



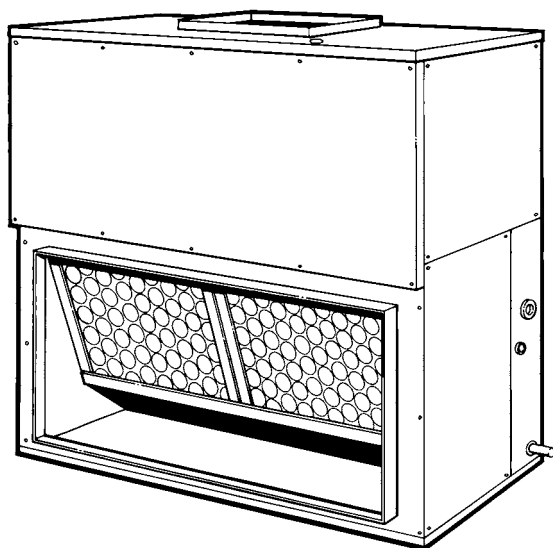
TECHNICAL GUIDE

SPLIT-SYSTEM EVAPORATOR BLOWERS

K*ES120

10 NOMINAL TONS

EER 8.5



DESCRIPTION

These completely assembled dual circuit evaporator blower units include a well-insulated cabinet, a DX cooling coil with copper tubes and aluminum fins, two expansion valves, two distributors, 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.

This CSA approved blower unit with two (2) 5 ton circuits can be applied with the following condensing units:

- One HCE120
- Two HDB048's
- Two HDB060's

TABLE 1: ARI RATINGS*

CONDENSING UNIT	EVAPORATOR BLOWER UNIT	CAPACITY MBH	EER
HCE120	K2ES120	122	8.5

*Certified in accordance with the Unitary large Equipment certification program, which is based on ARI Standard 340/360.

EER = Energy Efficiency Ratio

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.



ISO 9001
Certified Quality
Management System

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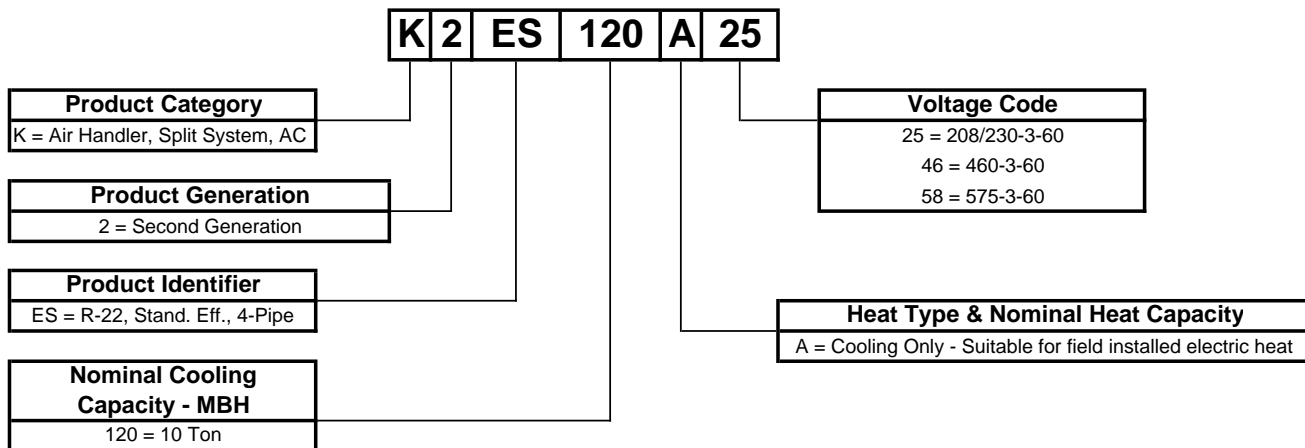
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PRODUCT NOMENCLATURE

York Indoor Split System Product Nomenclature



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 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.

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 to facilitate condensate drainage. They should be mounted over the return air opening.

APPLICATION FLEXIBILITY

MODELS 120

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.

