



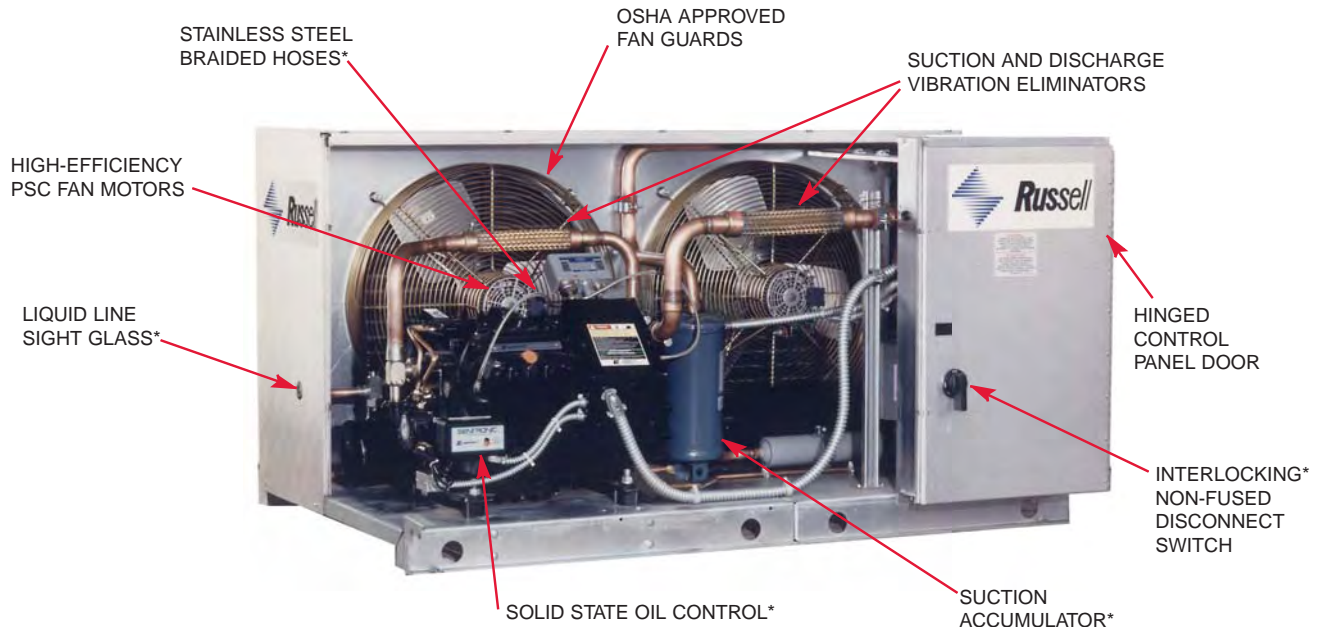
Publication No. RU-DLD-0712A

D Series
**AIR COOLED
CONDENSING UNITS
3 TO 22 HP**

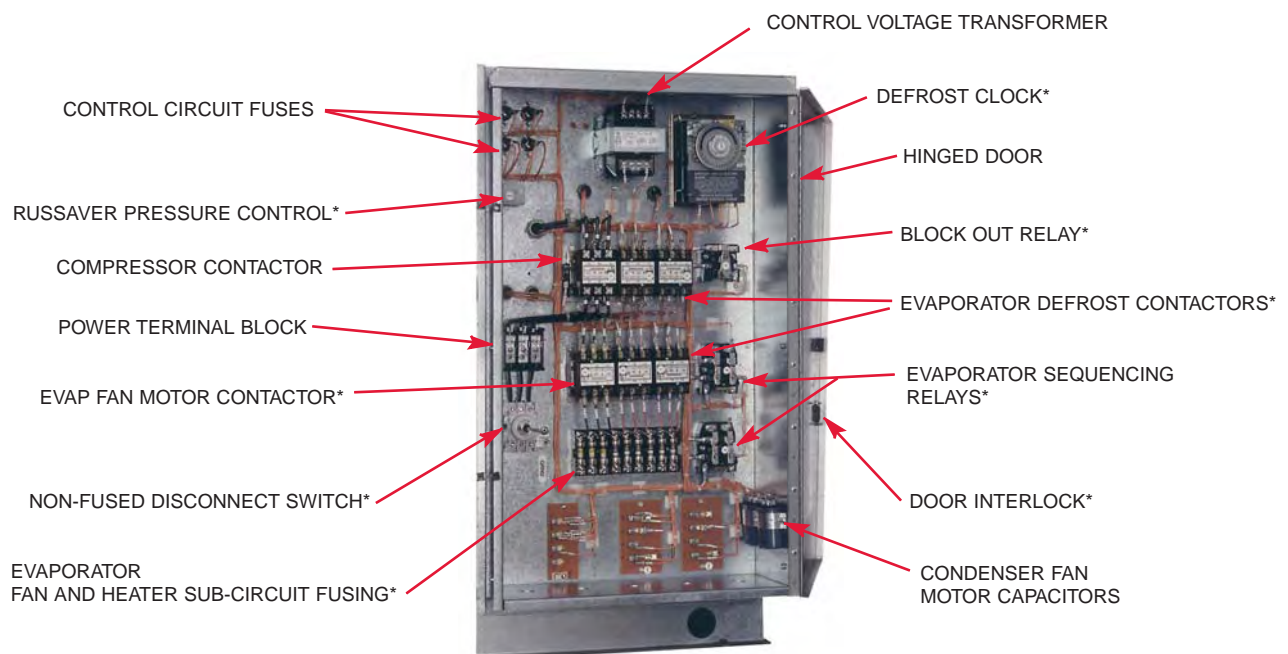


AIR COOLED CONDENSING UNITS 3 TO 22 HP

The outdoor housing of our condensing units have completely re-engineered. Access to all components is now more convenient than ever. Quick removal of top and side panels allows quick access to everything. The hinged control panel door swings wide open for maximum clearance while the unit is being serviced.

