



Lennox National Accounts Project Submittal

Project Name: Pick N Save #PS365 -Milwaukee, WI
Project Number: 462185
Project Altitude: 500
Project Location:
5700 W Capitol Dr
Milwaukee, Wisconsin US

Date: 6/27/2023
Quote: 354164
Roof Top Units: 2
Split Systems: 0

Customer: KPS LLC
National Account: Kroger Co

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|----------------------------|-----|-----------|------------------------------|
| <u>20 TON RTU</u> | 1 | LGM240U4M | LGM240U4M-G 20T CONF E=12 |
| <u>7.5 TON RTU</u> | 1 | LGM092U4E | LGM092U4E-G 7.5T CONF E=12.6 |
| <u>Miscellaneous Items</u> | | | |

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Tag: 20 TON RTU
Model: LGM240U4M - LGM240U4M-G 20T CONF E=12

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 | 18.4 12 | 45 / 50 | 251.7 / 193.8 | 237.2 / 179.3 | 8,000 | 0.50 / 1.01 | 80.0 / 67.0 | 56.6 / 56.5 |

COOLING

| Cooling Performance | | Temperatures (DB/WB °F) | |
|--------------------------|-------------------|-------------------------|------|
| Gross Cooling (Ttl/Sens) | 251.7 / 193.8 MBH | Ambient | 95.0 |
| Net Cooling (Ttl/Sens) | 237.2 / 179.3 MBH | Entering | 80.0 |
| Coil Moisture Removal | 54.56 lb/hr | Leaving - (Coil) | 56.6 |
| System Moisture Removal | 54.56 lb/hr | Leaving - (Unit) | 58.3 |
| | | | 57.2 |

| ARI Performance | | Compressors | | Refrigerant | | Condensate Drain | |
|-----------------|-------------------|----------------|----------|-------------|---------------|------------------|-------|
| ARI Cooling | 235.0 / 228.0 MBH | Cooling Stages | | Type | R-410A | Qty | 1 |
| ARI Power | 19,000 W | Compressor Qty | 4 | Charge | 49 LBS. 3 OZ. | Size | 1 in. |
| | | Compressor RLA | 26.7 amp | | | Pipe Thread | FPT |

HEATING

| Heating Performance | | Temperatures (DB/WB °F) | | Specifications | |
|---------------------|-------------------|-------------------------|------|--------------------|---------|
| Output (High/Low) | 384.0 / 249.6 MBH | Leaving | 44.4 | Heat Stages | 2 |
| Input (High/Low) | 480.0 / 312.0 MBH | | | Thermal Efficiency | 81.0% |
| Heat Rise | 44.4 °F | | | Gas Line Size | 1 in. |
| | | | | Gas Pressure | 7 in.WC |

VENTILATION

| Air Flow (cfm) | | Supply Fan | | Air Resistance (in.WC) | |
|----------------|-------|----------------|-----------------|------------------------|------|
| Supply | 8,000 | Nominal Power | 5.00 hp | Total | 1.01 |
| | | Required Power | 4.98 hp | Ext Supply | 0.50 |
| | | Drive Type | MSAV Belt Drive | | |
| | | RPM Range | 850 - 1,045 rpm | | |
| | | Required RPM | 933 rpm | | |

AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

| Wet Coil | Humiditrol | Heat | Economizer | Filters | Diffuser | Exhaust | ERW |
|----------|------------|------|------------|---------|----------|---------|-----|
| 0.13 | | 0.24 | 0.09 | 0.05 | | | |

ELECTRICAL

| | | | |
|---------------------|-----------------|-------------------|----------|
| Voltage | 460V 3Ph / 60Hz | Compressor RLA | 26.7 amp |
| MCA | 45 amp | Cooling FLA Total | 42.7 amp |
| MOCP | 50 amp | Condenser FLA | 8.4 amp |
| Condenser Power | 1530 W | Supply Fan FLA | 7.6 amp |
| Oper Range-Nom Volt | +/- 10% | | |

ADDITIONAL DATA

| | | | |
|-----------------|------------------------------------|----------------------|----------|
| Cabinet | 132.62 in. x 91.12 in. x 54.25 in. | Total Weight | 3,286 lb |
| Downflow Supply | 20.0 in. x 28.0 in. | Base Unit Net Weight | 2,960 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. | Gas Heat Weight | 64 lb |
| Sound Rating | 90 dBA | | |



