



SUBMITTAL DATA

For: Approval

Order #:

Date: 04/08/2015

Project: spare time 867

Project #:

Location:

Date

04/08/2015

Project Name

spare time 867

Project Number**Client / Purchaser**

Submittal Summary Page

Qty	Tag #	Model #	Description
1		ZH090N15N2DAA7	7.5 Ton, York Predator Single Packaged R-410A Air Conditioner, 11.5 EER / 12.6 IEER, Two Stage Cooling, 144 MBH Output Aluminized Steel, Two Stage Gas Heat, 3 HP High Static Belt Drive Blower, 2" Throwaway Filters, 208/230-3-60, Microchannel Condenser Coil, Composite Drain Pan <ul style="list-style-type: none"> • HACR Circuit Breaker/Disconnect (Sized for 208 Volts) • Non Powered Convenience Outlet • Simplicity® SE Controller with Discharge Air, Return Air, and Outside Air Sensor
1		2EE04706924	Economizer for Dedicated Horizontal/Slideflow Applications. Includes FA Hood. Order 1EH0408 for exhaust hood w/Baro Relief or Power Exhaust (Not Low Leak Compliant)
1		1EH0408	Barometric Relief Kit for Power Exhaust, Horizontal Application (Includes Hood)
1		2EC0401	Kit, Single Enthalpy Field Installed
1		2PE04704706	Power Exhaust 230V without Baro Relief Downflow or Horizontal
1		S1-02812363700	Blower Sheave for 7.5 Ton High Static Field Installed Drive
1		S1-A47	Belt A47 for Field Installed Drive
1		S1-YK-MAP1810-0P	MAP (Multiple Access Portal) Gateway- For use with SimplicitySE Control.
1		ZH150N15N2DAA7	12.5 Ton, York Predator Single Packaged R-410A Air Conditioner, 11.5 EER / 12.6 IEER, Two Stage Cooling, 144 MBH Output Aluminized Steel, Two Stage Gas Heat, 5 HP High Static Belt Drive Blower, 2" Throwaway Filters, 208/230-3-60, Microchannel Condenser Coil, Composite Drain Pan <ul style="list-style-type: none"> • HACR Circuit Breaker/Disconnect (Sized for 208 Volts) • Non Powered Convenience Outlet • Phase Monitor • Simplicity® SE Controller with Discharge Air, Return Air, and Outside Air Sensor
1		2EE04706924	Economizer for Dedicated Horizontal/Slideflow Applications. Includes FA Hood. Order 1EH0408 for exhaust hood w/Baro Relief or Power Exhaust (Not Low Leak Compliant)
1		1EH0408	Barometric Relief Kit for Power Exhaust, Horizontal Application (Includes Hood)
1		2EC0401	Kit, Single Enthalpy Field Installed
1		S1-02812364700	Blower Sheave for 12.5 Ton High Static Field Installed Drive
1		S1-BX54	Belt for 12.5 Ton High Static Field Installed Drive

Project Name: spare time 867

Unit Model #: ZH090N15N2DAA7

Quantity: 1

System: ZH090N15N2DAA7

Cooling Performance

Total capacity	103.5 MBH
Sensible capacity	72.5 MBH
Refrigerant type	R-410A
Efficiency (at ARI)	11.50 EER
Integrated eff. (at ARI)	12.60 IEER
Ambient DB temp.	86.8 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	57.6 °F
Leaving WB temp.	56.0 °F
Part load efficiency	13 IPLV
Power input (w/o blower)	6.61 kW
Sound power	83 dB(A)

Gas Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	144 MBH
Supply air	3000 CFM
Heating input capacity (Max)	180 MBH
Leaving DB temp.	104.4 °F
Air temp. rise	44.4 °F
SSE	80.0 %
Stages	2

Supply Air Blower Performance

Supply air	3000 CFM
Ext. static pressure	0.6 IWG
Unit static resistance	0.2 IWG
Blower speed	1123 RPM
Max BHP of Motor (including service factor)	3.45 HP
Duct location	Side
Motor rating	3.00 HP
Actual required BHP	1.81 HP
Power input	1.69 kW
Elevation	62 ft.
Drive type	BELT

Electrical Data

Power supply	230-3-60
Unit min circuit ampacity	47.9 Amps
Unit max over-current protection	50 Amps

Dimensions & Weight

Hgt	42 in.	Len	89 in.	Wth	59 in.
Weight with factory installed options					1015 lbs.

Clearances

Right	12 in.	Front	36 in.	Back	36 in.
Top	72 in.	Bottom	0 in.	Left	36 in.

