

Model #: YCAS0330EC46XGADBTXXXXLXXXX40SXXXXXXXXXXAXXBXXXXXLXXB1XXXX
Serial #: RFPM011779



Millennium® Air Cooled Screw Liquid Chillers (STYLE F)

L: 32' 5"
W: 7' 6"
H: 8"

Operating Weight: 19,251

Shipping Weight: 16,748



28971AR



50 - 200 TONS



Metric Conversions

80 - 420 TONS
(310 - 1460 kW)
60 Hz



200, 230, 380,
460, & 575 Models



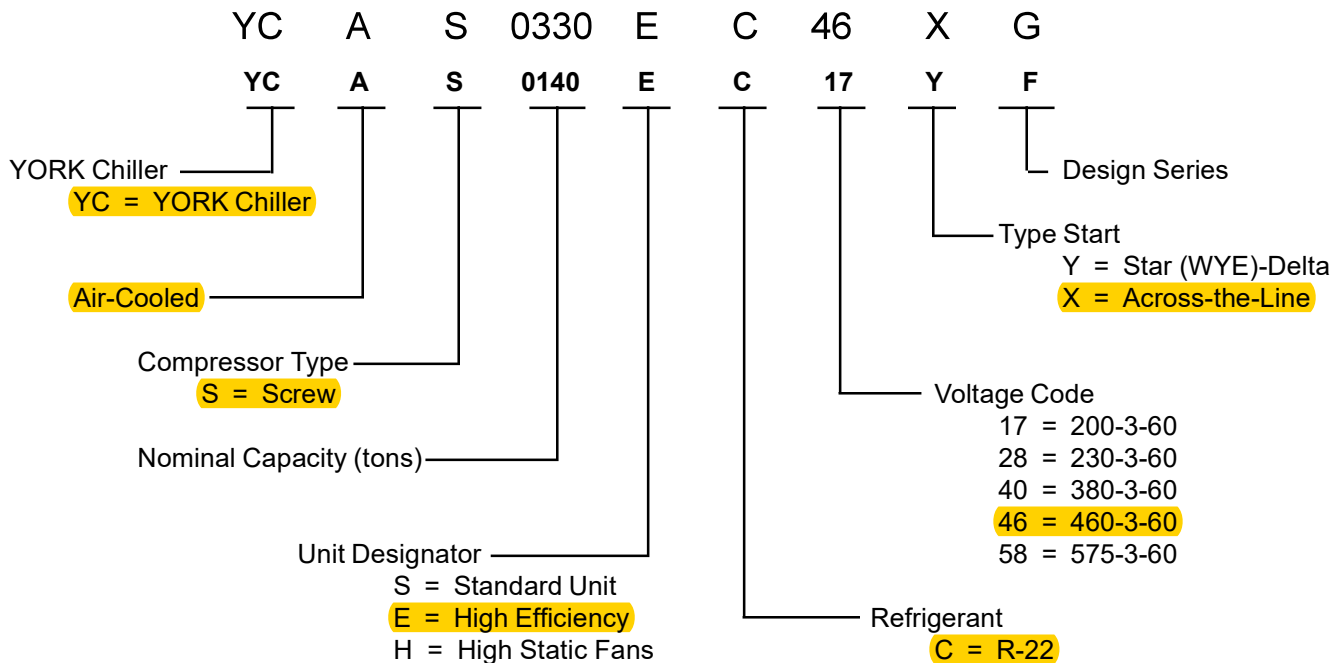
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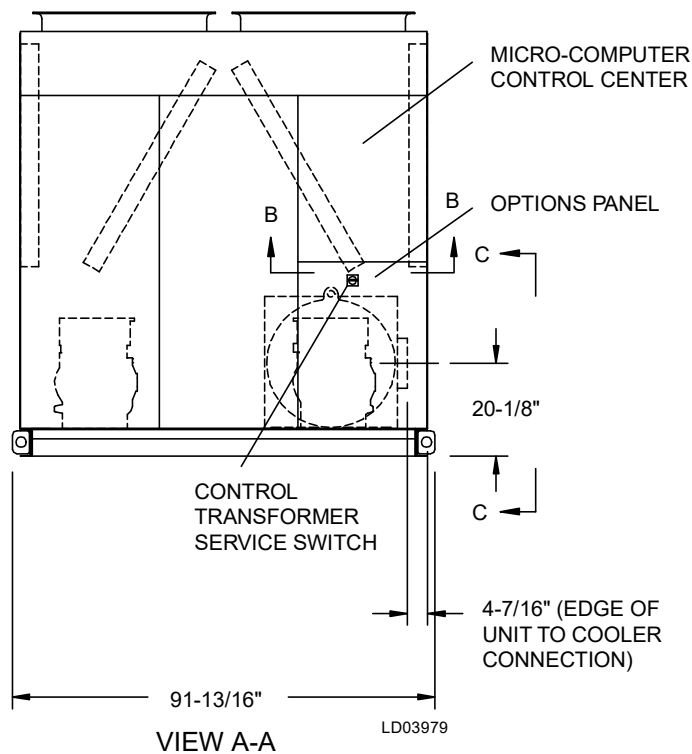
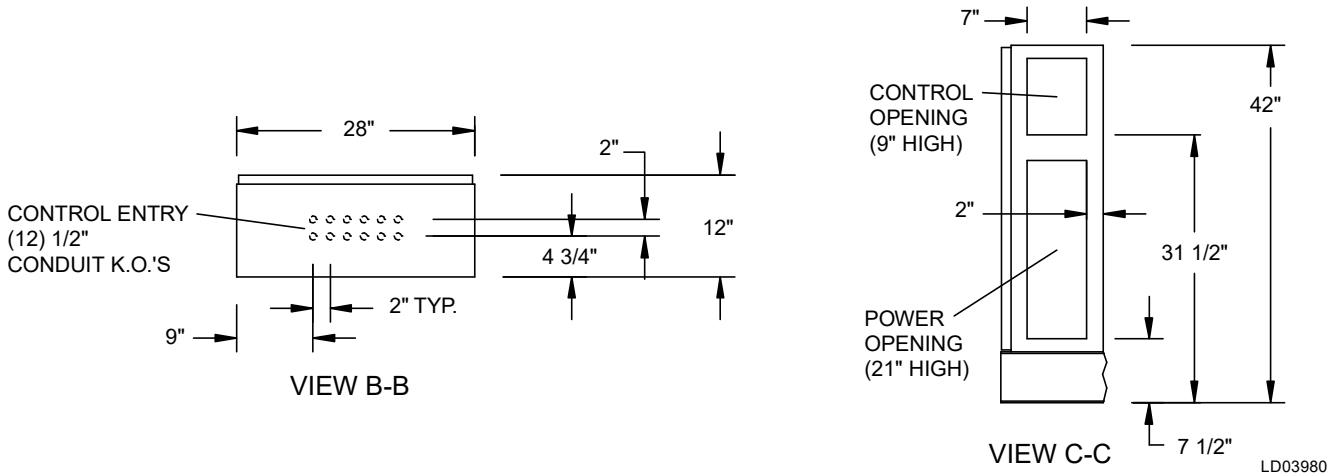
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NOMENCLATURE

