SUBMITTAL DATA

Order #: **Date:** 08/01/2024

Project: 17919 RALIEGH, NC WALG

Project #:

Submitter: Shawna Miller
UPG National Accounts-York
5005 York Dr.,
Norman, Oklahoma 73069
405-802-7026

Date
08/01/2024
Project Name
17919 RALIEGH, NC WALG
Project Number
Client / Purchaser

Submittal Summary Page

Qty	Tag #	Model # / Material #	Description
1	AHU-2	NL090C00B4BAA2	7.5 Ton, Split System R-410A Air Handler, 2-pipe w/Intellispeed, 1.5 HP Motor, 460-3-60 • Intellispeed VFD w/o Bypass • Composite Drain Pan
1	AHU-2	2HJ04702646	26 kW 460-3 Electric Heat

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

Indoor Split System

York Split-System Indoor

Project Name: **17919 RALIEGH, NC WALG** Unit Model #: **NL090C00B4BAA2**

Quantity: **1** Tag #: **AHU-2** System: **NL090C00B4BAA2**

Heating Performance		
Entering DB temp.	60	°F
Heating output capacity (Max)	88.7	MBH
Nominal electric heat	26	kW
Applied electric heat	26.0	kW
Installed	Field	
Flow rate	40	GPM
Supply air	3000	cfm
Leaving DB temp.	87.4	°F
Air temp. rise	27.4	°F
Stages	2	

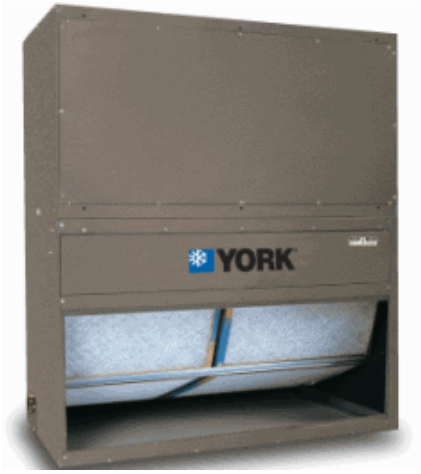
Supply Air Blower Performance		
Supply air	3000	cfm
Ext. static pressure	0.6	IWG
Addl. Unit Losses (Options/Accessories)	0.07	IWG
Blower speed	862	rpm
Max BHP of Motor (including service factor)	1.73	HP
Duct location	Upflow	
Motor rating	1.50	HP
Actual required BHP	1.26	HP
Power input	1.15	kW
Elevation	36	ft
Drive type	BELT	

Indoor Electrical Data		
Power supply	460-3-60	
Unit min circuit ampacity	41.70	A
Unit max over-current protection	45	A

Indoor Dimensions & Weight						
Hgt	65	in	Len	30 in	Wth	56 in
Weight with factory installed options					524	lb

Indoor Clearances		
Side w/Piping	24	in
Side Opposite Piping	24	in
Side w/ Return Air	24	in
Side w/ Supply Air	24	in

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



7.5 Ton

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

Unit Features

- Unit is designed for R410A refrigerant and is shipped with a small Nitrogen holding charge.
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards).
- Easily converted in the field from vertical to horizontal configuration.
- Slide-out Composite Drain Pan
- Single Circuit Refrigeration
- Adjustable balanced port TXV's
- 1.5 HP Motor and Adjustable Sheave Belt Drive
- Unit ships with 2" Throwaway filters with a standard filter rack that will accept up to 4" filters.
- Short Circuit Current: 5kA RMS Symmetrical
- Intellispeed VFD w/o Bypass

Warranty

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

Indoor Split System

York Split-System Indoor

Project Name: **17919 RALIEGH, NC WALG** Unit Model #: **NL090C00B4BAA2**

Quantity: **1** Tag #: **AHU-2** System: **NL090C00B4BAA2**

Additional Electrical Data		
Power supply	460-3-60	
Unit min circuit ampacity	41.7	A
Unit max over-current protection	45	A
Min Voltage	432	V
Max Voltage	504	V
Indoor Mtr Voltage	460-3-60	
Indoor Mtr FLA	2.1	

Indoor Split System

York Split-System Indoor

Project Name: **17919 RALIEGH, NC WALG** Unit Model #: **NL090C00B4BAA2**

Quantity: **1** Tag #: **AHU-2** System: **NL090C00B4BAA2**

Factory Installed Options

NL090C00B4BAA2

Equipment Options		Option(s) Selected
Product Category:	**N**	Split System R-410A Air Handler
Product Identifier:	**L**	2-pipe w/Intellispeed
Nominal Cooling Capacity:	**090**	7.5 Ton
Heat Type and Nominal Heat Capacity:	**C00**	
Airflow:	**B**	1.5 HP Motor
Voltage:	**4**	460-3-60
Installation Options:	**B**	Intellispeed VFD w/o Bypass
Additional Options:	**AA**	Composite Drain Pan
Product Generation:	**2**	

Field Installed Accessories

- ○ 1BP0401 - Return Air Block Off Panel (10.7 lbs)
- ○ 1BS0410 - Base Section (60.0 lbs)
- ○ 1HW0410 - 2 Row Deep Hot Water Coil (When this accessory is installed, DO NOT operate above the Supply Fan Motor rated HP) (128.0 lbs)
- ○ 1NF0456 - Single Row Steam Coil (When this accessory is installed, DO NOT operate above the Supply Fan Motor rated HP) (135.0 lbs)
- ○ 1RG0416 - Return Air Grille (11.0 lbs)
- ○ 2HJ04701046 - 10 kW 460-3 Electric Heat (45.0 lbs)
- ○ 2HJ04701646 - 16 kW 460-3 Electric Heat (46.0 lbs)
- ● 2HJ04702646 - 26 kW 460-3 Electric Heat (47.0 lbs)
- ○ 2HJ04703646 - 36 kW 460-3 Electric Heat (51.0 lbs)
- ○ Mixing Box/Economizer - NOTE - For sales enquiries and placing orders directly contact – sales@proventusa.com. Selecting this option here, the factory will not ship the mixing box/economizer. Commercial split system (7.5 – 50 tons) evaporators, could be connected to a mixing box provided by Provent (https://www.proventusa.com/product-catalog) to meet fresh air requirements. Mixing box is CA Title 24 compliant, has AMCA certified CD-60 airfoil dampers and meets leakage requirements as per ASHRAE 90.1. Optional modulating controls with selectable dry bulb or enthalpy are available.
- ○ YCCP075SS012LO - One Year Labor Only AC/HP Split 6 to 7.5T
- ○ YCCP075SS012PL - One Year Renewable Parts & Labor AC/HP Split 6 to 7.5T
- ○ YCCP075SS060PL - 5 Year Parts and Labor AC/HP Split 6 to 7.5T
- ○ YCCP075SS060PO - 5 Year Parts Only (No Compressor Coverage) AC/HP Split 6 to 7.5T

