

Project Name: York RTU-cfm Distributors-R454B

Unit Model #: KC240C00A2AAA1

Quantity: 1

System: KC240C00A2AAA1, GL240C00E2BAA1

### Cooling Performance

|                            |            |
|----------------------------|------------|
| Total gross capacity       | 256.6 MBH  |
| Sensible gross capacity    | 183.9 MBH  |
| Total net capacity         | 246.1 MBH  |
| Sensible net capacity      | 173.4 MBH  |
| Efficiency (at ARI)        | 11.00 EER  |
| Integrated eff. (at ARI)   | 14.80 IEER |
| Ambient DB temp.           | 95.0 °F    |
| Entering DB temp.          | 80.0 °F    |
| Entering WB temp.          | 67.0 °F    |
| Evap Coil Leaving DB temp. | 58.7 °F    |
| Evap Coil Leaving WB temp. | 56.9 °F    |
| Unit Leaving DB temp.      | 59.9 °F    |
| Unit Leaving WB temp.      | 57.3 °F    |
| Leaving air temp dew point | 55.7 °F    |
| Power input (w/o blower)   | 18.10 kW   |
| Sound power                | 93 dB(a)   |

### Refrigerant

|                  |            |
|------------------|------------|
| Refrigerant type | R-454B     |
| Sys1             | 34 lb 4 oz |

### Electrical Data

|                                  |          |
|----------------------------------|----------|
| Power supply                     | 230-3-60 |
| Unit min circuit ampacity        | 81.5 A   |
| Unit max over-current protection | 110 A    |

### Dimensions & Weight

|                                       |           |           |
|---------------------------------------|-----------|-----------|
| Hgt 50 in                             | Len 59 in | Wth 64 in |
| Weight with factory installed options | 935 lb    |           |

### Clearances

|       |        |        |       |      |       |
|-------|--------|--------|-------|------|-------|
| Right | 30 in  | Front  | 36 in | Rear | 24 in |
| Top   | 120 in | Bottom | 0 in  | Left | 30 in |

Note: Please refer to the tech guide for listed maximum static pressures



### 20 Ton

- Split System Units are Manufactured at an ISO 9001 Registered Facility.

### Unit Features

- Two Stage Cooling
- Unit is designed for R454B refrigerant and is shipped with a small Nitrogen holding charge.
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards)
- Full Perimeter Base Rails with Built in Rigging Capabilities
- Scroll Compressors with Crankcase Heater
- Single Refrigeration Circuit (2 Pipe)
- Liquid Line Driers (Supplied for Field Installation)
- Aluminum Tube/ Aluminum Fin Microchannel Coils
- Back Seating Suction and Liquid Line Service Valves
- Inherently Protected Fan Motors
- Low Ambient to 40°F
- Side or Bottom Single Point Power Connections
- Short Circuit Current: 5kA RMS Symmetrical

### Standard Unit Controller: Smart Equipment Control Board

- Anti-Short Cycle Protection, Lead-Lag, Low Voltage Protection, On-Board Diagnostic and Fault Code Display
- Safety Monitoring - Monitors the High and Low-Pressure Switches. The Unit Control Board will Alarm on Compressor Lockouts and Repeated Limit Switch Trips.

### BAS Controller

- Smart Equipment Controller

### Warranty

- One (1) Year Limited Warranty on All Other Parts
- Five (5) Year Limited Warranty on Compressors



# OD Split System

Split-System Outdoor

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Project Name: York RTU-cfm Distributors-R454B

Unit Model #: KC240C00A2AAA1

Quantity: 1

System: KC240C00A2AAA1, GL240C00E2BAA1

## Additional Electrical Data

|                                  |          |
|----------------------------------|----------|
| Power supply                     | 230-3-60 |
| Unit min circuit ampacity        | 81.5 A   |
| Unit max over-current protection | 110 A    |
| Min Voltage                      | 187 V    |
| Max Voltage                      | 252 V    |
| Comp #1 RLA                      | 28.7     |
| Comp #1 LRA                      | 207.5    |
| Comp #2 RLA                      | 33.3     |
| Comp #2 LRA                      | 255      |
| Outdoor Mtr Qty                  | 4        |
| Outdoor Fan Voltage              | 230-1-60 |
| OD Fan Mtr FLA (ea.)             | 2.8      |



# OD Split System

Split-System Outdoor

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Project Name: York RTU-cfm Distributors-R454B

