ACCUREX

Printed Date: 04/22/2025
Job: Courtyard Bistro Mandeville, La.
Mark: Kh-1
Model: XBEW-179.00-S

XBEW — Type 1, Baffle Filter Single Wall - Exhaust Only Wall Canopy

Model	Hood Length (in.)	Width (in.)	Bottom Width (in.)	Height (in.)		Exhaust Volume (CFM)	Exhaust SP (in. w.g.)	Double Island
				Front	Back			
XBEW	179	54	54	24	24	4100	0.524	No

Selected Options & Accessories:

Option or Accessory	Description
Mounting Height	80 in. off Finished Floor.
Integral Air Space	Factory Mounted on Back - 3" wide 48 lbs
Non-Integral Air Space	Factory Mounted on Right - 1" wide Zero Clearance Finished End
Ceiling Enclosures	18 in. High on Left Front Right
Filter Type	Stainless Steel Baffle Filters 48 lbs
Backsplash Panel	80 in High 192 in Long 0 in Wide 160 lbs
Right Sidesplash	80 in High 54 in Long 0 in Wide 45 lbs
Continuous Capture	UL listed connection to join multiple sections.

Material: 430 SS Where Exposed
UL Listing: UL 710 w/out Exhaust Fire Damper

Features:
Performance Enhancing Lip (PEL)
Standing Seam Construction for Superior Strength
Stainless Steel Finish for Higher Corrosion Resistance

Hood End Conditions:
Back Wall - Limited Combustible
Right Partial Wall - Full Combustible

Section Data:

Length (in.)	Volume (CFM)	Exhaust Rate (CFM/FT)	SP (in. wg)	Filter Qty		Filter Ht. (in.)	Cooking Load	Light Qty	Light Type	Foot Candles	Drain Location	Hanging Weight (LBS)
				16" W	20" W							
89.5	2050	275	0.524	3	2	20	Heavy	4	Incandescent / CFL	45.63	Left/Right	365.05
89.5	2050	275	0.524	3	2	20	Heavy	4	Incandescent / CFL	45.63	Left/Right	284.65

Exhaust Collar Data:

Collar Num.	Collar Size (LxW) in. or Diameter (in.)		Pos. Off Left (in.)	Pos Off Back (in.)	Velocity (fpm)	Mounting Option
1	20 x 9		44.75	6.5	1640	Factory Mounted Exhaust Collar(s)
1	20 x 9		44.75	6.5	1640	Factory Mounted Exhaust Collar(s)

External Supply Plenum Data:

Supply: 3280 CFM **MUA: 3280 CFM** **AC: 0 CFM**

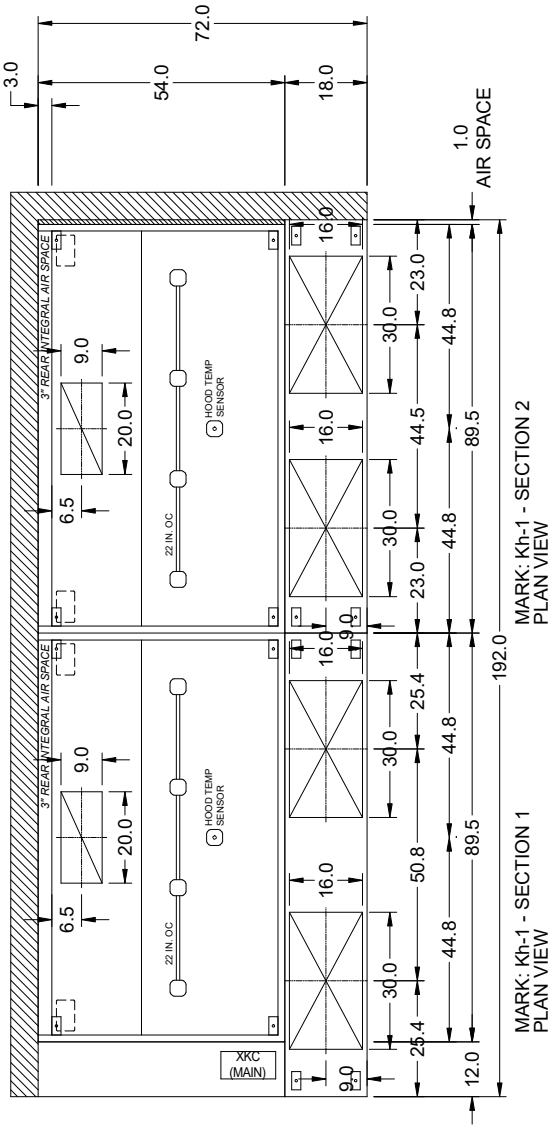
Plenum Num.	Side	Type	Length (in.)	Width (in.)	Height (in.)	Volume (CFM)	Weight (lbs)	SP (in. wg)	Insulated	MBD	LED Lights
1	Front	Air Curtain Supply (ASP)	101.5	18	4	1734	61	0.01	No	Yes	No
2	Front	Air Curtain Supply (ASP)	90.5	18	4	1546	57	0.01	No	Yes	No

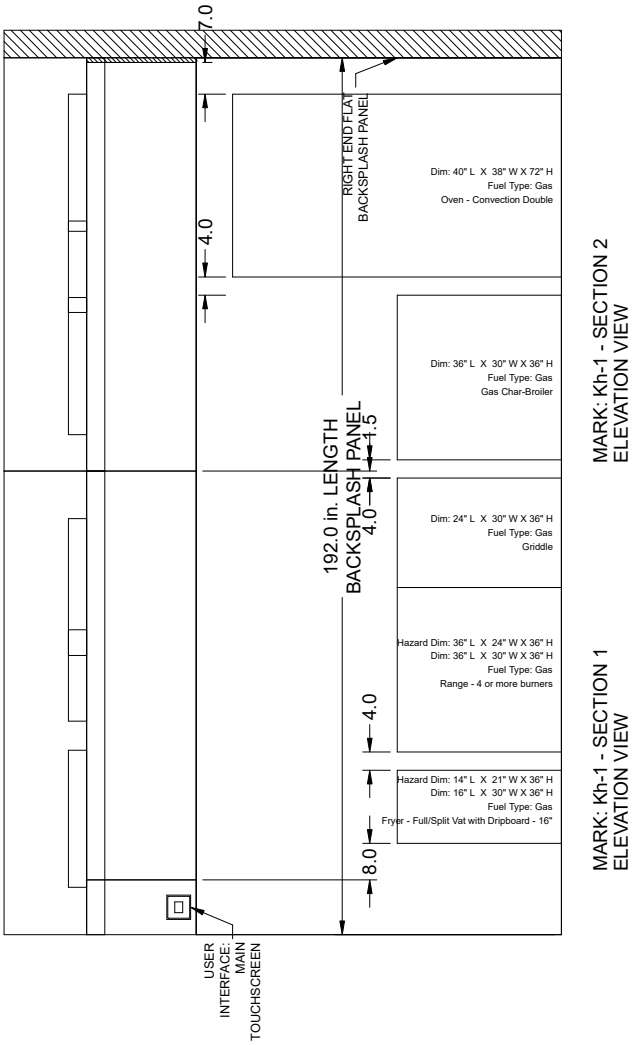
External Supply Collar Data:

Section Num.	Plenum Num.	Side	Collar Num.	Collar Shape	Collar Size (LxW) in. or Diameter (in.)	Pos. Off Left (in.)	Pos. Off Front (in.)	Velocity (fpm)	Mounting Option
1	1	Front	1	rectangular	30 x 16	25.38	9	260	Factory Mounted Supply Collar(s)
1	1	Front	2	rectangular	30 x 16	76.13	9	260	Factory Mounted Supply Collar(s)
2	1	Front	1	rectangular	30 x 16	23	9	232	Factory Mounted Supply Collar(s)
2	1	Front	2	rectangular	30 x 16	67.5	9	232	Factory Mounted Supply Collar(s)

Utility Cabinet Data:

Descripiton	Length (in.)	Width (in.)	Height (in.)	Weight (lbs)
Left Utility Cabinet	54	12	24	79

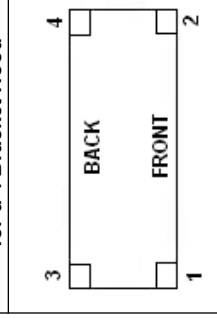


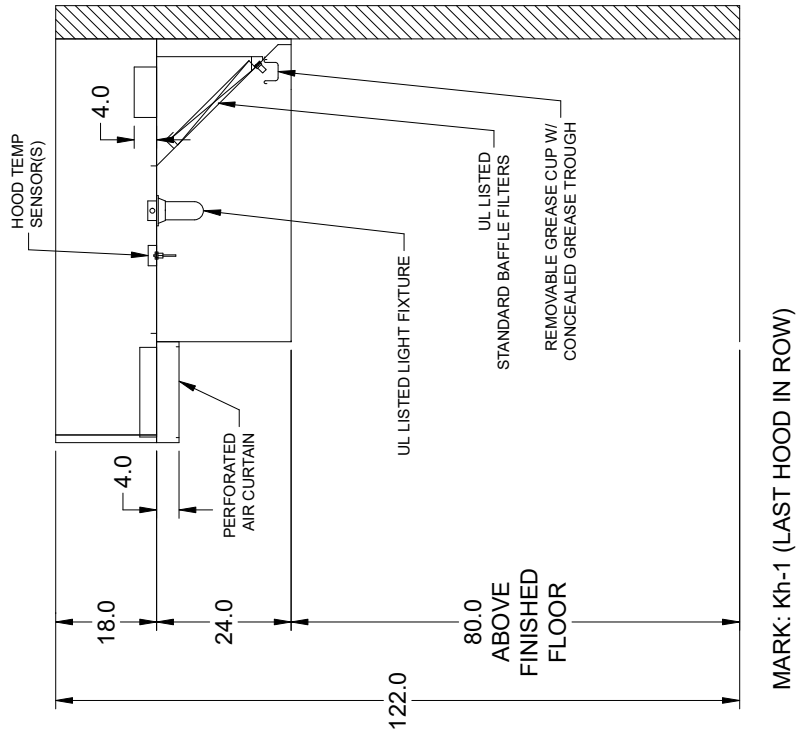


NOTE: All dimensions are in units of in.

