



Lennox National Accounts Project Submittal

Project Name: Roundy's #386-Wales, WI
Project Number: 377535
Project Altitude: 500
Project Location:
405 N Wales Rd
Wales, Wisconsin US

Date: 12/1/2022
Quote: 283070
Roof Top Units: 2
Split Systems: 0

Customer: KPS LLC
National Account: Kroger Co

Table of Contents

Tag	Qty	Model	Description
<u>RTU 2</u>	1	LGH360H4M	LGH360H4M-G 30T CONF E=10.6
<u>RTU 3</u>	1	LGM102U4E	LGM102U4E-G 8.5T CONF E=12.6
<u>Miscellaneous Items</u>			

Revit® Building Information Modeling (BIM) - [Click here](#)

AutoCAD® Templates - [Click here](#)



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Tag: RTU 2
Model: LGH360H4M - LGH360H4M-G 30T CONF E=10.6

UNIT OVERVIEW

Voltage	IEER EER	MCA/MOCP (amp)	Gross Cooling Ttl/Sens (MBH)	Net Cooling Ttl/Sens (MBH)	Supply Air Flow (cfm)	ESP/TSP (in.WC)	EAT DB/WB (°F)	LAT DB/WB (°F)
460V 3Ph 60Hz	14 10.6	75 / 80	379.0 / 284.2	356.9 / 262.2	12,000	0.50 / 1.42	80.0 / 67.0	57.1 / 56.5

COOLING

Cooling Performance		Temperatures (DB/WB °F)		
Gross Cooling (Ttl/Sens)	379.0 / 284.2 MBH	Ambient	95.0	
Net Cooling (Ttl/Sens)	356.9 / 262.2 MBH	Entering	80.0	67.0
Coil Moisture Removal	89.30 lb/hr	Leaving - (Coil)	57.1	56.5
System Moisture Removal	89.30 lb/hr	Leaving - (Unit)	58.9	57.2

ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	370.0 / 350.0 MBH	Cooling Stages	4	Type	R-410A	Qty	1
ARI Power	33,500 W	Compressor Qty	4	Charge	32 LBS. 0 OZ.	Size	1 in.
		Compressor RLA	48.8 amp			Pipe Thread	npt

HUMIDITROL - HOT GAS REHEAT

Humiditrol Dehumidification Performance		Temperatures (DB/WB °F)		
Gross Cooling - Stage 1(Ttl/Sens)	50.2 / 15.1 MBH	Ambient	95.0	
Gross Cooling - Stage 2 (Ttl/Sens)	209.9 / 125.9 MBH	Entering	80.0	67.0
Moisture Removal - Stage 1	33.1 lb/hr	Leaving - (Stage 1)		
Moisture Removal - Stage 2	79.1 lb/hr			

HEATING

Heating Performance		Temperatures (DB/WB °F)		Specifications	
Output (High/Low)	384.0 / 249.6 MBH	Leaving	29.6	Heat Stages	2
Input (High/Low)	480.0 / 312.0 MBH			Thermal Efficiency	80.0%
Heat Rise	29.6 °F			Gas Line Size	1 in.
				Gas Pressure	7 in.WC

VENTILATION

Air Flow (cfm)		Supply Fan		Air Resistance (in.WC)	
Supply	12,000	Nominal Power	10.00 hp	Total	1.42
		Required Power	7.77 hp	Ext Supply	0.50
		Drive Type	MSAV Belt Drive		
		RPM Range	870 - 1,045 rpm		
		Required RPM	898 rpm		

AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.20		0.60	0.10	0.02			

ELECTRICAL

Voltage	460V 3Ph / 60Hz	Compressor RLA	48.8 amp
MCA	75 amp	Cooling FLA Total	70.6 amp
MOCP	80 amp	Condenser FLA	7.8 amp
Condenser Power	2500 W	Supply Fan FLA	14.0 amp
Oper Range-Nom Volt	+/- 10%		

ADDITIONAL DATA

Cabinet	145.00 in. x 90.75 in. x 65.00 in.	Total Weight	3,430 lb
Downflow Supply	20.0 in. x 28.0 in.	Base Unit Net Weight	3,107 lb
Downflow Return	15.0 in. x 78.5 in.	OAS/Econ Weight	138 lb
Filters	(12) 20.0 in. x 20.0 in. x 2.0 in.	Humiditrol Weight	0 lb
Sound Rating	95 dBA	Gas Heat Weight	64 lb



