# Project Submittal

**Project Name:** Albuquerque CDJ #3
**Project Number:** 453271
**Project Altitude:** 500
**Project Location:**
Albuquerque, New Mexico US

**Customer:** Metro AC Co

**Date: 6/7/2023**
**Quote:** 346395
**Roof Top Units:** 6
**Split Systems:** 0

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AutoCAD® Templates - Click here

# Project Submittal

**Tag:** RTU-B RTU-1

**Model:** KGC180S4M - KGC180S4M 260k 3hp LLEnth ENV

## UNIT OVERVIEW

| Voltage | IEER<br>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<br>10.8 | 30 / 35 | 157.8 / 101.8 | 149.6 / 93.6 | 6,000 | 0.75 / 0.85 | 80.0 / 67.0 | 60.4 / 57.9 |

## COOLING

| Cooling Performance | | Temperatures (DB/WB °F) | | |
|---|---|---|---|---|
| Gross Cooling (Ttl/Sens) | 157.8 / 101.8 MBH | Ambient | 96.0 | 60.0 |
| Net Cooling (Ttl/Sens) | 149.6 / 93.6 MBH | Entering | 80.0 | 67.0 |
| Coil Moisture Removal | 52.82 lb/hr | Leaving – (Coil) | 60.4 | 57.9 |
| System Moisture Removal | 52.82 lb/hr | Leaving – (Unit) | 62.0 | 58.5 |

| ARI Performance | | Compressors | | Refrigerant | | Condensate Drain | |
|---|---|---|---|---|---|---|---|
| ARI Cooling | 182.0 / 176.0 MBH | Cooling Stages | 2 | Type | R-410A | Qty | 1 |
| ARI Power | 16,300 W | Compressor Qty | 3 | Charge | 17 LBS. 6 OZ. | Size | 1 in. |
| | | Compressor RLA | 18.9 amp | | | Pipe Thread | npt |

## HEATING

| Heating Performance | | Temperatures (DB/WB °F) | | Specifications | |
|---|---|---|---|---|---|
| Output (High/Low) | 210.0 / 136.9 MBH | Leaving | 32.4 | Heat Stages | 2 |
| Input (High/Low) | 260.0 / 169.0 MBH | | | Thermal Efficiency | 81.0% |
| Heat Rise | 32.4 °F | | | Gas Line Size | 1 in. |
| | | | | Gas Pressure | 7 in.WC |

## VENTILATION

| Air Flow (cfm) | | Supply Fan | | Air Resistance (in.WC) | |
|---|---|---|---|---|---|
| Supply | 6,000 | Nominal Power | 3.00 hp | Total | 0.85 |
| Outdoor | 600 | Required Power | 2.71 hp | Ext Supply | 0.75 |
| | | Drive Type | MSAV Belt Drive | | |
| | | RPM Range | 710 - 965 rpm | | |
| | | Required RPM | 801 rpm | | |

## AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

| Wet Coil | Humiditrol | Heat | Economizer | Filters | Diffuser | Exhaust | ERW |
|---|---|---|---|---|---|---|---|
| 0.03 | | 0.07 | | | | | |

## ELECTRICAL

| | | | |
|---|---|---|---|
| Voltage | 460V 3Ph / 60Hz | Compressor RLA | 18.9 amp |
| MCA | 30 amp | Cooling FLA Total | 27.6 amp |
| MOCP | 35 amp | Condenser FLA | 3.9 amp |
| Condenser Power | 1100 W | Supply Fan FLA | 4.8 amp |
| Oper Range-Nom Volt | +/- 10% | | |

## ADDITIONAL DATA

| | | | |
|---|---|---|---|
| Cabinet | 107.75 in. x 91.12 in. x 54.25 in. | Total Weight | 2,233 lb |
| Downflow Supply | 20.0 in. x 28.0 in. | Base Unit Net Weight | 1,855 lb |
| Downflow Return | 15.0 in. x 60.5 in. | OAS/Econ Weight | 86 lb |
| Filters | **(6)** 24.0 in. x 24.0 in. x 2.0 in. | Curb Weight | 262 lb |
| Sound Rating | 86 dBA | | |

**Tag:** RTU-B

## Factory Installed Options

High Performance Economizer Upgrade Factory Installed
Single Enthalpy Economizer
Belt Drive
Unit Orientation Downflow
Supply Fan: Multi-Stage Air Volume Belt
440V/460V/480V 3Phase
175 Amp Terminal Block Factory Installed
Supply Motor - 3.0 Hp Std- w/ MSAV
Supply Drive Kit 2 (710-965 RPM)
Barometric Relief Damper (Fac)
260K A.S. (Dual Stage)
Non-Hinged Doors Factory Installed
Environ Condenser Coil System Factory Installed
Phase Monitor Factory Installed (Standard)

## Field Installed Accessories

| Catalog Number | Qty | Description |
|---|---|---|
| 43W26 | 1 | 14" Downflow Adj Pitch Curb Field Installed |
| 23U69 | 1 | Combination Coil/Hail Guards Field Installed |
| 54W91 | 1 | 80Amp Disconnect Field Installed |
| 74M70 | 1 | 15A GFCI Field Installed Field Wired |
| EE131 | 1 | 1LCWty, GEPKG31ST~1YR LABOR<=15T |

## Product Features

### Cabinet

Durable Outdoor Enamel Paint Finish
Totally Enclosed Outdoor Fan Motor
PVC Coated Fan Guard
Isolated Compressor Compartment

### Cooling System

Scroll Compressor
High Capacity Driers
Crankcase Heater
System can operate from 30°F to 125°F without any additional controls
Pre-charged Refrigeration System
Internal Pressure Relief Valve
Thermostat Control – 2 Stages of Cooling
Building Automation Integrated Control - Up to 3 Stages of Cooling

### Heating System

Redundant Automatic Gas Valve with Manual Shut-off
Electronic Flame Sensor
Direct Spark Ignition
Aluminized Steel 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

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
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

| 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 |
| 426 | 541 | 378 | 452 | 508 | 551 | 572 | 659 | 50.67 | 48.50 | 38.88 | 41.00 |