Hanger Bracket Locations			
Sec #	Brkt #	Distance Off Left (in)	Distance Off Front (in)
1	1	3.50	2.50
1	2	86.00	2.50
1	3	3.50	50.00
1	4	86.00	50.00
2	1	3.50	2.50
2	2	86.00	2.50
2	3	3.50	50.00
2	4	86.00	50.00

Bracket Mounting Position for a 4 Bracket Hood





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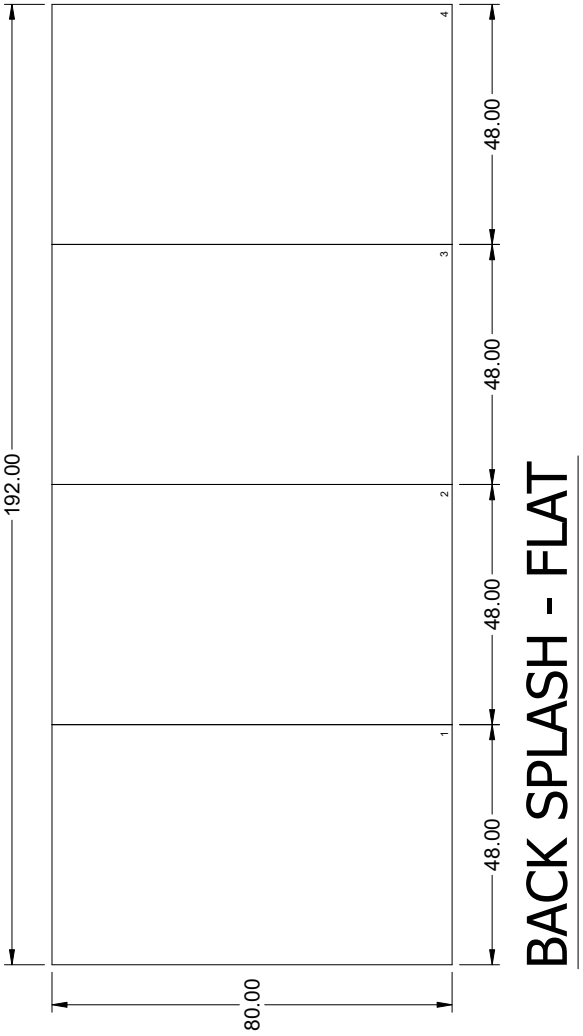
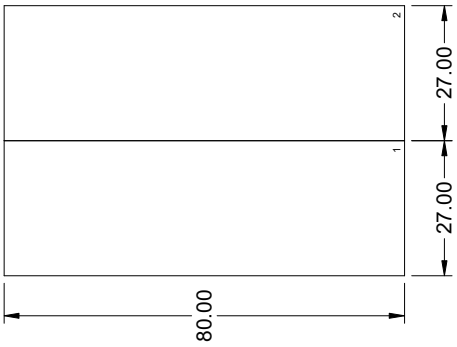


BACK SPLASH - FLAT



RIGHT SIDE SPLASH - FLAT

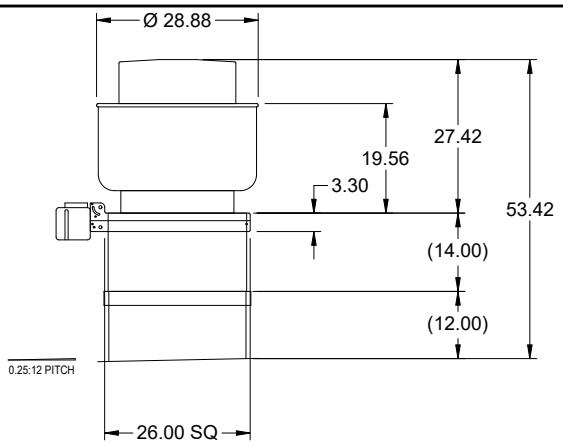
NOTE: All dimensions are in units of in.

Accurex Product

Model	Fire Suppression System
Product Description	PCL 460 In utility cabinet left with up to a 2" Gas Valve

Model: XCUE-160-VG

Direct Drive Upblast Centrifugal Roof Exhaust Fan



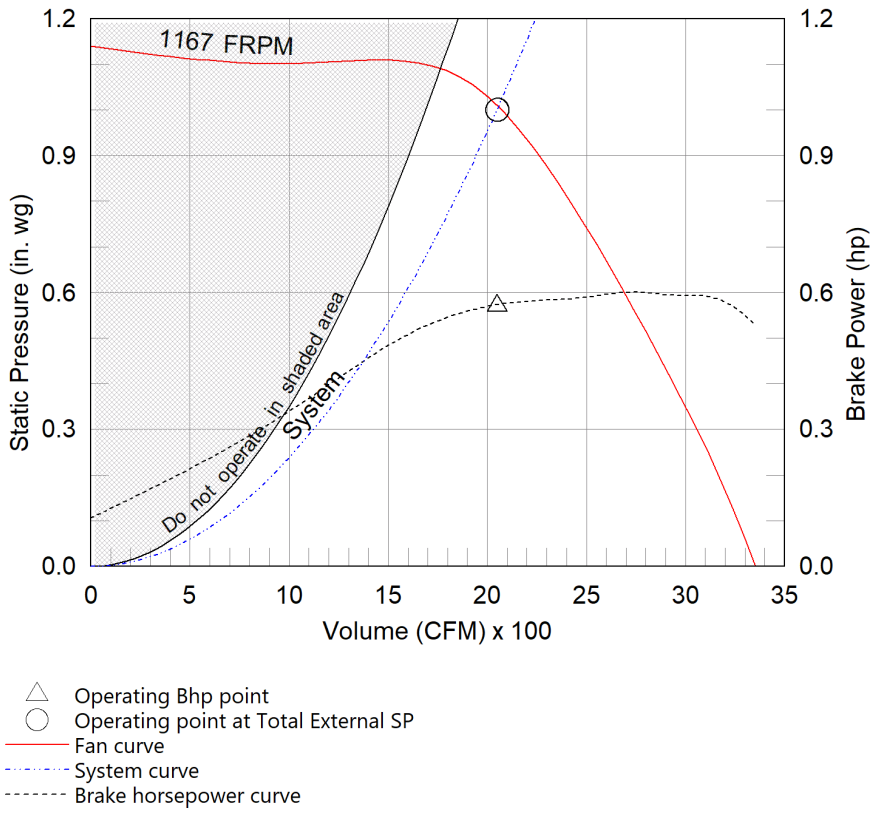
OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR, ADAPTER, AND/OR HINGE BASE.

Dimensional	
Quantity	1
Weight w/o Acc's (lb)	76
Weight w/ Acc's (lb)	113
Weight w/ Acc's and Curb (lb)	140
Standard Curb Cap Size (in.)	26 x 26
Roof Opening (in.)	22.5 x 22.5

Performance	
Requested Volume (CFM)	2,050
Actual Volume (CFM)	2,050
Total External SP (in. wg)	1
Fan RPM	1167
Operating Power (hp)	0.57
Elevation (ft)	10
Airstream Temp.(F)	90
Air Density (lb/ft3)	0.072
Tip Speed (ft/min)	5,079
Static Eff. (%)	57

Misc Fan Data	
Fan Energy Index (FEI)	-
Outlet Velocity (ft/min)	1,192

Motor	
Motor Mounted	Yes
Size (hp)	3/4
Voltage/Cycle/Phase	208/60/1
Enclosure	ODP
Motor RPM	1200
Efficiency Rating	High
Windings	1
FLA (Amps)	5.4
Min. Circuit Ampacity (MCA)	7
Max. Overcurrent Protection (MOP)	15
Short Circuit Current Rtg (SCCR)	5 kA



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	73	80	77	76	70	66	63	59	77	65	13.5

Model: XCUE-160-VG

Direct Drive Upblast Centrifugal Roof Exhaust Fan

Standard Construction Features:

- Aluminum housing - Backward curved composite (sizes 60-95) or aluminum (sizes 99-300) 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 - Removable power pack - Tool-less hood entry

Selected Options & Accessories:

Motor - Vari-Green EC motor
Control – 0-10VDC Input, (no control provided, signal supplied by others)
Control - Dial for balancing
Larger Curb Cap Size - 26 Square
UL/cUL 705 Listed - Supplement SC - "Power Ventilators for Restaurant Exh. Appliances" (Formerly UL 762)
Switch, NEMA-3R, Toggle,
Junction Box Mounted & Wired
Curb Extension-Galv., VCE-26-G14, Shipped Loose From Factory
Hinge, Factory Installed
High Temp Curb Seal Rated for Continuous Duty at 1500 F (Factory Attached)
Fastener Material: Stainless
Grease Trap (PN 475538)
Aluminum Wheel Material
Unit Warranty: 1 Yr (Standard)

Selected Sub Marks

See individual submittals for full details
GPIP-26-G12

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.

Vari-Green
Motor & Control Options

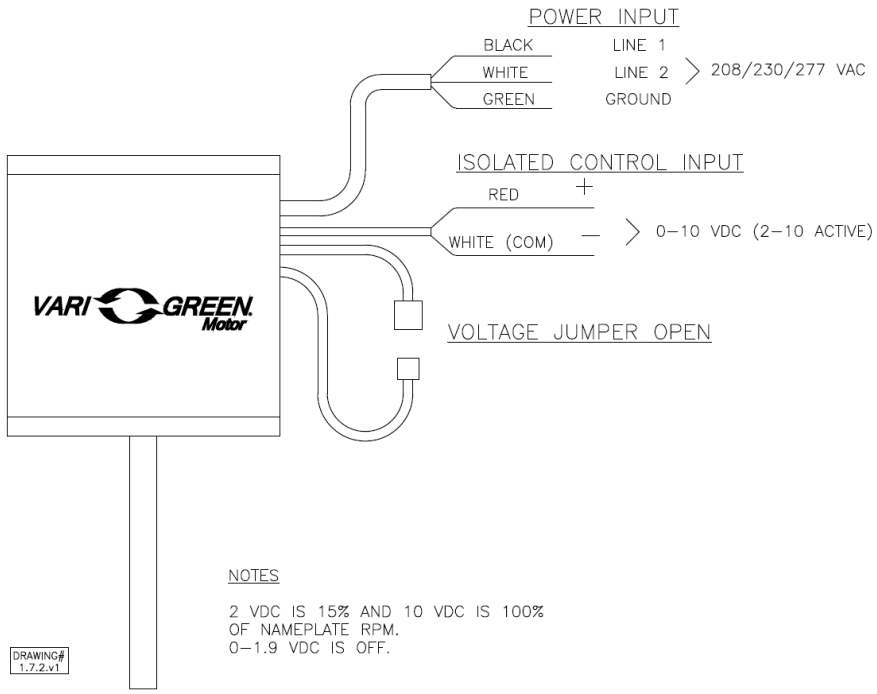
An EC motor that uses AC input power and internally converts it to DC power. Motor accepts a 0-10VDC control signal. Motor is operable in the 2-10VDC range and off while in the 0-1.9VDC range. Vari-Green motors feature a soft-start and inherent thermal and current protection built into each unit. Inrush 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:	0-10 VDC
Transformer:	None

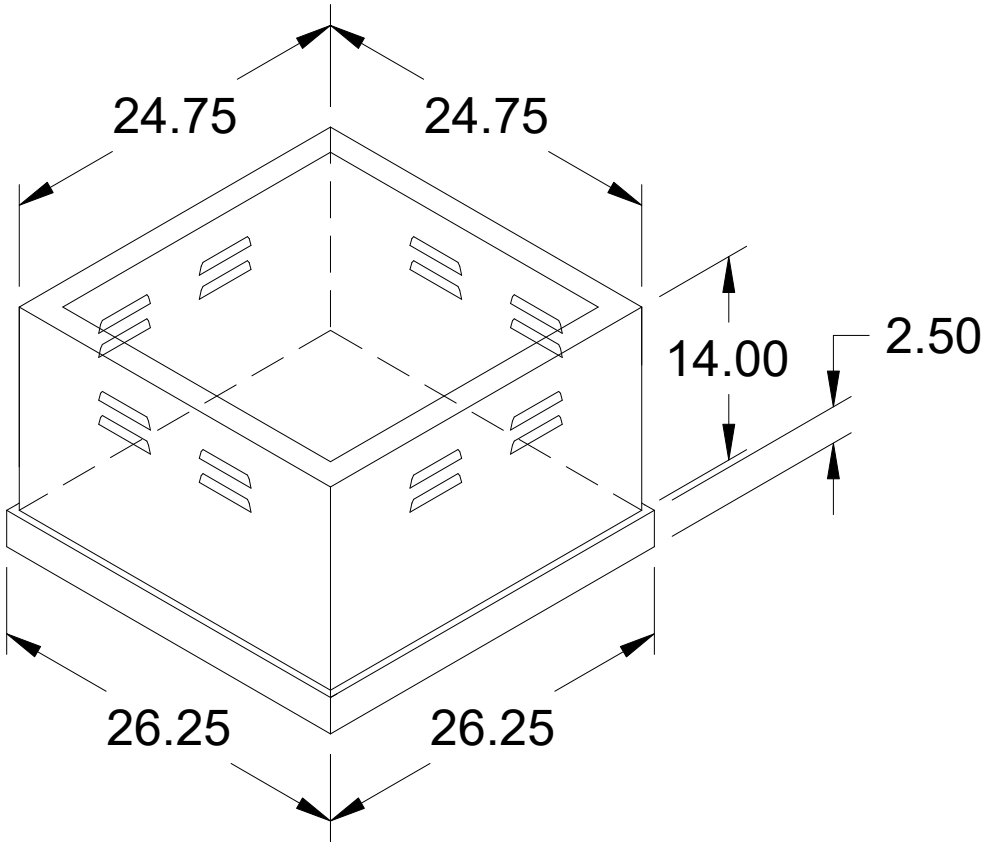


Vented Curb Extension

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 Accurex model spun aluminum upblast exhaust fan per NFPA 96. NOTE: Damper Trays are not available.



