



Publication No. RU-VLD-0814A  
Supersedes RU-VLD-0214A

V Series

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

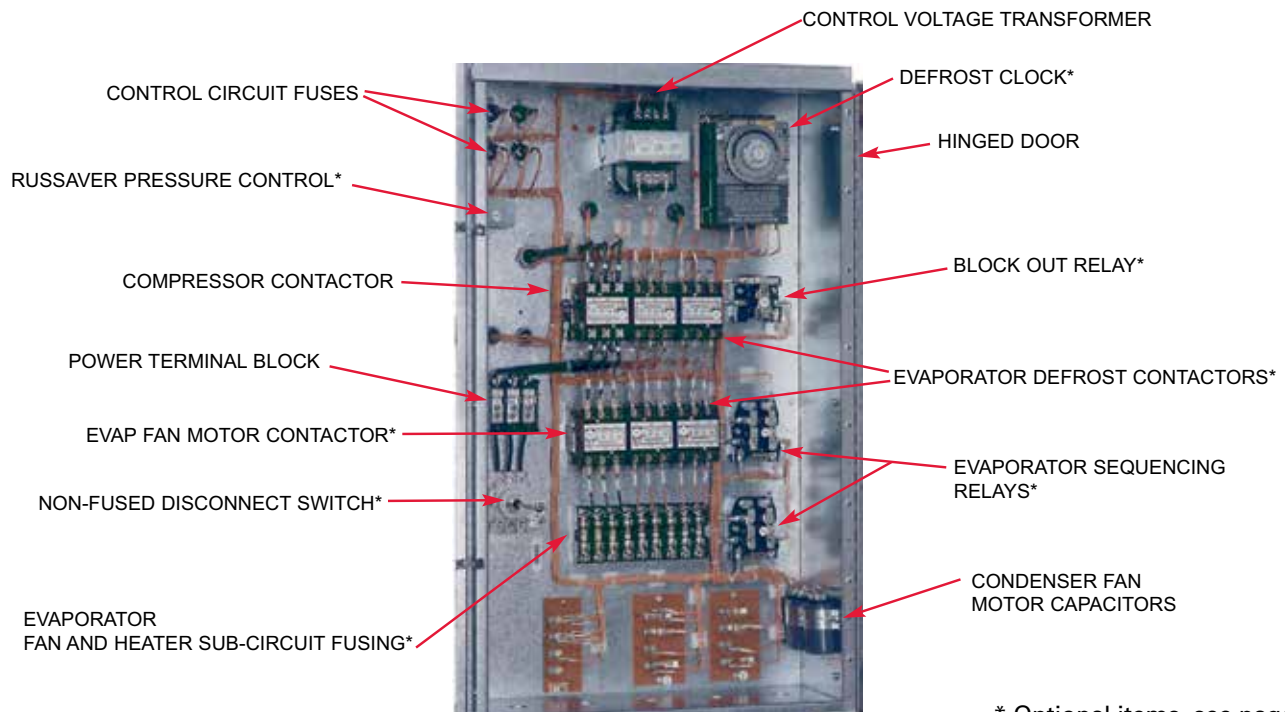


## AIR COOLED CONDENSING UNITS 20 TO 80 HP



The **outdoor housing** of the unit is designed for the refrigeration technician. Removing only a few screws allows complete removal of the compressor housing top panel, side panel and corner post. This gives the mechanic quick, unrestricted access to the compressor, all controls and components located within the compressor compartment. Or, just a single panel can be removed, depending on the requirements of the service call.

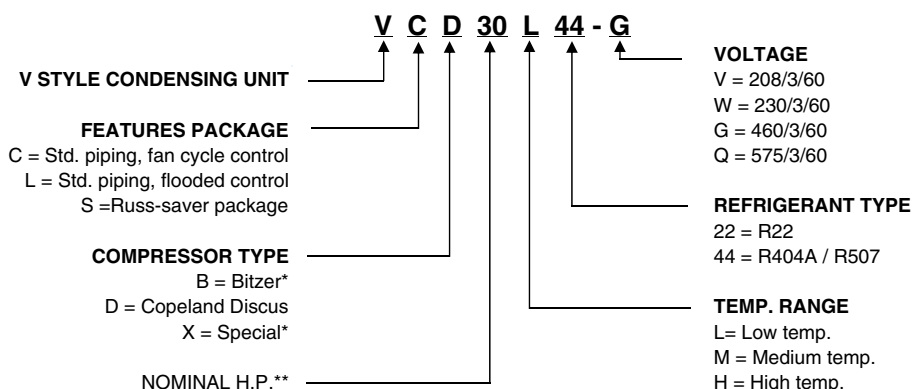
The large control panel has abundant space for the controls you choose. The components are intelligently arranged and laid out in a logical fashion which is easy to understand and work with. Each control and wire is clearly marked with a name or number as shown on the wiring diagram which is permanently affixed to the control panel door.



\* Optional items, see page 3

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

## MODEL NUMBER NOMENCLATURE



NOMINAL COMPRESSOR HP		
SINGLE COMP.	PARALLEL PIPING	DUAL PIPING
20HP	17 (2)7.5 HP	18 (2)7.5 HP
25HP	21 (2)10HP	23 (2)10HP
27HP	24 (2)12HP	26 (2)12HP
30HP	31 (2)15HP	32 (2)15HP
35HP	41 (2)20HP	42 (2)20HP
40HP	44 (2)22HP	46 (2)22HP
50HP	51 (2)25HP	52 (2)25HP
60HP	54 (2)27HP	56 (2)27HP
	61 (2)30HP	62 (2)30HP
	71 (2)35HP	72 (2)35HP
	81 (2)40HP	82 (2)40HP

	FEATURES AT A GLANCE	MODEL		
		VC	VL	VS
<b>ELECTRICAL COMPONENTS</b>	Crankcase heater	STD	STD	STD
	Oil failure control	STD	STD	STD
	High - Low pressure control - manual(high)/automatic(low) reset	STD	STD	STD
	Compressor contactor	STD	STD	STD
	Control circuit fuses - standard 230/1	STD	STD	STD
	Power terminal block	STD	STD	STD
<b>CONDENSER</b>	Copper tubes with Aluminum fins	STD	STD	STD
	Subcooling circuit	STD	STD	STD
	Fan motor - PSC overload protection	STD	STD	STD
	Fan blade - individually balanced	STD	STD	STD
	Fan guard - heavy duty resilient wire basket	STD	STD	STD
<b>PIPING COMPONENTS</b>	Suction line vibration eliminator	STD	STD	STD
	Replaceable core liquid line filter / drier	STD	STD	STD
	Suction line filter (replaceable core some models)	STD	STD	STD
	Discharge line vibration eliminator	STD	STD	STD
	High Pressure control hoses	STD	STD	STD
<b>RECEIVER</b>	Inlet and outlet isolation valves	STD	STD	STD
	Pressure relief valve	STD	STD	STD
<b>HOUSING</b>	Mill galvanized steel with removable access panels	STD	STD	STD
	Control panel with hinged door	STD	STD	STD
	Heavy galvanized steel base rails	STD	STD	STD
<b>LOW AMBIENT CONTROLS</b>	Pressure fan cycling control	STD	STD	N/A
	Flooded condenser	N/A	STD	N/A
	Russ-Saver — All ambient energy saver	N/A	N/A	STD
<b>TESTING</b>	UL / CUL listed — all models	STD	STD	STD
	Leak detection, dielectric and run tests	STD	STD	STD
	Dry nitrogen holding charge	STD	STD	STD

- OPTIONS:**
- 4 Year extended compressor warranty
  - Hot Gas defrost components
  - Air defrost time clock
  - Liquid line solenoid valve
  - Compressor unloading
  - Oil separator
  - Copper or coated condenser fins
  - Crankcase pressure regulator
  - Electric defrost components
  - Electronic oil safety control
  - Evaporator sub circuit fusing
  - Stainless steel superhoses
  - Fused or non fused disconnect
  - Suction accumulator
  - Heated and insulated receiver

\* Contact factory for details.

