EXHAUST FAN INFORMATION

FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	ESP.	RPM	H.P.	B.H.P.	∠	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS.)	SONES
1	KEF-1_L	DU180HFA	2681	1.375	1227	2.000	0.9690	3	208	6.1	619 FPM	156	17.1
2	KEF-1_R	DU180HFA	2681	1.375	1227	2.000	0.9690	3	208	6.1	619 FPM	156	17.1
4	KEF-2	DU12HFA	500	0.375	1466	0.180	0.1360	1	115	1.9	355 FPM	55	8.8

MUA FAN INFORMATION - Job#3657720

FAN UNIT NO.	TAG	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP.	RPM	H.P.	B.H.P.	∠	VOLT	FLA	WEIGHT (LBS.)	SONES	BURNER EFFICIENCY(%)
3	KSF-1	A2-D.250-20D	20MF-2-MOD	A2-D.250	2500	4290	0.500	1597	5.000	2.3440	3	208	15.0	831	16.1	92

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO.	TAG	INPUT BTUs	OUTPUT BTUs	TEMP. RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE
3	KSF-1	288807	265702	59 deg F	7 in. w.c. - 14 in. w.c.	Natural

FAN OPTIONS

FAN UNIT NO.	TAG	OPTION (Qty. - Descr.)
1	KEF-1_L	1 - Grease Box
2	KEF-1_R	1 - Grease Box
3	KSF-1	1 - AC Interlock Relay - 24VAC Coil
		1 - Motorized Backdraft Damper for A2-D Housing
		1 - Low Fire Start
		1 - Inlet Pressure Gauge, 0-35"
		1 - Manifold Pressure Gauge, -5 to 15" wc
		1 - Separate 120V Wiring Package (Required and used only for DCV or Prewire with VFD) - Three Phase Only
4	DEF-1	1 - SCR-12 Bird Screen
		1 - 1 12-BDD Damper

FAN ACCESSORIES

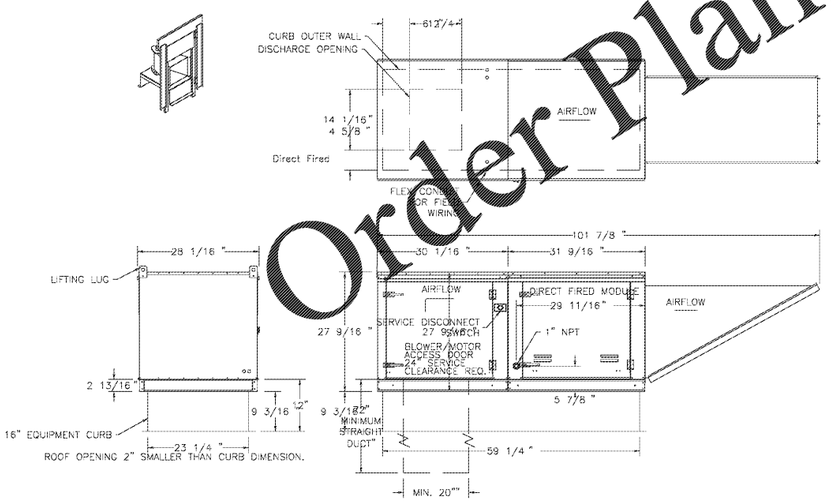
FAN UNIT NO.	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF-1_L	YES						
2	KEF-1_R	YES						
3	KSF-1						YES	
4	DEF-1		YES					

SUPPLY SIDE HEATER INFORMATION:
WINTER TEMPERATURE = 16°F. TEMP. RISE = 59°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY
OUTPUT BTUs AT ALTITUDE OF 0.0 ft. = 270408
INPUT BTUs AT ALTITUDE OF 0.0 ft. = 293921
OUTPUT BTUs AT ALTITUDE OF 485 ft. = 265702
INPUT BTUs AT ALTITUDE OF 485 ft. = 288806

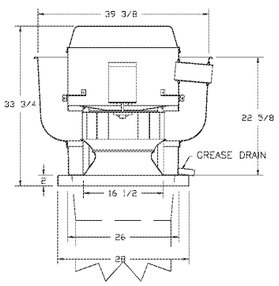
FAN #2 A2-D.250-20D - HEATER (KSF-1)

1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 20" DIRECT DRIVE FAN
2. INTAKE HOOD WITH EZ FILTERS
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT
4. COOLING INTERLOCK RELAY. 24VAC COIL. 120V CONTACTS. LOCKS OUT BURNER CIRCUIT WHEN AC IS ENERGIZED.
5. MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, LF120S ACTUATOR INCLUDED
6. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
7. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE
8. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE
9. 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.

NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE UNLESS OTHERWISE SPECIFIED. 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 20" x 20" x 72" LONG.



