MECHANIC

AD

AND THREE-WAY HEATING WATER CONTROL VALVE.

Commission Number 2309D

Consulting Engineers, Inc.
No. 78

No. 78

© 2024

Date: November 11, 2024

PACKAGED ROOFTOP VAV (DOAS) AIR HANDLING UNIT SCHEDULE DESIG. MFR/MDL WEIGHT CFM OSA ESP TOTAL SENS EAT LAT(COIL) ROWS FPI VELOCITY AMBIENT RE-HEAT INPUT OUTPUT EAT/LAT TONS NO LEA HP NO RPM FLA HP DRIVE NO RPM BHP HP NO FLA VOLT/PHASE MCA MOCP REMARKS 77.0 91.0°F d.b. 52.1°F d.b. MBH 79.0°F w.b. 51.7°F w.b. GREENHECK / PROVIDE UNIT WITH DOUBLE WALL CONSTRUCTION (R-13 INSULATION), 84.8 MBH RTU-1 2,300 LBS. 1,955 1,955 147.0 105°F DIRECT 1241 N/A 208V/3ø 85.7 125 TOTAL HINGED ACCESS DOORS, FACTORY AIRFLOW MONITOR, DIRTY FILTER SENSOR, AND CONDENSATE OVERFLOW SWITCH.

(1) PROVIDE UNIT WITH FACTORY MANUFACTURED SEISMIC VIBRATION ISOLATING / ACOUSTICAL ISOLATING ROOF CURB TO BE TALLER AS REQUIRED TO ACCOMODATE DUCTWORK ROUTED WITHIN ROOF CURB AS NEEDED (SEE PLANS). FIELD COORDINATE ROOF CURB INSTALLATION WITH ROOFING CONTRACTOR.

(2) PROVIDE UNIT WITH INVERTER SCROLL COMPRESSOR, PREMIUM EFFICIENCY INVERTER DUTY FAN MOTOR(S) WITH SHAFT GROUNDING RING(S), AND FACTORY-MOUNTED VARIABLE FREQUENCY DRIVE (VFD) FOR EACH FAN MOTOR.

(3) PROVIDE UNIT WITH FACTORY MOUNTED DISCONNECT SWITCH AND FACTORY MOUNTED UN-POWERED 115V CONVENIENCE OUTLET. POWER TO BE PROVIDED BY ELECTRICAL CONTRACTOR, FIELD COORDINATE.

(4) PROVIDE UNIT WITH 4" MERV 13 FILTERS (85% MINIMUM ASHRAE EFFICIENCY). UNIT SHALL NOT BE OPERATED AT ANY TIME WITHOUT FILTER MEDIA INSTALLED AS RECOMMENDED BY MANUFACTURER.

(5) PROVIDE UNIT PIPING AND WIRING CONNECTIONS AND ACCESS PANELS / ACCESS DOORS ON SIDE OF UNIT THAT WILL ALLOW GREATEST ACCESSIBILITY. SEE PLANS FOR UNIT ORIENTATIONS.

(6) PROVIDE UNIT WITH UNIT MOUNTED CONTROLS PACKAGE (BACNET) AND FACTORY UNIT-MOUNTED CONTROLS CABINET. CONTROLS CABINET TO CONTAIN VFD(S) AND CONTROLS PACKAGE.

(7) PROVIDE UNIT WITH SS HEAT EXCHANGER, 16:1 TURN-DOWN MODULATING GAS HEAT, CRANKCASE HEATER, ENTHALPY ECONOMIZER, SS DRAIN PAN, AND PHASE PROTECTION.

(8) PROVIDE UNIT WITH FACTORY MOUNTED WEATHER HOOD(S) WITH BIRD SCREEN(S) AND FULLY MODULATING OSA DAMPER.

(9) PROVIDE UNIT WITH FACTORY SUPPLY SMOKE DETECTOR.

(10) PROVIDE UNIT WITH FACTORY ULTRAVIOLET (UV) LIGHTS.
(11) PROVIDE UNIT WITH FACTORY HAIL GUARDS.

