



Highlands Health & Rehabilitation Center
3549 Norriswood Ave, Memphis, TN, 38111

REQUEST FOR PROPOSAL (RFP) REVISED

May 16, 2024

Dear Prospective Bidder,

This is a solicitation for bids for a scope of work as delineated below. Highlands Health & Rehabilitation Center hereby requests your proposal for the below delineated scope of work.

The project involves funding from a state agency and hence, all requirements of the funding agency that has jurisdiction over this project will need to be adhered to by the prospective bidder. Further information regarding the requirements will follow the pre-bid meeting.

ABOUT HIGHLANDS HEALTH & REHABILITATION CENTER

Highlands Health & Rehabilitation Center is a skilled nursing facility that provides short-term rehabilitation, long-term care services including memory care and hospice, and a comprehensive range of therapy and care programs. We firmly believe and strongly encourage our staff to treat every resident with the utmost respect and dignity, as if they were their own parent. www.highlands-healthcenter.com

SCOPE OF WORK

The project scope of work is to remove and replace the current rooftop heating and air conditioning units (HVAC) with new units, per all required safety standards and local laws, including proper disposal of old units without damage to the building or property. Work is to be performed efficiently and in coordination with the facility manager in order to not impede the regular functioning of the business or safety of its residents. The proposed bidder must provide proof of current insurance. Any damages incurred during the project to the roof, building, or property will be the sole responsibility of the proposed bidder.

The scope includes the purchase of the following rooftop HVAC units:

- Lennox LGT156H4M or equivalent (qty 2)
Tag MUH 1, MUH 2: LGT156H4M-Y 13T CONF E=12.0
- Lennox LGT150H4E or equivalent (qty 2)
Tag RTU 3, KIT 2: LGT150H4E-Y 12.5T CONF E=10.8

- Lennox LGT150H4E or equivalent (qty 1)
Tag RTU-1: LGT150H4E-Y 12.5T CONF E=10.8
- Lennox LGT210H4M or equivalent (qty 1)
Tag Kit-1: LGT210H4M-Y 17.5T CONF E=12.0
- Lennox LGT120H4E or equivalent (qty 1)
Tag Porch-5: LGT120H4E-Y 10T CONF E=12.1
- Lennox LGT072H4E or equivalent (qty 1)
Tag Lobby-4: LGT072H4E-Y 6T CONF E=12.2
- Lennox ZGB036S4E or equivalent (qty 1)
Tag RTU 9: ZGB036S4E 108k .5hp ENV

See attached for complete equipment specifications and dimensions.

The scope includes the installation of the above units including:

- electrical and drainage work;
- any curbing, roof mounting, or roof finishing/alterations necessary.

The following onsite equipment is anticipated to be necessary:

- 100-ton Crane with 80-ton weight capacity 140' reach.
- Two flatbed trailers (one to haul in new equipment; one to remove old equipment)

BONDING: THE FOLLOWING MINIMUM REQUIREMENTS MUST BE AS FOLLOWS:

(a) A bid guarantee from each bidder equivalent to five percent of the bid price. The “bid guarantee” must consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of the bid, execute such contractual documents as may be required within the time specified.

(b) A performance bond on the part of the contractor for 100 percent of the contract price. A “performance bond” is one executed in connection with a contract to secure fulfillment of all the contractor's requirements under such contract.

(c) A payment bond on the part of the contractor for 100 percent of the contract price. A “payment bond” is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.

INSURANCE

Active general liability insurance, workers’ compensation insurance, and all business-owned vehicles covered by commercial auto insurance. Additional umbrella policy of at least \$1 million preferred.

SAM.GOV REQUIREMENT

All potential bidders should be prepared to be registered on sam.gov. Awarded bidder MUST have an active UEI (unique entity identifier) on sam.gov.

PROJECT FUNDING

The project is funded by ARPA SLFRF through the Tennessee Department of Health's HRP-CI program.

ANTICIPATED PROJECT START: JUNE 14, 2024**PRE-BID WALK THRU DATE: 10:00AM ON THURSDAY, MAY 23, 2024**

Location: 3549 Norriswood Ave, Memphis, TN, 38111

BID PROPOSAL EVALUATION FACTORS:

- 1) Price (55%)
- 2) Quality of Proposed Bidder/Company including Experience, Past Performance, and Safety Protocols (25%)
- 3) Ability to Complete Onsite Work within a reasonable timeframe (20%)

BIDS DUE: BY 12:00PM NOON EDT ON TUESDAY, JUNE 4, 2024

- 1) Provide cost breakdown of labor & material for the following:
 - a. Purchase & Installation of HVAC Units
 - b. Crane Rental
- 2) Provide Anticipated Project Completion Date
- 3) Provide Number of Anticipated Days on Site
- 4) Provide Company Resume or Bio, including but not limited to:
 - a. Company Qualifications
 - b. Number of Years of Experience
 - c. Safety protocols
 - d. Engineering and Site Experience
- 5) Proof of insurances to be provided upon BID award.
- 6) Proof of an active sam.gov and UEI number to be provided upon BID award.

BIDS SHALL BE ADDRESSED TO:

Administrator
Highlands Health & Rehabilitation Center
3549 Norriswood Ave, Memphis, TN, 38111

CONTACT PERSON FOR ANY QUESTIONS OR TO COORDINATE SITE VISIT:

Wilmer Lopez: maintenance@highlands-healthcenter.com

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Project Location:
Memphis, Tennessee US

Table of Contents

Tag	Qty	Model	Description
<u>MUH 1, MUH 2</u>	2	LGT156H4M	LGT156H4M-Y 13T CONF E=12.0
<u>RTU 3, KIT 2</u>	2	LGT150H4E	LGT150H4E-Y 12.5T CONF E=10.8
<u>RTU-1</u>	1	LGT150H4E	LGT150H4E-Y 12.5T CONF E=10.8
<u>Kit -1</u>	1	LGT210H4M	LGT210H4M-Y 17.5T CONF E=12.0
<u>Porch -5</u>	1	LGT120H4E	LGT120H4E-Y 10T CONF E=12.1
<u>Lobby - 4</u>	1	LGT072H4E	LGT072H4E-Y 6T CONF E=12.2
<u>RTU 9</u>	1	ZGB036S4E	ZGB036S4E 108k .5hp ENV



Tag: MUH 1, MUH 2
 Model: LGT156H4M - LGT156H4M-Y 13T CONF E=12.0

UNIT OVERVIEW								
Voltage	I EER EER	MCA/MOCP (amp)	Gross Cooling Tt/Sens (MBH)	Net Cooling Tt/Sens (MBH)	Supply Air Flow (cfm)	ESP/TSP (in.WC)	EAT DB/WB (°F)	LAT DB/WB (°F)
208V 3Ph 60Hz	15.5 12	64 / 80	160.8 / 120.6	155.7 / 115.5	5,200	0.50 / 0.61	80.0 / 67.0	57.6 / 56.7

COOLING							
Cooling Performance			Temperatures (DB/WB °F)				
Gross Cooling (Tt/Sens)	160.8 / 120.6 MBH		Ambient	95.0			
Net Cooling (Tt/Sens)	155.7 / 115.5 MBH		Entering	80.0	67.0		
Coil Moisture Removal	37.89 lb/hr		Total Leaving – (Coil)	57.6	56.7		
System Moisture Removal	37.89 lb/hr		Total Leaving – (Unit)	58.5	57.1		
ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	152.0 / 148.0 MBH	Cooling Stages	3	Type	R-410A	Qty	1
ARI Power	12,300 W	Compressor Qty	2	Charge	0.0	Size	1 in.
		Compressor RLA	42.6 amp			Pipe Thread	FPT

HUMIDITROL - HOT GAS REHEAT						
Humiditrol Dehumidification Performance			Temperatures (DB/WB °F)			
Gross Cooling - Stage 1 (Tt/Sens)	68.5 / 32.9 MBH		Ambient	95.0		
Gross Cooling - Stage 2 (Tt/Sens)	88.9 / 58.7 MBH		Entering	80.0	67.0	
Moisture Removal - Stage 1	33.6 lb/hr		Total Leaving – (Stage 1)	73.9	62.9	
Moisture Removal - Stage 2	28.5 lb/hr		Total Leaving – (Stage 2)	69.1	61.6	

HEATING						
Heating Performance		Temperatures (DB/WB °F)		Specifications		
Output (High/Low)	211.0 / 69.0 MBH	Total Leaving	37.6	Heat Stages	2	
Input (High/Low)	260.0 / 85.0 MBH			Thermal Efficiency	81.0%	
Gas Heat Rise	37.6 °F			Gas Line Size	1 in.	
				Gas Pressure	7 in.WC	

VENTILATION						
Air Flow (cfm)		Supply Fan			Air Resistance (in.WC)	
Supply	5,200	Nominal Power	3.00 hp		Total	0.61
		Required Power	1.70 hp		Ext Supply	0.50
		Drive Type	MSAV Belt Drive			
		RPM Range	535 - 725 rpm			
		Required RPM	682 rpm			

AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)							
Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.02	0.03	0.06					

ELECTRICAL			
Voltage	208V 3Ph / 60Hz	Compressor RLA	42.6 amp
MCA	64 amp	Cooling FLA Total	60.8 amp
MOCP	80 amp	Condenser FLA	7.6 amp
Condenser Power	1100 W	Supply Fan FLA	10.6 amp
Oper Range-Nom Volt	+/- 10%		

ADDITIONAL DATA			
Cabinet	107.75 in. x 91.12 in. x 54.25 in.	Total Weight	2,251 lb
Downflow Supply	20.0 in. x 28.0 in.	Base Unit Net Weight	2,014 lb
Downflow Return	15.0 in. x 60.5 in.	OAS/Econ Weight	167 lb
Filters	(6) 24.0 in. x 24.0 in. x 2.0 in.	Exhaust Weight	20 lb
Sound Rating	86 dBA	Humiditrol Weight	50 lb



Tag:

MUH 1, MUH 2

Factory Installed Options

High Performance Economizer Upgrade Factory Installed
Dual Enthalpy High Performance Economizer
Belt Drive
Unit Orientation Downflow
Supply Fan: Multi-Stage Air Volume Belt
208/220/230/240V 3Phase
80Amp Non-Fused Disconnect Factory Installed
Built-in BACnet IP and MS/TP (standard)
Supply Motor - 3.0 Hp Std- w/ MSAV
Supply Drive Kit 1 (535-725 RPM)
Barometric Relief Damper Factory Installed
260K S.S. (Dual Stage)
Hinged Access Doors Factory Installed
Dirty Filter Switch Factory Installed
Fresh Air Tempering Factory Installed
Supply Air Smoke Detector Factory Installed
Environ Condenser Coil System Factory Installed
Humiditrol Factory Installed
2" MERV4 - Std. Filter Factory Installed

Product Features

Cabinet

Hinged Access Panels
Durable Outdoor Enamel Paint Finish
Totally Enclosed Outdoor Fan Motor
PVC Coated Fan Guard
Corrosion-Resistant 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
Humiditrol - Hot Gas Reheat Dehumidification System

Heating System

Redundant Automatic Gas Valve with Manual Shut-off
Electronic Flame Sensor
Direct Spark Ignition
Inshot Burners
AGA-CGA Certified

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
Built-in BACnet IP & MS/TP
Phase/Voltage Detection
Return Air Sensor Factory Installed
Outdoor Air Sensor Factory Installed
Factory Installed Discharge Air Sensor

Compliance

Components are Bonded for Grounding
Factory Test Operated
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
Model meets California Code of Regulations, Title 24 and ASHRAE 90.1-2016 Section 6.4.3.10 requirements for staged airflow



