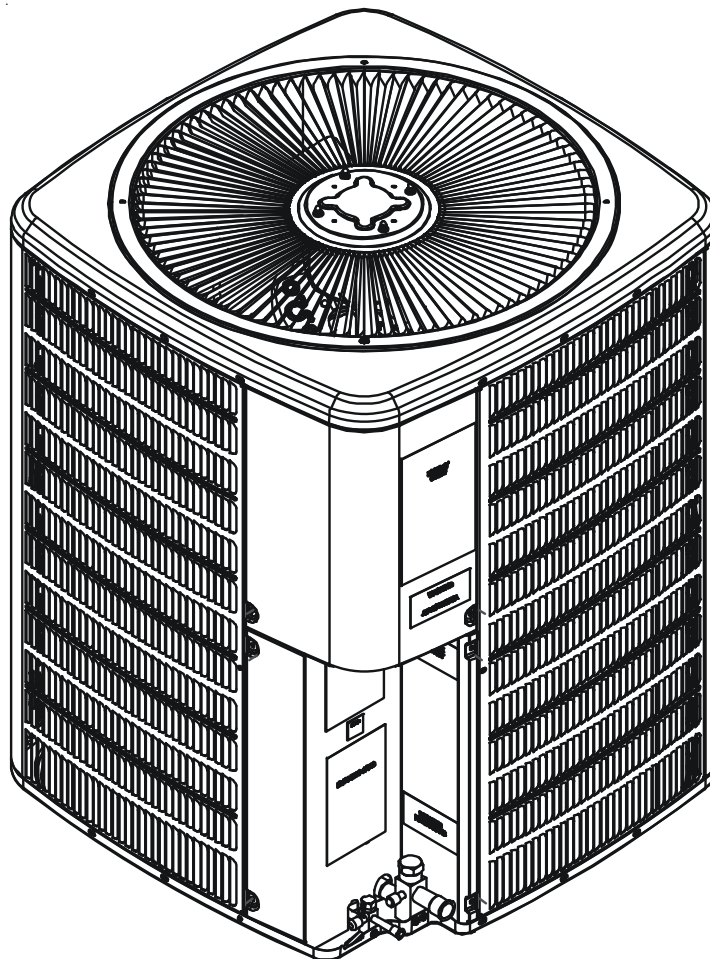


DAIKIN TECHNICAL MANUAL

DX11 Split System Condensing Units 7.5 & 10 Tons with R-410A

- Refer to Service Manual RSD6200006 for installation, operation, and troubleshooting information.
- All safety information must be followed as provided in the Service Manual.
- Refer to the appropriate Parts Catalog for part number information.
- Models listed on page 3.

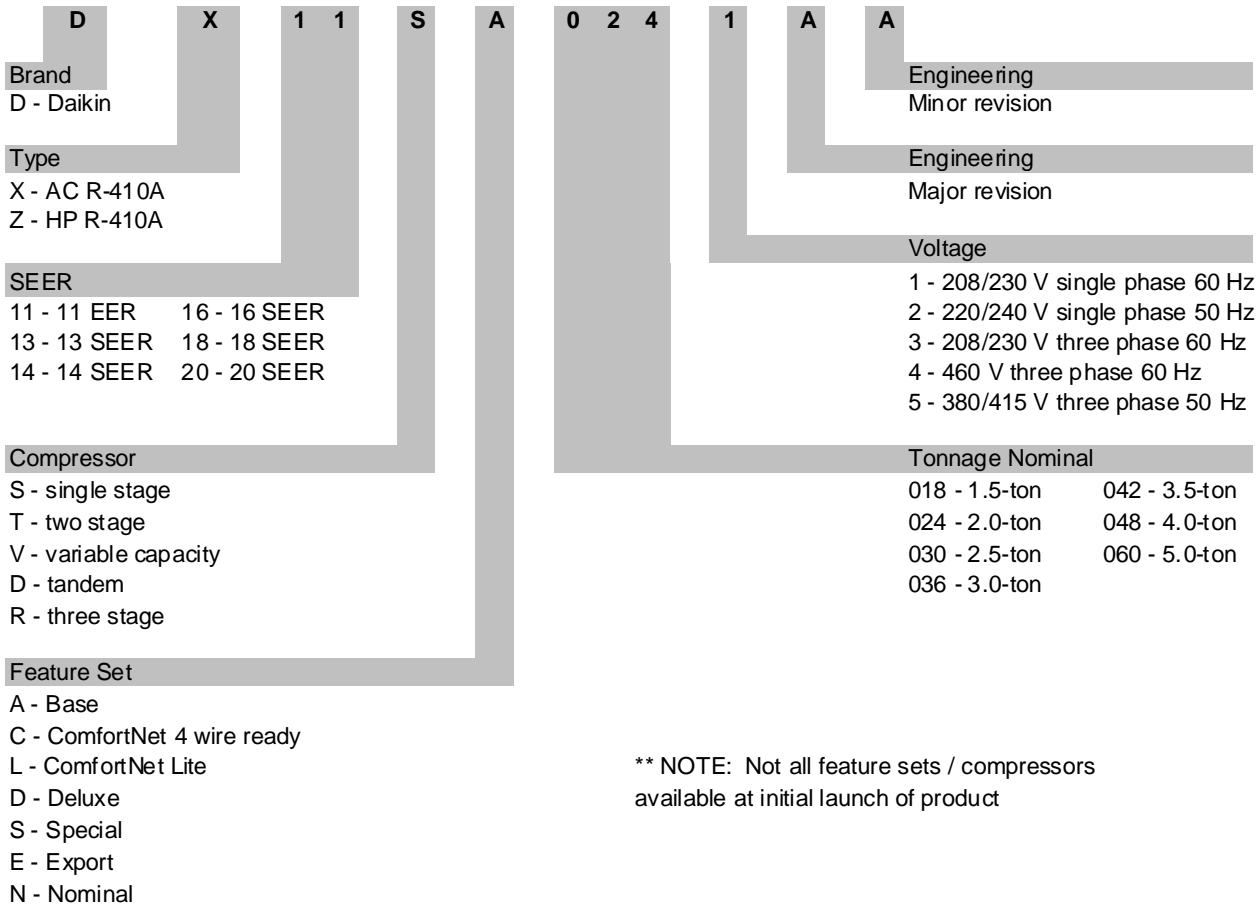


This manual is to be used by qualified, professionally trained HVAC technicians only. Daikin does not assume any responsibility for property damage or personal injury due to improper service procedures or services performed by an unqualified person.

RTD6111010r1
August 2014

PRODUCT IDENTIFICATION

The model number is used for positive identification of component parts used in manufacturing. Please use this number when requesting service or parts information.



** NOTE: Not all feature sets / compressors available at initial launch of product

WARNING

HIGH VOLTAGE!

Disconnect ALL power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death.

WARNING

Daikin will not be responsible for any injury or property damage arising from improper service or service procedures. If you install or perform service on this unit, you assume responsibility for any personal injury or property damage which may result. Many jurisdictions require a license to install or service heating and air conditioning equipment.

