



Heating and Air Conditioning

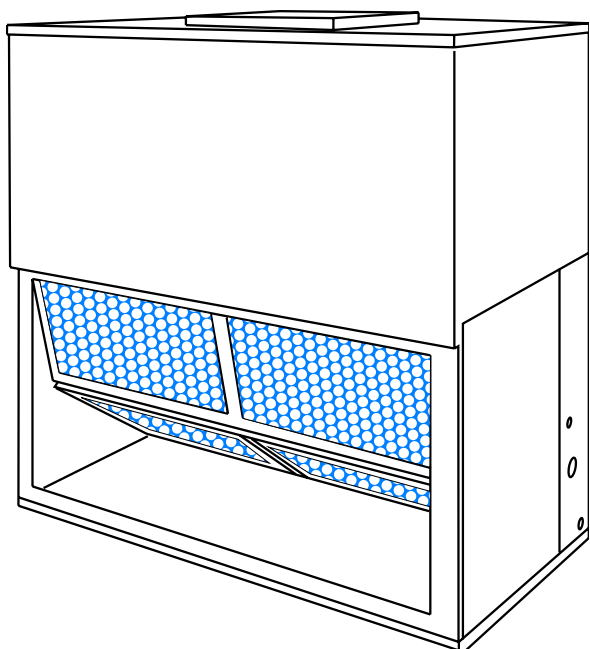
Technical Guide

SPLIT-SYSTEM

EVAPORATOR BLOWERS

7-1/2 and 10 NOMINAL TONS

LA090 & LA120



DESCRIPTION

These completely assembled units include a well-insulated cabinet, a DX cooling coil with copper tubes and aluminum fins, expansion valve(s), distributor(s), throwaway filters, a centrifugal blower, a blower motor, an adjustable belt drive, a blower motor contactor and a small holding charge of refrigerant-22.

The units are shipped in the vertical position ready for field installation. They can be installed for horizontal operation by reversing the position of the solid bottom panel with the return air duct flange on the front of the unit.

ACCESSORIES—FIELD INSTALLED

SUPPLY AIR PLENUMS

These fully insulated plenums are available for free standing units located within the conditioned space, are shipped knocked-down for easy field assembly, are finished to match the exterior of the basic unit, and have double deflection grills that can be adjusted to vary the throw, spread and drop of the supply air.

RETURN AIR GRILLS

These expanded metal grills are available for free standing units located within the conditioned space, are finished to match the exterior of the basic unit and are shipped in one piece for easy installation.

BASES

Bases are available to raise vertical units above the floor. Outdoor air may be introduced through these bases by cutting an access opening to accommodate the outdoor air duct connection. These bases are finished to match the exterior of the basic unit. They may have to be insulated in the field for certain applications.

THREE-PHASE ELECTRIC HEATERS

Electric heaters are available in several capacities to provide maximum flexibility. Both the air conditioning unit and the heater can be selected to precisely match the cooling and heating requirements of the conditioned space. These heaters are designed for easy field installation over the supply air opening of the unit. They have been tested by and will be shipped with a CSA label. Every heater will be fully protected against excessive current and temperature by fuses and two high limit thermostats.

Units with electric heat will require only one power supply for both the heating elements and the supply air blower motor, and the power wiring can be protected by either dual element/time delay fuses or an inverse time circuit breaker.



TABLE OF CONTENTS

DESCRIPTION	1
ACCESSORIES—FIELD INSTALLED.....	1
NOMENCLATURE	3
APPLICATION FLEXIBILITY	3

LIST OF FIGURES

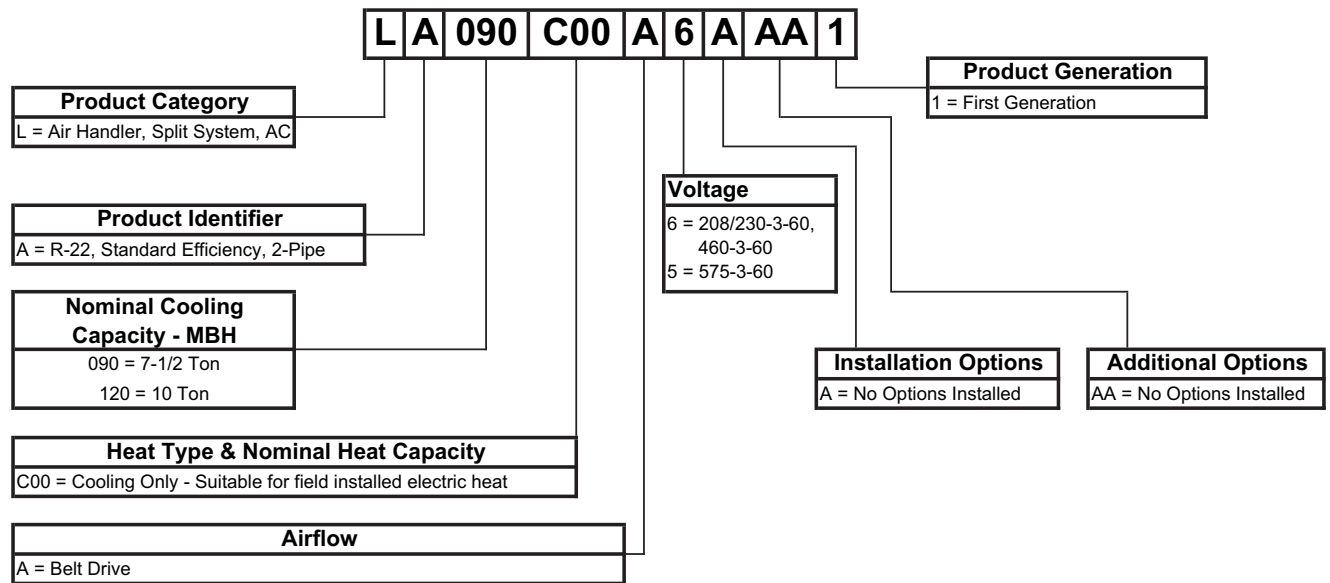
<u>Fig. #</u>	<u>Pg. #</u>
1	VERTICAL AND HORIZONTAL APPLICATION LA0904
2	VERTICAL AND HORIZONTAL APPLICATION LA1204
3	UNIT SUSPENSION MOUNTING (HORIZONTAL APPLICATION)
4	UNIT DIMENSIONS LA090
5	UNIT DIMENSIONS LA120
6	ACCESSORY DIMENSIONS.....
7	RETURN AIR GRILL
8	BASE ACCESSORY
9	STEAM COIL
10	HOT WATER COIL
11	FIELD WIRING FOR POWER SUPPLY
12	COOLING ONLY UNIT.....
13	UNIT WITH STEAM OR HOT WATER COIL ACCESSORY.....
14	FIELD WIRING FOR UNITS WITH ELECTRIC HEAT.....

