Job Name:	
Tag#	

Submittal Data Sheet

FTK12AXVJU / RK12AXVJU

1-Ton Wall Mounted Cooling Only System

Complete warranty details available from your local dealer or at www.daikincomfort.com. To receive the 12-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Quebec. If product is installed in a commercial application, limited warranty period is 5 years.

Efficiency

Cooling	
SEER	19
EER	12.5

Performance

Cooling (Btu/hr)	
Rated (Min/Max)	10,900 (4,400 / 13,300)
Sensible @ AHRI	9,090
Moisture Removal gal/h	.19
Standard Operating Range	50°F – 115°F
Extended Operating Range*	-4°F – 115°F

Rated Cooling Conditions: Indoor: 80°F DB/67°F WB
Outdoor: 95°F DB/75°F WB

***With field settings and wind baffle**

Indoor Specifications

Airflow Rate (cfm)	**Cooling**	
	H	**M**
	436	316
	L	**SL**
	247	132
Sound (dBA) H / M / L / SL	45 / 37 / 31 / 19	
Dimensions (H × W × D) (in)	11-1/3 × 30-29/32 × 9-27/32	
Weight (Lbs)	22	

Electrical

	208/60/1	230/60/1
System MCA	7.8	7.8
System MFA	15.0	15.0
Compressor RLA	7.5	7.5
Outdoor fan motor FLA	.47	.47
Outdoor fan motor W	41	41
Indoor fan motor FLA	.36	.36
Indoor fan motor W	38	38

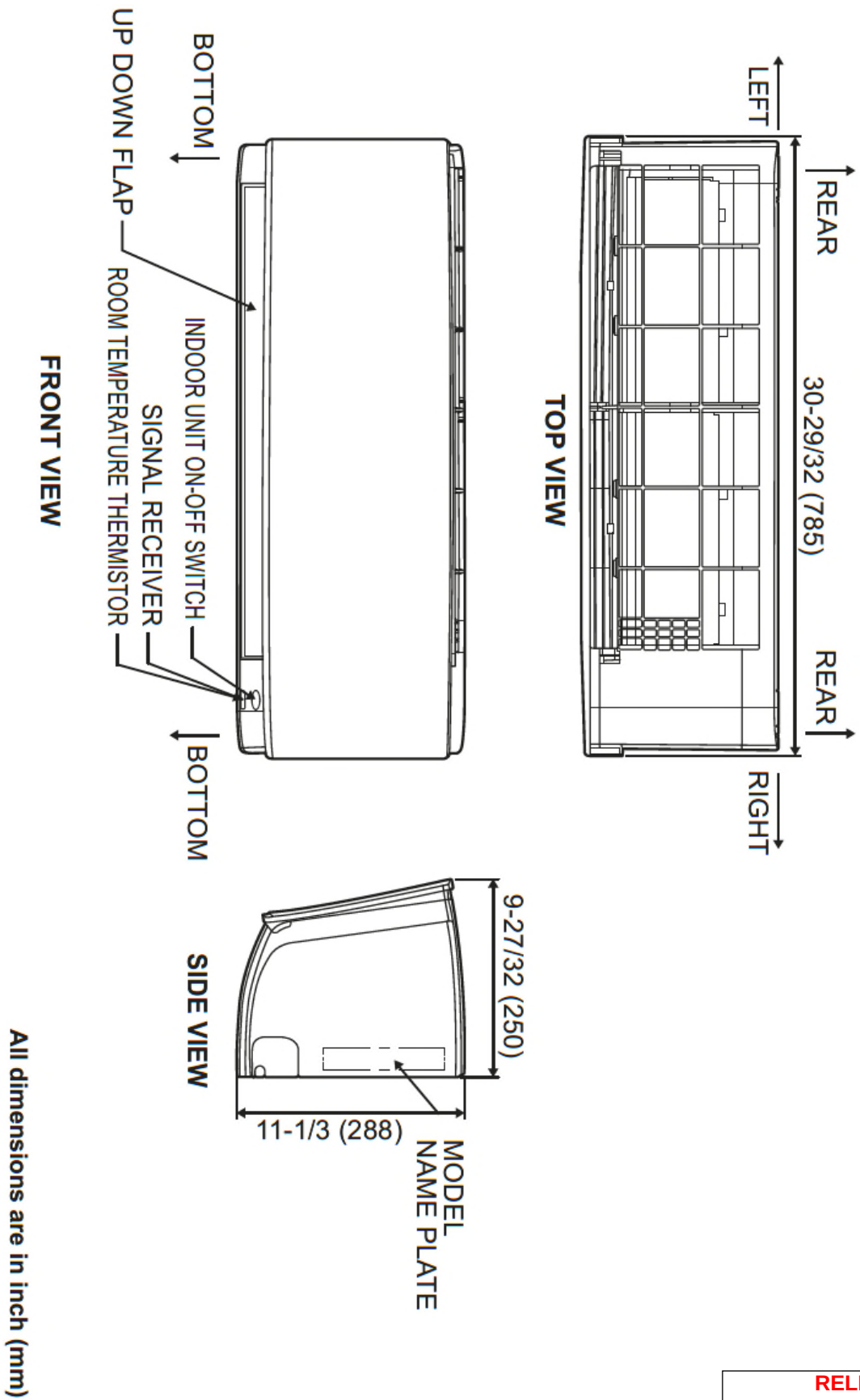
MFA: Max. fuse amps **MCA**: Min. circuit amps (A) **FLA**: Full load amps (A)
RLA: Rated load amps (A) **W**: Fan motor rated output (W)

Outdoor Specifications

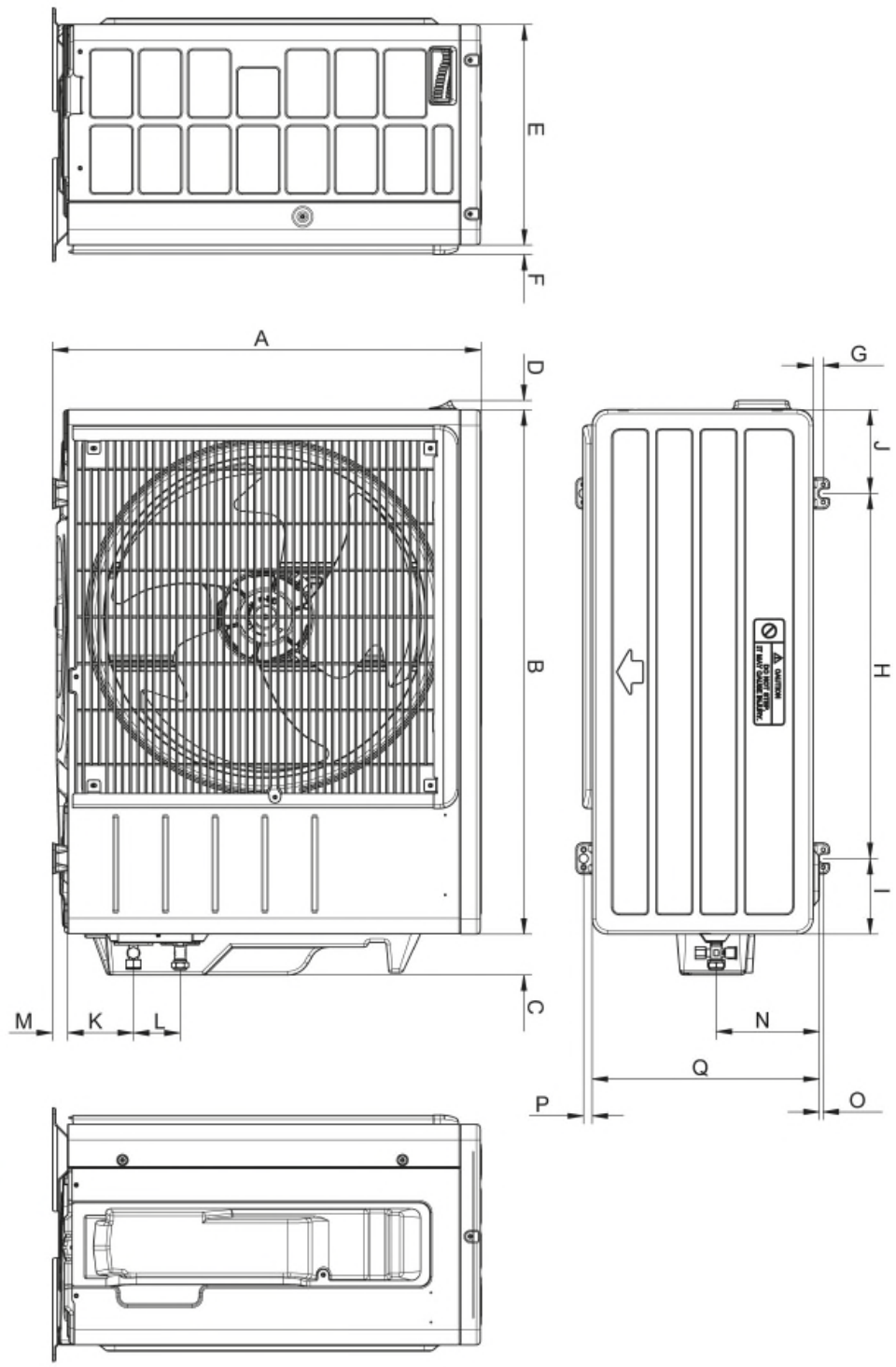
Compressor	Hermetically Sealed Swing Type	
Refrigerant	R-410A	
Factory Charge (Lbs)	2.09	
Refrigerant Oil	PVE (FVC50K)	
Airflow Rate (cfm)	**Cooling**	
	H	1,051
Sound Pressure Level (dBA)	49	
Dimensions (H × W × D) (in)	21-11/16 × 26-1/2 × 11-3/16	
Weight (Lbs)	62	

Piping

Liquid (in)	1/4
Gas (in)	3/8
Drain (in)	3/4
Max. Interunit Piping Length (ft)	65.625
Max. Interunit Height Difference (ft)	49.25
Chargeless (ft)	32.8
Additional Charge of Refrigerant (oz/ft)	.21



Model / Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
09/12	21-11/16 (550)	26-1/2 (675)	2-1/16 (53)	15/32 (12)	11-3/16 (284)	15/32 (12)	1/2 (13)	18-1/2 (470)	3-13/16 (97)	4-1/4 (108)	3-3/8 (86)	2-3/8 (60)	25/32 (20)	5-1/4 (133)	3/16 (5)	7/16 (11)	11-1/2 (292)



All dimensions are in inch (mm)

Optional Accessories

Indoor Unit		
Included	**Part Number**	**Description**
	BRP072A43	Wireless Interface Adaptor
	AZAI6WSCDKB	DKN Residential Cloud Wi-Fi Adaptor for Single- and Multi-Zone System (S21)
	BRC944B2-A08	Wired Remote Controller kit
	BRCW901A08	Wired Remote Controller Cable – 25ft (Included in above kit)
	BRCW901A03	Wired Remote Controller Cable – 10ft
	DACA-CP1-1	Inline Condensate Pump (Fits inside all Daikin wall & floor mount units)
	DACA-CP4-1	External Condensate Pump

Outdoor Unit		
Included	**Part Number**	**Description**
	DACA-WB-1	Powder-Coated Wall-Mounted Bracket
	KPW937F4	Air direction adjustment grille (09 & 12)
	KKG067A41	Back protection wire net (09 & 12)

Job Name:	
Tag#	

Submittal Data Sheet

FTK24AXVJU / RK24AXVJU

2-Ton Wall Mounted Cooling Only System

* 12 YEAR PARTS LIMITED WARRANTY

Complete warranty details available from your local dealer or at www.daikincomfort.com. To receive the 12-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Quebec. If product is installed in a commercial application, limited warranty period is 5 years.

Efficiency

Cooling	
SEER	19
EER	12.2

Performance

Cooling (Btu/hr)	
Rated (Min/Max)	21,200 (5,500 / 24,000)
Sensible @ AHRI	15,670
Moisture Removal gal/h	0.67
Standard Operating Range	50°F – 115°F
Extended Operating Range*	-4°F – 115°F

Rated Cooling Conditions: Indoor: 80°F DB/67°F WB
Outdoor: 95°F DB/75°F WB

***With field settings and wind baffle**

Indoor Specifications

	Cooling	
Airflow Rate (cfm)	**H**	**M**
	716	605
	L	**SL**
	467	395
Sound (dBA) H / M / L / SL	53 / 45 / 39 / 34	
Dimensions (H × W × D) (in)	11-11/16 × 39-1/2 × 11-1/3	
Weight (Lbs)	31	

Electrical

	208/60/1	230/60/1
System MCA	13.4	13.4
System MFA	20.0	20.0
Compressor RLA	13.0	13.0
Outdoor fan motor FLA	1.0	1.0
Outdoor fan motor W	128	128
Indoor fan motor FLA	.50	.50
Indoor fan motor W	35	35

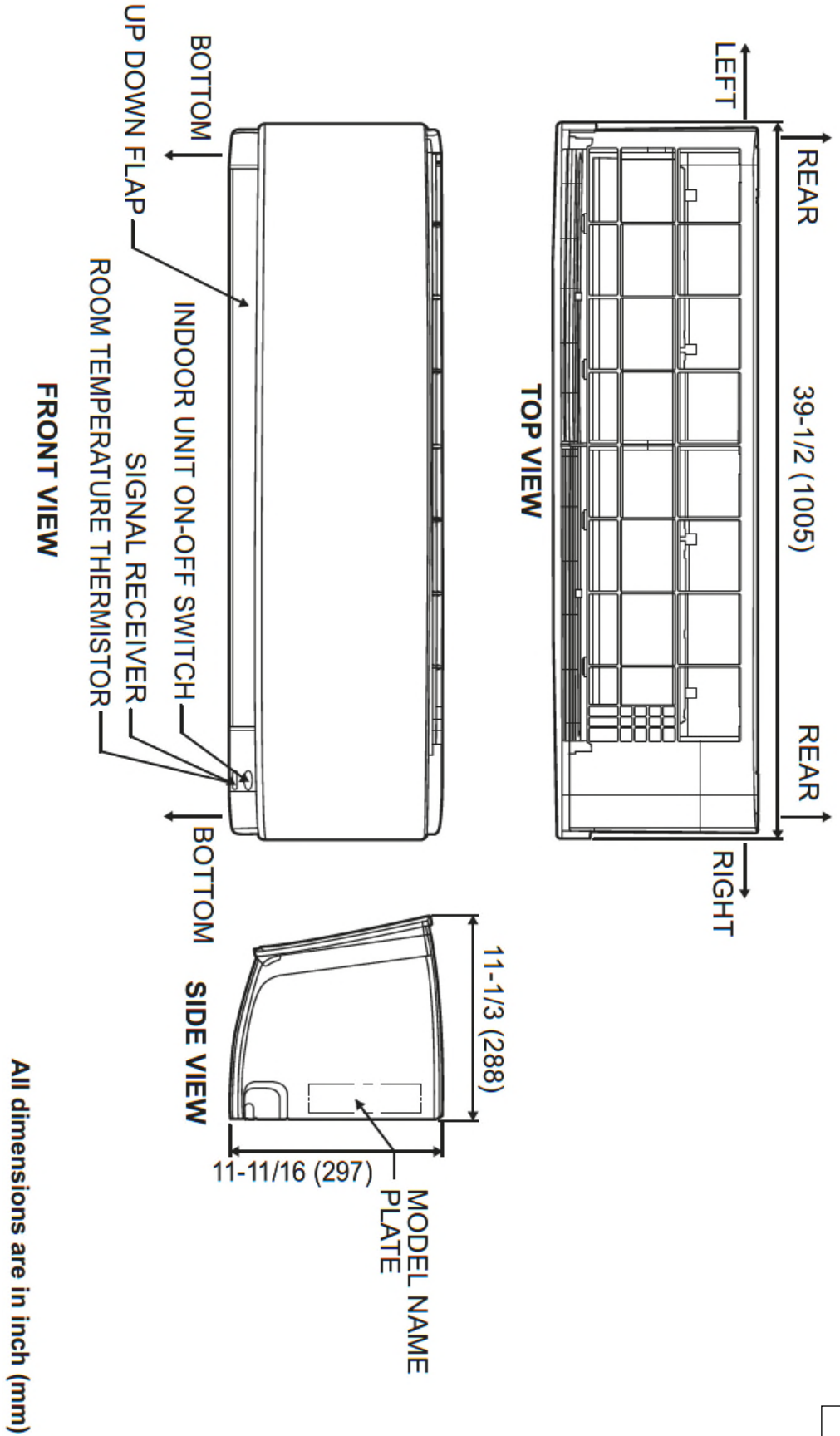
MFA: Max. fuse amps **MCA**: Min. circuit amps (A) **FLA**: Full load amps (A)
RLA: Rated load amps (A) **W**: Fan motor rated output (W)

Outdoor Specifications

Compressor	Hermetically Sealed Swing Type	
Refrigerant	R-410A	
Factory Charge (Lbs)	3.86	
Refrigerant Oil	PVE (FVC50K)	
Airflow Rate (cfm)	**Cooling**	
	H	1,908
Sound Pressure Level (dBA)	55	
Dimensions (H × W × D) (in)	27-13/32 × 36-5/8 × 13-13/16	
Weight (Lbs)	106	

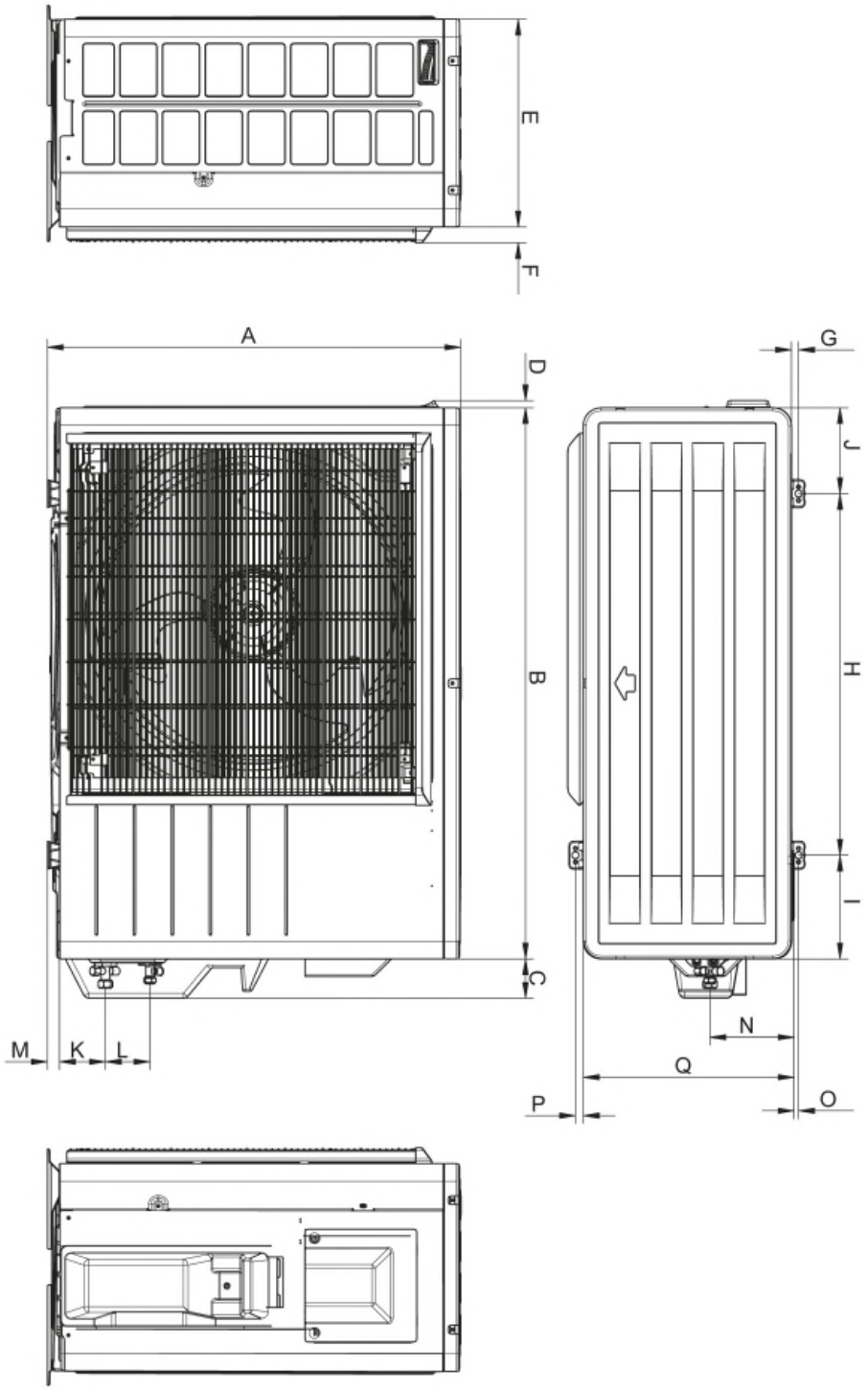
Piping

Liquid (in)	1/4
Gas (in)	5/8
Drain (in)	3/4
Max. Interunit Piping Length (ft)	98.4
Max. Interunit Height Difference (ft)	65.625
Chargeless (ft)	32.8
Additional Charge of Refrigerant (oz/ft)	.21



RK24AXVJU Dimensional Data

Model / Dimension	18/24
A	27-13/32 (696)
B	36-5/8 (930)
C	2-19/32 (66)
D	15/32 (12)
E	13-13/16 (351)
F	1-1/16 (27)
G	15/32 (12)
H	24 (610)
I	6-7/8 (175)
J	5-23/32 (145)
K	3-1/32 (77)
L	2-31/32 (75)
M	13/16 (21)
N	5-19/32 (142)
O	5/16 (8)
P	17/32 (13)
Q	13-31/32 (355)



All dimensions are in inch (mm)

Optional Accessories

Indoor Unit		
Included	**Part Number**	**Description**
	BRP072A43	Wireless Interface Adaptor
	AZAI6WSCDKB	DKN Residential Cloud Wi-Fi Adaptor for Single- and Multi-Zone System (S21)
	BRC944B2-A08	Wired Remote Controller kit
	BRCW901A08	Wired Remote Controller Cable – 25ft (Included in above kit)
	BRCW901A03	Wired Remote Controller Cable – 10ft
	DACA-CP1-1	Inline Condensate Pump (Fits inside all Daikin wall & floor mount units)
	DACA-CP4-1	External Condensate Pump

Outdoor Unit		
Included	**Part Number**	**Description**
	DACA-WB-1	Powder-Coated Wall-Mounted Bracket
	KPW063B4E	Air Adjustment Grille

Technical Data Sheet for CH 4 330ton Screw

Job Information	*Technical Data Sheet*
Job Name	LSSD Lees Summit HS Remodel
Date	10/9/2020
Submitted By	John Duckworth
Software Version	11.21
Unit Tag	CH 4 330ton Screw

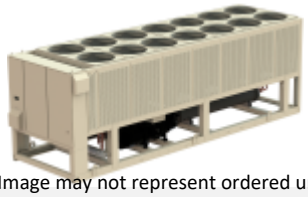


Image may not represent ordered unit

Unit Overview

Model Number	Capacity ton	Voltage	Unit Starter Type	ASHRAE 90.1	LEED Enhanced Refrigerant Management Credit
AWV020B	329.5	460 V / 60 Hz / 3 Ph	VFD	'07, '10, '13 & '16	Pass

Unit

Unit Type	Platform	Unit Revision
Air-Cooled Screw Compressor Chiller	Packaged	0A

Head Pressure	Tubing
DC Fan Motors / All Fan VFD	No Liquid Solenoid Valves & No Suction Shut-off Valves

Display
On Controller only

Compressor	Refrigerant Economizer
MJN	None

Refrigerant Type	Refrigerant Weight
R134a	445 lb (per unit)

Approval
ETL/cETL, AHRI & ASHRAE 90.1

Evaporator

Evaporator Model:	EV6633A1507
Water Volume:	224.8 gal
Connection Hand:	Grooved / Left Hand
Connection Size:	10.0 in
Insulation:	Single Layer Insulation on Evaporator

Entering Fluid Temperature	Leaving Fluid Temperature	Fluid Type	Fluid Flow	Fluid Flow Min / Max	Pressure Drop	Pressure Drop Min / Max	Fouling Factor
59.00 °F	45.00 °F	Water	563.8 gpm	336.4/ 1329.7 gpm	6.70 ft H_2O	2.70 / 30.4 ft H_2O	0.000100 °F.ft².h/Btu

Note: Evaporator Pressure Drop does not include a strainer. Minimum flow is based on a Variable Flow Pumping System Type and applies to part load conditions only.

Condenser

Number of Fans:	20
Coil Fins:	MicroChannel
Guards:	Condenser Coil Louvers & Base Frame Wire Grilles

Design Ambient Air Temperature	Altitude	Fan Diameter	Minimum Design Ambient Temperature
100.0 °F	0.000 ft	31.5 in	0.0 °F

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/14/2021

Technical Data Sheet for CH 4 330ton Screw

Unit Performance

Design

Capacity	Input Power	Efficiency (EER)	IPLV.IP* (EER)
329.5 ton	436.3 kW	9.063 Btu/W.h	20.08 Btu/W.h

Performance Points rated at AHRI Ambient Relief

Unit							Evaporator				Condenser	
Point #	% Load	Capacity ton	Input Power kW	Efficiency (EER) Btu/W.h	Refrigerant Economizer Status #1; #2	Compressor RPS #1; #2	Fluid Flow gpm	Pressure Drop ft H_2O	Entering Fluid °F	Leaving Fluid °F	Ambient Air °F	Altitude ft
1	100.0	329.5	436.3	9.063	N/A	86; 86	563.8	6.70	59.00	45.00	100.0	0.000
2	75.0	247.1	205.6	14.42	N/A	54; 59	563.8	6.70	55.50	45.00	83.1	0.000
3	50.0	164.8	86.27	22.92	N/A	32; 36	563.8	6.70	52.00	45.00	66.3	0.000
4	25.0	82.38	33.26	29.72	N/A	16; 20	563.8	6.70	48.50	45.00	55.0	0.000

** IPLV reflects AHRI standard rating conditions with water and may change with user defined conditions due to AWV product optimized configurability.*

Sound Data (Internal Discharge Compressor Muffler)

Sound Pressure (*at 30 feet*)

% Load	63 Hz db	125 Hz db	250 Hz db	500 Hz db	1 kHz db	2 kHz db	4 kHz db	8 kHz db	Overall dBA
100	75	71	68	69	69	71	61	49	75
75	75	71	72	71	66	62	55	45	72
50	75	71	67	67	63	56	51	43	68
25	71	65	61	63	57	47	43	35	63

Sound Power

% Load	63 Hz db	125 Hz db	250 Hz db	500 Hz db	1 kHz db	2 kHz db	4 kHz db	8 kHz db	Overall dBA
100	102	98	95	96	96	98	88	76	102
75	102	98	99	98	93	89	82	73	100
50	102	98	94	94	90	83	78	70	95
25	98	92	88	90	84	74	70	62	90

One-third Octave Band Sound Power

% Load	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.15 kHz	4 kHz	5 kHz	6.3 kHz	8 kHz	10 kHz
100	101	95	91	93	92	94	90	90	88	89	92	91	88	94	90	96	91	87	86	82	79	75	69	62
75	101	95	91	93	92	94	90	91	97	89	90	97	88	87	90	87	83	80	80	76	73	71	65	59
50	101	95	92	93	92	93	90	90	88	88	89	91	88	83	85	81	78	75	75	72	70	68	63	57
25	97	91	88	89	87	87	84	83	82	82	85	87	83	74	76	71	68	66	67	64	61	60	56	51

Octave band is non 'A' weighted and overall readings are 'A' weighted. Sound data rated in accordance with AHRI Standard-370.

Physical

Unit

Length*	Height	Width*	Shipping Weight*	Operating Weight*
410 in	100 in	88 in	20858 lb	22778 lb

**Shipping and Operating Weights include the below Option weights only and do not include the weights of any Accessories. Contact Chiller Applications for additional information.*

Option Weights

Louvers:	1325 lb
Total:	1325 lb

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01/14/2021

Technical Data Sheet for CH 4 330ton Screw

Electrical

Unit Electrical Data

Voltage	Starter Type	Fan Motor Quantity	LRA Fan Motor (each)	FLA Fan Motors (each)
460 V / 60 Hz / 3 Ph	VFD	20	4 A	2.6 A

Power Connection Type:	Single Point Disconnect Switch with Circuit Protection
Short Circuit Current Rating:	10 kA
Drive Type(#1;#2):	CIMR-AU4A0515;CIMR-AU4A0414
Phase Voltage:	None (PVM included as part of Solid State / VFD)

Single Point Power Connection

Minimum Circuit Ampacity (MCA):	709 A
Recommended Overcurrent Protection Size:	800 A
Maximum Overcurrent Protection Size(MOCP):	1000 A
Lug Connection Size:	(3) 2/0-400MCM

Compressor Electrical Data

Compressor Type	Compressor Quantity	Starter Type
Screw	2	VFD

	Compressor #	
	1	2
Rated Load Amps (RLA):	341 A	222 A
Inrush Current:	341 A	222 A

Options

Control

Communication:	BACnet MS/TP

Electrical

Unit Options:	115V Convenience Outlet
Water Flow Indicator:	Thermal Dispersion Type

Warranty

Unit Startup	Domestic
Standard Warranty:	1st Year Entire Unit Parts & Labor

AHRI Certification

Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI). Certified units may be found in the AHRI Directory at www.ahridirectory.org

RELEASE FOR CONSTRUCTION
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LEE'S SUMMIT, MISSOURI
01/14/2021

Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

Prepared Date: 10/9/2020

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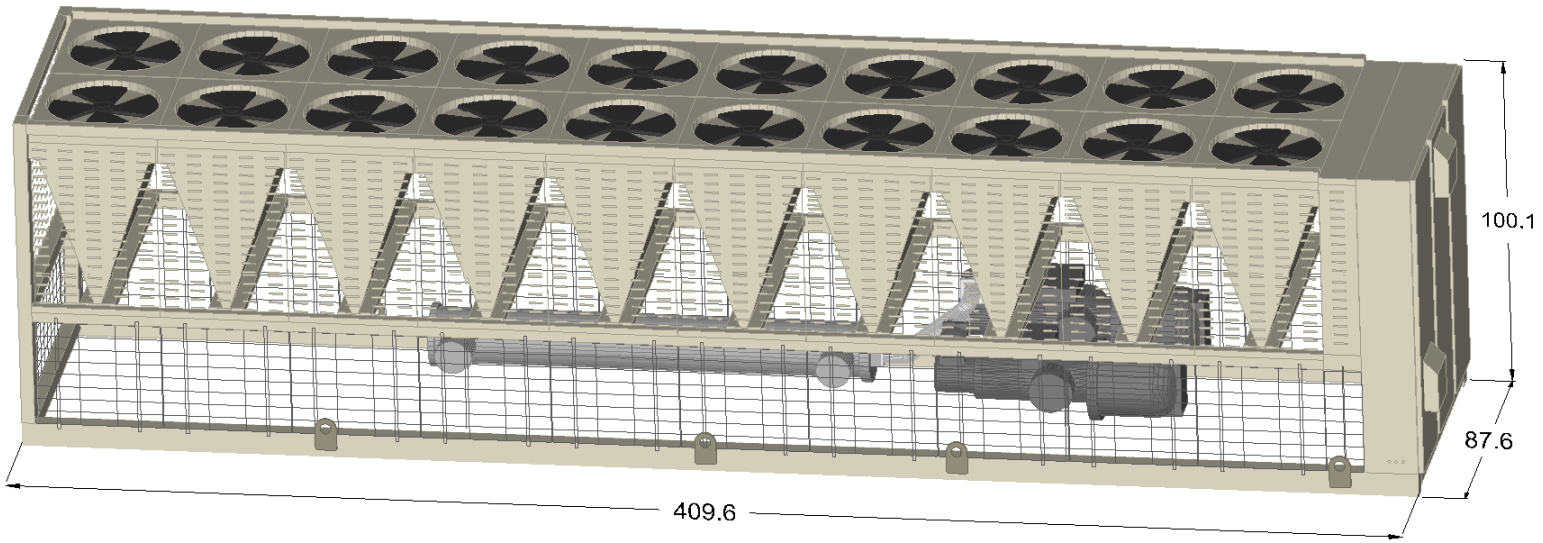
Drawings Unit Profile for CH 4 330ton Screw



NOTE: A water strainer must be installed at the inlet of the evaporator to protect it from damage. Please refer to the IOM for additional details.

Product Drawing	Unit Tag: CH 4 330ton Screw			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: AWV020B	Oct. 09, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: (in)	

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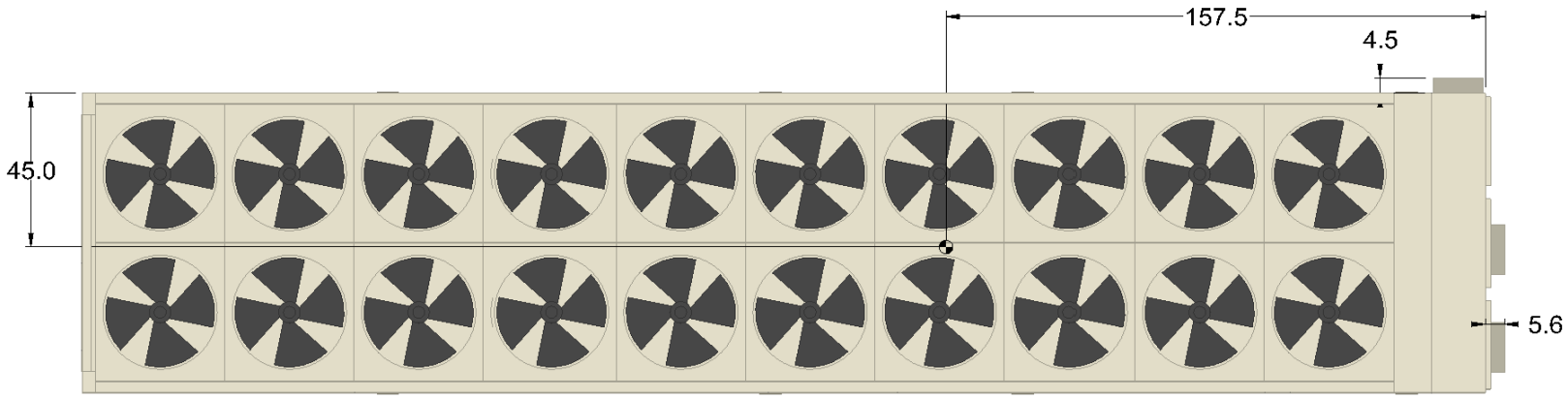
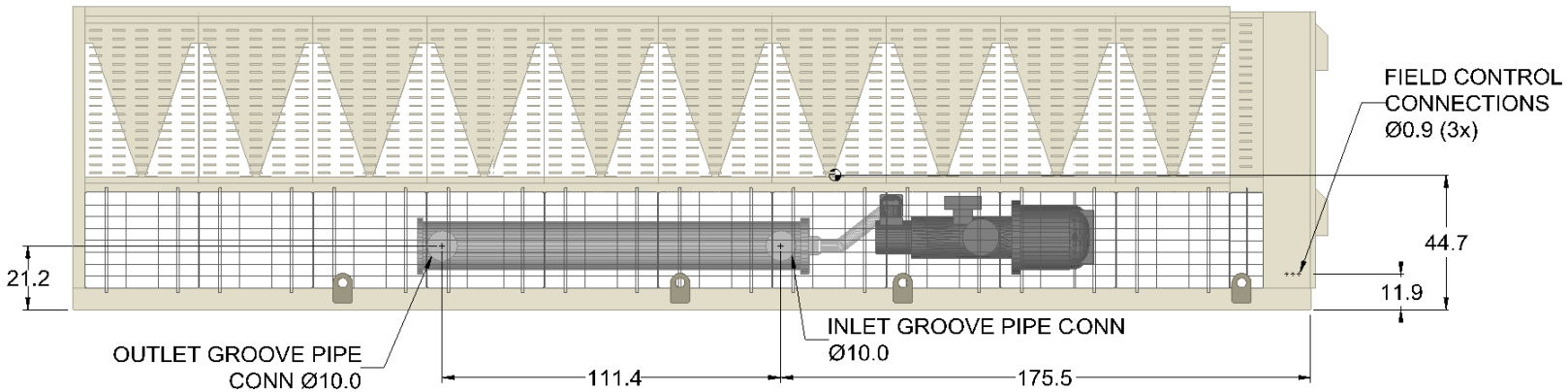
TOP VIEW





LEFT VIEW

Product Drawing	Unit Tag: CH 4 330ton Screw			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: AWV020B	Oct. 09, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: (in)	

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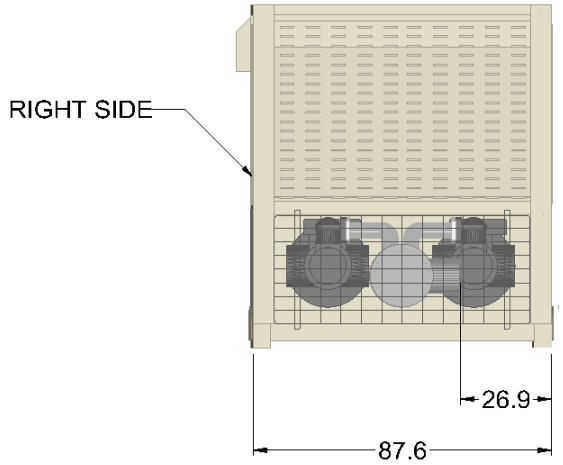
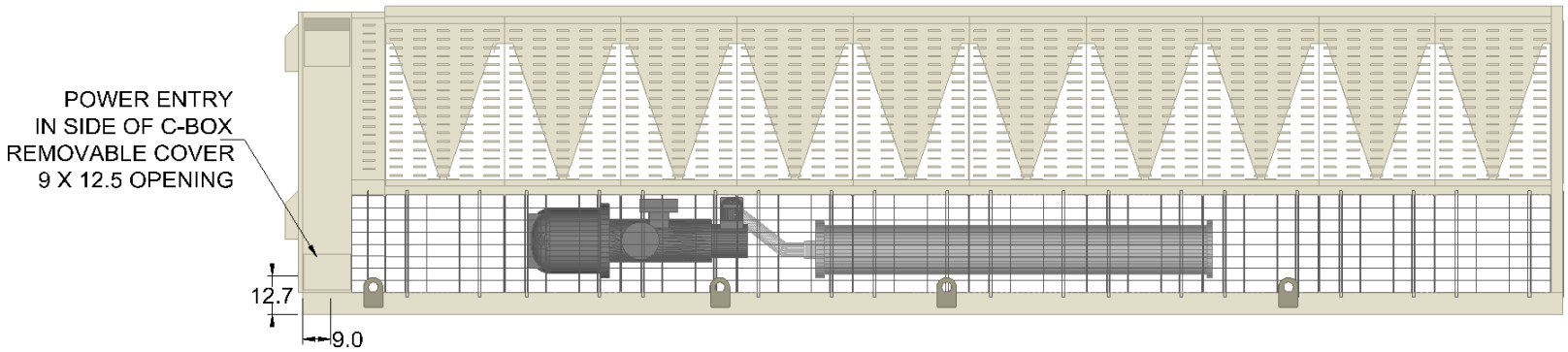
Software Version: 11.21

Drawings Rear and Right for CH 4 330ton Screw

REAR VIEW





RIGHT VIEW

Product Drawing	Unit Tag: CH 4 330ton Screw			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: AWV020B	Oct. 09, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: (in)	

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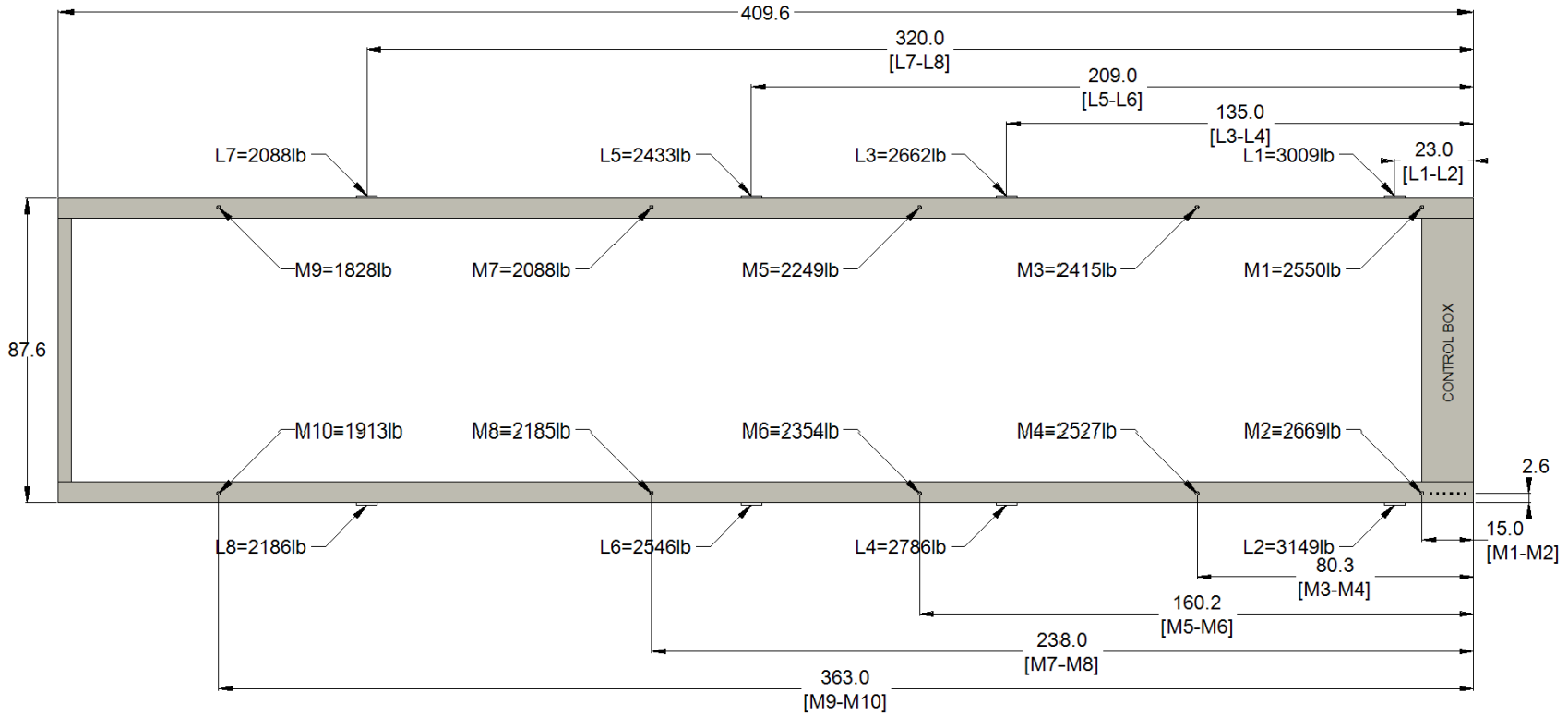
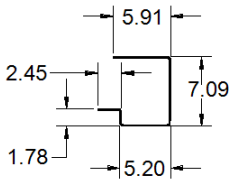
Mounting and Lifting

BASE FRAME TOP VIEW



NOTES:
1) L = LIFTING WEIGHT
2) M = MOUNTING LOAD
3) UNIT SHIPPING WEIGHT = 20858lb
4) UNIT OPERATING WEIGHT = 22778lb
5) MOUNTING HOLE SIZE = .75"
6) MOUNTING HOLES ONLY ON BOTTOM OF BASE
7) UNIT WIDTH DIMENSION DOES NOT INCLUDE 1 INCH THICKNESS OF THE LIFTING LUG ASSEMBLIES ON BOTH SIDES, WHICH MAY BE REMOVED AFTER INSTALLATION

Base Rail
Cross Section



Drawings Mounting and Lifting for CH 4 330ton Screw

Product Drawing	Unit Tag: CH 4 330ton Screw			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: AWV020B	Oct. 09, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: (in)	

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01/14/2021

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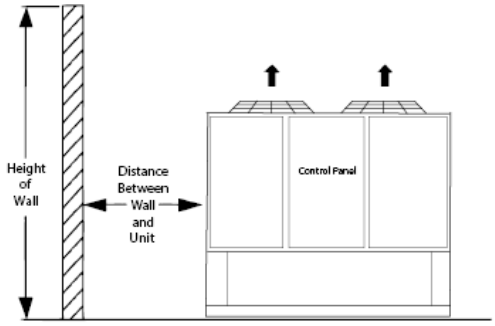
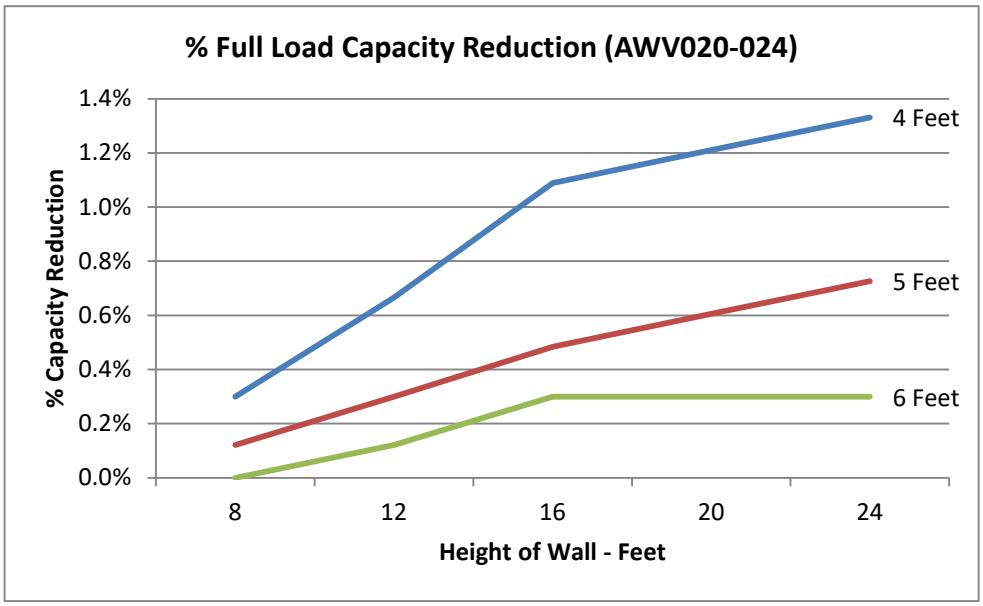
AWV Close Spacing Performance

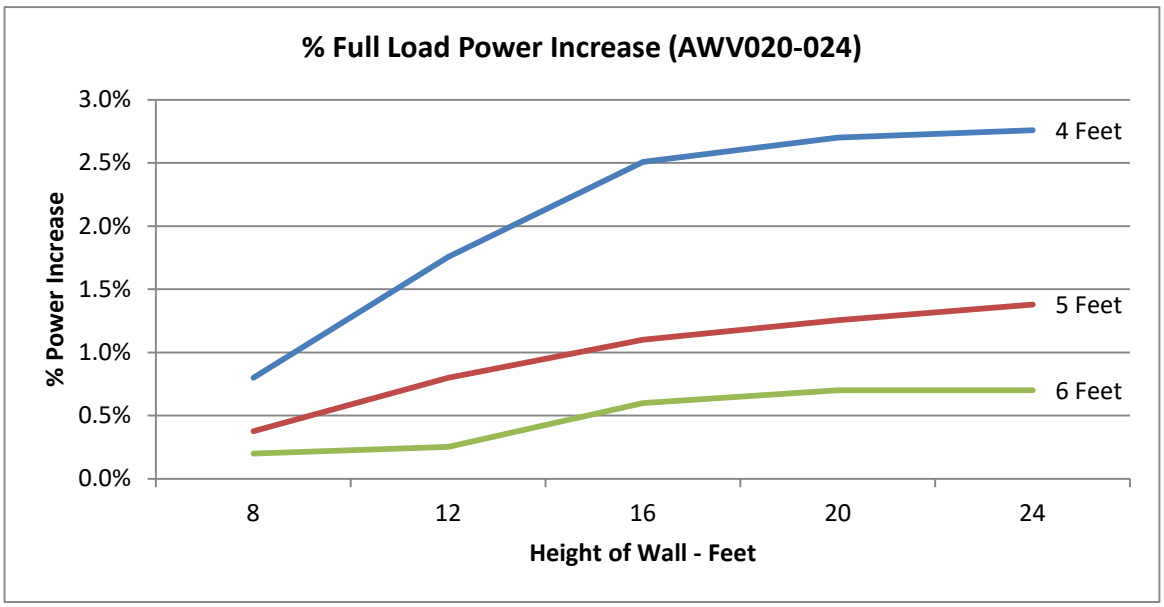
Case 1: Building or Wall on One Side of Unit

For all models, maintain a 4 feet minimum from a wall of any height; however, performance may be affected at this distance due to air recirculation and elevated condenser pressure.



Case 1- Full Load Power Increase and Capacity Reduction





Product Drawing	Unit Tag: CH 4 330ton Screw				
Product: Air-Cooled Screw Chiller	Project Name: LSSD Lees Summit HS				
Model: AWV-A	Sales Office: Daikin TMI LLC (Kansas City)				
Sales Engineer: John Duckworth	Oct. 09, 2020	Ver/Rev:	Sheet 1 of 1	Scale: NTS	Tolerance: +/- 1x0 | Dwg Units: in [mm]

DAIKIN
13600 Industrial Park Blvd, Minneapolis, MN 55441
www.DaikinApplied.com Software version: 11.21

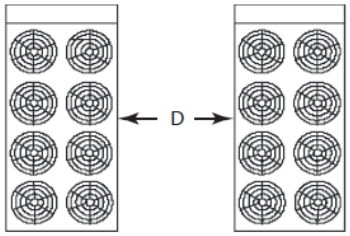
Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

Prepared Date: 10/9/2020

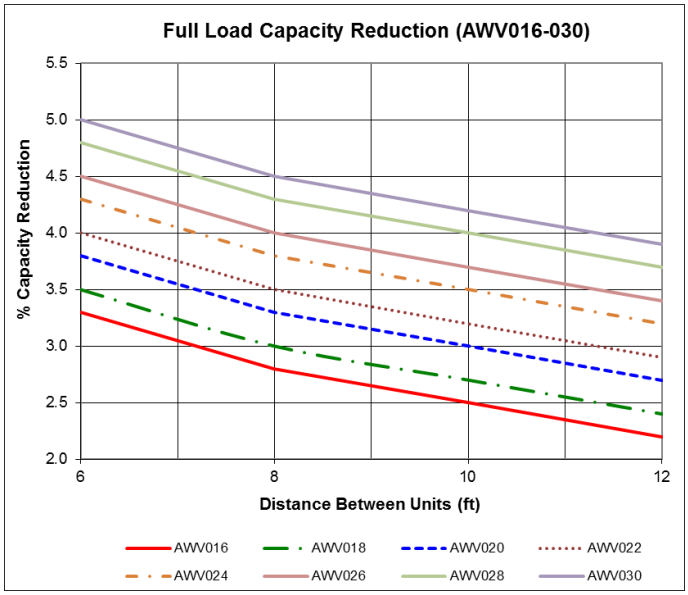
AWVA_Spacing_020-024_Drawing for CH 4 330ton Screw

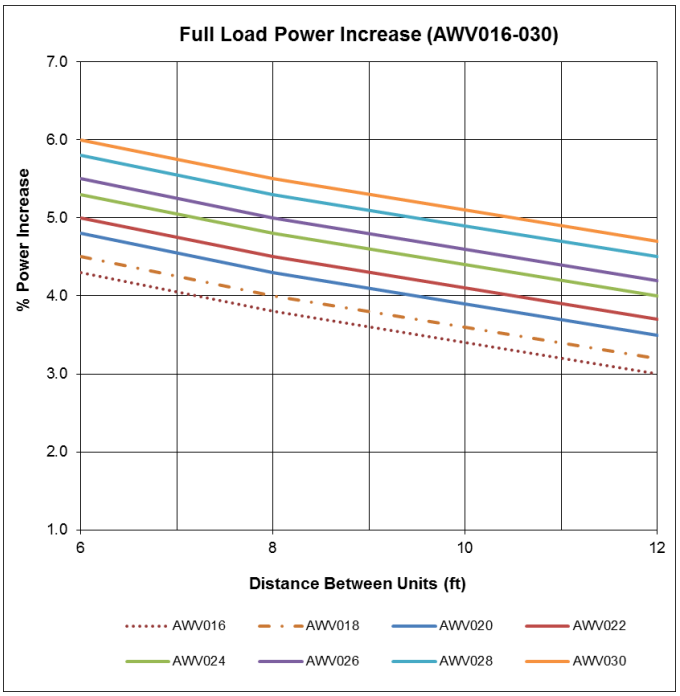
Case 2: Two Units, Side-by-Side

For all models, there must be a minimum of 6 feet between two units placed side-by-side; however, performance may be affected at this distance due to air recirculation and elevated condenser pressure.



Case 2 - Full Load Capacity Reduction and Power Increase





Case 3: Three or More Units, Side-by-Side

For all models, there must be a minimum of 8 feet between any units placed side-by-side; however, performance may be affected at this distance.

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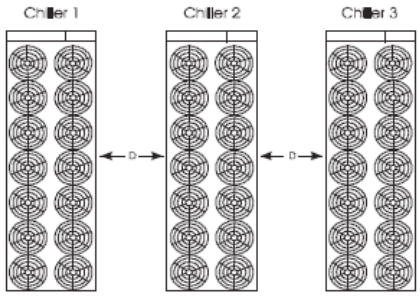
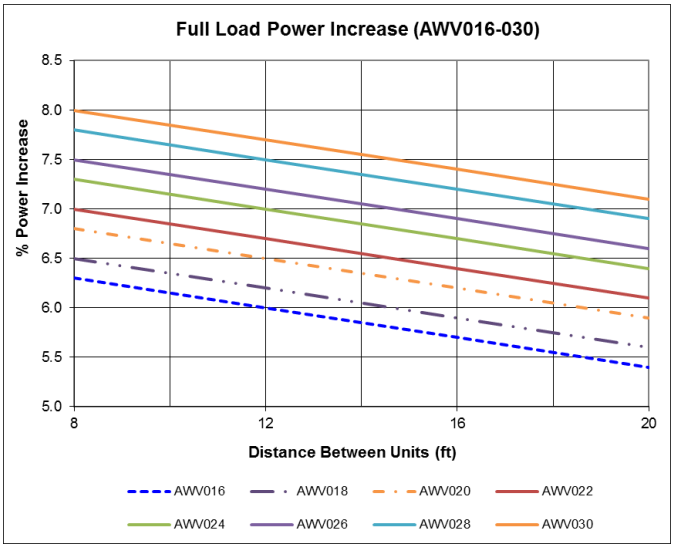
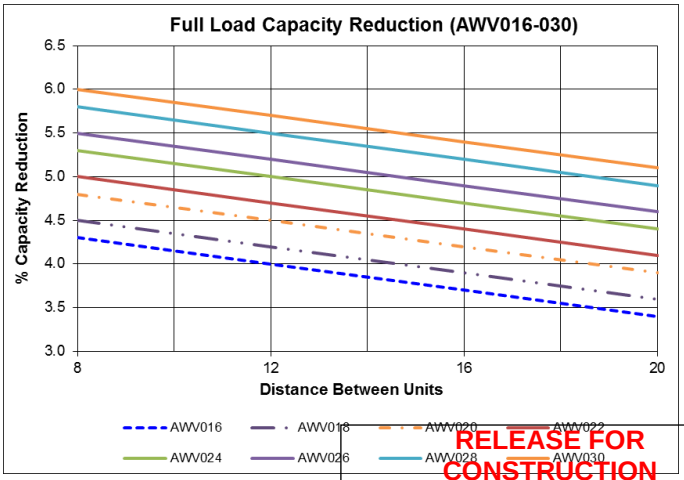


Case 3 - Full Load Capacity Reduction and Power Increase





RELEASE FOR CONSTRUCTION
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LEE'S SUMMIT, MISSOURI
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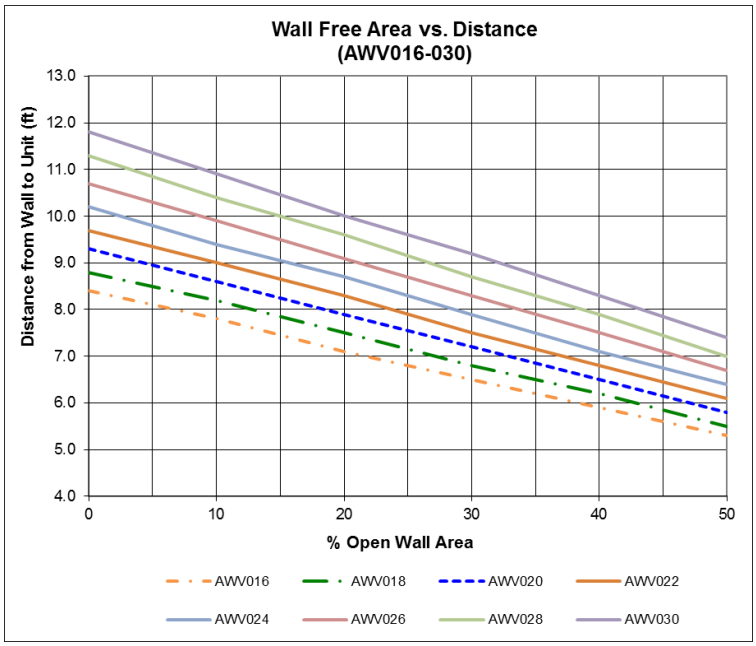
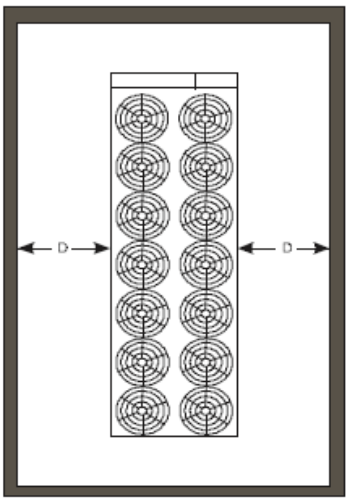
AWVA_Spacing_020-024_Drawing for CH 4 330ton Screw

Case 4: Open Screening Walls

Decorative screening walls are often used to help conceal a unit either on grade or on a rooftop. When possible, design these walls such that the combination of their open area and distance from the unit do not require performance adjustment. If the wall opening percentage is less than recommended for the distance to the unit, it should be considered as a solid wall. It is assumed that the wall height is equal to or less than the unit height when mounted on its base support. If the wall height is greater than the unit height, see Case 5: Pit Installation. The distance from the sides of the unit to the side walls must be sufficient for service, such as opening control panel doors. For uneven wall spacing, the distance from the unit to each wall can be averaged providing no distance is less than 4 feet. Values are based on walls on all four-sides.