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



7.5 Ton

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

Unit Features

- Unit Cabinet Constructed of Powder Painted Steel, Certified At 1000 Hours Salt Spray Test (ASTM B-117 Standards)
- Through-the-Curb and Through-the-Base Utility Connections
- 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
- Hinged Access Panels
- Slide-Out Condensate Drain Pan
- Reciprocating Compressor
- Two Stage Cooling
- Solid Core Liquid Line Filter Driers
- Microchannel Condenser Coil
- 144 MBH Output Aluminized Steel, Two Stage Gas Heat
- 3 HP High Static Belt Drive Blower
- Unit Ships with 2" Throwaway Filters with a Standard Filter Rack that will Accept up to 4" Filters
- Replacement Filters: 4 - (24" x 16"). Unit accepts 2" or 4" wide filters.
- Single Point Power Connection
- HACR Circuit Breaker/Disconnect (Sized for 208 Volts)
- Non-Powered Convenience Outlet
- Short Circuit Current: 5kA RMS Symmetrical

Standard Unit Controller: Simplicity Control Board

- 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

- Simplicity SE Controller with Discharge Air, Return Air, and Outside Air Sensor

Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors
- Ten (10) Year Warranty - Aluminized Steel Tubular Heat Exchangers

Project Name: **spare time 867**

Unit Model #: **ZH090N15N2DAA7**

Quantity: **1**

System: **ZH090N15N2DAA7**

Factory Installed Options

ZH090N15N2DAA7

Product Category:	Z	York Predator Single Packaged R-410A Air Conditioner
Product Identifier:	H	11.5 EER / 12.6 IEER
Nominal Cooling Capacity:	090	7.5 Ton Two Stage Cooling
Heat Type and Nominal Heat Capacity:	N15	144 MBH Output Aluminized Steel, Two Stage Gas Heat
Airflow:	N	3 HP High Static Belt Drive Blower
Voltage:	2	208/230-3-60
Installation Options:	D	HACR Circuit Breaker/Disconnect (Sized for 208 Volts) Non Powered Convenience Outlet
Additional Options:	AA	Microchannel Condenser Coil Simplicity® SE Controller with Discharge Air, Return Air, and Outside Air Sensor Composite Drain Pan
Product Generation:	7	

Field Installed Accessories

- 2EE04706924 - Economizer for Dedicated Horizontal/Slideflow Applications. Includes FA Hood. Order 1EH0408 for exhaust hood w/Baro Relief or Power Exhaust (Not Low Leak Compliant) (145.0 lbs)
- 1EH0408 - Barometric Relief Kit for Power Exhaust, Horizontal Application (Includes Hood) (27.0 lbs)
- 2EC0401 - Kit, Single Enthalpy Field Installed (1.0 lbs)
- 2PE04704706 - Power Exhaust 230V without Baro Relief Downflow or Horizontal (19.0 lbs)
- S1-02812363700 - Blower Sheave for 7.5 Ton High Static Field Installed Drive (2.0 lbs)
- S1-A47 - Belt A47 for Field Installed Drive (0.3 lbs)
- S1-YK-MAP1810-0P - MAP (Multiple Access Portal) Gateway- For use with SimplicitySE Control. (0.3 lbs)