ISOMETRIC VIEW

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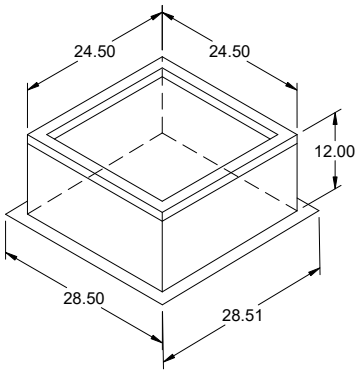


Model: GPIP

Pitched Roof Curb

0.25:12 PITCH

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 - Designed for pitched roofs - Straight sided without a cant - Wood nailer for attachment of roof flashing material - 2 in. mounting flange - 1 in. thick 3 lb density insulation - Height - Available from 12 in. to 24 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.

General

Tag	Qty	Model	Sizing Method	Undersizing (in.)	Pitch (in.)	Pitch Run	Weight (lb)	Shipped Assembled	Union Label
	1	GPIP-26	Nominal	1.5	0.25	Long Side	26	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.)	Hinge Base Width* (in.)	Hinge Base Length* (in.)	
12	26	26	24.5	24.5	21	21		25	25

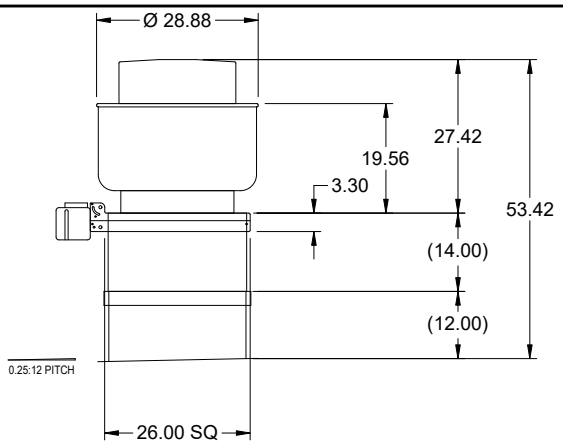
*May not be applicable

Accessories

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

Model: XCUE-160-VG

Direct Drive Upblast Centrifugal Roof Exhaust Fan



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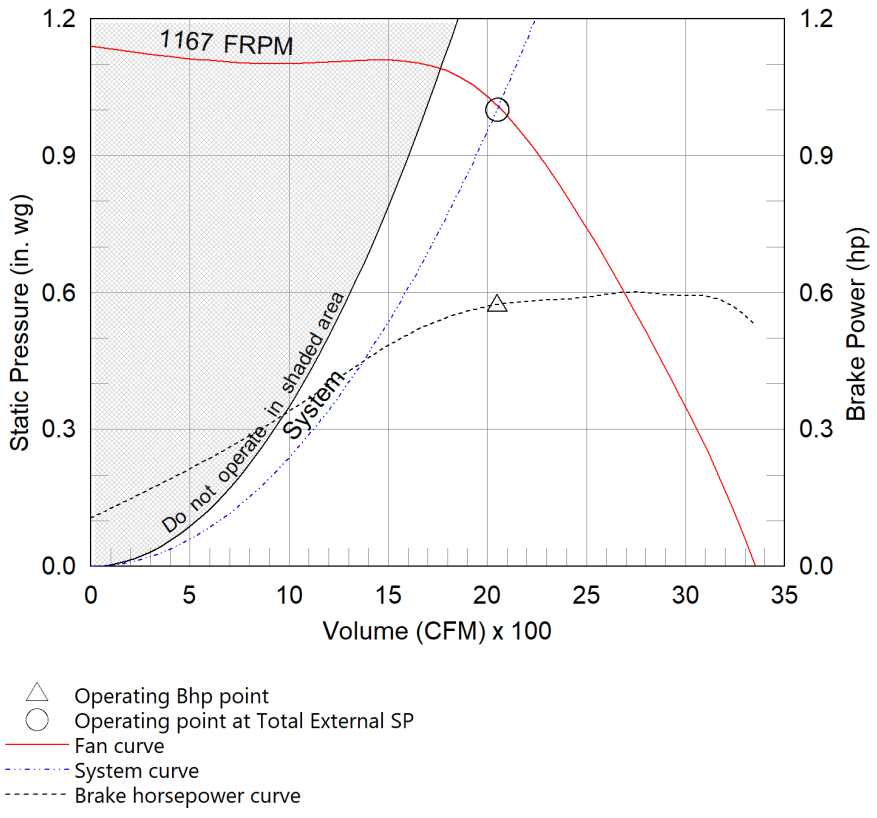
Roof Opening (in.)	22.5 x 22.5

Performance	
Requested Volume (CFM)	2,050
Actual Volume (CFM)	2,050
Total External SP (in. wg)	1
Fan RPM	1167
Operating Power (hp)	0.57
Elevation (ft)	10
Airstream Temp.(F)	90
Air Density (lb/ft3)	0.072
Tip Speed (ft/min)	5,079
Static Eff. (%)	57

Misc Fan Data	
Fan Energy Index (FEI)	-
Outlet Velocity (ft/min)	1,192

Motor	
Motor Mounted	Yes
Size (hp)	3/4
Voltage/Cycle/Phase	208/60/1
Enclosure	ODP
Motor RPM	1200
Efficiency Rating	High
Windings	1
FLA (Amps)	5.4
Min. Circuit Ampacity (MCA)	7
Max. Overcurrent Protection (MOP)	15
Short Circuit Current Rtg (SCCR)	5 kA



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Selected Options & Accessories:

Motor - Vari-Green EC motor
Control – 0-10VDC Input, (no control provided, signal supplied by others)
Control - Dial for balancing
Larger Curb Cap Size - 26 Square
UL/cUL 705 Listed - Supplement SC - "Power Ventilators for Restaurant Exh. Appliances" (Formerly UL 762)
Switch, NEMA-3R, Toggle,
Junction Box Mounted & Wired
Curb Extension-Galv., VCE-26-G14, Shipped Loose From Factory
Hinge, Factory Installed
High Temp Curb Seal Rated for Continuous Duty at 1500 F (Factory Attached)
Fastener Material: Stainless
Grease Trap (PN 475538)
Aluminum Wheel Material
Unit Warranty: 1 Yr (Standard)

Selected Sub Marks

See individual submittals for full details
GPIP-26-G12

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.
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Vari-Green
Motor & Control Options

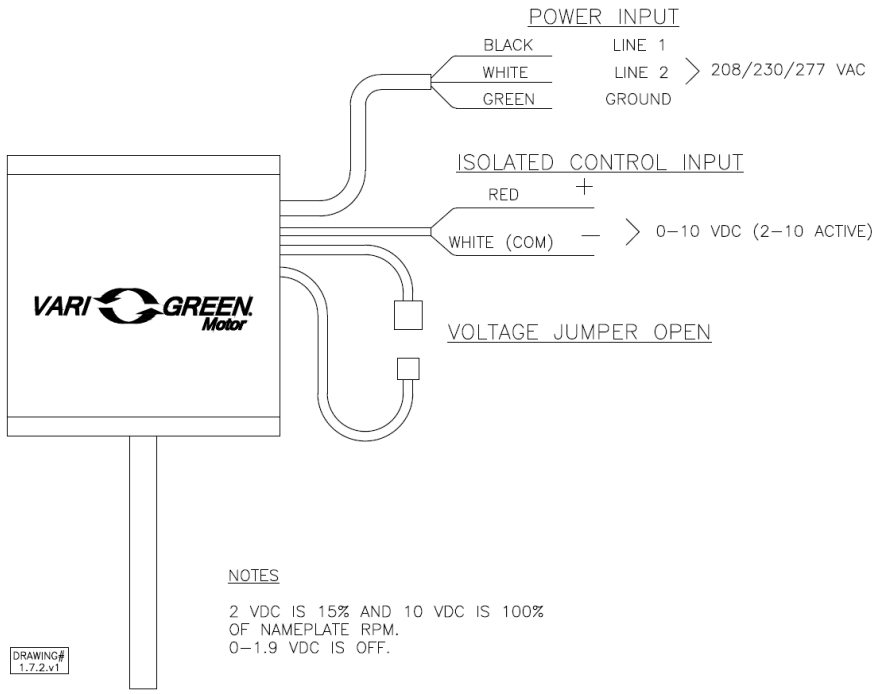
An EC motor that uses AC input power and internally converts it to DC power. Motor accepts a 0-10VDC control signal. Motor is operable in the 2-10VDC range and off while in the 0-1.9VDC range. Vari-Green motors feature a soft-start and inherent thermal and current protection built into each unit. Inrush 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:	0-10 VDC
Transformer:	None



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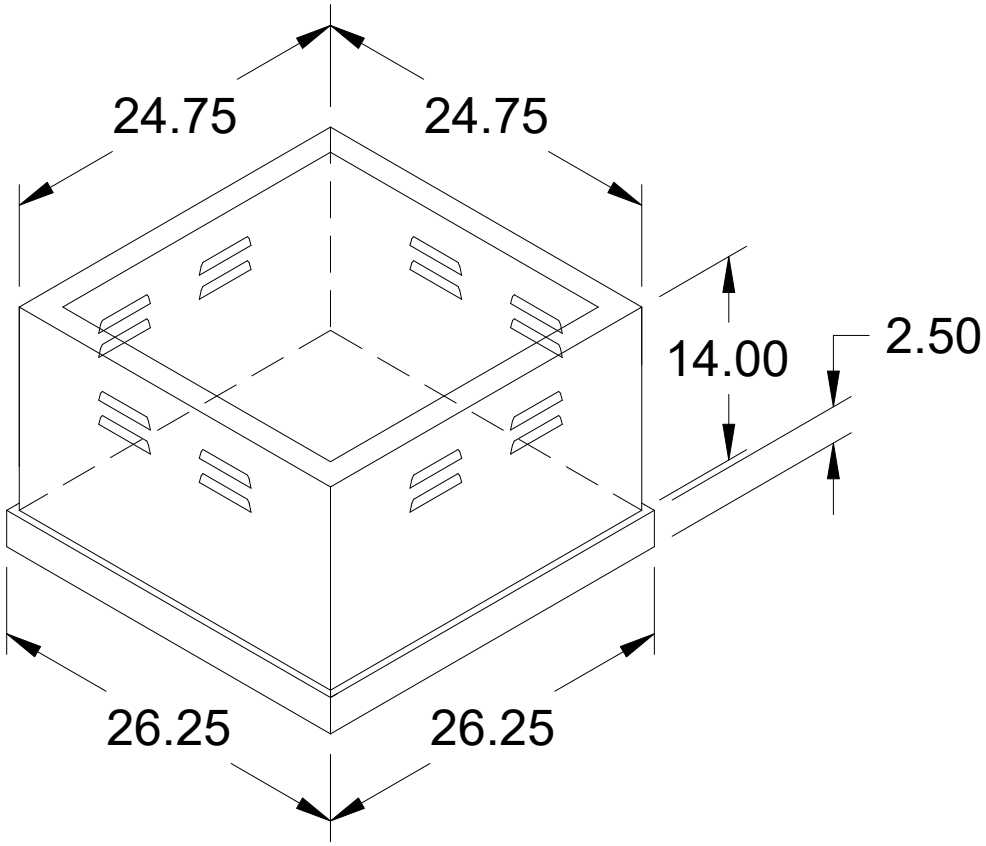

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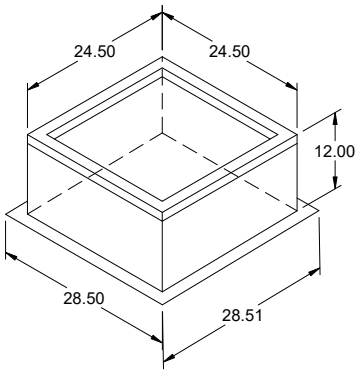

Model: GPIP

Pitched Roof Curb

0.25:12 PITCH

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- 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 - Designed for pitched roofs - Straight sided without a cant - Wood nailer for attachment of roof flashing material - 2 in. mounting flange - 1 in. thick 3 lb density insulation - Height - Available from 12 in. to 24 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.