Case 4 - Allowable Wall Open Area

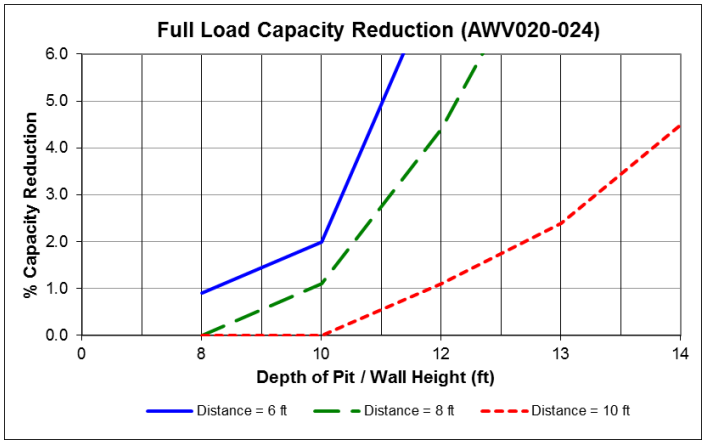


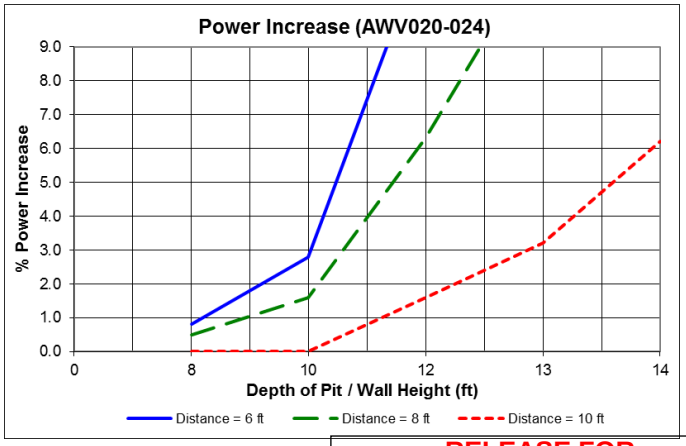
Case *5: Pit Installation*

Pit installations can cause operating problems resulting from air recirculation and restriction and require care that sufficient air clearance is provided, safety requirements are met and service access is provided. A solid wall surrounding a unit is substantially a pit and this data should be used. Derates are based on single chiller installation only.

Steel grating is sometimes used to cover a pit to prevent accidental falls or trips into the pit. The grating material and installation design must be strong enough to prevent such accidents, yet provide abundant open area to avoid recirculation problems. Have any pit installation reviewed by the Daikin Applied sales representative prior to installation to ensure it has sufficient air-flow characteristics and approved by the installation design engineer to avoid risk of accident.

Case 5 - Full Load Capacity Reduction and Power Increase





AWV-A Service Clearance

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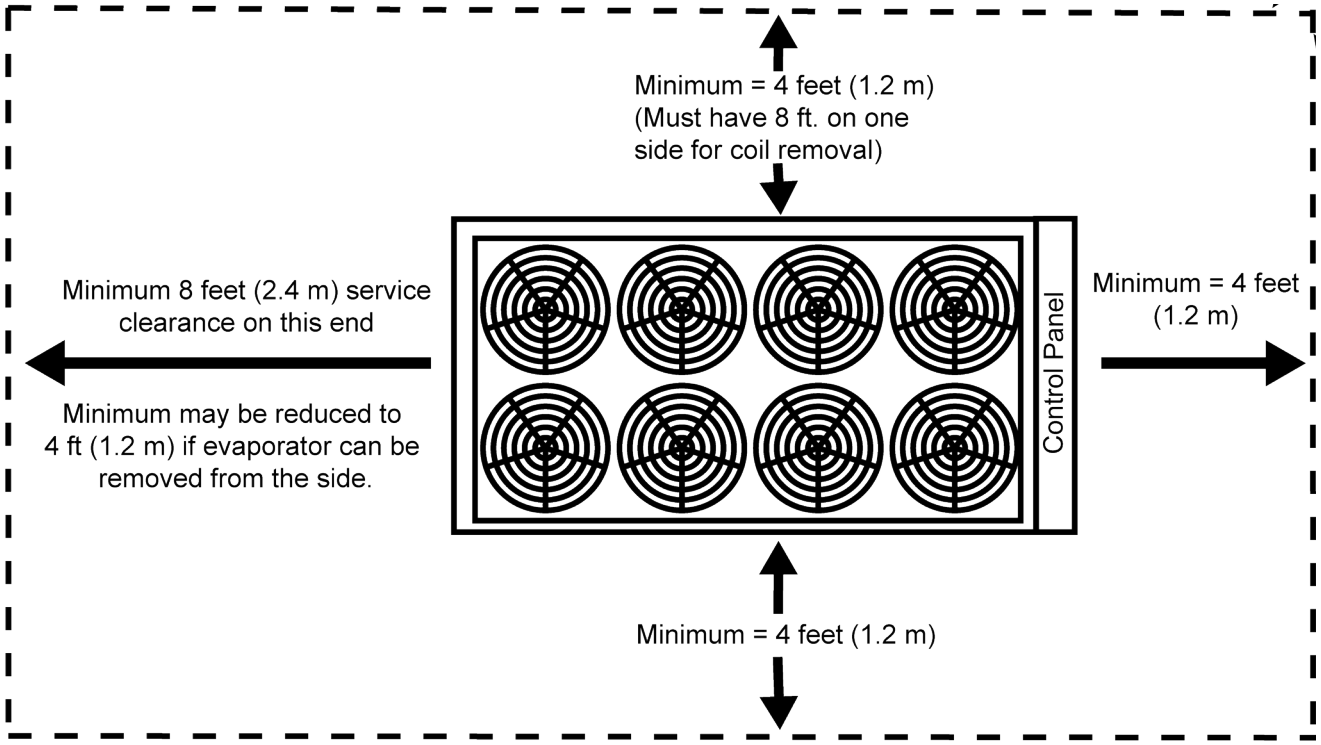

*NOTE: Additional clearance may be required for proper airflow. Please consult Close Spacing drawings and IOM for additional details.

Product Drawing	Unit Tag: CH 4 330ton Screw				
Product: Air-Cooled Screw Chiller	Project Name: LSSD Lees Summit HS				
Model: AWV-A	Sales Office: Daikin TMI LLC (Kansas City)				
Sales Engineer: John Duckworth	Oct. 09, 2020	Ver/Rev:	Sheet 1 of 1	Scale: NTS	Tolerance: +/- 1x0 Dwg Units: in [mm]

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Document Summary Page

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

01/14/2021

SUBMITTAL DATA

for

LSSD Lees Summit HS Remodel

Prepared for

Henderson Engineers

Job Number: 8XB73N	Customer PO#:

Prepared by

David Duckworth

11/16/2020

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/14/2021

Table of Contents

Technical Data Sheet for RTU - A8

Job Information	*Technical Data Sheet*
Job Name	LSSD Lees Summit HS Remodel
Date	11/16/2020
Submitted By	John Duckworth
Software Version	08.51
Unit Tag	RTU - A8

Unit Overview

Model Number	Voltage V/Hz/Phase	Design Cooling Capacity UOM_OSelected_CoilTotal	EER@95/75 EAT & 200 CFM/ton		ASHRAE 90.1
			EER	IEER	
DPS010A	460/60/3	113759	12.1	Not Applicable	ASHRAE 90.1-2016 compliant

Unit

Model Number:	DPS010A
Model Type:	Cooling
Heat Type:	Gas
Hot Gas Reheat:	MHGRH with Duct Humidity Sensor
Energy Recovery:	ERW-Med Cab-Econ: 2835 cfm max, 100% OA: 5145 cfm max
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech III
Outside Air:	100% Outside Air
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height	Width	Weight
111.0 in	56.8 in	96.5 in	2718 lb

Corner Weights

L1	L2	L3	L4
455 lb	440 lb	897 lb	927 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
20.5 A	22.5 A	30 A	5 kAIC
Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.		

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Technical Data Sheet for RTU - A8

Return/Outside/Exhaust Air

Outside Air Option

Type	Damper Pressure Drop	Exhaust Air Type
None	0.09 inH_2O	Powered, Modulating with Building Pressure Control

Exhaust Fan

Type	Drive Type	Wheel Diameter
SWSI AF	Direct Drive	14 in

Motor

(Qty) Horsepower	Type	Efficiency	Full Load Current (Each)
(1) 2.3 HP	ECM	Premium	2.3 A

Performance

Air Flow CFM	External Static Pressure inH_2O	Fan Speed RPM	Brake Horsepower HP
2700	1.00	2332	1.32

Energy Recovery

Design OA Volume	Design Exhaust Volume	Wheel Pressure Drop	Motor HP	Motor FLA
2750 CFM	2700 CFM	0.62 inH_2O	0.17 HP	0.4 A

Summer Conditions

Temperature								Recovered Capacity Btu/hr	Effectiveness	
Outside Air		Return Air		Wheel Leaving		Mixed Air			Total	Sensible
Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F			
96.4	74.7	75.0	63.0	81.1	67.0	81.1	67.0	77401	0.67	0.70

Winter Conditions

Temperature								Recovered Capacity Btu/hr	Effectiveness	
Outside Air		Return Air		Wheel Leaving		Mixed Air			Total	Sensible
Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F			
0.0	-1.0	68.0	48.0	46.5	35.4	46.5	35.4	157375	0.69	0.70

Bypass Damper: No

Energy Recovery Filters

Efficiency	Quantity/Size		Face Area		Face Velocity		Air Pressure Drop	
	Outdoor	Exhaust	Outdoor ft^2	Exhaust ft^2	Outdoor ft/min	Exhaust ft/min	Outdoor inH_2O	Exhaust inH_2O
2 in. MERV 8	(3) 18 in. X 24 in.	(3) 18 in. X 24 in.	9.0	9.0	305.6	300.0	0.11	0.11

Combined Efficiency Factor

Application Specific CEF: 13.8

Filter Section

Physical

Type	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop
Combo 2"/4" rack with 2" MERV 8	6 / 18 in x 24 in x 2 in	18.0 ft^2	152.8 ft/min	0.05

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Technical Data Sheet for RTU - A8

DX Cooling Coil

Physical

Coil Type	Refrigerant Type	Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material
Cu Tube/ Al Fin	R410A	15	4	15.4 ft^2	178.2 ft/min	0.15 inH_2O	Stainless Steel

Cooling Performance

Capacity			Indoor Air Temperature					Ambient air Temperature °F
			Entering		Leaving			
Total Btu/hr	Sensible Btu/hr	Moisture Removal lb/h	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dewpoint °F	
113759	82048	27.3	81.1	67.0	53.8	53.5	53.2	100.0

Condensate Connection Size: 3/4 in. Male NPT

Hot Gas Reheat Coil Section

Type	Face Area	Air Pressure Drop	Total Capacity	Leaving Air Temperature	
				Dry Bulb	Wet Bulb
Aluminum Tube Micro-Channel	14.6 ft^2	0.03 inH_2O	54173 Btu/hr	72.0 °F	60.3 °F

Fan Section

Fan

Type	Fan Wheel Diameter	Fan Isolation
SWSI AF	16 in	None

Performance

Airflow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
2750 CFM	2.6 inH_2O	2023 rpm	1.69 HP	0 ft

Motor

Type	Horsepower	Efficiency	FLA	Drive Type
ECM Motor	4.0	Premium	4.0 A	Direct Drive

Gas Heat Section

Physical

Airflow	Max Allowable Burner Temp Rise	Size	Connection (Qty) Size	Heat Exchanger Material
2750 CFM	100.0 °F	300 MBH	(1) 0.75 in. Female NPT	Stainless Steel

Performance

Capacity Btu/hr	Air Temperature Dry Bulb		Air Pressure Drop inH_2O	Gas Pressure		Modulation
	Entering °F	Leaving °F		Minimum inH_2O	Maximum inH_2O	
240000	0.0	80.4	0.12	7	14	Modulating 10:1 Turndown

Unit Discharge Conditions

AirTemperature

Motor Heat Btu/hr	Moisture Removal lb/h	Unit Leaving Dry Bulb °F	Unit Leaving Wet Bulb °F	Unit Leaving Dewpoint °F
5319	27.3	55.6	54.1	53.2

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Technical Data Sheet for RTU - A8

Condensing Section

Compressor

Type	Quantity	Refrigerant Charge lb	Total Power	Capacity Control	Compressor Isolation
Inverter Scroll + Fixed Scroll	2	25.8	8.59 kW	Mod Control with Inverter Compressors	Rubber in Shear

Compressor Amps:

Compressor 1	4.5 A
Compressor 2	7.9 A

Condenser Coil

Type	Fins per Inch	Fin Material
Aluminum Microchannel	23	Aluminum

Condenser Fan Motors

Number of Motors	Full Load Current (Total)
2	1.8 A

Internal Pressure Drop Calculation

External Static Pressure:	1.00 inH_2O
Filter:	0.05 inH_2O
Dirty Filter:	0.40 inH_2O
Outside Air:	0.09 inH_2O
Energy Recovery:	0.73 inH_2O
DX Coil:	0.15 inH_2O
Hot Gas Reheat:	0.03 inH_2O
Gas Heat:	0.12 inH_2O
Total Static Pressure:	2.57 inH_2O

Sound

Sound Power (db)

Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	74	72	80	75	77	71	66	60
Discharge	74	75	83	80	83	77	74	68
Radiated	85	85	81	78	76	71	64	57

Options

Electrical

Field Connection:	Non-Fused Disconnect Switch
Powered Receptacle:	Field powered 115V GFI outlet
Power Options:	Phase Failure Monitor

Factory Installed Sensors

- Leaving Coil/Entering Fan Temperature Sensor
- Duct High Limit Switch
- Return Air Temperature Sensor
- Discharge Air Temperature sensor – Wired in unit, mounted in supply duct
- Outside Air Temperature Sensor
- Dirty Filter On/Off Switch
- Supply Fan Air Proving Via Modbus
- Building Static Pressure Sensor
- Supply Leaving Wheel Temperature Sensor
- Exhaust Leaving Wheel Temperature Sensor

Technical Data Sheet for RTU - A8

Warranty	
Parts:	Standard One Year
Compressor:	Standard One Year
Gas Heat Exchanger:	Standard one Year

Notes

Accessories

Mandatory	
Part Number	**Description**
910190890	HUMIDITY SENSOR, DUCT MOUNTED, 0-5VDC

Optional	
Part Number	**Description**
910134603	14" Roof Curb, W/ERW, Size 007-015

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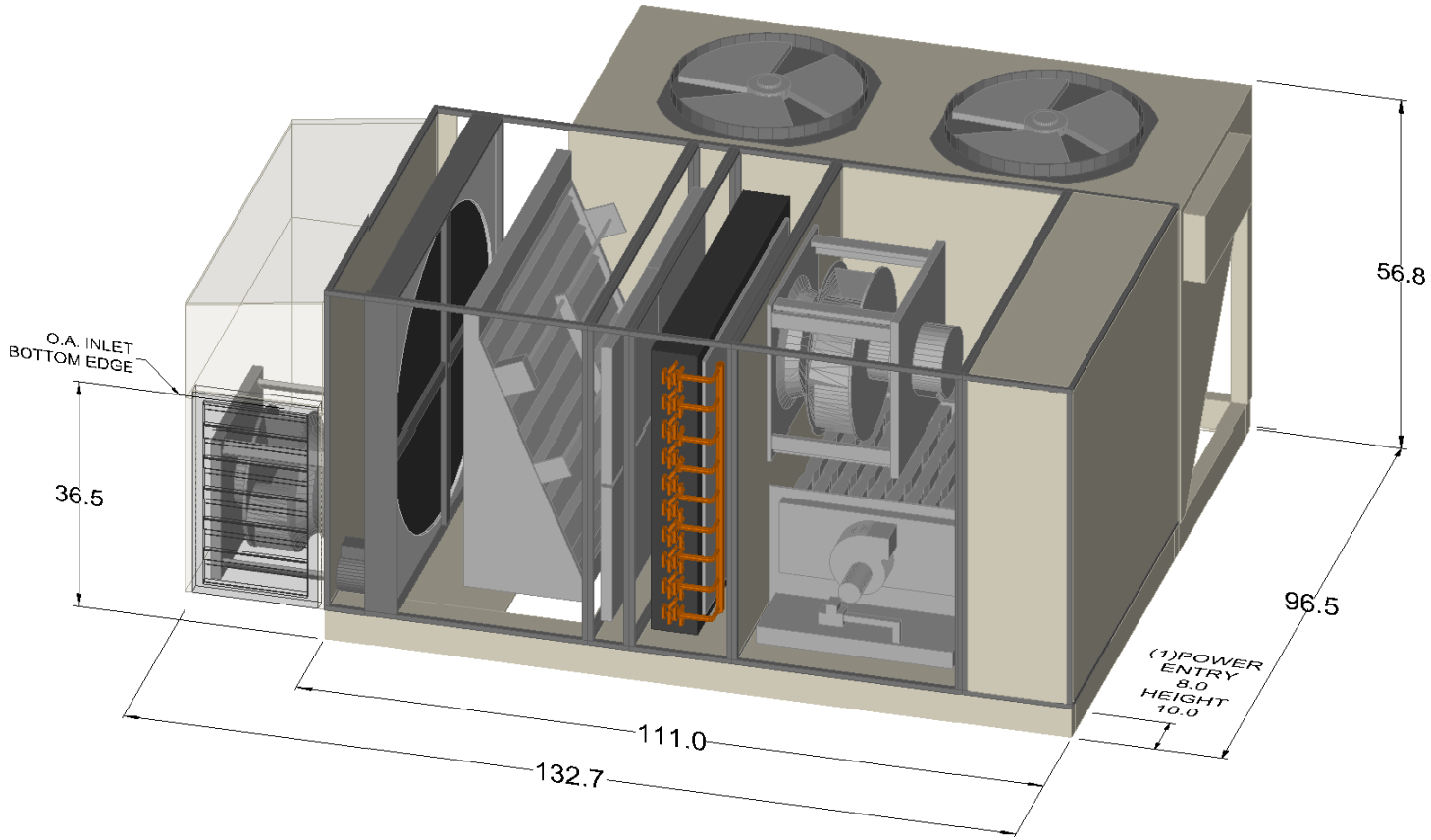

Notes:
(1) Recommended location for optional field cut side power connection.
(2) Horizontal gas connection only. Gas pipe routing within the roofcurb is not available.

Product Drawing	Unit Tag: RTU - A8			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: DPS010A	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25”	Dwg Units: in [mm]	

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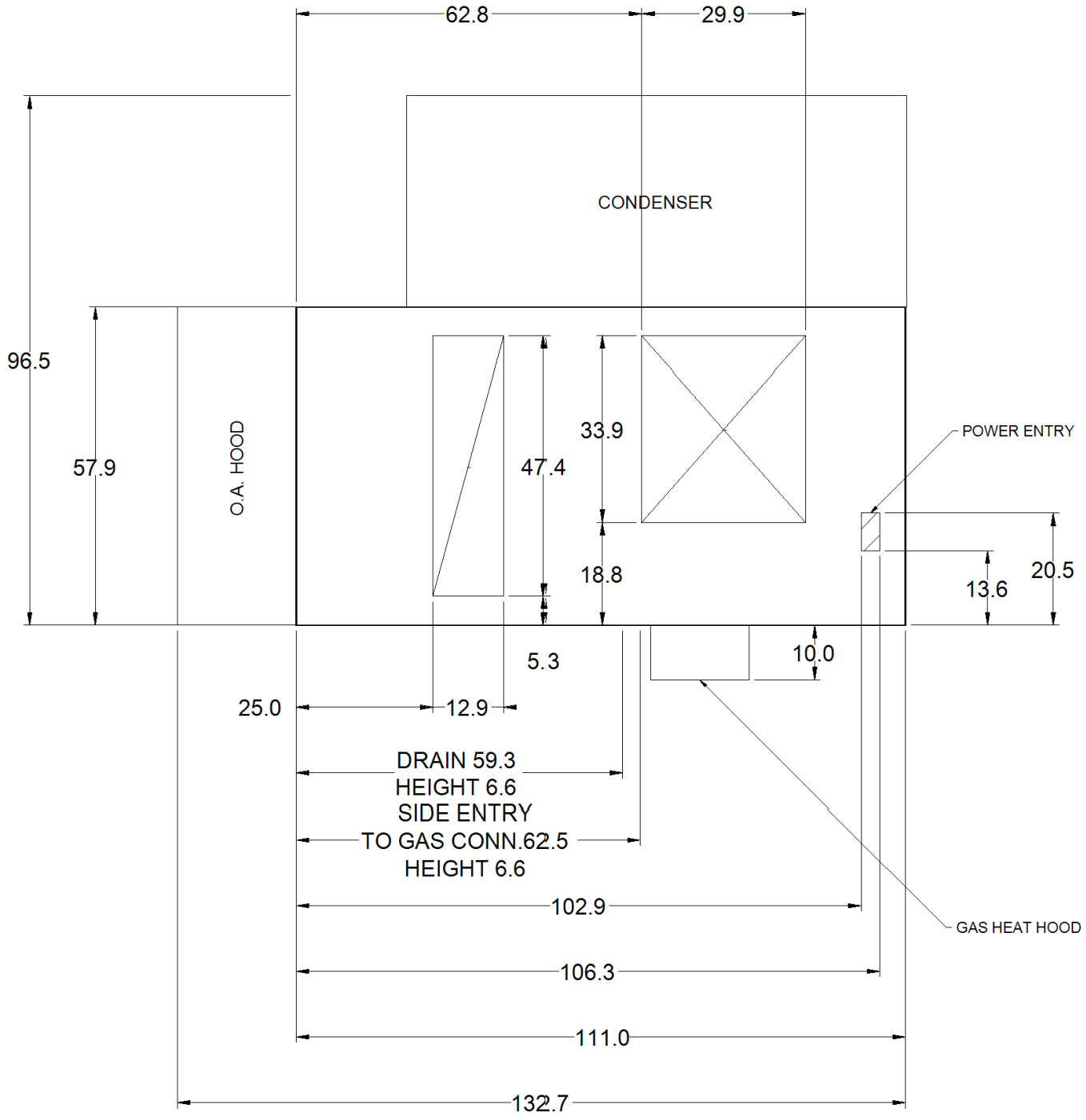
Drawings(2) for RTU - A8



PLAN VIEW - OPENINGS & OVERALL

Product Drawing	Unit Tag: RTU - A8				
Product:	Project Name: LSSD Lees Summit HS				
Model: DPS010A	Sales Office: Daikin TMI LLC (Kansas City)				
Sales Engineer:	Nov. 16, 2020	Ver/Rev:	Sheet 1 of 1	Scale: NTS	Tolerance: +/- 0.25 Dwg Units: in [mm]

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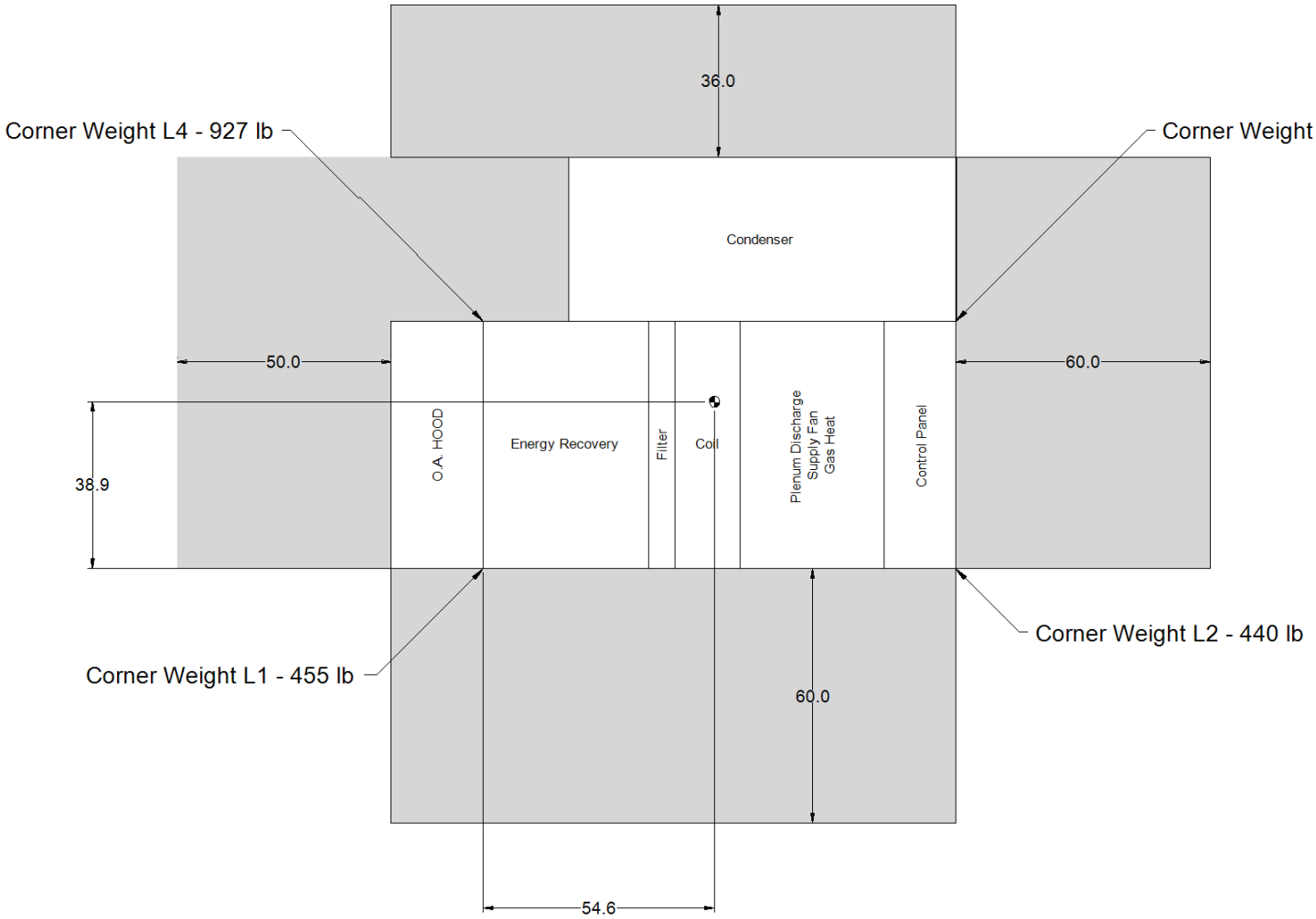

PLAN VIEW - CG, CORNER WEIGHTS, SERVICE CLEARANCE

Notes:
(1) Center of Gravity Height = 25.9
(2) Total Weight = 2718 lb

Product Drawing	Unit Tag: RTU - A8			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: DPS010A	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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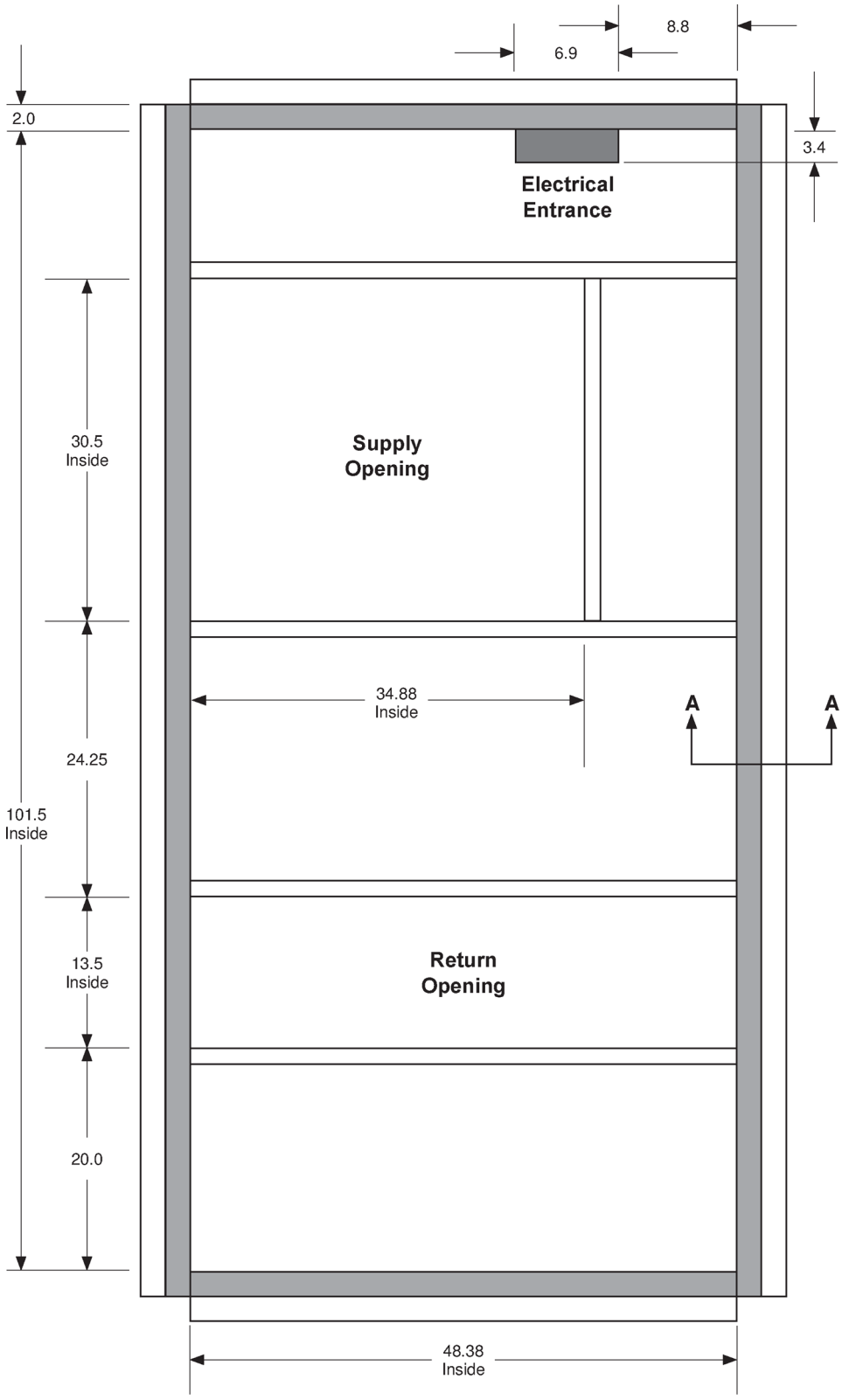
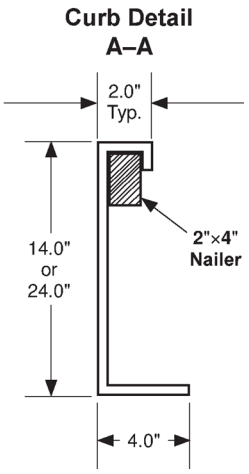
Large Box Roof Curbs ERW_Drawing for RTU - A8





Product Drawing	Unit Tag: RTU - A8					
Product:	Project Name: LSSD Lees Summit HS					
Model: DPS010A	Sales Office: Daikin TMI LLC (Kansas City)					
Sales Engineer:	Nov. 16, 2020	Ver/Rev:	Sheet 1 of 1	Scale: NTS	Tolerance: +/- 0.25	Dwg Units: in [mm]

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Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

Prepared Date: 11/16/2020

Technical Data Sheet for RTU-C5

Job Information	*Technical Data Sheet*
Job Name	LSSD Lees Summit HS Remodel
Date	11/16/2020
Submitted By	John Duckworth
Software Version	08.51
Unit Tag	RTU-C5

Unit Overview

Model Number	Voltage V/Hz/Phase	Design Cooling Capacity UOM_OSelected_CoilTotal	EER@95/75 EAT & 200 CFM/ton		ASHRAE 90.1
			EER	IEER	
DPS010A	460/60/3	114441	12.1	Not Applicable	ASHRAE 90.1-2016 compliant

Unit

Model Number:	DPS010A
Model Type:	Cooling
Heat Type:	Gas
Hot Gas Reheat:	MHGRH with Combination Space Temperature and Humidity Sensor
Energy Recovery:	ERW-Med Cab-Econ: 2835 cfm max, 100% OA: 5145 cfm max
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech III
Outside Air:	100% Outside Air
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height	Width	Weight
111.0 in	56.8 in	96.5 in	2718 lb

Corner Weights

L1	L2	L3	L4
455 lb	440 lb	897 lb	927 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
20.5 A	22.5 A	30 A	5 kAIC
Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.		

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Technical Data Sheet for RTU-C5

Return/Outside/Exhaust Air

Outside Air Option

Type	Damper Pressure Drop	Exhaust Air Type
None	0.09 inH_2O	Powered, Modulating with Building Pressure Control

Exhaust Fan

Type	Drive Type	Wheel Diameter
SWSI AF	Direct Drive	14 in

Motor

(Qty) Horsepower	Type	Efficiency	Full Load Current (Each)
(1) 2.3 HP	ECM	Premium	2.3 A

Performance

Air Flow CFM	External Static Pressure inH_2O	Fan Speed RPM	Brake Horsepower HP
2750	1.50	2461	1.60

Energy Recovery

Design OA Volume	Design Exhaust Volume	Wheel Pressure Drop	Motor HP	Motor FLA
2700 CFM	2750 CFM	0.51 inH_2O	0.17 HP	0.4 A

Summer Conditions

Temperature								Recovered Capacity Btu/hr	Effectiveness	
Outside Air		Return Air		Wheel Leaving		Mixed Air			Total	Sensible
Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F			
95.0	75.0	75.0	62.0	82.4	67.5	82.4	67.5	77396	62.07	63.19

Winter Conditions

Temperature								Recovered Capacity Btu/hr	Effectiveness	
Outside Air		Return Air		Wheel Leaving		Mixed Air			Total	Sensible
Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F			
7.0	5.0	70.0	50.0	48.5	37.7	48.5	37.7	144130	68.67	65.81

Bypass Damper: No

Energy Recovery Filters

Efficiency	Quantity/Size		Face Area		Face Velocity		Air Pressure Drop	
	Outdoor	Exhaust	Outdoor ft^2	Exhaust ft^2	Outdoor ft/min	Exhaust ft/min	Outdoor inH_2O	Exhaust inH_2O
2 in. MERV 8	(3) 18 in. X 24 in.	(3) 18 in. X 24 in.	9.0	9.0	300.0	305.6	0.11	0.11

Combined Efficiency Factor

Application Specific CEF: 13.7

Filter Section

Physical

Type	Quantity / Size	Face Area	Face Velocity	Air Pressure Drop
Combo 2"/4" rack with 2" MERV 8	6 / 18 in x 24 in x 2 in	18.0 ft^2	150.0 ft/min	0.04

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Technical Data Sheet for RTU-C5

DX Cooling Coil

Physical

Coil Type	Refrigerant Type	Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material
Cu Tube/ Al Fin	R410A	15	4	15.4 ft²	175.0 ft/min	0.15 inH_2O	Stainless Steel

Cooling Performance

Capacity			Indoor Air Temperature					Ambient air Temperature
			Entering		Leaving			
Total Btu/hr	Sensible Btu/hr	Moisture Removal lb/h	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dewpoint °F	°F
114441	83274	26.8	82.4	67.5	54.2	53.8	53.5	100.0

Condensate Connection Size: 3/4 in. Male NPT

Hot Gas Reheat Coil Section

Type	Face Area	Air Pressure Drop	Total Capacity	Leaving Air Temperature	
				Dry Bulb	Wet Bulb
Aluminum Tube Micro-Channel	14.6 ft²	0.03 inH_2O	46412 Btu/hr	70.0 °F	59.7 °F

Fan Section

Fan

Type	Fan Wheel Diameter	Fan Isolation
SWSI AF	16 in	None

Performance

Airflow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
2700 CFM	2.5 inH_2O	2003 rpm	1.64 HP	0 ft

Motor

Type	Horsepower	Efficiency	FLA	Drive Type
ECM Motor	4.0	Premium	4.0 A	Direct Drive

Gas Heat Section

Physical

Airflow	Max Allowable Burner Temp Rise	Size	Connection (Qty) Size	Heat Exchanger Material
2700 CFM	100.0 °F	300 MBH	(1) 0.75 in. Female NPT	Stainless Steel

Performance

Capacity Btu/hr	Air Temperature Dry Bulb		Air Pressure Drop inH_2O	Gas Pressure		Modulation
	Entering °F	Leaving °F		Minimum inH_2O	Maximum inH_2O	
240000	0.0	81.9	0.12	7	14	Modulating 5:1 Turndown

Unit Discharge Conditions

AirTemperature

Motor Heat Btu/hr	Moisture Removal lb/h	Unit Leaving Dry Bulb °F	Unit Leaving Wet Bulb °F	Unit Leaving Dewpoint °F
5200	26.8	55.9	54.4	53.5

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Technical Data Sheet for RTU-C5

Condensing Section

Compressor

Type	Quantity	Refrigerant Charge lb	Total Power	Capacity Control	Compressor Isolation
Inverter Scroll + Fixed Scroll	2	25.8	8.60 kW	Mod Control with Inverter Compressors	Rubber in Shear

Compressor Amps:

Compressor 1	4.5 A
Compressor 2	7.9 A

Condenser Coil

Type	Fins per Inch	Fin Material
Aluminum Microchannel	23	Aluminum

Condenser Fan Motors

Number of Motors	Full Load Current (Total)
2	1.8 A

Internal Pressure Drop Calculation

External Static Pressure:	1.50 inH_2O
Filter:	0.04 inH_2O
Outside Air:	0.09 inH_2O
Energy Recovery:	0.62 inH_2O
DX Coil:	0.15 inH_2O
Hot Gas Reheat:	0.03 inH_2O
Gas Heat:	0.12 inH_2O
Total Static Pressure:	2.55 inH_2O

Sound

Sound Power (db)

Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	74	72	80	75	77	71	66	60
Discharge	74	75	83	80	83	77	74	68
Radiated	85	85	81	78	76	71	64	57

Options

Electrical

Field Connection:	Non-Fused Disconnect Switch
Power Options:	Phase Failure Monitor

Factory Installed Sensors

- Leaving Coil/Entering Fan Temperature Sensor
- Duct High Limit Switch
- Return Air Temperature Sensor
- Discharge Air Temperature sensor – Wired in unit, mounted in supply duct
- Outside Air Temperature Sensor
- Dirty Filter On/Off Switch
- Supply Fan Air Proving Via Modbus
- Building Static Pressure Sensor
- Supply Leaving Wheel Temperature Sensor
- Exhaust Leaving Wheel Temperature Sensor

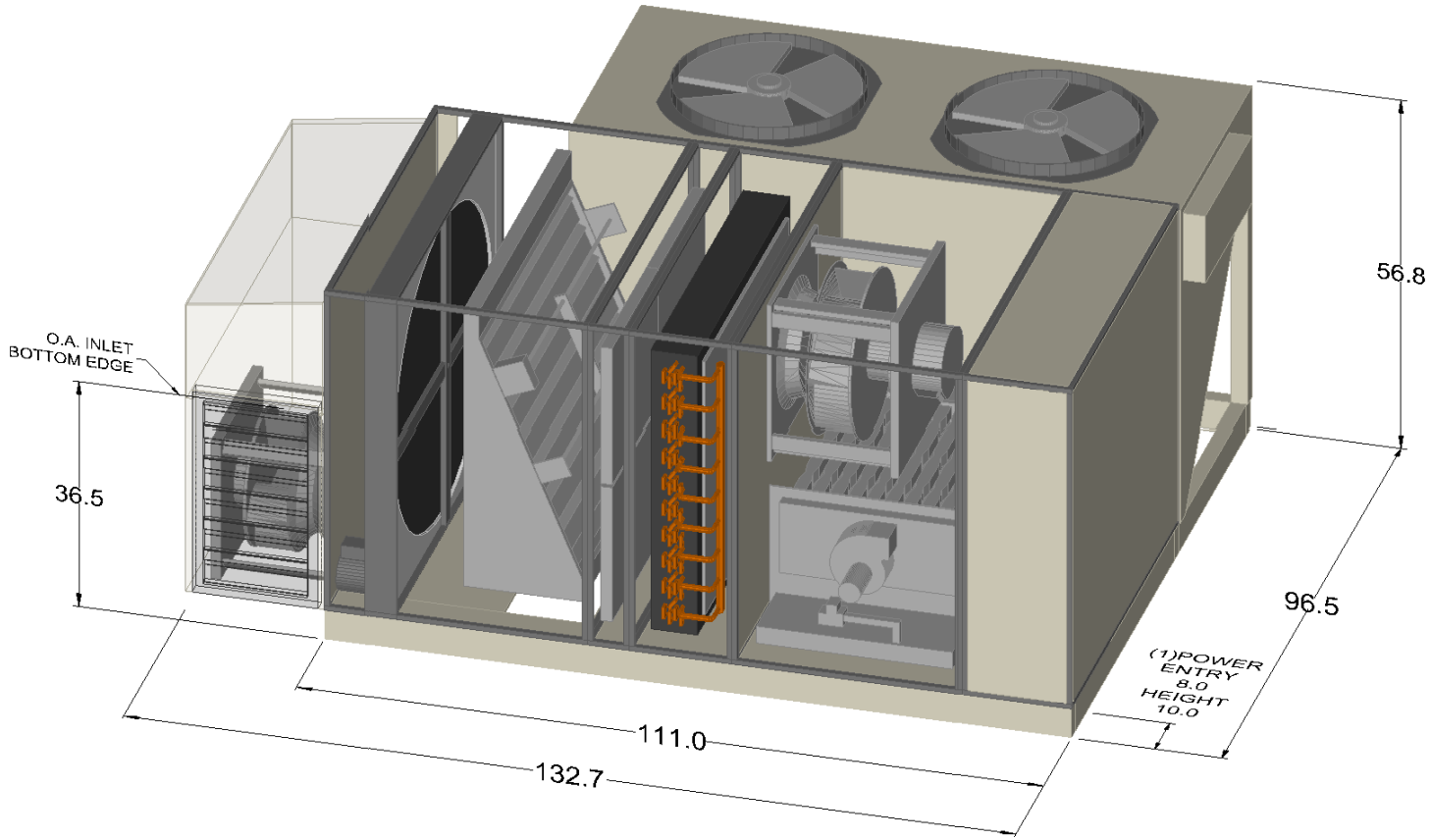
Technical Data Sheet for RTU-C5

Warranty	
Parts:	Standard One Year
Compressor:	Standard One Year
Gas Heat Exchanger:	Standard one Year

Notes

Accessories

Mandatory	
Part Number	**Description**
910191961	Combo Digital Temp and Humidity Sensor w/Adj setpoint and tenent override
Optional	
Part Number	**Description**
910134603	14" Roof Curb, W/ERW, Size 007-015



Notes:
(1) Recommended location for optional field cut side power connection.
(2) Horizontal gas connection only. Gas pipe routing within the roofcurb is not available.

Product Drawing	Unit Tag: RTU-C5			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: DPS010A	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25”	Dwg Units: in [mm]	

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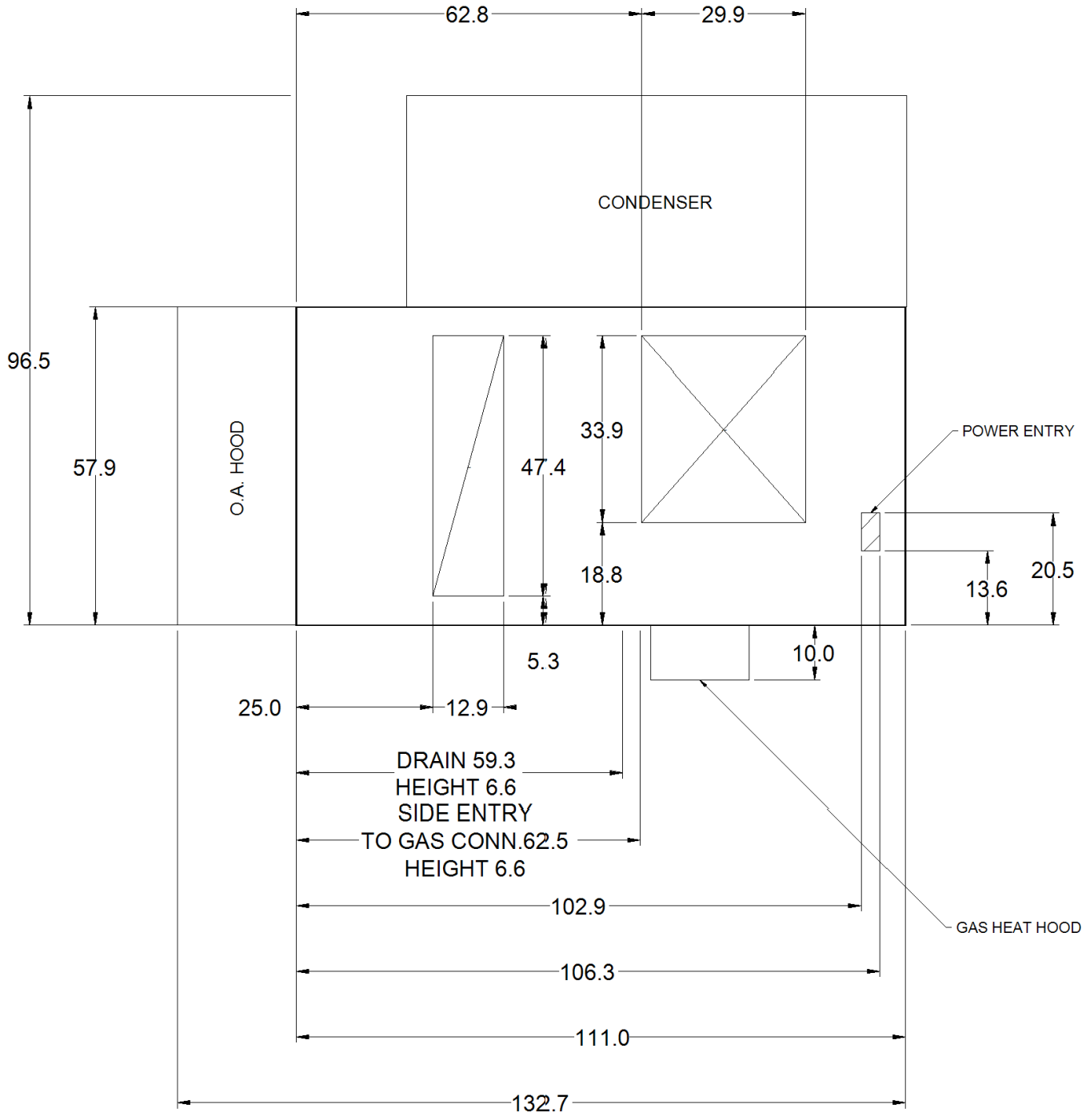
Software Version: 08.51

Drawings(2) for RTU-C5



PLAN VIEW - OPENINGS & OVERALL

Product Drawing	Unit Tag: RTU-C5				
Product:	Project Name: LSSD Lees Summit HS				
Model: DPS010A	Sales Office: Daikin TMI LLC (Kansas City)				
Sales Engineer:	Nov. 16, 2020	Ver/Rev:	Sheet 1 of 1	Scale: NTS	Tolerance: +/- 0.25 | Dwg Units: in [mm]

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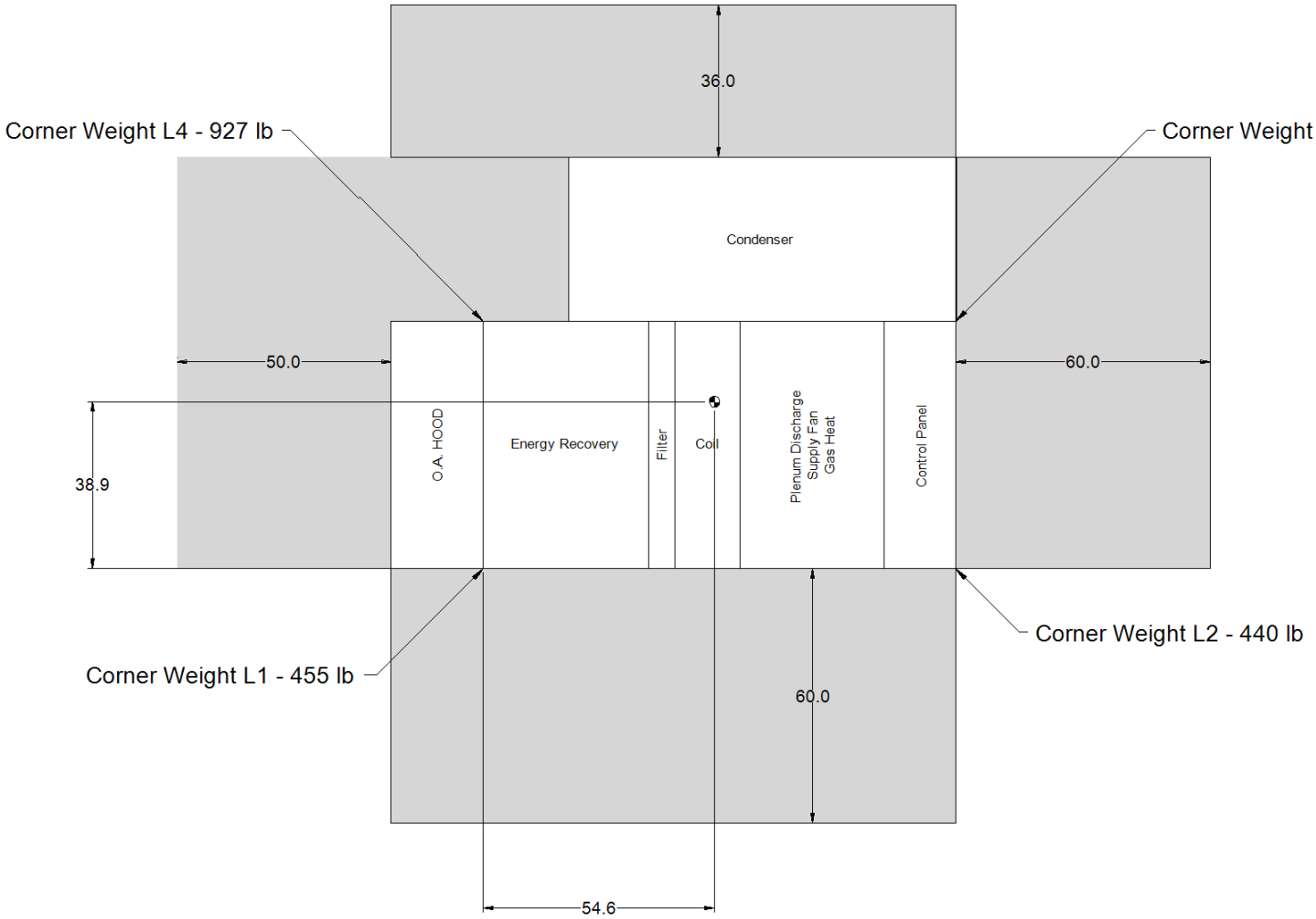

PLAN VIEW - CG, CORNER WEIGHTS, SERVICE CLEARANCE

Notes:
(1) Center of Gravity Height = 25.9
(2) Total Weight = 2718 lb

Product Drawing	Unit Tag: RTU-C5			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: DPS010A	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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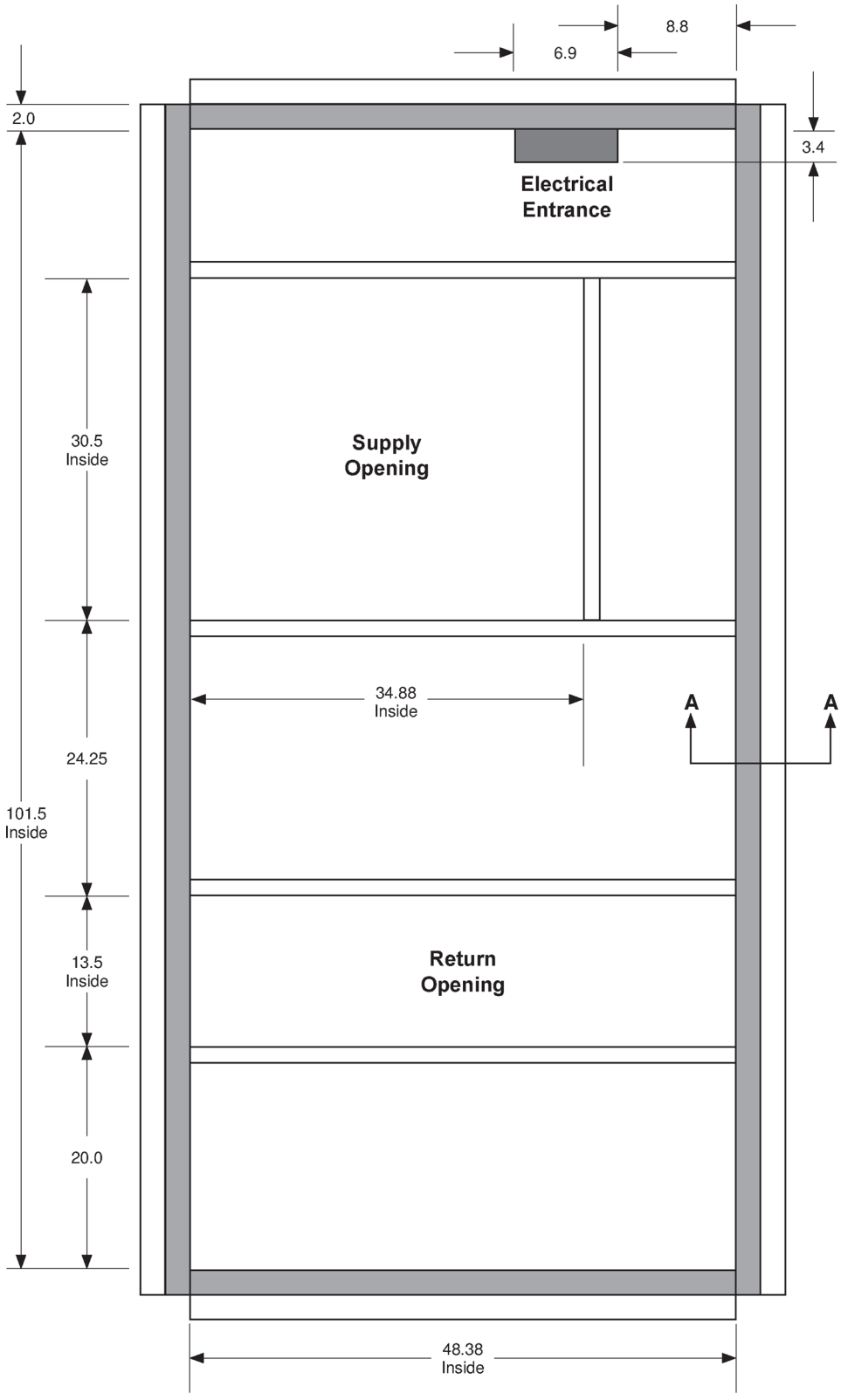
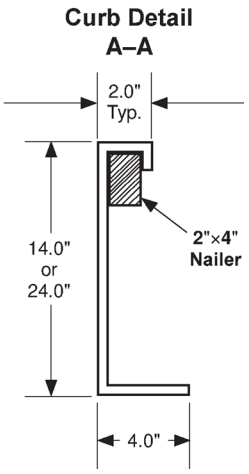
Large Box Roof Curbs ERW_Drawing for RTU-C5





Product Drawing	Unit Tag: RTU-C5					
Product:	Project Name: LSSD Lees Summit HS					
Model: DPS010A	Sales Office: Daikin TMI LLC (Kansas City)					
Sales Engineer:	Nov. 16, 2020	Ver/Rev:	Sheet 1 of 1	Scale: NTS	Tolerance: +/- 0.25	Dwg Units: in [mm]

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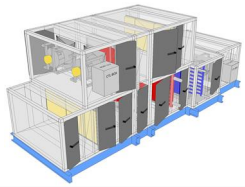
01/14/2021

Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

Prepared Date: 11/16/2020

Technical Data Sheet for AHU - C6

Job Information	Technical Data Sheet
Job Name	LSSD Lees Summit HS Remodel
Date	November 16 2020
Submitted By	JD
Software Version	12.41
Unit Tag	AHU - C6



Unit Overview

Model Number	Supply						Return/Exhaust					
	Air Volume cfm	Static Pressure		External Dimensions			Air Volume cfm	Static Pressure		External Dimensions		
		External inWc	Total inWc	Height in	Width in	Length in		External inWc	Total inWc	Height in	Width in	Length in
CAH009GDCM	3400	1.50	4.46	36*	60*	198	3500	1.25	2.93	36*	60*	108

**Not including base rails, coil connectors, drain connectors and control boxes.*

Unit

Model Number:	CAH009GDCM		
Approval:	ETL Listed / ETL Listed to Canadian Safety Standards (ETL Label / ETLc Label)		
Outer Panel:	24 gauge G90 Galvanized Steel (unpainted)		
Liner:	24 gauge Galvanized Steel (unless noted per section)		
Insulation:	R-13 Injected Foam		
Unit Configuration:	Stacked with opposed air flows	**Drive (Handling) Location:**	Right
Base:	6" formed channel	**Wall Thickness:**	2 in
Altitude:	0 ft	**Parts Warranty:**	Standard One Year

Exhaust Air Stream

Plenum Section	Component: 1	Length: 14 in	Shipping Section: 4

Opening Location	Opening Size	Air Pressure Drop
End upper	10.00" x 56.00"	0.05 inWc

Panel

Location	Width	Opening
Removable panels	- in	Outward

Panel Filter	Component: 2	Length: 12 in	Shipping Section: 4

Type	Efficiency	Face Velocity	Face Area	Air Volume	Filter Loading
Pleated	MERV 8	397 ft/min	8.8 ft²	3500 cfm	Side

Air Pressure Drop			Number of Filters	Height	Width	Depth
Clean Air	Mean Air	Dirty Air				
0.17 inWc	**0.58** inWc	1.00 inWc	1	24 in	24 in	2 in
			1	24 in	20 in	2 in
			1	24 in	12 in	2 in

Door

Location	Width	Opening
Drive side	8 in	Outward

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Technical Data Sheet for AHU - C6

Access Section	Component: 3	Length: 24 in	Shipping Section: 4

Air Pressure Drop
0.00 inWc

Door		
Location	Width	Opening
Drive side	20 in	Outward

Energy Recovery	Component: 4	Length: 16 in	Shipping Section: 3

Heat Wheel Model	Media Type	Wheel Diameter	Supply Air Volume	Face Velocity				Segmented Wheel
				Supply Air		Return Air		
				Summer	Winter	Summer	Winter	
ECW 424	Synthetic fiber - 4 angstrom	42 in	3400 cfm	701 ft/min	764 ft/min	734 ft/min	751 ft/min	No

Electrical Supply	Bypass Damper Opening	Pressure Drop				Exhaust Air Volume	Adjustable Purge Plate	Motor Power
		Supply Air		Return Air				
		Summer	Winter	Summer	Winter			
115/60/1 V/Hz/Phase	None	0.98 insWg	0.98 insWg	0.98 insWg	0.98 insWg	3500 cfm	Yes	0.50 HP

Summer Conditions

Outside Air		Return Air		Supply Air		Exhaust Air		Effectiveness			Total Energy Recovered
Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb	Latent	Sensible	Total	
96.0 °F	75.0 °F	75.0 °F	62.0 °F	82.0 °F	67.2 °F	88.5 °F	70.4 °F	61.61 %	68.30 %	64.89 %	98565 Btu/hr

Winter Conditions

Outside Air		Return Air		Supply Air		Exhaust Air		Effectiveness			Total Energy Recovered
Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb	Latent	Sensible	Total	
0.0 °F	0.0 °F	68.0 °F	48.0 °F	44.5 °F	34.3 °F	22.3 °F	19.3 °F	61.76 %	68.32 %	67.64 %	189274 Btu/hr

AHRI 1060 Certification

Application Rating is outside of the scope of AHRI ERV Certification Program but is rated in accordance with AHRI Standard 1060.