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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
- 80Amp 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 (Fac)
- 480K A.S. (Dual Stage)
- Combination Coil/Hail Guards Factory Installed
- 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
- 2" MERV8 - 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

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
- Return Air Sensor Factory Installed
- Outdoor Air Sensor Factory Installed
- Factory Installed Discharge Air Sensor

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

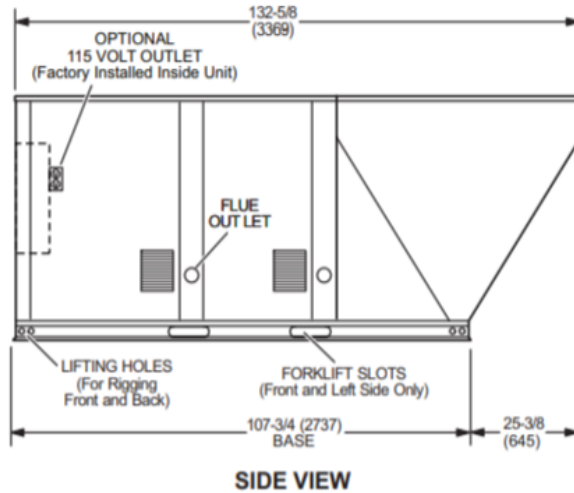
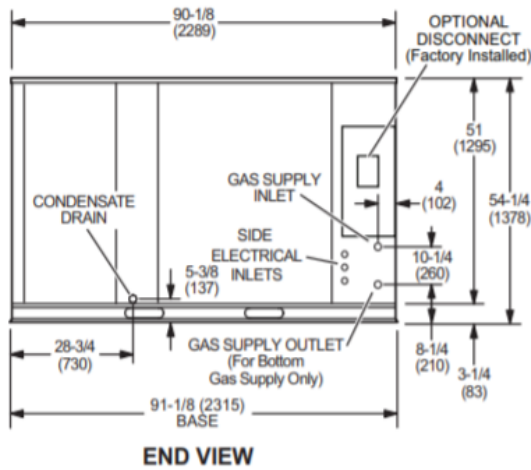
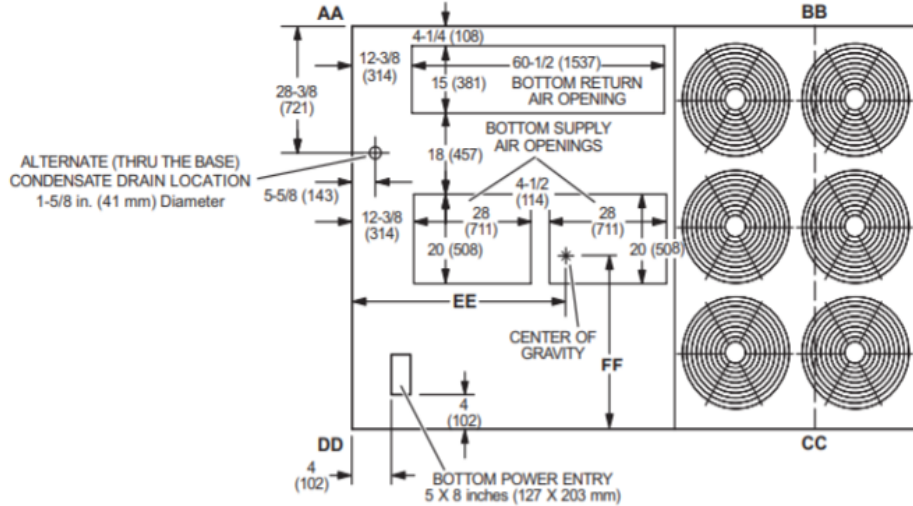
Warranty