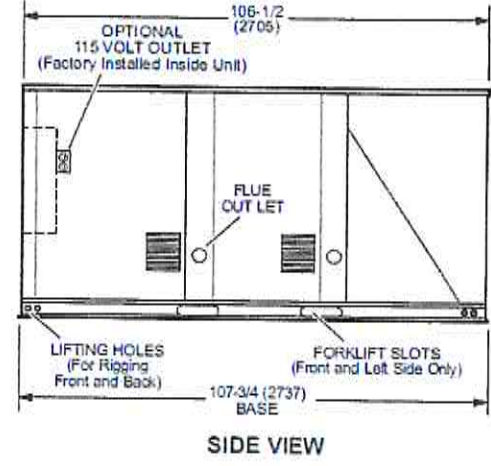
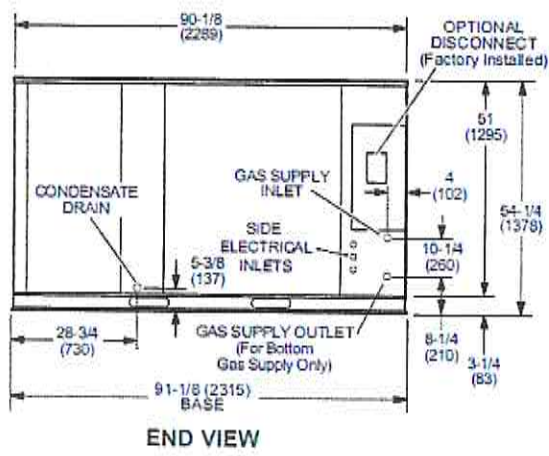
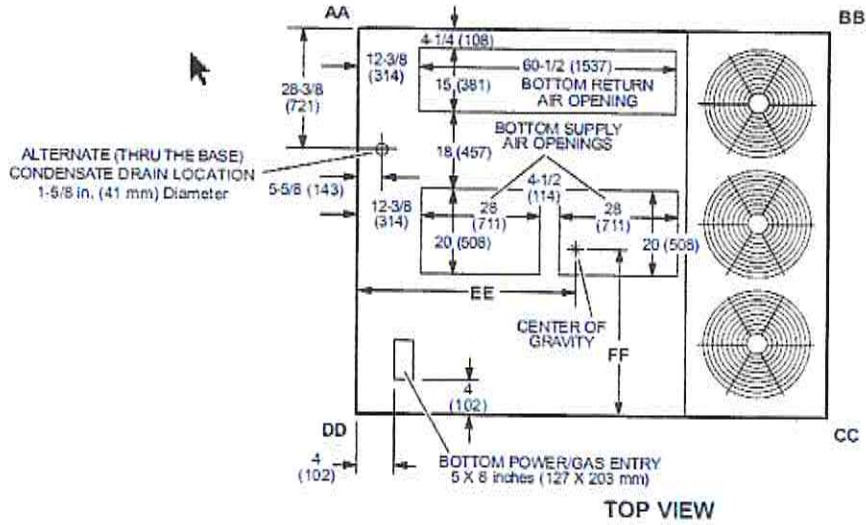
Model meets HCAI (formerly OSHPD) OSP and Special Seismic Certification (Number: OSP-0596) and meet 2018 International Building Code (IBC), 2019 California Building Code (CBC) ASCE 7, and ICC-ES AC156
ISO 9001 Registered Manufacturing Quality System

Warranty

Limited warranty on stainless steel heat exchanger of 15 years
Limited warranty on compressor of 5 years
Limited warranty on Environ Coil System 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
Limited warranty on Lennox® CORE Control System of 3 years

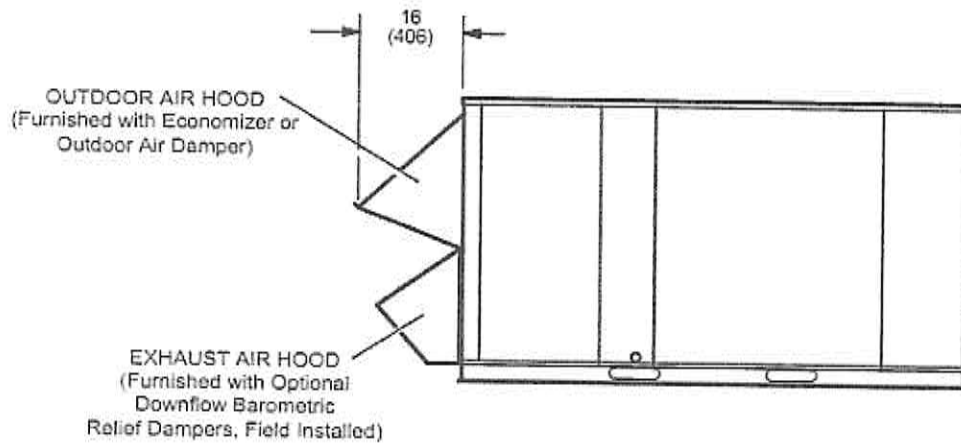


Corner Weights (lb)								Center of Gravity (in.)			
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
481	596	399	487	514	547	620	669	48.85	48.43	39.79	42.93

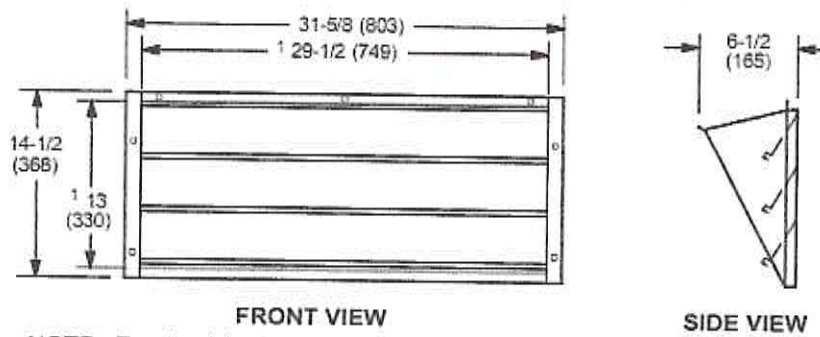




OUTDOOR AIR HOOD DETAIL



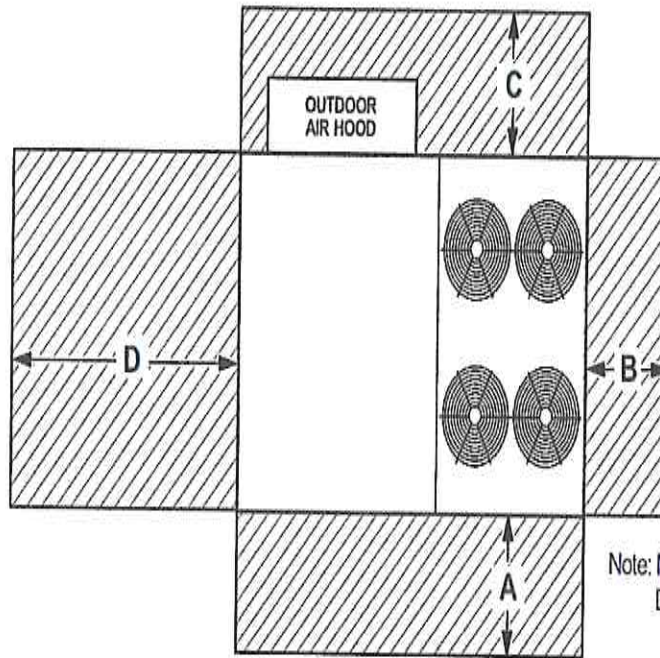
OPTIONAL HORIZONTAL BAROMETRIC RELIEF DAMPERS WITH HOOD (Field installed in horizontal return air duct adjacent to unit)



NOTE - Two furnished per order no.
1 NOTE - Opening size required in return air duct.



Unit With Economizer



Note: Models with four outdoor fans shown.
Dimension clearances are for all sizes.

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	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.



Tag: RTU 3, KIT 2
 Model: LGT150H4E - LGT150H4E-Y 12.5T CONF E=10.8

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)
208V 3Ph 60Hz	14.6 10.8	63 / 80	146.1 / 108.1	133.2 / 95.2	5,000	0.50 / 1.41	80.0 / 67.0	59.1 / 57.4

COOLING							
Cooling Performance				Temperatures (DB/WB °F)			
Gross Cooling (Ttl/Sens)	146.1 / 108.1 MBH			Ambient	95.0		
Net Cooling (Ttl/Sens)	133.2 / 95.2 MBH			Entering	80.0	67.0	
Coil Moisture Removal	35.80 lb/hr			Total Leaving - (Coil)	59.1	57.4	
System Moisture Removal	35.80 lb/hr			Total Leaving - (Unit)	61.6	58.3	
ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	141.0 / 136.0 MBH		Cooling Stages	3	Type	R-410A	
ARI Power	12,500 W		Compressor Qty	2	Charge	0.0	
			Compressor RLA	40.2 amp		Qty	1
						Size	1 in.
						Pipe Thread	not

HUMIDITROL - HOT GAS REHEAT							
Humiditrol Dehumidification Performance				Temperatures (DB/WB °F)			
Gross Cooling - Stage 1 (Ttl/Sens)	23.7 / 11.4 MBH			Ambient	95.0		
Gross Cooling - Stage 2 (Ttl/Sens)	90.4 / 57.9 MBH			Entering	80.0	67.0	
Moisture Removal - Stage 1	11.6 lb/hr			Total Leaving - (Stage 1)	77.8	65.6	
Moisture Removal - Stage 2	30.7 lb/hr			Total Leaving - (Stage 2)	68.9	61.3	

HEATING							
Heating Performance		Temperatures (DB/WB °F)		Specifications			
Output (High/Low)	144.0 / 93.6 MBH		Total Leaving	26.7		Heat Stages	2
Input (High/Low)	180.0 / 117.0 MBH					Thermal Efficiency	81.0%
Gas Heat Rise	26.7 °F					Gas Line Size	0.75 in.
						Gas Pressure	7 in.WC

VENTILATION							
Air Flow (cfm)		Supply Fan			Air Resistance (in.WC)		
Supply	5,000	Nominal Power	3.75 hp		Total	1.41	
	0	Required Power	4.07 hp		Ext Supply	0.50	
		Drive Type	ECM Direct Drive				
		Required Watts	3,035 W				

AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)							
Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.20	0.08	0.34	0.29				

ELECTRICAL							
Voltage	208V 3Ph / 60Hz			Compressor RLA	40.2 amp		
MCA	63 amp			Cooling FLA Total	55.0 amp		
MOCP	80 amp			Condenser FLA	6.0 amp		
Condenser Power	1000 W			Supply Fan FLA	8.8 amp		
Oper Range-Nom Volt	+/- 10%						

ADDITIONAL DATA							
Cabinet	101.25 in. x 60.12 in. x 46.88 in.			Total Weight	1,293 lb		
Downflow Supply	20.0 in. x 28.0 in.			Base Unit Net Weight	1,150 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.			Exhaust Weight	31 lb		
Sound Rating	90 dBA			Humiditrol Weight	20 lb		
				Gas Heat Weight	9 lb		



Tag:

RTU 3, KIT 2

Factory Installed Options

- High Performance Economizer Upgrade Factory Installed
- Dual Enthalpy High Performance Economizer
- Direct Drive
- Unit Orientation Downflow
- Supply Fan: Multi-Speed ECM Direct Drive
- 208/220/230/240V 3Phase
- 80Amp Non-Fused Disconnect Factory Installed
- Built-in BACnet IP and MS/TP (standard)
- Supply Motor - 3.75 Hp - DirectPlus w/MSAV
- Std Static Power Exhaust Fan Factory Installed
- 180K A.S. (Dual Stage)
- Hinged Access Doors Factory Installed
- 15A GFCI Factory Installed/Field Wired
- Dirty Filter Switch Factory Installed
- Fresh Air Tempering Factory Installed
- Supply Air Smoke Detector Factory Installed
- Return Air Smoke Detector Factory Installed
- Environ Condenser Coil System Factory Installed
- Humiditrol Factory Installed
- 2" MERV4 - Std. Filter Factory Installed

Field Installed Accessories

Catalog Number	Qty	Description
54W96	2	Return Air Adaptor Plate 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
- Humiditrol - Hot Gas Reheat Dehumidification System

Heating System

- Redundant Automatic Gas Valve with Manual Shut-off
- Electronic Flame Sensor
- Direct Spark Ignition
- 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
- Built-in BACnet IP & MS/TP
- Phase/Voltage Detection
- Return Air Sensor Factory Installed
- Outdoor Air Sensor Factory Installed
- Factory Installed Discharge Air Sensor