LIST OF TABLES

<u>Tbl. #</u>		<u>Pg. #</u>
1	UNIT SUSPENSION MOUNTING (HORIZONTAL APPLICATION) WEIGHTS	5
2	LA OPERATING WEIGHTS (LBS.)	5
3	SOUND POWER RATINGS	5
4	HEATING CAPACITY - ELECTRIC HEAT ACCESSORY	6
5	STEAM COIL CAPACITY, MBH@2 PSIG	6
6	HOT WATER CAPACITY, MBH	7
7	PRESSURE DROP VS. GPM	7
8	CAPACITY CORRECTION VS. GPM	7
9	SUPPLY AIR BLOWER PERFORMANCE - LA090 (7.5 TON)	8
10	SUPPLY AIR BLOWER PERFORMANCE - LA120 (10 TON)	9
11	STATIC RESISTANCE FOR UNIT ACCESSORIES (IWG).....	10
12	SUPPLY AIR PLENUM PERFORMANCE DATA ...	10
13	INDOOR BLOWER SPECIFICATIONS.....	10
14	LA PHYSICAL DATA.....	11
15	UNIT CLEARANCES LA090	12
16	UNIT CLEARANCES LA120	13
17	LA ELECTRICAL DATA.....	16

NOMENCLATURE

York Indoor Split System Product Nomenclature



ACCESSORIES-FIELD INSTALLED (CONT.)

HOT WATER COILS

These drainable coils have 2 rows of 1/2" copper tubes, 12 aluminum fins per inch, a casing that is finished to match the exterior of the basic unit, but no water control valve. The coils slide out of their casings for easy field installation. They should be mounted over the return air opening.

STEAM COILS

These non-freeze coils have 1 row of 1" copper tubes, a 5/8" copper tube inside each 1" tube to distribute the steam evenly across the entire length of the coil, 8 aluminum fins per inch, a casing that is finished to match the exterior of the basic unit, but no steam control valve. The coils slide out of their casings for easy field installation and are pitched in their casings to facilitate condensate drainage. They should be mounted over the return air opening.

THERMOSTATS

Wall-mounted thermostats and subbases (24-volt) with system and fan switches are available to control the operation of these split system air conditioners.

APPLICATION FLEXIBILITY

MODELS 7-1/2 TON

These units are built in a single cabinet with two condensate drain pans. This allows the units to be installed in either the vertical or horizontal position for maximum flexibility.

On vertical applications, the air velocity across the cooling coil keeps the condensate from dripping off the finned surface onto the filters.

On horizontal applications, the unit must be installed with the condensate drain pan under the entire cooling coil.

- The Supply Air Plenum and the Return Air Grill accessories can be used on either arrangement.
- The Base accessory can only be used on the vertical arrangement.

Units installed horizontally are designed for ceiling suspension. Four 3/8"-16 weld nuts are provided in the angle supports on the front of the unit (the side with the logo). Knockouts are provided in the exterior panels for access to these weld nuts. The hanger rods must be supplied in the field.

MODELS 10 TON

These units have two distinct modules . . . a blower module and a coil module. Although the unit is always shipped in the vertical position with a vertical air discharge as shown in illustration (a), the blower module can be repositioned in the field as shown in illustrations (b) and (c) for maximum flexibility.

- The Supply Air Plenum, Return Air Grill and Base accessories can be applied on arrangement (a).
- The Return Air Grill and Base accessories can be applied on arrangement (b).
- The Supply Air Plenum, Return Air Grill and Suspension accessories can be applied on arrangement (c).

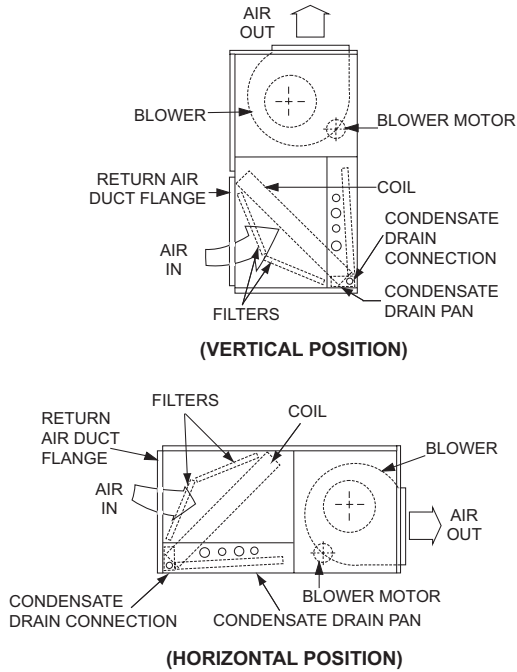


FIGURE 1 - VERTICAL AND HORIZONTAL APPLICATION LA090

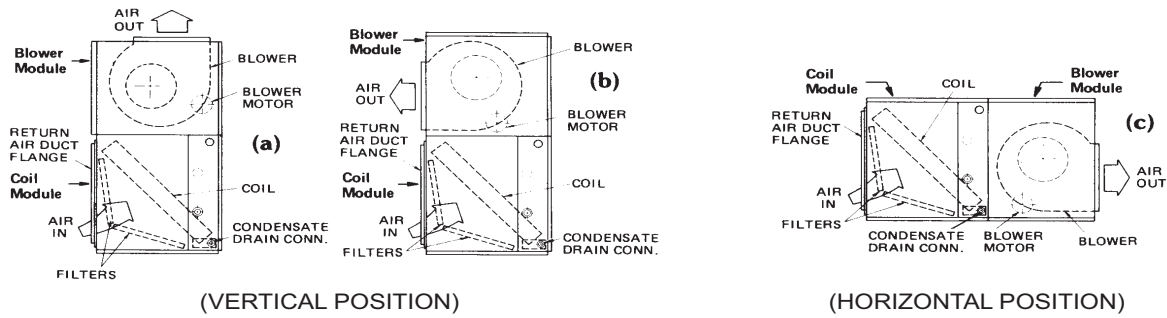


FIGURE 2 - VERTICAL AND HORIZONTAL APPLICATION LA120

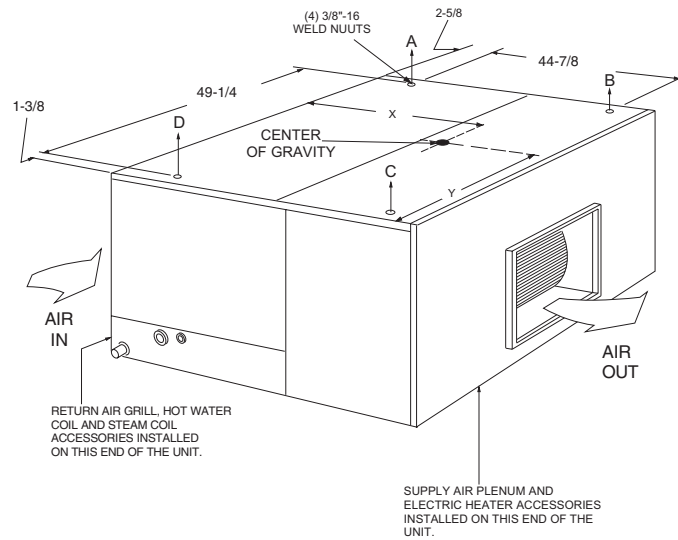


FIGURE 3 - UNIT SUSPENSION MOUNTING (HORIZONTAL APPLICATION)

TABLE 1: UNIT SUSPENSION MOUNTING (HORIZONTAL APPLICATION) WEIGHTS

Unit Model	Shipping Weight (lb)	Operating Weight (lb)	CG (in)		4-Point Loading (lb)			
			X	Y	A	B	C	D
090	340	325	26.50	24.00	118	56	49	102
120	440	425	26.50	24.00	154	73	64	134

TABLE 2: LA OPERATING WEIGHTS (LBS.)