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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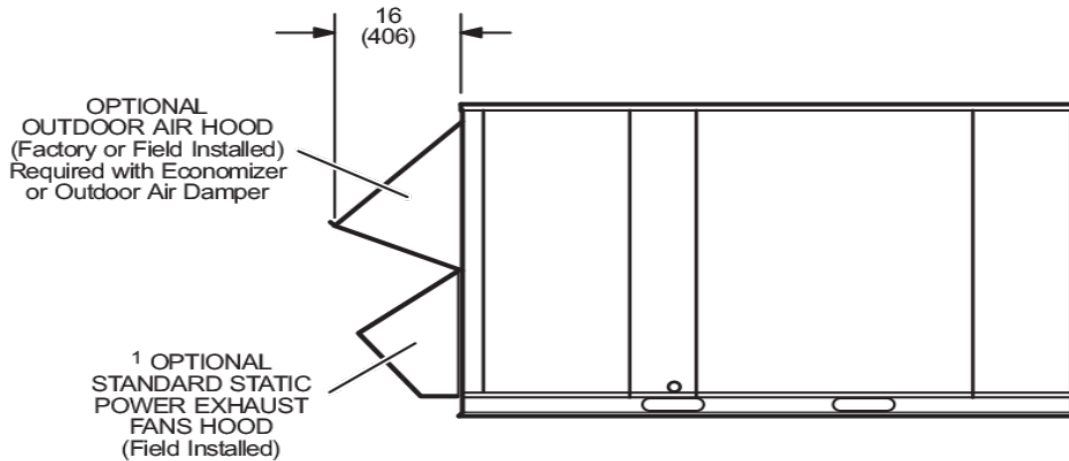
| Corner Weights (lb) | | | | | | Center of Gravity (in.) | | | | | |
|---------------------|-----|------|-----|------|-----|-------------------------|-----|-------|-------|-------|-------|
| AA | | BB | | CC | | DD | | EE | | FF | |
| Base | Max | Base | Max | Base | Max | Base | Max | Base | Max | Base | Max |
| 505 | 623 | 505 | 601 | 710 | 756 | 710 | 785 | 52.75 | 53.75 | 38.00 | 40.50 |





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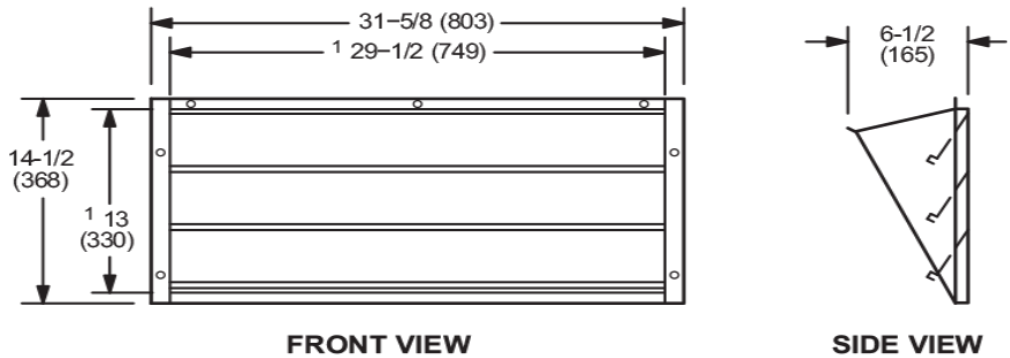
OPTIONAL OUTDOOR AIR HOOD DETAIL WITH STANDARD STATIC POWER EXHAUST FANS



1 Field Installed in Return Air Duct for Horizontal Applications.

HORIZONTAL BAROMETRIC RELIEF DAMPERS

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



NOTE - Two furnished per order no.

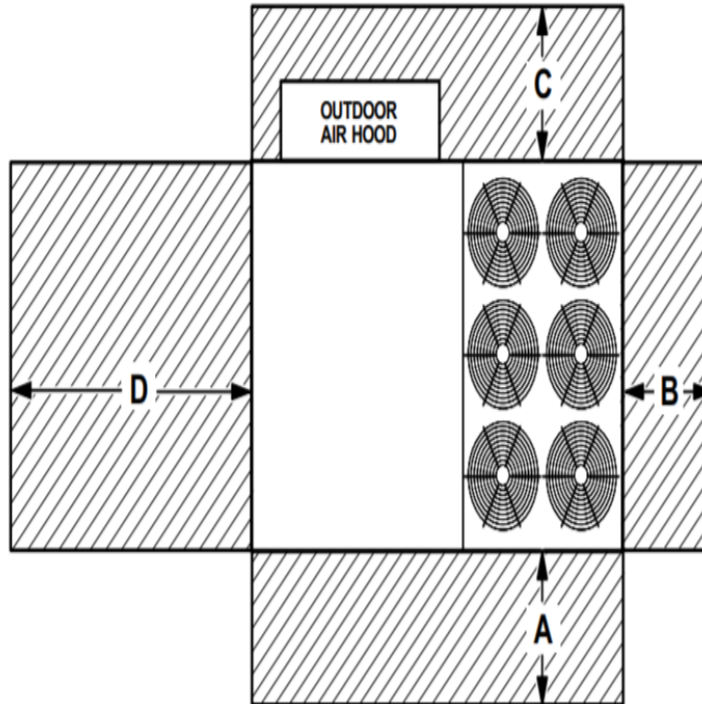
1 NOTE - Opening size required in return air duct.