WARNING

ONLY individuals meeting (at a minimum) the requirements of an "entry level technician" as specified by the Air Conditioning, Heating, and Refrigeration Institute (AHRI) may use this information. Attempting to install or repair this unit without such background may result in product damage, personal injury or death.

PRODUCT IDENTIFICATION

The model number is used for positive identification of component parts used in manufacturing. Please use this number when requesting service or parts information.

DX11SA0903A*
DX11SA1203A*

DX11SA0904A*
DX11SA1204A*

** Indicates minor revision & is not used for order entry or inventory management*

 **WARNING**

The United States Environmental Protection Agency (“EPA”) has issued various regulations regarding the introduction and disposal of refrigerants introduced into this unit. Failure to follow these regulations may harm the environment and can lead to the imposition of substantial fines. These regulations may vary by jurisdiction. Should questions arise, contact your local EPA office.

 **WARNING**

Do not connect or use any device that is not design certified by Daikin for use with this unit. Serious property damage, personal injury, reduced unit performance and/or hazardous conditions may result from the use of such non-approved devices.

 **WARNING**

To prevent the risk of property damage, personal injury, or death, do not store combustible materials or use gasoline or other flammable liquids or vapors in the vicinity of this appliance.

PRODUCT DESIGN

DX11 Light Commercial Condensing units are designed for outdoor installations only, primarily in light commercial applications and are available in 208-230 volt 3 phase and 460 volt three phase applications in 7-1/2 and 10 ton sizes.

The condenser air is pulled through the condenser coil by a direct drive propeller fan. This condenser air is then discharged out of the top of the cabinet.

These units are designed for free air discharge, so no additional resistance like duct work shall be attached.

The suction and liquid line connections on present models are of the sweat type for field piping with refrigerant type copper. Front seating valves are factory installed to accept the field run copper.

Systems should be properly sized by heat gain and loss calculations made according to methods of the Air Conditioning Contractors Association (ACCA) or equivalent. It is the contractors responsibility to ensure the system has adequate capacity to heat or cool the conditioned space.

DX models use the Copeland Scroll "Ultratech" Series compressors which are specifically designed for R-410A refrigerant. There are a number of design characteristics which are different from the traditional reciprocating and/or scroll compressors.

"Ultratech" Series scroll compressors will not have a discharge thermostat, some of the early model scroll compressors required discharge thermostats.

Due to their design Scroll compressors are inherently more tolerant of small quantities of liquid refrigerant.

NOTE: Even though the compressor section of a Scroll compressor is more tolerant of liquid refrigerant, continued floodback or flooded start conditions may wash oil from the bearing surfaces causing premature bearing failure.

"Ultratech" Series scroll compressors use "POE" or polyolester oil which is **NOT** compatible with mineral oil based lubricants like 3GS. "POE" oil must be used if additional oil is required.

Operating pressures and amp draws may differ from standard reciprocating and/or scroll compressors. This information may be found in the "Cooling Performance Data" section.

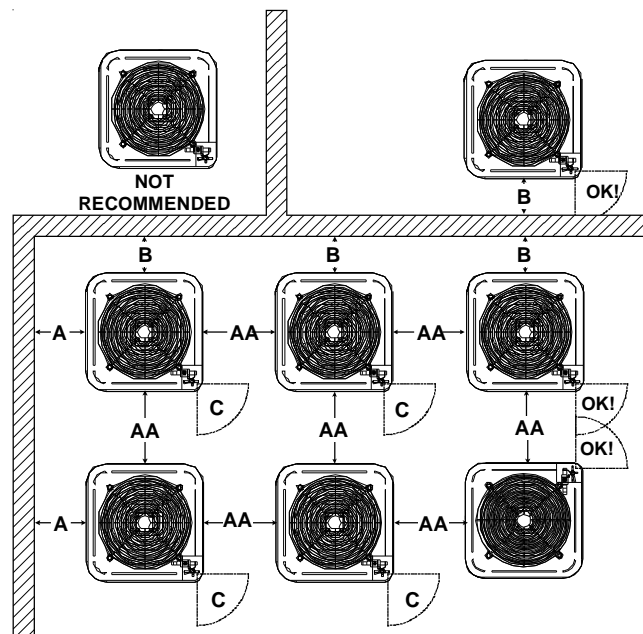
IMPORTANT NOTE: Because of the potential damage to compressors, do not allow suction pressure at service valve to drop below 20 PSIG when pumping unit system down for repair. Outdoor section, depending on line set length and amount of charge in system, may not be able to hold the entire system charge.

Special consideration must be given to location of the condensing unit(s) in regard to structures, obstructions, other units, and any/all other factors that may interfere with air circulation. Where possible, the top of the unit should be completely unobstructed; however, if vertical conditions require placement beneath an obstruction **there should be a minimum of 60 inches between the top of the unit and the obstruction(s)**. The specified dimensions meet requirements for air circulation only. Consult all appropriate regulatory codes prior to determining final clearances.

Another important consideration in selecting a location for the unit(s) is the angle to obstructions. Either side adjacent the valves can be placed toward the structure provided the side away from the structure maintains minimum service clearance. Corner installations are strongly discouraged.

DO NOT locate the unit:

- Directly under a vent termination for a gas appliance.
- Within 3 feet of a clothes dryer vent.
- Where the refreezing of defrost water would create a hazard.
- Where water may rise into the unit.



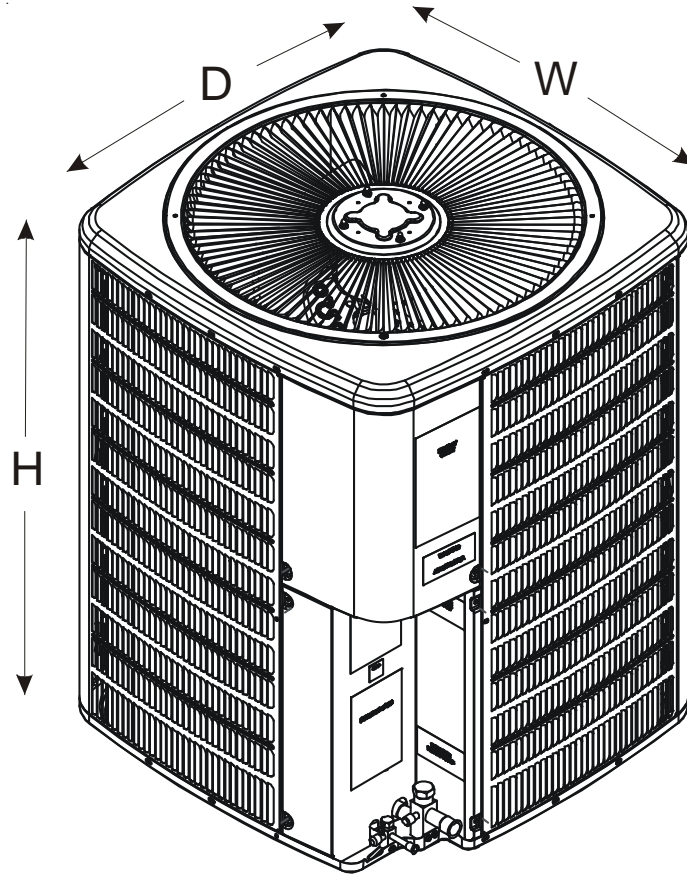
Minimum Airflow Clearance				
Model Type	A	B	C	AA
Residential	10"	10"	18"	20"
Light Commercial	12"	12"	18"	24"

⚠ WARNING

To avoid possible injury, explosion or death, practice safe handling of refrigerants.

