

**20 Through 80 HP
Air Cooled
Condensing Units**

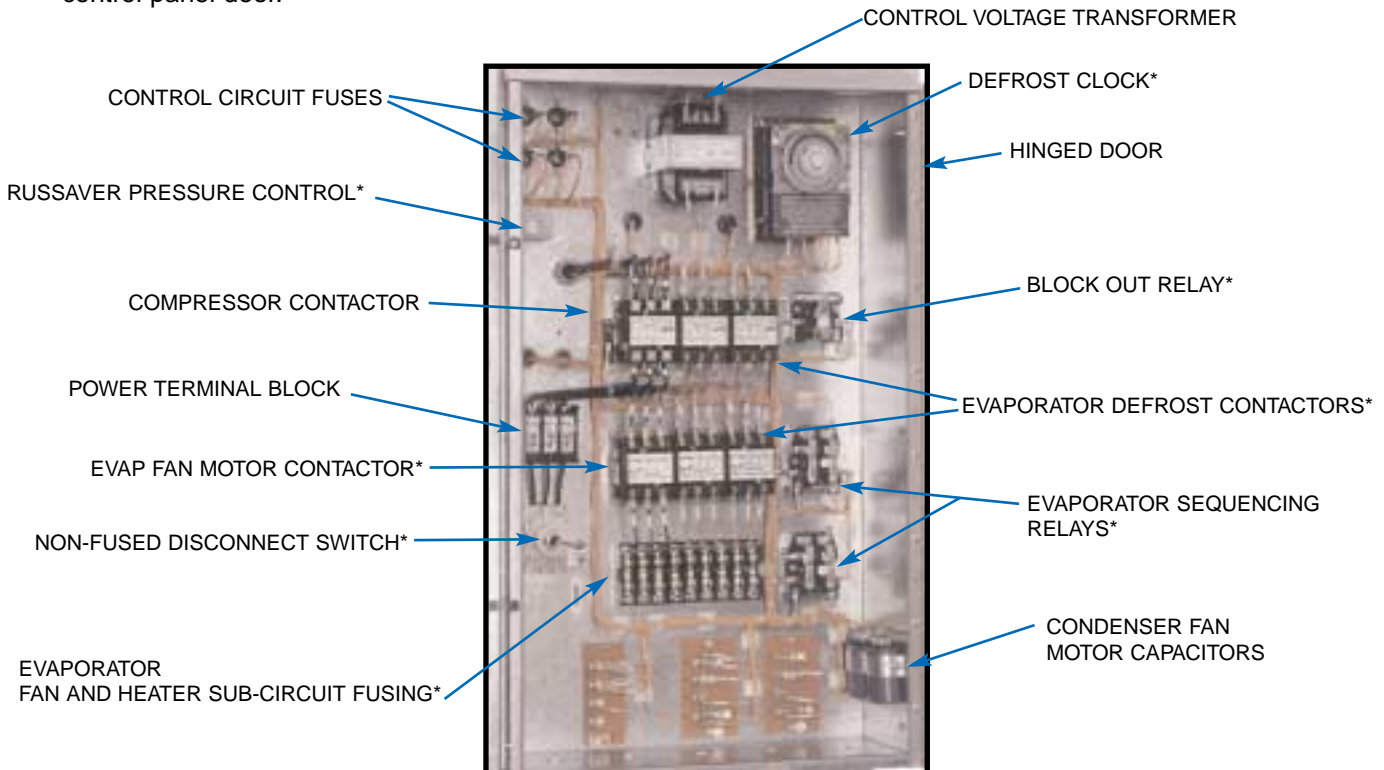
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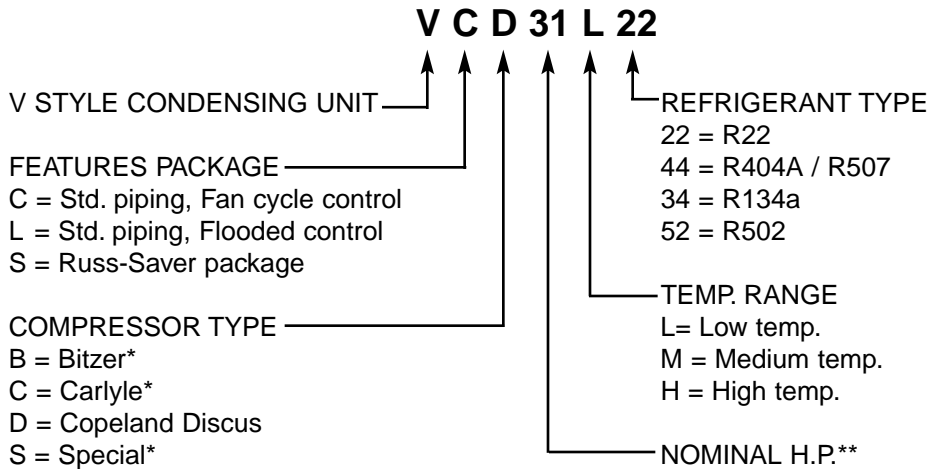
The **outdoor housing** of the unit has been re-engineered. Removing only a few screws allows complete removal of the compressor housing top panel, side panel and corner post. This gives the mechanic quick, unrestricted access to the compressor, all controls and components located within the compressor 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