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UNIT CLEARANCES

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 | 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.



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Tag: 7.5 TON RTU
Model: LGM092U4E - LGM092U4E-G 7.5T 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) |
|------------------|-------------|-------------------|------------------------------------|----------------------------------|-----------------------------|--------------------|----------------------|----------------------|
| 460V 3Ph 60Hz | 22 12.6 | 20 / 25 | 91.1 / 68.0 | 87.3 / 64.2 | 3,000 | 0.50 / 0.88 | 80.0 / 67.0 | 58.1 / 57.0 |

COOLING

| Cooling Performance | | Temperatures (DB/WB °F) | |
|--------------------------|-----------------|-------------------------|------|
| Gross Cooling (Ttl/Sens) | 91.1 / 68.0 MBH | Ambient | 95.0 |
| Net Cooling (Ttl/Sens) | 87.3 / 64.2 MBH | Entering | 80.0 |
| Coil Moisture Removal | 21.81 lb/hr | Leaving - (Coil) | 58.1 |
| System Moisture Removal | 21.81 lb/hr | Leaving - (Unit) | 59.3 |
| | | | 57.4 |

| ARI Performance | | Compressors | | Refrigerant | | Condensate Drain | |
|-----------------|-----------------|----------------|----------|-------------|---------------|------------------|-------|
| ARI Cooling | 90.5 / 86.0 MBH | Cooling Stages | | Type | R-410A | Qty | 1 |
| ARI Power | 7,200 W | Compressor Qty | 2 | Charge | 23 LBS. 8 OZ. | Size | 1 in. |
| | | Compressor RLA | 10.1 amp | | | Pipe Thread | npt |

HEATING

| Heating Performance | | Temperatures (DB/WB °F) | | Specifications | |
|---------------------|-------------------|-------------------------|------|--------------------|----------|
| Output (High/Low) | 192.0 / 124.8 MBH | Leaving | 59.3 | Heat Stages | 2 |
| Input (High/Low) | 240.0 / 156.0 MBH | | | Thermal Efficiency | 81.0% |
| Heat Rise | 59.3 °F | | | Gas Line Size | 0.75 in. |
| | | | | Gas Pressure | 7 in.WC |

VENTILATION

| Air Flow (cfm) | | Supply Fan | | Air Resistance (in.WC) | |
|----------------|-------|----------------|-------------------|------------------------|------|
| Supply | 3,000 | Nominal Power | 3.75 hp | Total | 0.88 |
| | 0 | Required Power | 1.21 hp | Ext Supply | 0.50 |
| | | Drive Type | MSAV Direct Drive | | |
| | | Required Watts | 899 W | | |

AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

| Wet Coil | Humiditrol | Heat | Economizer | Filters | Diffuser | Exhaust | ERW |
|----------|------------|------|------------|---------|----------|---------|-----|
| 0.10 | | 0.13 | 0.13 | 0.02 | | | |

ELECTRICAL

| | | | |
|---------------------|-----------------|-------------------|----------|
| Voltage | 460V 3Ph / 60Hz | Compressor RLA | 10.1 amp |
| MCA | 20 amp | Cooling FLA Total | 17.2 amp |
| MOCP | 25 amp | Condenser FLA | 2.8 amp |
| Condenser Power | 450 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 | 1,411 lb |
| Downflow Supply | 20.0 in. x 28.0 in. | Base Unit Net Weight | 1,253 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. | Gas Heat Weight | 32 lb |
| Sound Rating | 81 dBA | | |