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Tag: RTU 2

Factory Installed Options

- High Performance Economizer Upgrade Factory Installed
- Dual Enthalpy Economizer
- Standard Cap, Std Packaging
- Belt Drive
- Unit Orientation Downflow
- Supply Fan: Multi-Stage Air Volume Belt
- 440V/460V/480V 3Phase
- 150Amp Disconnect Factory Installed
- Supply Motor - 10 Hp Std Eff w/MSAV
- Supply Drive Kit 2 (870-1045 RPM)
- Barometric Relief Damper (Fac)
- 480K A.S. (Dual Stage)
- GFCI Factory Installed/Field Wired
- Phase Monitor Factory Installed
- Environ Condenser Coil System Factory Installed
- Drain Pan Overflow Switch Factory Installed
- Humiditrol Factory Installed
- 2" MERV8 - Filter Factory installed

Field Installed Accessories

Catalog Number	Qty	Description
13T16	1	Combination Coil/Hail Guards Field Installed
21W06	1	RH & Temp Combo Field Installed

Product Features

Cabinet

- Hinged Access Panels
- Durable Outdoor Enamel Paint Finish
- Totally Enclosed Outdoor Fan Motor
- PVC Coated Fan Guard
- Corrosion-Resistant Removable, Reversible Drain Pan
- Isolated Compressor Compartment

Cooling System

- Scroll Compressor
- Expansion Valves
- High Capacity Driers
- Crankcase Heater
- System can operate from 0°F to 125°F without any additional controls
- Pre-charged Refrigeration System
- Timed Off Control
- Internal Pressure Relief Valve
- Building Automation Integrated Control - Up to 4 Stages of Cooling
- Thermostat Control – 4 Stages of Cooling
- Humiditrol - Hot Gas Reheat Dehumidification System

Heating System

- Redundant Automatic Gas Valve with Manual Shut-off
- Electronic Flame Sensor
- Direct Spark Ignition
- Aluminized Steel Inshot Burners
- AGA-CGA Certified
- If configured for room sensor control, additional staging may be possible. Refer to performance tables within the EHB

Control System

- Prodigy 2.0 Control System
- Auto reset high & low pressure switch with strike 3 lockout feature in Prodigy unit controller
- Fan and Limit Controls
- Overload Protection

Warranty

- Limited warranty on aluminized heat exchanger of 10 years
- Limited warranty on compressor of 5 years



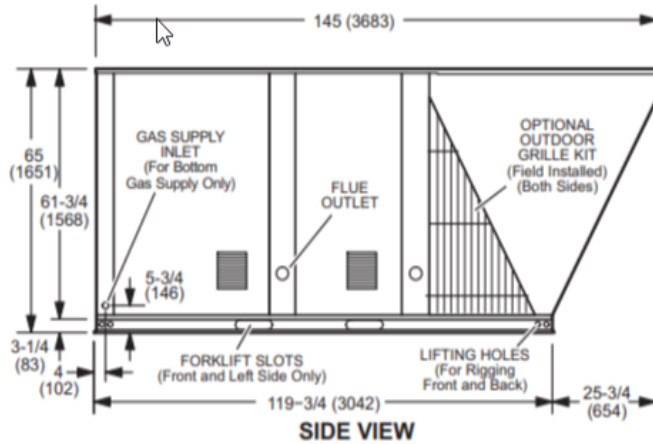
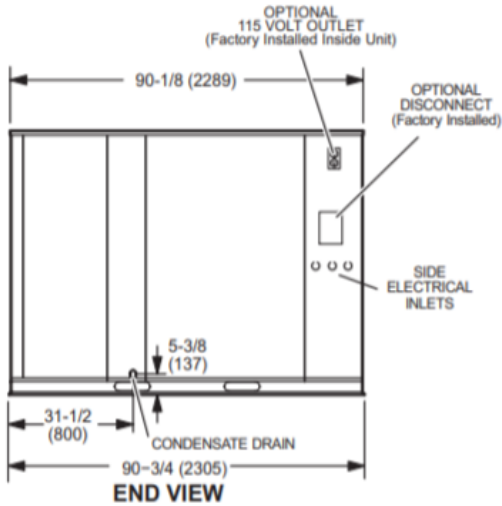
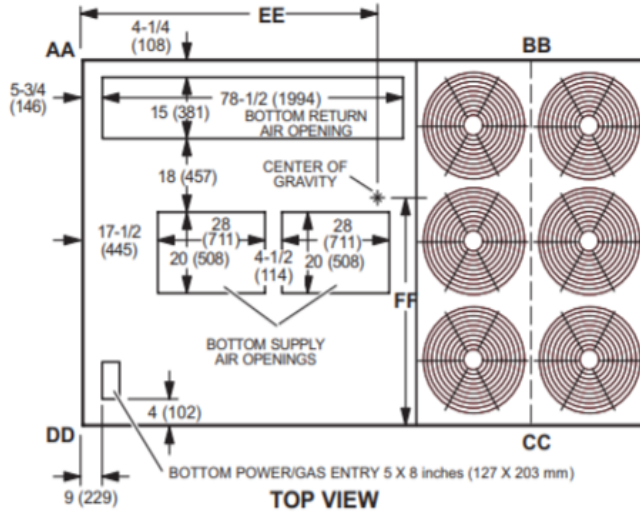
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Limited warranty on Environ Coil System of 3 years
Limited warranty on Prodigy Unit Controller of 3 years
Limited warranty on High Performance Economizer of 5 years
Limited warranty on all other components of 1 year
See Limited Warranty Certificate included with unit for details



