

**HOOD INFORMATION - JOB#4741193**

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)						TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG		
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL			SP	END TO END	ROW
1	HD 1	5412 SND-2	CAPTIVEAIRE	11' 0"	600 DEG	I	HEAVY	206	2266			4'	14'	2266	2120	-0.660'	0	430 SS WHERE EXPOSED	ALONE	ALONE
2	PSP1	166 MISC-PSP	CAPTIVEAIRE	11' 0"	300 DEG	I	N/A	0	0								1800	430 SS WHERE EXPOSED	ALONE	ALONE

**HOOD INFORMATION**

HOOD NO	TAG	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT							
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM				ELECTRICAL	SWITCHES					
1	HD 1	SS BAFFLE WITH HANDLES	8	16'	16'	30%	5	L55 SERIES E26	NO												NO	450 LBS
2	PSP1						0														NO	124 LBS

**HOOD OPTIONS**

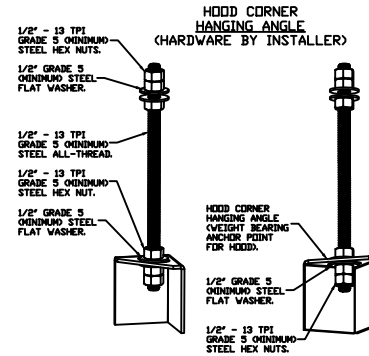
HOOD NO	TAG	OPTION
1	HD 1	FIELD WRAPPER 17.00' HIGH LEFT, RIGHT. WRAPPER CHANNEL - FRONT. RIGHT QUARTER END PANEL 27" TOP WIDTH, 0" BOTTOM WIDTH, 27" HIGH 430 SS. LEFT QUARTER END PANEL 27" TOP WIDTH, 0" BOTTOM WIDTH, 27" HIGH 430 SS.
2	PSP1	FIELD WRAPPER 11.00' HIGH FRONT, LEFT, RIGHT.

**PATENT NUMBERS**

AC-PSP (UNITED STATES) - US PATENT 7963830 B2.  
 AC-PSP WALL (CANADA) - CA PATENT 2820509.  
 AC-PSP ISLAND (CANADA) - CA PATENT 2520330.  
 EXHAUST HOODS ND-2/BD-2/SND-2 (CANADA) - CA PATENT 2520435 C.

**PERFORATED SUPPLY PLENUM(S)**

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
2	PSP1	Front	132'	16'	6'	MUA	12"	20"		600	0.194'
						MUA	12"	20"		600	0.194'
						MUA	12"	20"		600	0.194'

