

*Quality People. Building Solutions.*

Comfort Systems USA (Arkansas), Inc.  
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Little Rock, AR 72231  
Phone 501-834-3320  
Fax 501-834-5416

**Date:** 8/11/2023

**Return Request:** 8/22/2023

**Project:** Southside HS & JH Additions

**Supplier:** Ducted Systems – Johnson Controls, Inc.

**Manufacturer:** York

**Submittal:** Packaged Rooftop A/C Units

**Submittal Number:** 23 74 16-01

**Drawing # and Installation:** Mechanical Drawings

**ARCHITECT**

Lewis Architects Engineers  
11225 Huron Lane, Suite 104  
Little Rock, AR 72211  
501-223-9302

**ENGINEER**

Lewis Architects Engineers  
11225 Huron Lane, Suite 104  
Little Rock, AR 72211  
501-223-9302

**GENERAL CONTRACTOR**

Nabholz  
612 Garland St.  
Conway, AR 72032  
501-505-5800

**MECHANICAL SUBCONTRACTOR**

Comfort Systems USA (Arkansas), Inc.  
9924 Landers Rd.  
N. Little Rock, AR 72117  
501-834-3320

Notes:

**CSUSA PROJECT NO.**

**23-8009**

[dpierce@comfortar.com](mailto:dpierce@comfortar.com)

9924 Landers Rd.  
No. Little Rock, AR 72117



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# SUBMITTAL DATA

**Order #:** **Date:** 08/01/2023  
**Project:** Southside High School & Jr. High Additions  
**Project #:**

**Submitter:** Rich Burrows  
Commercial Value Engineer  
5601 Old Greenwood Rd ste 1,  
Fort Smith, Arkansas 72903  
479-462-5733

**Date**

08/01/2023

**Project Name**

Southside High School &amp; Jr. High Additions

**Project Number****Client / Purchaser**

## Submittal Summary Page

Qty	Tag #	Model # / Material #	Description
1	RTU-1	ZLG14T4C3EB1C224A3	12.5 Ton, Three Stage Cooling, MagnaDRY Reheat, York Sun Core Single Packaged R-410A Air Conditioner, 11.0 EER, 250 MBH Two Stage Input High Heat Stainless Steel Gas, Gas Heat, 460-3-60 <ul style="list-style-type: none"> <li>• VFD IntelliSpeed</li> <li>• Enthalpy Economizer (Downflow only) (with Barometric Relief) with Economizer Fault Detection &amp; Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)</li> <li>• High Static Belt Drive Blower</li> <li>• Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.</li> <li>• Non-powered Convenience Outlet</li> <li>• Non-fused Disconnect (60 Amp)</li> <li>• Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil</li> <li>• Louvered Hail Guards &amp; Hinged Cabinet Doors</li> </ul>
1		2PM04700224	Phase Monitor Kit
1		2EC0402	Kit, Dual Enthalpy Field Installed (Includes two humidity sensors)
1		1TB0402	Large Footprint Thru The Base Electrical & Thru The Curb Gas
4	RTU-2,3,6,14	ZLG06S4C3EB1C224A2	5 Ton, Two Stage Cooling, MagnaDRY Reheat, York Sun Core Single Packaged R-410A Air Conditioner, 15.8 SEER / 12.4 EER, Medium Heat Stainless Steel Gas, Gas Heat, 460-3-60 <ul style="list-style-type: none"> <li>• VFD IntelliSpeed</li> <li>• Enthalpy Economizer (Downflow only) (with Barometric Relief) with Economizer Fault Detection &amp; Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)</li> <li>• High Static Belt Drive Blower</li> <li>• Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.</li> <li>• Non-powered Convenience Outlet</li> <li>• Non-fused Disconnect (60 Amp)</li> <li>• Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil</li> <li>• Louvered Hail Guards &amp; Hinged Cabinet Doors</li> </ul>
4		2PM04700224	Phase Monitor Kit
4		2EC0402	Kit, Dual Enthalpy Field Installed (Includes two humidity sensors)
4		1TB0401	Small Footprint Thru The Base Electrical & Thru The Curb Gas

Qty	Tag #	Model # / Material #	Description
1	RTU-4	AV15S3CP4S1CAS46F2	<p>15 Ton, York SunChoice Single Packaged R-410A Air Conditioner, Two Stage Compressor Operation, Standard Efficiency, Bottom Duct, Natural Gas, Stainless Steel, Staged Heat, High Heat, 400 MBH Input, 460-3-60, 5 kA Standard SCCR, 3 HP Medium Static Belt Drive Blower</p> <ul style="list-style-type: none"> <li>• IntelliSpeed control of the VFD based on stages of cooling. Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10.</li> <li>• Dual Enthalpy Economizer w/Barometric Relief with Economizer Fault Detection &amp; Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)</li> <li>• 2" Pleated Filters (MERV 8)</li> <li>• Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.</li> <li>• Non Powered Convenience Outlet (110 VAC)</li> <li>• HACR Circuit Disconnect</li> <li>• Phase Monitor</li> <li>• Microchannel condenser coils</li> <li>• Copper tube/Aluminum fin evaporator coils</li> <li>• Modulating Hot Gas Reheat</li> <li>• Hinged Access Panel</li> <li>• Louvered Hail Guard</li> <li>• Polyester SMC Drain Pan</li> <li>• Condensate Overflow(COF)</li> </ul>
2	RTU-5,8	ZLG05S4C3EB1C224A2	<p>4 Ton, Two Stage Cooling, MagnaDRY Reheat, York Sun Core Single Packaged R-410A Air Conditioner, 15.6 SEER / 12 EER, Gas Heat, 460-3-60</p> <ul style="list-style-type: none"> <li>• VFD IntelliSpeed</li> <li>• Enthalpy Economizer (Downflow only) (with Barometric Relief) with Economizer Fault Detection &amp; Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)</li> <li>• High Static Belt Drive Blower</li> <li>• Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.</li> <li>• Non-powered Convenience Outlet</li> <li>• Non-fused Disconnect (60 Amp)</li> <li>• Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil</li> <li>• Louvered Hail Guards &amp; Hinged Cabinet Doors</li> </ul>
2		2PM04700224	Phase Monitor Kit
2		2EC0402	Kit, Dual Enthalpy Field Installed (Includes two humidity sensors)
2		1TB0401	Small Footprint Thru The Base Electrical & Thru The Curb Gas
1	RTU-7	ZYG12S4B3EB1A224A3	<p>10 Ton, Two Stage Cooling, MagnaDRY Reheat, York Sun Core Single Packaged R-410A Air Conditioner, 220 MBH Two Stage Input Medium Heat Stainless Steel, Gas Heat, 460-3-60</p> <ul style="list-style-type: none"> <li>• VFD IntelliSpeed</li> <li>• Medium Static Belt Drive Blower</li> <li>• Smart Equipment Controller including Discharge Air, Return Air,</li> </ul>

Qty	Tag #	Model # / Material #	Description
			and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card. <ul style="list-style-type: none"> <li>• Non-powered Convenience Outlet</li> <li>• Non-fused Disconnect (60 Amp)</li> <li>• Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil</li> <li>• Louvered Hail Guards &amp; Hinged Cabinet Doors</li> </ul>
1		2PM04700224	Phase Monitor Kit
1		2EE04707324	Economizer, DB, Horizontal Flow, Large Footprint, Tall Cabinet (with Barometric Relief)
1		2EC0402	Kit, Dual Enthalpy Field Installed (Includes two humidity sensors)
1		1TB0402	Large Footprint Thru The Base Electrical & Thru The Curb Gas
1	RTU-16	ZYG12S2B3EB1A224A3	10 Ton, Two Stage Cooling, MagnaDRY Reheat, York Sun Core Single Packaged R-410A Air Conditioner, 220 MBH Two Stage Input Medium Heat Stainless Steel, Gas Heat, 208/230-3-60 <ul style="list-style-type: none"> <li>• VFD IntelliSpeed</li> <li>• Medium Static Belt Drive Blower</li> <li>• Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.</li> <li>• Non-powered Convenience Outlet</li> <li>• Non-fused Disconnect (60 Amp)</li> <li>• Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil</li> <li>• Louvered Hail Guards &amp; Hinged Cabinet Doors</li> </ul>
1		2PM04700224	Phase Monitor Kit
1		2EE04707324	Economizer, DB, Horizontal Flow, Large Footprint, Tall Cabinet (with Barometric Relief)
1		2EC0402	Kit, Dual Enthalpy Field Installed (Includes two humidity sensors)
1		1TB0402	Large Footprint Thru The Base Electrical & Thru The Curb Gas
1	RTU-9	ZYG12S4B3EB1C224A3	10 Ton, Two Stage Cooling, MagnaDRY Reheat, York Sun Core Single Packaged R-410A Air Conditioner, 220 MBH Two Stage Input Medium Heat Stainless Steel, Gas Heat, 460-3-60 <ul style="list-style-type: none"> <li>• VFD IntelliSpeed</li> <li>• Enthalpy Economizer (Downflow only) (with Barometric Relief) with Economizer Fault Detection &amp; Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)</li> <li>• Medium Static Belt Drive Blower</li> <li>• Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.</li> <li>• Non-powered Convenience Outlet</li> <li>• Non-fused Disconnect (60 Amp)</li> <li>• Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil</li> <li>• Louvered Hail Guards &amp; Hinged Cabinet Doors</li> </ul>
1		2PM04700224	Phase Monitor Kit
1		2EC0402	Kit, Dual Enthalpy Field Installed (Includes two humidity sensors)

Qty	Tag #	Model # / Material #	Description
1		1TB0402	Large Footprint Thru The Base Electrical & Thru The Curb Gas
2	RTU-10,11	AV25S3CP4S1CAS46F2	<p>25 Ton, York SunChoice Single Packaged R-410A Air Conditioner, Two Stage Compressor Operation, Standard Efficiency, Bottom Duct, Natural Gas, Stainless Steel, Staged Heat, High Heat, 400 MBH Input, 460-3-60, 7.5 HP Medium Static Belt Drive Blower</p> <ul style="list-style-type: none"> <li>• IntelliSpeed control of the VFD based on stages of cooling.</li> </ul> <p>Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10.</p> <ul style="list-style-type: none"> <li>• Dual Enthalpy Economizer w/Barometric Relief with Economizer Fault Detection &amp; Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)</li> <li>• 2" Pleated Filters (MERV 8)</li> <li>• Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.</li> <li>• Non Powered Convenience Outlet (110 VAC)</li> <li>• HACR Circuit Disconnect</li> <li>• Phase Monitor</li> <li>• Microchannel condenser coils</li> <li>• Copper tube/Aluminum fin evaporator coils</li> <li>• Modulating Hot Gas Reheat</li> <li>• Hinged Access Panel</li> <li>• Louvered Hail Guard</li> <li>• Polyester SMC Drain Pan</li> <li>• Condensate Overflow(COF)</li> </ul>
1	RTU-15	AL20S3BP441CAS46F2	<p>20 Ton, York SunChoice Single Packaged R-410A Air Conditioner, Two Stage Compressor Operation, Standard Efficiency, End Return, Natural Gas, Stainless Steel, Staged Heat, High Heat, 350 MBH Input, 460-3-60, 5 HP Standard Static Belt Drive Blower</p> <ul style="list-style-type: none"> <li>• IntelliSpeed control of the VFD based on stages of cooling.</li> </ul> <p>Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10.</p> <ul style="list-style-type: none"> <li>• Dual Enthalpy Economizer w/o Exhaust with Economizer Fault Detection &amp; Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)</li> <li>• 2" Pleated Filters (MERV 8)</li> <li>• Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.</li> <li>• Non Powered Convenience Outlet (110 VAC)</li> <li>• HACR Circuit Disconnect</li> <li>• Phase Monitor</li> <li>• Microchannel condenser coils</li> <li>• Copper tube/Aluminum fin evaporator coils</li> <li>• Modulating Hot Gas Reheat</li> <li>• Hinged Access Panel</li> <li>• Louvered Hail Guard</li> <li>• Polyester SMC Drain Pan</li> <li>• Condensate Overflow(COF)</li> </ul>
1		1RD0416	Barometric Relief Damper

Qty	Tag #	Model # / Material #	Description
2	RTU-17,18	ZYGA7S2B3EB1A224A2	6 Ton, MagnaDRY Reheat, York Sun Core Single Packaged R-410A Air Conditioner, Two Stage Cooling, 12.0 EER, 125 MBH Two Stage Input Medium Heat Stainless Steel, Gas Heat, 208/230-3-60 <ul style="list-style-type: none"> <li>• VFD IntelliSpeed</li> <li>• Medium Static Belt Drive Blower</li> <li>• Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.</li> <li>• Non-powered Convenience Outlet</li> <li>• Non-fused Disconnect (60 Amp)</li> <li>• Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil</li> <li>• Louvered Hail Guards &amp; Hinged Cabinet Doors</li> </ul>
2		2EE04707224	Economizer, DB, Horizontal Flow, Large Footprint, Short Cabinet (with Barometric Relief)
2		2EC0402	Kit, Dual Enthalpy Field Installed (Includes two humidity sensors)
2		1TB0402	Large Footprint Thru The Base Electrical & Thru The Curb Gas
2	RTU-18	1FE0415	Flue Extension Kit
18		PITCHED ROOF CURBS	PITCHED ROOF CURBS FOR ALL RTU UNITS

Equipment start-up and commissioning by a factory trained technician is recommended.  
Contact your supplying distributor or sales representative for additional information & guidance.



WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZLG14T4C3EB1C224A3**

 Quantity: **1** Tag #: **RTU-1**

 System: **ZLG14T4C3EB1C224A3**

### Cooling Performance

Total gross capacity	153.7 MBH
Sensible gross capacity	108.8 MBH
Efficiency (at ARI)	11.00 EER
Integrated eff. (at ARI)	14.70 IEER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	59.0 °F
Leaving WB temp.	56.9 °F
Leaving air temp dew point	55.50 °F
Power input (w/o blower)	9.30 kW
Sound power	90 dB(A)

### Refrigerant

Refrigerant type	R-410A
Sys1	7 lbs 2 oz
Sys2	6 lbs 8 oz

### Reheat Performance

Total capacity	68.3 MBH
Sensible capacity	16.2 MBH
Ambient DB temp.	85 °F
Entering DB temp.	75 °F
Entering WB temp.	67 °F
Leaving DB temp.	71.9 °F
Leaving WB temp.	62.8 °F
Power input (w/o blower)	4.30 kW
Gallons of water per hour	5.94 GPM

### Gas Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	200.0 MBH
Supply air	4800 CFM
Heating input capacity (Max)	250 MBH
Leaving DB temp.	98.6 °F
Air temp. rise	38.6 °F
SSE	80.0 %
Stages	2

### Supply Air Blower Performance

Supply air	4800 CFM
Ext. static pressure	0.6 IWG
Addl. Unit Losses (Options/Accessories)	0.93 IWG
Blower speed	1147 RPM
Max BHP of Motor (including service factor)	5.25 HP
Duct location	Bottom
Motor rating	5.25 HP
Actual required BHP	4.24 HP
Power input	3.95 kW
Elevation	0 ft.
Drive type	BELT

### Outside/Mixed Air

Outside Air CFM	480 CFM
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### Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	29.1 Amps
Unit min over-current protection	30 Amps
Unit max over-current protection	35 Amps

### Dimensions & Weight

Hgt	55 in.	Len	87 in.	Wth	62 in.
Weight with factory installed options	1150 lbs				

### Clearances

Right	18 in.	Front	48 in.	Rear	36 in.
Top	72 in.	Bottom	1 in.	Left	12 in.

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



### 12.5 Ton

- All units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

### Unit Features

- Three Stage Cooling
- 250 MBH Two Stage Input High Heat Stainless Steel Gas
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards)
- Either supply and/or return can be field converted from vertical to horizontal configuration without cutting panels.
- Full perimeter base rails with built in rigging capabilities
- Scroll Compressors
- Enthalpy Economizer (Downflow only) (with Barometric Relief) with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
- High Static Belt Drive Blower
- Solid Core Liquid Line Filter Driers
- Unit Ships with 2" Throwaway Filters
- Single Point Power Connection
- Short Circuit Current: 5kA RMS Symmetrical
- Non-fused Disconnect (60 Amp)
- Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
- MagnaDRY Reheat

### BAS Controller

- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 communication card.

### Standard Unit Controller

- On-Board Diagnostic and Fault Code display
- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Safety Monitoring - Monitors the high and low-pressure switches, the freestats, the gas valve, if applicable, and the temperature limit switch on gas and electric heat units. The unit control board will alarm on ignition failures, safety lockouts and repeated limit switch trips.
- Smart Equipment Control Board

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors
- Fifteen (15) Year Warranty - Stainless Steel Tubular Heat Exchangers





# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: Southside High School & Jr. High Additions

Unit Model #: ZLG14T4C3EB1C224A3

Quantity: 1 Tag #: RTU-1

System: ZLG14T4C3EB1C224A3

### Additional Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	29.1 Amps
Unit max over-current protection	35 Amps
Min Voltage	432 V
Max Voltage	504 V
Comp #1 RLA	9.0
Comp #1 LRA	60.9
Comp #2 RLA	8.2
Comp #2 LRA	66.1
Indoor Mtr Voltage	460-3-60
Indoor Mtr FLA	6.7
Outdoor Mtr Qty	1
Outdoor Fan Voltage	460-3-60
OD Fan Mtr FLA (ea.)	2.9
Power Ex Mtr Qty (if applicable)	2
Powered Ex Voltage(if applicable)	460-3-60
Power Ex Mtr FLA (ea) (if applicable)	0.5
Combustion Mtr Qty	1
Combustion Motor Voltage	208/230-1-60
Combustion Mtr FLA (ea)	0.08



# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: Southside High School &amp; Jr. High Additions

Unit Model #: ZLG14T4C3EB1C224A3

Quantity: 1 Tag #: RTU-1

System: ZLG14T4C3EB1C224A3

## Factory Installed Options

### ZLG14T4C3EB1C224A3

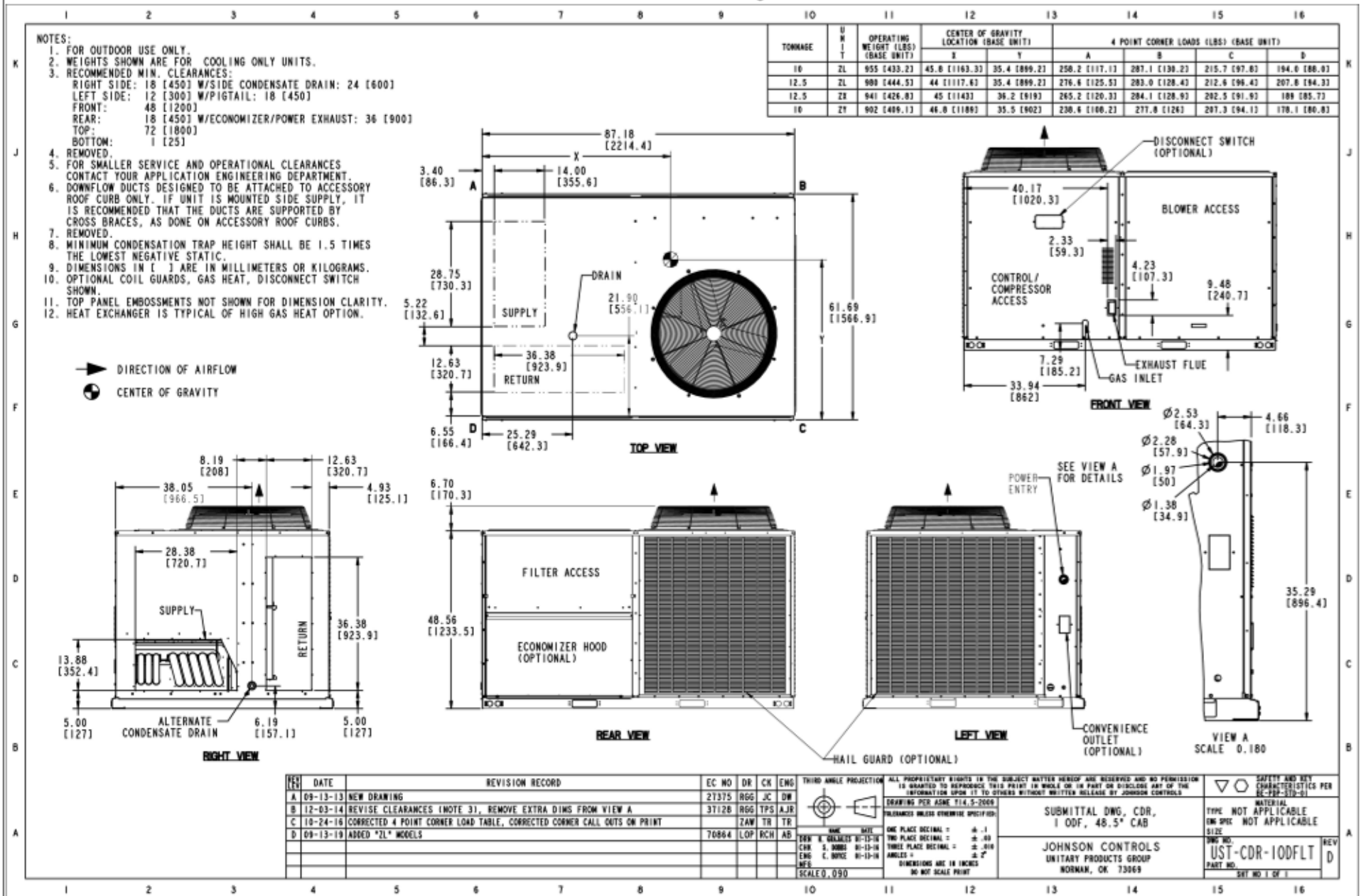
Equipment Options	Option(s) Selected
Product Category:	<b>ZL</b> York Sun Core Single Packaged R-410A Air Conditioner
Heat Type:	<b>G</b> Gas Heat
Nominal Cooling Capacity:	<b>14</b> 12.5 Ton Three Stage Cooling 11.0 EER
Heat Size:	<b>T</b> 250 MBH Two Stage Input High Heat Stainless Steel Gas
Voltage:	<b>4</b> 460-3-60
Airflow:	<b>C</b> High Static Belt Drive Blower
Airflow Options:	<b>3</b> VFD IntelliSpeed
Coil Options:	<b>E</b> Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
Controls:	<b>B</b> Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.
Sensor Options:	<b>1</b>
Economizer / Damper:	<b>C</b> Enthalpy Economizer (Downflow only) (with Barometric Relief) with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
Convenience Outlet:	<b>2</b> Non-powered Convenience Outlet
Electrical Options:	<b>2</b> Non-fused Disconnect (60 Amp)
Cabinet Options:	<b>4</b> Louvered Hail Guards & Hinged Cabinet Doors
Special Options:	<b>A</b>
Product Generation:	<b>3</b>

## Field Installed Accessories

- 2PM04700224 - Phase Monitor Kit (1.0 lbs)
- 2EC0402 - Kit, Dual Enthalpy Field Installed (Includes two humidity sensors) (1.0 lbs)
- 1TB0402 - Large Footprint Thru The Base Electrical & Thru The Curb Gas (1.0 lbs)

Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZLG14T4C3EB1C224A3**

 Quantity: **1** Tag #: **RTU-1**
**Consolidated Drawing**




# York® Sun™ Core 3-12.5 Ton Package

## Single Package R-410A Air Conditioner

Project Name: Southside High School & Jr. High Additions

Unit Model #: ZLG14T4C3EB1C224A3

Quantity: 1 Tag #: RTU-1

### Field Installed Accessory Weights

#### Unit Accessory Weights

Unit Accessory	Weights (lbs.)
Vertical Flow Dry Bulb Economizer Small Footprint	63
Horizontal Flow Dry Bulb Economizer Small Footprint Short	96
Horizontal Flow Dry Bulb Economizer Small Footprint Short	75
Horizontal Flow Dry Bulb Economizer Small Footprint Tall	81
Horizontal Flow Dry Bulb Economizer Large Footprint Short	105
Horizontal Flow Dry Bulb Economizer Large Footprint Tall	102
Power Exhaust Vert Flow Small Footprint	38
Power Exhaust Vert Flow Large Footprint	38
Power Exhaust Horiz Flow Small Footprint	38
Power Exhaust Horiz Flow Large Footprint	38
Hail Guard Kit Small Short Factory Installed	19
Hail Guard Kit Small Tall Factory Installed	24
Hail Guard Kit Large Short Factory Installed	50
Hail Guard Kit Large Tall Factory Installed	50
Curb Rigid 14" Small Footprint	145
Curb Rigid 24" Small Footprint	135
Curb Rigid 14" Large Footprint	135
Curb Rigid 24" Large Footprint	135

## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZLG06S4C3EB1C224A2**

 Quantity: **4** Tag #: **RTU-2,3,6,14**

 System: **ZLG06S4C3EB1C224A2**

### Cooling Performance

Total gross capacity	63.6 MBH
Sensible gross capacity	47.5 MBH
Seasonal Efficiency (at ARI)	15.80 SEER
Efficiency (at ARI)	12.40 EER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	58.0 °F
Leaving WB temp.	56.9 °F
Leaving air temp dew point	56.20 °F
Power input (w/o blower)	4.30 kW
Sound power	78 dB(A)

### Refrigerant

Refrigerant type	R-410A
Sys1	9 lbs 10 oz

### Reheat Performance

Ambient DB temp.	85 °F
Entering DB temp.	75 °F
Entering WB temp.	67 °F

### Gas Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	90.0 MBH
Supply air	2000 CFM
Heating input capacity (Max)	112 MBH
Leaving DB temp.	101.7 °F
Air temp. rise	41.7 °F
SSE	80.0 %
Stages	2

### Supply Air Blower Performance

Supply air	2000 CFM
Ext. static pressure	0.5 IWG
Addl. Unit Losses (Options/Accessories)	0.74 IWG
Blower speed	1308 RPM
Max BHP of Motor (including service factor)	2.90 HP
Duct location	Bottom
Motor rating	2.90 HP
Actual required BHP	1.41 HP
Power input	1.32 kW
Elevation	0 ft.
Drive type	BELT

### Outside/Mixed Air

Outside Air CFM	200 CFM
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### Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	15.2 Amps
Unit min over-current protection	20 Amps
Unit max over-current protection	20 Amps

### Dimensions & Weight

Hgt	41 in.	Len	74 in.	Wth	49 in.
Weight with factory installed options	706 lbs				

### Clearances

Right	18 in.	Front	36 in.	Rear	36 in.
Top	72 in.	Bottom	1 in.	Left	12 in.

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



### 5 Ton

- All units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

### Unit Features

- Two Stage Cooling
- Medium Heat Stainless Steel Gas
- 15.8 SEER /12.2 EER
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards)
- Either supply and/or return can be field converted from vertical to horizontal configuration without cutting panels.
- Full perimeter base rails with built in rigging capabilities
- Scroll Compressors
- Enthalpy Economizer (Downflow only) (with Barometric Relief) with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
- High Static Belt Drive Blower
- Solid Core Liquid Line Filter Driers
- Unit Ships with 2" Throwaway Filters
- Single Point Power Connection
- Short Circuit Current: 5kA RMS Symmetrical
- Non-fused Disconnect (60 Amp)
- Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
- MagnaDRY Reheat

### Standard Unit Controller

- On-Board Diagnostic and Fault Code display
- Smart Equipment Control Board
- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Safety Monitoring - Monitors the high and low-pressure switches, the freezestats, the gas valve, if applicable, and the temperature limit switch on gas and electric heat units. The unit control board will alarm on ignition failures, safety lockouts and repeated limit switch trips.