Unit Model #: KC240C00A2AAA1

Quantity: 1

System: KC240C00A2AAA1, GL240C00E2BAA1

## Factory Installed Options

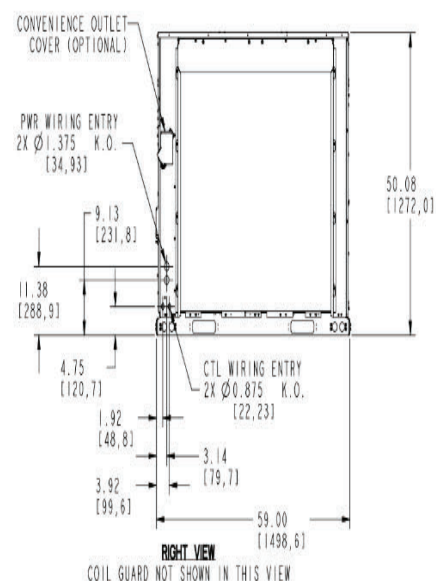
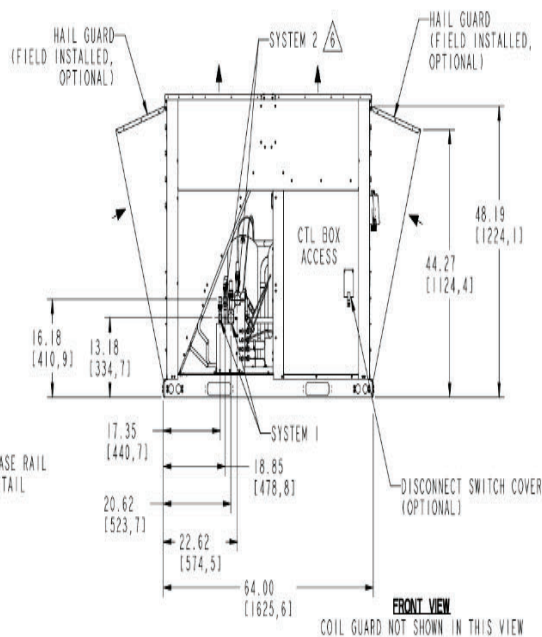
### KC240C00A2AAA1

| Equipment Options                     |            | Option(s) Selected                  |
|---------------------------------------|------------|-------------------------------------|
| Product Category :                    | <b>K</b>   | Split System R-454B Air Conditioner |
| Product Identifier :                  | <b>C</b>   | 2-Pipe                              |
| Nominal Cooling Capacity :            | <b>240</b> | 20 Ton                              |
| Heat Type and Nominal Heat Capacity : | <b>C00</b> |                                     |
| Airflow :                             | <b>A</b>   | Standard Motor                      |
| Voltage :                             | <b>2</b>   | 208/230-3-60                        |
| Installation Options :                | <b>A</b>   | Smart Equipment Controller          |
| Additional Options :                  | <b>AA</b>  |                                     |
| Product Generation :                  | <b>1</b>   |                                     |

Unit Model #: **KC240C00A2AAA1**

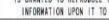
Quantity: 1

### Consolidated Drawing

 CENTER OF GRAVITY

| TONNAGE | UNIT | OPERATING WEIGHT (LBS) (BASE UNIT) | CENTER OF GRAVITY LOCATION (BASE UNIT) |              | 4 POINT CORNER LOADS (LBS) (BASE UNIT) |           |           |             |
|---------|------|------------------------------------|----------------------------------------|--------------|----------------------------------------|-----------|-----------|-------------|
|         |      |                                    | X                                      | Y            | A                                      | B         | C         | D           |
| 20      | KC   | 1152 13231                         | 32.1 1815,31                           | 30.8 1782,31 | 300 11361                              | 301 11371 | 276 11251 | 275 1124,71 |

| SYSTEM DATA |                      |                     |                      |                     |
|-------------|----------------------|---------------------|----------------------|---------------------|
|             | SYSTEM 1             |                     | SYSTEM 2             |                     |
|             | SUCTION LINE<br>O.D. | LIQUID LINE<br>O.D. | SUCTION LINE<br>O.D. | LIQUID LINE<br>O.D. |
| PC/PH       | 1.625 (41,26)        | 0.875 (22,23)       | N/A                  | N/A                 |
| YC/YH       | 1.625 (41,26)        | 0.875 (22,23)       | N/A                  | N/A                 |
| PD/PJ       | 1.375 (34,93)        | 0.625 (15,88)       | 1.375 (34,93)        | 0.625 (15,88)       |
| YD/YJ       | 1.375 (34,93)        | 0.625 (15,88)       | 1.375 (34,93)        | 0.625 (15,88)       |

| REV | DATE     | REVISION RECORD                            | EC    | NO  | DR  | CK | ENG | THIRD ANGLE PROJECTION                                                                                                                                                      | ALL PORTANT DIMENSIONS IN THE SUBJECT MATTER HEREOF ARE PRESENTED AND NO DIMENSION IS GRANTED TO REPRODUCE THIS PLANT IN WHOLE OR IN PART OR DISCLOSE ANY OF THE INFORMATION UPON IT TO OTHERS WITHOUT WRITTEN RELEASE BY JOHNSON CONTROLS | SAFETY AND KEY CHARACTERISTICS PER (SEE PFD-STD-01)                |
|-----|----------|--------------------------------------------|-------|-----|-----|----|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| A   | 02-11-20 | NEW DRAWING (FROM UST-PREDD00-40DF05H)     | 75768 | LOP | RCH | SA |     |                                                                                        | <b>DRAWING PER ASME Y14.5-2000</b><br>TOLERANCES UNLESS OTHERWISE SPECIFIED:                                                                                                                                                               | MATERIAL<br>TYPE NOT APPLICABLE<br>ENG SPEC NOT APPLICABLE<br>SIZE |
| B   | 11-14-22 | UPDATED TABLE DATA FOR 20 TON YC/YH MODELS | 90531 | LOP | RCH | AB |     |                                                                                                                                                                             |                                                                                                                                                                                                                                            |                                                                    |
|     |          |                                            |       |     |     |    |     | NAME DATE<br>JOHN L. PACKARD 02-11-20<br>CHY R. HANCO 02-11-20<br>ENG S. ARNETT 02-11-20<br>MFS<br>DIMENSIONS ARE IN INCHES<br>UNLESS NOTED OTHERWISE<br>DO NOT SCALE PRINT | SUBMITTAL DWG, OUTDOOR SPLIT,<br>20 & 25 TON, 2 & 4 PIPE, 50" CAB                                                                                                                                                                          | DWG NO:<br><b>5883779</b><br>PART NO:                              |
|     |          |                                            |       |     |     |    |     | ONE PLACE DECIMAL: ± .1<br>TWO PLACE DECIMAL: ± .03<br>THREE PLACE DECIMAL: ± .010<br>ANGLES: ± 2°                                                                          | JOHNSON CONTROLS<br>UNITARY PRODUCTS GROUP<br>NORMAN, OK 73069                                                                                                                                                                             | R                                                                  |