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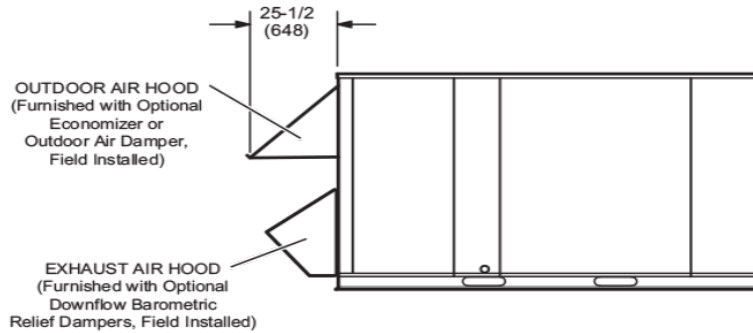
Corner Weights (lb)						Center of Gravity (in.)					
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
632	709	635	712	912	1,023	928	1,041	60.00	60.00	37.00	37.00



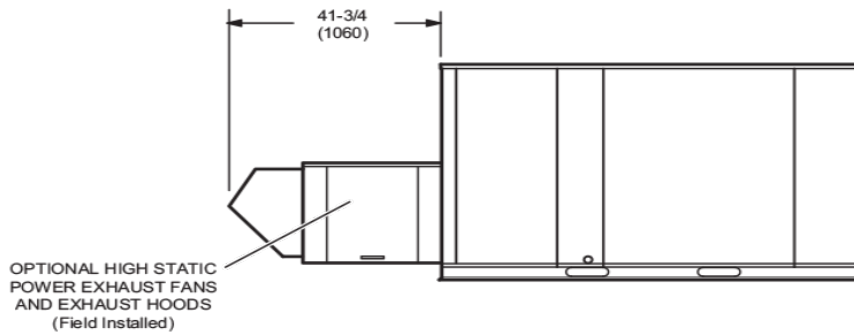


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OUTDOOR AIR HOOD DETAIL

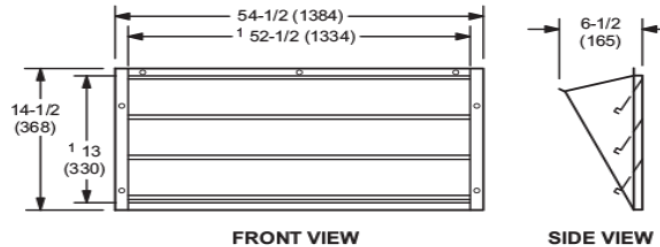


OPTIONAL HIGH STATIC POWER EXHAUST FANS DETAIL



OPTIONAL HORIZONTAL BAROMETRIC RELIEF DAMPERS WITH HOOD

(Field installed in horizontal return air duct adjacent to unit)