## DIMENSIONS - UNIT

KGC180 | KGC210

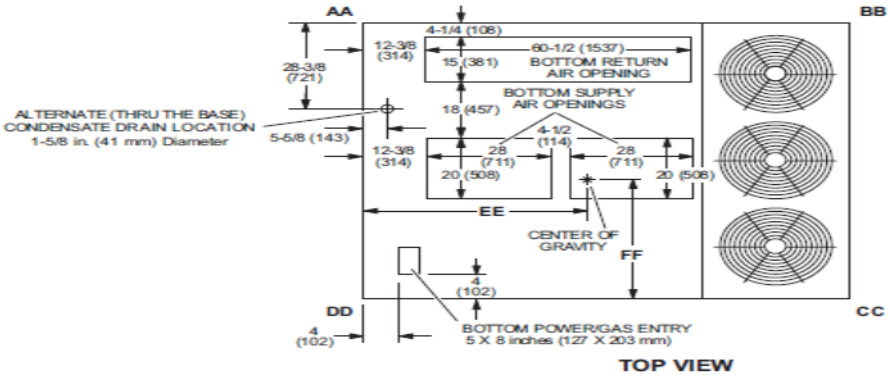
CORNER WEIGHTS

CENTER OF GRAVITY

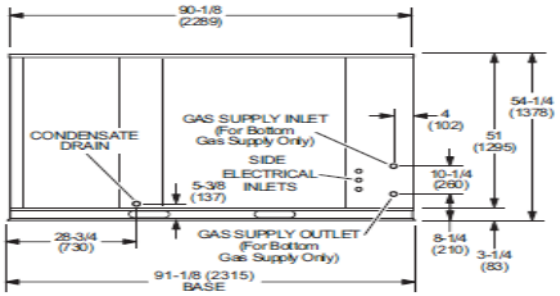
| Model No. | AA | | BB | | CC | | DD | | EE | | FF | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | in. | mm | in. | mm |
| KGC180S Base Unit (Environ™ Coil) | 423 | 192 | 365 | 166 | 495 | 225 | 574 | 260 | 50 | 1270 | 38 3/4 | 984 |
| KGC180S Max. Unit (Environ™ Coil) | 542 | 246 | 441 | 200 | 536 | 243 | 657 | 298 | 48 1/2 | 1232 | 41 | 1041 |
| KGC180S Base Unit (Fin/Tube Coil) | 426 | 193 | 395 | 179 | 525 | 239 | 577 | 261 | 49 | 1245 | 39 3/4 | 1010 |
| KGC180S Max. Unit (Fin/Tube Coil) | 544 | 247 | 471 | 213 | 566 | 256 | 659 | 299 | 48 1/4 | 1226 | 42 3/4 | 1086 |
| KGC210S Base Unit (Environ™ Coil) | 462 | 210 | 387 | 176 | 509 | 231 | 608 | 276 | 49 1/4 | 1251 | 39 1/4 | 997 |
| KGC210S Max. Unit (Environ™ Coil) | 587 | 266 | 465 | 211 | 550 | 249 | 694 | 315 | 47 3/4 | 1213 | 41 3/4 | 1060 |
| KGC210S Base Unit (Fin/Tube Coil) | 465 | 211 | 417 | 189 | 539 | 245 | 611 | 277 | 49 | 1245 | 39 3/4 | 1010 |
| KGC210S Max. Unit (Fin/Tube Coil) | 589 | 267 | 495 | 224 | 580 | 262 | 696 | 316 | 48 1/4 | 1226 | 42 3/4 | 1086 |

Base Unit - The unit with NO INTERNAL OPTIONS.

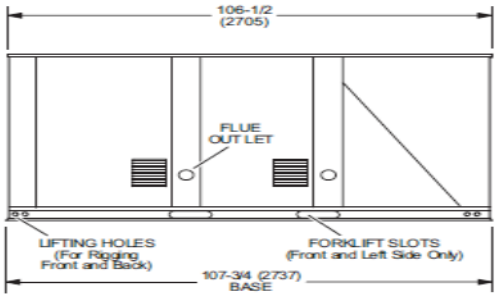
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit.