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

## **RUSS-SAVER**

The initial cost of quality refrigeration equipment is a substantial investment. But the costs of installation and operation are also formidable. Rising to the challenge, Russell engineers have designed the **RUSS-SAVER** system to meet the highest standards of performance and reliability while effectively addressing the problem of these profit draining costs.

### **REDUCED INSTALLATION COSTS**

The installation of a refrigeration system using **RUSS-SAVER** requires a smaller refrigerant charge than equipment which utilize other types of low ambient controls. As the more expensive zero ozone depleting, refrigerants become the refrigerants of choice, the reduced charge requirements provided by **RUSS-SAVER** affords substantial and immediate cost saving benefits.

### **REDUCED OPERATING COSTS**

The most expensive part of an operating refrigeration system is the cost of energy to operate the compressor. Day and night, year after year, the cost of electricity to operate your equipment is **unrelenting**. These dollars are pulled right from your bottom line.

A typical installation provides for equipment which is designed to furnish adequate cooling on the hottest of days. The **RUSS-SAVER** system is designed to meet this need but also be flexible enough to take advantage of reduced ambient conditions during off-peak times. As the outside air temperature decreases, head pressures are allowed to drop. This action results in increased efficiency, requiring less energy and saving substantial amounts of your money!

### **RUSS-SAVER even saves money during hot weather.**

The sub cooling loop provided in the condenser of the **RUSS-SAVER** condensing unit increases the system efficiency 1/2% for each degree of sub cooling provided, thereby making the compressor's job easier. **RUSS-SAVER'S** efficiency saves you money during summer operation and even more during the winter months.

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

## RUSS-SAVER

### ENERGY SAVINGS CALCULATIONS

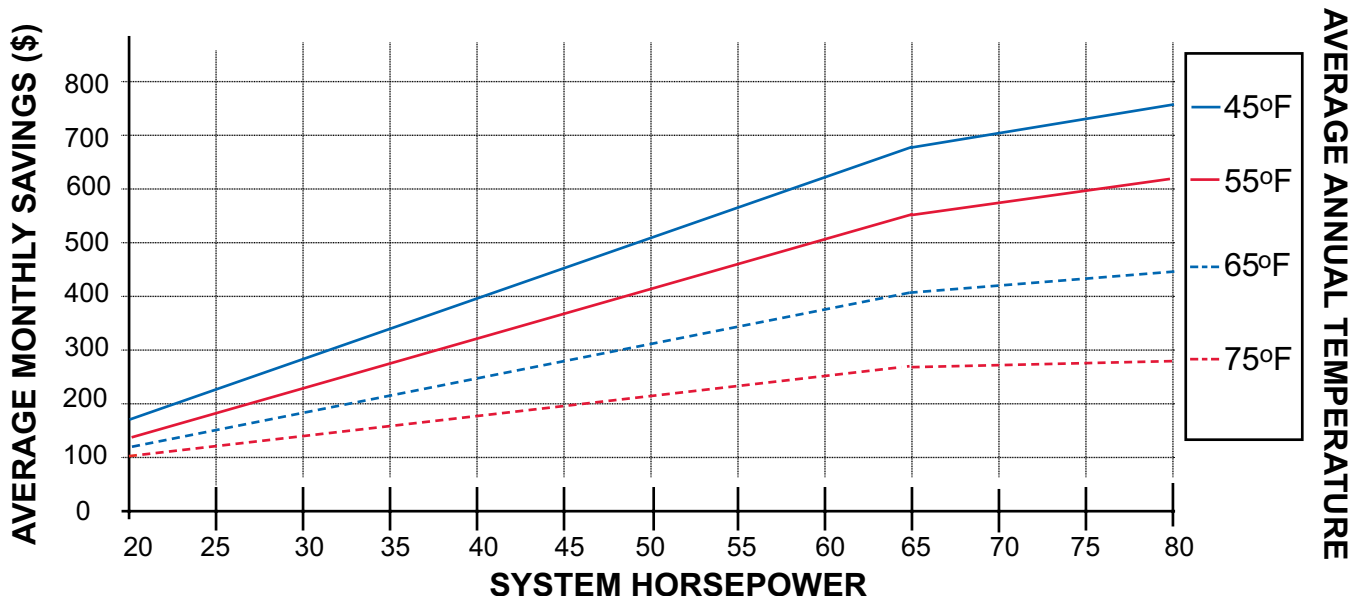
To estimate your average monthly savings:

- 1) Select a RUSS-SAVER system that meets your refrigeration requirements.
- 2) Determine the Average Annual Outdoor Air Temperature from the table below.
- 3) Using the Projected Monthly Savings graph, locate the system nominal horsepower at the bottom of the graph (the nominal system horsepower can be derived from the model number nomenclature).
- 4) Go straight up to the appropriate Average Annual Outdoor Air Temperature curve, and then go horizontally to the left to determine your Estimated Monthly Average Savings.
- 5) To calculate your Estimated Monthly Saving for an energy cost other than \$0.10 KWH, divide the Estimated Monthly Savings by 0.10 and multiply by your local electric utility rate.
- 6) To determine your Estimated Yearly Savings, multiple the Estimated Monthly Savings number by 12.

### AVERAGE ANNUAL OUTDOOR AIR TEMPERATURE

STATE & STATION	ANNUAL AVG. °F	STATE & STATION	ANNUAL AVG. °F	STATE & STATION	ANNUAL AVG. °F	STATE & STATION	ANNUAL AVG. °F
AL Mobile	70	IA Des Moines	50	NM Albuquerque	60	VT Burlington	45
AK Juneau	40	KS Wichita	55	NY Buffalo	45	VA Richmond	60
AZ Phoenix	70	KY Louisville	55	NY New York	55	WA Seattle	50
AR Little Rock	60	LA New Orleans	70	NC Charlotte	60	WV Charleston	55
CA Los Angeles	60	ME Portland	45	ND Bismarck	45	WI Milwaukee	45
CA San Francisco	55	MD Baltimore	55	OH Cleveland	50	WY Cheyenne	45
CO Denver	50	MA Boston	50	OK Columbus	50		
CT Hartford	50	MI Detroit	50	OK Oklahoma City	60		CANADA
DE Wilmington	55	MN Sault St. Marie	40	OR Portland	55	ALB	Calgary
D.C. Washington	55	MS Minneapolis	45	PA Philadelphia	50	B.C.	Vancouver
FL Jacksonville	70	MS Jackson	65	RI Providence	50	MAN	Winnipeg
FL Miami	75	MO St. Louis	55	SC Columbia	65	N.B.	St. John
GA Atlanta	60	MT Great Falls	45	SD Sioux Falls	45	N.F.	St. John's
HI Honolulu	75	NE Omaha	50	TN Nashville	60	N.S.	Halifax
ID Boise	50	NV Reno	50	TX Dallas	65	ONT	Toronto
IL Chicago	50	NH Concord	45	UT El Paso	65	QUE	Montreal
IN Indianapolis	50	NJ Atlantic City	55	UT Salt Lake City	50	YUK	Dawson