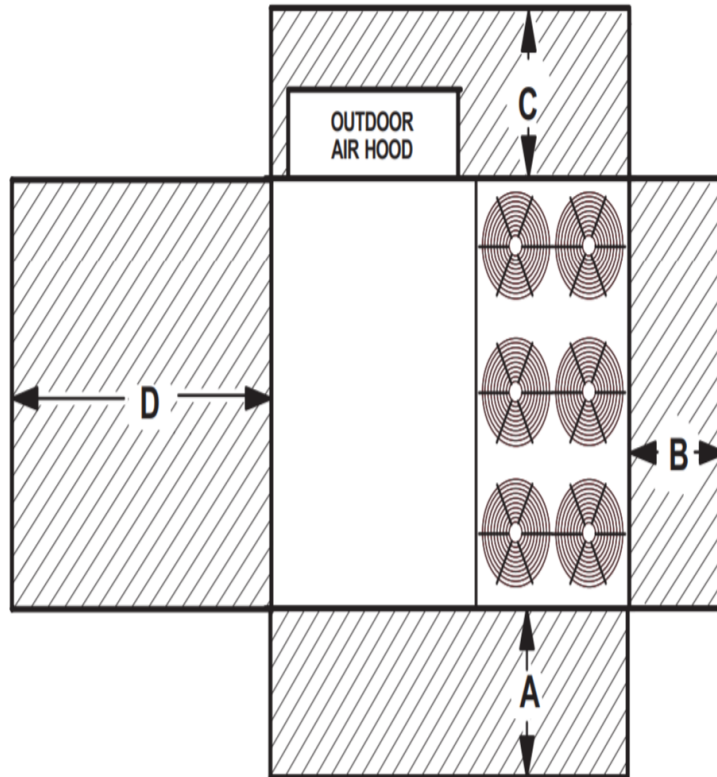
NOTE - Two furnished per order no.

¹ NOTE - Opening size required in return air duct.



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Unit With Economizer



1 Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	60	1524	36	914	36	914	66	1676	Unobstructed
Clearance to Combustibles	36	914	1	25	1	25	1	25	
Minimum Operation Clearance	45	1143	36	914	36	914	41	1041	

NOTE - Entire perimeter of unit base requires support when elevated above the mounting surface.

¹ Service Clearance - Required for removal of serviceable parts.

Clearance to Combustibles - Required clearance to combustible material.

Minimum Operation Clearance - Required clearance for proper unit operation.



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Tag: RTU 3
Model: LGM102U4E - LGM102U4E-G 8.5T CONF E=12.6

UNIT OVERVIEW

Voltage	IEER EER	MCA/MOCP (amp)	Gross Cooling Ttl/Sens (MBH)	Net Cooling Ttl/Sens (MBH)	Supply Air Flow (cfm)	ESP/TSP (in.WC)	EAT DB/WB (°F)	LAT DB/WB (°F)
480V 3Ph 60Hz	21 12.6	21 / 25	91.5 / 72.5	87.1 / 68.1	3,010	0.75 / 1.14	73.0 / 60.0	50.0 / 48.4

COOLING

Cooling Performance		Temperatures (DB/WB °F)	
Gross Cooling (Ttl/Sens)	91.5 / 72.5 MBH	Ambient	95.0
Net Cooling (Ttl/Sens)	87.1 / 68.1 MBH	Entering	73.0 60.0
Coil Moisture Removal	17.95 lb/hr	Leaving - (Coil)	50.0 48.4
System Moisture Removal	17.95 lb/hr	Leaving - (Unit)	51.4 49.0

ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	101.6 / 97.0 MBH	Cooling Stages	VAR	Type	R-410A	Qty	1
ARI Power	8,100 W	Compressor Qty	2	Charge	24 LBS. 10 OZ.	Size	1 in.
		Compressor RLA	11.6 amp			Pipe Thread	npt

HUMIDITROL - HOT GAS REHEAT

Humiditrol Dehumidification Performance		Temperatures (DB/WB °F)	
Gross Cooling - Stage 1(Ttl/Sens)	15.8 / 3.3 MBH	Ambient	95.0
Moisture Removal - Stage 1	11.7 lb/hr	Entering	80.0 67.0
		Leaving - (Stage 1)	

HEATING

Heating Performance		Temperatures (DB/WB °F)		Specifications	
Output (High/Low)	104.0 / 67.5 MBH	Leaving	32.0	Heat Stages	2
Input (High/Low)	130.0 / 84.5 MBH			Thermal Efficiency	80.0%
Heat Rise	32.0 °F			Gas Line Size	0.75 in.
				Gas Pressure	7 in.WC