TOP VIEW

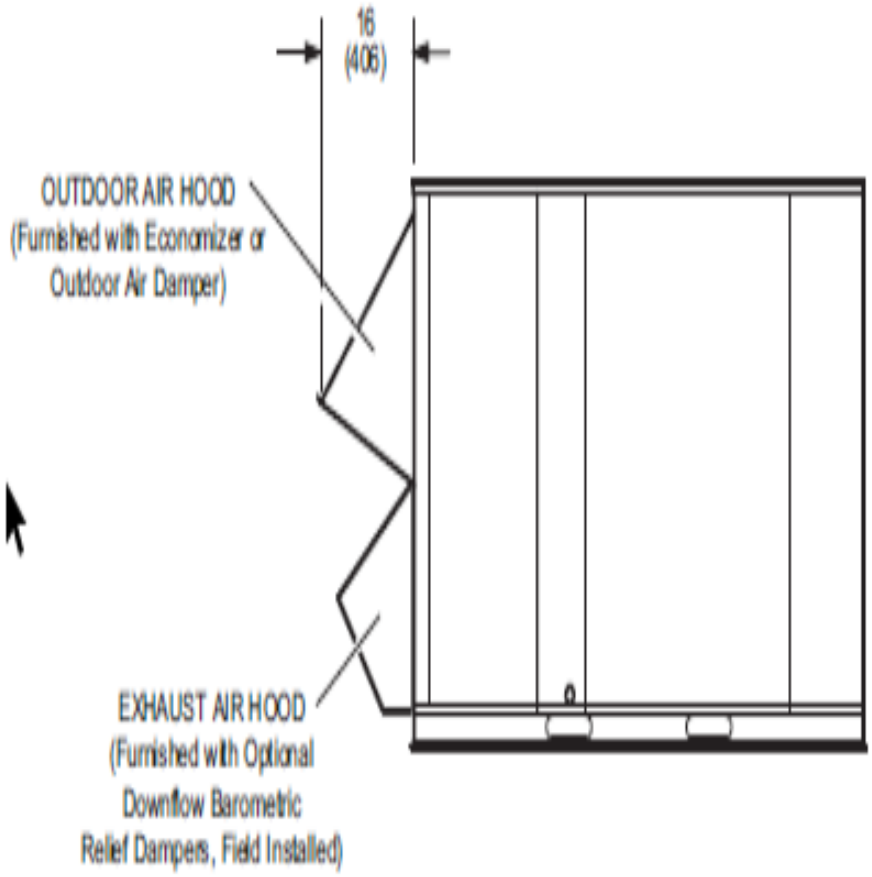



END VIEW

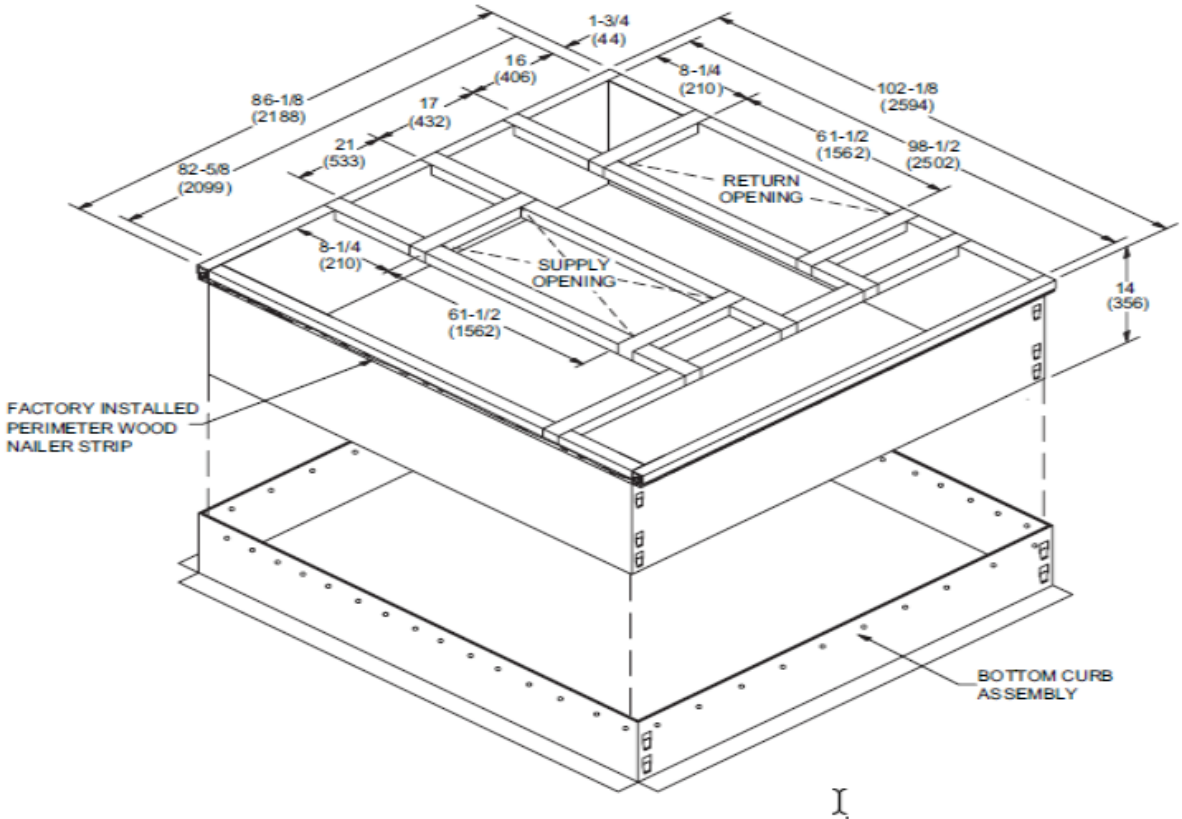



SIDE VIEW

## OUTDOOR AIR HOOD DETAIL

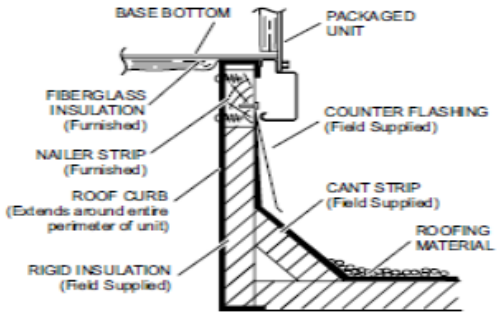


## ADJUSTABLE PITCH CURB - DOUBLE DUCT OPENING

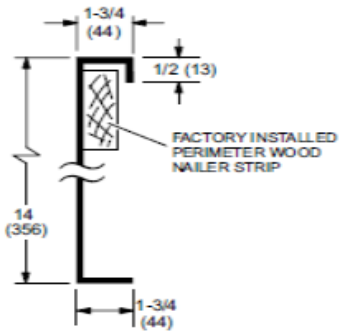



NOTE - Maximum slope pitch is 3/4 in. per 1 foot (19 mm per 305 mm) in any one direction.

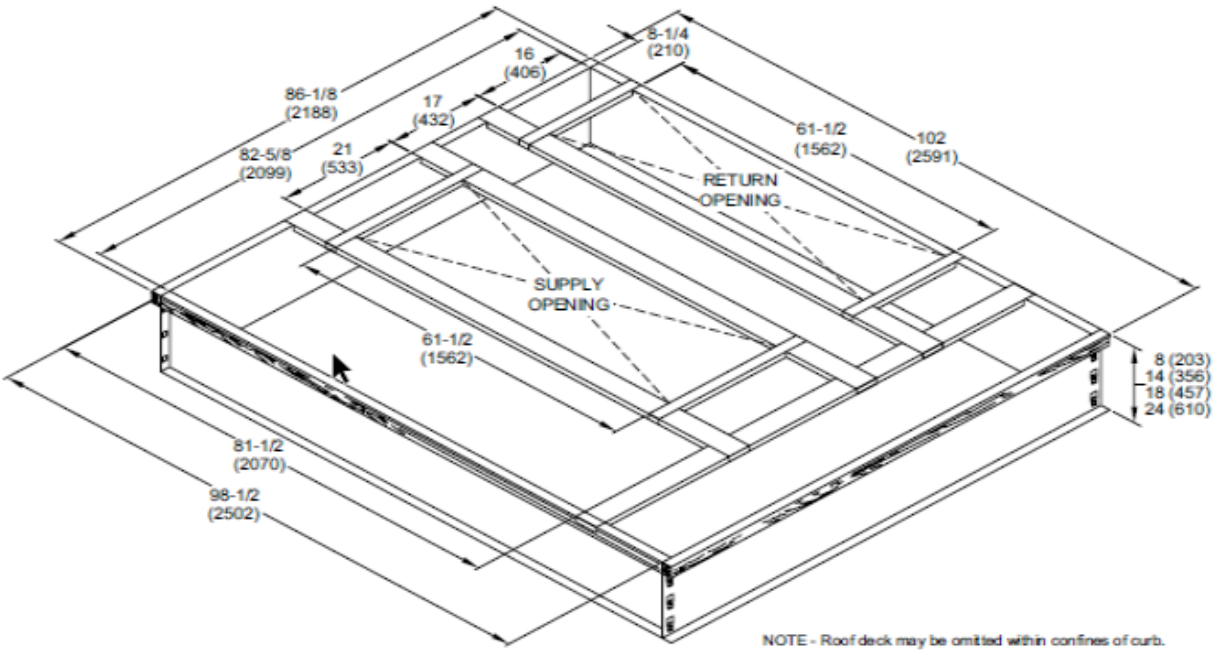
## TYPICAL FLASHING DETAIL FOR ROOF CURB




## DETAIL ROOF CURB

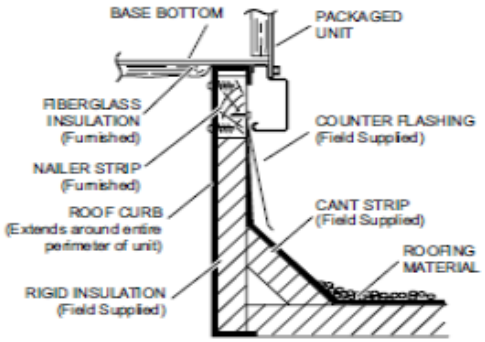


## HYBRID ROOF CURBS - DOUBLE DUCT OPENING

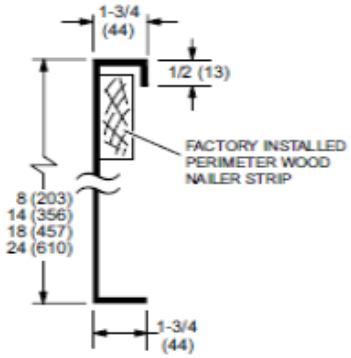



NOTE - Roof deck may be omitted within confines of curb.

### TYPICAL FLASHING DETAIL FOR ROOF CURB

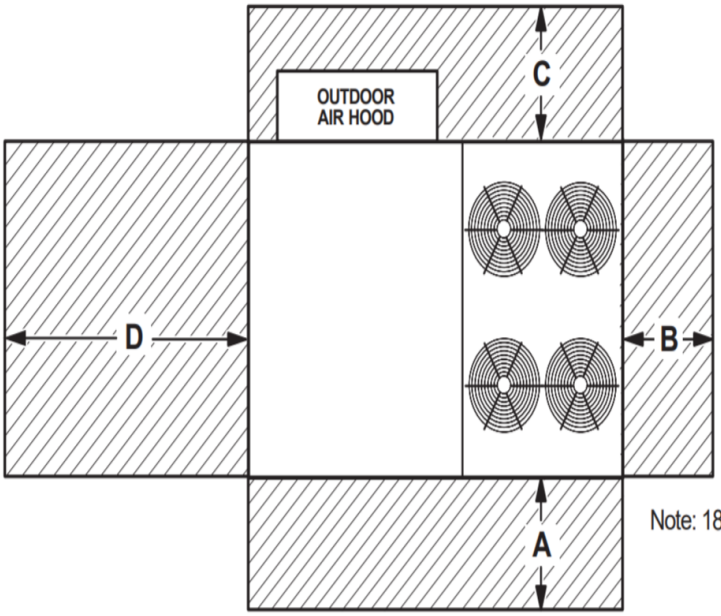



### DETAIL ROOF CURB



## UNIT CLEARANCES

### Unit With Economizer




Note: 180H, 240S, 300S sizes shown

| [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.

