 20.0 °F drop 0.10 gpm	

Supply Fan Sizing Data

Actual max CFM 280 CFM	Fan motor BHP 0.02 BHP
Standard CFM 280 CFM	Fan motor kW 0.01 kW
Actual max CFM/ft ² 2.00 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-LOBBY

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-LOBBY	Number of zones 1
Equipment Class UNDEF	Floor Area 95.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.5 Tons	Load occurs at Jul 1500
Total coil load 5.7 MBH	OA DB / WB 109.9 / 86.7 °F
Sensible coil load 5.4 MBH	Entering DB / WB 76.3 / 59.5 °F
Coil CFM at Jul 1500 190 CFM	Leaving DB / WB 49.7 / 48.2 °F
Max block CFM 190 CFM	Coil ADP 46.7 °F
Sum of peak zone CFM 190 CFM	Bypass Factor 0.100
Sensible heat ratio 0.960	Resulting RH 37 %
CFM/Ton 401.7	Design supply temp. 48.4 °F
ft ² /Ton 200.8	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 59.7	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 1.14 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 190 CFM	BTU/(hr-ft ²) 9.5
Max coil CFM 190 CFM	Ent. DB / Lvg DB 73.6 / 78.0 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 190 CFM	Fan motor BHP 0.01 BHP
Standard CFM 190 CFM	Fan motor kW 0.01 kW
Actual max CFM/ft ² 2.00 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-LOFT

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-LOFT	Number of zones 1
Equipment Class UNDEF	Floor Area 329.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 2.1 Tons	Load occurs at Jun 1400
Total coil load 25.6 MBH	OA DB / WB 108.4 / 86.6 °F
Sensible coil load 25.4 MBH	Entering DB / WB 76.1 / 62.2 °F
Coil CFM at Jun 1400 1164 CFM	Leaving DB / WB 55.9 / 54.6 °F
Max block CFM 1164 CFM	Coil ADP 53.6 °F
Sum of peak zone CFM 1164 CFM	Bypass Factor 0.100
Sensible heat ratio 0.991	Resulting RH 46 %
CFM/Ton 545.0	Design supply temp. 55.0 °F
ft ² /Ton 154.1	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 77.9	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 5.13 gpm	

Central Heating Coil Sizing Data

Max coil load 0.7 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 1164 CFM	BTU/(hr-ft ²) 2.0
Max coil CFM 1164 CFM	Ent. DB / Lvg DB 73.9 / 74.4 °F
Water flow @ 20.0 °F drop 0.07 gpm	

Supply Fan Sizing Data

Actual max CFM 1164 CFM	Fan motor BHP 0.06 BHP
Standard CFM 1163 CFM	Fan motor kW 0.05 kW
Actual max CFM/ft ² 3.54 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-OWNERS BATH

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-OWNERS BATH	Number of zones 1
Equipment Class UNDEF	Floor Area 197.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.0 Tons	Load occurs at Jun 1600
Total coil load 11.7 MBH	OA DB / WB 108.4 / 86.6 °F
Sensible coil load 11.5 MBH	Entering DB / WB 76.3 / 59.0 °F
Coil CFM at Jun 1600 390 CFM	Leaving DB / WB 49.0 / 47.4 °F
Max block CFM 390 CFM	Coil ADP 45.9 °F
Sum of peak zone CFM 390 CFM	Bypass Factor 0.100
Sensible heat ratio 0.981	Resulting RH 35 %
CFM/Ton 398.4	Design supply temp. 47.7 °F
ft ² /Ton 201.3	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 59.6	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 2.35 gpm	

Central Heating Coil Sizing Data

Max coil load 1.0 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 390 CFM	BTU/(hr-ft ²) 4.9
Max coil CFM 390 CFM	Ent. DB / Lvg DB 74.0 / 76.3 °F
Water flow @ 20.0 °F drop 0.10 gpm	

Supply Fan Sizing Data

Actual max CFM 390 CFM	Fan motor BHP 0.02 BHP
Standard CFM 390 CFM	Fan motor kW 0.02 kW
Actual max CFM/ft ² 1.98 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-OWNERS SUITE