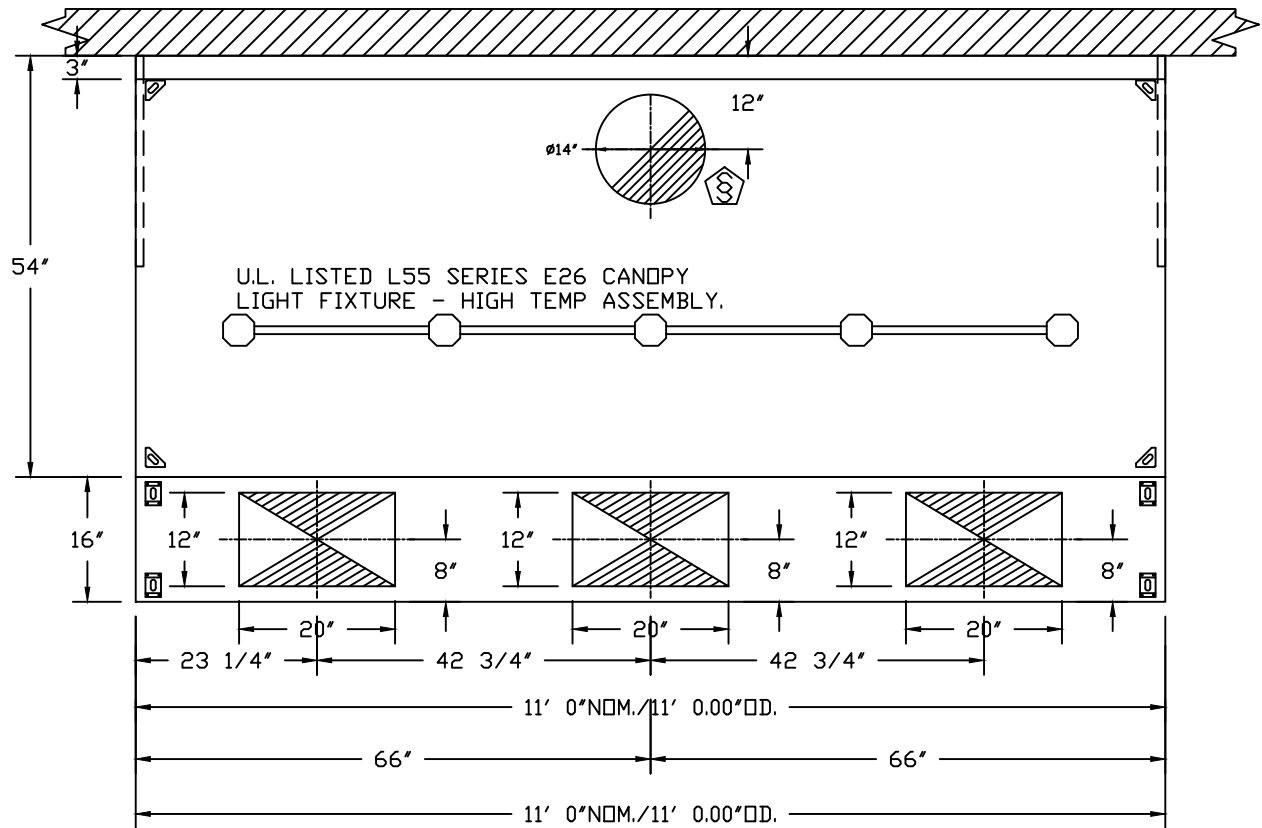


**ASSEMBLY INSTRUCTIONS**

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

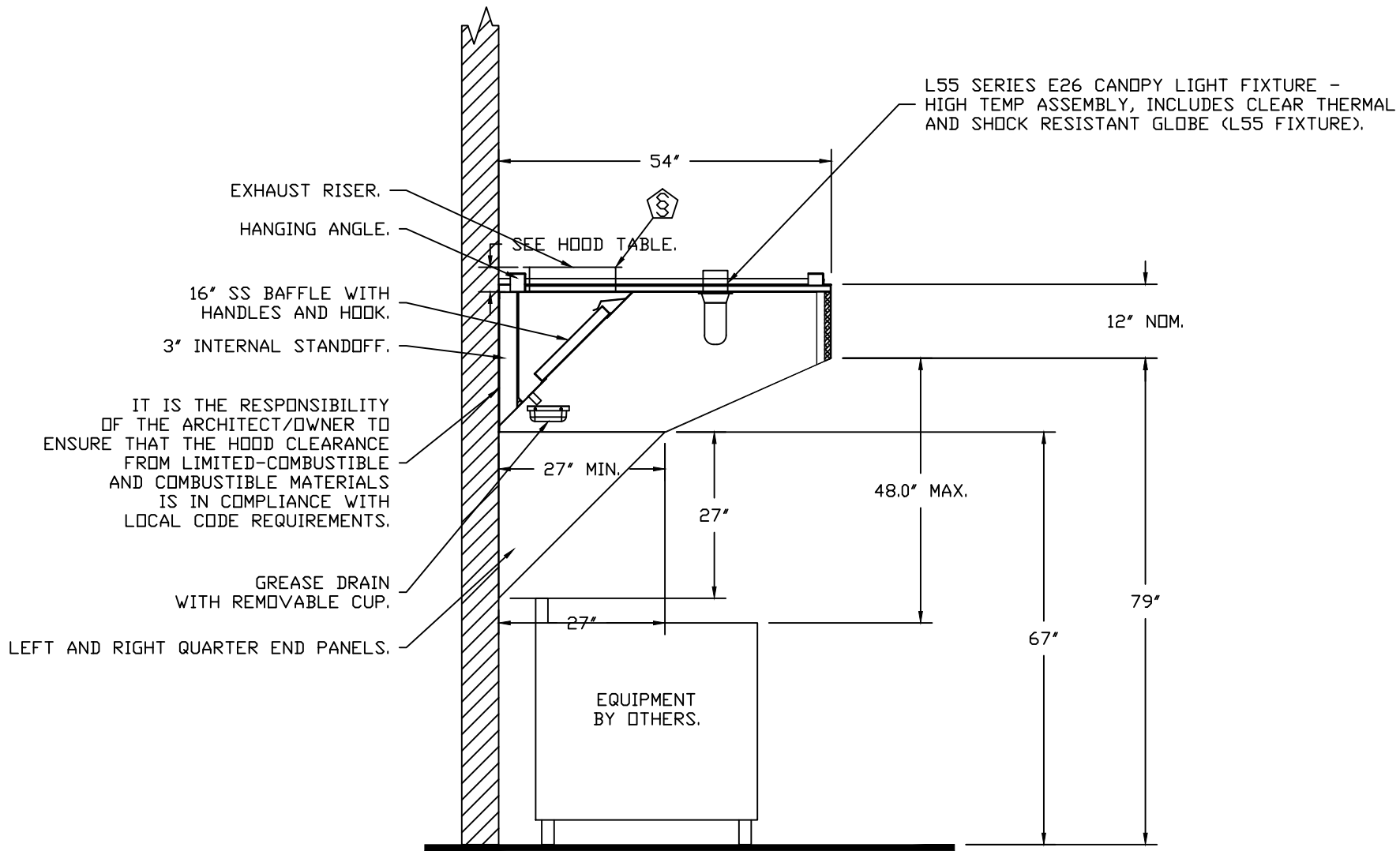


JOB Als Bar (Sharonville, OH)	
LOCATION Cincinnati, OH, 45241	
DATE 12/17/2021	JOB # 4741193
DWG # 1	DRAWN BY jcirilli
REV.	SCALE 3/8" = 1'-0"



PLAN VIEW - HOOD #1 (HD 1)  
 11' 0.00" LONG 5412SND-2

			JOB Als Bar (Sharonville, OH)	
			LOCATION Cincinnati, OH, 45241	
	DATE 12/17/2021	JOB # 4741193		
	DWG # 2	DRAWN BY jcirilli		
REV.		SCALE 3/8" = 1'-0"		



SECTION VIEW - MODEL 5412SND-2  
HOOD - #1 (HD 1)

   	JOB Als Bar (Sharonville, OH)	
	LOCATION Cincinnati, OH, 45241	
	DATE 12/17/2021	JOB # 4741193
	DWG # 3	DRAWN BY jcirilli
	REV.	SCALE 3/8" = 1'-0"

**EXHAUST FAN INFORMATION – JOB#4741193**

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF 1	1	DUI80HFA	CAPTIVEAIRE	2266	1.350	1160	DDP,PREMIUM	1.500	1.0590	3	208	6.6	523 FPM	187	14.4