Compliance

Components are Bonded for Grounding

Factory Test Operated

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

Model meets California Code of Regulations, Title 24 and ASHRAE 90.1-2016 Section 6.4.3.10 requirements for staged airflow

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 Environ Coil System 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

Limited warranty on Lennox® CORE Control System of 3 years



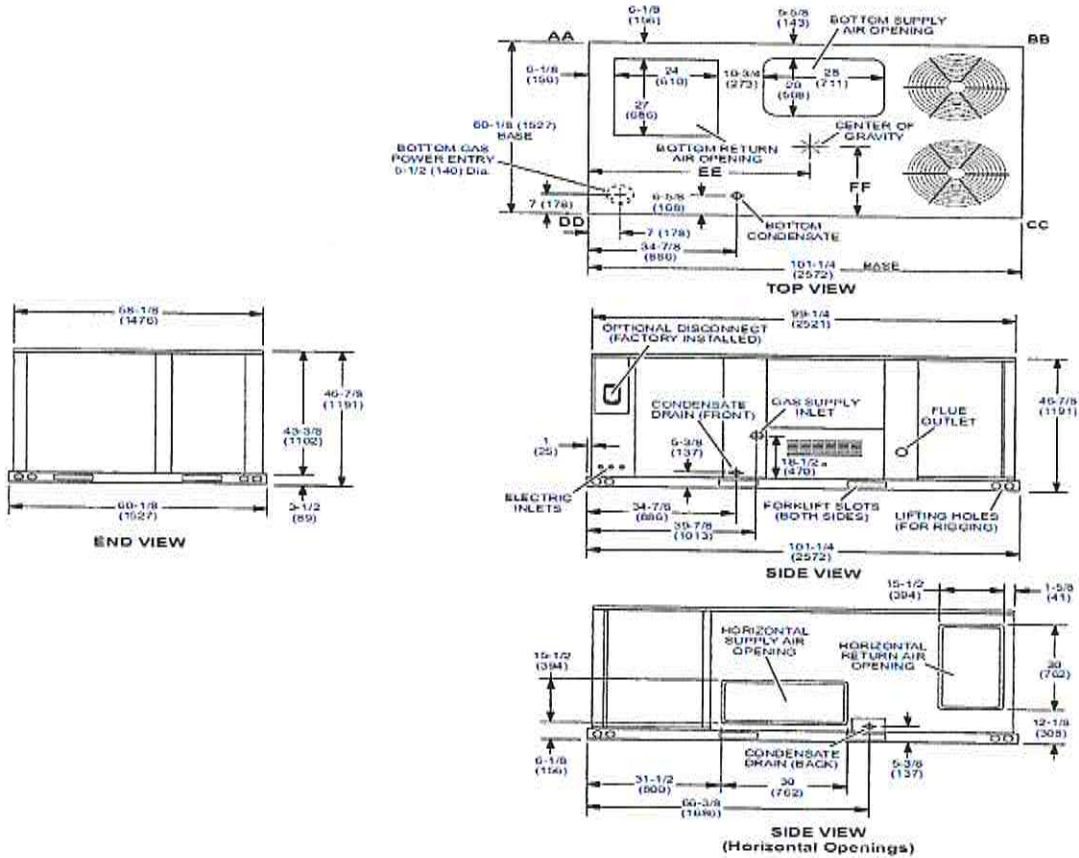
Corner Weights (lb)								Center of Gravity (in.)			
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
316	359	284	314	304	393	345	393	46.50	45.50	24.50	25.50

DIMENSIONS

Model No.	CORNER WEIGHTS																CENTER OF GRAVITY								UNIT
	AA				BB				CC				DD				EE				FF				
	Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg			
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	136	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	

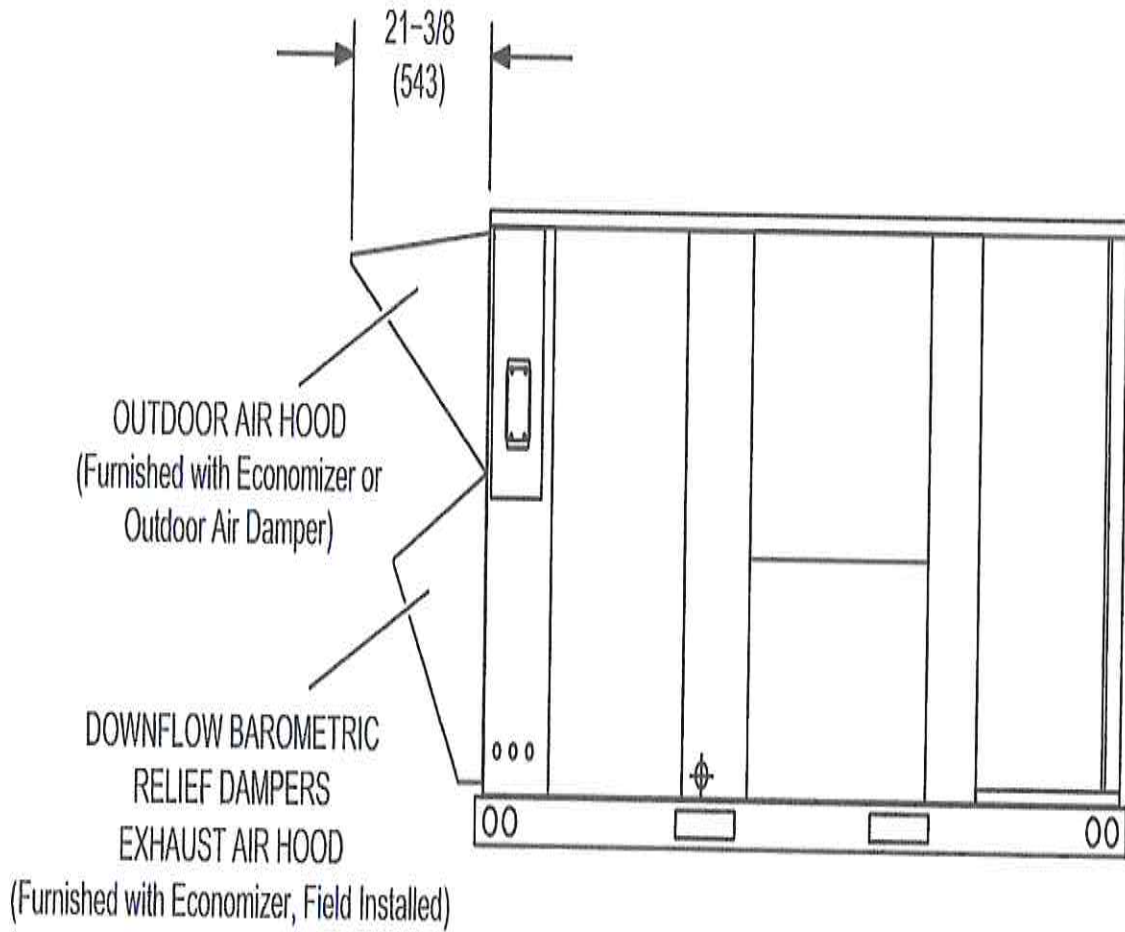
Base Unit - The unit with NO INTERNAL OPTIONS.

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.



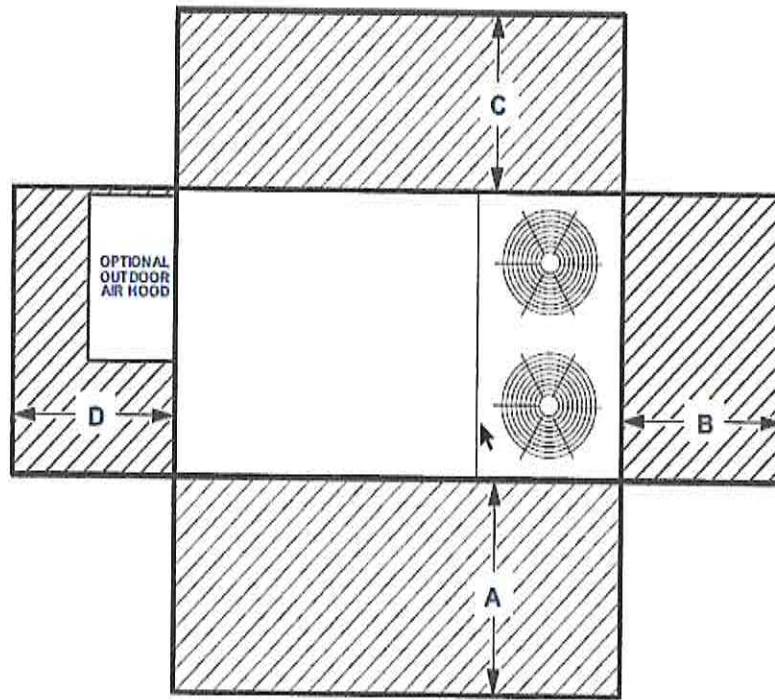


OUTDOOR AIR HOOD DETAIL





UNIT CLEARANCES



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.



Tag:

RTU-1

Model:

LGT150H4E - LGT150H4E-Y 12.5T CONF E=10.8

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)
208V 3Ph 60Hz	14.6 10.8	61 / 80	146.1 / 108.1	133.2 / 95.2	5,000	0.50 / 1.41	80.0 / 67.0	59.1 / 57.4

COOLING

Cooling Performance		Temperatures (DB/WB °F)	
Gross Cooling (Ttl/Sens)	146.1 / 108.1 MBH	Ambient	95.0
Net Cooling (Ttl/Sens)	133.2 / 95.2 MBH	Entering	80.0 67.0
Coil Moisture Removal	35.80 lb/hr	Total Leaving - (Coil)	59.1 57.4
System Moisture Removal	35.80 lb/hr	Total Leaving - (Unit)	61.6 58.3

ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	141.0 / 136.0 MBH	Cooling Stages	3	Type	R-410A	Qty	1
ARI Power	12,500 W	Compressor Qty	2	Charge	0.0	Size	1 in.
		Compressor RLA	40.2 amp			Pipe Thread	npt

HUMIDITROL - HOT GAS REHEAT

Humiditrol Dehumidification Performance		Temperatures (DB/WB °F)	
Gross Cooling - Stage 1 (Ttl/Sens)	23.7 / 11.4 MBH	Ambient	95.0
Gross Cooling - Stage 2 (Ttl/Sens)	90.4 / 57.9 MBH	Entering	80.0 67.0
Moisture Removal - Stage 1	11.6 lb/hr	Total Leaving - (Stage 1)	77.8 65.6
Moisture Removal - Stage 2	30.7 lb/hr	Total Leaving - (Stage 2)	68.9 61.3

HEATING

Heating Performance		Temperatures (DB/WB °F)		Specifications	
Output (High/Low)	144.0 / 93.6 MBH	Total Leaving	26.7	Heat Stages	2
Input (High/Low)	180.0 / 117.0 MBH			Thermal Efficiency	81.0%
Gas Heat Rise	26.7 °F			Gas Line Size	0.75 in.
				Gas Pressure	7 in WC

VENTILATION

Air Flow (cfm)		Supply Fan		Air Resistance (in.WC)	
Supply	5,000	Nominal Power	3.75 hp	Total	1.41
	0	Required Power	4.07 hp	Ext Supply	0.50
		Drive Type	ECM Direct Drive		
		Required Watts	3,035 W		

AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.20	0.08	0.34	0.29				

ELECTRICAL

Voltage	208V 3Ph / 60Hz	Compressor RLA	40.2 amp
MCA	61 amp	Cooling FLA Total	55.0 amp
MOCP	80 amp	Condenser FLA	6.0 amp
Condenser Power	1000 W	Supply Fan FLA	8.8 amp
Oper Range-Nom Volt	+/- 10%		

ADDITIONAL DATA

Cabinet	101.25 in. x 60.12 in. x 46.88 in.	Total Weight	1,262 lb
Horizontal Supply	15.5 in. x 30.0 in.	Base Unit Net Weight	1,150 lb
Horizontal Return	15.5 in. x 30.0 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	90 dBA	Gas Heat Weight	9 lb



