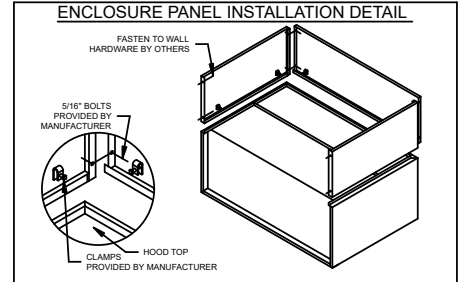
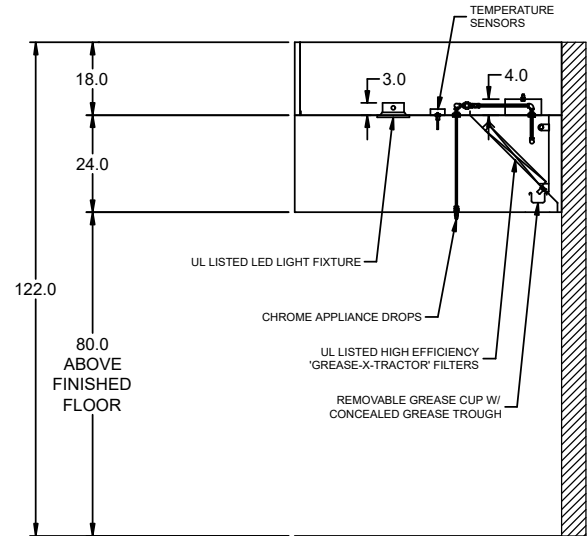
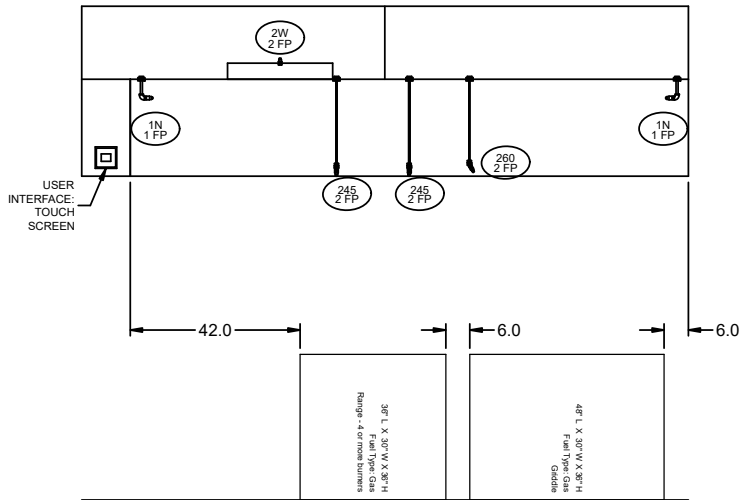
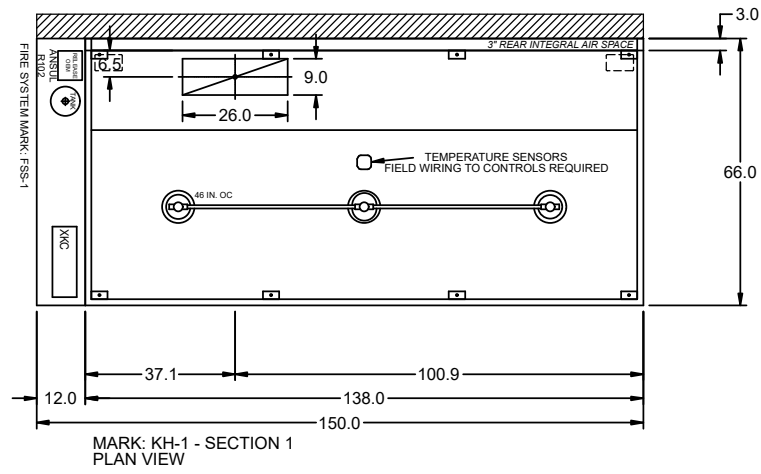


HOOD INFORMATION																	
HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	EXHAUST					SUPPLY		TOTAL WEIGHT LBS.	SECTION LOCATION	
			LENGTH	WIDTH	HEIGHT			TOTAL CFM	COLLAR(S)			MUA CFM	AC CFM				
								WIDTH	LENGTH	DIA.	CFM	S.P.					
1	KH-1	XXEW-138-S	138	66	24	300 SS 100%	HEAVY	2700	9	26		2700	0.707			398.876	SINGLE

HOOD INFORMATION													
HOOD NO.	MARK	LIGHTING DETAILS			GREASE FILTRATION DETAILS			UTILITY CABINET(S)					
		FIXTURE TYPE BULB / LAMP INFO	QTY	FOOT CANDLES	TYPE / MODEL MATERIAL	QTY	SIZE (IN.) L H	LOCATION	FIRE SYSTEM		CONTROLS		
									TYPE	SIZE	MODEL	INTERFACE	
1	KH-1	ROUND LED	3	70.9	X-TRACTOR STAINLESS STEEL	6	16 20	20	LEFT	ANSUL R102	3	XKC	TOUCHSCREEN

**HOOD OPTIONS**

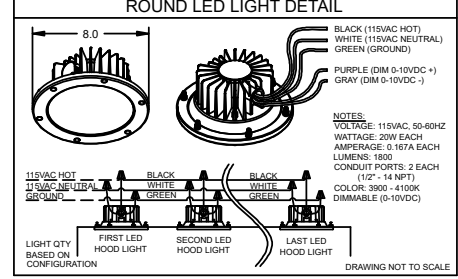
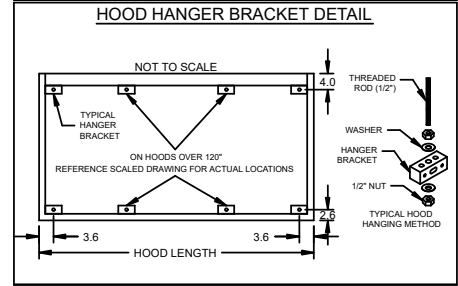
- UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625
- BACK INTEGRAL AIR SPACE - 3 IN WIDE
- 18 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
- FACTORY MOUNTED EXHAUST COLLAR(S)
- FILTER REMOVAL TOOL INCLUDED - QTY 1
- PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
- STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH



**HOOD HANGING HEIGHT FOR FIRE SYSTEMS**

VERIFICATION OF HOOD HANGING HEIGHT ABOVE FINISHED FLOOR (A.F.F.) IS REQUIRED FOR CORRECT PLACEMENT OF FIRE SYSTEM NOZZLES.

- RECOMMENDED HANGING HEIGHT = 90" FROM FINISHED FLOOR TO LOWER FRONT EDGE OF HOOD.
- OTHER HANGING HEIGHT = \_\_\_\_\_" FROM FINISHED FLOOR TO LOWER EDGE OF HOOD.

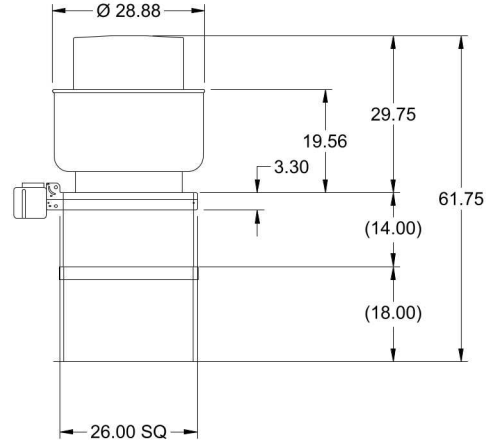


# Model: CUE-160-VG

Direct Drive Upblast Centrifugal Roof Exhaust Fan

Previously: CUE-161-VG

Dimensional	
Quantity	1
Weight w/o Acc's (lb)	104
Weight w/ Acc's (lb)	146
Weight w/ Acc's and Curb (lb)	183
Standard Curb Cap Size (in.)	26 x 26
Roof Opening (in.)	18.5 x 18.5

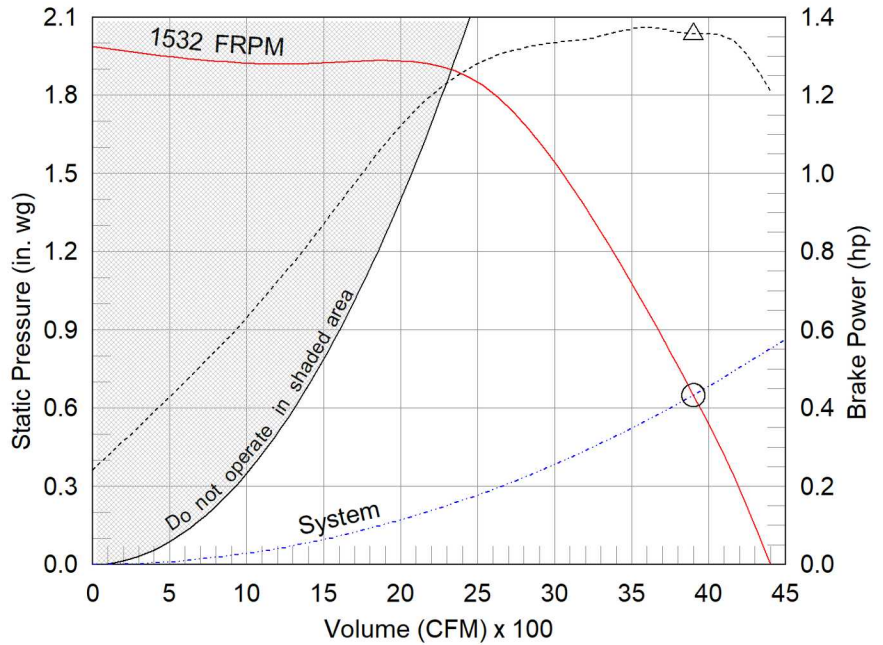


Performance	
Requested Volume (CFM)	3,900
Actual Volume (CFM)	3,900
Total External SP (in. wg)	0.65
Fan RPM	1532
Operating Power (hp)	1.36
Elevation (ft)	692
Airstream Temp.(F)	70
Air Density (lb/ft3)	0.073
Tip Speed (ft/min)	6,666
Static Eff. (%)	29

Misc Fan Data	
Fan Eff. Index (FEI)	-
Outlet Velocity (ft/min)	2,267

Motor	
Motor Mounted	Yes
Size (hp)	2
Voltage/Cycle/Phase	208/60/1
Enclosure	TEFC
Motor RPM	1725
Efficiency Rating	High
Windings	1
FLA (Amps)	12.5
Min. Circuit Ampacity (MCA)	16
Max. Overcurrent Protection (MOP)	25
Short Circuit Current Rtg (SCCR)	5 kA

OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR, ADAPTER, AND/OR HINGE BASE.



