

# ROOFTOP UNIT SCHEDULE (DX COOLING, ELECTRIC HEATING)

MARK	MANUFACTURER	MODEL	NOMINAL TONS	SUPPLY FAN				COOLING COIL					HEATING COIL		MIN O/A	ABS MIN O/A	ELECTRICAL			WEIGHT (LBS)	NOTES	
				CFM	ESP (IN)	BHP	VFD (Y/N)	TH (MBH)	SH (MBH)	REFR TYPE	MIN EFF (EER)	MIN EFF (IEER)	MIN NO STAGES	NOM (KW)			MIN NO STAGES	V/PH	MCA			MOCP
RTU-1	CARRIER	50K3AM26	25	7,010	2.8	4.7	Y	269.8	176.8	R-454b	10	13.4	2	NA	NA	1950	580	480/3	72	90	4245	A-C, E-Y
RTU-2	CARRIER	50FE-N12B2M6	10	3,700	0.5	2.0	Y	114	79.8	R-454b	11.2	15.2	2	13.8	2	575	NA	480/3	56	60	1008	A-D, F-Y
RTU-3	CARRIER	50FE-N12A3M6	10	3,700	0.5	2.0	Y	114	79.8	R-454b	11.2	15.2	2	13.8	2	575	NA	480/3	32	35	1008	A-D, E-Y
RTU-4	CARRIER	50FE-M08B2M6	7.5	2,250	0.5	0.9	Y	77.7	51.7	R-454b	11.4	15.2	2	13.8	2	260	NA	480/3	29	30	936	A-D, F-Y
RTU-5	CARRIER	50FE-N08B2M6	7.5	2,250	0.5	0.9	N	75.1	49.8	R-454b	11.4	15.2	2	13.8	2	260	NA	480/3	29	30	936	A-D, F-Y
RTU-6	CARRIER	50FE-N08B2M6	7.5	3,200	0.5	1.8	N	81	57.2	R-454b	11.4	15.2	2	13.8	2	370	NA	480/3	29	30	936	A-D, F-Y
RTU-7	CARRIER	50FE-N08B2M6	7.5	3,200	0.5	1.8	N	81	57.2	R-454b	11.4	15.2	2	13.8	2	370	NA	480/3	29	30	936	A-D, F-Y

MODEL NUMBERS AND NOMINAL TONS LISTED SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER, MODEL NUMBERS, OR NOMINAL TONS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

- NOTES:
- A. ROOFTOP UNIT REPLACEMENT IS "LIKE FOR LIKE" UNLESS NOTED OTHERWISE.
  - B. EQUIPMENT SIZED FOR 100°F AMBIENT TEMPERATURE.
  - C. PROVIDE 2 INCH MERV 13, EFFICIENT PLEATED THROWAWAY AIR FILTERS.
  - D. PROVIDE FACTORY MOUNTED DISCONNECT INSTALLED ON SERVICE SIDE OF UNIT.
  - E. EXISTING FIELD-INSTALLED DISCONNECT SWITCH TO REMAIN.
  - F. STARTERS FOR ALL MOTORS SHALL BE FURNISHED INTEGRAL WITH UNIT.
  - G. PROVIDE FACTORY MOUNTED VARIABLE FREQUENCY DRIVE OR 2-SPEED MOTOR TO FACILITATE STAGED FAN SPEED CONTROL.
  - H. PROVIDE SINGLE POINT POWER CONNECTION. PROVIDE SHAFT GROUNDING SYSTEM ON MOTOR. REFER TO MOTOR SPECIFICATION FOR ADDITIONAL INFORMATION.
  - I. PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWERED EXHAUST FAN.
  - J. COORDINATE SIZE OF CONDUCTOR TERMINATION LUGS WITH CONDUCTOR SIZES SHOWN ON ELECTRICAL DRAWINGS.
  - K. PROVIDE 125 VAC, 20 AMP DUPLEX CONVENIENCE RECEPTACLE MOUNTED TO UNIT READY FOR FIELD WIRING WITH A COVER UL LISTED FOR WET AND DAMPER LOCATIONS WHEN IN USE.
  - L. SPECIFIED FAN ESP ACCOUNTS FOR DUCT LOSSES EXTERNAL TO UNIT.
  - M. PROVIDE MOTOR HORSEPOWER TO OVERCOME INTERNAL UNIT STATIC PRESSURE DROP PLUS SPECIFIED EXTERNAL STATIC PRESSURE DROP. NOMINAL MOTOR HP SHALL BE NO LARGER THAN THE FIRST AVAILABLE NOMINAL MOTOR SIZE GREATER THAN THE REQUIRED BHP.
  - N. ROOF CURB IS EXISTING TO REMAIN. IF NECESSARY, PROVIDE ROOF CURB ADAPTER FROM EXISTING CURB PENETRATION TO NEW UNIT. COORDINATE CURB ADAPTER TYPE WITH EXISTING CURB CONDITIONS AND EQUIPMENT MANUFACTURER.
  - O. PROVIDE NEW WIND TIE-DOWN STRAPS FOR EXISTING FLORIDA APPROVED NOA CURB DESIGNED TO WITHSTAND HURRICANE WIND FORCES.
  - P. PROVIDE HOT GAS REHEAT DEHUMIDIFICATION COIL.
  - Q. SCHEDULED WEIGHT IS THE MAXIMUM ALLOWABLE OPERATING WEIGHT OF THE EQUIPMENT.
  - R. COOLING COIL LAT IS LEAVING AIR TEMPERATURE OF COIL.
  - S. PROVIDE GUARDS TO PROTECT CONDENSER COIL FROM HAIL OR OTHER DAMAGE.
  - T. PROVIDE HEATER TO MEET OR EXCEED SCHEDULED MINIMUM MBH OUTPUT. NOMINAL KW IS BASED ON LISTED MANUFACTURER'S STANDARD PRODUCT. COORDINATE EQUIPMENT POWER SUPPLY WITH ELECTRICAL CONTRACTOR IF DIFFERENT FROM THAT SCHEDULED.
  - V. ABS. MIN. O/A IS THE ABSOLUTE MINIMUM OUTSIDE AIR CFM USING VENTILATION RESET OR DEMAND CONTROL VENTILATION.
  - X. PROVIDE UNIT WITH FACTORY INSTALLED CARRIER SYSTEMU CONTROLLER WITH SUPPLY AND OUTSIDE AIR TEMPERATURE SENSORS. COORDINATE ALL CONTROLS WITH EMS VENDOR PRIOR TO PURCHASE.
  - Y. PROVIDE WITH DUCT SMOKE DETECTOR WIRE HARNESS KIT FOR EMS INTERFACE FOR SYSTEMU UNITS. SMOKE DETECTORS ARE EXISTING TO REMAIN AND SHALL SHUT DOWN UNIT UPON ALARM.