MODEL		090	120	
BASIC UNIT	(Cooling Only)	325	425	
	Base	55	65	
ACCESSORIES	Return Air Grill	15	20	
	Supply Air Plenum	100	115	
	Hot Water Coil	105	135	
	Steam Coil	115	145	
	Electric Heater	10 KW		66
		16 KW		70
		26 KW		74
36 KW			77	

TABLE 3: SOUND POWER RATINGS

UNIT MODEL	CFM	ESP	BLOWER		SOUND POWER (dB 10 ⁻¹² WATTS)									
					OCTAVE BAND CENTERLINE FREQUENCY (HZ)									
			IWG	RPM	BHP	63	125	250	500	1,000	2,000	4,000	8,000	SWL Db(a)
090	3,000	0.60	750	1.05	88	88	78	73	71	66	61	56	77	45
120	4,000	0.70	690	1.65	91	91	81	74	76	69	64	59	81	48

1. At a distance of 10 feet from the blower.

NOTE: 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 for reference only. Calculation of dBA values cover matters of system design and the fan manufacturer has no way of knowing the details of each system. This constitutes an exception to any specification or guarantee requiring a dBA value or sound data in any other form than sound power level ratings.

TABLE 4: HEATING CAPACITY - ELECTRIC HEAT ACCESSORY

HEATER MODEL	UL VOLTAGE TEST	NOMINAL RATINGS ¹		CAPACITY				
				1ST STAGE		2ND STAGE		
		KW	MBH	KW	MBH	KW	MBH	
2HS045010	25	208/240 ²	10	34.2	10	34.2	-	-
	46	480 ³						
	58	600 ⁴						
2HS045016	25	208/240 ²	16	54.7	10	34.2	6	20.5
	46	480 ³						
	58	600 ⁴						
2HS045026	25	208/240 ²	26	88.9	16	54.7	10	34.2
	46	480 ³						
	58	600 ⁴						
2HS045036	25	208/240 ²	36	123.0	16	54.7	20	68.3
	46	480 ³						
	58	600 ⁴						

1. Capacity Ratings do not include the heat generated by the air blower motor.
2. For 208 volts, multiply the MBH and KW by $(208/240)^2$ or 0.751.
For 230 volts, multiply the MBH and KW by $(230/240)^2$ or 0.918.
3. For 460 volts, multiply the MBH and KW by $(460/480)^2$ or 0.918.
4. For 575 volts, multiply the MBH and KW by $(575/600)^2$ or 0.918.

TABLE 5: STEAM COIL CAPACITY¹, MBH@2 PSIG²

STEAM COIL MODEL	UNIT MODEL	CFM	DRY BULB TEMPERATURE OF AIR ENTERING COIL, °F			
			10	30	50	70
1NF0451	090	2400	172.2	155.5	139.1	122.4
		3000	191.2	172.6	154.3	136.0
		3600	207.5	187.1	167.4	147.4
1NF0452	120	4800	298.2	268.4	236.7	211.5
		6000	329.1	297.0	265.6	234.1
		7200	356.4	321.8	287.9	254.0

1. These capacities do not include any blower motor heat.
2. Multiply these capacities by the following factors to correct for higher steam pressures.

Steam Pressure, psig	5	10	15	20	25
Capacity correction factor	1.05	1.12	1.19	1.25	1.30

NOTE: Steam rate (lb./hr.) = 1.025 x MBH

CAUTION: Do NOT operate a motor above its nominal HP rating when a unit is equipped with a steam coil accessory.

TABLE 6: HOT WATER CAPACITY¹, MBH

WATER COIL MODEL	UNIT MODEL	GPM	CFM	ENTERING WATER TEMP. MINUS ENTERING AIR TEMP., °F				
				70	90	110	130	150
1HW0451	090	15	2400	78.0	101.3	124.7	148.5	169.7
			3000	87.7	113.3	139.6	166.6	190.4
			3600	95.5	124.0	153.0	182.1	208.1
1HW0452	120	15	3200	90.3	117.1	144.6	172.1	196.6
			4000	100.2	130.2	160.7	191.3	218.6
			4800	108.3	140.9	174.3	207.5	237.4
			4800	135.5	175.1	215.8	257.4	294.1
			6000	150.0	195.0	240.3	285.9	326.6
			7200	162.4	210.8	260.4	309.8	354.3

1. These capacities do no include any blower motor heat.

NOTE: Water Temperature Drop, °F = 2 x MBH

CAUTION: Do NOT operate a motor above its nominal HP rating when a unit is equipped with a hot water coil accessory.

TABLE 7: PRESSURE DROP VS. GPM

1HW0451	GPM	15	30	45
	Pressure Drop, PSI	.17	.58	1.22
1HW0452	GPM	20	40	60
	Pressure Drop, PSI	.20	.67	1.41

TABLE 8: CAPACITY CORRECTION VS. GPM

1HW0451	GPM	30	45
	Capacity Correction	1.11	1.15
1HW0452	GPM	40	60
	Capacity Correction	1.12	1.17

TABLE 9: SUPPLY AIR BLOWER PERFORMANCE - LA090 (7.5 TON)

CFM	EXTERNAL STATIC PRESSURE											
	0.2			0.4			0.6			0.8		
	RPM	W	BHP	RPM	W	BHP	RPM	W	BHP	RPM	W	BHP
2400	583	460	0.52	637	588	0.67	696	716	0.82	758	841	0.96
2600	594	545	0.62	648	673	0.77	707	801	0.91	769	926	1.06
2800	610	644	0.73	665	772	0.88	724	899	1.02	786	1024	1.17
3000	631	755	0.86	686	882	1.01	745	1010	1.15	807	1135	1.29
3200	655	877	1.00	710	1004	1.14	769	1132	1.29	831	1257	1.43
3400	682	1008	1.15	737	1136	1.29	796	1264	1.44	858	1389	1.58
3600	711	1149	1.31	765	1277	1.46	825	1404	1.60	887	1529	1.74

CFM	EXTERNAL STATIC PRESSURE											
	1.0			1.2			1.4			1.6		
	RPM	W	BHP	RPM	W	BHP	RPM	W	BHP	RPM	W	BHP
2400	821	961	1.10	883	1074	1.22	941	1178	1.34	993	1270	1.45
2600	832	1046	1.19	894	1159	1.32	952	1263	1.44	1004	1355	1.54
2800	849	1145	1.30	910	1258	1.43	969	1362	1.55	1021	1454	1.66
3000	870	1256	1.43	931	1369	1.56	989	1473	1.68	1042	1565	1.78
3200	894	1377	1.57	955	1491	1.70	1014	1594	1.82	1066	1686	1.92
3400	921	1509	1.72	982	1622	1.85	1040	1726	1.97	1093	1818	2.07
3600	950	1650	1.88	1011	1763	2.01	1069	1867	2.13	1122	1959	2.23


 Exceeds the BHP limitation.

