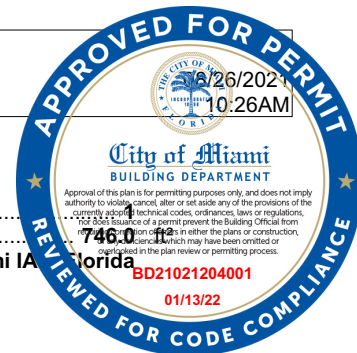


Air System Sizing Summary for FC-1

Project Name: Quantum on Bay Spa
 Prepared by: *



Air System Information

Air System Name **FC-1**
 Equipment Class **SPLT AHU**
 Air System Type **SZCAV**

Number of zones
 Floor Area
 Location **Miami IA Florida**

Sizing Calculation Information

Zone and Space Sizing Method:

Zone CFM **Sum of space airflow rates**
 Space CFM **Individual peak space loads**

Calculation Months **Jan to Dec**
 Sizing Data **User-Modified**

Central Cooling Coil Sizing Data

Total coil load **2.7** Tons
 Total coil load **33.0** MBH
 Sensible coil load **24.8** MBH
 Coil CFM at Jul 1400 **1200** CFM
 Max block CFM **1200** CFM
 Sum of peak zone CFM **1200** CFM
 Sensible heat ratio **0.751**
 ft²/Ton **271.4**
 BTU/(hr-ft²) **44.2**
 Water flow @ 10.0 °F rise **N/A**

Load occurs at **Jul 1400**
 OA DB / WB **90.7 / 76.9** °F
 Entering DB / WB **77.9 / 66.6** °F
 Leaving DB / WB **58.8 / 57.7** °F
 Coil ADP **56.7** °F
 Bypass Factor **0.100**
 Resulting RH **55** %
 Design supply temp. **58.0** °F
 Zone T-stat Check **0 of 1** OK
 Max zone temperature deviation **0.0** °F

Central Heating Coil Sizing Data

Max coil load **5.0** MBH
 Coil CFM at Des Htg **1200** CFM
 Max coil CFM **1200** CFM
 Water flow @ 20.0 °F drop **N/A**

Load occurs at **Des Htg**
 BTU/(hr-ft²) **6.7**
 Ent. DB / Lvg DB **67.9 / 71.8** °F

Supply Fan Sizing Data

Actual max CFM **1200** CFM
 Standard CFM **1199** CFM
 Actual max CFM/ft² **1.61** CFM/ft²

Fan motor BHP **0.00** BHP
 Fan motor kW **0.00** kW
 Fan static **0.00** in wg

Outdoor Ventilation Air Data

Design airflow CFM **117** CFM
 CFM/ft² **0.16** CFM/ft²

CFM/person **6.16** CFM/person

Jose Ramo Digitally signed by Jose Ramos
 Date: 2021.08.27 18:53:58 -04'00'

Zone Sizing Summary for FC-1

Project Name: Quantum on Bay Spa
 Prepared by: *



Air System Information

Air System Name **FC-1**
 Equipment Class **SPLT AHU**
 Air System Type **SZCAV**

Number of zones
 Floor Area **746.0**
 Location **Miami IA Florida**

Sizing Calculation Information

Zone and Space Sizing Method:

Zone CFM **Sum of space airflow rates**
 Space CFM **Individual peak space loads**

Calculation Months **Jan to Dec**
 Sizing Data **User-Modified**

Zone Sizing Data

Zone Name	Maximum Cooling Sensible (MBH)	Design Air Flow (CFM)	Minimum Air Flow (CFM)	Time of Peak Load	Maximum Heating Load (MBH)	Zone Floor Area (ft ²)	Zone CFM/ft ²
Zone 1	23.8	1200	1200	Jul 1400	1.2	746.0	1.61

Zone Terminal Sizing Data

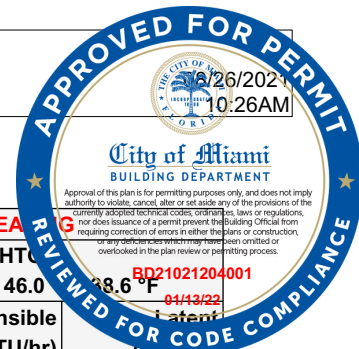
No Zone Terminal Sizing Data required for this system.

Space Loads and Airflows

Zone Name / Space Name	Mult.	Cooling Sensible (MBH)	Time of Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (ft ²)	Space CFM/ft ²
Zone 1							
CORRIDOR	1	1.9	Jul 1400	105	0.3	70.0	1.49
RECEPTION	1	6.3	Jan 2300	345	0.0	190.0	1.81
STAFF LOUNGE	1	4.4	Jul 1400	239	0.5	90.0	2.66
THERAPY ROOM AREAS	1	11.2	Jul 1400	609	0.5	396.0	1.54

Air System Design Load Summary for FC-1

Project Name: Quantum on Bay Spa
 Prepared by: *



	DESIGN COOLING			DESIGN HEATING		
	COOLING DATA AT Jul 1400 COOLING OA DB / WB 90.7 °F / 76.9 °F			HEATING DATA AT DES HTG HEATING OA DB / WB 46.0 °F / 28.6 °F		
ZONE LOADS	Details	Sensible (BTU/hr)	Latent (BTU/hr)	Details	Sensible (BTU/hr)	Latent (BTU/hr)
Window & Skylight Solar Loads	0 ft²	0	-	0 ft²	-	-
Wall Transmission	228 ft²	1806	-	228 ft²	1233	-
Roof Transmission	0 ft²	0	-	0 ft²	0	-
Window Transmission	0 ft²	0	-	0 ft²	0	-
Skylight Transmission	0 ft²	0	-	0 ft²	0	-
Door Loads	0 ft²	0	-	0 ft²	0	-
Floor Transmission	746 ft²	0	-	746 ft²	0	-
Partitions	576 ft²	0	-	576 ft²	0	-
Ceiling	0 ft²	0	-	0 ft²	0	-
Overhead Lighting	985 W	3360	-	0	0	-
Task Lighting	0 W	0	-	0	0	-
Electric Equipment	0 W	0	-	0	0	-
People	19	4655	3895	0	0	0
Infiltration	-	0	0	-	0	0
Miscellaneous	-	14000	1000	-	0	0
Safety Factor	0% / 0%	0	0	0%	0	0
>> Total Zone Loads	-	23821	4895	-	1233	0
Zone Conditioning	-	22975	4895	-	1895	0
Plenum Wall Load	0%	0	-	0	0	-
Plenum Roof Load	0%	0	-	0	0	-
Plenum Lighting Load	0%	0	-	0	0	-
Return Fan Load	1200 CFM	0	-	1200 CFM	0	-
Ventilation Load	117 CFM	1787	3324	117 CFM	3070	0
Supply Fan Load	1200 CFM	0	-	1200 CFM	0	-
Space Fan Coil Fans	-	0	-	-	0	-
Duct Heat Gain / Loss	0%	0	-	0%	0	-
>> Total System Loads	-	24762	8219	-	4965	0
Central Cooling Coil	-	24762	8219	-	0	0
Central Heating Coil	-	0	-	-	4965	-
>> Total Conditioning	-	24762	8219	-	4965	0
Key:	Positive values are clg loads Negative values are htg loads			Positive values are htg loads Negative values are clg loads		