Door		
Location	Width	Opening
Drive side	12 in	Outward

Access Section	Component: 5	Length: 18 in	Shipping Section: 1

Air Pressure Drop
0.00 inWc

Door		
Location	Width	Opening
Drive side	14 in	Outward

Technical Data Sheet for AHU - C6

Return/Exhaust Fan Array	Component: 6	Length: 24 in	Shipping Section: 1

Fan Performance

Air Volume*	Static Pressure			Fan Energy Index(FEI)*	Total Input Power*	Fan Shaft Power*	Speed		Redundancy(N-1)	Fan Circuit	
	External	Total	Cabinet				Operating	Maximum		MOP	MCA
1750 cfm	1.25 inWc	2.93 inWc	0.07 inWc	-	-	1.17 BHP	2324 rpm	3230 rpm	96.2 %	15.0 A	9.2 A

Fan Data

Fan Type	Blade Type / Class	Quantity of Fans	Wheel Diameter	Number of Blades	Discharge	Motor Location
ECM / 1x2 : 2	Airfoil / N/A	2	13.98 in	5	Top, single opening	Behind Fan

Motor Data

Power*	Electrical Supply	Speed	Control Signal	Supplier	Lock Rotor Current*	Full Load Current*
3.3 HP	460/60/3 V/Hz/Phase	3230 rpm	0-10V	EBM-Papst	4.10 A	4.10 A

Fan Options

Isolator Type:	Rigid

VFD/Starter/Disconnect Data

Selection Type:	Integrated Drive	Vendor:	Daikin Applied
Auxiliary Control:	Disconnect w/ motor starter	Voltage:	460 V
Disconnect Type:	Fused	Height x Width x Depth:	15.75 in x 11.81 in x 10.76 in
Mounting:	Drive Side	Enclosure:	NEMA 3R

Door

Location	Width	Opening
Non-drive side	20 in	Outward

Notes

** after a unit label denotes the data for an individual fan.*

Supply Air Stream

Plenum Section	Component: 1	Length: 14 in	Shipping Section: 2

Opening Location	Opening Size	Air Pressure Drop
Top	10.00" x 56.00"	0.05 inWc

Door

Location	Width	Opening
Drive side	10 in	Outward

Access Section	Component: 2	Length: 12 in	Shipping Section: 2

Air Pressure Drop

0.00 inWc

Panel

Location	Width	Opening
Removable panels	- in	Outward

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Technical Data Sheet for AHU - C6

Combination Filter	Component: 3	Length: 16 in	Shipping Section: 2

Access	Face Velocity	Face Area	Air Volume
Side	387 ft/min	8.8 ft²	3400 cfm

Portion	Type	Efficiency	Air Pressure Drop			Number of Filters	Height	Width	Depth
			Clean Air	Mean Air	Dirty Air				
Pre-Filter	Pleated	MERV 8	0.16 inWc	**0.58** inWc	1.00 inWc	1	24 in	24 in	2 in
						1	24 in	20 in	2 in
						1	24 in	12 in	2 in
Filter	Pre Pleat	MERV 13	0.16 inWc	**0.58** inWc	1.00 inWc	1	24 in	24 in	4 in
						1	24 in	20 in	4 in
						1	24 in	12 in	4 in

Door		
Location	**Width**	**Opening**
Drive side	12 in	Outward

Access Section	Component: 4	Length: 18 in	Shipping Section: 2

Air Pressure Drop
0.00 inWc

Door		
Location	**Width**	**Opening**
Drive side	14 in	Outward

Energy Recovery Section	Component: 5	Length: 16 in	Shipping Section: 3

See Exhaust Air Stream

Access Section	Component: 6	Length: 24 in	Shipping Section: 5

Air Pressure Drop
0.00 inWc

Door		
Location	**Width**	**Opening**
Drive side	20 in	Outward

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Technical Data Sheet for AHU - C6

Hot Water Coil	Component: 7	Length: 22 in	Shipping Section: 5

Coil Model	Total Capacity	Number of Coils	Number of Rows	Fins per Inch	Tube Diameter	Tube Spacing (Face x Row)
5WH1102B	355386 Btu/hr	1	2	11	0.625 in	1.50 in x 1.299 in

Air Volume	Air Temperature		Coil Air Pressure Drop	Finned Height	Finned Length	Face Area	Face Velocity
	Entering Dry Bulb	Leaving Dry Bulb					
3400 cfm	0.0 °F	95.6 °F	0.15 inWc	27 in	44 in	8.25 ft²	412 ft/min

Water		Flow Rate	Pressure Drop	Velocity	Volume	Weight
Entering	Leaving					
180.0 °F	159.9 °F	35.30 gpm	5.50 ftHd	4.20 ft/s	3.0 gal	29.00 lb

Connection [Data Per Coil]				Min. Fin Surface Temp.	Min. Tube Wall Surface Temp.	Fouling Factor
Type	Size	Location	Material			
Threaded	2.50 in	Drive side	Carbon steel	159.9 °F	159.9 °F	0.000

Material			
Fin	Tube	Header	Case
Aluminum .0075 in	Copper .020 in	Copper	Galv. steel

AHRI 410 Certification

Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org

Door

Location	Width	Opening
Drive side	10 in	Outward

Chilled Water Coil	Component: 8	Length: 38 in	Shipping Section: 6

Coil Model	Total Capacity	Sensible Capacity	Number of Coils	Number of Rows	Fins per Inch	Tube Diameter	Tube Spacing (Face x Row)
5WH1008B	144980 Btu/hr	107066 Btu/hr	1	8	10	0.625 in	1.50 in x 1.299 in

Air Volume	Air Temperature				Coil Air Pressure Drop	Finned Height	Finned Length	Face Area	Face Velocity
	Entering		Leaving						
	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb					
3400 cfm	82.0 °F	67.0 °F	53.2 °F	53.0 °F	0.52 inWc	27 in	53 in	9.94 ft²	342 ft/min

Fluid		Flow Rate	Pressure Drop	Velocity	Volume	Weight
Entering	Leaving					
44.0 °F	58.1 °F	21.00 gpm	8.60 ftHd	2.50 ft/s	10.0 gal	90.00 lb

Connection [Data Per Coil]				Glycol Type	Min. Fin Surface Temp.	Min. Tube Wall Surface Temp.	Fouling Factor
Type	Size	Location	Material				
Threaded	1.50 in	Drive side	Carbon steel	Propylene (20%)	44.0 °F	44.0 °F	0.000

Material				Drain Pan	Drain Side
Fin	Tube	Header	Case		
Aluminum .0075 in	Copper .020 in	Copper	Galv. steel	Stainless steel	Drive side

AHRI 410 Certification

Coil is NOT certified by AHRI

Door

Location	Width	Opening
Drive side	18 in	Outward

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Technical Data Sheet for AHU - C6

Supply Fan Array	Component: 9	Length: 24 in	Shipping Section: 7

Fan Performance

Air Volume*	Static Pressure			Fan Energy Index(FEI)*	Total Input Power*	Fan Shaft Power*	Speed		Redundancy(N-1)	Fan Circuit	
	External	Total	Cabinet				Operating	Maximum		MOP	MCA
1700 cfm	1.50 inWc	4.46 inWc	0.00 inWc	-	-	1.82 BHP	2721 rpm	3230 rpm	77.7 %	15.0 A	6.8 A

Fan Data

Fan Type	Blade Type / Class	Quantity of Fans	Wheel Diameter	Number of Blades	Discharge	Motor Location
ECM / 1x2 : 2	Airfoil / N/A	2	13.98 in	5	Axial	Behind Fan

Motor Data

Power*	Electrical Supply	Speed	Control Signal	Supplier	Lock Rotor Current*	Full Load Current*
2.3 HP	460/60/3 V/Hz/Phase	2870 rpm	0-10V	EBM-Papst	3.00 A	3.00 A

Fan Options

Isolator Type:	Rigid

VFD/Starter/Disconnect Data

Selection Type:	Integrated Drive	Vendor:	Daikin Applied
Auxiliary Control:	Disconnect w/ motor starter	Voltage:	460 V
Disconnect Type:	Fused	Height x Width x Depth:	15.75 in x 11.81 in x 10.76 in
Mounting:	Drive Side	Enclosure:	NEMA 3R

Door

Location	Width	Opening
Non-drive side	20 in	Outward

Notes

** after a unit label denotes the data for an individual fan.*

Plenum Section	Component: 10	Length: 14 in	Shipping Section: 7

Opening Location	Opening Size	Air Pressure Drop
End upper	10.00" x 56.00"	0.10 inWc

Panel

Location	Width	Opening
Removable panels	- in	Outward

Special Options

Tread Plate Floor Liner

Tread plate installed

Unit Sound Power (dB)

Type	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Radiated:	64	63	68	52	47	42	46	51
Unit Discharge:	64	63	80	61	61	59	58	54
Unit Return:	64	66	72	63	59	61	57	51

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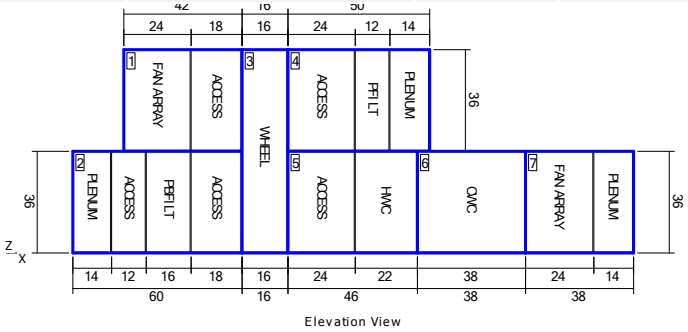
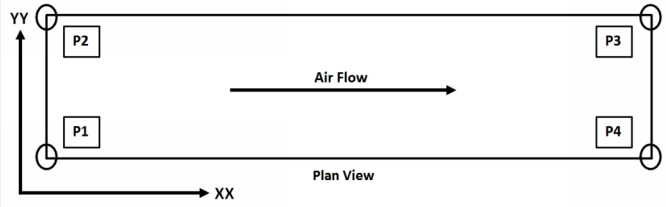
Technical Data Sheet for AHU - C6

Shipping Section Details

Section	Length in	Weight lb	Corner Weights (lb)				Center of Gravity (in)		
			P1	P2	P3	P4	XX	YY	ZZ
1	42	444	95	106	127	116	23	32	24
2	60	514	121	121	135	135	32	30	21
3	16	518	122	122	137	137	8	30	39
4	50	356	85	85	93	93	26	30	24
5	46	497	112	107	136	141	26	29	20
6	38	774	242	227	144	160	15	32	20
7	38	575	164	175	124	112	16	31	19
Entire Unit	**198** *Lower level only*	**3678**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**



Elevation View



NOTE: Special components aren't included in the corner weights and center of gravity data.

Supply Static Pressure Drop

Component	Option	Static Pressure Drop
Plenum Section	Plenum Section	0.05 insWg
Access Section	Access Section	-
Panel and Bag Filter	Panel and Bag Filter	1.16 insWg
Access Section	Access Section	-
Energy Recovery Section	Summer	0.98 insWg
Access Section	Access Section	-
Hot Water Coil	Hot Water Coil	0.15 insWg
Chilled Water coil	Chilled Water coil	0.52 insWg
Supply Fan	Cabinet	-
Plenum Section	Plenum Section	0.10 insWg
External Static	External Static	1.50 insWg
Total Supply Static		4.46 insWg

Exhaust Static Pressure Drop

Component	Option	Static Pressure Drop
Plenum Section	Plenum Section	0.05 insWg
Panel Filter	Panel Filter	0.58 insWg
Access Section	Access Section	-
Energy Recovery Section	Summer	0.98 insWg
Access Section	Access Section	-
Return Fan	Cabinet	0.07 insWg
External Static	External Static	1.25 insWg
Total Return/Exhaust Static		2.93 insWg

Technical Data Sheet for AHU - C6

AHRI Certification

The air-handler is selected outside of the scope of AHRI Standard 430/431

Notes

Standard
1. As a standalone component, unit meets or exceeds requirements of ASHRAE 90.1 - 2007. The approving authority is responsible for compliance of multi - component building systems.

Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

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Prepared Date: 11/16/2020

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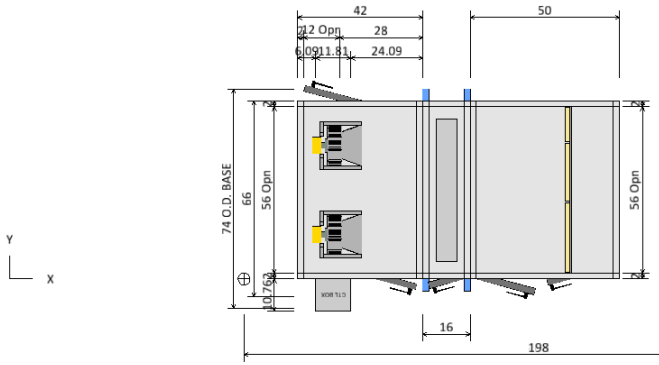
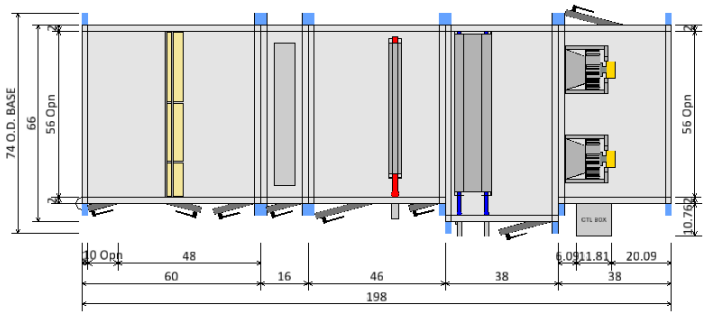
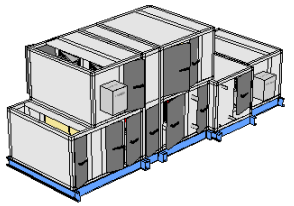
Drawing for AHU - C6



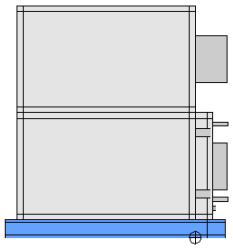
TOP DECK PLAN VIEW



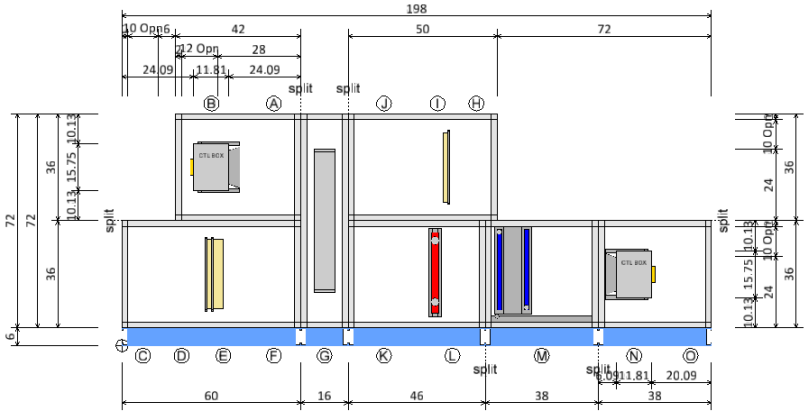
BOTTOM DECK PLAN VIEW



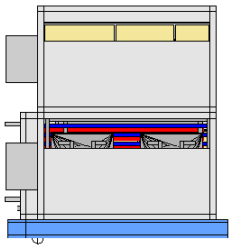
ISOMETRIC VIEW



FRONT END VIEW



ELEVATION VIEW



REAR END VIEW

Product Drawing	Unit Tag: AHU - C6			Sales Office: Daikin TMI LLC (Kansas City)		
Product: Vision Air Handler	Project Name: LSSD Lees Summit HS Remodel			Sales Engineer:		
Model: CAH009GDCM	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

01/14/2021

Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

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Prepared Date: 11/16/2020

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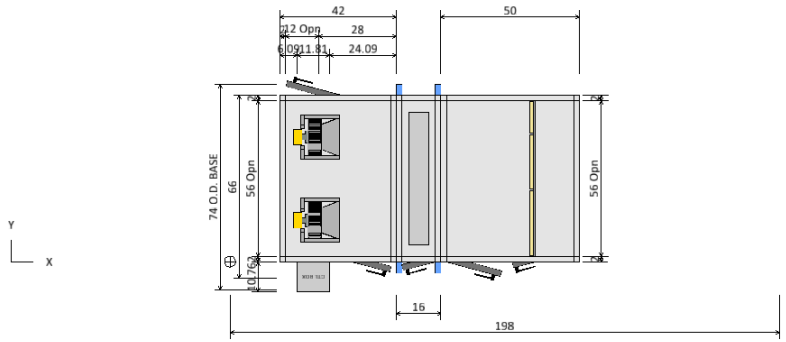
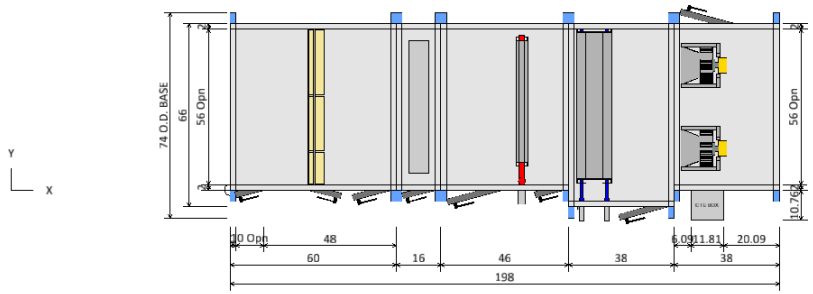
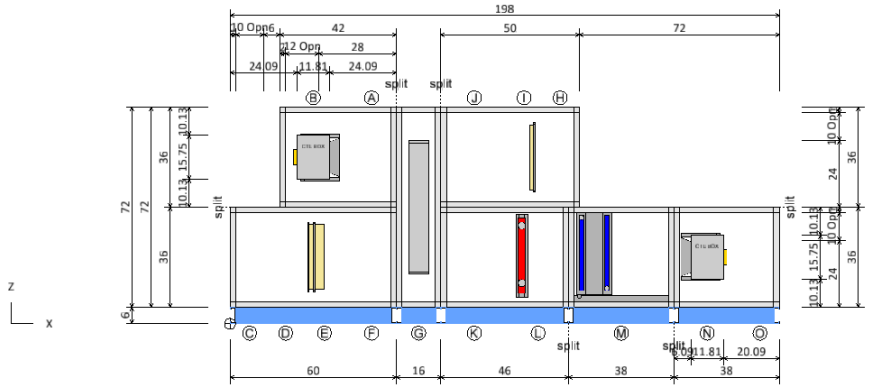
Drawing for AHU - C6



TOP DECK PLAN VIEW



BOTTOM DECK PLAN VIEW



ELEVATION VIEW

Component Key		
Ⓐ	Access Section Right Door (WxH):	 14 ins x 32 ins
Ⓑ	Return Fan Fan Type: Fan Size (Class): Air Flowrate: T.S.P: Motor Power: Control box door swing: Left Door (WxH):	 Centrifugal - Plenum 355 (2) 1750.0 cfm 2.9 insWg 3.3 HP 11.81 ins 20 ins x 32 ins
Ⓒ	Plenum Section Opening Location: Opening Size: Right Door (WxH):	 Top 10 ins x 56 ins 10 ins x 32 ins
Ⓓ	Access Section	
Ⓔ	Panel and Bag Filter Pre Filter Type: Bag Filter Type: Right Door (WxH):	 Pleated (MERV 8) Pre Pleat M13 12 ins x 32 ins
Ⓕ	Access Section Right Door (WxH):	 14 ins x 32 ins
Ⓖ	Energy Recovery Wheel Model: Winter Capacity: Summer Capacity: Right Door (WxH):	 ECW 424 189274.0 Btu/hr 98565.4 Btu/hr 12 ins x 32 ins
Ⓗ	Plenum Section Opening Location: Opening Size:	 End upper 10 ins x 56 ins
Ⓘ	Panel Filter Filter Type: Right Door (WxH):	 Pleated (MERV 8) 8 ins x 32 ins
Ⓙ	Access Section Right Door (WxH):	 20 ins x 32 ins
Ⓚ	Access Section Right Door (WxH):	 20 ins x 32 ins
Ⓛ	Hot Water Coil Coil Model: Total Capacity: Right Door (WxH):	 5WH1102B 355386.0 Btu/hr 10 ins x 32 ins
Ⓜ	Chilled Water coil Coil Model: Total Capacity: Right Door (WxH):	 5WH1008B 144980.0 Btu/hr 18 ins x 26 ins
Ⓝ	Supply Fan Fan Type: Fan Size (Class): Air Flowrate: T.S.P: Motor Power: Control box door swing: Left Door (WxH):	 Centrifugal - Plenum 355 (2) 1700.0 cfm 4.5 insWg 2.3 HP 11.81 ins 20 ins x 32 ins
Ⓞ	Plenum Section Opening Location: Opening Size:	 End upper 10 ins x 56 ins

Product Drawing	Unit Tag: AHU - C6			Sales Office: Daikin TMI LLC (Kansas City)		
Product: Vision Air Handler	Project Name: LSSD Lees Summit HS Remodel			Sales Engineer:		
Model: CAH009GDCM	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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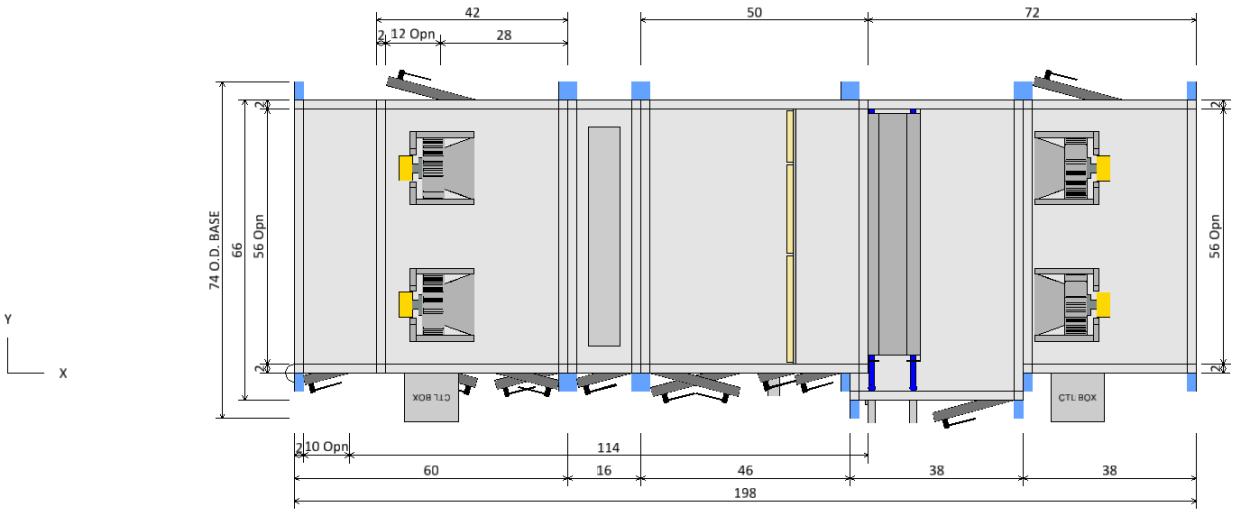
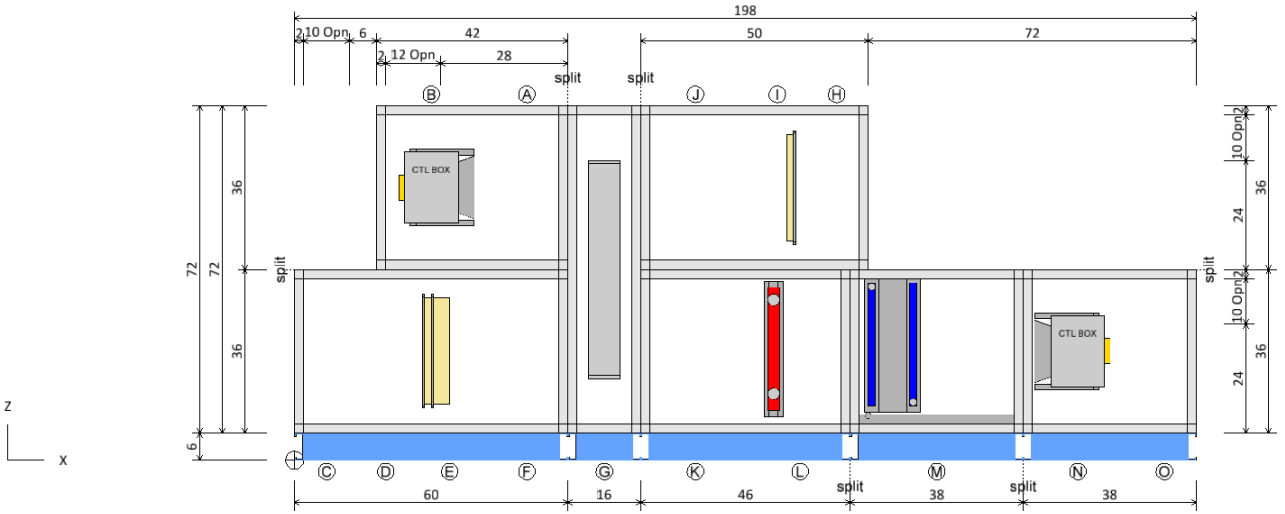


PLAN VIEW



ELEVATION VIEW

Component Key

	Type	X	Y	Z	Wid	Hgt
B	Return Fan Fan Discharge	20.00	2.00	78.00	56.00	12.00
C	Plenum Section Opening	2.00	2.00	42.00	56.00	10.00
H	Plenum Section Opening	126.00	2.00	66.00	56.00	10.00
O	Plenum Section Opening	198.00	2.00	30.00	56.00	10.00

Note: Dimensions are measured from the origin point.

Opening/Damper Connections	Unit Tag: AHU - C6			Sales Office: Daikin TMI LLC (Kansas City)		
Product: Vision Air Handler	Project Name: LSSD Lees Summit HS Remodel			Sales Engineer:		
Model: CAH009GDCM	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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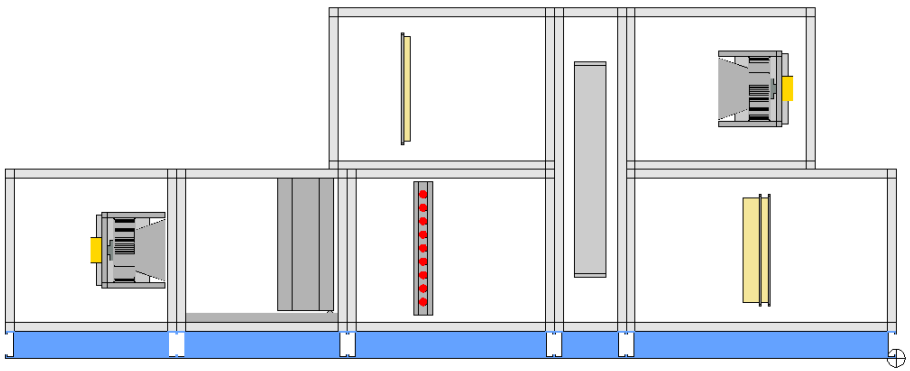
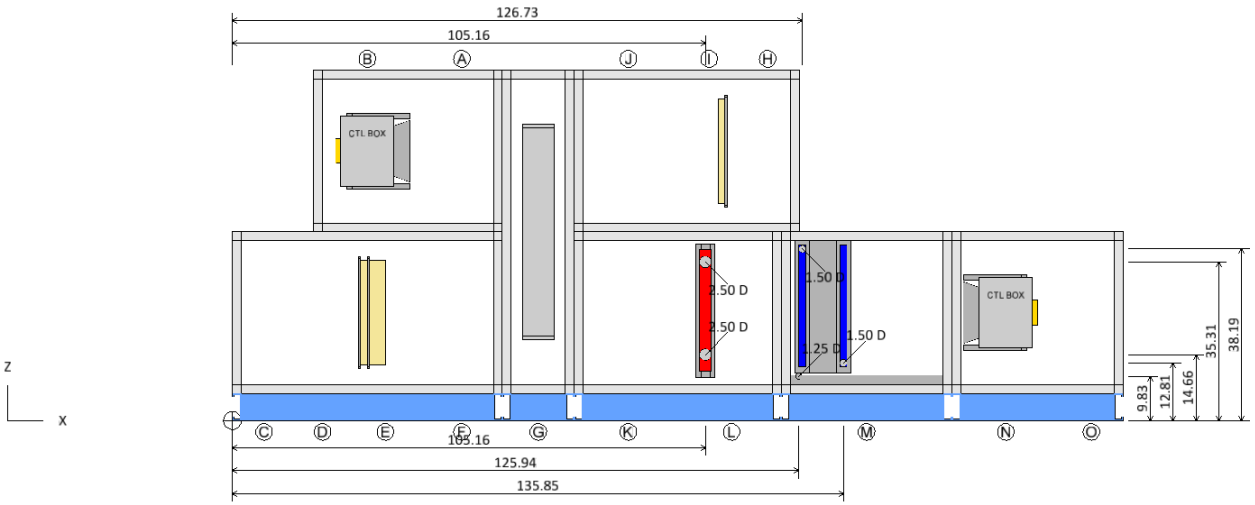


LEFT ELEVATION VIEW



RIGHT ELEVATION VIEW

Coil and Drain Connections

	Type	X	Y	Z	Diam
Ⓛ	Hot Water Coil				
	Hot water inlet:	105.16	-7.00	14.66	2.50
	Hot water outlet:	105.16	-7.00	35.31	2.50
Ⓜ	Chilled Water coil				
	Condensate drain conn:	125.94	-8.90	9.83	1.25
	Cold water inlet:	135.85	-13.00	12.81	1.50
	Cold water outlet:	126.73	-13.00	38.19	1.50

Note: Dimensions are measured from the origin point.

Coil and Drain Connections	Unit Tag: AHU - C6			Sales Office: Daikin TMI LLC (Kansas City)		
Product: Vision Air Handler	Project Name: LSSD Lees Summit HS Remodel			Sales Engineer:		
Model: CAH009GDCM	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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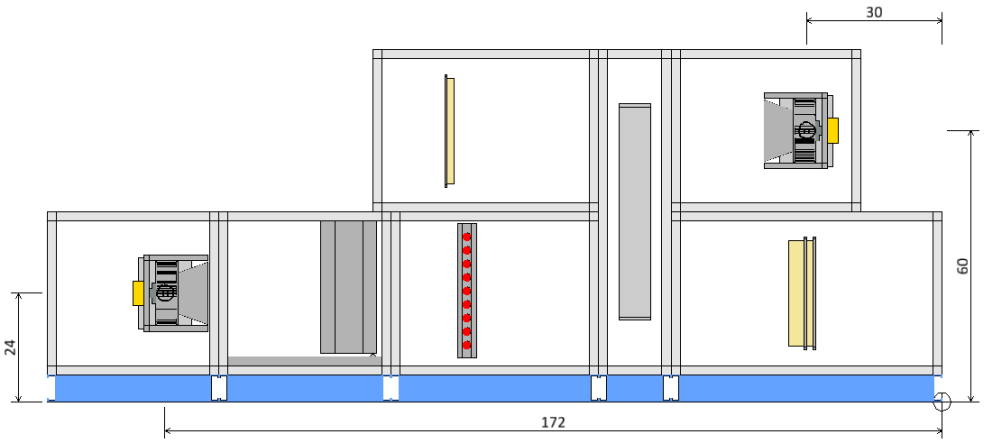
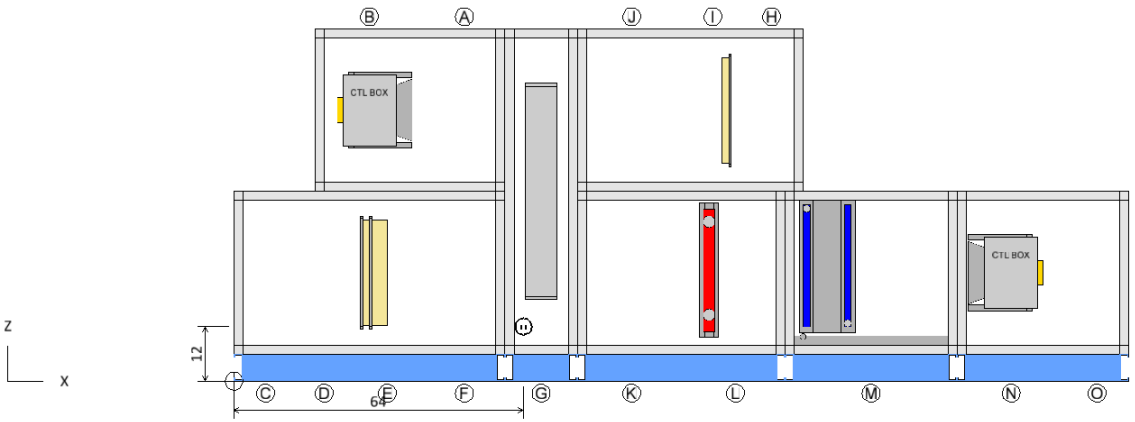


LEFT ELEVATION VIEW



RIGHT ELEVATION VIEW

Component Key

	Type	X	Y	Z	Volts	Phase
Ⓑ	Return Fan Fan	30.00	60.00	60.00	460	3
Ⓖ	Energy Recovery Wheel Heatwheel	64.00	2.00	12.00	115	1
Ⓝ	Supply Fan Fan	172.00	60.00	24.00	460	3

Note: Dimensions are measured from the origin point.

Electrical Connections	Unit Tag: AHU - C6			Sales Office: Daikin TMI LLC (Kansas City)		
Product: Vision Air Handler	Project Name: LSSD Lees Summit HS Remodel			Sales Engineer:		
Model: CAH009GDCM	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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Job Name: LSSD Lees Summit HS Remodel

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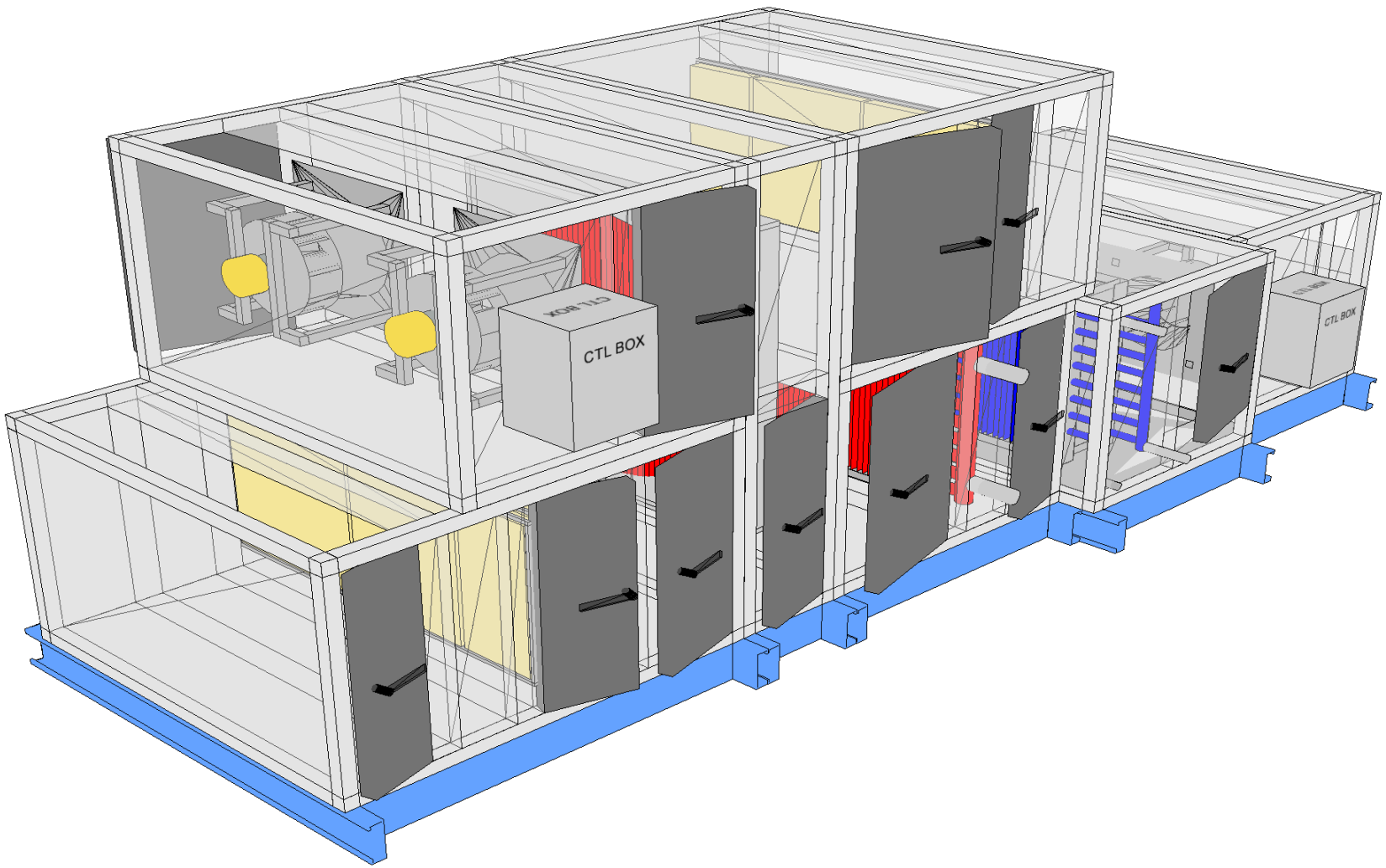
Drawing for AHU - C6



Product Drawing	Unit Tag: AHU - C6			Sales Office: Daikin TMI LLC (Kansas City)		
Product: Vision Air Handler	Project Name: LSSD Lees Summit HS Remodel			Sales Engineer:		
Model: CAH009GDCM	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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Document Summary Page

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01/14/2021

Equipment Information – Daikin Air-Cooled Screw Chiller

Technical Data (AWS310C)

Job Information	Technical Data Sheet
Job Name	LSSD Chillers
Date	1/21/2014
Submitted By	Duane Rothstein
Software Version	04.20
Unit Tag	Lees Summit Schools

Unit Overview

Model Number	Capacity ton	IPLV EER	Voltage	Unit Starter Type	ASHRAE 90.1	LEED EA Credit 4
AWS310CDP	284.6	19.4	460 / 60 / 3	VFD (without EMI Filters)	'07, '10. '13	Pass

Unit

Unit Type	Platform	Unit Revision
Air-Cooled Screw Compressor Chiller	Packaged	00

Head Pressure	Tubing
VFD [First Fans / Circuit]	With Liquid Line Solenoid and Discharge Shut-off Valve

Display
On Controller only

Refrigerant Type	Refrigerant Weight
R134-a	500 lb (entire chiller)

Approval
ETL/cETL, AHRI & ASHRAE 90.1

Evaporator

Connection:	Victaulic / Left Hand
Insulation:	Single Layer Insulation on Evaporator

Entering Fluid Temperature	Leaving Fluid Temperature	Fluid Type	Fluid Flow	Fluid Flow Min / Max	Pressure Drop	Fouling Factor
54.0 °F	44.0 °F	Water	683.0 gpm	218.2 / 1042.6 gpm	17.6 ft H_2O	0.00010 °F.ft².h/Btu

Condenser

Coil Fins:	Aluminum Fin
Guards:	Condenser Coil Grilles only

Ambient Air Temperature	Altitude	Fan Diameter	Fan Motor Horsepower	Fan Speed	Low Ambient Control to	Unit Airflow
105.0 °F	1000 ft	31.5 in	1.4 hp	850 RPM	0.0 °F	221700 CFM

Unit Performance

Design

Capacity	Input Power	Efficiency	IPLV
284.6 ton	355.4 kW	9.6 EER	19.4 EER

Performance Points rated at AHRI Ambient Relief

Unit					Evaporator				Condenser	
Point #	% Load	Capacity ton	Input Power kW	Efficiency EER	Fluid Flow gpm	Pressure Drop ft H_2O	Entering Fluid Temperature °F	Leaving Fluid Temperature °F	Ambient Air Temperature °F	Altitude ft
1	100.0	284.6	355.4	9.6	683.0	17.6	54.0	44.0	105.0	1,000
2	75.0	213.4	160.8	15.9	683.0	17.6	51.5	44.0	86.3	1,000
3	50.0	142.3	88.4	19.3	683.0	17.6	49.0	44.0	67.5	1,000
4	25.0	71.1	38.7	22.1	683.0	17.6	46.5	44.0	55.0	1,000

Sound (*without insulation*)

Sound Pressure (*at 30 feet*)

63 Hz dB	125 Hz dB	250 Hz dB	500 Hz dB	1 kHz dB	2 kHz dB	4 kHz dB	8 kHz dB	Overall dBA	75% Load dBA	50% Load dBA	25% Load dBA
80	71	70	69	68	61	57	50	**72**	68	66	65

Sound Power

63 Hz dB	125 Hz dB	250 Hz dB	500 Hz dB	1 kHz dB	2 kHz dB	4 kHz dB	8 kHz dB	Overall dBA	75% Load dBA	50% Load dBA	25% Load dBA
107	98	97	96	95	87	83	76	**98**	95	93	92

Octave band is non 'A' weighted and overall readings are 'A' weighted. Sound data rated in accordance with AHRI Standard-370.

Physical

Unit

Length	Height	Width	Shipping Weight*	Operating Weight*
396 in	100 in	88 in	20832 lb	22485 lb

* *Shipping and operating weights do not include the weights of any Options or Accessories. Contact Chiller Applications for additional information.*

Electrical

Unit Electrical Data

Voltage	Starter Type	Fan Motor Quantity	LRA Fan Motor (each)	FLA Fan Motors (each)
460 / 60 / 3	VFD (without EMI Filters)	20	14 A	3.4 A

Power Connection Type:	Single Point Disconnect Switch with Circuit Breakers
Phase Voltage:	None (PVM included as part of Solid State / VFD)

Single Point Power Connection

MCA:	568.6 A
Field Wire Gauge:	300 MCM
Field Wire Quantity:	6
Conduit Quantity:	2
Conduit Nom Size:	2.5
Fuse Size (*recommended*):	700 A
Fuse Size (*maximum*):	800 A
Connector Wire Size:	600 A
Connector Wire Range:	(2) 3/0-500MCM

Compressor Electrical Data		
Compressor Type	**Compressor Quantity**	**Starter Type**
Screw	2	VFD (without EMI Filters)

	Compressor #	
	1	**2**
RLA:	203 A	238 A
Inrush Current:	203 A	238 A

The electrical data is valid for copper power supply wires only. The use of aluminum wires for incoming unit power supply is acceptable for certain models. Please contact your local sales office for more information.

Options

Basic Unit	
Control Box Ambient:	High Ambient with Exhaust Fans (125ºF maximum)
Motor Cooling:	With Additional Liquid Injection Cooling
Control	
Communication:	BACnet IP

Warranty

Unit Startup:	Domestic
Standard Warranty:	1st Year Entire Unit Parts & Labor
Extended Compressor Warranty:	Compressor Only; extended 4 years parts & labor

AHRI Certification

Certified in accordance with the AHRI Air-Cooled Water Chilling Packages Using Vapor Compression Cycle Certification Program, which is based on AHRI Standard 550/590 (I-P) Certified units may be found in the AHRI Directory at www.ahridirectory.org.

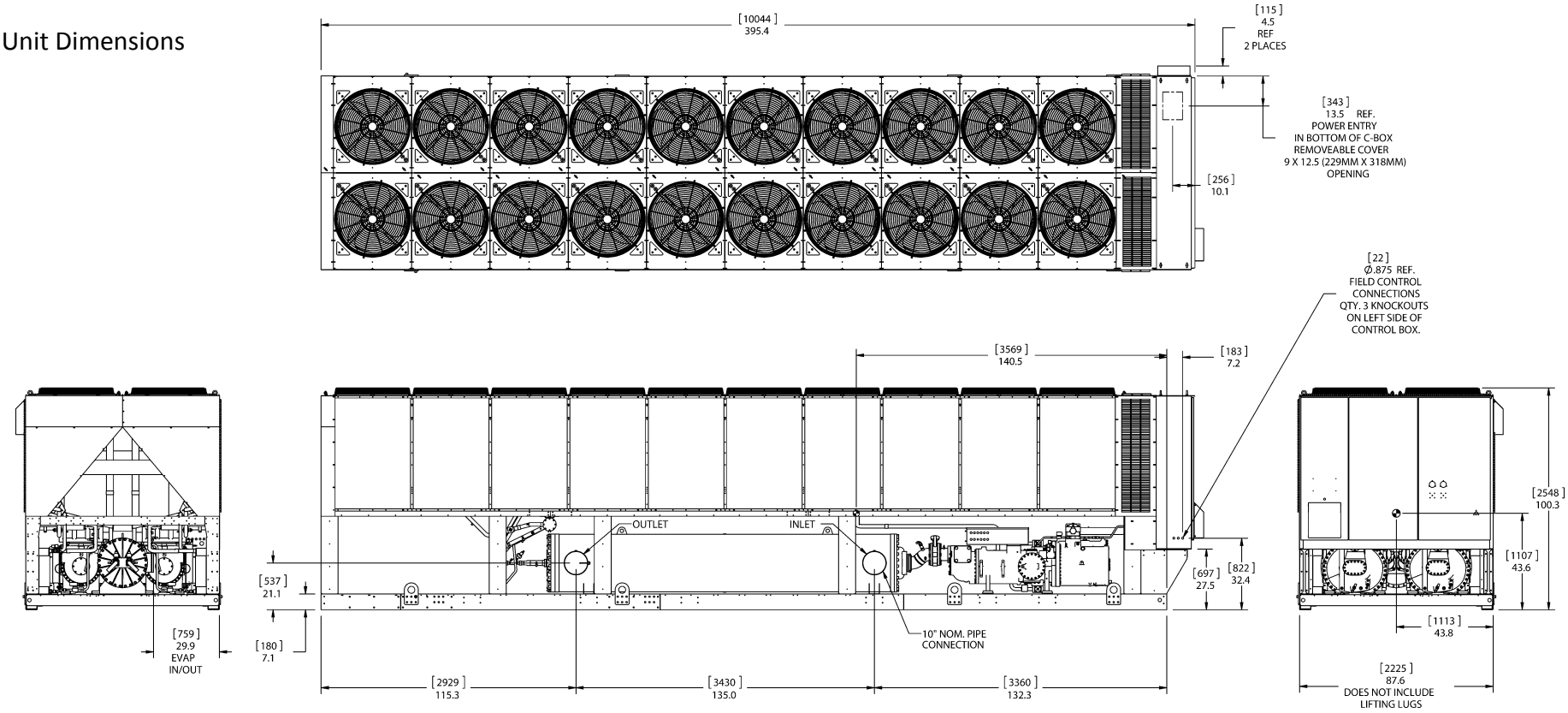
Accessories

Optional	
Part Number	**Description**
017503301	Flow Switch, Paddle, 3-8" Dia, 150PSI, Qty 1 (Not WDC)

Certified Drawings

AWS310CDP 460V Premium Efficiency with Packaged Evaporator and Compressor VFD

Unit Dimensions



Center of Gravity Dimensions					
X		Y		Z	
in	mm	in	mm	in	mm
43.8	1113	43.6	1107	140.5	3569

Dimension Notes
The water connection shown is for the default configuration; your unit may be configured differently. Consult the Item Summary sheet for exact configuration.