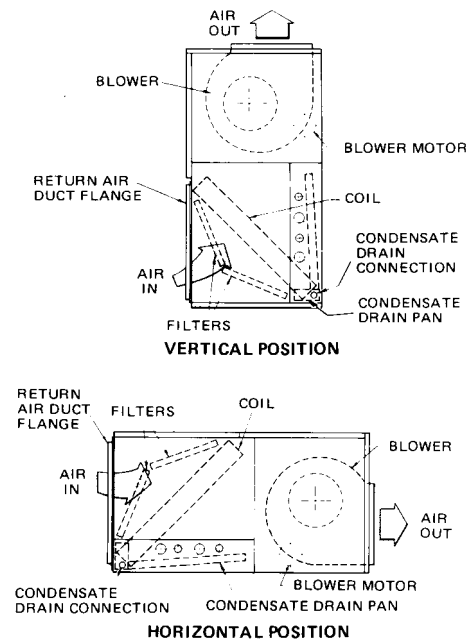


FIGURE 1 - MODEL 120 - VERTICAL & HORIZONTAL POSITION

TABLE 2: SYSTEM COOLING CAPACITIES AND POWER REQUIREMENTS

Air on Cooling Coil		Temperature of Air on Condenser																	
		95°F						105°F						115°F					
		CFM	WB (°F)	Total Cap. ¹ (MBH)	Total ² Input (kW)	Sensible Capacity MBH Entering Dry Bulb, °F				Total Cap. ¹ (MBH)	Total ² Input (kW)	Sensible Capacity MBH Entering Dry Bulb, °F				Total Cap. ¹ (MBH)	Total ² Input (kW)	Sensible Capacity MBH Entering Dry Bulb, °F	
86	80					74	68	86	80			74	68	86	80			74	68
TWO HDB048 / ONE K2ES120																			
2800	72	106.0	10.9	70.6	55.0	-	-	96.1	11.8	67.2	51.5	-	-	-	-	-	-	-	
	67	96.3	10.1	83.8	68.1	52.5	-	87.6	10.9	80.5	64.7	49.0	-	78.8	11.7	77.1	61.3	45.5	
	62	87.1	9.3	87.1	81.3	65.6	49.9	79.4	10.0	79.4	77.9	62.2	46.5	71.7	10.8	71.7	71.7	58.8	43.0
	57	79.6	8.6	79.6	79.6	78.7	63.0	72.3	9.2	72.3	72.3	72.3	59.6	65.0	9.9	65.0	65.0	65.0	56.2
3400	72	109.2	11.2	77.6	58.9	-	-	-	-	-	-	-	-	-	-	-	-	-	
	67	99.3	10.4	93.4	74.7	56.0	-	90.1	11.2	98.8	71.2	52.6	-	80.9	11.9	80.9	67.8	49.1	
	62	89.9	9.6	89.9	89.9	71.7	53.1	81.8	10.3	81.8	81.8	68.2	49.6	73.6	11.0	73.6	73.6	64.7	46.0
	57	82.1	8.9	82.1	82.1	82.1	68.7	74.5	9.5	74.5	74.5	74.5	65.2	66.8	10.1	66.8	66.8	66.8	61.6
4000	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	67	101.7	10.6	101.8	81.0	59.7	-	92.0	11.4	92.0	77.5	56.1	-	82.3	12.1	82.3	73.9	52.5	
	62	92.1	9.8	92.1	92.1	77.5	56.2	83.6	10.5	83.6	74.0	74.0	52.6	75.0	11.2	75.0	75.0	70.4	49.0
	57	83.9	9.1	83.9	83.9	86.9	74.0	76.1	9.7	76.1	76.1	76.1	70.5	68.2	10.3	68.2	68.2	68.2	66.9
TWO HDB060 / ONE K2ES120																			
3200	72	124.4	12.8	81.2	63.4	-	-	112.9	13.8	77.1	59.3	-	-	101.3	14.8	72.9	55.1	-	
	67	114.3	11.7	96.6	79.0	61.3	-	103.8	12.6	92.4	74.8	57.1	-	93.2	13.6	88.2	70.5	52.8	
	62	105.2	10.8	105.2	94.5	76.9	59.3	95.5	11.6	95.5	95.5	72.6	55.0	85.8	12.6	85.8	85.8	68.2	50.6
	57	97.7	10.0	97.7	97.7	92.4	74.9	88.5	10.7	88.5	88.5	88.5	70.4	79.3	11.5	79.3	79.3	79.3	65.9
4000	72	128.4	13.2	90.2	68.8	-	-	116.3	14.2	85.8	64.5	-	-	-	-	-	-	-	
	67	118.0	12.1	108.7	87.4	66.1	-	106.9	13.0	104.4	83.1	61.8	-	95.8	13.9	95.8	78.8	57.5	
	62	108.5	11.1	108.5	105.9	84.6	63.4	98.3	11.9	98.3	98.3	80.2	59.0	88.1	12.8	88.1	88.1	75.7	54.5
	57	100.6	10.3	100.6	100.6	100.6	81.9	91.0	11.0	91.0	91.0	91.0	77.3	81.4	11.8	81.4	81.4	81.4	72.7
4800	72	131.5	13.5	98.7	73.4	-	-	-	-	-	-	-	-	-	-	-	-	-	
	67	120.9	12.4	120.4	95.4	70.5	-	109.2	13.3	109.2	91.0	66.1	-	97.4	14.2	97.4	86.5	61.7	
	62	111.0	11.4	111.0	111.0	92.0	67.1	100.3	12.2	100.3	100.3	87.5	62.6	89.5	13.1	89.5	89.5	82.9	58.1
	57	102.7	10.5	102.7	102.7	102.7	88.6	92.7	11.2	92.7	92.7	84.0	82.7	82.7	12.0	82.7	82.7	79.3	-
ONE HCE120 / ONE K2ES120																			
3200	72	135	13.5	85	67	-	-	129	14.2	83	65	-	-	122	14.9	80	63	-	
	67	124	12.9	100	83	65	-	118	13.6	98	80	63	-	111	14.3	95	77	60	
	62	113	12.3	113	98	81	63	107	13.0	107	95	77	60	100	13.7	100	92	74	57
	57	103	11.7	103	103	95	78	97	12.4	97	97	92	74	91	13.1	91	91	89	71
4000	72	139	13.7	95	73	-	-	133	14.4	92	71	-	-	126	15.1	89	68	-	
	67	128	13.1	114	92	70	-	122	13.8	111	89	68	-	115	14.5	108	86	65	
	62	117	12.5	117	111	89	67	111	13.2	111	107	85	64	104	13.9	104	103	82	61
	57	107	11.9	107	107	107	85	101	12.6	101	101	101	81	94	13.3	94	94	94	78
4800	72	143	13.9	103	78	-	-	136	14.6	101	76	-	-	129	15.3	98	73	-	
	67	132	13.3	125	100	75	-	125	14.0	123	97	72	-	118	14.7	118	94	69	
	62	121	12.7	121	121	96	71	114	13.4	114	114	93	68	107	14.1	107	107	90	65
	57	110	12.1	110	110	110	92	104	12.8	104	104	104	89	97	13.5	97	97	97	86