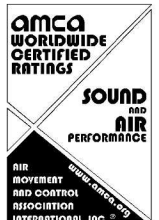
- △ Operating Bhp point
- Operating point at Total External SP
- Fan curve
- - - System curve
- - - Brake horsepower curve

**Notes:**

All dimensions shown are in units of in.  
\*NEC FLA, MCA and MOP are for reference only – based on tables 430.248 or 430.25 of National Electric Code 2020. Actual motor FLA may vary, for sizing thermal overload, consult factory. MCA and MOP values shown only account for the motor, not accessories (damper actuator, field supplied VFD, etc).  
LwA - A weighted sound power level, based on ANSI S1.4 dBA - A weighted sound pressure level, based on 11.5 dB attenuation per Octave band at 5 ft - dBA levels are not licensed by AMCA International  
Sones - calculated using ANSI/AMCA 301 at 5 ft

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	79	85	87	84	78	75	71	68	85	74	22



## Model: CUE-160-VG

### Direct Drive Upblast Centrifugal Roof Exhaust Fan

#### Standard Construction Features:

- Aluminum housing - Backward inclined aluminum wheel - Aluminum curb cap with prepunched mounting holes - Drain trough - Ball bearing motors (sizes 85-300 and all Vari Green), sleeve bearing motors (sizes 60-80) - Motor isolated on shock mounts - Corrosion resistant fasteners

#### Selected Options & Accessories:

Motor - Vari-Green EC motor  
Control - 0-10VDC Input  
Larger Curb Cap Size - 26 Square  
UL/cUL 762 Listed - "Power Ventilators for Rest. Exh. Appliances"  
Switch, NEMA-1, Toggle, Shipped with Unit  
Junction Box Mounted & Wired  
Curb Extension-Galv., VCE-26-G14  
Hinge, Factory Installed  
High Temp Curb Seal Rated for Continuous Duty at 1500 F (Factory Attached)  
Grease Trap (PN 475538)  
Birdscreen: Aluminum, nom. 86% Free Area  
Unit Warranty: 1 Yr (Standard)

#### Selected Sub Marks

*See individual submittals for full details*  
GPI-26-G18

***The Vari-Green Motor included in this order can operate on any single phase voltage between 208V and 240V.***

# Disconnect Switch

## Enclosure Rating: NEMA-1

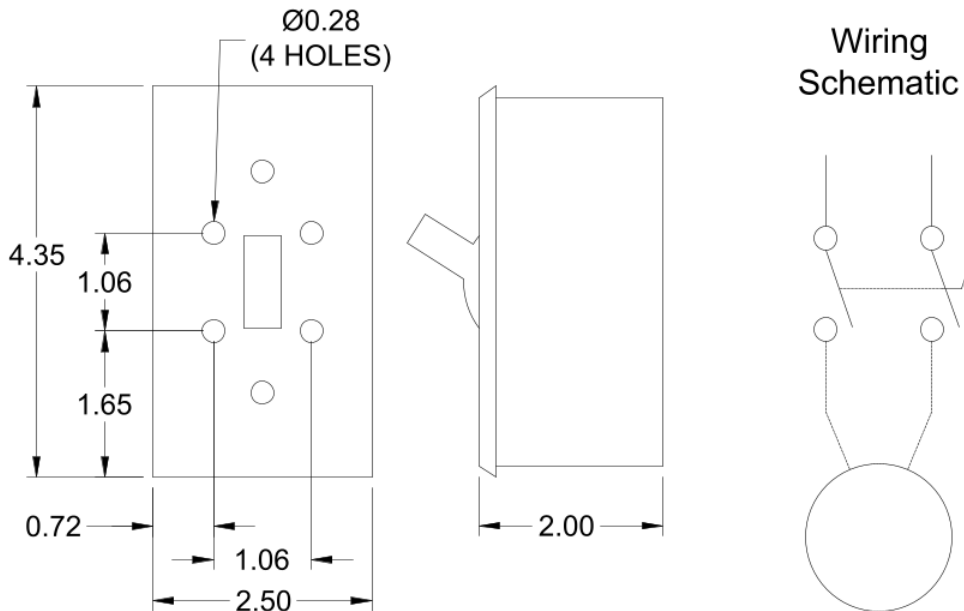
### Standard Construction Features:

Enclosure constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment and to provide a degree of protection against falling dust. This enclosure meets the rod entry and the indoor corrosion protection design tests. The rod entry test is intended to simulate incidental contact with enclosure equipment. Enclosure is equipped with provision to lockout in the off position with customer supplied lock.

### Disconnect Switch Configuration

Type:	Toggle	Motor Size:	2 hp	Voltage:	208	UL Listed:	Yes
Manufacturer:	Pass and Seymour	Cycle:	60	Amperage:	20	CSA Approved:	Yes
Overload Protection:	None	Phase:	1	Switch Pole(s):	2	Rating:	2 hp
Junction Box Mtg.:	Mounted and Wired	RPM:	1725	Exp. Resist. Wiring:	None		
Switch Mounting:	Shipped With Unit						

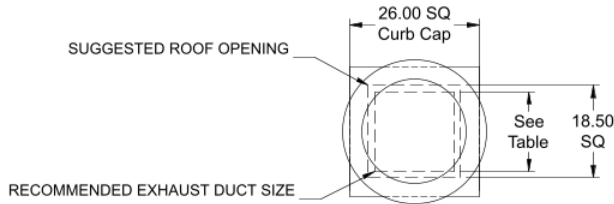
### Electrical Drawing Details



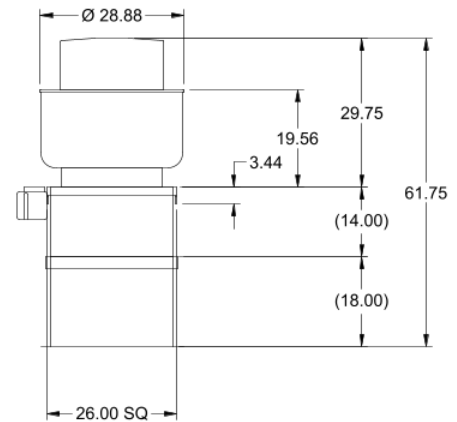
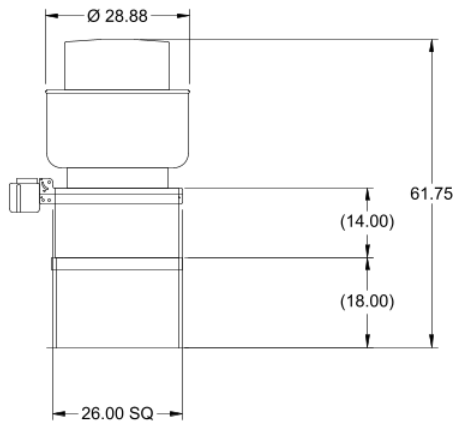
Notes: All dimensions shown are in units of in.

# Assembly Drawing

Type: Direct Drive Upblast Centrifugal Roof Exhaust Fan



DUCT TYPE	SIZE
STANDARD	16 SQ
FIRE-WRAPPED	8 SQ



DUCT DIMENSIONS ARE LARGEST POSSIBLE DUCT TO FIT THROUGH CURB.  
CONSULT SYSTEM DESIGN ENGINEER FOR RECOMMENDED DUCT SIZE.

OVERALL HEIGHT MAY BE GREATER DEPENDING ON  
MOTOR, ADAPTER, AND/OR HINGE BASE.

Notes: All dimensions shown are in units of in..

# Vari-Green

## Motor & Control Options

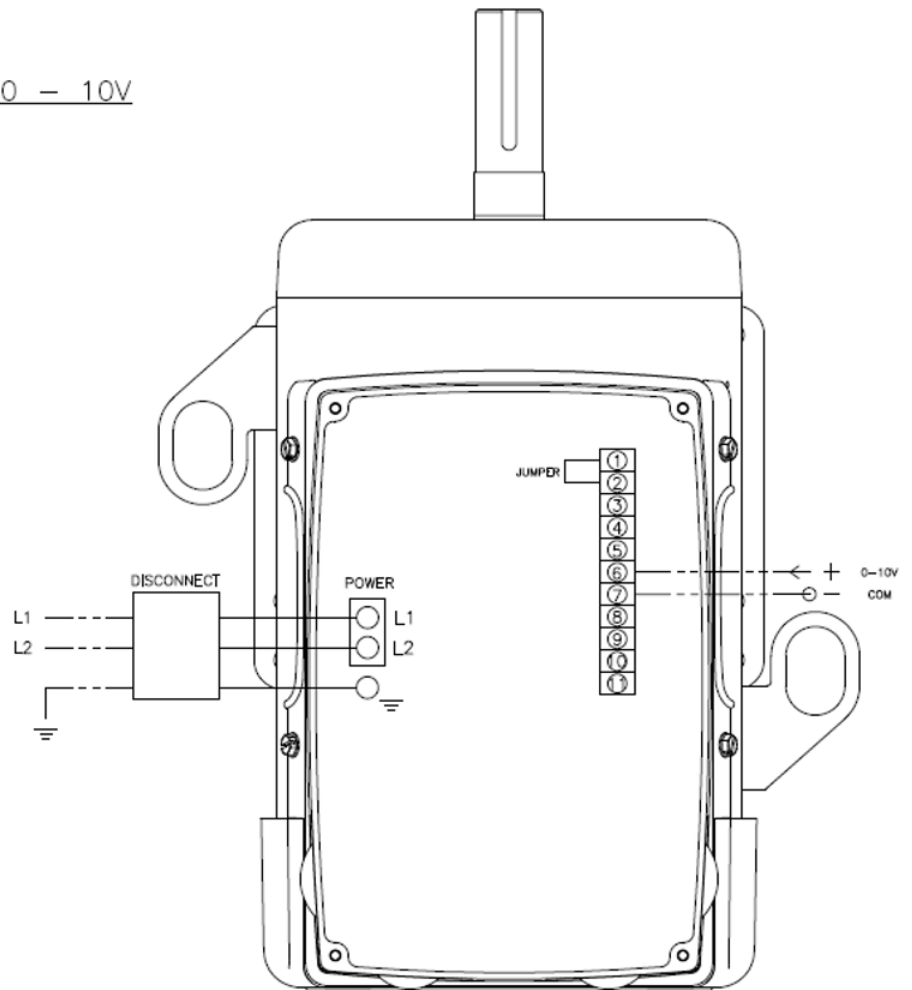
An EC motor that uses AC input power and internally converts it to DC power. Motor accepts a 0-10VDC control signal. Motor is operable in the 2-10VDC range and off while in the 0-1.9VDC range. Vari-Green motors feature a soft-start and inherent thermal and current protection built into each unit. Inrush current at start up is eliminated and the motor will automatically reduce speed or turn off if overloaded or it becomes too hot.

### Motor Configuration

Input Voltage: 208  
Speed Reference: 0-10VDC 0 - 10V  
Permanent Dial: No  
Balance Dial Included: No

### Control Configuration

Control Type: By Others  
Transformer: None



DRAWING  
6.1.2.v1

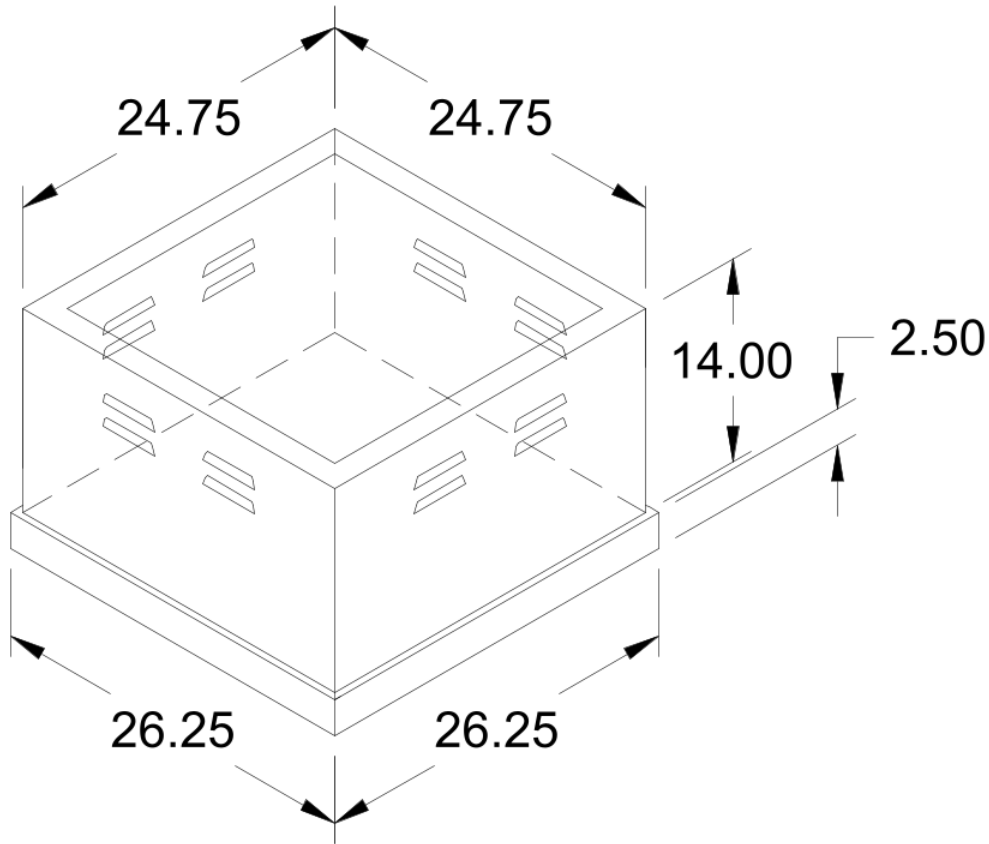
----- FIELD WIRED  
\_\_\_\_\_ FACTORY WIRED

## Vented Curb Extension

Model: VCE

### Standard Construction Features:

- Curb Extension mounts between the fan and the roof curb - Constructed of either 18 ga galvanized or optional 0.064 in. aluminum - Louvered vents are designed to vent heat in restaurant exhaust applications - Designed to provide required 18 in. minimum discharge height above roof line when used with an 8 in. high roof curb and Greenheck model spun aluminum upblast exhaust fan per NFPA 96. NOTE: Damper Trays are not available.