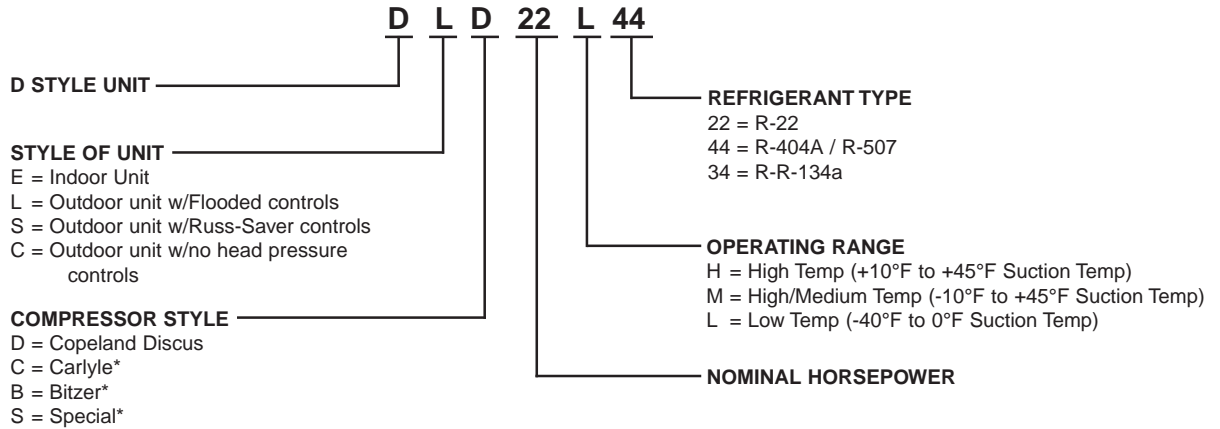


The large control panel has abundant space for the controls you choose. They are intelligently arranged and laid out in a logical fashion which is easy to understand and work with. Each control and wire is clearly marked with a name or number as shown on the wiring diagram which is conveniently affixed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



AIR COOLED CONDENSING UNITS 3 TO 22 HP

MODEL NUMBER NOMENCLATURE



| | FEATURES AT A GLANCE | MODEL | | | |
|------------------------------|--|-------|------|-----|-----|
| | | DE | DC | DS | DL |
| ELECTRICAL COMPONENTS | Crankcase heater | OPT. | STD | STD | STD |
| | Oil failure control - as required | STD | STD | STD | STD |
| | High-Low pressure control - manual(high)/automatic(low)rest | STD | STD | STD | STD |
| | Compressor contactor | STD | STD | STD | STD |
| | Control circuit fuses - standard 230/1 | STD | STD | STD | STD |
| | Power terminal block | OPT. | STD | STD | STD |
| CONDENSER | Copper tubes with Aluminum fins | STD | STD | STD | STD |
| | Subcooling circuit | STD | STD | STD | STD |
| | Fan motor - PSC overload protection | STD | STD | STD | STD |
| | Fan blade - individually balanced | STD | STD | STD | STD |
| | Fan guard - split for easy motor access: UL listed | STD | STD | STD | STD |
| PIPING COMPONENTS | Suction line filter | OPT. | STD | STD | STD |
| | Suction line vibration eliminator | OPT. | STD | STD | STD |
| | Liquid line filter/drier | OPT. | STD | STD | STD |
| | Sight glass/moisture indicator | OPT. | STD | STD | STD |
| | Discharge line vibration eliminator | STD | STD | STD | STD |
| | Inlet and outlet isolation valves | STD | STD | STD | STD |
| RECEIVER | Fusible plug | STD | STD | STD | STD |
| HOUSING | All weather housing | OPT. | STD | STD | STD |
| | Control panel - with hinged door | STD | STD | STD | STD |
| | Raised galvanized steel base | STD | STD | STD | STD |
| LOW AMBIENT CONTROLS | Russ-Saver - all ambient energy saver | N/A | N/A | STD | N/A |
| | Pressure fan cycling control -not available on 3HP -6HP low temps. | OPT. | OPT. | STD | N/A |
| | Flooded condenser | OPT. | OPT. | N/A | STD |
| TESTING | UL/cUL listed all models | STD | STD | STD | STD |
| | Leak detection, Dielectric & Run test | STD | STD | STD | STD |
| | Dry nitrogen holding charge | STD | 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
 - Oversized receiver
 - Crankcase pressure regulator
 - Phase loss monitor
 - Electric Defrost with heater contactors, timer, block out relay
 - Sentronic oil safety control
 - Evap sub circuit fusing
 - Spring loaded relief valve
 - Fused disconnect
 - Stainless steel hoses
 - Heated and insulated receiver
 - Suction line accumulator
 - Non-Fused Disconnect

* Contact factory for details.

AIR COOLED CONDENSING UNITS 3 TO 22 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 3 TO 22 HP

RUSS-SAVER

ENERGY SAVINGS CALCULATIONS

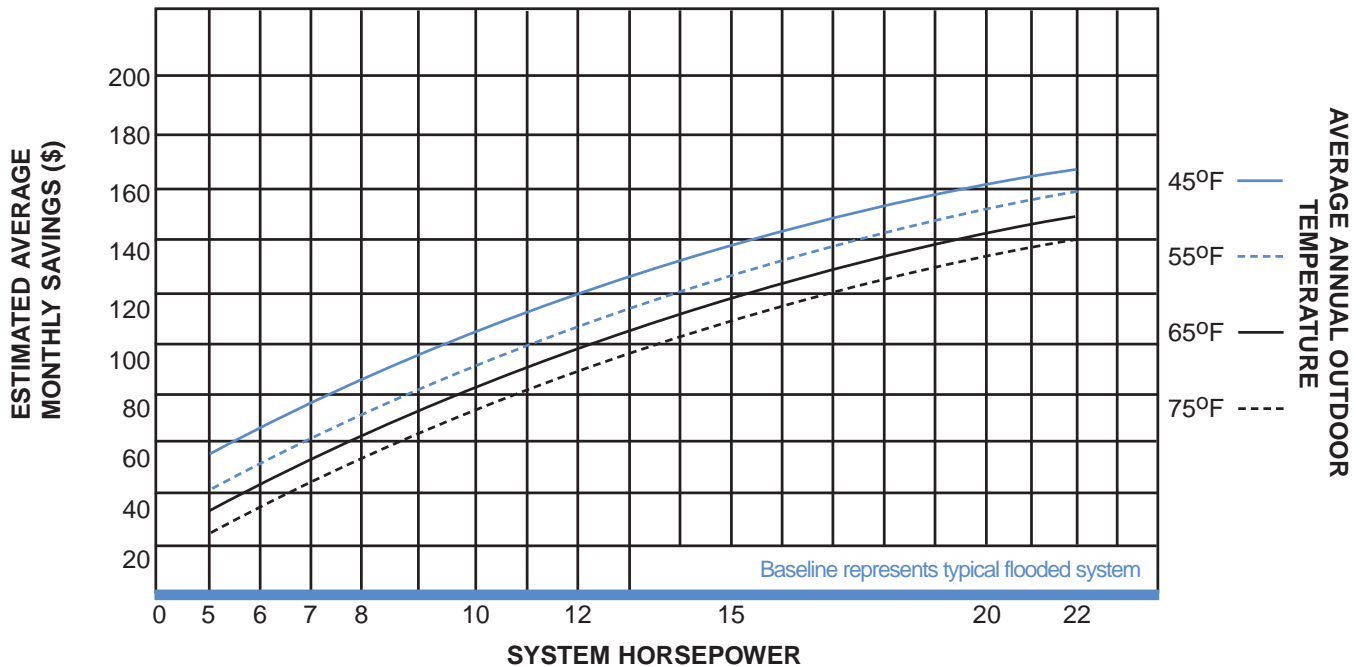
To estimate your average monthly savings:

- 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 | 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 |
| San Francisco | 55 | MD Baltimore | 55 | OH Cleveland | 50 | WY Cheyenne | 45 |
| CO Denver | 50 | MA Boston | 50 | 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 |

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



AIR COOLED CONDENSING UNITS 3 TO 22 HP

BTUH CAPACITIES

R-22 HIGHTEMP

SUCTION TEMPERATURE °F

90° AMBIENT

| DE/DC/DS/DL | +45° | +40° | +35° | +25° | +20° | +10° |
|-------------|---------|---------|---------|---------|---------|---------|
| 5H22 | 79,700 | 72,600 | 65,900 | 53,600 | 47,900 | 37,800 |
| 7H22 | 109,300 | 99,700 | 90,600 | 74,200 | 66,800 | 53,600 |
| 8H22 | 136,000 | 124,200 | 113,000 | 92,800 | 83,700 | 67,200 |
| 10H22 | 158,600 | 144,900 | 132,200 | 109,200 | 98,800 | 80,200 |
| 12H22 | 183,000 | 166,200 | 150,200 | 126,100 | 113,100 | 90,400 |
| 15H22 | 210,300 | 192,600 | 175,800 | 145,200 | 131,300 | 105,800 |

95° AMBIENT

| DE/DC/DS/DL | +45° | +40° | +35° | +25° | +20° | +10° |
|-------------|---------|---------|---------|---------|---------|---------|
| 5H22 | 76,900 | 70,100 | 63,600 | 51,700 | 46,300 | 36,400 |
| 7H22 | 105,800 | 96,500 | 87,800 | 71,900 | 64,800 | 52,100 |
| 8H22 | 131,600 | 120,100 | 109,400 | 89,800 | 80,900 | 64,900 |
| 10H22 | 153,400 | 140,200 | 127,900 | 105,600 | 95,500 | 77,500 |
| 12H22 | 176,800 | 160,500 | 145,100 | 121,800 | 109,200 | 87,300 |
| 15H22 | 203,300 | 186,300 | 173,200 | 140,700 | 127,200 | 102,600 |

100° AMBIENT

| DE/DC/DS/DL | +45° | +40° | +35° | +25° | +20° | +10° |
|-------------|---------|---------|---------|---------|---------|--------|
| 5H22 | 74,100 | 67,500 | 61,300 | 49,900 | 44,700 | 35,100 |
| 7H22 | 102,200 | 93,300 | 84,900 | 69,600 | 62,800 | 50,500 |
| 8H22 | 127,100 | 116,100 | 105,700 | 86,800 | 78,200 | 62,600 |
| 10H22 | 148,100 | 135,500 | 123,600 | 102,000 | 92,300 | 74,800 |
| 12H22 | 170,700 | 154,900 | 140,100 | 117,600 | 105,400 | 84,300 |
| 15H22 | 196,600 | 180,200 | 164,700 | 136,300 | 123,300 | 99,400 |

110° AMBIENT

| DE/DC/DS/DL | +45° | +40° | +35° | +25° | +20° | +10° |
|-------------|---------|---------|---------|---------|---------|--------|
| 5H22 | 68,500 | 62,500 | 56,800 | 46,300 | 41,500 | 32,500 |
| 7H22 | 94,700 | 86,500 | 78,800 | 64,900 | 58,600 | 47,400 |
| 8H22 | 118,300 | 108,100 | 98,500 | 80,800 | 72,800 | 58,100 |
| 10H22 | 137,600 | 125,900 | 115,000 | 94,900 | 85,800 | 69,300 |
| 12H22 | 153,300 | 139,200 | 125,900 | 105,700 | 94,700 | 75,800 |
| 15H22 | 183,600 | 168,300 | 154,100 | 127,900 | 115,700 | 93,300 |

AIR COOLED CONDENSING UNITS 3 TO 22 HP

BTUH CAPACITIES

R-22 LOW TEMP

SUCTION TEMPERATURE °F

| 90° AMBIENT | DE/DC/DS/DL | 0° | -10° | -20° | -25° | -30° | -40° |
|-------------|-------------|---------|---------|--------|--------|--------|--------|
| | 3L22 | 31,000 | 23,500 | 17,600 | 15,100 | 12,800 | 8,700 |
| | 4L22 | 36,500 | 28,000 | 20,700 | 17,400 | 14,600 | 9,900 |
| | 5L22 | 42,600 | 33,100 | 24,600 | 20,900 | 17,600 | 12,000 |
| | 6L22 | 50,500 | 38,700 | 29,600 | 25,500 | 21,200 | 14,800 |
| | 8L22 | 59,300 | 46,600 | 35,600 | 30,700 | 26,600 | 19,100 |
| | 9L22 | 67,900 | 53,400 | 40,700 | 35,200 | 30,100 | 21,300 |
| | 10L22 | 77,300 | 60,400 | 45,500 | 39,600 | 33,900 | 23,300 |
| | 15L22 | 110,400 | 86,800 | 66,400 | 57,400 | 48,800 | 33,900 |
| | 22L22 | 129,500 | 100,600 | 77,800 | 67,900 | 58,700 | 40,600 |