PRODUCT DESIGN

DIMENSIONS



Model	Dimensions - W x D x H
DX11SA0903A*	35 1/2" x 35 1/2" x 37 1/2"
DX11SA1203A*	35 1/2" x 35 1/2" x 41 1/2"

DX11SA0904A*	35 1/2" x 35 1/2" x 37 1/2"
DX11SA1204A*	35 1/2" x 35 1/2" x 41 1/2"

CONDENSING UNIT SPECIFICATIONS

DX11SA[090-120]3A*

	DX11SA0903A*	DX11SA1203A*
Cooling Capacity, BTUH	88,000	114,000
Compressor		
R.L. Amps	25.0	30.1
L.R. Amps	164.0	225.0
High Pressure Switch		
Open	610 PSIG	610 PSIG
Close	420 PSIG	420 PSIG
Condenser Fan Motor		
Horsepower	1	1
F.L. Amps	5.60	5.60
Liquid Line, Inches O.D.*	5/8"	5/8"
Suction Line, Inches O.D.*	1 3/8"	1 3/8"
Refrigerant Charge	35.0	35.0
Power Supply	208/230-60-1	208/230-60-1
Minimum Circuit Ampacity ⁽¹⁾	36.9	43.2
Maximum Overcurrent Device ⁽²⁾	60	70
Electrical Conduit Size		
Power Supply (Inches)	1/2 or 3/4	1/2 or 3/4
Approximate Shipping Weight	315	315

⁽¹⁾ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

⁽²⁾ Maximum Overcurrent Protection Device: **MUST** use time delay fuses or HACR-type Circuit Breakers of the same size as noted.

NOTE: Always check the S&R plate for electrical data on the unit being installed.

NOTE: This data is provided as a guide, it is important to electrically connect the unit and properly size fuses/circuit breakers and wires in accordance with all national and/or local electrical codes. Use copper wire only.

CONDENSING UNIT SPECIFICATIONS DX11SA[090-120]4A*

	DX11SA0904A*	DX11SA1204A*
Cooling Capacity, BTUH	90,000	112,000
Compressor		
R.L. Amps	12.2	16.7
L.R. Amps	100.0	114.0
High Pressure Switch		
Open	610 PSIG	610 PSIG
Close	420 PSIG	420 PSIG
Condenser Fan Motor		
Horsepower	1	1
F.L. Amps	3.50	3.50
Liquid Line, Inches O.D.*	5/8"	5/8"
Suction Line, Inches O.D.*	1 3/8"	1 3/8"
Refrigerant Charge	35.0	35.0
Power Supply	460-60-3	460-60-3
Minimum Circuit Ampacity ⁽¹⁾	18.8	24.4
Maximum Overcurrent Device ⁽²⁾	30	40
Electrical Conduit Size		
Power Supply (Inches)	1/2 or 3/4	1/2 or 3/4
Approximate Shipping Weight	315	315

⁽¹⁾ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

⁽²⁾ Maximum Overcurrent Protection Device: **MUST** use time delay fuses or HACR-type Circuit Breakers of the same size as noted.

NOTE: Always check the S&R plate for electrical data on the unit being installed.

NOTE: This data is provided as a guide, it is important to electrically connect the unit and properly size fuses/circuit breakers and wires in accordance with all national and/or local electrical codes. Use copper wire only.

COOLING PERFORMANCE DATA

DX11SA0903A*

EXPANDED PERFORMANCE DATA

EXPANDED PERFORMANCE DATA

MODEL: DX11SA093 / DAR0904

IDB*	Airflow	Outdoor Ambient Temperature																													
		65					75					85					95					105					115				
		59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75
70	2625	MBh	77.3	80.1	87.8	-	75.5	78.2	85.7	-	73.7	76.4	83.7	-	71.9	74.5	81.6	-	68.3	70.8	77.5	-	68.3	70.8	77.5	-	63.3	65.6	71.8	-	
		S/T	0.65	0.54	0.38	-	0.67	0.56	0.39	-	0.69	0.58	0.40	-	0.71	0.59	0.41	-	0.74	0.62	0.43	-	0.74	0.62	0.43	-	0.74	0.62	0.43	-	
		Delta T	18	15	12	-	18	15	12	-	18	15	12	-	18	15	12	-	18	15	12	-	18	15	12	-	16	14	11	-	
		KW	6.62	6.75	6.94	-	7.08	7.21	7.42	-	7.47	7.62	7.85	-	7.83	7.98	8.22	-	8.13	8.29	8.54	-	8.13	8.29	8.54	-	8.39	8.56	8.82	-	
		AMPS	18.0	18.3	18.9	-	19.2	19.6	20.2	-	20.7	21.1	21.7	-	21.9	22.4	23.1	-	23.2	23.7	24.4	-	23.2	23.7	24.4	-	24.4	25.0	25.7	-	
	3021	HIPR	216	233	246	-	243	261	276	-	276	297	313	-	314	338	357	-	353	380	402	-	353	380	402	-	391	420	444	-	
		LO PR	100	106	116	-	106	112	123	-	110	117	128	-	115	123	134	-	121	129	140	-	121	129	140	-	125	133	145	-	
		MBh	83.7	86.8	95.1	-	81.8	84.8	92.9	-	79.8	82.7	90.7	-	77.9	80.7	88.4	-	74.0	76.7	84.0	-	74.0	76.7	84.0	-	68.5	71.0	77.8	-	
		S/T	0.67	0.56	0.39	-	0.70	0.58	0.40	-	0.71	0.60	0.41	-	0.74	0.62	0.43	-	0.77	0.64	0.44	-	0.77	0.64	0.44	-	0.77	0.64	0.45	-	
		Delta T	17	15	11	-	17	15	11	-	17	15	11	-	17	15	11	-	17	15	11	-	17	15	11	-	16	14	11	-	
3375	KW	6.77	6.90	7.09	-	7.23	7.37	7.59	-	7.65	7.80	8.03	-	8.01	8.17	8.42	-	8.32	8.49	8.75	-	8.32	8.49	8.75	-	8.58	8.76	9.03	-		
	AMPS	18.4	18.8	19.3	-	19.7	20.1	20.7	-	21.2	21.7	22.3	-	22.5	23.0	23.7	-	23.8	24.3	25.1	-	23.8	24.3	25.1	-	25.1	25.6	26.4	-		
	HIPR	223	240	253	-	250	269	284	-	284	306	323	-	324	349	368	-	364	392	414	-	364	392	414	-	403	433	458	-		
	LO PR	103	110	120	-	109	116	127	-	113	120	132	-	119	127	138	-	125	133	145	-	125	133	145	-	129	137	150	-		
	MBh	85.0	88.1	96.5	-	83.0	86.0	94.3	-	81.0	84.0	92.0	-	79.0	81.9	89.8	-	75.1	77.8	85.3	-	75.1	77.8	85.3	-	69.6	72.1	79.0	-		