ISOMETRIC VIEW

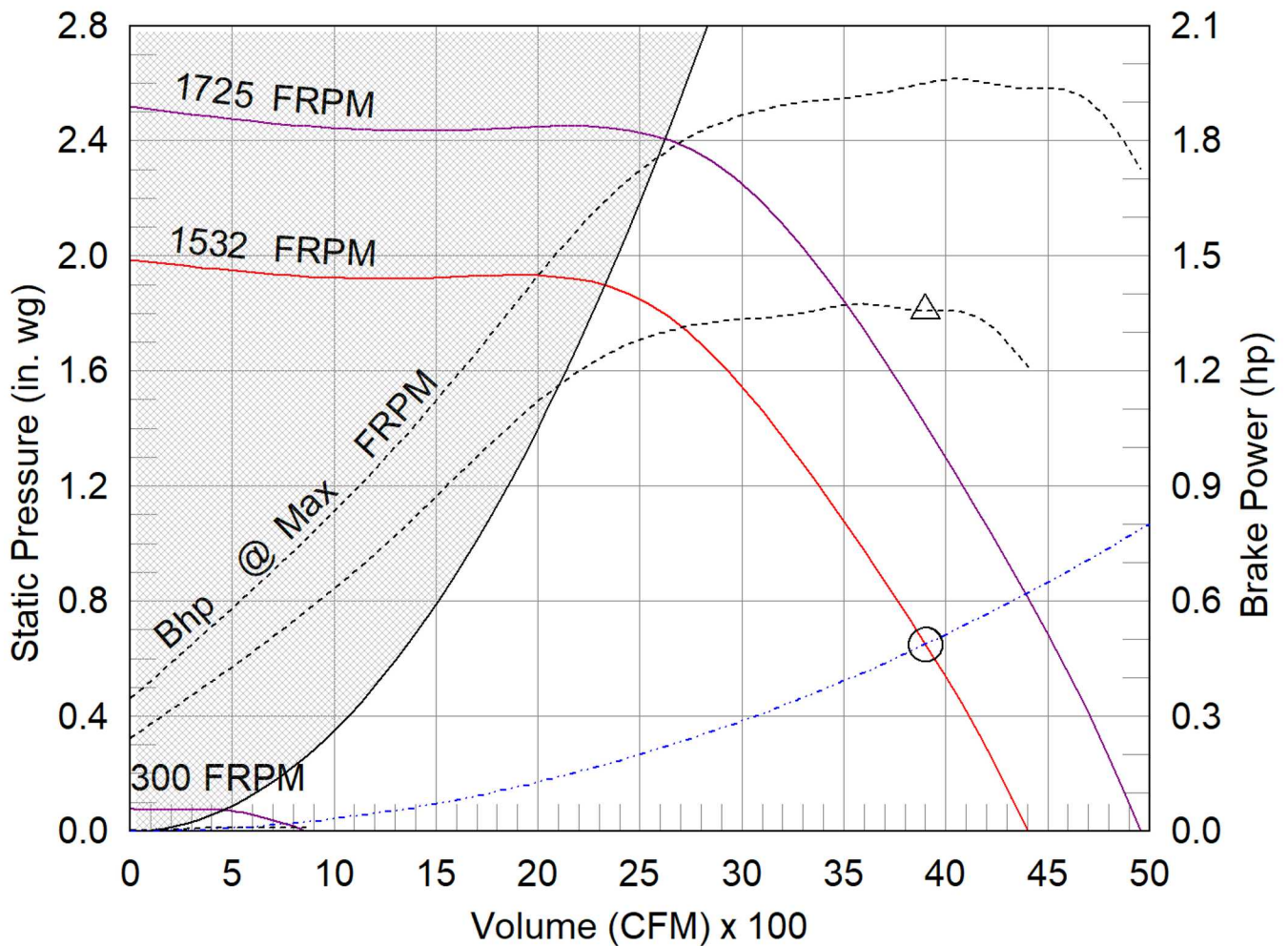
Notes: All dimensions shown are in units of in.

CUE-160-VG

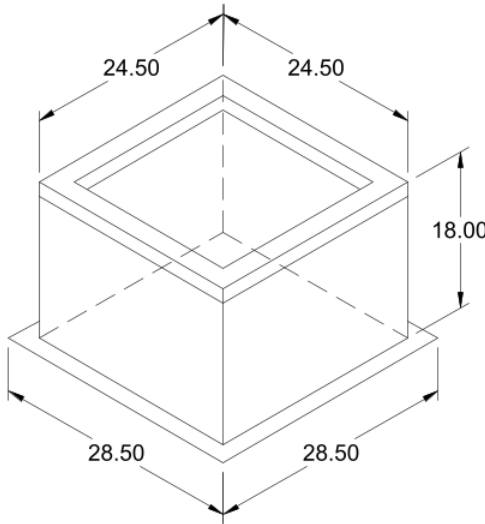
Min/Max Fan Curve

Performance

Requested Volume (CFM)	Actual Volume (CFM)	Total External SP (in. wg)	Fan RPM	Operating Power (hp)
3,900	3,900	0.65	1532	1.36



- △ Operating Bhp point
- Operating point at Total External SP
- Construction Limit
- Fan curve
- Min FRPM
- - - System curve
- - - Brake horsepower curve



## Model: GPI

### Roof Curb

#### Standard Construction Features:

- Roof Curb fits between the building roof and the fan mounted directly to the roof support structure - Constructed of either 18 ga galvanized steel or 0.064 in. aluminum - Straight Sided without a cant - 2 in. mounting flange - 3 lb density insulation - Height - Available from 12 in. to 42 in. as specified in 0.5 in. increments. Notes: - The maximum roof opening dimension should not be greater than the "Actual" top outside dimension minus 2 in.. - The minimum roof opening dimension should be at least 2.5 in. more than the damper dimension or recommended duct size. - The Roof Opening Dimension may or may not be the same as the Structural Opening Dimension. - Damper Tray is optional and must be specified. Tray size is same as damper size. - Security bars are optional and must be specified. Frames and gridwork are all 12 ga steel. Gridwork is welded to the frame and the frame is welded to the curb.

#### General

Tag	Qty	Model	Sizing Method	Undersizing (in.)	Weight (lb)	Shipped Assembled	Union Label
	1	GPI-26	Nominal	1.5	37	Yes	No Preference

#### Dimensions

Curb Height (in.)	Nominal Outside Width (in.)	Nominal Outside Length (in.)	Actual Outside Width (in.)	Actual Outside Length (in.)	Actual Inside Width (in.)	Actual Inside Length (in.)	Flange Width (in.)	Flange Length (in.)	Hinge Base Width* (in.)	Hinge Base Length* (in.)
18	26	26	24.5	24.5	21	21	28.5	28.5	25	25

\*May not be applicable

#### Accessories

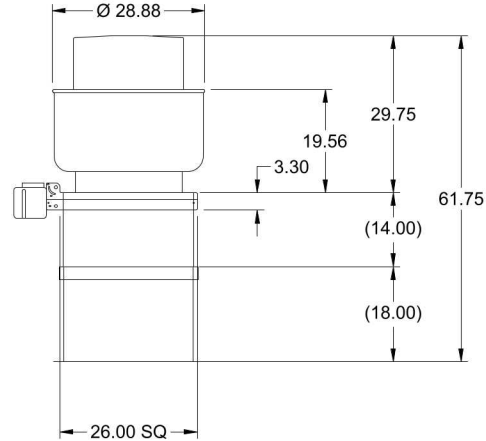
Material	Security Bars	Liner	Insulation (in.)	Insulation R Value
Galvanized	No	No	1	R4.3

# Model: CUE-160-VG

Direct Drive Upblast Centrifugal Roof Exhaust Fan

Previously: CUE-161-VG

Dimensional	
Quantity	1
Weight w/o Acc's (lb)	77
Weight w/ Acc's (lb)	119
Weight w/ Acc's and Curb (lb)	156
Standard Curb Cap Size (in.)	26 x 26
Roof Opening (in.)	18.5 x 18.5

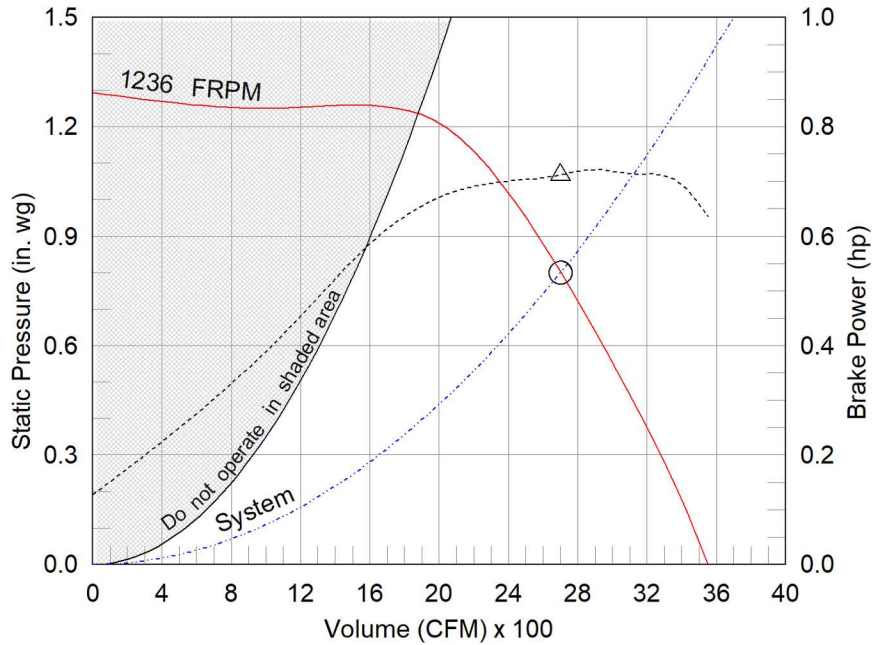


Performance	
Requested Volume (CFM)	2,700
Actual Volume (CFM)	2,700
Total External SP (in. wg)	0.8
Fan RPM	1236
Operating Power (hp)	0.71
Elevation (ft)	692
Airstream Temp.(F)	70
Air Density (lb/ft3)	0.073
Tip Speed (ft/min)	5,378
Static Eff. (%)	48

Misc Fan Data	
Fan Eff. Index (FEI)	-
Outlet Velocity (ft/min)	1,570

Motor	
Motor Mounted	Yes
Size (hp)	1
Voltage/Cycle/Phase	208/60/1
Enclosure	TENV
Motor RPM	1300
Efficiency Rating	High
Windings	1
FLA (Amps)	7
Min. Circuit Ampacity (MCA)	9
Max. Overcurrent Protection (MOP)	15
Short Circuit Current Rtg (SCCR)	5 kA

OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR, ADAPTER, AND/OR HINGE BASE.