- The capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. Refer to the appropriate Blower Performance table for the kW of the supply air blower motor.
- These ratings include the condensate fan motors and the compressor motors but not the supply air blower motor.

Normal Rating All Sensible Capacity

TABLE 3: HEATING CAPACITY - ELECTRIC HEAT ACCESSORY

Heater Model	Test Voltage	Nominal Ratings ¹		Capacity				
		KW	MBH	1st Stage		2nd Stage		
2HS045010	25	208 / 240 ²	10	34.2	10	34.2	-	-
	46	480 ³						
	58	600 ⁴						
2HS045016	25	208 / 240	16	54.7	10	34.2	6	20.5
	46	480						
	58	600						
2HS045026	25	208 / 240	26	88.9	16	54.7	10	34.2
	46	480						
	58	600						
2HS045036	25	208 / 240	36	123	16	54.7	20	68.3
	46	480						
	58	600						

- Capacity Ratings do not include the heat generated by the blower motor.
- 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.
- For 460 volts, multiply the MBH and KW by $(460/480)^2$ or 0.918.
- For 575 volts, multiply the MBH and KW by $(575/600)^2$ or 0.918.

TABLE 4: SOUND POWER RATINGS

Unit Model	CFM	ESP	BLOWER		SOUND POWER (dB 10 ⁻¹² WATTS)											
					Octave Band Centerline Frequency (Hz)										SWL Db(a)	dB(A) @ 10 FT. ¹
					IWG	RPM	BHP	63	125	250	500	1,000	2,000	4,000		
120	4,000	0.75	850	1.75	91	91	85	74	76	69	64	59	81	48		

- 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 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	120	3200	196.4	177.6	158.8	140.0
		4000	217.3	915.3	175.3	154.8
		4800	236.1	212.9	190.4	167.8

- These capacities do not include any blower motor heat.
- 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	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