General

Tag	Qty	Model	Sizing Method	Undersizing (in.)	Pitch (in.)	Pitch Run	Weight (lb)	Shipped Assembled	Union Label
	1	GPIP-26	Nominal	1.5	0.25	Long Side	26	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.)	Hinge Base Width* (in.)	Hinge Base Length* (in.)	
12	26	26	24.5	24.5	21	21		25	25

*May not be applicable

Accessories

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

XMSX-P116-H12-MF-8

Unit Performance

Design Conditions

Elevation (ft)	Summer		Winter (°F)	Supply (CFM)	Outdoor Air (CFM)
	DB (°F)	WB (°F)			
10	93.0	81.0	35.0	3,280	3,280

Unit Specifications

Qty	Weight (lb)	Cooling Type	Heating Type	Unit Installation	Unit ETL Listing
1	1,315 (+/- 5%)	Packaged DX	None	Outdoor/Indoor	UL / cUL 60335-2-40

Configuration

Unit Orientation	Unit Configuration	Outdoor Air Intake	Return Air Intake	Supply Air Discharge
Horizontal	Constant Volume 100% OA	End	-	Bottom

Cooling Specifications

Type	Refrigerant	Capacity (MBH)		Lead Compressor Type	EER		Performance (DB/WB)	
		Total	Sensible		Condensing Section	Design Condition	EAT (°F)	LAT (°F)
Packaged DX	R-454b	107.0	65.8	Standard Scroll	15.3	12.3	93.0 / 81.0	73.3 / 73.3

Air Performance

Type	Total Volume (CFM)	External SP (in. wg)	Total SP (in. wg)	RPM	Operating Power (hp)	Fan			
						Qty	Type	Size (in.)	Drive-Type
Supply	3,280	0.6	1.129	1488	1.16	1	Mixed Flow	20	Direct-Drive

Motor Specifications

Motor	Qty	Size (HP)	Enclosure	Efficiency	RPM
Supply Fan Motor	1	2	ODP	NEMA Premium	1725

Electrical Specifications

Power Supply	Rating (V/C/P)	MCA (A)	MOP (A)	SCCR
Unit	208/60/3	47.5	70	5kA

CONSTRUCTION FEATURES AND ACCESSORIES

Unit	
Unit Installation - Outdoor	Std
Unit Construction - Double Wall	X
Wall Insulation - 1in. fiberglass - Tempering on	X
Base Insulation - 1in. fiberglass - entire unit base pan	Std
Paneled Bottom - Sheet metal liner for base insulation	
Corrosion Resistant Fasteners	Std
Access and Connections - Right side when facing intake	X
Service Access - Hinged access doors	X
Unit Finish - G90 Galvanized	X
Finish Color	
Supply Fan - Direct-drive, mixed flow plenum	X
Supply Fan and Motor Vibration isolation - Neoprene	X
Controls	
Unit Controls - Microprocessor	X
Remote Panel	
BMS Communication - Monitoring and control	
BMS Protocol	
Temperature Control - Discharge control	X
Supply Fan VFD - VFD by factory	X
Supply Fan Control - Constant Volume	X
Unoccupied Mode (Night Setback)	
Recirculation Control	
Control Accessories	
Touchscreen Mount	
Heating Inlet Air Sensor	
Cooling Inlet Air Sensor	X
Dirty Filter Switch	
Fire Stat Type III (Ships loose)	
120V/24V Smoke Detector (Ships loose)	
Inlet Damper End Switch	
External Cooling Lockout Relay	
Freeze Protection (Supply Air Low Limit)	X
Auxiliary Supply Starter Contacts	
Auxiliary Exhaust Starter Contacts	
Heating Coil Freeze Protection	
Airflow Proving Monitoring Contact	

Accessories	
Factory Installed, Lockable, NEMA 3R Disconnect	Std
Weatherhood - Aluminum Mesh filtered	X
Supply Air Filters	
Outdoor Air Inlet Damper - Low leakage	X
Supply Air Outlet Damper	
Return Air Damper	
Diffuser	
Roof Curb - GPIP	X
Combination Curb	
Electrofin Coil Coating	
Fan Bearing Extended Lube Lines	
Inlet Damper Module	
Spare Belts	
Spare Filters	
Motor with Shaft Grounding	
Service Outlet	
Service Lights	
Warranty Options	
Unit Warranty - 18 months (std.)	X
5 Year Compressor Warranty	X

Standard Option	Std
Not Included	
Included	X

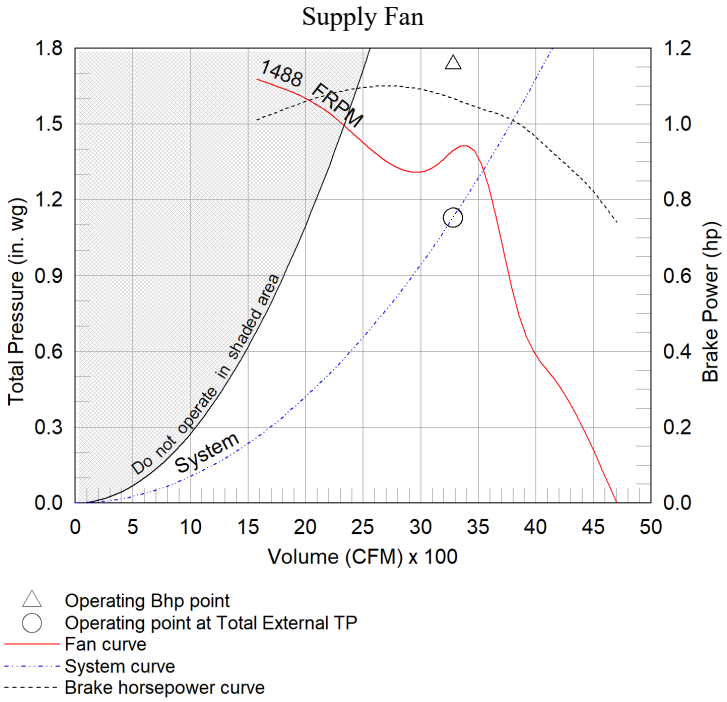
Notes
Damper(s) supplied are low leakage, motorized VCD-23 (leakage rate of 3 CFM/ft^2 @ 1 in.wg), Class 1A

Fan Charts And Performance

Supply Fan Performance									
Total Volume (CFM)	External SP (in. wg)	Total SP (in. wg)	RPM	Operating Power (hp)	Motor		Fan		
					Qty	Size (HP)	Qty	Type	Drive-Type
3,280	0.6	1.129	1488	1.16	1	2	1	Mixed Flow	Direct

Pressure Drop (in. wg)							
Diffuser	Weatherhood	Filter	Damper	Cooling	Heating	External	Total
-	0.134	-	0.089	0.306	-	0.6	1.129

Sound Performance in Accordance with AMCA										
Sound Power by Octave Band								Lwa	dBA	Sones
62.5	125	250	500	1000	2000	4000	8000			
78	75	72	73	73	70	69	72	78	67	17.1



Cooling Specifications

Cooling Performance								
Type	Refrigerant	Capacity (MBH)		Lead Compressor Type	EER		Performance (DB/WB)	
		Total	Sensible		Condensing Section	Design Condition	EAT (°F)	LAT (°F)
Packaged DX	R-454b	107.0	65.8	Standard Scroll	15.3	12.3	93.0 / 81.0	73.3 / 73.3

Coil Information					
PDX Coil Model	Fins Per Inch	Rows Deep	Suction Temp. (°F)	Face Velocity (ft/min)	Refrigerant Velocity (ft/min)
DX38S02Q10-32x35-RH	10	2	53.5	422	1,720

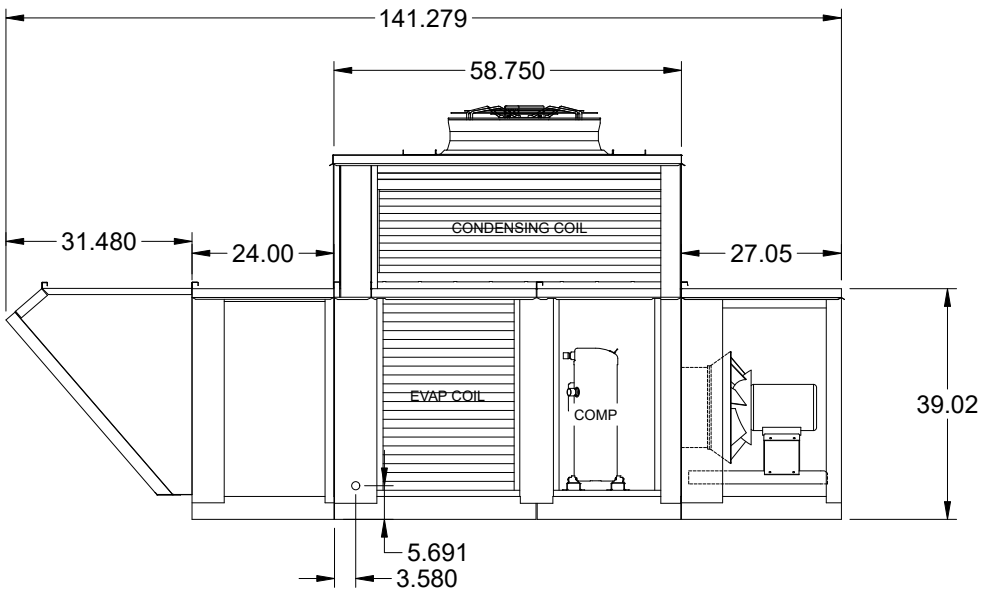
A2L Installation Requirement - UL 60335-2-40		
Largest Circuit Charge	Minimum Circulation Airflow	Minimum Total Conditioned Room Area
0lb / 0kg	0 CFM	0 ft2

Local codes and standards may have requirements regarding the installation of A2L refrigerants in addition to manufacturing instructions provided for listed and labeled equipment.