- △ Operating Bhp point
- Operating point at Total External SP
- Fan curve
- - - System curve
- - - Brake horsepower curve

**Notes:**

All dimensions shown are in units of in.  
\*Please consult factory for actual motor amp draw  
LwA - A weighted sound power level, based on ANSI S1.4  
dBA - A weighted sound pressure level, based on 11.5 dB attenuation per Octave band at 5 ft - dBA levels are not licensed by AMCA International  
Sones - calculated using ANSI/AMCA 301 at 5 ft

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	74	81	80	78	71	69	65	62	79	67	15.5



## Model: CUE-160-VG

### Direct Drive Upblast Centrifugal Roof Exhaust Fan

#### Standard Construction Features:

- Aluminum housing - Backward inclined aluminum wheel - Aluminum curb cap with prepunched mounting holes - Drain trough - Ball bearing motors (sizes 85-300 and all Vari Green), sleeve bearing motors (sizes 60-80) - Motor isolated on shock mounts - Corrosion resistant fasteners

#### Selected Options & Accessories:

Motor - Vari-Green EC motor  
Control - 0-10VDC Input  
Control - Dial for balancing  
Larger Curb Cap Size - 26 Square  
UL/cUL 762 Listed - "Power Ventilators for Rest. Exh. Appliances"  
Switch, NEMA-1, Toggle, Shipped with Unit  
Junction Box Mounted & Wired  
Curb Extension-Galv., VCE-26-G14  
Hinge, Factory Installed  
High Temp Curb Seal Rated for Continuous Duty at 1500 F (Factory Attached)  
Grease Trap (PN 475538)  
Birdscreen: Aluminum, nom. 86% Free Area  
Unit Warranty: 1 Yr (Standard)

#### Selected Sub Marks

See individual submittals for full details  
GPI-26-G18

***The Vari-Green Motor included in this order has a 'Multi-Voltage' ability. The red wire on the motor is called a 'Voltage Doubler', and when it is connected the motor can be powered by 115V.***

***If the Red wire is disconnected, then the motor can be powered with 208-230/277V. The motor will leave the factory with the voltage doubler wired per the order.***

# Disconnect Switch

## Enclosure Rating: NEMA-1

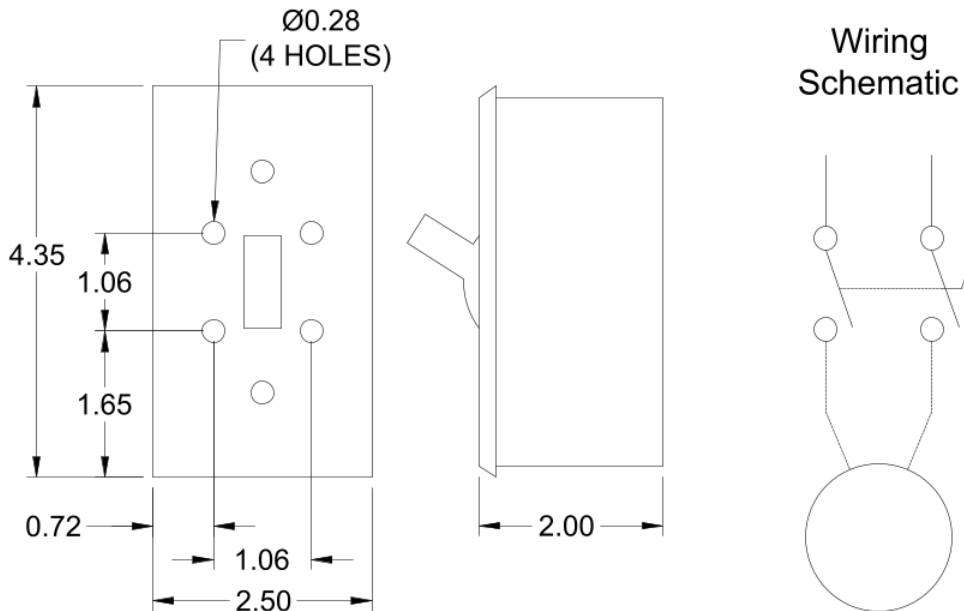
### Standard Construction Features:

Enclosure constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment and to provide a degree of protection against falling dust. This enclosure meets the rod entry and the indoor corrosion protection design tests. The rod entry test is intended to simulate incidental contact with enclosure equipment. Enclosure is equipped with provision to lockout in the off position with customer supplied lock.

### Disconnect Switch Configuration

Type:	Toggle	Motor Size:	1 hp	Voltage:	208	UL Listed:	Yes
Manufacturer:	Pass and Seymour	Cycle:	60	Amperage:	20	CSA Approved:	Yes
Overload Protection:	None	Phase:	1	Switch Pole(s):	2	Rating:	2 hp
Junction Box Mtg.:	Mounted and Wired	RPM:	1300	Exp. Resist. Wiring:	None		
Switch Mounting:	Shipped With Unit						

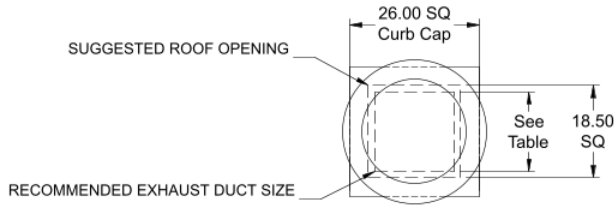
### Electrical Drawing Details



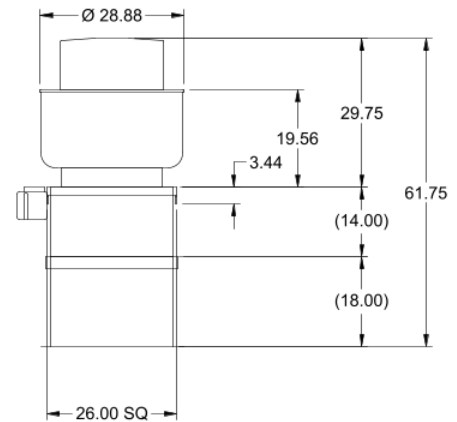
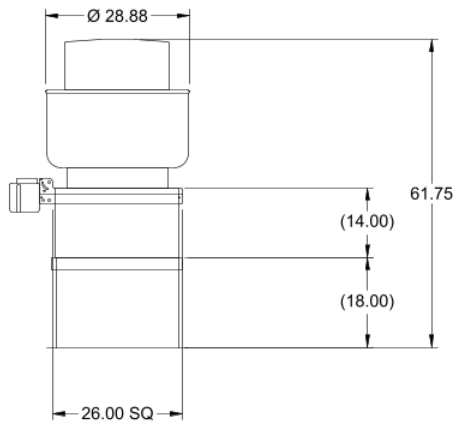
Notes: All dimensions shown are in units of in.

# Assembly Drawing

Type: Direct Drive Upblast Centrifugal Roof Exhaust Fan



DUCT TYPE	SIZE
STANDARD	16 SQ
FIRE-WRAPPED	8 SQ



DUCT DIMENSIONS ARE LARGEST POSSIBLE DUCT TO FIT THROUGH CURB.  
CONSULT SYSTEM DESIGN ENGINEER FOR RECOMMENDED DUCT SIZE.

OVERALL HEIGHT MAY BE GREATER DEPENDING ON  
MOTOR, ADAPTER, AND/OR HINGE BASE.

Notes: All dimensions shown are in units of in..

# Vari-Green Motor & Control Options

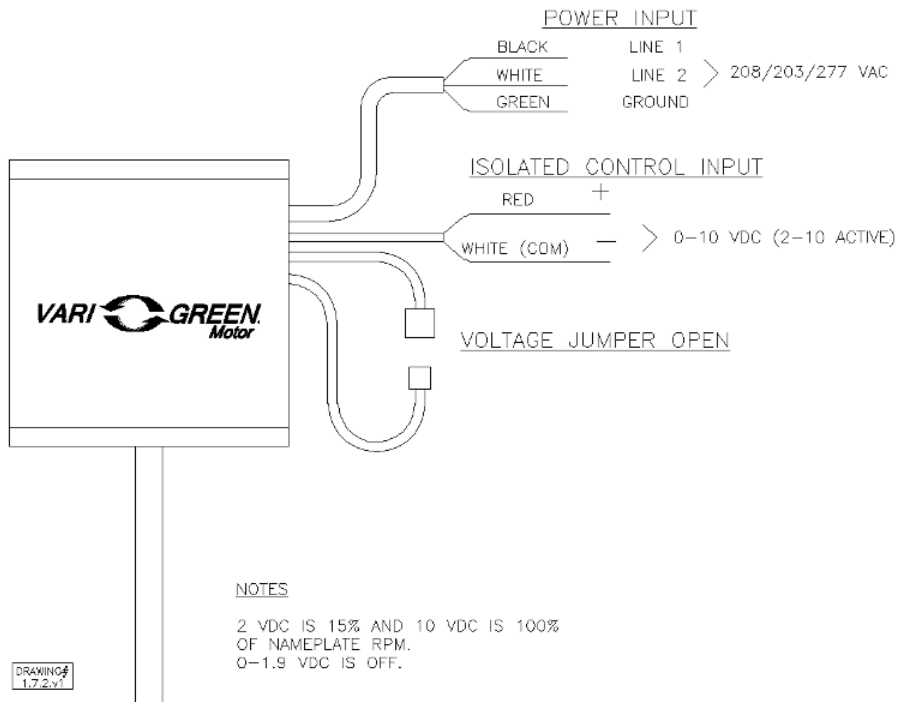
An EC motor that uses AC input power and internally converts it to DC power. Motor accepts a 0-10VDC control signal. Motor is operable in the 2-10VDC range and off while in the 0-1.9VDC range. Vari-Green motors feature a soft-start and inherent thermal and current protection built into each unit. Inrush current at start up is eliminated and the motor will automatically reduce speed or turn off if overloaded or it becomes too hot.