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Tag: 7.5 TON RTU

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)
240K A.S. (Dual Stage)
Combination Coil/Hail Guards Factory Installed
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
2" MERV8 - 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

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
Return Air Sensor Factory Installed
Outdoor Air Sensor Factory Installed
Factory Installed Discharge Air Sensor

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
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



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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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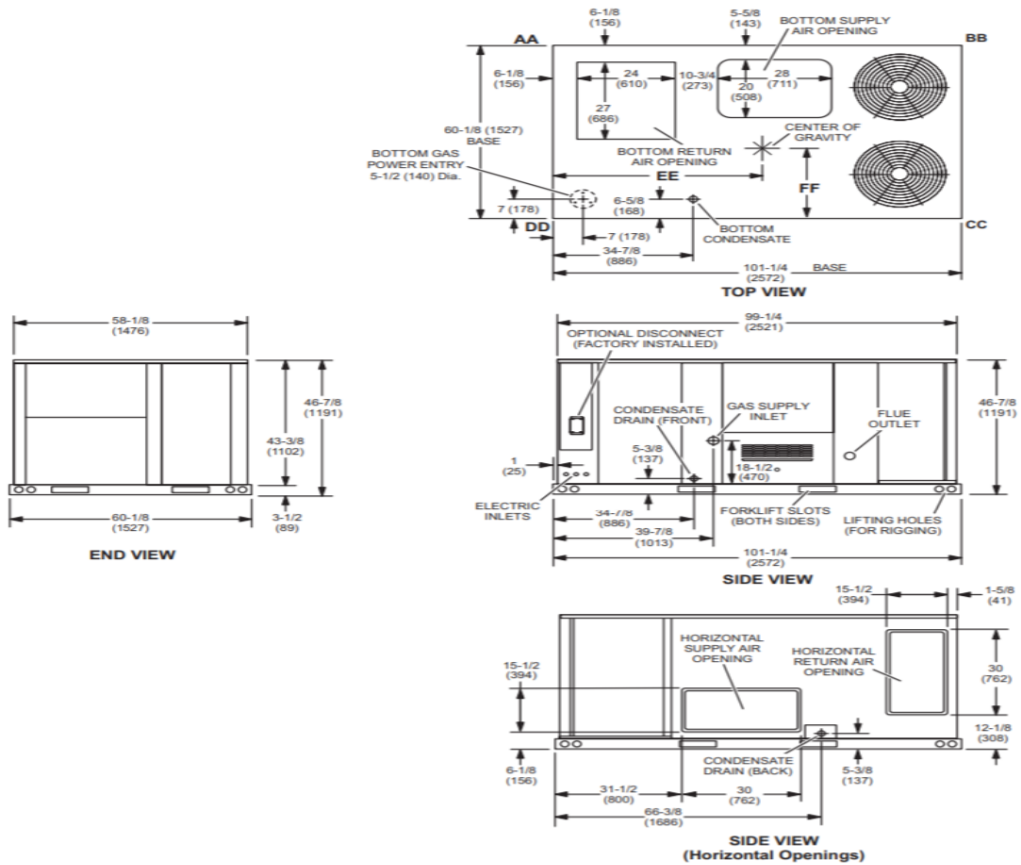
| Corner Weights (lb) | | | | | | | | Center of Gravity (in.) | | | |
|---------------------|-----|------|-----|------|-----|------|-----|-------------------------|-------|-------|-------|
| AA | | BB | | CC | | DD | | EE | | FF | |
| Base | Max | Base | Max | Base | Max | Base | Max | Base | Max | Base | Max |
| 308 | 363 | 223 | 254 | 306 | 327 | 423 | 467 | 51.25 | 52.25 | 25.25 | 26.25 |

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.