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-OWNERS SUITE	Number of zones 1
Equipment Class UNDEF	Floor Area 526.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 2.2 Tons	Load occurs at Jul 1700
Total coil load 26.4 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 26.2 MBH	Entering DB / WB 76.3 / 57.6 °F
Coil CFM at Jul 1700 800 CFM	Leaving DB / WB 46.0 / 44.3 °F
Max block CFM 800 CFM	Coil ADP 42.6 °F
Sum of peak zone CFM 800 CFM	Bypass Factor 0.100
Sensible heat ratio 0.991	Resulting RH 30 %
CFM/Ton 363.6	Design supply temp. 45.0 °F
ft ² /Ton 239.1	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 50.2	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 5.28 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 800 CFM	BTU/(hr-ft ²) 1.7
Max coil CFM 800 CFM	Ent. DB / Lvg DB 74.3 / 75.3 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 800 CFM	Fan motor BHP 0.04 BHP
Standard CFM 800 CFM	Fan motor kW 0.03 kW
Actual max CFM/ft ² 1.52 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-SITTING ROOM

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-SITTING ROOM	Number of zones 1
Equipment Class UNDEF	Floor Area 278.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 1.8 Tons	Load occurs at Jul 1800
Total coil load 21.6 MBH	OA DB / WB 106.5 / 86.0 °F
Sensible coil load 21.4 MBH	Entering DB / WB 76.3 / 60.1 °F
Coil CFM at Jul 1800 800 CFM	Leaving DB / WB 51.5 / 50.0 °F
Max block CFM 800 CFM	Coil ADP 48.8 °F
Sum of peak zone CFM 800 CFM	Bypass Factor 0.100
Sensible heat ratio 0.990	Resulting RH 38 %
CFM/Ton 444.3	Design supply temp. 50.5 °F
ft ² /Ton 154.4	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 77.7	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 4.32 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 800 CFM	BTU/(hr-ft ²) 3.2
Max coil CFM 800 CFM	Ent. DB / Lvg DB 74.2 / 75.3 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 800 CFM	Fan motor BHP 0.04 BHP
Standard CFM 800 CFM	Fan motor kW 0.03 kW
Actual max CFM/ft ² 2.88 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-WIC

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-WIC	Number of zones 1
Equipment Class UNDEF	Floor Area 513.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.9 Tons	Load occurs at Jun 1500
Total coil load 11.3 MBH	OA DB / WB 108.9 / 86.7 °F
Sensible coil load 11.1 MBH	Entering DB / WB 76.1 / 68.4 °F
Coil CFM at Jun 1500 1000 CFM	Leaving DB / WB 65.8 / 65.0 °F
Max block CFM 1000 CFM	Coil ADP 64.6 °F
Sum of peak zone CFM 1000 CFM	Bypass Factor 0.100
Sensible heat ratio 0.980	Resulting RH 68 %
CFM/Ton 1057.6	Design supply temp. 65.0 °F
ft ² /Ton 542.6	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 22.1	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 2.27 gpm	

Central Heating Coil Sizing Data

Max coil load 0.8 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 1000 CFM	BTU/(hr-ft ²) 1.6
Max coil CFM 1000 CFM	Ent. DB / Lvg DB 74.2 / 74.9 °F
Water flow @ 20.0 °F drop 0.08 gpm	

Supply Fan Sizing Data

Actual max CFM 1000 CFM	Fan motor BHP 0.05 BHP
Standard CFM 999 CFM	Fan motor kW 0.04 kW
Actual max CFM/ft ² 1.95 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-WIC.

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-WIC.	Number of zones 1
Equipment Class UNDEF	Floor Area 72.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.4 Tons	Load occurs at Jul 1700
Total coil load 5.2 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 5.0 MBH	Entering DB / WB 76.4 / 57.2 °F
Coil CFM at Jul 1700 140 CFM	Leaving DB / WB 43.6 / 42.0 °F
Max block CFM 140 CFM	Coil ADP 40.0 °F
Sum of peak zone CFM 140 CFM	Bypass Factor 0.100
Sensible heat ratio 0.956	Resulting RH 29 %
CFM/Ton 324.4	Design supply temp. 42.0 °F
ft ² /Ton 166.8	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 71.9	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 1.04 gpm	

Central Heating Coil Sizing Data

Max coil load 1.0 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 140 CFM	BTU/(hr-ft ²) 13.6
Max coil CFM 140 CFM	Ent. DB / Lvg DB 73.9 / 80.3 °F
Water flow @ 20.0 °F drop 0.10 gpm	

Supply Fan Sizing Data

Actual max CFM 140 CFM	Fan motor BHP 0.01 BHP
Standard CFM 140 CFM	Fan motor kW 0.01 kW
Actual max CFM/ft ² 1.94 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-WIC.3