### RUSS-SAVER PROJECTED MONTHLY SAVINGS @ \$0.10/KWH



# AIR COOLED CONDENSING UNITS 20 TO 80 HP

BTUH CAPACITIES (MBH)

R-22 HIGHTEMP - SINGLE COMPRESSOR

## SUCTION TEMPERATURE °F

90° AMBIENT	VC / VL / VS	+45°	+40°	+35°	+25°	+20°	+10°
	20H22	276.6	244.8	223.8	179.5	160.6	123.8
	25H22	308.1	274.8	252.1	203.2	181.9	140.6
	30H22	349.0	322.2	289.2	244.3	221.4	172.2
	35H22	448.1	409.0	368.8	306.2	276.4	216.9
	40H22	518.1	479.3	431.0	363.8	330.1	259.6
	50H22	622.8	577.8	529.1	436.1	394.7	304.7
	60H22	712.4	642.1	555.0	487.0	441.1	348.4

95° AMBIENT	VC / VL / VS	+45°	+40°	+35°	+25°	+20°	+10°
	20H22	267.2	236.8	216.5	173.9	155.7	122.7
	25H22	297.9	266.0	243.8	196.7	176.1	139.5
	30H22	338.3	312.6	280.1	236.5	214.3	166.2
	35H22	434.1	397.0	357.3	297.0	268.2	210.4
	40H22	500.3	464.4	416.8	352.8	320.0	252.1
	50H22	604.4	561.1	498.7	422.8	382.5	294.1
	60H22	690.7	623.3	572.6	472.4	427.7	370.1

100° AMBIENT	VC / VL / VS	+45°	+40°	+35°	+25°	+20°	+10°
	20H22	257.9	228.5	208.8	168.2	150.7	115.8
	25H22	287.5	257.2	235.4	190.1	170.2	131.3
	30H22	327.4	303.0	270.9	228.8	207.0	160.2
	35H22	420.2	385.1	345.9	287.9	260.0	204.1
	40H22	482.4	448.9	402.4	341.6	310.0	244.6
	50H22	585.7	544.2	483.0	409.4	370.2	284.8
	60H22	669.5	604.8	555.1	458.5	414.5	326.0

110° AMBIENT	VC / VL / VS	+45°	+40°	+35°	+25°	+20°	+10°
	20H22	240.0	211.6	192.9	156.2	140.7	108.4
	25H22	266.2	238.8	218.0	176.6	158.0	121.6
	30H22	305.1	282.9	252.1	212.9	192.4	148.2
	35H22	392.0	360.8	323.1	270.0	244.0	192.1
	40H22	445.9	418.0	373.3	319.2	290.4	230.2
	50H22	547.8	509.6	451.2	382.7	345.7	265.2
	60H22	628.1	569.0	521.0	430.8	389.5	304.7

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

**BTUH CAPACITIES (MBH)**
**R-22 HIGHTEMP - PARALLEL / DUAL SYSTEMS**
**SUCTION TEMPERATURE °F**
**90° AMBIENT**

VC / VL / VS	+45°	+40°	+35°	+25°	+20°	+10°
17H22 / 18H22*	272.2	248.4	226.3	185.8	167.4	134.3
21H22 / 23H22*	317.3	290.0	264.5	218.4	197.5	160.3
24H22 / 26H22*	364.7	334.8	303.1	251.6	226.3	182.5
31H22 / 32H22*	420.5	385.3	352.0	291.0	263.1	212.2
41H22 / 42H22*	537.0	487.4	442.3	359.3	321.1	250.2
51H22 / 52H22*	603.9	550.1	501.1	406.8	364.2	281.5
61H22 / 62H22*	706.9	646.5	592.9	489.1	443.2	331.3
71H22 / 72H22*	901.4	821.0	749.8	614.2	554.7	428.7
81H22 / 82H22*	1048.3	960.4	880.9	729.6	661.8	509.2

**95° AMBIENT**

VC / VL / VS	+45°	+40°	+35°	+25°	+20°	+10°
17H22 / 18H22*	263.2	240.2	218.8	179.6	161.8	129.8
21H22 / 23H22*	306.8	280.4	255.8	211.2	191.0	155.0
24H22 / 26H22*	354.1	321.0	292.9	244.1	218.4	176.2
31H22 / 32H22*	406.6	372.6	340.4	281.4	254.4	205.2
41H22 / 42H22*	518.4	470.7	427.2	346.6	310.1	241.0
51H22 / 52H22*	584.0	532.0	484.6	393.4	352.2	272.2
61H22 / 62H22*	683.6	625.2	573.4	473.0	428.6	320.4
71H22 / 72H22*	871.7	794.0	725.1	594.0	536.4	414.6
81H22 / 82H22*	1013.8	928.8	851.9	705.6	640.0	492.4

**100° AMBIENT**

VC / VL / VS	+45°	+40°	+35°	+25°	+20°	+10°
17H22 / 18H22*	254.0	231.8	211.2	173.4	156.2	125.3
21H22 / 23H22*	296.1	270.6	246.9	203.9	184.4	149.6
24H22 / 26H22*	342.0	311.7	282.4	235.5	210.6	169.8
31H22 / 32H22*	392.4	359.6	328.5	271.6	245.5	198.1
41H22 / 42H22*	499.5	452.9	411.3	333.8	298.9	232.0
51H22 / 52H22*	563.6	513.4	467.7	379.7	339.9	262.7
61H22 / 62H22*	659.7	603.4	553.4	456.5	413.6	309.2
71H22 / 72H22*	841.2	766.3	699.8	573.3	517.7	400.1
81H22 / 82H22*	978.4	896.3	822.1	681.0	617.6	475.2

**110° AMBIENT**

VC / VL / VS	+45°	+40°	+35°	+25°	+20°	+10°
17H22 / 18H22*	237.0	216.3	197.1	161.8	145.8	117.0
21H22 / 23H22*	276.3	252.5	230.4	190.3	172.1	139.6
24H22 / 26H22*	312.8	287.0	262.3	216.4	195.3	157.4
31H22 / 32H22*	366.2	335.6	306.5	253.5	229.1	184.9
41H22 / 42H22*	446.1	419.8	381.2	309.0	277.3	215.8
51H22 / 52H22*	525.9	479.1	436.4	354.3	317.2	245.1
61H22 / 62H22*	615.6	563.0	516.4	426.0	385.9	288.5
71H22 / 72H22*	784.9	715.0	653.0	534.9	483.1	373.3
81H22 / 82H22*	912.9	836.3	767.1	635.4	576.3	443.4

\*Dual compressor unit capacity is shown as combined total capacity of both systems.