### BAS Controller

- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 communication card.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors
- Fifteen (15) Year Warranty - Stainless Steel Tubular Heat Exchangers



# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **ZLG06S4C3EB1C224A2**

Quantity: **4** Tag #: **RTU-2,3,6,14**

System: **ZLG06S4C3EB1C224A2**

### Additional Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	15.2 Amps
Unit max over-current protection	20 Amps
Min Voltage	432 V
Max Voltage	504 V
Comp #1 RLA	7.6
Comp #1 LRA	52.0
Indoor Mtr Voltage	460-3-60
Indoor Mtr FLA	4.1
Outdoor Mtr Qty	1
Outdoor Fan Voltage	460-1-60
OD Fan Mtr FLA (ea.)	1.6
Power Ex Mtr Qty (if applicable)	1
Powered Ex Voltage(if applicable)	460-3-60
Power Ex Mtr FLA (ea) (if applicable)	0.5
Combustion Mtr Qty	1
Combustion Motor Voltage	208/230-1-60
Combustion Mtr FLA (ea)	0.08



# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: Southside High School &amp; Jr. High Additions

Unit Model #: ZLG06S4C3EB1C224A2

Quantity: 4 Tag #: RTU-2,3,6,14

System: ZLG06S4C3EB1C224A2

## Factory Installed Options

### ZLG06S4C3EB1C224A2

Equipment Options	Option(s) Selected	
Product Category:	<b>ZL</b>	York Sun Core Single Packaged R-410A Air Conditioner 15.8 SEER / 12.4 EER
Heat Type:	<b>G</b>	Gas Heat
Nominal Cooling Capacity:	<b>06</b>	5 Ton Two Stage Cooling
Heat Size:	<b>S</b>	Medium Heat Stainless Steel Gas
Voltage:	<b>4</b>	460-3-60
Airflow:	<b>C</b>	High Static Belt Drive Blower
Airflow Options:	<b>3</b>	VFD IntelliSpeed
Coil Options:	<b>E</b>	Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
Controls:	<b>B</b>	Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.
Sensor Options:	<b>1</b>	
Economizer / Damper:	<b>C</b>	Enthalpy Economizer (Downflow only) (with Barometric Relief) with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
Convenience Outlet:	<b>2</b>	Non-powered Convenience Outlet
Electrical Options:	<b>2</b>	Non-fused Disconnect (60 Amp)
Cabinet Options:	<b>4</b>	Louvered Hail Guards & Hinged Cabinet Doors
Special Options:	<b>A</b>	
Product Generation:	<b>2</b>	

## Field Installed Accessories

- 2PM04700224 - Phase Monitor Kit (1.0 lbs)
- 2EC0402 - Kit, Dual Enthalpy Field Installed (Includes two humidity sensors) (1.0 lbs)
- 1TB0401 - Small Footprint Thru The Base Electrical & Thru The Curb Gas (1.0 lbs)



## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZLG06S4C3EB1C224A2**

 Quantity: **4** Tag #: **RTU-2,3,6,14**

### Weights and Dimensions

Figure 9: Unit center of gravity

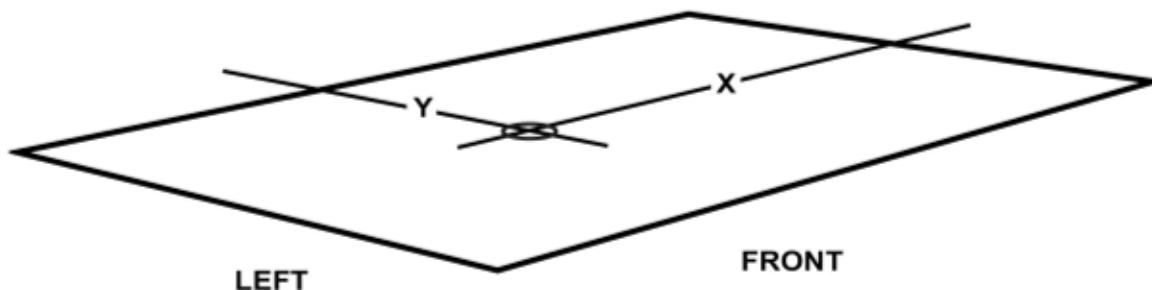


Table 176: ZQ04-06, ZXA7-14, ZY04-12, ZL04-06 and ZL08-14 corner weights

Model	Size (ton)	Weight (lb)		Center of gravity		4 point load location (lb)				6 point load location (lb)					
		Shipping	Operating	X	Y	A	B	C	D	A	B	C	D	E	F
ZQE	04 (3)	479	450	36	26	121	117	104	108	81	79	78	69	71	72
ZQE	05 (4)	516	487	36	26	131	124	113	119	88	85	82	75	77	80
ZQE	06 (5)	590	561	36	24	140	134	140	147	94	91	89	93	96	99
ZXE	A7 (6)	634	614	34	25	168	146	139	160	115	104	95	91	99	109
ZXE	08 (7.5)	787	782	47	36	211	245	175	151	138	151	167	119	108	98
ZXE	09 (8.5)	847	842	46	36	227	259	189	166	148	161	176	129	118	109
ZXE	12 (10)	874	869	46	36	239	268	191	170	156	169	182	130	120	111
ZXE	14 (12.5)	936	931	45	36	262	281	200	187	173	181	190	135	129	123
ZYE	04 (3)	486	481	36	25	127	118	113	122	86	82	78	75	78	82
ZYE	05 (4)	569	564	36	25	145	140	137	142	97	95	93	91	93	95
ZYE	06 (5)	587	582	36	25	151	145	140	146	101	99	96	93	95	98
ZYE	07 (6)	730	725	44	36	206	211	156	153	137	139	141	104	103	101
ZYE	A7 (6)	849	829	45	35	229	244	183	172	151	158	165	124	118	113
ZYE	08 (7.5)	873	868	46	36	236	268	193	171	154	167	182	132	121	111
ZYE	09 (8.5)	878	878	46	36	241	265	195	177	158	168	180	132	124	116
ZYE	12 (10)	907	902	47	36	239	278	207	178	155	171	190	142	128	116
ZLE	04 (3)	486	481	42	27	112	147	126	96	71	85	103	88	73	61
ZLE	05 (4)	569	564	36	26	153	145	130	137	103	99	96	86	89	92
ZLE	06 (5)	587	582	37	24	141	142	150	149	94	94	95	100	100	99
ZLE	08 (7.5)	925	920	45	37	262	282	195	181	173	181	191	131	125	119
ZLE	09 (8.5)	930	925	46	36	258	284	201	182	169	180	192	136	128	120
ZLE	12 (10)	960	955	46	35	258	287	216	194	169	181	195	146	136	127
ZLE	14 (12.5)	985	980	44	35	277	283	213	208	184	186	189	142	140	138

Table 177: ZQ04-06, ZXA7-14, ZY04-12, ZL04-06 and ZL08-14 corner weights

Model	Size (ton)	Weight (lb)		Center of gravity		4 point load location (lb)				6 point load location (lb)					
		Shipping	Operating	X	Y	A	B	C	D	A	B	C	D	E	F
ZQG	04 (3)	530	515	35	27	145	132	113	125	98	92	87	74	79	84
ZQG	05 (4)	557	552	36	27	154	144	123	131	104	99	95	81	85	89
ZQG	06 (5)	639	610	36	26	165	157	141	147	111	107	104	93	96	99
ZXG	A7 (6)	688	668	34	25	183	159	152	174	125	114	104	99	108	119
ZXG	07 (6)	651	646	34	26	183	155	141	167	125	112	101	92	102	114
ZXG	08 (7.5)	889	884	46	37	249	282	188	166	162	176	192	128	117	108
ZXG	09 (8.5)	949	944	45	36	266	288	203	187	175	184	194	137	130	123
ZXG	12 (10)	980	975	45	37	281	298	204	192	185	193	201	137	132	127
ZXG	14 (12.5)	1042	1037	44	37	301	309	216	210	200	203	207	145	142	140
ZYG	04 (3)	532	527	36	27	147	136	117	126	99	94	90	77	81	85
ZYG	05 (4)	623	618	36	26	167	156	142	152	113	108	103	94	98	103
ZYG	06 (5)	641	636	35	26	174	159	144	159	118	111	104	95	101	108
ZYG	07 (6)	800	795	43	37	237	233	161	164	159	157	155	107	108	109
ZYG	A7 (6)	919	899	45.0	35	249	265	199	187	164	171	179	134	128	123
ZYG	08 (7.5)	975	970	44	37	287	294	197	193	191	193	196	132	130	128
ZYG	09 (8.5)	980	970	45	36	276	289	207	198	183	188	194	139	135	131
ZYG	12 (10)	1013	1008	45	36	285	300	217	206	189	195	202	146	141	136
ZLG	04 (3)	560	555	42	27	129	170	146	111	82	98	118	102	84	71

## Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **ZLG06S4C3EB1C224A2**

Quantity: **4** Tag #: **RTU-2,3,6,14**

### Weights

#### ZQ/ZX/ZY/ZL04-14 Unit Accessory Weights

Unit Accessory	Weights (lb)
Powered Convenience Outlet Factory Installed	35
Non-Powered Convenience Outlet Factory Installed	10
Vertical Flow Dry Bulb Economizer Small Footprint	63
Vertical Flow Dry Bulb Economizer Large Footprint	96
Horizontal Flow Dry Bulb Economizer Small Footprint Short	75
Horizontal Flow Dry Bulb Economizer Small Footprint Tall	81
Horizontal Flow Dry Bulb Economizer Large Footprint Short	105
Horizontal Flow Dry Bulb Economizer Large Footprint Tall	102
Power Exhaust Vert Flow Small Footprint	39
Power Exhaust Vert Flow Large Footprint	39
Power Exhaust Horiz Flow Small Footprint	39
Power Exhaust Horiz Flow Large Footprint	39
Hail Guard Kit Small Short Factory Installed	19
Hail Guard Kit Small Tall Factory Installed	24
Hail Guard Kit Large Short Factory Installed	50
Hail Guard Kit Large Tall Factory Installed	50
Flue Extension Kit (1FE0414)	15
Flue Extension Kit (1FE0415)	17
Flue Extension Kit (1FE0416)	19
Curb Rigid 14 in. Small Footprint	145
Curb Rigid 14 in. Large Footprint	135
Curb Rigid 24 in. Small Footprint	135
Curb Rigid 24 in. Large Footprint	135



# York® Sun™ Core 3-12.5 Ton Package

## Single Package R-410A Air Conditioner

Project Name: Southside High School & Jr. High Additions

Unit Model #: ZLG06S4C3EB1C224A2

Quantity: 4 Tag #: RTU-2,3,6,14

### Field Installed Accessory Weights

#### Unit Accessory Weights

Unit Accessory	Weights (lbs.)
Vertical Flow Dry Bulb Economizer Small Footprint	63
Horizontal Flow Dry Bulb Economizer Small Footprint Short	96
Horizontal Flow Dry Bulb Economizer Small Footprint Short	75
Horizontal Flow Dry Bulb Economizer Small Footprint Tall	81
Horizontal Flow Dry Bulb Economizer Large Footprint Short	105
Horizontal Flow Dry Bulb Economizer Large Footprint Tall	102
Power Exhaust Vert Flow Small Footprint	38
Power Exhaust Vert Flow Large Footprint	38
Power Exhaust Horiz Flow Small Footprint	38
Power Exhaust Horiz Flow Large Footprint	38
Hail Guard Kit Small Short Factory Installed	19
Hail Guard Kit Small Tall Factory Installed	24
Hail Guard Kit Large Short Factory Installed	50
Hail Guard Kit Large Tall Factory Installed	50
Curb Rigid 14" Small Footprint	145
Curb Rigid 24" Small Footprint	135
Curb Rigid 14" Large Footprint	135
Curb Rigid 24" Large Footprint	135

## Single Package R-410A Air Conditioner

Project Name: Southside High School &amp; Jr. High Additions

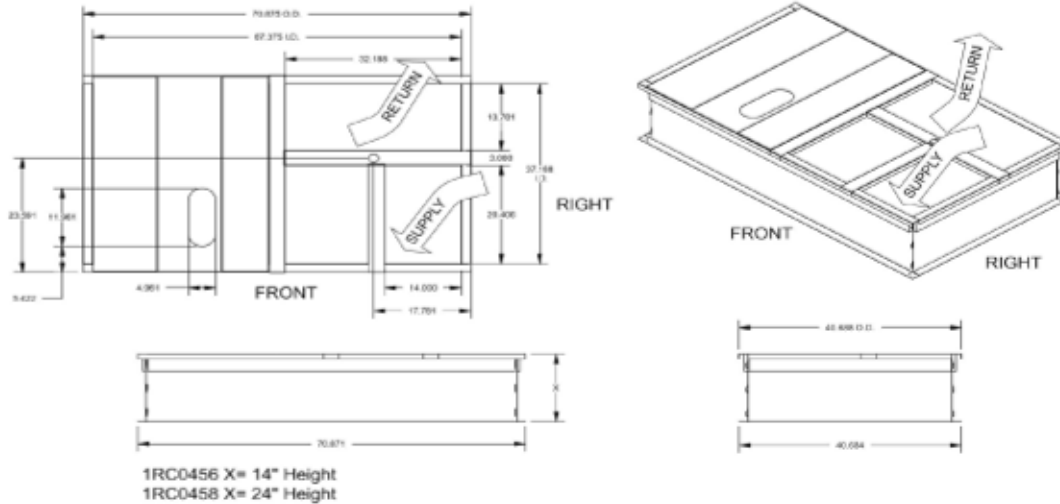
Unit Model #: ZLG06S4C3EB1C224A2

Quantity: 4 Tag #: RTU-2,3,6,14

### Roof Curb Dimensions

ZQ04-06, ZXA7-14, ZY04-12, ZL04-06 and ZL08-14 unit roof curb dimensions

Figure 15: 1RC0456, 1RC0458 roof curb dimensions



**Notes:**

1. Sides, ends and cross support are 18-G90. Deck pans, R/A & S/A supports are 20-G90.
2. Full perimeter wood nailer.
3. Insulated deck pans.

Table 181: Unit models used with 1RC0456, 1RC0458 roof curb

• ZQ04	• ZXA7	• ZY04	• ZL04
• ZQ05		• ZY05	• ZL05
• ZQ06		• ZY06	• ZL06

Ⓢ Note: If utilities are required thru the base of the unit or thru the roof curb the following field installed accessories can be purchased thru your dealer or contractor:

- Ⓢ Note: 1TB0401 - Thru the base electrical and thru the curb gas
- 1TB0403 - Thru the base electrical and gas

## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZLG06S4C3EB1C224A2**

 Quantity: **4** Tag #: **RTU-2,3,6,14**

### Sound Performance

## AHRI 270 Outdoor Sound Power Levels

Table 5: Outdoor sound power levels

Size (Tons)	Sound Rating <sup>1</sup> dB(A)	Octave Bands (Hz)							
		63	125	250	500	1000	2000	4000	8000
ZQ04 (3)	81	79.0	83.0	77.5	76.0	76.0	76.0	71.0	66.5
ZQ05 (4)	79	81.5	84.0	78.0	75.0	74.0	69.5	66.0	61.5
ZQ06 (5)	80	85.0	83.0	77.0	76.0	76.5	72.0	67.5	65.5
ZXA7 (6)	79	84.0	82.0	77.0	75.0	74.5	71.0	66.5	63.0
ZX08 (7.5)	84	87.0	86.0	82.0	80.5	79.5	75.0	70.5	66.5
ZX09 (8.5)	83	91.0	86.0	79.0	79.5	78.0	74.0	70.5	69.0
ZX12 (10)	84	87.5	85.0	81.0	80.0	80.0	74.5	70.0	66.5
ZX14 (12.5)	90	87.5	88.5	85.0	86.0	85.0	81.0	78.5	73.0
ZY04 (3)	79	81.0	86.5	77.0	76.0	75.0	70.5	66.5	63.5
ZY05 (4)	79	84.0	83.0	76.0	75.0	74.0	70.0	66.0	63.5
ZY06 (5)	79	83.0	83.0	76.0	75.0	75.0	69.5	66.0	63.0
ZY07 (6)	84	90.0	87.0	81.5	81.0	79.0	74.5	71.0	69.5
ZY08 (7.5)	83	91.5	84.5	79.5	79.5	78.5	74.0	68.5	66.0
ZY09 (8.5)	83	92.0	87.0	81.0	80.5	79.0	74.0	69.0	66.0
ZY12 (10)	87	88.0	88.5	84.5	84.0	82.5	78.5	76.0	73.0
ZL04 (3)	75.0	76.5	80.0	74.5	71.0	71.0	65.0	63.5	63.0
ZL05 (4)	76.0	83.0	79.0	74.5	72.0	73.0	66.5	62.0	59.5
ZL06 (5)	78.0	84.0	84.5	76.5	75.5	73.5	68.5	65.0	60.5
ZL08 (7.5)	82	85.0	85.5	79.5	78.5	77.5	72.5	68.0	64.0
ZL09 (8.5)	82	88.5	83.0	81.0	79.0	78.0	73.5	69.0	65.5
ZL12 (10)	86	82.0	88.5	85.0	82.5	80.5	76.0	73.5	69.5
ZL14 (12.5)	86	84.0	88.5	84.5	83.5	81.0	76.5	73.5	69.5

<sup>1</sup> Rated in accordance with AHRI 270-2015.



# York® Sun™ Core 3-12.5 Ton Package

## Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **ZLG06S4C3EB1C224A2**

Quantity: **4** Tag #: **RTU-2,3,6,14**

### Unit Clearances

#### ZQ04-06, ZXA7, ZL04-06 and ZY04-06 unit clearances

Direction	Distance (in.)	Direction	Distance (in.)
Top <sup>1</sup>	72	Right	18
Front	36	Left	12
Rear	18 <sup>1</sup> /36 <sup>4</sup>	Bottom <sup>4</sup>	1

- 1 Units must be installed outdoors. Over hanging structure or shrubs should not obscure condenser air discharge outlet.
- 2 Units without economizer or power exhaust.
- 3 Units equipped with an economizer or power exhaust. Flue products must not be discharged within 10 Feet of the rear of the unit.
- 4 Units may be installed on combustible floors made from wood or class A, B or C roof covering materials.

## York Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **AV15S3CP4S1CAS46F2**

 Quantity: **1** Tag #: **RTU-4**

 System: **AV15S3CP4S1CAS46F2**

### Cooling Performance

Total gross capacity	185.7 MBH
Sensible gross capacity	136.3 MBH
Efficiency (at ARI)	10.90 EER
Integrated eff. (at ARI)	14.00 IEER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	59.0 °F
Leaving WB temp.	57.2 °F
Leaving air temp dew point	56.00 °F
Sound power	85 dB(A)

### Refrigerant

Refrigerant type	R-410A
Sys1	7 lbs 10 oz
Sys2	8 lbs 2 oz

### Reheat Performance

Total capacity	105.4 MBH
Sensible capacity	21.7 MBH
Ambient DB temp.	85 °F
Entering DB temp.	75 °F
Entering WB temp.	67 °F
Leaving DB temp.	71.7 °F
Leaving WB temp.	61.8 °F
Power input (w/o blower)	12.60 kW
Gallons of water per hour	9.55 GPM

### Gas Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	324.0 MBH
Supply air	6000 CFM
Heating input capacity (Max)	400 MBH
Leaving DB temp.	110.0 °F
Air temp. rise	50.0 °F
SSE	81.0 %
Stages	2

### Supply Air Blower Performance

Supply air	6000 CFM
Ext. static pressure	0.6 IWG
Addl. Unit Losses (Options/Accessories)	0.13 IWG
Blower speed	800 RPM
Max BHP of Motor (including service factor)	3.45 HP
Duct location	Bottom
Motor rating	3.00 HP
Actual required BHP	2.30 HP
Power input	2.14 kW
Elevation	0 ft.
Drive type	BELT

### Outside/Mixed Air

Outside Air CFM	600 CFM
-----------------	---------

### Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	35.8 Amps
Unit max over-current protection	45 Amps

### Dimensions & Weight

Hgt 49 in.	Len 130 in.	Wth 89 in.
Weight with factory installed options		2115 lbs

### Clearances

Right	42 in.	Front	80 in.	Rear	36 in.
Top	120 in.	Bottom	0 in.	Left	96 in.

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



### 15 Ton

- Manufactured at an ISO 9001 Registered Facility and Each Rooftop is Completely Computer-Run Tested Prior to Shipment.

### Unit Features

- Two Stage Compressor Operation
- Two independent refrigerant circuits
- Full Perimeter Base Rails with Built in Rigging Capabilities
- Dual Enthalpy Economizer w/Barometric Relief with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
- 3 HP Medium Static Belt Drive Blower
- 2" Pleated Filters (MERV 8)
- Replacement Filters: 6 (20" x 25" x 2" or 4"). Unit accepts 2" or 4" wide filters.
- Units are provided with the selected 2-inch or 4-inch filter and can easily be converted in the field to accept either size in the standard filter rack
- Utility Connections - Gas and electrical utility locations are supplied in the unit underside as well as the side of the unit. Utility connections can be made quickly and with a minimum amount of field labor
- Copper tube/Aluminum fin evaporator coils
- Microchannel condenser coils

### Standard Unit Controller: Smart Equipment Control Board

- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, On-Board Diagnostic and Fault Code Display. Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Safety Monitoring - Monitors the High and Low-Pressure Switches, the Freezestats, the Gas Valve, if Applicable, and the Temperature Limit Switch on Gas and Electric Heat Units. The Unit Control Board will Alarm on Ignition Failures, Safety Lockouts and Repeated Limit Switch Trips.

### BAS Controller

- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACnet MS/TP, Modbus and N2 Communication Card.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors and Electric Heater Elements
- Fifteen (15) Year Warranty - Stainless Steel Tubular Heat Exchangers





# Sun Choice 15-27.5 Ton Package

York Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AV15S3CP4S1CAS46F2**

Quantity: **1** Tag #: **RTU-4**

System: **AV15S3CP4S1CAS46F2**

### Additional Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	35.8 Amps
Unit max over-current protection	45 Amps
Min Voltage	416 V
Max Voltage	508 V
Comp #1 RLA	12.2
Comp #1 LRA	100
Comp #2 RLA	12.2
Comp #2 LRA	100
Indoor Mtr Voltage	460-3-60
Indoor Mtr FLA	6.1
Outdoor Mtr Qty	2
Outdoor Fan Voltage	460-1-60
OD Fan Mtr FLA (ea.)	1.1
Power Ex Mtr Qty (if applicable)	2
Powered Ex Voltage(if applicable)	460-1-60
Power Ex Mtr FLA (ea) (if applicable)	2.2
Combustion Mtr Qty	1
Combustion Motor Voltage	208/230-1-60
Combustion Mtr FLA (ea)	0.8



# Sun Choice 15-27.5 Ton Package

York Single Package R-410A Air Conditioner

Project Name: Southside High School & Jr. High Additions

Unit Model #: AV15S3CP4S1CAS46F2

Quantity: 1 Tag #: RTU-4

System: AV15S3CP4S1CAS46F2

## Factory Installed Options

### AV15S3CP4S1CAS46F2

Equipment Options	Option(s) Selected
Product Category:	<b>A</b> York SunChoice Single Packaged R-410A Air Conditioner
Efficiency:	<b>V</b> Standard Efficiency, Bottom Duct
Nominal Cooling Capacity:	<b>15</b> 15 Ton
Heat Type:	<b>S</b> Natural Gas, Stainless Steel, Staged Heat
Heat Size:	<b>3</b> High Heat, 400 MBH Input
Blower Option:	<b>C</b> 3 HP Medium Static Belt Drive Blower
Air Volume:	<b>P</b> Two Stage Compressor Operation IntelliSpeed control of the VFD based on stages of cooling. Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10.
Voltage:	<b>4</b> 460-3-60 5 kA Standard SCCR
Outside Air Option:	<b>S</b> Dual Enthalpy Economizer w/Barometric Relief with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
Coil Options:	<b>1</b> Microchannel condenser coils Copper tube/Aluminum fin evaporator coils
Controls:	<b>C</b> Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.
Sensor Options:	<b>A</b>
Service Options:	<b>S</b> Non Powered Convenience Outlet (110 VAC) HACR Circuit Disconnect Phase Monitor
Refrigeration:	<b>4</b> Modulating Hot Gas Reheat
Additional Options:	<b>6</b> 2" Pleated Filters (MERV 8) Louvered Hail Guard
Cabinet Options:	<b>F</b> Hinged Access Panel Polyester SMC Drain Pan Condensate Overflow(COF)
Product Generation:	<b>2</b>



**Sun Choice 15-27.5 Ton  
Package**

York Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AV15S3CP4S1CAS46F2**

Quantity: **1** Tag #: **RTU-4**

System: **AV15S3CP4S1CAS46F2**

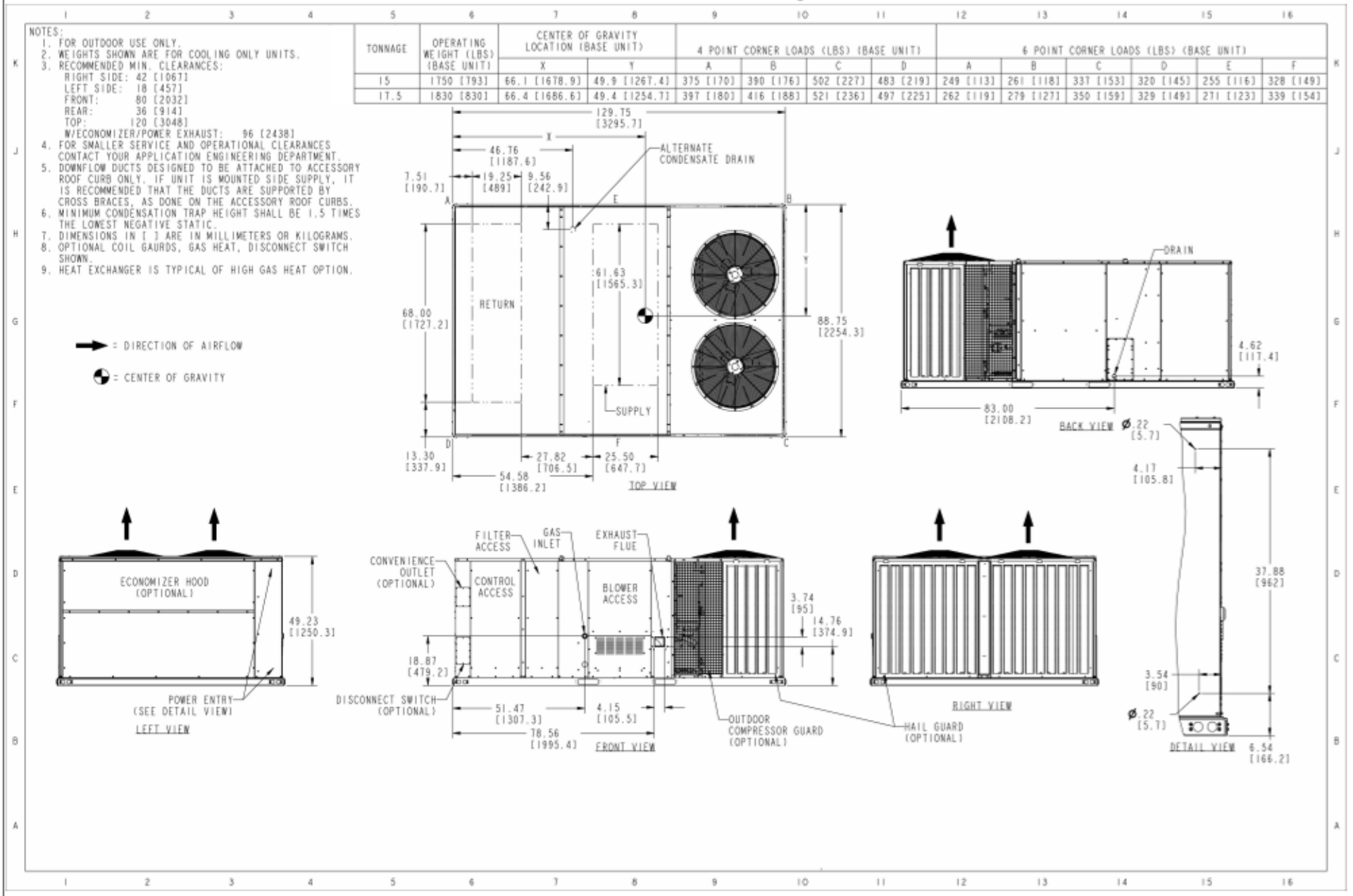
**Field Installed Accessories**

Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **AV15S3CP4S1CAS46F2**

 Quantity: **1** Tag #: **RTU-4**

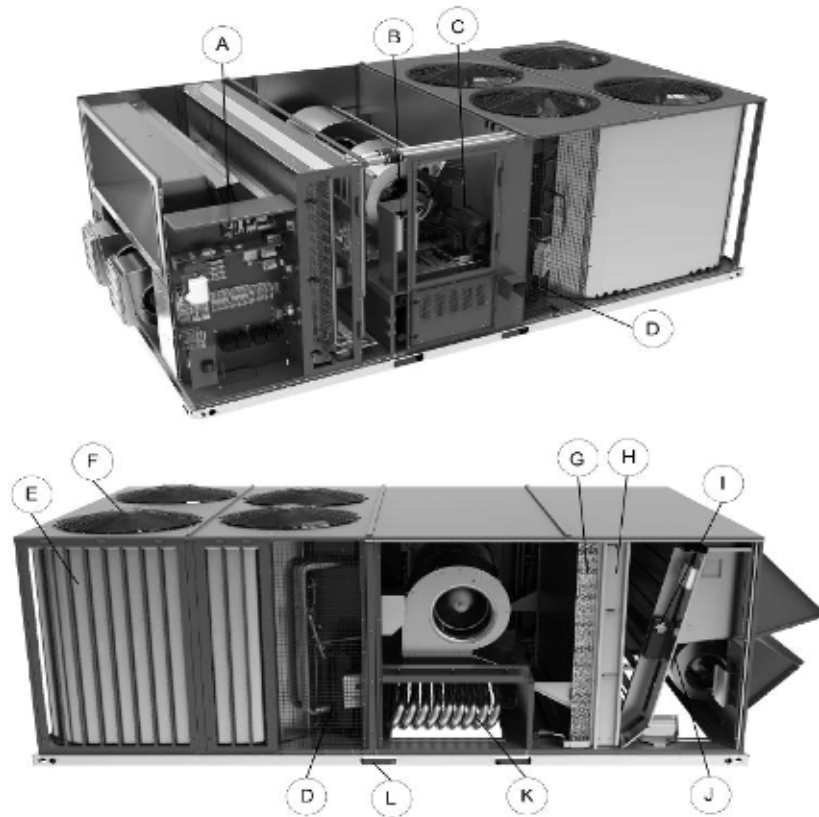
### 15 - 17.5 Ton Consolidated Drawing



## Component Location

### Unit components

Figure 1: Component location



The previous figure shows the AVXX model. The following table lists the components of the unit.

Table 1: Component location table

Item	Description	Item	Description
A	Smart Equipment™ controls	G	Copper tube/aluminum fin evaporator coil
B	Optional variable frequency drive	H	Filter access, 2-inch or 4-inch filter options
C	Belt drive blower motor with dual centrifugal fan design	I	Optional economizer. Optional manual or motorized outside air dampers not shown.
D	Scroll compressors in various arrangements to produce 2 or 4 stages of cooling depending on the selected model	J	Optional powered exhaust. Optional barometric relief not shown.
E	MicroChannel condenser coils	K	Optional staged or modulating gas heat with aluminized or stainless steel heat exchanger
F	Condenser fans	L	Full perimeter base rails with holes for overhead rigging

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AV15S3CP4S1CAS46F2**

Quantity: 1 Tag #: RTU-4

### Typical Installation

#### Typical installation

The following figures show the typical installations for the unit.