FANS #1 (KEF-1_L), #2 (KEF-1_R) - DU180HFA EXHAUST FAN



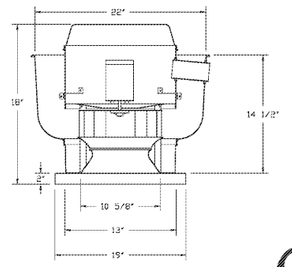
FEATURES:
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS)
- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL
- INTERNAL WIRING
- WEATHERPROOF DISCONNECT
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE)
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

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 #3 DU12HFA - EXHAUST FAN (KEF-2)



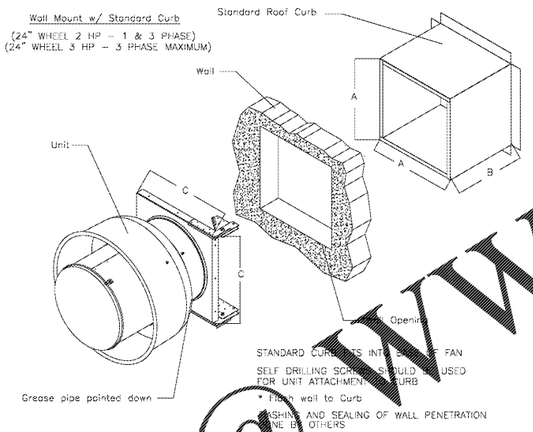
FEATURES:
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS)
- ROOF MOUNTED FANS
- UL705
- VARIABLE SPEED CONTROL
- INTERNAL WIRING
- WEATHERPROOF DISCONNECT
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE)

OPTIONS
SCR-12 BIRD SCREEN
1-12-BDD DAMPER

CURB ASSEMBLIES

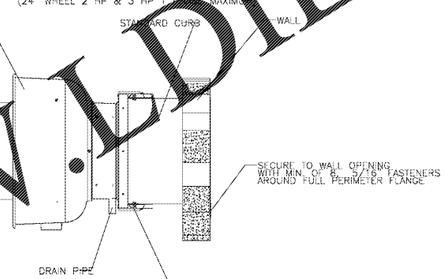
NO.	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF-1_L	58 LBS	Curb	26.500"W x 26.500"L x 18.000"H Hinged 16 Gauge
2	# 2	KEF-1_R	58 LBS	Curb	26.500"W x 26.500"L x 18.000"H Hinged 16 Gauge
3	# 3	KSF-1	76 LBS	Curb	31.000"W x 79.000"L x 16.000"H Insulated
4	# 4	DEF-1	22 LBS	Curb	17.500"W x 17.500"L x 16.000"H Insulated

Wall Mount w/ Standard Curb
(24" WHEEL 2 HP - 1 & 3 PHASE)
(24" WHEEL 3 HP - 3 PHASE MAXIMUM)

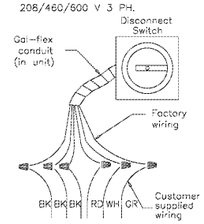


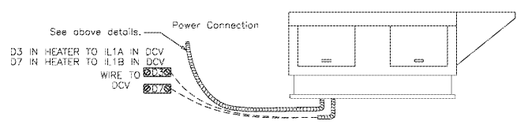
STANDARD CURB IS INTEGRAL TO FAN
SELF DRILLING SCREWS SHOULD BE USED FOR UNIT ATTACHMENT TO CURB
* Flash wall to Curb
FLASHING AND SEALING OF WALL PENETRATION TO BE BY OTHERS

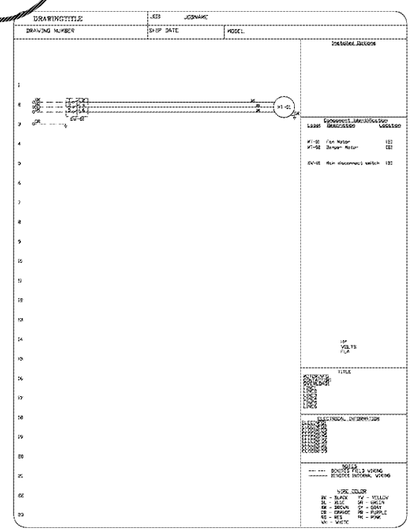
Wall Mount w/ Standard Curb SIDE VIEW
(24" WHEEL 2 HP & 3 HP 1 PHASE MAXIMUM)

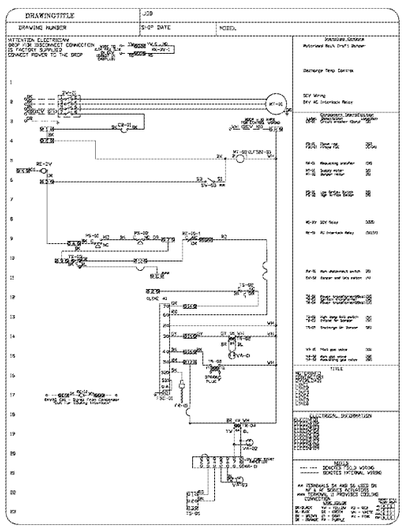


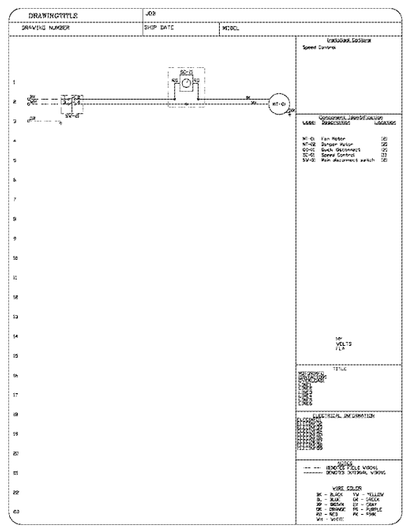
208/460/600 V 3 PH.











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