VENTILATION

Air Flow (cfm)		Supply Fan		Air Resistance (in.WC)	
Supply	3,010	Nominal Power	3.75 hp	Total	1.14
	0	Required Power	1.38 hp	Ext Supply	0.75
		Drive Type	MSAV Direct Drive		
		Required Watts	1,029 W		

AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.10	0.03	0.11	0.13	0.02			

ELECTRICAL

Voltage	480V 3Ph / 60Hz	Compressor RLA	11.6 amp
MCA	21 amp	Cooling FLA Total	18.7 amp
MOCP	25 amp	Condenser FLA	2.8 amp
Condenser Power	750 W	Supply Fan FLA	4.3 amp
Oper Range-Nom Volt	+/- 10%		

ADDITIONAL DATA

Cabinet	101.25 in. x 60.12 in. x 46.88 in.	Total Weight	1,406 lb
Downflow Supply	20.0 in. x 28.0 in.	Base Unit Net Weight	1,260 lb
Downflow Return	24.0 in. x 27.0 in.	OAS/Econ Weight	83 lb
Filters	(4) 20.0 in. x 25.0 in. x 2.0 in.	Humiditrol Weight	20 lb
Sound Rating	81 dBA		



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Tag: RTU 3

Factory Installed Options

- High Performance Economizer Upgrade Factory Installed
- Dual Enthalpy Economizer
- Standard Cap, Std Packaging
- Direct Drive
- Unit Orientation Downflow
- Supply Fan: Multi-Stage Air Volume
- 440V/460V/480V 3Phase
- 80Amp Disconnect Factory Installed
- Built-in BACnet IP and MS/TP (standard)
- Supply Motor - 3.75 Hp - DirectPlus w/MSAV
- Barometric Relief Damper (Fac)
- 130K A.S. (Dual Stage)
- Hinged Access Doors Factory Installed
- GFCI Factory Installed/Field Wired
- Discharge Air Control Factory Installed
- Tube and Fin Coil System Factory Installed
- Drain Pan Overflow Switch Factory Installed
- Humiditrol Plus Factory Installed
- 2" MERV8 - Filter Factory installed

Field Installed Accessories

Catalog Number	Qty	Description
22J65	1	Combination Coil/Hail Guards Field Installed
21W06	1	RH & Temp Combo Field Installed

Product Features

Cabinet

- Hinged Access Panels
- Durable Outdoor Enamel Paint Finish
- Totally Enclosed Outdoor Fan Motor
- PVC Coated Fan Guard
- Corrosion-Resistant Removable, Reversible Drain Pan
- Isolated Compressor Compartment

Cooling System

- Scroll Compressor
- Expansion Valves
- High Capacity Driers
- Crankcase Heater
- System can operate from 0°F to 125°F without any additional controls
- Pre-charged Refrigeration System
- Timed Off Control
- Internal Pressure Relief Valve

Heating System

- Redundant Automatic Gas Valve with Manual Shut-off
- Electronic Flame Sensor
- Direct Spark Ignition
- Aluminized Steel Inshot Burners
- AGA-CGA Certified
- If configured for room sensor control, additional staging may be possible. Refer to performance tables within the EHB

Control System

- Fan and Limit Controls
- Overload Protection
- Microprocessor Controls – Lennox® CORE Control System
- Auto reset high & low pressure switch with strike 3 lockout feature in Lennox® CORE Control System
- Limited warranty on Lennox® CORE Control System of 3 years
- Built-in BACnet IP & MS/TP

Compliance

- All models are ASHRAE 90.1-2019 energy efficiency compliant and meet or exceed requirements of Section 6.8
- All models meet DOE 2018 and 2023 energy efficiency standards



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Model meets HCAI (formerly OSHPD) OSP and Special Seismic Certification (Number: OSP-0596) and meet 2018 International Building Code (IBC), 2019 California Building Code (CBC) ASCE 7, and ICC-ES AC156
ISO 9001 Registered Manufacturing Quality System

Warranty

Limited warranty on aluminized heat exchanger of 10 years
Limited warranty on compressor of 5 years
Limited warranty on High Performance Economizer of 5 years
Limited warranty on all other components of 1 year
See Limited Warranty Certificate included with unit for details