| 95° AMBIENT | DE/DC/DS/DL | 0° | -10° | -20° | -25° | -30° | -40° |
|-------------|-------------|---------|--------|--------|--------|--------|--------|
| | 3L22 | 29,400 | 22,300 | 16,700 | 14,300 | 12,100 | 8,200 |
| | 4L22 | 34,800 | 26,700 | 19,700 | 16,600 | 13,900 | 9,400 |
| | 5L22 | 40,300 | 31,300 | 23,300 | 19,800 | 16,600 | 11,300 |
| | 6L22 | 47,900 | 36,700 | 28,100 | 24,200 | 20,100 | 14,000 |
| | 8L22 | 56,400 | 44,300 | 33,900 | 29,200 | 25,300 | 18,100 |
| | 9L22 | 64,700 | 50,900 | 38,800 | 33,500 | 28,700 | 20,300 |
| | 10L22 | 73,400 | 57,400 | 43,200 | 37,600 | 32,200 | 22,100 |
| | 15L22 | 105,400 | 82,900 | 63,400 | 54,800 | 46,600 | 32,300 |
| | 22L22 | 123,200 | 95,700 | 74,000 | 64,600 | 55,800 | 38,600 |

| 100° AMBIENT | DE/DC/DS/DL | 0° | -10° | -20° | -25° | -30° | -40° |
|--------------|-------------|---------|--------|--------|--------|--------|--------|
| | 3L22 | 27,900 | 21,200 | 15,900 | 13,600 | 11,500 | 7,800 |
| | 4L22 | 33,200 | 25,500 | 18,800 | 15,900 | 13,300 | 9,000 |
| | 5L22 | 38,100 | 29,600 | 22,100 | 18,800 | 15,700 | 10,700 |
| | 6L22 | 45,500 | 34,800 | 26,700 | 23,000 | 19,100 | 13,300 |
| | 8L22 | 53,600 | 42,100 | 32,300 | 27,800 | 24,100 | 17,200 |
| | 9L22 | 61,500 | 48,400 | 36,900 | 31,800 | 27,300 | 19,300 |
| | 10L22 | 70,500 | 55,200 | 41,500 | 36,100 | 31,000 | 21,300 |
| | 15L22 | 100,500 | 79,100 | 60,500 | 52,300 | 44,500 | 30,800 |
| | 22L22 | 118,200 | 91,800 | 71,000 | 62,000 | 53,600 | 37,100 |

| 110° AMBIENT | DE/DC/DS/DL | 0° | -10° | -20° | -25° | -30° | -40° |
|--------------|-------------|---------|--------|--------|--------|--------|--------|
| | 3L22 | 24,300 | 18,400 | 13,800 | 11,800 | 10,000 | 6,800 |
| | 4L22 | 28,600 | 21,900 | 16,200 | 13,700 | 11,400 | 7,800 |
| | 5L22 | 31,500 | 24,500 | 18,200 | 15,500 | 13,000 | 8,900 |
| | 6L22 | 38,400 | 29,400 | 22,500 | 19,400 | 16,100 | 11,200 |
| | 8L22 | 45,700 | 35,900 | 27,500 | 23,700 | 20,500 | 14,700 |
| | 9L22 | 53,100 | 41,800 | 31,900 | 27,500 | 23,600 | 16,700 |
| | 10L22 | 61,700 | 48,300 | 36,300 | 31,600 | 27,100 | 18,600 |
| | 15L22 | 86,500 | 68,000 | 52,000 | 45,000 | 38,300 | 26,500 |
| | 22L22 | 102,300 | 79,500 | 61,500 | 53,700 | 46,400 | 32,100 |

AIR COOLED CONDENSING UNITS 3 TO 22 HP

BTUH CAPACITIES

R-404A / R-507 - HIGH / MEDIUM TEMP

SUCTION TEMPERATURE °F

90° AMBIENT

| DE/DC/DS/DL | +45° | +35° | +25° | +20° | +10° | 0° | -10° |
|-------------|---------|---------|---------|---------|---------|--------|--------|
| 5M44 | 81,000 | 68,800 | 57,200 | 51,700 | 41,800 | 33,100 | 26,000 |
| 6M44 | 103,100 | 86,300 | 71,100 | 64,300 | 51,700 | 41,000 | 32,300 |
| 7M44 | 114,800 | 96,700 | 80,500 | 73,100 | 59,800 | 48,100 | 38,100 |
| 8M44 | 135,000 | 114,600 | 96,000 | 87,400 | 71,500 | 57,500 | 45,600 |
| 10M44 | 159,600 | 135,300 | 113,700 | 103,700 | 85,200 | 69,000 | 54,500 |
| 12M44 | 197,000 | 161,300 | 135,500 | 123,500 | 101,700 | 82,400 | 65,700 |
| 15M44 | 210,000 | 179,300 | 151,200 | 138,100 | 114,000 | 92,700 | 73,800 |

95° AMBIENT

| DE/DC/DS/DL | +45° | +35° | +25° | +20° | +10° | 0° | -10° |
|-------------|---------|---------|---------|---------|---------|--------|--------|
| 5M44 | 76,700 | 65,100 | 54,100 | 48,900 | 39,500 | 31,300 | 24,600 |
| 6M44 | 97,600 | 81,700 | 67,300 | 60,800 | 48,900 | 38,800 | 30,500 |
| 7M44 | 109,000 | 91,800 | 76,400 | 69,400 | 56,700 | 45,600 | 36,100 |
| 8M44 | 128,300 | 108,900 | 91,200 | 83,000 | 67,900 | 54,600 | 43,300 |
| 10M44 | 151,700 | 128,600 | 108,000 | 98,500 | 80,900 | 65,500 | 51,800 |
| 12M44 | 187,000 | 153,100 | 128,600 | 117,200 | 96,500 | 78,200 | 62,300 |
| 15M44 | 199,200 | 170,100 | 143,400 | 131,000 | 108,100 | 87,900 | 70,000 |

100° AMBIENT

| DE/DC/DS/DL | +45° | +35° | +25° | +20° | +10° | 0° | -10° |
|-------------|---------|---------|---------|---------|---------|--------|--------|
| 5M44 | 72,200 | 61,300 | 51,000 | 46,100 | 37,200 | 29,500 | 23,200 |
| 6M44 | 91,900 | 76,900 | 63,400 | 57,300 | 46,100 | 36,600 | 28,800 |
| 7M44 | 103,100 | 86,800 | 72,200 | 65,600 | 53,600 | 43,100 | 34,200 |
| 8M44 | 121,400 | 103,100 | 86,300 | 78,600 | 64,300 | 51,700 | 41,000 |
| 10M44 | 143,400 | 121,600 | 102,100 | 93,100 | 76,500 | 61,900 | 49,000 |
| 12M44 | 176,400 | 144,400 | 121,300 | 110,600 | 91,000 | 73,800 | 58,800 |
| 15M44 | 187,900 | 160,500 | 135,300 | 123,600 | 102,000 | 82,900 | 66,100 |