Product Drawing	Unit Tag: Lees Summit Schools			Sales Office: National Accounts		
Product: Air-Cooled Screw Chiller	Project Name: LSSD Chillers			Sales Engineer: Duane Rothstein		
Model: AWS310CDP	Jan. 17, 2014	Ver/Rev:	Sheet: 1 of 2	Scale: NTS	Tolerance: +/- 1.0"	Dwg Units: in [mm]

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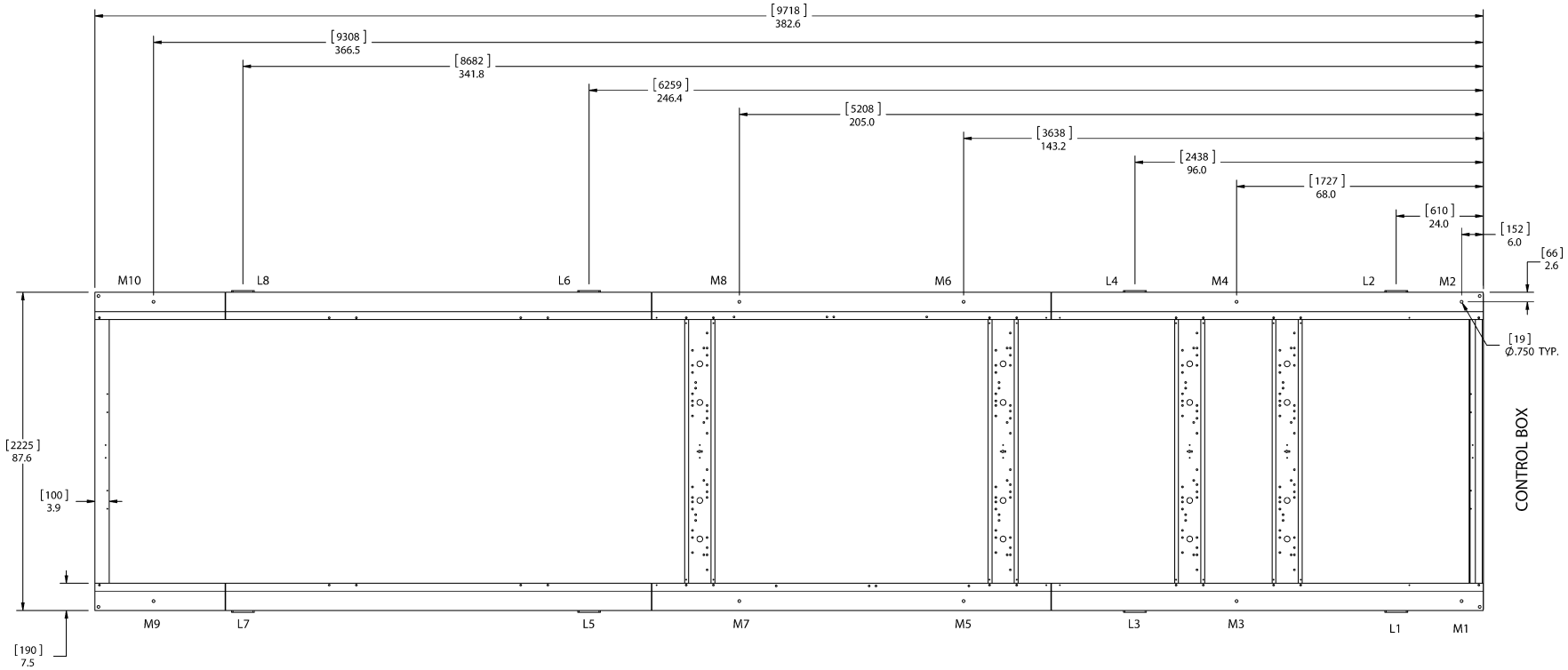
Mounting and Lifting



Unit Weight Data																					
Units	Weight			Lifting Weight								Mounting Load									
	Shipping	Operating	Copper Fins	L1	L2	L3	L4	L5	L6	L7	L8	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
lb	20624	23624	2968	3509	3509	3071	3071	2156	2156	1576	1576	2763	2763	2599	2599	2401	2401	2238	2238	1811	1811
kg	9355	10716	1346	1592	1592	1393	1393	978	978	715	715	1253	1253	1179	1179	1089	1089	1015	1015	821	821

SUBMITTAL DATA

for

LSSD Lees Summit HS Remodel

Prepared for

Henderson Engineers

Job Number: 8XB73N	Customer PO#:

Prepared by

David Duckworth

11/16/2020

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Technical Data Sheet for RTU A12 MAV2

Job Information	*Technical Data Sheet*
Job Name	LSSD Lees Summit HS Remodel
Date	11/16/2020
Submitted By	John Duckworth
Software Version	10.01
Unit Tag	RTU A12 MAV2

Unit Overview

Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
MPS040F	460/60/3	418681 Btu/hr	10.1	13	2016 Compliant

Unit

Model Number:	MPS040F
Model Type:	Cooling, Standard Efficiency
Heat Type:	Natural gas heat
Energy Recovery:	Energy Recovery Wheel
Application:	Variable volume, w/ VFD, Duct Pressure Control
Altitude:	0 ft
Approval	cETLus

Physical

Unit Dimensions and Weights

Unit Length	Unit Height	Unit Width	Unit Weight
300.2 in	84.8 in	97.5 in	7025 lb

Unit Construction

Exterior:	Prepainted Galv Steel	**Doors:**	Fan, Filter, Control Panel, and Heat Vestibule sections
Insulation:	R-value of 4.0	**Drain Pan Material**	Stainless Steel
Liners:	Double wall construction		

Unit Electrical Data

Voltage	SCCR	FLA	MCA	MROPD
460/60/3 V	10 kAIC	99.0 A	103.6 A	110 A

Note: Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Return/Outside/Exhaust Air

Outside Air Option

Type	Damper	Damper Pressure Drop	Leakage Rate
0-100% Econ with dry bulb control	Low leak with blade and jamb seals	0.02 inH_2O	1.5 cfm/sq ft @1" differential pressure

Ventilation Control: None

Draw Through Filters

Efficiency	Quantity/Size	Face Area ft^2	Face Velocity ft/min	Air Pressure Drop inH_2O
30% MERV 8	8 / 24 in x 24 in x 2 in, 4 / 18 in x 24 in x 2 in	36.0	278	0.06

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Technical Data Sheet for RTU A12 MAV2

Exhaust Air Option					
Fan Airflow	**Max Static Pressure**	**Fan Type**	**Fan Quantity**	**Fan Diameter**	**Capacity Control**
7000 CFM	1.50 inH_2O	BI SWSI	2	22"	Power Exhaust - Building pressure control
Motor Power	**Motor Type**	**Motor Quantity**	**Full Load Current**	**Drive Type**	
8.00	ECM	2	6.1 AA	Direct Drive	

Energy Recovery

Design OA Volume	Design Exhaust Volume	Wheel Press Drop	Motor HP	Motor FLA
4000 CFM	3800 CFM	0.57 inH_2O	0.25 HP	1.1 A

Summer Conditions										
OA Temp		**RA Temp**		**Wheel Leave Temp**		**Mixed Air Temp**		**Recovered Capacity** Btu/hr	**Total Effectiveness**	**Sensible Effectiveness**
Dry Bulb °F	**Wet Bulb** °F	**Dry Bulb** °F	**Wet Bulb** °F	**Dry Bulb** °F	**Wet Bulb** °F	**Dry Bulb** °F	**Wet Bulb** °F			
96.0	75.0	75.0	64.0	78.7	66.4	76.5	65.0	125764	0.81	0.84

Winter Conditions										
OA Temp		**RA Temp**		**Wheel Leave Temp**		**Mixed Air Temp**		**Recovered Capacity** Btu/hr	**Total Effectiveness**	**Sensible Effectiveness**
Dry Bulb °F	**Wet Bulb** °F	**Dry Bulb** °F	**Wet Bulb** °F	**Dry Bulb** °F	**Wet Bulb** °F	**Dry Bulb** °F	**Wet Bulb** °F			
0.0	0.0	70.0	60.0	58.0	51.9	65.2	56.9	325864	0.82	0.85

Bypass Damper: Yes

Energy Recovery Filters							
Efficiency	**Quantity/Size**	**Face Area**		**Face Velocity**		**Air Pressure Drop**	
		Outdoor ft^2	**Exhaust** ft^2	**Outdoor** ft/min	**Exhaust** ft/min	**Outdoor** inH_2O	**Exhaust** inH_2O
30% MERV 8	12 / 18 in x 24 in x 2 in	18.0	18.0	222.2	211.1	0.03	0.11

Combined Efficiency Factor

Unit CEF: 12.3

Note: CEF determined using AHRI guideline V, conditions of 80/67 return & 95/75 ambient, and outdoor airflow percentage

Cooling Coil

Fins per Inch	Rows	Face Area ft^2	Face Velocity ft/min	Condensate Connection Size	Air Pressure drop inH_2O
12	4	35.7	280	1.0 in. Male NPT	0.23

Cooling Performance						
Total Capacity Btu/hr	**Sensible Capacity** Btu/hr	**Entering Air Temperature**		**Leaving Air Temperature**		**Ambient Air Temp** °F
		Dry Bulb °F	**Wet Bulb** °F	**Dry Bulb** °F	**Wet Bulb** °F	
418681	276058	76.5	65.0	51.3	50.5	100.0

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
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Technical Data Sheet for RTU A12 MAV2

Fan Section

Type	Fan Wheel Diameter	Vibration Isolation
AF SWSI	30 in	1 inch spring, seismic

Fan Performance

Air Flow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
10000 CFM	3.98 inH_2O	1201 RPM	8.9 HP	0 ft

Motor

Horsepower	Type	Efficiency	Full Load Current
10 HP	Open drip proof, Premium efficiency	91.7	13.0 A

Drives

Type	Service Factor
Belt Drive	120%

Gas Heat Section

Type	Main Gas Pressure	Material	Gas Type
Tubular Heat exchanger with in-shot burner manifold	7-14 inH_2O	Stainless steel	Natural Gas

Ignition	Combustion Blower	Heat Stages	Gas Piping Connection Size
Electric	Induced draft blower	Modulating	3/4 in. Female NPT

Heating Performance

Input Size	Heat Airflow	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb
800 MBH Input/640 MBH Output	10000 CFM	640000 Btu/hr	81%	45.0 °F	104.0 °F

Unit Discharge Conditions

AirTemperature

Motor Heat Btu/hr	Moisture Removal lb/h	Unit Leaving Dry Bulb °F	Unit Leaving Wet Bulb °F	Unit Leaving Dewpoint °F
26364	128.0	53.7	51.3	49.5

Technical Data Sheet for RTU A12 MAV2

Condensing Section

Compressor

Type	Quantity	Refrigerant Charge		Total Power	Capacity Control	Refrigerant Type
		Circuit1	Circuit 2			
Scroll	4	25.5lbs	26.0 lbs	38.2 kW	5 steps	R410A

Compressor Amps:

Compressor 1	Fixed Speed	18.6 A
Compressor 2	Fixed Speed	18.6 A
Compressor 3	Fixed Speed	13.1 A
Compressor 4	Fixed Speed	13.1 A

Condenser Coil

Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves
Aluminum tube micro channel	18	Micro Channel	Aluminum	None

Low Ambient Control:	Std low ambient control to 0 F (-17.7 C)

Condenser Fan Motors

Number of Motors	Full Load Current
4	2.0 A

AHRI 360 Certified Data at AHRI 360 Standard Conditions

Net Capacity	Efficiency		ASHRAE 90.1
438000 Btu/hr	10.1 EER	13 IEER	2016 Compliant

Internal Static Pressure Drop Calculation

External Static Pressure:	2.00
Outside Air Damper:	0.02
Filter:	0.06
Cooling Coil:	0.23
(1) Energy Wheel & Filters OR Return Air Path:	1.50
Energy Wheel and Filters:	1.50
Gas Heat:	0.18
Total Static Pressure:	3.98 inH_2O

Notes

(1) Energy Wheel pressure drop is the higher of the return path or the energy recovery path (Wheel + Filters) to account for worst case static pressure on the supply fan.

Sound Power

Inlet

63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
74	77	84	76	72	67	65	62

Outlet

63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
80	84	89	85	81	76	72	68

Radiated

63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
84	96	94	93	91	88	87	85

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Technical Data Sheet for RTU A12 MAV2

Options	
Electrical	
Field Connection:	Non-Fused Disc Sw, Unit powered 115V GFI outlet
Power Options:	Phase Failure Monitor
Controls	
Temperature Controls:	DDC controls, no BAS communication card

Factory Installed Sensors

Leaving Coil/Entering Fan Temp Sensor
Duct High Limit Switch
Duct Static Pressure Sensor
Building Static Pressure Sensor
Discharge Air Temperature Sensor
Outside Air Temperature Sensor
Dirty Filter On/Off Switch
Airflow Proving Switch
Return Air Temperature Sensor
Supply Leaving Wheel Temperature Sensor
Exhaust Leaving Wheel Temperature Sensor
Return Air Relative Humidity Sensor

Warranty

Parts Warranty:	Standard one year
Compressor Warranty:	Standard one year
Heat Exchanger Warranty:	Standard one year

AHRI Certification

All equipment is rated and certified in accordance with AHRI 340/360

Notes

Accessories

Part Number	Description
Note:	
404000801	14" Roofcurb, Size 040-050, Energy Recovery

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AS NOTED ON PLANS REVIEW
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LEE'S SUMMIT, MISSOURI
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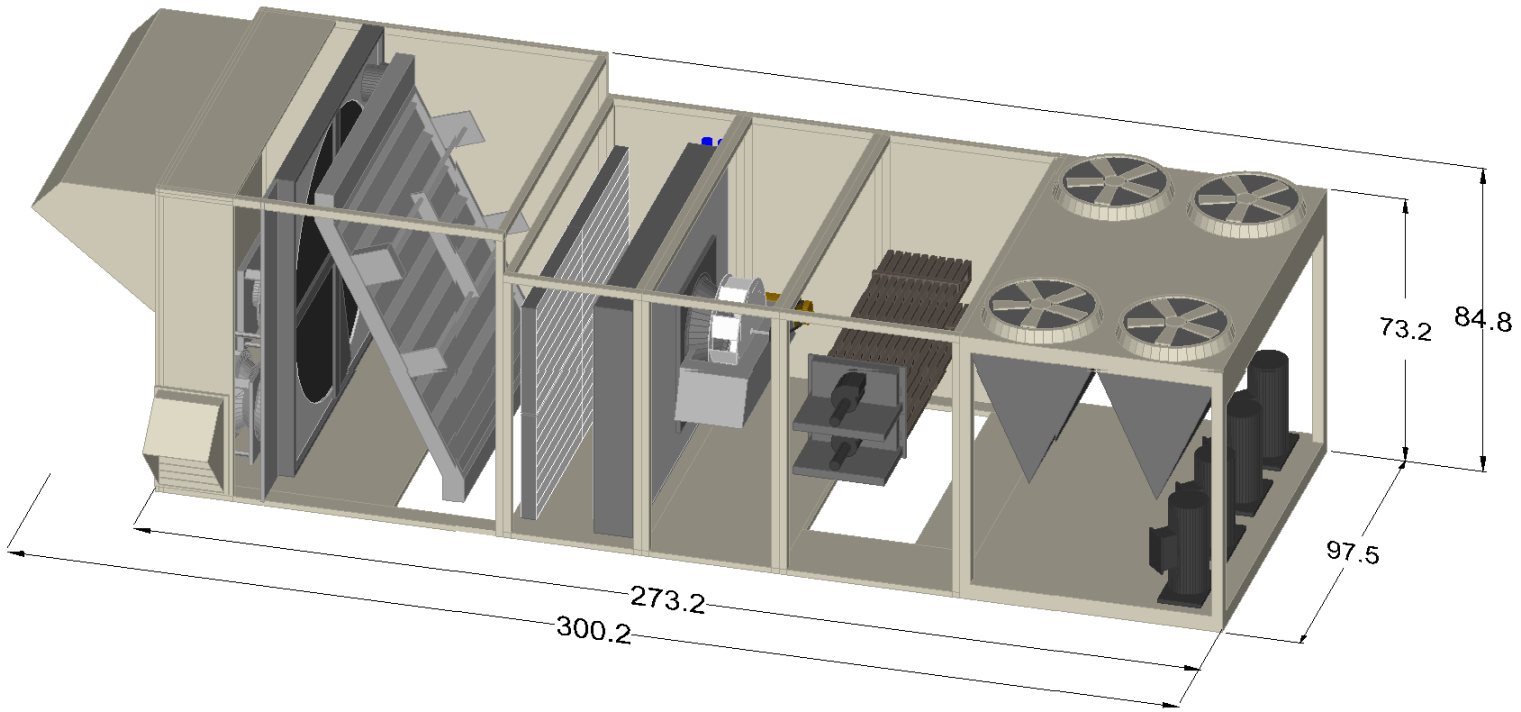

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Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: MPS040F	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25”	Dwg Units: in [mm]	

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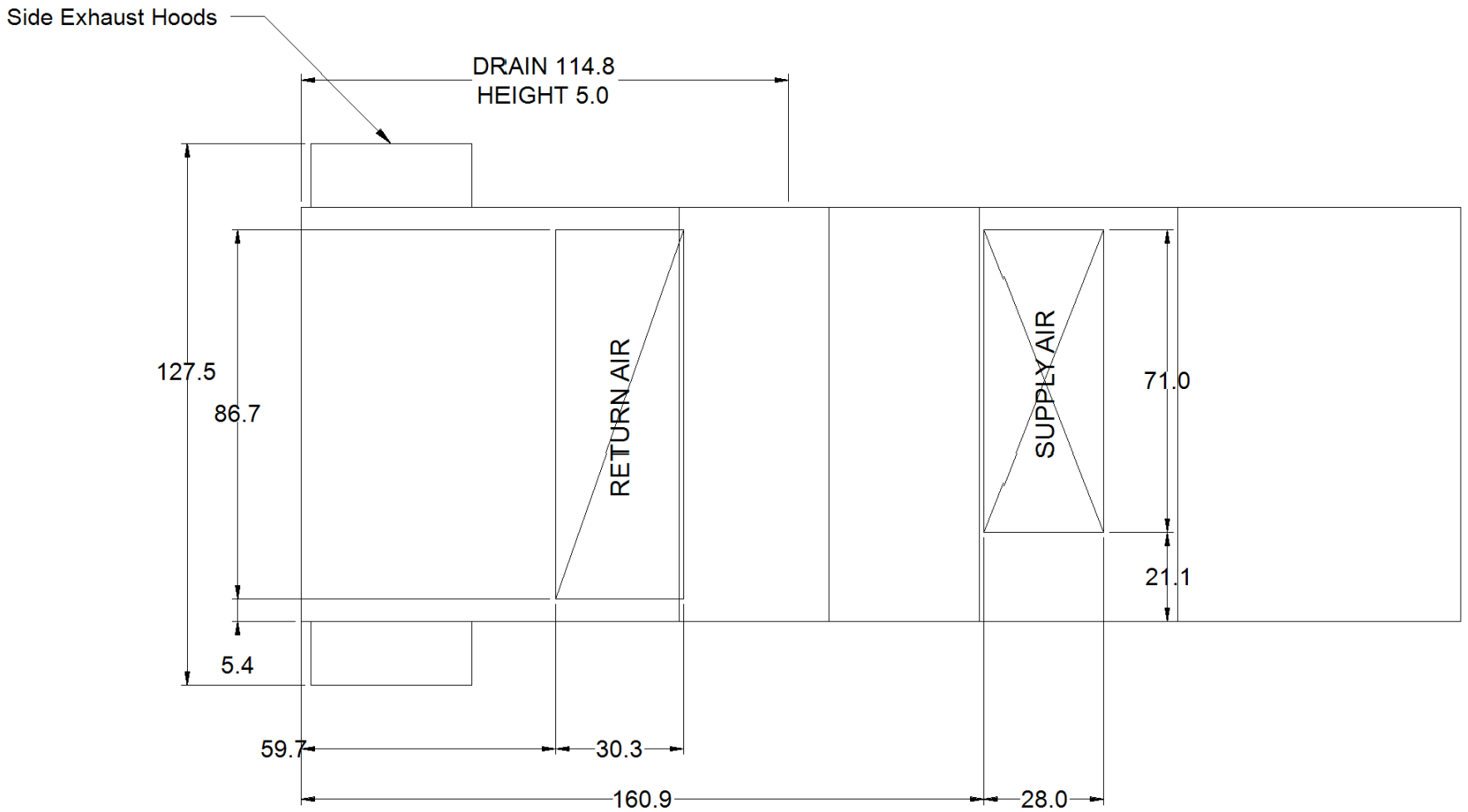
LEE'S SUMMIT, MISSOURI

01/14/2021

Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

Prepared Date: 11/16/2020



PLAN VIEW - OPENINGS & OVERALL

Product Drawing	Unit Tag: RTU A12 MAV2			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: MPS040F	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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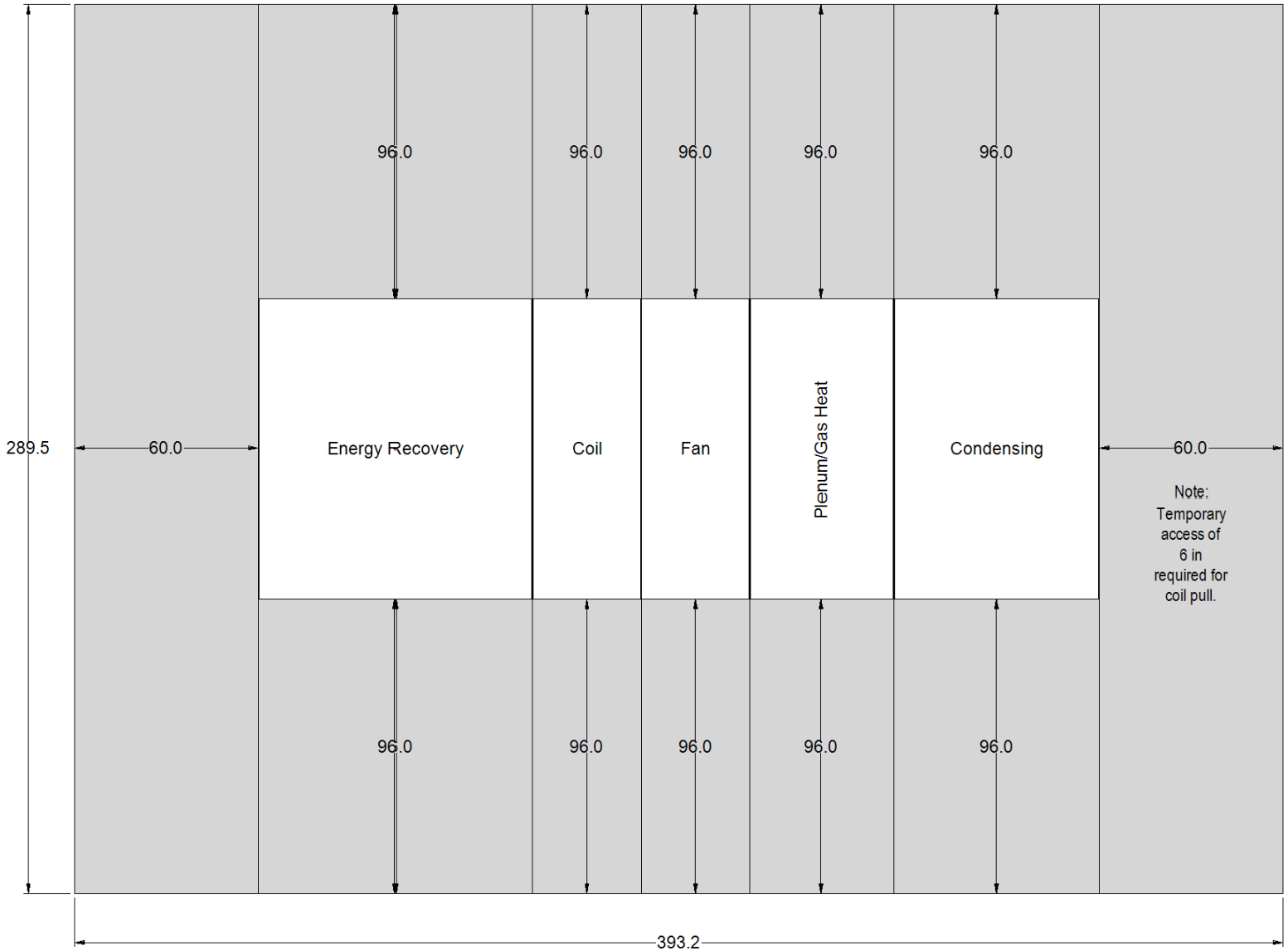
Drawings(3) for RTU A12 MAV2



PLAN VIEW - SERVICE CLEARANCE

Product Drawing	Unit Tag: RTU A12 MAV2			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: MPS040F	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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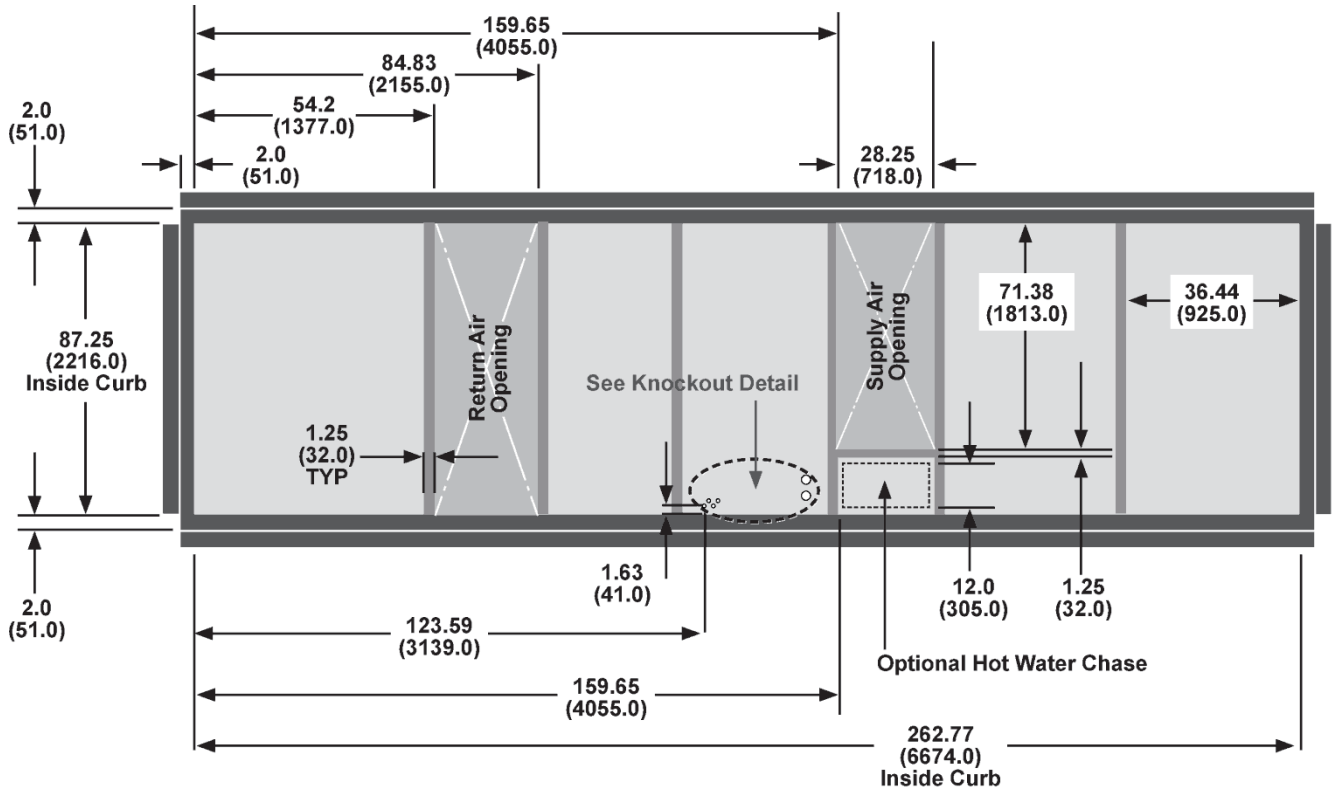
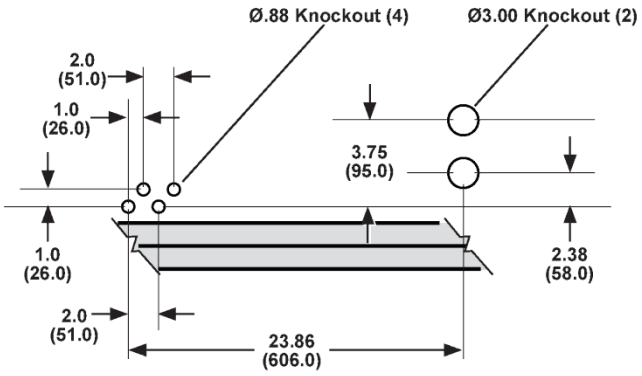
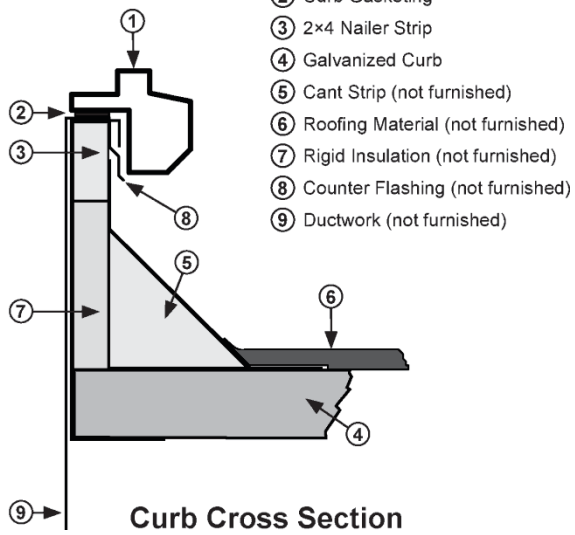
MPS040-050 ERW Curb_Drawing for RTU A12 MAV2



Plan View



Knockout Detail



Curb Cross Section

Product Drawing	Unit Tag: RTU A12 MAV2					
Product:	Project Name: LSSD Lees Summit HS					
Model: MPS040F	Sales Office: Daikin TMI LLC (Kansas City)					
Sales Engineer:	Nov. 16, 2020	Ver/Rev:	Sheet 1 of 1	Scale: NTS	Tolerance: +/-0.25	Dwg Units: in [mm]

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LEE'S SUMMIT, MISSOURI
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Technical Data Sheet for RTU A11 MAV2

Job Information	*Technical Data Sheet*
Job Name	LSSD Lees Summit HS Remodel
Date	11/16/2020
Submitted By	John Duckworth
Software Version	09.90
Unit Tag	RTU A11 MAV2

Unit Overview

Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
MPS050F	460/60/3	494909 Btu/hr	10.2	12.9	2016 Compliant

Unit

Model Number:	MPS050F
Model Type:	Cooling, Standard Efficiency
Heat Type:	Natural gas heat
Energy Recovery:	Energy Recovery Wheel
Application:	Variable volume, w/ VFD, Duct Pressure Control
Altitude:	0 ft
Approval	cETLus

Physical

Unit Dimensions and Weights

Unit Length	Unit Height	Unit Width	Unit Weight
300.2 in	84.8 in	97.5 in	7285 lb

Unit Construction

Exterior:	Prepainted Galv Steel	**Doors:**	Fan, Filter, Control Panel, and Heat Vestibule sections
Insulation:	R-value of 4.0	**Drain Pan Material**	Stainless Steel
Liners:	Double wall construction		

Unit Electrical Data

Voltage	SCCR	FLA	MCA	MROPD
460/60/3 V	10 kAIC	114.7 A	119.3 A	125 A

Note: Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Return/Outside/Exhaust Air

Outside Air Option

Type	Damper	Damper Pressure Drop	Leakage Rate
0-100% Econ with dry bulb control	Low leak with blade and jamb seals	0.03 inH_2O	1.5 cfm/sq ft @1" differential pressure

Ventilation Control: None

Draw Through Filters

Efficiency	Quantity/Size	Face Area ft^2	Face Velocity ft/min	Air Pressure Drop inH_2O
30% MERV 8	8 / 24 in x 24 in x 2 in, 4 / 18 in x 24 in x 2 in	44.0	295	0.1

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Technical Data Sheet for RTU A11 MAV2

Exhaust Air Option					
Fan Airflow	**Max Static Pressure**	**Fan Type**	**Fan Quantity**	**Fan Diameter**	**Capacity Control**
9000 CFM	1.50 inH_2O	BI SWSI	2	22"	Power Exhaust - Building pressure control
Motor Power	**Motor Type**	**Motor Quantity**	**Full Load Current**	**Drive Type**	
8.00	ECM	2	6.1 AA	Direct Drive	

Energy Recovery

Design OA Volume	Design Exhaust Volume	Wheel Press Drop	Motor HP	Motor FLA
4465 CFM	4200 CFM	0.63 inH_2O	0.25 HP	1.1 A

Summer Conditions

OA Temp		RA Temp		Wheel Leave Temp		Mixed Air Temp		Recovered Capacity Btu/hr	Total Effectiveness	Sensible Effectiveness
Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F			
96.0	75.0	75.0	64.0	79.1	66.6	76.4	64.9	137508	0.80	0.83

Winter Conditions

OA Temp		RA Temp		Wheel Leave Temp		Mixed Air Temp		Recovered Capacity Btu/hr	Total Effectiveness	Sensible Effectiveness
Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F			
0.0	0.0	70.0	60.0	56.8	51.2	65.5	57.1	356348	0.81	0.84

Bypass Damper: Yes

Energy Recovery Filters

Efficiency	Quantity/Size	Face Area		Face Velocity		Air Pressure Drop	
		Outdoor ft^2	Exhaust ft^2	Outdoor ft/min	Exhaust ft/min	Outdoor inH_2O	Exhaust inH_2O
30% MERV 8	12 / 18 in x 24 in x 2 in	18.0	18.0	248.1	233.3	0.04	0.18

Combined Efficiency Factor

Unit CEF: 12.1

Note: CEF determined using AHRI guideline V, conditions of 80/67 return & 95/75 ambient, and outdoor airflow percentage

Cooling Coil

Fins per Inch	Rows	Face Area ft^2	Face Velocity ft/min	Condensate Connection Size	Air Pressure drop inH_2O
12	4	35.7	364	1.0 in. Male NPT	0.33

Cooling Performance

Total Capacity Btu/hr	Sensible Capacity Btu/hr	Entering Air Temperature		Leaving Air Temperature		Ambient Air Temp °F
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
494909	337951	76.4	64.9	52.6	52.0	100.0

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Technical Data Sheet for RTU A11 MAV2

Fan Section

Type	Fan Wheel Diameter	Vibration Isolation
AF SWSI	30 in	1 inch spring, seismic

Fan Performance

Air Flow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
13000 CFM	4.27 inH_2O	1319 RPM	12.2 HP	0 ft

Motor

Horsepower	Type	Efficiency	Full Load Current
15 HP	Open drip proof, Premium efficiency	93.0	17.7 A

Drives

Type	Service Factor
Belt Drive	120%

Gas Heat Section

Type	Main Gas Pressure	Material	Gas Type
Tubular Heat exchanger with in-shot burner manifold	7-14 inH_2O	Stainless steel	Natural Gas

Ignition	Combustion Blower	Heat Stages	Gas Piping Connection Size
Electric	Induced draft blower	Modulating	3/4 in. Female NPT

Heating Performance

Input Size	Heat Airflow	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb
800 MBH Input/640 MBH Output	13000 CFM	640000 Btu/hr	81%	45.0 °F	90.4 °F

Unit Discharge Conditions

AirTemperature

Motor Heat Btu/hr	Moisture Removal lb/h	Unit Leaving Dry Bulb °F	Unit Leaving Wet Bulb °F	Unit Leaving Dewpoint °F
34878	139.6	55.1	52.8	51.0

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Technical Data Sheet for RTU A11 MAV2

Condensing Section

Compressor

Type	Quantity	Refrigerant Charge		Total Power	Capacity Control	Refrigerant Type
		Circuit1	Circuit 2			
Scroll	4	28.6lbs	29.1 lbs	43.2 kW	5 steps	R410A

Compressor Amps:

Compressor 1	Fixed Speed	18.6 A
Compressor 2	Fixed Speed	18.6 A
Compressor 3	Fixed Speed	18.6 A
Compressor 4	Fixed Speed	18.6 A

Condenser Coil

Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves
Aluminum tube micro channel	18	Micro Channel	Aluminum	None

Low Ambient Control:	Std low ambient control to 0 F (-17.7 C)

Condenser Fan Motors

Number of Motors	Full Load Current
4	2.0 A

AHRI 360 Certified Data at AHRI 360 Standard Conditions

Net Capacity	Efficiency		ASHRAE 90.1
507000 Btu/hr	10.2 EER	12.9 IEER	2016 Compliant

Internal Static Pressure Drop Calculation

External Static Pressure:	2.00
Outside Air Damper:	0.03
Filter:	0.10
Cooling Coil:	0.33
(1) Energy Wheel & Filters OR Return Air Path:	1.50
Energy Wheel and Filters:	1.50
Gas Heat:	0.30
Total Static Pressure:	4.27 inH_2O

Notes

(1) Energy Wheel pressure drop is the higher of the return path or the energy recovery path (Wheel + Filters) to account for worst case static pressure on the supply fan.

Sound Power

Inlet

63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
75	78	85	77	73	68	66	63

Outlet

63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
81	85	90	86	82	77	73	69

Radiated

63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
85	96	94	93	91	88	87	85

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Technical Data Sheet for RTU A11 MAV2

Options	
Electrical	
Field Connection:	Non-Fused Disc Sw, Unit powered 115V GFI outlet
Power Options:	Phase Failure Monitor
Controls	
Temperature Controls:	DDC controls, no BAS communication card

Factory Installed Sensors

Leaving Coil/Entering Fan Temp Sensor
Duct High Limit Switch
Duct Static Pressure Sensor
Building Static Pressure Sensor
Discharge Air Temperature Sensor
Outside Air Temperature Sensor
Dirty Filter On/Off Switch
Airflow Proving Switch
Return Air Temperature Sensor
Supply Leaving Wheel Temperature Sensor
Exhaust Leaving Wheel Temperature Sensor
Return Air Relative Humidity Sensor

Warranty

Parts Warranty:	Standard one year
Compressor Warranty:	Standard one year
Heat Exchanger Warranty:	Standard one year

AHRI Certification

All equipment is rated and certified in accordance with AHRI 340/360

Notes

Accessories

Part Number	Description
Note:	
404000801	14" Roofcurb, Size 040-050, Energy Recovery

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LEE'S SUMMIT, MISSOURI
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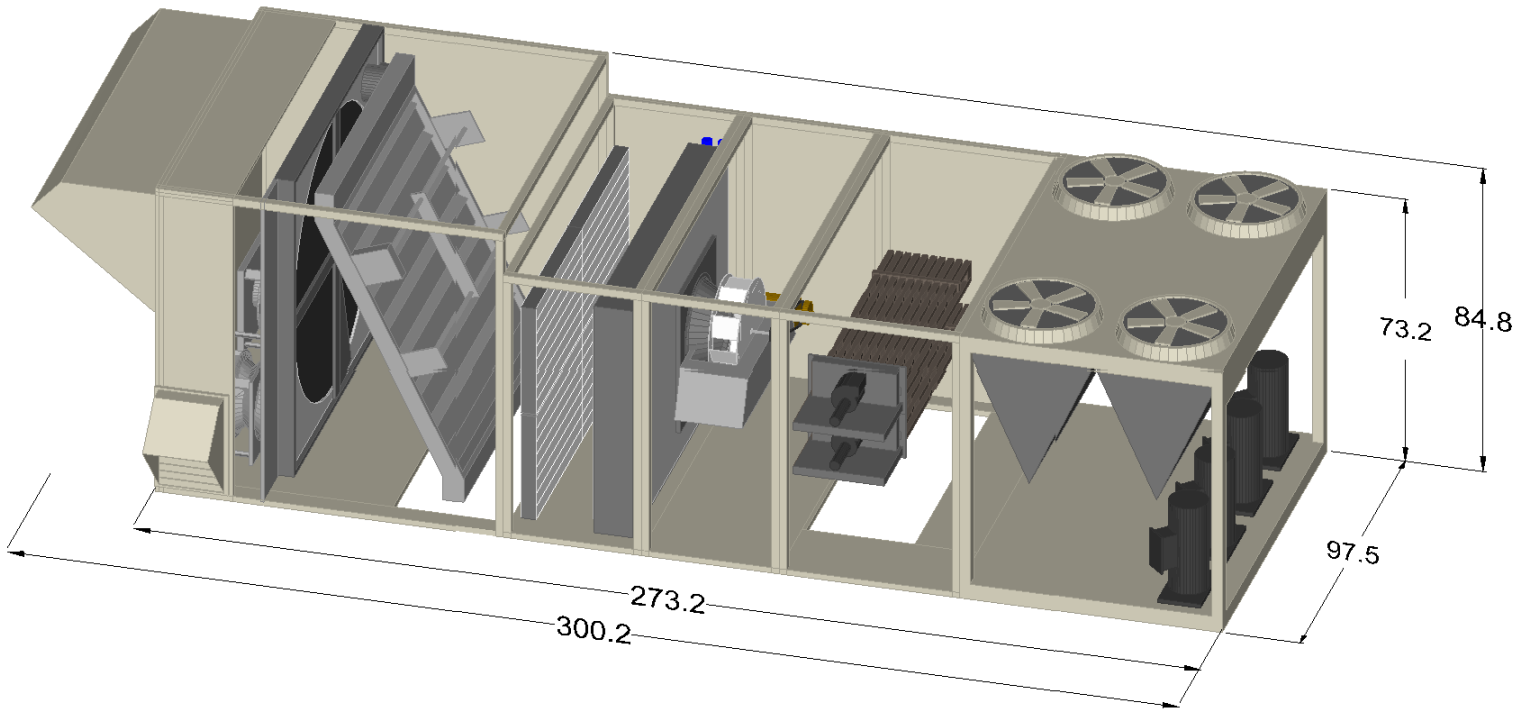

Product Drawing	Unit Tag: RTU A11 MAV2			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: MPS050F	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25”	Dwg Units: in [mm]	

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Software Version: 09.90

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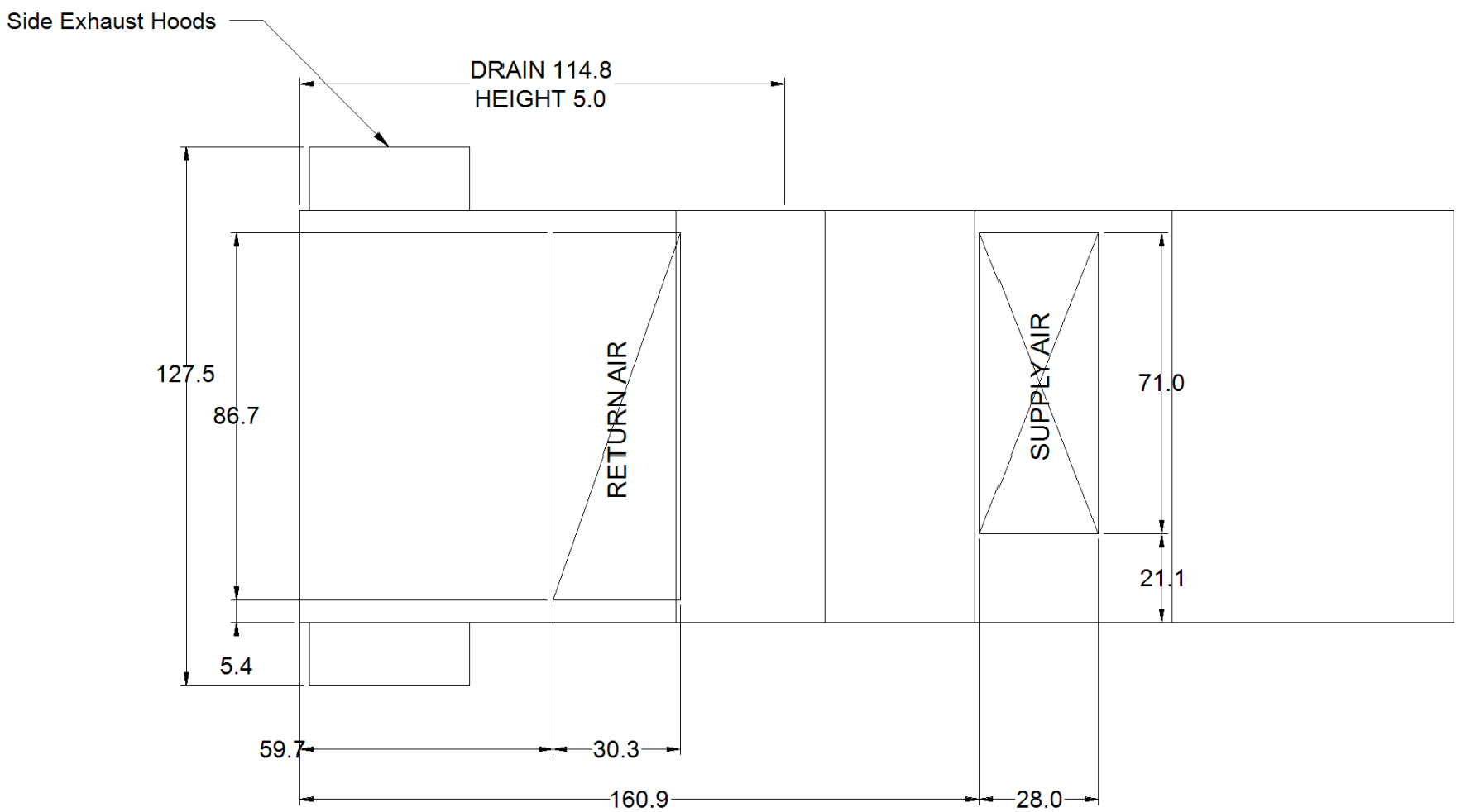
LEE'S SUMMIT, MISSOURI

01/14/2021

Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

Prepared Date: 11/16/2020

Drawings(2) for RTU A11 MAV2



PLAN VIEW - OPENINGS & OVERALL

Product Drawing	Unit Tag: RTU A11 MAV2			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: MPS050F	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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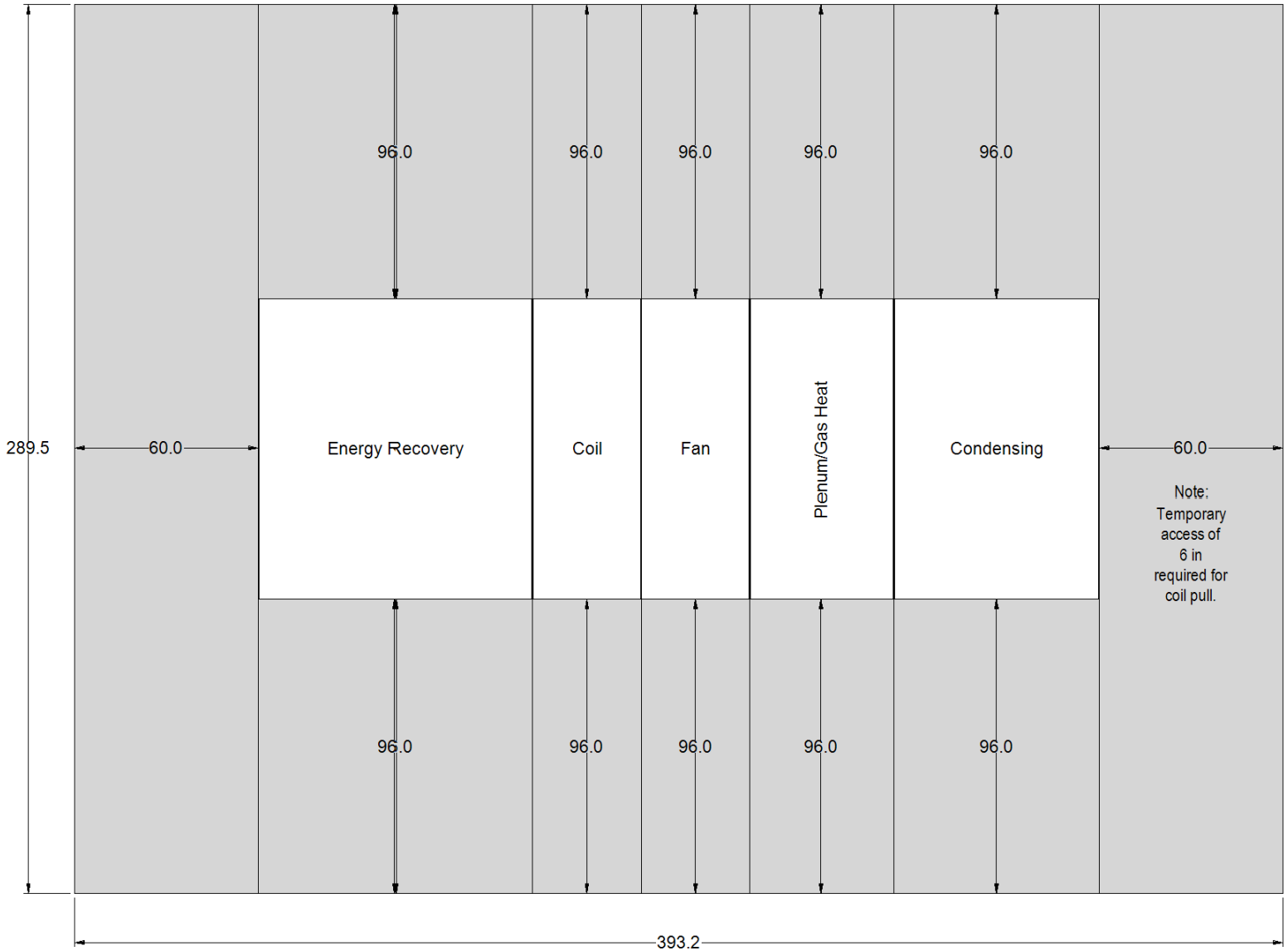
Drawings(3) for RTU A11 MAV2



PLAN VIEW - SERVICE CLEARANCE

Product Drawing	Unit Tag: RTU A11 MAV2			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: MPS050F	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25”	Dwg Units: in [mm]	

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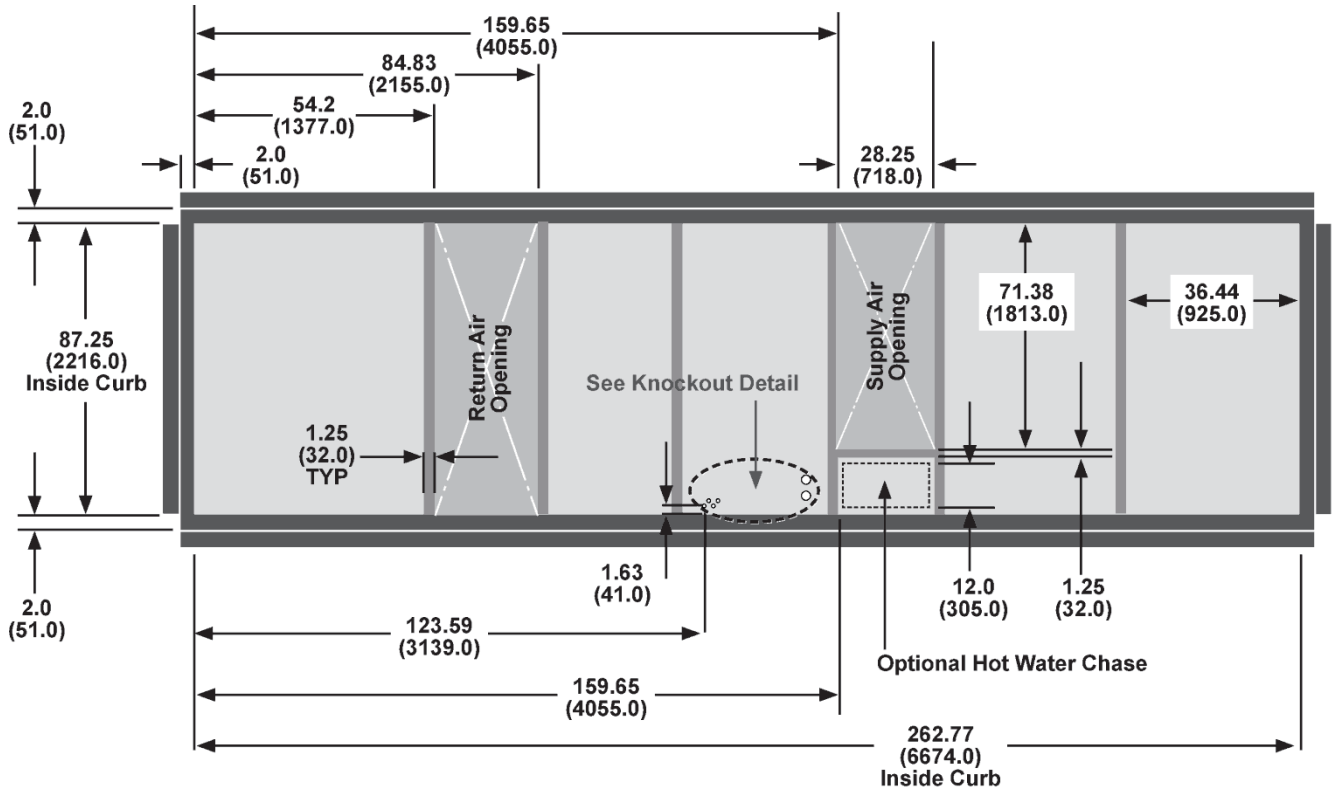
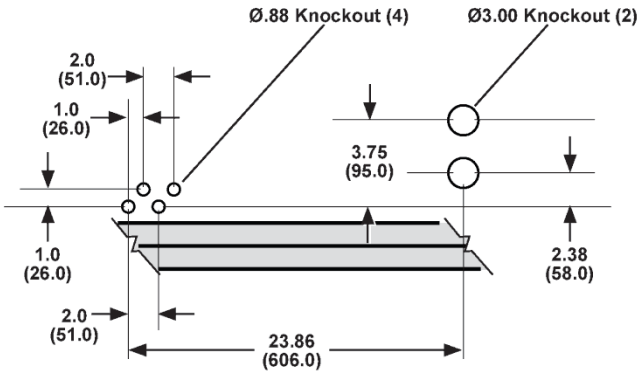
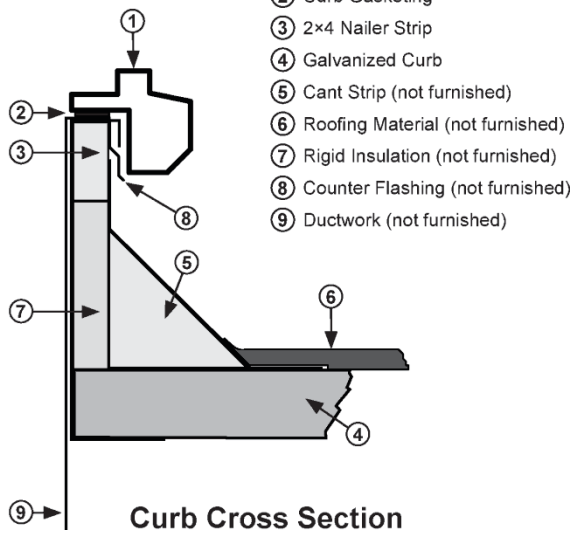
MPS040-050 ERW Curb_Drawing for RTU A11 MAV2



Plan View



Knockout Detail



Curb Cross Section

Product Drawing	Unit Tag: RTU A11 MAV2					
Product:	Project Name: LSSD Lees Summit HS					
Model: MPS050F	Sales Office: Daikin TMI LLC (Kansas City)					
Sales Engineer:	Nov. 16, 2020	Ver/Rev:	Sheet 1 of 1	Scale: NTS	Tolerance: +/-0.25	Dwg Units: in [mm]

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DEVELOPMENT SERVICES
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Technical Data Sheet for RTU B2

Job Information	*Technical Data Sheet*
Job Name	LSSD Lees Summit HS Remodel
Date	11/16/2020
Submitted By	John Duckworth
Software Version	10.01
Unit Tag	RTU B2

Unit Overview

Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
MPS050F	460/60/3	530621 Btu/hr	10.3	13.1	2016 Compliant

Unit

Model Number:	MPS050F
Model Type:	Cooling, Standard Efficiency
Heat Type:	Natural gas heat
Application:	Variable volume, w/ VFD, Duct Pressure Control
Altitude:	0 ft
Approval	cETLus

Physical

Unit Dimensions and Weights

Unit Length	Unit Height	Unit Width	Unit Weight
245.5 in	73.2 in	97.5 in	5535 lb

Unit Construction

Exterior:	Prepainted Galv Steel	**Doors:**	Fan, Filter, Control Panel, and Heat Vestibule sections
Insulation:	R-value of 4.0	**Drain Pan Material**	Stainless Steel
Liners:	Double wall construction		

Unit Electrical Data

Voltage	SCCR	FLA	MCA	MROPD
460/60/3 V	10 kAIC	101.4 A	106.0 A	110 A

Note: Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Return/Outside/Exhaust Air

Outside Air Option

Type	Damper	Damper Pressure Drop	Leakage Rate
0-100% Econ with dry bulb control	Low leak with blade and jamb seals	0.02 inH_2O	1.5 cfm/sq ft @1" differential pressure

Ventilation Control: None

Draw Through Filters

Efficiency	Quantity/Size	Face Area ft^2	Face Velocity ft/min	Air Pressure Drop inH_2O
30% MERV 8	8 / 24 in x 24 in x 2 in, 4 / 18 in x 24 in x 2 in	44.0	250	0.07

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
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Technical Data Sheet for RTU B2

Cooling Coil

Fins per Inch	Rows	Face Area ft^2	Face Velocity ft/min	Condensate Connection Size	Air Pressure drop inH_2O
12	6	35.7	308	1.0 in. Male NPT	0.39

Cooling Performance

Total Capacity Btu/hr	Sensible Capacity Btu/hr	Entering Air Temperature		Leaving Air Temperature		Ambient Air Temp °F
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
530621	364608	84.9	69.3	54.6	53.9	100.0

Fan Section

Type	Fan Wheel Diameter	Vibration Isolation
AF SWSI	30 in	1 inch spring, seismic

Fan Performance

Air Flow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
11000 CFM	2.70 inH_2O	1075 RPM	6.6 HP	0 ft

Motor

Horsepower	Type	Efficiency	Full Load Current
15 HP	Open drip proof, Premium efficiency	93.0	17.7 A

Drives

Type	Service Factor
Belt Drive	120%

Gas Heat Section

Type	Main Gas Pressure	Material	Gas Type
Tubular Heat exchanger with in-shot burner manifold	7-14 inH_2O	Stainless steel	Natural Gas

Ignition	Combustion Blower	Heat Stages	Gas Piping Connection Size
Electric	Induced draft blower	Modulating	3/4 in. Female NPT

Heating Performance

Input Size	Heat Airflow	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb
800 MBH Input/640 MBH Output	11000 CFM	640000 Btu/hr	81%	34.7 °F	88.3 °F

Unit Discharge Conditions

AirTemperature

Motor Heat Btu/hr	Moisture Removal lb/h	Unit Leaving Dry Bulb °F	Unit Leaving Wet Bulb °F	Unit Leaving Dewpoint °F
20572	144.6	56.3	54.5	53.2

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
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LEE'S SUMMIT, MISSOURI
01/14/2021

Technical Data Sheet for RTU B2

Condensing Section

Compressor

Type	Quantity	Refrigerant Charge		Total Power	Capacity Control	Refrigerant Type
		Circuit1	Circuit 2			
Scroll	4	32.1lbs	32.6 lbs	43.9 kW	5 steps	R410A

Compressor Amps:

Compressor 1	Fixed Speed	18.6 A
Compressor 2	Fixed Speed	18.6 A
Compressor 3	Fixed Speed	18.6 A
Compressor 4	Fixed Speed	18.6 A

Condenser Coil

Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves
Aluminum tube micro channel	18	Micro Channel	Aluminum	None

Low Ambient Control:	Std low ambient control to 0 F (-17.7 C)

Condenser Fan Motors

Number of Motors	Full Load Current
4	2.0 A

AHRI 360 Certified Data at AHRI 360 Standard Conditions

Net Capacity	Efficiency		ASHRAE 90.1
520000 Btu/hr	10.3 EER	13.1 IEER	2016 Compliant

Internal Static Pressure Drop Calculation

External Static Pressure:	2.00
Outside Air Damper:	0.02
Filter:	0.07
Cooling Coil:	0.39
Energy Wheel and Filters:	0.00
Gas Heat:	0.22
Total Static Pressure:	2.70 inH_2O

Sound Power

Inlet

63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
71	77	78	73	69	64	62	59

Outlet

63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
77	84	83	82	78	73	69	65

Radiated

63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
85	94	92	91	88	86	84	83

Options

Electrical

Field Connection:	Non-Fused Disc Sw, Unit powered 115V GFI outlet
Power Options:	Phase Failure Monitor

Controls

Temperature Controls:	DDC controls, no BAS communication card

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Technical Data Sheet for RTU B2

Factory Installed Sensors
Leaving Coil/Entering Fan Temp Sensor
Duct High Limit Switch
Duct Static Pressure Sensor
Return Air Temperature Sensor
Discharge Air Temperature Sensor
Outside Air Temperature Sensor
Dirty Filter On/Off Switch
Airflow Proving Switch

Warranty

Parts Warranty:	Standard one year
Compressor Warranty:	Standard one year
Heat Exchanger Warranty:	Standard one year

AHRI Certification

All equipment is rated and certified in accordance with AHRI 340/360

Notes

Accessories

Part Number	Description
Note:	
500144201	14" Roofcurb, size 040-050

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
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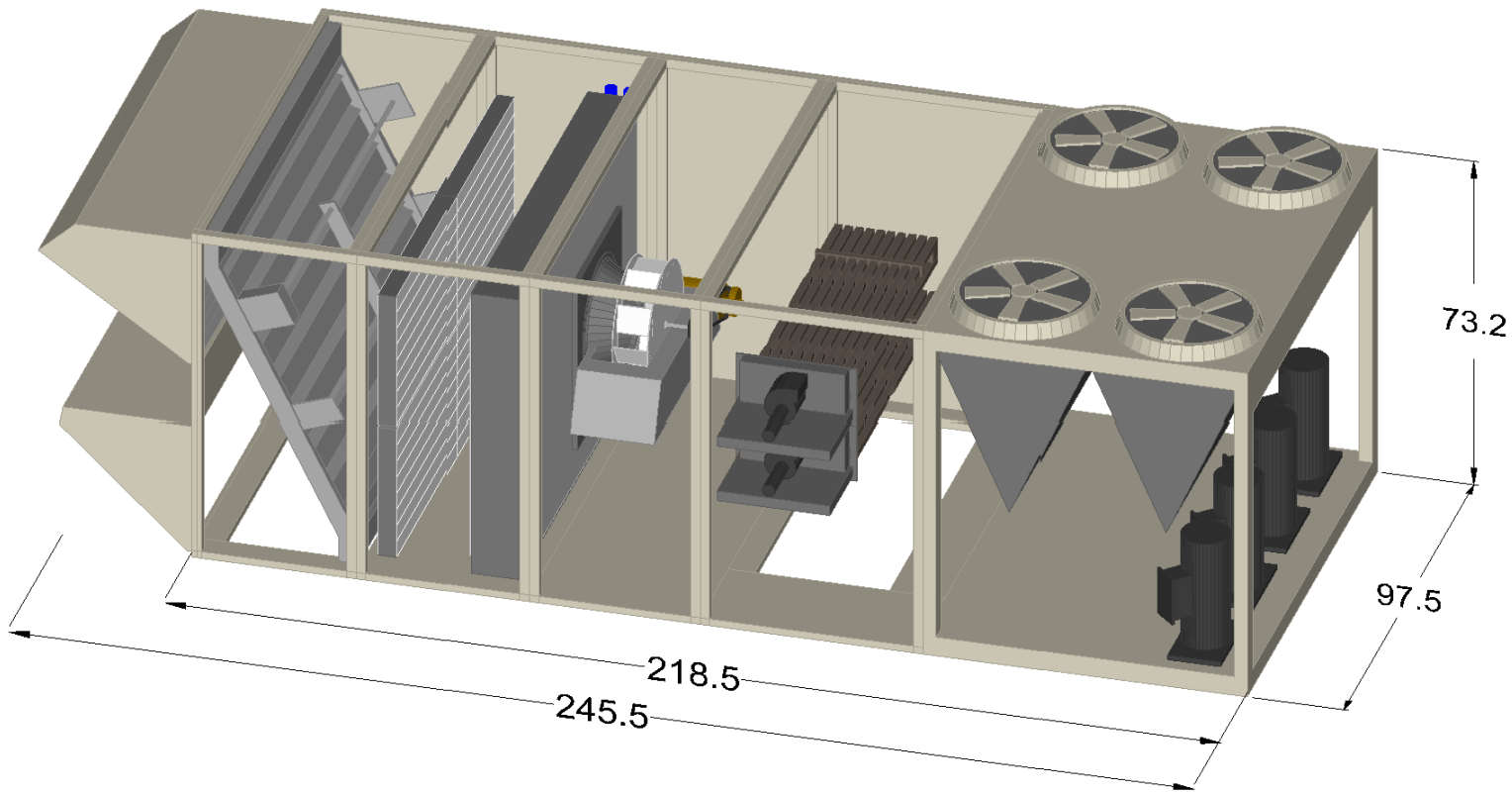

Product Drawing	Unit Tag: RTU B2			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: MPS050F	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25”	Dwg Units: in [mm]	

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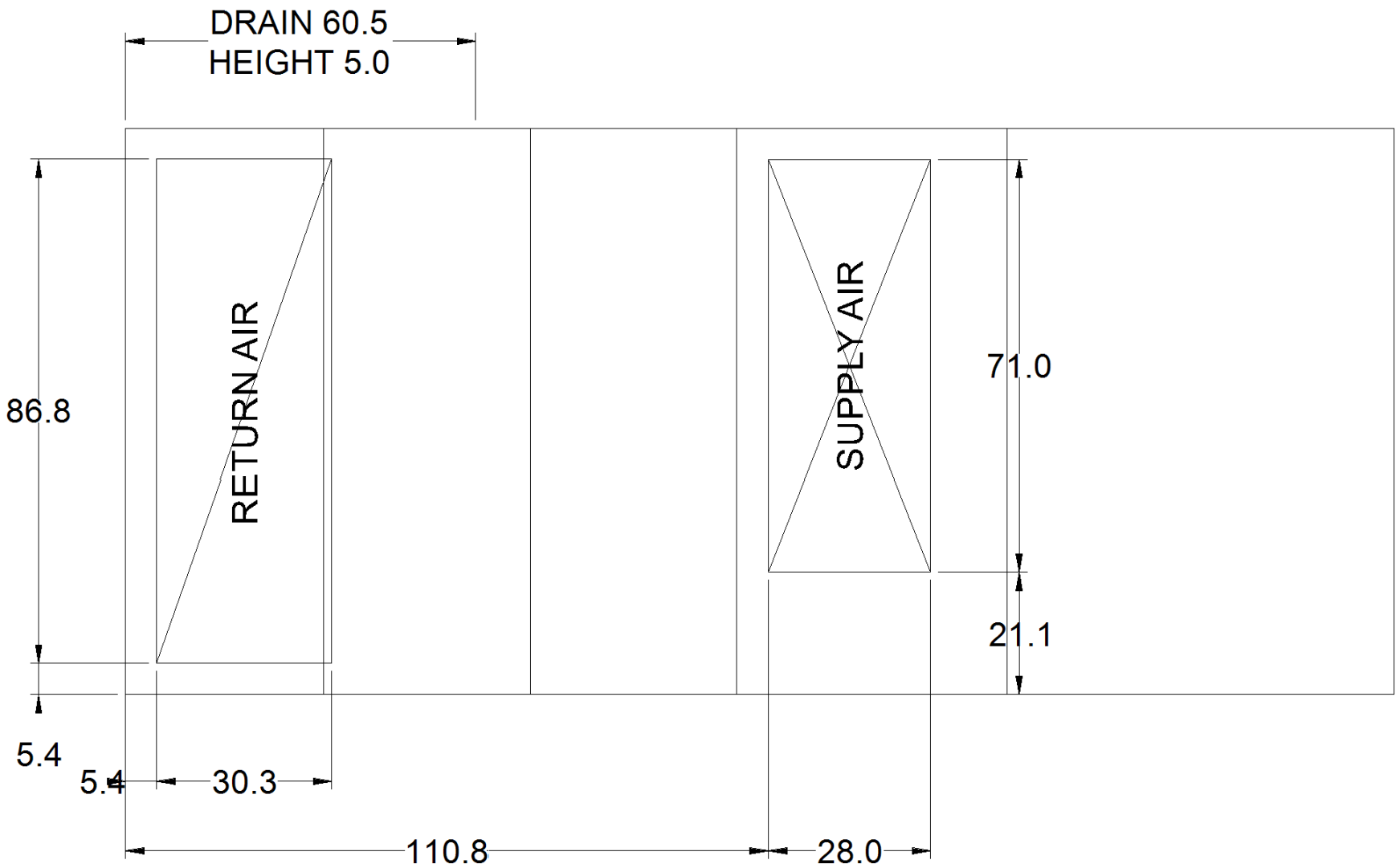
LEE'S SUMMIT, MISSOURI

01/14/2021

Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

Prepared Date: 11/16/2020



PLAN VIEW - OPENINGS & OVERALL

Product Drawing	Unit Tag: RTU B2			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: MPS050F	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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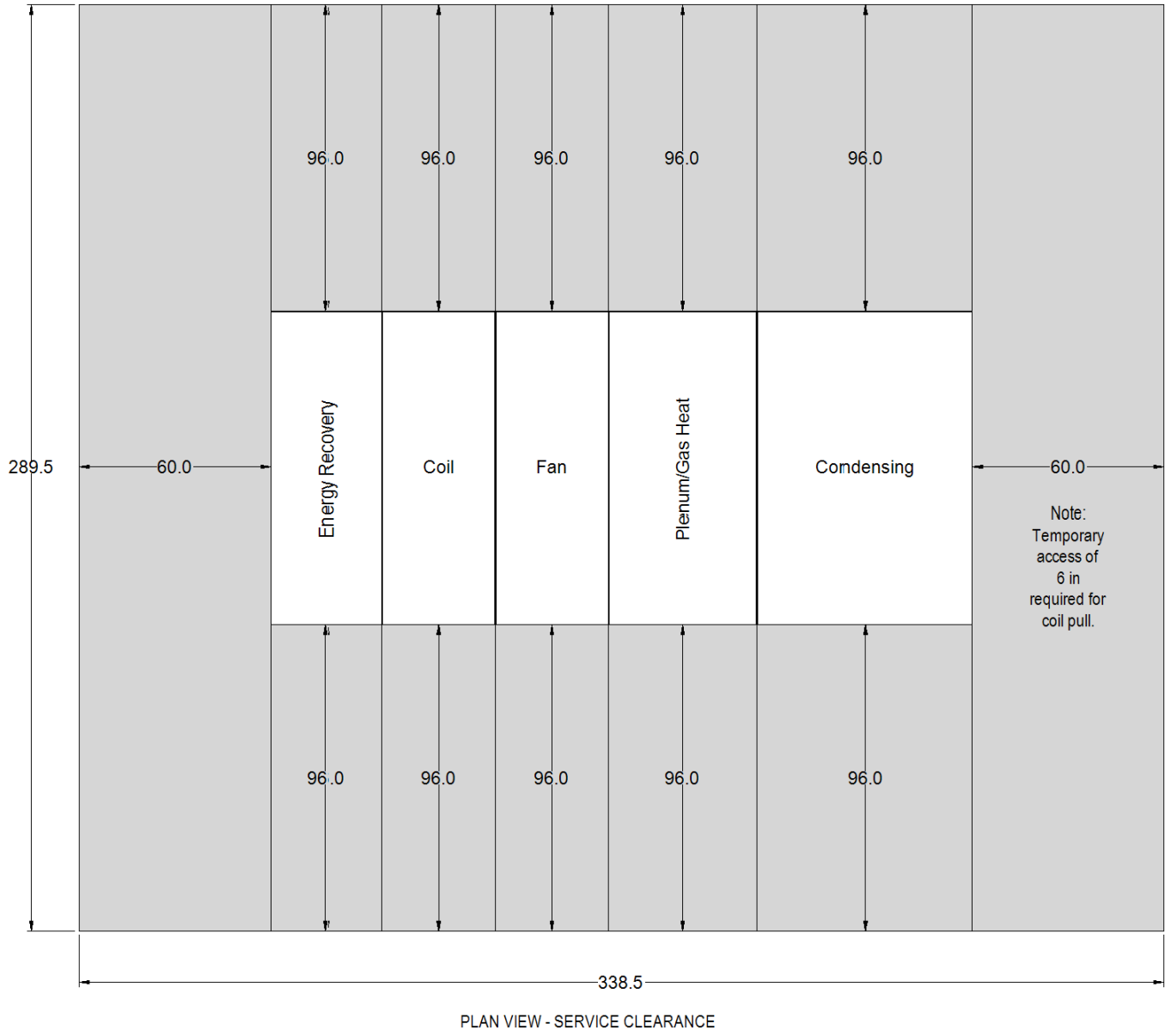

PLAN VIEW - SERVICE CLEARANCE

Product Drawing	Unit Tag: RTU B2			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: MPS050F	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25”	Dwg Units: in [mm]	

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RELEASE FOR CONSTRUCTION
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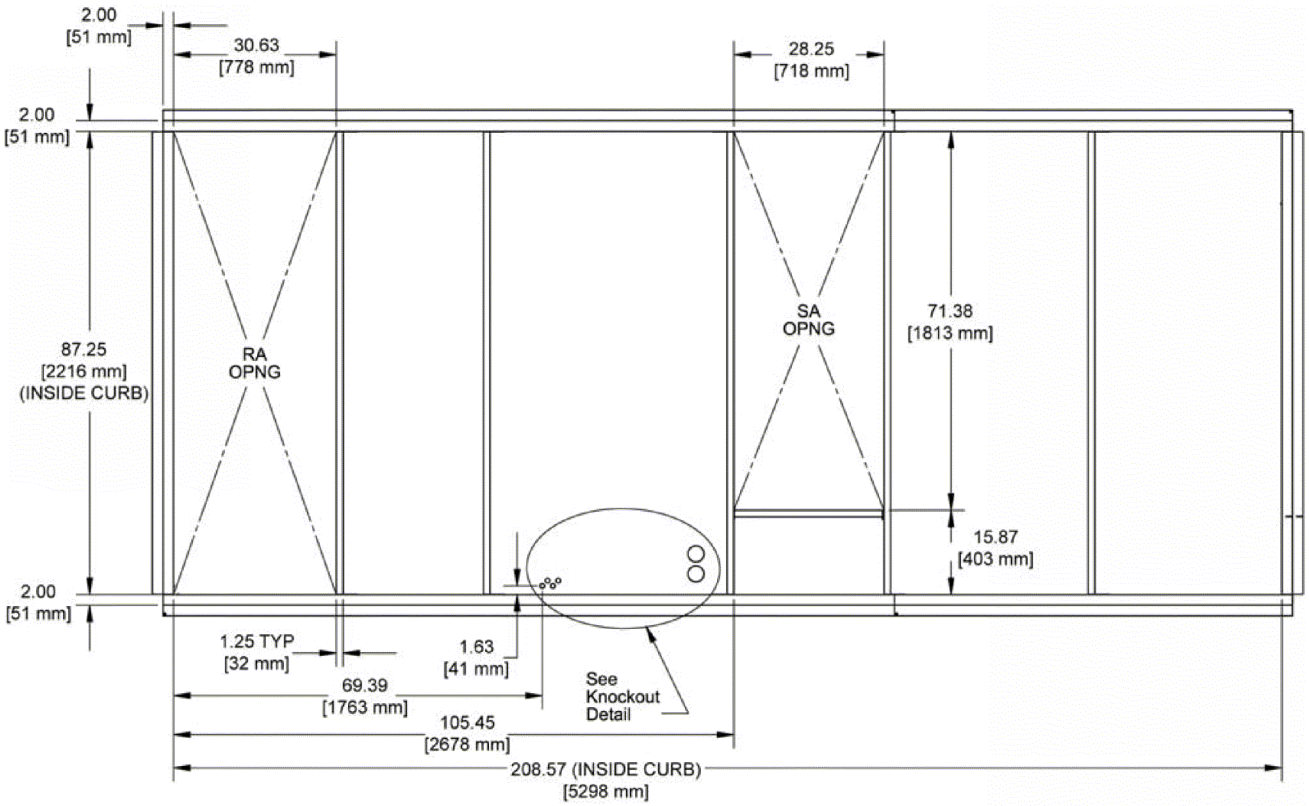
LEE'S SUMMIT, MISSOURI

01/14/2021

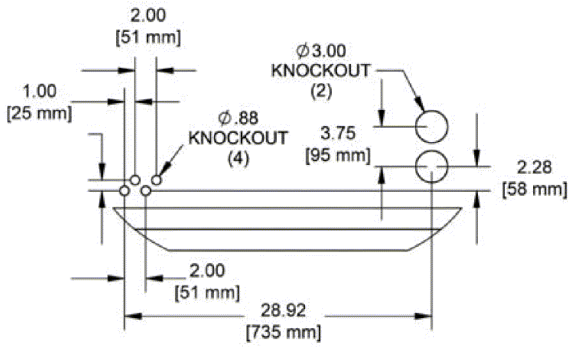
Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

Prepared Date: 11/16/2020

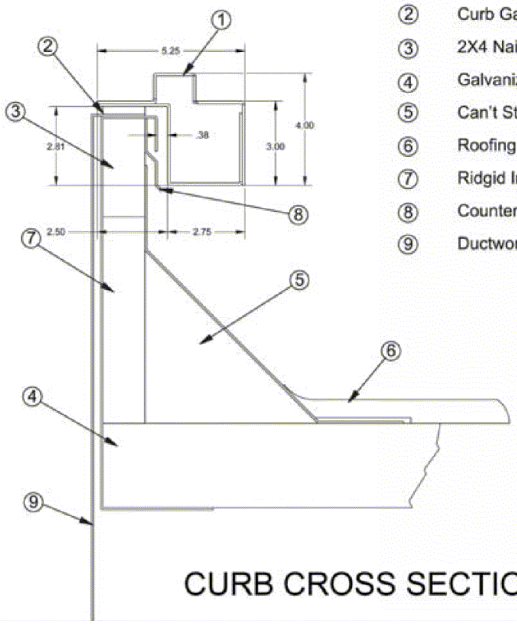
MPS 040 - 050 Cooling Curb_Drawing for RTU B2



PLAN VIEW



KNOCKOUT DETAIL



1. Unit Base
2. Curb Gasketing
3. 2X4 Nailer Strip
4. Galvanized Curb
5. Can't Strip (not furnished)
6. Roofing Material (not furnished)
7. Ridgid Insulation (not furnished)
8. Counter flashing (not furnished)
9. Ductwork (not furnished)

CURB CROSS SECTION

Product Drawing	Unit Tag: RTU B2					
Product:	Project Name: LSSD Lees Summit HS					
Model: MPS050F	Sales Office: Daikin TMI LLC (Kansas City)					
Sales Engineer:	Nov. 16, 2020	Ver/Rev:	Sheet 1 of 1	Scale: NTS	Tolerance: +/- 0.25	Dwg Units: in [mm]

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LEE'S SUMMIT, MISSOURI
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Technical Data Sheet for RTU B6

Job Information	*Technical Data Sheet*
Job Name	LSSD Lees Summit HS Remodel
Date	11/16/2020
Submitted By	John Duckworth
Software Version	10.01
Unit Tag	RTU B6

Unit Overview

Model Number	Voltage	Design Cooling Capacity	AHRI 360 Standard Efficiency		ASHRAE 90.1
			EER	IEER	
MPS040F	460/60/3	430341 Btu/hr	10.1	13	2016 Compliant

Unit

Model Number:	MPS040F
Model Type:	Cooling, Standard Efficiency
Heat Type:	Natural gas heat
Application:	Variable volume, w/ VFD, Duct Pressure Control
Altitude:	0 ft
Approval	cETLus

Physical

Unit Dimensions and Weights

Unit Length	Unit Height	Unit Width	Unit Weight
245.5 in	73.2 in	97.5 in	5375 lb

Unit Construction

Exterior:	Prepainted Galv Steel	**Doors:**	Fan, Filter, Control Panel, and Heat Vestibule sections
Insulation:	R-value of 4.0	**Drain Pan Material**	Stainless Steel
Liners:	Double wall construction		

Unit Electrical Data

Voltage	SCCR	FLA	MCA	MROPD
460/60/3 V	10 kAIC	90.4 A	95.0 A	110 A

Note: Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Return/Outside/Exhaust Air

Outside Air Option

Type	Damper	Damper Pressure Drop	Leakage Rate
0-100% Econ with dry bulb control	Low leak with blade and jamb seals	0.01 inH_2O	1.5 cfm/sq ft @1" differential pressure

Ventilation Control: None

Draw Through Filters

Efficiency	Quantity/Size	Face Area ft^2	Face Velocity ft/min	Air Pressure Drop inH_2O
30% MERV 8	8 / 24 in x 24 in x 2 in, 4 / 18 in x 24 in x 2 in	36.0	222	0.04

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Technical Data Sheet for RTU B6

Cooling Coil

Fins per Inch	Rows	Face Area ft^2	Face Velocity ft/min	Condensate Connection Size	Air Pressure drop inH_2O
12	4	35.7	224	1.0 in. Male NPT	0.16

Cooling Performance

Total Capacity Btu/hr	Sensible Capacity Btu/hr	Entering Air Temperature		Leaving Air Temperature		Ambient Air Temp °F
		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	
430341	288471	85.7	69.3	52.7	51.7	100.0

Fan Section

Type	Fan Wheel Diameter	Vibration Isolation
AF SWSI	30 in	1 inch spring, seismic

Fan Performance

Air Flow	Total Static Pressure	Fan Speed	Brake Horsepower	Altitude
8000 CFM	2.33 inH_2O	926 RPM	4.1 HP	0 ft

Motor

Horsepower	Type	Efficiency	Full Load Current
15 HP	Open drip proof, Premium efficiency	93.0	17.7 A

Drives

Type	Service Factor
Belt Drive	120%

Gas Heat Section

Type	Main Gas Pressure	Material	Gas Type
Tubular Heat exchanger with in-shot burner manifold	7-14 inH_2O	Stainless steel	Natural Gas

Ignition	Combustion Blower	Heat Stages	Gas Piping Connection Size
Electric	Induced draft blower	Modulating	3/4 in. Female NPT

Heating Performance

Input Size	Heat Airflow	Total Capacity	Steady State Efficiency	Entering Air Dry Bulb	Leaving Air Dry Bulb
800 MBH Input/640 MBH Output	8000 CFM	640000 Btu/hr	81%	32.0 °F	105.7 °F

Unit Discharge Conditions

AirTemperature

Motor Heat Btu/hr	Moisture Removal lb/h	Unit Leaving Dry Bulb °F	Unit Leaving Wet Bulb °F	Unit Leaving Dewpoint °F
14288	125.0	54.4	52.3	50.7

RELEASE FOR CONSTRUCTION
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/14/2021

Technical Data Sheet for RTU B6

Condensing Section

Compressor

Type	Quantity	Refrigerant Charge		Total Power	Capacity Control	Refrigerant Type
		Circuit1	Circuit 2			
Scroll	4	25.5lbs	26.0 lbs	38.4 kW	5 steps	R410A

Compressor Amps:

Compressor 1	Fixed Speed	18.6 A
Compressor 2	Fixed Speed	18.6 A
Compressor 3	Fixed Speed	13.1 A
Compressor 4	Fixed Speed	13.1 A

Condenser Coil

Type	Fins Per Inch	Rows	Fin Material	Refrigerant Valves
Aluminum tube micro channel	18	Micro Channel	Aluminum	None

Low Ambient Control:	Std low ambient control to 0 F (-17.7 C)

Condenser Fan Motors

Number of Motors	Full Load Current
4	2.0 A

AHRI 360 Certified Data at AHRI 360 Standard Conditions

Net Capacity	Efficiency		ASHRAE 90.1
438000 Btu/hr	10.1 EER	13 IEER	2016 Compliant

Internal Static Pressure Drop Calculation

External Static Pressure:	2.00
Outside Air Damper:	0.01
Filter:	0.04
Cooling Coil:	0.16
Energy Wheel and Filters:	0.00
Gas Heat:	0.11
Total Static Pressure:	2.33 inH_2O

Sound Power

Inlet

63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
68	74	75	70	66	61	59	56

Outlet

63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
74	81	80	79	75	70	66	62

Radiated

63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
84	94	92	91	88	86	84	83

Options

Electrical

Field Connection:	Non-Fused Disc Sw, Unit powered 115V GFI outlet
Power Options:	Phase Failure Monitor

Controls

Temperature Controls:	DDC controls, no BAS communication card

Technical Data Sheet for RTU B6

Factory Installed Sensors
Leaving Coil/Entering Fan Temp Sensor
Duct High Limit Switch
Duct Static Pressure Sensor
Return Air Temperature Sensor
Discharge Air Temperature Sensor
Outside Air Temperature Sensor
Dirty Filter On/Off Switch
Airflow Proving Switch

Warranty

Parts Warranty:	Standard one year
Compressor Warranty:	Standard one year
Heat Exchanger Warranty:	Standard one year

AHRI Certification

All equipment is rated and certified in accordance with AHRI 340/360

Notes

Accessories

Part Number	Description
Note:	
500144201	14" Roofcurb, size 040-050

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AS NOTED ON PLANS REVIEW
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LEE'S SUMMIT, MISSOURI
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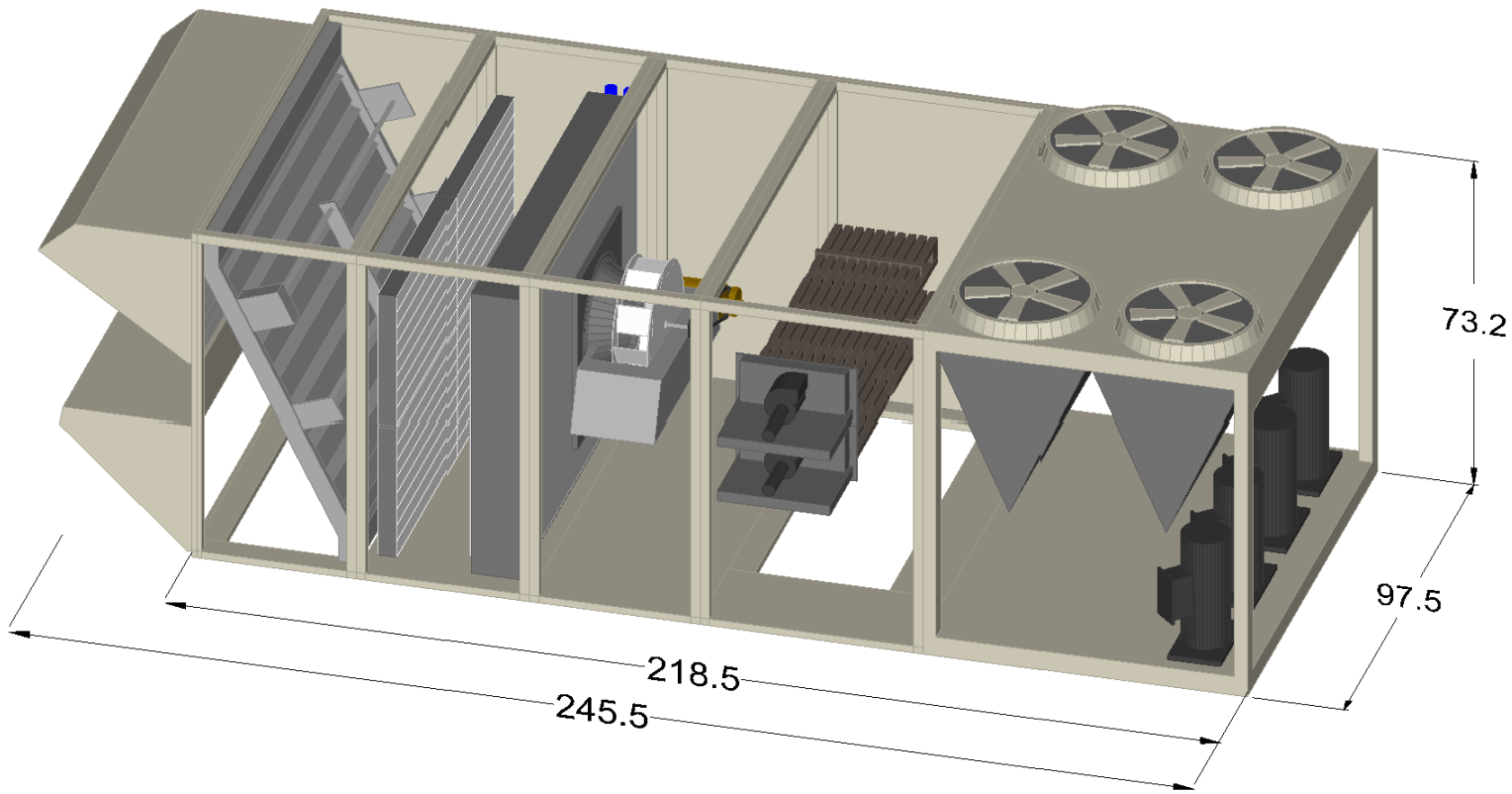

Product Drawing	Unit Tag: RTU B6			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: MPS040F	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25”	Dwg Units: in [mm]	

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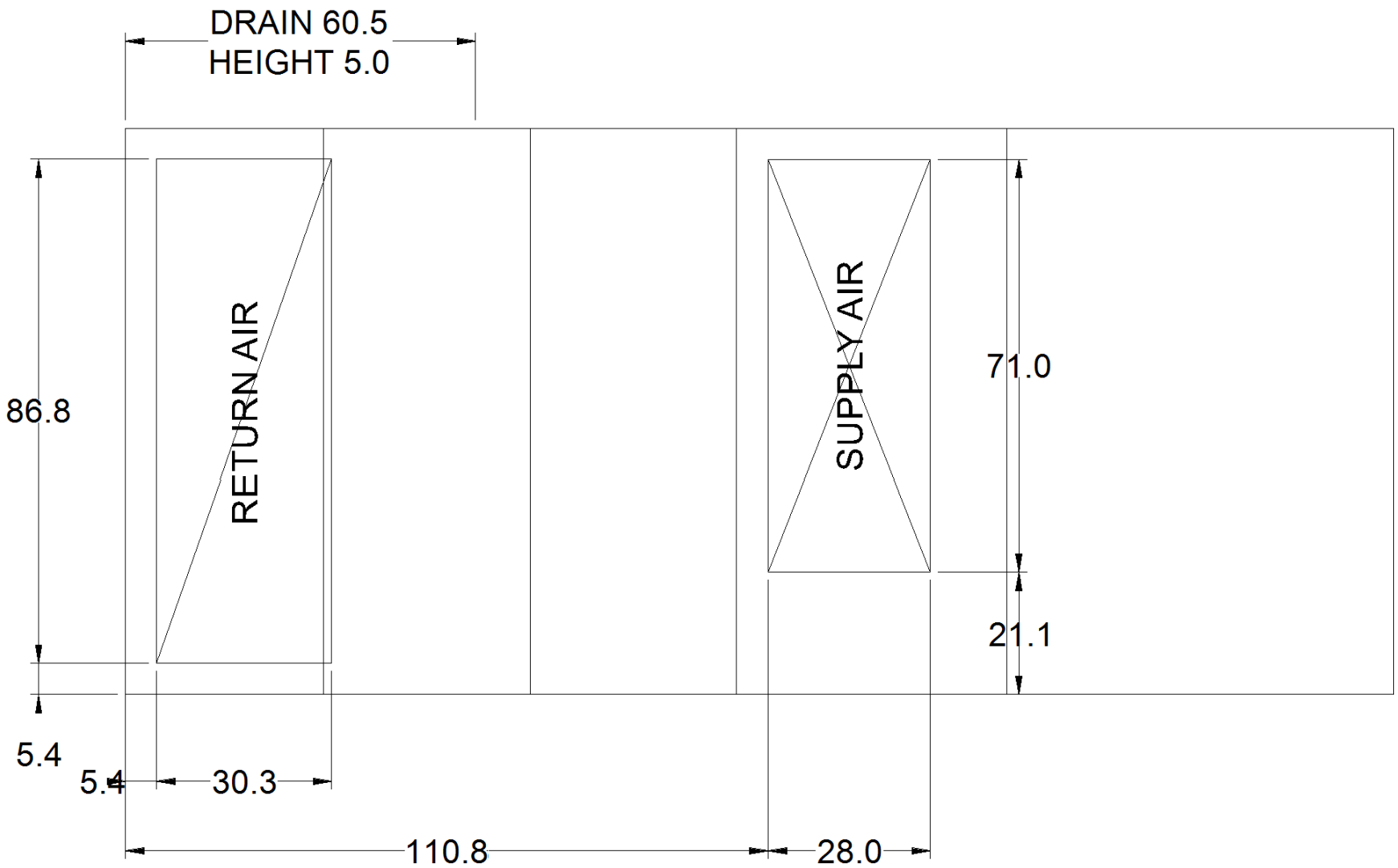

PLAN VIEW - OPENINGS & OVERALL

Product Drawing	Unit Tag: RTU B6			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: MPS040F	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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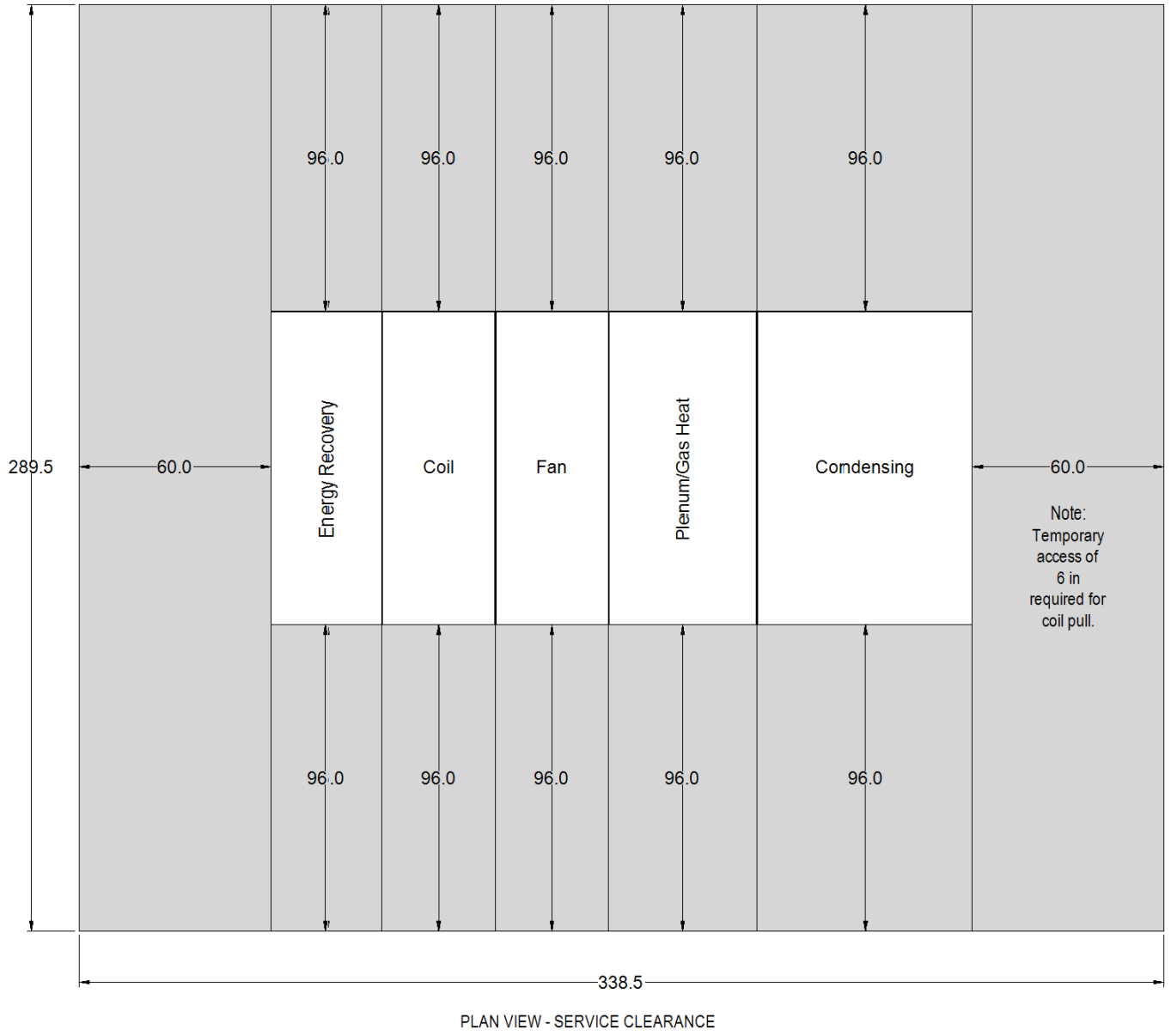

PLAN VIEW - SERVICE CLEARANCE

Product Drawing	Unit Tag: RTU B6			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: MPS040F	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25”	Dwg Units: in [mm]	

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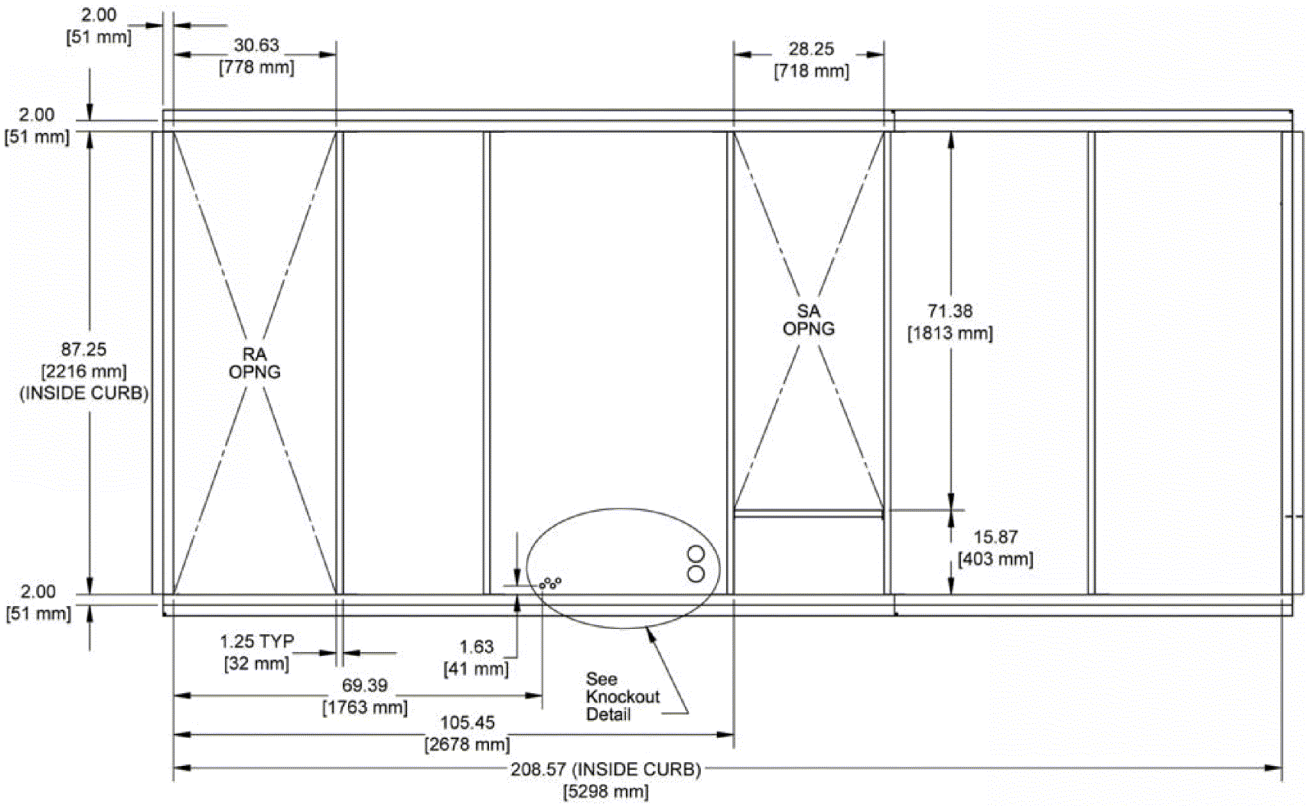
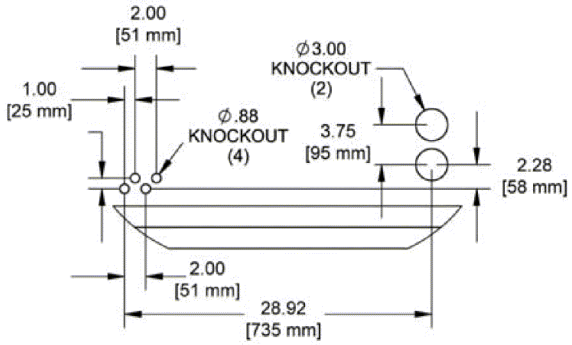
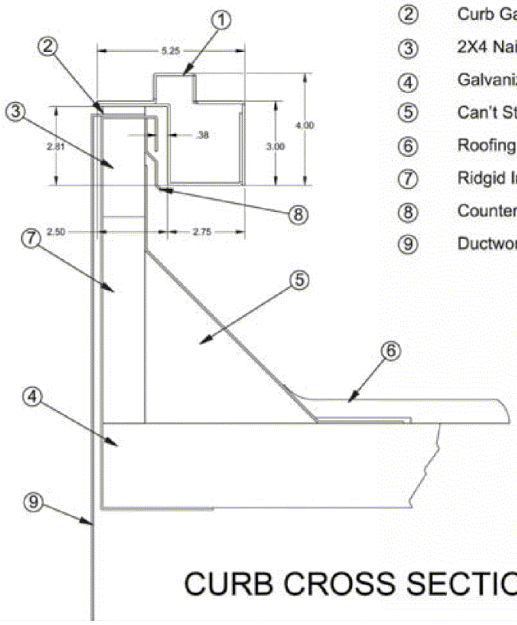
MPS 040 - 050 Cooling Curb_Drawing for RTU B6



PLAN VIEW



KNOCKOUT DETAIL



CURB CROSS SECTION

1. Unit Base
2. Curb Gasketing
3. 2X4 Nailer Strip
4. Galvanized Curb
5. Can't Strip (not furnished)
6. Roofing Material (not furnished)
7. Ridgid Insulation (not furnished)
8. Counter flashing (not furnished)
9. Ductwork (not furnished)

Product Drawing	Unit Tag: RTU B6					
Product:	Project Name: LSSD Lees Summit HS					
Model: MPS040F	Sales Office: Daikin TMI LLC (Kansas City)					
Sales Engineer:	Nov. 16, 2020	Ver/Rev:	Sheet 1 of 1	Scale: NTS	Tolerance: +/- 0.25	Dwg Units: in [mm]

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/14/2021

Technical Data Sheet for RTU-B9

Job Information	*Technical Data Sheet*
Job Name	LSSD Lees Summit HS Remodel
Date	11/16/2020
Submitted By	John Duckworth
Software Version	07.31
Unit Tag	RTU-B9
FPA#	1

Unit Overview

Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI 360 Standard Efficiency	ASHRAE 90.1
RPS080D	460/60/3	841673	9.7	2016 Compliant

Unit

Model Number:	RPS080D
Altitude:	0 ft
Heat Type:	Gas
Condenser Type:	Air-Cooled
Approval	ETL/MEA-USA unit

Physical

Unit

Length	Height	Width	Weight	Estimated Lifting Lugs
394 in	97.0 in	99.0 in	12359 lb	3 per side

Electrical

Voltage	MCA	MROPD	SCCR
460/60/3	149.1 A	150 A	10 kAIC
Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.		

Return/Outside/Exhaust Air

Outside Air Option

Type	Pressure Drop	Damper Actuator
California and90.1 Compliant Economizer	0.05 inH_2O	Electric Actuator

Return Air Option

Return Air Location:	Bottom

Filter Section

Physical

Type	(Quantity) Height x Width x Depth	Face Area	Face Velocity	Air Pressure Drop
2 in. 85% Nominal Efficiency (MERV 13)	(11) 16 in x 20 in x 2 in (33) 16 in x 25 in x 2 in	116.1 ft^2	146.4 ft/min	0.07 inH_2O

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LEE'S SUMMIT, MISSOURI
01/14/2021

Technical Data Sheet for RTU-B9

DX Cooling Coil

Physical

Fins per Inch	Rows	Face Area	Face Velocity	Air Pressure drop	Drain Pan Material	Casing Material
12	4	53.9 ft²	315.4 ft/min	0.32 inH_2O	Painted Galvanized	Galv. Steel

Cooling Performance

Capacity		Refrigerant Type	Indoor Air Temperature				Ambient Air Temperature	
			Entering		Leaving			
Total Btu/hr	Sensible Btu/hr		Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F	Dry Bulb °F	Wet Bulb °F
841673	594413	R410A	85.9	69.5	53.9	53.8	100.0	75.0

Fan Section

Fan

Type	Fan Wheel Diameter	Fan Isolation
AF DWDI	33 in	Rubber in Shear

Performance

Airflow	Total Static Pressure	Fan Speed	Brake Horsepower
17000 CFM	2.59 inH_2O	886 rpm	9.63 HP

Motor

Type	Horsepower	FLA
ODP, Premium Efficiency	15.0 hp	17.7 A

Drive

Type
Standard service factor, Fixed drive

Gas Heat Section

Physical

Gas Heat Size	Heat Exchanger Material	Modulation	Gas Pressure	
			Minimum In WC	Maximum Psi
650 MBH	Type 321 Stainless Steel	Hi Turndown - 20:1	6.5	0.5

Performance

Gas Heat Airflow CFM	Input Capacity Btu/hr	Output Capacity Btu/hr	Air Temperature Dry Bulb		Air Pressure Drop inH_2O
			Entering °F	Leaving °F	
17000	812500	650000	31.7	66.9	0.14

Discharge Plenum

Discharge Location:	Bottom

Unit Discharge Conditions

AirTemperature

DX coil Configuration:	Draw-thru Coil			
Motor Heat Btu/hr	Moisture Removal lb/h	Unit Leaving Dry Bulb °F	Unit Leaving Wet Bulb °F	Unit Leaving Dewpoint °F
28333	210.2	55.5	54.4	53.8

RELEASE FOR CONSTRUCTION
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Technical Data Sheet for RTU-B9

Condensing Section

Compressor

Type	Quantity	Total Power	Capacity Control	Compressor Isolation
Scroll	6	77.2 kW	6 stage	Resilient

Compressor Amps:

Fixed Speed Compressor 1	18.6 A
Fixed Speed Compressor 2	18.6 A
Fixed Speed Compressor 3	18.6 A
Fixed Speed Compressor 4	18.6 A
Fixed Speed Compressor 5	18.6 A
Fixed Speed Compressor 6	18.6 A

Condenser Coil

Type	Fins per Inch	Fin Material	Refrigerant Charge
Aluminum tube MicroChannel	18	Aluminum	84.6 lb

Condenser Coil Options:	Build in Hail Protection

Condenser Fan Motors

Number of Motors	Full Load Current (each)
6	2.1 A

AHRI 360 Certified Data at AHRI 360 Standard Conditions

EER	IEER	ASHRAE 90.1
9.7	13.7	2016 Compliant

Sound

Sound Power (db)

Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	84	85	79	74	71	64	56	48
Discharge	82	81	72	70	67	61	53	45
Radiated	-	96	93	91	91	88	85	83

Supply Fan Total Pressure Drop Calculation

External Static Pressure:	2.00 inH_2O
Filter:	0.07 inH_2O
Outside Air:	0.05 inH_2O
DX Coil:	0.32 inH_2O
Gas Heat:	0.14 inH_2O
Total Static Pressure:	2.59 inH_2O

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Technical Data Sheet for RTU-B9

Options

Unit	
Unit Exterior:	Prepainted Galvanized Steel
Insulation and Liners:	2", 1 1/2# nominal insulation, full solid liners
Electrical	
Electrical Connection Option:	Single thru door disconnect switch
GFI 115v Receptacle:	Field powered
Controls	
Application:	Variable Volume - Discharge Air Control
Temperature Control:	DAC, No communication card
Fan Speed Control:	Factory mounted Inverter
Inverter Manufacturer:	Daikin
Inverter Location:	Inverter(s) in fan section
Airflow Control:	1 duct sensor
Economizer Control:	Outside Air Dry Bulb and Enthalpy Control
Low Ambient:	Fantrol, operation to 45 deg F (7.22 deg C)

Warranty

Parts:	Standard 1 year
Compressor:	Standard 1 year
Gas Heat Exchanger:	One year heat exchanger warranty

AHRI Certification

All equipment is rated and certified in accordance with AHRI 360.

Specials

Unit	
Specials Description:	Provide a 72" economizer section with reduced return opening. Unit must be marked as a special for processing. Use FPA# "72Econo" if no other specials from Applications.

Notes

As a standalone component, unit meets or exceeds the requirements of ASHRAE 90.1.2010. The approving authority is responsible for compliance of multi-component building systems.