## OUTSIDE AIR REQUIREMENTS, IMC-2021 (IP)

SYSTEM DESIGNATION	SYSTEM TAB NAME OR LIST 'SINGLE'	SINGLE-ZONE SYSTEMS ONLY		MULTI-ZONE SYSTEMS ONLY		FLOOR AREA SERVED BY SYSTEM (sq) (SF)	SYSTEM AVERAGED AREA-BASED OUTDOOR AIR RATE (CFM/SF)	SYSTEM POPULATION (PEOPLE)	SYSTEM AVERAGED PEOPLE-BASED OUTDOOR AIR RATE (CFM/PEOPLE)	REQUIRED OA INTAKE FLOW (Vot) (CFM)	REQUIRED DCV OA INTAKE FLOW (Vot) (CFM)	DESIGN OA INTAKE FLOW (Vot) (CFM)	NOTES
		SINGLE-ZONE SYSTEM ASSOCIATED VENTILATION ZONE	SINGLE-ZONE WORST CASE ZONE AIR DISTRIBUTION EFFECTIVENESS (EA)	MULTI-ZONE SYSTEM VENTILATION EFFICIENCY (EV)									
RTU-1	MULTI-ZONE (NAME)		-	0.88		3,489	0.852	118,858	4.85	1,843	578	1,930	
RTU-3,4	SINGLE ZONE	STOCK S	0.80	-		11,285	0.860	25	10.00	1,154	NA	1,190	
RTU-5,7,8,9	SINGLE ZONE	STOCK N	0.80	-		12,542	0.860	25	10.00	1,263	NA	1,200	
TOTALS										4,330	578	4,330	

- GENERAL NOTES:
1. VENTILATION CALCULATIONS BASED ON IMC-2021.
  2. SINGLE ZONE SYSTEMS BASED ON MAX SEATING AND/OR CODE MAXIMUM VALUES.
  3. SYSTEM POPULATION'S BASED ON MAX SEATING AND/OR CODE MAXIMUM VALUES.
  4. SYSTEM ZONE SYSTEMS (Vot = Vot2). SYSTEM VENTILATION EFFICIENCY CALCULATION IS NOT REQUIRED FOR SINGLE ZONE SYSTEMS. WORST CASE AIR DISTRIBUTION EFFECTIVENESS BETWEEN HEATING AND COOLING MODES OF OPERATION IS SHOWN IN TABLE.
  5. 100% OA SYSTEMS (Vot = Σ Vot1 + Vot2). WHEN ONE AIR HANDLER SUPPLIES ONLY OUTDOOR AIR TO ONE OR MORE ZONES, EACH ZONE IS INDIVIDUALLY CALCULATED WITH ITS WORST CASE ZONE AIR DISTRIBUTION EFFECTIVENESS (HEATING/COOLING).
  6. MULTI-ZONE RECIRCULATING SYSTEMS: CALCULATOR USED TO DETERMINE VENTILATION AIR FLOW IN COMPLIANCE WITH IMC-2021 VRP AND ASHRAE 62.1-2019 APPENDIX A. VENTILATION RATE SHOWN IS ACTUAL CALCULATED WITH CORRECTION FACTORS INCLUDED. EACH ZONE IS CALCULATED WITH ITS WORST CASE ZONE AIR DISTRIBUTION EFFECTIVENESS (HEATING/COOLING) AS PART OF CALCULATIONS TO FIND EV.

## EXISTING ROOFTOP UNITS

MARK	MANUFACTURER	MODEL	ELECTRICAL V/PH	MOCP	APPROX WEIGHT (LBS)	NOTES
RTU-1	CARRIER	50A3F025	480/3	80	5475	A
RTU-3	CARRIER	60HCBE12	480/3	60	830	A
RTU-4	CARRIER	60HCBE12	480/3	60	830	A
RTU-6	CARRIER	50TC-D08	480/3	35	835	A
RTU-7	CARRIER	50TC-D08	480/3	35	835	A
RTU-8	CARRIER	50TC-D08	480/3	35	835	A
RTU-9	CARRIER	60HCAE08	480/3	75	835	A

- NOTES:
- A. INFORMATION FROM AS-BUILT DRAWINGS. VERIFY IN FIELD.

**NIKE FY25 HVAC REPLACEMENT**  
**ORLANDO SERVICE CENTER**  
 9424 SOUTHRIDGE PARK CT, SUITE #400  
 ORLANDO, FL 32819

FOR REFERENCE ONLY

MECHANICAL  
SCHEDULES

DATE: 09/20/2024  
SCALE: NO SCALE

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