110° AMBIENT

| DE/DC/DS/DL | +45° | +35° | +25° | +20° | +10° | 0° | -10° |
|-------------|---------|---------|---------|---------|--------|--------|--------|
| 5M44 | 61,400 | 52,100 | 43,300 | 39,200 | 31,600 | 25,100 | 19,700 |
| 6M44 | 78,100 | 65,400 | 53,900 | 48,700 | 39,200 | 31,100 | 24,400 |
| 7M44 | 88,900 | 74,900 | 62,300 | 56,600 | 46,300 | 37,200 | 29,500 |
| 8M44 | 105,400 | 89,500 | 74,900 | 68,200 | 55,800 | 44,900 | 35,600 |
| 10M44 | 123,800 | 105,000 | 88,200 | 80,400 | 66,100 | 53,500 | 42,300 |
| 12M44 | 151,900 | 124,400 | 104,500 | 95,200 | 78,400 | 63,500 | 50,600 |
| 15M44 | 161,200 | 137,700 | 116,100 | 106,000 | 87,500 | 71,200 | 56,700 |

AIR COOLED CONDENSING UNITS 3 TO 22 HP

BTUH CAPACITIES

R-404A / R507 LOW TEMP

SUCTION TEMPERATURE °F

90° AMBIENT

| DE/DC/DS/DL | 0° | -10° | -15° | -20° | -25° | -30° | -40° |
|-------------|---------|---------|--------|--------|--------|--------|--------|
| 3L44 | 32,200 | 26,600 | 23,600 | 20,600 | 17,900 | 15,500 | 11,100 |
| 4L44 | 39,300 | 31,400 | 27,700 | 24,400 | 21,300 | 18,400 | 13,200 |
| 5L44 | 46,500 | 37,400 | 33,400 | 29,500 | 25,900 | 22,500 | 16,400 |
| 6L44 | 53,200 | 42,200 | 37,300 | 32,800 | 28,600 | 24,700 | 18,100 |
| 8L44 | 67,000 | 53,500 | 47,300 | 41,700 | 36,700 | 31,900 | 23,700 |
| 9L44 | 77,700 | 62,200 | 55,300 | 49,000 | 43,100 | 37,900 | 28,500 |
| 10L44 | 85,600 | 69,500 | 61,000 | 55,000 | 48,300 | 42,100 | 31,000 |
| 12L44 | 92,000 | 74,100 | 66,100 | 58,800 | 51,800 | 45,100 | 32,100 |
| 15L44 | 114,200 | 97,400 | 86,100 | 76,300 | 66,500 | 57,100 | 42,300 |
| 22L44 | 135,500 | 110,700 | 99,500 | 88,000 | 79,200 | 70,200 | 54,300 |

95° AMBIENT

| DE/DC/DS/DL | 0° | -10° | -15° | -20° | -25° | -30° | -40° |
|-------------|---------|---------|--------|--------|--------|--------|--------|
| 3L44 | 30,600 | 25,300 | 22,400 | 19,600 | 17,000 | 14,700 | 10,500 |
| 4L44 | 37,300 | 29,800 | 26,300 | 23,100 | 20,200 | 17,400 | 12,500 |
| 5L44 | 44,000 | 35,400 | 31,600 | 27,900 | 24,500 | 21,300 | 15,500 |
| 6L44 | 50,500 | 40,000 | 35,400 | 31,100 | 27,100 | 23,400 | 17,100 |
| 8L44 | 63,600 | 50,800 | 44,900 | 39,600 | 34,800 | 30,300 | 22,500 |
| 9L44 | 73,700 | 59,000 | 52,500 | 46,500 | 40,900 | 35,900 | 27,000 |
| 10L44 | 81,200 | 65,900 | 57,800 | 52,100 | 45,800 | 39,900 | 29,400 |
| 12L44 | 87,400 | 70,400 | 62,800 | 55,800 | 49,200 | 42,800 | 30,500 |
| 15L44 | 108,600 | 92,900 | 82,200 | 73,600 | 63,900 | 54,600 | 40,500 |
| 22L44 | 128,600 | 105,100 | 94,400 | 83,500 | 75,200 | 66,600 | 51,500 |

100° AMBIENT

| DE/DC/DS/DL | 0° | -10° | -15° | -20° | -25° | -30° | -40° |
|-------------|---------|---------|--------|--------|--------|--------|--------|
| 3L44 | 29,100 | 24,100 | 21,300 | 18,700 | 16,200 | 14,000 | 10,000 |
| 4L44 | 35,600 | 28,400 | 25,100 | 22,000 | 19,300 | 16,600 | 11,900 |
| 5L44 | 41,900 | 33,700 | 30,100 | 26,600 | 23,300 | 20,300 | 14,800 |
| 6L44 | 48,200 | 38,200 | 33,800 | 29,700 | 25,900 | 22,400 | 16,300 |
| 8L44 | 60,700 | 48,500 | 42,900 | 37,800 | 33,200 | 29,000 | 21,500 |
| 9L44 | 70,200 | 56,200 | 50,000 | 44,300 | 39,000 | 34,200 | 25,800 |
| 10L44 | 77,400 | 62,800 | 55,100 | 49,600 | 43,700 | 38,000 | 28,000 |
| 12L44 | 83,200 | 67,000 | 59,800 | 53,100 | 46,800 | 40,800 | 29,100 |
| 15L44 | 103,500 | 89,200 | 77,900 | 70,600 | 64,500 | 58,400 | 44,300 |
| 22L44 | 122,500 | 100,100 | 89,900 | 79,500 | 71,600 | 63,500 | 49,100 |