Project Name: **17919 RALIEGH, NC WALG**

Unit Model #: **NL090C00B4BAA2**

Quantity: **1** Tag #: **AHU-2**

NL/NM Piping, Electrical, & Duct Opening Connection Sizes

PIPING, ELECTRICAL AND DUCT OPENING CONNECTION SIZES

MODEL	NC/NL090	NC/NL120	ND/NM120	NC/NL180	ND/NM180	NC/NL240	ND/NM240	NC300
SYSTEM DATA								
No. Refrigeration Circuits	1	1	2	1	2	1	2	1
Suction Line OD (in.)	1 1/8	1 3/8	1 1/8	1 5/8	1 3/8	1 5/8	1 3/8	2 1/8
Liquid Line OD (in.)	5/8	7/8	5/8	7/8	5/8	7/8	7/8	7/8
Power Wiring Knockout	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	7/8
Control Wiring Knockout	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8
Electric Heat Wiring Knockout	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	7/8
Drain Line Fitting PVC Stub	3/4	3/4	3/4	3/4	3/4	3/4	3/4	7/8[1]
BLOWER OUTLET								
Number	1	1	1	1	1	2	2	2
Width	13.4	15.9	15.9	18.9	18.9	15.9	15.9	22
Length	15.6	18.6	18.6	21.6	21.6	18.6	18.6	22
RETURN AIR INLET								
Width	20.5	20.5	20.5	27.3	27.3	19.2	19.2	33.2
Length	52.0	52.0	52.0	71.9	71.9	93.4	93.4	95.6

[1] 7/8 In Steel pipe

Minimum Clearances

Minimum Clearances	
Top with Supply Air Opening[1]	24”
Front with Return Air Opening	24”
Right Side with access for Piping, Power & Control Wiring Connections[2]	24”
Left Side	24”
Rear[3]	N/A
Bottom[4]	N/A

[1] This dimension will vary if an electric heater, a supply air plenum or a base is used.

[2] This dimension is required for normal installation and service.

[3] Although no clearance is required for service and operation, some clearance may be required for routing the power and control wiring.

[4] Allow enough clearance to trap the condensate drain line.

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

Indoor Split System

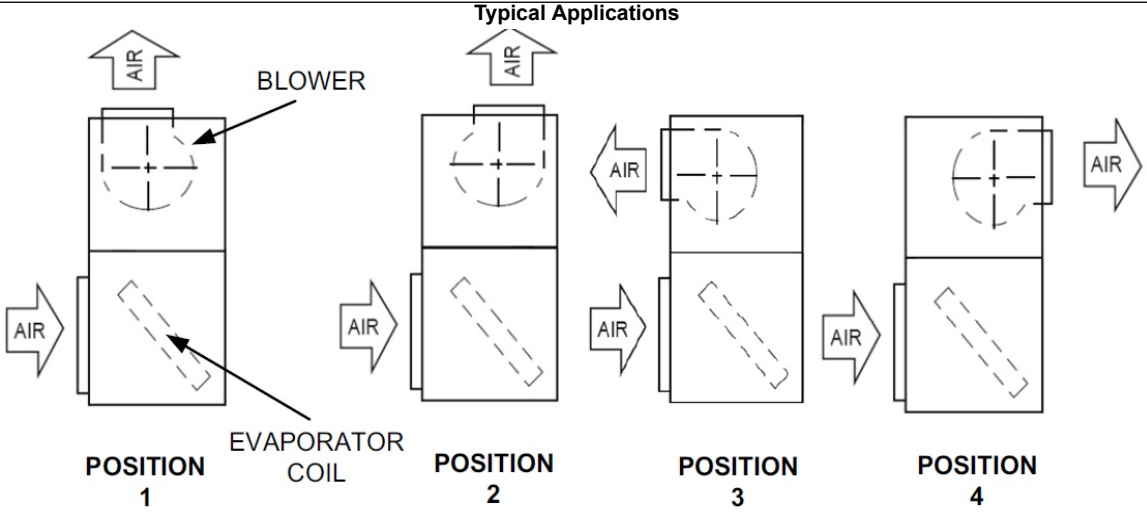
York Split-System Indoor

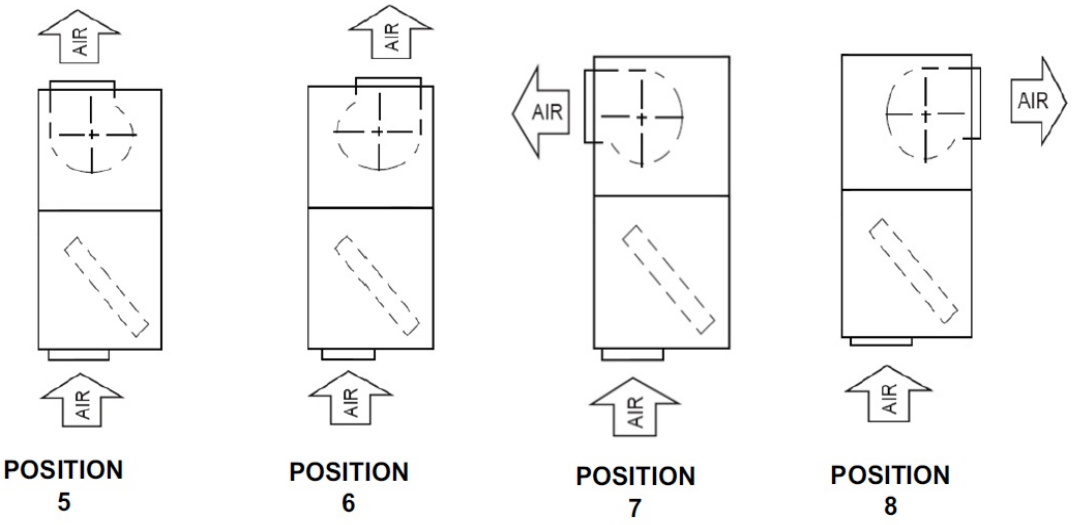
Project Name: **17919 RALIEGH, NC**
WALG