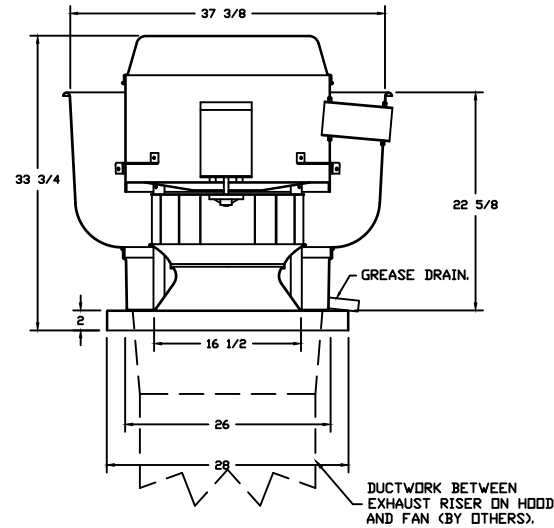
**FAN OPTIONS**

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF 1	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL – SHIP LOOSE – FOR GREASE DUCTS
		1	HINGE KIT – SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS
		1	EXHAUST FAN HEAT BAFFLE
		1	2 YEAR PARTS WARRANTY
2	KMUA	1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING – MEETS AMCA CLASS 1A RATING
		1	LOW FIRE START
		1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	3 TON SINGLE CIRCUIT MODULAR PACKAGED COOLING OPTION FOR SIZE 1 DF/EH MUA (1,100 TO 1,800 CFM), 208V/230V, 1 PHASE. COOLING THERMOSTAT OR PROGRAMMABLE STAT REQUIRED FOR PROPER OPERATION
		1	DOWNTURN PLENUM FOR SIZE 1 DX COIL MODULE
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) – THREE PHASE ONLY
		1	2 YEAR PARTS WARRANTY

**FAN ACCESSORIES**

FAN UNIT NO	TAG	EXHAUST				SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT	
1	KEF 1	YES							
2	KMUA						YES		

FAN #1 DUI80HFA – EXHAUST FAN (KEF 1)



**FEATURES:**

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL768 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

**NORMAL TEMPERATURE TEST**

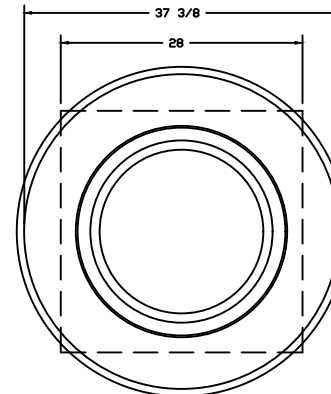
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

**ABNORMAL FLARE-UP TEST**

EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

**OPTIONS**

- GREASE BOX.
- FAN BASE CERAMIC SEAL – SHIP LOOSE – FOR GREASE DUCTS.
- HINGE KIT – SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
- EXHAUST FAN HEAT BAFFLE.
- 2 YEAR PARTS WARRANTY.



TOP VIEW



**CAPTIVEAIRE**

JOB Als Bar (Sharonville, OH)	
LOCATION Cincinnati, OH, 45241	
DATE 12/17/2021	JOB # 4741193
DWG # 4	DRAWN BY jcirilli
REV.	SCALE 3/8" = 1'-0"

**CONDENSER DETAILS**

FAN UNIT NO	TAG	FAN UNIT MODEL #	CONDENSER NO	TONNAGE	VOLTAGE	PHASE	FREQUENCY	MCA	RLA	MAX FUSE SIZE	MIN WIRE SIZE	SEER
2	KMUA	A1-D.250-15D-MPU	1	3	208-230	1 PHASE	60 HZ	18.1 AMPS	14.7 AMPS	30 AMPS	10 AWG	14

**MUA FAN INFORMATION - JOB#4741193**

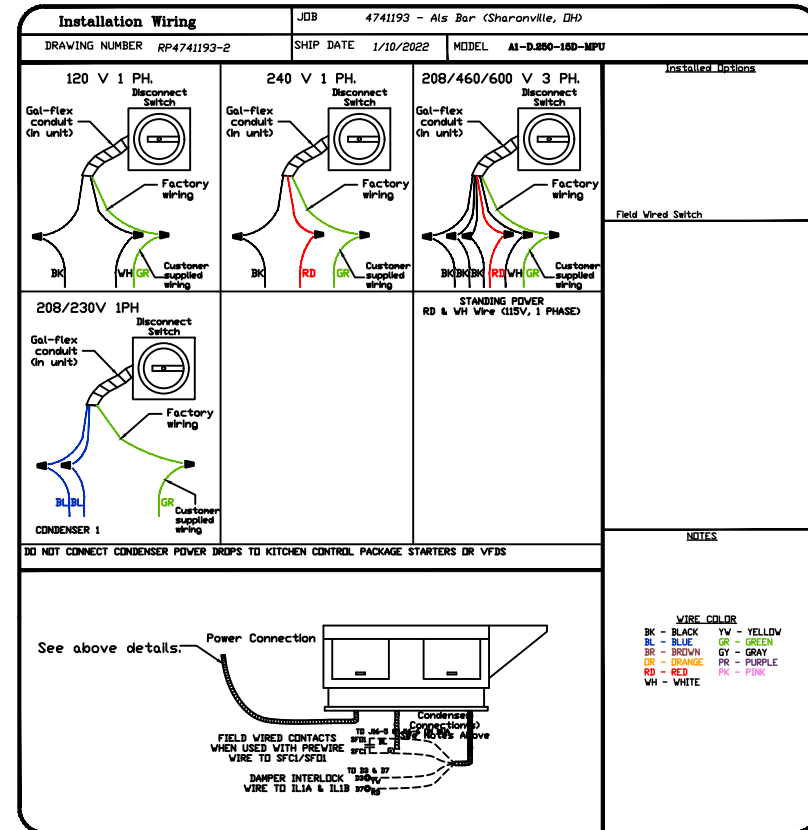
FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
2	KMUA	1	A1-D.250-15D-MPU	15MF-1-MOD	A1-D.250	1100	1800	0.300	1972	DDP, PREMIUM	1.500	1.1810	3	208	4.4	5.5A	15A	1045	19.8