Unit Details
Refrigerant charges provided by the factory are approximate and may require field adjustment
Refrigeration components servicable without affecting airflow
Hermetic scroll type compressor(s)
Compressor(s) mounted on neoprene vibration isolation
Crankcase heater on compressor(s)
Liquid-line filter drier
Moisture-indicating sight glass
Hot gas bypass

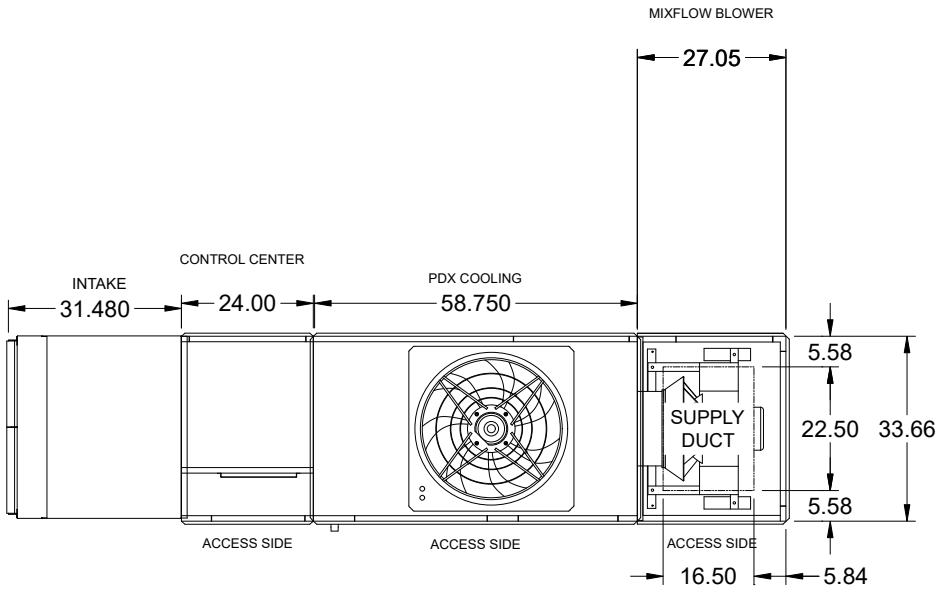
Thermal expansion valve
Refrigerant low pressure switch (auto reset)
Refrigerant high pressure switch (manual reset)
Service/charging valves
Low sound, direct drive condensing fans
Insulated, double sloped, stainless steel drain pan
Copper tube, aluminum fin coil construction

ELEVATION VIEW



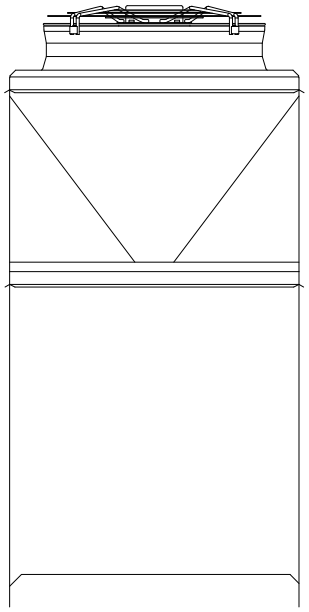
Notes - Elevation View
Standard configuration for unit access is on the right-hand side, when looking into the unit intake in the direction of airflow.
Order of unit sections is from intake of unit to discharge of unit.
Sections included on this unit: Weatherhood Section, Control Center Module Section, Cooling Section, Blower Section
Insulation: Double Wall, from Cooling Section through end of unit.

PLAN VIEW



Notes - Plan View
Standard configuration for unit access is on the right-hand side, when looking into the unit intake in the direction of airflow.

END VIEW

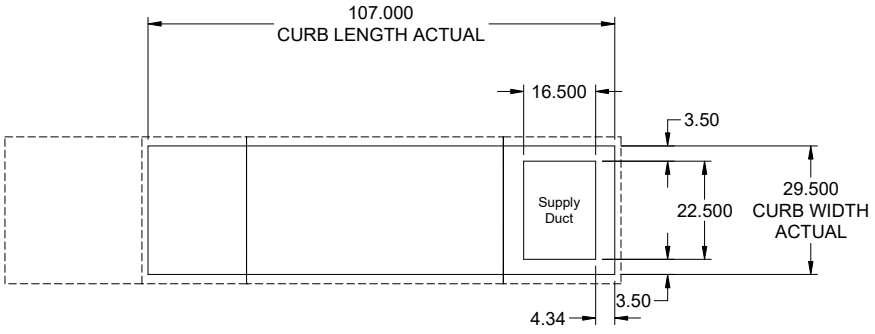


FOOTPRINT VIEW

NOTE: Roof Opening Requirements:

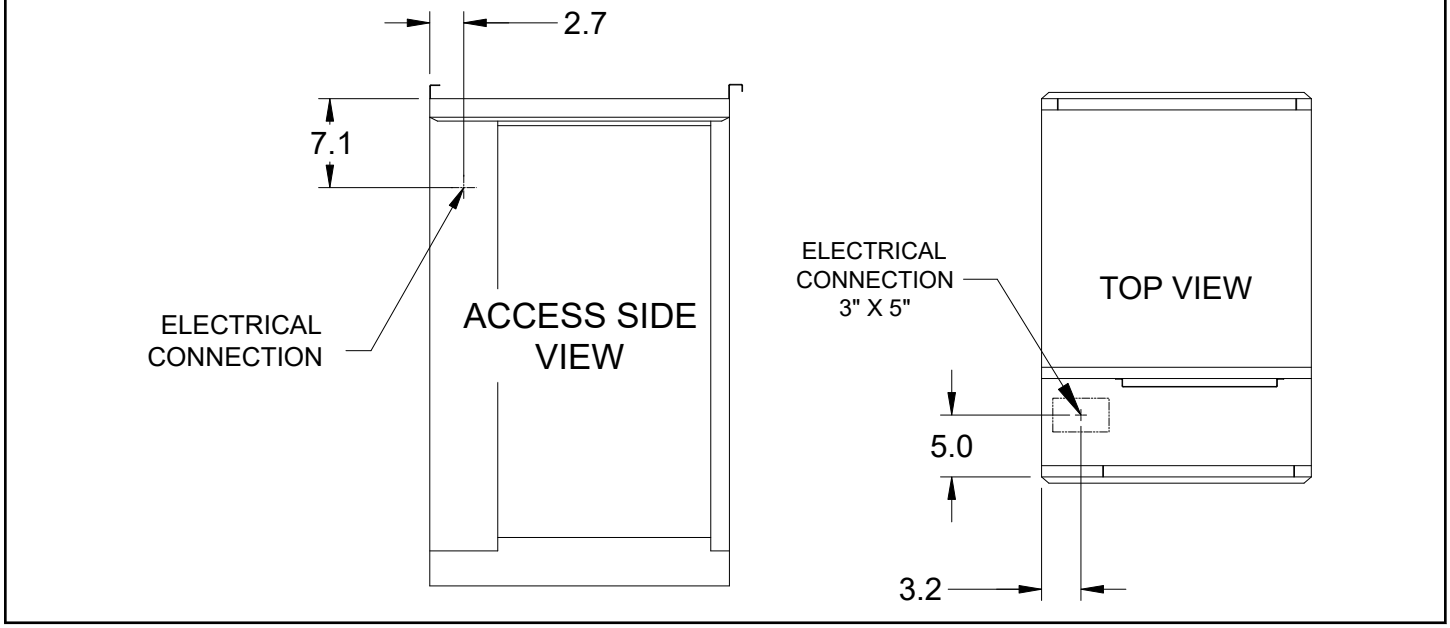
Minimum Roof Opening: The minimum roof opening size is the illustrated duct diameter plus 0.25 in. on all sides.
For example: If the duct size is 14 x 14 in. square, the minimum roof opening size is 14.5 x 14.5 in. square.

Maximum Roof Opening: There must be a minimum perimeter of 1.75 in. between the roof opening and the roof curb.
For example: If the roof curb is 75 x 30 in. square, the maximum roof opening is 71.5 x 26.5 in. inches square.



NOTE: The weatherhood and filter sections of the make-up air unit extend beyond the curb. This is by design, to prevent water infiltration.

Electrical Connections



EQUIPMENT SCHEDULE

Tempered Make-Up Air Unit

Mark: Ksf-1

Qty	Accurex Model	Volume	External SP	Total SP	MCA	MOP	Weight	SCCR
1	XMSX-P116-H12-MF-8	3,280 CFM	0.6 in. wg	1.129 in. wg	47.5	70	1,315 lb	5kA

Motor Information

Size	V/C/P	Enclosure	Motor with Shaft Gounding	Motor RPM	Operating Power
2 hp	208/60/3	ODP	No	1725	1.16 hp

Cooling

Cooling Type	Coil Model	Rows Deep	Fins Per Inch	Face Velocity	Total Energy	Sensible Energy	Entering Air (F)		Leaving Air (F)	
							Dry	Wet	Dry	Wet
Packaged DX	DX38S02Q10-32x35-RH	2	10	422 ft/min	107.0 MBH	65.8 MBH	93.0 F	81.0 F	73.3 F	73.3 F

Coil SP	Refrigerant	Suction Temp	Liquid Temp	Super Heat	Code 18/19	Suction Conn Qty / Size	Liquid Conn Qty / Size
NA	R-454B	53.5 F	110 F	8 F	0	NA	NA

Outlet Sound Power By Octave Band								LwA	dBA	Sones
62.5	125	250	500	1000	2000	4000	8000			
77.9	*74.6*	*71.7*	*73.1*	*72.7*	*70.4*	*68.5*	*71.6*	*78.2*	*67.2*	*17.1*

- *LwA - A weighted sound power level based on ANSI S1.4*
- *dBA - A weighted sound pressure level base on 11.f dB attenuation per octabe band at 5.0 ft.*
- *Noise Criteria (NC) based on an average attenuation of 11.5 dB per octabe band at 5.0 ft.*

OPTIONS AND ACCESSORIES

Make Up Air
Extended Compressor Warranty: 5 years
Hot Gas Bypass
Air Flow Arrangement: Outdoor Air Only
Weatherhood: Aluminum Mesh, 16x20x2 - (4)
Damper: Inlet
Outdoor Air Intake Position: End
Discharge Position: Bottom
Coating: Galvanized
Cooling Coil Coating - None
Insulation: Double Wall - Tempering On
Supply Fan Control: VFD
VFD Control: Constant Volume
Hinged Access
Access Side: Right-Hand
Unit Weight: 1315 lb
Control Center
Freeze Protection
Cool Inlet Air Sensor
Unit Controls: Microprocessor
Temperature Control: Discharge

Clearance Specifications

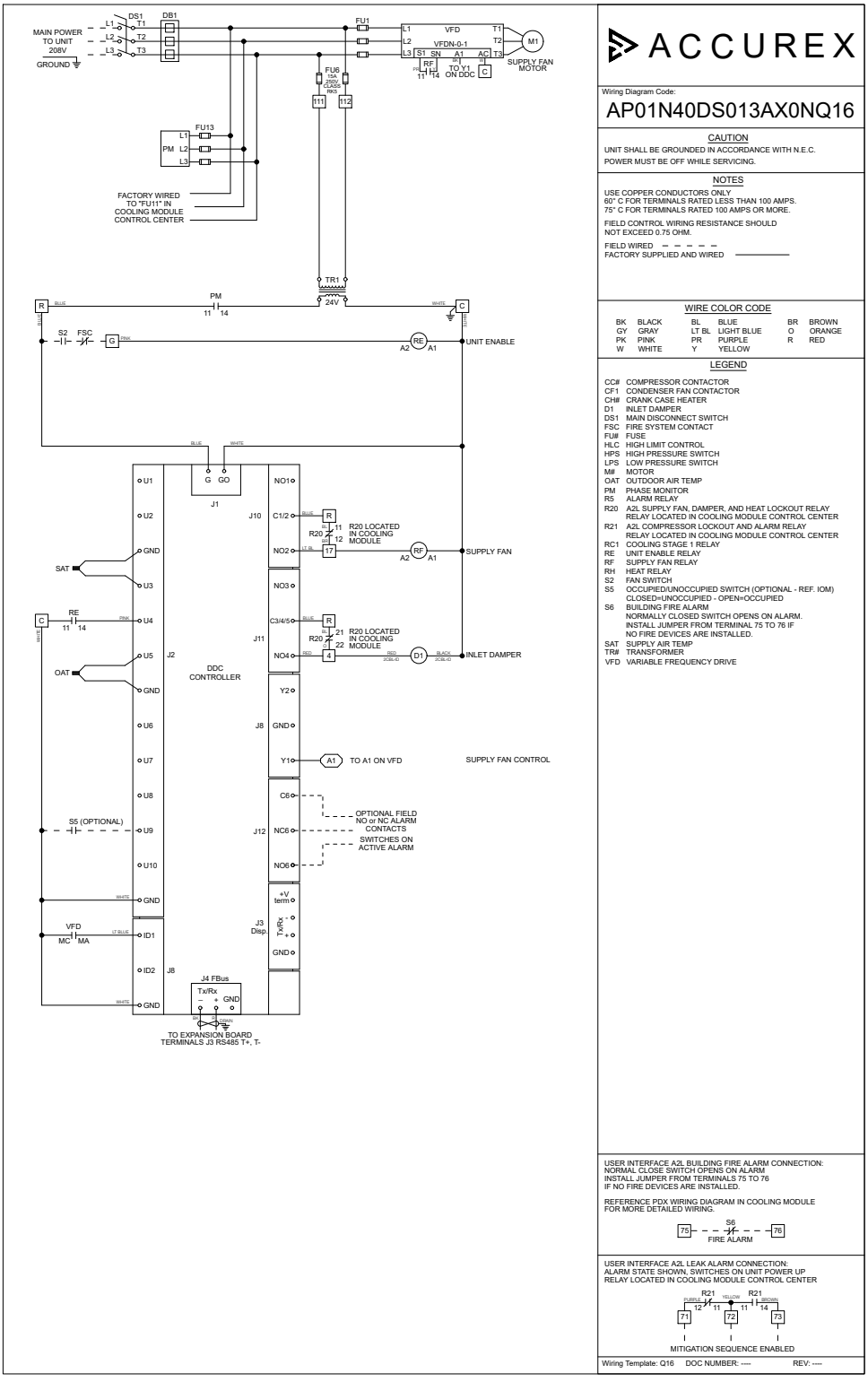
Recommended Minimum Combustible Clearances				
	Floor (in.)	**Top (in.)**	**Sides (in.)**	**Ends (in.)**
Insulated Units	0	0	0	0
Non-Insulated Units	0	6	6	6

Notes - Combustible Clearances
Clearance to combustibles is defined as the minimum distance required between the heating source and the adjacent combustible surfaces to ensure the adjacent surface's temperature does not exceed 90 F above the ambient temperature.