Unit Model #: **NL090C00B4BAA2**

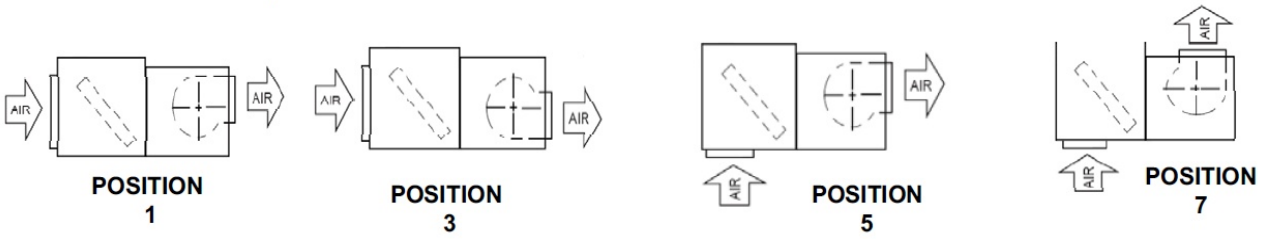
Quantity: **1** Tag #: **AHU-2**

Typical Applications

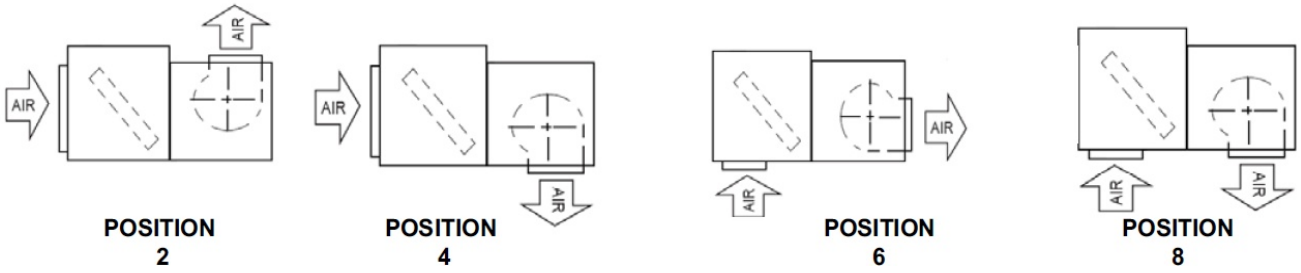




Vertical Airflow Arrangements



Horizontal Airflow Arrangements



Indoor Split System

York Split-System Indoor

Project Name: **17919 RALIEGH, NC WALG**

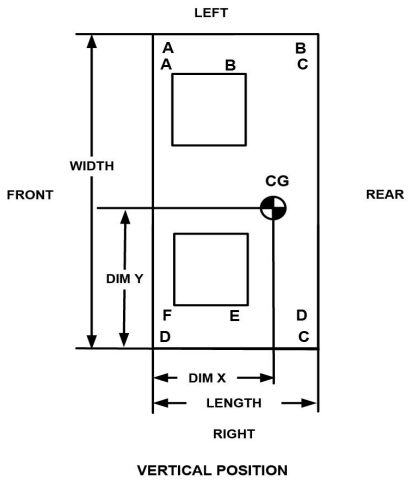
Unit Model #: **NL090C00B4BAA2**

Quantity: **1** Tag #: **AHU-2**

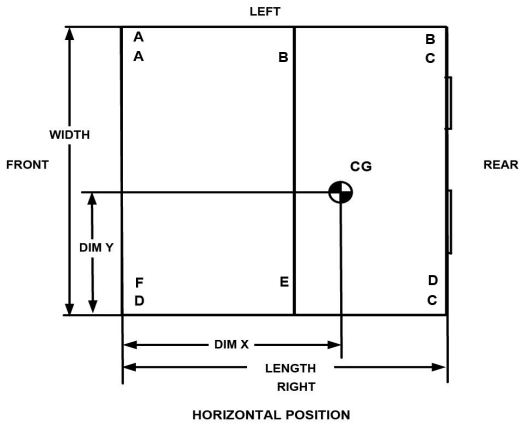
NL/NM 7.5 thru 20 Ton Corner Weights & Gravity