Tag: RTU-1

Factory Installed Options

- High Performance Economizer Upgrade Factory Installed
- Dual Enthalpy High Performance Economizer
- Direct Drive
- Unit Orientation Horizontal
- Supply Fan: Multi-Speed ECM Direct Drive
- 208/220/230/240V 3Phase
- 80Amp Non-Fused Disconnect Factory Installed
- Built-in BACnet IP and MS/TP (standard)
- Supply Motor - 3.75 Hp - DirectPlus w/MSAV
- 180K A.S. (Dual Stage)
- Hinged Access Doors Factory Installed
- 15A GFCI Factory Installed/Field Wired
- Dirty Filter Switch Factory Installed
- Fresh Air Tempering Factory Installed
- Supply Air Smoke Detector Factory Installed
- Return Air Smoke Detector Factory Installed
- Environ Condenser Coil System Factory Installed
- Humiditrol Factory Installed
- 2" MERV4 - Std. Filter Factory Installed

Field Installed Accessories

Catalog Number	Qty	Description
53K04	1	Horiz Barometric Relief Dampers Field Installed
51W25	1	Horizontal Discharge Kit 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
- Humiditrol - Hot Gas Reheat Dehumidification System

Heating System

- Redundant Automatic Gas Valve with Manual Shut-off
- Electronic Flame Sensor
- Direct Spark Ignition
- 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
- Built-in BACnet IP & MS/TP
- Phase/Voltage Detection
- Return Air Sensor Factory Installed
- Outdoor Air Sensor Factory Installed
- Factory Installed Discharge Air Sensor



Compliance

Components are Bonded for Grounding

Factory Test Operated

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

Model meets California Code of Regulations, Title 24 and ASHRAE 90.1-2016 Section 6.4.3.10 requirements for staged airflow

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 Environ Coil System 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

Limited warranty on Lennox® CORE Control System of 3 years



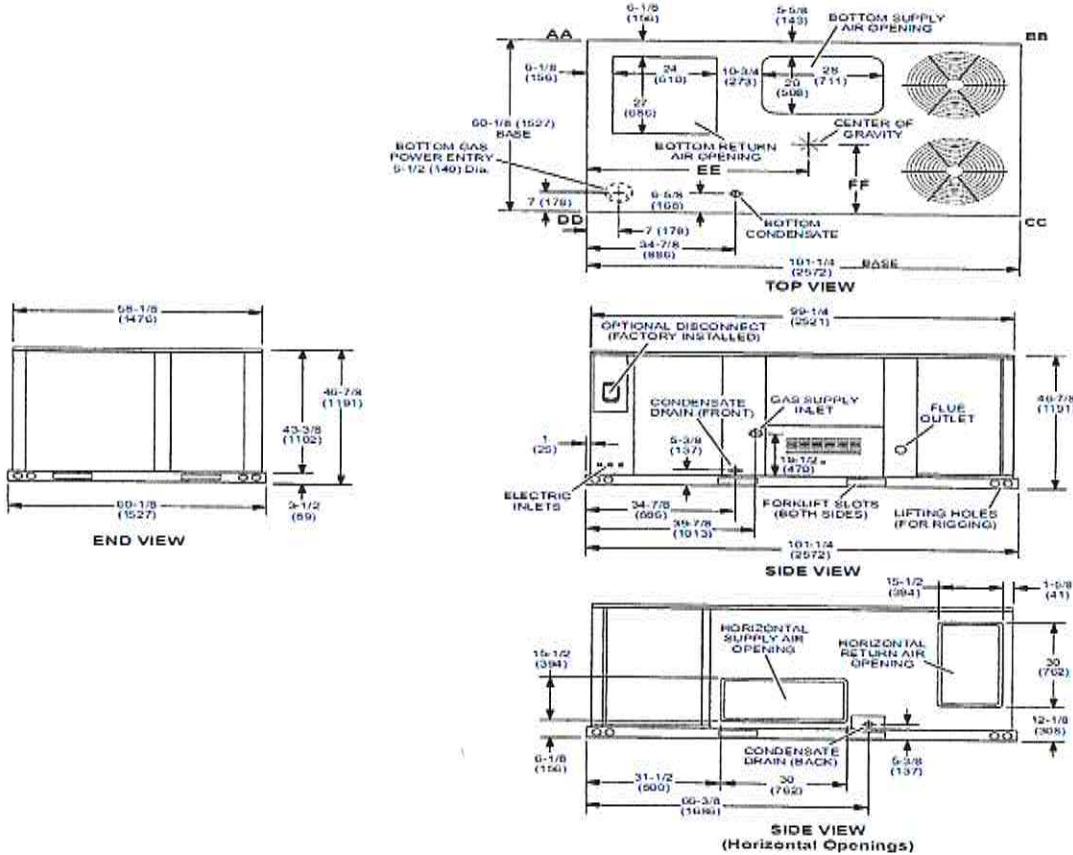
Corner Weights (lb)								Center of Gravity (in.)			
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
316	359	284	314	304	393	345	393	46.50	45.50	24.50	25.50

DIMENSIONS

Model No.	CORNER WEIGHTS																CENTER OF GRAVITY								UNIT
	AA				BB				CC				DD				EE				FF				
	Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	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	300	139	349	158	275	125	305	136	295	134	328	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	

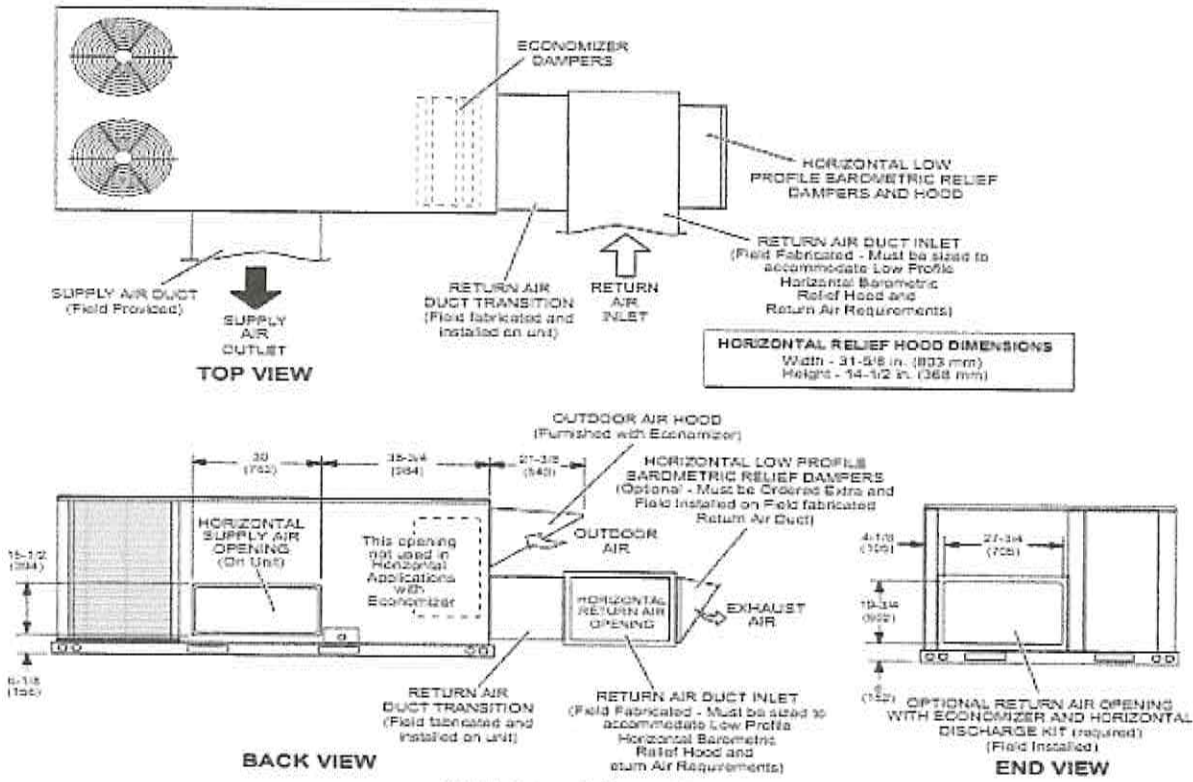
Base Unit - The unit with NO INTERNAL OPTIONS.

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.



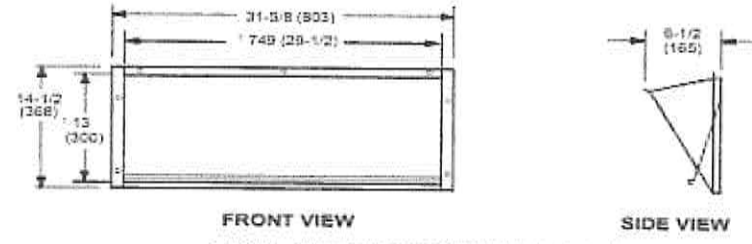


HORIZONTAL ECONOMIZER APPLICATION
 (with Optional Low Profile Horizontal Barometric Relief Dampers and Horizontal Discharge Kit - Required)



NOTE - Return Air Duct and Transition must be supplied.

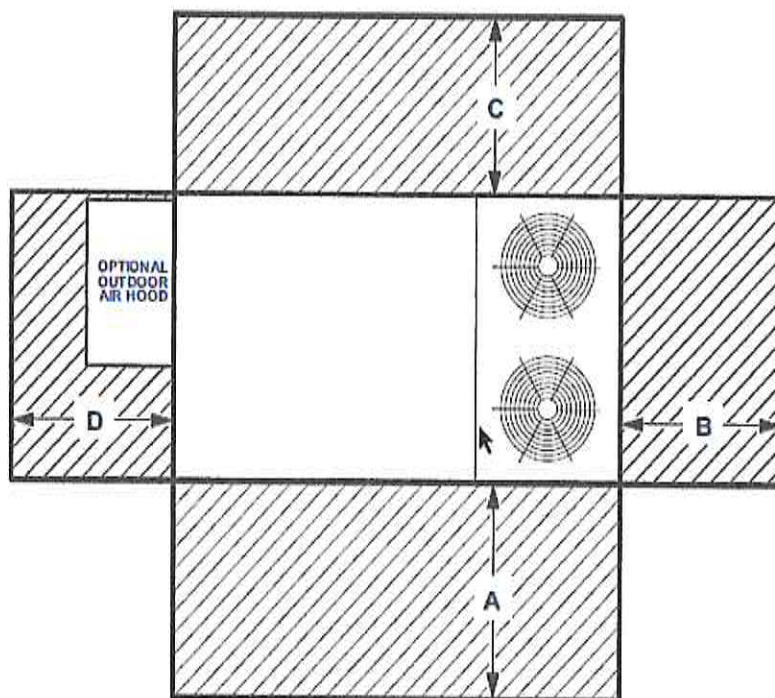
HORIZONTAL LOW PROFILE BAROMETRIC RELIEF DAMPERS
 (Field installed in horizontal return air duct adjacent to unit)



NOTE - Opening size required in return air duct.



UNIT CLEARANCES



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.