Recommended Minimum Service Clearances	
Housing 32 and less (in.)	**Housing 35 and higher (in.)**
42 on the controls side of the unit	48 on the controls side of the unit

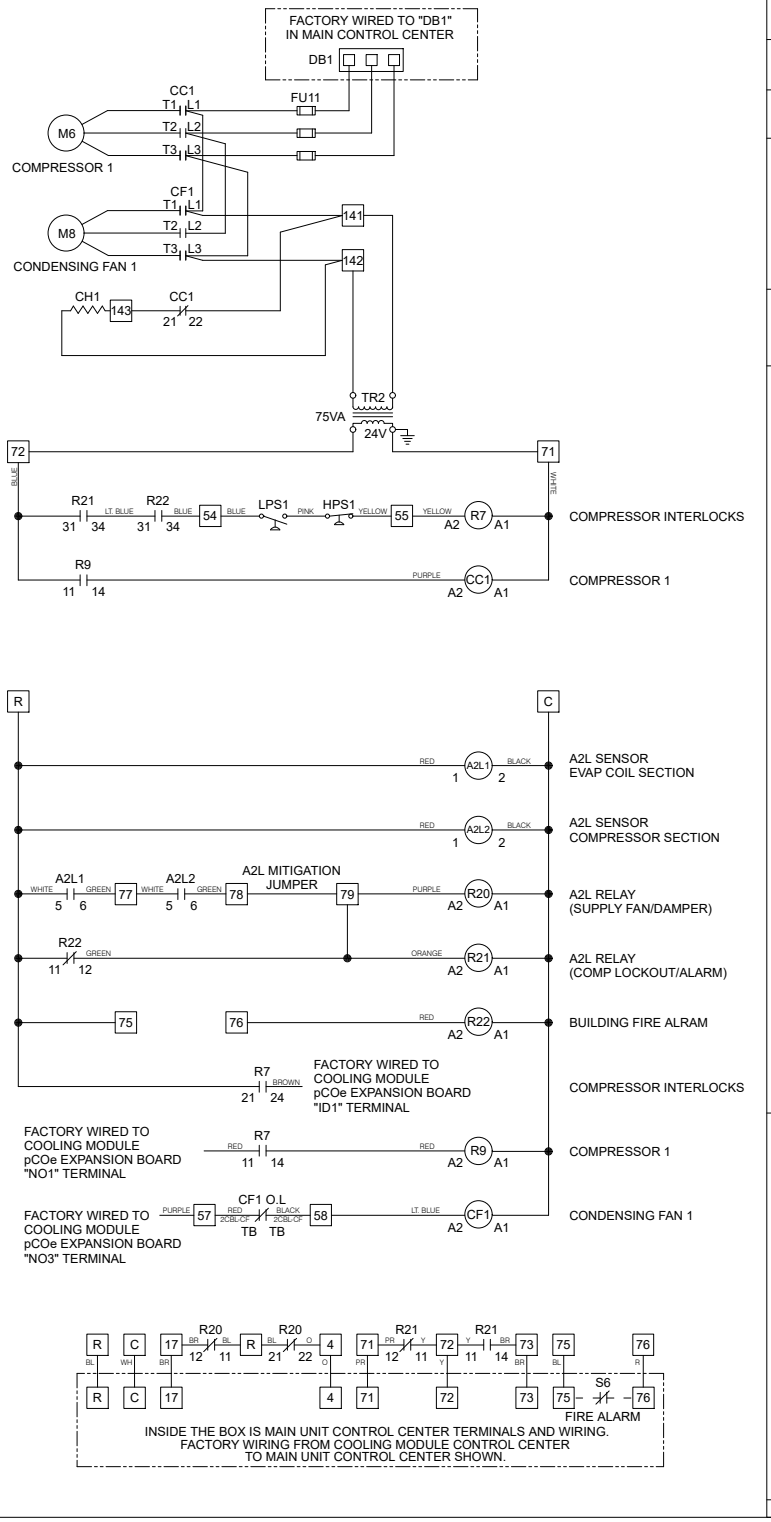
Notes - Service Clearances
To ensure ample space for component removal (evaporative cooling media, coils, filters, etc.), service clearances should be 6 in. wider than the width of the module itself.
Reference the PDX Service Clearance guidelines (PDX IOM)

Wiring Diagram



Manufacturer reserves the right to change, modify, or improve this product at anytime

PDX WIRING DIAGRAM



ACCUREX

Wiring Diagram Code:

A411401XX0100PS23

CAUTION

UNIT SHALL BE GROUNDED IN ACCORDANCE WITH N.E.C.
POWER MUST BE OFF WHILE SERVICING.

NOTES

USE COPPER CONDUCTORS ONLY
60° C FOR TERMINALS RATED LESS THAN 100 AMPS.
75° C FOR TERMINALS RATED 100 AMPS OR MORE.

FIELD CONTROL WIRING RESISTANCE SHOULD NOT EXCEED 0.75 OHM.

FIELD WIRED – – – – –
FACTORY SUPPLIED AND WIRED ————

WIRE COLOR CODE

BK	BLACK	BL	BLUE	BR	BROWN
GY	GRAY	LT BL	LIGHT BLUE	O	ORANGE
PK	PINK	PR	PURPLE	R	RED
W	WHITE	Y	YELLOW		

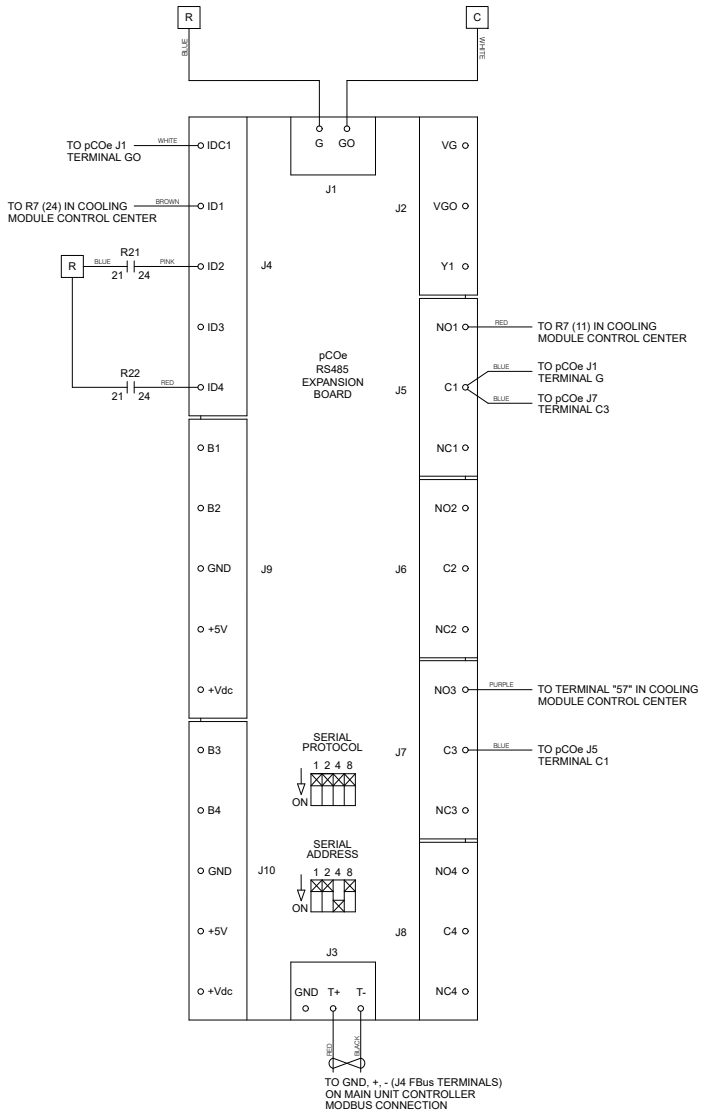
LEGEND

A2L# A2L REFRIGERANT LEAK SENSOR
CC# COMPRESSOR CONTACTOR
CF# CONDENSER FAN CONTACTOR
CH# CRANK CASE HEATER
DB1 DISTRIBUTION BLOCK
HPS# HIGH PRESSURE SWITCH
LPS# LOW PRESSURE SWITCH
M# MOTOR
R# CONTROL RELAY
R20 A2L SUPPLY FAN, DAMPER, AND HEAT LOCKOUT RELAY. RELAY CONTACTS LOCATED IN MAIN MODULE CONTROL CENTER.
R21 A2L COMPRESSOR LOCKOUT AND ALARM RELAY RELAY CONTACTS LOCATED IN BOTH MAIN AND COOLING MODULE CONTROL CENTERS
R22 BUILDING FIRE ALARM RELAY
S6 BUILDING FIRE ALARM NORMALLY CLOSED SWITCH OPENS ON ALARM. INSTALL JUMPER FROM TERMINAL 75 TO 76 IF NO FIRE DEVICES ARE INSTALLED.
TR# TRANSFORMER(S)

Wiring Template: S23 DOC NUMBER: ---- REV: ----

Manufacturer reserves right to change, alter, or improve this product at any time.

EXPANSION BOARD WIRING DIAGRAM



ACCUREX

Wiring Diagram Code:

A00003XXX002020XY06

CAUTION

UNIT SHALL BE GROUNDED IN ACCORDANCE WITH N.E.C.
POWER MUST BE OFF WHILE SERVICING.

NOTES

USE COPPER CONDUCTORS ONLY
60° C FOR TERMINALS RATED LESS THAN 100 AMPS.
75° C FOR TERMINALS RATED 100 AMPS OR MORE.

FIELD CONTROL WIRING RESISTANCE SHOULD NOT EXCEED 0.75 OHM.

FIELD WIRED – – – – –
FACTORY SUPPLIED AND WIRED ————

NOTE: 1
MODBUS COMMUNICATION WIRING. DAISY CHAIN TO ALL MODBUS DEVICES.