IDB*	Airflow	Outdoor Ambient Temperature																													
		65					75					85					95					105					115				
		59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75
75	2625	MBh	78.6	80.9	87.6	94.0	76.8	79.0	85.5	91.8	74.9	77.1	83.5	89.6	73.1	75.3	81.5	87.4	69.4	71.5	77.4	83.1	64.3	66.2	71.7	76.9					
		S/T	0.74	0.66	0.50	0.32	0.76	0.68	0.52	0.33	0.78	0.70	0.53	0.34	0.81	0.72	0.55	0.35	0.84	0.75	0.57	0.37	0.85	0.76	0.57	0.37					
		Delta T	20	19	15	11	21	19	15	11	21	19	16	11	21	19	16	11	21	20	19	15	11	19	18	14	10				
		KW	6.67	6.80	6.99	7.19	7.13	7.27	7.48	7.70	7.53	7.68	7.91	8.14	7.89	8.05	8.29	8.54	8.19	8.36	8.61	8.88	8.45	8.62	8.89	9.17					
		AMPS	18.1	18.5	19.0	19.6	19.4	19.8	20.4	21.0	20.8	21.3	21.9	22.7	22.1	22.6	23.3	24.1	23.4	23.9	24.6	25.5	24.6	25.2	26.0	26.9					
	3021	HIPR	218	235	248	259	245	264	278	290	279	300	317	330	317	342	361	376	357	384	406	423	395	425	448	468					
		LO PR	101	108	117	125	107	114	124	132	111	118	129	137	117	124	135	144	122	130	142	151	126	134	147	156					
		MBh	85.1	87.7	94.9	101.8	83.2	85.6	92.7	99.5	81.2	83.6	90.5	97.1	79.2	81.5	88.3	94.7	75.2	77.5	83.9	90.0	69.7	71.8	77.7	83.4					
		S/T	0.76	0.68	0.52	0.33	0.79	0.71	0.54	0.35	0.81	0.73	0.55	0.35	0.84	0.75	0.57	0.37	0.87	0.78	0.59	0.38	0.88	0.78	0.59	0.38					
		Delta T	20	18	15	10	20	18	15	10	20	18	15	10	20	19	15	11	20	18	15	10	19	17	14	10					
3375	KW	6.82	6.95	7.14	7.35	7.29	7.43	7.65	7.87	7.70	7.86	8.09	8.34	8.07	8.23	8.48	8.74	8.38	8.55	8.82	9.09	8.65	8.83	9.10	9.39						
	AMPS	18.5	18.9	19.5	20.1	19.9	20.3	20.9	21.6	21.4	21.8	22.5	23.2	22.7	23.2	23.9	24.7	24.0	24.5	25.3	26.1	25.3	25.9	26.7	27.6						
	HIPR	225	242	256	267	253	272	287	299	287	309	326	341	327	352	372	388	368	396	418	436	407	438	462	482						
	LO PR	104	111	121	129	110	117	128	136	114	122	133	142	120	128	140	149	126	134	146	156	130	139	151	161						
	MBh	86.4	89.0	96.3	103.4	84.4	86.9	94.1	101.0	82.4	84.8	91.8	98.6	80.4	82.8	89.6	96.2	76.4	78.6	85.1	91.3	70.7	72.8	78.8	84.6						

Shaded area is ACCA (TVA) conditions
 High and low pressures are measured at the liquid and suction service valves.
 IDB: Entering Indoor Dry Bulb Temperature
 KW=Total system power
 AMPS=outdoor unit amps (comp. f-fan)

COOLING PERFORMANCE DATA

DX11SA0903A*

EXPANDED PERFORMANCE DATA

COOLING OPERATION

MODEL: DX11SA093 / DAR0904

IDB*	Airflow	Outdoor Ambient Temperature																													
		65					75					85					95					105					115				
		59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75
80	2625	MBh	80.0	81.7	87.3	93.3	78.1	79.8	85.3	91.2	76.3	77.9	83.3	89.0	74.4	76.0	81.2	86.8	70.7	72.2	77.2	82.5	65.5	66.9	71.5	76.4					
		S/T	0.81	0.76	0.62	0.46	0.84	0.79	0.64	0.48	0.86	0.81	0.66	0.49	0.89	0.83	0.68	0.51	0.92	0.86	0.70	0.53	0.93	0.87	0.71	0.53					
		Delta T	23	22	19	15	23	22	19	15	23	22	19	15	23	22	19	15	23	22	19	15	21	20	18	14					
		KW	6.72	6.85	7.04	7.24	7.18	7.32	7.53	7.75	7.59	7.74	7.97	8.21	7.95	8.11	8.35	8.61	8.25	8.42	8.68	8.95	8.52	8.69	8.96	9.24					
		AMPS	18.2	18.6	19.2	19.8	19.5	19.9	20.5	21.2	21.0	21.5	22.1	22.9	22.3	22.8	23.5	24.3	23.6	24.1	24.8	25.7	24.9	25.4	26.2	27.1					
	3021	HIPR	221	237	251	261	248	266	281	293	281	303	320	334	321	345	364	380	361	388	410	427	399	429	463	472					
		LO PR	102	109	119	126	108	115	125	133	112	119	130	139	118	125	137	146	123	131	143	153	128	136	148	158					
		MBh	86.7	88.5	94.6	101.1	84.6	86.5	92.4	98.8	82.6	84.4	90.2	96.4	80.6	82.4	88.0	94.1	76.6	78.2	83.6	89.4	70.9	72.5	77.4	82.8					
		S/T	0.84	0.79	0.64	0.48	0.87	0.81	0.66	0.50	0.89	0.84	0.68	0.51	0.92	0.86	0.70	0.52	0.95	0.90	0.73	0.54	0.96	0.90	0.73	0.55					
		Delta T	22	21	18	15	22	21	19	15	22	21	19	15	23	22	19	15	22	21	19	15	21	20	17	14					
3375	KW	6.87	7.00	7.20	7.41	7.34	7.49	7.70	7.93	7.76	7.92	8.15	8.40	8.13	8.30	8.55	8.81	8.45	8.62	8.88	9.16	8.72	8.90	9.17	9.46						
	AMPS	18.7	19.1	19.6	20.3	20.0	20.4	21.0	21.7	21.5	22.0	22.7	23.4	22.9	23.4	24.1	24.9	24.2	24.7	25.5	26.4	25.5	26.1	26.9	27.8						
	HIPR	227	245	258	270	255	275	290	302	290	312	330	344	331	356	376	392	372	400	423	441	411	442	467	487						
	LO PR	105	112	122	130	111	118	129	138	116	123	134	143	121	129	141	150	127	135	148	157	132	140	153	163						
	MBh	88.0	89.9	96.0	102.6	85.9	87.8	93.8	100.3	83.9	85.7	91.6	97.9	81.8	83.6	89.3	95.5	77.7	79.4	84.9	90.7	72.0	73.6	78.6	84.0						
85	2625	S/T	0.88	0.82	0.67	0.50	0.91	0.85	0.69	0.52	0.93	0.87	0.71	0.53	0.96	0.90	0.73	0.55	1.00	0.93	0.76	0.57	1.00	0.94	0.77	0.57					
		Delta T	21	20	17	14	21	20	18	14	21	20	18	14	21	20	18	14	21	20	18	14	20	19	16	13					
		KW	6.90	7.03	7.23	7.44	7.38	7.52	7.74	7.98	7.80	7.96	8.20	8.45	8.18	8.34	8.59	8.86	8.49	8.67	8.93	9.21	8.77	8.95	9.23	9.52					
		AMPS	18.8	19.2	19.7	20.4	20.1	20.6	21.2	21.9	21.7	22.1	22.8	23.6	23.0	23.5	24.2	25.1	24.3	24.9	25.6	26.5	25.7	26.2	27.0	28.0					
		HIPR	229	246	260	271	257	277	292	305	292	314	332	346	333	358	378	394	374	403	426	444	414	445	470	490					
	3021	LO PR	106	113	123	131	112	119	130	139	116	124	135	144	122	130	142	151	128	136	149	158	133	141	154	164					
		MBh	88.2	89.9	94.1	100.4	86.1	87.8	91.9	98.1	84.1	85.7	89.7	95.7	82.0	83.6	87.6	93.4	77.9	79.4	83.2	88.7	72.2	73.6	77.1	82.2					
		S/T	0.88	0.85	0.77	0.62	0.91	0.88	0.79	0.64	0.93	0.90	0.81	0.66	0.96	0.93	0.84	0.68	1.00	0.97	0.87	0.71	1.00	0.97	0.88	0.71					
		Delta T	24	23	22	19	24	23	22	19	24	24	22	19	24	24	22	19	24	23	22	19	22	22	21	18					
		KW	6.91	7.05	7.25	7.46	7.40	7.54	7.76	7.99	7.82	7.98	8.21	8.46	8.19	8.36	8.61	8.88	8.51	8.69	8.95	9.23	8.79	8.97	9.25	9.54					
3375	AMPS	18.8	19.2	19.8	20.4	20.2	20.6	21.2	21.9	21.7	22.2	22.9	23.6	23.1	23.6	24.3	25.1	24.4	24.9	25.7	26.6	25.7	26.3	27.1	28.1						
	HIPR	230	247	261	272	258	277	293	305	293	315	333	347	334	359	379	396	376	404	427	445	415	447	472	492						
	LO PR	106	113	123	131	112	119	130	139	117	124	136	144	123	130	142	152	129	137	149	159	133	141	154	164						
	MBh	89.5	91.2	96.5	101.9	87.4	89.1	93.3	99.6	85.3	87.0	91.1	97.2	83.2	84.9	88.9	94.8	79.1	80.6	84.4	90.1	73.3	74.7	78.2	83.4						
	S/T	0.92	0.89	0.80	0.65	0.95	0.92	0.83	0.67	0.98	0.94	0.85	0.69	1.00	0.97	0.88	0.71	1.00	1.00	0.91	0.74	1.00	1.00	0.92	0.74						