Tag: Kit -1
 Model: LGT210H4M - LGT210H4M-Y 17.5T CONF E=12.0

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)
208V 3Ph 60Hz	16 12	90 / 100	218.8 / 166.3	206.8 / 154.3	7,000	0.80 / 1.07	80.0 / 67.0	57.0 / 56.6

COOLING

Cooling Performance		Temperatures (DB/WB °F)	
Gross Cooling (Ttl/Sens)	218.8 / 166.3 MBH	Ambient	95.0
Net Cooling (Ttl/Sens)	206.8 / 154.3 MBH	Entering	80.0 67.0
Coil Moisture Removal	49.49 lb/hr	Total Leaving – (Coil)	57.0 56.6
System Moisture Removal	49.49 lb/hr	Total Leaving – (Unit)	58.7 57.3

ARI Performance	Compressors	Refrigerant	Condensate Drain
ARI Cooling 206.0 / 200.0 MBH	Cooling Stages 4	Type R-410A	Qty 1
ARI Power 16,600 W	Compressor Qty 4	Charge 0.0	Size 1 in.
	Compressor RLA 48 amp		Pipe Thread FPT

HUMIDITROL - HOT GAS REHEAT

Humiditrol Dehumidification Performance		Temperatures (DB/WB °F)	
Gross Cooling - Stage 1 (Ttl/Sens)	39.7 / 30.2 MBH	Ambient	95.0
Gross Cooling - Stage 2 (Ttl/Sens)	124.1 / 64.5 MBH	Entering	80.0 67.0
Moisture Removal - Stage 1	9.0 lb/hr	Total Leaving – (Stage 1)	75.8 65.3
Moisture Removal - Stage 2	56.2 lb/hr	Total Leaving – (Stage 2)	71.1 61.5

HEATING

Heating Performance		Temperatures (DB/WB °F)	Specifications
Output (High/Low)	211.0 / 69.0 MBH	Total Leaving 27.9	Heat Stages 2
Input (High/Low)	260.0 / 85.0 MBH		Thermal Efficiency 81.0%
Gas Heat Rise	27.9 °F		Gas Line Size 1 in.
			Gas Pressure 7 in.WC

VENTILATION

Air Flow (cfm)	Supply Fan	Air Resistance (in.WC)
Supply 7,000	Nominal Power 5.00 hp	Total 1.07
	Required Power 4.13 hp	Ext Supply 0.80
	Drive Type MSAV Belt Drive	
	RPM Range 850 - 1,045 rpm	
	Required RPM 911 rpm	

AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.10	0.04	0.09	0.04				

ELECTRICAL

Voltage	208V 3Ph / 60Hz	Compressor RLA	48.0 amp
MCA	90 amp	Cooling FLA Total	75.1 amp
MOCP	100 amp	Condenser FLA	10.4 amp
Condenser Power	1500 W	Supply Fan FLA	16.7 amp
Oper Range-Nom Volt	+/- 10%		

ADDITIONAL DATA

Cabinet	132.62 in. x 91.12 in. x 54.25 in.	Total Weight	2,806 lb
Downflow Supply	20.0 in. x 28.0 in.	Base Unit Net Weight	2,569 lb
Downflow Return	15.0 in. x 60.5 in.	OAS/Econ Weight	167 lb
Filters	(6) 24.0 in. x 24.0 in. x 2.0 in.	Exhaust Weight	20 lb
Sound Rating	94 dBA	Humiditrol Weight	50 lb



Tag:

Kit -1

Factory Installed Options

High Performance Economizer Upgrade Factory Installed
Single Sensible High Performance Economizer
Belt Drive
Unit Orientation Downflow
Supply Fan: Multi-Stage Air Volume Belt
208/220/230/240V 3Phase
150Amp Non-Fused Disconnect Factory Installed
Built-in BACnet IP and MS/TP (standard)
Supply Motor - 5.0 Hp Std- w/ MSAV
Supply Drive Kit 4 (850-1045 RPM)
Barometric Relief Damper Factory Installed
260K S.S. (Dual Stage)
Hinged Access Doors Factory Installed
Dirty Filter Switch Factory Installed
Fresh Air Tempering Factory Installed
Supply Air Smoke Detector Factory Installed
Return Air Smoke Detector Factory Installed
Environ Condenser Coil System Factory Installed
Humiditrol Factory Installed
2" MERV4 - Std. Filter Factory Installed

Product Features

Cabinet

Hinged Access Panels
Durable Outdoor Enamel Paint Finish
Totally Enclosed Outdoor Fan Motor
PVC Coated Fan Guard
Corrosion-Resistant 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
Inshot Burners
AGA-CGA Certified

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
Built-in BACnet IP & MS/TP
Phase/Voltage Detection
Return Air Sensor Factory Installed
Outdoor Air Sensor Factory Installed
Factory Installed Discharge Air Sensor

Compliance

Components are Bonded for Grounding
Factory Test Operated
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

Model meets California Code of Regulations, Title 24 and ASHRAE 90.1-2016 Section 6.4.3.10 requirements for staged airflow

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 stainless steel heat exchanger of 15 years

Limited warranty on compressor of 5 years

Limited warranty on Environ Coil System of 3 years

Limited warranty on High Performance Economizer of 5 years

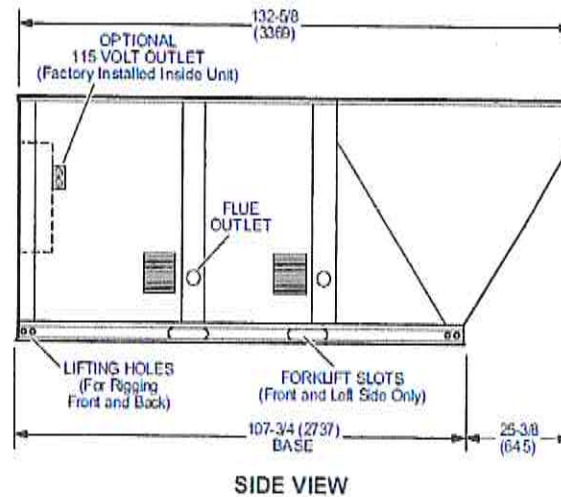
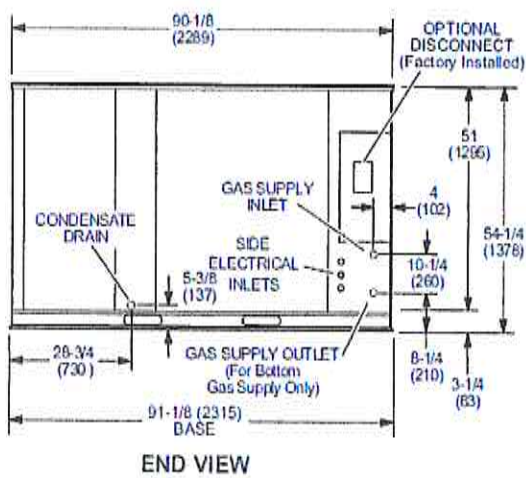
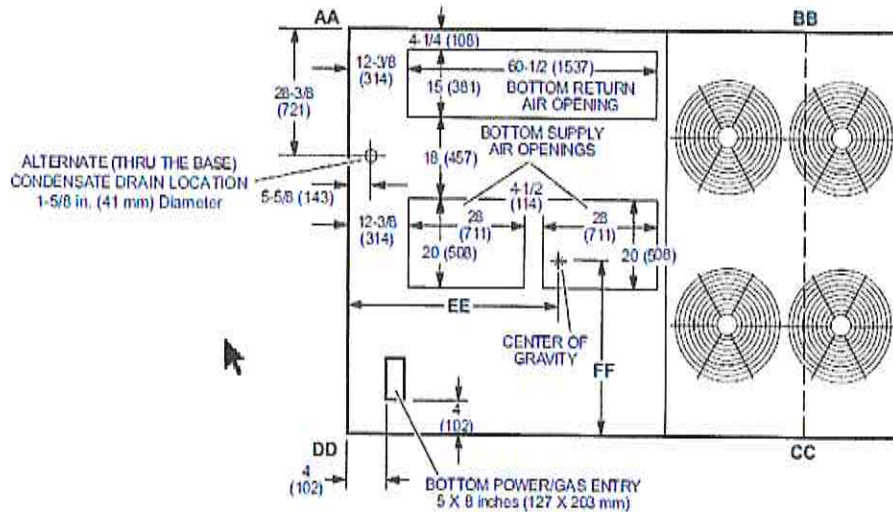
Limited warranty on all other components of 1 year

See Limited Warranty Certificate included with unit for details

Limited warranty on Lennox® CORE Control System of 3 years

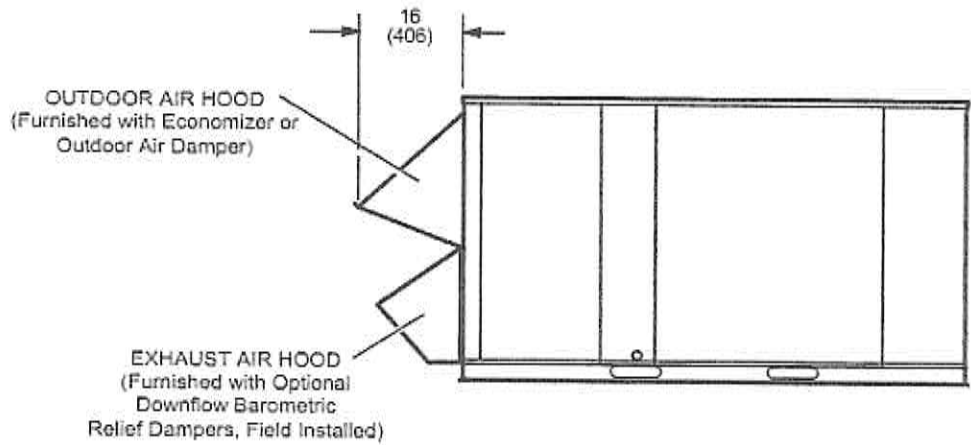


Corner Weights (lb)						Center of Gravity (in.)					
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
512	624	620	709	787	809	650	712	58.99	57.31	40.16	42.54



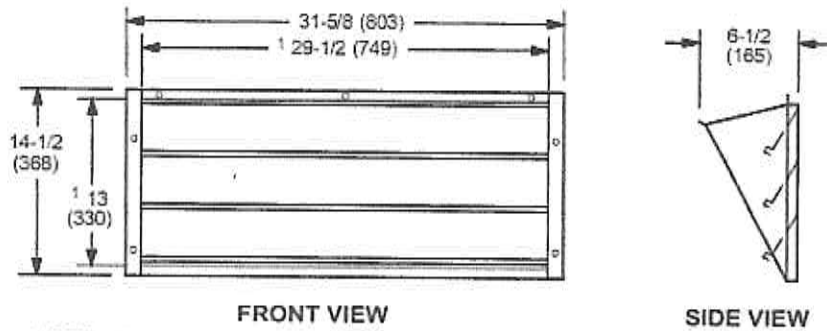


OUTDOOR AIR HOOD DETAIL



OPTIONAL HORIZONTAL BAROMETRIC RELIEF DAMPERS WITH HOOD

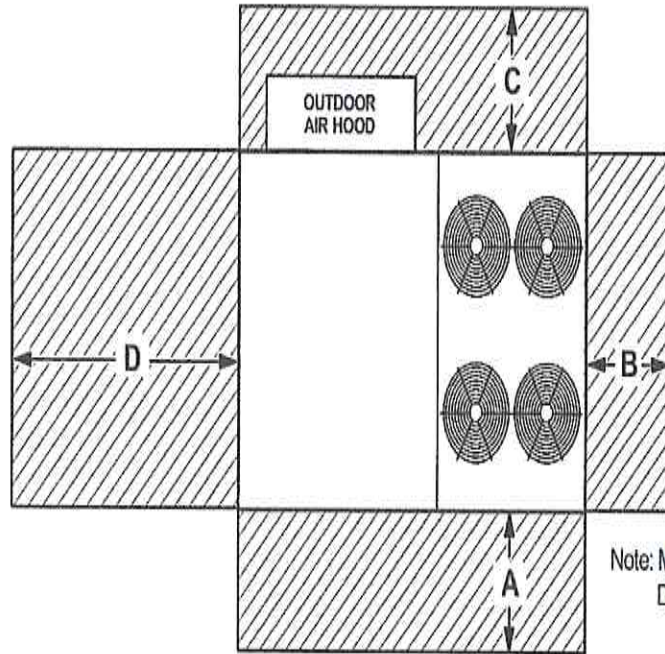
(Field installed in horizontal return air duct adjacent to unit)



NOTE - Two furnished per order no.
1 NOTE - Opening size required in return air duct.



Unit With Economizer



Note: Models with four outdoor fans shown.
Dimension clearances are for all sizes.

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	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.