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

- OPTIONS:**
- 4 Year extended compressor warranty
 - Air defrost time clock
 - Compressor unloading
 - Copper or coated condenser fins
 - Electric defrost components
 - Evaporator sub circuit fusing
 - Fused or non fused disconnect
 - Heated and insulated receiver— not UL

- Hot Gas defrost components
- Liquid line solenoid valve
- Oil Separator
- Crankcase pressure regulator
- Sentronic oil safety control
- Stainless steel superhoses
- Suction accumulator

* Contact factory for details.

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 which uses **RUSS-SAVER** requires a smaller refrigerant charge than equipment which uses 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.

The **RUSS-SAVER** system is designed to take advantage of reduced ambient conditions during non-peak requirements. As the outside air temperature decreases, head pressures are allowed to drop. This action results in the compressor pumping more refrigerant per stroke while requiring less energy; **saving substantial amounts of energy and your money!**

■ **RUSS-SAVER even saves money during high ambient conditions.**

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 compressors job easier. Combined with Copeland's energy efficient DISCUS compressors, **RUSS-SAVER's** efficiency saves you money during summer operation and even more during the winter months.

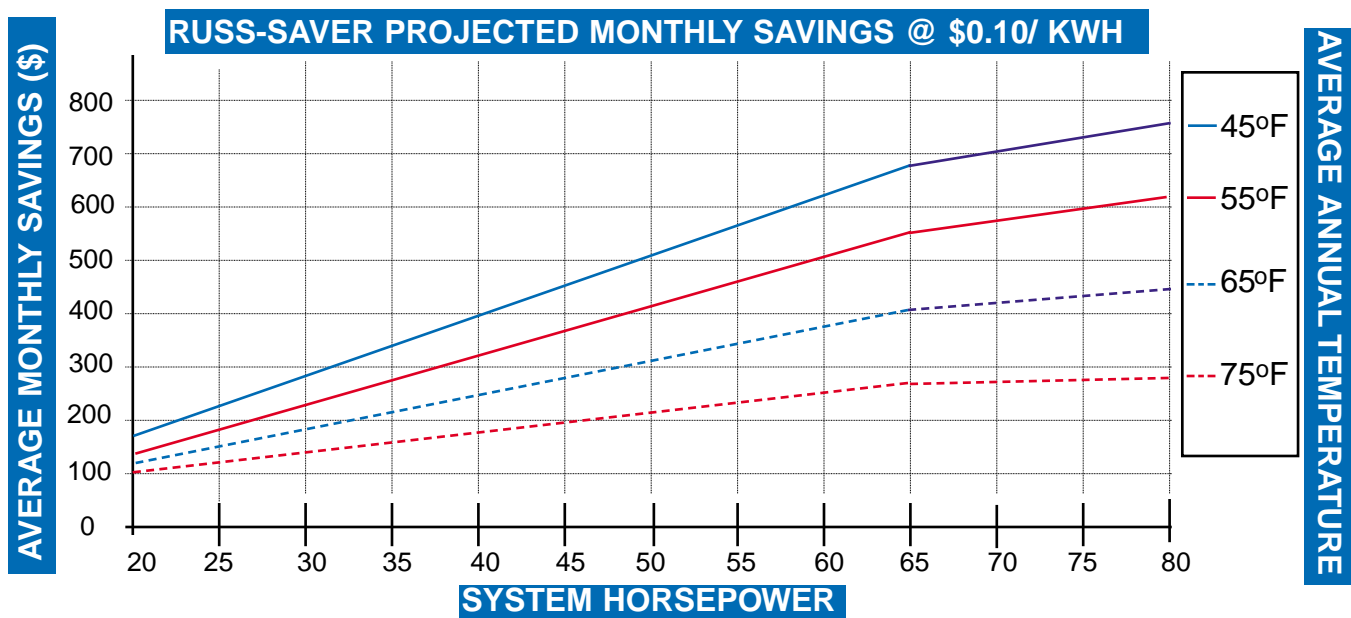
RUSS-SAVER

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 horse power at the bottom of the graph.
- 4) Go straight up to the appropriate Annual Average Outdoor Temperature curve, then go horizontally to the left to determine your Estimated Monthly Savings.
- 5) To calculate your Estimated Monthly Savings for energy costs other than \$0.10 KWH, divide the Estimated Monthly Savings by 0.10 and multiply the result by your local electric utility rate.
- 6) To determine your Estimated Yearly Savings, multiply the Estimated Monthly Savings 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	OH 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	40
D.C. Washington	55	Minneapolis	45	PA Philadelphia	50	B.C. Vancouver	50
FL Jacksonville	70	MS Jackson	65	RI Providence	50	MAN Winnipeg	35
Miami	75	MO St. Louis	55	SC Columbia	65	N.B. St. John	45
GA Atlanta	60	MT Great Falls	45	SD Sioux Falls	45	N.F. St. John's	40
HI Honolulu	75	NE Omaha	50	TN Nashville	60	N.S. Halifax	45
ID Boise	50	NV Reno	50	TX Dallas	65	ONT Toronto	45
IL Chicago	50	NH Concord	45	El Paso	65	QUE Montreal	45
IN Indianapolis	50	NJ Atlantic City	55	UT Salt Lake City	50	YUK Dawson	25



BTUH CAPACITIES (MBH)
R-22 HIGH TEMP - SINGLE COMPRESSOR