Figure 14: Roof jack installation

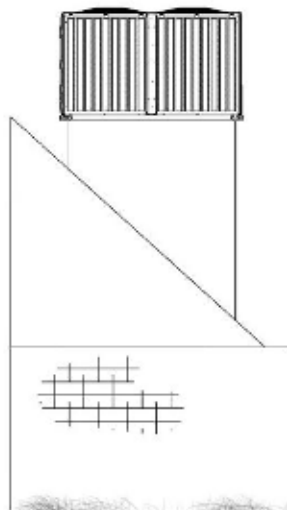
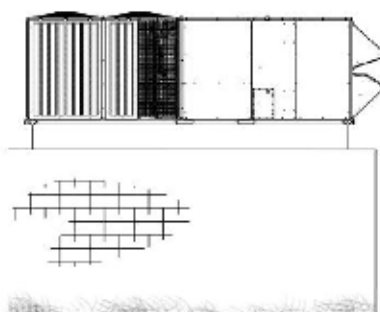


Figure 15: Roof curb installation



Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AV15S3CP4S1CAS46F2**

Quantity: 1 Tag #: RTU-4

### Economizer Drawing

## Economizer options

Figure 13: Economizer options

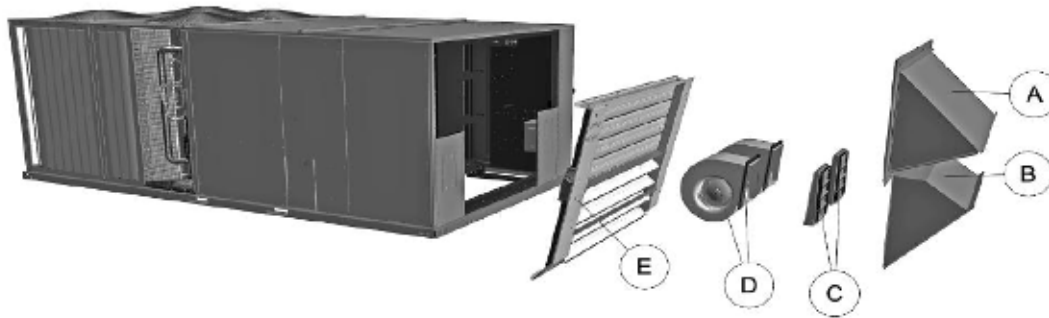


Table 38: Economizer components

Item	Description
A	Fresh air hood
B	Power exhaust hood
C	Power exhaust damper
D	Power exhaust
E	Low leak economizer

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AV15S3CP4S1CAS46F2**

Quantity: 1 Tag #: RTU-4

### Rainhood Drawing

## Rain hood dimensions

Figure 8: Rain hood dimensions

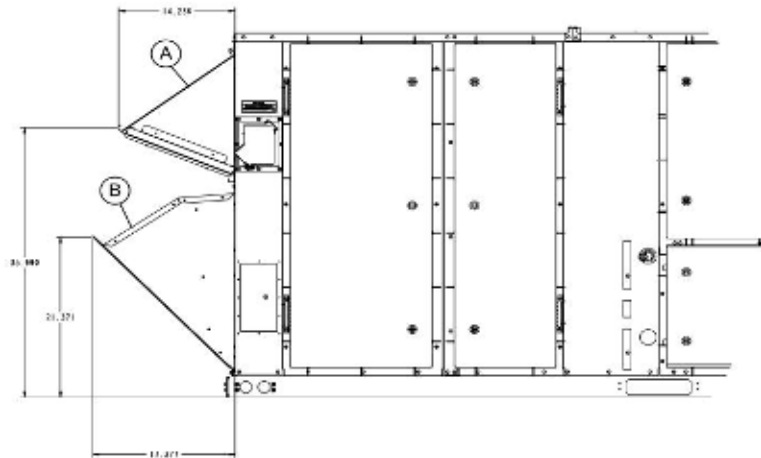


Table 32: Rain hood components

Item	Description
A	Economizer/motorized damper and power exhaust rain hood
B	Air intake hood

## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZLG05S4C3EB1C224A2**

 Quantity: **2** Tag #: **RTU-5,8**

 System: **ZLG05S4C3EB1C224A2**

### Cooling Performance

Total gross capacity	49.3 MBH
Sensible gross capacity	37.1 MBH
Seasonal Efficiency (at ARI)	16.00 SEER
Efficiency (at ARI)	12.00 EER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	58.5 °F
Leaving WB temp.	57.2 °F
Leaving air temp dew point	56.40 °F
Power input (w/o blower)	3.30 kW
Sound power	76 dB(A)

### Refrigerant

Refrigerant type	R-410A
Sys1	6 lbs 8 oz

### Reheat Performance

Total capacity	19.4 MBH
Sensible capacity	3.6 MBH
Ambient DB temp.	85 °F
Entering DB temp.	75 °F
Entering WB temp.	67 °F
Leaving DB temp.	72.9 °F
Leaving WB temp.	63.4 °F
Power input (w/o blower)	3.00 kW
Gallons of water per hour	1.80 GPM

### Gas Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	90.0 MBH
Supply air	1600 CFM
Heating input capacity (Max)	112 MBH
Leaving DB temp.	112.1 °F
Air temp. rise	52.1 °F
SSE	80.0 %
Stages	2

### Supply Air Blower Performance

Supply air	1600 CFM
Ext. static pressure	0.6 IWG
Addl. Unit Losses (Options/Accessories)	0.47 IWG
Blower speed	1301 RPM
Max BHP of Motor (including service factor)	2.90 HP
Duct location	Bottom
Motor rating	2.90 HP
Actual required BHP	1.12 HP
Power input	1.04 kW
Elevation	0 ft.
Drive type	BELT

### Outside/Mixed Air

Outside Air CFM	160 CFM
-----------------	---------

### Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	13.7 Amps
Unit min over-current protection	15 Amps

### Dimensions & Weight

Hgt 41 in.	Len 74 in.	With 49 in.
Weight with factory installed options 677 lbs		

### Clearances

Right	18 in.	Front	36 in.	Rear	36 in.
Top	72 in.	Bottom	1 in.	Left	12 in.

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



### 4 Ton

- All units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

### Unit Features

- Two Stage Cooling
- 16 SEER /12.5 EER
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards)
- Either supply and/or return can be field converted from vertical to horizontal configuration without cutting panels.
- Full perimeter base rails with built in rigging capabilities
- Scroll Compressors
- Enthalpy Economizer (Downflow only) (with Barometric Relief) with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
- High Static Belt Drive Blower
- Solid Core Liquid Line Filter Driers
- Unit Ships with 2" Throwaway Filters
- Single Point Power Connection
- Short Circuit Current: 5kA RMS Symmetrical
- Non-fused Disconnect (60 Amp)
- Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
- MagnaDRY Reheat

### Standard Unit Controller

- On-Board Diagnostic and Fault Code display
- Smart Equipment Control Board
- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Safety Monitoring - Monitors the high and low-pressure switches, the freestats, the gas valve, if applicable, and the temperature limit switch on gas and electric heat units. The unit control board will alarm on ignition failures, safety lockouts and repeated limit switch trips.

### BAS Controller

- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 communication card.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors
- Fifteen (15) Year Warranty - Stainless Steel Tubular Heat Exchangers



# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **ZLG05S4C3EB1C224A2**

Quantity: **2** Tag #: **RTU-5,8**

System: **ZLG05S4C3EB1C224A2**

### Additional Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	13.7 Amps
Unit max over-current protection	20 Amps
Min Voltage	432 V
Max Voltage	504 V
Comp #1 RLA	6.4
Comp #1 LRA	41.0
Indoor Mtr Voltage	460-3-60
Indoor Mtr FLA	4.1
Outdoor Mtr Qty	1
Outdoor Fan Voltage	460-1-60
OD Fan Mtr FLA (ea.)	1.6
Power Ex Mtr Qty (if applicable)	1
Powered Ex Voltage(if applicable)	460-3-60
Power Ex Mtr FLA (ea) (if applicable)	0.5
Combustion Mtr Qty	1
Combustion Motor Voltage	208/230-1-60
Combustion Mtr FLA (ea)	0.08



# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: Southside High School & Jr. High Additions

Unit Model #: ZLG05S4C3EB1C224A2

Quantity: 2 Tag #: RTU-5,8

System: ZLG05S4C3EB1C224A2

## Factory Installed Options

### ZLG05S4C3EB1C224A2

Equipment Options	Option(s) Selected	
Product Category:	<b>ZL</b>	York Sun Core Single Packaged R-410A Air Conditioner 16.0 SEER / 12 EER
Heat Type:	<b>G</b>	Gas Heat
Nominal Cooling Capacity:	<b>05</b>	4 Ton Two Stage Cooling
Voltage:	<b>4</b>	460-3-60
Airflow:	<b>C</b>	High Static Belt Drive Blower
Airflow Options:	<b>3</b>	VFD IntelliSpeed
Coil Options:	<b>E</b>	Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
Controls:	<b>B</b>	Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.
Sensor Options:	<b>1</b>	
Economizer / Damper:	<b>C</b>	Enthalpy Economizer (Downflow only) (with Barometric Relief) with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
Convenience Outlet:	<b>2</b>	Non-powered Convenience Outlet
Electrical Options:	<b>2</b>	Non-fused Disconnect (60 Amp)
Cabinet Options:	<b>4</b>	Louvered Hail Guards & Hinged Cabinet Doors
Special Options:	<b>A</b>	
Product Generation:	<b>2</b>	

## Field Installed Accessories

- 2PM04700224 - Phase Monitor Kit (1.0 lbs)
- 2EC0402 - Kit, Dual Enthalpy Field Installed (Includes two humidity sensors) (1.0 lbs)
- 1TB0401 - Small Footprint Thru The Base Electrical & Thru The Curb Gas (1.0 lbs)

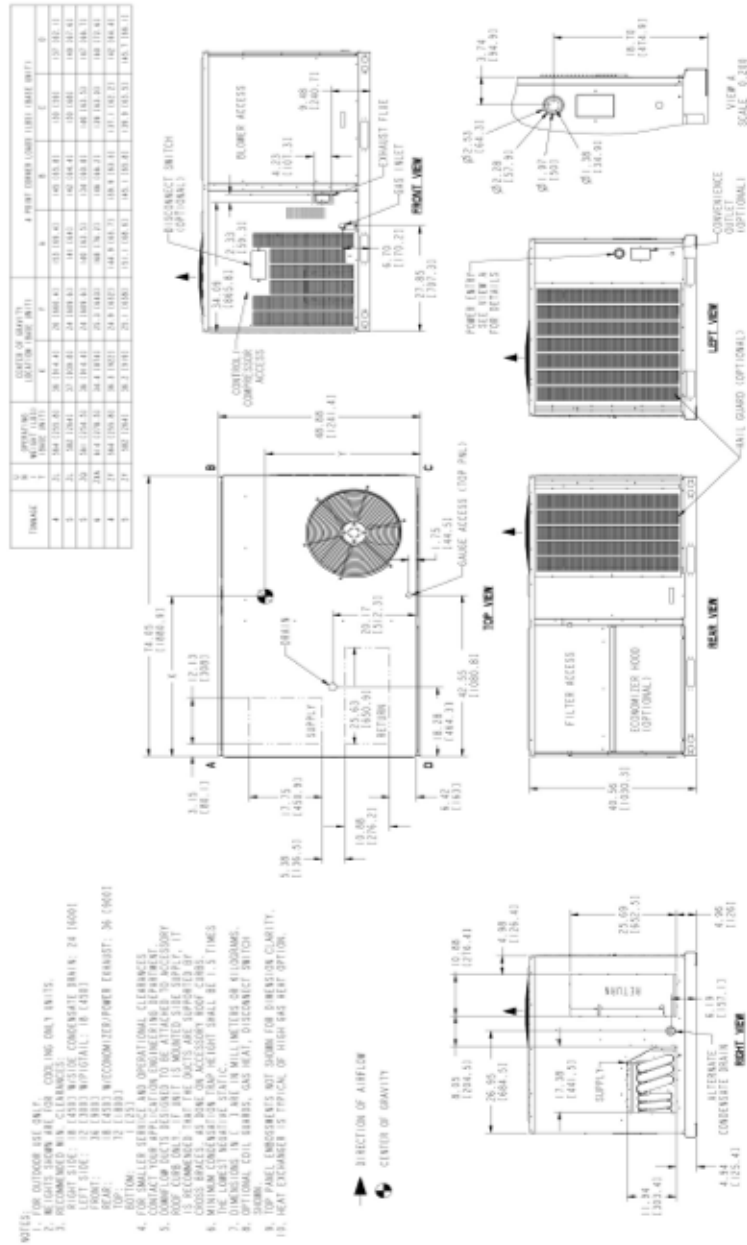
## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZLG05S4C3EB1C224A2**

 Quantity: **2** Tag #: **RTU-5,8**

### Consolidated Drawing

**ZQ06, ZXA7, ZL05-06 and ZY05-06**


## Single Package R-410A Air Conditioner

Project Name: Southside High School &amp; Jr. High Additions

Unit Model #: ZLG05S4C3EB1C224A2

Quantity: 2 Tag #: RTU-5,8

### Weights and Dimensions

Figure 9: Unit center of gravity

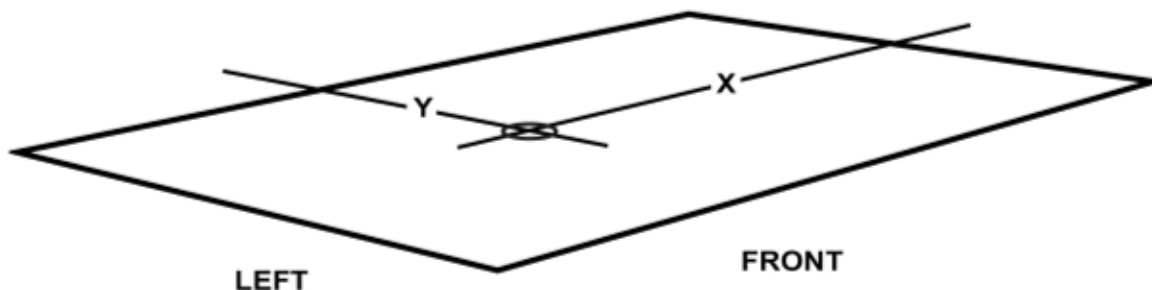


Table 176: ZQ04-06, ZXA7-14, ZY04-12, ZL04-06 and ZL08-14 corner weights

Model	Size (ton)	Weight (lb)		Center of gravity		4 point load location (lb)				6 point load location (lb)					
		Shipping	Operating	X	Y	A	B	C	D	A	B	C	D	E	F
ZQE	04 (3)	479	450	36	26	121	117	104	108	81	79	78	69	71	72
ZQE	05 (4)	516	487	36	26	131	124	113	119	88	85	82	75	77	80
ZQE	06 (5)	590	561	36	24	140	134	140	147	94	91	89	93	96	99
ZXE	A7 (6)	634	614	34	25	168	146	139	160	115	104	95	91	99	109
ZXE	08 (7.5)	787	782	47	36	211	245	175	151	138	151	167	119	108	98
ZXE	09 (8.5)	847	842	46	36	227	259	189	166	148	161	176	129	118	109
ZXE	12 (10)	874	869	46	36	239	268	191	170	156	169	182	130	120	111
ZXE	14 (12.5)	936	931	45	36	262	281	200	187	173	181	190	135	129	123
ZYE	04 (3)	486	481	36	25	127	118	113	122	86	82	78	75	78	82
ZYE	05 (4)	569	564	36	25	145	140	137	142	97	95	93	91	93	95
ZYE	06 (5)	587	582	36	25	151	145	140	146	101	99	96	93	95	98
ZYE	07 (6)	730	725	44	36	206	211	156	153	137	139	141	104	103	101
ZYE	A7 (6)	849	829	45	35	229	244	183	172	151	158	165	124	118	113
ZYE	08 (7.5)	873	868	46	36	236	268	193	171	154	167	182	132	121	111
ZYE	09 (8.5)	878	878	46	36	241	265	195	177	158	168	180	132	124	116
ZYE	12 (10)	907	902	47	36	239	278	207	178	155	171	190	142	128	116
ZLE	04 (3)	486	481	42	27	112	147	126	96	71	85	103	88	73	61
ZLE	05 (4)	569	564	36	26	153	145	130	137	103	99	96	86	89	92
ZLE	06 (5)	587	582	37	24	141	142	150	149	94	94	95	100	100	99
ZLE	08 (7.5)	925	920	45	37	262	282	195	181	173	181	191	131	125	119
ZLE	09 (8.5)	930	925	46	36	258	284	201	182	169	180	192	136	128	120
ZLE	12 (10)	960	955	46	35	258	287	216	194	169	181	195	146	136	127
ZLE	14 (12.5)	985	980	44	35	277	283	213	208	184	186	189	142	140	138

Table 177: ZQ04-06, ZXA7-14, ZY04-12, ZL04-06 and ZL08-14 corner weights

Model	Size (ton)	Weight (lb)		Center of gravity		4 point load location (lb)				6 point load location (lb)					
		Shipping	Operating	X	Y	A	B	C	D	A	B	C	D	E	F
ZQG	04 (3)	530	515	35	27	145	132	113	125	98	92	87	74	79	84
ZQG	05 (4)	557	552	36	27	154	144	123	131	104	99	95	81	85	89
ZQG	06 (5)	639	610	36	26	165	157	141	147	111	107	104	93	96	99
ZXG	A7 (6)	688	668	34	25	183	159	152	174	125	114	104	99	108	119
ZXG	07 (6)	651	646	34	26	183	155	141	167	125	112	101	92	102	114
ZXG	08 (7.5)	889	884	46	37	249	282	188	166	162	176	192	128	117	108
ZXG	09 (8.5)	949	944	45	36	266	288	203	187	175	184	194	137	130	123
ZXG	12 (10)	980	975	45	37	281	298	204	192	185	193	201	137	132	127
ZXG	14 (12.5)	1042	1037	44	37	301	309	216	210	200	203	207	145	142	140
ZYG	04 (3)	532	527	36	27	147	136	117	126	99	94	90	77	81	85
ZYG	05 (4)	623	618	36	26	167	156	142	152	113	108	103	94	98	103
ZYG	06 (5)	641	636	35	26	174	159	144	159	118	111	104	95	101	108
ZYG	07 (6)	800	795	43	37	237	233	161	164	159	157	155	107	108	109
ZYG	A7 (6)	919	899	45.0	35	249	265	199	187	164	171	179	134	128	123
ZYG	08 (7.5)	975	970	44	37	287	294	197	193	191	193	196	132	130	128
ZYG	09 (8.5)	980	970	45	36	276	289	207	198	183	188	194	139	135	131
ZYG	12 (10)	1013	1008	45	36	285	300	217	206	189	195	202	146	141	136
ZLG	04 (3)	560	555	42	27	129	170	146	111	82	98	118	102	84	71

## Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **ZLG05S4C3EB1C224A2**

Quantity: **2** Tag #: **RTU-5,8**

### Weights

#### ZQ/ZX/ZY/ZL04-14 Unit Accessory Weights

Unit Accessory	Weights (lb)
Powered Convenience Outlet Factory Installed	35
Non-Powered Convenience Outlet Factory Installed	10
Vertical Flow Dry Bulb Economizer Small Footprint	63
Vertical Flow Dry Bulb Economizer Large Footprint	96
Horizontal Flow Dry Bulb Economizer Small Footprint Short	75
Horizontal Flow Dry Bulb Economizer Small Footprint Tall	81
Horizontal Flow Dry Bulb Economizer Large Footprint Short	105
Horizontal Flow Dry Bulb Economizer Large Footprint Tall	102
Power Exhaust Vert Flow Small Footprint	39
Power Exhaust Vert Flow Large Footprint	39
Power Exhaust Horiz Flow Small Footprint	39
Power Exhaust Horiz Flow Large Footprint	39
Hail Guard Kit Small Short Factory Installed	19
Hail Guard Kit Small Tall Factory Installed	24
Hail Guard Kit Large Short Factory Installed	50
Hail Guard Kit Large Tall Factory Installed	50
Flue Extension Kit (1FE0414)	15
Flue Extension Kit (1FE0415)	17
Flue Extension Kit (1FE0416)	19
Curb Rigid 14 in. Small Footprint	145
Curb Rigid 14 in. Large Footprint	135
Curb Rigid 24 in. Small Footprint	135
Curb Rigid 24 in. Large Footprint	135



# York® Sun™ Core 3-12.5 Ton Package

## Single Package R-410A Air Conditioner

Project Name: Southside High School & Jr. High Additions

Unit Model #: ZLG05S4C3EB1C224A2

Quantity: 2 Tag #: RTU-5,8

### Field Installed Accessory Weights

#### Unit Accessory Weights

Unit Accessory	Weights (lbs.)
Vertical Flow Dry Bulb Economizer Small Footprint	63
Horizontal Flow Dry Bulb Economizer Small Footprint Short	96
Horizontal Flow Dry Bulb Economizer Small Footprint Short	75
Horizontal Flow Dry Bulb Economizer Small Footprint Tall	81
Horizontal Flow Dry Bulb Economizer Large Footprint Short	105
Horizontal Flow Dry Bulb Economizer Large Footprint Tall	102
Power Exhaust Vert Flow Small Footprint	38
Power Exhaust Vert Flow Large Footprint	38
Power Exhaust Horiz Flow Small Footprint	38
Power Exhaust Horiz Flow Large Footprint	38
Hail Guard Kit Small Short Factory Installed	19
Hail Guard Kit Small Tall Factory Installed	24
Hail Guard Kit Large Short Factory Installed	50
Hail Guard Kit Large Tall Factory Installed	50
Curb Rigid 14" Small Footprint	145
Curb Rigid 24" Small Footprint	135
Curb Rigid 14" Large Footprint	135
Curb Rigid 24" Large Footprint	135

## Single Package R-410A Air Conditioner

Project Name: Southside High School &amp; Jr. High Additions

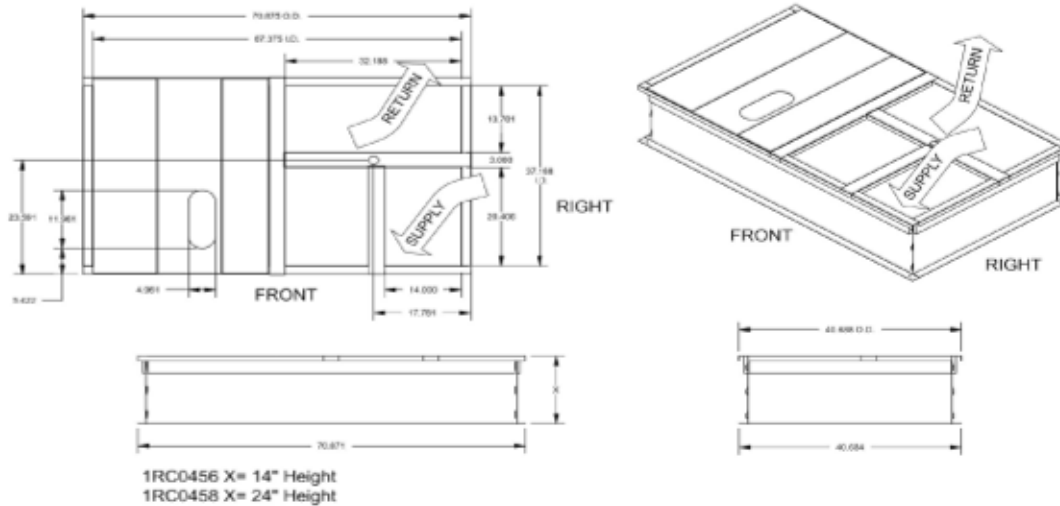
Unit Model #: ZLG05S4C3EB1C224A2

Quantity: 2 Tag #: RTU-5,8

### Roof Curb Dimensions

ZQ04-06, ZXA7-14, ZY04-12, ZL04-06 and ZL08-14 unit roof curb dimensions

Figure 15: 1RC0456, 1RC0458 roof curb dimensions



**Notes:**

1. Sides, ends and cross support are 18-G90. Deck pans, R/A & S/A supports are 20-G90.
2. Full perimeter wood nailer.
3. Insulated deck pans.

Table 181: Unit models used with 1RC0456, 1RC0458 roof curb

• ZQ04	• ZXA7	• ZY04	• ZL04
• ZQ05		• ZY05	• ZL05
• ZQ06		• ZY06	• ZL06

Ⓢ Note: If utilities are required thru the base of the unit or thru the roof curb the following field installed accessories can be purchased thru your dealer or contractor:

- Ⓢ Note: 1TB0401 - Thru the base electrical and thru the curb gas
- 1TB0403 - Thru the base electrical and gas

## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZLG05S4C3EB1C224A2**

 Quantity: **2** Tag #: **RTU-5,8**

### Sound Performance

## AHRI 270 Outdoor Sound Power Levels

Table 5: Outdoor sound power levels

Size (Tons)	Sound Rating <sup>1</sup> dB(A)	Octave Bands (Hz)							
		63	125	250	500	1000	2000	4000	8000
ZQ04 (3)	81	79.0	83.0	77.5	76.0	76.0	76.0	71.0	66.5
ZQ05 (4)	79	81.5	84.0	78.0	75.0	74.0	69.5	66.0	61.5
ZQ06 (5)	80	85.0	83.0	77.0	76.0	76.5	72.0	67.5	65.5
ZXA7 (6)	79	84.0	82.0	77.0	75.0	74.5	71.0	66.5	63.0
ZX08 (7.5)	84	87.0	86.0	82.0	80.5	79.5	75.0	70.5	66.5
ZX09 (8.5)	83	91.0	86.0	79.0	79.5	78.0	74.0	70.5	69.0
ZX12 (10)	84	87.5	85.0	81.0	80.0	80.0	74.5	70.0	66.5
ZX14 (12.5)	90	87.5	88.5	85.0	86.0	85.0	81.0	78.5	73.0
ZY04 (3)	79	81.0	86.5	77.0	76.0	75.0	70.5	66.5	63.5
ZY05 (4)	79	84.0	83.0	76.0	75.0	74.0	70.0	66.0	63.5
ZY06 (5)	79	83.0	83.0	76.0	75.0	75.0	69.5	66.0	63.0
ZY07 (6)	84	90.0	87.0	81.5	81.0	79.0	74.5	71.0	69.5
ZY08 (7.5)	83	91.5	84.5	79.5	79.5	78.5	74.0	68.5	66.0
ZY09 (8.5)	83	92.0	87.0	81.0	80.5	79.0	74.0	69.0	66.0
ZY12 (10)	87	88.0	88.5	84.5	84.0	82.5	78.5	76.0	73.0
ZL04 (3)	75.0	76.5	80.0	74.5	71.0	71.0	65.0	63.5	63.0
ZL05 (4)	76.0	83.0	79.0	74.5	72.0	73.0	66.5	62.0	59.5
ZL06 (5)	78.0	84.0	84.5	76.5	75.5	73.5	68.5	65.0	60.5
ZL08 (7.5)	82	85.0	85.5	79.5	78.5	77.5	72.5	68.0	64.0
ZL09 (8.5)	82	88.5	83.0	81.0	79.0	78.0	73.5	69.0	65.5
ZL12 (10)	86	82.0	88.5	85.0	82.5	80.5	76.0	73.5	69.5
ZL14 (12.5)	86	84.0	88.5	84.5	83.5	81.0	76.5	73.5	69.5

<sup>1</sup> Rated in accordance with AHRI 270-2015.

## Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**Unit Model #: **ZLG05S4C3EB1C224A2**Quantity: **2** Tag #: **RTU-5,8**

### Unit Clearances

#### ZQ04-06, ZXA7, ZL04-06 and ZY04-06 unit clearances

Direction	Distance (in.)	Direction	Distance (in.)
Top <sup>1</sup>	72	Right	18
Front	36	Left	12
Rear	18 <sup>1</sup> /36 <sup>4</sup>	Bottom <sup>4</sup>	1

- 1 Units must be installed outdoors. Over hanging structure or shrubs should not obscure condenser air discharge outlet.
- 2 Units without economizer or power exhaust.
- 3 Units equipped with an economizer or power exhaust. Flue products must not be discharged within 10 Feet of the rear of the unit.
- 4 Units may be installed on combustible floors made from wood or class A, B or C roof covering materials.



# York® Sun™ Core 3-12.5 Ton Package

## Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**Unit Model #: **ZYG12S4B3EB1A224A3**Quantity: **1** Tag #: **RTU-7**System: **ZYG12S4B3EB1A224A3**

### Cooling Performance

Total gross capacity	124.3 MBH
Sensible gross capacity	88.7 MBH
Efficiency (at ARI)	11.50 EER
Integrated eff. (at ARI)	14.60 IEER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	57.5 °F
Leaving WB temp.	56.0 °F
Leaving air temp dew point	55.00 °F
Power input (w/o blower)	8.50 kW
Sound power	87 dB(A)

### Refrigerant

Refrigerant type	R-410A
Sys1	6 lbs 12 oz
Sys2	6 lbs 10 oz

### Reheat Performance

Total capacity	53.5 MBH
Sensible capacity	9.2 MBH
Ambient DB temp.	85 °F
Entering DB temp.	75 °F
Entering WB temp.	67 °F
Leaving DB temp.	72.6 °F
Leaving WB temp.	62.7 °F
Power input (w/o blower)	3.70 kW
Gallons of water per hour	5.05 GPM

### Gas Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	176.0 MBH
Supply air	3600 CFM
Heating input capacity (Max)	220 MBH
Leaving DB temp.	105.3 °F
Air temp. rise	45.3 °F
SSE	80.0 %
Stages	2

### Supply Air Blower Performance

Supply air	3600 CFM
Ext. static pressure	0.6 IWG
Addl. Unit Losses (Options/Accessories)	0.57 IWG
Blower speed	944 RPM
Max BHP of Motor (including service factor)	3.70 HP
Duct location	Side
Motor rating	3.70 HP
Actual required BHP	2.43 HP
Power input	2.26 kW
Elevation	0 ft.
Drive type	BELT

### Outside/Mixed Air

Outside Air CFM	400 CFM
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### Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	23.6 Amps
Unit min over-current protection	25 Amps

### Dimensions & Weight

Hgt	55 in.	Len	87 in.	Wth	62 in.
Weight with factory installed options	1072 lbs				

### Clearances

Right	18 in.	Front	48 in.	Rear	36 in.
Top	72 in.	Bottom	1 in.	Left	12 in.