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

## BTUH CAPACITIES (MBH)

## R-22 LOW TEMP

### SUCTION TEMPERATURE °F

90° AMBIENT	VC / VL / VS	-5°	-10°	-15°	-20°	-25°	-30°	-40°
	27L22	142.8	126.2	111.7	97.2	84.6	72.1	49.0
	30L22	166.7	147.3	130.6	113.9	99.8	85.7	59.4
	44L22 / 46L22*	239.8	210.0	185.3	160.5	140.2	119.9	82.3
	54L22 / 56L22*	285.3	252.4	228.7	205.0	174.5	144.1	98.0
	61L22 / 62L22*	333.4	294.6	261.2	227.8	199.6	171.4	118.7

95° AMBIENT	VC / VL / VS	-5°	-10°	-15°	-20°	-25°	-30°	-40°
	27L22	136.0	120.3	106.5	92.7	80.7	68.7	46.7
	30L22	158.9	140.4	124.5	108.6	95.2	81.7	56.6
	44L22 / 46L22*	228.6	200.2	176.6	153.0	134.5	115.7	78.5
	54L22 / 56L22*	272.0	240.6	218.0	195.4	166.4	137.4	93.4
	61L22 / 62L22*	317.8	280.8	249.0	217.2	190.3	163.4	113.2

100° AMBIENT	VC / VL / VS	-5°	-10°	-15°	-20°	-25°	-30°	-40°
	27L22	129.2	114.3	101.2	88.1	76.7	65.3	44.4
	30L22	151.0	133.4	118.3	103.2	90.4	77.6	53.8
	44L22 / 46L22*	217.2	190.2	167.8	145.4	127.0	108.6	74.6
	54L22 / 56L22*	258.4	228.6	207.1	185.6	131.1	130.5	88.7
	61L22 / 62L22*	301.9	266.8	236.6	206.3	180.7	155.2	107.5

110° AMBIENT	VC / VL / VS	-5°	-10°	-15°	-20°	-25°	-30°	-40°
	27L22	122.4	108.3	95.9	83.4	72.6	61.8	42.0
	30L22	143.0	126.4	112.1	97.7	85.6	73.5	50.9
	44L22 / 46L22*	205.7	180.2	159.0	137.7	120.3	102.9	70.7
	54L22 / 56L22*	244.8	216.5	196.2	175.9	149.8	123.7	84.1
	61L22 / 62L22*	268.0	242.0	218.5	195.0	171.0	147.1	101.9

\*Dual compressor unit capacity is shown as combined total capacity of both systems.



# AIR COOLED CONDENSING UNITS 20 TO 80 HP

**BTUH CAPACITIES (MBH)**
**R-404A LOWTEMP**
**SUCTION TEMPERATURE °F**

90° AMBIENT	VC / VL / VS	0°	-10°	-15°	-20°	-25°	-30°	-40°
	27L44	173.7	143.0	128.8	114.7	102.1	89.4	66.9
	30L44	200.9	165.0	148.4	131.7	117.0	102.3	77.1
	44L44 / 46L44*	274.1	226.9	205.3	183.7	164.9	146.1	113.7
	54L44 / 56L44*	346.5	285.1	256.9	228.7	203.5	178.3	133.3
	61L44 / 62L44*	402.1	330.3	297.0	263.5	234.2	204.8	154.2

95° AMBIENT	VC / VL / VS	0°	-10°	-15°	-20°	-25°	-30°	-40°
	27L44	164.8	135.6	122.2	108.8	96.8	84.8	63.4
	30L44	190.9	156.8	141.0	125.1	111.2	97.2	73.2
	44L44 / 46L44*	260.3	215.4	194.9	174.4	156.6	138.7	107.9
	54L44 / 56L44*	329.6	271.2	244.4	217.6	193.6	169.6	126.8
	61L44 / 62L44*	381.8	313.6	282.0	250.2	222.4	194.4	146.4

100° AMBIENT	VC / VL / VS	0°	-10°	-15°	-20°	-25°	-30°	-40°
	27L44	157.3	129.4	116.6	103.8	92.4	80.9	60.5
	30L44	181.8	149.3	134.3	119.1	105.9	92.6	69.7
	44L44 / 46L44*	247.3	204.7	185.2	165.7	148.8	131.8	102.6
	54L44 / 56L44*	314.2	258.5	233.0	207.4	184.6	161.7	120.9
	61L44 / 62L44*	363.5	298.6	268.5	238.2	211.8	185.1	139.4

110° AMBIENT	VC / VL / VS	0°	-10°	-15°	-20°	-25°	-30°	-40°
	27L44	134.4	110.6	99.6	88.7	78.9	69.2	51.7
	30L44	154.7	127.1	114.3	101.4	90.1	78.8	59.3
	44L44 / 46L44*	212.5	175.8	159.1	142.4	127.8	113.2	88.1
	54L44 / 56L44*	270.3	222.4	200.5	178.5	158.8	139.1	104.0
	61L44 / 62L44*	311.2	255.6	229.9	204.0	181.3	158.5	119.4

\*Dual compressor unit capacity is shown as combined total capacity of both systems.

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

BTUH CAPACITIES (MBH)

R404A MEDIUM TEMP - SINGLE COMPRESSOR

## SUCTION TEMPERATURE °F

90° AMBIENT	VC / VL / VS	+45°	+35°	+25°	+20°	+10°	0°	-10°
	20M44	265.8	230.2	193.0	176.0	142.8	114.3	92.9
	25M44	292.1	251.8	212.1	192.9	157.0	125.9	101.7
	30M44	347.6	295.0	246.6	224.1	182.6	146.2	114.8
	35M44	443.7	374.2	311.7	283.1	231.2	186.0	147.2
	40M44	551.9	471.7	397.1	362.3	297.7	240.9	192.2
95° AMBIENT	VC / VL / VS	+45°	+35°	+25°	+20°	+10°	0°	-10°
	20M44	253.0	218.9	183.7	167.1	135.7	108.6	88.1
	25M44	277.6	239.3	201.6	183.3	149.2	119.6	96.6
	30M44	330.1	280.1	234.1	212.8	173.4	138.8	109.0
	35M44	422.1	356.0	296.5	269.3	219.9	176.9	140.0
	40M44	524.1	447.9	377.1	344.0	282.7	228.7	182.5
100° AMBIENT	VC / VL / VS	+45°	+35°	+25°	+20°	+10°	0°	-10°
	20M44	241.3	207.8	175.1	159.1	129.2	103.7	83.9
	25M44	264.3	227.9	192.0	174.6	142.1	113.9	92.0
	30M44	313.6	266.1	222.4	202.2	164.8	131.9	103.6
	35M44	402.3	339.3	282.6	256.7	209.6	168.6	133.5
	40M44	499.0	426.5	359.0	327.5	269.2	217.8	173.8
110° AMBIENT	VC / VL / VS	+45°	+35°	+25°	+20°	+10°	0°	-10°
	20M44	205.1	176.1	148.6	135.1	109.8	88.5	71.3
	25M44	224.9	193.9	163.3	148.5	120.9	96.9	78.3
	30M44	269.4	228.6	191.1	173.7	141.5	113.3	89.0
	35M44	346.2	292.0	243.2	220.9	180.4	145.1	114.8
	40M44	427.2	365.1	307.4	280.4	230.5	186.4	148.8

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

**BTUH CAPACITIES (MBH)**
**R404A MEDIUM TEMP - PARALLEL / DUAL SYSTEMS**
**SUCTION TEMPERATURE °F**

90° AMBIENT	VC / VL / VS	+45°	+35°	+25°	+20°	+10°	0°	-10°
	17M44 / 18M44*	256.5	218.4	183.3	167.0	137.0	115.1	87.5
	21M44 / 23M44*	309.4	262.6	220.3	200.9	165.2	133.7	105.7
	24M44 / 26M44*	363.4	311.2	263.1	240.6	199.1	162.0	129.4
	31M44 / 32M44*	421.0	357.8	300.2	273.7	225.2	182.4	145.2
	41M44 / 42M44*	527.8	459.0	385.5	351.4	285.8	228.8	185.5
	51M44 / 52M44*	584.1	503.5	424.2	385.7	314.0	251.7	203.1
	61M44 / 62M44*	695.2	589.9	493.1	448.2	365.2	292.4	229.6
	71M44 / 72M44*	888.1	749.1	623.9	566.7	462.7	372.2	294.6
	81M44 / 82M44*	1101.7	941.5	792.7	723.1	594.3	480.8	383.7
95° AMBIENT	VC / VL / VS	+45°	+35°	+25°	+20°	+10°	0°	-10°
	17M44 / 18M44*	243.3	207.2	173.9	158.4	129.9	109.2	83.0
	21M44 / 23M44*	294.1	249.6	209.4	190.9	157.0	127.0	100.4
	24M44 / 26M44*	345.1	295.5	249.8	228.4	189.0	153.8	122.8
	31M44 / 32M44*	400.5	340.4	285.6	260.4	214.2	173.5	138.1
	41M44 / 42M44*	503.0	436.9	366.2	333.7	271.1	217.1	176.1
	51M44 / 52M44*	555.2	478.6	403.2	366.6	298.4	239.2	193.0
	61M44 / 62M44*	660.2	560.2	468.2	425.6	346.8	277.6	218.0
	71M44 / 72M44*	844.2	712.0	593.0	538.6	439.8	353.8	280.0
	81M44 / 82M44*	1048.2	895.8	754.2	688.0	565.4	457.4	365.0
100° AMBIENT	VC / VL / VS	+45°	+35°	+25°	+20°	+10°	0°	-10°
	17M44 / 18M44*	232.2	197.7	166.0	151.2	124.0	104.2	79.2
	21M44 / 23M44*	280.0	237.7	199.4	181.8	149.5	121.0	95.6
	24M44 / 26M44*	327.9	280.8	237.4	217.0	179.6	146.2	116.7
	31M44 / 32M44*	381.7	324.5	272.2	248.2	204.2	165.4	131.7
	41M44 / 42M44*	480.7	415.7	348.7	317.6	257.9	206.9	167.7
	51M44 / 52M44*	529.2	456.2	384.3	349.4	284.4	228.0	184.0
	61M44 / 62M44*	629.9	534.5	446.7	406.1	330.9	264.9	208.0
	71M44 / 72M44*	804.6	678.6	565.2	513.3	419.2	337.2	266.9
	81M44 / 82M44*	997.9	852.9	718.0	655.0	538.3	435.5	347.5
110° AMBIENT	VC / VL / VS	+45°	+35°	+25°	+20°	+10°	0°	-10°
	17M44 / 18M44*	198.3	168.9	141.8	129.1	105.9	89.0	67.7
	21M44 / 23M44*	238.3	202.2	169.7	154.7	127.2	102.9	81.4
	24M44 / 26M44*	281.7	241.2	203.9	186.4	154.3	125.6	100.3
	31M44 / 32M44*	328.5	279.2	234.2	213.6	175.7	142.3	113.3
	41M44 / 42M44*	414.4	356.8	300.2	272.3	220.4	177.4	143.7
	51M44 / 52M44*	454.8	392.0	330.3	300.3	244.4	196.0	158.1
	61M44 / 62M44*	542.7	460.5	384.9	349.9	285.1	228.2	179.2
	71M44 / 72M44*	688.1	580.3	483.3	439.0	358.5	288.4	228.2
	81M44 / 82M44*	849.1	725.6	611.0	557.3	458.0	370.5	295.7

\*Dual compressor unit capacity is shown as combined total capacity of both systems.

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

## ELECTRICAL SPECIFICATIONS - SINGLE AND PARALLEL COMPRESSOR MODELS

MODEL NUMBER VC / VL / VS	COMP. MODEL	230 / 3 / 60			TOTAL UNIT AMPS*	MCA*	460 / 3 / 60			TOTAL UNIT AMPS*	MCA*
		COMP.		COND FLA			COMP.		COND FLA		
		RLA	LRA				RLA	LRA			

### HIGH TEMP R-22

20H22	4DB-R20ME	64.7	374	12.8	78.5	94	32.4	187	6.4	39.8	47
25H22	4DH-R22ME	94.9	428	8.0	103.9	127	47.4	214	4.0	52.4	64
30H22	4DJ-R28ME	98.7	470	12.0	111.7	136	49.4	235	6.0	56.4	68
35H22	6DH-R35ME	132.1	565	12.0	145.1	178	66.0	283	6.0	73.0	89
40H22	6DJ-R40ME	142.3	594	12.0	168.9	190	71.2	297	6.0	78.2	95
50H22	8DP-R56ME	161.5	1070	25.6	188.1	228	80.8	535	12.8	94.6	114
60H22	8DS-R67ME	201.3	1070	25.6	227.9	278	100.6	535	12.8	114.4	139

17H22	(2) 3DA-R10ME	73.6	430	12.8	87.4	96	35.8	212	6.4	43.2	47
21H22	(2) 3DB-R12ME	78.2	430	12.8	92.0	101	35.8	212	6.4	43.2	47
24H22	(2) 3DF-R15ME	86.4	550	12.8	100.2	110	42.4	276	6.4	49.8	55
31H22	(2) 3DS-R17ME	107.0	550	19.2	127.2	140	52.1	276	9.6	62.7	69
41H22	(2) 4DB-R20ME	129.4	748	25.6	156.0	172	64.8	374	12.8	78.6	86
51H22	(2) 4DH-R22ME	189.8	856	25.6	216.4	240	94.8	428	12.8	108.6	120
61H22	(2) 4DJ-R28ME	197.4	940	25.6	224.0	248	98.8	470	12.8	112.6	124
71H22	(2) 6DH-R35ME	264.2	1130	38.4	303.6	336	132.0	566	19.2	152.2	168
81H22	(2) 6DJ-R40ME	284.6	1188	38.4	324.0	359	142.6	594	19.2	162.8	180

### LOW TEMP R22

27L22	6DH-F93KE	72.4	450	12.8	86.2	104	36.2	225	6.4	43.6	52
30L22	6DJ-F11ME	85.8	470	12.8	99.6	121	42.9	235	6.4	50.3	61
44L22	(2) 4DJ-F76KE	115.4	748	19.2	135.6	150	57.6	374	9.6	68.2	75
54L22	(2) 6DH-F93KE	144.8	900	19.2	165.0	183	72.4	450	9.6	83.0	92
61L22	(2) 6DJ-F11ME	171.6	940	19.2	191.8	213	85.8	470	9.6	96.4	107

### MEDIUM TEMP R-404A

20M44	4DB-R20ME	64.7	374	12.8	78.5	94	32.4	187	6.4	39.8	47
25M44	4DH-R22ME	94.9	428	8.0	103.9	127	47.4	214	4.0	52.4	64
30M44	4DJ-R28ME	98.7	470	12.0	111.7	136	49.4	235	6.0	56.4	68
35M44	6DH-R35ME	132.1	565	12.0	145.1	178	66.0	283	6.0	76.6	93
40M44	6DJ-R40ME	142.3	594	12.0	162.5	198	71.2	297	6.0	81.8	99

17M44	(2) 3DA-R10ME	73.6	430	12.8	87.4	96	35.8	212	6.4	43.2	47
21M44	(2) 3DB-R12ME	78.2	430	12.8	92.0	101	35.8	212	6.4	43.2	47
24M44	(2) 3DF-R15ME	86.4	550	12.8	100.2	110	42.4	276	6.4	49.8	55
31M44	(2) 3DS-R17ME	107.0	550	19.2	127.2	140	52.1	276	9.6	62.7	69
41M44	(2) 4DB-R20ME	129.4	748	25.6	156.0	172	64.8	374	12.8	78.6	86
51M44	(2) 4DH-R22ME	189.8	856	25.6	216.4	240	94.8	428	12.8	108.6	120
61M44	(2) 4DJ-R28ME	197.4	940	25.6	224.0	248	98.8	470	12.8	112.6	124
71M44	(2) 6DH-R35ME	264.2	1130	38.4	303.6	336	132.0	566	19.2	152.2	168
81M44	(2) 6DJ-R40ME	284.6	1188	38.4	324.0	359	142.6	594	19.2	162.8	180

### LOW TEMP R-404A

27L44	6DH-F93KE	72.4	450	12.8	86.2	104	36.2	225	6.4	43.6	52
30L44	6DJ-F11ME	85.8	470	12.8	99.6	121	42.9	235	6.4	50.3	61
44L44	(2) 4DJ-F76KE	115.4	748	19.2	135.6	150	57.6	374	9.6	68.2	75
54L44	(2) 6DH-F93KE	144.8	900	19.2	165.0	183	72.4	450	9.6	83.0	92
61L44	(2) 6DJ-F11ME	171.6	940	19.2	191.8	213	85.8	470	9.6	96.4	107

COND FLA = Condenser motors full load amps.

\*MINIMUM CIRCUIT AMPACITY — Total for the condensing unit and does not include evaporator electrical loads.

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

## ELECTRICAL SPECIFICATIONS - DUAL COMPRESSOR MODELS

MODEL NUMBER VC / VL / VS	COMP. MODEL	230 / 3 / 60			TOTAL UNIT AMPS*	MCA*	460 / 3 / 60			TOTAL UNIT AMPS*	MCA*
		COMP.		COND			COMP.		COND		
		RLA	LRA	FLA			RLA	LRA	FLA		

### HIGH TEMP R-22

18H22	(2) 3DA-R10ME	73.6	430	12.8	87.4	96	35.8	212	6.4	43.2	47
23H22	(2) 3DB-R12ME	78.2	430	12.8	92.0	101	35.8	212	6.4	43.2	47
26H22	(2) 3DF-R15ME	86.4	550	12.8	100.2	110	42.4	276	6.4	49.8	55
32H22	(2) 3DS-R17ME	107.0	550	19.2	127.2	140	52.1	276	9.6	62.7	69
42H22	(2) 4DB-R20ME	129.4	748	25.6	156.0	172	64.8	374	12.8	78.6	86
52H22	(2) 4DH-R22ME	189.8	856	25.6	216.4	240	94.8	428	12.8	108.6	120
62H22	(2) 4DJ-R28ME	197.4	940	25.6	224.0	248	98.8	470	12.8	112.6	124
72H22	(2) 6DH-R35ME	264.2	1130	38.4	303.6	336	132.0	566	19.2	152.2	168
82H22	(2) 6DJ-R40ME	284.6	1188	38.4	324.0	359	142.6	594	19.2	162.8	180

### LOW TEMP R22

44L22	(2) 4DJ-F76KE	115.4	748	19.2	135.6	150	57.6	374	9.6	68.2	75
54L22	(2) 6DH-F93KE	144.8	900	19.2	165.0	183	72.4	450	9.6	83.0	92
61L22	(2) 6DJ-F11ME	171.6	940	19.2	191.8	213	85.8	470	9.6	96.4	107

### MEDIUM TEMP R-404A

17M44	(2) 3DA-R10ME	73.6	430	12.8	87.4	96	35.8	212	6.4	43.2	47
21M44	(2) 3DB-R12ME	78.2	430	12.8	92.0	101	35.8	212	6.4	43.2	47
24M44	(2) 3DF-R15ME	86.4	550	12.8	100.2	110	42.4	276	6.4	49.8	55
31M44	(2) 3DS-R17ME	107.0	550	19.2	127.2	140	52.1	276	9.6	62.7	69
41M44	(2) 4DB-R20ME	129.4	748	25.6	156.0	172	64.8	374	12.8	78.6	86
51M44	(2) 4DH-R22ME	189.8	856	25.6	216.4	240	94.8	428	12.8	108.6	120
61M44	(2) 4DJ-R28ME	197.4	940	25.6	224.0	248	98.8	470	12.8	112.6	124
71M44	(2) 6DH-R35ME	264.2	1130	38.4	303.6	336	132.0	566	19.2	152.2	168
81M44	(2) 6DJ-R40ME	284.6	1188	38.4	324.0	359	142.6	594	19.2	162.8	180

### LOW TEMP R-404A

44L44	(2) 4DJ-F76KE	115.4	748	19.2	135.6	150	57.6	374	9.6	68.2	75
54L44	(2) 6DH-F93KE	144.8	900	19.2	165.0	183	72.4	450	9.6	83.0	92
61L44	(2) 6DJ-F11ME	171.6	940	19.2	191.8	213	85.8	470	9.6	96.4	107

COND FLA = Condenser motors full load amps.

\*MINIMUM CIRCUIT AMPACITY – Total for the condensing unit and does not include evaporator electrical loads.