1. These capacities do not 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

TABLE 8: CAPACITY CORRECTION VS. GPM

1HW0451	GPM		
	30	45	
	Capacity Correction	1.11	1.15

TABLE 9: SUPPLY AIR BLOWER PERFORMANCE

CFM	EXTERNAL STATIC PRESSURE											
	0.2			0.4			0.6			0.8		
	RPM	WATTS	BHP	RPM	WATTS	BHP	RPM	WATTS	BHP	RPM	WATTS	BHP
2800	571	122	0.13	630	332	0.36	682	489	0.52	733	618	0.66
3000	595	349	0.37	654	559	0.60	706	716	0.77	756	845	0.91
3200	619	558	0.60	678	768	0.82	730	925	0.99	780	1054	1.13
3400	643	753	0.81	702	964	1.03	754	1120	1.20	804	1249	1.34
3600	667	939	1.01	726	1149	1.23	778	1306	1.40	829	1435	1.54
3800	692	1119	1.20	751	1329	1.43	803	1485	1.59	853	1614	1.73
4000	716	1294	1.39	775	1504	1.61	827	1661	1.78	877	1790	1.92
4200	740	1468	1.57	799	1678	1.80	852	1834	1.97	902	1963	2.11
4400	765	1641	1.76	824	1851	1.99	876	2008	2.15	926	2136	2.29
4600	789	1815	1.95	848	2025	2.17	900	2182	2.34	950	2310	2.48
4800	813	1991	2.14	872	2201	2.36	924	2357	2.53	974	2486	2.67
5000	837	2169	2.33	896	2380	2.55	948	2536	2.72	998	2665	2.86
5200	861	2352	2.52	920	2562	2.75	972	2718	2.92	1022	2847	3.05
5400	884	2538	2.72	943	2748	2.95	995	2905	3.12	1045	3033	3.25
5600	907	2728	2.93	966	2939	3.15	1019	3095	3.32	1069	3224	3.46

CFM	EXTERNAL STATIC PRESSURE											
	1.0			1.2			1.4			1.6		
	RPM	WATTS	BHP	RPM	WATTS	BHP	RPM	WATTS	BHP	RPM	WATTS	BHP
2800	786	744	0.80	846	893	0.96	920	1092	1.17	1010	1364	1.46
3000	809	971	1.04	870	1121	1.20	943	1319	1.41	1034	1592	1.71
3200	833	1180	1.27	894	1329	1.43	967	1528	1.64	1057	1800	1.93
3400	857	1375	1.48	918	1525	1.64	991	1723	1.85	1082	1996	2.14
3600	882	1561	1.67	942	1711	1.84	1016	1909	2.05	1106	2182	2.34
3800	906	1741	1.87	967	1890	2.03	1040	2088	2.24	1130	2361	2.53
4000	930	1916	2.06	991	2066	2.22	1064	2264	2.43	1155	2536	2.72
4200	955	2090	2.24	1016	2239	2.40	1089	2437	2.61	1179	2710	2.91
4400	979	2263	2.43	1040	2412	2.59	1113	2610	2.80	1203	2883	3.09
4600	1003	2437	2.61	1064	2586	2.77	1137	2784	2.99	1228	3057	3.28
4800	1027	2613	2.80	1088	2762	2.96	1161	2960	3.18	1252	3233	3.47
5000	1051	2791	2.99	1112	2941	3.15	1185	3139	3.37	----	----	----
5200	1075	2973	3.19	1136	3123	3.35	----	----	----	----	----	----
5400	1098	3160	3.39	----	----	----	----	----	----	----	----	----
5600	----	----	----	----	----	----	----	----	----	----	----	----

Exceeds the BHP limitation.

TABLE 10: ADDITIONAL STATIC RESISTANCE K*ES120

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 11: SUPPLY AIR PLENUM PERFORMANCE DATA

Model	CFM	Face Velocity (FPM)	Angle of Deflection																							
			0° SPREAD						Horizontal Louvers ² (Elevation View)		22-1/2° SPREAD		Vertical Louvers (Plan View)		Horizontal Louvers (Elevation View)		45° SPREAD		Vertical Louvers (Plan View)		Horizontal Louvers (Elevation View)					
			Throw (Feet)		Spread (Feet) ³		DROP (FEET) ⁴		Throw (Feet)		Spread (Feet)		DROP (FEET)		Throw (Feet)		Spread (Feet)		DROP (FEET)		Throw (Feet)		Spread (Feet)		DROP (FEET)	
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
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 12: BLOWER MOTOR AND DRIVE DATA

MODEL	BLOWER RANGE (RPM)	MOTOR ¹		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.
K*ES120	700/950	2	56	1VL44	3.1-4.1	2.8-3.8	7/8	BK80	7.4	7.0	1	A36	37.3	1

1. All motors have solid bases and are inherently protected. These motors can be selected to operate into their service factor unless they are equipped with a hot water coil or a steam coil.