# Project Submittal

**Tag:** 7.5 ton cooling
**Model:** KCC092S4M - KCC092S4M 2hp LLEnth ENV

## UNIT OVERVIEW

| Voltage | IEER<br>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 | 14.8<br>11.2 | 20 / 25 | 84.5 / 57.5 | 82.0 / 55.1 | 3,000 | 0.50 / 0.73 | 80.0 / 67.0 | 57.9 / 57.2 |

## COOLING

| Cooling Performance | | Temperatures (DB/WB °F) | | |
|---|---|---|---|---|
| Gross Cooling (Ttl/Sens) | 84.5 / 57.5 MBH | Ambient | 99.0 | |
| Net Cooling (Ttl/Sens) | 82.0 / 55.1 MBH | Entering | 80.0 | 67.0 |
| Coil Moisture Removal | 25.39 lb/hr | Leaving – (Coil) | 57.9 | 57.2 |
| System Moisture Removal | 25.39 lb/hr | Leaving – (Unit) | 58.8 | 57.5 |

| ARI Performance | | Compressors | | Refrigerant | | Condensate Drain | |
|---|---|---|---|---|---|---|---|
| ARI Cooling | 87.8 / 86.0 MBH | Cooling Stages | 3 | Type | R-410A | Qty | 2 |
| ARI Power | 7,700 W | Compressor Qty | 2 | Charge | 9 LBS. 14 OZ. | Size | 1 in. |
| | | Compressor RLA | 26.2 amp | | | Pipe Thread | npt |

## VENTILATION

| Air Flow (cfm) | | Supply Fan | | Air Resistance (in.WC) | |
|---|---|---|---|---|---|
| Supply | 3,000 | Nominal Power | 2.00 hp | Total | 0.73 |
| | | Required Power | 0.76 hp | Ext Supply | 0.50 |
| | | Drive Type | MSAV Belt Drive | | |
| | | RPM Range | 590 - 890 rpm | | |
| | | Required RPM | 748 rpm | | |

## AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

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

## ELECTRICAL

| | | | |
|---|---|---|---|
| Voltage | 460V 3Ph / 60Hz | Compressor RLA | 26.2 amp |
| MCA | 20 amp | Cooling FLA Total | 34.4 amp |
| MOCP | 25 amp | Condenser FLA | 4.8 amp |
| Condenser Power | 740 W | Supply Fan FLA | 3.4 amp |
| Oper Range-Nom Volt | +/- 10% | | |

## ADDITIONAL DATA

| | | | |
|---|---|---|---|
| Cabinet | 101.25 in. x 60.12 in. x 46.88 in. | Total Weight | 1,152 lb |
| Downflow Supply | 20.0 in. x 28.0 in. | Base Unit Net Weight | 870 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. | Curb Weight | 191 lb |
| Sound Rating | 88 dBA | | |

**Tag:** 7.5 ton cooling

## Factory Installed Options

High Performance Economizer Upgrade Factory Installed
Single Enthalpy Economizer
Belt Drive
Unit Orientation Downflow
Supply Fan: Multi-Stage Air Volume Belt
440V/460V/480V 3Phase
175 Amp Terminal Block Factory Installed
Supply Motor - 2.0 Hp Std- w/ MSAV
Supply Drive Kit 1 (590-890 RPM)
Barometric Relief Damper (Fac)
Non-Hinged Doors Factory Installed
Environ Condenser Coil System Factory Installed
Phase Monitor Factory Installed (Standard)

## Field Installed Accessories

| Catalog Number | Qty | Description |
|---|---|---|
| 54W50 | 2 | 14" Downflow Adj Pitch Curb Field Installed |
| 22J65 | 2 | Combination Coil/Hail Guards Field Installed |
| 54W56 | 2 | 80Amp Disconnect Field Installed |
| 74M70 | 2 | 15A GFCI Field Installed Field Wired |
| EE148 | 2 | 1LCWty, EEPKG31ST~1YR LABOR<=7.5T |

## Product Features

### Cabinet

Durable Outdoor Enamel Paint Finish
Totally Enclosed Outdoor Fan Motor
PVC Coated Fan Guard
Isolated Compressor Compartment

### Cooling System

Scroll Compressor
High Capacity Driers
Crankcase Heater
System can operate from 30°F to 125°F without any additional controls
Pre-charged Refrigeration System
Internal Pressure Relief Valve

### Control System

Fan and Limit Controls
Overload Protection

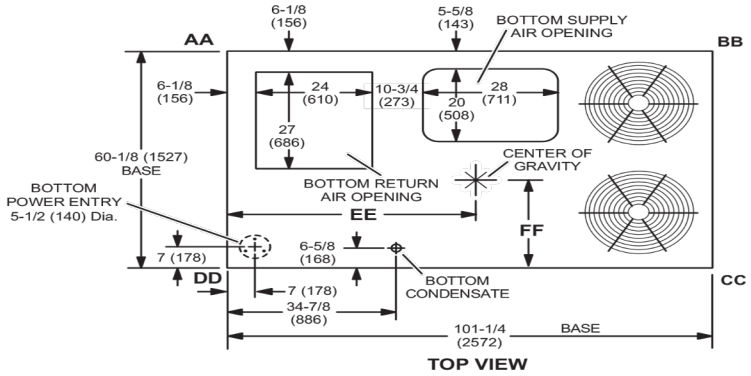
### Compliance

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 California Code of Regulations, Title 24 and ASHRAE 90.1-2016 Section 6.4.3.10 requirements for staged airflow
ISO 9001 Registered Manufacturing Quality System

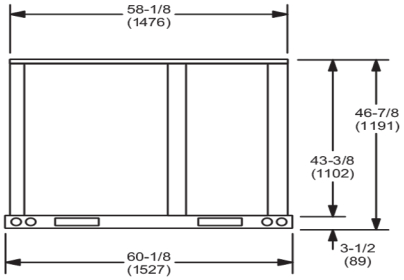
### Warranty

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

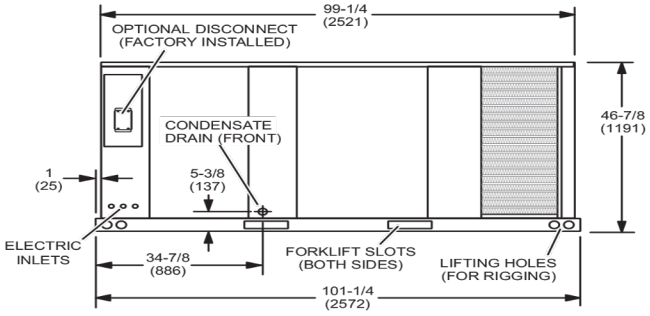
| Corner Weights (lb) | | | | | | | | Center of Gravity (in.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AA | | BB | | CC | | DD | | EE | | FF | |
| Base | Max | Base | Max | Base | Max | Base | Max | Base | Max | Base | Max |
| 223 | 309 | 190 | 259 | 206 | 275 | 250 | 341 | 44.50 | 43.50 | 24.50 | 25.50 |