Corner Weights & Center of Gravity NL/NM 090 Thru 240 Units

Model	Drive Option	Shipping Wt (lb)	Operating Wt (lb)	Center of Gravity		4 point Load Location (lb)				6 point Load Location (lb)					
				CG X	CG Y	A	B	C	D	A	B	C	D	E	F
	Vertical Airflow														
NL090	Std. Mtr. and Drv.	542	516	16.2	26.5	113	132	146	125	73	81	90	100	90	81
	High Static Mtr. and Drv.	549	523	16.2	26.5	114	133	148	127	74	82	91	102	91	83
NL120	Std. Mtr. and Drv.	586	563	15.4	26.6	130	138	152	143	86	89	93	102	98	95
	High Static Mtr. and Drv.	597	574	15.4	26.6	132	140	155	146	87	91	94	104	100	97
NM120	Std. Mtr. and Drv.	588	565	15.4	26.8	131	139	152	143	87	90	94	102	98	94
	High Static Mtr. and Drv.	599	576	15.4	26.8	133	141	155	146	88	92	95	104	100	96
NL180	Std. Mtr. and Drv.	794	762	17.9	34.3	161	191	223	188	104	116	131	153	136	122
	High Static Mtr. and Drv.	820	788	17.9	34.3	166	197	231	195	108	120	135	158	141	126
NM180	Std. Mtr. and Drv.	794	762	17.9	34.3	161	191	223	188	104	116	131	153	136	122
	High Static Mtr. and Drv.	820	788	17.9	34.3	166	197	231	195	108	120	135	158	141	126
NL240	Std. Mtr. and Drv.	932	897	15.7	42.4	184	202	267	244	121	128	136	180	170	160
	High Static Mtr. and Drv.	963	928	15.6	42.3	191	207	276	254	125	132	140	187	176	167
NM240	Std. Mtr. and Drv.	932	897	15.7	42.4	184	202	267	244	121	128	136	180	170	160
	High Static Mtr. and Drv.	963	928	15.6	42.3	191	207	276	254	125	132	140	187	176	167
	Horizontal Airflow														
NL090	Std. Mtr. and Drv.	542	516	30.6	26.5	120	125	138	133	79	82	84	93	91	88
	High Static Mtr. and Drv.	549	523	30.8	26.5	121	127	141	134	80	83	86	95	92	89
NL120	Std. Mtr. and Drv.	586	563	30.5	26.6	132	136	150	145	87	89	91	101	98	96
	High Static Mtr. and Drv.	597	574	30.8	26.6	133	140	155	147	88	91	94	104	100	97
NM120	Std. Mtr. and Drv.	588	565	30.5	26.8	133	137	150	145	88	90	92	100	98	96
	High Static Mtr. and Drv.	599	576	30.7	26.8	134	141	154	147	89	92	95	104	100	97
NL180	Std. Mtr. and Drv.	794	762	33.7	34.3	172	179	210	201	114	117	121	141	137	133
	High Static Mtr. and Drv.	820	788	34.3	34.3	174	189	221	204	115	121	127	149	142	135
NM180	Std. Mtr. and Drv.	794	762	33.7	34.3	172	179	210	201	114	117	121	141	137	133
	High Static Mtr. and Drv.	820	788	34.3	34.3	174	189	221	204	115	121	127	149	142	135
NL240	Std. Mtr. and Drv.	932	897	30.5	42.4	190	196	259	251	126	129	131	174	170	167
	High Static Mtr. and Drv.	963	928	30.9	42.3	193	205	273	257	127	133	138	184	176	169
NM240	Std. Mtr. and Drv.	932	897	30.5	42.4	190	196	259	251	126	129	131	174	170	167
	High Static Mtr. and Drv.	963	928	30.9	42.3	193	205	273	257	127	133	138	184	176	169