SUCTION TEMPERATURE °F

90° AMBIENT	VC / VL / VS	+45°	+40°	+35°	+25°	+20°	+10°
	20H22	235.4	214.2	194.6	161.4	145.6	113.2
	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	228.3	208.0	188.7	156.6	141.3	109.7
	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	220.8	201.5	182.7	151.7	136.8	106.1
	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	205.5	188.1	170.1	141.6	127.6	98.6
	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

BTUH CAPACITIES (MBH) R22 HIGH TEMP - 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*	469.7	430.2	393.9	323.9	292.3	238.0
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*	1,048.3	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*	454.2	416.0	380.9	313.2	282.6	230.1
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*	1,013.8	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*	438.4	401.5	367.6	302.3	272.8	222.1
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*	409.1	374.6	343.0	282.1	254.6	207.3
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.

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.

BTUH CAPACITIES (MBH)

R404A LOW TEMP

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.

BTUH CAPACITIES (MBH) R404A MEDIUM TEMP - SINGLE COMPRESSOR.

SUCTION TEMPERATURE °F

90° AMBIENT

VC / VL / VS	+45°	+35°	+25°	+20°	+10°	0°	-10°
20M44	231.7	197.4	164.8	149.7	129.7	96.6	75.8
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	219.8	187.2	156.3	142.0	123.0	91.6	71.9
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	209.7	178.6	149.2	135.5	117.4	87.4	68.6
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	179.2	152.6	127.4	115.8	100.3	74.7	58.6
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

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*	462.9	394.3	329.2	299.1	259.1	193.0	151.5
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*	439.6	374.4	312.6	284.0	246.0	183.2	143.8
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*	418.5	356.5	297.6	270.4	234.2	174.5	136.9
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*	358.3	305.2	254.8	231.5	200.5	149.4	117.2
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.

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	4DA-2000	70.0	308.0	12.8	83.8	102.0	35.0	154.0	6.4	41.9	51.0
25H22	4DH-2500	85.7	428.0	12.8	99.5	121.0	42.9	214.0	6.4	49.8	61.0
30H22	4DJ-3000	118.0	470.0	12.8	131.8	162.0	59.0	235.0	6.4	65.9	81.0
35H22	6DH-3500	125.0	565.0	19.2	145.2	177.0	62.5	283.0	9.6	72.6	89.0
40H22	6DJ-4000	142.0	575.0	19.2	161.2	197.0	71.0	288.0	9.6	82.1	101.0
50H22	8DP-5000	180.0	1070.0	25.6	206.6	252.0	90.0	535.0	12.8	103.8	126.0
60H22	8DS-6000	224.0	1070.0	25.6	250.6	307.0	112.0	535.0	12.8	125.3	154.0