110° AMBIENT

| DE/DC/DS/DL | 0° | -10° | -15° | -20° | -25° | -30° | -40° |
|-------------|---------|--------|--------|--------|--------|--------|--------|
| 3L44 | 26,100 | 21,600 | 19,100 | 16,700 | 14,500 | 12,600 | 9,000 |
| 4L44 | 31,800 | 25,400 | 22,500 | 19,700 | 17,300 | 14,900 | 10,700 |
| 5L44 | 37,600 | 30,300 | 27,000 | 23,900 | 21,000 | 18,200 | 13,300 |
| 6L44 | 43,100 | 34,200 | 30,200 | 26,600 | 23,200 | 20,000 | 14,600 |
| 8L44 | 54,200 | 43,300 | 38,300 | 33,700 | 29,700 | 25,800 | 19,200 |
| 9L44 | 62,800 | 50,300 | 44,800 | 39,700 | 34,900 | 30,600 | 23,100 |
| 10L44 | 69,300 | 56,300 | 49,400 | 44,500 | 39,100 | 34,100 | 25,100 |
| 12L44 | 74,700 | 60,200 | 53,700 | 47,700 | 42,100 | 36,600 | 26,100 |
| 15L44 | 92,600 | 80,100 | 69,900 | 63,400 | 48,900 | 47,000 | 34,900 |
| 22L44 | 109,700 | 89,700 | 80,600 | 71,300 | 64,200 | 56,900 | 44,000 |

AIR COOLED CONDENSING UNITS 3 TO 22 HP

Electrical Specifications

| MODEL NUMBER DE/DC/ DS/DL | COMPRESSOR 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

| | | | | | | | | | | | |
|-------|-----------|------|-------|-----|------|------|------|-------|-----|------|------|
| 5H22 | 2DD-R63KE | 22.3 | 120.0 | 4.2 | 27.5 | 34.0 | 10.5 | 60.0 | 2.1 | 13.1 | 16.0 |
| 7H22 | 2DA-R89KE | 32.0 | 169.0 | 6.4 | 39.4 | 48.0 | 14.1 | 85.0 | 4.2 | 18.8 | 23.0 |
| 8H22 | 3DA-R10ME | 41.0 | 215.0 | 6.4 | 48.4 | 59.0 | 20.0 | 106.0 | 4.2 | 24.7 | 30.0 |
| 10H22 | 3DB-R12ME | 43.6 | 215.0 | 8.4 | 53.0 | 64.0 | 20.0 | 106.0 | 4.2 | 24.7 | 30.0 |
| 12H22 | 3DF-R15ME | 48.2 | 275.0 | 8.4 | 57.6 | 70.0 | 23.6 | 138.0 | 4.2 | 28.3 | 35.0 |
| 15H22 | 3DS-R17ME | 59.6 | 275.0 | 8.4 | 69.0 | 84.0 | 29.0 | 138.0 | 4.2 | 33.7 | 41.0 |

LOW TEMP - R-22

| | | | | | | | | | | | |
|-------|-----------|------|-------|-----|------|------|------|-------|-----|------|------|
| 3L22 | 2DF-F16KE | 16.8 | 102.0 | 3.2 | 21.0 | 26.0 | 8.1 | 52.0 | 2.1 | 10.7 | 13.0 |
| 4L22 | 2DL-F20KE | 26.3 | 161.0 | 3.2 | 30.5 | 38.0 | 10.2 | 60.0 | 2.1 | 12.8 | 16.0 |
| 5L22 | 2DA-F23KE | 28.8 | 161.0 | 3.2 | 33.0 | 41.0 | 10.2 | 60.0 | 2.1 | 12.8 | 16.0 |
| 6L22 | 3DA-F28KE | 30.3 | 150.0 | 4.2 | 35.5 | 44.0 | 13.7 | 77.0 | 2.1 | 16.3 | 20.0 |
| 8L22 | 3DB-F33KE | 31.5 | 161.0 | 6.4 | 38.9 | 47.0 | 16.1 | 83.0 | 4.2 | 20.8 | 25.0 |
| 9L22 | 3DF-F40KE | 39.0 | 215.0 | 6.4 | 46.4 | 57.0 | 16.9 | 106.0 | 4.2 | 21.6 | 26.0 |
| 10L22 | 3DS-F46KE | 42.0 | 215.0 | 6.4 | 49.4 | 60.0 | 18.6 | 106.0 | 4.2 | 23.3 | 28.0 |
| 15L22 | 4DL-F63KE | 52.6 | 278.0 | 8.4 | 62.0 | 76.0 | 26.3 | 139.0 | 4.2 | 31.0 | 38.0 |
| 22L22 | 4DT-F76KE | 66.0 | 374.0 | 8.4 | 75.4 | 92.0 | 33.0 | 187.0 | 4.2 | 37.7 | 46.0 |

MEDIUM TEMP - R-404A / R-507

| | | | | | | | | | | | |
|-------|-----------|------|-------|-----|------|------|------|-------|-----|------|------|
| 5M44 | 2DD-R63KE | 22.3 | 120.0 | 4.2 | 27.5 | 34.0 | 10.5 | 60.0 | 2.1 | 13.1 | 16.0 |
| 6M44 | 2DL-R78KE | 31.6 | 169.0 | 6.4 | 39.4 | 47.0 | 13.8 | 85.0 | 4.2 | 18.5 | 22.0 |
| 7M44 | 2DA-R89KE | 32.0 | 169.0 | 6.4 | 39.4 | 48.0 | 14.1 | 85.0 | 4.2 | 18.8 | 23.0 |
| 8M44 | 3DA-R10ME | 41.0 | 215.0 | 6.4 | 48.8 | 59.0 | 20.0 | 106.0 | 4.2 | 24.7 | 30.0 |
| 10M44 | 3DB-R12ME | 43.6 | 215.0 | 8.4 | 53.0 | 64.0 | 20.0 | 106.0 | 4.2 | 24.7 | 30.0 |
| 12M44 | 3DF-R15ME | 48.2 | 275.0 | 8.4 | 57.6 | 70.0 | 23.6 | 138.0 | 4.2 | 28.3 | 35.0 |
| 15M44 | 3DS-R17ME | 59.6 | 275.0 | 8.4 | 69.0 | 84.0 | 29.0 | 138.0 | 4.2 | 33.7 | 41.0 |