TABLE 10: SUPPLY AIR BLOWER PERFORMANCE - LA120 (10 TON)

CFM	EXTERNAL STATIC PRESSURE														
	0.2			0.4			0.6			0.8			1.0		
	RPM	W	BHP	RPM	W	BHP	RPM	W	BHP	RPM	W	BHP	RPM	W	BHP
2600	476	356	0.41	526	571	0.65	585	772	0.88	646	955	1.09	700	1119	1.28
2800	483	425	0.48	532	641	0.73	592	841	0.96	653	1024	1.17	707	1188	1.35
3000	490	497	0.57	540	712	0.81	599	912	1.04	660	1095	1.25	714	1259	1.44
3200	499	572	0.65	548	787	0.90	607	987	1.13	668	1170	1.33	723	1334	1.52
3400	508	652	0.74	557	867	0.99	617	1067	1.22	678	1251	1.43	732	1415	1.61
3600	518	738	0.84	567	954	1.09	627	1154	1.32	688	1337	1.52	742	1501	1.71
3800	529	832	0.95	578	1047	1.19	638	1247	1.42	699	1430	1.63	753	1594	1.82
4000	541	932	1.06	590	1148	1.31	649	1348	1.54	710	1531	1.75	765	1695	1.93
4200	553	1041	1.19	603	1256	1.43	662	1456	1.66	723	1639	1.87	777	1803	2.06
4400	567	1157	1.32	616	1372	1.56	676	1573	1.79	737	1756	2.00	791	1920	2.19
4600	581	1281	1.46	631	1497	1.71	690	1697	1.93	751	1880	2.14	805	2044	2.33
4800	597	1414	1.61	646	1629	1.86	705	1829	2.08	766	2012	2.29	820	2176	2.48
5000	612	1554	1.77	662	1769	2.02	721	1969	2.24	782	2152	2.45	836	2316	2.64
5200	629	1702	1.94	679	1917	2.19	738	2118	2.41	799	2301	2.62	853	2465	2.81
5400	647	1858	2.12	696	2074	2.36	755	2274	2.59	816	2457	2.80	871	2621	2.99
5600	665	2022	2.31	714	2238	2.55	774	2438	2.78	834	2621	2.99	889	2785	3.17
5800	684	2194	2.50	733	2409	2.75	792	2610	2.97	853	2793	3.18	908	2957	3.37



Exceeds the BHP limitation.

TABLE 11: STATIC RESISTANCE FOR UNIT ACCESSORIES (IWG)

CFM	Electric Heat KW				Supply Air Plenum	Return Air Grill	Hot Water Coil	Steam Coil
	10	16	26	36				
2200	0.01	0.01	0.03	0.04	0.02	0.02	0.07	0.11
2400	0.01	0.02	0.03	0.05	0.03	0.03	0.09	0.13
2600	0.01	0.02	0.04	0.06	0.03	0.03	0.10	0.15
2800	0.01	0.03	0.04	0.07	0.04	0.04	0.12	0.16
3000	0.01	0.03	0.05	0.08	0.04	0.04	0.14	0.18
3200	0.02	0.04	0.06	0.09	0.05	0.05	0.16	0.20
3400	0.02	0.04	0.07	0.10	0.05	0.05	0.17	0.23
3600	0.02	0.05	0.07	0.11	0.06	0.06	0.19	0.25
3800	0.02	0.06	0.08	0.12	0.06	0.06	0.22	0.27
4000	0.03	0.06	0.09	0.14	0.07	0.07	0.24	0.30
4200	0.03	0.07	0.10	0.15	0.07	0.07	0.26	0.33
4400	0.03	0.07	0.11	0.16	0.08	0.08	0.28	0.36
4600	0.03	0.08	0.12	0.18	0.09	0.09	0.31	0.39
4800	0.04	0.08	0.13	0.19	0.10	0.10	0.33	0.43
5000	0.04	0.09	0.14	0.21	0.10	0.10	0.36	0.46

TABLE 12: SUPPLY AIR PLENUM PERFORMANCE DATA

Model	CFM	Face Velocity (FPM)	Angle of Deflection																	
			0° SPREAD						22-1/2° SPREAD						45° SPREAD					
			Vertical Louvers ¹ (Plan View)		Horizontal Louvers ² (Elevation View)		Vertical Louvers (Plan View)		Horizontal Louvers (Elevation View)		Vertical Louvers (Plan View)		Horizontal Louvers (Elevation View)		Vertical Louvers (Plan View)		Horizontal Louvers (Elevation View)			
			Throw (Feet)	Spread (Feet) ³	Drop (Feet) ⁴	Drop (Feet) ⁴	Throw (Feet)	Spread (Feet)	Drop (Feet)	Drop (Feet)	Throw (Feet)	Spread (Feet)	Drop (Feet)	Drop (Feet)	Throw (Feet)	Spread (Feet)	Drop (Feet)	Drop (Feet)		
Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.			
090	2400	615	47	74	20	29	19	9	34	53	23	33	17	8	26	39	45	65	9	5
	2700	690	53	83	22	32	20	10	39	59	25	36	18	9	29	45	48	71	10	5
	3000	770	59	92	24	35	21	10	42	66	27	40	19	9	32	50	52	78	10	5
	3300	845	65	101	26	38	21	10	46	73	29	44	19	9	35	55	56	85	10	5
	3600	920	71	110	28	41	22	11	50	79	32	47	20	10	38	60	60	91	11	6
120	4000	1025	78	123	30	45	22	11	56	88	35	52	20	10	42	66	67	102	11	6
	4400	1130	86	135	33	49	23	12	62	97	38	57	21	11	47	73	76	115	12	6
	4800	1230	94	147	35	53	23	12	68	106	41	62	21	11	51	80	85	127	12	6
	4800	880	84	132	32	48	23	12	61	95	38	56	21	11	46	72	73	112	12	6
	5400	1000	95	149	36	54	24	12	68	107	42	63	22	11	52	81	81	124	12	6

1. Adjusting the vertical louvers will vary the throw, the spread and the drop.
2. Adjusting the horizontal louvers will only vary the drop.
3. The velocity of the air will be 125 ft./min. at the minimum distance and 80 ft./min. at the maximum distance.
4. The velocity of the conditioned air at the bottom of the drop will be 50 ft./min. Drafts will occur if the drop extends into the occupied level of the conditioned space.