## OD Split System

Split-System Outdoor

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Project Name: York RTU-cfm Distributors-R454B

Unit Model #: KC240C00A2AAA1

Quantity: 1

### Piping & Connections

#### Piping and electrical connections

Piping connections are made from the rear of 7.5 to 12.5 ton units and the front of 15 to 20 ton units. Connections can be made directly to the suction and liquid line service valves.

With the piping connections being made at the rear of 7.5 to 12.5 ton units and the front of 15 to 20 ton units, the piping can be routed to the units from the left or right side.

#### Piping and electrical connection sizes (in.)

| Model                      | WE090 | WC120 | KE090 | KC120 | KD120 | KC150 | KD150 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|
| No. refrigeration circuits | 1     | 1     | 1     | 1     | 2     | 1     | 2     |
| Suction line OD (in.)      | 1 1/8 | 1 3/8 | 1 1/8 | 1 3/8 | 1 1/8 | 1 3/8 | 1 1/8 |
| Liquid line OD (in.)       | 5/8   | 7/8   | 5/8   | 7/8   | 5/8   | 7/8   | 5/8   |
| Power wiring knockout      | 1 3/8 | 1 3/8 | 1 3/8 | 1 3/8 | 1 3/8 | 1 3/8 | 1 3/8 |
| Control wiring knockout    | 1 1/8 | 1 1/8 | 1 1/8 | 1 1/8 | 1 1/8 | 1 1/8 | 1 1/8 |

| Model                      | WC180 | WD180 | WD240 | KC180 | KD180 | KC240 | KD240 | KC300 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| No. refrigeration circuits | 1     | 2     | 2     | 1     | 2     | 1     | 2     | 1     |
| Suction line OD (in.)      | 1 5/8 | 1 3/8 | 1 3/8 | 1 5/8 | 1 1/8 | 1 5/8 | 1 3/8 | 1 5/8 |
| Liquid line OD (in.)       | 7/8   | 5/8   | 5/8   | 7/8   | 5/8   | 7/8   | 5/8   | 7/8   |
| Power wiring knockout      | 1 3/8 | 1 3/8 | 1 3/8 | 1 3/8 | 1 3/8 | 1 3/8 | 1 3/8 | 1 3/8 |
| Control wiring knockout    | 7/8   | 7/8   | 7/8   | 7/8   | 7/8   | 7/8   | 7/8   | 7/8   |

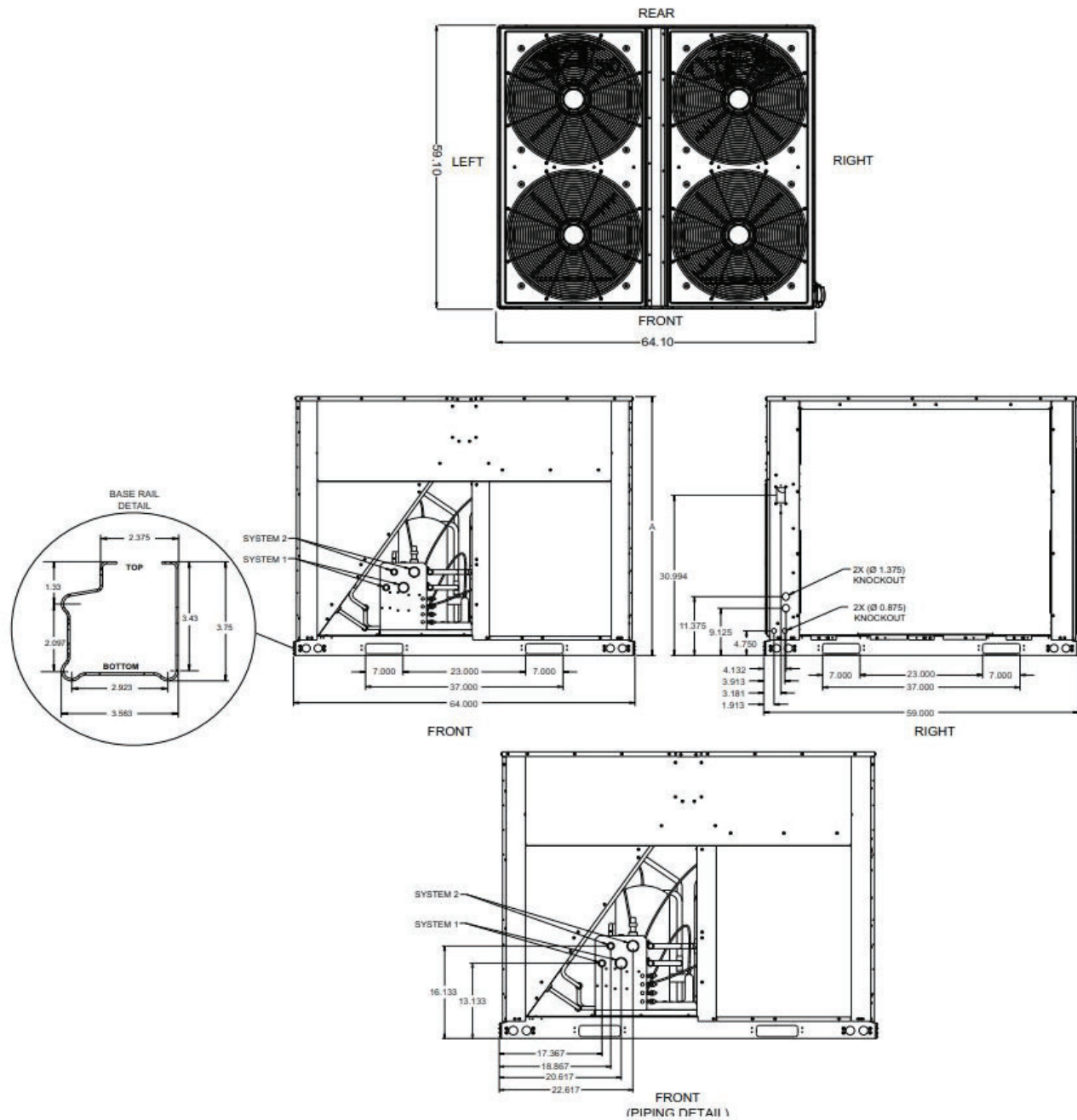


Project Name: York RTU-cfm  
Distributors-R454B

Unit Model #: **KC240C00A2AAA1**

Quantity: 1

### Unit Dimensions



### Unit height dimensions

| Model                      | WC180 | KC180 | KC240 | KC300 |
|----------------------------|-------|-------|-------|-------|
| No. refrigeration circuits | 1     | 1     | 1     | 1     |
| Suction line OD (in.)      | 1 5/8 | 1 5/8 | 1 5/8 | 1 5/8 |
| Liquid line OD (in.)       | 7/8   | 7/8   | 7/8   | 7/8   |
| Power wiring knockout      | 1 3/8 | 1 3/8 | 1 3/8 | 1 3/8 |
| Control wiring knockout    | 7/8   | 7/8   | 7/8   | 7/8   |

| Model | A    |
|-------|------|
| WC180 | 44.5 |
| WD180 | 44.5 |
| WD240 | 50.0 |
| KC180 | 44.5 |
| KD180 | 44.5 |
| KC240 | 50.0 |
| KC300 | 50.0 |

Project Name: York RTU-cfm Distributors-R454B

Unit Model #: GL240C00E2BAA1

Quantity: 1

System: KC240C00A2AAA1, GL240C00E2BAA1

## Supply Air Blower Performance

|                                             |          |
|---------------------------------------------|----------|
| Supply air                                  | 8000 cfm |
| Ext. static pressure                        | 0.6 IWG  |
| Addl. Unit Losses (Options/Accessories)     | 0.05 IWG |
| Blower speed                                | 837 rpm  |
| Max BHP of Motor (including service factor) | 5.75 HP  |
| Duct location                               | Upflow   |
| Motor rating                                | 5.00 HP  |
| Actual required BHP                         | 3.61 HP  |
| Power input                                 | 3.08 kW  |
| Elevation                                   | 0 ft     |
| Drive type                                  | BELT     |

## Indoor Electrical Data

|                                  |          |
|----------------------------------|----------|
| Power supply                     | 230-3-60 |
| Unit min circuit ampacity        | 25.50 A  |
| Unit max over-current protection | 30 A     |

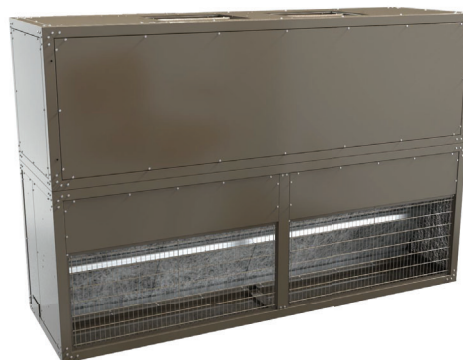
## Indoor Dimensions & Weight

|                                       |        |     |       |     |       |
|---------------------------------------|--------|-----|-------|-----|-------|
| Hgt                                   | 65 in  | Len | 30 in | Wth | 99 in |
| Weight with factory installed options | 932 lb |     |       |     |       |

## Indoor Clearances

|                      |       |
|----------------------|-------|
| Side w/Piping        | 24 in |
| Side Opposite Piping | 24 in |
| Side w/ Return Air   | 24 in |
| Side w/ Supply Air   | 24 in |

Note: Please refer to the tech guide for listed maximum static pressures



## 20 Ton

- Split system units are manufactured at an ISO 9001 registered facility

## Unit Features

- Unit is designed for R454B refrigerant and is shipped with a small Nitrogen holding charge.
- Refrigerant Detection System is Factory Installed
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards).
- Easily converted in the field from vertical to horizontal configuration.
- Slide-out Composite Drain Pan
- Single Circuit Refrigeration
- Adjustable balanced port TXV's
- 5.0 HP Motor and Adjustable Sheave Belt Drive
- Unit ships with 2" Throwaway filters with a standard filter rack that will accept up to 4" filters.
- Short Circuit Current: 5kA RMS Symmetrical
- Intellispeed VFD w/o Bypass

## Warranty

- One (1) Year Limited Warranty on all Other Parts
- Five (5) Year limited Warranty on Electric Heating Elements



# ID Split System

Split-System Indoor

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Project Name: **York RTU-cfm Distributors-R454B**

Unit Model #: **GL240C00E2BAA1**

Quantity: **1**

System: **KC240C00A2AAA1, GL240C00E2BAA1**

## Additional Electrical Data

|                                  |          |
|----------------------------------|----------|
| Power supply                     | 230-3-60 |
| Unit min circuit ampacity        | 25.5 A   |
| Unit max over-current protection | 30 A     |
| Min Voltage                      | 187 V    |
| Max Voltage                      | 252 V    |
| Indoor Mtr Voltage               | 230-3-60 |
| Indoor Mtr FLA                   | 20.4     |





# ID Split System

Split-System Indoor

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Project Name: York RTU-cfm Distributors-R454B

Unit Model #: GL240C00E2BAA1

Quantity: 1

System: KC240C00A2AAA1, GL240C00E2BAA1

## Factory Installed Options

### GL240C00E2BAA1

| Equipment Options                     |            | Option(s) Selected              |
|---------------------------------------|------------|---------------------------------|
| Product Category :                    | <b>G</b>   | Split System R-454B Air Handler |
| Product Identifier :                  | <b>L</b>   | 2-pipe w/Intellispeed           |
| Nominal Cooling Capacity :            | <b>240</b> | 20 Ton                          |
| Heat Type and Nominal Heat Capacity : | <b>C00</b> |                                 |
| Airflow :                             | <b>E</b>   | 5.0 HP Motor                    |
| Voltage :                             | <b>2</b>   | 208/230-3-60                    |
| Installation Options :                | <b>B</b>   | Intellispeed VFD w/o Bypass     |
| Additional Options :                  | <b>AA</b>  | Composite Drain Pan             |
| Product Generation :                  | <b>1</b>   |                                 |

Project Name: York RTU-cfm  
Distributors-R454B

Unit Model #: GL240C00E2BAA1

Quantity: 1

### Piping, Electrical & Duct Opening Connections

#### Piping, electrical and duct opening connection sizes

| Model                         | GL090 | GL120 | GL180 | GL240 |
|-------------------------------|-------|-------|-------|-------|
| <b>System data</b>            |       |       |       |       |
| No. Refrigeration Circuits    | 1     | 1     | 1     | 1     |
| Suction Line OD (in.)         | 1 1/8 | 1 3/8 | 1 5/8 | 1 5/8 |
| Liquid Line OD (in.)          | 5/8   | 7/8   | 7/8   | 7/8   |
| Power Wiring Knockout         | 1 3/4 | 1 3/4 | 1 3/4 | 1 3/4 |
| Control Wiring Knockout       | 1 1/8 | 1 1/8 | 1 1/8 | 1 1/8 |
| Electric Heat Wiring Knockout | 1 3/4 | 1 3/4 | 1 3/4 | 1 3/4 |
| Drain Line Fitting PVC Stub   | 3/4   | 3/4   | 3/4   | 3/4   |
| <b>Blower outlet</b>          |       |       |       |       |
| Number                        | 1     | 1     | 1     | 2     |
| Width                         | 13.4  | 15.9  | 18.9  | 15.9  |
| Length                        | 15.6  | 18.6  | 21.6  | 18.6  |
| <b>Return air inlet</b>       |       |       |       |       |
| Width                         | 20.5  | 20.5  | 27.3  | 19.2  |
| Length                        | 52.0  | 52.0  | 71.9  | 93.4  |

#### Minimum clearances

|                                                                                              |        |
|----------------------------------------------------------------------------------------------|--------|
| <b>Minimum Clearances</b>                                                                    |        |
| <b>Top with Supply Air Opening<sup>1</sup></b>                                               | 24 in. |
| <b>Front with Return Air Opening</b>                                                         | 24 in. |
| <b>Right Side with access for Piping, Power &amp; Control Wiring Connections<sup>2</sup></b> | 36 in. |
| <b>Left Side</b>                                                                             | 24 in. |
| <b>Rear<sup>3</sup></b>                                                                      | N/A    |
| <b>Bottom<sup>4</sup></b>                                                                    | N/A    |

<sup>1</sup> This dimension will vary if an electric heater, a supply air plenum or a base is used.

<sup>2</sup> This dimension is required for normal installation and service.

<sup>3</sup> Although no clearance is required for service and operation, some clearance may be required for routing the power and control wiring.

<sup>4</sup> Allow enough clearance to trap the condensate drain line.

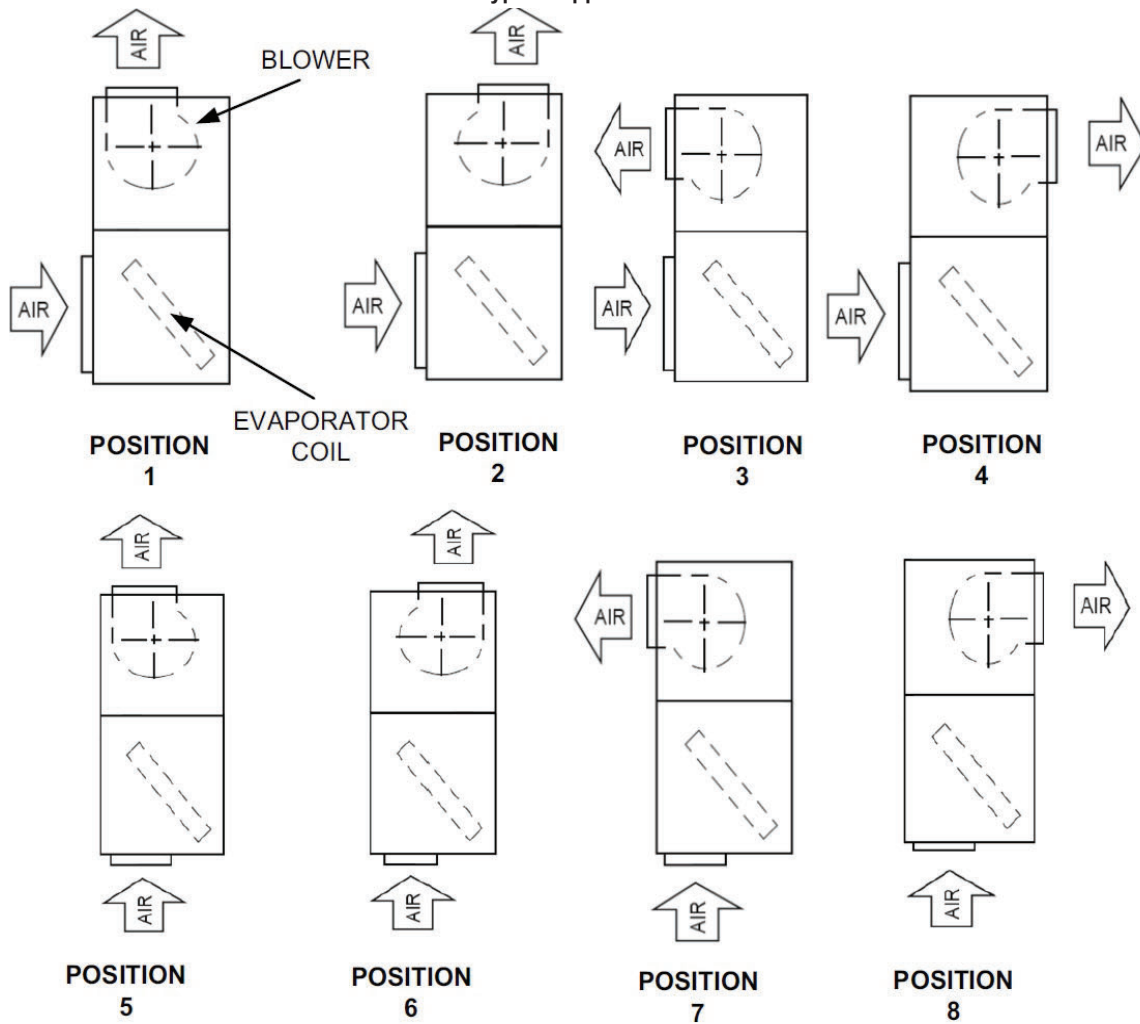
**Note:** If the coil has to be removed, the blower section can be unbolted and set aside and the coil can be lifted out the top of the evaporator section.

Project Name: York RTU-cfm  
Distributors-R454B

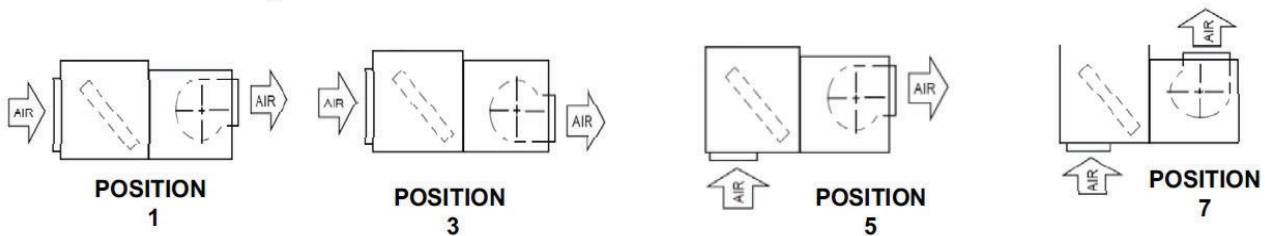
Unit Model #: GL240C00E2BAA1

Quantity: 1

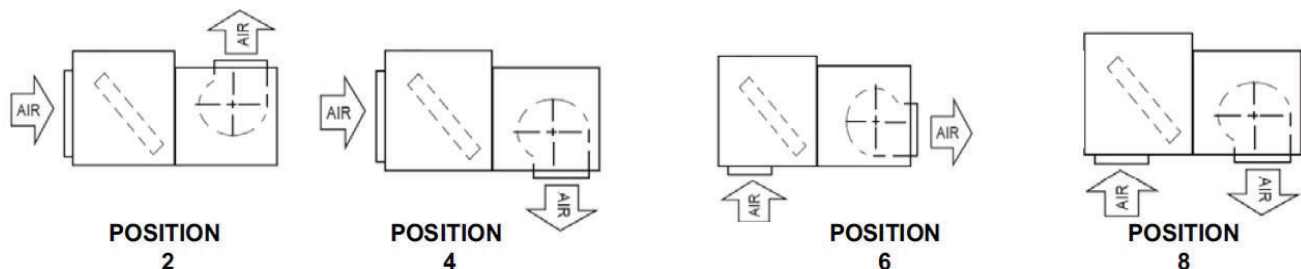
## Typical Applications



## Vertical Airflow Arrangements



## Horizontal Airflow Arrangements



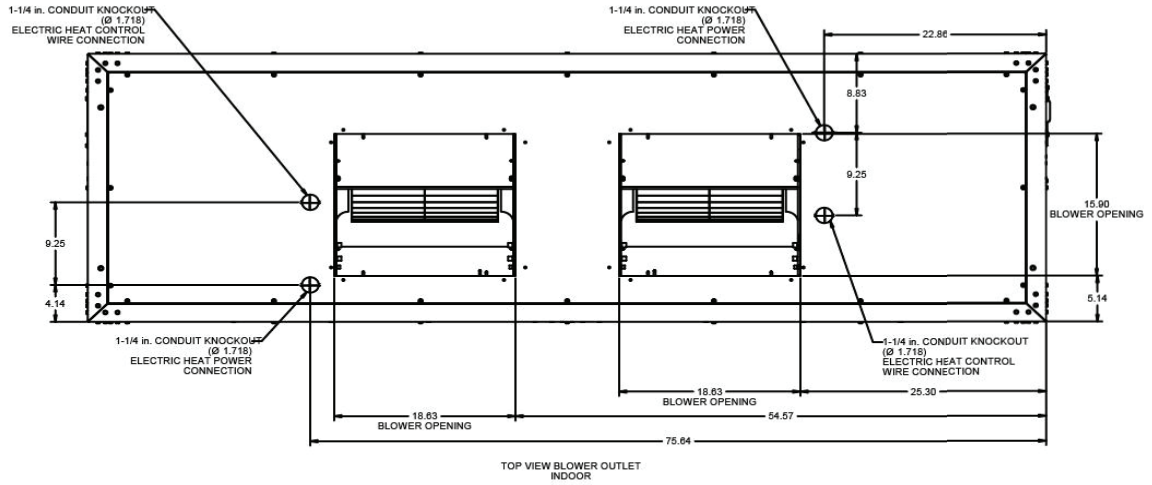
Project Name: York RTU-cfm  
Distributors-R454B

Unit Model #: GL240C00E2BAA1

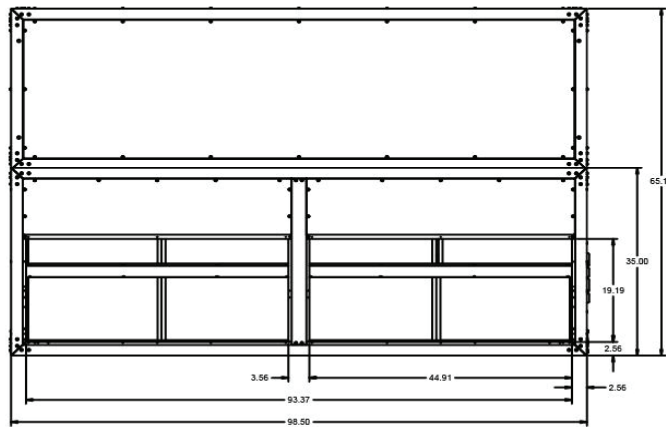
Quantity: 1

## Commercial Split Unit Dimensions

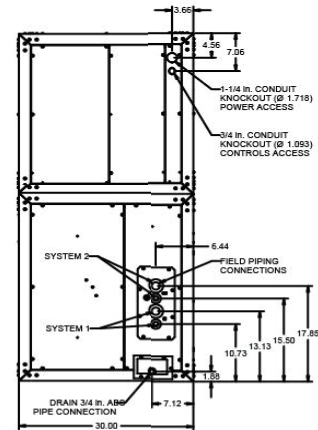
### TOP VIEW



### FRONT AND SIDE VIEW



FRONT VIEW - RETURN AIR  
INDOOR



RIGHT SIDE VIEW - DRAIN PIPING/CONTROLS

Project Name: York RTU-cfm  
Distributors-R454B

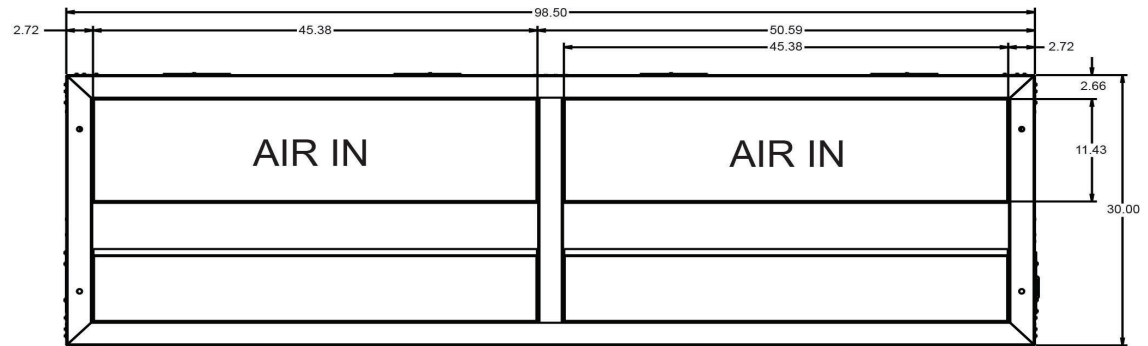
Unit Model #: GL240C00E2BAA1

Quantity: 1

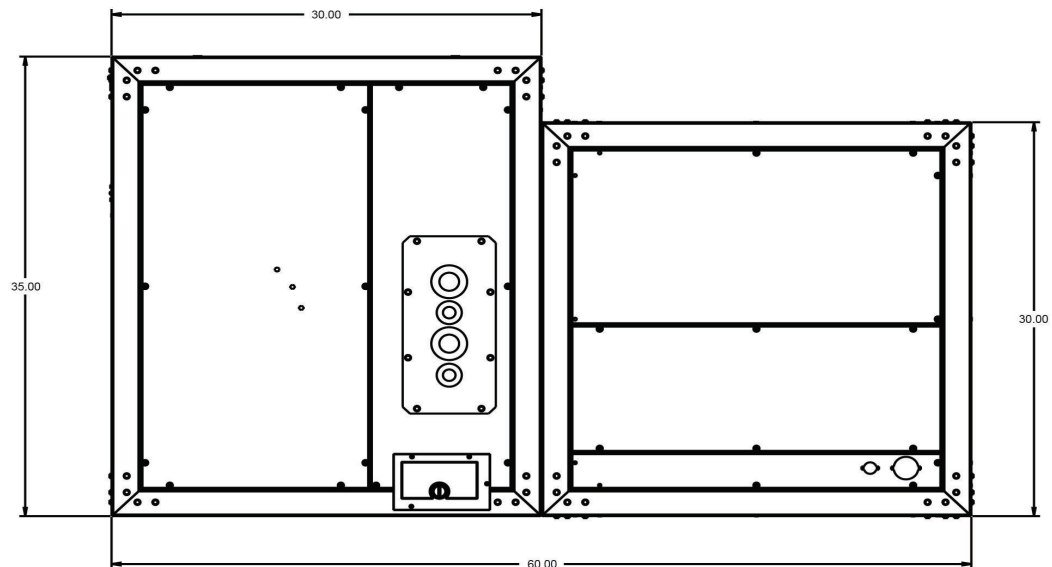
## Dimensions 20 Ton P2

Unit Dimensions NS/NW-20/NL/NM240/NS/NWT20

### BOTTOM VIEW



### HORIZONTAL CONFIGURATION



| Motor HP                        | Power Supply | Supply Blower Motor | Electric Heat Option |      |        |       | MCA <sup>1</sup> (Amps) | Max Fuse <sup>2</sup> /<br>Breaker <sup>3</sup> Size (Amps) |
|---------------------------------|--------------|---------------------|----------------------|------|--------|-------|-------------------------|-------------------------------------------------------------|
|                                 |              | FLA                 | Model                | KW   | Stages | Amps  |                         |                                                             |
| (GL/GM) 240 C00E (INTELLISPEED) |              |                     |                      |      |        |       |                         |                                                             |
| 5.0                             | 208-3-60     | 20.4                | None                 | ---  | ---    | ---   | 25.5                    | 30                                                          |
|                                 |              |                     | 20 KW                | 15   | 1      | 41.6  | 77.5                    | 80                                                          |
|                                 |              |                     | 32 KW                | 24   | 2      | 66.6  | 108.8                   | 110                                                         |
|                                 |              |                     | 52 KW                | 39.1 | 2      | 108.5 | 161.1                   | 175                                                         |
|                                 | 230-3-60     | 20.4                | None                 | --   | ---    | ---   | 25.5                    | 30                                                          |
|                                 |              |                     | 20 KW                | 20   | 1      | 48.1  | 85.6                    | 90                                                          |
|                                 |              |                     | 32 KW                | 32   | 2      | 77.0  | 121.8                   | 125                                                         |
|                                 |              |                     | 52 KW                | 52   | 2      | 125.1 | 150.6                   | 175                                                         |
|                                 | 460-3-60     | 9.9                 | None                 | ---  | ---    | ---   | 12.4                    | 15                                                          |
|                                 |              |                     | 20 KW                | 20   | 1      | 24.1  | 42.5                    | 45                                                          |
|                                 |              |                     | 32 KW                | 32   | 2      | 38.5  | 60.5                    | 70                                                          |
|                                 |              |                     | 52 KW                | 52   | 2      | 62.5  | 74.9                    | 80                                                          |