Project Name: spare time 867

Unit Model #: ZH090N15N2DAA7

Quantity: 1

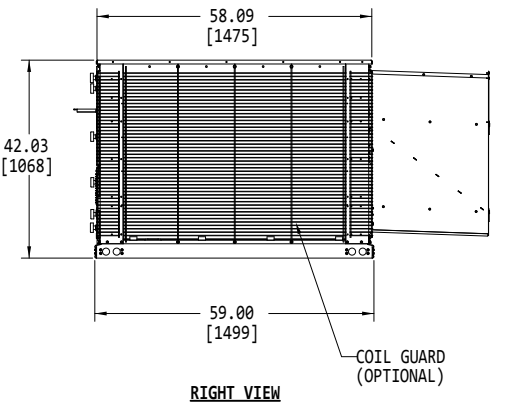
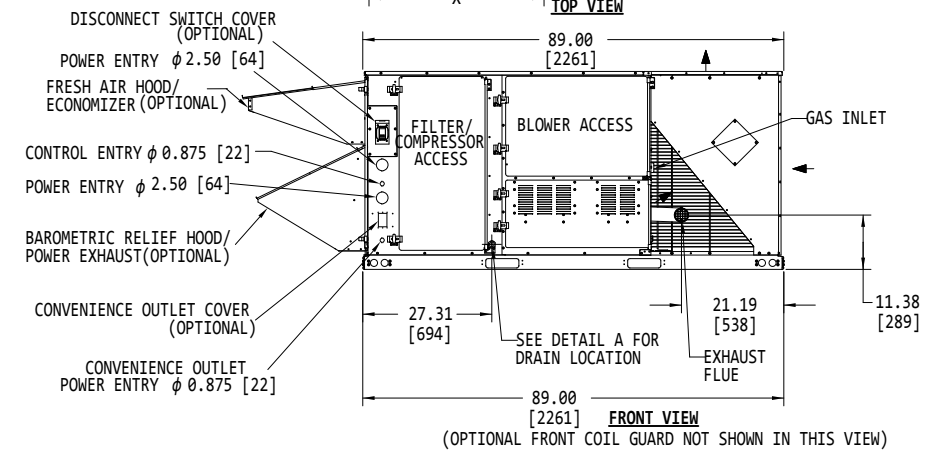
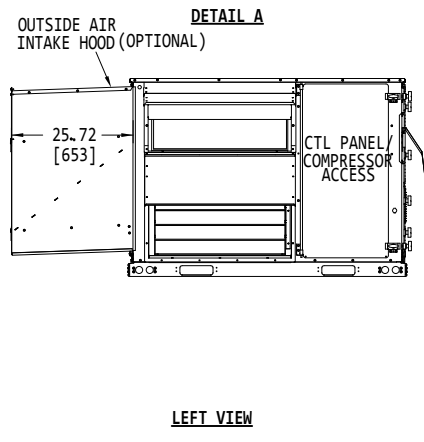
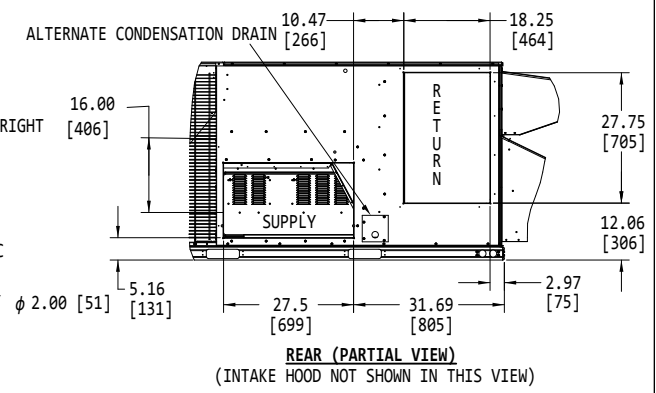
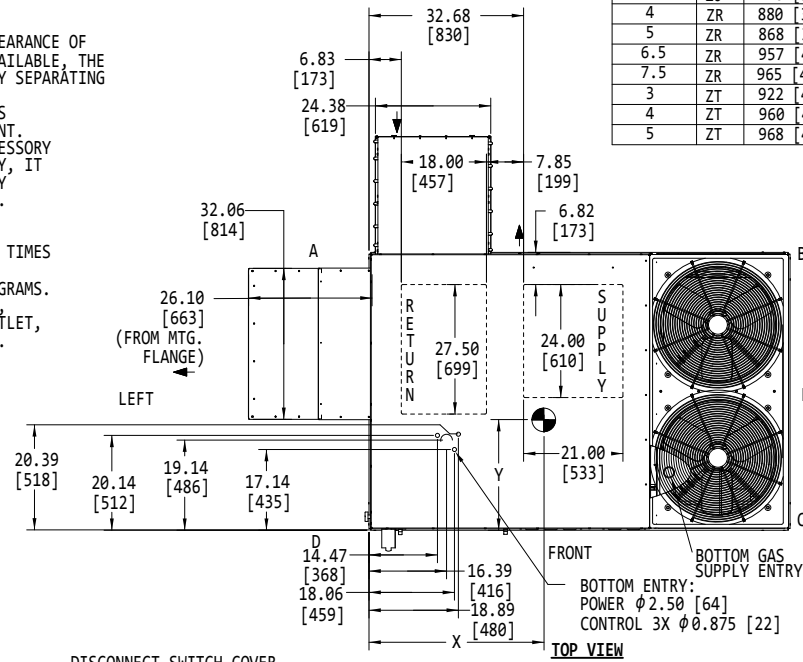
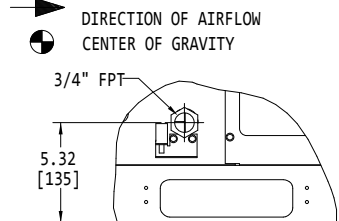
System: ZH090N15N2DAA7

Consolidated Drawing

NOTES:

1. FOR OUTDOOR USE ONLY.
2. WEIGHTS SHOWN ARE FOR COOLING ONLY UNITS.
3. MIN. CLEARANCES TO BE:
 - RIGHT SIDE: 12 [305]
 - LEFT SIDE: 36 [915]
 - FRONT: 36 [915]
 - REAR: 36 [915]
 - TOP: 72 [1830]
 - BOTTOM: 0 [0]
4. TO REMOVE THE SLIDE-OUT DRAIN PAN, A REAR CLEARANCE OF 60 in (1525 mm) IS REQUIRED. IF SPACE IS UNAVAILABLE, THE DRAIN PAN CAN BE REMOVED THROUGH THE FRONT BY SEPARATING THE CORNER WALL.
5. FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES CONTACT YOUR APPLICATION ENGINEERING DEPARTMENT.
6. DOWNFLOW DUCTS DESIGNED TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY. IF UNIT IS MOUNTED SIDE SUPPLY, IT IS RECOMMENDED THAT THE DUCTS ARE SUPPORTED BY CROSS BRACES, AS DONE ON ACCESSORY ROOF CURBS.
7. SIDE DUCT FLANGES ARE 0.75" HIGH. BOTTOM DUCTS DO NOT HAVE FLANGES.
8. MINIMUM CONDENSATION TRAP HEIGHT SHALL BE 1.5 TIMES THE LOWEST NEGATIVE STATIC.
9. DIMENSIONS IN [] ARE IN MILLIMETERS OR KILOGRAMS.
10. OPTIONAL COIL GUARDS, POWER EXHAUST, GAS HEAT ECONOMIZER, DISCONNECT SWITCH, CONVENIENCE OUTLET, AND BAROMETRIC RELIEF & FRESH AIR HOODS SHOWN. DELETED
11. 8 TUBE HEAT EXCHANGER IS NOT AVAILABLE FOR 3 & 4 TON UNITS.