Shaded areas A/HRI Rating Conditions IDB: Entering Indoor Dry Bulb Temperature KW=Total system power AMPS=Outdoor unit amps (comp.#fan)
 High and low pressures are measured at the liquid and suction service valves.

EXPANDED PERFORMANCE DATA

EXPANDED PERFORMANCE DATA

MODEL: DX11SA1203 / DAR1204

Table with columns: IDB*, Airflow, Outdoor Ambient Temperature (75, 85, 95, 105, 115), and various performance metrics (MBh, S/T, Delta T, AMP, HI, LO, etc.) for models 3063, 3529, and 3938.

COOLING OPERATION

Table with columns: IDB*, Airflow, Outdoor Ambient Temperature (75, 85, 95, 105, 115), and various performance metrics for models 3063, 3529, and 3938, including indoor wet bulb temperatures.

S Shaded area is ACCA (TVVA) conditions. IDB: Entering Indoor Dry Bulb Temperature. KW=Total system power. AMP= outdoor unit amps (comp.+fan)

COOLING PERFORMANCE DATA

DX11SA1204A*

EXPANDED PERFORMANCE DATA

COOLING OPERATION

MODEL: DX11SA1204 / DAR1204

IDB*	Air flow	Outdoor Ambient Temperature												115											
		65				75				85					105										
		59	63	67	71	59	63	67	71	59	63	67	71		59	63	67	71							
70	MBh	101.2	104.9	115.0	-	98.9	102.5	112.3	-	96.5	100.0	109.6	-	94.2	97.6	106.9	-	89.5	92.7	101.6	-	82.9	85.9	94.1	-
	S/T	0.63	0.53	0.36	-	0.65	0.54	0.38	-	0.67	0.56	0.39	-	0.69	0.58	0.40	-	0.72	0.60	0.41	-	0.72	0.60	0.42	-
	Delta T	19	17	13	-	19	17	13	-	19	17	13	-	20	17	13	-	19	17	13	-	18	16	12	-
	KW	6.60	6.78	7.05	-	7.25	7.44	7.74	-	7.82	8.03	8.36	-	8.33	8.55	8.90	-	8.76	9.00	9.36	-	9.13	9.38	9.75	-
	AMPS	28.1	28.6	29.4	-	29.8	30.4	31.2	-	31.8	32.4	33.2	-	33.5	34.1	35.0	-	35.2	35.9	36.8	-	36.9	37.6	38.6	-
	HIPR	228	245	259	-	256	275	291	-	291	313	331	-	332	357	377	-	373	401	424	-	412	443	468	-
	LO PR	99	105	115	-	105	111	121	-	109	116	126	-	114	121	133	-	120	127	139	-	124	132	144	-
	MBh	106.6	110.4	121.0	-	104.1	107.9	118.2	-	101.6	105.3	115.4	-	99.1	102.7	112.6	-	94.2	97.6	106.9	-	87.2	90.4	99.1	-
	S/T	0.66	0.55	0.38	-	0.68	0.57	0.39	-	0.70	0.58	0.40	-	0.72	0.60	0.42	-	0.75	0.62	0.43	-	0.75	0.63	0.44	-
	Delta T	19	16	12	-	19	16	12	-	19	16	12	-	19	17	13	-	19	16	12	-	18	15	12	-
KW	6.74	6.92	7.20	-	7.40	7.60	7.90	-	7.98	8.20	8.53	-	8.50	8.73	9.08	-	8.94	9.18	9.55	-	9.32	9.57	9.95	-	
AMPS	28.5	29.0	29.8	-	30.3	30.8	31.6	-	32.3	32.9	33.7	-	34.0	34.6	35.6	-	35.7	36.4	37.4	-	37.4	38.2	39.2	-	
HIPR	233	250	265	-	261	281	297	-	297	320	338	-	338	364	384	-	381	410	433	-	421	453	478	-	
LO PR	101	107	117	-	107	113	124	-	111	118	129	-	116	124	135	-	122	130	142	-	126	134	147	-	
MBh	109.8	113.8	124.6	-	107.2	111.1	121.7	-	104.6	108.5	118.8	-	102.1	105.8	115.9	-	97.0	100.5	110.1	-	89.8	93.1	102.0	-	
S/T	0.69	0.58	0.40	-	0.71	0.60	0.41	-	0.73	0.61	0.42	-	0.76	0.63	0.44	-	0.78	0.66	0.45	-	0.79	0.66	0.46	-	
Delta T	18	15	12	-	18	15	12	-	18	15	12	-	18	16	12	-	18	15	12	-	17	14	11	-	
KW	6.80	6.99	7.27	-	7.47	7.68	7.98	-	8.07	8.28	8.62	-	8.59	8.82	9.17	-	9.03	9.28	9.65	-	9.41	9.67	10.05	-	
AMPS	28.7	29.2	30.0	-	30.5	31.0	31.8	-	32.5	33.1	34.0	-	34.2	34.9	35.8	-	36.0	36.7	37.7	-	37.7	38.5	39.5	-	
HIPR	235	253	267	-	264	284	300	-	300	323	341	-	342	368	388	-	384	414	437	-	425	457	483	-	
LO PR	102	108	118	-	108	115	125	-	112	119	130	-	118	125	137	-	123	131	143	-	127	136	148	-	
75	MBh	102.9	106.0	114.7	123.1	100.5	103.5	112.1	120.3	98.2	101.1	109.4	117.4	95.8	98.6	106.7	114.5	91.0	93.7	101.4	108.8	84.3	86.8	93.9	100.8
	S/T	0.72	0.64	0.48	0.31	0.74	0.66	0.50	0.32	0.76	0.68	0.51	0.33	0.78	0.70	0.53	0.34	0.81	0.73	0.55	0.35	0.82	0.73	0.56	0.36
	Delta T	22	20	17	12	22	21	17	12	22	21	17	12	23	21	17	12	22	20	17	12	21	19	16	11
	KW	6.80	6.99	7.27	7.57	7.48	7.68	7.99	8.31	8.07	8.29	8.62	8.97	8.59	8.82	9.17	9.55	9.03	9.28	9.65	10.04	9.42	9.67	10.06	10.46
	AMPS	28.7	29.2	30.0	30.8	30.5	31.0	31.8	32.7	32.5	33.1	34.0	35.0	34.2	34.9	35.8	36.9	36.0	36.7	37.7	38.9	37.7	38.5	39.5	40.8
	HIPR	235	253	267	279	264	284	300	313	300	323	341	356	342	368	388	405	384	414	437	456	425	457	483	504
	LO PR	102	108	118	126	108	115	125	133	112	119	130	139	118	125	137	146	123	131	143	152	128	136	148	158
	MBh	111.6	114.9	124.4	133.5	109.0	112.2	121.5	130.4	106.4	109.6	118.6	127.3	103.8	106.9	115.7	124.2	98.6	101.6	109.9	118.0	91.4	94.1	101.8	109.3