VERTICAL POSITION



HORIZONTAL POSITION

Indoor Split System

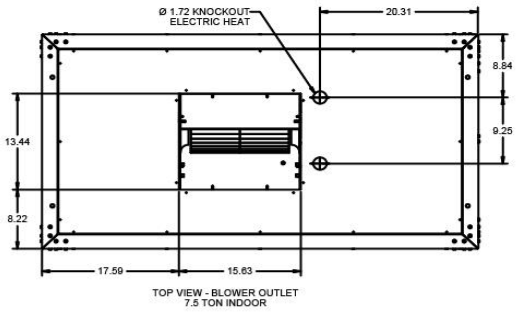
York Split-System Indoor

Project Name: **17919 RALIEGH, NC WALG**

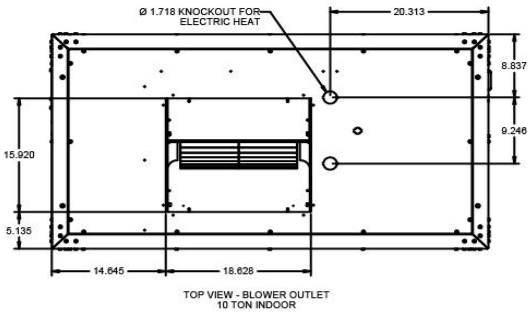
Unit Model #: **NL090C00B4BAA2**

Quantity: **1** Tag #: **AHU-2**

Commercial Split Unit Dimensions

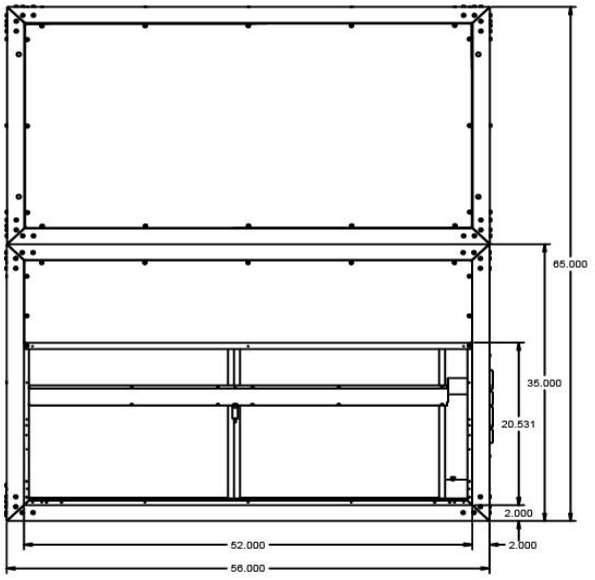


TOP VIEW - BLOWER OUTLET
7.5 TON INDOOR

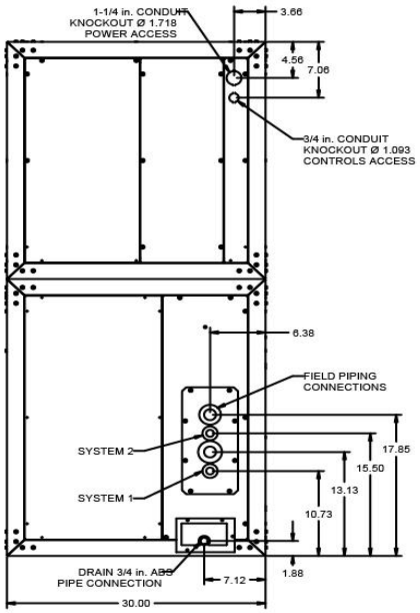


TOP VIEW - BLOWER OUTLET
10 TON INDOOR

FRONT AND SIDE VIEW



FRONT VIEW - RETURN AIR
7.5 - 10 TON INDOOR



RIGHT SIDE VIEW - DRAIN PIPING/CONTROLS

Indoor Split System

York Split-System Indoor

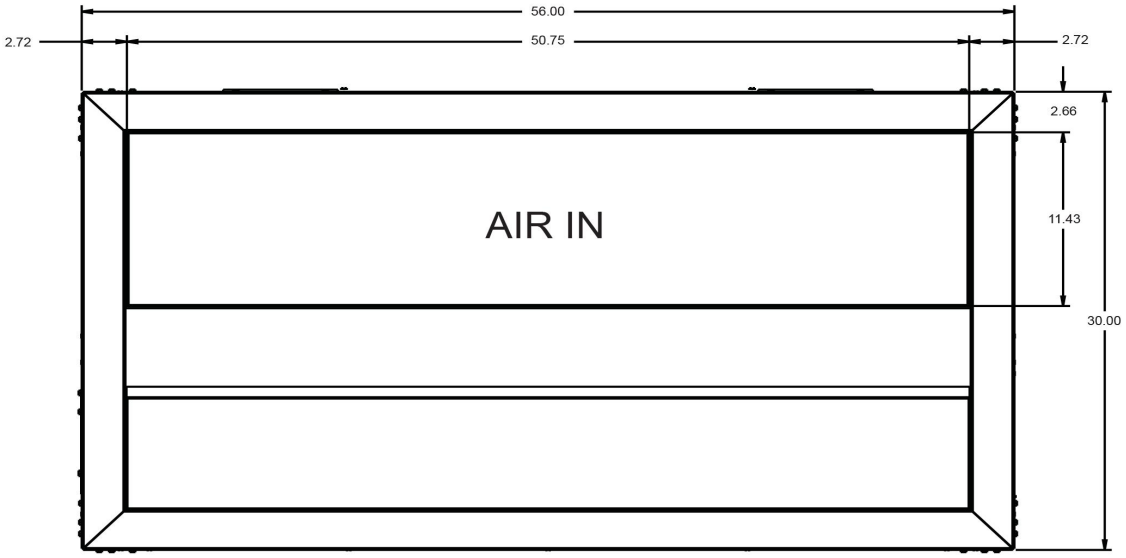
Project Name: **17919 RALIEGH, NC WALG**