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-WIC.3	Number of zones 1
Equipment Class UNDEF	Floor Area 54.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.1 Tons	Load occurs at Jul 1700
Total coil load 1.7 MBH	OA DB / WB 108.3 / 86.4 °F
Sensible coil load 1.5 MBH	Entering DB / WB 76.3 / 60.3 °F
Coil CFM at Jul 1700 50 CFM	Leaving DB / WB 48.6 / 47.2 °F
Max block CFM 50 CFM	Coil ADP 45.5 °F
Sum of peak zone CFM 50 CFM	Bypass Factor 0.100
Sensible heat ratio 0.869	Resulting RH 39 %
CFM/Ton 348.8	Design supply temp. 46.4 °F
ft ² /Ton 376.7	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 31.9	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.34 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 50 CFM	BTU/(hr-ft ²) 16.9
Max coil CFM 50 CFM	Ent. DB / Lvg DB 72.9 / 89.8 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 50 CFM	Fan motor BHP 0.00 BHP
Standard CFM 50 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 0.93 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-WIC.4

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-WIC.4	Number of zones 1
Equipment Class UNDEF	Floor Area 89.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.2 Tons	Load occurs at Jul 1600
Total coil load 2.6 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 2.4 MBH	Entering DB / WB 76.5 / 56.1 °F
Coil CFM at Jul 1600 56 CFM	Leaving DB / WB 37.5 / 35.9 °F
Max block CFM 56 CFM	Coil ADP 33.2 °F
Sum of peak zone CFM 56 CFM	Bypass Factor 0.100
Sensible heat ratio 0.913	Resulting RH 26 %
CFM/Ton 260.5	Design supply temp. 35.0 °F
ft ² /Ton 412.0	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 29.1	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 0.52 gpm	

Central Heating Coil Sizing Data

Max coil load 0.9 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 56 CFM	BTU/(hr-ft ²) 10.4
Max coil CFM 56 CFM	Ent. DB / Lvg DB 73.0 / 88.3 °F
Water flow @ 20.0 °F drop 0.09 gpm	

Supply Fan Sizing Data

Actual max CFM 56 CFM	Fan motor BHP 0.00 BHP
Standard CFM 56 CFM	Fan motor kW 0.00 kW
Actual max CFM/ft ² 0.63 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	

Air System Sizing Summary for UF-WIC2

Project Name: Residential
Prepared by: GHT

08/16/2025
12:08PM

Air System Information

Air System Name UF-WIC2	Number of zones 1
Equipment Class UNDEF	Floor Area 157.0 ft ²
Air System Type SZCAV	Location Dubai, United Arab Emirates

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 0.8 Tons	Load occurs at Jul 1600
Total coil load 9.7 MBH	OA DB / WB 109.4 / 86.6 °F
Sensible coil load 9.5 MBH	Entering DB / WB 76.2 / 58.1 °F
Coil CFM at Jul 1600 300 CFM	Leaving DB / WB 46.8 / 45.2 °F
Max block CFM 300 CFM	Coil ADP 43.5 °F
Sum of peak zone CFM 300 CFM	Bypass Factor 0.100
Sensible heat ratio 0.977	Resulting RH 32 %
CFM/Ton 369.5	Design supply temp. 45.8 °F
ft ² /Ton 193.4	Zone T-stat Check 1 of 1 OK
BTU/(hr-ft ²) 62.1	Max zone temperature deviation 0.0 °F
Water flow @ 10.0 °F rise 1.95 gpm	

Central Heating Coil Sizing Data

Max coil load 1.0 MBH	Load occurs at Des Htg
Coil CFM at Des Htg 300 CFM	BTU/(hr-ft ²) 6.3
Max coil CFM 300 CFM	Ent. DB / Lvg DB 74.2 / 77.2 °F
Water flow @ 20.0 °F drop 0.10 gpm	

Supply Fan Sizing Data

Actual max CFM 300 CFM	Fan motor BHP 0.02 BHP
Standard CFM 300 CFM	Fan motor kW 0.01 kW
Actual max CFM/ft ² 1.91 CFM/ft ²	Fan static 0.20 in wg

Outdoor Ventilation Air Data

Design airflow CFM 0 CFM	CFM/person 0.00 CFM/person
CFM/ft ² 0.00 CFM/ft ²	