17H22	(2) 3DA-0750	82.0	430.0	12.8	95.8	106.0	40.0	212.0	6.4	46.9	52.0
21H22	(2) 3DB-1000	87.2	430.0	12.8	101.0	112.0	40.0	212.0	6.4	46.9	52.0
24M22	(2) 3DF-1200	96.4	550.0	12.8	110.2	122.0	47.2	276.0	6.4	54.1	60.0
31H22	(2) 3DS-1500	119.2	550.0	19.2	139.4	154.0	58.0	276.0	9.6	68.1	75.0
41H22	(2) 4DA-2000	132.0	856.0	19.2	152.2	169.0	66.0	428.0	9.6	76.1	84.0
51H22	(2) 4DH-2500	164.4	856.0	25.6	191.0	212.0	82.2	428.0	12.8	95.5	106.0
61H22	(2) 4DJ-3000	188.0	940.0	25.6	214.6	238.0	94.0	470.0	12.8	107.3	119.0
71H22	(2) 6DH-3500	214.0	1130.0	38.4	253.4	280.0	107.0	566.0	19.2	126.7	140.0
81H22	(2) 6DJ-4000	284.0	1150.0	38.4	323.4	359.0	142.0	575.0	19.2	161.7	180.0

LOW TEMP R-22

27L22	6DL-2700	80.8	450.0	12.8	94.6	115.0	40.4	225.0	6.4	47.3	58.0
30L22	6DT-3000	95.6	470.0	12.8	109.4	134.0	47.8	235.0	6.4	54.7	67.0
44L22	(2) 4DT-2200	132.0	748.0	19.2	152.2	169.0	66.0	374.0	9.6	76.1	84.0
54L22	(2) 6DL-2700	161.6	872.0	19.2	181.8	202.0	80.8	436.0	9.6	90.9	101.0
61L22	(2) 6DT-3000	191.2	940.0	19.2	211.4	235.0	95.6	470.0	9.6	105.7	118.0

MEDIUM TEMP R-404A

20M44	4DA-200E	66.0	308.0	12.8	79.8	97.0	33.0	154.0	6.4	39.4	49.0
25M44	4DH-250E	82.2	428.0	12.8	96.0	117.0	41.1	214.0	6.4	48.0	59.0
30M44	4DJ-400E	94.0	470.0	12.8	107.8	132.0	47.2	235.0	6.4	54.1	66.0
35M44	6DH-350E	107.0	565.0	19.2	127.2	154.0	53.5	283.0	9.6	63.6	77.0
40M44	6DJ-400E	142.0	594.0	19.2	162.2	198.0	71.0	297.0	9.6	81.1	99.0

17M44	(2) 3DA-075E	82.0	430.0	12.8	95.6	106.0	40.0	212.0	6.4	46.9	52.0
21M44	(2) 3DB-100E	87.2	430.0	12.8	101.0	112.0	40.0	212.0	6.4	46.9	52.0
24M44	(2) 3DF-120E	96.4	550.0	12.8	110.2	122.0	47.2	276.0	6.4	54.1	60.0
31M44	(2) 3DS-150E	119.2	550.0	19.2	139.4	154.0	58.0	276.0	9.6	68.1	75.0
41M44	(2) 4DA-200E	132.0	616.0	19.2	152.2	169.0	66.0	308.0	9.6	76.1	84.0
51M44	(2) 4DH-250E	164.4	856.0	25.6	191.0	212.0	82.2	428.0	12.8	95.5	106.0
61M44	(2) 4DJ-300E	188.0	940.0	25.6	214.6	238.0	94.0	470.0	12.8	107.3	119.0
71M44	(2) 6DH-350E	214.0	1130.0	38.4	253.4	280.0	107.0	566.0	19.2	126.7	140.0
81M44	(2) 6DJ-400E	284.0	1188.0	38.4	323.4	359.0	142.0	594.0	19.2	161.7	180.0

LOW TEMP R-404A

27L44	6DL-270E	80.8	450.0	12.8	94.6	115.0	40.4	225.0	6.4	47.3	58.0
30L44	6DT-300E	95.6	470.0	12.8	109.4	134.0	47.8	235.0	6.4	54.7	67.0
44L44	(2) 4DT-220E	132.0	748.0	19.2	152.2	169.0	66.0	374.0	9.6	76.1	84.0
54L44	(2) 6DL-270E	161.6	900.0	19.2	181.8	202.0	80.8	450.0	9.6	90.9	101.0
61L44	(2) 6DT-300E	191.2	940.0	19.2	211.4	235.0	95.6	470.0	9.6	105.7	118.0

COND FLA = Condenser motors full load amps.