Tag: Porch -5
 Model: LGT120H4E - LGT120H4E-Y 10T CONF E=12.1

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)
208V 3Ph 60Hz	15.5 12.1	52 / 60	121.9 / 89.0	114.1 / 81.2	4,000	0.50 / 1.09	80.0 / 67.0	58.5 / 56.9

COOLING					
Cooling Performance			Temperatures (DB/WB °F)		
Gross Cooling (Ttl/Sens)	121.9 / 89.0 MBH		Ambient	95.0	
Net Cooling (Ttl/Sens)	114.1 / 81.2 MBH		Entering	80.0	67.0
Coil Moisture Removal	31.02 lb/hr		Total Leaving – (Coil)	58.5	56.9
System Moisture Removal	31.02 lb/hr		Total Leaving – (Unit)	60.4	57.6

ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	117.0 / 114.0 MBH	Cooling Stages	3	Type	R-410A	Qty	1
ARI Power	9,500 W	Compressor Qty	2	Charge	0.0	Size	1 in.
		Compressor RLA	32.7 amp			Pipe Thread	npt

HUMIDITROL - HOT GAS REHEAT					
Humiditrol Dehumidification Performance			Temperatures (DB/WB °F)		
Gross Cooling - Stage 1(Ttl/Sens)	23.4 / 11.0 MBH		Ambient	95.0	
Gross Cooling - Stage 2 (Ttl/Sens)	72.4 / 39.1 MBH		Entering	80.0	67.0
Moisture Removal - Stage 1	11.7 lb/hr		Total Leaving – (Stage 1)	77.3	65.2
Moisture Removal - Stage 2	31.4 lb/hr		Total Leaving – (Stage 2)	70.6	61.3

HEATING					
Heating Performance		Temperatures (DB/WB °F)		Specifications	
Output (High/Low)	144.0 / 93.6 MBH	Total Leaving	33.3	Heat Stages	2
Input (High/Low)	180.0 / 117.0 MBH			Thermal Efficiency	81.0%
Gas Heat Rise	33.3 °F			Gas Line Size	0.75 in.
				Gas Pressure	7 in.WC

VENTILATION					
Air Flow (cfm)		Supply Fan		Air Resistance (in.WC)	
Supply	4,000	Nominal Power	3.75 hp	Total	1.09
	0	Required Power	2.46 hp	Ext Supply	0.50
		Drive Type	ECM Direct Drive		
		Required Watts	1,831 W		

AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)							
Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.14	0.05	0.21	0.19				

ELECTRICAL				
Voltage	208V 3Ph / 60Hz		Compressor RLA	32.7 amp
MCA	52 amp		Cooling FLA Total	47.5 amp
MOCP	60 amp		Condenser FLA	6.0 amp
Condenser Power	1000 W		Supply Fan FLA	8.8 amp
Oper Range-Nom Volt	+/- 10%			

ADDITIONAL DATA				
Cabinet	101.25 in. x 60.12 in. x 46.88 in.		Total Weight	1,250 lb
Downflow Supply	20.0 in. x 28.0 in.		Base Unit Net Weight	1,130 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.		Exhaust Weight	8 lb
Sound Rating	90 dBA		Humiditrol Weight	20 lb
			Gas Heat Weight	9 lb



Tag:

Porch -5

Factory Installed Options

High Performance Economizer Upgrade Factory Installed
Single Sensible High Performance Economizer
Direct Drive
Unit Orientation Downflow
Supply Fan: Multi-Speed ECM Direct Drive
208/220/230/240V 3Phase
80Amp Non-Fused Disconnect Factory Installed
Built-in BACnet IP and MS/TP (standard)
Supply Motor - 3.75 Hp - DirectPlus w/MSAV
Barometric Relief Damper Factory Installed
180K S.S. (Dual Stage)
Return Air Adaptor Plate Factory Installed
Hinged Access Doors Factory Installed
15A GFCI Factory Installed/Field Wired
Dirty Filter Switch Factory Installed
Fresh Air Tempering Factory Installed
Supply Air Smoke Detector Factory Installed
Environ Condenser Coil System Factory Installed
Humiditrol Factory Installed
2" MERV4 - Std. Filter Factory 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
Humiditrol - Hot Gas Reheat Dehumidification System

Heating System

Redundant Automatic Gas Valve with Manual Shut-off
Electronic Flame Sensor
Direct Spark Ignition
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
Built-in BACnet IP & MS/TP
Phase/Voltage Detection
Return Air Sensor Factory Installed
Outdoor Air Sensor Factory Installed
Factory Installed Discharge Air Sensor

Compliance

Components are Bonded for Grounding
Factory Test Operated
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



Model meets California Code of Regulations, Title 24 and ASHRAE 90.1-2016 Section 6.4.3.10 requirements for staged airflow
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 stainless steel heat exchanger of 15 years
Limited warranty on compressor of 5 years
Limited warranty on Environ Coil System 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
Limited warranty on Lennox® CORE Control System of 3 years



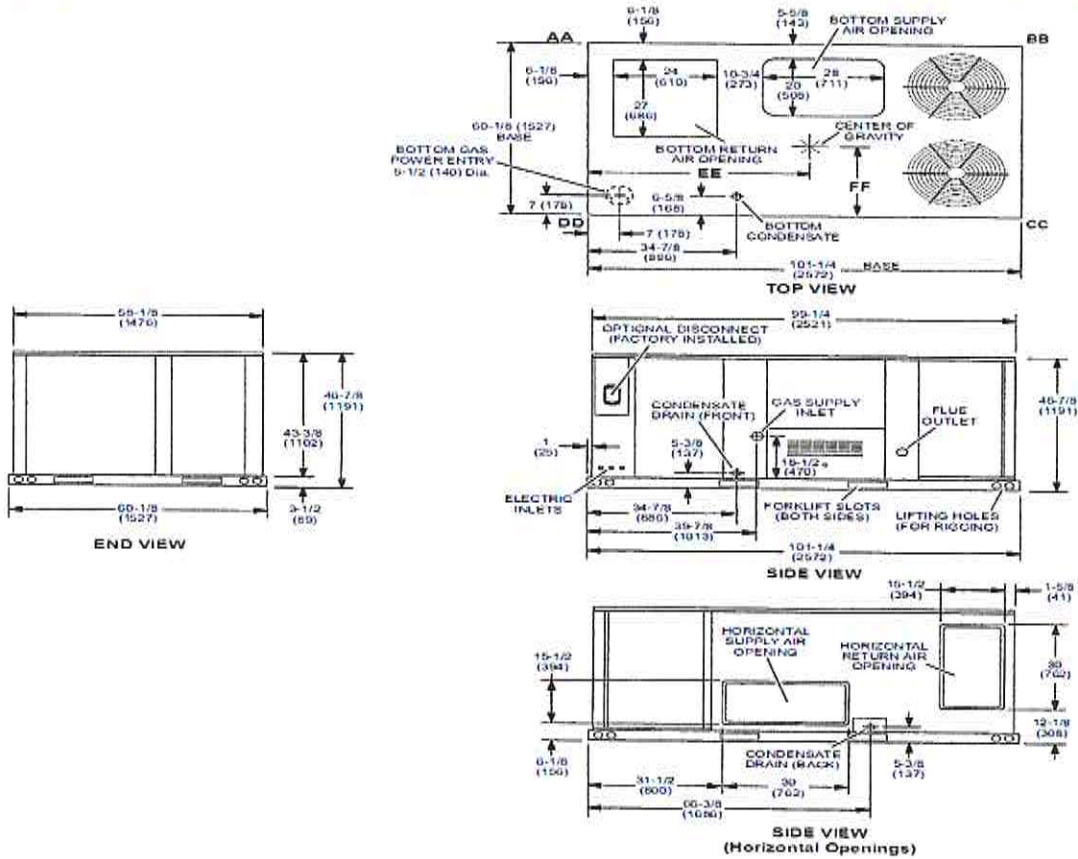
Corner Weights (lb)								Center of Gravity (in.)			
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
306	349	275	305	295	326	334	382	46.50	45.50	24.50	25.50

DIMENSIONS

Model No.	CORNER WEIGHTS																CENTER OF GRAVITY								UNIT
	AA				BB				CC				DD				EE				FF				
	Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	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	325	149	372	169	46.5	1181	45.5	1156	24.5	622	25.5	648	
120	300	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	303	178	345	157	303	178	46.5	1181	45.5	1156	24.5	622	25.5	648	

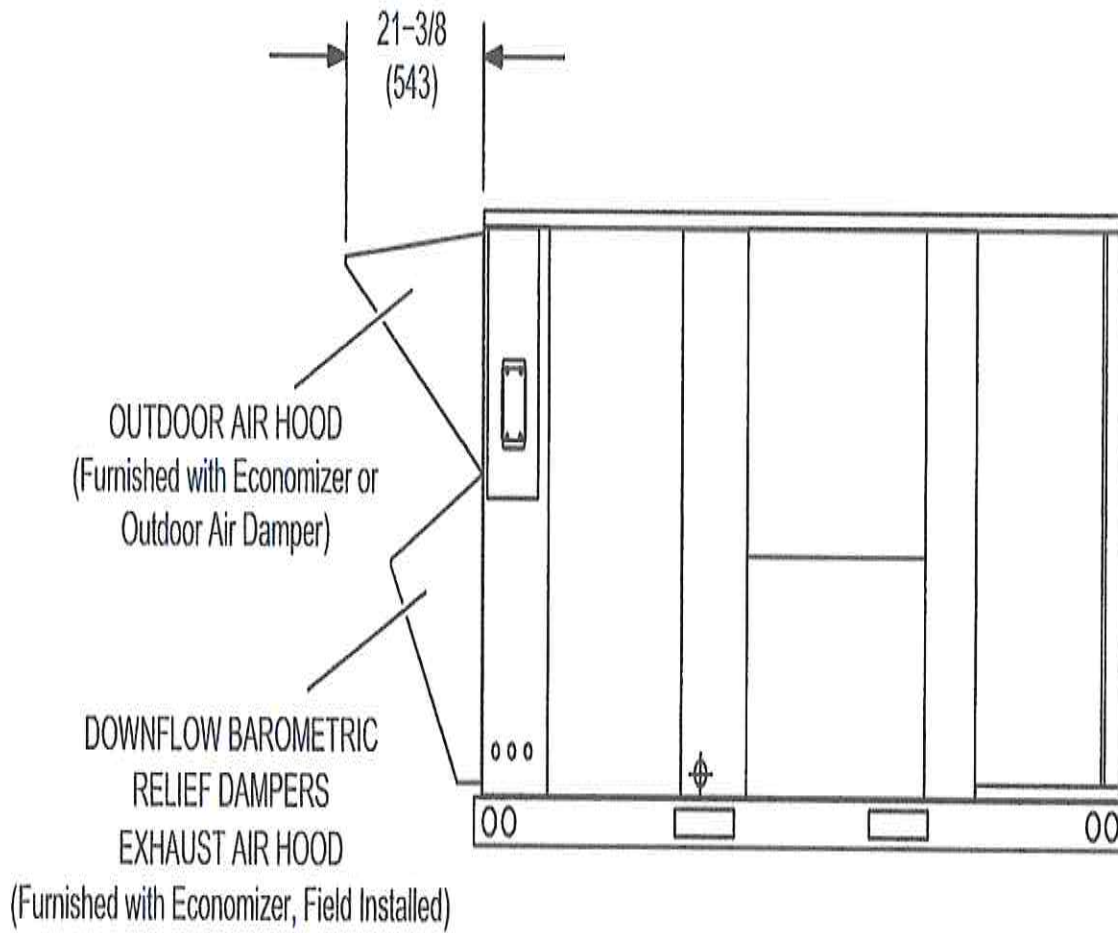
Base Unit - The unit with NO INTERNAL OPTIONS.

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.