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

## PHYSICAL DATA - SINGLE AND PARALLEL COMPRESSOR MODELS

MODEL NUMBER VC / VL / VS	COMP. MODEL	CFH	QTY COND. FANS	APPROXIMATE DIMENSIONS (in)			FAN CONFIG	REC. CAP @ 90%	CONNECTION		APPROX. WT LBS.
				L	W	H			LIQ ODS#	SUCT. ODS#	

### HIGH TEMP R-22

20H22	4DB-R20ME	2380	2	150-3/4	45-3/4	41-1/2	A	106	7/8	2-1/8	1925
25H22	4DH-R22ME	3020	2	150-3/4	45-3/4	41-1/2	A	144	7/8	2-1/8	2000
30H22	4DJ-R28ME	3603	2	150-3/4	45-3/4	41-1/2	A	182	1-1/8	2-1/8	2140
35H22	6DH-R35ME	4530	3	198-3/4	45-3/4	41-1/2	A†	220	1-1/8	2-1/8	2385
40H22	6DJ-R40ME	5404	3	198-3/4	45-3/4	41-1/2	A†	295	1-1/8	2-1/8	2525
50H22	8DP-R56ME	6429	4	150-3/4	90-3/4	41-1/2	D	295	1-1/8	2-5/8	3500
60H22	8DS-R67ME	7609	4	150-3/4	90-3/4	41-1/2	D	416	1-3/8	2-5/8	3710

17H22	(2) 3DA-R10ME	2742*	2	185.0	45-3/4	75-3/4	B	144	7/8	2-1/8	2450
21H22	(2) 3DB-R12ME	3230*	2	185.0	45-3/4	75-3/4	B	144	7/8	2-1/8	2575
24H22	(2) 3DF-R15ME	3826*	2	185.0	45-3/4	75-3/4	B	182	1-1/8	2-1/8	2750
31H22	(2) 3DS-R17ME	4254*	3	233	45-3/4	75-3/4	C	220	1-1/8	2-1/8	3050
41H22	(2) 4DB-R20ME	4760*	3	233	45-3/4	75-3/4	C	295	1-1/8	2-1/8	3200
51H22	(2) 4DH-R22ME	6040*	4	150-3/4	90-3/4	41-1/2	D	295	1-1/8	2-5/8	3500
61H22	(2) 4DJ-R28ME	7206*	4	150-3/4	90-3/4	41-1/2	D	295	1-3/8	2-5/8	3710
71H22	(2) 6DH-R35ME	9060*	6	198-3/4	90-3/4	41-1/2	E	416	1-3/8	3-1/8	4340
81H22	(2) 6DJ-R40ME	10808*	6	198-3/4	90-3/4	41-1/2	E	500	1-3/8	3-1/8	4750

### LOW TEMP R22

27L22	6DH-F93KE	4530	2	150-3/4	45-3/4	41-1/2	A	145	7/8	2-1/8	2000
30L22	6DJ-F11ME	5404	2	150-3/4	45-3/4	41-1/2	A	145	7/8	2-1/8	2065
44L22	(2) 4DJ-F76KE	7206*	3	233.0	45-3/4	75-3/4	C	220	1-1/8	3-1/8	2800
54L22	(2) 6DH-F93KE	9060*	3	233.0	45-3/4	75-3/4	C	295	1-1/8	3-1/8	3280
61L22	(2) 6DJ-F11ME	10808*	3	233.0	45-3/4	75-3/4	C	295	1-1/8	3-1/8	3580

### MEDIUM TEMP R-404A

20M44	4DB-R20ME	2380	2	150-3/4	45-3/4	41-1/2	A	94	7/8	2-1/8	1925
25M44	4DH-R22ME	3020	2	150-3/4	45-3/4	41-1/2	A	128	7/8	2-1/8	2000
30M44	4DJ-R28ME	3603	2	150-3/4	45-3/4	41-1/2	A	162	1-1/8	2-1/8	2140
35M44	6DH-R35ME	4530	3	198-3/4	45-3/4	41-1/2	A†	195	1-1/8	2-1/8	2385
40M44	6DJ-R40ME	5404	3	198-3/4	45-3/4	41-1/2	A†	262	1-1/8	2-1/8	2525

17M44	(2) 3DA-R10ME	2742*	2	185	45-3/4	75-3/4	B	128	7/8	2-1/8	2450
21M44	(2) 3DB-R12ME	3230*	2	185	45-3/4	75-3/4	B	128	7/8	2-1/8	2575
24M44	(2) 3DF-R15ME	3826*	2	185	45-3/4	75-3/4	B	162	1-1/8	2-1/8	2750
31M44	(2) 3DS-R17ME	4254*	3	233	45-3/4	75-3/4	C	195	1-1/8	2-1/8	3050
41M44	(2) 4DB-R20ME	4760*	3	233	45-3/4	75-3/4	C	262	1-1/8	2-1/8	3200
51M44	(2) 4DH-R22ME	6040*	4	150-3/4	90-3/4	41-1/2	D	262	1-1/8	2-5/8	3500
61M44	(2) 4DJ-R28ME	7206*	4	150-3/4	90-3/4	41-1/2	D	262	1-3/8	2-5/8	3710
71M44	(2) 6DH-R35ME	9060*	6	198-3/4	90-3/4	41-1/2	E	370	1-3/8	3-1/8	4340
81M44	(2) 6DJ-R40ME	10808*	6	198-3/4	90-3/4	41-1/2	E	445	1-3/8	3-1/8	4750

### LOW TEMP R-404A

27L44	6DH-F93KE	4530	2	150-3/4	45-3/4	41-1/2	A	128	7/8	2-1/8	2000
30L44	6DJ-F11ME	5404	2	150-3/4	45-3/4	41-1/2	A	145	7/8	2-1/8	2065
44L44	(2) 4DJ-F76KE	7206*	3	233	45-3/4	75-3/4	C	195	1-1/8	3-1/8	2800
54L44	(2) 6DH-F93KE	9060*	3	233	45-3/4	75-3/4	C	262	1-1/8	3-1/8	3280
61L44	(2) 6DJ-F11ME	10808*	3	233	45-3/4	75-3/4	C	262	1-1/8	3-1/8	3580

\* COMBINED CFH WHEN TWO COMPRESSORS ARE PIPED IN PARALLEL.

# ONE ITEM PER CONDENSING UNIT

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

## PHYSICAL DATA - DUAL COMPRESSOR MODELS (2 independent systems)

MODEL NUMBER VC / VL / VS	COMP. MODEL	CFH	QTY COND. FANS	APPROXIMATE DIMENSIONS (in)			FAN CONFIG	REC. CAP @ 90%	CONNECTION		APPROX. WT LBS.
				L	W	H			LIQ ODS#	SUCT. ODS#	

### HIGH TEMP R-22

18H22	(2) 3DA-R10ME	1375	2	185	45-3/4	75-3/4	B	(2) 62	(2) 7/8	(2) 1-3/8	2450
23H22	(2) 3DB-R12ME	1620	2	185	45-3/4	75-3/4	B	(2) 62	(2) 7/8	(2) 1-5/8	2575
26H22	(2) 3DF-R15ME	1913	2	185	45-3/4	75-3/4	B	(2) 62	(2) 7/8	(2) 1-5/8	2650
32H22	(2) 3DS-R17ME	2120	3	233	45-3/4	75-3/4	C	(2) 106	(2) 7/8	(2) 1-5/8	3050
42H22	(2) 4DB-R20ME	2380	3	233	45-3/4	75-3/4	C	(2) 106	(2) 7/8	(2) 2-1/8	3200
52H22	(2) 4DH-R22ME	3020	4	150-3/4	90-3/4	41-1/2	D	(2) 144	(2) 7/8	(2) 2-1/8	3500
62H22	(2) 4DJ-R28ME	3603	4	150-3/4	90-3/4	41-1/2	D	(2) 182	(2) 1-1/8	(2) 2-1/8	3710
72H22	(2) 6DH-R35ME	4530	6	198-3/4	90-3/4	41-1/2	E	(2) 220	(2) 1-1/8	(2) 2-1/8	4340
82H22	(2) 6DJ-R40ME	5404	6	198-3/4	90-3/4	41-1/2	E	(2) 295	(2) 1-1/8	(2) 2-1/8	4750

### LOW TEMP R22

46L22	(2) 4DJ-F76KE	3603	3	233	45-3/4	75-3/4	C	(2) 106	(2) 7/8	(2) 2-1/8	2800
56L22	(2) 6DH-F93KE	4530	3	233	45-3/4	75-3/4	C	(2) 144	(2) 7/8	(2) 2-1/8	3280
62L22	(2) 6DJ-F11ME	5404	3	233	45-3/4	75-3/4	C	(2) 144	(2) 7/8	(2) 2-1/8	3580

### MEDIUM TEMP R-404A

18M44	(2) 3DA-R10ME	1375	2	185	45-3/4	75-3/4	B	(2) 55	(2) 7/8	(2) 1-3/8	2450
23M44	(2) 3DB-R12ME	1620	2	185	45-3/4	75-3/4	B	(2) 55	(2) 7/8	(2) 1-5/8	2575
26M44	(2) 3DF-R15ME	1915	2	185	45-3/4	75-3/4	B	(2) 55	(2) 7/8	(2) 1-5/8	2650
32M44	(2) 3DS-R17ME	2120	3	233	45-3/4	75-3/4	C	(2) 94	(2) 7/8	(2) 1-5/8	3050
42M44	(2) 4DB-R20ME	2380	3	233	45-3/4	75-3/4	C	(2) 94	(2) 7/8	(2) 2-1/8	3200
52M44	(2) 4DH-R22ME	3020	4	150-3/4	90-3/4	41-1/2	D	(2) 128	(2) 7/8	(2) 2-1/8	3500
62M44	(2) 4DJ-R28ME	3603	4	150-3/4	90-3/4	41-1/2	D	(2) 162	(2) 1-1/8	(2) 2-1/8	3710
72M44	(2) 6DH-R35ME	4530	6	198-3/4	90-3/4	41-1/2	E	(2) 195	(2) 1-1/8	(2) 2-1/8	4340
82M44	(2) 6DJ-R40ME	5404	6	198-3/4	90-3/4	41-1/2	E	(2) 262	(2) 1-1/8	(2) 2-1/8	4750

### LOW TEMP R-404A

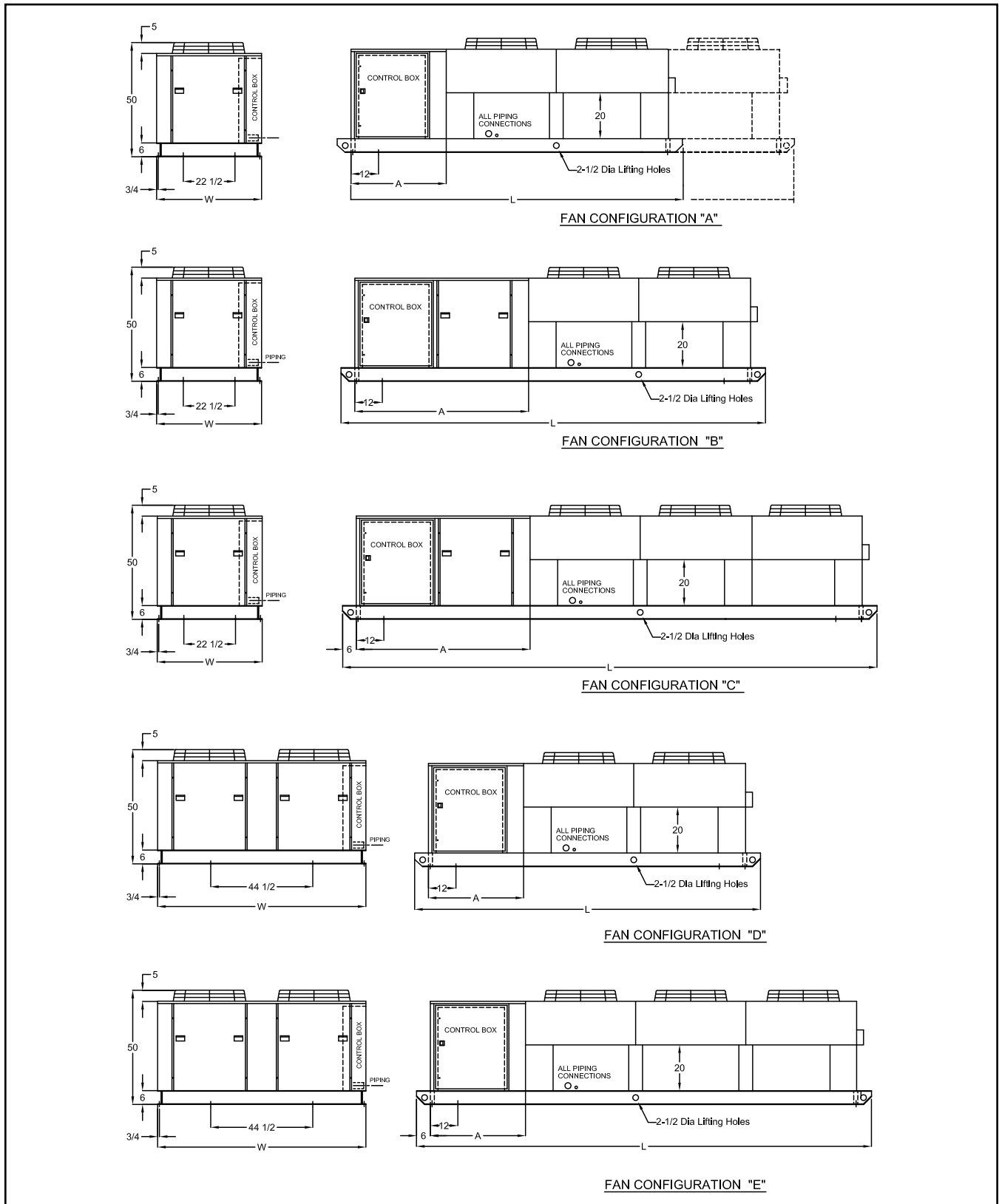
46L44	(2) 4DJ-F76KE	3603	3	233	45-3/4	75-3/4	C	(2) 94	(2) 7/8	(2) 2-1/8	2800
56L44	(2) 6DH-F93KE	4530	3	233	45-3/4	75-3/4	C	(2) 128	(2) 7/8	(2) 2-1/8	3280
62L44	(2) 6DJ-F11ME	5404	3	233	45-3/4	75-3/4	C	(2) 128	(2) 7/8	(2) 2-1/8	3580

\* DATA SHOWN FOR EACH COMPRESSOR SYSTEM.

# ONE ITEM PER EACH COMPRESSOR SYSTEM

# AIR COOLED CONDENSING UNITS 20 TO 80 HP

## Dimensional Drawings



\* All dimensions are in inches.

Due to continuing product development, specifications are subject to change without notice.