TABLE 13: PHYSICAL DATA

COMPONENT	DESCRIPTION	K*ES120
EVAPORATOR BLOWER	Centrifugal Blower (Dia. X Wd. in.)	15 X 15
	Fan Motor HP (Belt Drive)	2
EVAPORATOR COIL	Rows Deep	3
	Finned Length (in.)	46
	Fins Per Inch	13
	Face Area (ft. ²)	10.2
HOT WATER COIL	Rows Deep	2
	Finned Length (in.)	46
	Fins Per Inch	12
	Face Area (ft. ²)	5.4
	Inlet Connection	1" NPTE
	Outlet Connection	1" NPTE
STEAM COIL	Rows Deep	1
	Finned Length (in.)	46
	Fins Per Inch	8
	Face Area (ft. ²)	5.4
	Inlet Connection	1-1/2" NPTE
	Outlet Connection	1-1/2" NPTE
AIR FILTERS	Quantity Per Unit (16" X 25" X 1")	4
	Quantity Per Unit (20" X 20" X 1")	0
	Total Face Area (ft. ²)	11.1
HOLDING CHARGE	Refrigerant 22 (lbs.oz.)	0/10

1. Refer to Blower Motor and Drive Data 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.

TABLE 14: OPERATING WEIGHTS (LBS.)

MODEL SIZE		10 TON	
BASIC UNIT	K*ES (Cooling Only)	355	
ACCESSORIES	Base	55	
	Return Air Grill	15	
	Supply air Plenum	100	
	Hot Water Coil	105	
	Steam Coil	115	
	Electric Heater	10 KW	66
		16 KW	70
		26 KW	74
36 KW		77	
72 KW		125	