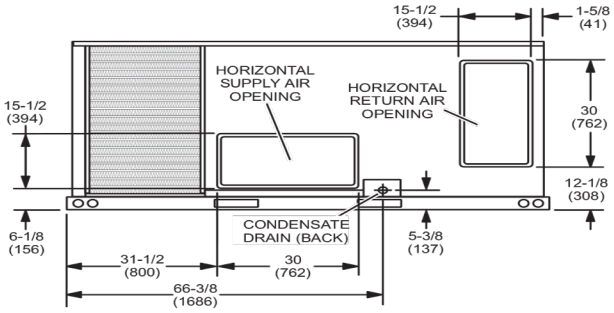

TOP VIEW




END VIEW

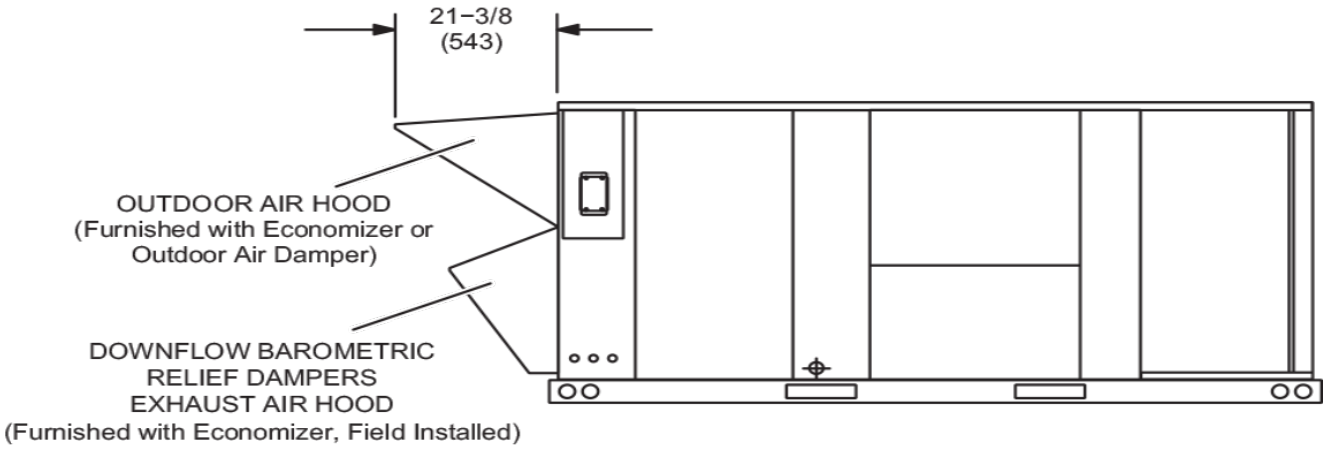



SIDE VIEW

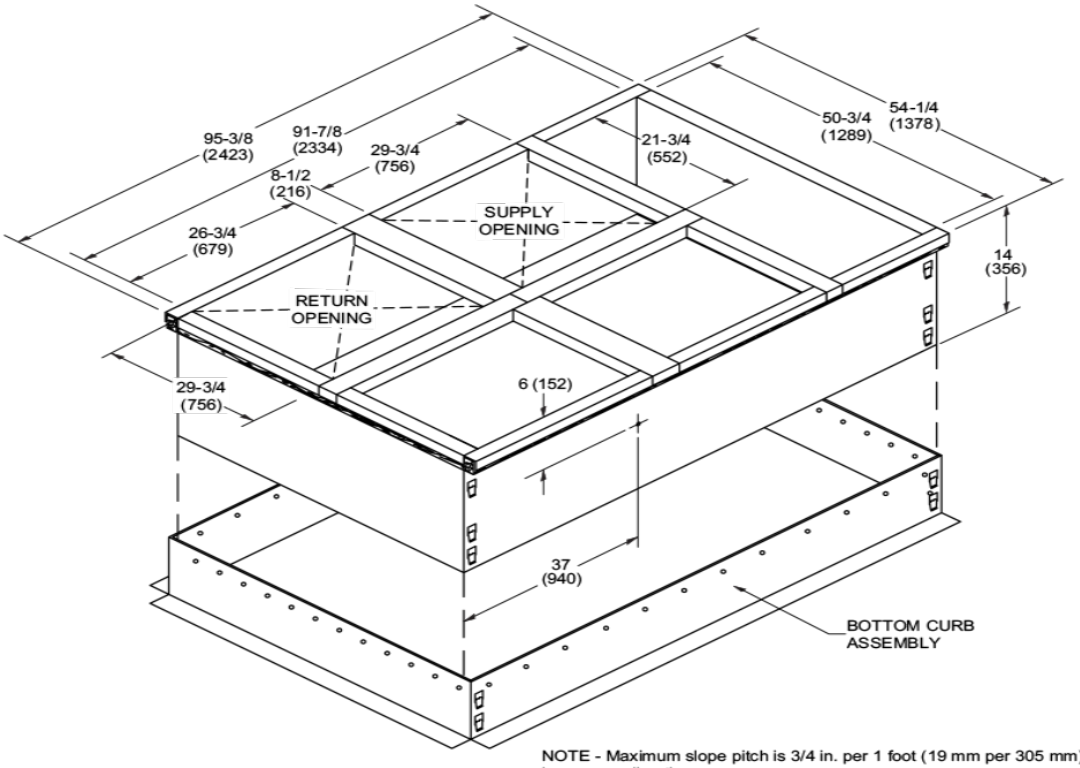



SIDE VIEW
(Horizontal Openings)

## OUTDOOR AIR HOOD DETAIL

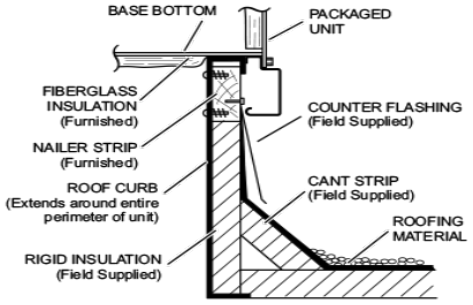


**ADJUSTABLE PITCH CURBS - DOUBLE DUCT OPENING**

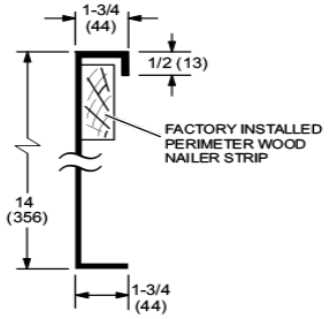



NOTE - Maximum slope pitch is 3/4 in. per 1 foot (19 mm per 305 mm) in any one direction.

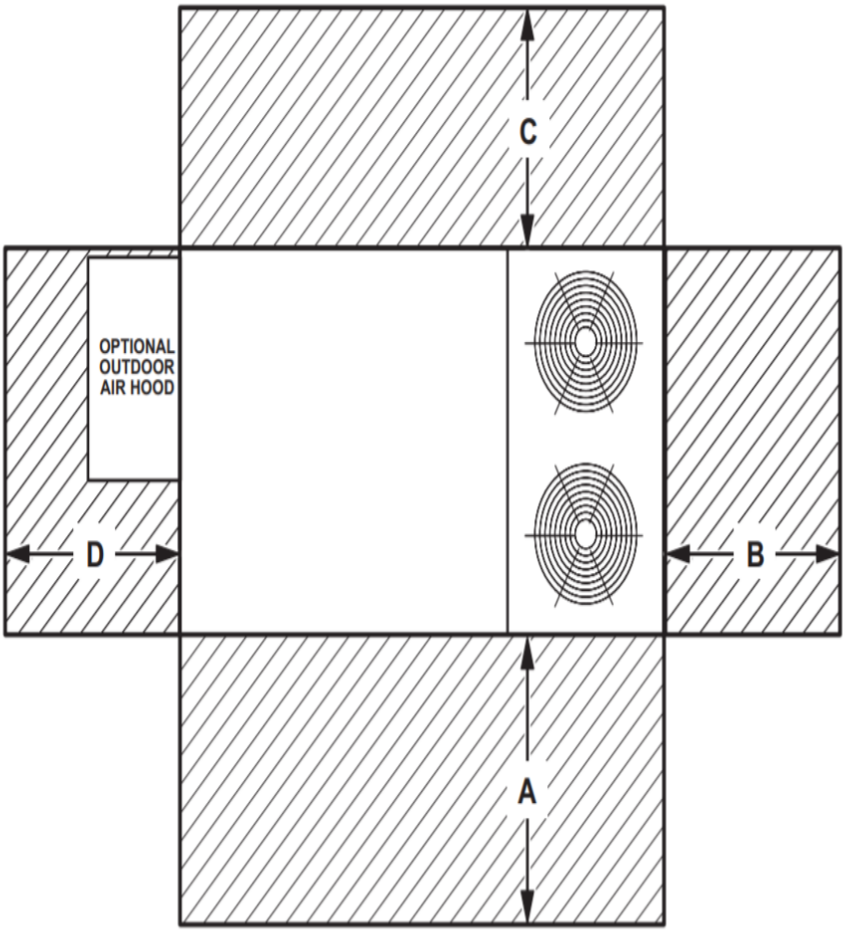
**TYPICAL FLASHING DETAIL FOR ROOF CURB**




**DETAIL ROOF CURB**



## 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 | 914 | 60 | 1524 | Unobstructed |
| 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.
**Minimum Operation Clearance** - Required clearance for proper unit operation.

# Project Submittal

**Tag:** RTU-A (20 ton)
**Model:** KGC240S4M - KGC240S4M 260k 7.5hp LLEnth ENV

## UNIT OVERVIEW

| Voltage | IEER<br>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<br>10.8 | 53 / 60 | 228.5 / 147.4 | 213.7 / 132.5 | 8,000 | 0.75 / 1.08 | 80.0 / 67.0 | 58.7 / 57.1 |

## COOLING

| Cooling Performance | | Temperatures (DB/WB °F) | | |
|---|---|---|---|---|
| Gross Cooling (Ttl/Sens) | 228.5 / 147.4 MBH | Ambient | 95.0 | |
| Net Cooling (Ttl/Sens) | 213.7 / 132.5 MBH | Entering | 80.0 | 67.0 |
| Coil Moisture Removal | 76.46 lb/hr | Leaving – (Coil) | 58.7 | 57.1 |
| System Moisture Removal | 76.46 lb/hr | Leaving – (Unit) | 60.9 | 57.8 |

| ARI Performance | | Compressors | | Refrigerant | | Condensate Drain | |
|---|---|---|---|---|---|---|---|
| ARI Cooling | 236.0 / 230.0 MBH | Cooling Stages | 2 | Type | R-410A | Qty | 1 |
| ARI Power | 21,100 W | Compressor Qty | 3 | Charge | 20 LBS. 11 OZ. | Size | 1 in. |
| | | Compressor RLA | 33.4 amp | | | Pipe Thread | npt |

## HEATING

| Heating Performance | | Temperatures (DB/WB °F) | | Specifications | |
|---|---|---|---|---|---|
| Output (High/Low) | 210.0 / 136.9 MBH | Leaving | 24.3 | Heat Stages | 2 |
| Input (High/Low) | 260.0 / 169.0 MBH | | | Thermal Efficiency | 81.0% |
| Heat Rise | 24.3 °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 | 7.50 hp | Total | 1.08 |
| | | Required Power | 5.17 hp | Ext Supply | 0.75 |
| | | Drive Type | MSAV Belt Drive | | |
| | | RPM Range | 850 - 1,045 rpm | | |
| | | Required RPM | 952 rpm | | |

## AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

| Wet Coil | Humiditrol | Heat | Economizer | Filters | Diffuser | Exhaust | ERW |
|---|---|---|---|---|---|---|---|
| 0.13 | | 0.11 | 0.09 | | | | |

## ELECTRICAL

| | | | |
|---|---|---|---|
| Voltage | 460V 3Ph / 60Hz | Compressor RLA | 33.4 amp |
| MCA | 53 amp | Cooling FLA Total | 49.6 amp |
| MOCP | 60 amp | Condenser FLA | 5.2 amp |
| Condenser Power | 1665 W | Supply Fan FLA | 11.0 amp |
| Oper Range-Nom Volt | +/- 10% | | |

## ADDITIONAL DATA

| | | | |
|---|---|---|---|
| Cabinet | 132.62 in. x 91.12 in. x 54.25 in. | Total Weight | 2,558 lb |
| Downflow Supply | 20.0 in. x 28.0 in. | Base Unit Net Weight | 2,180 lb |
| Downflow Return | 15.0 in. x 60.5 in. | OAS/Econ Weight | 86 lb |
| Filters | **(6)** 24.0 in. x 24.0 in. x 2.0 in. | Curb Weight | 262 lb |
| Sound Rating | 93 dBA | | |

**Tag:** RTU-A (20 ton)

## Factory Installed Options

High Performance Economizer Upgrade Factory Installed
Single Enthalpy Economizer
Belt Drive
Unit Orientation Downflow
Supply Fan: Multi-Stage Air Volume Belt
440V/460V/480V 3Phase
175 Amp Terminal Block Factory Installed
Supply Motor - 7.5 Hp Std- w/ MSAV
Supply Drive Kit 6 (850-1045 RPM)
Barometric Relief Damper (Fac)
260K A.S. (Dual Stage)
Non-Hinged Doors Factory Installed
Environ Condenser Coil System Factory Installed
Phase Monitor Factory Installed (Standard)

## Field Installed Accessories

| Catalog Number | Qty | Description |
|---|---|---|
| 43W26 | 3 | 14" Downflow Adj Pitch Curb Field Installed |
| 23U71 | 3 | Combination Coil/Hail Guards Field Installed |
| 54W91 | 3 | 80Amp Disconnect Field Installed |
| 74M70 | 3 | 15A GFCI Field Installed Field Wired |
| EE132 | 3 | 1LCWty, GEPKG31ST~1YR LABOR<=20T |

## Product Features

### Cabinet

Durable Outdoor Enamel Paint Finish
Totally Enclosed Outdoor Fan Motor
PVC Coated Fan Guard
Isolated Compressor Compartment

### Cooling System

Scroll Compressor
High Capacity Driers
Crankcase Heater
System can operate from 30°F to 125°F without any additional controls
Pre-charged Refrigeration System
Internal Pressure Relief Valve
Thermostat Control – 2 Stages of Cooling
Building Automation Integrated Control - Up to 3 Stages of Cooling

### Heating System

Redundant Automatic Gas Valve with Manual Shut-off
Electronic Flame Sensor
Direct Spark Ignition
Aluminized Steel 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

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
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

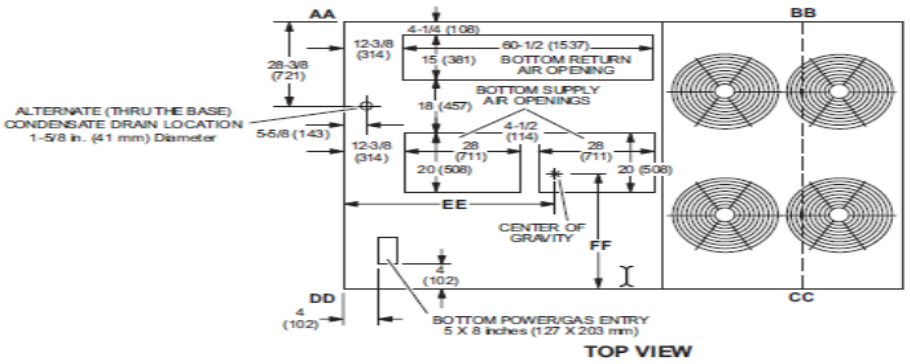
| Corner Weights (lb) | | | | | | | | Center of Gravity (in.) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AA | | BB | | CC | | DD | | EE | | FF | |
| Base | Max | Base | Max | Base | Max | Base | Max | Base | Max | Base | Max |
| 466 | 576 | 437 | 524 | 635 | 689 | 677 | 758 | 52.16 | 51.28 | 37.17 | 39.33 |

## DIMENSIONS - UNIT — KGC240

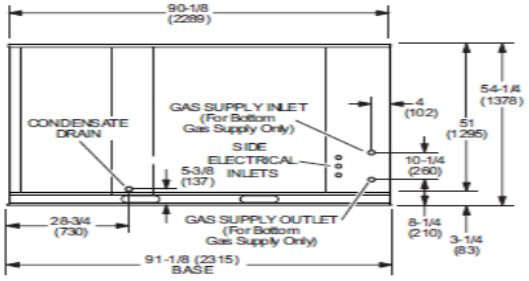
**CORNER WEIGHTS** | **CENTER OF GRAVITY**

| Model No. | AA | | BB | | CC | | DD | | EE | | FF | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | in. | mm | in. | mm |
| KGC240S Base Unit (Environ™ Coil) | 464 | 210 | 421 | 191 | 616 | 279 | 679 | 308 | 51-1/4 | 1302 | 37 | 940 |
| KGC240S Max. Unit (Environ™ Coil) | 574 | 260 | 506 | 230 | 669 | 303 | 759 | 344 | 50-1/2 | 1283 | 39-1/4 | 997 |
| KGC240S Base Unit (Fin/Tube Coil) | 464 | 210 | 474 | 215 | 669 | 302 | 679 | 307 | 53-1/4 | 1353 | 39-1/2 | 1003 |
| KGC240S Max. Unit (Fin/Tube Coil) | 574 | 259 | 558 | 254 | 722 | 327 | 759 | 343 | 52 | 1321 | 42 | 1067 |

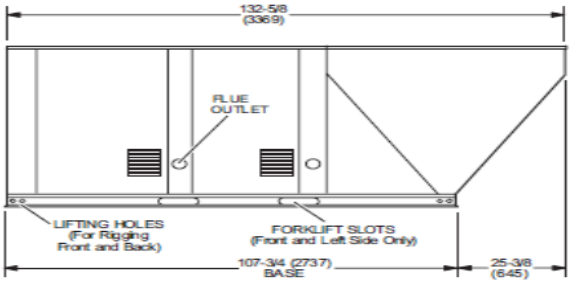
Base Unit - The unit with NO INTERNAL OPTIONS.
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit.




TOP VIEW

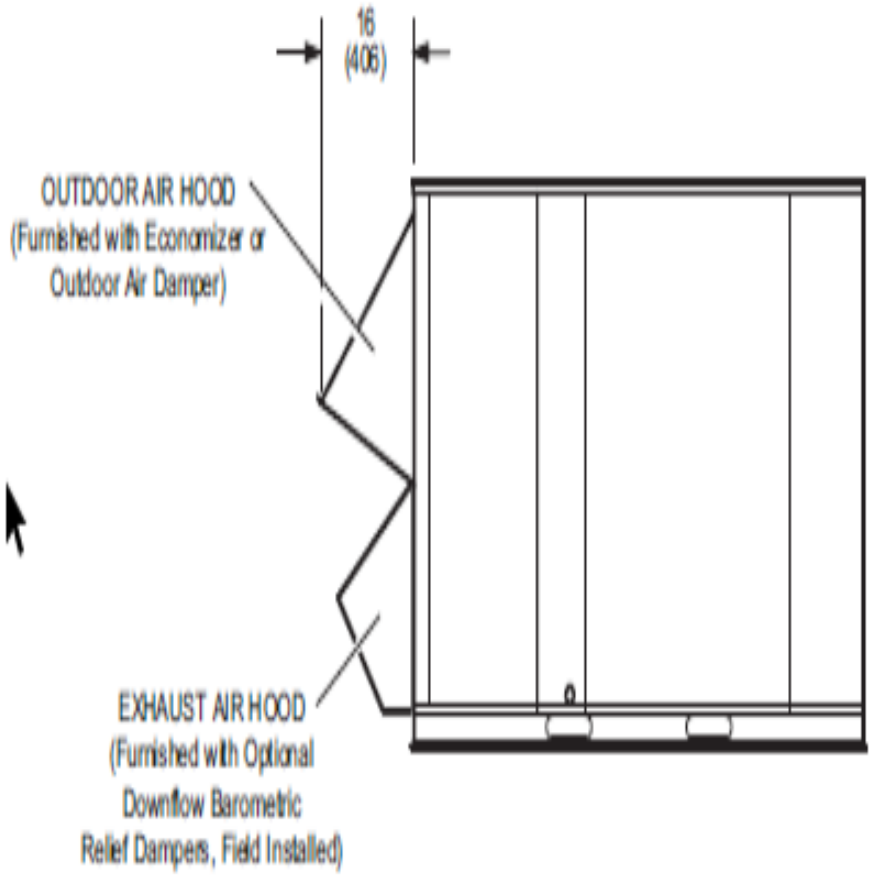



END VIEW

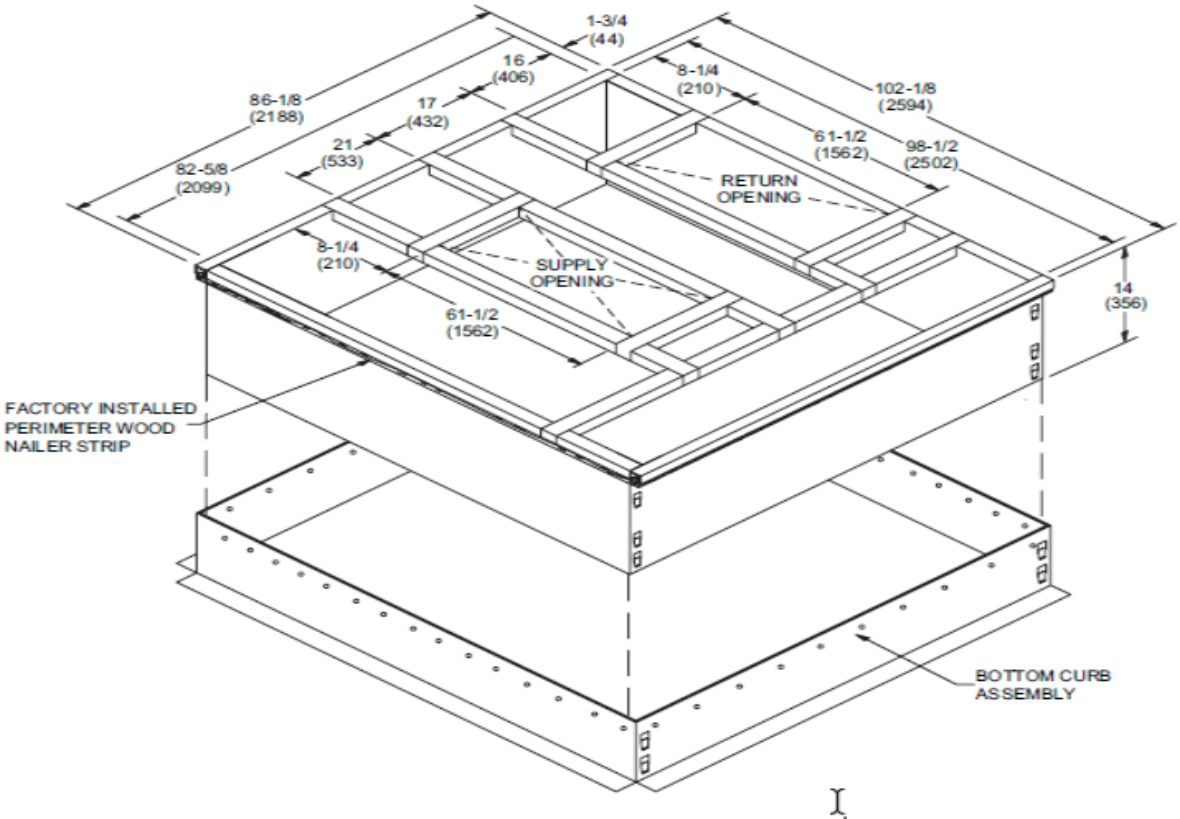



SIDE VIEW

## OUTDOOR AIR HOOD DETAIL

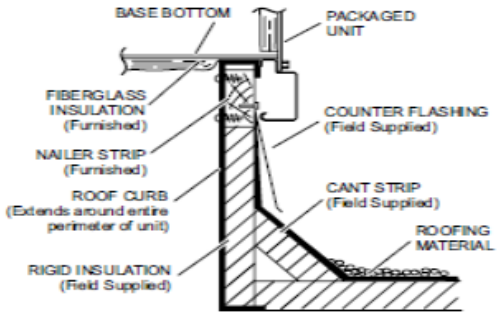


## ADJUSTABLE PITCH CURB - DOUBLE DUCT OPENING

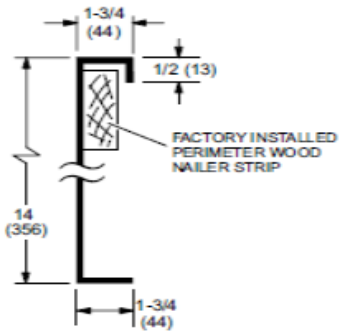



NOTE - Maximum slope pitch is 3/4 in. per 1 foot (19 mm per 305 mm) in any one direction.

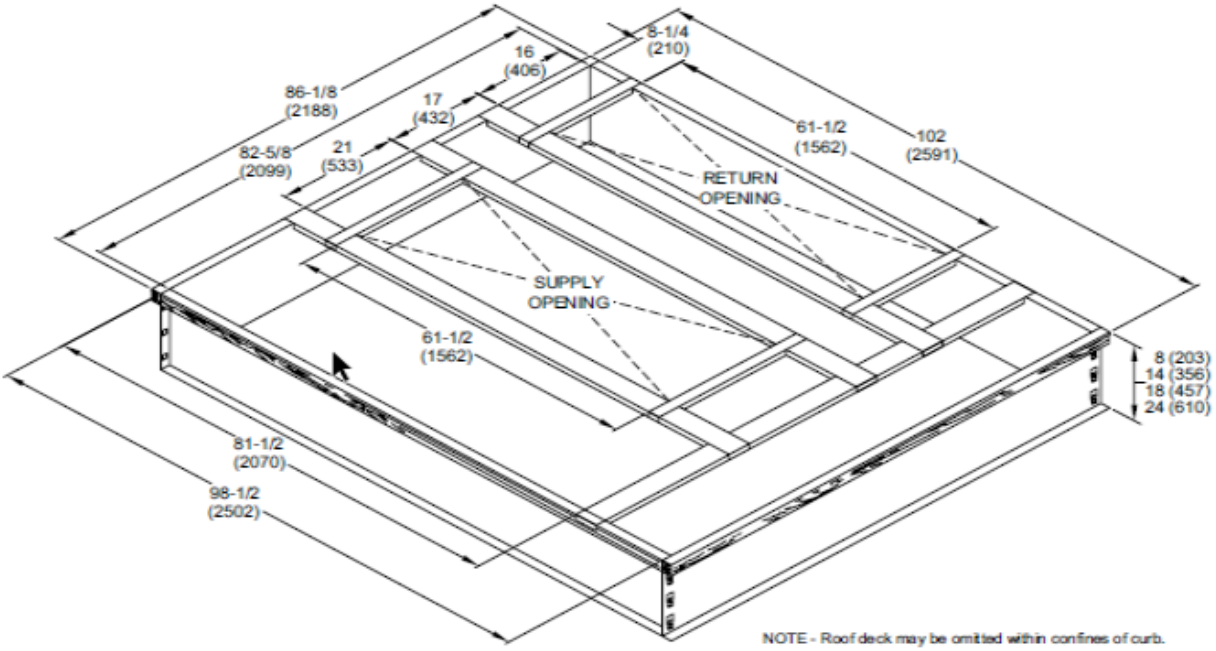
## TYPICAL FLASHING DETAIL FOR ROOF CURB




## DETAIL ROOF CURB

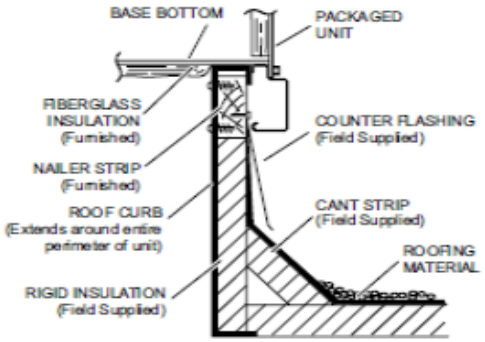


## HYBRID ROOF CURBS - DOUBLE DUCT OPENING

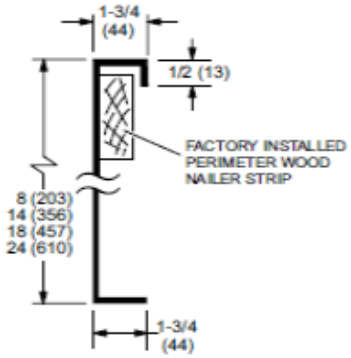



NOTE - Roof deck may be omitted within confines of curb.

### TYPICAL FLASHING DETAIL FOR ROOF CURB

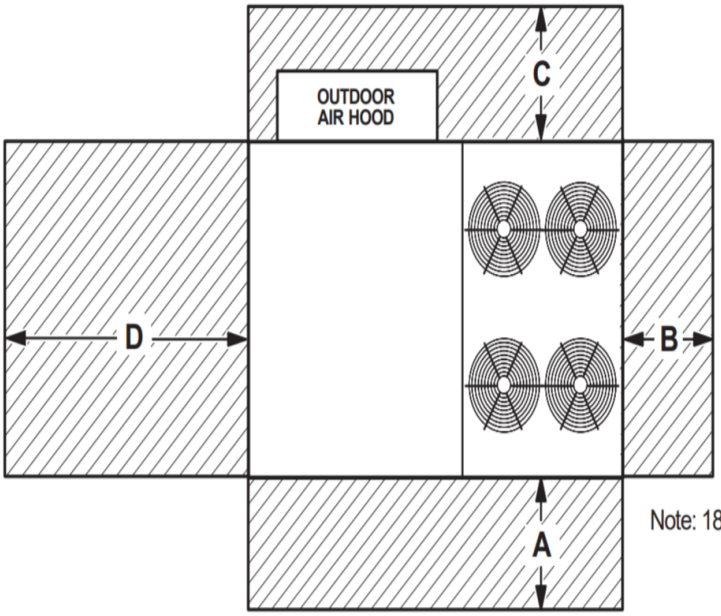



### DETAIL ROOF CURB



## UNIT CLEARANCES

### Unit With Economizer




Note: 180H, 240S, 300S sizes shown

| [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.