LOW TEMP - R-404A / R-507

| | | | | | | | | | | | |
|-------|-----------|------|-------|-----|------|------|------|-------|-----|------|------|
| 3L44 | 2DF-F16KE | 16.8 | 102.0 | 3.2 | 21.0 | 26.0 | 8.1 | 52.0 | 2.1 | 10.7 | 13.0 |
| 4L44 | 2DL-F20KE | 26.3 | 161.0 | 3.2 | 30.5 | 38.0 | 10.2 | 60.0 | 2.1 | 12.8 | 16.0 |
| 5L44 | 2DA-F23KE | 28.8 | 161.0 | 3.2 | 33.0 | 41.0 | 10.2 | 60.0 | 2.1 | 12.8 | 16.0 |
| 6L44 | 3DA-F28KE | 30.3 | 150.0 | 3.2 | 34.5 | 43.0 | 13.7 | 77.0 | 2.1 | 16.3 | 20.0 |
| 8L44 | 3DB-F33KE | 31.5 | 161.0 | 6.4 | 38.9 | 47.0 | 16.1 | 83.0 | 4.2 | 20.8 | 25.0 |
| 9L44 | 3DF-F40KE | 39.0 | 215.0 | 6.4 | 46.4 | 57.0 | 16.9 | 106.0 | 4.2 | 21.6 | 26.0 |
| 10L44 | 3DS-F46KE | 42.0 | 215.0 | 6.4 | 49.4 | 60.0 | 18.6 | 106.0 | 4.2 | 32.3 | 28.0 |
| 12L44 | 4DA-F47KE | 45.6 | 220.0 | 6.4 | 53.0 | 65.0 | 22.8 | 110.0 | 4.2 | 27.5 | 34.0 |
| 15L44 | 4DL-F63KE | 52.6 | 278.0 | 8.4 | 62.0 | 76.0 | 26.3 | 139.0 | 4.2 | 31.0 | 38.0 |
| 22L44 | 4DT-F76KE | 66.0 | 374.0 | 8.4 | 75.5 | 92.0 | 33.0 | 187.0 | 4.2 | 37.7 | 46.0 |

* Does not include evaporator electrical loads.

MCA = Minimum Circuit Ampacity

AIR COOLED CONDENSING UNITS 3 TO 22 HP

Physical Data

| MODEL NUMBER DE/DC/ DS/DL | COMPRESSOR DATA | | DRW. NO.* | APPROXIMATE PHYSICAL DIMENSIONS (In) | | | REC. CAP @ 90% LBS. | CONNECTION SIZE (In) | | APPROX. WEIGHT (LBS.) | |
|---------------------------------|-----------------|-----|-----------|--------------------------------------|---|---|---------------------|----------------------|-------|-----------------------|----------|
| | COMP. MODEL | CFH | | H | L | D | | LIQ. | SUCT. | DE | DC/DS/DL |
| | | | | | | | | | | | |

HIGH TEMP - R-22

| | | | | | | | | | | | |
|-------|-----------|------|---|--------|----|----|------|-----|-------|-----|------|
| 5H22 | 2DD-R63KE | 823 | 1 | 37-1/4 | 38 | 48 | 32.0 | 5/8 | 1-1/8 | 580 | 850 |
| 7H22 | 2DA-R89KE | 1135 | 2 | 37-1/4 | 68 | 48 | 61.0 | 5/8 | 1-3/8 | 740 | 1100 |
| 8H22 | 3DA-R10ME | 1375 | 2 | 37-1/4 | 68 | 48 | 61.0 | 5/8 | 1-3/8 | 760 | 1130 |
| 10H22 | 3DB-R12ME | 1620 | 2 | 37-1/4 | 68 | 48 | 61.0 | 7/8 | 1-5/8 | 900 | 1330 |
| 12H22 | 3DF-R15ME | 1913 | 2 | 37-1/4 | 68 | 48 | 61.0 | 7/8 | 1-5/8 | 910 | 1340 |
| 15H22 | 3DS-R17ME | 2120 | 2 | 44-3/4 | 68 | 48 | 96.0 | 7/8 | 1-5/8 | 920 | 1350 |

LOW TEMP - R-22

| | | | | | | | | | | | |
|-------|-----------|------|---|--------|----|----|------|-----|-------|-----|------|
| 3L22 | 2DF-F16KE | 904 | 1 | 37-1/4 | 38 | 48 | 32.0 | 3/8 | 1-1/8 | 480 | 710 |
| 4L22 | 2DL-F20KE | 1008 | 1 | 37-1/4 | 38 | 48 | 32.0 | 3/8 | 1-1/8 | 510 | 740 |
| 5L22 | 2DA-F23KE | 1191 | 1 | 37-1/4 | 38 | 48 | 32.0 | 3/8 | 1-3/8 | 550 | 805 |
| 6L22 | 3DA-F28KE | 1375 | 1 | 37-1/4 | 38 | 48 | 32.0 | 3/8 | 1-3/8 | 575 | 840 |
| 8L22 | 3DB-F33KE | 1620 | 2 | 37-1/4 | 68 | 48 | 61.0 | 5/8 | 1-3/8 | 760 | 1130 |
| 9L22 | 3DF-F40KE | 1915 | 2 | 37-1/4 | 68 | 48 | 61.0 | 5/8 | 1-5/8 | 840 | 1275 |
| 10L22 | 3DS-F46KE | 2120 | 2 | 37-1/4 | 68 | 48 | 61.0 | 5/8 | 1-5/8 | 840 | 1275 |
| 15L22 | 4DL-F63KE | 3020 | 2 | 37-1/4 | 68 | 48 | 61.0 | 5/8 | 1-5/8 | 890 | 1310 |
| 22L22 | 4DT-F76KE | 3603 | 2 | 44-3/4 | 68 | 48 | 96.0 | 7/8 | 2-1/8 | 980 | 1420 |

MEDIUM TEMP - R-404A / R-507

| | | | | | | | | | | | |
|-------|-----------|------|---|--------|----|----|------|-----|-------|-----|------|
| 5M44 | 2DD-R63KE | 823 | 1 | 37-1/4 | 38 | 48 | 27.0 | 5/8 | 1-1/8 | 580 | 850 |
| 6M44 | 2DL-R78KE | 1008 | 2 | 37-1/4 | 68 | 48 | 27.0 | 5/8 | 1-1/8 | 650 | 1075 |
| 7M44 | 2DA-R89KE | 1135 | 2 | 37-1/4 | 68 | 48 | 52.0 | 5/8 | 1-3/8 | 740 | 1100 |
| 8M44 | 3DA-R10ME | 1375 | 2 | 37-1/4 | 68 | 48 | 52.0 | 5/8 | 1-3/8 | 760 | 1130 |
| 10M44 | 3DB-R12ME | 1620 | 2 | 37-1/4 | 68 | 48 | 52.0 | 7/8 | 1-5/8 | 900 | 1330 |
| 12M44 | 3DF-R15ME | 1915 | 2 | 37-1/4 | 68 | 48 | 52.0 | 7/8 | 1-5/8 | 900 | 1330 |
| 15M44 | 3DS-R17ME | 2120 | 2 | 44-3/4 | 68 | 48 | 82.0 | 7/8 | 1-5/8 | 920 | 1350 |