Unit Model #: **NL090C00B4BAA2**

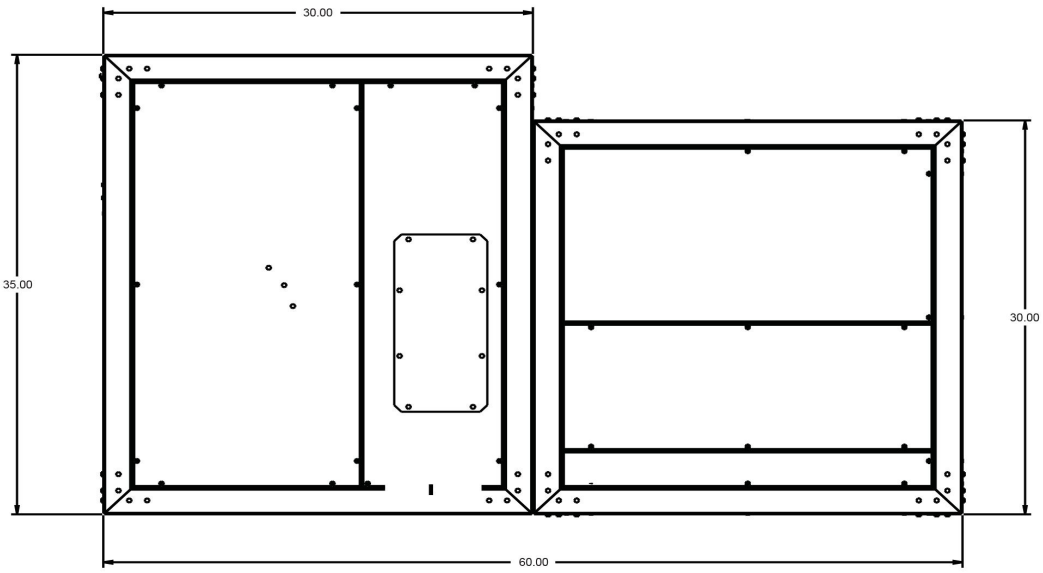
Quantity: **1** Tag #: **AHU-2**

Dimensions 7.5 to 10 Ton P2

BOTTOM VIEW



HORIZONTAL CONFIGURATION



Indoor Split System

York Split-System Indoor

Project Name: **17919 RALIEGH, NC WALG**

Unit Model #: **NL090C00B4BAA2**

Quantity: **1** Tag #: **AHU-2**

Commercial Split Electric Heater Installation

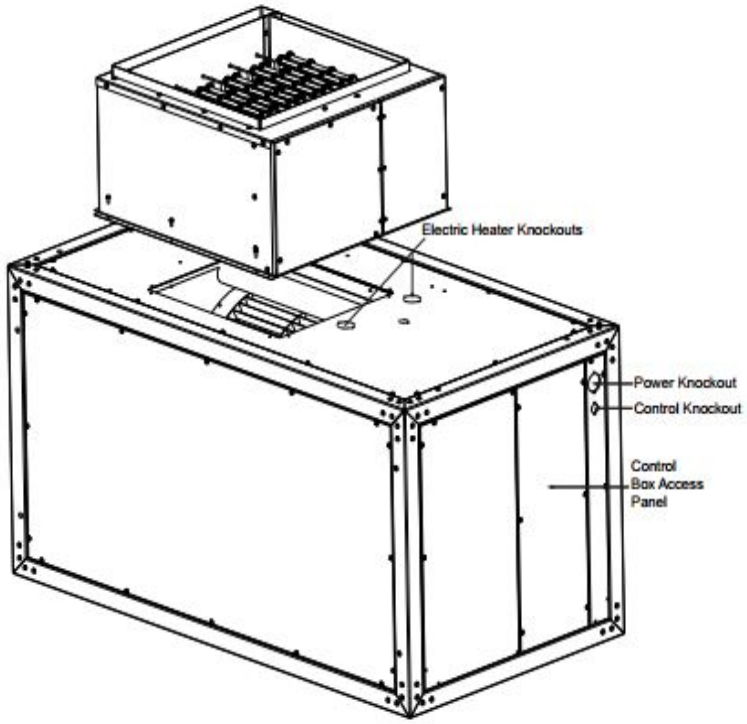


FIGURE 1 - ACCESSORY INSTALLATION (7-1/2, 10, & 15 TONS)

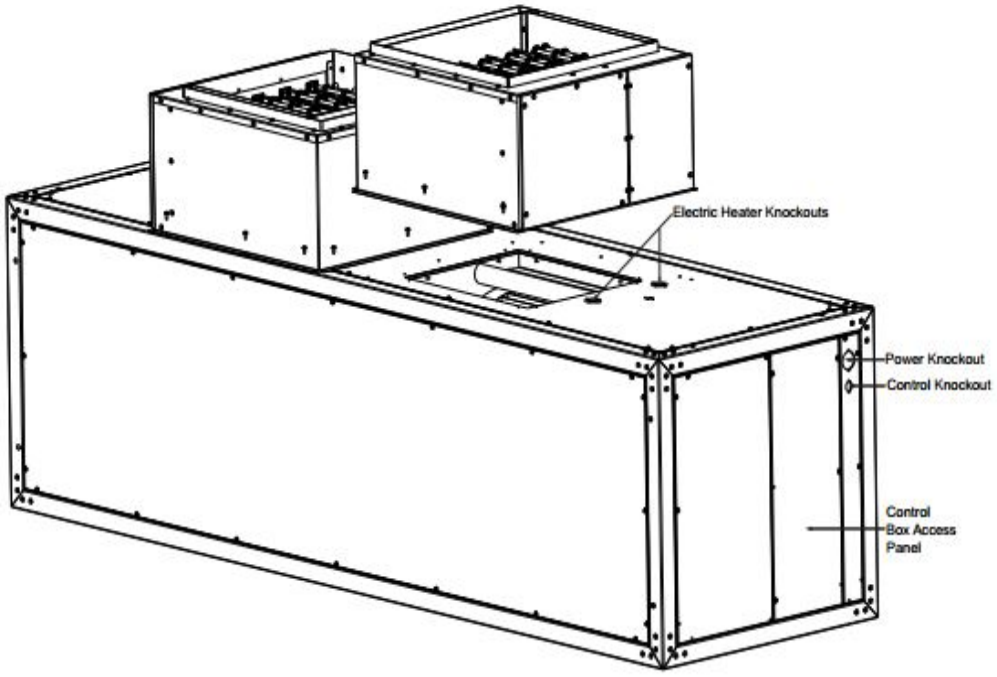


FIGURE 2 - ACCESSORY INSTALLATION (20 TONS)