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



### 10 Ton

- All units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

### Unit Features

- Two Stage Cooling
- 220 MBH Two Stage Input Medium Heat Stainless Steel
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards)
- Either supply and/or return can be field converted from vertical to horizontal configuration without cutting panels.
- Full perimeter base rails with built in rigging capabilities
- Scroll Compressors
- Medium Static Belt Drive Blower
- Solid Core Liquid Line Filter Driers
- Unit Ships with 2" Throwaway Filters
- Replacement Filters: 4 - (20" x 20"). Unit accepts 2" or 4" wide filters.
- Single Point Power Connection
- Short Circuit Current: 5kA RMS Symmetrical
- Non-fused Disconnect (60 Amp)
- Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
- MagnaDRY Reheat

### Standard Unit Controller

- Safety Monitoring - Monitors the high and low-pressure switches, the freezestats, the gas valve, if applicable, and the temperature limit switch on gas and electric heat units. The unit control board will alarm on ignition failures, safety lockouts and repeated limit switch trips.
- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Smart Equipment Control Board
- On-Board Diagnostic and Fault Code display

### BAS Controller

- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 communication card.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors
- Fifteen (15) Year Warranty - Stainless Steel Tubular Heat Exchangers





# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **ZYG12S4B3EB1A224A3**

Quantity: **1** Tag #: **RTU-7**

System: **ZYG12S4B3EB1A224A3**

### Additional Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	23.6 Amps
Unit max over-current protection	30 Amps
Min Voltage	432 V
Max Voltage	504 V
Comp #1 RLA	7.1
Comp #1 LRA	62.0
Comp #2 RLA	7.1
Comp #2 LRA	62.0
Indoor Mtr Voltage	460-3-60
Indoor Mtr FLA	4.7
Outdoor Mtr Qty	1
Outdoor Fan Voltage	460-3-60
OD Fan Mtr FLA (ea.)	2.9
Power Ex Mtr Qty (if applicable)	2
Powered Ex Voltage(if applicable)	460-3-60
Power Ex Mtr FLA (ea) (if applicable)	0.5
Combustion Mtr Qty	1
Combustion Motor Voltage	208/230-1-60
Combustion Mtr FLA (ea)	0.08



# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: Southside High School &amp; Jr. High Additions

Unit Model #: ZYG12S4B3EB1A224A3

Quantity: 1 Tag #: RTU-7

System: ZYG12S4B3EB1A224A3

## Factory Installed Options

### ZYG12S4B3EB1A224A3

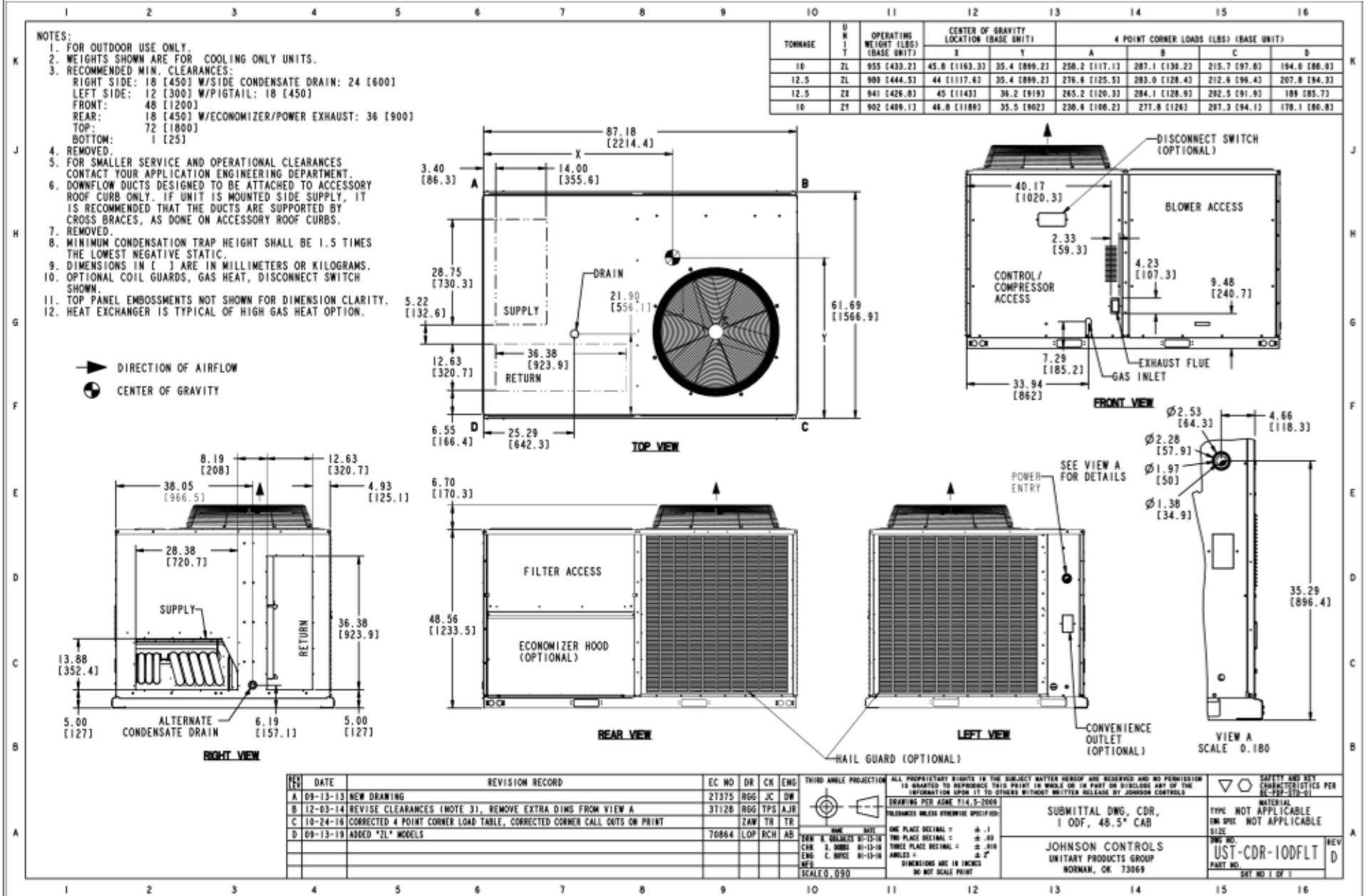
Equipment Options	Option(s) Selected
Product Category:	<b>ZY</b> York Sun Core Single Packaged R-410A Air Conditioner
Heat Type:	<b>G</b> Gas Heat
Nominal Cooling Capacity:	<b>12</b> 10 Ton Two Stage Cooling
Heat Size:	<b>S</b> 220 MBH Two Stage Input Medium Heat Stainless Steel
Voltage:	<b>4</b> 460-3-60
Airflow:	<b>B</b> Medium Static Belt Drive Blower
Airflow Options:	<b>3</b> VFD IntelliSpeed
Coil Options:	<b>E</b> Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
Controls:	<b>B</b> Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.
Sensor Options:	<b>1</b>
Economizer / Damper:	<b>A</b>
Convenience Outlet:	<b>2</b> Non-powered Convenience Outlet
Electrical Options:	<b>2</b> Non-fused Disconnect (60 Amp)
Cabinet Options:	<b>4</b> Louvered Hail Guards & Hinged Cabinet Doors
Special Options:	<b>A</b>
Product Generation:	<b>3</b>

### Field Installed Accessories

- 2PM04700224 - Phase Monitor Kit (1.0 lbs)
- 2EE04707324 - Economizer, DB, Horizontal Flow, Large Footprint, Tall Cabinet (with Barometric Relief) (102.0 lbs)
- 2EC0402 - Kit, Dual Enthalpy Field Installed (Includes two humidity sensors) (1.0 lbs)
- 1TB0402 - Large Footprint Thru The Base Electrical & Thru The Curb Gas (1.0 lbs)
- 2EC0402 - Kit, Dual Enthalpy Field Installed (Includes two humidity sensors) (1.0 lbs)

Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYG12S4B3EB1A224A3**

 Quantity: 1 Tag #: **RTU-7**
**Consolidated Drawing**




# York® Sun™ Core 3-12.5 Ton Package

## Single Package R-410A Air Conditioner

Project Name: Southside High School & Jr. High Additions

Unit Model #: ZYG12S4B3EB1A224A3

Quantity: 1 Tag #: RTU-7

### Field Installed Accessory Weights

#### Unit Accessory Weights

Unit Accessory	Weights (lbs.)
Vertical Flow Dry Bulb Economizer Small Footprint	63
Horizontal Flow Dry Bulb Economizer Small Footprint Short	96
Horizontal Flow Dry Bulb Economizer Small Footprint Short	75
Horizontal Flow Dry Bulb Economizer Small Footprint Tall	81
Horizontal Flow Dry Bulb Economizer Large Footprint Short	105
Horizontal Flow Dry Bulb Economizer Large Footprint Tall	102
Power Exhaust Vert Flow Small Footprint	38
Power Exhaust Vert Flow Large Footprint	38
Power Exhaust Horiz Flow Small Footprint	38
Power Exhaust Horiz Flow Large Footprint	38
Hail Guard Kit Small Short Factory Installed	19
Hail Guard Kit Small Tall Factory Installed	24
Hail Guard Kit Large Short Factory Installed	50
Hail Guard Kit Large Tall Factory Installed	50
Curb Rigid 14" Small Footprint	145
Curb Rigid 24" Small Footprint	135
Curb Rigid 14" Large Footprint	135
Curb Rigid 24" Large Footprint	135

Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYG12S4B3EB1A224A3**

Quantity: 1 Tag #: RTU-7

### Seismic Certification

036-21805-001-0120



## CERTIFICATE OF COMPLIANCE

### SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS

Certification No.

# VMA -51410 -01 C (Revision 0 )

Expiration Date: 04/30/2021

#### Certification Parameters:

The nonstructural products (mechanical and/or electrical components) listed on this certificate are **CERTIFIED<sup>1</sup> FOR SEISMIC APPLICATIONS** in accordance with the following building code<sup>2</sup> releases.

**IBC 2006, 2009, 2012, 2015**

The following model designations, options, and accessories are included in this certification. Reference report number **VMA-51410-01** as issued by The VMC Group for a complete list of certified models, included accessories/options, and certified installation methods.

**Johnson Controls, Incorporated: Rooftop Units**  
**3-12.5 Ton Competitive Direct Replacement: 3 – 12.5 Ton Cooling Capacity**

The above referenced equipment is **APPROVED** for seismic application when properly installed<sup>3</sup>, used as intended, and contains a Seismic Certification Label referencing this Certificate of Compliance<sup>4</sup>. As limited by the tabulated values, below grade, grade, and roof-level installations, installations in essential facilities, for life safety applications, and/or of equipment containing hazardous contents are permitted and included in this certification with an Equipment Importance Factor assigned as  $I_p=1.5$ . The equipment is qualified by successful seismic shake table testing at the nationally recognized Dynamic Certification Laboratory under the witness of the ISO Accredited Product Certification Agency, The VMC Group.

Certified Seismic Design Levels					
Certified IBC	Importance $I_p \leq 1.5$ Soil Classes A-E Risk Categories I-IV Design Categories A-F	$S_{DS} \leq 2.500 \text{ g}$ $z/h = 0.0$		$S_{DS} \leq 2.000 \text{ g}$ $z/h \leq 1.0$	
		Horizontal Design	—	—( - )	4.500 g
Test Datum AC156	ISO 17025 Laboratory Pre/Post-Shake Functionality Tri-axial, 5% Damping SRS	$A_{FLEX-H} \leq 3.200 \text{ g}$	$A_{FLEX-V} \leq 1.667 \text{ g}$		
		$A_{RIG-H} \leq 2.400 \text{ g}$	$A_{RIG-V} \leq 0.667 \text{ g}$		
		$ZPA_H \leq 2.160 \text{ g}$	$ZPA_V \leq 0.600 \text{ g}$		

Certified Seismic Installation Methods	
Directly to seismically tested curb/rail	Directly to seismically tested curb/rail with external isolation

## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYG12S4B3EB1A224A3**

Quantity: 1 Tag #: RTU-7

### Seismic Certification

036-21805-001-0120



## CERTIFICATE OF COMPLIANCE

### SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS

#### Certified Product Table:

Model	Unit Type	Efficiency Rating	Nominal Cooling Capacity (Tons)	Length (in.)	Width (in.)	Height (in.)	Max. Operating Weight (lbs.)	
Z*G04	Gas AC Unit	Standard / Mid / 14 SEER	3	74.1	48.9	32.5	527	
Z*G05			4	74.1	48.9	32.5	618	
Z*G06			5	74.1	48.9	40.6	636	
Z*G07		Standard / Mid	6	74.1	48.9	40.6	804	
Z*GA7			6	74.1	48.9	40.6	804	
Z*G08			7.5	87.1	61.7	40.6	980	
Z*G09			8.5	87.2	61.7	48.6	980	
Z*G12			10	87.2	61.7	48.6	1008	
ZXG14			Standard	12.5	87.2	61.7	55.3	1047
Z*E04			Electric AC Unit	Standard / Mid / 14 SEER	3	74.1	48.9	32.5
Z*E05		4			74.1	48.9	40.6	564
Z*E06		5			74.1	48.9	40.6	582
Z*E07		Mid / Standard		6	87.1	61.7	40.6	734
Z*EA7				6	87.1	61.7	40.6	734
Z*E08	7.5			87.2	61.7	48.6	878	
Z*E09	8.5			87.2	61.7	48.6	878	
Z*E12	10			87.2	61.7	55.3	902	
ZXE14	Standard			12.5	87.2	61.7	55.3	941
X*E04	Heat Pump			Mid / 14 SEER	3	74.1	48.9	32.5
X*E05		4			74.1	48.9	40.6	614
X*E06		5			74.1	48.9	40.6	653
X*EA7		6			87.1	61.7	40.6	861
XYE07		Mid		6	87.1	61.7	40.6	861
X*E08		Mid / Standard	7.5	87.2	61.7	55.3	1060	
X*E09			8.5	87.2	61.7	55.3	1061	
XXE12			Standard	10	87.2	61.7	55.3	1060

\* Denotes Q, X, Y which represent 14 SEER, Standard, and Mid Efficiency Rating, respectively

This certification **includes** rooftop unit modules as detailed in the above charts. The rooftop unit configuration and options shall be a catalogue design and factory supplied. The rooftop unit shall be installed and attached to the building structure per the manufacturer's supplied seismic installation instructions. For a list of certified configurations and options please directly contact the manufacturer. This certification **excludes** all non-factory supplied accessories, all connections for electrical, fuel, heating or cooling fluid, or other pipe/conduit connections and all non-catalogued, standard options and/or configurations not detailed in the above charts. Flexibility in the connections must be maintained as to not transmit load into the equipment. Design specials are outside the scope of this certification.



VMA-51410-01C (Revision 0)  
 Issue Date: April 23, 2018  
 Revision Date: April 23, 2018  
 Expiration Date: April 30, 2021

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **ZYG12S4B3EB1A224A3**

Quantity: **1** Tag #: **RTU-7**

**Seismic Certification**

036-21805-001-0120




**CERTIFICATE OF COMPLIANCE**

**SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS**

**Notes and Comments:**

1. All equipment listed herein successfully passed the seismic acceptance criteria for shake testing non-structural components and systems as set forth in the ICC AC-156. The Test Response Spectrum (TRS) enveloped the Required Response Spectrum (RRS) for all units tested. The units cited in this certification were representative sample(s) of a contingent of models and all remained captive and structurally sound after the seismic shake simulation. The units also remained functionally operational after the simulation testing as functional testing was completed by the equipment manufacturer before and after the seismic simulations. Although a seismic qualified unit inherently contains some wind resisting capacity, that capacity is undetermined and is excluded from this certification. Snow/ice loads have been neglected and thus limit the unit to be installed both indoors (covered by an independent protective structure) and out of doors (exposed to accumulating snow/ice) for ground snow loads no greater than 30 psf for all applications.
2. The following building codes are addressed under this certification:  
 IBC 2006 – referencing ASCE 7-05 and ICC AC-156  
 IBC 2009 – referencing ASCE 7-05 and ICC AC-156  
 IBC 2012 – referencing ASCE 7-10 and ICC AC-156  
 IBC 2015 – referencing ASCE 7-10 and ICC AC-156
3. Refer to the manufacturer supplied installation drawings for anchor requirements and mounting considerations for seismic applications. Required anchor locations, size, style, and load capacities (tension and shear) may be specified on the installation drawings or specified by a 3rd party. Mounting requirement details such as anchor brand, type, embedment depth, edge spacing, anchor-to-anchor spacing, concrete strength, special inspection, wall design, and attachment to non-building structures must be outlined and approved by the Engineer of Record for the project or building. Structural walls, structural floors, and housekeeping pads must also be seismically designed and approved by the project or building Structural Engineer of Record to withstand the seismic anchor loads as defined on the installation drawings. The installing contractor is responsible for observing the installation detailed in the seismic installation drawings and the proper installation of all anchors and mounting hardware.
4. For this certificate and certification to remain valid, this certificate must correspond to the "Seismic Certification Label" found affixed to the unit per Section 1703.5 of the International Building Code. The label ensures the manufacturer built the unit in conformance to the IBC seismic design criteria set forth by the Certified Seismic Qualification Agency, The VMC Group, and meets the seismic design levels claimed by this certificate.
5. Mechanical, Electrical, and Plumbing connections to the equipment must be flexibly attached as to not transfer load through the connection. The structural integrity of any conduit, cable trays, piping, ductwork and/or flexible connections is the responsibility of others. This certification does not guarantee the equipment will remain compliant to NFMA, IP, UI, or CSA standards after a seismic event.
6. This certificate applies to units manufactured at:  
 5005 York Drive, Norman, OK, 73069
7. This project follows The VMC Group's ISO -17065 Scheme for Product Certification of Nonstructural Components.

  
 John P. Giuliano, PE  
 President, The VMC Group

VMA 51410 01C (Revision 0)  
 Issue Date: April 23, 2018  
 Revision Date: April 23, 2018  
 Expiration Date : April 30, 2021



## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYG12S2B3EB1A224A3**

 Quantity: **1** Tag #: **RTU-16**

 System: **ZYG12S2B3EB1A224A3**

### Cooling Performance

Total gross capacity	127.8 MBH
Sensible gross capacity	94.7 MBH
Efficiency (at ARI)	12.00 EER
Integrated eff. (at ARI)	14.60 IEER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	58.5 °F
Leaving WB temp.	56.8 °F
Leaving air temp dew point	55.70 °F
Power input (w/o blower)	8.50 kW
Sound power	87 dB(A)

### Refrigerant

Refrigerant type	R-410A
Sys1	6 lbs 12 oz
Sys2	6 lbs 10 oz

### Reheat Performance

Total capacity	54.9 MBH
Sensible capacity	12.6 MBH
Ambient DB temp.	85 °F
Entering DB temp.	75 °F
Entering WB temp.	67 °F
Leaving DB temp.	72.1 °F
Leaving WB temp.	63.0 °F
Power input (w/o blower)	3.70 kW
Gallons of water per hour	4.83 GPM

### Gas Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	176.0 MBH
Supply air	4000 CFM
Heating input capacity (Max)	220 MBH
Leaving DB temp.	100.7 °F
Air temp. rise	40.7 °F
SSE	80.0 %
Stages	2

### Supply Air Blower Performance

Supply air	4000 CFM
Ext. static pressure	0.6 IWG
Addl. Unit Losses (Options/Accessories)	0.7 IWG
Blower speed	1011 RPM
Max BHP of Motor (including service factor)	3.70 HP
Duct location	Side
Motor rating	3.70 HP
Actual required BHP	3.01 HP
Power input	2.81 kW
Elevation	0 ft.
Drive type	BELT

### Outside/Mixed Air

Outside Air CFM	400 CFM
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### Electrical Data

Power supply	208-3-60
Unit min circuit ampacity	50.4 Amps
Unit min over-current protection	60 Amps
Unit max over-current protection	60 Amps

### Dimensions & Weight

Hgt	55 in.	Len	87 in.	Wth	62 in.
Weight with factory installed options	1072 lbs				

### Clearances

Right	18 in.	Front	48 in.	Rear	36 in.
Top	72 in.	Bottom	1 in.	Left	12 in.

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



### 10 Ton

- All units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

### Unit Features

- Two Stage Cooling
- 220 MBH Two Stage Input Medium Heat Stainless Steel
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards)
- Either supply and/or return can be field converted from vertical to horizontal configuration without cutting panels.
- Full perimeter base rails with built in rigging capabilities
- Scroll Compressors
- Medium Static Belt Drive Blower
- Solid Core Liquid Line Filter Driers
- Unit Ships with 2" Throwaway Filters
- Replacement Filters: 4 - (20" x 20"). Unit accepts 2" or 4" wide filters.
- Single Point Power Connection
- Short Circuit Current: 5kA RMS Symmetrical
- Non-fused Disconnect (60 Amp)
- Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
- MagnaDRY Reheat

### Standard Unit Controller

- Safety Monitoring - Monitors the high and low-pressure switches, the freezestats, the gas valve, if applicable, and the temperature limit switch on gas and electric heat units. The unit control board will alarm on ignition failures, safety lockouts and repeated limit switch trips.
- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Smart Equipment Control Board
- On-Board Diagnostic and Fault Code display

### BAS Controller

- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACnet MS/TP, Modbus and N2 communication card.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors
- Fifteen (15) Year Warranty - Stainless Steel Tubular Heat Exchangers





# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **ZYG12S2B3EB1A224A3**

Quantity: **1** Tag #: **RTU-16**

System: **ZYG12S2B3EB1A224A3**

### Additional Electrical Data

Power supply	208-3-60
Unit min circuit ampacity	50.4 Amps
Unit max over-current protection	60 Amps
Min Voltage	187 V
Max Voltage	252 V
Comp #1 RLA	15.4
Comp #1 LRA	155.0
Comp #2 RLA	15.4
Comp #2 LRA	155.0
Indoor Mtr Voltage	208-3-60
Indoor Mtr FLA	9.9
Outdoor Mtr Qty	1
Outdoor Fan Voltage	208-3-60
OD Fan Mtr FLA (ea.)	5.8
Power Ex Mtr Qty (if applicable)	2
Powered Ex Voltage(if applicable)	208-3-60
Power Ex Mtr FLA (ea) (if applicable)	1.1
Combustion Mtr Qty	1
Combustion Motor Voltage	208/230-1-60
Combustion Mtr FLA (ea)	0.08



# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: Southside High School & Jr. High Additions

Unit Model #: ZYG12S2B3EB1A224A3

Quantity: 1 Tag #: RTU-16

System: ZYG12S2B3EB1A224A3

## Factory Installed Options

### ZYG12S2B3EB1A224A3

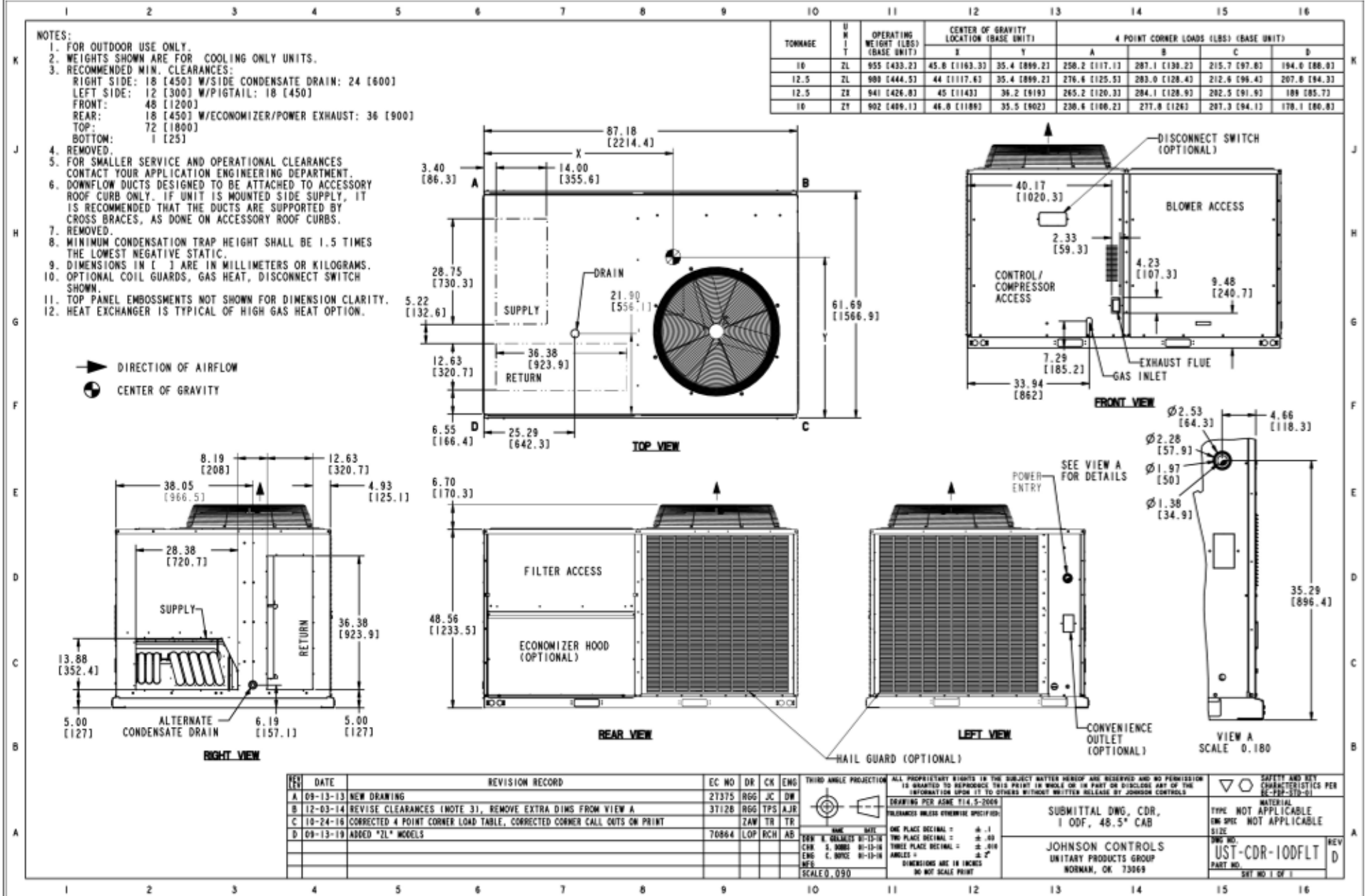
Equipment Options	Option(s) Selected
Product Category:	<b>ZY</b> York Sun Core Single Packaged R-410A Air Conditioner
Heat Type:	<b>G</b> Gas Heat
Nominal Cooling Capacity:	<b>12</b> 10 Ton Two Stage Cooling
Heat Size:	<b>S</b> 220 MBH Two Stage Input Medium Heat Stainless Steel
Voltage:	<b>2</b> 208/230-3-60
Airflow:	<b>B</b> Medium Static Belt Drive Blower
Airflow Options:	<b>3</b> VFD IntelliSpeed
Coil Options:	<b>E</b> Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
Controls:	<b>B</b> Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.
Sensor Options:	<b>1</b>
Economizer / Damper:	<b>A</b>
Convenience Outlet:	<b>2</b> Non-powered Convenience Outlet
Electrical Options:	<b>2</b> Non-fused Disconnect (60 Amp)
Cabinet Options:	<b>4</b> Louvered Hail Guards & Hinged Cabinet Doors
Special Options:	<b>A</b>
Product Generation:	<b>3</b>

### Field Installed Accessories

- 2PM04700224 - Phase Monitor Kit (1.0 lbs)
- 2EE04707324 - Economizer, DB, Horizontal Flow, Large Footprint, Tall Cabinet (with Barometric Relief) (102.0 lbs)
- 2EC0402 - Kit, Dual Enthalpy Field Installed (Includes two humidity sensors) (1.0 lbs)
- 1TB0402 - Large Footprint Thru The Base Electrical & Thru The Curb Gas (1.0 lbs)
- 2EC0402 - Kit, Dual Enthalpy Field Installed (Includes two humidity sensors) (1.0 lbs)

Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYG12S2B3EB1A224A3**

 Quantity: **1** Tag #: **RTU-16**
**Consolidated Drawing**




# York® Sun™ Core 3-12.5 Ton Package

## Single Package R-410A Air Conditioner

Project Name: Southside High School & Jr. High Additions

Unit Model #: ZYG12S2B3EB1A224A3

Quantity: 1 Tag #: RTU-16

### Field Installed Accessory Weights

#### Unit Accessory Weights

Unit Accessory	Weights (lbs.)
Vertical Flow Dry Bulb Economizer Small Footprint	63
Horizontal Flow Dry Bulb Economizer Small Footprint Short	96
Horizontal Flow Dry Bulb Economizer Small Footprint Short	75
Horizontal Flow Dry Bulb Economizer Small Footprint Tall	81
Horizontal Flow Dry Bulb Economizer Large Footprint Short	105
Horizontal Flow Dry Bulb Economizer Large Footprint Tall	102
Power Exhaust Vert Flow Small Footprint	38
Power Exhaust Vert Flow Large Footprint	38
Power Exhaust Horiz Flow Small Footprint	38
Power Exhaust Horiz Flow Large Footprint	38
Hail Guard Kit Small Short Factory Installed	19
Hail Guard Kit Small Tall Factory Installed	24
Hail Guard Kit Large Short Factory Installed	50
Hail Guard Kit Large Tall Factory Installed	50
Curb Rigid 14" Small Footprint	145
Curb Rigid 24" Small Footprint	135
Curb Rigid 14" Large Footprint	135
Curb Rigid 24" Large Footprint	135

Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYG12S2B3EB1A224A3**

Quantity: 1 Tag #: RTU-16


### Seismic Certification

036-21805-001-0120



## CERTIFICATE OF COMPLIANCE

### SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS



Certification No.

# VMA -51410 -01 C (Revision 0 )

Expiration Date: 04/30/2021

**Certification Parameters:**

The nonstructural products (mechanical and/or electrical components) listed on this certificate are **CERTIFIED<sup>1</sup> FOR SEISMIC APPLICATIONS** in accordance with the following building code<sup>2</sup> releases.