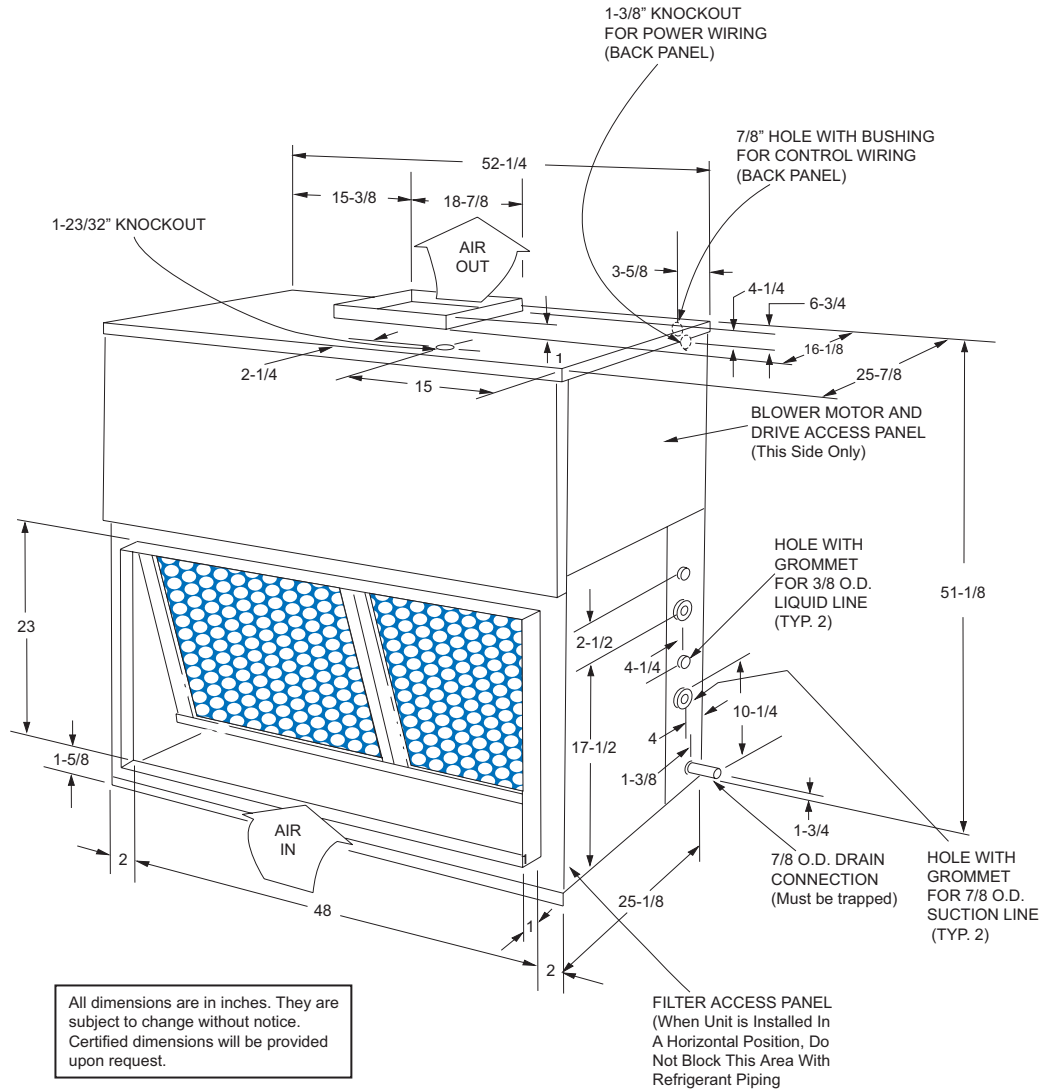


FIGURE 2 - UNIT DIMENSIONS 120

Unit Minimum Clearances	
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	-
Bottom ⁴	-

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. Allow enough clearance to trap the condensate drain line.

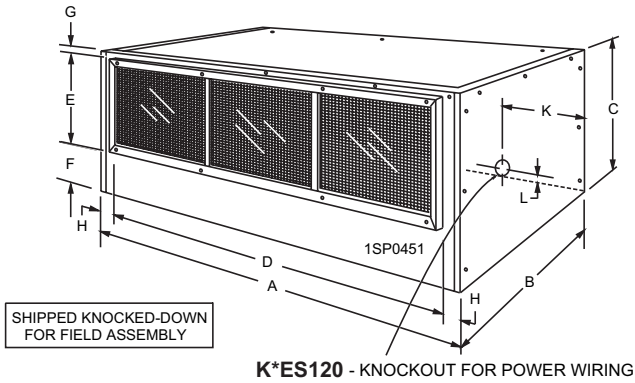


FIGURE 3 - SUPPLY AIR PLENUM

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.

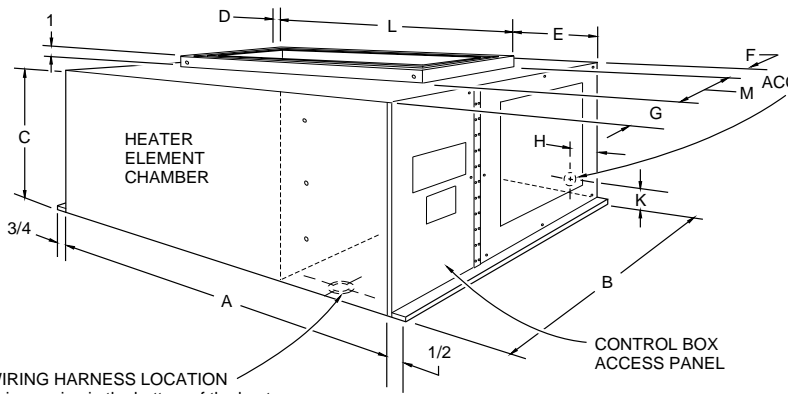
Install the control wiring per basic unit instruction.

DO NOT route any field control wiring through the plenum.

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

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

Plenum Model	Unit Model	Plenum Dimensions (inches)									
		A	B	C	D	E	F	G	H	K	L
1SP0451	120	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



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 1-1/2" conduit fitting to the 1-31/32" hole for wire sizes up through #0 AWG.

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.