Accessories

Optional

Part Number	Description
0199999901	Roofcurb

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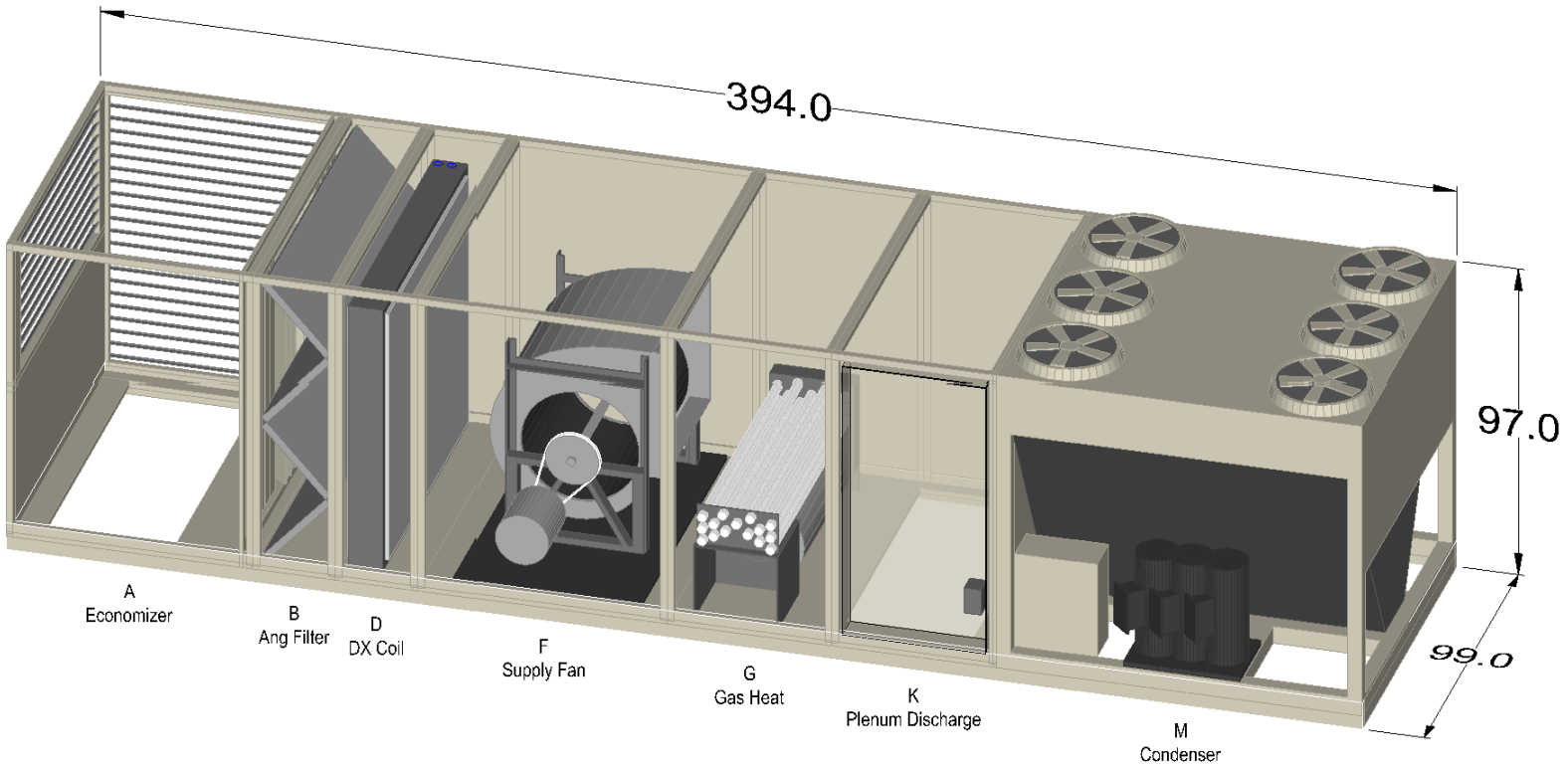
Drawings(1) for RTU-B9



Product Drawing	Unit Tag: RTU-B9			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: RPS080D	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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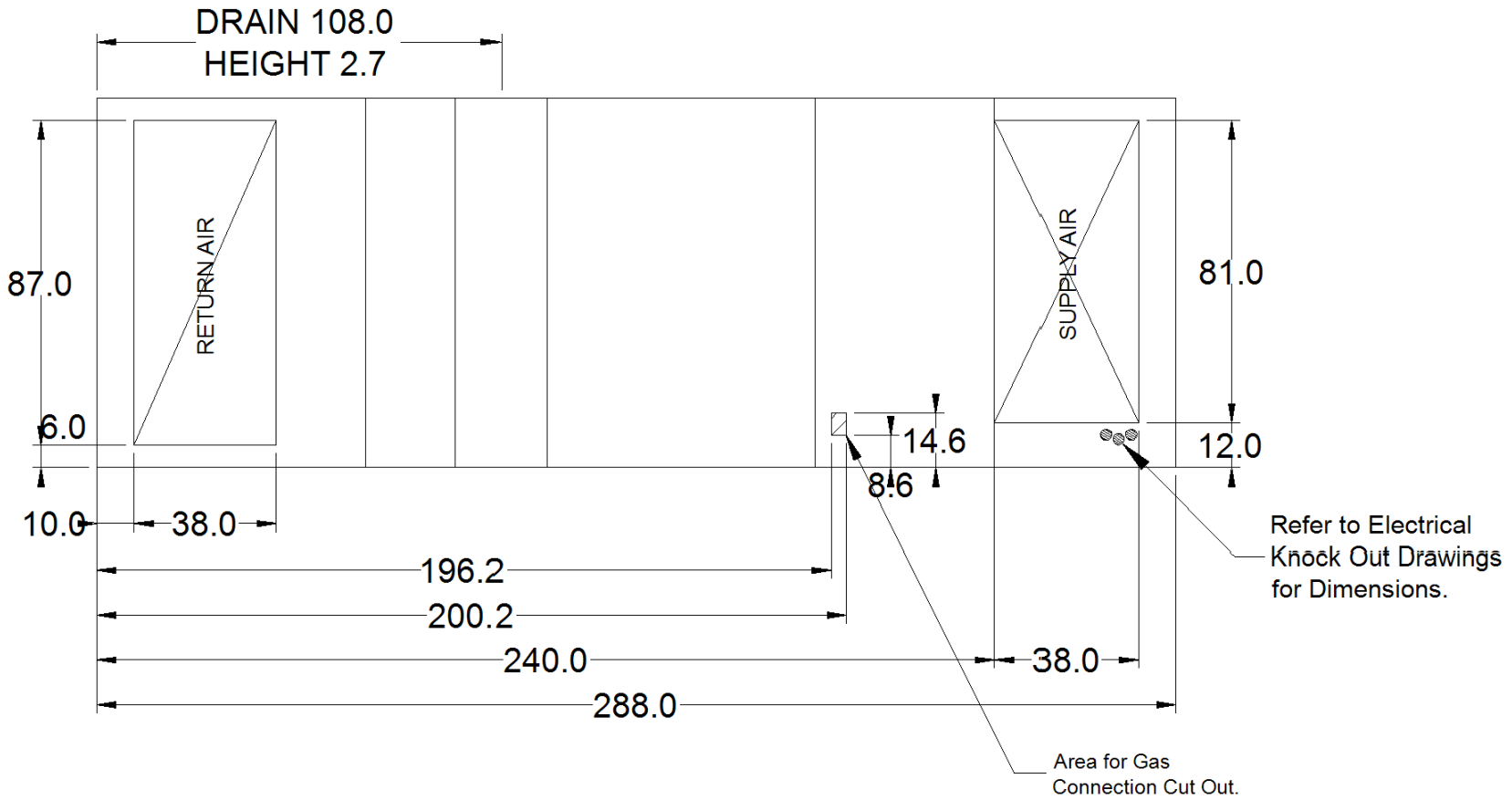
Drawings(2) for RTU-B9



PLAN VIEW - OPENINGS & OVERALL

Product Drawing	Unit Tag: RTU-B9			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: RPS080D	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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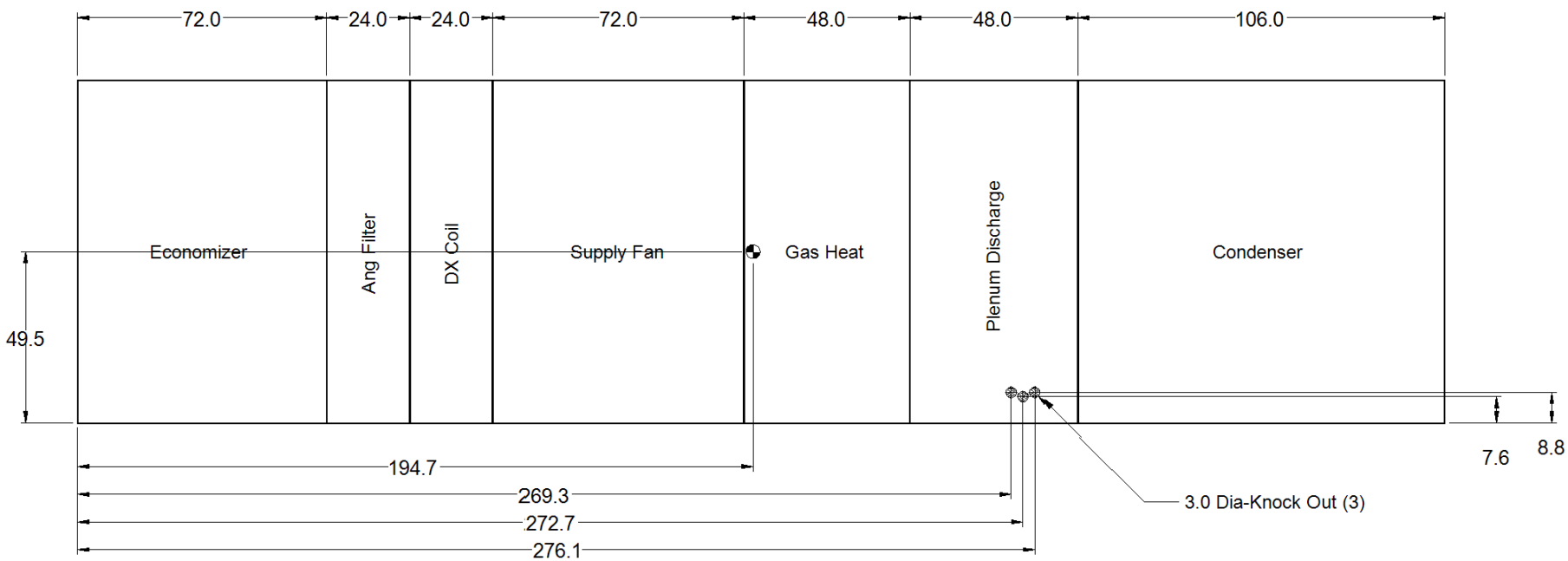

PLAN VIEW - KNOCK OUTS & CENTER-OF-GRAVITY

Product Drawing	Unit Tag: RTU-B9			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: RPS080D	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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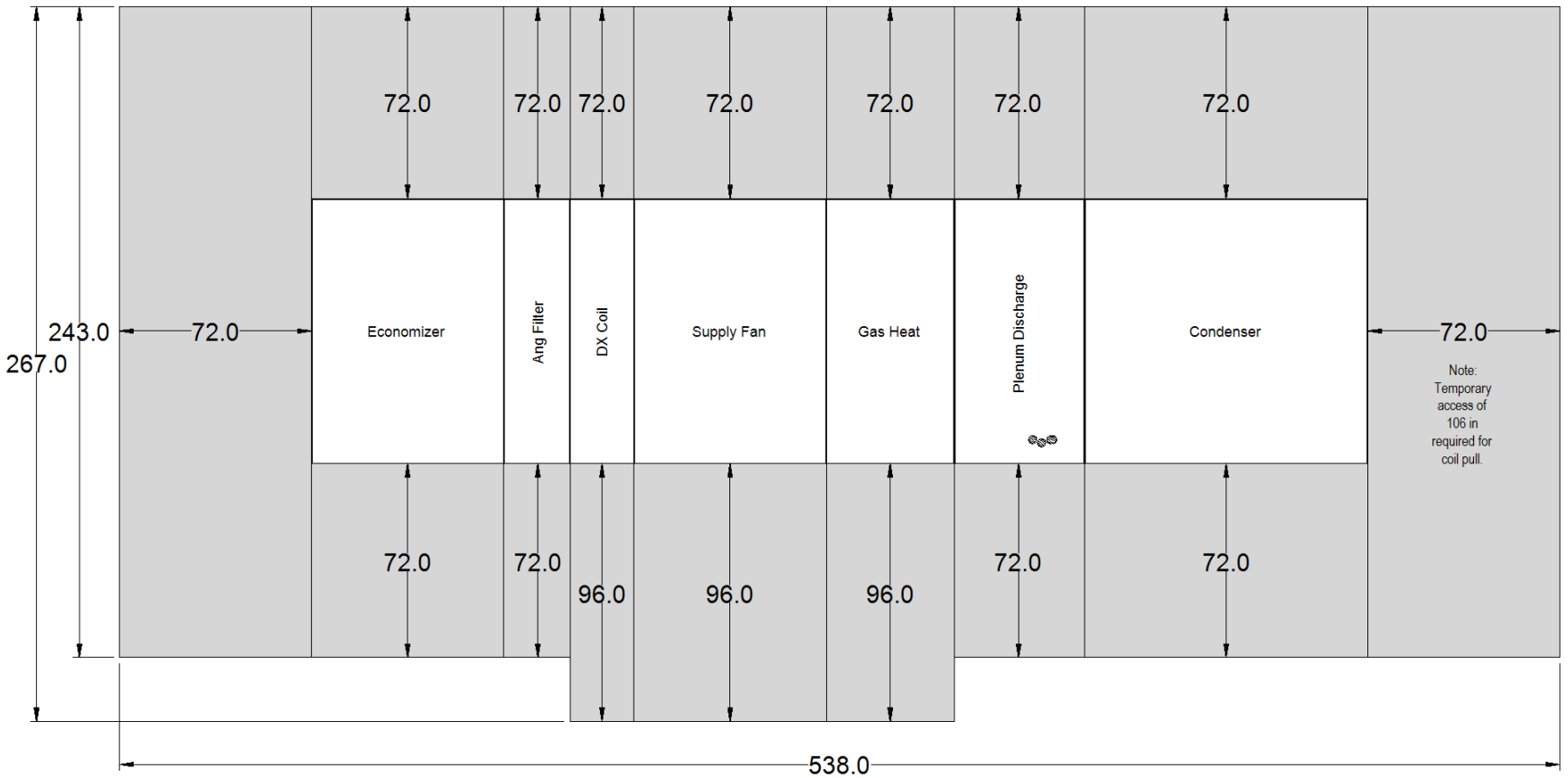
Drawings(4) for RTU-B9



PLAN VIEW - SERVICE CLEARANCE

Product Drawing	Unit Tag: RTU-B9			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: RPS080D	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	

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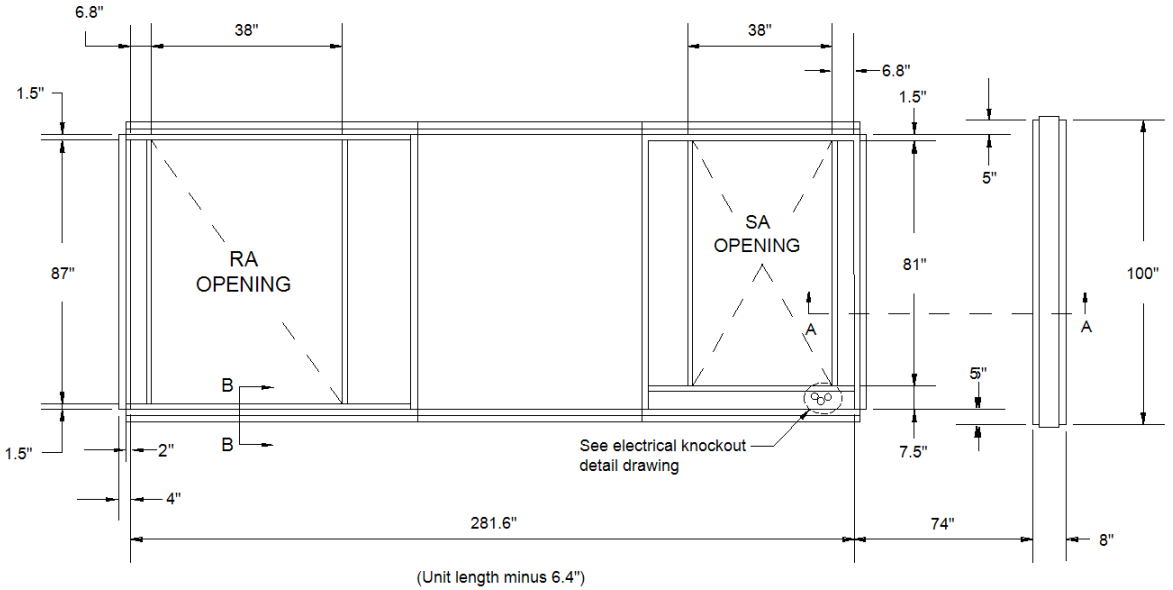
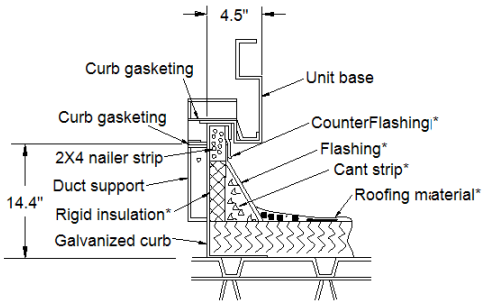
Curb Weight: 751.04 lbs.



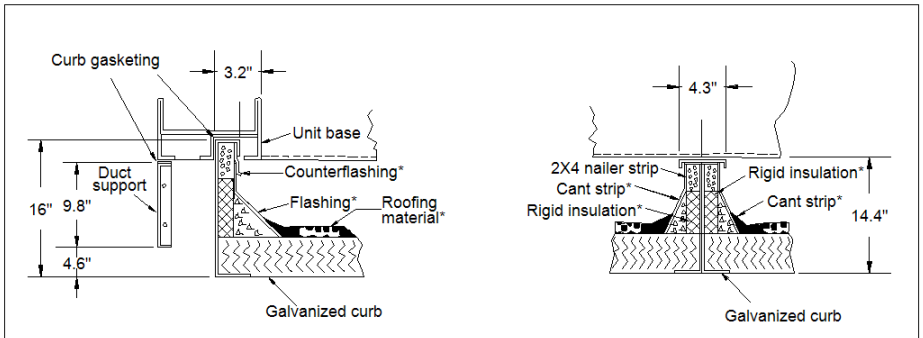
(Unit length minus 6.4")

Note:
Curb must be installed level.

Cross-section B-B



Cross-Section A-A



Product Drawing	Unit Tag: RTU-B9			Sales Office: Daikin TMI LLC (Kansas City)			
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:			
Model: RPS080D	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25”	Dwg Units: in [mm]	

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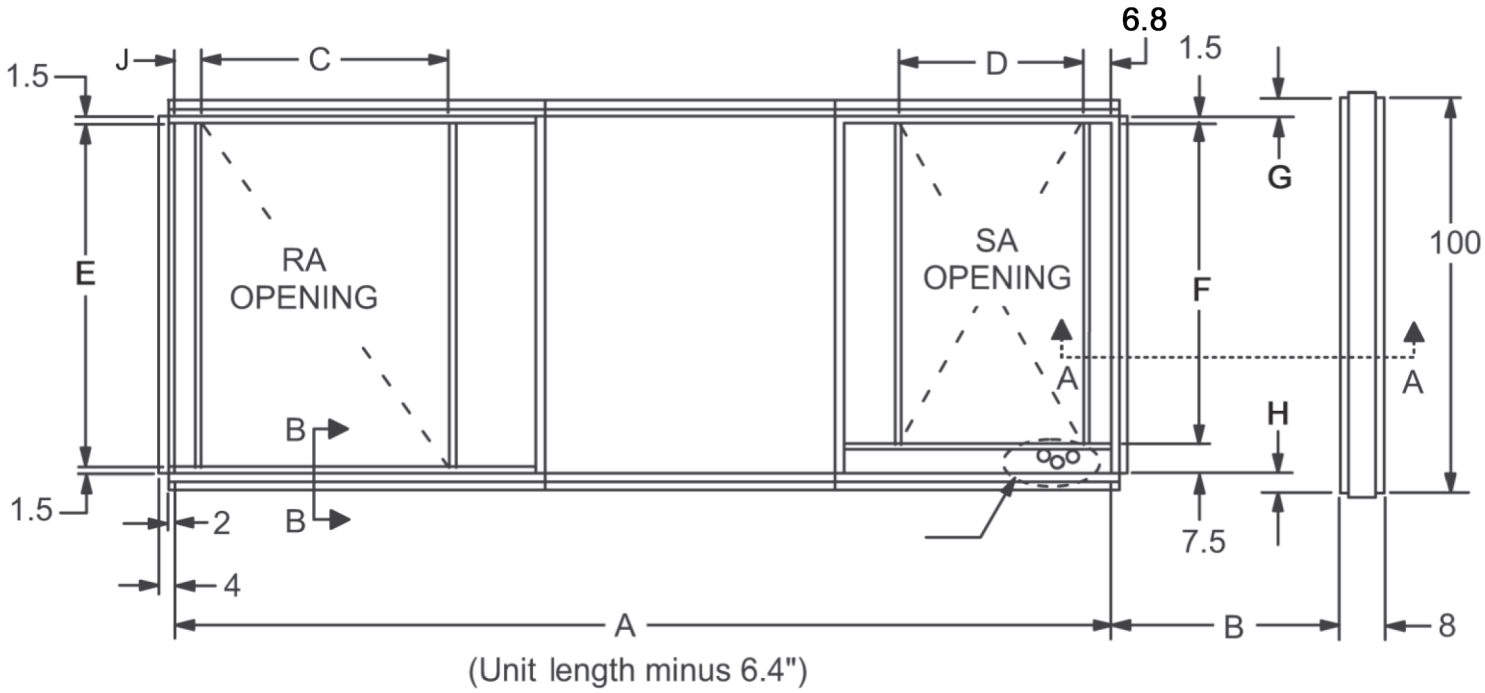
Roofcurb Dimensions_Drawing for RTU-B9

Dimensions		
Description	**Letter**	**Dimensions (in)**
Curb Length	A	281.6
Condenser Rail	B	74.0
Return Air Opening Length	C	38.0
Supply Air Opening Length	D	38.0
Return Air Opening Width	E	87.0
Supply Air Opening Width	F	81.0
Condenser Rail Overhang	G	5.0
Condenser Rail Overhang	H	5.0
Return Air Opening Location	J	6.8



Note:
Curb must be installed level.

Product Drawing	Unit Tag: RTU-B9			Sales Office: Daikin TMI LLC (Kansas City)		
Product:	Project Name: LSSD Lees Summit HS			Sales Engineer:		
Model: RPS080D	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: (in)

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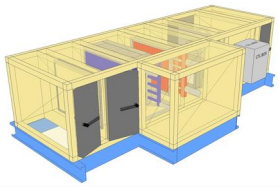
Technical Data Sheet for RTU C3

Job Information	Technical Data Sheet
Job Name	LSSD Lees Summit HS Remodel
Date	November 16 2020
Submitted By	JD
Software Version	12.41
Unit Tag	RTU C3



Unit Overview

Model Number	Supply					
	Air Volume cfm	Static Pressure		External Dimensions		
		External inWc	Total inWc	Height in	Width in	Length in
OAH004GDCM	1450	0.75	3.43	28*	38*	120

**Not including base rails, coil connectors, drain connectors, vestibule sections, control boxes and hoods.*

Unit

Model Number:	OAH004GDCM		
Approval:	ETL Listed / ETL Listed to Canadian Safety Standards (ETL Label / ETLc Label)		
Outer Panel:	Painted 24 gauge G60 Galvanized Steel		
Liner:	24 gauge Galvanized Steel (unless noted per section)		
Insulation:	R-13 Injected Foam		
Unit Configuration:	Inline horizontal	**Drive (Handling) Location:**	Right
Base:	Curb ready	**Wall Thickness:**	2 in
Roof Curb Kit:	0 in	**Altitude:**	0 ft
Parts Warranty:	Standard One Year		

Plenum Section

Component: 1 | Length: 14 in | Shipping Section: 1

Opening Location	Opening Size	Air Pressure Drop
Bottom	10.00" x 30.00"	0.03 inWc

Door

Location	Width	Opening
Drive side	10 in	Outward

Combination Filter

Component: 2 | Length: 16 in | Shipping Section: 1

Access	Face Velocity	Face Area	Air Volume
Side	461 ft/min	3.1 ft²	1450 cfm

Portion	Type	Efficiency	Air Pressure Drop			Number of Filters	Height	Width	Depth
			Clean Air	Mean Air	Dirty Air				
Pre-Filter	Pleated	MERV 8	0.21 inWc	**0.60** inWc	1.00 inWc	1	20 in	24 in	2 in
Filter	Pre Pleat	MERV 13	0.20 inWc	**0.60** inWc	1.00 inWc	1	20 in	24 in	4 in

Door

Location	Width	Opening
Drive side	12 in	Outward

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Technical Data Sheet for RTU C3

Chilled Water Coil	Component: 3	Length: 24 in	Shipping Section: 1

Coil Model	Total Capacity	Sensible Capacity	Number of Coils	Number of Rows	Fins per Inch	Tube Diameter	Tube Spacing (Face x Row)
5WH0908B	51627 Btu/hr	42054 Btu/hr	1	8	9	0.625 in	1.50 in x 1.299 in

Air Volume	Air Temperature				Coil Air Pressure Drop	Finned Height	Finned Length	Face Area	Face Velocity
	Entering		Leaving						
	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb					
1450 cfm	79.0 °F	64.2 °F	52.5 °F	52.0 °F	0.72 inWc	18 in	25 in	3.13 ft²	464 ft/min

Water		Flow Rate	Pressure Drop	Velocity	Volume	Weight	Piping Vestibule
Entering	Leaving						
44.0 °F	54.8 °F	9.60 gpm	2.20 ftHd	1.70 ft/s	3.0 gal	32.00 lb	18 in

Connection [Data Per Coil]				Min. Fin Surface Temp.	Min. Tube Wall Surface Temp.	Fouling Factor
Type	Size	Location	Material			
Threaded	1.50 in	Drive side	Carbon steel	44.0 °F	44.0 °F	0.000

Material				Drain Pan	Drain Side
Fin	Tube	Header	Case		
Aluminum .0075 in	Copper .020 in	Copper	Galv. steel	Stainless steel	Opp drive side

AHRI 410 Certification

Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org

Hot Water Coil	Component: 4	Length: 16 in	Shipping Section: 1

Coil Model	Total Capacity	Number of Coils	Number of Rows	Fins per Inch	Tube Diameter	Tube Spacing (Face x Row)
5WH0702B	63006 Btu/hr	1	2	7	0.625 in	1.50 in x 1.299 in

Air Volume	Air Temperature		Coil Air Pressure Drop	Finned Height	Finned Length	Face Area	Face Velocity
	Entering	Leaving					
	Dry Bulb	Dry Bulb					
1450 cfm	57.0 °F	96.7 °F	0.16 inWc	18 in	22 in	2.75 ft²	527 ft/min

Water		Flow Rate	Pressure Drop	Velocity	Volume	Weight	Piping Vestibule
Entering	Leaving						
180.0 °F	159.1 °F	6.00 gpm	0.20 ftHd	1.10 ft/s	1.0 gal	14.00 lb	18 in

Connection [Data Per Coil]				Min. Fin Surface Temp.	Min. Tube Wall Surface Temp.	Fouling Factor
Type	Size	Location	Material			
Threaded	2.50 in	Drive side	Carbon steel	159.1 °F	159.1 °F	0.000

Material			
Fin	Tube	Header	Case
Aluminum .0075 in	Copper .020 in	Copper	Galv. steel

AHRI 410 Certification

Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org

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Technical Data Sheet for RTU C3

Supply Fan Array	Component: 6	Length: 24 in	Shipping Section: 1

Fan Performance

Air Volume*	Static Pressure			Fan Energy Index(FEI)*	Total Input Power*	Fan Shaft Power*	Speed		Redundancy(N-1)	Fan Circuit	
	External	Total	Cabinet				Operating	Maximum		MOP	MCA
1450 cfm	0.75 inWc	3.43 inWc	0.50 inWc	-	-	1.20 BHP	2376 rpm	3230 rpm	0.0 %	15.0 A	3.8 A

Fan Data

Fan Type	Blade Type / Class	Quantity of Fans	Wheel Diameter	Number of Blades	Discharge	Motor Location
ECM / 1x1 : 1	Airfoil / N/A	1	13.98 in	5	Axial	Behind Fan

Motor Data

Power*	Electrical Supply	Speed	Control Signal	Supplier	Lock Rotor Current*	Full Load Current*
2.3 HP	460/60/3 V/Hz/Phase	2870 rpm	0-10V	EBM-Papst	3.00 A	3.00 A

Fan Options

Isolation Backdraft Dampers:	Provided	**Isolator Type:**	Rigid

VFD/Starter/Disconnect Data

Selection Type:	Integrated Drive	**Vendor:**	Daikin Applied
Auxiliary Control:	Disconnect w/ motor starter	**Voltage:**	460 V
Disconnect Type:	Fused	**Height x Width x Depth:**	15.75 in x 11.81 in x 10.76 in
Mounting:	Drive Side	**Enclosure:**	NEMA 3R

Door

Location	Width	Opening
Non-drive side	20 in	Outward

Notes

** after a unit label denotes the data for an individual fan.*

Plenum Section	Component: 7	Length: 14 in	Shipping Section: 1

Opening Location	Opening Size	Safety Grating	Air Pressure Drop
Bottom	10.00" x 30.00"	Yes	0.06 inWc

Door

Location	Width	Opening
Drive side	10 in	Outward

Unit Sound Power (dB)

Type	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Radiated:	64	58	60	46	42	41	46	51
Unit Discharge:	64	59	72	59	58	56	55	51
Unit Return:	64	58	60	49	44	43	46	51

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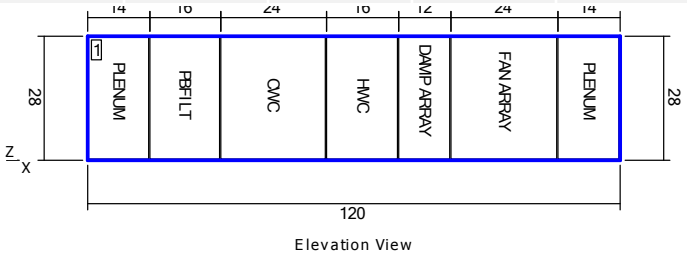
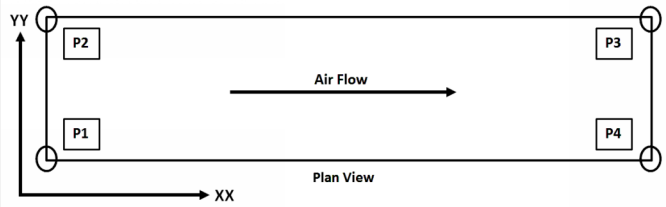
Technical Data Sheet for RTU C3

Shipping Section Details

Section	Length in	Weight lb	Corner Weights (lb)				Center of Gravity (in)		
			P1	P2	P3	P4	XX	YY	ZZ
1	120	1447	434	312	289	411	58	16	17
Entire Unit	**120**	**1447**	**434**	**312**	**289**	**411**	**58**	**16**	**17**



Elevation View



Plan View

NOTE: Piping vestibule shipping section length(s) not included in the total shipping section length.

NOTE: Piping vestibule(s) are shipped attached to the coil section(s).

NOTE: Special components aren't included in the corner weights and center of gravity data.

Supply Static Pressure Drop

Component	Option	Static Pressure Drop
Plenum Section	Plenum Section	0.03 insWg
Panel and Bag Filter	Panel and Bag Filter	1.21 insWg
Chilled Water coil	Chilled Water coil	0.72 insWg
Hot Water Coil	Hot Water Coil	0.16 insWg
Damper	Damper	-
Supply Fan	Cabinet	0.50 insWg
Plenum Section	Plenum Section	0.06 insWg
External Static	External Static	0.75 insWg
Total Supply Static		3.43 insWg

AHRI Certification

The air-handler is selected outside of the scope of AHRI Standard 430/431

Notes

Standard
1. As a standalone component, unit meets or exceeds requirements of ASHRAE 90.1 - 2007. The approving authority is responsible for compliance of multi - component building systems.

Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

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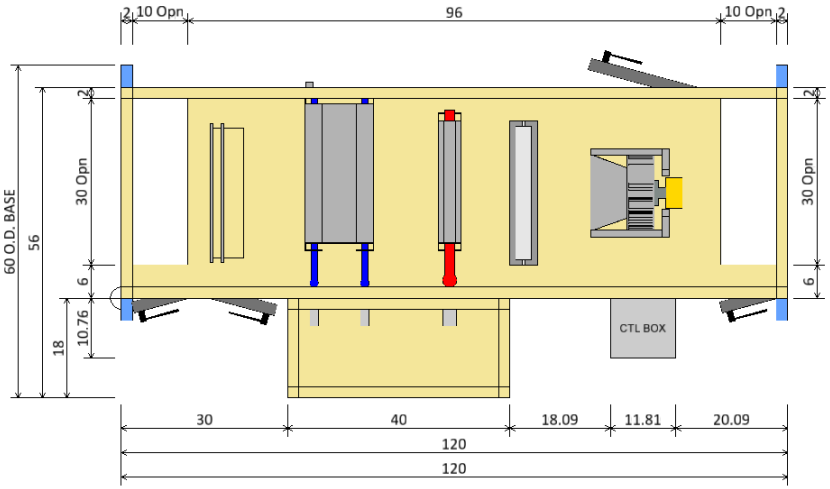
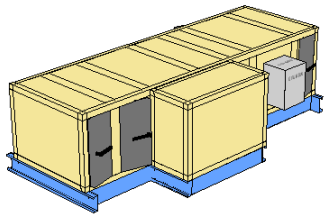
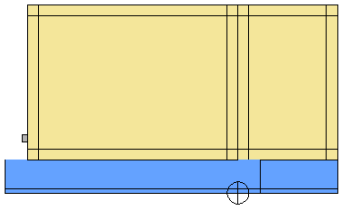
Drawing for RTU C3



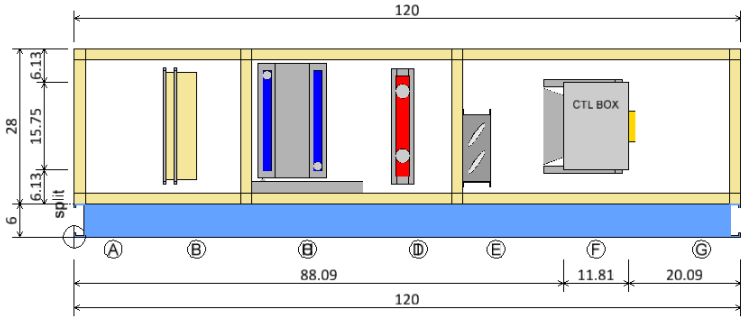
PLAN VIEW



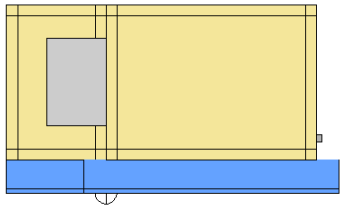
ISOMETRIC VIEW



FRONT END VIEW



ELEVATION VIEW



REAR END VIEW

Plan/Elevation	Unit Tag: RTU C3			Sales Office: Daikin TMI LLC (Kansas City)		
Product: Skyline Air Handler	Project Name: LSSD Lees Summit HS Remodel			Sales Engineer:		
Model: OAH004GDCM	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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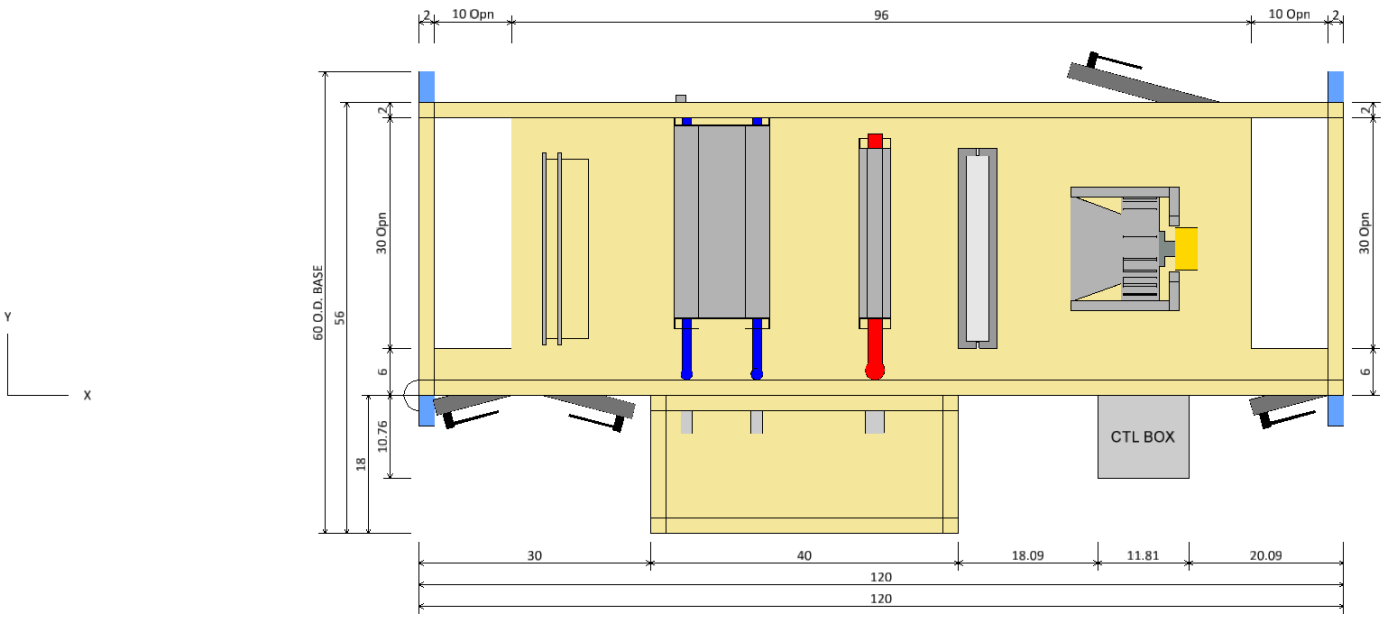
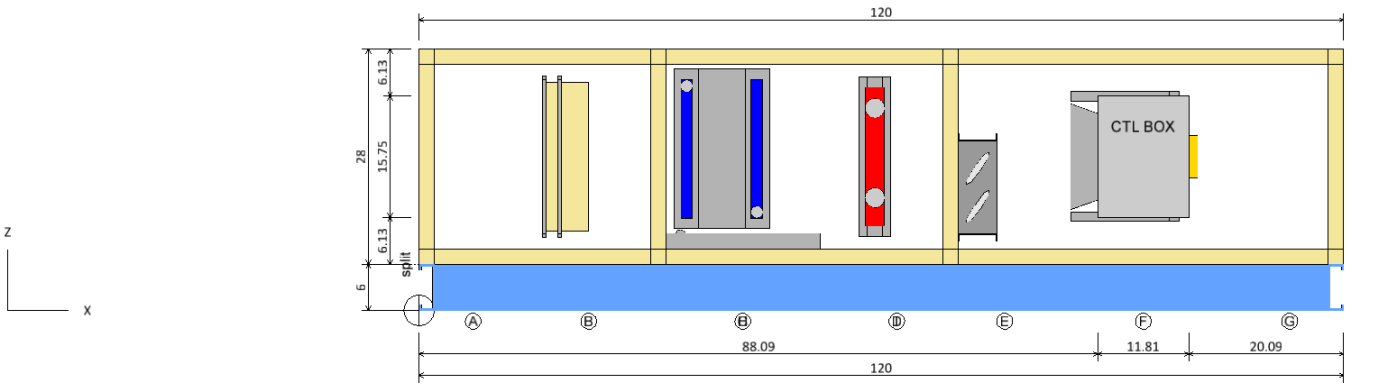
Drawing for RTU C3



PLAN VIEW



ELEVATION VIEW

Component Key		
Ⓐ	Plenum Section	
	Opening Location:	Bottom
	Opening Size:	10 ins x 30 ins
	Right Door (WxH):	10 ins x 24 ins
Ⓑ	Panel and Bag Filter	
	Pre Filter Type:	Pleated (MERV 8)
	Bag Filter Type:	Pre Pleat M13
	Right Door (WxH):	12 ins x 24 ins
Ⓒ	Chilled Water coil	
	Coil Model:	5WH0908B
	Total Capacity:	51627.0 Btu/hr
Ⓓ	Hot Water Coil	
	Coil Model:	5WH0702B
	Total Capacity:	63006.0 Btu/hr
Ⓔ	Damper	
Ⓕ	Supply Fan	
	Fan Type:	Centrifugal - Plenum
	Fan Size (Class):	355 (2)
	Air Flowrate:	1450.0 cfm
	T.S.P:	3.4 insWg
	Motor Power:	2.3 HP
	Control box door swing:	11.81 ins
	Left Door (WxH):	20 ins x 24 ins
Ⓖ	Plenum Section	
	Opening Location:	Bottom
	Opening Size:	10 ins x 30 ins
	Right Door (WxH):	10 ins x 24 ins
Ⓗ	Vestibule Section	
Ⓘ	Vestibule Section	

Opening dimensions shown are for unit only, refer to curb drawing for duct opening dimensions.

Plan/Elevation - No Ends	Unit Tag: RTU C3			Sales Office: Daikin TMI LLC (Kansas City)		
Product: Skyline Air Handler	Project Name: LSSD Lees Summit HS Remodel			Sales Engineer:		
Model: OAH004GDCM	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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LEE'S SUMMIT, MISSOURI

01/14/2021

Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

Prepared Date: 11/16/2020

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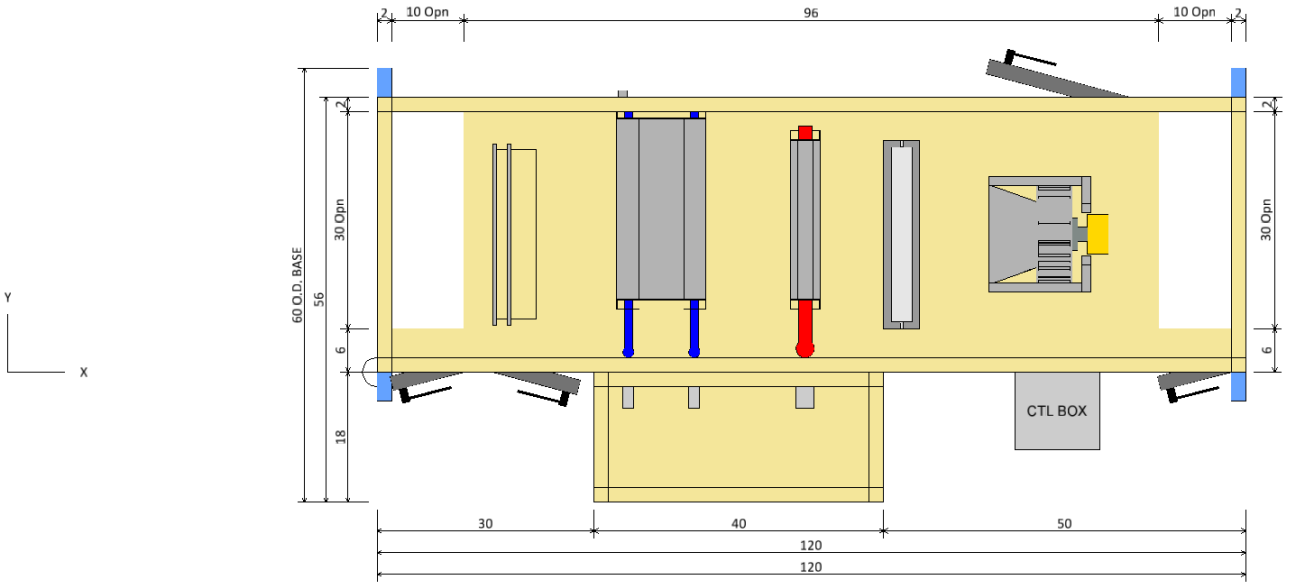
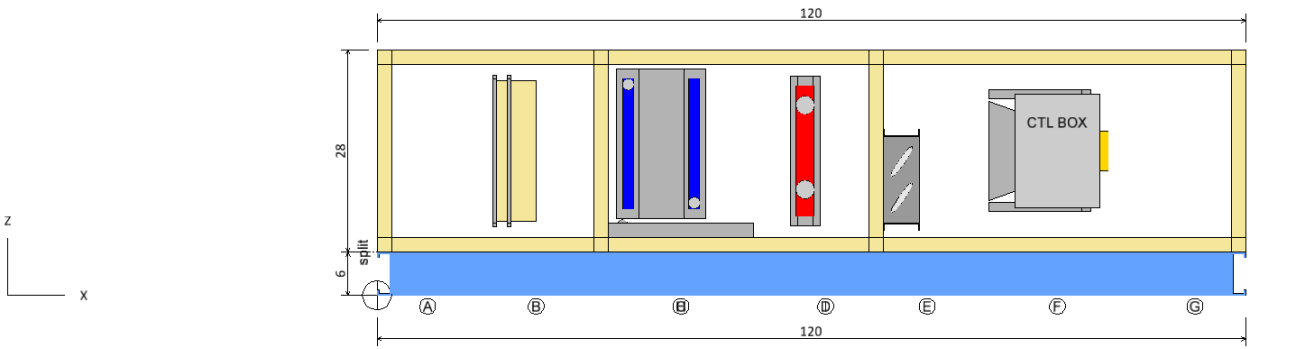
Drawing for RTU C3



PLAN VIEW



ELEVATION VIEW

Component Key						
	Type	X	Y	Z	Wid	Hgt
Ⓐ	Plenum Section Opening	2.00	6.00	6.00	30.00	10.00
Ⓖ	Plenum Section Opening	108.00	6.00	6.00	30.00	10.00

Opening dimensions shown are for unit only, refer to curb drawing for duct opening dimensions.

Note: Dimensions are measured from the origin point.

Opening/Damper Connections	Unit Tag: RTU C3			Sales Office: Daikin TMI LLC (Kansas City)		
Product: Skyline Air Handler	Project Name: LSSD Lees Summit HS Remodel			Sales Engineer:		
Model: OAH004GDCM	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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RELEASE FOR CONSTRUCTION
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01/14/2021

Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

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Prepared Date: 11/16/2020

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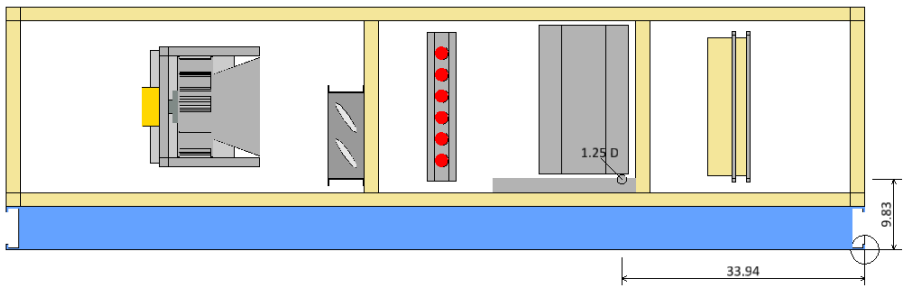
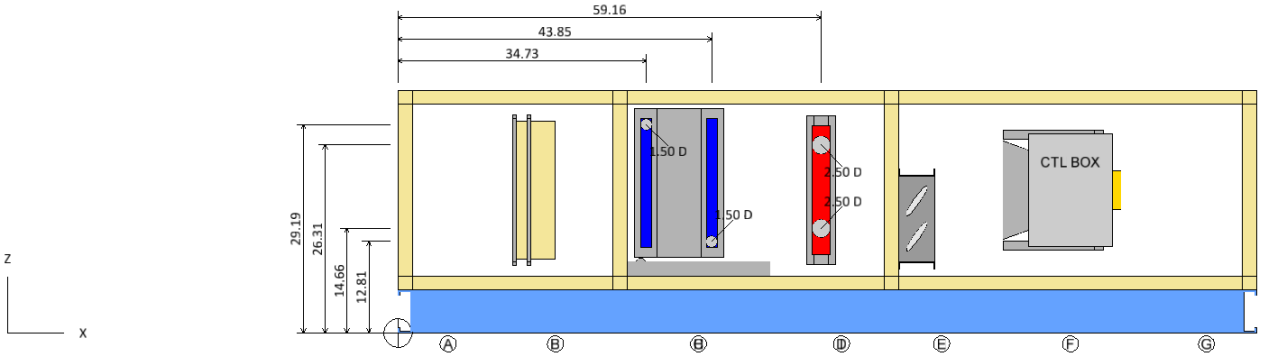
Drawing for RTU C3



LEFT ELEVATION VIEW



RIGHT ELEVATION VIEW

Coil and Drain Connections

	Type	X	Y	Z	Diam
Ⓒ	Chilled Water coil				
	Condensate drain conn:	33.94	40.90	9.83	1.25
	Cold water inlet:	43.85	-7.00	12.81	1.50
	Cold water outlet:	34.73	-7.00	29.19	1.50
Ⓓ	Hot Water Coil				
	Hot water inlet:	59.16	-7.00	14.66	2.50
	Hot water outlet:	59.16	-7.00	26.31	2.50

Note: Dimensions are measured from the origin point.

Coil and Drain Connections	Unit Tag: RTU C3			Sales Office: Daikin TMI LLC (Kansas City)		
Product: Skyline Air Handler	Project Name: LSSD Lees Summit HS Remodel			Sales Engineer:		
Model: OAH004GDCM	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

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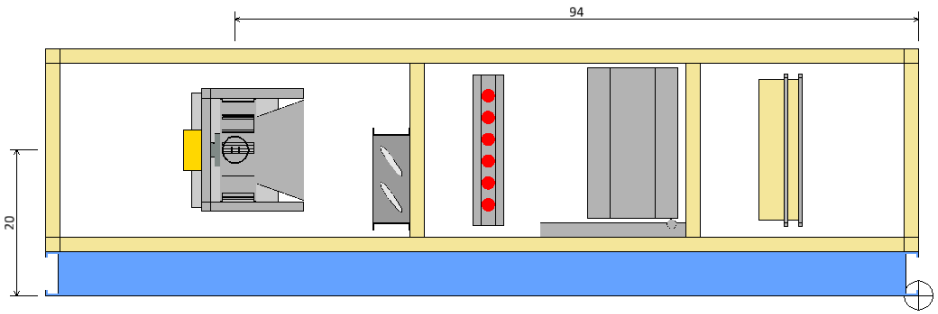
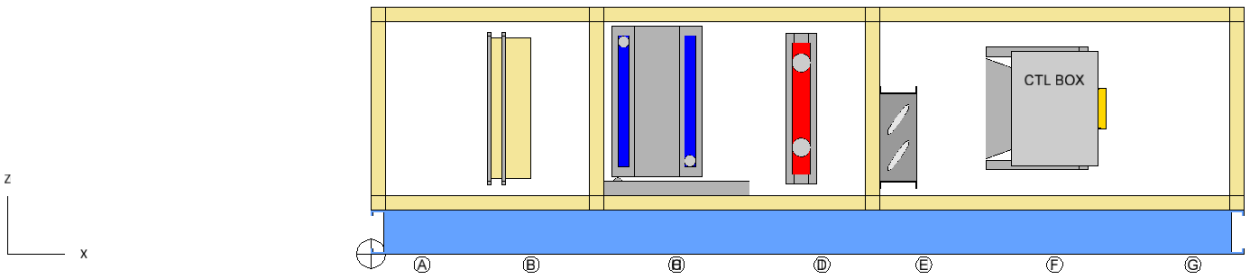


LEFT ELEVATION VIEW



RIGHT ELEVATION VIEW

Component Key

	Type	X	Y	Z	Volts	Phase
Ⓕ	Supply Fan Fan	94.00	38.00	20.00	460	3

Note: Dimensions are measured from the origin point.

Drawing for RTU C3

Electrical Connections	Unit Tag: RTU C3			Sales Office: Daikin TMI LLC (Kansas City)		
Product: Skyline Air Handler	Project Name: LSSD Lees Summit HS Remodel			Sales Engineer:		
Model: OAH004GDCM	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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Job Number: 8XB73N
Job Name: LSSD Lees Summit HS Remodel

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Prepared Date: 11/16/2020

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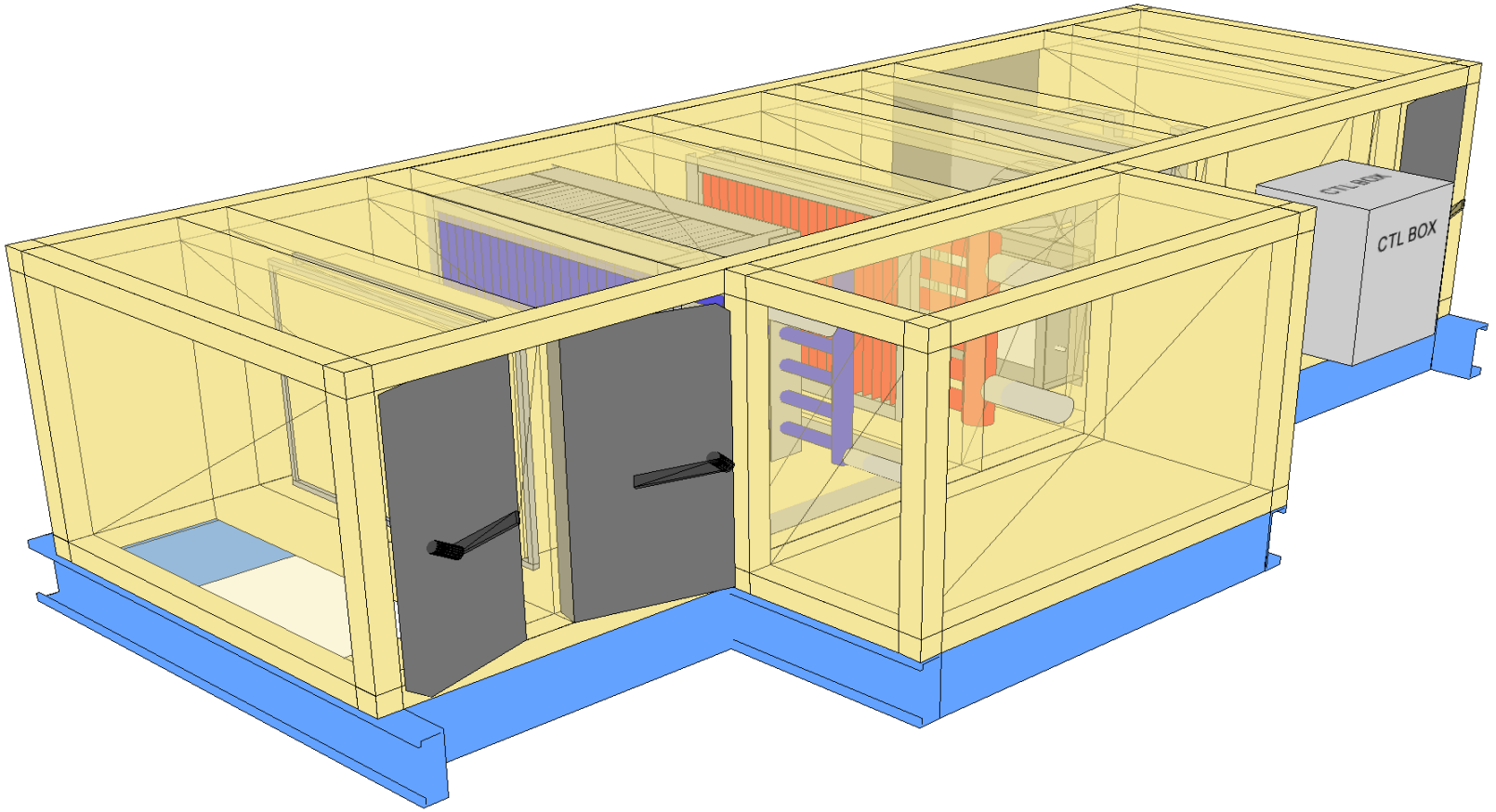
Drawing for RTU C3



Product Drawing	Unit Tag: RTU C3			Sales Office: Daikin TMI LLC (Kansas City)		
Product: Skyline Air Handler	Project Name: LSSD Lees Summit HS Remodel			Sales Engineer:		
Model: OAH004GDCM	Nov. 16, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

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Document Summary Page

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

01/14/2021

Job Name: G-163-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: September 30, 2020

Model: G-163-VG

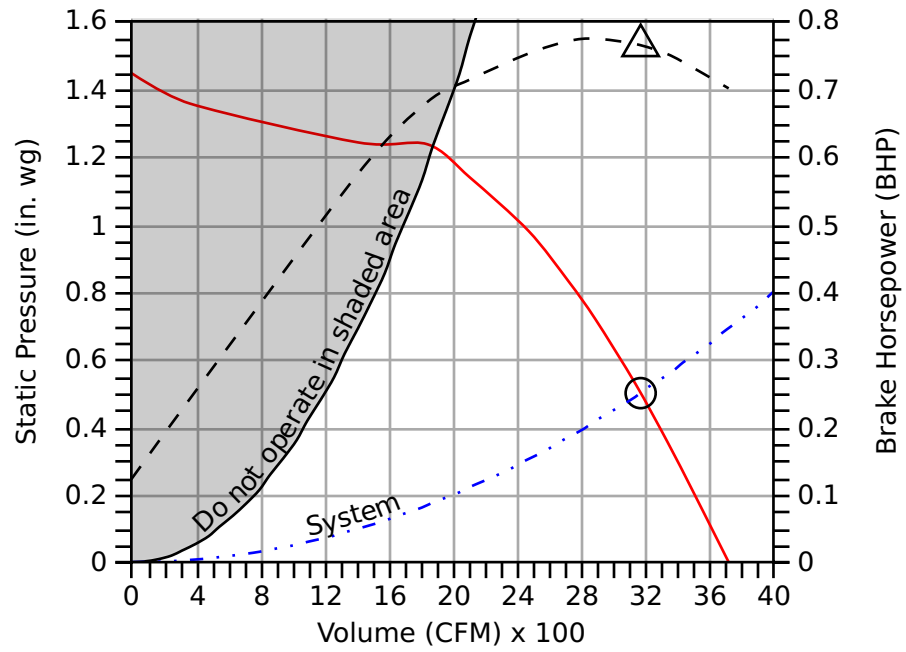
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	3,160
Actual Volume (CFM)	3,160
Total External SP (in. wg)	0.5
Fan RPM	1,259
Operating Power (bhp)	0.76
Startup Power (bhp)	0.76
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	33
Outlet Velocity (ft/min)	1,717

Motor	
Size (hp)	2
V/C/P	208/60/1



Fan curve
Brake horsepower curve
Operating Point SP
Operating Bhp point
Max system curve
System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	77	80	85	75	71	69	65	59	79	68	16.4

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.The AMCA certified ratings seal applies to sound and air performance ratings only.Performance certified is for installation type A: Free inlet, free outlet.Power rating does not include transmission losses.Performance ratings include the effects of birdscreen.The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per ANSI/AMCA Standard 301.Values shown are for Installation Type A: free inlet hemispherical sone levels.dBA levels are not licensed by AMCA International. The AMCA Certified Ratings Seal for Sound applies to inlet sone ratings only.

FLA - based on tables 150 or 148 of National Electric Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.