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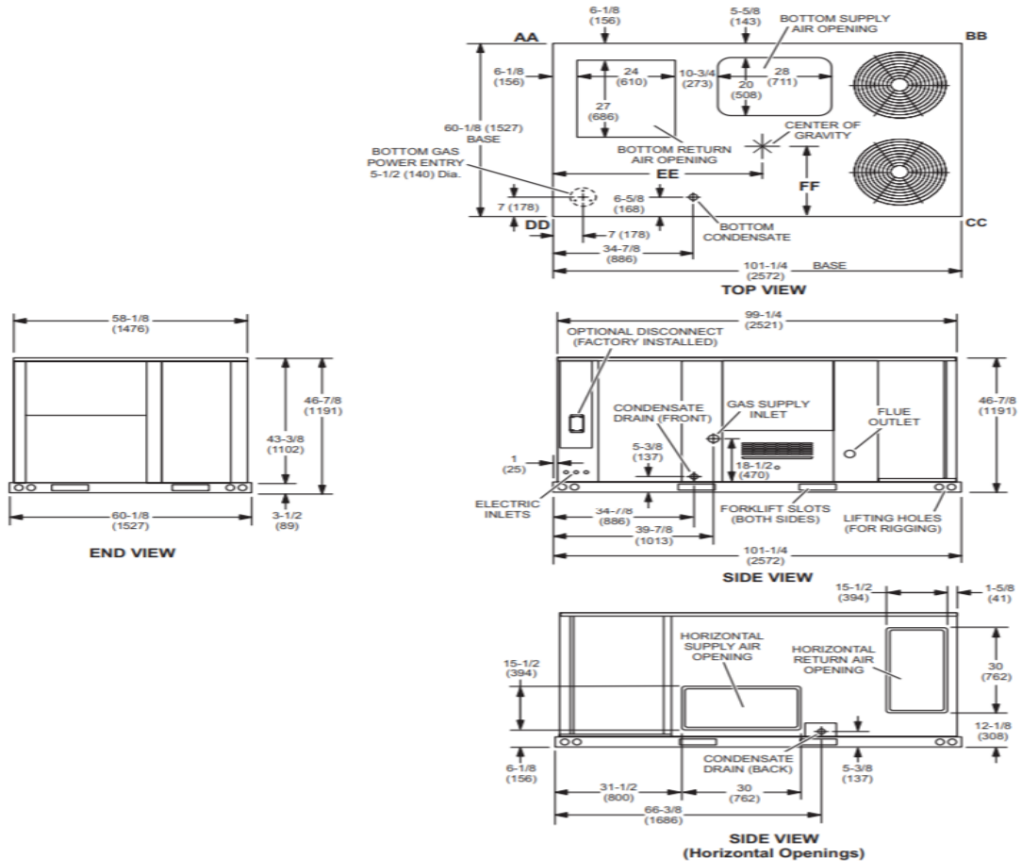
Corner Weights (lb)								Center of Gravity (in.)			
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
294	340	265	297	288	318	328	372	45.50	46.50	24.50	25.50

DIMENSIONS

Model No.	CORNER WEIGHTS								CENTER OF GRAVITY								UNIT							
	AA		BB		CC		DD		EE		FF		Base	Max.	Base	Max.								
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm						in.	mm					
092	293	133	338	153	263	119	295	134	286	130	316	143	326	148	370	168	46.5	1181	45.5	1156	24.5	622	25.5	648
102	294	134	340	154	265	120	297	135	288	131	318	144	328	149	372	169	46.5	1181	45.5	1156	24.5	622	25.5	648
120	306	139	349	158	275	125	305	138	295	134	326	148	334	152	382	173	46.5	1181	45.5	1156	24.5	622	25.5	648
150	316	143	359	163	284	129	314	142	304	138	393	178	345	157	393	178	46.5	1181	45.5	1156	24.5	622	25.5	648

Base Unit - The unit with NO INTERNAL OPTIONS.