WIRE COLOR CODE

BK	BLACK	BL	BLUE	BR	BROWN
GY	GRAY	LT BL	LIGHT BLUE	O	ORANGE
PK	PINK	PR	PURPLE	R	RED
W	WHITE	Y	YELLOW		

LEGEND

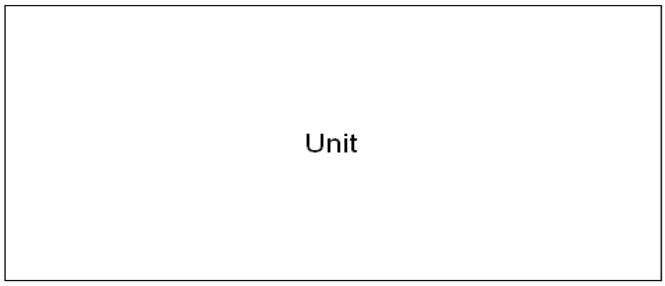
R21 A2L COMPRESSOR LOCKOUT AND ALARM RELAY RELAY CONTACTS LOCATED IN BOTH MAIN AND COOLING MODULE CONTROL CENTERS
R22 BUILDING FIRE ALARM RELAY

Wiring Template: Y06 DOC NUMBER: ---- REV: ----

Manufacturer reserves right to change, alter, or improve this product at any time.

Corner Weights

354 lb 405 lb



259 lb 297 lb

SEQUENCE OF OPERATIONS

Unit Controls
The unit shall be provided from the factory with:

- 24VAC Transformer
- Terminal Strip
- Supply Fan VFD
- Factory mounted and wired outdoor air inlet damper with actuator
- Phase Monitor

Microprocessor Controller
The microprocessor control shall be factory programmed, mounted, wired and tested. Controller shall have a lighted LCD display and keypad for changing set points and monitoring unit operation. The controller shall be equipped with the following sensors:

- Outdoor air temperature sensor
- Supply discharge temperature sensor

Unit Start Command
A contact closure or jumper wire must be field wired between terminals R and G to enable the unit. When terminal G is energized the unit shall operate as described below. When terminal G is de-energized the unit is disabled.

Internal Time Clock (Schedule)
The microprocessor controller is equipped with an internal 7-day programmable time clock, allowing the user to add up to seven different occupancy schedules.

Occupied/Unoccupied Modes
The microprocessor controller offers the following modes for determining occupancy:

- The internal time clock
- A remote contact (see wiring diagram for details)

The unit can be temporarily overridden to the occupied mode via a dry contact or the keypad display. After the override time has expired (1 hr, adj) the unit will return to the scheduled occupied/unoccupied mode.

Occupied Mode Unit Start-Up Sequence

- Unit enable input must be closed (contact closure between R and G).
- Initial delay, microprocessor controller initialization sequence.
- Factory mounted and wired outdoor air inlet damper actuator is powered open.
- Supply fan starts after adj. delay.
- Tempering operation begins (see modes below).

Supply Fan Sequence (Occupied)
The unit has been provided with a factory mounted variable frequency drive (VFD). The variable frequency drive shall control the supply fan speed as indicated by the following sequence:

Constant Volume:
The VFD shall be programmed from the factory for a constant supply fan speed. This is to be adjusted for air balancing only and is not to be modulated.

Cooling Control
The cooling will be locked out when the outside air is below the cooling lockout set point (75 F adj.). When enabled cooling will be controlled as follows

Packaged DX Cooling (Standard Scroll)
The controller will enable cooling to maintain the active supply temperature set point.

- The packaged DX system contains a single stage of cooling.

Hot Gas Bypass
The hot gas bypass valve opens injecting hot refrigerant from the leaving side of the compressor into the liquid line. This assists in preventing frost from forming on the coil during part load conditions or low airflows. Hot gas bypass is used for system protection only and not for capacity control

A2L Refrigerant Leak Detection and Mitigation
The make-up air unit is equipped with two leak detection sensors—one in the airstream and the other in the compressor cabinet. In the event of a leak detected, the unit will go into ventilation mode. The damper will open and the fan will override to minimum speed. If the unit is equipped with direct gas heat, the heat will be disabled. This ventilation mode will run for at least 5 minutes or until the leak is cleared. The controller will ignore high and low supply air leaving temperature alarms as well as send a notification to the BMS via BACnet or Modbus.

- The make-up air unit is also equipped with a Fire Shutdown Alarm input. This is a requirement for use with R-454B refrigerant per UL 60335-2-40. If the Fire Shutdown Alarm is triggered, it will prevent the override of the damper and supply fan from the A2L Leak Sensors. The controller will send a notification alarm to the BMA via BACnet or Modbus.

Supply Temperature Set Point Control (Occupied)
The active supply temperature set point shall be adjusted (field selectable):

- Locally at the controller.

Unoccupied Mode (Disabled)

- Supply Fan Is OFF
- Factory mounted and wired outdoor air inlet damper actuator is de-energized and spring returns to the closed position.

Supply Air Low Limit
If the supply air temperature drops below 35 F (adj.) for 300 seconds (adj.), the controller will de-energize the unit and generate an alarm.

Alarm Management
The microprocessor controller will monitor the unit status for alarm conditions. Upon detecting an alarm, the controller will record the alarm description, time, date, available temperatures, and unit status for user review. A digital output is reserved for remote alarm indication.

Possible Alarms Include:

- **Global Alarm**
  Indication that one or more alarms are present.
- **Outdoor Air Inlet Temperature Sensor Alarm**
  Outdoor Air Inlet Temperature Sensor Alarm: Failure of the outdoor air inlet temperature sensor.
- **Supply Air Discharge Temperature Sensor Alarm**
  Failure of the supply air discharge temperature sensor. Unit is shut down.
- **Supply Air Low Limit Alarm**
  Supply air has fallen below 35 F (adj.) for 300 seconds (adj.). Unit is shut down.
- **Refrigerant Pressure Alarm**
  Indicates a high or low refrigerant pressure switch in the packaged DX system has tripped.
- **Supply Fan Alarm**
  Indicates the supply fan failed to prove for a 30 second (adj.) period.

Warranty Statement for Make-Up Air

Unit Warranty

Accurex warrants the equipment to be free from defects in material and workmanship for a period of 18 months from the date of shipment. Initial startup must be completed within six months of the shipment date, and a startup report must be submitted to Accurex.

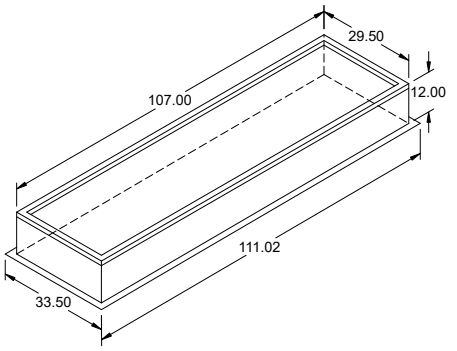
Compressor Extended Warranty

Accurex warrants the refrigerant compressor(s) to be free from defects in material and workmanship for a period of 5.5 years from the shipment date.

Warranty Notes

Any component which proves defective during the warranty period will be repaired or replaced at Accurex's sole option when returned to our factory, transportation prepaid. All warranties do not include labor costs associated with troubleshooting, removal, or installation. Accurex will not be liable for any consequential, punitive, or incidental damages resulting from use, repair, or operation of any Accurex product. These warranties are exclusive and are in lieu of all other warranties, whether written, oral, or implied, including the warranty of merchantability and the warranty of fitness for a particular purpose. No person (including any agent or salesperson) has authority to expand Seller's obligation beyond the terms of this warranty, or to state that the performance of the product is other than that published by Seller.

As a result of our commitment to continuous improvement, Accurex reserves the right to change specifications without notice.



Model: GPIP

Pitched 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 - Designed for pitched roofs - Straight sided without a cant - Wood nailer for attachment of roof flashing material - 2 in. mounting flange - 1 in. thick 3 lb density insulation - Height - Available from 12 in. to 24 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.

General

Tag	Qty	Model	Sizing Method	Undersizing (in.)	Pitch (in.)	Pitch Run	Weight (lb)	Shipped Assembled	Union Label
	1	GPIP-31 x 108.5	Nominal	1.5	0.25	Long Side	92	Yes	No Preference

Dimensions

Curb Height (in.)	Nominal Outside Width (in.)	Nominal Outside Length (in.)	Actual Outside Width (in.)	Actual Outside Length (in.)	Flange Width (in.)	Flange Length (in.)
12	31	108.5	29.5	107	33.5	111.02

Accessories

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

Constant Volume

Accurex Kitchen Controls

Standard Construction Features:

Includes control system, Fan Starters (unless otherwise stated), Temperature Sensors, Touchscreen. IMC 507.1.1 compliant. UL/ULC Listed.

Options & Accessories:

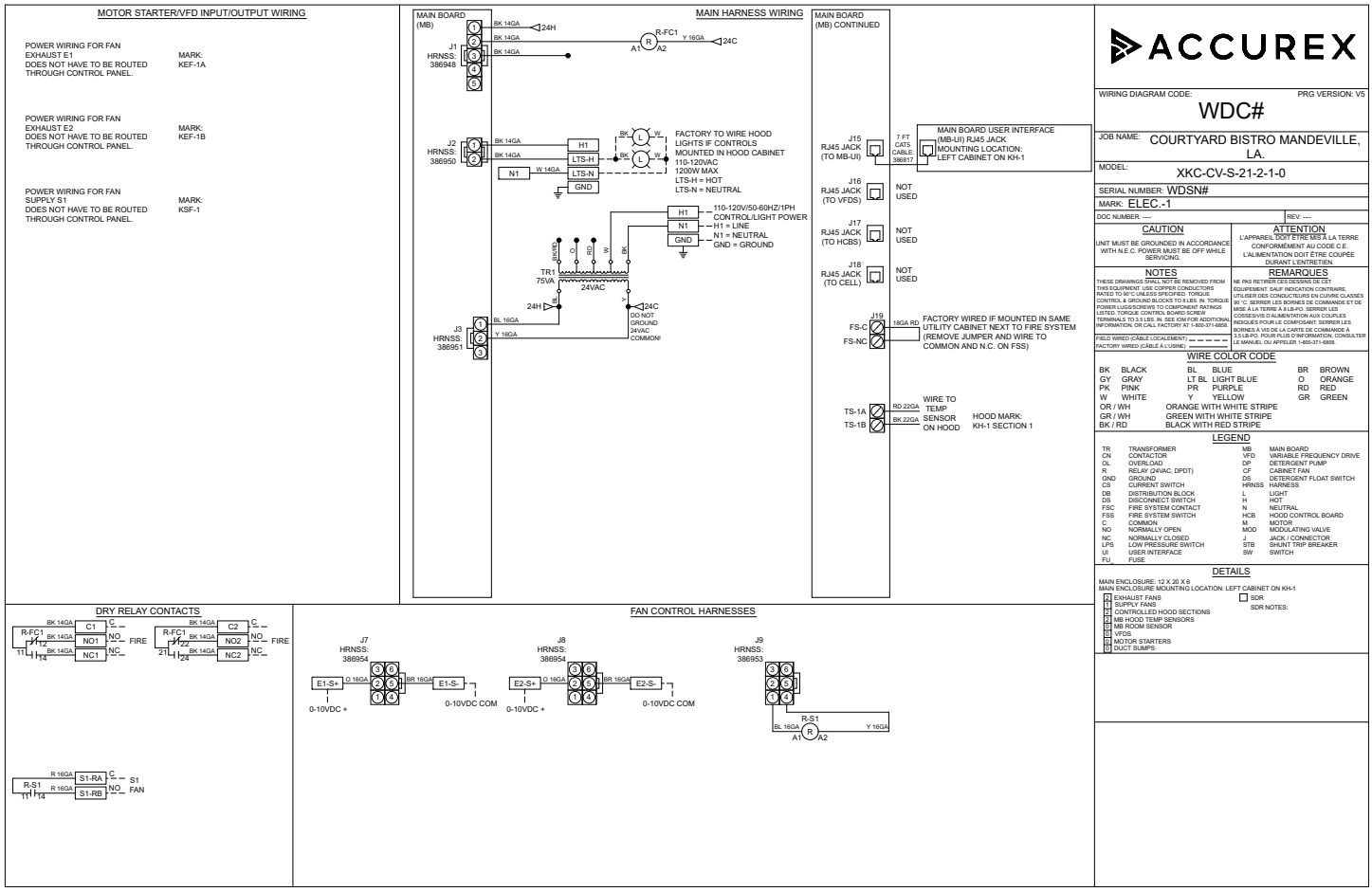
Mounting Option	Left Cabinet on Kh-1
Exhaust Fan Quantity	2
Supply Fan Quantity	1
Hood Light Control	Yes
User Interface	Full Color Touchscreen
Touchscreen Mounting Location	Utility Cabinet - Left End of Hood - Left Cabinet on Kh-1
Additional Fire Contacts	Additional set of dry contacts (2 NO, 2 NC Total)
Exhaust During Fire	Exhaust fans will run at max speed when in fire mode

Controlled Fans:

Fan Mark	Fan Type	Supplied By	Phase	HP	Voltage	NEC FLA	Starter/VFD Required	Starter/VFD Provided
Kef-1A	Exhaust	Manufacturer	1	0.75	208	7.6	No	No
Kef-1B	Exhaust	Manufacturer	1	0.75	208	7.6	No	No
Ksf-1	Supply	Manufacturer	3	2	208	7.5	No	No

Controlled Hood Sections and Fan Relationships:

Kh-1 Section - Number of Sensors = 1	
	Exhaust Fan Name - Kef-1A
	Supply Fan Name - Ksf-1
Kh-1 Section - Number of Sensors = 1	
	Exhaust Fan Name - Kef-1B
	Supply Fan Name - Ksf-1



ACCUREX

WIRING DIAGRAM CODE: WDC# PRG VERSION: V5

JOB NAME: COURTYARD BISTRO MANDEVILLE, LA.