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

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.(EA.)		COND FLA			COMP.(EA.)		COND FLA		
		RLA	LRA				RLA	LRA			

HIGH TEMP R-22

18H22	(2) 3DA-0750	41.0	215.0	12.8	95.8	106.0	20.0	106.0	6.4	46.9	52.0
23H22	(2) 3DB-1000	43.6	215.0	12.8	101.0	112.0	20.0	106.0	6.4	46.9	52.0
26H22	(2) 3DF-1200	48.2	275.0	12.8	110.2	122.0	23.6	138.0	6.4	54.1	60.0
32H22	(2) 3DS-1500	59.6	275.0	19.2	139.4	154.0	29.0	138.0	9.6	68.1	75.0
42H22	(2) 4DA-2000	66.0	308.0	19.2	152.2	169.0	33.0	154.0	9.6	76.1	84.0
52H22	(2) 4DH-2500	82.2	428.0	25.6	191.0	212.0	41.1	214.0	12.8	95.5	106.0
62H22	(2) 4DJ-3000	94.0	470.0	25.6	214.6	238.0	47.2	235.0	12.8	107.3	119.0
72H22	(2) 6DH-3500	107.0	565.0	38.4	253.4	280.0	53.5	283.0	19.2	126.7	140.0
82H22	(2) 6DJ-4000	142.0	575.0	38.4	323.4	359.0	71.0	288.0	19.2	161.2	180.0

LOW TEMP R-22

46L22	(2) 4DT-2200	66.0	374.0	19.2	152.2	169.0	33.0	187.0	9.6	76.1	84.0
56L22	(2) 6DL-2700	80.8	450.0	19.2	181.8	202.0	40.4	225.0	9.6	90.9	101.0
62L22	(2) 6DT-3000	95.6	470.0	19.2	211.4	235.0	47.8	235.0	9.6	105.7	118.0

MEDIUM TEMP R-404A

18M44	(2) 3DA-075E	41.0	215.0	12.8	95.8	106.0	20.0	106.0	6.4	46.9	52.0
23M44	(2) 3DB-100E	43.6	215.0	12.8	101.0	112.0	20.0	106.0	6.4	46.9	52.0
26M44	(2) 3DF-120E	48.2	275.0	12.8	110.2	122.0	23.6	138.0	6.4	54.1	60.0
32M44	(2) 3DS-150E	59.6	275.0	19.2	139.4	154.0	29.0	138.0	9.6	68.1	75.0
42M44	(2) 4DA-200E	66.0	308.0	19.2	152.2	169.0	33.0	154.0	9.6	76.1	84.0
52M44	(2) 4DH-250E	82.2	428.0	25.6	191.0	212.0	41.1	214.0	12.8	95.5	106.0
62M44	(2) 4DJ-300E	94.0	470.0	25.6	214.6	238.0	47.2	235.0	12.8	107.3	119.0
72M44	(2) 6DH-350E	107.0	565.0	38.4	253.4	280.0	53.5	283.0	19.2	126.7	140.0
82M44	(2) 6DJ-400E	142.0	594.0	38.4	323.4	359.0	71.0	297.0	19.2	161.7	180.0

LOW TEMP R-404A

46L44	(2) 4DT-220E	66.0	374.0	19.2	152.2	169.0	33.0	187.0	9.6	76.1	84.0
56L44	(2) 6DL-270E	80.8	450.0	19.2	181.8	202.0	40.4	225.0	9.6	90.9	101.0
62L44	(2) 6DT-300E	95.6	470.0	19.2	211.4	235.0	47.8	235.0	9.6	105.7	118.0

COND FLA = Condenser motors full load amps.

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

PHYSICAL DATA SINGLE AND PARALLEL COMPRESSOR MODELS

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

HIGH TEMP R-22

20H22	4DA-2000	2380	2	150-3/4	45-3/4	41-1/2	A	106	7/8	2-1/8	1925
25H22	4DH-2500	3020	2	150-3/4	45-3/4	41-1/2	A	144	7/8	2-1/8	2000
30H22	4DJ-3000	3603	2	150-3/4	45-3/4	41-1/2	A	182	1-1/8	2-1/8	2140
35H22	6DH-3500	4530	3	198-3/4	45-3/4	41-1/2	A†	220	1-1/8	2-1/8	2385
40H22	6DJ-4000	5404	3	198-3/4	45-3/4	41-1/2	A†	295	1-1/8	2-1/8	2525
50H22	8DP-5000	6429	4	150-3/4	90-3/4	41-1/2	D	295	1-1/8	2-5/8	3500
60H22	8DS-6000	7609	4	150-3/4	90-3/4	41-1/2	D	416	1-3/8	2-5/8	3710