### Motor Configuration

Input Voltage: 208  
Speed Reference: 0-10VDC  
Permanent Dial: No  
Balance Dial Included: Yes

### Control Configuration

Control Type: By Others  
Transformer: None

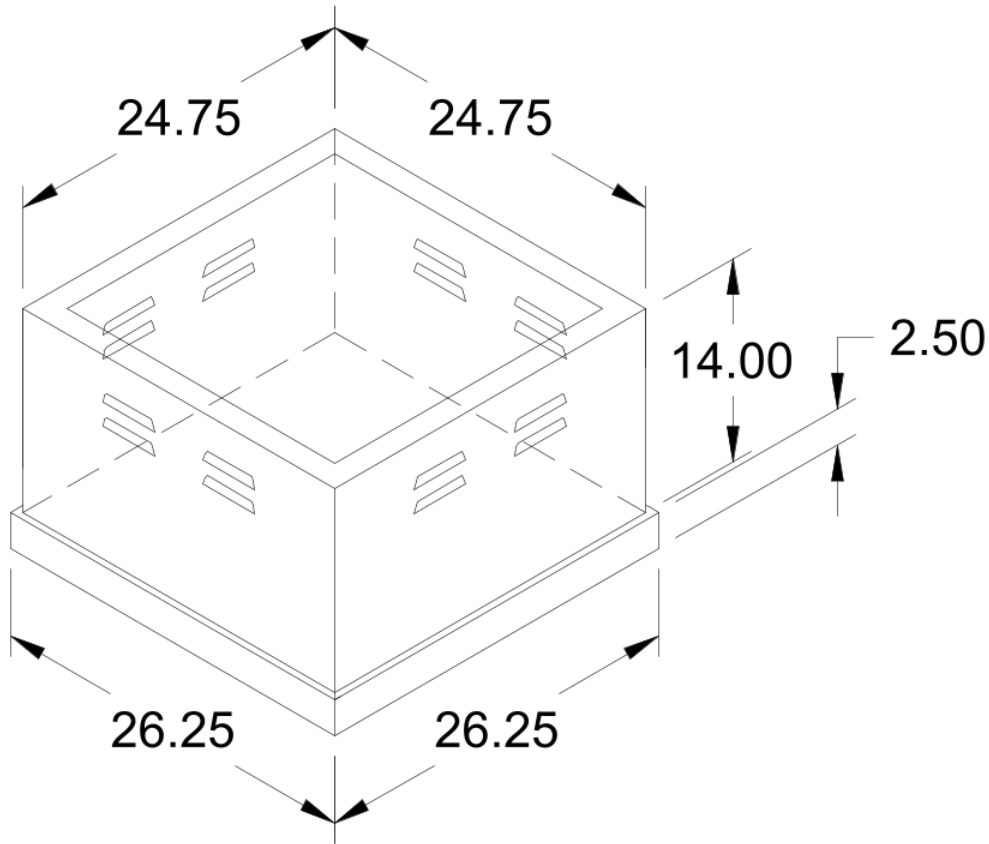


## Vented Curb Extension

Model: VCE

### Standard Construction Features:

- Curb Extension mounts between the fan and the roof curb - Constructed of either 18 ga galvanized or optional 0.064 in. aluminum - Louvered vents are designed to vent heat in restaurant exhaust applications - Designed to provide required 18 in. minimum discharge height above roof line when used with an 8 in. high roof curb and Greenheck model spun aluminum upblast exhaust fan per NFPA 96. NOTE: Damper Trays are not available.



ISOMETRIC VIEW

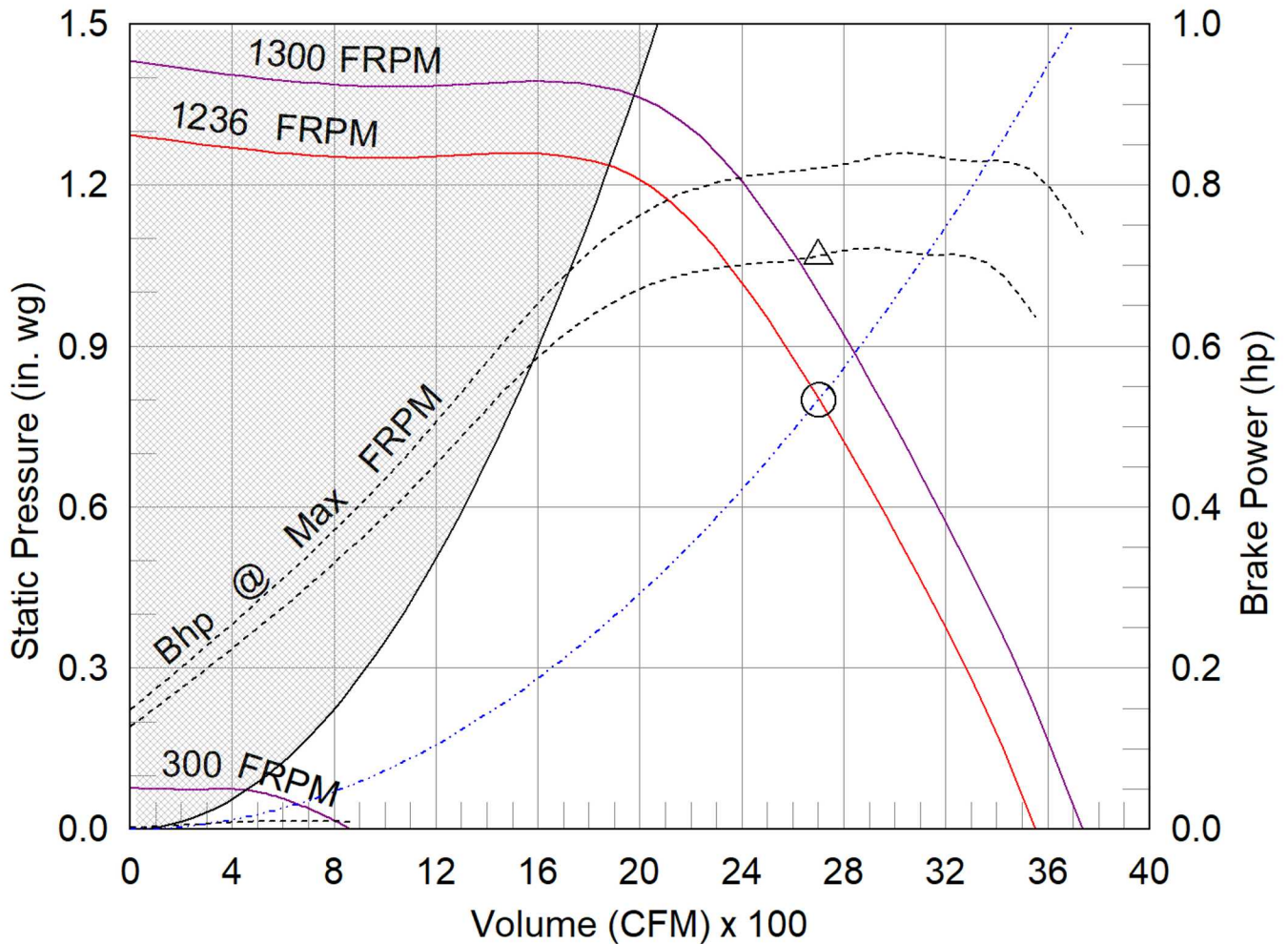
Notes: All dimensions shown are in units of in.

CUE-160-VG

Min/Max Fan Curve

Performance

Requested Volume (CFM)	Actual Volume (CFM)	Total External SP (in. wg)	Fan RPM	Operating Power (hp)
2,700	2,700	0.8	1236	0.71



- △ Operating Bhp point
- Operating point at Total External SP
- Construction Limit
- Fan curve
- Min FRPM
- System curve
- Brake horsepower curve

HOOD INFORMATION

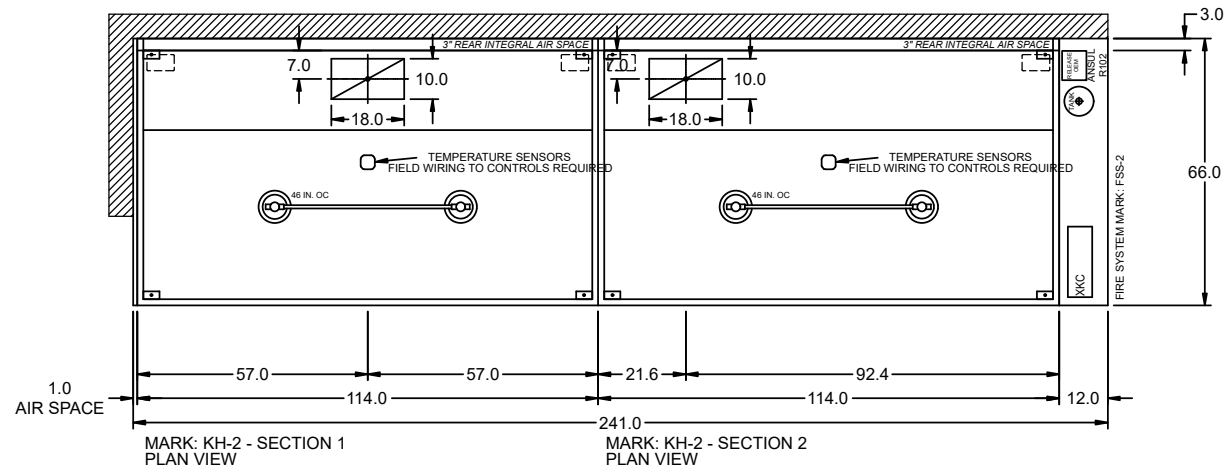
HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	EXHAUST COLLAR(S)					SUPPLY		TOTAL WEIGHT LBS.	SECTION LOCATION	
			LENGTH	WIDTH	HEIGHT			TOTAL CFM	WIDTH	LENGTH	DIA.	CFM	S.P.	MUA CFM			AC CFM
1	KH-2	XBEW-114-S	114	66	24	300 SS 100%	HEAVY	1900	10	18		1900	0.385			311.42	LEFT
2	KH-2	XBEW-114-S	114	66	24	300 SS 100%	HEAVY	1900	10	18		1900	0.385			307.192	RIGHT

HOOD INFORMATION

HOOD NO.	MARK	LIGHTING DETAILS			GREASE FILTRATION DETAILS				UTILITY CABINET(S)				
		FIXTURE TYPE BULB / LAMP INFO	QTY	FOOT CANDLES	TYPE / MODEL MATERIAL	QTY	SIZE (IN.)		LOCATION	FIRE SYSTEM		CONTROLS	
							L	H		TYPE	SIZE	MODEL	INTERFACE
1	KH-2	ROUND LED	2	61.98	BAFFLE STAINLESS STEEL	2	16	20				TOUCHSCREEN	
2	KH-2	ROUND LED	2	61.98	BAFFLE STAINLESS STEEL	2	16	20	RIGHT	ANSUL R102	3	XKC	

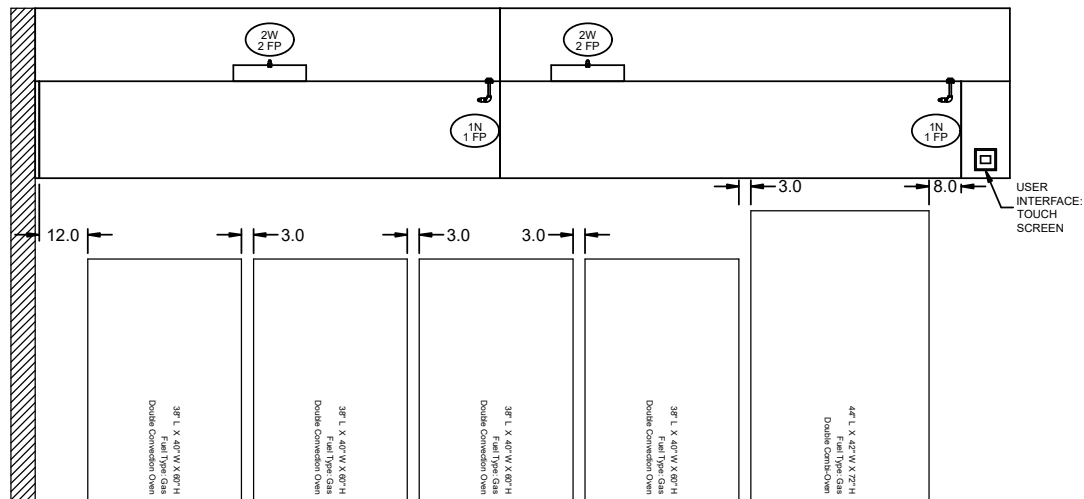
HOOD OPTIONS

UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625  
 BACK INTEGRAL AIR SPACE - 3 IN WIDE  
 LEFT NON-INTEGRAL AIR SPACE - 1 IN THICK - ZERO CLEARANCE  
 18 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED  
 CONTINUOUS CAPTURE  
 FACTORY MOUNTED EXHAUST COLLAR(S)  
 EXHAUST AIR BALANCING BAFFLE(S) - (EABB)  
 PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY  
 STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH



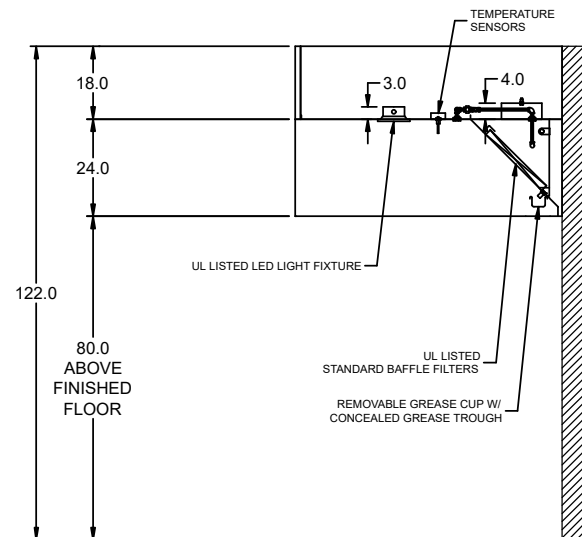
MARK: KH-2 - SECTION 1 PLAN VIEW

MARK: KH-2 - SECTION 2 PLAN VIEW

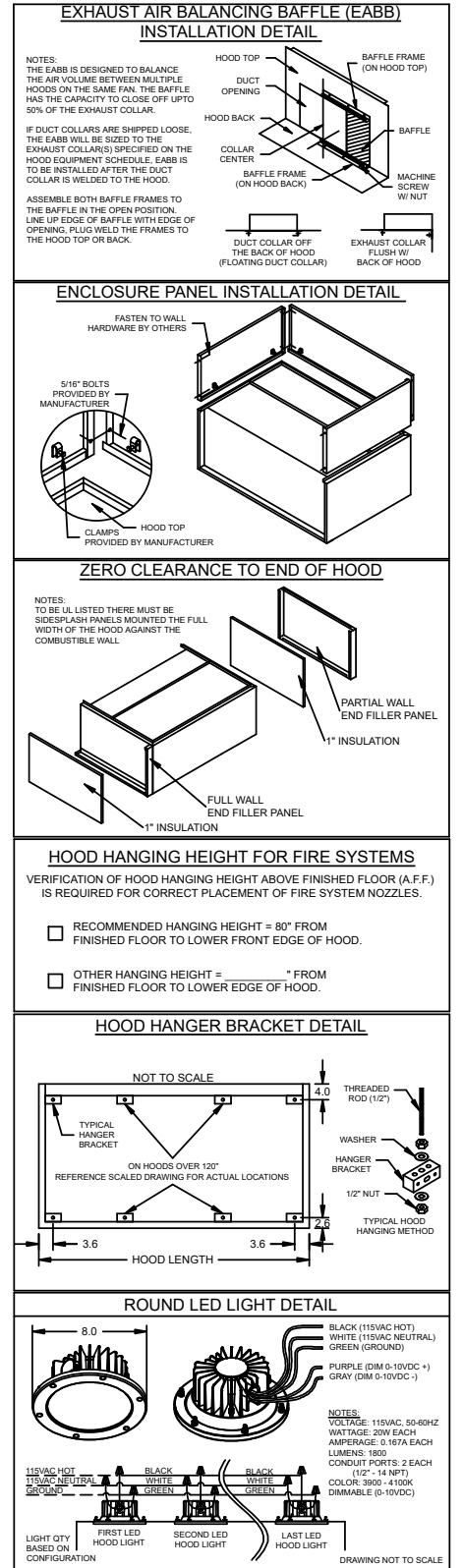


MARK: KH-2 - SECTION 1 ELEVATION VIEW

MARK: KH-2 - SECTION 2 ELEVATION VIEW



MARK: KH-2 (LAST HOOD IN ROW) SECTION VIEW



FIRE SYSTEM INFORMATION

MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
FSS-1	ANSUL R-102 WET CHEMICAL	CABINET – LEFT END OF KH-1	10 UTILIZED 11 AVAILABLE		CONTINUOUS	FUSIBLE LINK	KH-1 SECTION 1

FIRE SYSTEM OPTIONS AND ACCESSORIES

- FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)
- CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
- METAL BLOW-OFF CAPS - INCLUDED
- GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 1.25", (ANSUL) - PART# ANSULMECHSHUTOFFVALVE125
- HOOD SUPPRESSION TANK - INCLUDED - 3 GAL. - [(1) 3.0 TANK(S)]
- REMOTE PULL STATION - STANDARD - FIELD INSTALLATION AT SINGLE POINT OF EGRESS

ANSUL R102 (WET CHEMICAL) FIRE PROTECTION SYSTEM - MODEL FSSC

**CONTROL PANEL**

**NOT TO SCALE**

**NOTES:**

WET CHEMICAL FIRE PROTECTION SYSTEM TO BE ANSUL R-102, DESIGNED IN COMPLIANCE WITH UL 300 REQUIREMENTS.

- VERIFICATION OF ALL COOKING EQUIPMENT MAKE, MODEL AND LOCATION REQUIRED FOR ALL FIRE PROTECTION SYSTEMS.
- ALL FIRE SYSTEM PIPING IS STANDARDLY TO THE RIGHT END OF THE HOOD UNLESS A WALL IS LOCATED ON THE RIGHT END.
- ANSUL AUTOMAN RELEASE TO BE LOCATED WITHIN 60" OF HOOD.

THE BASIC FIRE SYSTEM WILL INCLUDE THE FOLLOWING:

- GAS SHUT-OFF VALVE, IF REQUIRED, TO BE SUPPLIED BY MANUFACTURER (UP TO 2" DIAMETER AS STANDARD), AND INSTALLED BY A LICENSED PLUMBER.
- MICRO SWITCH TO BE SUPPLIED BY MANUFACTURER FOR CONNECTION TO, BUT NOT LIMITED TO, BUILDING ALARM SYSTEM(S), EXHAUST AND SUPPLY FANS AND ELECTRICAL POWER SHUT DOWN. FIELD WIRING AND CONNECTIONS TO BE PERFORMED BY A LICENSED ELECTRICIAN.

THE BASIC FIRE SYSTEM DOES NOT INCLUDE THE FOLLOWING:

- FULL DUMP TEST OTHER THAN WHAT IS SPECIFIED PER THE INSTALLATION MANUAL, OR TO SATISFY A STATE OR LOCAL CODE. PERMIT AND TESTING FEES ARE NOT INCLUDED UNLESS NOTED UNDER THE EQUIPMENT SCHEDULE FOR THE FIRE SYSTEM.
- MORE THAN TWO TRIPS TO THE JOBSITE OR SPECIAL TRANSPORTATION, OR OVERNIGHT LODGING REQUIREMENTS IN REMOTE AREAS. NORMAL TRAVEL DISTANCE IS FIRST 50 MI. (80.5 KM) FROM OFFICE.
- SPECIAL CLASSES OR ADDITIONAL LABOR FOR ACCESS TO SECURITY SENSITIVE AREAS
- INSTALLATION OF GAS SHUT-OFF VALVE.
- SPECIAL DRAWINGS REQUIRED TO SATISFY STATE OR LOCAL CODE. PLAN EXAMINATION FEES, PE OR PS APPROVAL STAMP.
- UNION LABOR, GOVERNMENT LABOR, OR PREVAILING WAGES REQUIRED FOR FINAL FIELD HOOK-UP.
- ANY AND ALL ELECTRICAL COMPONENTS/CONNECTIONS REQUIRED TO SHUT DOWN FANS, SHUT OFF DEVICE FOR ELECTRIC COOKING EQUIPMENT (SHUNT TRIP BREAKER), OR ACTIVATE AN ALARM SYSTEM, ETC.
- ANY DISMANTLING OR REASSEMBLY REQUIRED TO GAIN ACCESS TO THE FIRE SUPPRESSION PIPING LOCATED ON THE TOP OF THE HOOD.
- ROUGH-IN HIDDEN CONDUIT FOR REMOTE PULL STATION OR GAS VALVE (FLUSH MOUNTED PULL STATION).
- INSTALLATION OF MORE THAN (1) REMOTE PULL STATIONS OR DISTANCES GREATER THAN 20 FT (6.1M).
- PARTS OR LABOR REQUIRED TO CORRECT PIPING DUE TO COOKING EQUIPMENT CHANGES OR DEVIATION FROM PLANS, OR ANY CHARGES FOR MISSING OR ADDITIONAL PARTS OTHER THEN THOSE INDICATED ON THE FIRE SUPPRESSION DETAIL.

**WIRING DIAGRAMS W/DPDT MICRO SWITCH**

DPDT SWITCHES PROVIDED BY MANUFACTURER MAY BE WIRED PER TYPICAL EXAMPLES SHOWN. VERIFY WITH LOCAL CODES AND EQUIPMENT SUPPLIED AS THE CONNECTION NEEDED FOR YOUR INSTALLATION.

**CONNECTION TO BUILDINGS ALARM**

**CONNECTION TO COOKING EQUIPMENT SHUT DOWN**

**CONNECTION TO FAN SHUT DOWN**

**NOTES:**

1. \_\_\_\_\_ DENOTES FIELD INSTALLATION.
2. \_\_\_\_\_ DENOTES FACTORY INSTALLATION.
3. DO NOT USE BLACK WIRE OR SNAP-ACTION SWITCH IN NORMAL INSTALLATION. BLACK WIRE TO BE USED ONLY FOR EXTRANEOUS ALARM, LIGHT CIRCUITS, ETC.

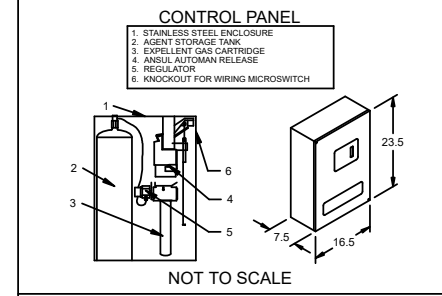
**FIRE SYSTEM INFORMATION**

MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
FSS-2	ANSUL R-102 WET CHEMICAL	CABINET – RIGHT END OF KH-2	6 UTILIZED 11 AVAILABLE		CONTINUOUS	FUSIBLE LINK	KH-2 SECTION 1 KH-2 SECTION 2

**FIRE SYSTEM OPTIONS AND ACCESSORIES**

- FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)
- CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
- METAL BLOW-OFF CAPS - INCLUDED
- GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 1.25", (ANSUL) - PART# ANSULMECHSHUTOFFVALVE125
- HOOD SUPPRESSION TANK - INCLUDED - 3 GAL. - [(1) 3.0 TANK(S)]
- REMOTE PULL STATION - STANDARD - FIELD INSTALLATION AT SINGLE POINT OF EGRESS