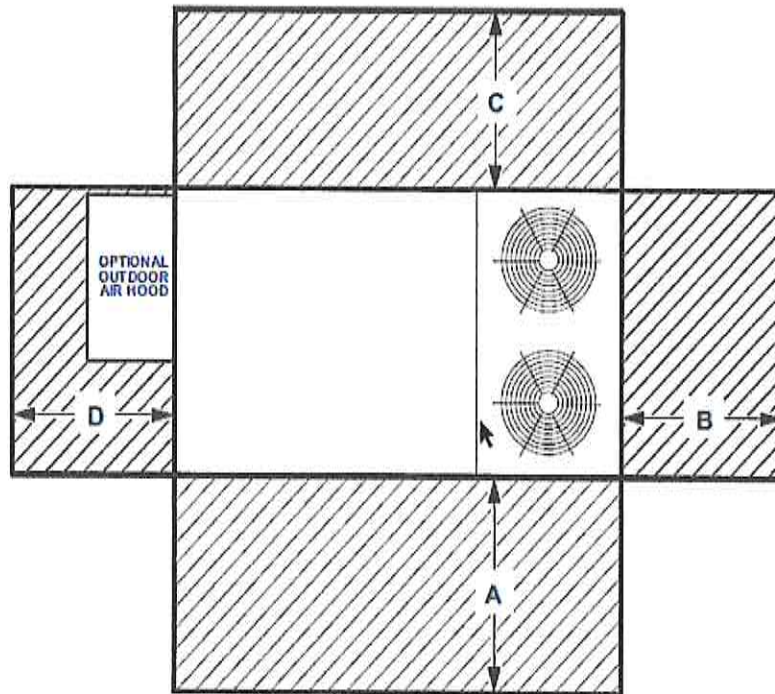


OUTDOOR AIR HOOD DETAIL





UNIT CLEARANCES



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.



Tag: Lobby - 4
 Model: LGT072H4E - LGT072H4E-Y 6T CONF E=12.2

UNIT OVERVIEW								
Voltage	IEER EER	MCA/MOCP (amp)	Gross Cooling Tt/Sens (MBH)	Net Cooling Tt/Sens (MBH)	Supply Air Flow (cfm)	ESP/TSP (in.WC)	EAT DB/WB (°F)	LAT DB/WB (°F)
208V 3Ph 60Hz	17 12.2	30 / 45	73.9 / 56.9	70.0 / 53.0	2,400	0.50 / 0.80	80.0 / 67.0	57.1 / 56.8

COOLING							
Cooling Performance			Temperatures (DB/WB °F)				
Gross Cooling (Tt/Sens)	73.9 / 56.9 MBH		Ambient	95.0			
Net Cooling (Tt/Sens)	70.0 / 53.0 MBH		Entering	80.0	67.0		
Coil Moisture Removal	16.02 lb/hr		Total Leaving - (Coil)	57.1	56.8		
System Moisture Removal	16.02 lb/hr		Total Leaving - (Unit)	58.7	57.4		
ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	72.0 / 69.0 MBH		Cooling Stages	2		Qty	1
ARI Power	5,600 W		Compressor Qty	1		Size	1 in.
			Compressor RLA	17.6 amp		Pipe Thread	npt
			Type	R-410A			
			Charge	5 LBS. 14 OZ.			

HUMIDITROL - HOT GAS REHEAT					
Humiditrol Dehumidification Performance			Temperatures (DB/WB °F)		
Gross Cooling - Stage 1(Tt/Sens)	13.5 / 13.5 MBH		Ambient	95.0	
Moisture Removal - Stage 1	lb/hr		Entering	80.0	67.0
			Total Leaving - (Stage 1)	74.6	65.3

HEATING					
Heating Performance		Temperatures (DB/WB °F)		Specifications	
Output (High/Low)	121.0 / 92.0 MBH		Total Leaving	46.3	
Input (High/Low)	150.0 / 113.0 MBH			Heat Stages	2
Gas Heat Rise	46.3 °F			Thermal Efficiency NOX	81.0%
				Gas Line Size	0.5 in.
				Gas Pressure	7 in.WC

VENTILATION					
Air Flow (cfm)		Supply Fan		Air Resistance (in.WC)	
Supply	2,400		Nominal Power	1.50 hp	
	0		Required Power	1.23 hp	
			Drive Type	MSAV Direct Drive	
			Required Watts	916 W	
				Total	0.80
				Ext Supply	0.50

AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)							
Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.13	0.04	0.08	0.05				

ELECTRICAL				
Voltage	208V 3Ph / 60Hz		Compressor RLA	17.6 amp
MCA	30 amp		Cooling FLA Total	24.8 amp
MOCP	45 amp		Condenser FLA	2.8 amp
Condenser Power	350 W		Supply Fan FLA	4.4 amp
Oper Range-Nom Volt	+/- 10%			

ADDITIONAL DATA				
Cabinet	85.25 in. x 47.00 in. x 46.88 in.		Total Weight	807 lb
Downflow Supply	20.0 in. x 18.0 in.		Base Unit Net Weight	630 lb
Downflow Return	29.0 in. x 11.0 in.		OAS/Econ Weight	131 lb
Filters	(4) 20.0 in. x 20.0 in. x 2.0 in.		Humiditrol Weight	27 lb
Sound Rating	82 dBA		Gas Heat Weight	19 lb



Tag:

Lobby - 4

Factory Installed Options

High Performance Economizer Upgrade Factory Installed
Single Sensible High Performance Economizer
Direct Drive
Unit Orientation Downflow
Supply Fan: Multi-Speed ECM Direct Drive
208/220/230/240V 3Phase
80Amp Non-Fused Disconnect Factory Installed
Built-in BACnet IP and MS/TP (standard)
Supply Motor - 1.5 Hp ECM - w/ MSAV
150K S.S. (Dual Stage)
Low Nox Factory Installed
Hinged Access Doors Factory Installed
15A GFCI Factory Installed/Field Wired
Dirty Filter Switch Factory Installed
Fresh Air Tempering Factory Installed
Supply Air Smoke Detector Factory Installed
Environ Evaporator and Condenser Coil System Factory Installed
Humiditrol Factory Installed
2" MERV4 - Std. Filter Factory 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
Thermostat Control – 2 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
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
Built-in BACnet IP & MS/TP
Return Air Sensor Factory Installed
Outdoor Air Sensor Factory Installed
Factory Installed Discharge Air Sensor

Compliance

Components are Bonded for Grounding
Factory Test Operated
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
Model meets California Code of Regulations, Title 24 and ASHRAE 90.1-2016 Section 6.4.3.10 requirements for staged airflow



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 stainless steel heat exchanger of 15 years

Limited warranty on compressor of 5 years

Limited warranty on Environ Coil System of 3 years

Limited warranty on High Performance Economizer of 5 years

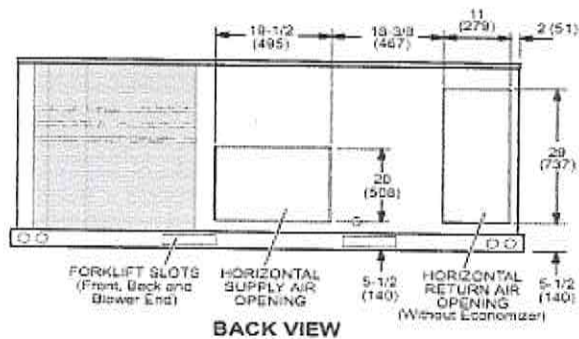
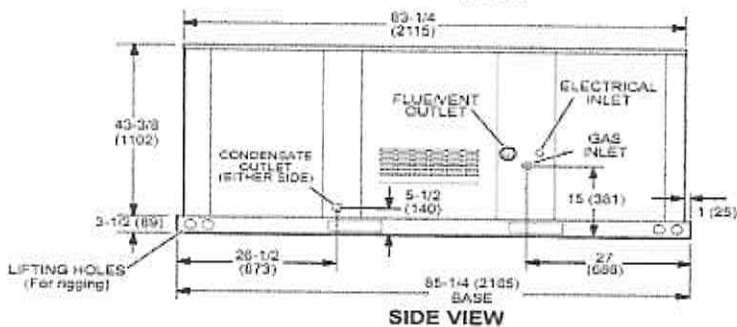
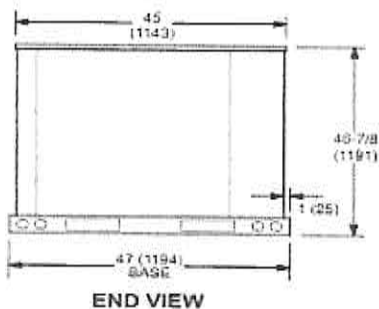
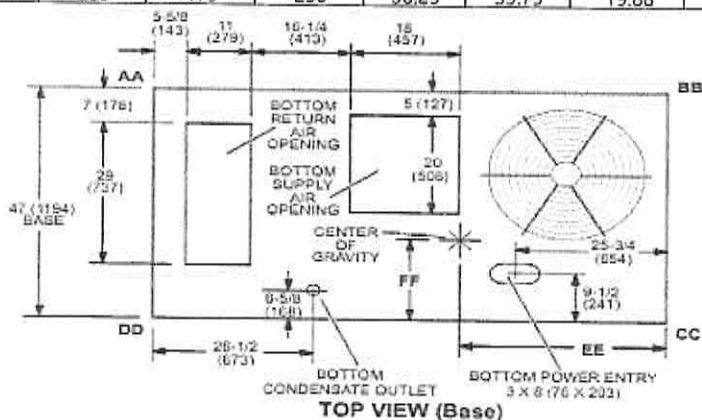
Limited warranty on all other components of 1 year

See Limited Warranty Certificate included with unit for details

Limited warranty on Lennox® CORE Control System of 3 years

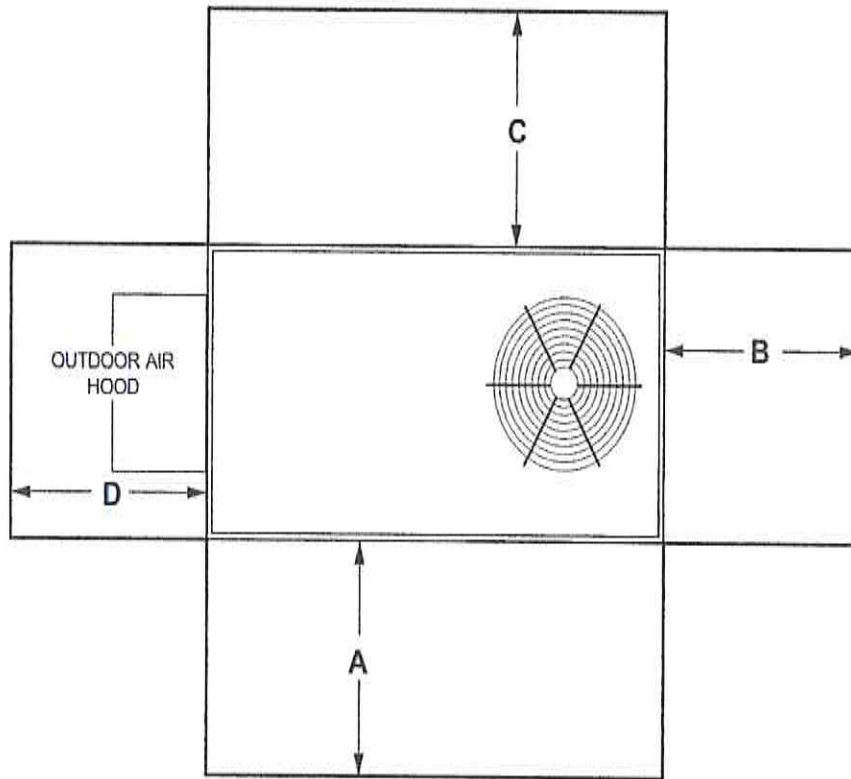


Corner Weights (lb)						Center of Gravity (in.)					
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
131	168	161	207	220	283	179	230	38.25	39.75	19.88	19.88





UNIT CLEARANCES



¹ Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	48	1219	36	914	36	934	36	914	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.