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NIT	MFR/MDL	TYPE	CFM	ESP	EAT	EWT	LWT	GPM	HILLED V	TH(MBH)	SH(MBH)	DOWS	DIDE SIZ	E EAT:	EWT	LWT	GPM	PD PD	MBH	ROWS	PIPE SIZE	H.P.	ELECTRICAL VOLT/PHASE	MOCP	REMARKS
G-01	INTERNATIONAL/ HPY12	HORIZONTAL DUCTED	1325	.50"	75.0°F d.b. 63.0°F w.b		55.0°F	6 6	4.8'	30.3	26.1	4	1"	フ0°F d.b.	150°F	120.9°F	2 GF, IVI	6.0'	28.8	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWITC AND THREE-WAY HEATING WATER CONTROL VALVE.
)2	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	850	.40"	75.0°F d.b. 63.0°F w.b	45°F	54.8°F	4	2.3'	19.8	17.0	4	1"	70°F d.b.	150°F	122.4°F	1.5	3.4'	20.5	1	3/4"	1/2	115V/1∅	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWITC
13	INTERNATIONAL/ HPY12	HORIZONTAL DUCTED	1200	.40"	75.0°F d.b. 63.0°F w.b	45°F	54.5°F	6	4.8'	28.6	24.2	4	1"	70°F d.b.	150°F	119.3°F	1.75	4.9'	26.6	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWITC
4	INTERNATIONAL/ CXB06	HORIZONTAL CABINET	545	"	75.0°F d.b. 63.0°F w.b	45°F	54.5°F	3	5.9'	14.3	11.7	4	3/4"	70°F d.b.	150°F	123.0°F	1	1.0'	13.3	1	3/4"	1/12	115V/1∅	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWITC
5	INTERNATIONAL/ HPY12	HORIZONTAL DUCTED	1310	.50"	75.0°F d.b. 63.0°F w.b	45°F	55.0°F	6	4.8'	30.1	25.9	4	1"	70°F d.b.	150°F	121.1°F	2	6.0'	28.6	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWIT
6	INTERNATIONAL/ HPY06	HORIZONTAL DUCTED	600	.40"	75.0°F d.b. 63.0°F w.b	45°F	54.6°F	2.5	0.8'	12.1	11.2	4	3/4"	70°F d.b.	150°F	123.3°F	1	1.4'	13.2	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWIT
7	INTERNATIONAL/ CXB06	HORIZONTAL CABINET	545	"	75.0°F d.b. 63.0°F w.b	45°F	54.5°F	3	5.9'	14.3	11.7	4	3/4"	70°F d.b.	150°F	123.0°F	1	1.0'	13.3	1	3/4"	1/12	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWIT
3	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	880	.50"	75.0°F d.b. 63.0°F w.b	45°F	55.0°F	4	2.3'	20.2	17.5	4	1"	70°F d.b.	150°F	121.9°F	1.5	3.4'	20.8	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWIT
Α	INTERNATIONAL/ HPY06	HORIZONTAL DUCTED	600	.40"	75.0°F d.b. 63.0°F w.b	45°F	54.6°F	2.5	0.8'	12.1	11.2	4	3/4"	70°F d.b.	150°F	123.3°F	1	1.4'	13.2	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWIT
В	INTERNATIONAL/ HPY06	HORIZONTAL DUCTED	600	.40"	75.0°F d.b. 63.0°F w.b	45°F	54.6°F	2.5	0.8'	12.1	11.2	4	3/4"	70°F d.b.	150°F	123.3°F	1	1.4'	13.2	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
0	INTERNATIONAL/ HPY20	HORIZONTAL DUCTED	2150	.50"	75.0°F d.b. 63.0°F w.b	45°F	55.1°F	13	12.3'	65.9	51.8	6	1-1/2"	70°F d.b.	150°F	118.1°F	3	16.3'	47.4	1	3/4"	1/2	115V/1Ø	25	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI AND THREE-WAY HEATING WATER CONTROL VALVE.
	INTERNATIONAL/ HPY12	HORIZONTAL DUCTED	1310	.50"	75.0°F d.b. 63.0°F w.b	45°F	55.0°F	6	4.8'	30.1	25.9	4	1"	70°F d.b.	150°F	121.1°F	2	6.0'	28.6	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
2	INTERNATIONAL/ HPY12	HORIZONTAL DUCTED	1310	.50"	75.0°F d.b. 63.0°F w.b	45°F	55.0°F	6	4.8'	30.1	25.9	4	1"	70°F d.b.	150°F	121.1°F	2	6.0'	28.6	1	3/4"	1/2	115V/1∅	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
3	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	1000	.40"	75.0°F d.b. 63.0°F w.b	45°F	54.2°F	5	3.2'	23.2	19.9	4	1"	70°F d.b.	150°F	120.4°F	1.5	3.4'	22.0	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
4	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	1000	.40"	75.0°F d.b. 63.0°F w.b	45°F	54.2°F	5	3.2'	23.2	19.9	4	1"	70°F d.b.	150°F	120.4°F	1.5	3.4'	22.0	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
5	INTERNATIONAL/ HPY12	HORIZONTAL DUCTED	1250	.50"	75.0°F d.b. 63.0°F w.b	45°F	55.7°F	7	9.3'	37.6	29.8	6	1"	70°F d.b.	150°F	121.6°F	2	6.0'	28.1	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
ĵ	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	1070	.40"	75.0°F d.b. 63.0°F w.b	45°F	55.4°F	6	6.5'	31.4	25.2	6	1"	70°F d.b.	150°F	119.5°F	1.5	3.4'	22.6	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
7	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	1010	.40"	75.0°F d.b. 63.0°F w.b	45°F	55.0°F	6	6.5'	30.3	24.1	6	1"	70°F d.b.	150°F	120.2°F	1.5	3.4'	22.1	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
3	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	1030	.50"	75.0°F d.b. 63.0°F w.b	45°F	51.0°F	12	18.2'	34.7	26.2	6	1-1/4"	70°F d.b.	150°F	120.0°F	1.5	3.4'	22.3	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
1	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	880	.40"	75.0°F d.b. 63.0°F w.b	· 45 F	55.0°F	4	2.3'	20.2	17.5	4	1"	70°F d.b.	150°F	121.9°F	1.5	3.4'	20.8	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
)	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	880	.40"	75.0°F d.b. 63.0°F w.b	45°F	55.0°F	4	2.3'	20.2	17.5	4	1"	70°F d.b.	150°F	121.9°F	1.5	3.4'	20.8	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
1	INTERNATIONAL/ HPY18	HORIZONTAL DUCTED	1725	.40"	75.0°F d.b. 63.0°F w.b	45°F	55.5°F	10	7.6'	53.0	41.7	6	1-1/4"	70°F d.b.	150°F	117.9°F	2.5	11.5'	39.8	1	3/4"	1/2	115V/1Ø	25	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI AND THREE-WAY HEATING WATER CONTROL VALVE.
2	INTERNATIONAL/ HPY14	DUCTED	1400	.40"	75.0°F d.b. 63.0°F w.b		55.3°F	8	4.5'	41.4	33.1	6	1-1/4"	70°F d.b.	150°F	118.4°F	2	6.7'	31.2	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
3	INTERNATIONAL/ HPY12	HORIZONTAL DUCTED	1250	.40"	75.0°F d.b. 63.0°F w.b	45°F	54.6°F	8	11.5'	38.6	30.3	6	1-1/4"	70°F d.b.	150°F	121.6°F	2	6.0'	28.1	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
4	INTERNATIONAL/ HPY12	HORIZONTAL DUCTED	1275	.40"	75.0°F d.b. 63.0°F w.b		54.7°F	8	11.5'	39.1	30.8	6	1-1/4"	70°F d.b.	150°F	121.4°F	2	6.0'	28.3	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWITAND THREE-WAY HEATING WATER CONTROL VALVE.
5	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	875	.50"	75.0°F d.b. 63.0°F w.b	45°F	55.0°F	4	2.3'	20.1	17.4	4	1"	70°F d.b.	150°F	122.0°F	1.5	3.4'	20.7	1	3/4"	1/2	115V/1Ø	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
6	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	875	.50"	75.0°F d.b. 63.0°F w.b		55.0°F	4	2.3'	20.1	17.4	4	1"	70°F d.b.	150°F	122.0°F	1.5	3.4'	20.7	1	3/4"	1/2	115V/1∅	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
7	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	875	.50"	75.0°F d.b. 63.0°F w.b	45°F	55.0°F	4	2.3'	20.1	17.4	4	1"	70°F d.b.	150°F	122.0°F	1.5	3.4'	20.7	1	3/4"	1/2	115V/1∅	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI
3	INTERNATIONAL/ HPY10	HORIZONTAL DUCTED	875	.50"	75.0°F d.b.	45°F	55.0°F	4	2.3'	20.1	17.4	4	1"	70°F d.b.	150°F	122.0°F	1.5	3.4'	20.7	1	3/4"	1/2	115V/1∅	15	REFER TO SPECIFICATIONS - PROVIDE WITH CONDENSATE OVERFLOW SWI AND THREE-WAY HEATING WATER CONTROL VALVE.