MODEL: XKC-CV-S-21-2-1-0

SERIAL NUMBER: WDSN#

MARK: ELEC.-1

DOC NUMBER: ---- REV: ----

CAUTION

UNIT MUST BE GROUNDED IN ACCORDANCE WITH N.E.C. POWER MUST BE OFF WHILE SERVICING.

ATTENTION

L'APPAREIL DOIT ÊTRE MIS À LA TERRE CONFORMÉMENT AU CODE C.E. L'ALIMENTATION DOIT ÊTRE COUPÉE DURANT L'ENTRETIEN.

NOTES

THESE DRAWINGS SHALL NOT BE REMOVED FROM THIS EQUIPMENT. USE COPPER CONDUCTORS RATED TO 90°C UNLESS SPECIFIED. TORQUE CONTROL & GROUND BLOCKS TO 4 LBS. IN. TORQUE POWER LUGS/SCREWS TO COMPONENT RATINGS LISTED. TORQUE CONTROL BOARD SCREW TERMINALS TO 3.5 LBS. IN. SEE IOM FOR ADDITIONAL INFORMATION, OR CALL FACTORY AT 1-800-371-6858.

FIELD WIRED (CÂBLÉ LOCALEMENT) ——

FACTORY WIRED (CÂBLÉ À L'USINE) - - - -

REMARQUES

NE PAS RETIRER CES DESSINS DE CET ÉQUIPEMENT. SAUF INDICATION CONTRAIRE, UTILISER DES CONDUCTEURS EN CUIVRE CLASSÉS 90 °C. SERRER LES BORNES DE COMMANDE ET DE MISE À LA TERRE À 0 LB-PO. SERRER LES COSSES/VIS D'ALIMENTATION AUX COUPLES INDIQUÉS POUR LE COMPOSANT. SERRER LES BORNES À VIS DE LA CARTE DE COMMANDE À 3.5 LB-PO. POUR PLUS D'INFORMATION, CONSULTER LE MANUEL OU APPELER 1-800-371-6858.

WIRE COLOR CODE

BK	BLACK	BL	BLUE	BR	BROWN
GY	GRAY	LT BL	LIGHT BLUE	O	ORANGE
PK	PINK	PR	PURPLE	RD	RED
W	WHITE	Y	YELLOW	GR	GREEN
OR / WH	ORANGE WITH WHITE STRIPE				
GR / WH	GREEN WITH WHITE STRIPE				
BK / RD	BLACK WITH RED STRIPE				

LEGEND

TR	TRANSFORMER	MB	MAIN BOARD
CN	CONTACTOR	VFD	VARIABLE FREQUENCY DRIVE
OL	OVERLOAD	DP	DETERGENT PUMP
R	RELAY (24VAC, DPDT)	CF	CABINET FAN
GND	GROUND	DS	DETERGENT FLOAT SWITCH
CS	CURRENT SWITCH	HRNSS	HARNESS
DB	DISTRIBUTION BLOCK	L	LIGHT
DS	DISCONNECT SWITCH	H	HOT
FSC	FIRE SYSTEM CONTACT	N	NEUTRAL
FSS	FIRE SYSTEM SWITCH	HCB	HOOD CONTROL BOARD
C	COMMON	M	MOTOR
NO	NORMALLY OPEN	MOD	MODULATING VALVE
NC	NORMALLY CLOSED	J	JACK / CONNECTOR
LPS	LOW PRESSURE SWITCH	STB	SHUNT TRIP BREAKER
UI	USER INTERFACE	SW	SWITCH
FU	FUSE		

DETAILS

MAIN ENCLOSURE: 12 X 20 X 6
MAIN ENCLOSURE MOUNTING LOCATION: LEFT CABINET ON KH-1

- [1] EXHAUST FANS
- [1] SUPPLY FANS
- [2] CONTROLLED HOOD SECTIONS
- [2] MB HOOD TEMP SENSORS
- [1] MB ROOM SENSOR
- [1] VFDS
- [6] MOTOR STARTERS
- [1] DUCT SUMPS

☐ SDR

SDR NOTES:

ACCUREX

DOC NUMBER: ---- REV: ----

CAUTION
UNIT MUST BE GROUNDED IN ACCORDANCE WITH N.E.C. POWER MUST BE OFF WHILE SERVICING.

ATTENTION
L'APPAREIL DOIT ÊTRE MIS À LA TERRE CONFORMÉMENT AU CODE C.E. L'ALIMENTATION DOIT ÊTRE COUPÉE DURANT L'ENTRETIEN.

43BM

COMMERCIAL APPLIANCE OUTLET CENTER
ELECTRICAL RATINGS: 110-240V,1PHASE, 50 -60HZ,15A
BASE FILE #E200616, ML FILE #E313951

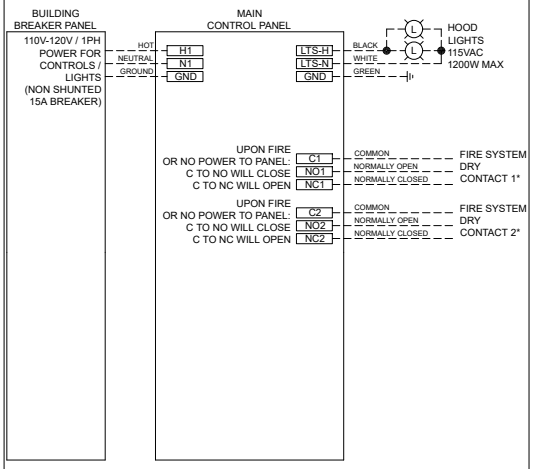
THESE DRAWINGS SHALL NOT BE REMOVED FROM THIS EQUIPMENT. USE COPPER CONDUCTORS RATED TO 90°C UNLESS SPECIFIED. TORQUE CONTROL & GROUND BLOCKS TO 8 LBS. IN. TORQUE POWER LUGS/SCREWS TO COMPONENT RATINGS LISTED. TORQUE CONTROL BOARD SCREW TERMINALS TO 3.5 LBS. IN. FIELD CONTROL WIRING RESISTANCE SHOULD NOT EXCEED 0.75 OHM. SEE IOM FOR ADDITIONAL INFORMATION, OR CALL FACTORY AT 1-800-371-6858.

PRG VERSION: V5
FIELD WIRED (CÂBLÉ LOCALEMENT)
FACTORY WIRED (CÂBLÉ À L'USINE)

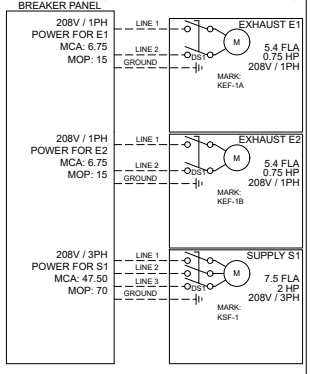
NE PAS RETIRER CES DESSINS DE CET ÉQUIPEMENT. SAUF INDICATION CONTRAIRE, UTILISER DES CONDUCTEURS EN CUIVRE CLASSÉS 90 °C. SERRER LES BORNES DE COMMANDE ET DE MISE À LA TERRE À 8 LB-PO. SERRER LES COSSES/VIS D'ALIMENTATION AUX COUPLES INDIQUÉS POUR LE COMPOSANT. SERRER LES BORNES À VIS DE LA CARTE DE COMMANDE À 3,5 LB-PO. LA RÉSISTANCE DU CÂBLAGE DE COMMANDE LOCAL NE DOIT PAS DÉPASSER 0,75 OHM. POUR PLUS D'INFORMATION, CONSULTER LE MANUEL OU APPELER 1-800-371-6858

WIRING DIAGRAM CODE: WDC#
JOB NAME: COURTYARD BISTRO MANDEVILLE, LA.
MODEL: XKC-CV-S-21-2-1-0
SERIAL NUMBER: WDSN#
MARK: ELEC.-1

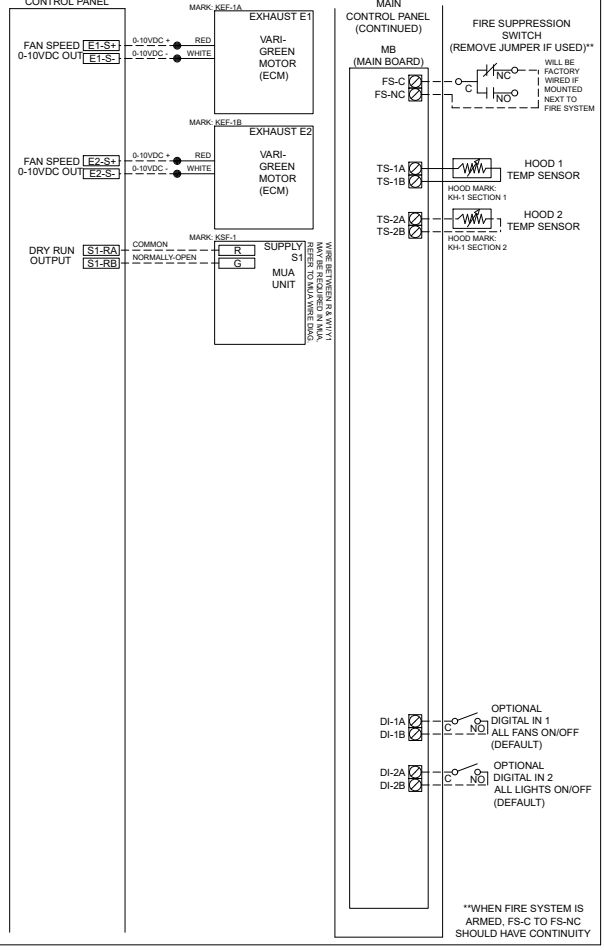
POWER WIRING FOR KITCHEN CONTROLS
(WIRING TO BE DONE BY ELECTRICIAN)



POWER WIRING FROM BREAKER PANEL DIRECT TO FANS
(WIRING TO BE DONE BY ELECTRICIAN)



CONTROL WIRING FOR KITCHEN CONTROLS
(WIRING TO BE DONE BY ELECTRICIAN, IF NO CONTROLS CONTRACTOR. USE 18-22GA WIRE UNLESS SPECIFIED.)



*FIRE SYSTEM DRY CONTACT WIRING EXAMPLES

DO NOT USE CONTACTS FOR PROVIDING SIGNALS TO BUILDING FIRE ALARM. DRY CONTACTS SWITCH STATE DURING POWER LOSS TO PANEL.