LOW TEMP - R-404A / R-507

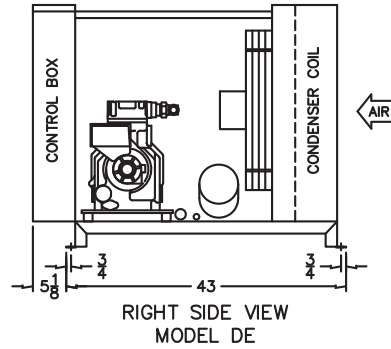
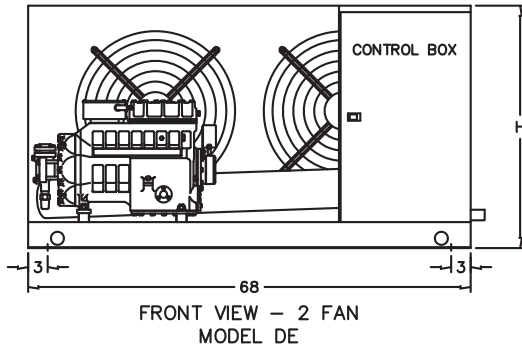
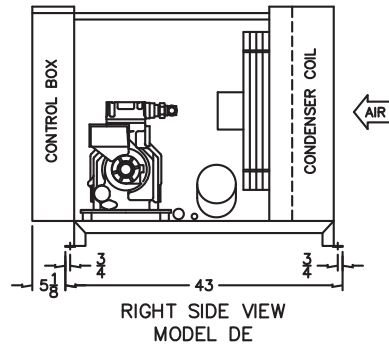
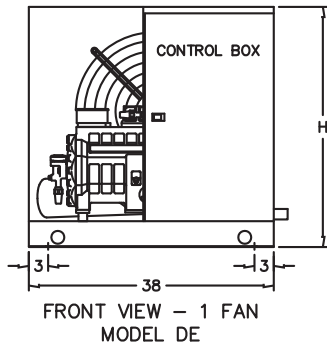
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|-------|-----------|------|---|--------|----|----|------|-----|-------|-----|------|
| 3L44 | 2DF-F16KE | 904 | 1 | 37-1/4 | 38 | 48 | 27.0 | 1/2 | 1-1/8 | 480 | 710 |
| 4L44 | 2DL-F20KE | 1008 | 1 | 37-1/4 | 38 | 48 | 27.0 | 1/2 | 1-1/8 | 520 | 760 |
| 5L44 | 2DA-F23KE | 1191 | 1 | 37-1/4 | 38 | 48 | 27.0 | 1/2 | 1-3/8 | 550 | 805 |
| 6L44 | 3DA-F28KE | 1375 | 1 | 37-1/4 | 38 | 48 | 27.0 | 1/2 | 1-3/8 | 605 | 870 |
| 8L44 | 3DB-F33KE | 1620 | 2 | 37-1/4 | 68 | 48 | 52.0 | 5/8 | 1-3/8 | 760 | 1130 |
| 9L44 | 3DF-F40KE | 1915 | 2 | 37-1/4 | 68 | 48 | 52.0 | 5/8 | 1-5/8 | 840 | 1275 |
| 10L44 | 3DS-F46KE | 2120 | 2 | 37-1/4 | 68 | 48 | 52.0 | 5/8 | 1-5/8 | 840 | 1275 |
| 12L44 | 4DA-F47KE | 2380 | 2 | 37-1/4 | 68 | 48 | 52.0 | 5/8 | 1-5/8 | 855 | 1290 |
| 15L44 | 4DL-F63KE | 3020 | 2 | 37-1/4 | 68 | 48 | 52.0 | 5/8 | 1-5/8 | 890 | 1310 |
| 22L44 | 4DT-F76KE | 3603 | 2 | 44-3/4 | 68 | 48 | 82.0 | 7/8 | 2-1/8 | 980 | 1420 |

* See back cover.

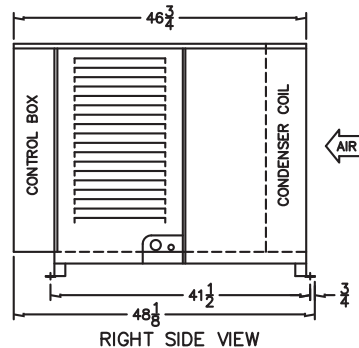
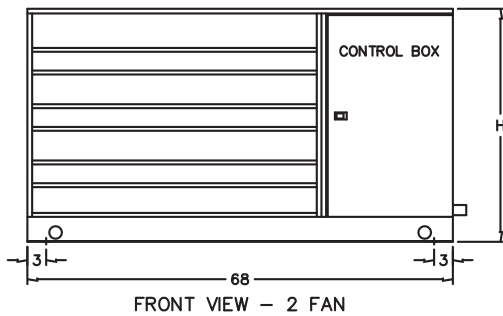
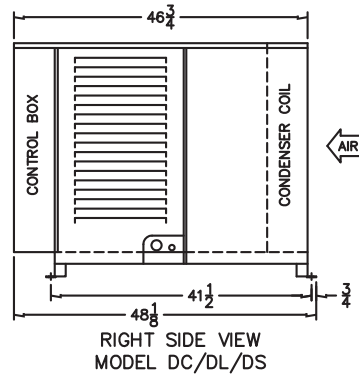
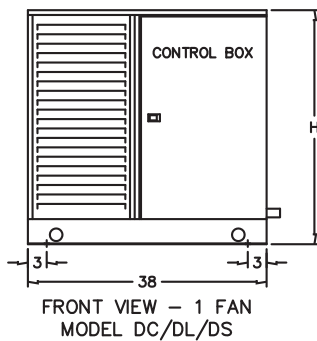
AIR COOLED CONDENSING UNITS 3 TO 22 HP

Drawings

INDOOR UNITS



OUTDOOR UNITS



See Physical Data page for the appropriate number of condenser fans.