**COILS - JOB#4741193**

FAN UNIT NO	TAG	COIL TYPE	DESIGN CFM	COOLING											
				ENTERING DB TEMP	ENTERING WB TEMP	LEAVING DB TEMP	LEAVING WB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	TOTAL CAPACITY	SENSIBLE CAPACITY	LATENT CAPACITY	
2	KMUA	DX	1800	90.0°F	74.0°F	77.7°F	68.7°F	---	---	---	---	34.7 MBH	22.9 MBH	11.8 MBH	
HEATING															
ENTERING DB TEMP	LEAVING DB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	STEAM PRESSURE	TOTAL CAPACITY	SENSIBLE CAPACITY							
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**GAS FIRED MAKE-UP AIR UNIT(S)**

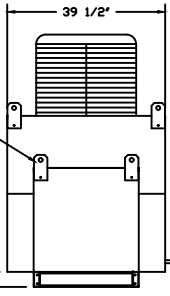
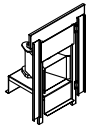
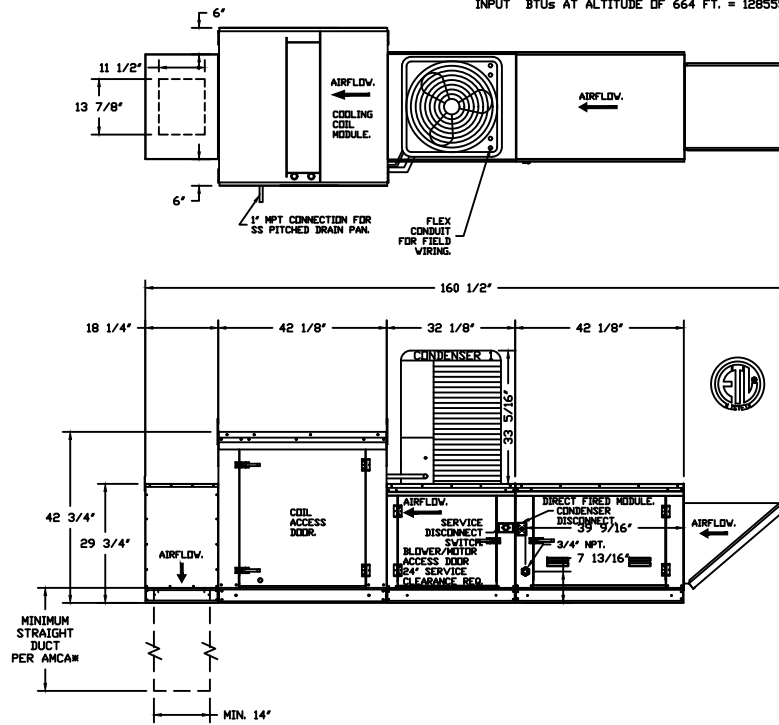
FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2	KMUA	128555	118271	63°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92



JOB Als Bar (Sharonville, OH)	
LOCATION Cincinnati, OH, 45241	
DATE 12/17/2021	JOB # 4741193
DWG # 6	DRAWN BY jcrilli
REV.	SCALE 3/8" = 1'-0"

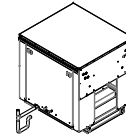
SUPPLY SIDE HEATER INFORMATION

WINTER TEMPERATURE = 12°F. TEMP. RISE = 63°F.  
 BTUS CALCULATED OFF ACTUAL AIR DENSITY.  
 OUTPUT BTUS AT ALTITUDE OF 0.0 FT. = 121150.  
 INPUT BTUS AT ALTITUDE OF 0.0 FT. = 131695.  
 OUTPUT BTUS AT ALTITUDE OF 664 FT. = 118271.  
 INPUT BTUS AT ALTITUDE OF 664 FT. = 128555.

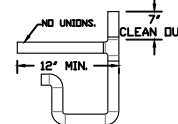


- FAN #2 A1-D250-15D-MPU - HEATER (KHA)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN.
  2. INTAKE HOOD WITH EZ FILTERS-LDW CFM.
  3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
  4. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT. STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LDW LEAKAGE, TFB20S ACTUATOR INCLUDED.
  5. LDW FIRE START. ALLOWS THE MODULATION CONTROL IS IN A LDW FIRE POSITION.
  6. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
  7. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC, 2.5" DIAMETER, 1/4" THREAD SIZE.
  8. 3 TON, SINGLE CIRCUIT MODULAR PACKAGED COOLING OPTION FOR SIZE 1 DF/EH MODULAR PACKAGED UNIT. INCLUDES CONDENSER, DX COIL, FILTER/DRYER KIT, HARD START KIT, THERMAL EXPANSION VALVE, R410A REFRIGERANT, AND REFRIGERANT PIPING (1,100 TO 1,800 CFM) WHEN ORDERED WITH OPPOSITE AIRFLOW CONDENSERS ACCESS AND COIL PIPING WILL REMAIN IN STANDARD POSITION. DRAIN AND SLEDS WILL MOVE TO THE OPPOSITE SIDE. ANY OTHER CHANGE WILL REQUIRE C.I. CONDENSERS REQUIRE SEPARATE 200V, 1 PHASE POWER SUPPLY UNLESS ORDERED WITH SINGLE POINT CONNECTION. COIL = 2E21001N.
  9. DOWNTURN PLENUM FOR SIZE 1 COOLING COIL MODULE - REQUIRED FOR DOWN DISCHARGE COOLING COIL APPLICATIONS.
  10. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
  11. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/MPU SECTION).
  12. 2 YEAR PARTS WARRANTY.

TYPICAL DRAIN TRAP INSTALL



RECOMMENDED COOLING COIL DRAIN TRAP CONFIGURATION



- NOTES:
- 1) 1" DIAMETER PVC PIPE ONLY.
  - 2) USE ONLY LDW PROFILE COUPLINGS.
  - 3) ADD CLEAN OUT AS SHOWN.

NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 14" x 14".