RELEASE FOR CONSTRUCTION
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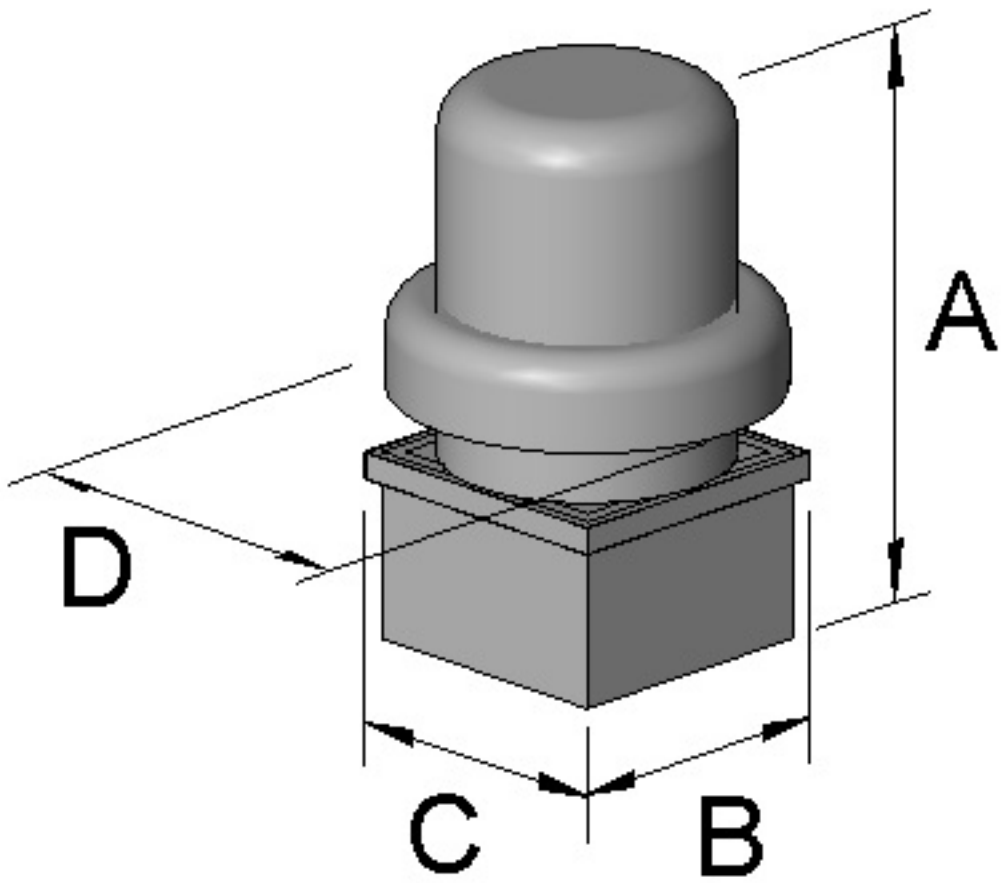
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
Version 2.6.0, July 2020
01/14/2021

Dimensions and Weights		
Label	**Value**	**Description**
-	74	Weight w/o accessories (lbs)
A	36	Overall Height (in)
D	28	Overall Width (in)
B	22	Curb Cap Width (in)
C	22	Curb Cap Length (in)
-	16	Duct / Damper Width (in)
-	16	Duct / Damper Length (in)
-	18.5	Roof Opening Width (in)
-	18.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: G-090-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: November 20, 2020

Model: G-090-VG

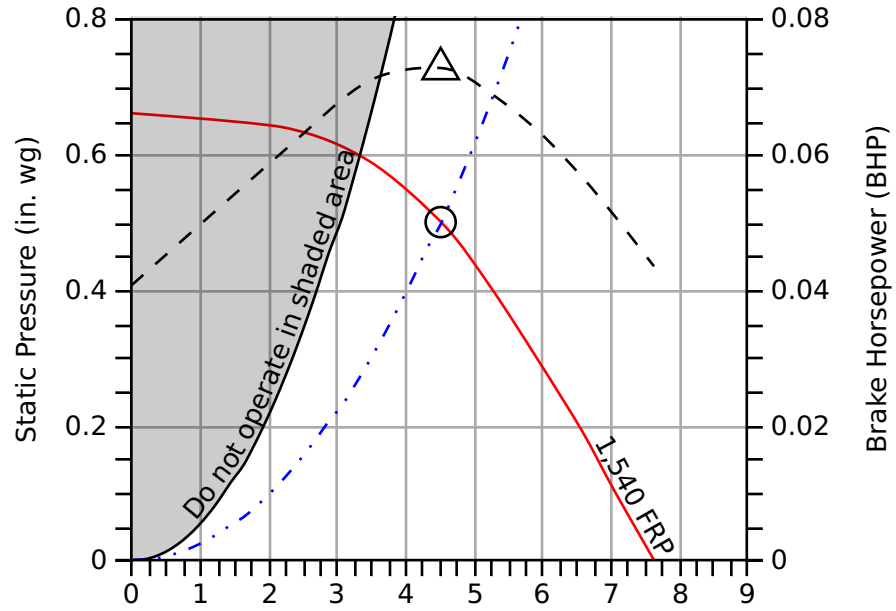
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	450
Actual Volume (CFM)	450
Total External SP (in. wg)	0.5
Fan RPM	1,540
Operating Power (bhp)	0.07
Startup Power (bhp)	0.07
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	49
Outlet Velocity (ft/min)	643

Motor	
Size (hp)	1/10
V/C/P	115/60/1
NEC FLA (Amps)	1.38



Fan curve
Brake horsepower curve
Operating Point SP
Operating Bhp point
Max system curve
System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	76	73	68	62	58	54	51	43	65	54	7.3

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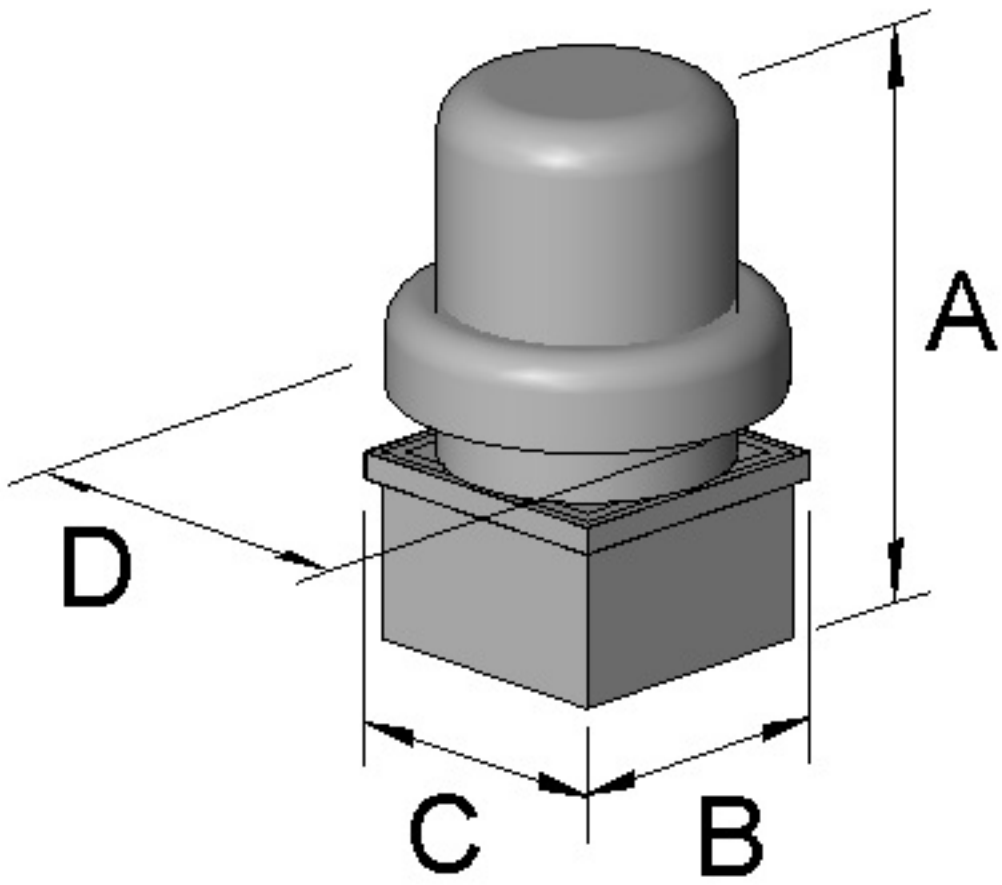
01/14/2021

Dimensions and Weights		
Label	**Value**	**Description**
-	29	Weight w/o accessories (lbs)
A	27	Overall Height (in)
D	22	Overall Width (in)
B	17	Curb Cap Width (in)
C	17	Curb Cap Length (in)
-	10	Duct / Damper Width (in)
-	10	Duct / Damper Length (in)
-	12.5	Roof Opening Width (in)
-	12.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: G-090-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: November 20, 2020

Model: G-090-VG

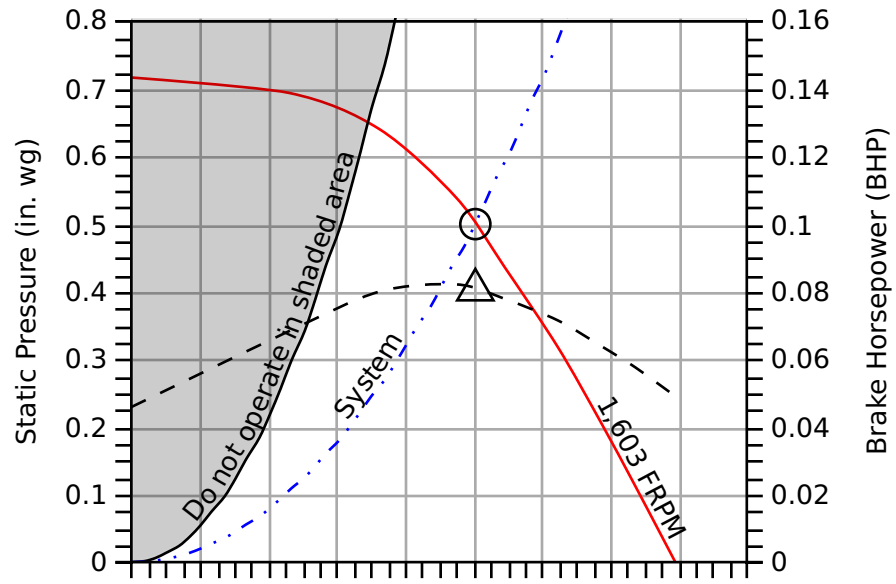
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	500
Actual Volume (CFM)	500
Total External SP (in. wg)	0.5
Fan RPM	1,603
Operating Power (bhp)	0.08
Startup Power (bhp)	0.08
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	49
Outlet Velocity (ft/min)	714

Motor	
Size (hp)	1/10
V/C/P	115/60/1
NEC FLA (Amps)	1.38



Fan curve
Brake horsepower curve
Operating Point SP
Operating Bhp point
Max system curve
System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	76	74	70	63	59	56	52	45	67	55	7.8

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.The AMCA certified ratings seal applies to sound and air performance ratings only.Performance certified is for installation type A: Free inlet, free outlet.Power rating does not include transmission losses.Performance ratings include the effects of birdscreen.The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per ANSI/AMCA Standard 301.Values shown are for Installation Type A: free inlet hemispherical sone levels.dBA levels are not licensed by AMCA International. The AMCA Certified Ratings Seal for Sound applies to inlet sone ratings only.

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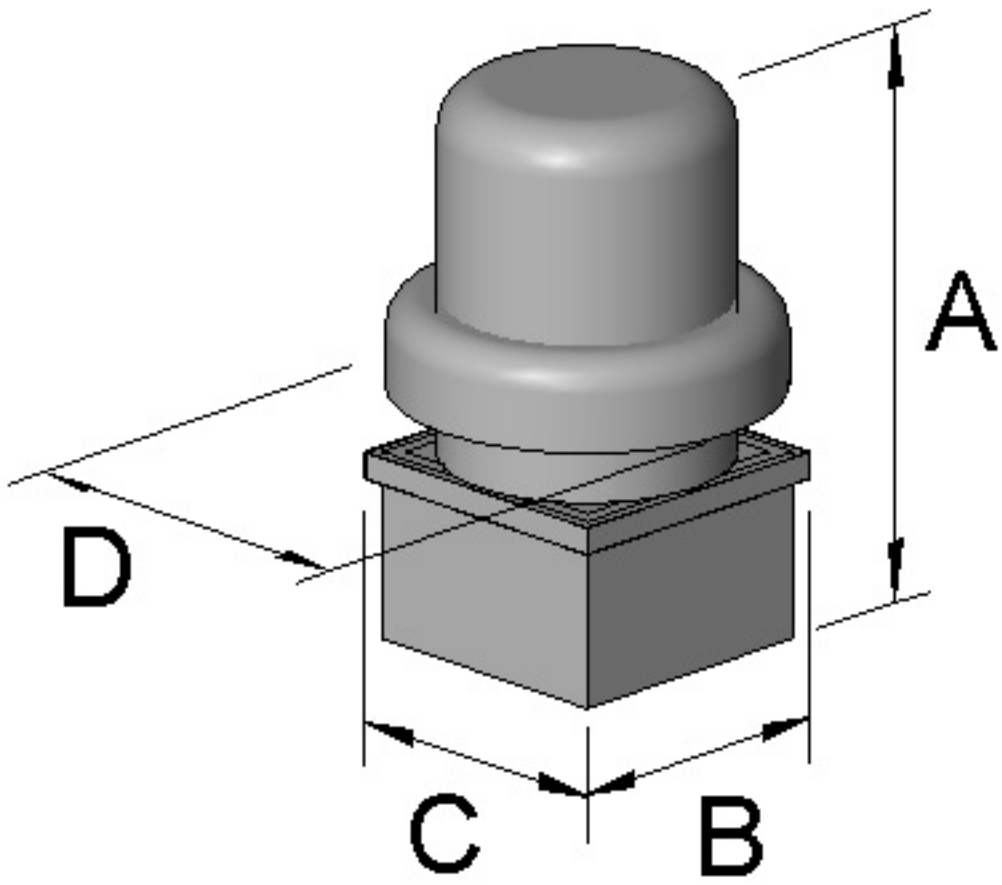
Dimensions and Weights		
Label	**Value**	**Description**
-	29	Weight w/o accessories (lbs)
A	27	Overall Height (in)
D	22	Overall Width (in)
B	17	Curb Cap Width (in)
C	17	Curb Cap Length (in)
-	10	Duct / Damper Width (in)
-	10	Duct / Damper Length (in)
-	12.5	Roof Opening Width (in)
-	12.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: G-143-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: September 30, 2020

Model: G-143-VG

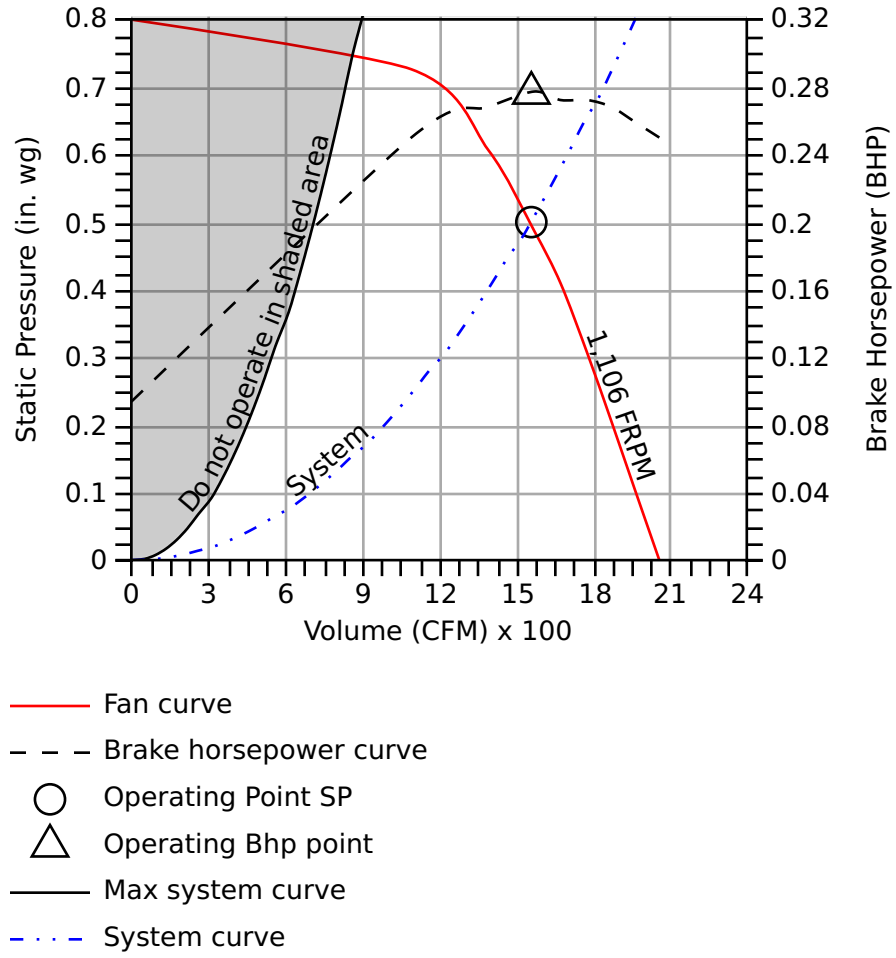
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	1,550
Actual Volume (CFM)	1,550
Total External SP (in. wg)	0.5
Fan RPM	1,106
Operating Power (bhp)	0.28
Startup Power (bhp)	0.28
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	44
Outlet Velocity (ft/min)	1,174

Motor	
Size (hp)	1/2
V/C/P	115/60/1
NEC FLA (Amps)	6.7



Fan curve
Brake horsepower curve
Operating Point SP
Operating Bhp point
Max system curve
System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	75	76	73	67	60	59	53	47	69	58	9.0

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FLA - based on tables 150 or 148 of National Electric Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.

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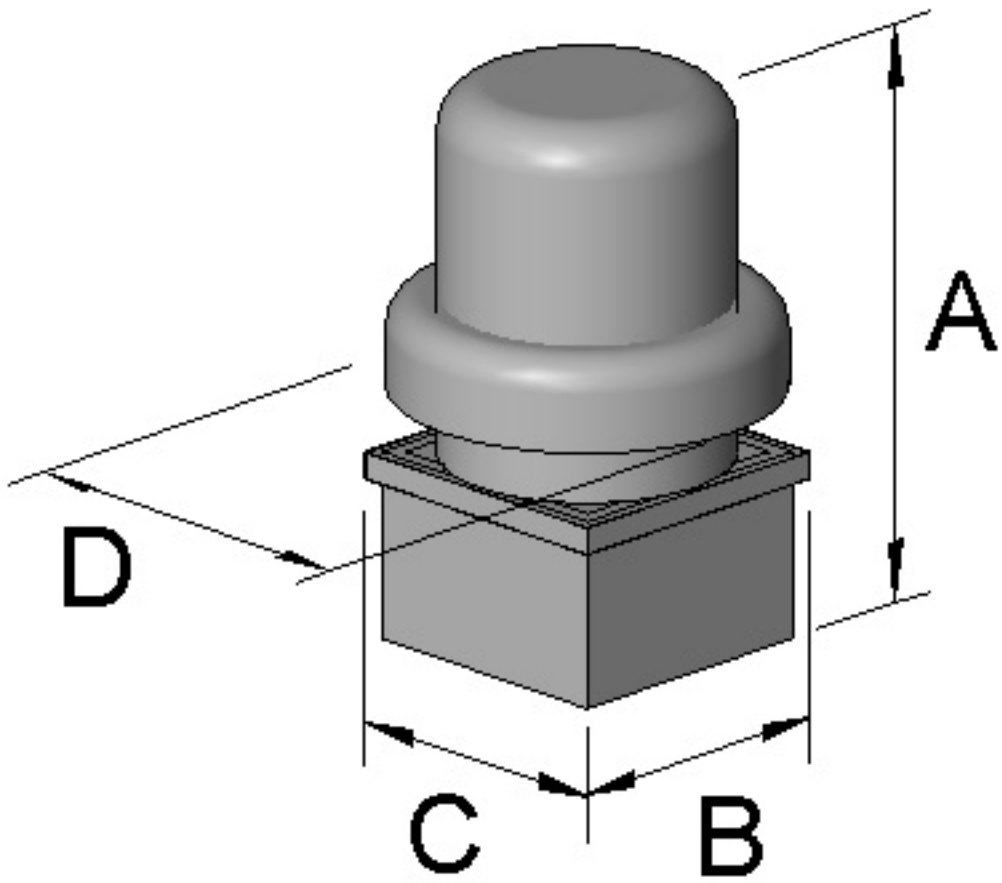
Dimensions and Weights		
Label	**Value**	**Description**
-	54	Weight w/o accessories (lbs)
A	36	Overall Height (in)
D	28	Overall Width (in)
B	22	Curb Cap Width (in)
C	22	Curb Cap Length (in)
-	16	Duct / Damper Width (in)
-	16	Duct / Damper Length (in)
-	18.5	Roof Opening Width (in)
-	18.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: G-203-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: October 9, 2020

Model: G-203-VG

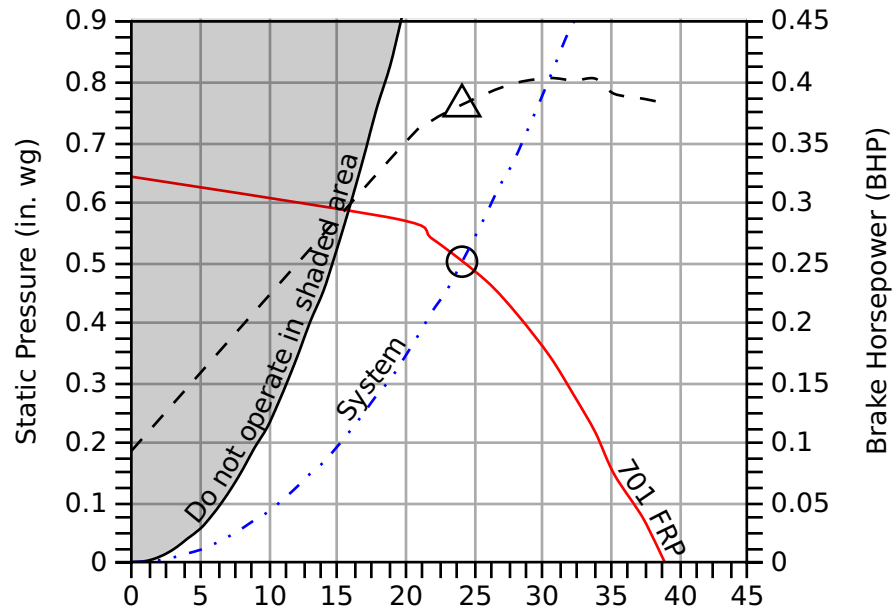
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	2,405
Actual Volume (CFM)	2,405
Total External SP (in. wg)	0.5
Fan RPM	701
Operating Power (bhp)	0.38
Startup Power (bhp)	0.38
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	50
Outlet Velocity (ft/min)	1,006

Motor	
Size (hp)	1
V/C/P	115/60/1



Fan curve
Brake horsepower curve
Operating Point SP
Operating Bhp point
Max system curve
System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	76	75	67	62	57	56	52	45	66	54	7.7

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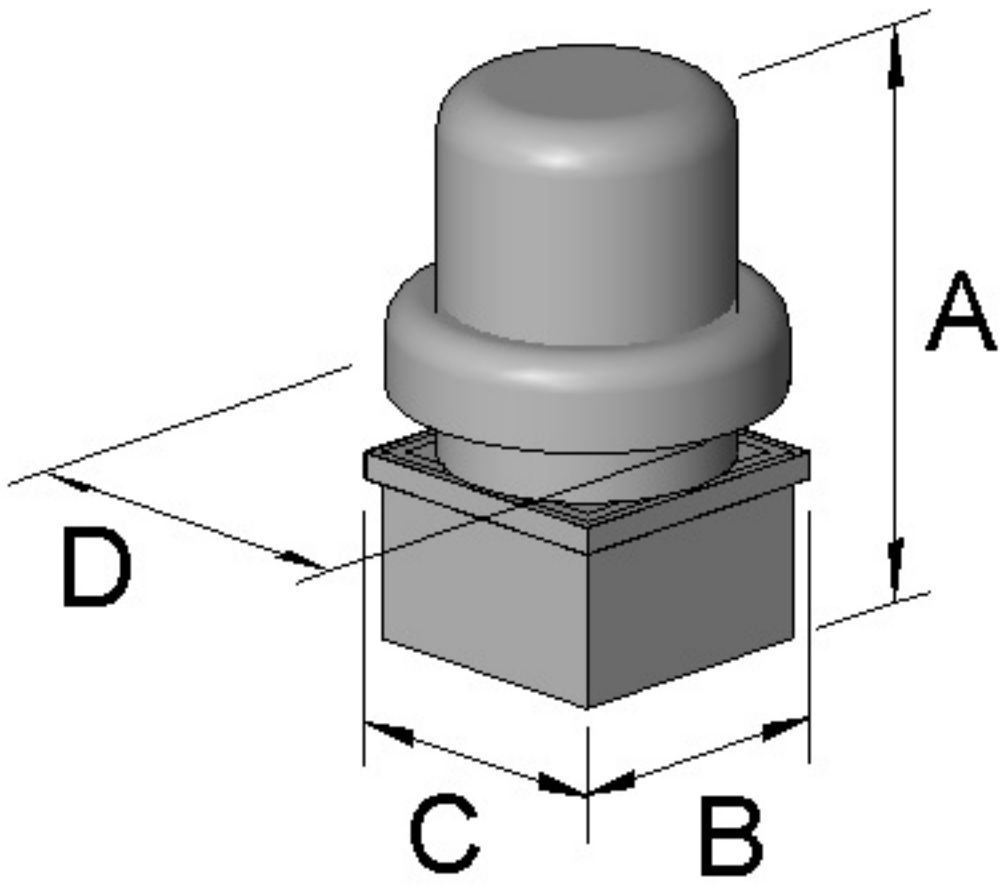
01/14/2021

Dimensions and Weights		
Label	**Value**	**Description**
-	94	Weight w/o accessories (lbs)
A	40	Overall Height (in)
D	36	Overall Width (in)
B	30	Curb Cap Width (in)
C	30	Curb Cap Length (in)
-	18	Duct / Damper Width (in)
-	18	Duct / Damper Length (in)
-	20.5	Roof Opening Width (in)
-	20.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: G-143-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: October 9, 2020

Model: G-143-VG

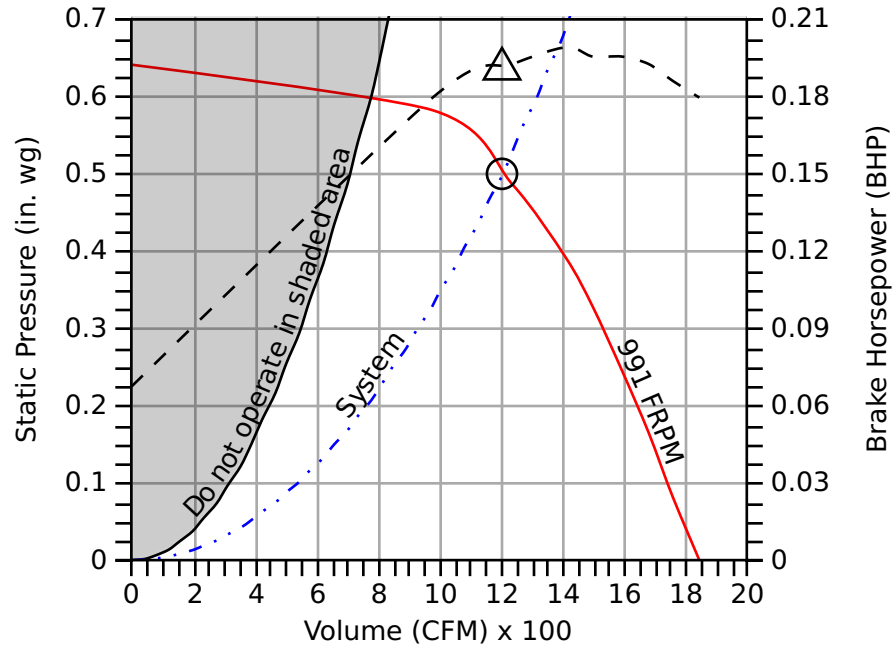
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	1,200
Actual Volume (CFM)	1,200
Total External SP (in. wg)	0.5
Fan RPM	991
Operating Power (bhp)	0.19
Startup Power (bhp)	0.19
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	49
Outlet Velocity (ft/min)	909

Motor	
Size (hp)	1/2
V/C/P	115/60/1
NEC FLA (Amps)	6.7



Fan curve
Brake horsepower curve
Operating Point SP
Operating Bhp point
Max system curve
System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	72	75	69	62	56	53	48	41	66	54	7.2

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.The AMCA certified ratings seal applies to sound and air performance ratings only.Performance certified is for installation type A: Free inlet, free outlet.Power rating does not include transmission losses.Performance ratings include the effects of birdscreen.The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per ANSI/AMCA Standard 301.Values shown are for Installation Type A: free inlet hemispherical sone levels.dBA levels are not licensed by AMCA International. The AMCA Certified Ratings Seal for Sound applies to inlet sone ratings only.

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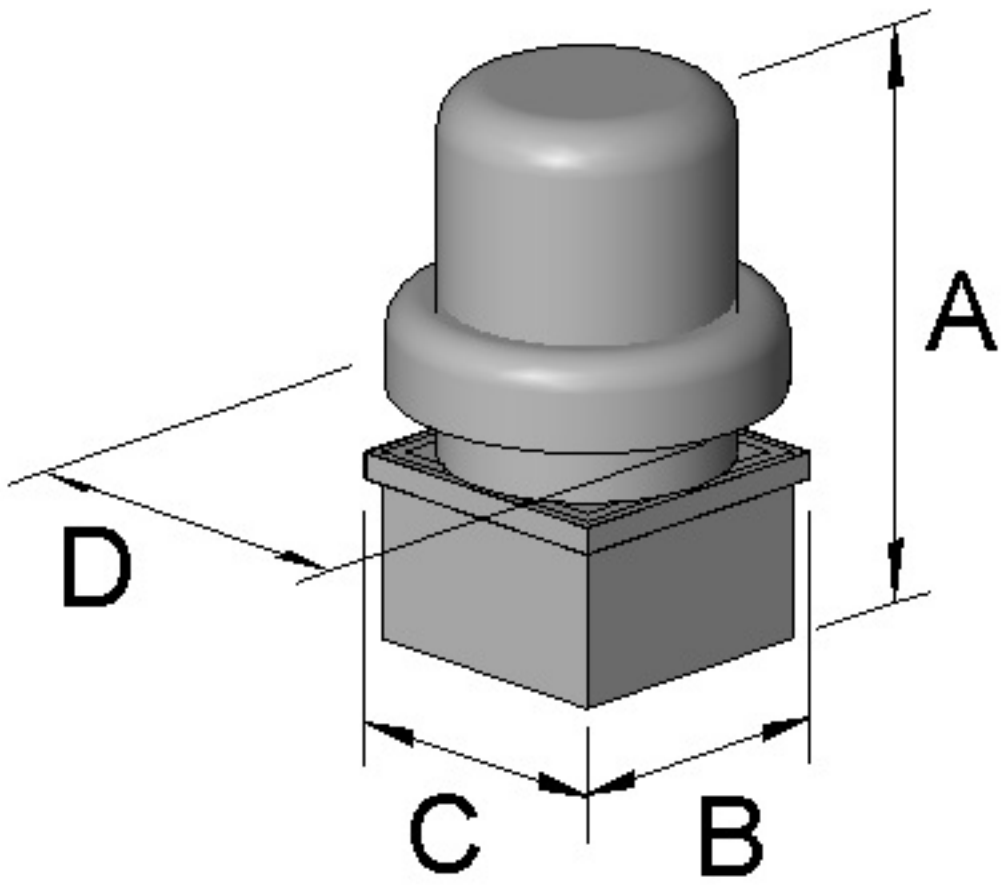
Dimensions and Weights		
Label	**Value**	**Description**
-	54	Weight w/o accessories (lbs)
A	36	Overall Height (in)
D	28	Overall Width (in)
B	22	Curb Cap Width (in)
C	22	Curb Cap Length (in)
-	16	Duct / Damper Width (in)
-	16	Duct / Damper Length (in)
-	18.5	Roof Opening Width (in)
-	18.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: G-203-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: October 9, 2020

Model: G-203-VG

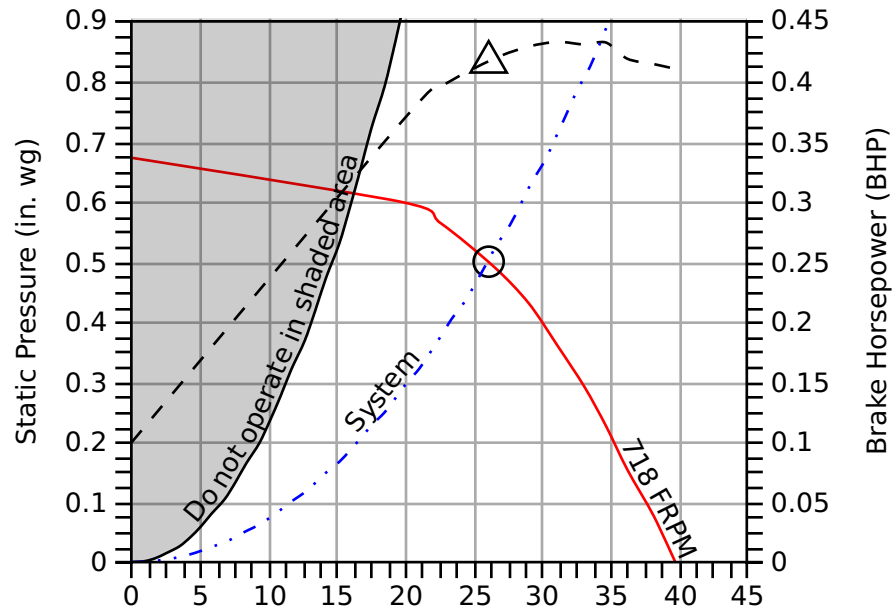
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	2,600
Actual Volume (CFM)	2,600
Total External SP (in. wg)	0.5
Fan RPM	718
Operating Power (bhp)	0.42
Startup Power (bhp)	0.42
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	49
Outlet Velocity (ft/min)	1,088

Motor	
Size (hp)	1
V/C/P	115/60/1



Fan curve
Brake horsepower curve
Operating Point SP
Operating Bhp point
Max system curve
System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	76	76	69	64	58	57	53	46	67	55	8.3

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.The AMCA certified ratings seal applies to sound and air performance ratings only.Performance certified is for installation type A: Free inlet, free outlet.Power rating does not include transmission losses.Performance ratings include the effects of birdscreen.The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per ANSI/AMCA Standard 301.Values shown are for Installation Type A: free inlet hemispherical sone levels.dBA levels are not licensed by AMCA International. The AMCA Certified Ratings Seal for Sound applies to inlet sone ratings only.

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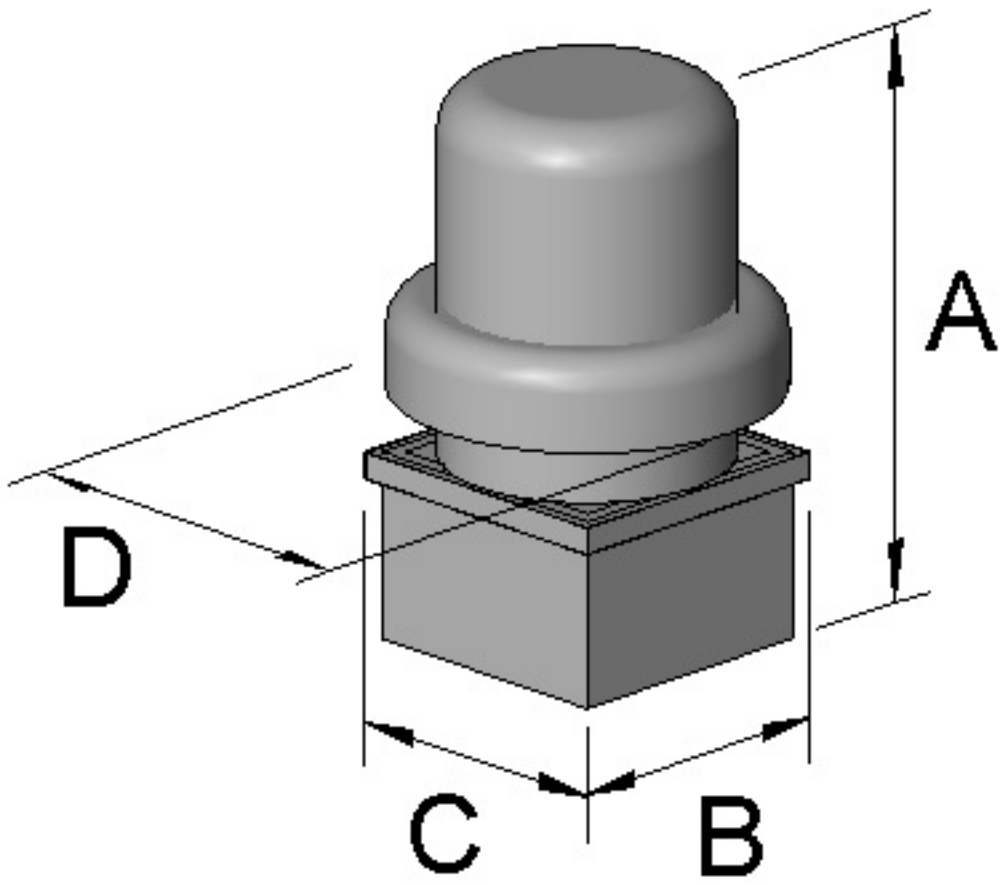
Dimensions and Weights		
Label	**Value**	**Description**
-	94	Weight w/o accessories (lbs)
A	40	Overall Height (in)
D	36	Overall Width (in)
B	30	Curb Cap Width (in)
C	30	Curb Cap Length (in)
-	18	Duct / Damper Width (in)
-	18	Duct / Damper Length (in)
-	20.5	Roof Opening Width (in)
-	20.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: G-070-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: October 9, 2020

Model: G-070-VG

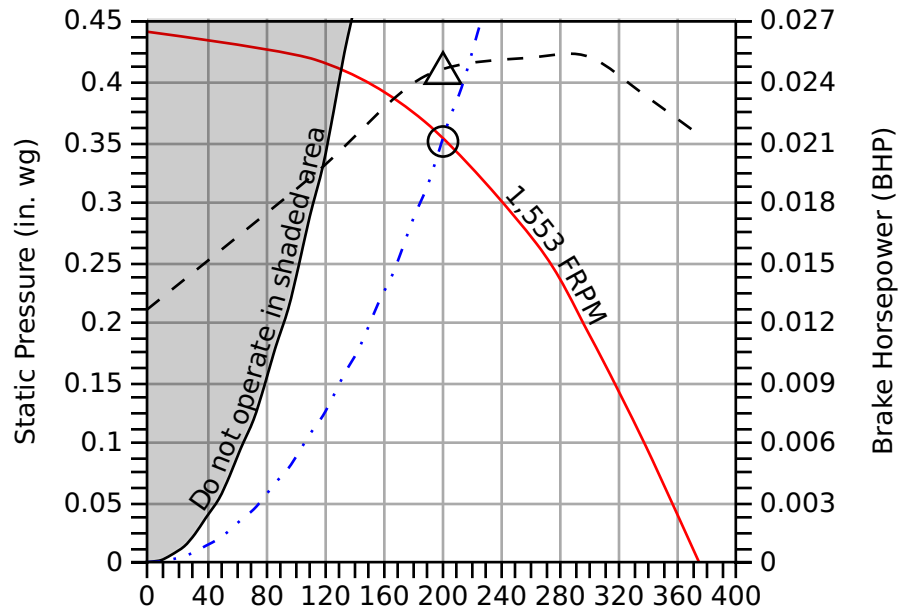
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	200
Actual Volume (CFM)	200
Total External SP (in. wg)	0.35
Fan RPM	1,553
Operating Power (bhp)	0.02
Startup Power (bhp)	0.02
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	45
Outlet Velocity (ft/min)	513

Motor	
Size (hp)	1/15
V/C/P	115/60/1



- Fan curve
- Brake horsepower curve
- Operating Point SP
- Operating Bhp point
- Max system curve
- System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	67	68	64	50	45	43	39	34	58	47	4.4

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.The AMCA certified ratings seal applies to sound and air performance ratings only.Performance certified is for installation type A: Free inlet, free outlet.Power rating does not include transmission losses.Performance ratings include the effects of birdscreen.The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per ANSI/AMCA Standard 301.Values shown are for Installation Type A: free inlet hemispherical sone levels.dBA levels are not licensed by AMCA International. The AMCA Certified Ratings Seal for Sound applies to inlet sone ratings only.

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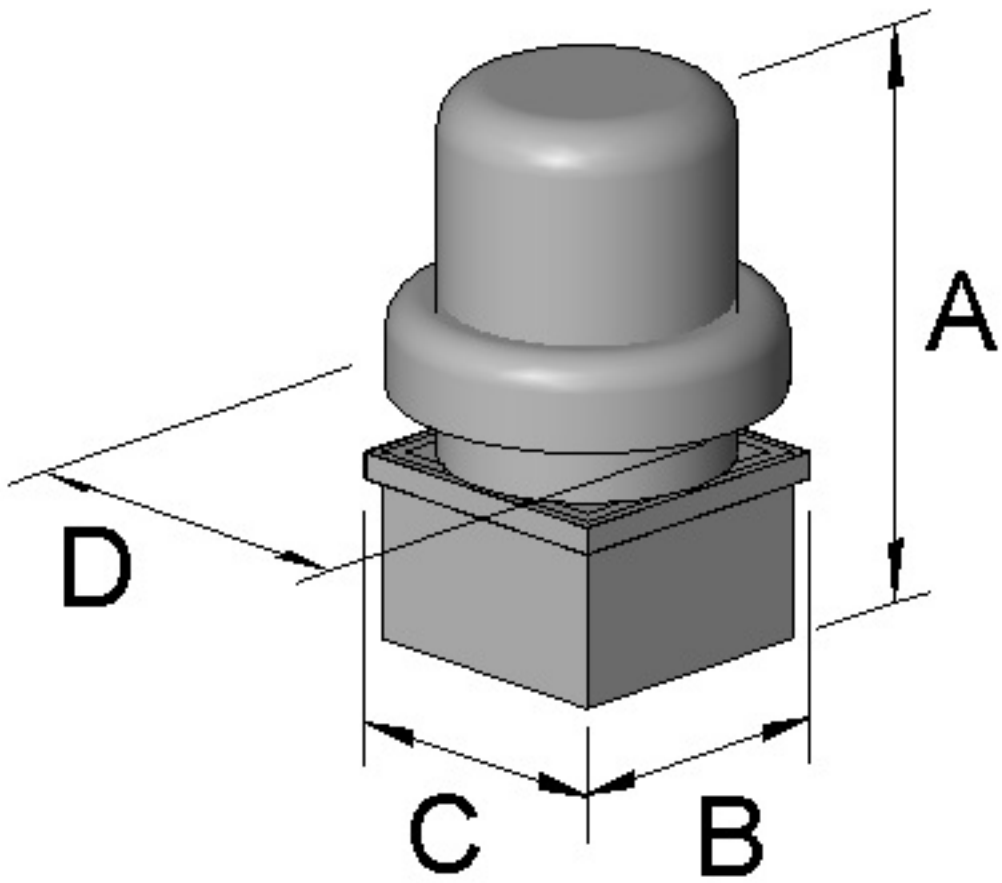
Dimensions and Weights		
Label	**Value**	**Description**
-	20	Weight w/o accessories (lbs)
A	24	Overall Height (in)
D	19	Overall Width (in)
B	17	Curb Cap Width (in)
C	17	Curb Cap Length (in)
-	8	Duct / Damper Width (in)
-	8	Duct / Damper Length (in)
-	10.5	Roof Opening Width (in)
-	10.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: G-133-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: October 9, 2020

Model: G-133-VG

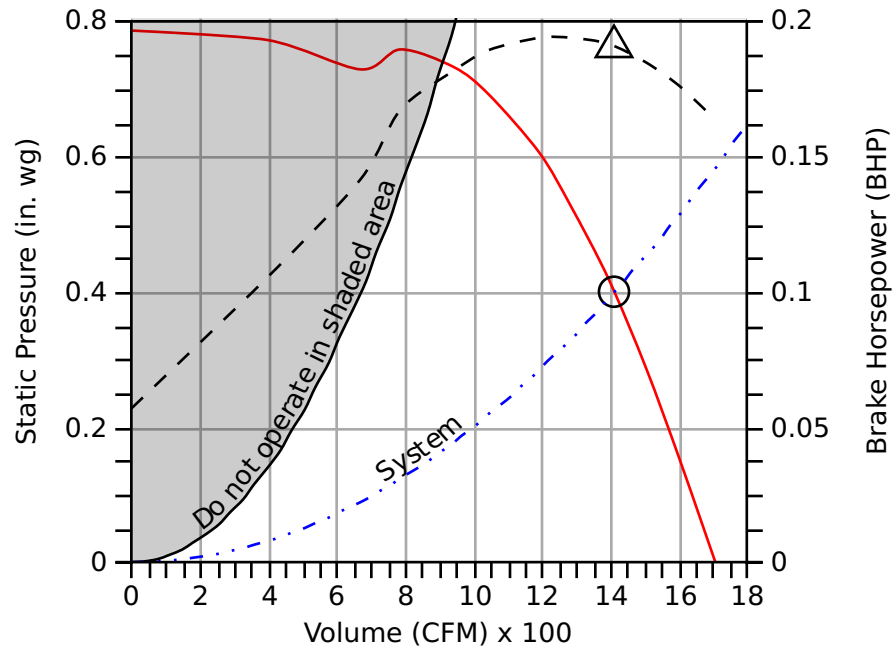
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	1,410
Actual Volume (CFM)	1,410
Total External SP (in. wg)	0.4
Fan RPM	1,200
Operating Power (bhp)	0.19
Startup Power (bhp)	0.19
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	47
Outlet Velocity (ft/min)	1,259

Motor	
Size (hp)	1/2
V/C/P	115/60/1
NEC FLA (Amps)	6.7



Fan curve
Brake horsepower curve
Operating Point SP
Operating Bhp point
Max system curve
System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	73	73	75	68	64	62	55	49	71	60	9.9

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.The AMCA certified ratings seal applies to sound and air performance ratings only.Performance certified is for installation type A: Free inlet, free outlet.Power rating does not include transmission losses.Performance ratings include the effects of birdscreen.The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per ANSI/AMCA Standard 301.Values shown are for Installation Type A: free inlet hemispherical sone levels.dBA levels are not licensed by AMCA International. The AMCA Certified Ratings Seal for Sound applies to inlet sone ratings only.

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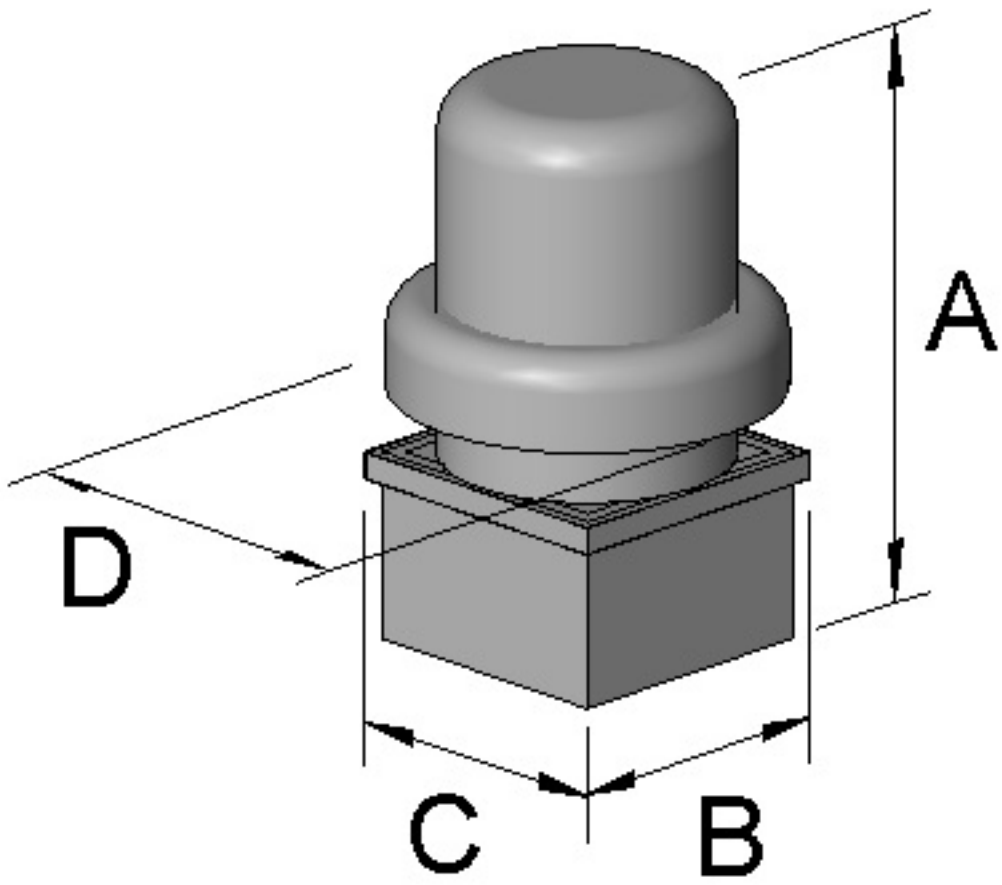
Dimensions and Weights		
Label	**Value**	**Description**
-	49	Weight w/o accessories (lbs)
A	36	Overall Height (in)
D	28	Overall Width (in)
B	19	Curb Cap Width (in)
C	19	Curb Cap Length (in)
-	12	Duct / Damper Width (in)
-	12	Duct / Damper Length (in)
-	14.5	Roof Opening Width (in)
-	14.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: G-133-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: October 9, 2020

Model: G-133-VG

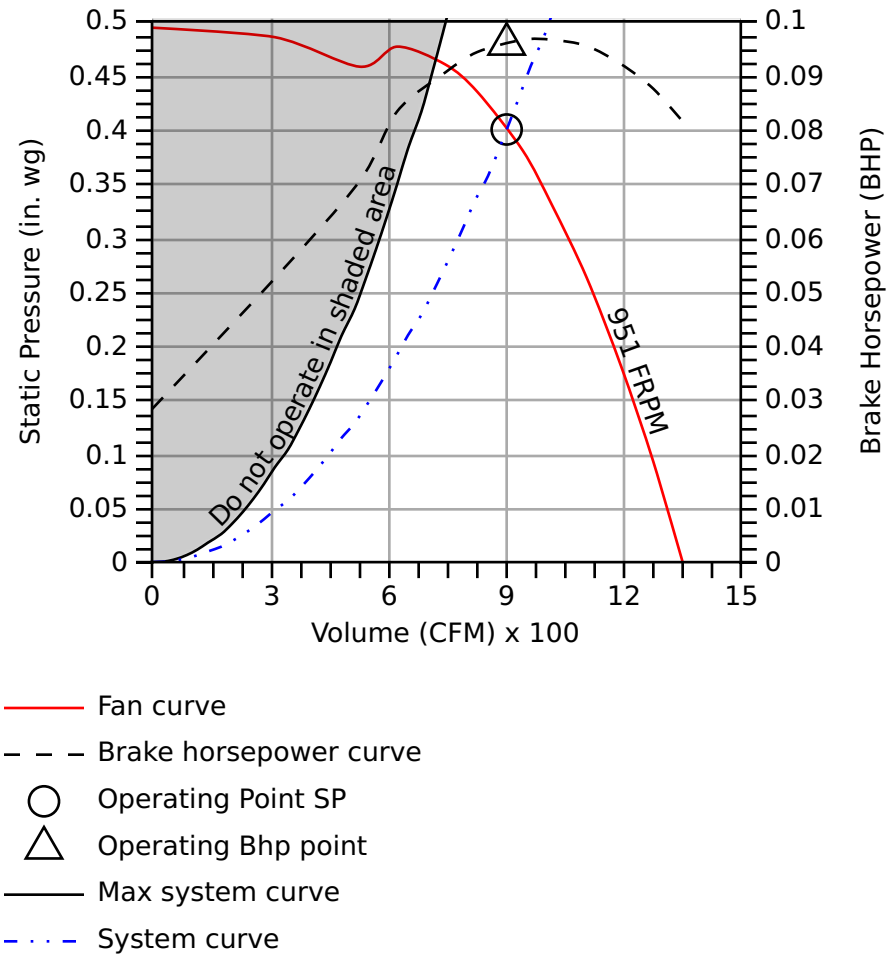
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	900
Actual Volume (CFM)	900
Total External SP (in. wg)	0.4
Fan RPM	951
Operating Power (bhp)	0.1
Startup Power (bhp)	0.1
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	59
Outlet Velocity (ft/min)	804

Motor	
Size (hp)	1/4
V/C/P	115/60/1
NEC FLA (Amps)	3.7



Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	71	70	67	63	59	57	48	42	65	54	6.7

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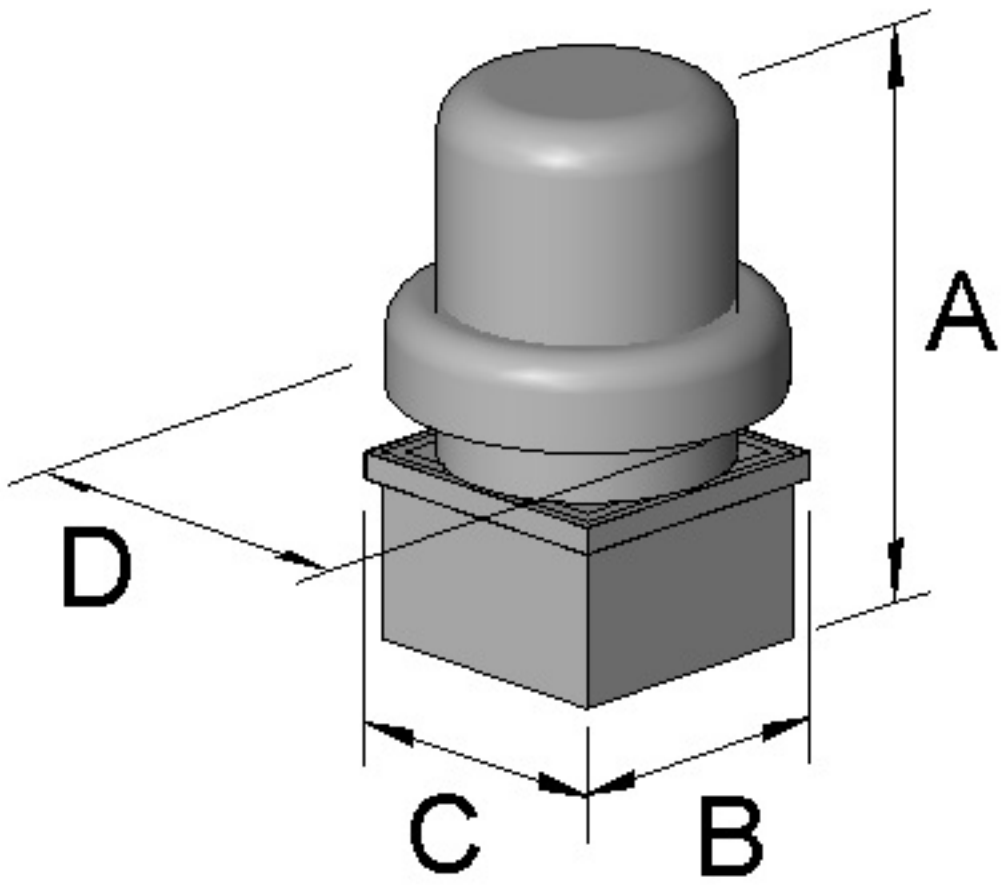
Dimensions and Weights		
Label	**Value**	**Description**
-	44	Weight w/o accessories (lbs)
A	36	Overall Height (in)
D	28	Overall Width (in)
B	19	Curb Cap Width (in)
C	19	Curb Cap Length (in)
-	12	Duct / Damper Width (in)
-	12	Duct / Damper Length (in)
-	14.5	Roof Opening Width (in)
-	14.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: G-123-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: October 21, 2020

Model: G-123-VG

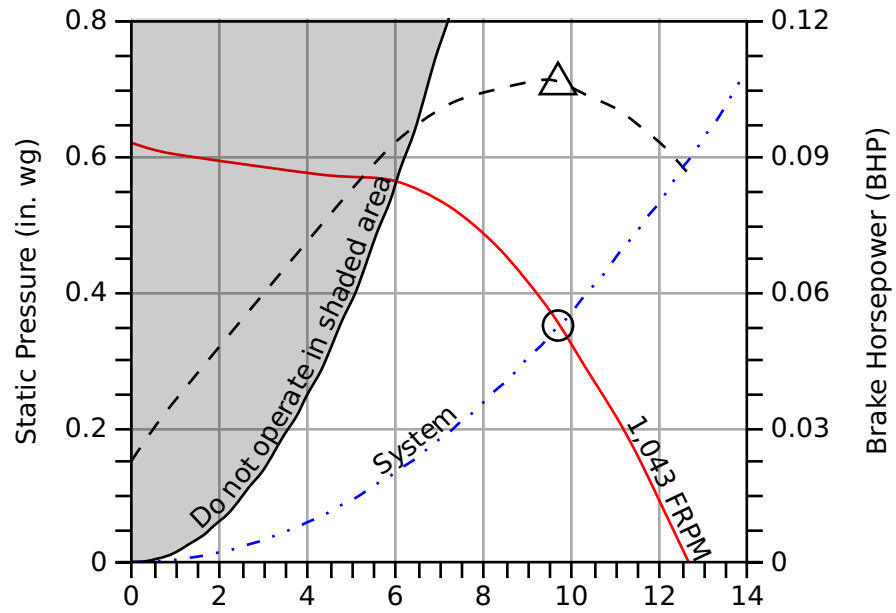
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	970
Actual Volume (CFM)	970
Total External SP (in. wg)	0.35
Fan RPM	1,043
Operating Power (bhp)	0.11
Startup Power (bhp)	0.11
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	50
Outlet Velocity (ft/min)	1,043

Motor	
Size (hp)	1/4
V/C/P	115/60/1
NEC FLA (Amps)	3.7



- Fan curve
- Brake horsepower curve
- Operating Point SP
- Operating Bhp point
- Max system curve
- System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	66	71	69	62	56	54	49	47	65	54	7.0

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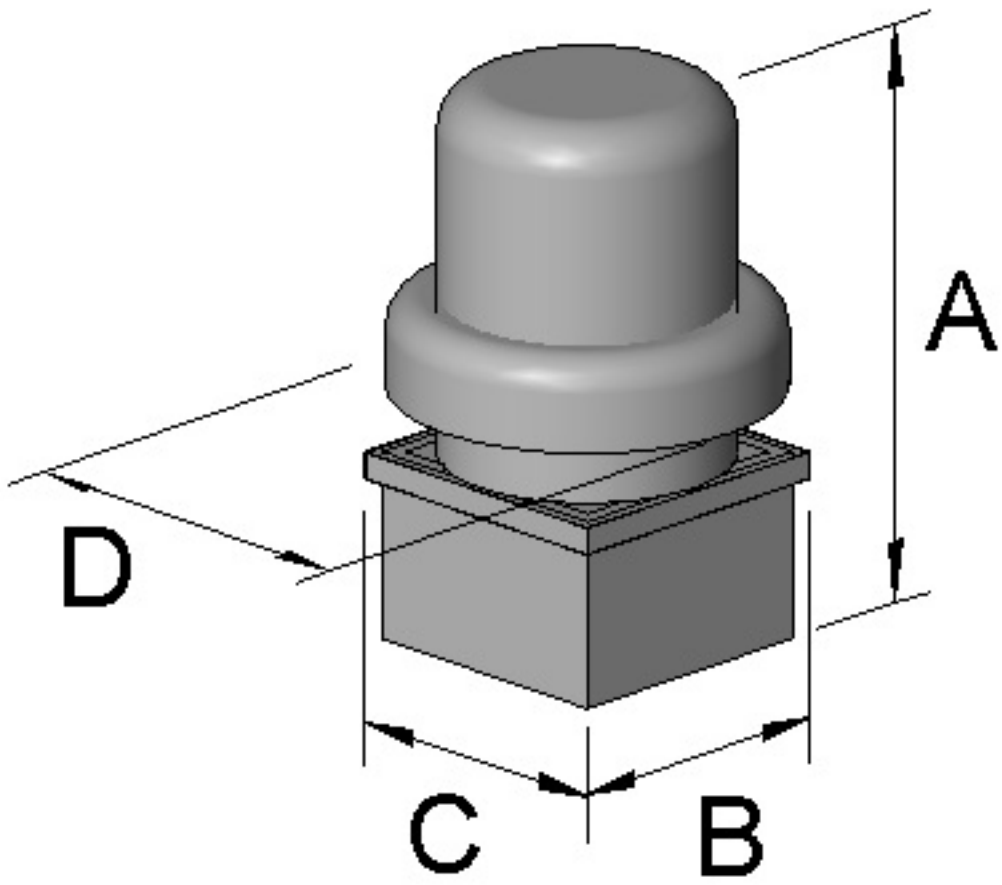
Dimensions and Weights		
Label	**Value**	**Description**
-	43	Weight w/o accessories (lbs)
A	36	Overall Height (in)
D	24	Overall Width (in)
B	19	Curb Cap Width (in)
C	19	Curb Cap Length (in)
-	12	Duct / Damper Width (in)
-	12	Duct / Damper Length (in)
-	14.5	Roof Opening Width (in)
-	14.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: SP-80-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: October 28, 2020

Model: SP-80-VG

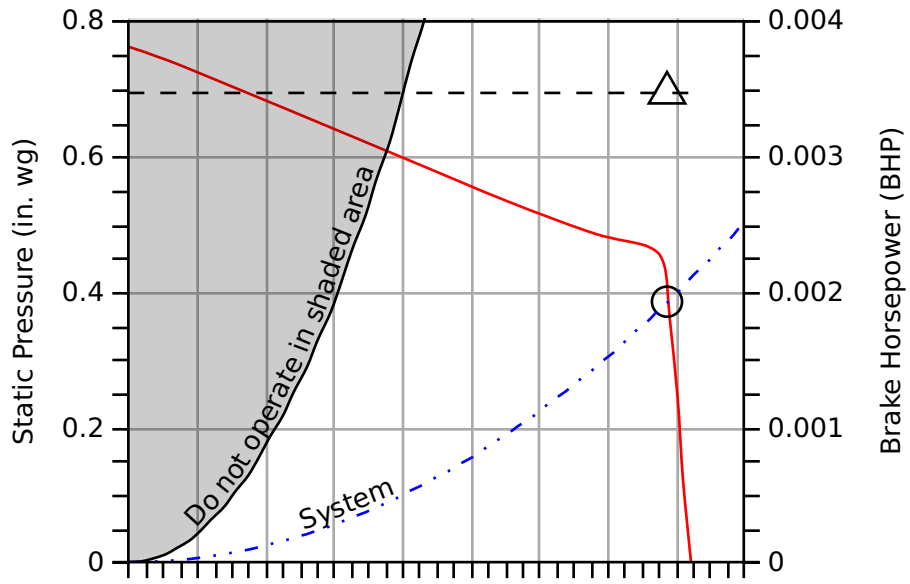
Direct Drive Bathroom Exhaust Fan

Standard Construction Features: Galvanized steel housing and grille. Centrifugal forward curved wheel. Direct driven motor in the air stream.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	75
Actual Volume (CFM)	79
Total External SP (in. wg)	0.39
Fan RPM	935
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Watts (W)	6
Static Efficiency (%)	137
Outlet Velocity (ft/min)	414

Motor	
V/C/P	115/60/1
NEC FLA (Amps)	0.1



- Fan curve
- Brake horsepower curve
- Operating Point SP
- Operating Bhp point
- Max system curve
- System curve

Static Pressure Calculations	
External SP	0.35 in. wg
Direct Drive RPM Adjustment	0.04 in. wg
Total External SP	0.39 in. wg

Sound

	Octave Bands (hz)								LwA	dBA	Spherical Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	50	42	41	39	33	26	19	21	40	25	<0.3

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.The AMCA certified ratings seal applies to sound and air performance ratings only.Performance certified is for installation type B: Free inlet, ducted outlet.Power rating does not include transmission losses.Performance ratings include the effects of an inlet grille and backdraft damper.Speed (RPM) shown is nominal. Performance is based on actual speed of test.The sound ratings shown are loudness values in spherical sones at 1.5 m (5 ft) in a spherical free field calculated per ANSI/AMCA 301.Values shown are for Installation Type B: free inlet spherical sone levels.dBA levels are not licensed by AMCA International. The AMCA Certified Ratings Seal for Sound applies to sone ratings only.