CONDENSING UNIT SCHEDULE														
(DEOLO)		CONDEN	SING UNIT	·		RATING		ELECT	RICAL	- 7 - 7 - 7 - 7 - 7	DEMARKS			
DESIG.	MFR/MDL	TYPE	OSA AMBIENT	SERVES	TOTAL	SENS	TONS	VOLTS/PHASE	MCA	MOCP	REMARKS			
CU-1	JOHNSON CONTROLS/ KC180C00A2BLD1	AIR COOLED	95°F	BCU-1	184.0 MBH	83.4 MBH	15 TON	208/3ø	68.9	90	PROVIDE WITH DISCONNECT, TWO-STAGE COMPRESSORS, LOW AMBIENT CONTROLS, PHASE MONITORING, COIL GUARDS, CONTROLLER, AND R-454B REFRIGERANT. *			
CU-2	JOHNSON CONTROLS/ KC180C00A2BLD1	AIR COOLED	95°F	BCU-2	184.0 MBH	83.4 MBH	15 TON	208/3ø	68.9	90	PROVIDE WITH DISCONNECT, TWO-STAGE COMPRESSORS, LOW AMBIENT CONTROLS, PHASE MONITORING, COIL GUARDS, CONTROLLER, AND R-454B REFRIGERANT. *			