TABLE 13: INDOOR BLOWER SPECIFICATIONS

MODEL	BLOWER RANGE (RPM)	MOTOR		ADJUSTABLE MOTOR PULLEY				FIXED BLOWER PULLEY				BELT (NOTCHED)		
		HP	FRAME	DESIG-NATION	OUTSIDE DIA. (IN.)	PITCH DIA. (IN.)	BORE (IN.)	DESIG-NATION	OUTSIDE DIA. (IN.)	PITCH DIA. (IN.)	BORE (IN.)	DESIG-NATION	PITCH LENGTH (IN.)	QTY.
090	655/880	1-1/2	56	1VL44	3.1-4.1	2.8-3.8	7/8	AK79	7.7	7.5	1	A36	37.3	1
120	549/716	2	56	1VL44	3.1-4.1	2.8-3.8	7/8	BK105	9.9	9.5	1	A55	56.3	1

TABLE 14: LA PHYSICAL DATA

	Description	Model	
		090	120
EVAPORATOR BLOWER¹	Centrifugal Blower (Dia. X Wd. in.)	15 X 15	18 X 18
	Fan Motor HP (Belt Drive)	1-1/2	2
EVAPORATOR COIL	Rows Deep	3	3
	Finned Length (in.)	46	54
	Fins per Inch	13	13
	Face Area (ft. ²)	8.9	12.1
HOT WATER COIL	Rows Deep	2	2
	Finned Length (in.)	46	54
	Fins Per Inch	12	12
	Face Area (ft. ²)	5.4	9
	Inlet Connection	1" NPTE	1-3/8" O.D.
	Outlet Connection	1" NPTE	1-3/8" O.D.
STEAM COIL	Rows Deep	1	1
	Finned Length (in.)	46	54
	Fins Per Inch	8	8
	Face Area (ft. ²)	5.4	9.0
	Inlet Connection	1-1/2" NPTE	1-1/2" NPTE
	Outlet Connection	1-1/2" NPTE	1-1/2" NPTE
AIR FILTERS	Quantity Per Unit (16" X 25" X 1")	4	0
	Quantity Per Unit (20" X 20" X 1")	0	6
	Total Face Area (ft. ²)	11.2	16.7
HOLDING CHARGE	Refrigerant 22 (lbs./oz.)	0/10	0/0

1. Refer to Blower Motor and Drive Data table for additional blower and drive information.
All of these 1750 RPM motors are solid base, 56 frame with 1.15 service factor, inherent protection and permanently lubricated ball bearings.