Project Name: **17919 RALIEGH, NC WALG**

Unit Model #: **NL090C00B4BAA2**

Quantity: **1** Tag #: **AHU-2**

Commercial Split Electric Heater Dimensions

5013817-UAI-B-0515

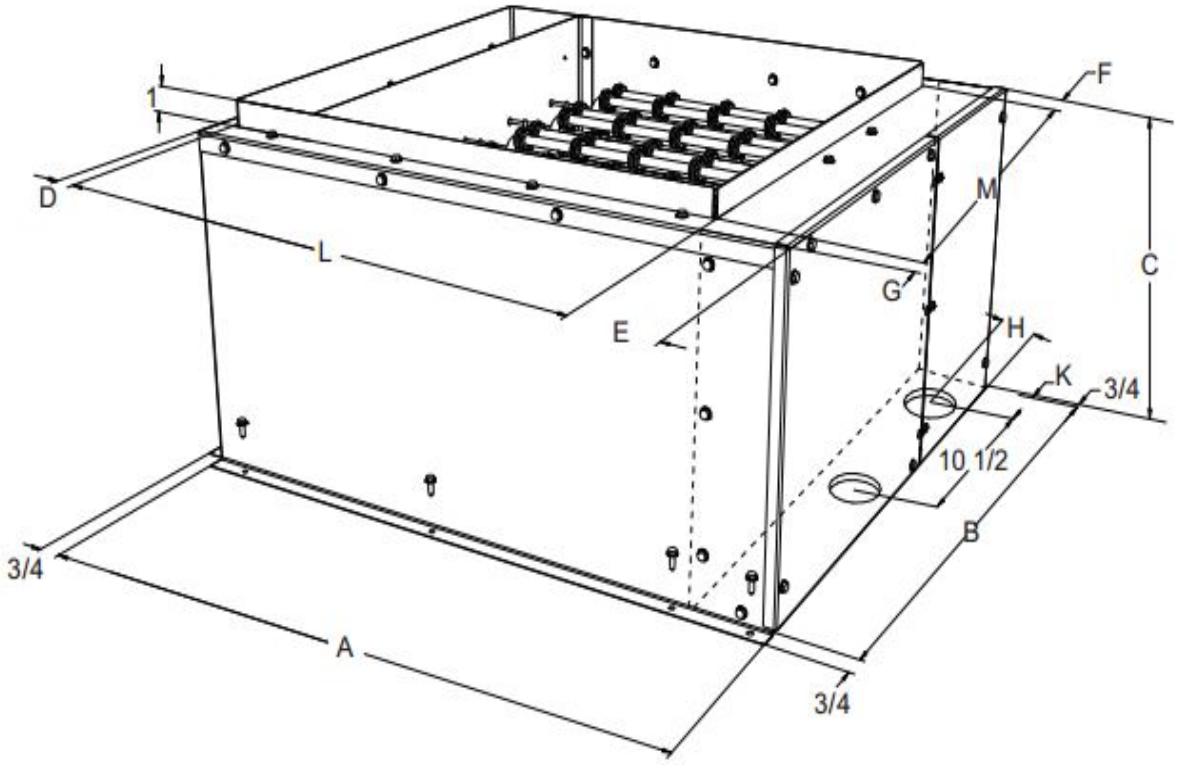


FIGURE 8 - HEATER DIMENSIONS

TABLE 5: HEATER DIMENSIONS

Air Handler Tonnage	Heater Model	Dimension (In.)										
		A	B	C	D	E	F	G	H	K	L	M
7.5, 10 and 20 Ton	2HJ04601025,46,58	25.07	23.59	13.14	0.84	3.42	1.33	1.36	1.73	3.38	20.93	20.91
	2HJ04601625,46,58											
	2HJ04602625,46,58											
	2HJ04603625,46,58											
	2HN04502025,46,58											
	2HN04503225,46,58											
	2HN04505225,46,58											
15 Ton	2HN04501025,46,58	26.7	23.59	13.14	0.84	3.42	1.33	1.36	1.73	2.03	22.5	20.91
	2HN04501625,46,58											
	2HN04502625,46,58											
	2HN04503625,46,58											
	2HN04505025,46,58											

Start-up sheet

START-UP & SERVICE DATA INSTRUCTION

COMMERCIAL SPLIT SYSTEMS

7.5 To 50.0 TON

START-UP CHECKLIST

Date: _____

Job Name: _____

Customer Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Evaporator Model Number: _____ Serial Number: _____

Condenser Model Number: _____ Serial Number: _____

Qualified Start-up Technician: _____ Signature: _____

HVAC Contractor: _____ Phone: _____

Address: _____

Contractor's E-mail Address: _____

Electrical Contractor: _____ Phone: _____

Distributor Name: _____ Phone: _____

WARRANTY STATEMENT

Johnson Controls/Ducted Systems is confident that this equipment will operate to the owner's satisfaction if the proper procedures are followed and checks are made at initial start-up. This confidence is supported by the 30 day dealer protection coverage portion of our standard warranty policy which states that Johnson Controls/ Ducted Systems will cover parts and labor on new equipment start-up failures that are caused by a defect in factory workmanship or material, for a period of 30 days from installation. Refer to the current standard warranty policy and warranty manual for details.

In the event that communication with Johnson Controls/Ducted Systems is required regarding technical and/or warranty concerns, all parties to the discussion should have a copy of the equipment start-up sheet for reference. A copy of the original start-up sheet should be filed with the Technical Services Department.

The packaged unit is available in constant or variable air volume versions with a large variety of custom options and accessories available. Therefore, some variation in the startup procedure will exist depending upon the products capacity, control system, options and accessories installed.

This start-up sheet covers all startup check points common to all package equipment. In addition it covers essential startup check points for a number of common installation options. Depending upon the particular unit being started not all sections of this startup sheet will apply. Complete those sections applicable and use the notes section to record any additional information pertinent to your particular installation.

Warranty claims are to be made through the distributor from whom the equipment was purchased.

EQUIPMENT STARTUP

Use the local LCD or Mobile Access Portal (MAP) Gateway to complete the start-up.

A copy of the completed start-up sheet should be kept on file by the distributor providing the equipment and a copy sent to:

Johnson Controls/Ducted Systems
Technical Services Department
5005 York Drive
Norman, OK 73069

1034350-UCL-E-0318

SAFETY WARNINGS

The inspections and recording of data outlined in this procedure are required for start-up of Johnson Controls/Ducted Systems' packaged products. Industry recognized safety standards and practices must be observed at all times. General industry knowledge and experience are required to assure technician safety. It is the responsibility of the technician to assess all potential dangers and take all steps warranted to perform the work in a safe manner. By addressing those potential dangers, prior to beginning any work, the technician can perform the work in a safe manner with minimal risk of injury.

⚠WARNING

Lethal voltages are present during some start-up checks. Extreme caution must be used at all times.

⚠WARNING

Moving parts may be exposed during some startup checks. Extreme caution must be used at all times.

NOTE: Read and review this entire document before beginning any of the startup procedures.

DESIGN APPLICATION INFORMATION

This information will be available from the specifying engineer who selected the equipment. If the system is a VAV system the CFM will be the airflow when the remote VAV boxes are in the full open position and the frequency drive is operating at 60 HZ. **Do not proceed with the equipment start-up without the design CFM information.**

Design Supply Air CFM: _____ Design Return Air CFM:_____

Design Outdoor Air CFM At Minimum Position: _____

Total External Static Pressure: _____

Supply Static Pressure: _____

Return Static Pressure: _____

Design Building Static Pressure: _____

ADDITIONAL APPLICATION NOTES FROM SPECIFYING ENGINEER:

1034350-UCL-E-0318

REFERENCE

General Inspection	Completed	See Notes
Unit inspected for shipping, storage, or rigging damage	☐	☐
Unit installed with proper clearances	☐	☐
Unit installed within slope limitations	☐	☐
Refrigeration system checked for gross leaks (presence of oil)	☐	☐
Terminal screws and wiring connections checked for tightness	☐	☐
Filters installed correctly and clean	☐	☐
Condensate drain trapped properly, refer to Installation Manual	☐	☐
All field wiring (power and control) complete	☐	☐