	S/T	0.78	0.70	0.53	0.34	0.81	0.73	0.55	0.35	0.83	0.74	0.56	0.36	0.86	0.77	0.58	0.37	0.89	0.80	0.60	0.39	0.90	0.80	0.61	0.39
	Delta T	20	19	15	11	21	19	16	11	21	19	16	11	21	19	16	11	21	19	15	11	19	18	14	10
KW	6.87	7.06	7.34	7.64	7.55	7.76	8.07	8.39	8.15	8.37	8.70	9.06	8.68	8.91	9.27	9.64	9.12	9.37	9.75	10.14	9.51	9.77	10.16	10.57	
AMPS	28.9	29.4	30.2	31.0	30.7	31.3	32.1	33.0	32.7	33.3	34.2	35.2	34.5	35.2	36.1	37.2	36.3	37.0	38.0	39.1	38.0	38.8	39.8	41.1	
HIPR	237	256	270	281	266	287	303	316	303	326	344	359	345	371	392	409	388	418	441	460	429	462	488	509	
LO PR	103	110	120	127	109	116	126	135	113	120	131	140	119	126	138	147	125	132	145	154	129	137	150	159	

Shaded area is ACCA (TVA) conditions
High and low pressures are measured at the liquid and suction service valves.

KW=Total system power

IDB: Entering Indoor Dry Bulb Temperature

AMPS=outdoor unit amps (comp.+fan)

COOLING PERFORMANCE DATA

DX11SA1204A*

EXPANDED PERFORMANCE DATA

EXPANDED PERFORMANCE DATA

COOLING OPERATION

MODEL: DX11SA1204 / DAR1204

IDB*	Airflow	Outdoor Ambient Temperature												Cooling Operation												
		65				75				85				95				105				115				
		59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	
80	3063	MBh	104.8	107.1	114.4	122.3	102.3	104.6	111.7	119.4	99.9	102.1	109.1	116.6	97.5	99.6	106.4	113.7	92.6	94.6	101.1	108.1	85.8	87.6	93.6	100.1
		S/T	0.78	0.74	0.60	0.45	0.81	0.76	0.62	0.46	0.83	0.78	0.64	0.48	0.86	0.81	0.66	0.49	0.89	0.84	0.68	0.51	0.90	0.84	0.69	0.51
		Delta T	25	24	21	16	25	24	21	17	25	24	21	17	25	24	21	17	25	24	21	17	25	24	22	19
		LO PR	6.74	6.92	7.20	7.49	7.40	7.60	7.90	8.22	7.98	8.20	8.53	8.87	8.50	8.73	9.08	9.45	8.94	9.18	9.55	9.94	9.32	9.57	9.95	10.36
	3438	AMPS	28.5	29.0	29.8	30.6	30.3	30.8	31.6	32.5	32.3	32.9	33.7	34.7	34.0	34.6	35.6	36.6	35.7	36.4	37.4	38.6	37.4	38.2	39.2	40.4
		HIPR	23.3	25.0	26.5	27.6	26.1	28.1	29.7	31.0	29.7	32.0	33.8	35.2	33.8	36.4	38.4	40.1	38.1	41.0	43.3	45.1	42.1	45.3	47.8	49.8
		LO PR	10.1	10.7	11.7	12.5	10.7	11.3	12.4	13.2	11.1	11.8	12.9	13.7	11.6	12.4	13.5	14.4	12.2	13.0	14.2	15.1	12.6	13.4	14.7	15.6
		MBh	110.3	112.7	120.4	128.7	107.7	110.1	117.6	125.7	105.2	107.5	114.8	122.7	102.6	104.8	112.0	119.7	97.5	99.6	106.4	113.7	90.3	92.3	98.6	105.4
	3938	S/T	0.82	0.77	0.63	0.47	0.85	0.80	0.65	0.48	0.87	0.82	0.66	0.50	0.90	0.84	0.69	0.51	0.93	0.87	0.71	0.53	0.94	0.88	0.72	0.54
		Delta T	24	23	20	16	24	23	20	16	24	23	20	16	25	24	21	16	24	23	20	16	23	22	19	15
		KW	6.87	7.06	7.34	7.64	7.55	7.76	8.07	8.39	8.15	8.37	8.71	9.06	8.68	8.91	9.27	9.64	9.13	9.37	9.75	10.14	9.51	9.77	10.16	10.57
		AMPS	28.9	29.4	30.2	31.0	30.7	31.3	32.1	33.0	32.7	33.4	34.2	35.2	34.5	35.2	36.1	37.2	36.3	37.0	38.0	39.2	38.0	38.8	39.8	41.1
85	3063	MBh	113.6	116.1	124.0	132.6	111.0	113.4	121.1	129.5	108.3	110.7	118.2	126.4	105.7	108.0	115.4	123.3	100.4	102.6	109.6	117.2	93.0	95.0	101.5	108.5
		S/T	0.86	0.81	0.66	0.49	0.89	0.83	0.68	0.51	0.91	0.86	0.70	0.52	0.94	0.88	0.72	0.54	1.00	0.92	0.75	0.56	1.00	0.92	0.75	0.56
		Delta T	23	22	19	15	23	22	19	15	23	22	19	15	23	22	19	15	23	22	19	15	22	21	18	14
		KW	6.94	7.13	7.42	7.72	7.63	7.83	8.15	8.48	8.23	8.45	8.79	9.15	8.76	9.00	9.36	9.74	9.22	9.47	9.85	10.24	9.61	9.87	10.26	10.68
3438	AMPS	29.1	29.6	30.4	31.3	30.9	31.5	32.3	33.2	33.0	33.6	34.5	35.5	34.7	35.4	36.4	37.5	36.5	37.2	38.3	39.5	38.3	39.1	40.1	41.4	
	HIPR	24.0	25.8	27.3	28.4	26.9	29.0	30.6	31.9	30.6	32.9	34.8	36.3	34.9	37.5	39.6	41.3	39.2	42.2	44.6	46.5	43.3	46.6	49.3	51.4	
	LO PR	10.4	11.1	12.1	12.9	11.0	11.7	12.8	13.6	11.4	12.2	13.3	14.1	12.0	12.8	13.9	14.8	12.6	13.4	14.6	15.6	13.0	13.8	15.1	16.1	
	MBh	115.6	117.8	123.4	131.6	112.9	115.1	120.5	128.6	110.2	112.3	117.7	125.5	107.5	109.6	114.8	122.5	102.1	104.1	109.0	116.3	94.6	96.4	101.0	107.8	
3938	S/T	0.90	0.87	0.78	0.64	0.93	0.90	0.81	0.66	0.96	0.92	0.83	0.68	0.99	0.95	0.86	0.70	1.00	0.99	0.89	0.72	1.00	1.00	0.90	0.73	
	Delta T	24	24	23	20	25	24	23	20	25	24	23	20	25	24	23	20	24	24	23	20	22	22	21	18	
	KW	7.02	7.21	7.49	7.80	7.71	7.91	8.23	8.57	8.32	8.54	8.88	9.24	8.85	9.09	9.46	9.84	9.31	9.56	9.94	10.35	9.71	9.97	10.37	10.78	
	AMPS	29.3	29.9	30.6	31.5	31.1	31.7	32.5	33.5	33.2	33.8	34.7	35.8	35.0	35.7	36.6	37.8	36.8	37.5	38.6	39.8	38.6	39.3	40.4	41.7	

Shaded areas are AHRI Rating Conditions
 High and low pressures are measured at the liquid and suction service valves.
 IDB: Entering Indoor Dry Bulb Temperature
 KW=Total system power
 AMP= outdoor unit amps (comp. + fan)

PERFORMANCE DATA

PERFORMANCE TEST

All data based upon listed indoor dry bulb temperature. .00 inches external static pressure on coil of outdoor section. Indoor air cubic feet per minute (CFM) as listed in the Performance Data Sheets:

If conditions vary from this, results will change as follows:

1. As indoor dry bulb temperatures increase, a slight increase will occur in indoor air temperature drop (Delta T). Low and high side pressures and power will not change.
2. As indoor CFM decreases, a slight increase will occur in indoor temperature drop (Delta T). A slight decrease will occur in low and high side pressures and power.

A properly operating unit should be within plus or minus **2 degrees** of the subcooling value shown in the installation instructions.

A properly operating unit should be within plus or minus **3 degrees** of the typical (Delta T) value shown.

A properly operating unit should be within plus or minus **10 PSIG** of the **HI PR** shown.

A properly operating unit should be within plus or minus **5 PSIG** of the **LO PR** shown.

A properly operating unit should be within plus or minus **3 Amps** of the typical value shown.

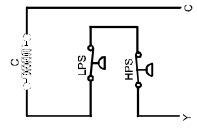
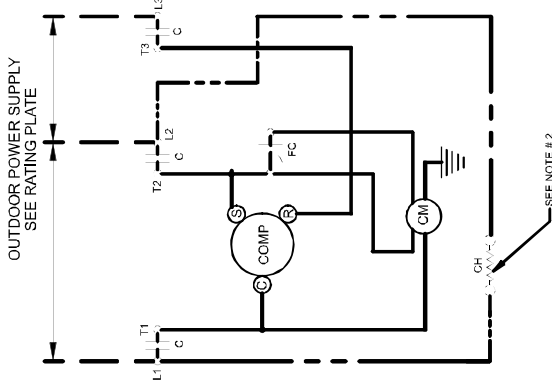
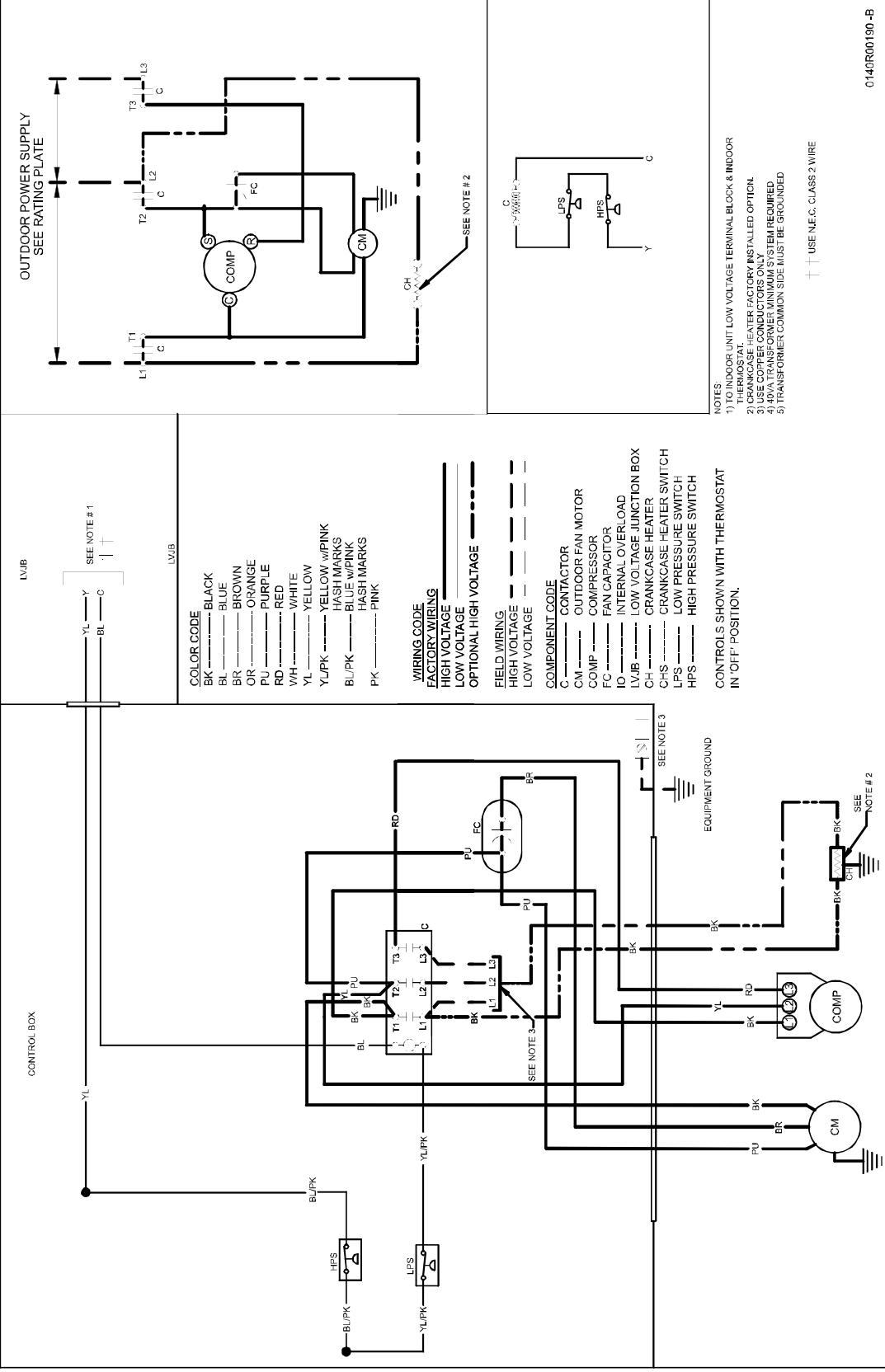
NOTE: Pressures are measures at the liquid and suction service valve ports.