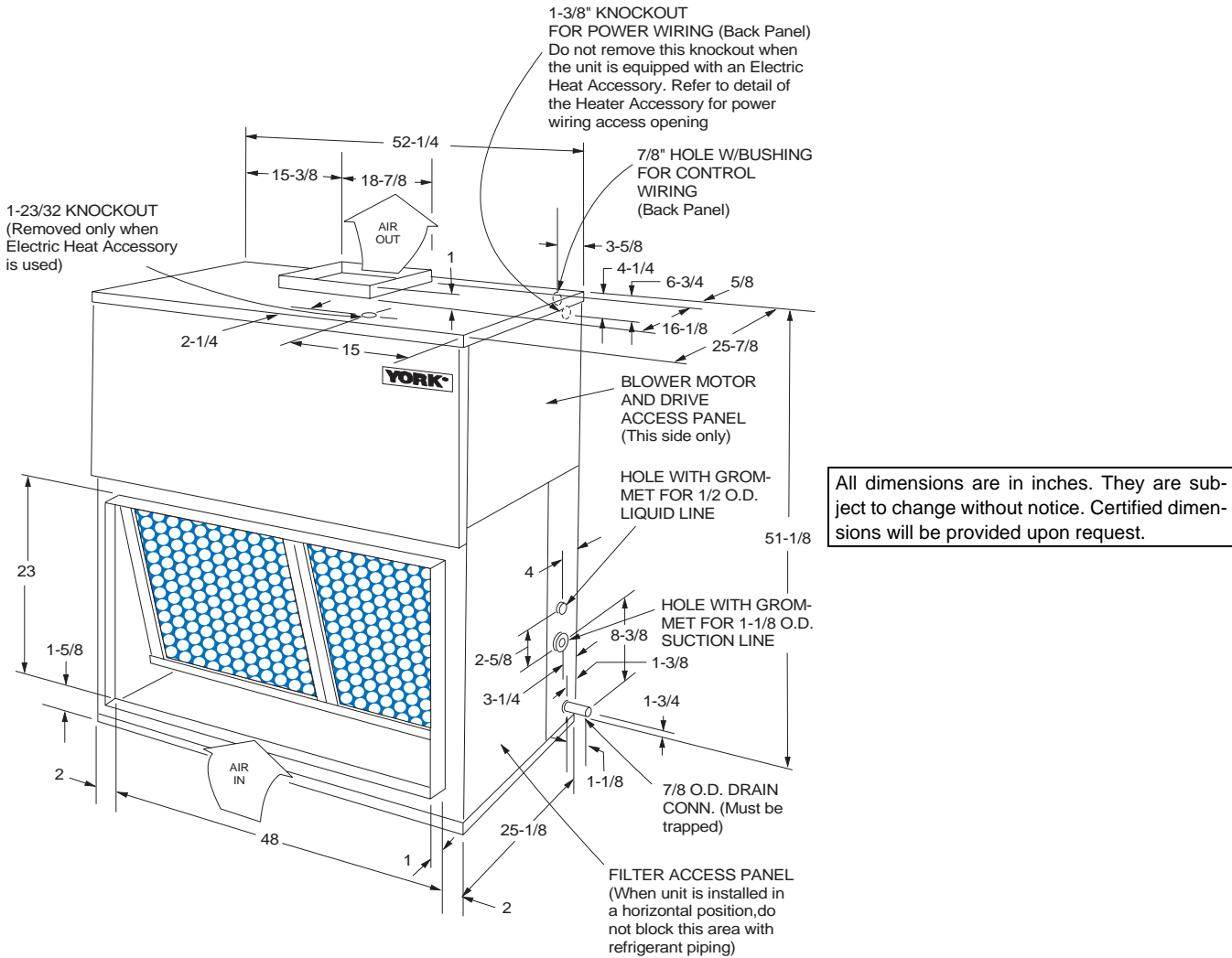


FIGURE 4 - UNIT DIMENSIONS LA090

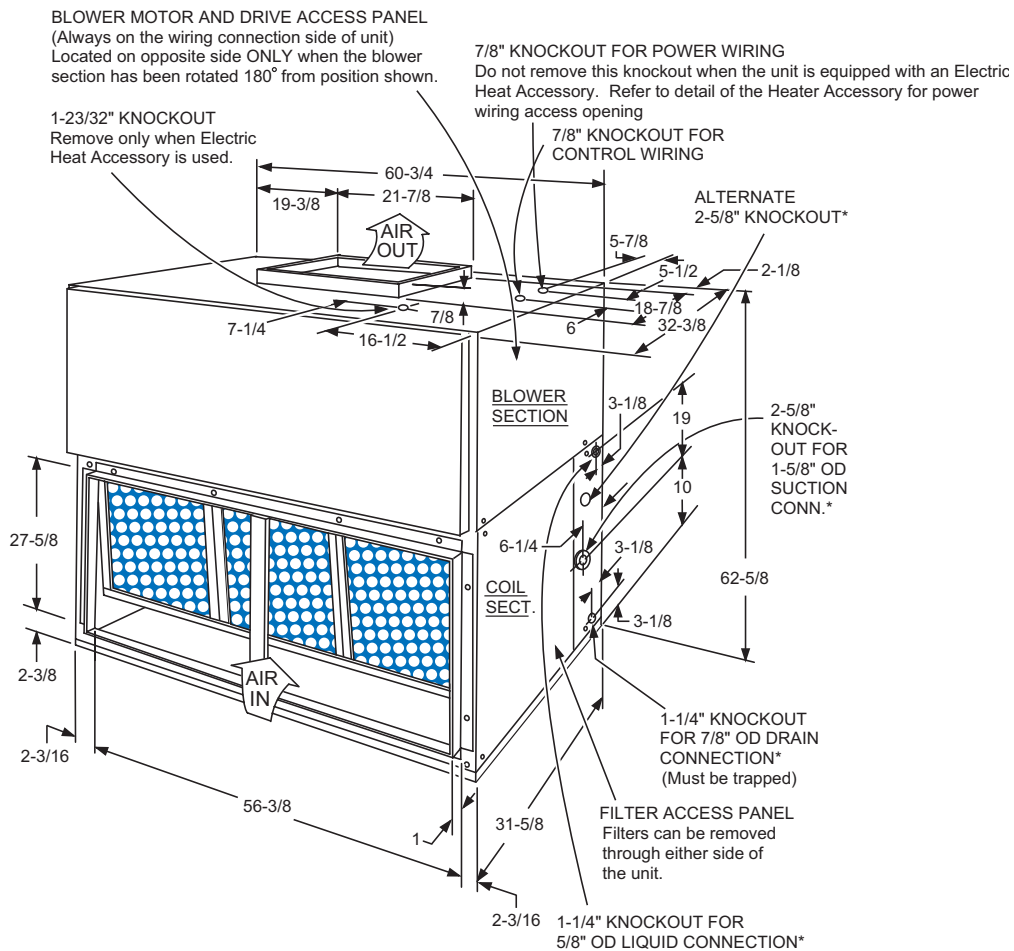
ACCESSORIES

- ELECTRIC HEATER - Add 14-14-1/4" to unit height when used.
- SUPPLY AIR PLENUM - Add 27-1/2" to unit height when used.
- BASE - Add 20" to unit height when used.
- HOT WATER OR STEAM COIL - Add 5" to Unit Depth when used.

TABLE 15: UNIT CLEARANCES LA090

MINIMUM CLEARANCES	090
Side with RETURN AIR opening	24"
Side with SUPPLY AIR opening ¹	24"
Side with PIPING CONNECTIONS ²	52"
Side opposite with PIPING CONNECTIONS	12"
Side with access for both POWER & CONTROL WIRING ^{3, 4}	26
Bottom ⁵	-

1. Overall dimensions of the unit will vary if an electric heater, a supply air plenum or a base is used.
2. This dimension is required for removal of the coil. Only 26" is required for normal service.
3. Although no clearance is required for service and operation, some clearance may be required for routing the power and control wiring.
4. If the coil has to be removed, this dimension is required to loosen screws that secure the coil to the unit frame. This dimension will also be required for blower motor access if the piping connections are made on the opposite side of the unit.
5. Allow enough clearance to trap the condensate drain line.



*Refer to INSTALLING REFRIGERANT MAINS in installation instruction when piping through the opposite side of the unit.

FIGURE 5 - UNIT DIMENSIONS LA120

ACCESSORIES

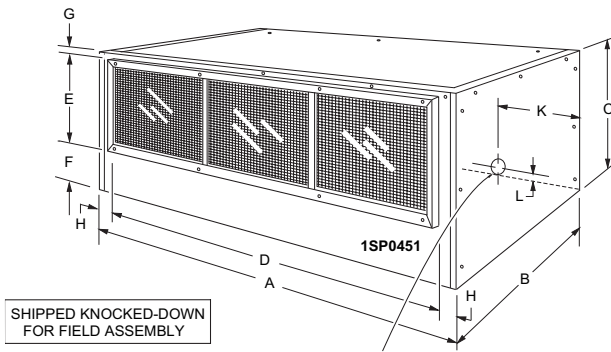
- ELECTRIC HEATER Add 14-1/4" to unit height when using 10, 16, 26, or 36 KW heater
- SUPPLY AIR PLENUM Add 27" to unit height when used.
- BASE - Add 24" to unit height when used.
- HOT WATER OR STEAM COIL - Add 6" to unit depth when used.

TABLE 16: UNIT CLEARANCES LA120

MINIMUM CLEARANCES	120
Side Air with RETURN AIR opening	24"
Side with SUPPLY AIR opening ¹	24"
Side with PIPING CONNECTIONS ²	61"
Side opposite PIPING CONNECTIONS ³	26"
Bottom ⁴	-

1. Overall dimension of the unit will vary if an electric heater, a supply air plenum or a base is used.
2. This dimension is required for removal of the DX coil. Only 26" is required for normal servicing.
3. If the coil has to be removed, this dimension is required to loosen screws that secure the coil to the unit frame. This dimension will also be required for blower motor access if the piping connections are made on the opposite side of the unit.
4. Allow enough clearance to trap the condensate drain lines.

SUPPLY AIR PLENUM



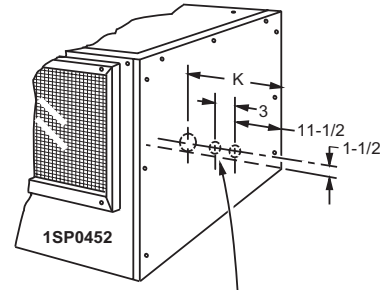
090 - KNOCKOUT FOR POWER WIRING

WITH ELECTRIC HEAT - Remove this 2-1/2" knockout from the rear panel of the plenum. Route the power wiring conduit through this opening and connect it to the field-supplied fitting on the electric heat accessory. Connect the power wiring to the fuse block in the heater control box.

Install the control wiring per basic unit Installation Manual. **DO NOT** route any field control wiring through the plenum.

Electric Heaters are NOT CSA approved for installation within a supply air plenum.

WITHOUT ELECTRIC HEAT - Install the power and the control wiring per basic unit Installation Manual. **DO NOT** route any wiring through the plenum and **DO NOT** remove this knockout.



120 - KNOCKOUTS FOR POWER & CONTROL WIRING

WITH ELECTRIC HEAT - Remove this 2-1/2" knockout and one of the 7/8" knockouts from the rear panel of the plenum. Remove the 1-23/32" knockout and one of the 7/8" knockouts from the top panel of the basic unit. Install a 1/2" squeeze connector in both of the 7/8" openings.

Route the power wiring conduit through the 2-1/2" opening and connect it to the field-supplied fitting on the electric heat accessory. Connect the power wiring to the fuse block in the heater control box.

Route the control wires through the 7/8" openings and connect them to the terminals on block TB1. Secure them with the 1/2" squeeze connectors.

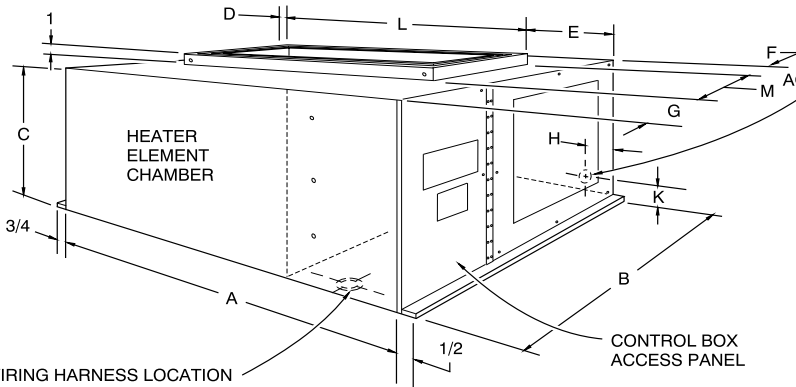
Electric Heaters are NOT CSA approved for installation within a supply air plenum.