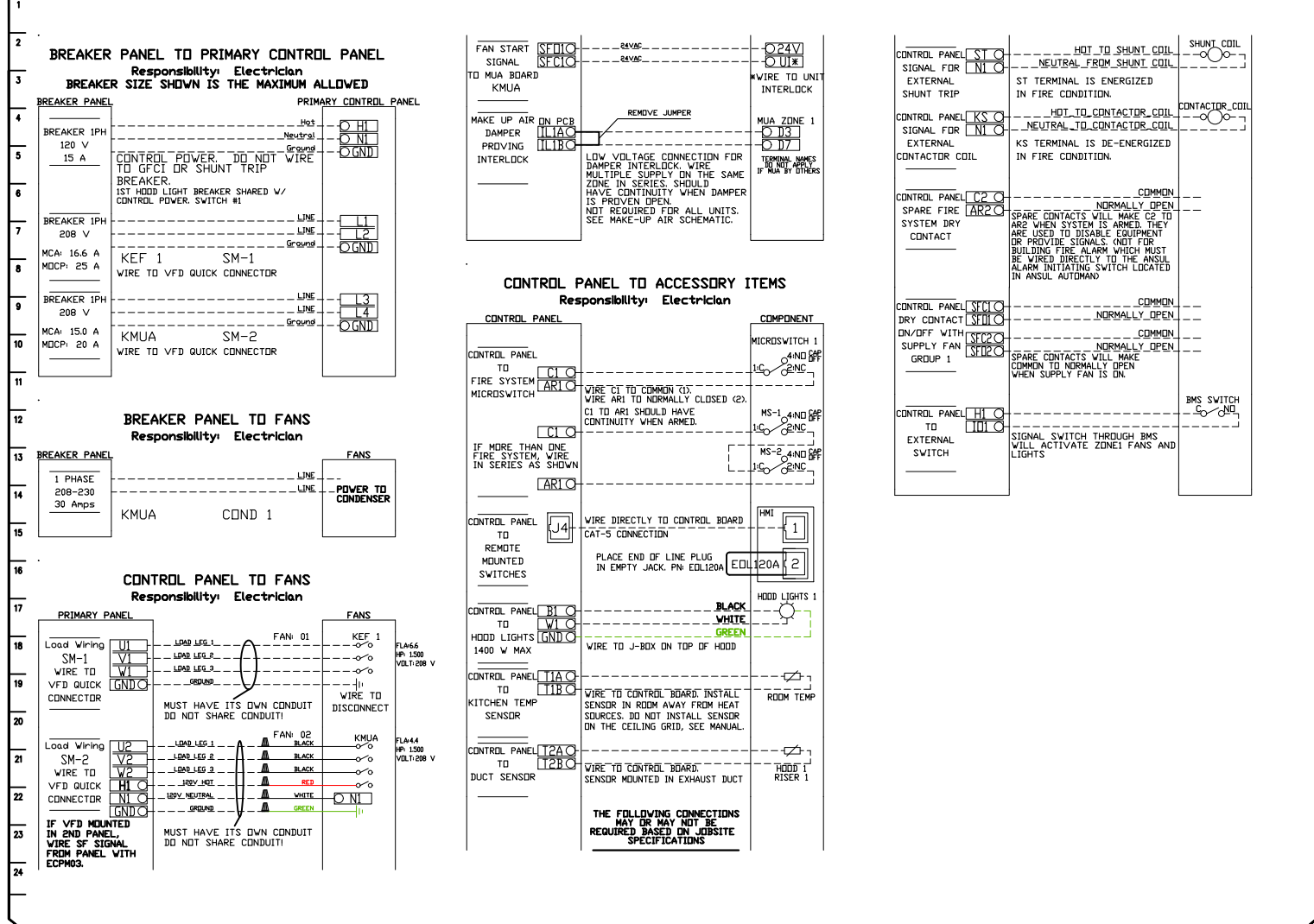
**CAPTIVE AIR**

JOB Als Bar (Sharonville, OH)	
LOCATION Cincinnati, OH, 45241	
DATE 12/17/2021	JOB # 4741193
DWG # 8	DRAWN BY jcirilli
REV.	SCALE 1/4" = 1'-0"

**ELECTRICAL PACKAGE - JOB#4741193**

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	Φ	HP	VOLT	FLA
1	ECP 1	SC-311110MA	WALL MOUNT IN SS BOX	01 - FACE MOUNT LEFT SIDE OF HOOD	1 LIGHT 1 FAN	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	KEF 1	EXHAUST	3	1.500	208	6.6
				HOOD # 1			KMUA	SUPPLY	3	1.500	208	4.4

<b>JOB NO</b> 4741193	<b>MODEL NUMBER</b> SC-311110MA	<b>DRAWN BY</b> JCR	<b>SCHEMATIC TYPE</b> INSTALL	<b>DESCRIPTION OF OPERATION:</b> 3 Phase w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Relay On/Off with Supply Fan, Fan(s) On/Off Thermostatically Controlled, Room temperature sensor shipped loose for field installation, INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD.
	<b>JOB NAME</b> Als Bar (Sharonville, OH)	<b>DATE</b> 12/17/2021	<b>DWG NO</b> ECP-01-1	



<b>JOB</b> Als Bar (Sharonville, OH)	
<b>LOCATION</b> Cincinnati, OH, 45241	
<b>DATE</b> 12/17/2021	<b>JOB #</b> 4741193
<b>DWG #</b> 9	<b>DRAWN BY</b> jcrilli
<b>REV.</b>	<b>SCALE</b> 3/8" = 1'-0"