**IBC 2006, 2009, 2012, 2015**

The following model designations, options, and accessories are included in this certification. Reference report number **VMA-51410-01** as issued by The VMC Group for a complete list of certified models, included accessories/options, and certified installation methods.

**Johnson Controls, Incorporated: Rooftop Units**  
**3-12.5 Ton Competitive Direct Replacement: 3 – 12.5 Ton Cooling Capacity**

The above referenced equipment is **APPROVED** for seismic application when properly installed<sup>3</sup>, used as intended, and contains a Seismic Certification Label referencing this Certificate of Compliance<sup>4</sup>. As limited by the tabulated values, below grade, grade, and roof-level installations, installations in essential facilities, for life safety applications, and/or of equipment containing hazardous contents are permitted and included in this certification with an Equipment Importance Factor assigned as  $I_p=1.5$ . The equipment is qualified by successful seismic shake table testing at the nationally recognized Dynamic Certification Laboratory under the witness of the ISO Accredited Product Certification Agency, The VMC Group.

Certified Seismic Design Levels					
Certified IBC	Importance $I_p \leq 1.5$ Soil Classes A-E Risk Categories I-IV Design Categories A-F	$S_{DS} \leq 2.500 \text{ g}$ $z/h = 0.0$		$S_{DS} \leq 2.000 \text{ g}$ $z/h \leq 1.0$	
		Horizontal Design	—	—( - )	4.500 g
Test Datum AC156	ISO 17025 Laboratory Pre/Post-Shake Functionality Tri-axial, 5% Damping SRS	$A_{FLEX-H} \leq 3.200 \text{ g}$		$A_{FLEX-V} \leq 1.667 \text{ g}$	
		$A_{RIG-H} \leq 2.400 \text{ g}$		$A_{RIG-V} \leq 0.667 \text{ g}$	
		$ZPA_H \leq 2.160 \text{ g}$		$ZPA_V \leq 0.600 \text{ g}$	

Certified Seismic Installation Methods	
Directly to seismically tested curb/rail	Directly to seismically tested curb/rail with external isolation

## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYG12S2B3EB1A224A3**

Quantity: 1 Tag #: RTU-16

### Seismic Certification

036-21805-001-0120



## CERTIFICATE OF COMPLIANCE

### SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS

#### Certified Product Table:

Model	Unit Type	Efficiency Rating	Nominal Cooling Capacity (Tons)	Length (in.)	Width (in.)	Height (in.)	Max. Operating Weight (lbs.)	
Z*G04	Gas AC Unit	Standard / Mid / 14 SEER	3	74.1	48.9	32.5	527	
Z*G05			4	74.1	48.9	32.5	618	
Z*G06			5	74.1	48.9	40.6	636	
Z*G07		Standard / Mid	6	74.1	48.9	40.6	804	
Z*GA7			6	74.1	48.9	40.6	804	
Z*G08			7.5	87.1	61.7	40.6	980	
Z*G09			8.5	87.2	61.7	48.6	980	
Z*G12			10	87.2	61.7	48.6	1008	
ZXG14			Standard	12.5	87.2	61.7	55.3	1047
Z*E04			Electric AC Unit	Standard / Mid / 14 SEER	3	74.1	48.9	32.5
Z*E05		4			74.1	48.9	40.6	564
Z*E06		5			74.1	48.9	40.6	582
Z*E07		Mid / Standard		6	87.1	61.7	40.6	734
Z*EA7				6	87.1	61.7	40.6	734
Z*E08	7.5			87.2	61.7	48.6	878	
Z*E09	8.5			87.2	61.7	48.6	878	
Z*E12	10			87.2	61.7	55.3	902	
ZXE14	Standard			12.5	87.2	61.7	55.3	941
X*E04	Heat Pump			Mid / 14 SEER	3	74.1	48.9	32.5
X*E05		4			74.1	48.9	40.6	614
X*E06		5			74.1	48.9	40.6	653
X*EA7		6			87.1	61.7	40.6	861
XYE07		Mid		6	87.1	61.7	40.6	861
X*E08		Mid / Standard	7.5	87.2	61.7	55.3	1060	
X*E09			8.5	87.2	61.7	55.3	1061	
XXE12			Standard	10	87.2	61.7	55.3	1060

\* Denotes Q, X, Y which represent 14 SEER, Standard, and Mid Efficiency Rating, respectively

This certification **includes** rooftop unit modules as detailed in the above charts. The rooftop unit configuration and options shall be a catalogue design and factory supplied. The rooftop unit shall be installed and attached to the building structure per the manufacturer's supplied seismic installation instructions. For a list of certified configurations and options please directly contact the manufacturer. This certification **excludes** all non-factory supplied accessories, all connections for electrical, fuel, heating or cooling fluid, or other pipe/conduit connections and all non-catalogued, standard options and/or configurations not detailed in the above charts. Flexibility in the connections must be maintained as to not transmit load into the equipment. Design specials are outside the scope of this certification.



VMA-51410-01C (Revision 0)  
 Issue Date: April 23, 2018  
 Revision Date: April 23, 2018  
 Expiration Date: April 30, 2021

## Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **ZYG12S2B3EB1A224A3**

Quantity: **1** Tag #: **RTU-16**

### Seismic Certification

036-21805-001-0120



## CERTIFICATE OF COMPLIANCE

### SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS

#### Notes and Comments:

1. All equipment listed herein successfully passed the seismic acceptance criteria for shake testing non-structural components and systems as set forth in the ICC AC-156. The Test Response Spectrum (TRS) enveloped the Required Response Spectrum (RRS) for all units tested. The units cited in this certification were representative sample(s) of a contingent of models and all remained captive and structurally sound after the seismic shake simulation. The units also remained functionally operational after the simulation testing as functional testing was completed by the equipment manufacturer before and after the seismic simulations. Although a seismic qualified unit inherently contains some wind resisting capacity, that capacity is undetermined and is excluded from this certification. Snow/ice loads have been neglected and thus limit the unit to be installed both indoors (covered by an independent protective structure) and out of doors (exposed to accumulating snow/ice) for ground snow loads no greater than 30 psf for all applications.
2. The following building codes are addressed under this certification:  
IBC 2006 – referencing ASCE 7-05 and ICC AC-156  
IBC 2009 – referencing ASCE 7-05 and ICC AC-156  
IBC 2012 – referencing ASCE 7-10 and ICC AC-156  
IBC 2015 – referencing ASCE 7-10 and ICC AC-156
3. Refer to the manufacturer supplied installation drawings for anchor requirements and mounting considerations for seismic applications. Required anchor locations, size, style, and load capacities (tension and shear) may be specified on the installation drawings or specified by a 3rd party. Mounting requirement details such as anchor brand, type, embedment depth, edge spacing, anchor-to-anchor spacing, concrete strength, special inspection, wall design, and attachment to non-building structures must be outlined and approved by the Engineer of Record for the project or building. Structural walls, structural floors, and housekeeping pads must also be seismically designed and approved by the project or building Structural Engineer of Record to withstand the seismic anchor loads as defined on the installation drawings. The installing contractor is responsible for observing the installation detailed in the seismic installation drawings and the proper installation of all anchors and mounting hardware.
4. For this certificate and certification to remain valid, this certificate must correspond to the "Seismic Certification Label" found affixed to the unit per Section 1703.5 of the International Building Code. The label ensures the manufacturer built the unit in conformance to the IBC seismic design criteria set forth by the Certified Seismic Qualification Agency, The VMC Group, and meets the seismic design levels claimed by this certificate.
5. Mechanical, Electrical, and Plumbing connections to the equipment must be flexibly attached as to not transfer load through the connection. The structural integrity of any conduit, cable trays, piping, ductwork and/or flexible connections is the responsibility of others. This certification does not guarantee the equipment will remain compliant to NFMA, IP, UI, or CSA standards after a seismic event.
6. This certificate applies to units manufactured at:  
5005 York Drive, Norman, OK, 73069
7. This project follows The VMC Group's ISO -17065 Scheme for Product Certification of Nonstructural Components.



John P. Giuliano, PE  
President, The VMC Group

VMA 51410 01C (Revision 0)  
Issue Date: April 23, 2018  
Revision Date: April 23, 2018  
Expiration Date : April 30, 2021



The VMC Group • 113 Main Street, Bloomingdale, NJ 07403 • Tel: 973-838-1780 • Fax: 973-492-8430 • www.thevmcgroup.com

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102S 103387 Rev 9

## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYG12S4B3EB1C224A3**

 Quantity: **1** Tag #: **RTU-9**

 System: **ZYG12S4B3EB1C224A3**

### Cooling Performance

Total gross capacity	127.8 MBH
Sensible gross capacity	94.7 MBH
Efficiency (at ARI)	11.50 EER
Integrated eff. (at ARI)	14.60 IEER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	58.5 °F
Leaving WB temp.	56.8 °F
Leaving air temp dew point	55.70 °F
Power input (w/o blower)	8.50 kW
Sound power	87 dB(A)

### Refrigerant

Refrigerant type	R-410A
Sys1	6 lbs 12 oz
Sys2	6 lbs 10 oz

### Reheat Performance

Total capacity	54.9 MBH
Sensible capacity	12.6 MBH
Ambient DB temp.	85 °F
Entering DB temp.	75 °F
Entering WB temp.	67 °F
Leaving DB temp.	72.1 °F
Leaving WB temp.	63.0 °F
Power input (w/o blower)	3.70 kW
Gallons of water per hour	4.83 GPM

### Gas Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	176.0 MBH
Supply air	4000 CFM
Heating input capacity (Max)	220 MBH
Leaving DB temp.	100.7 °F
Air temp. rise	40.7 °F
SSE	80.0 %
Stages	2

### Supply Air Blower Performance

Supply air	4000 CFM
Ext. static pressure	0.6 IWG
Addl. Unit Losses (Options/Accessories)	0.7 IWG
Blower speed	1011 RPM
Max BHP of Motor (including service factor)	3.70 HP
Duct location	Bottom
Motor rating	3.70 HP
Actual required BHP	3.01 HP
Power input	2.81 kW
Elevation	0 ft.
Drive type	BELT

### Outside/Mixed Air

Outside Air CFM	400 CFM
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### Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	23.6 Amps
Unit min over-current protection	25 Amps
Unit max over-current protection	30 Amps

### Dimensions & Weight

Hgt	55 in.	Len	87 in.	Wth	62 in.
Weight with factory installed options	1132 lbs				

### Clearances

Right	18 in.	Front	48 in.	Rear	36 in.
Top	72 in.	Bottom	1 in.	Left	12 in.

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



### 10 Ton

- All units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

### Unit Features

- Two Stage Cooling
- 220 MBH Two Stage Input Medium Heat Stainless Steel
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards)
- Either supply and/or return can be field converted from vertical to horizontal configuration without cutting panels.
- Full perimeter base rails with built in rigging capabilities
- Scroll Compressors
- Enthalpy Economizer (Downflow only) (with Barometric Relief) with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
- Medium Static Belt Drive Blower
- Solid Core Liquid Line Filter Driers
- Unit Ships with 2" Throwaway Filters
- Replacement Filters: 4 - (20" x 20"). Unit accepts 2" or 4" wide filters.
- Single Point Power Connection
- Short Circuit Current: 5kA RMS Symmetrical
- Non-fused Disconnect (60 Amp)
- Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
- MagnaDRY Reheat

### Standard Unit Controller

- Safety Monitoring - Monitors the high and low-pressure switches, the freezestats, the gas valve, if applicable, and the temperature limit switch on gas and electric heat units. The unit control board will alarm on ignition failures, safety lockouts and repeated limit switch trips.
- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Smart Equipment Control Board
- On-Board Diagnostic and Fault Code display

### BAS Controller

- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 communication card.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors
- Fifteen (15) Year Warranty - Stainless Steel Tubular Heat Exchangers





# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: Southside High School & Jr. High Additions

Unit Model #: ZYG12S4B3EB1C224A3

Quantity: 1 Tag #: RTU-9

System: ZYG12S4B3EB1C224A3

### Additional Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	23.6 Amps
Unit max over-current protection	30 Amps
Min Voltage	432 V
Max Voltage	504 V
Comp #1 RLA	7.1
Comp #1 LRA	62.0
Comp #2 RLA	7.1
Comp #2 LRA	62.0
Indoor Mtr Voltage	460-3-60
Indoor Mtr FLA	4.7
Outdoor Mtr Qty	1
Outdoor Fan Voltage	460-3-60
OD Fan Mtr FLA (ea.)	2.9
Power Ex Mtr Qty (if applicable)	2
Powered Ex Voltage(if applicable)	460-3-60
Power Ex Mtr FLA (ea) (if applicable)	0.5
Combustion Mtr Qty	1
Combustion Motor Voltage	208/230-1-60
Combustion Mtr FLA (ea)	0.08



# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: Southside High School &amp; Jr. High Additions

Unit Model #: ZYG12S4B3EB1C224A3

Quantity: 1 Tag #: RTU-9

System: ZYG12S4B3EB1C224A3

## Factory Installed Options

### ZYG12S4B3EB1C224A3

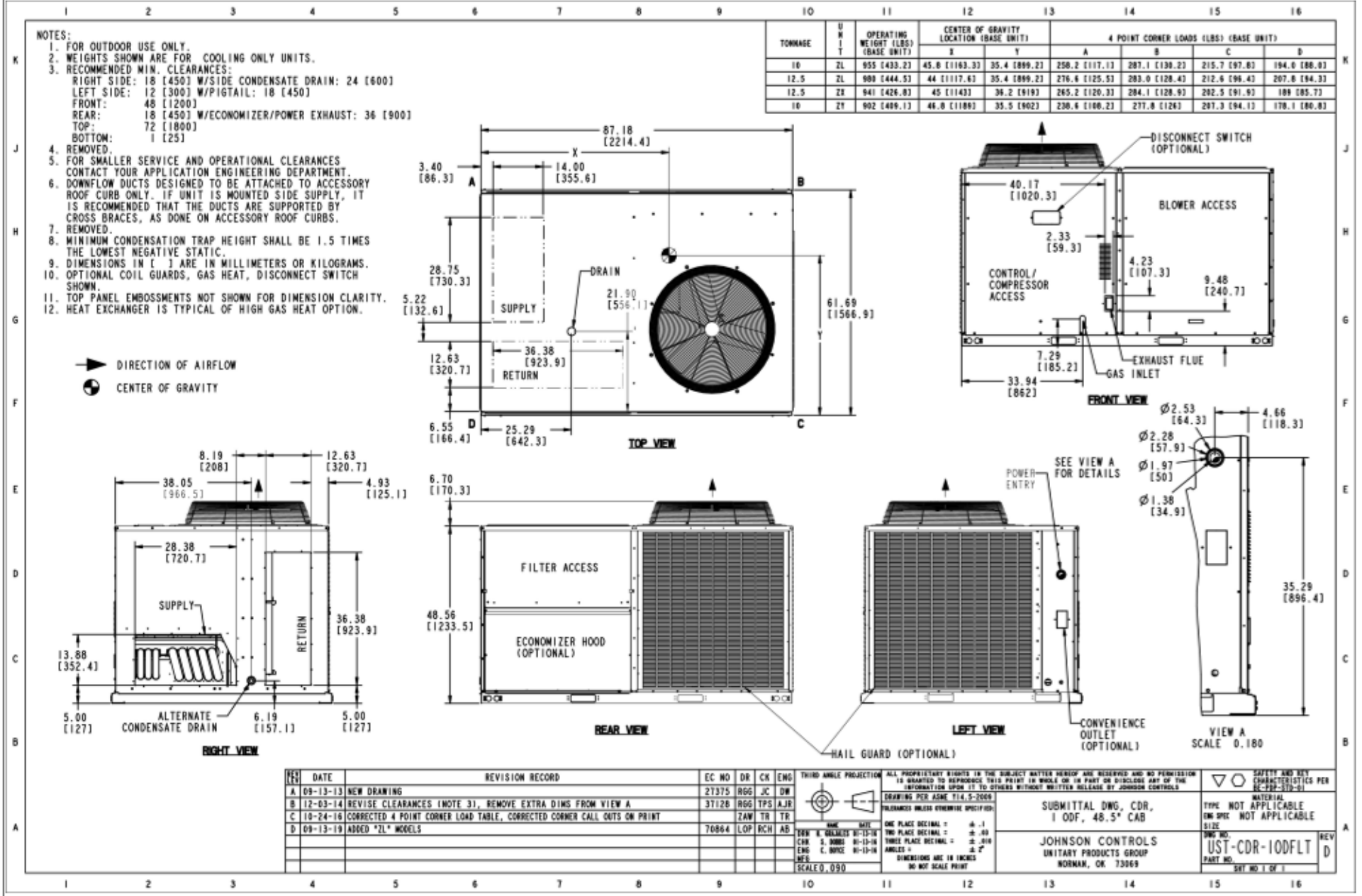
Equipment Options	Option(s) Selected
Product Category:	<b>ZY</b> York Sun Core Single Packaged R-410A Air Conditioner
Heat Type:	<b>G</b> Gas Heat
Nominal Cooling Capacity:	<b>12</b> 10 Ton Two Stage Cooling
Heat Size:	<b>S</b> 220 MBH Two Stage Input Medium Heat Stainless Steel
Voltage:	<b>4</b> 460-3-60
Airflow:	<b>B</b> Medium Static Belt Drive Blower
Airflow Options:	<b>3</b> VFD IntelliSpeed
Coil Options:	<b>E</b> Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
Controls:	<b>B</b> Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.
Sensor Options:	<b>1</b>
Economizer / Damper:	<b>C</b> Enthalpy Economizer (Downflow only) (with Barometric Relief) with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
Convenience Outlet:	<b>2</b> Non-powered Convenience Outlet
Electrical Options:	<b>2</b> Non-fused Disconnect (60 Amp)
Cabinet Options:	<b>4</b> Louvered Hail Guards & Hinged Cabinet Doors
Special Options:	<b>A</b>
Product Generation:	<b>3</b>

## Field Installed Accessories

- 2PM04700224 - Phase Monitor Kit (1.0 lbs)
- 2EC0402 - Kit, Dual Enthalpy Field Installed (Includes two humidity sensors) (1.0 lbs)
- 1TB0402 - Large Footprint Thru The Base Electrical & Thru The Curb Gas (1.0 lbs)

Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYG12S4B3EB1C224A3**

 Quantity: **1** Tag #: **RTU-9**
**Consolidated Drawing**


REV	DATE	REVISION RECORD	EC NO	DR	CK	ENG	THIRD ANGLE PROJECTION	TOLERANCES UNLESS OTHERWISE SPECIFIED:	SAFETY AND KEY CHARACTERISTICS PER ASME Y12.13-1	
A	09-13-13	NEW DRAWING	21375	RGG	JC	DW		ONE PLACE DECIMAL = ± .1	SUBMITTAL DWG, CDR, 1 ODF, 48.5" CAB  JOHNSON CONTROLS UNITARY PRODUCTS GROUP NORMAN, OK 73069	
B	12-03-14	REVISE CLEARANCES (NOTE 3), REMOVE EXTRA DIMS FROM VIEW A	37128	RGG	TPS	AJR		DRAWINGS PER ASME Y14.5-2009		TYPE NOT APPLICABLE
C	10-24-16	CORRECTED 4 POINT CORNER LOAD TABLE, CORRECTED CORNER CALL OUTS ON PRINT		ZAW	TR	TR		TOLERANCES UNLESS OTHERWISE SPECIFIED:		ENR SPEC NOT APPLICABLE
D	09-13-19	ADDED *ZL* MODELS	70864	LOP	RCH	AB		ONE PLACE DECIMAL = ± .1 TWO PLACE DECIMAL = ± .05 THREE PLACE DECIMAL = ± .010 ANGLES = ± 2° DIMENSIONS ARE IN INCHES SCALED 0.90 NO NOT SCALE PRINT		SIZE



# York® Sun™ Core 3-12.5 Ton Package

## Single Package R-410A Air Conditioner

Project Name: Southside High School & Jr. High Additions

Unit Model #: ZYG12S4B3EB1C224A3

Quantity: 1 Tag #: RTU-9

### Field Installed Accessory Weights

#### Unit Accessory Weights

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Horizontal Flow Dry Bulb Economizer Small Footprint Short	75
Horizontal Flow Dry Bulb Economizer Small Footprint Tall	81
Horizontal Flow Dry Bulb Economizer Large Footprint Short	105
Horizontal Flow Dry Bulb Economizer Large Footprint Tall	102
Power Exhaust Vert Flow Small Footprint	38
Power Exhaust Vert Flow Large Footprint	38
Power Exhaust Horiz Flow Small Footprint	38
Power Exhaust Horiz Flow Large Footprint	38
Hail Guard Kit Small Short Factory Installed	19
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Hail Guard Kit Large Short Factory Installed	50
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Curb Rigid 14" Small Footprint	145
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Curb Rigid 14" Large Footprint	135
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## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYG12S4B3EB1C224A3**

Quantity: 1 Tag #: RTU-9


### Seismic Certification

036-21805-001-0120



## CERTIFICATE OF COMPLIANCE

### SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS



Certification No.

# VMA -51410 -01 C (Revision 0 )

Expiration Date: 04/30/2021

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**IBC 2006, 2009, 2012, 2015**

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**Johnson Controls, Incorporated: Rooftop Units**  
**3-12.5 Ton Competitive Direct Replacement: 3 – 12.5 Ton Cooling Capacity**

The above referenced equipment is **APPROVED** for seismic application when properly installed<sup>3</sup>, used as intended, and contains a Seismic Certification Label referencing this Certificate of Compliance<sup>4</sup>. As limited by the tabulated values, below grade, grade, and roof-level installations, installations in essential facilities, for life safety applications, and/or of equipment containing hazardous contents are permitted and included in this certification with an Equipment Importance Factor assigned as  $I_p=1.5$ . The equipment is qualified by successful seismic shake table testing at the nationally recognized Dynamic Certification Laboratory under the witness of the ISO Accredited Product Certification Agency, The VMC Group.

Certified Seismic Design Levels					
Certified IBC	Importance $I_p \leq 1.5$ Soil Classes A-E Risk Categories I-IV Design Categories A-F	$S_{DS} \leq 2.500 \text{ g}$ $z/h = 0.0$		$S_{DS} \leq 2.000 \text{ g}$ $z/h \leq 1.0$	
		Horizontal Design	—	—( -)	4.500 g
Test Datum AC156	ISO 17025 Laboratory Pre/Post-Shake Functionality Tri-axial, 5% Damping SRS	$A_{FLEX-H} \leq 3.200 \text{ g}$		$A_{FLEX-V} \leq 1.667 \text{ g}$	
		$A_{RIG-H} \leq 2.400 \text{ g}$		$A_{RIG-V} \leq 0.667 \text{ g}$	
		$ZPA_H \leq 2.160 \text{ g}$		$ZPA_V \leq 0.600 \text{ g}$	

Certified Seismic Installation Methods	
Directly to seismically tested curb/rail	Directly to seismically tested curb/rail with external isolation

## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYG12S4B3EB1C224A3**

Quantity: 1 Tag #: RTU-9

### Seismic Certification

036-21805-001-0120



## CERTIFICATE OF COMPLIANCE

### SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS

#### Certified Product Table:

Model	Unit Type	Efficiency Rating	Nominal Cooling Capacity (Tons)	Length (in.)	Width (in.)	Height (in.)	Max. Operating Weight (lbs.)	
Z*G04	Gas AC Unit	Standard / Mid / 14 SEER	3	74.1	48.9	32.5	527	
Z*G05			4	74.1	48.9	32.5	618	
Z*G06			5	74.1	48.9	40.6	636	
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Z*GA7			6	74.1	48.9	40.6	804	
Z*G08			7.5	87.1	61.7	40.6	980	
Z*G09			8.5	87.2	61.7	48.6	980	
Z*G12			10	87.2	61.7	48.6	1008	
ZXG14			Standard	12.5	87.2	61.7	55.3	1047
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Z*E05		4			74.1	48.9	40.6	564
Z*E06		5			74.1	48.9	40.6	582
Z*E07		Mid / Standard		6	87.1	61.7	40.6	734
Z*EA7				6	87.1	61.7	40.6	734
Z*E08	7.5			87.2	61.7	48.6	878	
Z*E09	8.5			87.2	61.7	48.6	878	
Z*E12	10			87.2	61.7	55.3	902	
ZXE14	Standard			12.5	87.2	61.7	55.3	941
X*E04	Heat Pump			Mid / 14 SEER	3	74.1	48.9	32.5
X*E05		4			74.1	48.9	40.6	614
X*E06		5			74.1	48.9	40.6	653
X*EA7		6			87.1	61.7	40.6	861
XYE07		Mid		6	87.1	61.7	40.6	861
X*E08		Mid / Standard	7.5	87.2	61.7	55.3	1060	
X*E09			8.5	87.2	61.7	55.3	1061	
XXE12			Standard	10	87.2	61.7	55.3	1060

\* Denotes Q, X, Y which represent 14 SEER, Standard, and Mid Efficiency Rating, respectively

This certification **includes** rooftop unit modules as detailed in the above charts. The rooftop unit configuration and options shall be a catalogue design and factory supplied. The rooftop unit shall be installed and attached to the building structure per the manufacturer's supplied seismic installation instructions. For a list of certified configurations and options please directly contact the manufacturer. This certification **excludes** all non-factory supplied accessories, all connections for electrical, fuel, heating or cooling fluid, or other pipe/conduit connections and all non-catalogued, standard options and/or configurations not detailed in the above charts. Flexibility in the connections must be maintained as to not transmit load into the equipment. Design specials are outside the scope of this certification.



VMA-51410-01C (Revision 0)  
 Issue Date: April 23, 2018  
 Revision Date: April 23, 2018  
 Expiration Date: April 30, 2021

## Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **ZYG12S4B3EB1C224A3**

Quantity: **1** Tag #: **RTU-9**

### Seismic Certification

036-21805-001-0120



## CERTIFICATE OF COMPLIANCE

### SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS

#### Notes and Comments:

1. All equipment listed herein successfully passed the seismic acceptance criteria for shake testing non-structural components and systems as set forth in the ICC AC-156. The Test Response Spectrum (TRS) enveloped the Required Response Spectrum (RRS) for all units tested. The units cited in this certification were representative sample(s) of a contingent of models and all remained captive and structurally sound after the seismic shake simulation. The units also remained functionally operational after the simulation testing as functional testing was completed by the equipment manufacturer before and after the seismic simulations. Although a seismic qualified unit inherently contains some wind resisting capacity, that capacity is undetermined and is excluded from this certification. Snow/ice loads have been neglected and thus limit the unit to be installed both indoors (covered by an independent protective structure) and out of doors (exposed to accumulating snow/ice) for ground snow loads no greater than 30 psf for all applications.
2. The following building codes are addressed under this certification:  
IBC 2006 – referencing ASCE 7-05 and ICC AC-156  
IBC 2009 – referencing ASCE 7-05 and ICC AC-156  
IBC 2012 – referencing ASCE 7-10 and ICC AC-156  
IBC 2015 – referencing ASCE 7-10 and ICC AC-156
3. Refer to the manufacturer supplied installation drawings for anchor requirements and mounting considerations for seismic applications. Required anchor locations, size, style, and load capacities (tension and shear) may be specified on the installation drawings or specified by a 3rd party. Mounting requirement details such as anchor brand, type, embedment depth, edge spacing, anchor-to-anchor spacing, concrete strength, special inspection, wall design, and attachment to non-building structures must be outlined and approved by the Engineer of Record for the project or building. Structural walls, structural floors, and housekeeping pads must also be seismically designed and approved by the project or building Structural Engineer of Record to withstand the seismic anchor loads as defined on the installation drawings. The installing contractor is responsible for observing the installation detailed in the seismic installation drawings and the proper installation of all anchors and mounting hardware.
4. For this certificate and certification to remain valid, this certificate must correspond to the "Seismic Certification Label" found affixed to the unit per Section 1703.5 of the International Building Code. The label ensures the manufacturer built the unit in conformance to the IBC seismic design criteria set forth by the Certified Seismic Qualification Agency, The VMC Group, and meets the seismic design levels claimed by this certificate.
5. Mechanical, Electrical, and Plumbing connections to the equipment must be flexibly attached as to not transfer load through the connection. The structural integrity of any conduit, cable trays, piping, ductwork and/or flexible connections is the responsibility of others. This certification does not guarantee the equipment will remain compliant to NFMA, IP, UI, or CSA standards after a seismic event.
6. This certificate applies to units manufactured at:  
5005 York Drive, Norman, OK, 73069
7. This project follows The VMC Group's ISO -17065 Scheme for Product Certification of Nonstructural Components.



John P. Giuliano, PE  
President, The VMC Group

VMA 51410 01C (Revision 0)  
Issue Date: April 23, 2018  
Revision Date: April 23, 2018  
Expiration Date : April 30, 2021



The VMC Group • 113 Main Street, Bloomingdale, NJ 07403 • Tel: 973-838-1780 • Fax: 973-492-8430 • www.thevmcgroup.com

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102S 103387 Rev 9

## York Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **AV25S3CP4S1CAS46F2**

 Quantity: **2** Tag #: **RTU-10,11**

 System: **AV25S3CP4S1CAS46F2**

### Cooling Performance

Total gross capacity	299.8 MBH
Sensible gross capacity	215.0 MBH
Efficiency (at ARI)	10.00 EER
Integrated eff. (at ARI)	13.80 IEER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	56.6 °F
Leaving WB temp.	55.7 °F
Leaving air temp dew point	55.10 °F
Sound power	84 dB(A)

### Refrigerant

Refrigerant type	R-410A
Sys1	14 lbs 12 oz
Sys2	15 lbs 4 oz

### Reheat Performance

Total capacity	157.7 MBH
Sensible capacity	21.5 MBH
Ambient DB temp.	85 °F
Entering DB temp.	75 °F
Entering WB temp.	67 °F
Leaving DB temp.	72.7 °F
Leaving WB temp.	61.5 °F
Power input (w/o blower)	21.44 kW
Gallons of water per hour	15.54 GPM

### Gas Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	324.0 MBH
Supply air	8500 CFM
Heating input capacity (Max)	400 MBH
Leaving DB temp.	95.3 °F
Air temp. rise	35.3 °F
SSE	81.0 %
Stages	2

### Supply Air Blower Performance

Supply air	8500 CFM
Ext. static pressure	0.75 IWG
Addl. Unit Losses (Options/Accessories)	0.2 IWG
Blower speed	1030 RPM
Max BHP of Motor (including service factor)	8.63 HP
Duct location	Bottom
Motor rating	7.50 HP
Actual required BHP	4.92 HP
Power input	4.59 kW
Elevation	0 ft.
Drive type	BELT

### Outside/Mixed Air

Outside Air CFM	1000 CFM
-----------------	----------

### Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	58.3 Amps
Unit max over-current protection	70 Amps

### Dimensions & Weight

Hgt 57 in.	Len 144 in.	With 89 in.
Weight with factory installed options		2480 lbs

### Clearances

Right	42 in.	Front	80 in.	Rear	36 in.
Top	120 in.	Bottom	0 in.	Left	96 in.