WITHOUT ELECTRIC HEAT - Remove both 7/8" knockouts from the rear panel of the plenum and both 7/8" knockouts from the top panel of the basic unit. Install a 1/2" squeeze connector in one of the plenum openings and both of the unit openings. Install a 1/2" conduit fitting in the other opening of the plenum.

Connect the power wiring conduit to the fitting on the plenum. Route the power wiring through the conduit, one of the squeeze connectors on the unit, and the field-supplied squeeze connector on the blower motor contactor box. Connect the power wiring to the blower motor contactor.

Route the control wires through the remaining plenum and unit openings and connect them to the terminals on block TB1. Secure them with the 1/2" squeeze connectors.

Plenum Model	Plenum Dimensions (inches)									
	A	B	C	D	E	F	G	H	K	L
1SP0451	52-1/8	28-1/4	27-1/2	49-3/8	17-7/8	8-3/4	7/8	1-1/8	15-1/4	1-3/4
1SP0452	60-3/4	31	27	55-3/4	19-7/8	6-1/8	1-	2-1/2	19-1/2	1-3/4



WIRING HARNESS LOCATION
This opening in the bottom of the heater control box is used for the wiring harness that connects the heater accessory to the basic unit. It is provided with a squeeze connector for securing the wiring harness, and its location corresponds to the location of the 1-23/32" knockout in the top panel of the basic unit.

ACCESS OPENING FOR POWER SUPPLY WIRING
10KW THRU 36KW - Add a 1-1/4" conduit fitting to the 1-23/32" hole for wire sizes up through #1 AWG. Remove the knockout ring and add a 1-1/2" conduit fitting to the 1-31/32" hole for wire sizes up through #0 AWG.

Heater Model	Nom. KW	Heater Dimensions (inches)										
		A	B	C	D	E	F	G	H	K	L	M
2HS04501025, 46, 58	10	27-1/4	25-1/4	14-1/4	1	4	1/2	5-1/2	1-1/2	1-1/2	22-1/4	19-1/4
2HS04501625, 46, 58	16											
2HS04502625, 46, 58	26											
2HS04503625, 46, 58	36											

FIGURE 6 - ACCESSORY DIMENSIONS

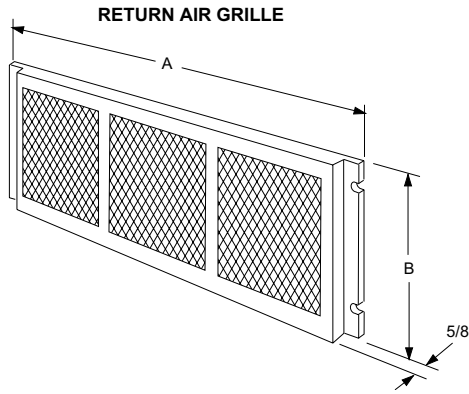


FIGURE 7 - RETURN AIR GRILLE

Grill Model	Unit Model	Grill Dimensions (Inches)	
		A	B
1RG0451	090	52	25
1RG0452	120	60-3/4	31

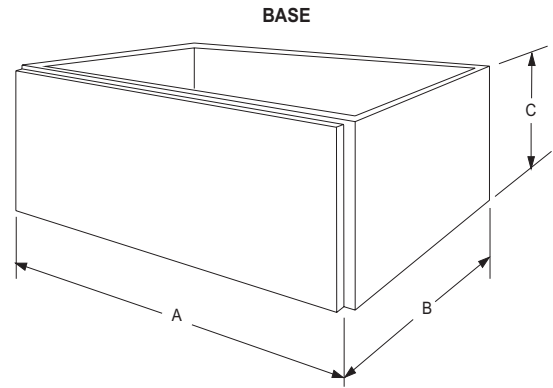


FIGURE 8 - BASE ACCESSORY

Grill Model	Unit Model	Grill Dimensions (Inches)		
		A	B	C
1BS0451	090	52	25-1/8	20
1BS0452	120	60-3/4	31-5/8	24

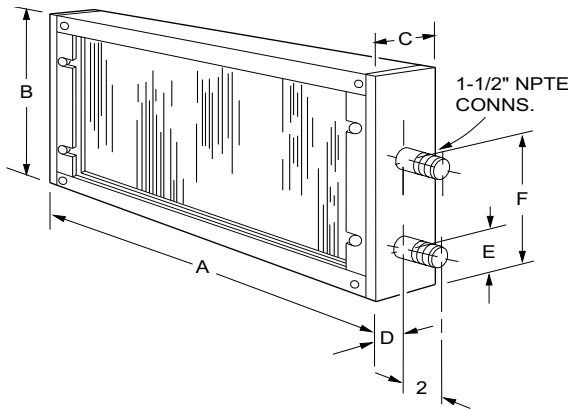


FIGURE 9 - STEAM COIL

Coil Model	Unit Model	Steam Coil Dimensions (inches)					
		A	B	C	D	E	F
1NF0451	090	52	25	5	2-1/2	2-5/8	13-5/8
1NF0452	120	60-3/4	32-1/4	6	3-5/16	3-1/2	17-1/2

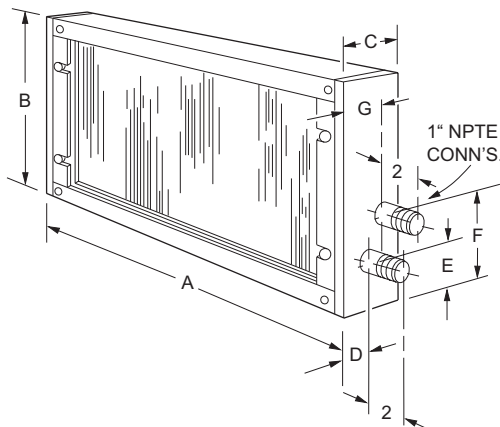


FIGURE 10 - HOT WATER COIL

Coil Model	Unit Model	Hot Water Coil Dimensions (inches)							
		A	B	C	D	E	F	G	H
1HW0451	090	52	25	5	1-11/16	2-3/8	5-7/8	3-3/8	1" NPTE
1HW0452	120	60-3/4	32-1/4	6	2-5/32	3-5/16	6-9/16	3-27/32	1-3/8 NPTE