17H22	(2) 3DA-0750	2742*	2	185	45-3/4	75-3/4	B	144	7/8	2-1/8	2450
21H22	(2) 3DB-1000	3230*	2	185	45-3/4	75-3/4	B	144	7/8	2-1/8	2575
24H22	(2) 3DF-1200	3826*	2	185	45-3/4	75-3/4	B	182	1-1/8	2-1/8	2750
31H22	(2) 3DS-1500	4254*	3	233	45-3/4	75-3/4	C	220	1-1/8	2-1/8	3050
41H22	(2) 4DA-2000	4760*	3	233	45-3/4	75-3/4	C	295	1-1/8	2-1/8	3200
51H22	(2) 4DH-2500	6040*	4	150-3/4	90-3/4	41-1/2	D	295	1-1/8	2-5/8	3500
61H22	(2) 4DJ-3000	7206*	4	150-3/4	90-3/4	41-1/2	D	295	1-3/8	2-5/8	3710
71H22	(2) 6DH-3500	9060*	6	198-3/4	90-3/4	41-1/2	E	416	1-5/8	3-1/8	4340
81H22	(2) 6DJ-4000	10808*	6	198-3/4	90-3/4	41-1/2	E	500	1-5/8	3-1/8	4750

LOW TEMP R-22

27L22	6DL-2700	4530	2	150-3/4	45-3/4	41-1/2	A	145	7/8	2-1/8	2000
30L22	6DT-3000	5404	2	150-3/4	45-3/4	41-1/2	A	145	7/8	2-1/8	2065
44L22	(2) 4DT-2200	7206*	3	233	45-3/4	75-3/4	C	220	1-1/8	3-1/8	2800
54L22	(2) 6DL-2700	9060*	3	233	45-3/4	75-3/4	C	295	1-1/8	3-1/8	3280
61L22	(2) 6DT-3000	10808*	3	233	45-3/4	75-3/4	C	295	1-1/8	3-1/8	3580

MEDIUM TEMP R-404A

20M44	4DA-200E	2380	2	150-3/4	45-3/4	41-1/2	A	94	7/8	2-1/8	1925
25M44	4DH-250E	3020	2	150-3/4	45-3/4	41-1/2	A	128	7/8	2-1/8	2000
30M44	4DJ-300E	3603	2	150-3/4	45-3/4	41-1/2	A	162	1-1/8	2-1/8	2140
35M44	6DH-350E	4530	3	198-3/4	45-3/4	41-1/2	A†	195	1-1/8	2-1/8	2385
40M44	6DJ-400E	5404	3	198-3/4	45-3/4	41-1/2	A†	262	1-1/8	2-1/8	2525

17M44	(2) 3DA-075E	2742*	2	185	45-3/4	75-3/4	B	128	7/8	2-1/8	2450
21M44	(2) 3DB-100E	3230*	2	185	45-3/4	75-3/4	B	128	7/8	2-1/8	2575
24M44	(2) 3DF-120E	3826*	2	185	45-3/4	75-3/4	B	162	1-1/8	2-1/8	2750
31M44	(2) 3DS-150E	4254*	3	233	45-3/4	75-3/4	C	195	1-1/8	2-1/8	3050
41M44	(2) 4DA-200E	4760*	3	233	45-3/4	75-3/4	C	262	1-1/8	2-1/8	3200
51M44	(2) 4DH-250E	6040*	4	150-3/4	90-3/4	41-1/2	D	262	1-1/8	2-5/8	3500
61M44	(2) 4DJ-300E	7206*	4	150-3/4	90-3/4	41-1/2	D	262	1-3/8	2-5/8	3710
71M44	(2) 6DH-350E	9060*	6	198-3/4	90-3/4	41-1/2	E	370	1-5/8	3-1/8	4340
81M44	(2) 6DJ-400E	10808*	6	198-3/4	90-3/4	41-1/2	E	445	1-5/8	3-1/8	4750

LOW TEMP R-404A

27L44	6DL-270E	4530	2	150-3/4	45-3/4	41-1/2	A	128	7/8	2-1/8	2000
30L44	6DT-300E	5404	2	150-3/4	45-3/4	41-1/2	A	145	7/8	2-1/8	2065
44L44	(2) 4DT-220E	7206*	3	233	45-3/4	75-3/4	C	195	1-1/8	3-1/8	2800
54L44	(2) 6DL-270E	9060*	3	233	45-3/4	75-3/4	C	262	1-1/8	3-1/8	3280
61L44	(2) 6DT-300E	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