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



### 25 Ton

- Manufactured at an ISO 9001 Registered Facility and Each Rooftop is Completely Computer-Run Tested Prior to Shipment.

### Unit Features

- Two Stage Compressor Operation
- Two independent refrigerant circuits
- Full Perimeter Base Rails with Built in Rigging Capabilities
- Dual Enthalpy Economizer w/Barometric Relief with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
- 7.5 HP Medium Static Belt Drive Blower
- 2" Pleated Filters (MERV 8)
- Replacement Filters: 9 (16" x 25" x 4"). Unit accepts 2" or 4" wide filters.
- Units are provided with the selected 2-inch or 4-inch filter and can easily be converted in the field to accept either size in the standard filter rack
- Utility Connections - Gas and electrical utility locations are supplied in the unit underside as well as the side of the unit. Utility connections can be made quickly and with a minimum amount of field labor
- Copper tube/Aluminum fin evaporator coils
- Microchannel condenser coils

### Standard Unit Controller: Smart Equipment Control Board

- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, On-Board Diagnostic and Fault Code Display. Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Safety Monitoring - Monitors the High and Low-Pressure Switches, the Freezestats, the Gas Valve, if Applicable, and the Temperature Limit Switch on Gas and Electric Heat Units. The Unit Control Board will Alarm on Ignition Failures, Safety Lockouts and Repeated Limit Switch Trips.

### BAS Controller

- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACnet MS/TP, Modbus and N2 Communication Card.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors and Electric Heater Elements
- Fifteen (15) Year Warranty - Stainless Steel Tubular Heat Exchangers





# Sun Choice 15-27.5 Ton Package

York Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AV25S3CP4S1CAS46F2**

Quantity: **2** Tag #: **RTU-10,11**

System: **AV25S3CP4S1CAS46F2**

### Additional Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	58.3 Amps
Unit max over-current protection	70 Amps
Min Voltage	416 V
Max Voltage	508 V
Comp #1 RLA	19.2
Comp #1 LRA	147
Comp #2 RLA	19.2
Comp #2 LRA	147
Indoor Mtr Voltage	460-3-60
Indoor Mtr FLA	14.3
Outdoor Mtr Qty	4
Outdoor Fan Voltage	460-1-60
OD Fan Mtr FLA (ea.)	1.3
Power Ex Mtr Qty (if applicable)	2
Powered Ex Voltage(if applicable)	460-1-60
Power Ex Mtr FLA (ea) (if applicable)	2.2
Combustion Mtr Qty	1
Combustion Motor Voltage	208/230-1-60
Combustion Mtr FLA (ea)	0.8



# Sun Choice 15-27.5 Ton Package

York Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AV25S3CP4S1CAS46F2**

Quantity: **2** Tag #: **RTU-10,11**

System: **AV25S3CP4S1CAS46F2**

## Factory Installed Options

### AV25S3CP4S1CAS46F2

Equipment Options		Option(s) Selected
Product Category:	<b>A</b>	York SunChoice Single Packaged R-410A Air Conditioner
Efficiency:	<b>V</b>	Standard Efficiency, Bottom Duct
Nominal Cooling Capacity:	<b>25</b>	25 Ton
Heat Type:	<b>S</b>	Natural Gas, Stainless Steel, Staged Heat
Heat Size:	<b>3</b>	High Heat, 400 MBH Input
Blower Option:	<b>C</b>	7.5 HP Medium Static Belt Drive Blower
Air Volume:	<b>P</b>	Two Stage Compressor Operation IntelliSpeed control of the VFD based on stages of cooling. Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10.
Voltage:	<b>4</b>	460-3-60
Outside Air Option:	<b>S</b>	Dual Enthalpy Economizer w/Barometric Relief with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
Coil Options:	<b>1</b>	Microchannel condenser coils Copper tube/Aluminum fin evaporator coils
Controls:	<b>C</b>	Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.
Sensor Options:	<b>A</b>	
Service Options:	<b>S</b>	Non Powered Convenience Outlet (110 VAC) HACR Circuit Disconnect Phase Monitor
Refrigeration:	<b>4</b>	Modulating Hot Gas Reheat
Additional Options:	<b>6</b>	2" Pleated Filters (MERV 8) Louvered Hail Guard
Cabinet Options:	<b>F</b>	Hinged Access Panel Polyester SMC Drain Pan Condensate Overflow(COF)
Product Generation:	<b>2</b>	

## Field Installed Accessories



**Sun Choice 15-27.5 Ton  
Package**

York Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AV25S3CP4S1CAS46F2**

Quantity: **2** Tag #: **RTU-10,11**

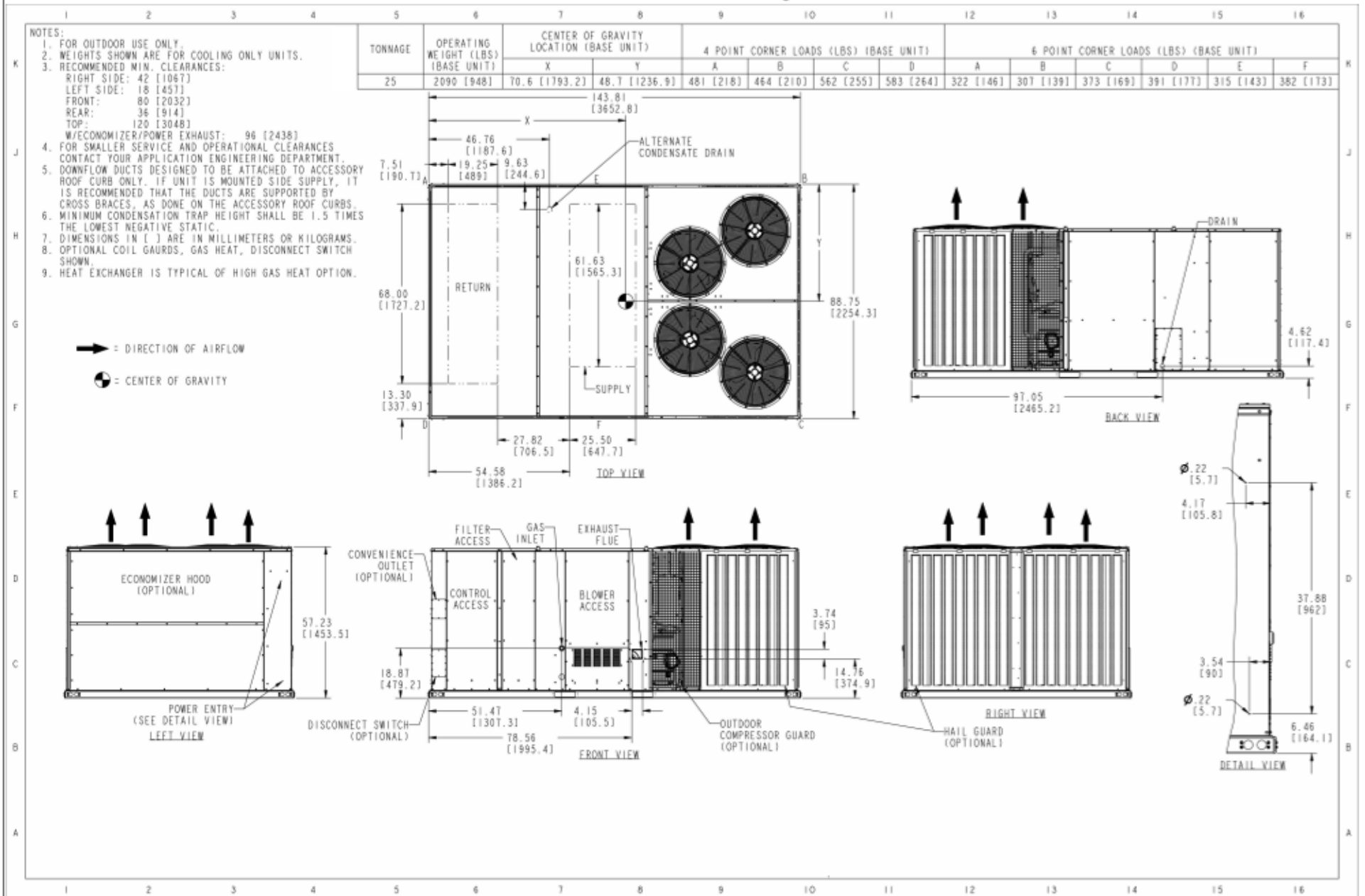
System: **AV25S3CP4S1CAS46F2**

Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **AV25S3CP4S1CAS46F2**

 Quantity: **2** Tag #: **RTU-10,11**

### 25 Ton Consolidated Drawing



Project Name: Southside High School & Jr. High Additions

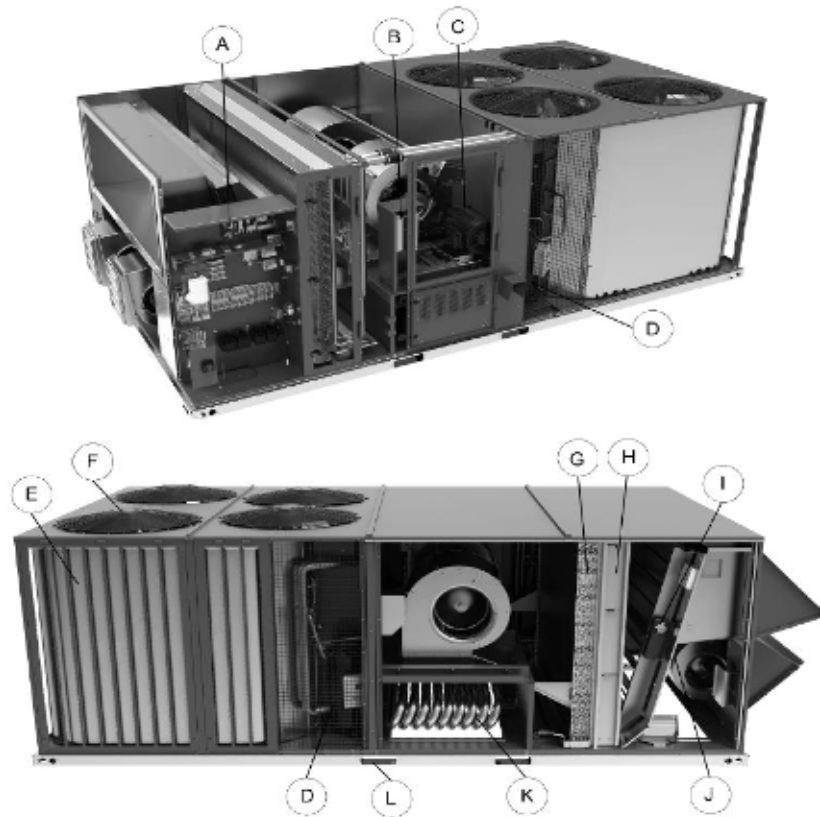
Unit Model #: AV25S3CP4S1CAS46F2

Quantity: 2 Tag #: RTU-10,11

### Component Location

## Unit components

Figure 1: Component location



The previous figure shows the AVXX model. The following table lists the components of the unit.

Table 1: Component location table

Item	Description	Item	Description
A	Smart Equipment™ controls	G	Copper tube/aluminum fin evaporator coil
B	Optional variable frequency drive	H	Filter access, 2-inch or 4-inch filter options
C	Belt drive blower motor with dual centrifugal fan design	I	Optional economizer. Optional manual or motorized outside air dampers not shown.
D	Scroll compressors in various arrangements to produce 2 or 4 stages of cooling depending on the selected model	J	Optional powered exhaust. Optional barometric relief not shown.
E	MicroChannel condenser coils	K	Optional staged or modulating gas heat with aluminized or stainless steel heat exchanger
F	Condenser fans	L	Full perimeter base rails with holes for overhead rigging

Project Name: **Southside High School & Jr. High Additions**Unit Model #: **AV25S3CP4S1CAS46F2**Quantity: **2** Tag #: **RTU-10,11**

## Typical Installation

### Typical installation

The following figures show the typical installations for the unit.

Figure 14: Roof jack installation

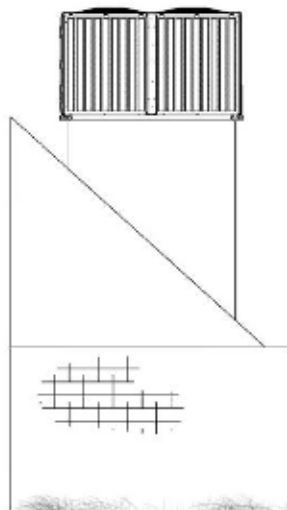
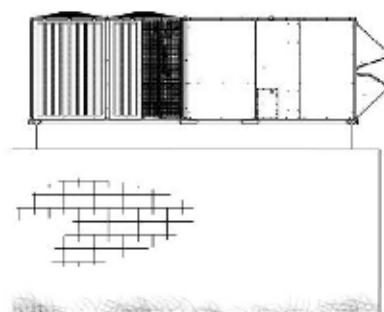


Figure 15: Roof curb installation



Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AV25S3CP4S1CAS46F2**

Quantity: **2** Tag #: **RTU-10,11**

### Economizer Drawing

## Economizer options

Figure 13: Economizer options

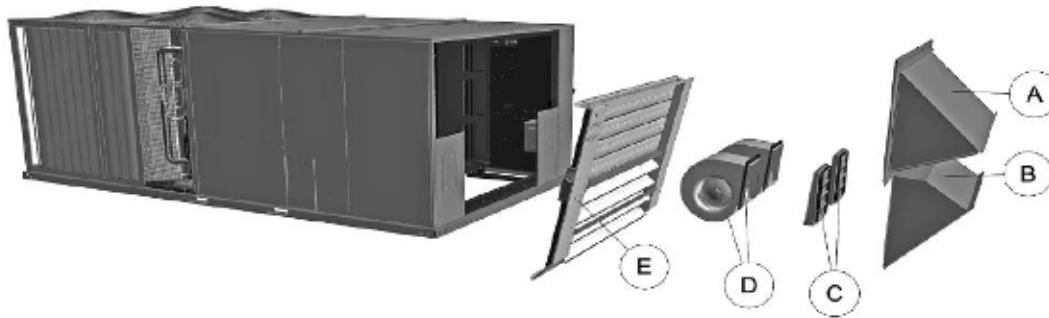


Table 38: Economizer components

Item	Description
A	Fresh air hood
B	Power exhaust hood
C	Power exhaust damper
D	Power exhaust
E	Low leak economizer

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AV25S3CP4S1CAS46F2**

Quantity: **2** Tag #: **RTU-10,11**

### Rainhood Drawing

## Rain hood dimensions

Figure 8: Rain hood dimensions

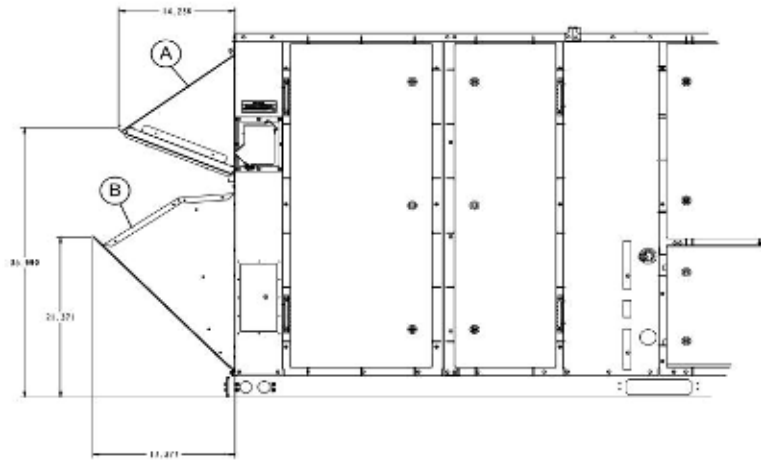


Table 32: Rain hood components

Item	Description
A	Economizer/motorized damper and power exhaust rain hood
B	Air intake hood

## York Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **AL20S3BP441CAS46F2**

 Quantity: **1** Tag #: **RTU-15**

 System: **AL20S3BP441CAS46F2**

### Cooling Performance

Total gross capacity	246.4 MBH
Sensible gross capacity	177.4 MBH
Efficiency (at ARI)	10.80 EER
Integrated eff. (at ARI)	14.00 IEER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	56.5 °F
Leaving WB temp.	55.7 °F
Leaving air temp dew point	55.20 °F
Sound power	84 dB(A)

### Refrigerant

Refrigerant type	R-410A
Sys1	13 lbs 4 oz
Sys2	14 lbs

### Reheat Performance

Total capacity	95.5 MBH
Sensible capacity	55.4 MBH
Ambient DB temp.	85 °F
Entering DB temp.	75 °F
Entering WB temp.	67 °F
Leaving DB temp.	67.7 °F
Leaving WB temp.	63.0 °F
Gallons of water per hour	4.58 GPM

### Gas Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	283.5 MBH
Supply air	7000 CFM
Heating input capacity (Max)	350 MBH
Leaving DB temp.	97.5 °F
Air temp. rise	37.5 °F
SSE	81.0 %
Stages	2

### Supply Air Blower Performance

Supply air	7000 CFM
Ext. static pressure	0.6 IWG
Addl. Unit Losses (Options/Accessories)	0.15 IWG
Blower speed	1107 RPM
Max BHP of Motor (including service factor)	5.75 HP
Duct location	Side
Motor rating	5.00 HP
Actual required BHP	5.00 HP
Power input	4.66 kW
Elevation	0 ft.
Drive type	BELT

### Outside/Mixed Air

Outside Air CFM	700 CFM
-----------------	---------

### Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	48.1 Amps
Unit max over-current protection	60 Amps

### Dimensions & Weight

Hgt 49 in.	Len 144 in.	Wth 89 in.
Weight with factory installed options		2245 lbs

### Clearances

Right	42 in.	Front	80 in.	Rear	36 in.
Top	120 in.	Bottom	0 in.	Left	96 in.

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



### 20 Ton

- Manufactured at an ISO 9001 Registered Facility and Each Rooftop is Completely Computer-Run Tested Prior to Shipment.

### Unit Features

- Two Stage Compressor Operation
- Two independent refrigerant circuits
- Full Perimeter Base Rails with Built in Rigging Capabilities
- Dual Enthalpy Economizer w/o Exhaust with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
- 5 HP Standard Static Belt Drive Blower
- 2" Pleated Filters (MERV 8)
- Replacement Filters: 6 (20" x 25" x 2" or 4"). Unit accepts 2" or 4" wide filters.
- Units are provided with the selected 2-inch or 4-inch filter and can easily be converted in the field to accept either size in the standard filter rack
- Utility Connections - Gas and electrical utility locations are supplied in the unit underside as well as the side of the unit. Utility connections can be made quickly and with a minimum amount of field labor
- Copper tube/Aluminum fin evaporator coils
- Microchannel condenser coils

### Standard Unit Controller: Smart Equipment Control Board

- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, On-Board Diagnostic and Fault Code Display. Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Safety Monitoring - Monitors the High and Low-Pressure Switches, the Freezestats, the Gas Valve, if Applicable, and the Temperature Limit Switch on Gas and Electric Heat Units. The Unit Control Board will Alarm on Ignition Failures, Safety Lockouts and Repeated Limit Switch Trips.

### BAS Controller

- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACnet MS/TP, Modbus and N2 Communication Card.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors and Electric Heater Elements
- Fifteen (15) Year Warranty - Stainless Steel Tubular Heat Exchangers





# Sun Choice 15-27.5 Ton Package

York Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AL20S3BP441CAS46F2**

Quantity: **1** Tag #: **RTU-15**

System: **AL20S3BP441CAS46F2**

### Additional Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	48.1 Amps
Unit max over-current protection	60 Amps
Min Voltage	416 V
Max Voltage	508 V
Comp #1 RLA	13
Comp #1 LRA	123
Comp #2 RLA	16
Comp #2 LRA	140
Indoor Mtr Voltage	460-3-60
Indoor Mtr FLA	9.9
Outdoor Mtr Qty	4
Outdoor Fan Voltage	460-1-60
OD Fan Mtr FLA (ea.)	1.3
Power Ex Mtr Qty (if applicable)	2
Powered Ex Voltage(if applicable)	460-1-60
Power Ex Mtr FLA (ea) (if applicable)	2.2
Combustion Mtr Qty	1
Combustion Motor Voltage	208/230-1-60
Combustion Mtr FLA (ea)	0.8



# Sun Choice 15-27.5 Ton Package

York Single Package R-410A Air Conditioner

Project Name: Southside High School &amp; Jr. High Additions

Unit Model #: AL20S3BP441CAS46F2

Quantity: 1 Tag #: RTU-15

System: AL20S3BP441CAS46F2

## Factory Installed Options

### AL20S3BP441CAS46F2

Equipment Options	Option(s) Selected
Product Category:	<b>A</b> York SunChoice Single Packaged R-410A Air Conditioner
Efficiency:	<b>L</b> Standard Efficiency, End Return
Nominal Cooling Capacity:	<b>20</b> 20 Ton
Heat Type:	<b>S</b> Natural Gas, Stainless Steel, Staged Heat
Heat Size:	<b>3</b> High Heat, 350 MBH Input
Blower Option:	<b>B</b> 5 HP Standard Static Belt Drive Blower
Air Volume:	<b>P</b> Two Stage Compressor Operation IntelliSpeed control of the VFD based on stages of cooling. Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10.
Voltage:	<b>4</b> 460-3-60
Outside Air Option:	<b>4</b> Dual Enthalpy Economizer w/o Exhaust with Economizer Fault Detection & Diagnostic (Meets ASHRAE 90.1-2013, IECC 2015, California Title 24, AMCA 511)
Coil Options:	<b>1</b> Microchannel condenser coils Copper tube/Aluminum fin evaporator coils
Controls:	<b>C</b> Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.
Sensor Options:	<b>A</b>
Service Options:	<b>S</b> Non Powered Convenience Outlet (110 VAC) HACR Circuit Disconnect Phase Monitor
Refrigeration:	<b>4</b> Modulating Hot Gas Reheat
Additional Options:	<b>6</b> 2" Pleated Filters (MERV 8) Louvered Hail Guard
Cabinet Options:	<b>F</b> Hinged Access Panel Polyester SMC Drain Pan Condensate Overflow(COF)
Product Generation:	<b>2</b>

## Field Installed Accessories

- 1RD0416 - Barometric Relief Damper (40.0 lbs)



**Sun Choice 15-27.5 Ton  
Package**

York Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AL20S3BP441CAS46F2**

Quantity: **1** Tag #: **RTU-15**

System: **AL20S3BP441CAS46F2**

Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **AL20S3BP441CAS46F2**

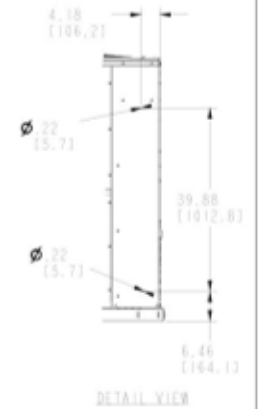
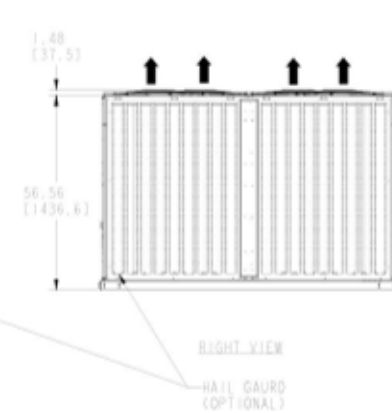
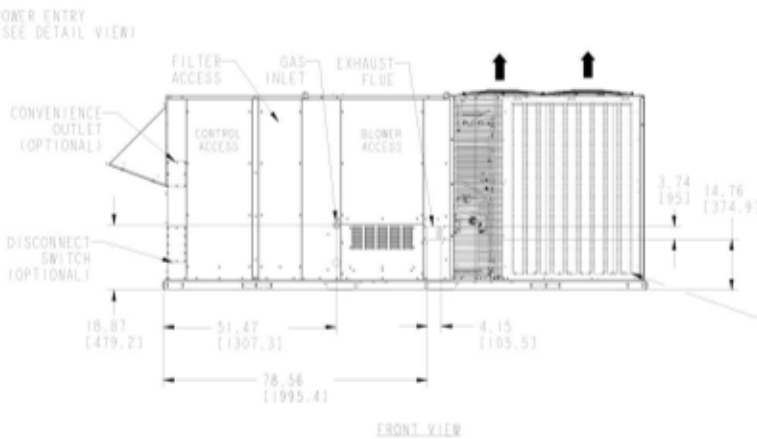
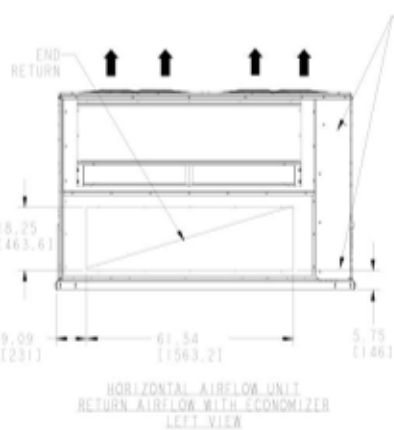
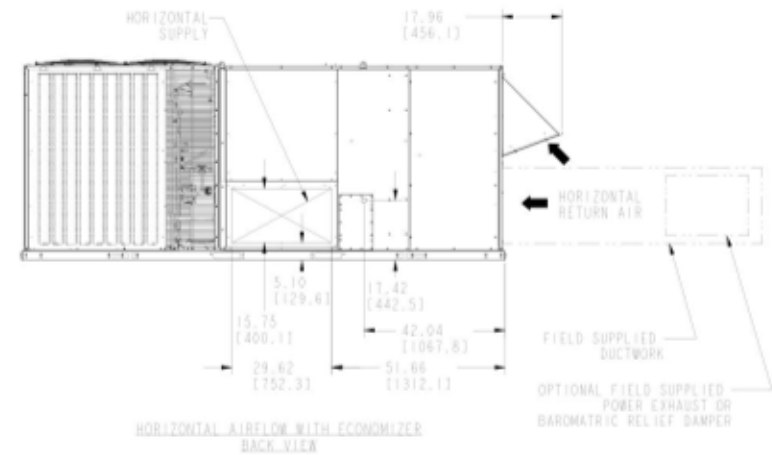
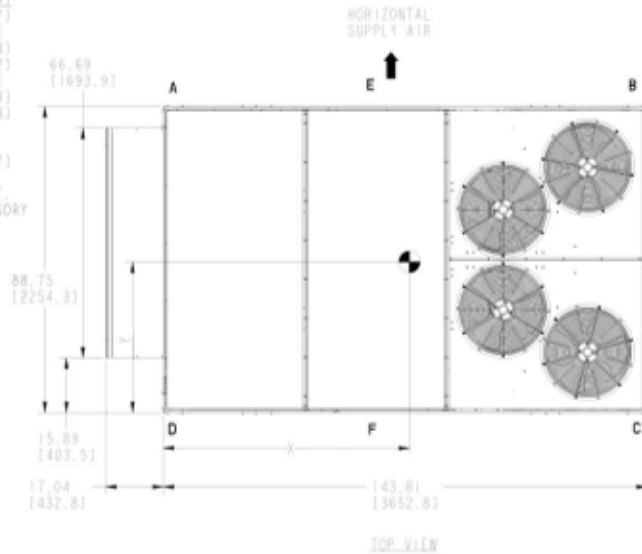
 Quantity: **1** Tag #: **RTU-15**

### 20T Choice SF End Return Consolidated Drawing

TONNAGE	OPERATING WEIGHT LBS (KG) (BASE UNIT)	CENTER OF GRAVITY LOCATION IN (MM) (BASE UNIT)		4 POINT LOAD LOCATION LBS (KG) (BASE UNIT)				6 CORNERS LOADS LBS (KG) (BASE UNIT)					
		X	Y	A	B	C	D	A	B	C	D	E	F
20	2255 [1023]	69 [1753]	48.3 [1227]	688 [317]	529 [240]	443 [201]	585 [265]	488 [221]	337 [153]	282 [128]	409 [185]	402 [182]	337 [153]

- NOTES:
- FOR OUTDOOR USE ONLY.
  - WEIGHTS SHOWN ARE FOR COOLING ONLY UNITS.
  - SERVICE (S) AND MINIMUM (M) CLEARANCE TO COMBUSTIBLE MATERIAL:
- | UNIT SIDE               | INCHES | MM     |
|-------------------------|--------|--------|
| RIGHT (S)               | 42     | [1067] |
| LEFT, NO ECON OR PE (S) | 18     | [457]  |
| LEFT, W/ ECON OR PE (S) | 96     | [2438] |
| FRONT/HEAT ACCESS (S)   | 80     | [2032] |
| REAR (S)                | 36     | [914]  |
| TOP (S)                 | 120    | [3048] |
| UNIT-TO-UNIT (S)        | 120    | [3048] |
| DUCT (M)                | 0      | [0]    |
| FLOOR (M)               | 0      | [0]    |
| FRONT/FLUE (M)          | 42     | [1067] |
- FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES CONTACT YOUR APPLICATION ENGINEERING DEPARTMENT.
  - DOWNFLOW DUCT DESIGNED TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY. IF UNIT IS MOUNTED HORIZONTAL SUPPLY, IT IS RECOMMENDED THAT THE DUCTS ARE SUPPORTED BY CROSS BRACES, AS DONE ON THE ACCESSORY ROOF CURBS.
  - MINIMUM CONDENSATION TRAP HEIGHT SHALL BE 1.5 TIMES THE LOWEST NEGATIVE STATIC.
  - DIMENSION IN [ ] ARE MILLIMETER OR KILOGRAMS.
  - OPTIONAL CDIL GUARDS, GAS HEAT, DISCONNECT SWITCH SHOWN.
  - HEAT EXCHANGER IS TYPICAL OF HIGH GAS HEAT OPTION.