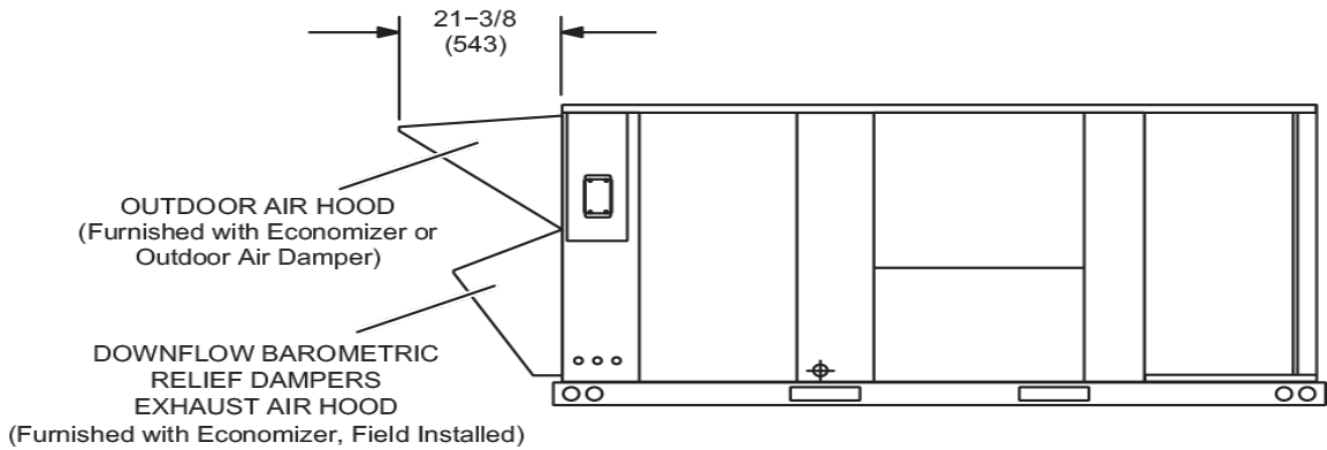
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit or high static power exhaust.





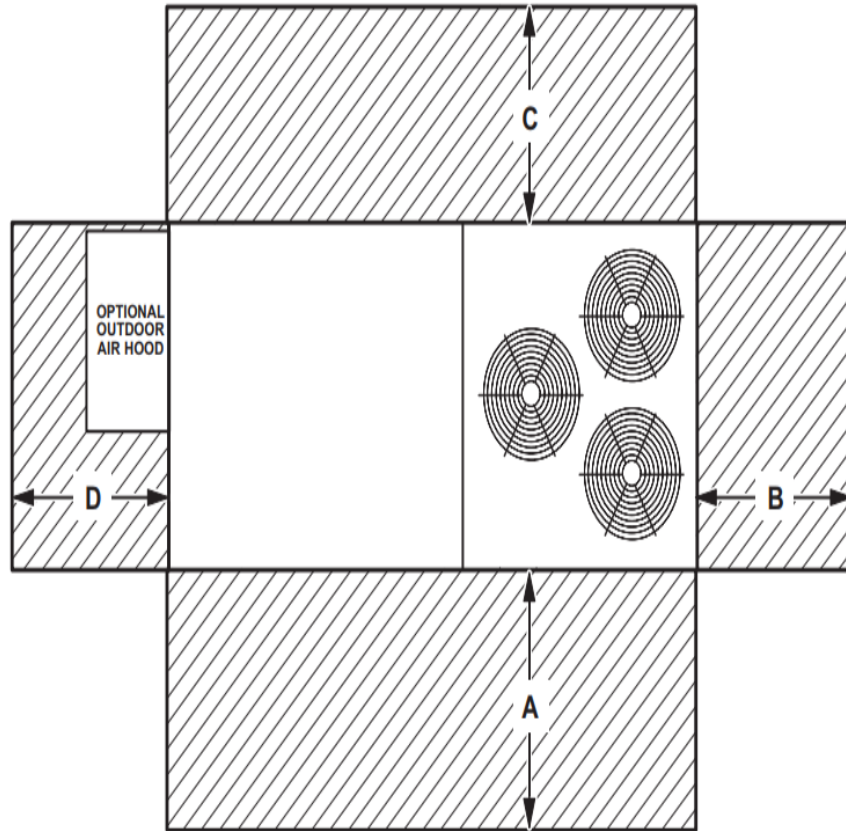
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OUTDOOR AIR HOOD DETAIL





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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 |
|--------------|----------------|-----|---------------------------------------|
| CURB ADAPTER | | | |
| | 15T17 | 1 | C1ACURB40B YSC/TSC/WSC072~120A,E TO B |
| | 83W56 | 1 | C1ACURB40C YCD181C,240B TO C |