Refrigerant Line Inspection	System 1		System 2	
Is Condenser below Evaporator?	Yes ☐	No ☐	Yes ☐	No ☐
Total Line Length end to end.	_____ Ft.		_____ Ft.	
Vertical Lift in Ft.	_____ Ft.		_____ Ft.	
Vertical Fall in Ft.	_____ Ft.		_____ Ft.	
Number of Elbows?	_____ Ea.		_____ Ea.	
Liquid Line Size	_____ Ea.		_____ Ea.	
Suction Line Size	_____ Ea.		_____ Ea.	
Solenoid Valve?	Yes ☐	No ☐	Yes ☐	No ☐
Check Valves?	Yes ☐	No ☐	Yes ☐	No ☐
Check Valves / Solenoid arrangements installed as per the Ducted Systems Piping Guide	Yes ☐	No ☐	Yes ☐	No ☐
Oil Separator ?	Yes ☐	No ☐	Yes ☐	No ☐
Accumulator ?	Yes ☐	No ☐	Yes ☐	No ☐
TXV - Hard shutoff	Yes ☐	No ☐	Yes ☐	No ☐
Heatpump	Yes ☐	No ☐	Yes ☐	No ☐

Air Moving Inspection	Completed	See Notes
Alignment of drive components	☐	☐
Belt tension adjusted properly	☐	☐
Blower pulleys tight on shaft, bearing set screws tight, wheel tight to shaft	☐	☐
Pressure switch or transducer tubing installed properly	☐	☐

Operating Measurements - Air Flow

Fan operates with proper rotation (All VFD equipped units with the optional Manual Bypass must be phased for correct blower rotation with the Bypass switch set in the LINE position) ID Fans ☐ Exh. Fans ☐ Cond. Fans ☐	
Pressure drop across dry evaporator coil (At maximum design CFM) [1]	IWC
External Static Pressure	IWC
Return Static Pressure	IWC
Supply Static Pressure	IWC
Supply Air CFM Using Dry Coil Chart	CFM
Final Adjusted Supply Air CFM[2]	CFM

1. Consult the proper airflow to pressure drop table to obtain the actual airflow at the measured pressure differential.
2. Was a motor pulley adjustment or change required to obtain the correct airflow?
   Was it necessary to increase of decrease the airflow to meet the design conditions?
   If the motor pulley size was changed, measure the outside diameters of the motor and blower pulleys and record those diameters here;

Blower Motor HP _____ FLA_____ RPM_____

Pulley Pitch Diameter _____Turns Out_____ Final Turns Out_____

Blower Pulley Pitch Diameter _____ Fixed Sheave_____

ELECTRICAL DATA

T1 - T2 _____ Volts T2 - T3 _____ Volts

Control Voltage _____ Volts T1 - T3 _____ Volts

Device	Nameplate	Measured List All Three Amperages
Supply Fan Motor[1,2]	AMPS	AMPS
Condenser Fan #1	AMPS	AMPS
Condenser Fan #2 (if equipped)	AMPS	AMPS
Condenser Fan #3 (if equipped)	AMPS	AMPS
Condenser Fan #4 (if equipped)	AMPS	AMPS
Compressor #1	AMPS	AMPS
Compressor #2 (if equipped)	AMPS	AMPS
Compressor #3 (if equipped)	AMPS	AMPS
Compressor #4 (if equipped)	AMPS	AMPS

1. VAV units with heat section - simulate heat call to drive VAV boxes and VFD/IGV to maximum design airflow position.
2. VAV units without heat section - VAV boxes must be set to maximum design airflow position.
   Notes above apply for 3rd party application only.

OPERATING MEASUREMENTS - COOLING

Stage	Discharge Pressure	Discharge Temp.	Liquid Line Pressure At Service Valve	Liquid Line Temp.[1]	Subcooling[2]	Suction Pressure	Suction Temp.	Superheat
First[3]	#	°	#	°	°	#	°	°
Second (if equipped)	#	°	#	°	°	#	°	°
Third (if equipped)	#	°	#	°	°	#	°	°
Fourth (if equipped)	#	°	#	°	°	#	°	°
Heat Pump 1st Stage	#	°	#	°	°	#	°	°

1. Liquid line temperature should be taken before filter/drier.
2. Subtract 10 psi from discharge pressure for estimated liquid line pressure
3. If Rawal valve installed, contact Technical Service.

Outside air temperature	_____ db °F	_____ wb °F	_____ RH%
Return Air Temperature	_____ db °F	_____ wb °F	_____ RH%
Mixed Air Temperature	_____ db °F	_____ wb °F	_____ RH%
Supply Air Temperature	_____ db °F	_____ wb °F	_____ RH%

REFRIGERANT SAFETIES

Action	Completed	See Notes
Prove Compressor Rotation (3 phase only) by guage pressure	☐	☐
Prove High Pressure Safety, All Systems	☐	☐
Prove Low Pressure Safety, All Systems	☐	☐

OPERATING MEASUREMENTS ELECTRIC HEATING

Heater kW _____kW

Heater Voltage, Nameplate _____ Volts

Heater Model Number: _____

Serial Number: _____

Heater	Nameplate	Measured List All Three Amperages		
Stage 1	_____AMPS	_____AMPS	_____AMPS	_____AMPS
Stage 2	_____AMPS	_____AMPS	_____AMPS	_____AMPS
Stage 3	_____AMPS	_____AMPS	_____AMPS	_____AMPS
Stage 4	_____AMPS	_____AMPS	_____AMPS	_____AMPS
Checked Heater Limit			Yes ☐	No ☐
Air Moving Switch Installed?			Yes ☐	No ☐

OPERATIONAL MEASUREMENTS - STAGING CONTROLS

Verify Proper Operation of Heating/Cooling Staging Controls	
Create a cooling demand at the Thermostat, BAS System or Smart Equipment™ Verify that cooling/economizer stages are energized.	☐
Create a heating demand at the Thermostat, BAS System or Smart Equipment™ Verify that heating stages are energized.	☐
Verify Proper Operation of the Variable Frequency Drive (If Required)	
Verify that motor speed modulates with duct pressure change.	☐

FINAL - INSPECTION

Verify that all operational control set points have been set to desired value Scroll through all setpoints and change as may be necessary to suit the occupant requirements.	☐
Verify that all option parameters are correct Scroll through all option parameters and ensure that all installed options are enabled in the software and all others are disabled in the software. (Factory software settings should match the installed options)	☐
Verify that all access panels have been closed and secured	☐
Save a backup file from the unit control board onto a USB flash drive.	☐

OBSERVED PRODUCT DEFICIENCIES & CONCERNS: