

GRILLE, REGISTER, AND DIFFUSER SCHEDULE		
MARK	DESCRIPTION	FINISH
S-1	24x24 STEEL SQUARE PLAQUE DIFFUSER, FLANGE FRAME, 4 WAY THROW, FULL FACE, O.B. DAMPER, WITH ROUND NECK, FACE PANEL, BACK CONE, NECK SIZE AS SHOWN. PRICE SPD.	BAKED OFF WHITE ENAMEL
S-2	SAME AS S-1, 12x12 DIFFUSER, 24x24 PANEL SIZE.	BAKED OFF WHITE ENAMEL
S-3	STEEL DOUBLE DEFLECTION SUPPLY DIFFUSER, ADJUSTABLE PATTERN, 3/4" SPACING BETWEEN BLADES, FLANGE FRAME, SIZE AS SHOWN, FRONT BLADES PARALLEL TO SHORT DIMENSION O.B. DAMPER. PRICE 520D.	BAKED OFF WHITE ENAMEL
S-4	EXTRUDED ALUMINUM SLOT DIFFUSER, TWO 2" SLOTS, 2 FOOT LENGTH, PLENUM, STEEL 180° PATTERN CONTROLLER, FLANGE FRAME AROUND PERIMETER WITH BORDER TYPE 21, END CAPS. PRICE AS220	ANODIZED ALUMINUM
S-5	EXTRUDED ALUMINUM SLOT DIFFUSER, TWO 2-1/2" SLOTS, 4 FOOT LENGTH, PLENUM, STEEL 180° PATTERN CONTROLLER, FLANGE FRAME AROUND PERIMETER WITH BORDER TYPE 21, END CAPS. PRICE AS225	ANODIZED ALUMINUM
S-6	EXTRUDED ALUMINUM SLOT DIFFUSER, TWO 2" SLOTS, 2 FOOT LENGTH, PLENUM, STEEL 180° PATTERN CONTROLLER, FACTORY INSTALLED T-BAR ON INLET SIDE, CLIP ON OPPOSITE SIDE. PRICE AST220	BAKED OFF WHITE ENAMEL
S-7	EXTRUDED ALUMINUM SLOT DIFFUSER, TWO 1-1/2" SLOTS, 2 FOOT LENGTH, PLENUM, STEEL 180° PATTERN CONTROLLER, FACTORY INSTALLED T-BAR ON INLET SIDE, CLIP ON OPPOSITE SIDE. PRICE AST215	BAKED OFF WHITE ENAMEL
S-8	EXTRUDED ALUMINUM SLOT DIFFUSER, TWO 2" SLOTS, 4 FOOT LENGTH, PLENUM, STEEL 180° PATTERN CONTROLLER, FACTORY INSTALLED T-BAR ON INLET SIDE, CLIP ON OPPOSITE SIDE. PRICE AST220	BAKED OFF WHITE ENAMEL
S-9	EXTRUDED ALUMINUM SLOT DIFFUSER, ONE 1" SLOT, 2 FOOT LENGTH, PLENUM, STEEL 180° PATTERN CONTROLLER, FLANGE FRAME AROUND PERIMETER WITH BORDER TYPE 21, END CAPS. PRICE AS110	ANODIZED ALUMINUM
S-10	EXTRUDED ALUMINUM SLOT DIFFUSER, TWO 1" SLOTS, 2 FOOT LENGTH, PLENUM, STEEL 180° PATTERN CONTROLLER, FLANGE FRAME AROUND PERIMETER WITH BORDER TYPE 21, END CAPS. PRICE AS210	ANODIZED ALUMINUM
S-11	EXTRUDED ALUMINUM SLOT DIFFUSER, TWO 2-1/2" SLOTS, 4 FOOT LENGTH, PLENUM, STEEL 180° PATTERN CONTROLLER, FACTORY INSTALLED T-BAR ON INLET SIDE, CLIP ON OPPOSITE SIDE. PRICE AST225	BAKED OFF WHITE ENAMEL
S-12	EXTRUDED ALUMINUM SLOT DIFFUSER, ONE 1" SLOT, 4 FOOT LENGTH, PLENUM, STEEL 180° PATTERN CONTROLLER, FLANGE FRAME AROUND PERIMETER WITH BORDER TYPE 21, END CAPS. PRICE AS110	ANODIZED ALUMINUM
R-1	24x24 OR 24x12 EGG CRATE RETURN GRILLE. 1/2"x 1/2"x 1/2" GRID CORE, ALL-ALUMINUM, NON-DUCTED/PLENUM RETURN. PRICE 80 SERIES.	BAKED OFF WHITE ENAMEL
R-2	EGG CRATE RETURN GRILLE. 1/2"x 1/2"x 1/2" GRID CORE, ALL-ALUMINUM, SURFACE MOUNTED FRAME, SIZE AS SHOWN, PRICE 80 SERIES.	BAKED OFF WHITE ENAMEL
R-3	STEEL SIDE WALL RETURN GRILLE, 3/4" BLADE SPACING, FLANGE FRAME, 45° FIXED DEFLECTION, FRONT BLADES HORIZONTAL. PRICE 530.	BAKED OFF WHITE ENAMEL
R-4	EXTRUDED ALUMINUM SLOT RETURN, ONE 1" SLOT, 24x24 SQUARE, NON-DUCTED. PRICE ASMR210	BAKED OFF WHITE ENAMEL

