Predator

Single Package R-410A Air Conditioner

F

Inspections Division
Date: 09/11/13

Project Name: **Granite GDI** | Unit Model #: **ZH090N15N2AAA5**

Quantity: **1** | System: **ZH090N15N2AAA5**

Cooling Performance		
Total capacity	94.0	MBH
Sensible capacity	69.0	MBH
Refrigerant type	R-410A	
Efficiency (at ARI)	11.50	EER
Integrated eff. (at ARI)	12.60	IEER
Ambient DB temp.	95.0	°F
Entering DB temp.	80.0	°F
Entering WB temp.	67.0	°F
Leaving DB temp.	58.7	°F
Leaving WB temp.	57.1	°F
Part load efficiency	13	IPLV
Power input (w/o blower)	7.10	kW
Sound power	83	dB(A)

Gas Heating Performance		
Entering DB temp.	60	°F
Heating output capacity (Max)	144	MBH
Supply air	3000	
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	0.20	IWG
Blower speed	1245	RPM
Max BHP of Motor (including service factor)	3.45	HP
Duct location	Bottom	
Motor rating	3.00	HP
Actual required BHP	2.03	HP
Power input	1.89	kW
Elevation	0	ft.
Drive type	BELT	

Electrical Data		
Power supply	230-3-60	
Unit min circuit ampacity	43.40	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
- 150 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
- Single Point Power Connection
- Short Circuit Current: 5kA RMS Symmetrical

Standard Unit Controller: Simplicity® 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.
- 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.

Warranty

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

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Factory Installed Options

ZH090N15N2AAA5

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**	150 MBH Output Aluminized Steel, Two Stage Gas Heat
Airflow:	**N**	3 HP High Static Belt Drive Blower 2" Throwaway Filters
Voltage:	**2**	208/230-3-60
Installation Options:	**A**	
Additional Options:	**AA**	Microchannel Condenser Coil Composite Drain Pan
Product Generation:	**5**	

Field Installed Accessories

- 1NP0442 - Natural Gas to Propane Conversion Kit (2-Stage) (2.0 lbs)
- 1RC0471 - Roof Curb - 14" High, Flat, Uninsulated, Full Perimeter (Shipped Knocked Down) (135.0 lbs)
- 2EE04705824 - Single Enthalpy Economizer (Downflow Unit), Slab Type for ERV Applications (No Barometric Relief or Hood Kit) (145.0 lbs)
- 2SD04700824 - Smoke Detector Kit w/ Mounting Hardware for Supply Air (Horizontal/Downflow) Only (9.4 lbs)

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ZH090 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 PAIN, 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 HOOD SHOWN.

⚠ EXCEPT XP (HEAT PUMP) UNITS.

12. 8 TUBE HEAT EXCHANGER IS NOT AVAILABLE FOR 4 TON UNITS.

DIRECTION OF AIRFLOW

CENTER OF GRAVITY

TONNAGE	UNIT	OPERATING WEIGHT (LBS) (BASE UNIT)	CENTER OF GRAVITY LOCATION (BASE UNIT)		4 POINT CORNER LOADS (LBS) (BASE UNIT)			
			X	Y	A	B	C	D
6.5	ZF	860 [390]	38 [965,2]	24 [609,6]	200 [91]	149 [68]	218 [99]	292 [133]
7.5	ZF	880 [399]	38 [965,2]	24 [609,6]	205 [93]	153 [69]	223 [101]	299 [136]
5	ZH	864 [393]	40 [1016]	26 [660.4]	210 [95]	171 [78]	217 [99]	266 [121]
6.5 & 7.5	ZH	910 [413]	38 [965,2]	24 [609,6]	212 [96]	158 [72]	230 [104]	309 [140]
5	ZJ	770 [349]	40 [1016]	24 [609,6]	172 [78]	141 [64]	205 [93]	251 [114]
4	ZR	880 [399]	40 [1016]	26 [660,4]	214 [97]	174 [79]	221 [100]	271 [123]
5	ZR	868 [394]	40 [1016]	26 [660,4]	211 [96]	172 [78]	218 [99]	267 [121]
6.5	ZR	957 [435]	38 [965,2]	23 [584,2]	214 [97]	161 [73]	249 [113]	333 [151]
7.5	ZR	965 [438]	38 [965,2]	23 [584,2]	216 [98]	161 [73]	251 [114]	337 [153]
7.5	XP	920 [417]	38 [965,2]	23 [584,2]	206 [93]	153 [69]	240 [109]	322 [146]

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ZH/ZJ078-150 Component Location

Component Location

Cooling With Gas Heat

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ZH/ZJ078-120 Typical Cooling Unit, Gas Heat 230V Wiring Diagram

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1RC0471 Roof Curb Dimensions

* Supply and Return Air (Including duct support rails) as shown, are typical for bottom duct applications.

For location of horizontal duct applications (On rear of unit), refer to Unit Dimensions details.

1RC0471 Roof Curb Dimensions

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2EE04705824 Slab Economizer Downflow for ERV

Field Installed Slab Economizer Downflow for ERV
2EE04705824

* Barometric Relief and Power Exhaust not included. Barometric Relief Damper with Hoods Kit 1EH0409 and Power Exhaust 2PE047032** available for field installation.