PHYSICAL DATA DUAL COMPRESSOR MODELS (2 independent systems)

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

HIGH TEMP R-22

18H22	(2) 3DA-0750	1375	2	185	45-3/4	75-3/4	B	(2) 62	(2) 7/8	(2) 1-3/8	2450
23H22	(2) 3DB-1000	1620	2	185	45-3/4	75-3/4	B	(2) 62	(2) 7/8	(2) 1-5/8	2575
26H22	(2) 3DF-1200	1913	2	185	45-3/4	75-3/4	B	(2) 62	(2) 7/8	(2) 1-5/8	2650
32H22	(2) 3DS-1500	2120	3	233	45-3/4	75-3/4	C	(2) 106	(2) 7/8	(2) 1-5/8	3050
42H22	(2) 4DA-2000	2380	3	233	45-3/4	75-3/4	C	(2) 106	(2) 7/8	(2) 2-1/8	3200
52H22	(2) 4DH-2500	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-3000	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-3500	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-4000	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 R-22

46L22	(2) 4DT-2200	3603	3	233	45-3/4	75-3/4	C	(2) 106	(2) 7/8	(2) 2-1/8	2800
56L22	(2) 6DL-2700	4530	3	233	45-3/4	75-3/4	C	(2) 144	(2) 7/8	(2) 2-1/8	3280
62L22	(2) 6DT-3000	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-075E	1375	2	185	45-3/4	75-3/4	B	(2) 55	(2) 7/8	(2) 1-3/8	2450
23M44	(2) 3DB-100E	1620	2	185	45-3/4	75-3/4	B	(2) 55	(2) 7/8	(2) 1-5/8	2575
26M44	(2) 3DF-120E	1915	2	185	45-3/4	75-3/4	B	(2) 55	(2) 7/8	(2) 1-5/8	2650
32M44	(2) 3DS-150E	2120	3	233	45-3/4	75-3/4	C	(2) 94	(2) 7/8	(2) 1-5/8	3050
42M44	(2) 4DA-200E	2380	3	233	45-3/4	75-3/4	C	(2) 94	(2) 7/8	(2) 2-1/8	3200
52M44	(2) 4DH-250E	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-300E	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-350E	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-400E	5404	6	198-3/4	90-3/4	41-1/2	E	(2) 262	(2) 1-1/8	(2) 2-1/8	4750

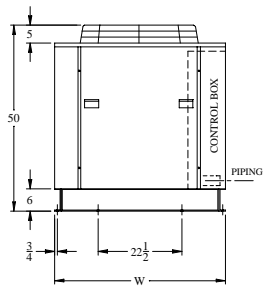
LOW TEMP R-404A

46L44	(2) 4DT-220E	3603	3	233	45-3/4	75-3/4	C	(2) 94	(2) 7/8	(2) 2-1/8	2800
56L44	(2) 6DL-270E	4530	3	233	45-3/4	75-3/4	C	(2) 128	(2) 7/8	(2) 2-1/8	3280
62L44	(2) 6DT-300E	5404	3	233	45-3/4	75-3/4	C	(2) 128	(2) 7/8	(2) 2-1/8	3580

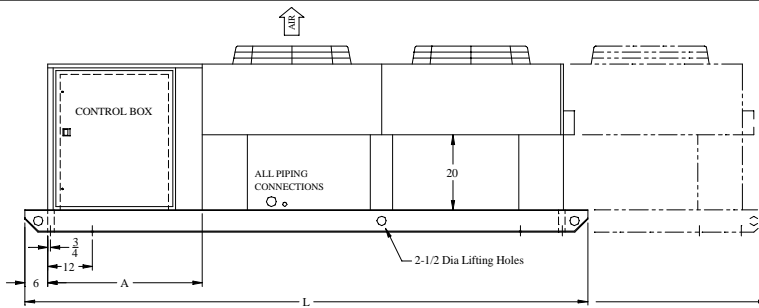
* DATA SHOWN FOR EACH COMPRESSOR SYSTEM.