= CENTER OF GRAVITY  
 = DIRECTION OF AIRFLOW



Project Name: **Southside High School & Jr. High Additions**

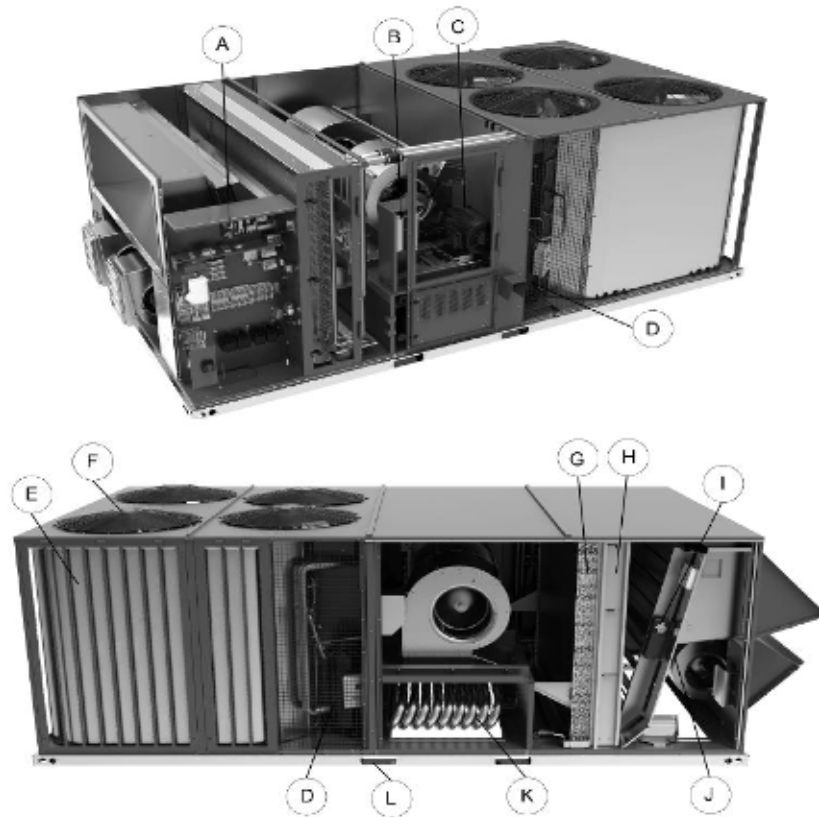
 Unit Model #: **AL20S3BP441CAS46F2**

Quantity: 1 Tag #: RTU-15

### Component Location

## Unit components

Figure 1: Component location



The previous figure shows the AVXX model. The following table lists the components of the unit.

Table 1: Component location table

Item	Description	Item	Description
A	Smart Equipment™ controls	G	Copper tube/aluminum fin evaporator coil
B	Optional variable frequency drive	H	Filter access, 2-inch or 4-inch filter options
C	Belt drive blower motor with dual centrifugal fan design	I	Optional economizer. Optional manual or motorized outside air dampers not shown.
D	Scroll compressors in various arrangements to produce 2 or 4 stages of cooling depending on the selected model	J	Optional powered exhaust. Optional barometric relief not shown.
E	MicroChannel condenser coils	K	Optional staged or modulating gas heat with aluminized or stainless steel heat exchanger
F	Condenser fans	L	Full perimeter base rails with holes for overhead rigging

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AL20S3BP441CAS46F2**

Quantity: 1 Tag #: RTU-15

### Typical Installation

#### Typical installation

The following figures show the typical installations for the unit.

Figure 14: Roof jack installation

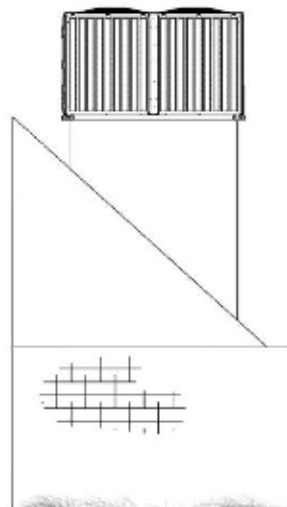
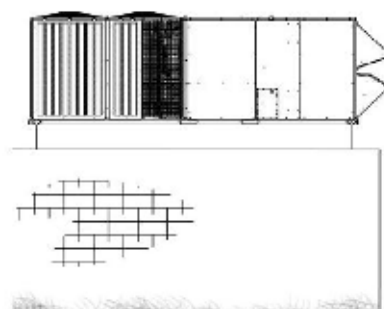


Figure 15: Roof curb installation



Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **AL20S3BP441CAS46F2**

Quantity: 1 Tag #: RTU-15

### Economizer Drawing

## Economizer options

Figure 13: Economizer options



Table 38: Economizer components

Item	Description
A	Fresh air hood
B	Power exhaust hood
C	Power exhaust damper
D	Power exhaust
E	Low leak economizer

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **AL20S3BP441CAS46F2**

Quantity: 1 Tag #: RTU-15

### Rainhood Drawing

## Rain hood dimensions

Figure 8: Rain hood dimensions

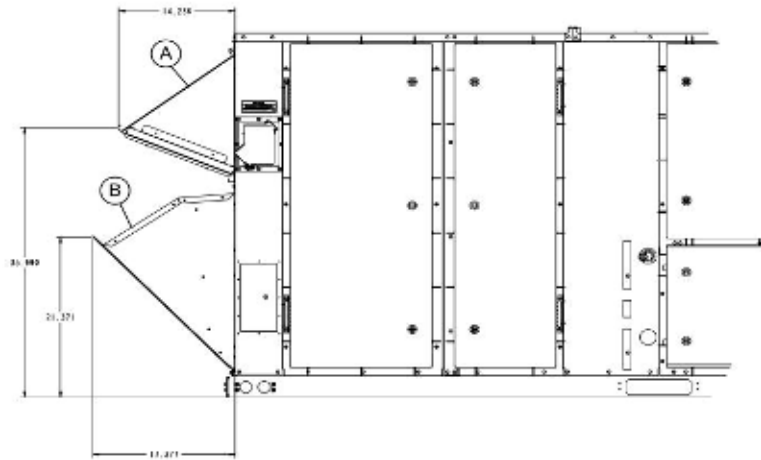


Table 32: Rain hood components

Item	Description
A	Economizer/motorized damper and power exhaust rain hood
B	Air intake hood



# York® Sun™ Core 3-12.5 Ton Package

## Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**Unit Model #: **ZYGA7S2B3EB1A224A2**Quantity: **2** Tag #: **RTU-17,18**System: **ZYGA7S2B3EB1A224A2**

### Cooling Performance

Total gross capacity	74.4 MBH
Sensible gross capacity	52.5 MBH
Efficiency (at ARI)	12.00 EER
Integrated eff. (at ARI)	16.00 IEER
Ambient DB temp.	95.0 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	57.9 °F
Leaving WB temp.	56.2 °F
Leaving air temp dew point	55.10 °F
Power input (w/o blower)	5.10 kW
Sound power	83 dB(A)

### Refrigerant

Refrigerant type	R-410A
Sys1	9 lbs

### Reheat Performance

Total capacity	31.4 MBH
Sensible capacity	5 MBH
Ambient DB temp.	85 °F
Entering DB temp.	75 °F
Entering WB temp.	67 °F
Leaving DB temp.	72.9 °F
Leaving WB temp.	62.8 °F
Power input (w/o blower)	4.40 kW
Gallons of water per hour	3.01 GPM

### Gas Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	100.0 MBH
Supply air	2200 CFM
Heating input capacity (Max)	125 MBH
Leaving DB temp.	102.1 °F
Air temp. rise	42.1 °F
SSE	80.0 %
Stages	2

### Supply Air Blower Performance

Supply air	2200 CFM
Ext. static pressure	0.6 IWG
Addl. Unit Losses (Options/Accessories)	0.15 IWG
Blower speed	718 RPM
Max BHP of Motor (including service factor)	2.90 HP
Duct location	Side
Motor rating	2.90 HP
Actual required BHP	0.96 HP
Power input	0.89 kW
Elevation	0 ft.
Drive type	BELT

### Outside/Mixed Air

Outside Air CFM	240 CFM
-----------------	---------

### Electrical Data

Power supply	208-3-60
Unit min circuit ampacity	34.9 Amps
Unit min over-current protection	35 Amps
Unit max over-current protection	50 Amps

### Dimensions & Weight

Hgt 41 in.	Len 87 in.	With 62 in.
Weight with factory installed options		860 lbs

### Clearances

Right	18 in.	Front	48 in.	Rear	36 in.
Top	72 in.	Bottom	1 in.	Left	12 in.

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



### 6 Ton

- All units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

### Unit Features

- Two Stage Cooling
- 125 MBH Two Stage Input Medium Heat Stainless Steel
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards)
- Either supply and/or return can be field converted from vertical to horizontal configuration without cutting panels.
- Full perimeter base rails with built in rigging capabilities
- Scroll Compressors
- Medium Static Belt Drive Blower
- Solid Core Liquid Line Filter Driers
- Unit Ships with 2" Throwaway Filters
- Replacement Filters: 4 - (16" x 20"). Unit accepts 2" or 4" wide filters.
- Single Point Power Connection
- Short Circuit Current: 5kA RMS Symmetrical
- Non-fused Disconnect (60 Amp)
- Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
- MagnaDRY Reheat

### Standard Unit Controller

- Safety Monitoring - Monitors the high and low-pressure switches, the freezestats, the gas valve, if applicable, and the temperature limit switch on gas and electric heat units. The unit control board will alarm on ignition failures, safety lockouts and repeated limit switch trips.
- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Smart Equipment Control Board
- On-Board Diagnostic and Fault Code display

### BAS Controller

- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACnet MS/TP, Modbus and N2 communication card.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors
- Fifteen (15) Year Warranty - Stainless Steel Tubular Heat Exchangers





# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **ZYGA7S2B3EB1A224A2**

Quantity: **2** Tag #: **RTU-17,18**

System: **ZYGA7S2B3EB1A224A2**

### Additional Electrical Data

Power supply	208-3-60
Unit min circuit ampacity	34.9 Amps
Unit max over-current protection	50 Amps
Min Voltage	187 V
Max Voltage	252 V
Comp #1 RLA	17.6
Comp #1 LRA	136.0
Indoor Mtr Voltage	208-3-60
Indoor Mtr FLA	8.9
Outdoor Mtr Qty	2
Outdoor Fan Voltage	208-1-60
OD Fan Mtr FLA (ea.)	2.0
Power Ex Mtr Qty (if applicable)	2
Powered Ex Voltage(if applicable)	208-3-60
Power Ex Mtr FLA (ea) (if applicable)	1.1
Combustion Mtr Qty	1
Combustion Motor Voltage	208/230-1-60
Combustion Mtr FLA (ea)	0.08



# York® Sun™ Core 3-12.5 Ton Package

Single Package R-410A Air Conditioner

Project Name: Southside High School &amp; Jr. High Additions

Unit Model #: ZYGA7S2B3EB1A224A2

Quantity: 2 Tag #: RTU-17,18

System: ZYGA7S2B3EB1A224A2

## Factory Installed Options

### ZYGA7S2B3EB1A224A2

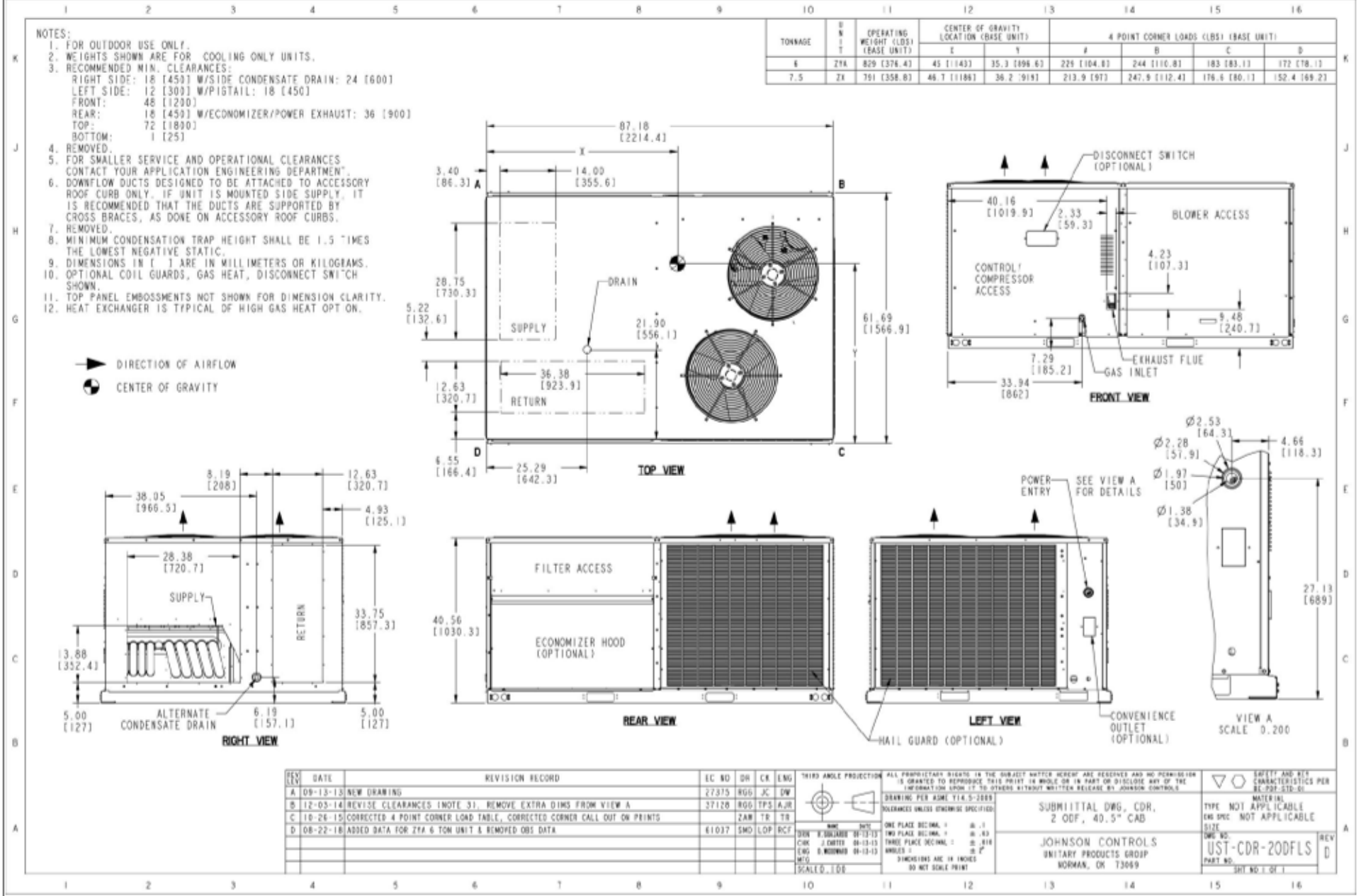
Equipment Options	Option(s) Selected
Product Category:	<b>ZY</b> York Sun Core Single Packaged R-410A Air Conditioner
Heat Type:	<b>G</b> Gas Heat
Nominal Cooling Capacity:	<b>A7</b> 6 Ton Two Stage Cooling 12.0 EER
Heat Size:	<b>S</b> 125 MBH Two Stage Input Medium Heat Stainless Steel
Voltage:	<b>2</b> 208/230-3-60
Airflow:	<b>B</b> Medium Static Belt Drive Blower
Airflow Options:	<b>3</b> VFD IntelliSpeed
Coil Options:	<b>E</b> Microchannel All Aluminum Condenser Coil, Copper tube/Aluminum fin Evaporator Coil
Controls:	<b>B</b> Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors. BACNet MS/TP, Modbus and N2 Communication Card.
Sensor Options:	<b>1</b>
Economizer / Damper:	<b>A</b>
Convenience Outlet:	<b>2</b> Non-powered Convenience Outlet
Electrical Options:	<b>2</b> Non-fused Disconnect (60 Amp)
Cabinet Options:	<b>4</b> Louvered Hail Guards & Hinged Cabinet Doors
Special Options:	<b>A</b>
Product Generation:	<b>2</b>

### Field Installed Accessories

- 2EE04707224 - Economizer, DB, Horizontal Flow, Large Footprint, Short Cabinet (with Barometric Relief) (105.0 lbs)
- 2EC0402 - Kit, Dual Enthalpy Field Installed (Includes two humidity sensors) (1.0 lbs)
- 1FE0415 - Flue Extension Kit (16.0 lbs)
- 1TB0402 - Large Footprint Thru The Base Electrical & Thru The Curb Gas (1.0 lbs)
- 2EC0402 - Kit, Dual Enthalpy Field Installed (Includes two humidity sensors) (1.0 lbs)

Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYGA7S2B3EB1A224A2**

 Quantity: **2** Tag #: **RTU-17,18**
**Consolidated Drawing**




# York® Sun™ Core 3-12.5 Ton Package

## Single Package R-410A Air Conditioner

Project Name: Southside High School & Jr. High Additions

Unit Model #: ZYGA7S2B3EB1A224A2

Quantity: 2 Tag #: RTU-17,18

### Field Installed Accessory Weights

#### Unit Accessory Weights

Unit Accessory	Weights (lbs.)
Vertical Flow Dry Bulb Economizer Small Footprint	63
Horizontal Flow Dry Bulb Economizer Small Footprint Short	96
Horizontal Flow Dry Bulb Economizer Small Footprint Short	75
Horizontal Flow Dry Bulb Economizer Small Footprint Tall	81
Horizontal Flow Dry Bulb Economizer Large Footprint Short	105
Horizontal Flow Dry Bulb Economizer Large Footprint Tall	102
Power Exhaust Vert Flow Small Footprint	38
Power Exhaust Vert Flow Large Footprint	38
Power Exhaust Horiz Flow Small Footprint	38
Power Exhaust Horiz Flow Large Footprint	38
Hail Guard Kit Small Short Factory Installed	19
Hail Guard Kit Small Tall Factory Installed	24
Hail Guard Kit Large Short Factory Installed	50
Hail Guard Kit Large Tall Factory Installed	50
Curb Rigid 14" Small Footprint	145
Curb Rigid 24" Small Footprint	135
Curb Rigid 14" Large Footprint	135
Curb Rigid 24" Large Footprint	135

## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYGA7S2B3EB1A224A2**

 Quantity: **2** Tag #: **RTU-17,18**


### Seismic Certification

036-21805-001-0120



## CERTIFICATE OF COMPLIANCE

### SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS



Certification No.

# VMA -51410 -01 C (Revision 0 )

Expiration Date: 04/30/2021

#### Certification Parameters:

The nonstructural products (mechanical and/or electrical components) listed on this certificate are **CERTIFIED<sup>1</sup> FOR SEISMIC APPLICATIONS** in accordance with the following building code<sup>2</sup> releases.

**IBC 2006, 2009, 2012, 2015**

The following model designations, options, and accessories are included in this certification. Reference report number **VMA-51410-01** as issued by The VMC Group for a complete list of certified models, included accessories/options, and certified installation methods.

**Johnson Controls, Incorporated: Rooftop Units**  
**3-12.5 Ton Competitive Direct Replacement: 3 – 12.5 Ton Cooling Capacity**

The above referenced equipment is **APPROVED** for seismic application when properly installed<sup>3</sup>, used as intended, and contains a Seismic Certification Label referencing this Certificate of Compliance<sup>4</sup>. As limited by the tabulated values, below grade, grade, and roof-level installations, installations in essential facilities, for life safety applications, and/or of equipment containing hazardous contents are permitted and included in this certification with an Equipment Importance Factor assigned as  $I_p=1.5$ . The equipment is qualified by successful seismic shake table testing at the nationally recognized Dynamic Certification Laboratory under the witness of the ISO Accredited Product Certification Agency, The VMC Group.

Certified Seismic Design Levels				
Certified IBC	Importance $I_p \leq 1.5$ Soil Classes A-E Risk Categories I-IV Design Categories A-F	$S_{DS} \leq 2.500 \text{ g}$ $z/h = 0.0$		$S_{DS} \leq 2.000 \text{ g}$ $z/h \leq 1.0$
		Horizontal Design	—	—( - ) 4.500 g
Test Datum AC156	ISO 17025 Laboratory Pre/Post-Shake Functionality Tri-axial, 5% Damping SRS	$A_{FLEX-H} \leq 3.200 \text{ g}$	$A_{FLEX-V} \leq 1.667 \text{ g}$	
		$A_{RIG-H} \leq 2.400 \text{ g}$	$A_{RIG-V} \leq 0.667 \text{ g}$	
		$ZPA_H \leq 2.160 \text{ g}$	$ZPA_V \leq 0.600 \text{ g}$	

Certified Seismic Installation Methods	
Directly to seismically tested curb/rail	Directly to seismically tested curb/rail with external isolation

## Single Package R-410A Air Conditioner

 Project Name: **Southside High School & Jr. High Additions**

 Unit Model #: **ZYGA7S2B3EB1A224A2**

 Quantity: **2** Tag #: **RTU-17,18**

### Seismic Certification

036-21805-001-0120



## CERTIFICATE OF COMPLIANCE

### SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS

#### Certified Product Table:

Model	Unit Type	Efficiency Rating	Nominal Cooling Capacity (Tons)	Length (in.)	Width (in.)	Height (in.)	Max. Operating Weight (lbs.)	
Z*G04	Gas AC Unit	Standard / Mid / 14 SEER	3	74.1	48.9	32.5	527	
Z*G05			4	74.1	48.9	32.5	618	
Z*G06			5	74.1	48.9	40.6	636	
Z*G07		Standard / Mid	6	74.1	48.9	40.6	804	
Z*GA7			6	74.1	48.9	40.6	804	
Z*G08			7.5	87.1	61.7	40.6	980	
Z*G09			8.5	87.2	61.7	48.6	980	
Z*G12			10	87.2	61.7	48.6	1008	
ZXG14			Standard	12.5	87.2	61.7	55.3	1047
Z*E04			Electric AC Unit	Standard / Mid / 14 SEER	3	74.1	48.9	32.5
Z*E05		4			74.1	48.9	40.6	564
Z*E06		5			74.1	48.9	40.6	582
Z*E07		Mid / Standard		6	87.1	61.7	40.6	734
Z*EA7				6	87.1	61.7	40.6	734
Z*E08	7.5			87.2	61.7	48.6	878	
Z*E09	8.5			87.2	61.7	48.6	878	
Z*E12	10			87.2	61.7	55.3	902	
ZXE14	Standard			12.5	87.2	61.7	55.3	941
X*E04	Heat Pump			Mid / 14 SEER	3	74.1	48.9	32.5
X*E05		4			74.1	48.9	40.6	614
X*E06		5			74.1	48.9	40.6	653
X*EA7		Mid		6	87.1	61.7	40.6	861
XYE07				6	87.1	61.7	40.6	861
X*E08		Mid / Standard	7.5	87.2	61.7	55.3	1060	
X*E09			8.5	87.2	61.7	55.3	1061	
XXE12			Standard	10	87.2	61.7	55.3	1060
				10	87.2	61.7	55.3	1060

\* Denotes Q, X, Y which represent 14 SEER, Standard, and Mid Efficiency Rating, respectively

This certification **includes** rooftop unit modules as detailed in the above charts. The rooftop unit configuration and options shall be a catalogue design and factory supplied. The rooftop unit shall be installed and attached to the building structure per the manufacturer's supplied seismic installation instructions. For a list of certified configurations and options please directly contact the manufacturer. This certification **excludes** all non-factory supplied accessories, all connections for electrical, fuel, heating or cooling fluid, or other pipe/conduit connections and all non-catalogued, standard options and/or configurations not detailed in the above charts. Flexibility in the connections must be maintained as to not transmit load into the equipment. Design specials are outside the scope of this certification.



VMA-51410-01C (Revision 0)  
 Issue Date: April 23, 2018  
 Revision Date: April 23, 2018  
 Expiration Date: April 30, 2021

## Single Package R-410A Air Conditioner

Project Name: **Southside High School & Jr. High Additions**

Unit Model #: **ZYGA7S2B3EB1A224A2**

Quantity: **2** Tag #: **RTU-17,18**

### Seismic Certification

036-21805-001-0120



## CERTIFICATE OF COMPLIANCE

### SEISMIC DESIGN OF NONSTRUCTURAL COMPONENTS AND SYSTEMS

#### Notes and Comments:

1. All equipment listed herein successfully passed the seismic acceptance criteria for shake testing non-structural components and systems as set forth in the ICC AC-156. The Test Response Spectrum (TRS) enveloped the Required Response Spectrum (RRS) for all units tested. The units cited in this certification were representative sample(s) of a contingent of models and all remained captive and structurally sound after the seismic shake simulation. The units also remained functionally operational after the simulation testing as functional testing was completed by the equipment manufacturer before and after the seismic simulations. Although a seismic qualified unit inherently contains some wind resisting capacity, that capacity is undetermined and is excluded from this certification. Snow/ice loads have been neglected and thus limit the unit to be installed both indoors (covered by an independent protective structure) and out of doors (exposed to accumulating snow/ice) for ground snow loads no greater than 30 psf for all applications.
2. The following building codes are addressed under this certification:  
IBC 2006 – referencing ASCE 7-05 and ICC AC-156  
IBC 2009 – referencing ASCE 7-05 and ICC AC-156  
IBC 2012 – referencing ASCE 7-10 and ICC AC-156  
IBC 2015 – referencing ASCE 7-10 and ICC AC-156
3. Refer to the manufacturer supplied installation drawings for anchor requirements and mounting considerations for seismic applications. Required anchor locations, size, style, and load capacities (tension and shear) may be specified on the installation drawings or specified by a 3rd party. Mounting requirement details such as anchor brand, type, embedment depth, edge spacing, anchor-to-anchor spacing, concrete strength, special inspection, wall design, and attachment to non-building structures must be outlined and approved by the Engineer of Record for the project or building. Structural walls, structural floors, and housekeeping pads must also be seismically designed and approved by the project or building Structural Engineer of Record to withstand the seismic anchor loads as defined on the installation drawings. The installing contractor is responsible for observing the installation detailed in the seismic installation drawings and the proper installation of all anchors and mounting hardware.
4. For this certificate and certification to remain valid, this certificate must correspond to the "Seismic Certification Label" found affixed to the unit per Section 1703.5 of the International Building Code. The label ensures the manufacturer built the unit in conformance to the IBC seismic design criteria set forth by the Certified Seismic Qualification Agency, The VMC Group, and meets the seismic design levels claimed by this certificate.
5. Mechanical, Electrical, and Plumbing connections to the equipment must be flexibly attached as to not transfer load through the connection. The structural integrity of any conduit, cable trays, piping, ductwork and/or flexible connections is the responsibility of others. This certification does not guarantee the equipment will remain compliant to NFMA, IP, UI, or CSA standards after a seismic event.
6. This certificate applies to units manufactured at:  
5005 York Drive, Norman, OK, 73069
7. This project follows The VMC Group's ISO -17065 Scheme for Product Certification of Nonstructural Components.