**ANSUL R102 (WET CHEMICAL) FIRE PROTECTION SYSTEM - MODEL FSSC**



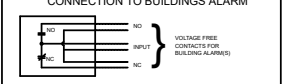
NOT TO SCALE

**NOTES:**

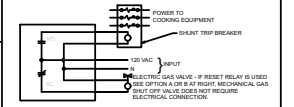
- WET CHEMICAL FIRE PROTECTION SYSTEM TO BE ANSUL R-102, DESIGNED IN COMPLIANCE WITH UL 300 REQUIREMENTS.
- VERIFICATION OF ALL COOKING EQUIPMENT MAKE, MODEL AND LOCATION REQUIRED FOR ALL FIRE PROTECTION SYSTEMS.
- ALL FIRE SYSTEM PIPING IS STANDARDLY TO THE RIGHT END OF THE HOOD UNLESS A WALL IS LOCATED ON THE RIGHT END.
- ANSUL AUTOMAN RELEASE TO BE LOCATED WITHIN 60" OF HOOD.
- THE BASIC FIRE SYSTEM WILL INCLUDE THE FOLLOWING:
  - GAS SHUT-OFF VALVE, IF REQUIRED, TO BE SUPPLIED BY MANUFACTURER (UP TO 2" DIAMETER AS STANDARD), AND INSTALLED BY A LICENSED PLUMBER.
  - MICRO SWITCH TO BE SUPPLIED BY MANUFACTURER FOR CONNECTION TO, BUT NOT LIMITED TO, BUILDING ALARM SYSTEM(S), EXHAUST AND SUPPLY FANS AND ELECTRICAL POWER SHUT DOWN. FIELD WIRING AND CONNECTIONS TO BE PERFORMED BY A LICENSED ELECTRICIAN.
- THE BASIC FIRE SYSTEM DOES NOT INCLUDE THE FOLLOWING:
  - FULL DUMP TEST OTHER THAN WHAT IS SPECIFIED PER THE INSTALLATION MANUAL, OR TO SATISFY A STATE OR LOCAL CODE. PERMIT AND TESTING FEES ARE NOT INCLUDED UNLESS NOTED UNDER THE EQUIPMENT SCHEDULE FOR THE FIRE SYSTEM.
  - MORE THAN TWO TRIPS TO THE JOBSITE OR SPECIAL TRANSPORTATION, OR OVERNIGHT LODGING REQUIREMENTS IN REMOTE AREAS. NORMAL TRAVEL DISTANCE IS FIRST 50 MI. (80.5 KM) FROM OFFICE.
  - SPECIAL CLASSES OR ADDITIONAL LABOR FOR ACCESS TO SECURITY SENSITIVE AREAS.
  - INSTALLATION OF GAS SHUT-OFF VALVE.
  - SPECIAL DRAWINGS REQUIRED TO SATISFY STATE OR LOCAL CODE. PLAN EXAMINATION FEES, PE OR PS APPROVAL STAMP.
  - UNION LABOR, GOVERNMENT LABOR, OR PREVAILING WAGES REQUIRED FOR FINAL FIELD HOOK-UP.
  - ANY AND ALL ELECTRICAL COMPONENTS/CONNECTIONS REQUIRED TO SHUT DOWN FANS, SHUT OFF DEVICE FOR ELECTRIC COOKING EQUIPMENT (SHUNT TRIP BREAKER), OR ACTIVATE AN ALARM SYSTEM, ETC.
  - ANY DISMANTLING OR REASSEMBLY REQUIRED TO GAIN ACCESS TO THE FIRE SUPPRESSION PIPING LOCATED ON THE TOP OF THE HOOD.
  - ROUGH-IN HIDDEN CONDUIT FOR REMOTE PULL STATION OR GAS VALVE (FLUSH MOUNTED PULL STATION).
  - INSTALLATION OF MORE THAN (1) REMOTE PULL STATIONS OR DISTANCES GREATER THAN 20 FT (6.1M).
  - PARTS OR LABOR REQUIRED TO CORRECT PIPING DUE TO COOKING EQUIPMENT CHANGES OR DEVIATION FROM PLANS, OR ANY CHARGES FOR MISSING OR ADDITIONAL PARTS OTHER THAN THOSE INDICATED ON THE FIRE SUPPRESSION DETAIL.

**WIRING DIAGRAMS W/DPDT MICRO SWITCH**

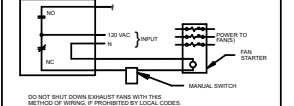
DPDT SWITCHES PROVIDED BY MANUFACTURER MAY BE WIRED PER TYPICAL EXAMPLES SHOWN, VERIFY WITH LOCAL CODES AND EQUIPMENT SUPPLIED AS THE CONNECTION NEEDED FOR YOUR INSTALLATION.



**CONNECTION TO COOKING EQUIPMENT SHUT DOWN**



**CONNECTION TO FAN SHUT DOWN**



DO NOT SHUT DOWN EXHAUST FANS WITH THIS METHOD OF WIRING, IF PROHIBITED BY LOCAL CODES.

- NOTES:
- 1. \_\_\_\_\_ DENOTES FIELD INSTALLATION.
  - 2. \_\_\_\_\_ DENOTES FACTORY INSTALLATION.
  - 3. DO NOT USE BLACK WIRE OR SNAP-ACTION SWITCH IN NORMAL INSTALLATION. BLACK WIRE TO BE USED ONLY FOR EXTRANEOUS ALARM, LIGHT CIRCUITS, ETC.

PROJECT 5/8/2023 EAST HIGH SCHOOL - MADISON, WI R3

MARK FSS-2

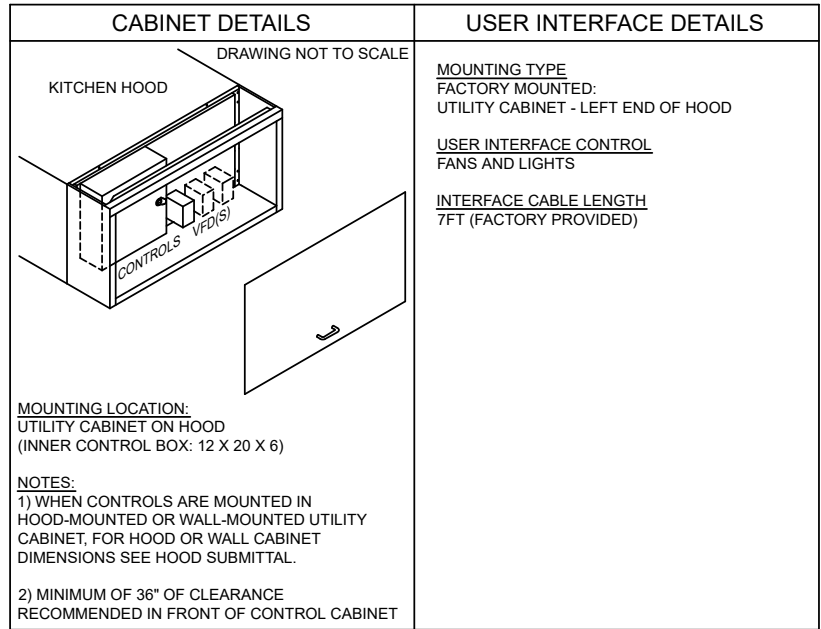
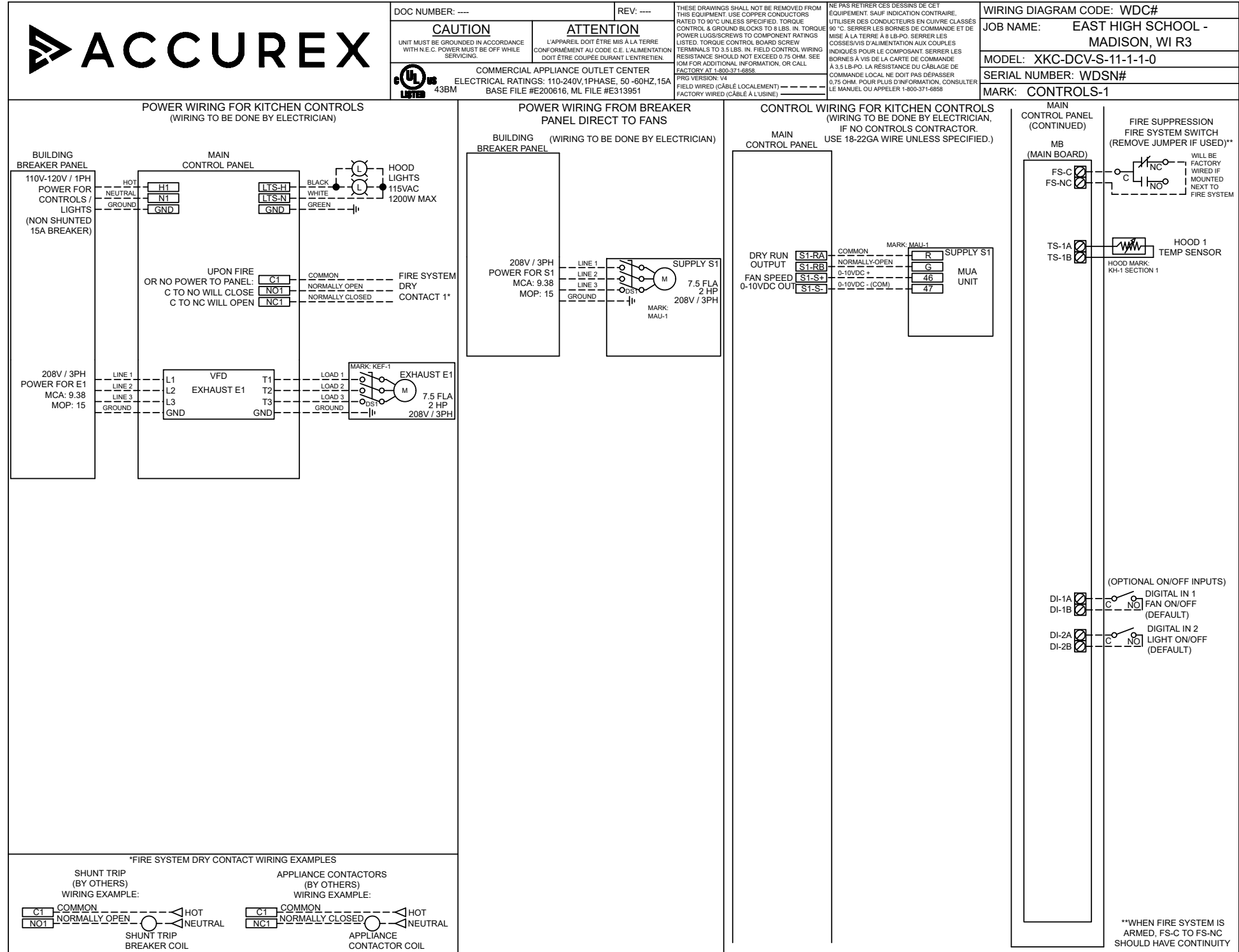
ACCUREX W/IA  
BRAD BORCHARDT  
BRAD.BORCHARDT@ACCUREX.COM  
(262)227-7865

CONTROL INFORMATION

MARK	ELECTRICAL CONTROL PACKAGE		USER INTERFACE		FANS CONTROLLED											
	MODEL	LOCATION	TYPE	LOCATION	FAN #	TYPE	FAN	FAN MARK	ZONE	CFM	MOTOR HP	MOTOR VOLT	CYCLE	MOTOR PHASE	MOTOR STARTER IN PANEL	VFD IN PANEL
CONTROLS-1	XKC-DCV-S-11-1-1-0	LEFT CABINET ON KH-1	FULL COLOR TOUCHSCREEN	CABINET - LEFT CABINET ON KH-1	1	EXHAUST	E1	KEF-1	1	2700	2	208	60	3	NO	YES
					2	SUPPLY	S1	MAU-1	1	2430	2	208	60	3	NO	NO

CONTROL FEATURES

- HOOD LIGHT CONTROL
- TEMP SENSORS (FACTORY INSTALLED) - QTY. 1
- DRY FIRE CONTACTS - QTY. 1
- LIGHTS OFF DURING FIRE
- EXHAUST MAX DURING FIRE
- SUPPLY OFF DURING FIRE