TONNAGE	UNIT	OPERATING WEIGHT (LBS) (BASE UNIT)	CENTER OF GRAVITY LOCATION (BASE UNIT)		4 POINT CORNER LOADS (LBS) (BASE UNIT)			
			X	Y	A	B	C	D
6.5	ZF	860 [390]	38 [965]	24 [610]	200 [91]	149 [68]	218 [99]	292 [133]
7.5	ZF	880 [399]	38 [965]	24 [610]	205 [93]	153 [69]	223 [101]	299 [136]
5	ZH	864 [393]	40 [1016]	26 [660]	210 [95]	171 [78]	217 [99]	266 [121]
6.5 & 7.5	ZH	910 [413]	38 [965]	24 [610]	212 [96]	158 [72]	230 [104]	309 [140]
5	ZJ	770 [349]	40 [1016]	24 [610]	172 [78]	141 [64]	205 [93]	251 [114]
4	ZR	880 [399]	40 [1016]	26 [660]	214 [97]	174 [79]	221 [100]	271 [123]
5	ZR	868 [394]	40 [1016]	26 [660]	211 [96]	172 [78]	218 [99]	267 [121]
6.5	ZR	957 [435]	38 [965]	23 [584]	214 [97]	161 [73]	249 [113]	333 [151]
7.5	ZR	965 [438]	38 [965]	23 [584]	216 [98]	161 [73]	251 [114]	337 [153]
3	ZT	922 [418]	42.4 [1077]	24.7 [627]	202 [92]	184 [84]	255 [116]	281 [128]
4	ZT	960 [436]	42.5 [1080]	25.5 [648]	217 [98]	198 [90]	260 [118]	285 [129]
5	ZT	968 [439]	41.6 [1057]	25.5 [648]	223 [101]	196 [89]	257 [117]	293 [133]



Project Name: **spare time 867**

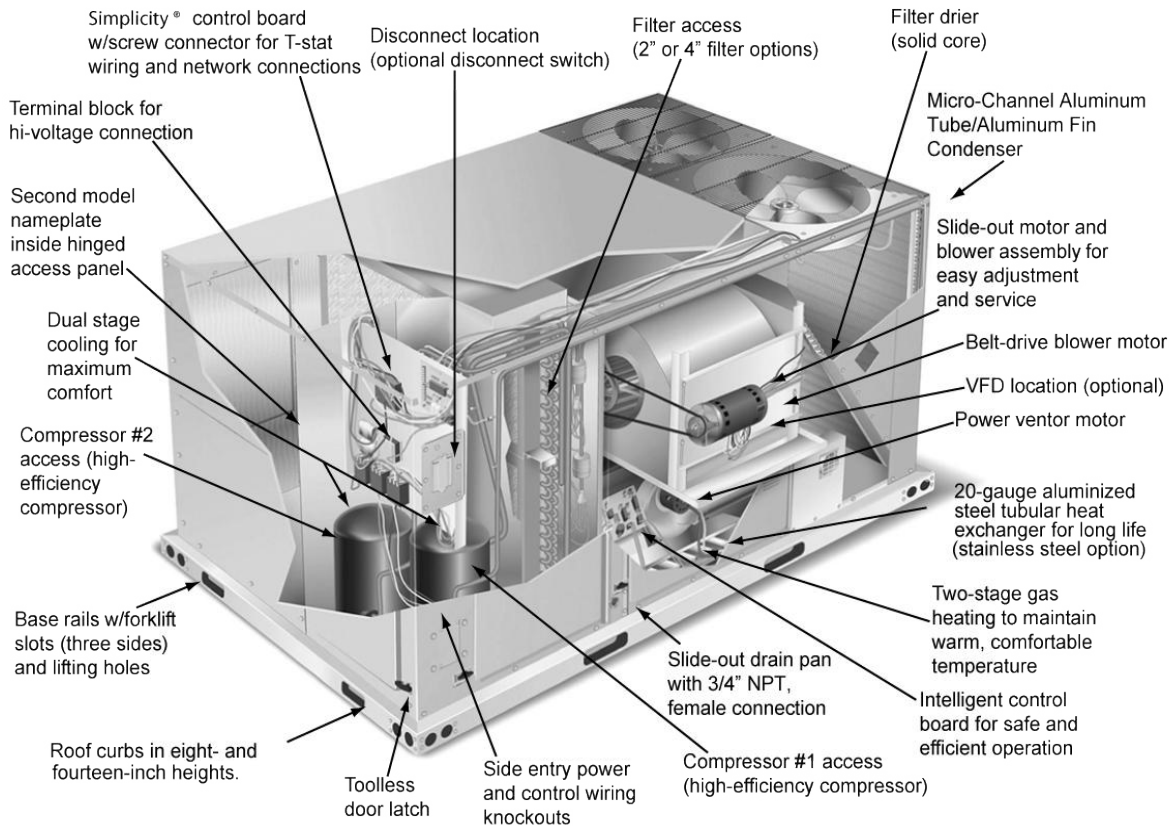
Unit Model #: **ZH090N15N2DAA7**

Quantity: **1**

System: **ZH090N15N2DAA7**

Component Location

6 1/2 Through 10 Tons



Project Name: spare time 867

Unit Model #: ZH090N15N2DAA7

Quantity: 1

System: ZH090N15N2DAA7

Sound Performance

Sound Performance

Indoor Sound Power Levels

Size (Tons)	Model	CFM	ESP (IWG)	Blower		Sound Power, dB (10 ⁻¹²) Watts								
						Sound Rating ¹ dB (A)	Octave Band Centerline Frequency (Hz)							
							63	125	250	500	1000	2000	4000	8000
078 (6.5)	ZH/ZR/XP	2600	0.6	812	1.14	74	71	73	73	71	69	65	65	60
090 (7.5)	ZH/ZR/XP	3000	0.6	854	1.47	77	74	76	76	74	72	68	68	63
102 (8.5)	ZH/ZR/XP	3400	0.6	872	1.65	80	77	79	79	77	75	71	71	66
120 (10)	ZH/ZR/XP	4000	0.6	959	2.29	83	80	82	82	80	78	74	74	69
150 (12.5)	ZH/ZR/XP	5000	0.6	1132	3.74	87	84	86	86	84	82	78	78	73

1. These values have been accessed using a model of sound propagation from a point source into the hemispheric/free field. The dBA values provided are to be used for reference only. Calculation of dBA values cover matters of system design and the fan manufacture has no way of knowing the details of each system. This constitutes an exception to any specification or guarantee requiring a dBA value of sound data in any other form than sound power level ratings.

Outdoor Sound Power Levels

ZH/ZR/XP078-150

Size (Tons)	Model	Sound Rating ¹ dB (A)	Octave Band Centerline Frequency (Hz)						
			125	250	500	1000	2000	4000	8000
078 (6.5)	ZH	83	88.0	82.5	81.5	78.0	73.0	69.0	62.0
090 (7.5)	ZH	83	89.5	83.5	82.0	78.0	72.5	68.0	60.5
102 (8.5)	ZH	90	93.5	92.5	88.0	84.5	79.0	74.5	68.0
120 (10)	ZH	90	94.0	92.0	88.5	84.5	80.0	75.5	68.5
150 (12.5)	ZH	84	90.0	84.5	81.5	77.5	72.0	68.5	61.5
078 (6.5)	ZR/XP	83	88.0	82.5	81.5	78.0	73.0	69.0	62.0
090 (7.5)	ZR/XP	83	89.5	83.5	82.0	78.0	72.5	68.0	60.5
102 (8.5)	ZR/XP	83	89.0	84.5	81.5	78.0	72.5	68.5	70.5
120 (10)	ZR/XP	83	89.5	83.5	81.0	78.0	72.0	68.5	70.5
150 (12.5)	ZR/XP	84	90.0	84.5	81.5	77.5	72.0	68.5	61.5

1. Rated in accordance with ARI 270 standard.

Project Name: spare time 867

Unit Model #: ZH150N15N2DAA7

Quantity: 1

System: ZH150N15N2DAA7

Cooling Performance

Total capacity	171.2 MBH
Sensible capacity	118.9 MBH
Refrigerant type	R-410A
Efficiency (at ARI)	11.50 EER
Integrated eff. (at ARI)	12.60 IEER
Ambient DB temp.	86.8 °F
Entering DB temp.	80.0 °F
Entering WB temp.	67.0 °F
Leaving DB temp.	58.0 °F
Leaving WB temp.	56.1 °F
Power input (w/o blower)	10.62 kW
Sound power	84 dB(A)

Gas Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	144 MBH
Supply air	5000 CFM
Heating input capacity (Max)	180 MBH
Leaving DB temp.	86.7 °F
Air temp. rise	26.7 °F
SSE	80.0 %
Stages	2

Supply Air Blower Performance

Supply air	5000 CFM
Ext. static pressure	0.6 IWG
Unit static resistance	0.8 IWG
Blower speed	1189 RPM
Max BHP of Motor (including service factor)	5.75 HP
Duct location	Side
Motor rating	5.00 HP
Actual required BHP	3.94 HP
Power input	3.67 kW
Elevation	62 ft.
Drive type	BELT

Electrical Data

Power supply	230-3-60
Unit min circuit ampacity	74.4 Amps
Unit max over-current protection	90 Amps

Dimensions & Weight

Hgt	51 in.	Len	120 in.	With	59 in.
Weight with factory installed options	1320 lbs.				

Clearances

Right	12 in.	Front	36 in.	Back	36 in.
Top	72 in.	Bottom	0 in.	Left	36 in.

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



12.5 Ton

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

Unit Features

- Unit Cabinet Constructed of Powder Painted Steel, Certified At 1000 Hours Salt Spray Test (ASTM B-117 Standards)
- Through-the-Curb and Through-the-Base Utility Connections
- 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
- Hinged Access Panels
- Slide-Out Condensate Drain Pan
- Scroll Compressors
- Two Stage Cooling
- Solid Core Liquid Line Filter Driers
- Microchannel Condenser Coil
- 144 MBH Output Aluminized Steel, Two Stage Gas Heat
- Slide-Out Blower/5 HP Belt Drive Motor Assembly
- Unit Ships with 2" Throwaway Filters with a Standard Filter Rack that will Accept up to 4" Filters
- Replacement Filters: 4 - (24" x 20"). Unit accepts 2" or 4" wide filters.
- Single Point Power Connection
- HACR Circuit Breaker/Disconnect (Sized for 208 Volts)
- Non-Powered Convenience Outlet
- Phase Monitor
- Short Circuit Current: 5kA RMS Symmetrical

Standard Unit Controller: Simplicity Control Board

- 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

- Simplicity SE Controller with Discharge Air, Return Air, and Outside Air Sensor

Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors
- Ten (10) Year Warranty - Aluminized Steel Tubular Heat Exchangers



Project Name: **spare time 867**

Unit Model #: **ZH150N15N2DAA7**

Quantity: **1**

System: **ZH150N15N2DAA7**

Factory Installed Options

ZH150N15N2DAA7

Product Category:	Z	York Predator Single Packaged R-410A Air Conditioner
Product Identifier:	H	11.5 EER / 12.6 IEER
Nominal Cooling Capacity:	150	12.5 Ton Two Stage Cooling
Heat Type and Nominal Heat Capacity:	N15	144 MBH Output Aluminized Steel, Two Stage Gas Heat
Airflow:	N	5 HP High Static Belt Drive Blower
Voltage:	2	208/230-3-60
Installation Options:	D	HACR Circuit Breaker/Disconnect (Sized for 208 Volts) Non Powered Convenience Outlet
Additional Options:	AA	Microchannel Condenser Coil Phase Monitor Simplicity® SE Controller with Discharge Air, Return Air, and Outside Air Sensor Composite Drain Pan
Product Generation:	7	

Field Installed Accessories

- 2EE04706924 - Economizer for Dedicated Horizontal/Slideflow Applications. Includes FA Hood. Order 1EH0408 for exhaust hood w/Baro Relief or Power Exhaust (Not Low Leak Compliant) (145.0 lbs)
- 1EH0408 - Barometric Relief Kit for Power Exhaust, Horizontal Application (Includes Hood) (27.0 lbs)
- 2EC0401 - Kit, Single Enthalpy Field Installed (1.0 lbs)
- S1-02812364700 - Blower Sheave for 12.5 Ton High Static Field Installed Drive (3.0 lbs)
- S1-BX54 - Belt for 12.5 Ton High Static Field Installed Drive (0.6 lbs)

Project Name: spare time 867

Unit Model #: ZH150N15N2DAA7

Quantity: 1

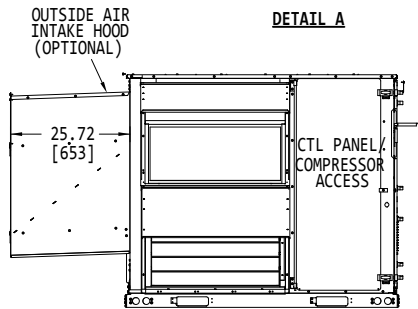
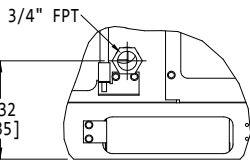
System: ZH150N15N2DAA7

Consolidated Drawing

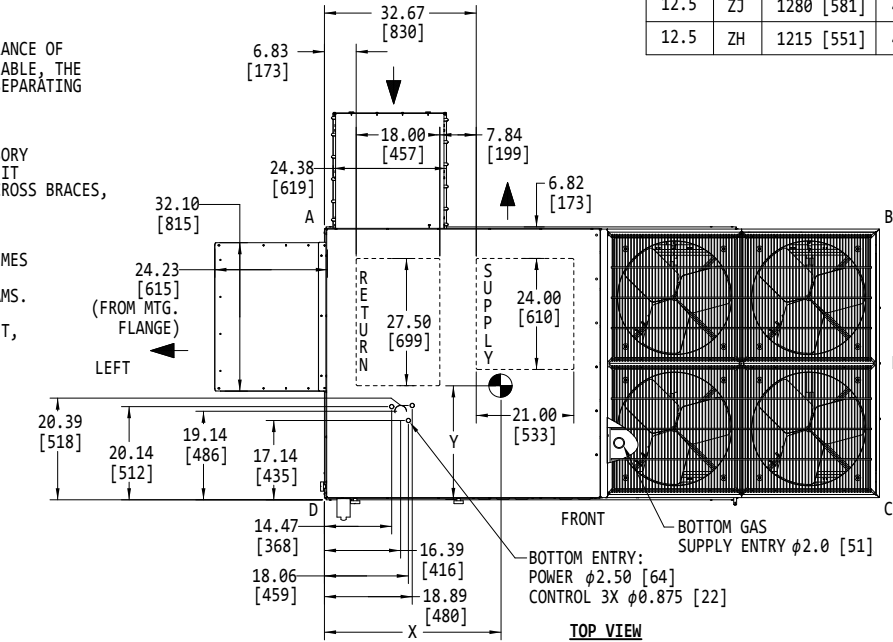
- NOTES:**
- FOR OUTDOOR USE ONLY.
 - WEIGHTS SHOWN ARE FOR COOLING ONLY UNITS.
 - MIN. CLEARANCES TO BE:
 RIGHT SIDE: 12 [305]
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 REAR: 36 [915]
 TOP: 72 [1830]
 BOTTOM: 0 [0]
 - TO REMOVE THE SLIDE-OUT DRAIN PAN, A REAR CLEARANCE OF 60 in (1525 mm) IS REQUIRED. IF SPACE IS UNAVAILABLE, THE DRAIN PAN CAN BE REMOVED THROUGH THE FRONT BY SEPARATING THE CORNER WALL.
 - FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES CONTACT YOUR APPLICATION ENGINEERING DEPARTMENT.
 - DOWNFLOW DUCTS DESIGNED TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY. IF UNIT IS MOUNTED SIDE SUPPLY, IT IS RECOMMENDED THAT THE DUCTS ARE SUPPORTED BY CROSS BRACES, AS DONE ON ACCESSORY ROOF CURBS.
 - SIDE DUCT FLANGES ARE 0.75" HIGH. BOTTOM DUCTS DO NOT HAVE FLANGES.
 - MINIMUM CONDENSATION TRAP HEIGHT SHALL BE 1.5 TIMES THE LOWEST NEGATIVE STATIC.
 - DIMENSIONS IN [] ARE IN MILLIMETERS OR KILOGRAMS.
 - OPTIONAL COIL GUARDS, POWER EXHAUST, GAS HEAT, ECONOMIZER, DISCONNECT SWITCH, CONVENIENCE OUTLET, AND BAROMETRIC RELIEF & FRESH AIR HOODS SHOWN.

▲ EXCEPT XP (HEAT PUMP) UNITS.

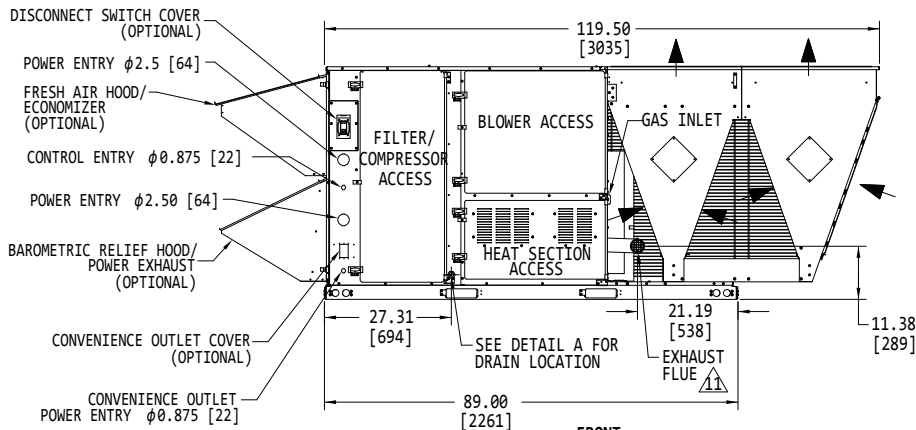
➔ DIRECTION OF AIRFLOW
 ● CENTER OF GRAVITY



LEFT VIEW



TOP VIEW

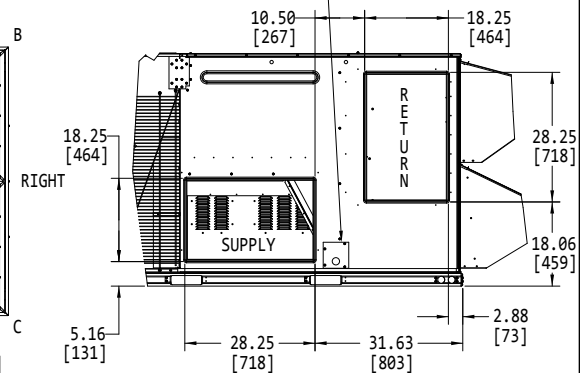


FRONT

(OPTIONAL FRONT COIL GUARD NOT SHOWN IN THIS VIEW)

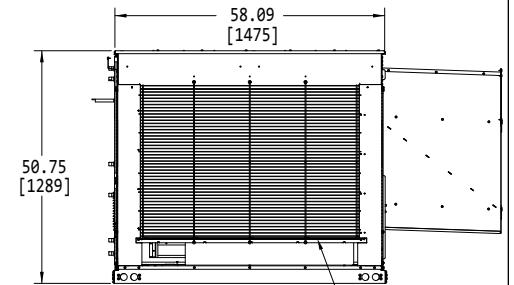
TONNAGE	UNIT	OPERATING WEIGHT (LBS) (BASE UNIT)	CENTER OF GRAVITY LOCATION (BASE UNIT)		4 POINT CORNER LOADS (LBS) (BASE UNIT)			
			X	Y	A	B	C	D
12.5	XP	1403 [636]	51 [1295]	25.5 [648]	259 [118]	347 [157]	456 [207]	340 [154]
12.5	ZR	1465 [665]	51 [1295]	25.5 [648]	270 [123]	363 [165]	477 [216]	355 [161]
12.5	ZJ	1280 [581]	48 [1219]	24 [610]	240 [109]	281 [128]	410 [186]	350 [159]
12.5	ZH	1215 [551]	46 [1168]	26 [660]	259 [118]	277 [126]	351 [159]	328 [149]

ALTERNATE CONDENSATION DRAIN



REAR (PARTIAL VIEW)

(INTAKE HOOD NOT SHOWN IN THIS VIEW)



RIGHT VIEW

Project Name: spare time 867

Unit Model #: ZH150N15N2DAA7

Quantity: 1

System: ZH150N15N2DAA7

Sound Performance

Sound Performance

Indoor Sound Power Levels

Size (Tons)	Model	CFM	ESP (IWG)	Blower		Sound Power, dB (10 ⁻¹²) Watts								
						Sound Rating ¹ dB (A)	Octave Band Centerline Frequency (Hz)							
							63	125	250	500	1000	2000	4000	8000
078 (6.5)	ZH/ZR/XP	2600	0.6	812	1.14	74	71	73	73	71	69	65	65	60
090 (7.5)	ZH/ZR/XP	3000	0.6	854	1.47	77	74	76	76	74	72	68	68	63
102 (8.5)	ZH/ZR/XP	3400	0.6	872	1.65	80	77	79	79	77	75	71	71	66
120 (10)	ZH/ZR/XP	4000	0.6	959	2.29	83	80	82	82	80	78	74	74	69
150 (12.5)	ZH/ZR/XP	5000	0.6	1132	3.74	87	84	86	86	84	82	78	78	73

1. These values have been accessed using a model of sound propagation from a point source into the hemispheric/free field. The dBA values provided are to be used for reference only. Calculation of dBA values cover matters of system design and the fan manufacture has no way of knowing the details of each system. This constitutes an exception to any specification or guarantee requiring a dBA value of sound data in any other form than sound power level ratings.

Outdoor Sound Power Levels

ZH/ZR/XP078-150

Size (Tons)	Model	Sound Rating ¹ dB (A)	Octave Band Centerline Frequency (Hz)						
			125	250	500	1000	2000	4000	8000
078 (6.5)	ZH	83	88.0	82.5	81.5	78.0	73.0	69.0	62.0
090 (7.5)	ZH	83	89.5	83.5	82.0	78.0	72.5	68.0	60.5
102 (8.5)	ZH	90	93.5	92.5	88.0	84.5	79.0	74.5	68.0
120 (10)	ZH	90	94.0	92.0	88.5	84.5	80.0	75.5	68.5
150 (12.5)	ZH	84	90.0	84.5	81.5	77.5	72.0	68.5	61.5
078 (6.5)	ZR/XP	83	88.0	82.5	81.5	78.0	73.0	69.0	62.0
090 (7.5)	ZR/XP	83	89.5	83.5	82.0	78.0	72.5	68.0	60.5
102 (8.5)	ZR/XP	83	89.0	84.5	81.5	78.0	72.5	68.5	70.5
120 (10)	ZR/XP	83	89.5	83.5	81.0	78.0	72.0	68.5	70.5
150 (12.5)	ZR/XP	84	90.0	84.5	81.5	77.5	72.0	68.5	61.5

1. Rated in accordance with ARI 270 standard.