ONE ITEM PER EACH COMPRESSOR SYSTEM

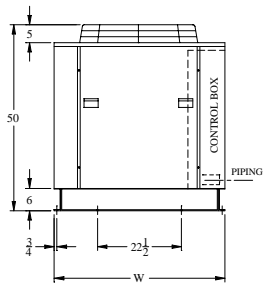
DIMENSIONAL DRAWINGS



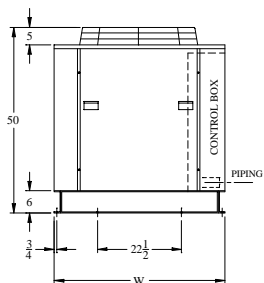
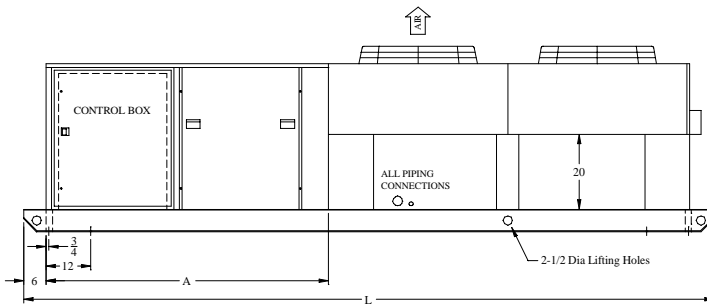
FAN CONFIG. "A"



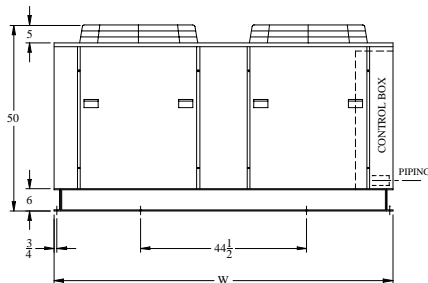
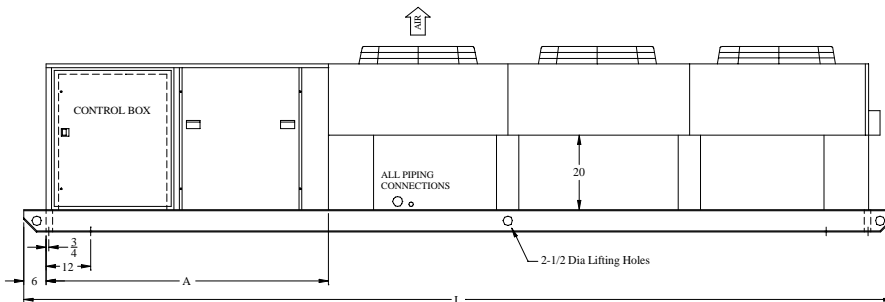
† 3rd Fan Section
for models:
V*35M44/H22
V*40M44/H22



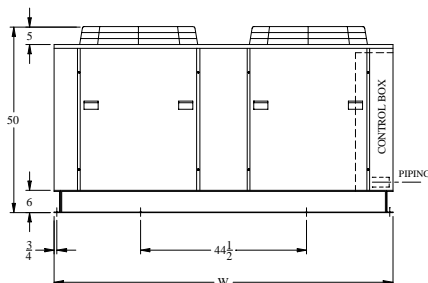
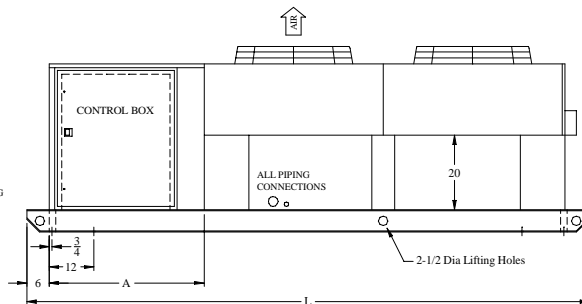
FAN CONFIG. "B"



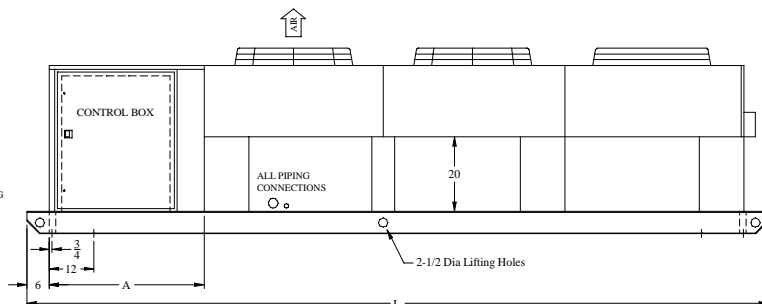
FAN CONFIG. "C"



FAN CONFIG. "D"



FAN CONFIG. "E"



All dimensions are in inches.
9/16" diameter mounting holes typical for all units.