PUMP SCHEDULE									
MARK	TYPE	SERVES	GPM	DEV. HEAD	HP	RPM	VOLTAGE	DESIGN BASIS	REMARKS
P-1	INLINE	SECOND FLOOR	60	75	3	1750	460	B&G 80	(1)(2)
P-2	INLINE	SECOND FLOOR	60	75	3	1750	460	B&G 80	(1)(2)

- (1) 460V/3Ø HIGH EFFICIENCY MOTOR  
(2) 50% PUMP EFFICIENCY MINIMUM

VRV AIR COOLED CONDENSING UNIT SCHEDULE									
MARK	REFRIGERANT TYPE	SERVES	COMPRESSOR QUANTITY	LOCATION	COOLING CAPACITY	HEATING CAPACITY	VOLTAGE	DESIGN BASIS	REMARKS
HRCU-1	410A	FIRST FLOOR WEST	4	ROOF	154.5	93	208	DAIKIN REYQ168	(1)(2)
HRCU-2	410A	FIRST FLOOR EAST	4	ROOF	112.6	87	208	DAIKIN REYQ144	(1)(2)
HRCU-3	410A	COMPUTER ROOM, ELEV. MACH ROOM	1	ROOF	38	2	208	DAIKIN RXYM048	(1)(2)
HRCU-4	410A	ENTRANCE LOBBY	1	ROOF	37.6	14	208	DAIKIN RXYM048	(1)(2)

- (1) COOLING CAPACITY BASED ON SUMMER AMBIENT 95°F DB, 75°F WB. HEATING CAPACITY BASED ON 18°F DB AMBIENT.  
(2) VFD FAN, SCROLL COMPRESSOR, PATE ROOFTOP EQUIPMENT SUPPORTS.

DEDICATED OUTSIDE AIR SYSTEM SCHEDULE																										
MARK	SERVES	NOMINAL UNIT SIZE (TONS)		SUPPLY FAN			COOLING COIL (DX)			MIN. OUTSIDE AIR CFM	ENERGY RECOVERY WHEEL (TOTAL ENTHALPY)			CONDENSER		HEATING SECTION		AIR FILTERS		ELECTRICAL VOLTAGE	DESIGN BASIS	REMARKS				
		UNIT	WHEEL	CFM	ESP	HP	REFRIGERANT TYPE	TOTAL CAPACITY (MBH)	SENS. CAPACITY (MBH)		STAGES	EXHAUST FAN	WHEEL DESIGN PERFORMANCE	TYPE	COMPRESSOR QUANTITY	HEAT TYPE	INPUT	HEAT STAGES	PRE-FILTER				FINAL FILTER			
DOAS-1	1ST AND 2ND FLOOR	20	15	6000	1.25"	10	R-410A	227	167	2	6000	1.5	7.5	6000	5400	-F dB -F WB	AIR COOLED	-	ELECTRIC	- KW	5	1" THROWAWAY	-	460/3Ø	TRANE XXX	-

- (1) SUMMER 95°F DB/75°F WB AMBIENT, ROOM CONDITIONS: 75°F DB, 50%RH.  
(2)  
(3) 75% MINIMUM THERMAL EFFECTIVENESS OF HEAT WHEEL.  
(4) SEE SPECIFICATION FOR OPTIONS.  
(5) EXHAUST AIR: 80°F DB/ 67°F WB  
(6) MODULATING HOT GAS REHEAT COIL.

VARIABLE REFRIGERANT VOLUME FAN COIL UNIT											
MARK	OUTSIDE AIR CFM	COOLING CAPACITY		FAN				HEATING CAPACITY		DESIGN BASIS	REMARKS
		TOTAL MBH	SENSIBLE MBH	CFM	E.S.P.	H.P.	VOLTAGE	MBH	MBH		
FCU-006	-	24	-	740	-	-	208v/3Ø	27	FXSQ24	-	-
FCU-101	-	48	-	1270	-	-	208v/3Ø	54	FXMQ48	-	-
FCU-103	-	12	-	340	-	-	208v/3Ø	13.5	FXSQ12	-	-
FCU-105	-	12	-	340	-	-	208v/3Ø	13.5	FXSQ12	-	-
FCU-108	-	48	-	1270	-	-	208v/3Ø	54	FXMQ48	-	-
FCU-110	-	24	-	740	-	-	208v/3Ø	27	FXDSQ	-	-
FCU-111	-	18	-	530	-	-	208v/3Ø	20	FXDQSQ	-	-
FCU-112	-	24	-	740	-	-	208v/3Ø	27	FXDSQ	-	-
FCU-116	-	12	-	340	-	-	208v/3Ø	13.5	FXDSQ12	-	-
FCU-117	-	12	-	340	-	-	208v/3Ø	13.5	FXDSQ12	-	-
FCU-119	-	12	-	340	-	-	208v/3Ø	13.5	FXDSQ12	-	-
FCU-120	-	12	-	340	-	-	208v/3Ø	13.5	FXDSQ12	-	-
FCU-130A	-	36	-	890	-	-	208v/3Ø	-	FXHQ36	-	-
FCU-130B	-	36	-	890	-	-	208v/3Ø	-	FXHQ36	-	-
FCU-131	-	12	-	300	-	-	208v/3Ø	-	FXAQ12	-	-
FCU-134A	-	24	-	740	-	-	208v/3Ø	27	FXSQ24	-	-
FCU-134B	-	12	-	340	-	-	208v/3Ø	13.5	FXDSQ12	-	-
FCU-134C	-	36	-	1020	-	-	208v/3Ø	40	FXMQ36	-	-
FCU-134D	-	18	-	530	-	-	208v/3Ø	20	FXSQ18	-	-
FCU-139	-	12	-	340	-	-	208v/3Ø	13.5	FXSQ12	-	-
FCU-140A	-	36	-	1020	-	-	208v/3Ø	40	FXMQ36	-	-
FCU-140B	-	30	-	890	-	-	208v/3Ø	34	FXMQ30	-	-
FCU-140C	-	18	-	530	-	-	208v/3Ø	20	FXSQ18	-	-
FCU-141	-	18	-	500	-	-	208v/3Ø	20	FXAQ18	-	-
FCU-145	-	30	-	890	-	-	208v/3Ø	34	FXMQ30	-	-
FCU-146	-	12	-	340	-	-	208v/3Ø	13.5	FXSQ12	-	-
FCU-232	-	18	-	500	-	-	208v/3Ø	20	FXAQ18	-	-

VARIABLE VOLUME TERMINAL SCHEDULE									
MARK	SERVES	MAXIMUM CFM	MINIMUM CFM	MAXIMUM STATIC PRESS. DROP	ELECTRIC HEAT			REMARKS	
					RESISTANCE KW	STEPS	VOLTAGE		
VAV-105	FCU VARIOUS	350	350	-" WC	-	-	24	-	
VAV-110	LEARNING CENTER 110	570	0	-" WC	-	-	24	-	
VAV-111	LEARNING CENTER 111	570	0	-" WC	-	-	24	-	
VAV-112	LEARNING CENTER 112	570	0	-" WC	-	-	24	-	
VAV-116	LEARNING CENTER 116	260	0	-" WC	-	-	24	-	
VAV-117	LEARNING CENTER 117	260	0	-" WC	-	-	24	-	
VAV-119	LEARNING CENTER 119	260	0	-" WC	-	-	24	-	
VAV-120	LEARNING CENTER 120	260	0	-" WC	-	-	24	-	
VAV-122	HOTELING	120	0	-" WC	-	-	24	-	
VAV-133	FCU ADMIN. SERVICES	275	0	-" WC	-	-	24	-	
VAV-135	H.R. OFFICE	120	0	-" WC	-	-	24	-	
VAV-138	CONFERENCE	190	0	-" WC	-	-	24	-	
VAV-140A	FCU MEMBER SERVICES	390	0	-" WC	-	-	24	-	
VAV-140B	FCU MEMBER SERVICES	175	90	-" WC	-	-	24	-	
VAV-145	FCU VARIOUS	345	345	-" WC	-	-	24	-	
VAV-206	FCU VARIOUS	455	0	-" WC	-	-	24	-	
VAV-227	CONFERENCE	140	0	-" WC	-	-	24	-	
VAV-215B	FCU TECH OFFICE	435	0	-" WC	-	-	24	-	
VAV-204	FCU TECH OFFICE	295	0	-" WC	-	-	24	-	
VAV-217	HOTELING	120	0	-" WC	0.5	1	208/3Ø	(1)	
VAV-225	HOTELING	120	0	-" WC	0.5	1	208/3Ø	(1)	
VAV-219	CONFERENCE	95	0	-" WC	-	-	24	-	
VAV-224C	FCU PUBLISHING	345	0	-" WC	-	-	24	-	
VAV-224A	FCU PUBLISHING	460	0	-" WC	-	-	24	-	

- (1) MINIMUM 70 CFM HEATING

GROUND LOOP (GEOHERMAL) HEAT PUMP SCHEDULE															
SIZE	CONFIGURATION	NOMINAL TONS	CFM	EXT. S.P.	FAN H.P.	COOLING CAPACITY		HEATING CAPACITY MBH	GPM	TWS&R PIPE	VOLTAGE/Ø	MAX WPD	DRAIN PIPE	DESIGN BASIS	REMARKS
						TOTAL MBH	SENSIBLE MBH								
15	VERTICAL/HORIZONTAL	1.5	500	.40"	1/6	14.1	10.5	16.3	3.8	3/4"	208/1Ø	15.0'	3/4"	CARRIER 50RH/RV SERIES	(1)(2)(3)
18	VERTICAL/HORIZONTAL	2	600	.40"	1/6	17.4	12.6	20.9	4.5	3/4"	208/1Ø	15.0'	3/4"	CARRIER 50RH/RV SERIES	(1)(2)(3)
26	VERTICAL/HORIZONTAL	2.5	850	.40"	1/2	21.2	16.1	25.7	8	3/4"	208/1Ø	15.0'	3/4"	CARRIER 50PT SERIES	(1)(2)(3)
38	VERTICAL/HORIZONTAL	3	1250	.40"	1/2	30.5	24.1	36.7	9	3/4"	208/1Ø	15.0'	3/4"	CARRIER 50PT SERIES	(1)(2)(3)
64	VERTICAL/HORIZONTAL	5	1825	.40"	1	51.8	39.8	59.6	15	1"	460/3Ø	15.0'	3/4"	CARRIER 50PT SERIES	(1)(2)(3)

- (1) 64°F EWT, SUMMER ROOM TEMPERATURE: 75°F DB/ 50% RH, OUTSIDE AIR TEMPERATURE: 80°F DB/ 67°F WB.  
(2) R-410A REFRIGERANT  
(3) ECM VARIABLE SPEED FAN MOTOR (BRUSHLESS-DC)



ASHRAE HEADQUARTERS  
ADDITION AND RENOVATION

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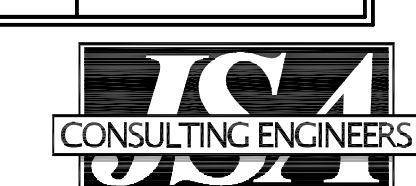
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