FIGURE 4 - ELECTRIC HEATER

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

ACCESSORY DIMENSIONS

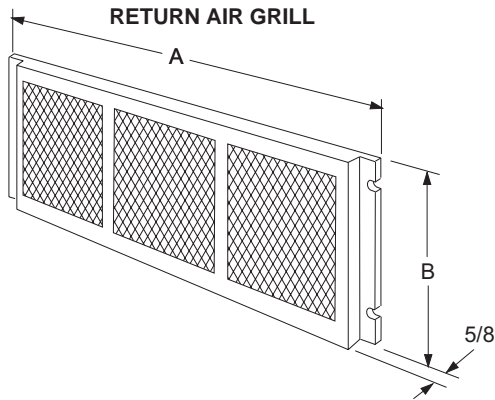


FIGURE 5 - RETURN AIR GRILL

GRILL MODEL	UNIT MODEL	GRILL DIMENSIONS (INCHES)	
		A	B
IRG0451	120	52	25

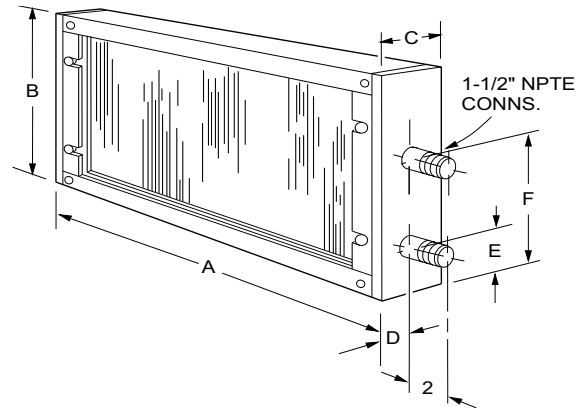


FIGURE 7 - STEAM COIL

COIL MODEL	UNIT MODEL	STEAM COIL DIMENSIONS (INCHES)					
		A	B	C	D	E	F
1NF0451	120	52	25	5	2-1/2	2-5/8	13-5/8

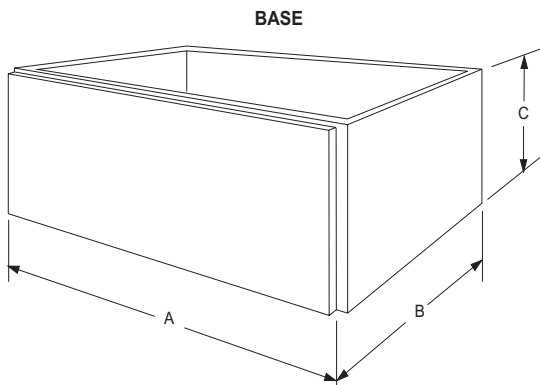


FIGURE 6 - BASE ACCESSORY

GRILL MODEL	UNIT MODEL	GRILL DIMENSIONS (INCHES)		
		A	B	C
IBS0451	120	52	25-1/8	20

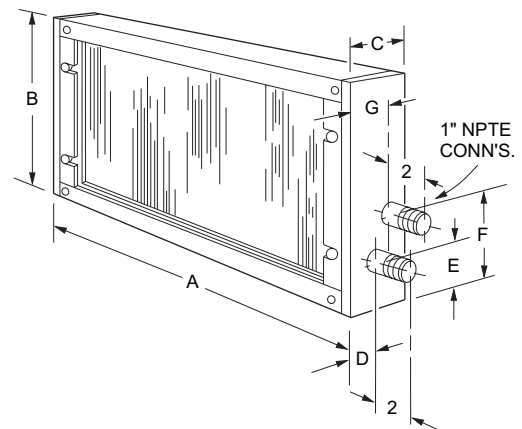


FIGURE 8 - HOT WATER COIL

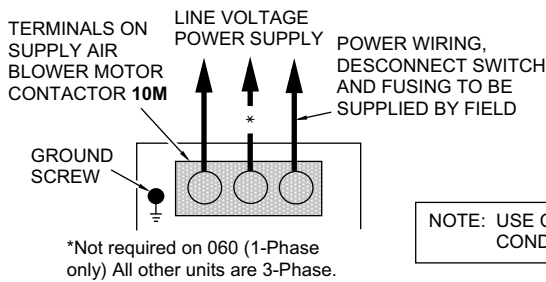
COIL MODEL	UNIT MODEL	HOT WATER COIL DIMENSIONS (INCHES)							
		A	B	C	D	E	F	G	H
1HW0451	120	52	25	5	1-11/16	2-3/8	5-7/8	3-3/8	1"NPTE

TABLE 15: ELECTRICAL DATA

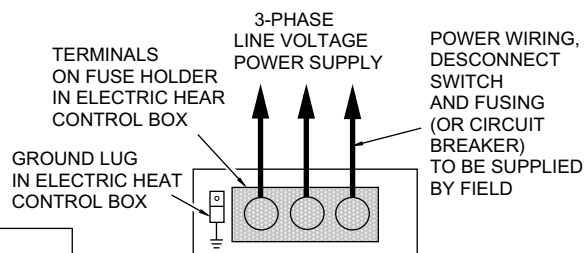
MODEL	POWER SUPPLY VOLTAGE	INDOOR MOTOR FLA	HEATER MODEL NUMBER	NOMINAL HEATER KW	APPLIED HEATER KW	ELECTRIC HEAT AMPS	MIN. CIRCUIT AMPACITY (AMPS)	MAX. FUSE / HACR BREAKER ¹ (AMPS)
120	208	7.5	None	--	--	--	9.4	15
			2HS04501025	10	7.5	20.8	35.4	40
			2HS04501625	16	12.0	33.4	51.1	60
			2HS04502625	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	28.6	40
			2HS04501625	16	16.0	38.5	46.6	60
			2HS04502625	26	26.0	62.5	86.7	90
			2HS04503625	36	36.0	86.6	116.8	125
	480	3.4	None	--	--	--	4.3	15
			2HS04501025	10	10.0	12.0	19.3	20
			2HS04501625	16	16.0	19.2	28.3	30
			2HS04502625	26	26.0	31.3	43.3	45
			2HS04503625	36	36.0	43.3	58.4	60
	600	2.7	None	--	--	--	3.4	15
			2HS04501025	10	10.0	9.6	15.4	20
			2HS04501625	16	16.0	15.4	22.6	25
			2HS04502625	26	26.0	25.0	34.6	35
			2HS04503625	36	36.0	34.6	46.7	50