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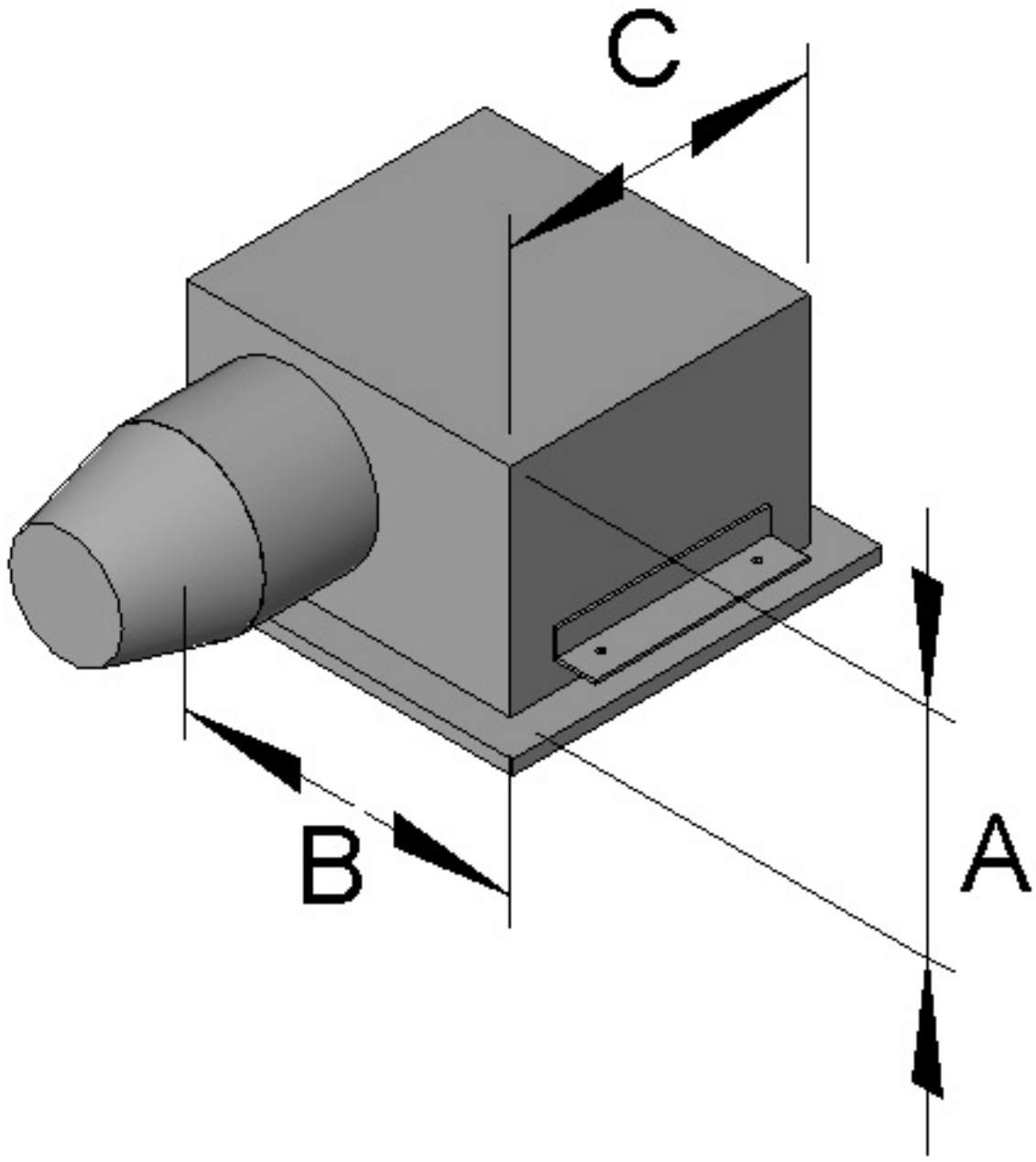
Dimensions and Weights		
Label	**Value**	**Description**
-	12	Weight w/o accessories (lbs)
A	8	Overall Height (in)
B	11	Overall Width (in)
C	11	Overall Length (in)
-	4	Outlet Diameter (in)
-	14.875	Grille Width (in)
-	13.25	Grille Length (in)



*All dimensions are in inches.

Job Name: G-143-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: November 10, 2020

Model: G-143-VG

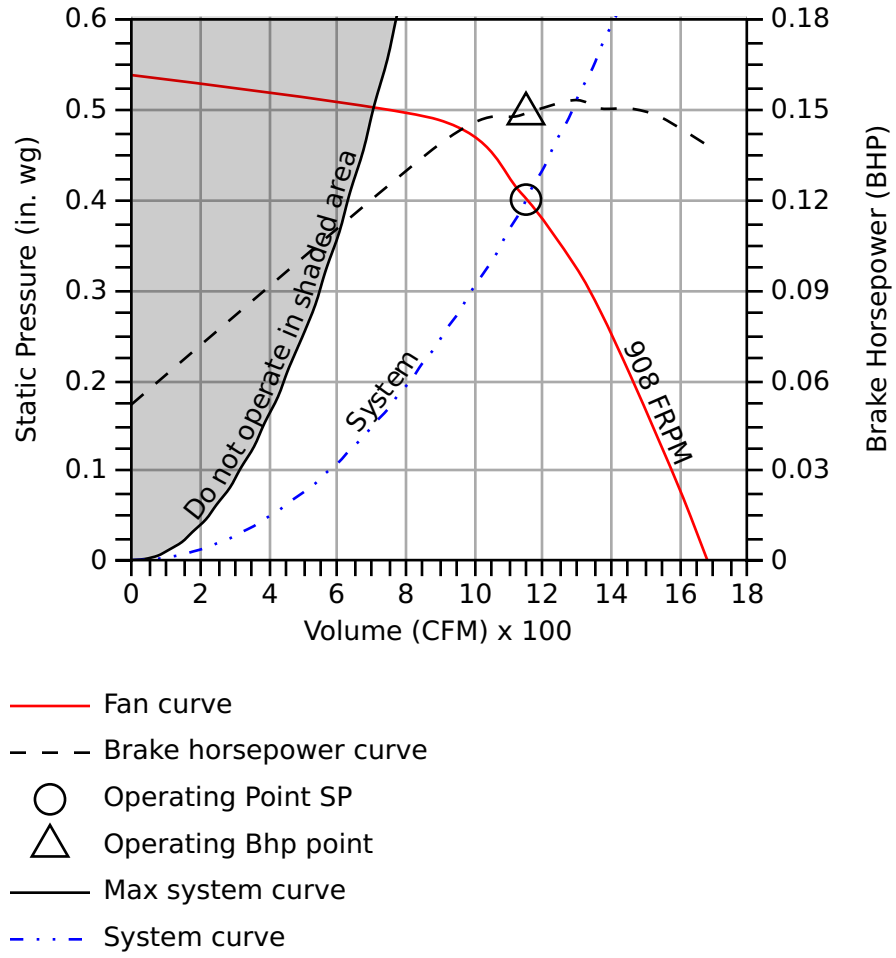
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	1,150
Actual Volume (CFM)	1,150
Total External SP (in. wg)	0.4
Fan RPM	908
Operating Power (bhp)	0.15
Startup Power (bhp)	0.15
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	49
Outlet Velocity (ft/min)	871

Motor	
Size (hp)	1/2
V/C/P	115/60/1
NEC FLA (Amps)	6.7



Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	69	74	68	60	56	50	46	38	64	53	6.6

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.The AMCA certified ratings seal applies to sound and air performance ratings only.Performance certified is for installation type A: Free inlet, free outlet.Power rating does not include transmission losses.Performance ratings include the effects of birdscreen.The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per ANSI/AMCA Standard 301.Values shown are for Installation Type A: free inlet hemispherical sone levels.dBA levels are not licensed by AMCA International. The AMCA Certified Ratings Seal for Sound applies to inlet sone ratings only.

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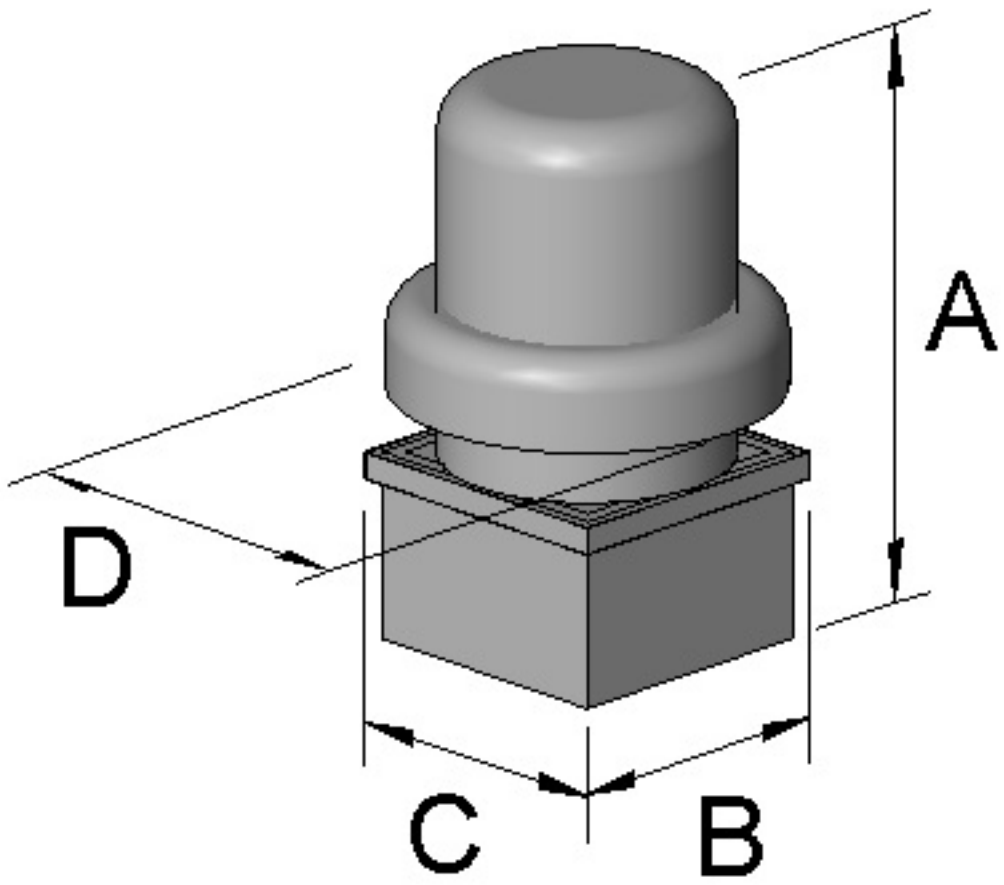
Dimensions and Weights		
Label	**Value**	**Description**
-	54	Weight w/o accessories (lbs)
A	36	Overall Height (in)
D	28	Overall Width (in)
B	22	Curb Cap Width (in)
C	22	Curb Cap Length (in)
-	16	Duct / Damper Width (in)
-	16	Duct / Damper Length (in)
-	18.5	Roof Opening Width (in)
-	18.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: G-080-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: November 17, 2020

Model: G-080-VG

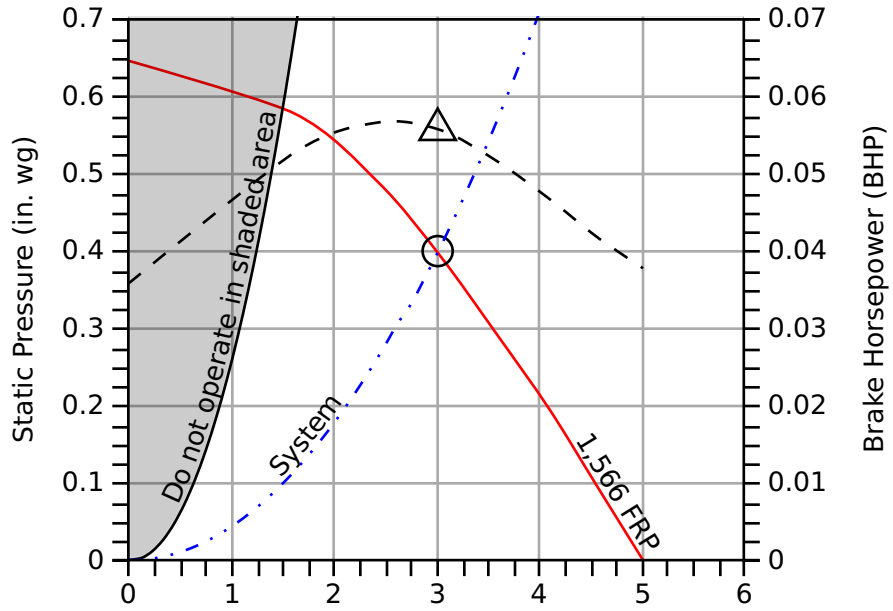
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	300
Actual Volume (CFM)	300
Total External SP (in. wg)	0.4
Fan RPM	1,566
Operating Power (bhp)	0.06
Startup Power (bhp)	0.06
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	34
Outlet Velocity (ft/min)	750

Motor	
Size (hp)	1/10
V/C/P	115/60/1
NEC FLA (Amps)	1.38



- Fan curve
- Brake horsepower curve
- Operating Point SP
- Operating Bhp point
- Max system curve
- System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	68	74	69	61	60	57	52	46	66	55	7.5

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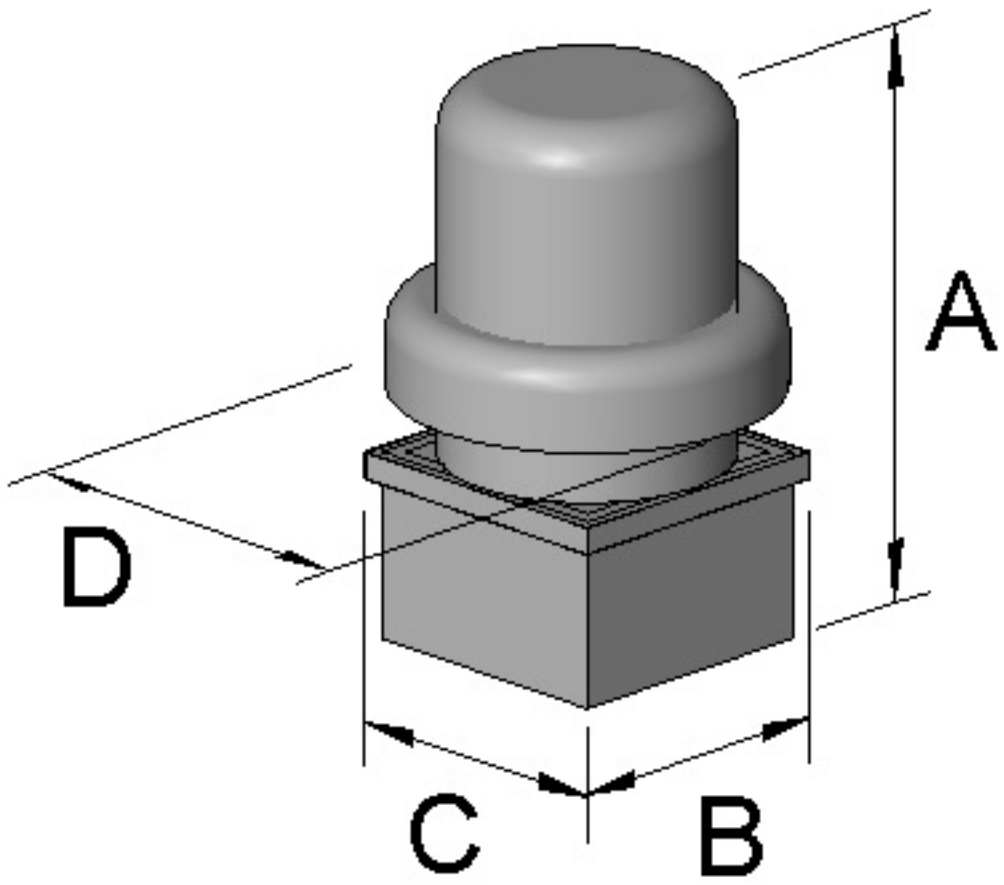
Dimensions and Weights		
Label	**Value**	**Description**
-	28	Weight w/o accessories (lbs)
A	27	Overall Height (in)
D	22	Overall Width (in)
B	17	Curb Cap Width (in)
C	17	Curb Cap Length (in)
-	10	Duct / Damper Width (in)
-	10	Duct / Damper Length (in)
-	12.5	Roof Opening Width (in)
-	12.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: G-143-VG Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: November 18, 2020

Model: G-143-VG

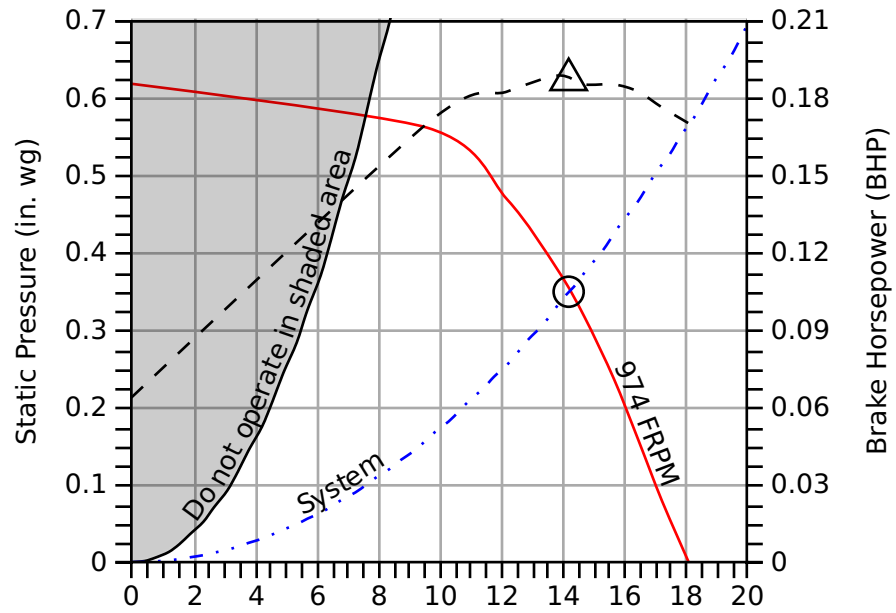
Direct Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum (composite for sizes 60-95) wheel. Direct driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Direct

Performance	
Requested Volume (CFM)	1,420
Actual Volume (CFM)	1,420
Total External SP (in. wg)	0.35
Fan RPM	974
Operating Power (bhp)	0.19
Startup Power (bhp)	0.19
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	42
Outlet Velocity (ft/min)	1,076

Motor	
Size (hp)	1/2
V/C/P	115/60/1
NEC FLA (Amps)	6.7



Fan curve
Brake horsepower curve
Operating Point SP
Operating Bhp point
Max system curve
System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	72	75	70	63	58	55	49	42	67	55	7.6

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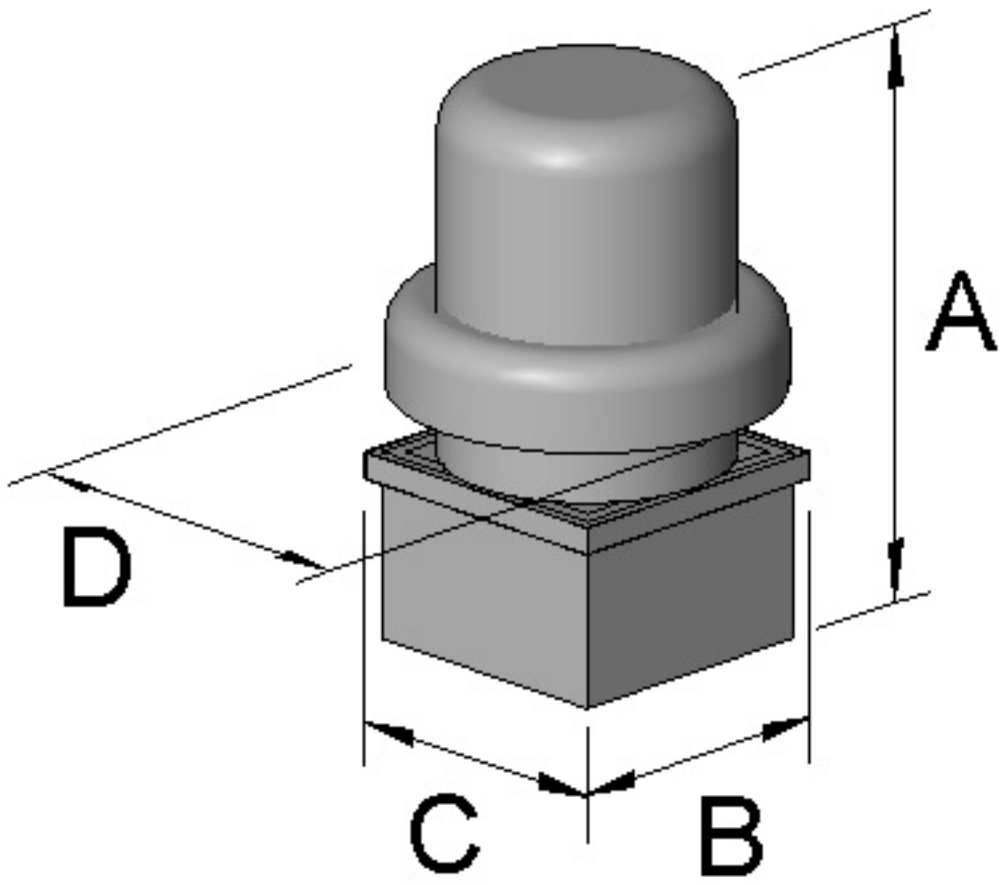
Dimensions and Weights		
Label	**Value**	**Description**
-	54	Weight w/o accessories (lbs)
A	36	Overall Height (in)
D	28	Overall Width (in)
B	22	Curb Cap Width (in)
C	22	Curb Cap Length (in)
-	16	Duct / Damper Width (in)
-	16	Duct / Damper Length (in)
-	18.5	Roof Opening Width (in)
-	18.5	Roof Opening Length (in)



*All dimensions are in inches.

GREENHECK
Building Value in Air.

Printed Date: 11/13/2020
Job: LEF-1
Mark: LEF-1
Model: FJC-315-BI

Model: FJC-315-BI
Centrifugal Utility Fume Exhaust Fan

Performance	
Quantity	1
Volume (CFM)	2,320
Total External SP (in. wg)	0.85
Operating Power (hp)	0.96
Required Power (hp)	0.96
Fan RPM	1631
Max Fan RPM	2674
Elevation (ft)	751
Start-up Temp.(F)	70
Operating Temp.(F)	70

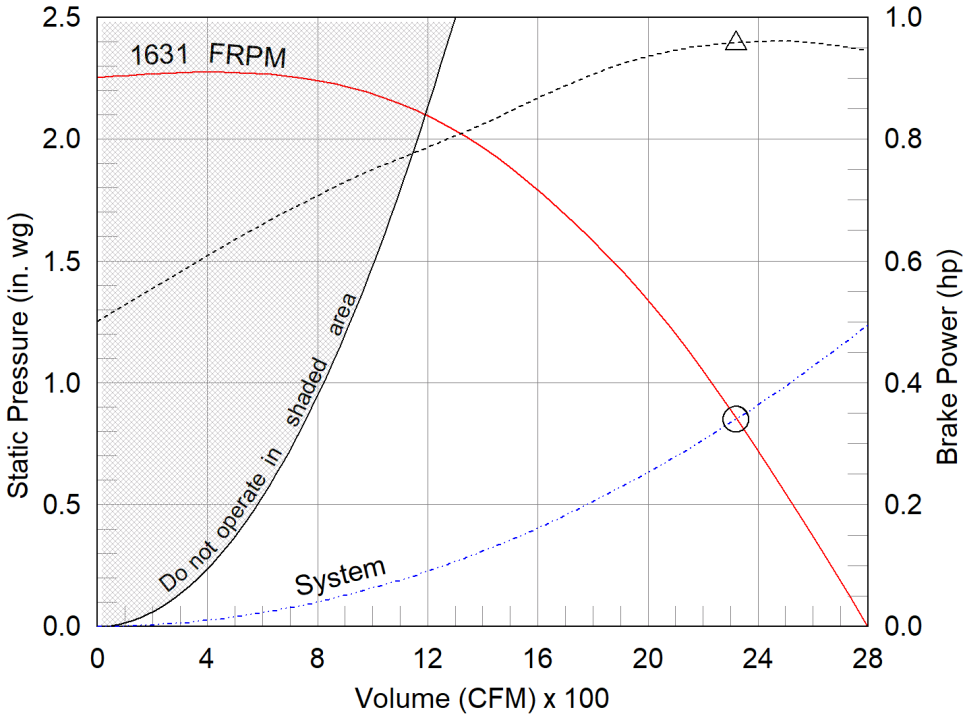
Fan Configuration	
Construction Type	PermaLock
Size	15
Arrangement	10
Rotation	CW
Discharge Position	UB
Discharge Type	Adjustable Nozzle
Adj. Nozzle %	58
Spark Resistance	None
Scroll Material	Steel
Wheel Material	Steel
Inlet Cone Material	Steel
Pedestal Material	Steel

Equipment Weights	
Fan (LMD)(lb)	227
Motor/Drive (lb)	24
Accessories (lb)	0

Misc Fan Data	
Outlet Velocity (ft/min)	3,093
Static Efficiency (%)	35
Tip Speed (ft/min)	6,406
Effective Plume Ht. (ft)	20.45
Calculation Method	Momentum Flux

Motor and Drives	
Motor	Included
Size (hp)	1
RPM	1725
Enclosure	ODP
V/C/P	460/60/3
Frame Size	56
Max Frame Size	184
Location	Centered
Pulley Type	Constant
Drive Loss (%)	6.3
Drives	Single
Drive Service Factor	1.5
NEC FLA* (Amps)	2.1

Operating Performance



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

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	83	82	79	78	76	72	68	61	81	69	17.2
Outlet	95	90	90	84	79	76	70	62	86	75	26

*FLA - based on tables 150 or 148 of National Electrical Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.
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 AMCA 301 at 5 ft

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Model: FJC-315-BI

Centrifugal Utility Fume Exhaust Fan

Standard Construction Features:

HOUSING: Coated steel frame, scroll and stack - Bolted frame construction - Perma-Lock sealed scroll - Rectangular discharge stack - Adjustable motor plate - Corrosion resistant fasteners BEARINGS, SHAFT and WHEEL: Air handling quality, self-aligning, ball bearing in pillow block housing - L(10) 80,000 bearing life - Polished, solid steel shaft - Backward inclined centrifugal wheel

Selected Options & Accessories:

Motor with Class B or Greater Insulation
Finish - Coated
Coated with Permatector, Concrete Gray-RAL 7023, Fan and Attached Accessories
Discharge Position - UB
Wheel Type - BI
Bearings - L(10) Life of 80k Hours
UL/cUL-705 - Power Ventilators
Polished Steel Shaft
Drain Connection - 1" Drain Hole, Unthreaded
Inlet Connection - Slip Fit
Outlet Connection - Slip Fit
Weatherhood - Steel
Unit Warranty: 1 Yr (Standard)

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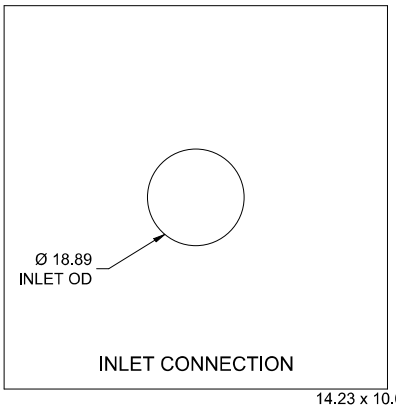
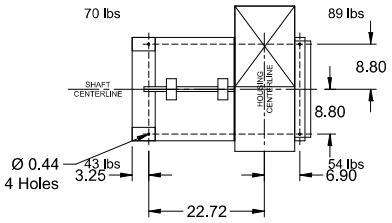
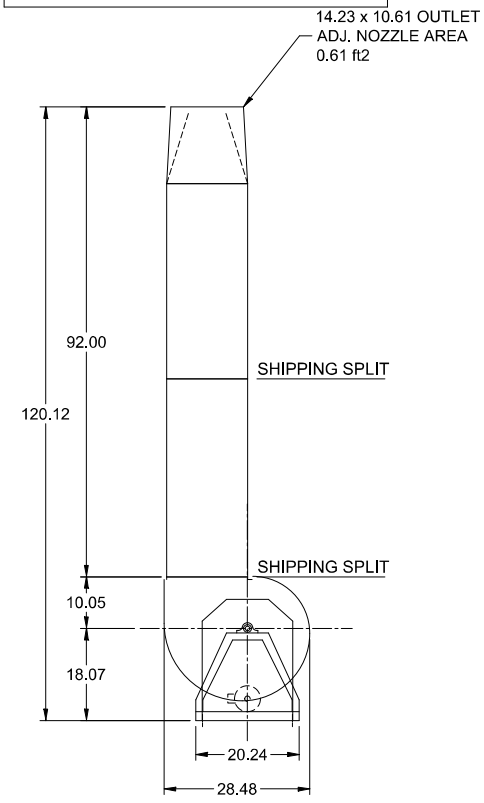
Model: FJC-315-BI Centrifugal Utility Fume Exhaust Fan



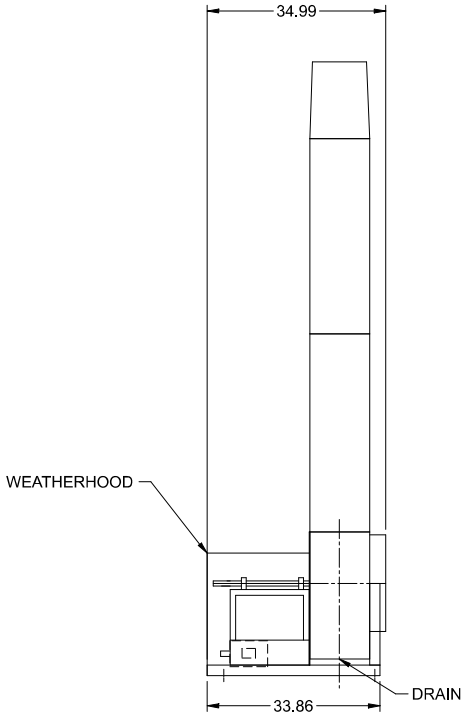
INLET CONNECTION



FAN FOOTPRINT



SIDE VIEW



END VIEW

*SIDE VIEW IS VIEWED FROM DRIVE SIDE

*FANS ARE SUBJECT TO ±.125 INCH TOLERANCE
*DUE TO CONTINUAL IMPROVEMENTS DIMENSIONS MAY CHANGE

Notes: All dimensions shown are in units of in.

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AMCA

AMCA Licensed for Sound and Air Performance. Power rating (BHP/kW) includes transmission losses.

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP/kW) include transmission losses. The sound power level ratings shown are in decibels, referred to 10-12 watts calculated per AMCA Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet Lwi, LwiA, and outlet Lwo, LwoA sound power levels for installation type B: Free inlet, Ducted outlet. Outlet ratings include the effects of duct end correction. The AMCA Certified Ratings Seal for sound applies to inlet Lwi, LwiA, and outlet Lwo, LwoA ratings only.

Job Name: GB-330 Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: November 20, 2020

Model: GB-330

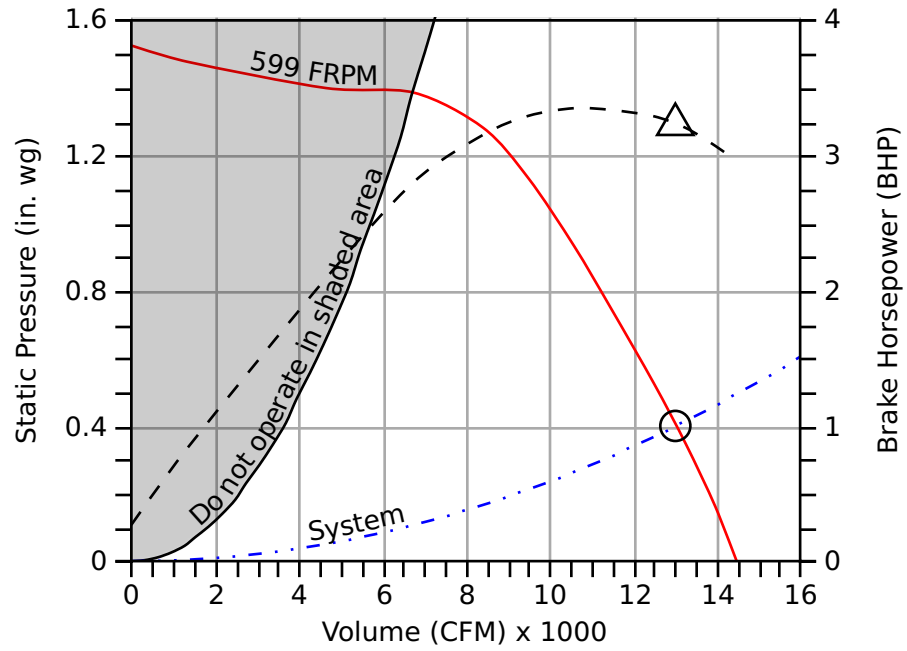
Belt Drive Centrifugal Roof Exhaust Fan

Standard Construction Features: Aluminum housing. Centrifugal backward inclined aluminum wheel. Belt driven motor mounted on vibration isolation.

Fan Configuration	
Drive type	Belt

Performance	
Requested Volume (CFM)	13,000
Actual Volume (CFM)	13,000
Total External SP (in. wg)	0.4
Fan RPM	599
Drive Loss (%)	7
Operating Power (bhp)	3.2
Startup Power (bhp)	3.2
FEI	0.92
Air Stream Temp (F)	70
Start-up Temp (F)	70
Air Density (lbs/ft^3)	0.072
Elevation (ft)	1000
Static Efficiency (%)	27
Outlet Velocity (ft/min)	2,070

Motor	
Size (hp)	5
V/C/P	460/60/3
NEC FLA (Amps)	7.6



Fan curve
Brake horsepower curve
Operating Point SP
Operating Bhp point
Max system curve
System curve

Sound

	Octave Bands (hz)								LwA	dBA	Sones
	62.5	125	250	500	1000	2000	4000	8000			
Inlet	87	91	83	79	75	72	65	59	82	71	21

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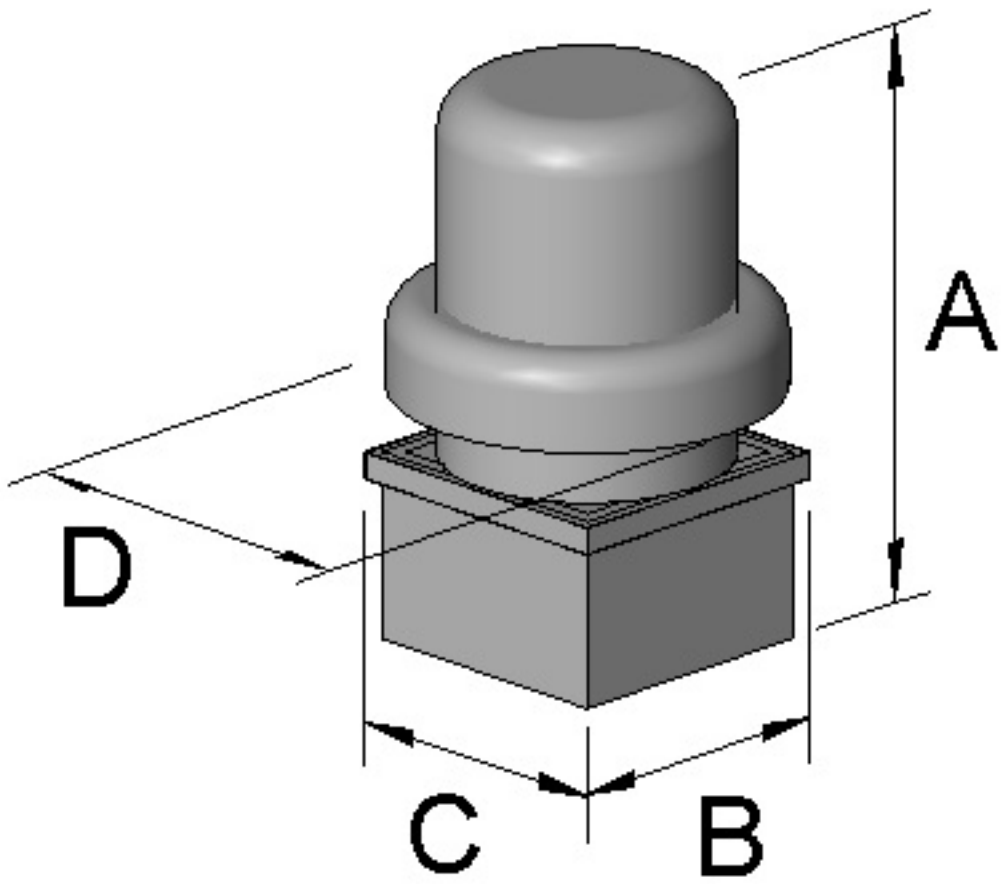
Dimensions and Weights		
Label	**Value**	**Description**
-	264	Weight w/o accessories (lbs)
A	51	Overall Height (in)
D	59	Overall Width (in)
B	46	Curb Cap Width (in)
C	46	Curb Cap Length (in)
-	36	Duct / Damper Width (in)
-	36	Duct / Damper Length (in)
-	38.5	Roof Opening Width (in)
-	38.5	Roof Opening Length (in)



*All dimensions are in inches.

Job Name: FGI-64x64 Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: November 20, 2020

Model: FGI-64x64

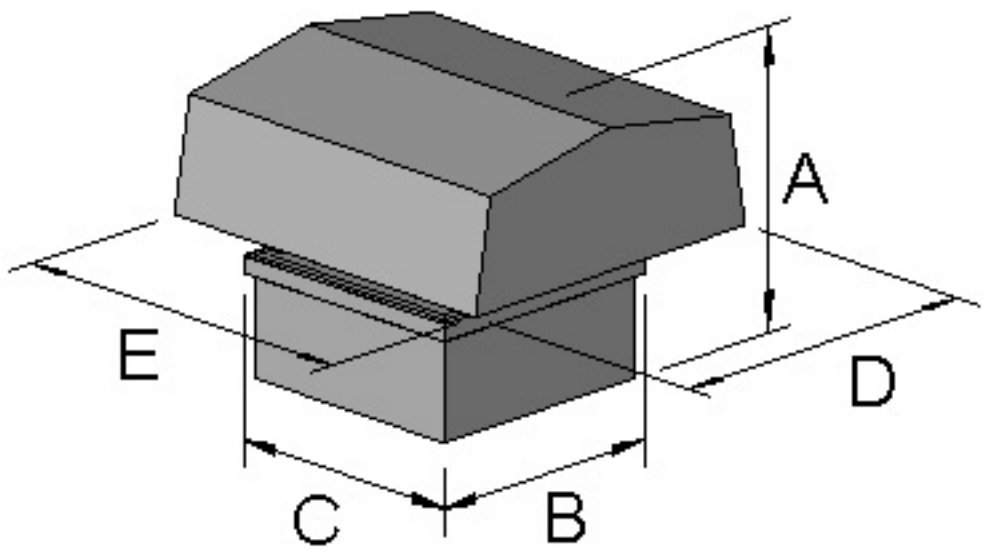
Hooded Gravity Intake Ventilator

Standard Construction Features: Fabra hood design (standing seam) galvanized hood (optional aluminum). Larger sizes require field assembly.

Performance	
Application	Intake
Volume (CFM)	15,800
Pressure Drop (in. wg)	0.082
Throat Velocity (ft/min)	555
Max Velocity (ft/min)	1200
Throat Area (ft^2)	28
Installation Type	Non Ducted
Insect Screen	Yes

Fan Configuration	
Mounting	Curb Cap
Shipped Assembled	No

Dimensions and Weights		
Label	**Value**	**Description**
-	421	Weight w/o accessories (lbs)
A	43.25	Overall Height (in)
E	111	Overall Length (in)
D	118	Overall Width (in)
B	70	Curb Cap Width (in)
C	70	Curb Cap Length (in)
-	64	Throat Width (in)
-	64	Throat Length (in)
-	66.5	Roof Opening Width (in)
-	66.5	Roof Opening Length (in)



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Job Name: FGR-42x62 Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: November 20, 2020

Model: FGR-42x62

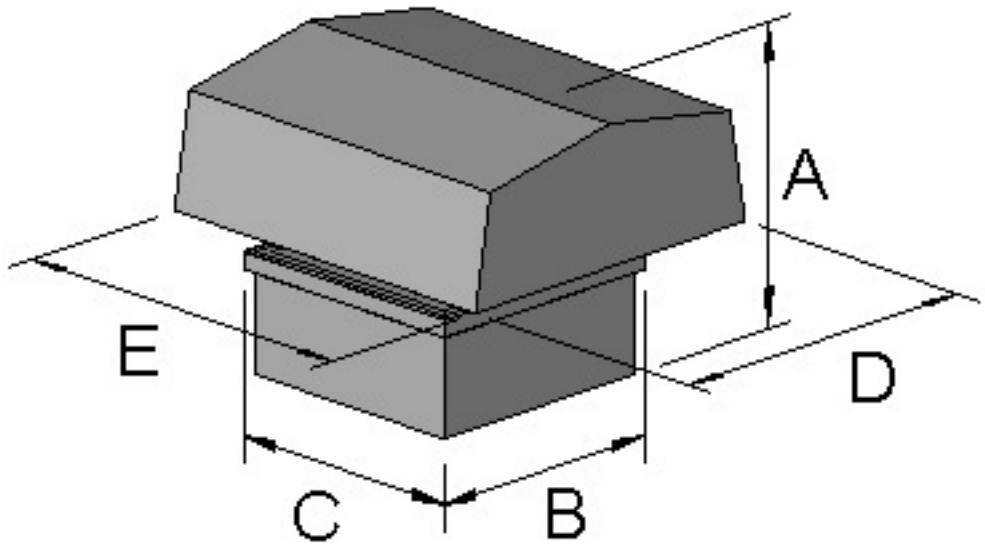
Hooded Gravity Relief Ventilator

Standard Construction Features: Fabra hood design (standing seam) galvanized hood (optional aluminum). Larger sizes require field assembly.

Performance	
Application	Relief
Volume (CFM)	9,750
Pressure Drop (in. wg)	0.078
Throat Velocity (ft/min)	539
Throat Area (ft^2)	18
Installation Type	Non Ducted
Insect Screen	Yes

Fan Configuration	
Mounting	Curb Cap
Shipped Assembled	Yes

Dimensions and Weights		
Label	**Value**	**Description**
-	208	Weight w/o accessories (lbs)
A	36.75	Overall Height (in)
E	87	Overall Length (in)
D	66	Overall Width (in)
B	48	Curb Cap Width (in)
C	68	Curb Cap Length (in)
-	42	Throat Width (in)
-	62	Throat Length (in)
-	44.5	Roof Opening Width (in)
-	64.5	Roof Opening Length (in)



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Job Name: FGR-28x44 Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: November 20, 2020

Model: FGR-28x44

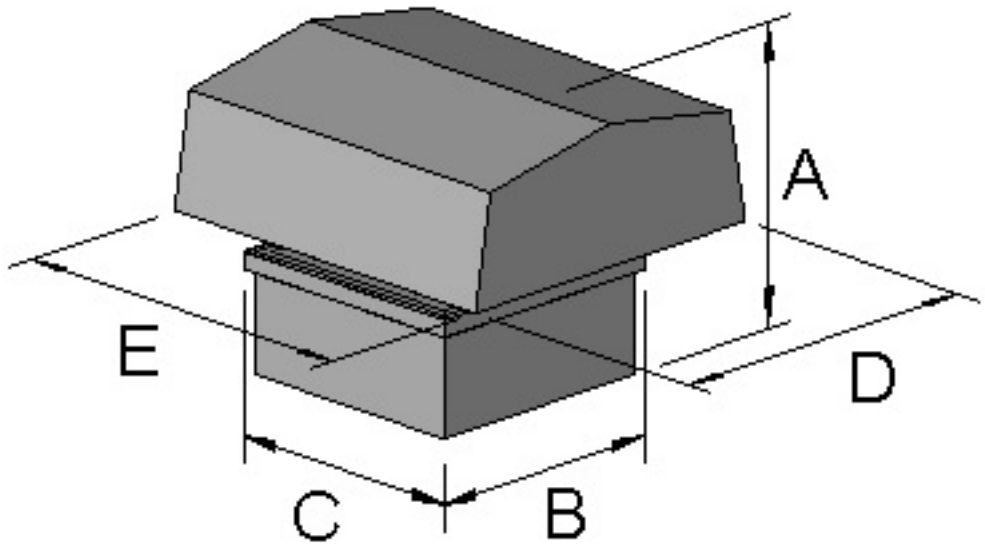
Hooded Gravity Relief Ventilator

Standard Construction Features: Fabra hood design (standing seam) galvanized hood (optional aluminum). Larger sizes require field assembly.

Performance	
Application	Relief
Volume (CFM)	4,580
Pressure Drop (in. wg)	0.076
Throat Velocity (ft/min)	535
Throat Area (ft^2)	9
Installation Type	Non Ducted
Insect Screen	Yes

Fan Configuration	
Mounting	Curb Cap
Shipped Assembled	Yes

Dimensions and Weights		
Label	**Value**	**Description**
-	112	Weight w/o accessories (lbs)
A	32.75	Overall Height (in)
E	63	Overall Length (in)
D	45	Overall Width (in)
B	34	Curb Cap Width (in)
C	50	Curb Cap Length (in)
-	28	Throat Width (in)
-	44	Throat Length (in)
-	30.5	Roof Opening Width (in)
-	46.5	Roof Opening Length (in)



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Job Name: FGR-24x48 Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: November 20, 2020

Model: FGR-24x48

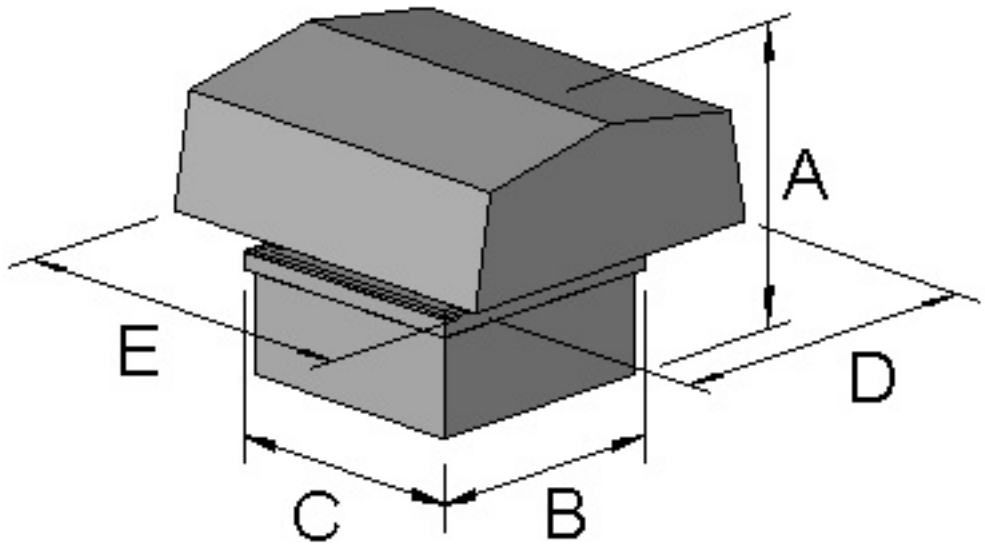
Hooded Gravity Relief Ventilator

Standard Construction Features: Fabra hood design (standing seam) galvanized hood (optional aluminum). Larger sizes require field assembly.

Performance	
Application	Relief
Volume (CFM)	4,255
Pressure Drop (in. wg)	0.075
Throat Velocity (ft/min)	532
Throat Area (ft^2)	8
Installation Type	Non Ducted
Insect Screen	Yes

Fan Configuration	
Mounting	Curb Cap
Shipped Assembled	Yes

Dimensions and Weights		
Label	**Value**	**Description**
-	102	Weight w/o accessories (lbs)
A	32.75	Overall Height (in)
E	63	Overall Length (in)
D	42	Overall Width (in)
B	30	Curb Cap Width (in)
C	54	Curb Cap Length (in)
-	24	Throat Width (in)
-	48	Throat Length (in)
-	26.5	Roof Opening Width (in)
-	50.5	Roof Opening Length (in)



RELEASE FOR CONSTRUCTION
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Job Name: FGR-54x74 Cut Sheet
Tag: MK-1
Quantity: 1
Printed Date: November 20, 2020

Model: FGR-54x74

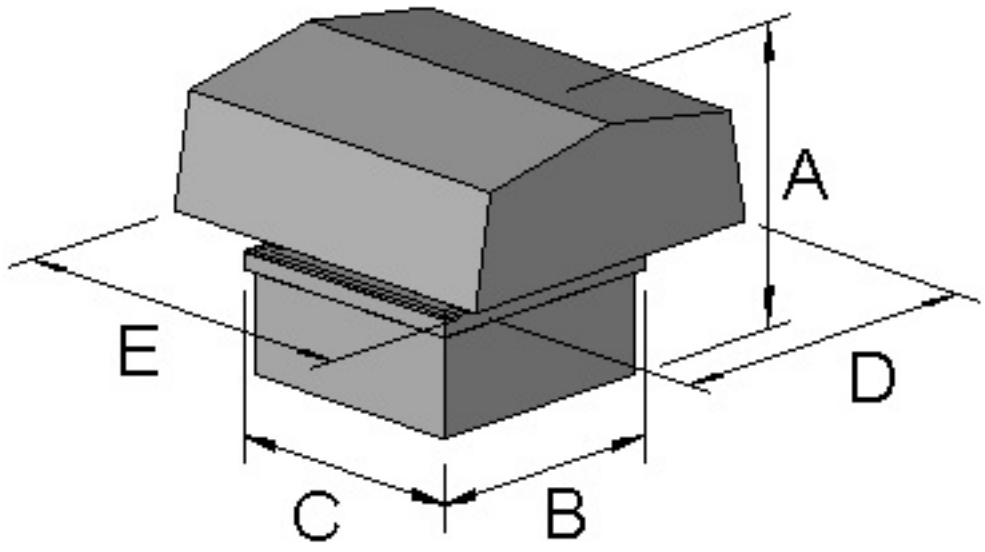
Hooded Gravity Relief Ventilator

Standard Construction Features: Fabra hood design (standing seam) galvanized hood (optional aluminum). Larger sizes require field assembly.

Performance	
Application	Relief
Volume (CFM)	15,000
Pressure Drop (in. wg)	0.078
Throat Velocity (ft/min)	541
Throat Area (ft^2)	28
Installation Type	Non Ducted
Insect Screen	Yes

Fan Configuration	
Mounting	Curb Cap
Shipped Assembled	Yes

Dimensions and Weights		
Label	**Value**	**Description**
-	345	Weight w/o accessories (lbs)
A	39.75	Overall Height (in)
E	99	Overall Length (in)
D	87	Overall Width (in)
B	60	Curb Cap Width (in)
C	80	Curb Cap Length (in)
-	54	Throat Width (in)
-	74	Throat Length (in)
-	56.5	Roof Opening Width (in)
-	76.5	Roof Opening Length (in)



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LEE'S SUMMIT, MISSOURI
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