Tag: RTU 9
 Model: ZGB036S4E - ZGB036S4E 108k .5hp ENV

UNIT OVERVIEW								
Voltage	SEER 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)
208V 3Ph 60Hz	14 11.7	18 / 25	36.7 / 28.3	35.5 / 27.1	1,290	0.50 / 0.59	80.0 / 67.0	57.9 / 57.2

COOLING					
Cooling Performance			Temperatures (DB/WB °F)		
Gross Cooling (Ttl/Sens)	36.7 / 28.3 MBH		Ambient	95.0	
Net Cooling (Ttl/Sens)	35.5 / 27.1 MBH		Entering	80.0	67.0
Coil Moisture Removal	7.85 lb/hr		Total Leaving – (Coil)	57.9	57.2
System Moisture Removal	7.85 lb/hr		Total Leaving – (Unit)	58.9	57.5

ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	36.2 / 35.0 MBH	Cooling Stages	1	Type	R-410A	Qty	1
ARI Power	3,000 W	Compressor Qty	1	Charge	5 LBS. 2 OZ.	Size	1 in.
		Compressor RLA	8.7 amp			Pipe Thread	npt

HEATING					
Heating Performance		Temperatures (DB/WB °F)		Specifications	
Output (High/Low)	86.0 / 0.0 MBH	Total Leaving	61.7	Heat Stages	1
Input (High/Low)	108.0 / 0.0 MBH			Thermal Efficiency	80.0%
Gas Heat Rise	61.7 °F			Gas Line Size	0.5 in.
				Gas Pressure	7 in.WC

VENTILATION					
Air Flow (cfm)		Supply Fan		Air Resistance (In.WC)	
Supply	1,290	Nominal Power	0.50 hp	Total	0.59
	0	Required Power	0.50 hp	Ext Supply	0.50
		Drive Type	ECM Direct Drive		
		Speed	4		

AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)							
Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.02		0.06					

ELECTRICAL			
Voltage	208V 3Ph / 60Hz	Compressor RLA	8.7 amp
MCA	18 amp	Cooling FLA Total	15.0 amp
MOCP	25 amp	Condenser FLA	1.7 amp
Condenser Power	310 W	Supply Fan FLA	4.6 amp
Oper Range-Nom Volt	+/- 10%		

ADDITIONAL DATA			
Cabinet	75.88 in. x 47.25 in. x 36.88 in.	Total Weight	561 lb
Downflow Supply	12.1 in. x 17.8 in.	Base Unit Net Weight	524 lb
Downflow Return	25.6 in. x 10.9 in.	OAS/Econ Weight	29 lb
Filters	(4) 14.0 in. x 20.0 in. x 2.0 in.	Gas Heat Weight	8 lb
Sound Rating	77 dBA		



Tag: RTU 9

Factory Installed Options

Standard Cap, Std Packaging
Direct Drive
Unit Orientation Downflow
Supply Fan: Multi-Speed ECM Direct Drive
208/220/230/240V 3Phase
Supply Motor - 0.50 Hp ECM - Multi-Speed Direct Drive
108K A.S. (Single Stage)
Non-Hinged Doors Factory Installed
Environ Condenser Coil System Factory Installed
2" MERV4 - Std. Filter Factory Installed

Field Installed Accessories

Catalog Number	Qty	Description
15D20	1	Manual OAD Field Installed

Product Features

Cabinet

Durable Outdoor Enamel Paint Finish
Totally Enclosed Outdoor Fan Motor
PVC Coated Fan Guard
Corrosion-Resistant Drain Pan
Isolated Compressor Compartment

Cooling System

Scroll Compressor
High Capacity Driers
Crankcase Heater
System can operate from 35°F to 125°F without any additional controls
Pre-charged Refrigeration System
Internal Pressure Relief Valve

Heating System

Redundant Automatic Gas Valve with Manual Shut-off
Electronic Flame Sensor
Direct Spark Ignition
Inshot Burners
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

Compliance

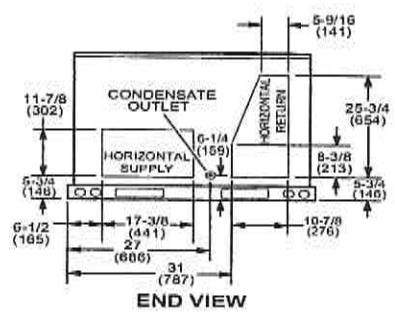
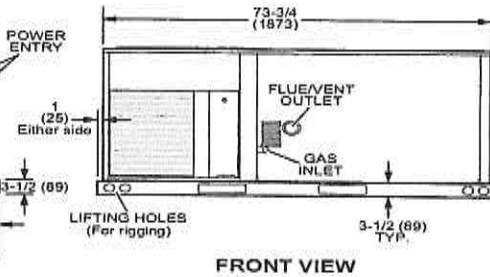
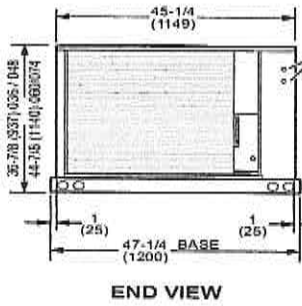
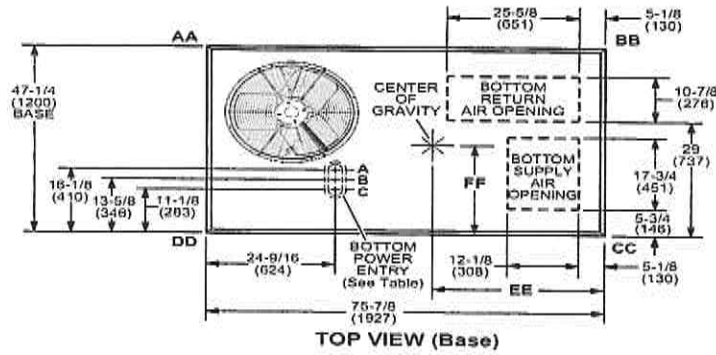
Components are Bonded for Grounding
Factory Test Operated
All models are ASHRAE 90.1-2019 energy efficiency compliant and meet or exceed requirements of Section 6.8
All models meet DOE 2018 and 2023 energy efficiency standards
ISO 9001 Registered Manufacturing Quality System

Warranty

Limited warranty on aluminized heat exchanger of 10 years
Limited warranty on compressor of 5 years
Limited warranty on Environ Coil System of 3 years
Limited warranty on all other components of 1 year
See Limited Warranty Certificate included with unit for details

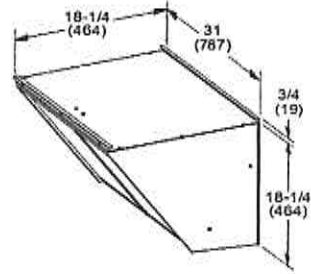
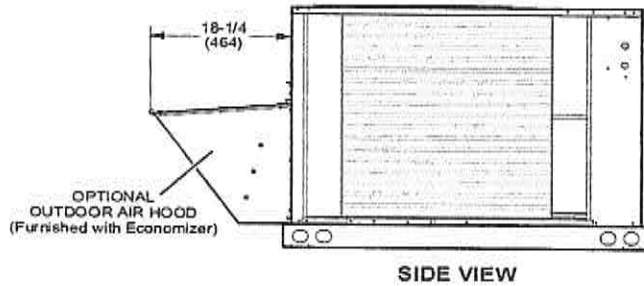


Corner Weights (lb)								Center of Gravity (in.)			
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
129	147	124	141	133	150	138	156	38.75	36.75	22.75	24.50

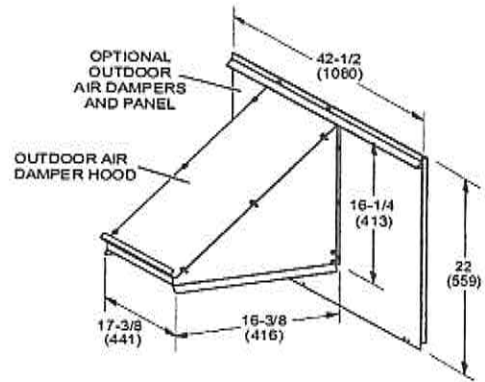
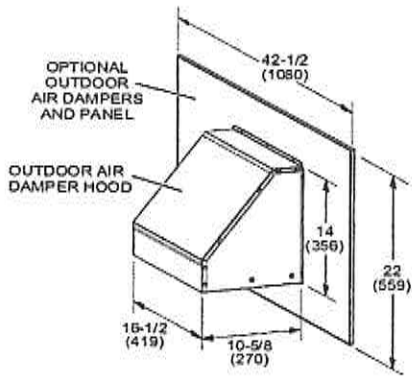
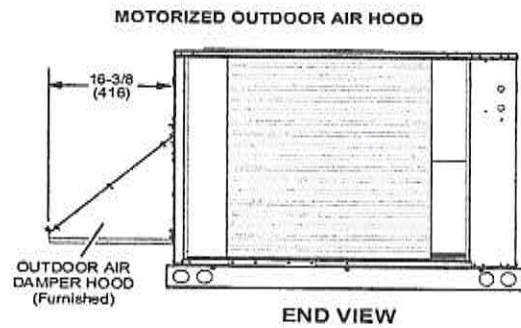
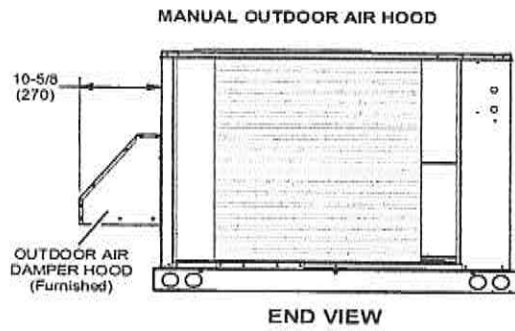




**OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER
(Downflow Applications)**



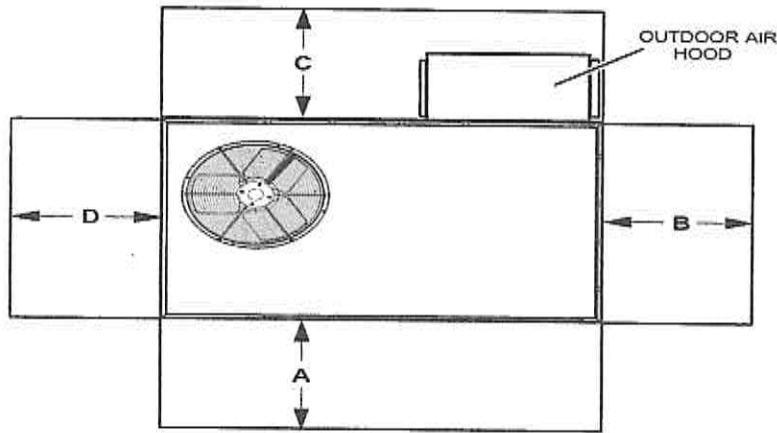
OUTDOOR AIR DAMPER HOOD DETAIL (Downflow or Horizontal Applications)



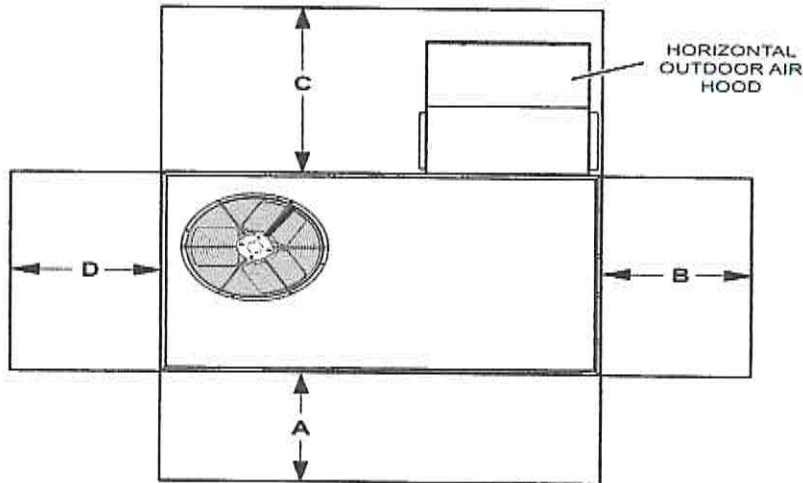


UNIT CLEARANCES

UNIT WITH DOWNFLOW ECONOMIZER



UNIT WITH HORIZONTAL ECONOMIZER



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

Minimum Operation Clearance - Required clearance for proper unit operation.