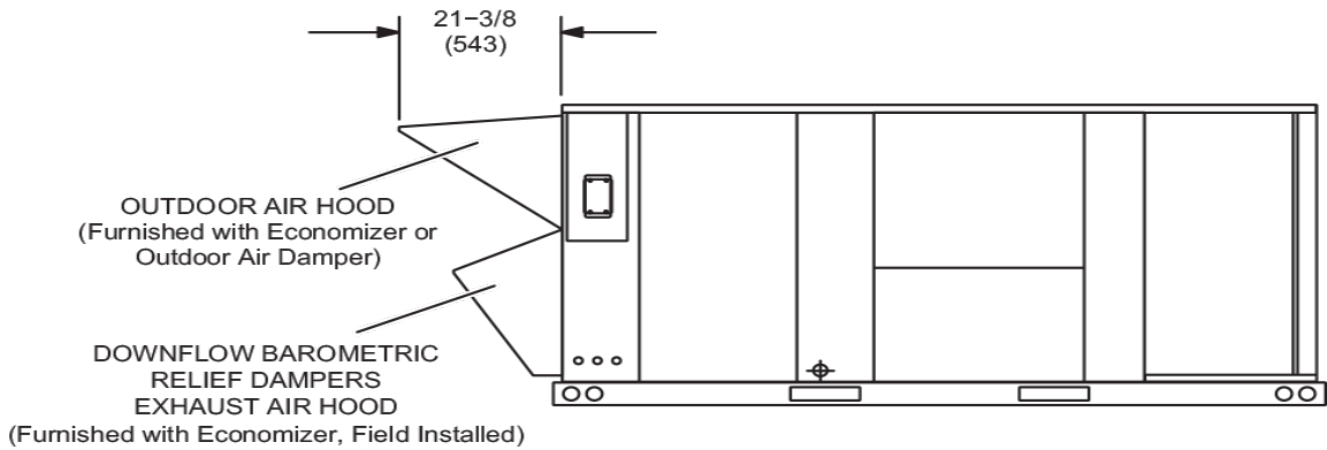
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit or high static power exhaust.





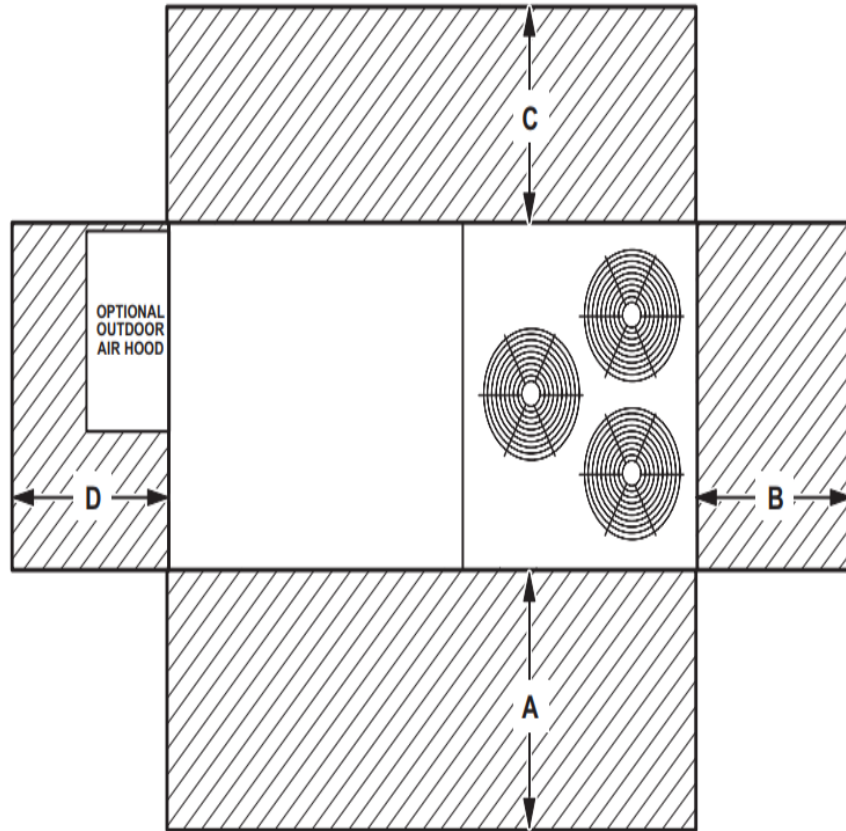
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OUTDOOR AIR HOOD DETAIL





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¹ Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	60	1524	36	914	36	934	60	1524	Unobstructed
Clearance to Combustibles	36	914	1	25	1	25	1	25	
Minimum Operation Clearance	36	914	36	914	36	914	36	914	

NOTE - Entire perimeter of unit base requires support when elevated above the mounting surface.

¹ Service Clearance - Required for removal of serviceable parts.

Clearance to Combustibles - Required clearance to combustible material.

Minimum Operation Clearance - Required clearance for proper unit operation.



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Tag: Miscellaneous Items

Miscellaneous Items

Tag	Catalog Number	Qty	Description
EOC			
	EOC	2	EOC & Guided Setup