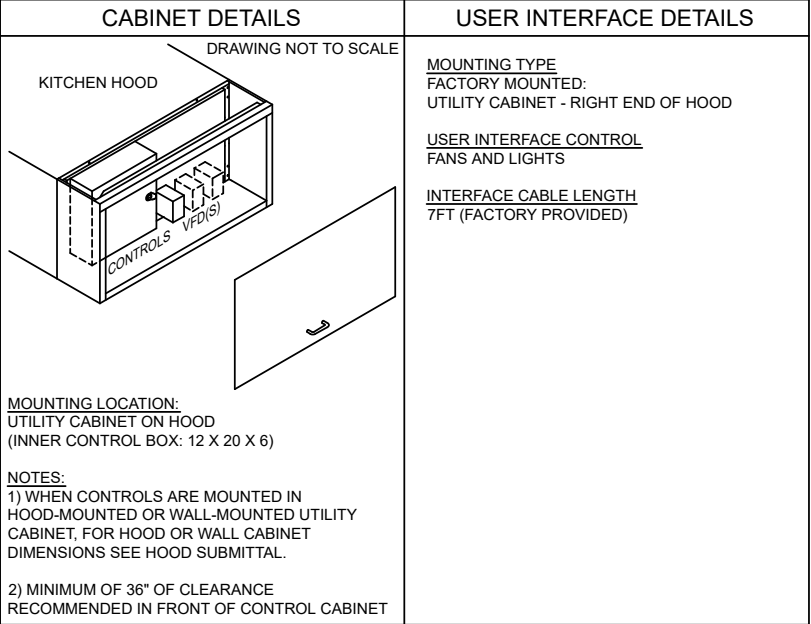
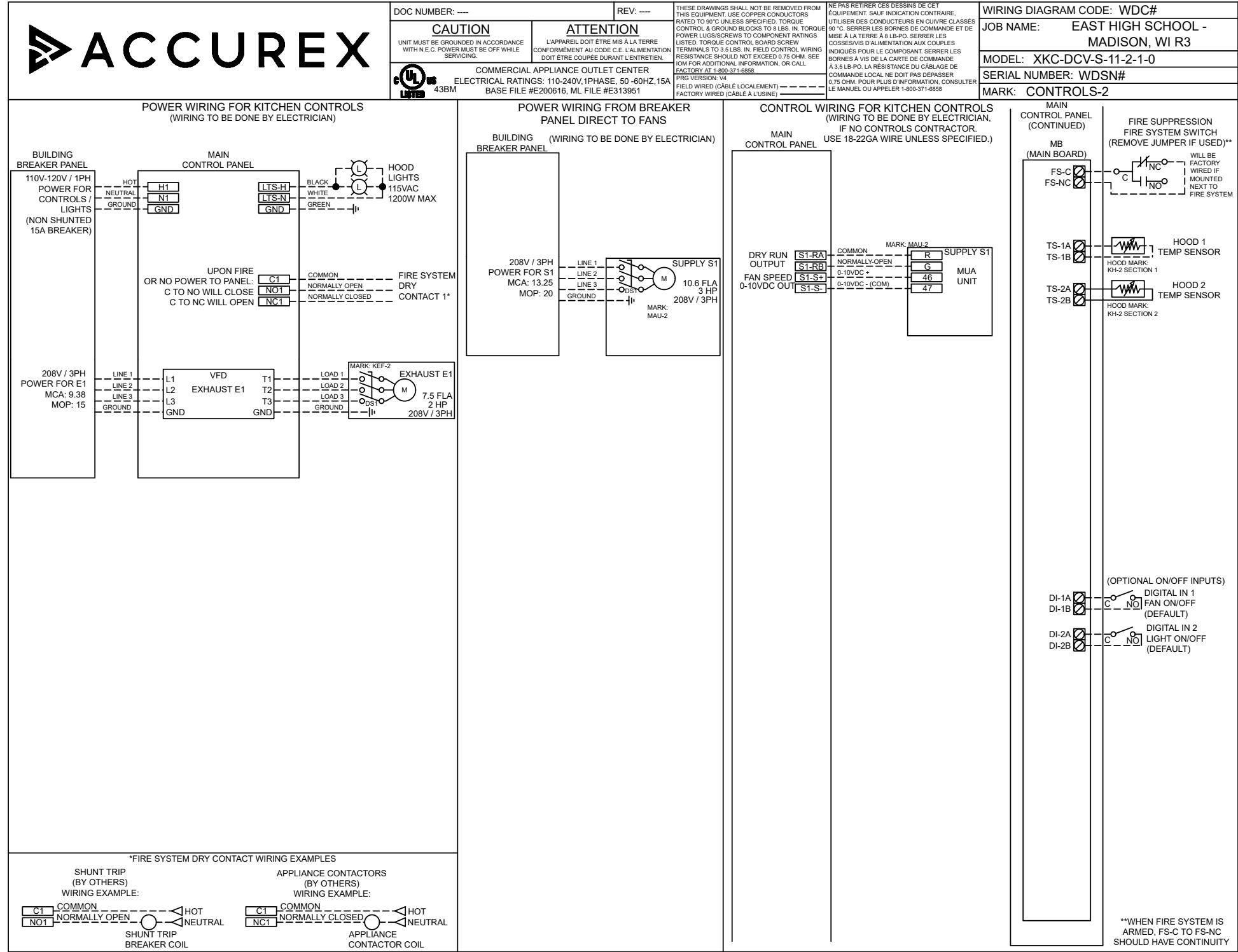


ZONE CONFIGURATION							WIRING DIAGRAM CODE: WDC#											
ZONE #	ZONE	ROOM TEMP					JOB NAME:	EAST HIGH SCHOOL - MADISON, WI R3										
1	Z1	PRESET					MODEL:	XKC-DCV-S-11-1-1-0										
							SERIAL NUMBER:	WDSN#										
							MARK:	CONTROLS-1										
							DOC NUMBER:	---										
							REV:	---										
HOOD CONFIGURATION							DEFAULT SETTINGS / PARAMÈTRES PAR DÉFAUT											
HOOD #	HOOD	HOOD MARK	ZONE	EXHAUST	SUPPLY	MB-TEMP SENSORS	HC	TYPE:	VAV									
1	H1	KH-1 SECTION 1	Z1	E1	S1	TS1	NO	CONFIGURATION:	STANDARD									
							HOODS:	1										
							SUMPS:	0										
							SUPPLY FANS:	1										
							MB ROOM SENSOR:	NO										
							MB TEMP SENSORS:	1										
							HIGH TEMP FAULT:	NO										
							FREEZE PROTECTION:	YES										
							GAS RESET:	NO										
							FAN PROVING:	NO										
							BMS:	NONE										
							ZONE SETTINGS:	SEE ZONE CONFIGURATION IN TABLE ON LEFT										
							HOOD SETTINGS:	SEE HOOD CONFIGURATION IN TABLE ON LEFT										
							EXHAUST FAN SETTINGS:	SEE FAN CONFIGURATION IN TABLE ON LEFT										
							SUPPLY FAN SETTINGS:	SEE FAN CONFIGURATION IN TABLE ON LEFT										
							SENSOR SETTINGS:	SEE HOOD CONFIGURATION IN TABLE ON LEFT										
							USER INTERFACE SETTINGS (MB):	FAN & LIGHT BUTTONS: SHOW BOTH (SEPARATE)										
							USER INTERFACE SETTINGS (HC):	NA										
							GENERAL SETTINGS:	TIME ZONE: CENTRAL DAYLIGHT (DEFAULT)										
							FIRE FAULT SETTINGS:	EXHAUST DURING FIRE: MAX SUPPLY DURING FIRE: OFF LIGHTS DURING FIRE: OFF										
							BMS SETTINGS:	NA										
							PRG VERSION:	V4										
FAN CONFIGURATION																		
FAN #	TYPE	FAN	FAN MARK	ZONE	MIN CFM	MAX CFM	MODBUS VFD	VFD ADDRESS	MIN FREQ	MAX FREQ	MIN VDC	MAX VDC						
1	EXHAUST	E1	KEF-1	Z1	1350	2700	YES	1	30	60	-	-						
2	SUPPLY	S1	MAU-1	Z1	1215	2430	NO	-	-	-	0.0	10.0						

CONTROL INFORMATION

MARK	ELECTRICAL CONTROL PACKAGE		USER INTERFACE		FANS CONTROLLED											
	MODEL	LOCATION	TYPE	LOCATION	FAN #	TYPE	FAN	FAN MARK	ZONE	CFM	MOTOR HP	MOTOR VOLT	CYCLE	MOTOR PHASE	MOTOR STARTER IN PANEL	VFD IN PANEL
CONTROLS-2	XKC-DCV-S-11-2-1-0	RIGHT CABINET ON KH-2	FULL COLOR TOUCHSCREEN	CABINET - RIGHT CABINET ON KH-2	1	EXHAUST	E1	KEF-2	1	3800	2	208	60	3	NO	YES
					2	SUPPLY	S1	MAU-2	1	3420	3	208	60	3	NO	NO

**CONTROL FEATURES**  
 HOOD LIGHT CONTROL  
 TEMP SENSORS (FACTORY INSTALLED) - QTY. 2  
 DRY FIRE CONTACTS - QTY. 1  
 LIGHTS OFF DURING FIRE  
 EXHAUST MAX DURING FIRE  
 SUPPLY OFF DURING FIRE



ZONE CONFIGURATION						WIRING DIAGRAM CODE: WDC#										
ZONE #	ZONE	ROOM TEMP				JOB NAME:	EAST HIGH SCHOOL - MADISON, WI R3									
1	Z1	PRESET				MODEL:	XKC-DCV-S-11-2-1-0									
						SERIAL NUMBER:	WDSN#									
						MARK:	CONTROLS-2									
						DOC NUMBER:	---									
						DEFAULT SETTINGS / PARAMÈTRES PAR DÉFAUT										
						FACTORY SETTINGS										
						TYPE: VAV										
						CONFIGURATION: STANDARD										
						ZONES: 1										
						HOODS: 2										
						SUMPS: 0										
						EXHAUST FANS: 1										
						SUPPLY FANS: 1										
						MB ROOM SENSOR: NO										
						MB TEMP SENSORS: 2										
						HIGH TEMP FAULT: NO										
						FREEZE PROTECTION: YES										
						GAS RESET: NO										
						FAN PROVING: NO										
						BMS: NONE										
						ZONE SETTINGS										
						SEE ZONE CONFIGURATION IN TABLE ON LEFT										
						HOOD SETTINGS										
						SEE HOOD CONFIGURATION IN TABLE ON LEFT										
						EXHAUST FAN SETTINGS										
						SEE FAN CONFIGURATION IN TABLE ON LEFT										
						SUPPLY FAN SETTINGS										
						SEE FAN CONFIGURATION IN TABLE ON LEFT										
						SENSOR SETTINGS										
						SEE HOOD CONFIGURATION IN TABLE ON LEFT										
						USER INTERFACE SETTINGS (MB)										
						FAN & LIGHT BUTTONS: SHOW BOTH (SEPARATE)										
						USER INTERFACE SETTINGS (HCB)										
						NA										
						GENERAL SETTINGS										
						TIME ZONE: CENTRAL DAYLIGHT (DEFAULT)										
						FIRE FAULT SETTINGS										
						EXHAUST DURING FIRE: MAX										
						SUPPLY DURING FIRE: OFF										
						LIGHTS DURING FIRE: OFF										
						BMS SETTINGS										
						NA										
						PRG VERSION: V4										
FAN CONFIGURATION																
FAN #	TYPE	FAN	FAN MARK	ZONE	MIN CFM	MAX CFM	MODBUS VFD	VFD ADDRESS	MIN FREQ	MAX FREQ	MIN VDC	MAX VDC				
1	EXHAUST	E1	KEF-2	Z1	1900	3800	YES	1	30	60	-	-	-	-		
2	SUPPLY	S1	MAU-2	Z1	1710	3420	NO	-	-	-	0.0	10.0	-	-		