1. HCR TYPE PER NEC

COOLING ONLY UNITS AND UNITS WITH STEAM OR HOT WATER COIL ACCESSORY



UNITS WITH ELECTRIC HEAT ACCESSORY



NOTE: USE COPPER CONDUCTORS ONLY

WIRE IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES

FIGURE 9 - FIELD WIRING FOR POWER SUPPLY

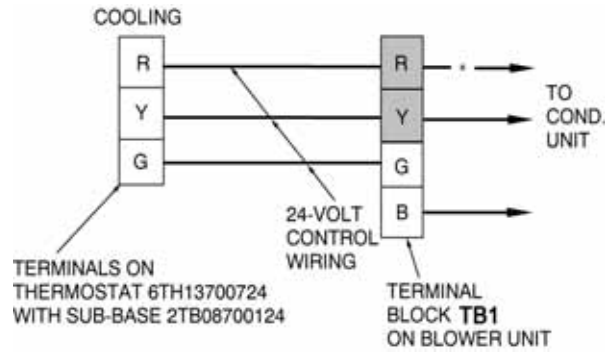


FIGURE 10 - COOLING ONLY UNIT

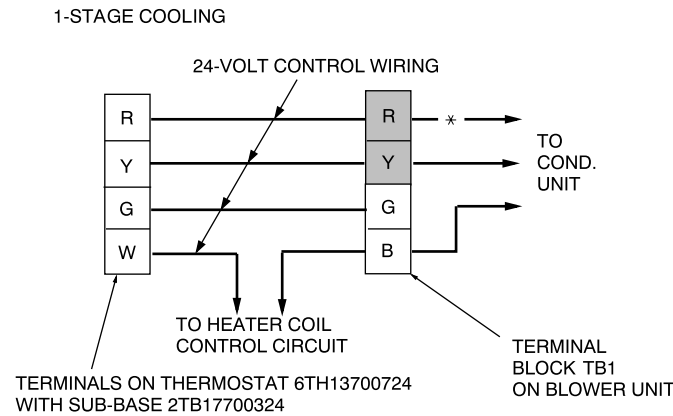
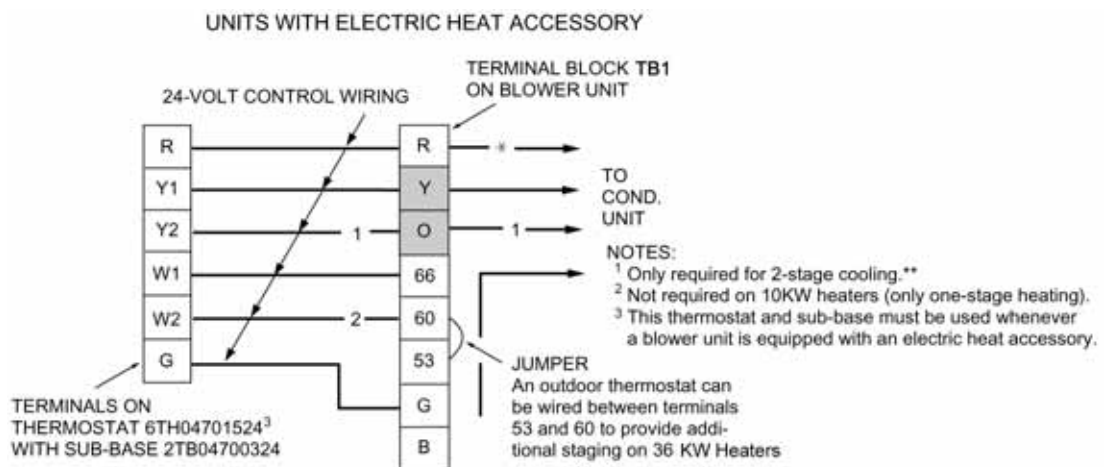


FIGURE 11 - UNIT WITH STEAM OR HOT WATER COIL ACCESSORY



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

FIGURE 12 - FIELD WIRING FOR UNITS WITH ELECTRIC HEAT

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036-21693-001-A-0805
Supersedes: 550.13-TG11Y (0500)

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