TABLE 17: LA ELECTRICAL DATA

Model (TONS)	Power Supply Voltage	Indoor Motor FLA	Heater Model Number	Nominal Heater KW	Applied Heater KW	Electric Heat Amps	Min. Circuit Ampacity (AMPS)	Max. Fuse ¹ / HACR Breaker ² (AMPS)
090 (7.5)	208	6.6	None	--	--	--	8.3	15
			2HS04501025	10	7.5	20.8	34.3	35
			2HS04501625	16	12.0	33.4	49.9	50
			2HS04502625	26	19.5	54.2	76.0	80
			2HS04503625	36	27.0	75.1	102.1	110
	240	6.0	None	--	--	--	7.5	15
			2HS04501025	10	10.0	24.1	37.6	40
			2HS04501625	16	16.0	38.5	55.6	60
			2HS04502625	26	26.0	62.5	85.7	90
			2HS04503625	36	36.0	86.6	115.8	125
	460	3.0	None	--	--	--	3.8	15
			2HS04501046	10	10.0	12.0	18.8	20
			2HS04501646	16	16.0	19.2	27.8	30
			2HS04502646	26	26.0	31.3	42.8	45
			2HS04503646	36	36.0	43.3	57.9	60
	575	2.4	None	--	--	--	3.0	15
			2HS04501058	10	10.0	9.6	15.0	20
			2HS04501658	16	16.0	15.4	22.2	25
			2HS04502658	26	26.0	25.0	34.3	35
			2HS04503658	36	36.0	34.6	46.3	50
120 (10)	208	7.5	None	--	--	--	9.4	15
			2HS04501025	10	7.5	20.8	35.4	40
			2HS04501625	16	12.0	33.4	51.1	60
			2HS04502625	26	19.5	54.2	77.1	80
			2HS04503625	36	27.0	75.1	103.2	110
	240	6.8	None	--	--	--	8.5	15
			2HS04501025	10	10.0	24.1	38.6	40
			2HS04501625	16	16.0	38.5	56.6	60
			2HS04502625	26	26.0	62.5	86.7	90
			2HS04503625	36	36.0	86.6	116.8	125
	460	3.4	None	--	--	--	4.3	15
			2HS04501046	10	10.0	12.0	19.3	20
			2HS04501646	16	16.0	19.2	28.3	30
			2HS04502646	26	26.0	31.3	43.3	45
			2HS04503646	36	36.0	43.3	58.4	60
	575	2.7	None	--	--	--	3.4	15
			2HS04501058	10	10.0	9.6	15.4	20
			2HS04501658	16	16.0	15.4	22.6	25
			2HS04502658	26	26.0	25.0	34.6	35
			2HS04503658	36	36.0	34.6	46.7	50

1. Dual element time delay.

2. HACR type per NEC.

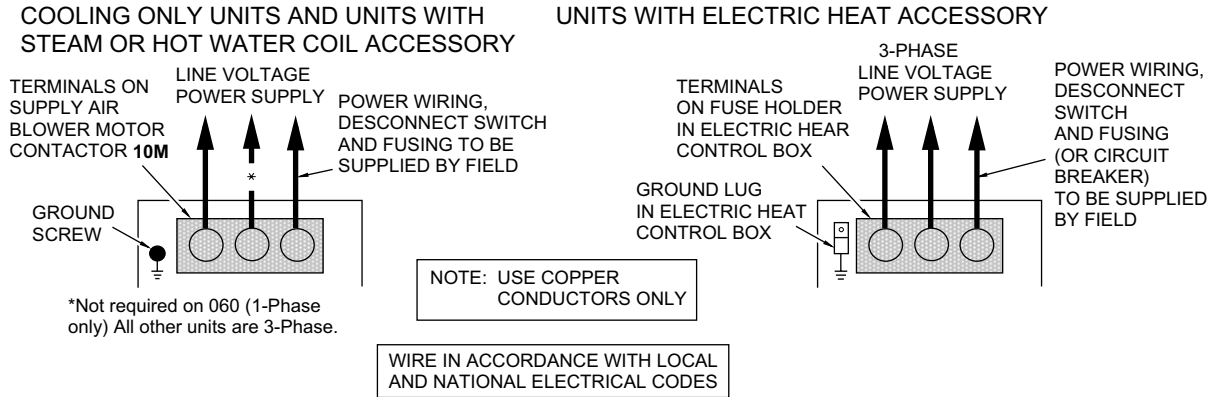


FIGURE 11 - FIELD WIRING FOR POWER SUPPLY

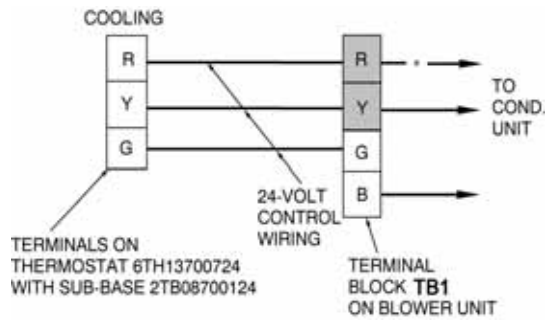


FIGURE 12 - COOLING ONLY UNIT

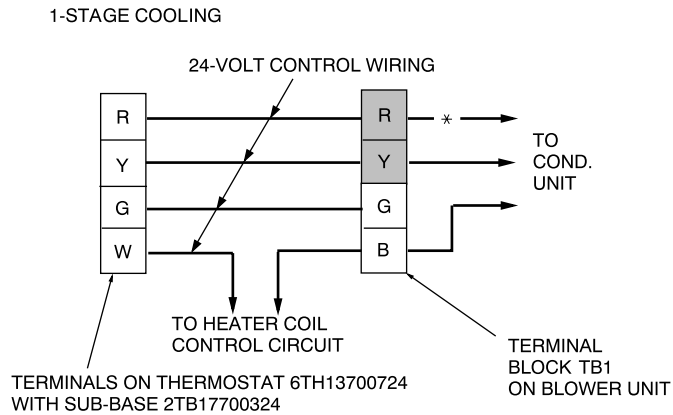
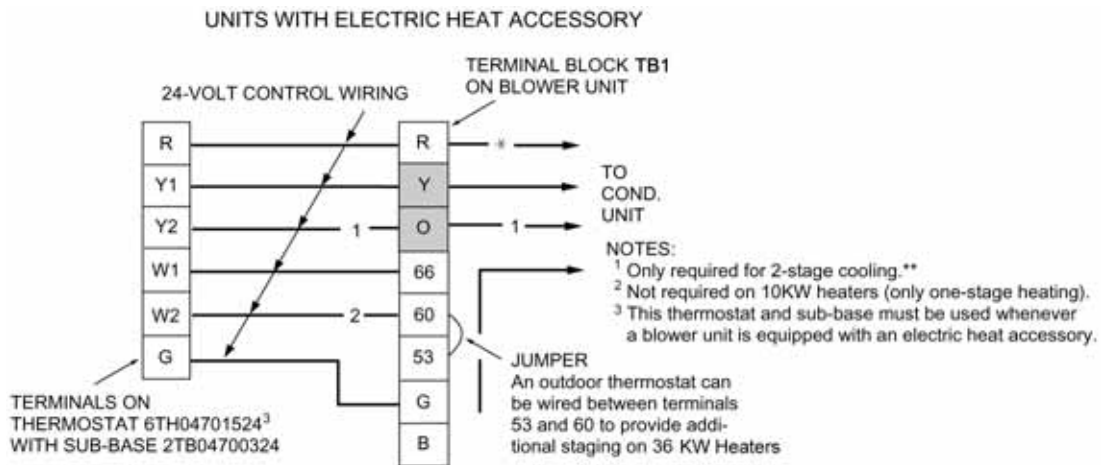


FIGURE 13 - UNIT WITH STEAM OR HOT WATER COIL ACCESSORY



The field wiring connected to these dummy terminals on TB1 can be routed directly from the condensing unit to the thermostat, if desired.

FIGURE 14 - FIELD WIRING FOR UNITS WITH ELECTRIC HEAT

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036-21343-003-A-0206
Supersedes: 036-21343-002-A-0805

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