John P. Giuliano, PE  
President, The VMC Group

VMA 51410 01C (Revision 0)  
Issue Date: April 23, 2018  
Revision Date: April 23, 2018  
Expiration Date : April 30, 2021



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Page 3 of 3

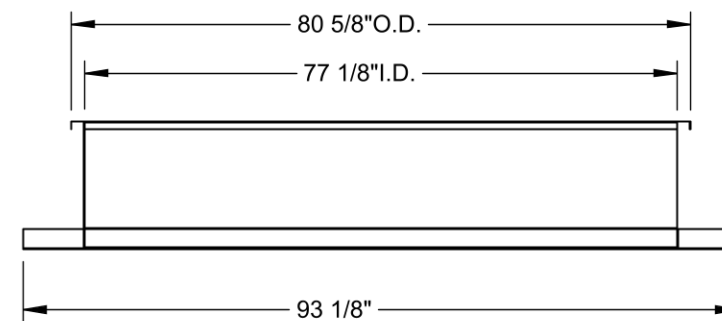
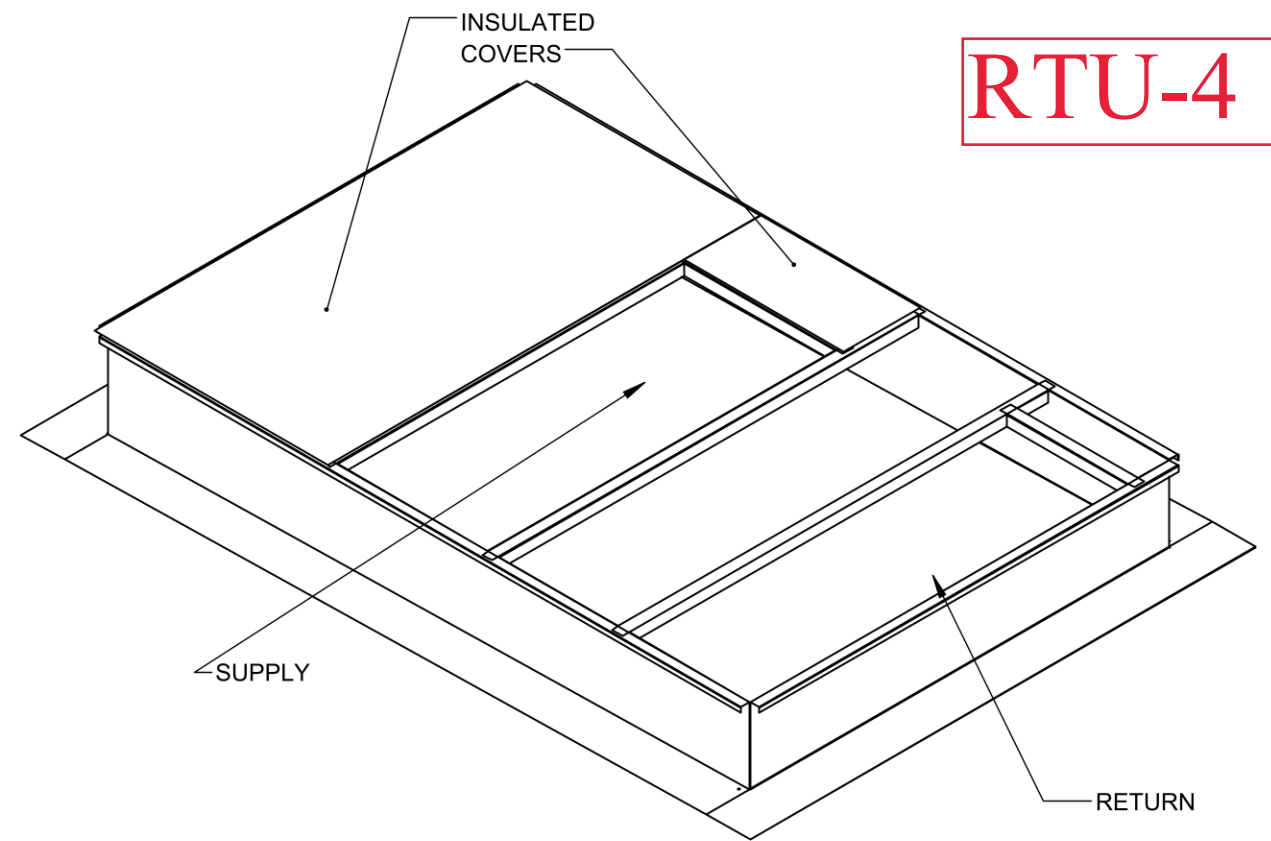
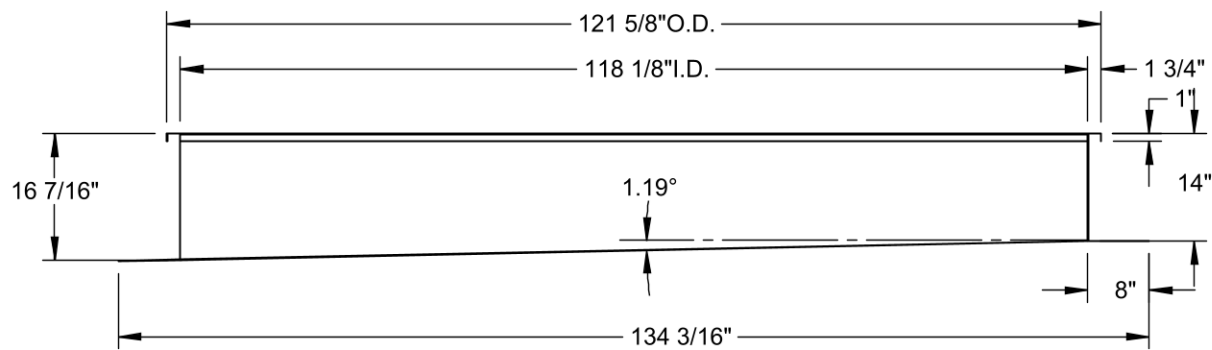
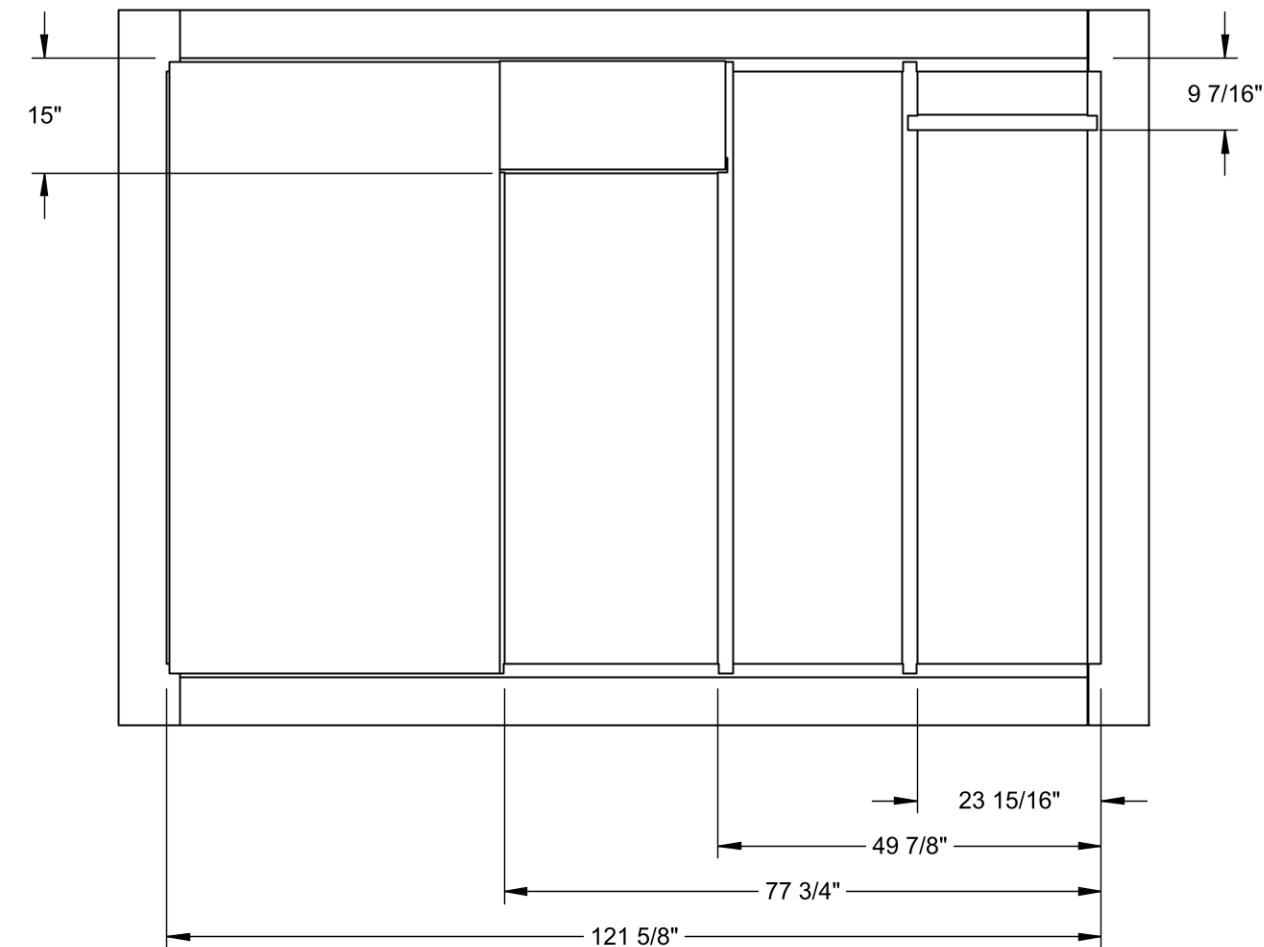
102S 103387 Rev 9

**OPTIONS:**

<b>MATERIAL: 16 ga. GAL STEEL</b>
<b>INSULATED PANELS (WHERE REQUIRED)</b>
<b>1X4 WOOD NAILER (UNDER TOP FLANGE)</b>

DIMENSIONED AND TOLERENCED PER ANSI Y14.5M-1982

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
01	INITIAL DRAWING		



**CURB SHOWN IS CDI STANDARD CONFIGURATION  
 CDI RESERVES THE RIGHT TO CHANGE LAYOUT  
 WITHOUT NOTIFICATION. IF CURB IS NEEDED IN A  
 DIFFERENT CONFIGURATION CDI MUST BE NOTIFIED  
 PRIOR TO PLACING AN ORDER.**

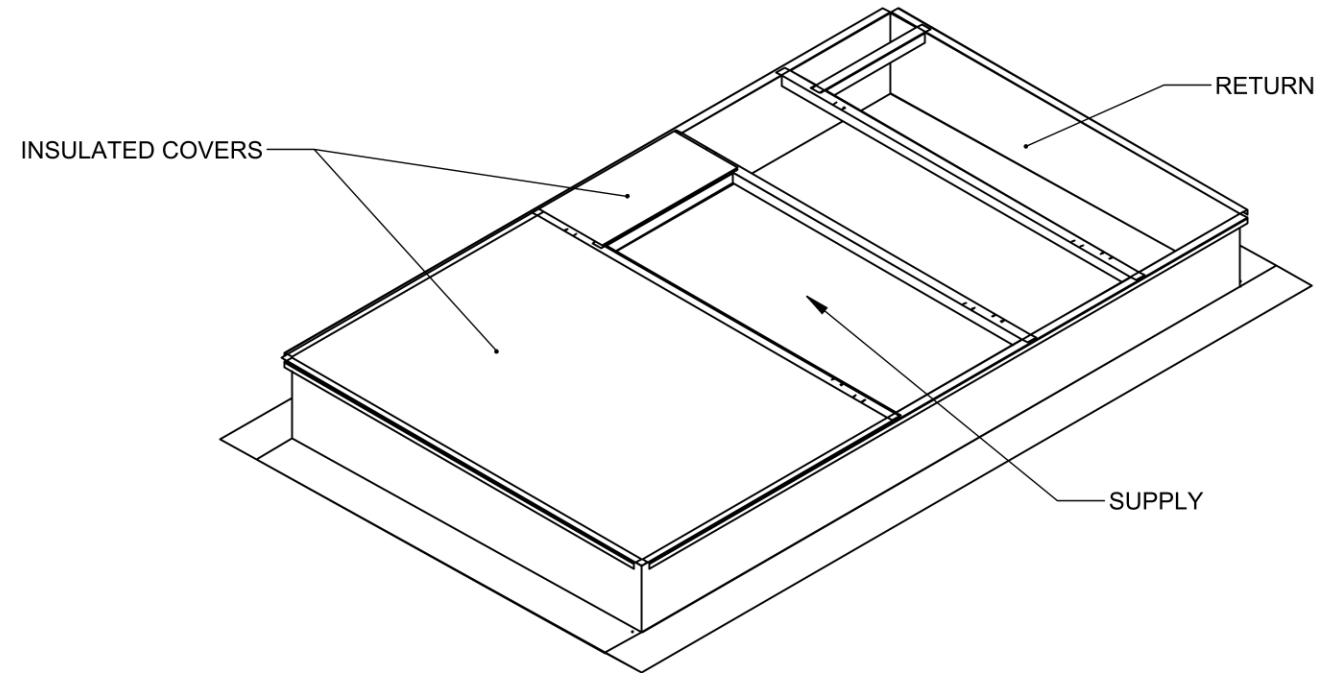
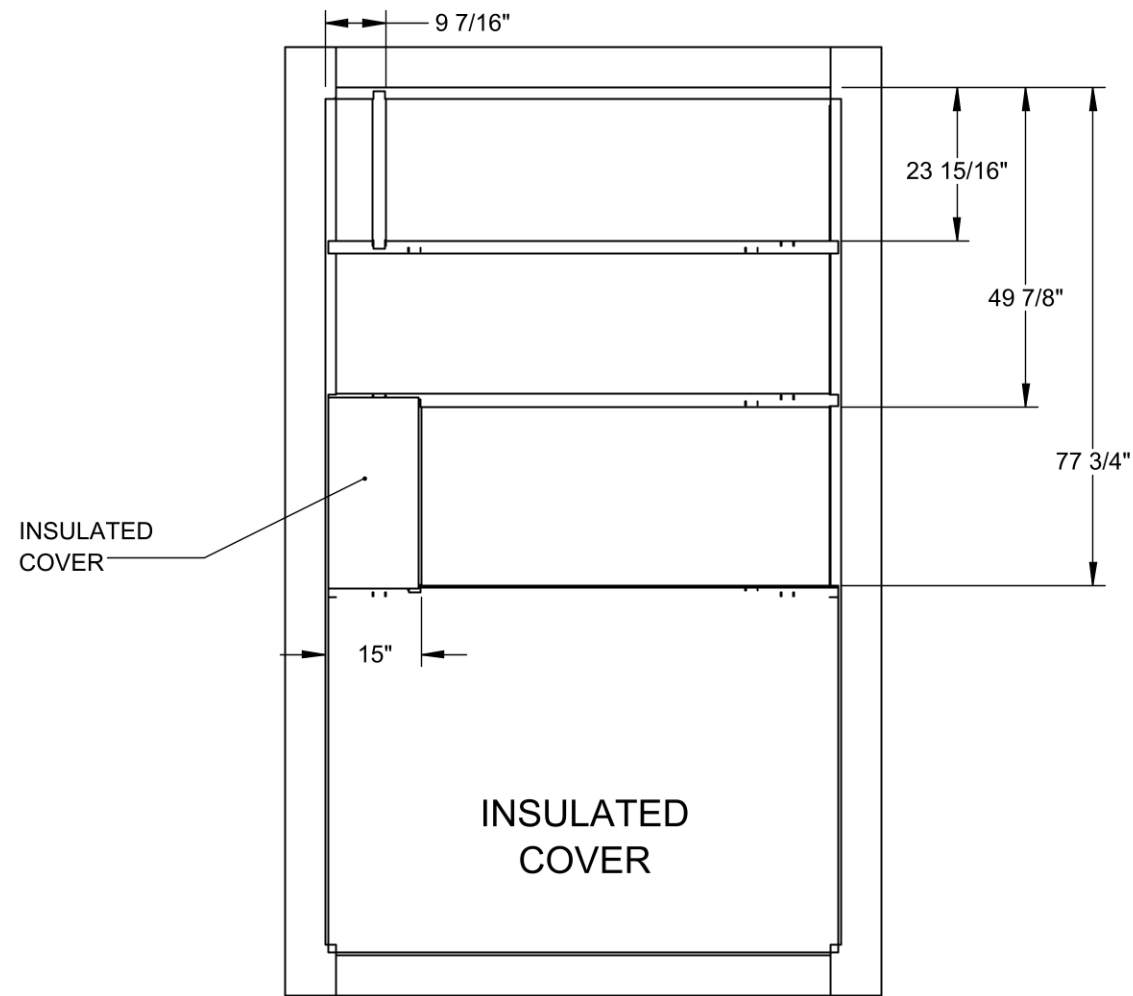
\*VERIFY EXISTING CURB OD  
 \*VERIFY SUPPLY AND RETURN OPENINGS  
 \*NOTE ANY CHANGES  
 \*CALL WITH ANY QUESTIONS  
 \*FAX BACK IF DRAWING IS OK AS IS

<b>CURB WEIGHT (LBS.)</b> 248.03	<b>APPROVALS</b> DRAWN: <i>aturner</i> CHECKED: _____	<b>DATE</b> Monday, March 22, 2021 11:45:13 AM	<b>TITLE:</b> 2-2114-5110-P
<small>UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE: X ± 0.05 .XX ± 0.03 .XXX ± 0.01</small>	<small>Ø .XX ± 0.007 °S ± 1/2°</small>	<b>CDI</b> 17560 TYLER ST NW ELK RIVER, MN 55330 (763)391-7790 (763)391-7851	<b>FILE NAME:</b> 2-2114-5110-P <b>DRAWING NO.:</b> <b>REV:</b> 01
<small>DIMENSIONS ARE AS FOLLOWS: 1.00 in [25.40 mm]</small>	<small>3RD ANGLE PROJECTION</small>	<b>SCALE:</b> 1:25	<b>SHEET:</b> 1 OF 4

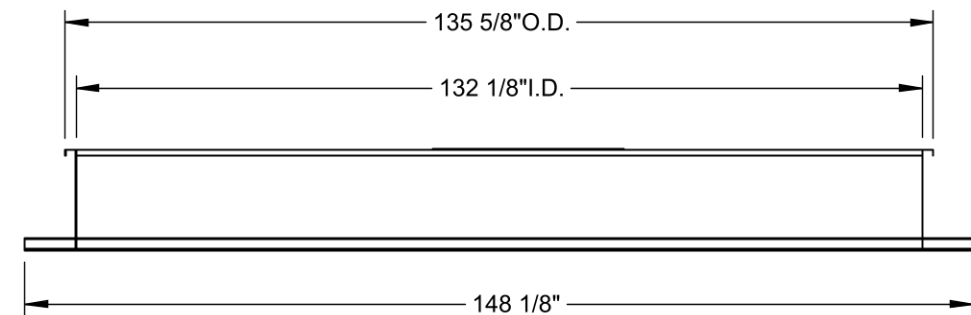
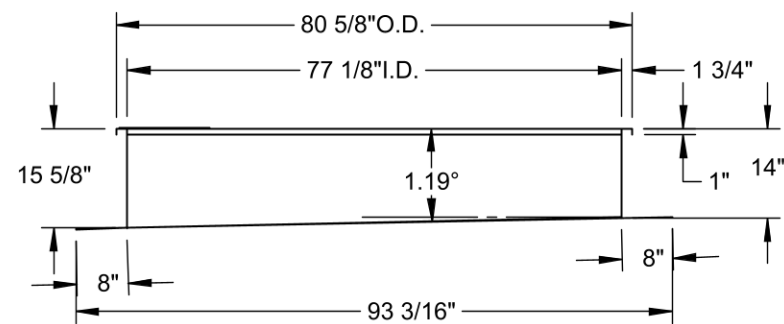
<b>OPTIONS:</b>
<b>MATERIAL: 16 ga. GAL STEEL</b>
<b>INSULATED PANELS (WHERE REQUIRED)</b>
<b>1X4 WOOD NAILER (UNDER TOP FLANGE)</b>

DIMENSIONED AND TOLERENCED PER ANSI Y14.5M-1982

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
01	INITIAL DRAWING	1/8/2021	ZLS



**RTU-10**  
**RTU-11**



**CURB SHOWN IS CDI STANDARD CONFIGURATION CDI RESERVES THE RIGHT TO CHANGE LAYOUT WITHOUT NOTIFICATION. IF CURB IS NEEDED IN A DIFFERENT CONFIGURATION CDI MUST BE NOTIFIED PRIOR TO PLACING AN ORDER.**

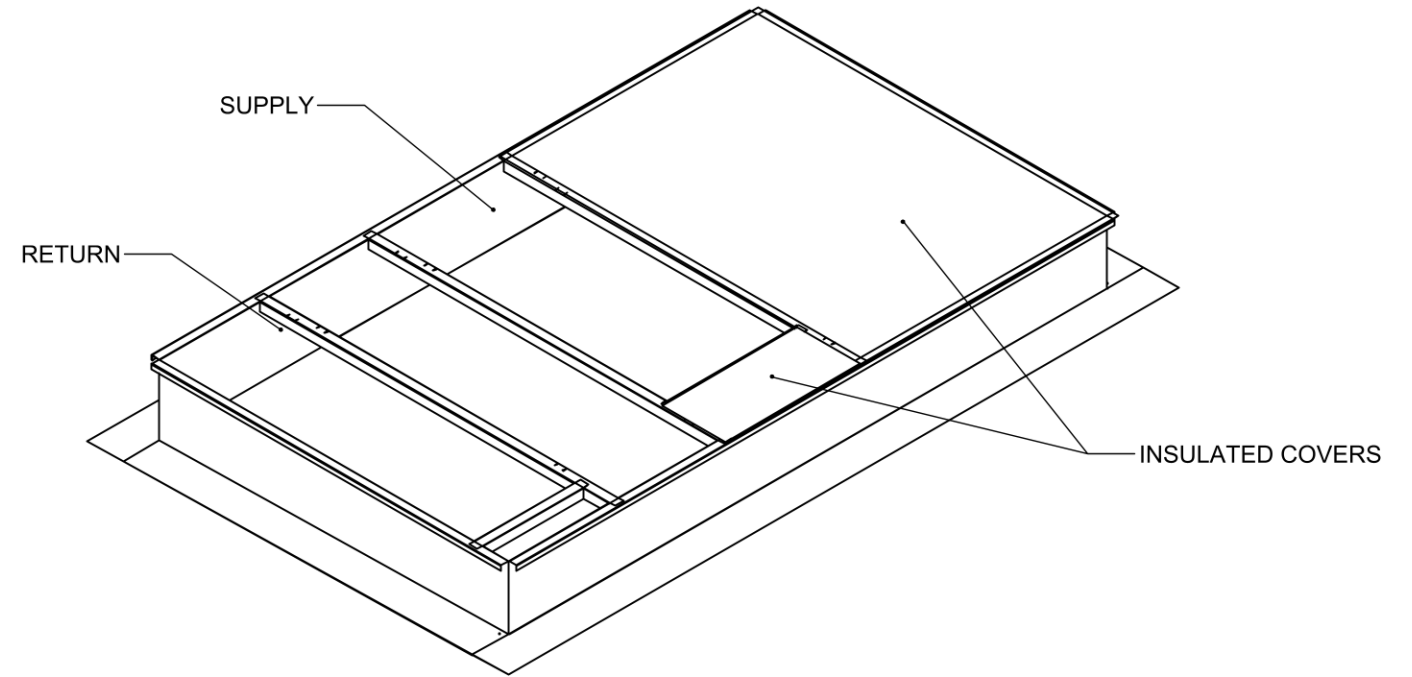
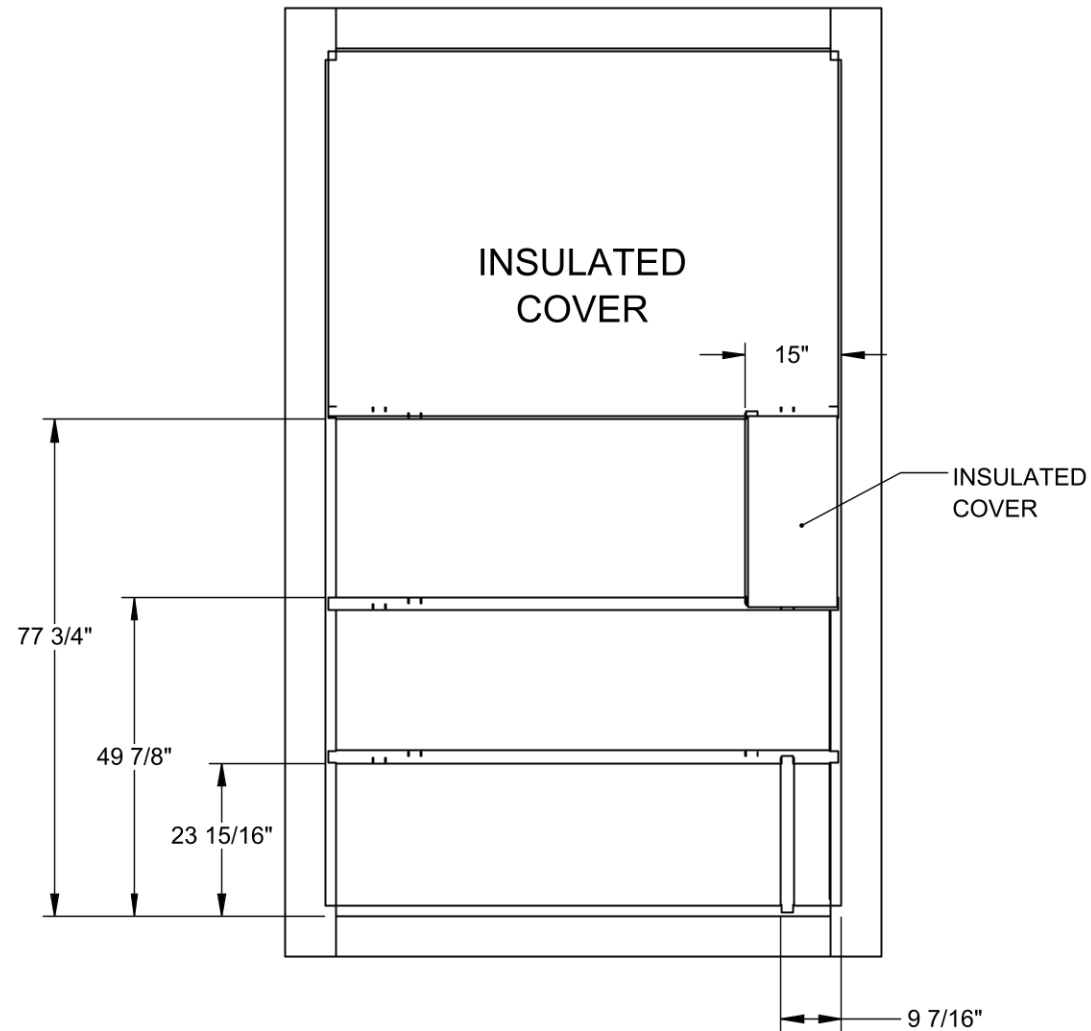
\*VERIFY EXISTING CURB OD  
\*VERIFY SUPPLY AND RETURN OPENINGS  
\*NOTE ANY CHANGES  
\*CALL WITH ANY QUESTIONS  
\*FAX BACK IF DRAWING IS OK AS IS

<b>CURB WEIGHT (LBS.)</b> 639.21	<b>APPROVALS</b> DRAWN: zschellenberger CHECKED:	<b>DATE</b> Friday, January 8, 2021 12:53:25 PM	<b>TITLE:</b> 2-1114-5111
<small>UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE: X ± 0.05 XX ± 0.03 XXX ± 0.01</small>	<small>Ø, XX ± 0.007 °S ± 1/2"</small>	<b>CDI</b> 17560 TYLER ST NW ELK RIVER, MN 55330 (763)391-7790 (763)391-7851	<b>FILE NAME:</b> 2-1114-5111 <b>DRAWING NO.:</b> <b>REV:</b> 01
<small>DIMENSIONS ARE AS FOLLOWS: 1.00 in [25.40 mm]</small>	<small>3RD ANGLE PROJECTION</small>	<b>SCALE:</b> 1:30	<b>SHEET:</b> 1 OF 4

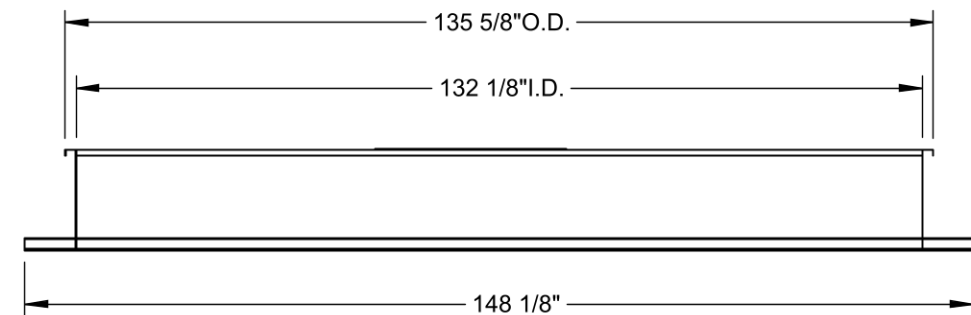
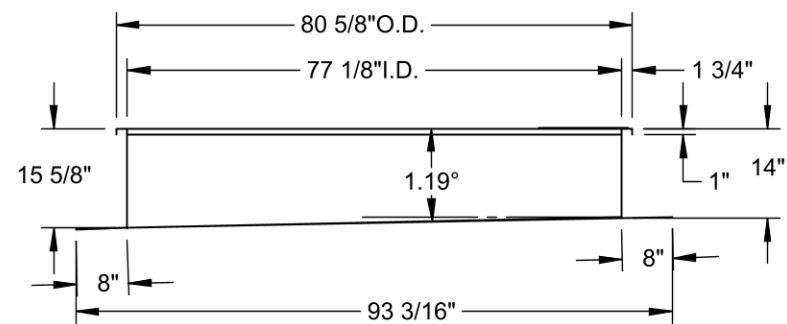
<b>OPTIONS:</b>
<b>MATERIAL: 16 ga. GAL STEEL</b>
<b>INSULATED PANELS (WHERE REQUIRED)</b>
<b>1X4 WOOD NAILER (UNDER TOP FLANGE)</b>

DIMENSIONED AND TOLERENCED PER ANSI Y14.5M-1982

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
01	INITIAL DRAWING	1/8/2021	ZLS



**RTU-15**



**CURB SHOWN IS CDI STANDARD CONFIGURATION CDI RESERVES THE RIGHT TO CHANGE LAYOUT WITHOUT NOTIFICATION. IF CURB IS NEEDED IN A DIFFERENT CONFIGURATION CDI MUST BE NOTIFIED PRIOR TO PLACING AN ORDER.**

\*VERIFY EXISTING CURB OD  
 \*VERIFY SUPPLY AND RETURN OPENINGS  
 \*NOTE ANY CHANGES  
 \*CALL WITH ANY QUESTIONS  
 \*FAX BACK IF DRAWING IS OK AS IS

<b>CURB WEIGHT (LBS.)</b> 639.21	<b>APPROVALS</b> DRAWN: <u>zschellenberger</u> CHECKED: _____	<b>DATE</b> Friday, January 8, 2021 12:37:01 PM	<b>TITLE:</b> 2-1114-5111
<small>UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE: X ± 0.05 .XX ± 0.03 .XXX ± 0.01</small>	<small>3RD ANGLE PROJECTION</small>	<b>CDI</b> 17560 TYLER ST NW ELK RIVER, MN 55330 (763)391-7790 (763)391-7851	<b>FILE NAME:</b> 2-1114-5111 <b>DRAWING NO.:</b> <b>REV:</b> 01
<small>DIMENSIONS ARE AS FOLLOWS: 1.00 in [25.40 mm]</small>	<small>SCALE: 1:30</small>	<small>SHEET: 1 OF 4</small>	