WIRING DIAGRAMS

DX11SA[090-120]*A*

WARNING

HIGH VOLTAGE!
 DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



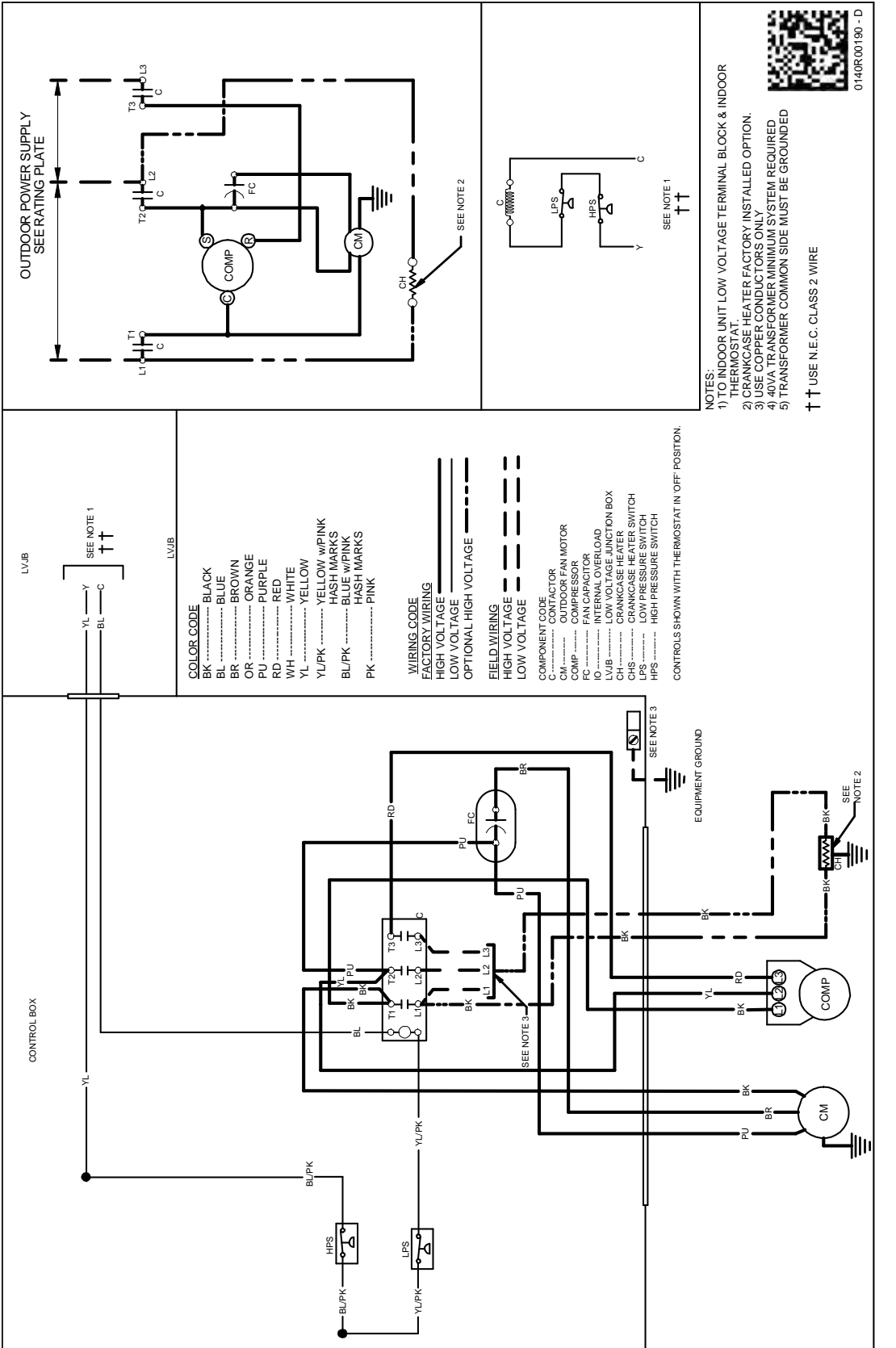
- NOTES**
- 1) TO INDOOR UNIT LOW VOLTAGE TERMINAL BLOCK & INDOOR THERMOSTAT HEATER FACTORY INSTALLED OPTICAL
 - 2) USE COPPER CONDUCTORS ONLY
 - 3) USE COPPER CONDUCTORS ONLY
 - 4) 40VA TRANSFORMER MINIMUM SYSTEM REQUIRED
 - 5) TRANSFORMER COMMON SIDE MUST BE GROUND
- ↑↑ USE N.E.C. CLASS 2 WIRE

014CR00190-B

Wiring is subject to change, always refer to the wiring diagram on the unit for the most up-to-date wiring.

WARNING

HIGH VOLTAGE!
 DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



0140R00130 - D

NOTES:

- 1) TO INDOOR UNIT LOW VOLTAGE TERMINAL BLOCK & INDOOR THERMOSTAT. HEATER FACTORY INSTALLED OPTION.
- 2) CRANKCASE HEATER SWITCH IS ONLY AVAILABLE ON 407A TRANSFORMER MINIMUM SYSTEM REQUIRED
- 3) 407A TRANSFORMER MINIMUM SYSTEM REQUIRED
- 5) TRANSFORMER COMMON SIDE MUST BE GROUND

†† USE N.E.C. CLASS 2 WIRE

Wiring is subject to change, always refer to the wiring diagram on the unit for the most up-to-date wiring.