The Model Number denotes the following characteristics of the unit:

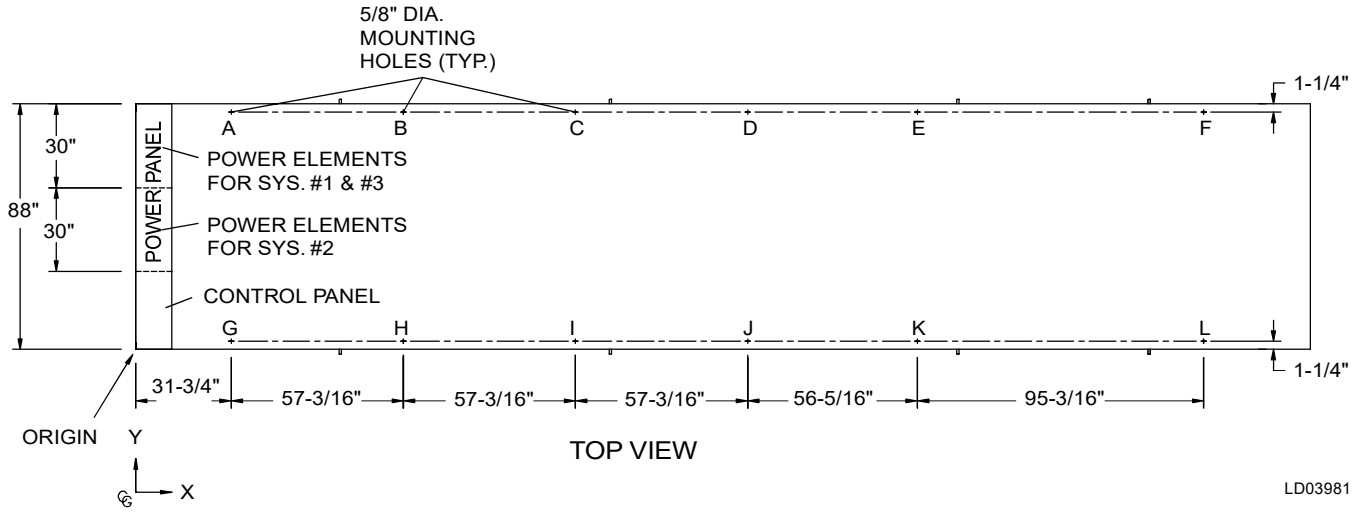


Dimensions – YCAS0300 - 0330 (English)



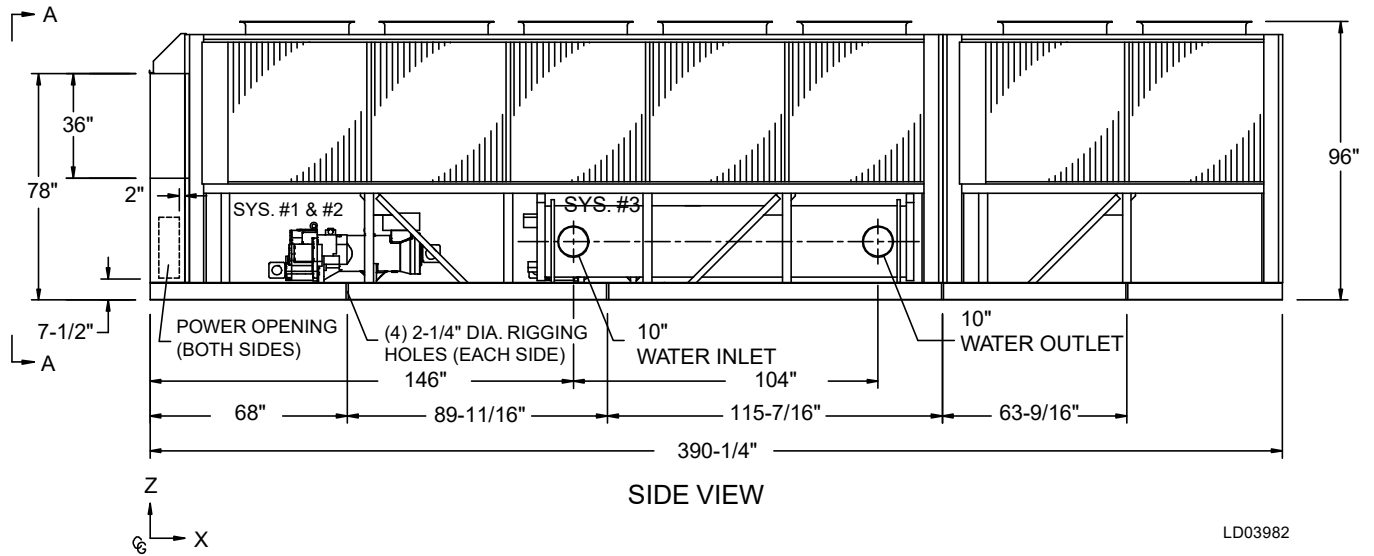
NOTES:

1. Placement on a level surface free of obstructions (including snow, for winter operation) or air recirculation ensures rated performance, reliable operation and ease of maintenance. Site restrictions may compromise minimum clearances indicated below, resulting in unpredictable air flow patterns and possible diminished performance. YORK's unit controls will optimize operation without nuisance high pressure safety cutout; however, the system designer must consider potential performance degradation. Access to the unit control center assumes the unit is no higher than on spring isolators. Recommended minimum clearances: Side to wall - 6'; rear to wall - 6'; control panel end to wall - 4'; top - no obstructions allowed; distance between adjacent units - 10'. No more than one adjacent wall may be higher than the unit.



| CENTER OF GRAVITY (Alum.) | | | |
|---------------------------|--------|-------|-------|
| YCAS | X | Y | Z |
| 0300 | 154.0" | 41.6" | 34.8" |
| 0330 | 151.3" | 41.7" | 34.5" |

| CENTER OF GRAVITY (Copper) | | | |
|----------------------------|--------|-------|-------|
| YCAS | X | Y | Z |
| 0300 | 159.2" | 41.9" | 41.8" |
| 0330 | 156.8" | 41.9" | 41.4" |



Operating Weights – Aluminum Fin Coils

ALUMINUM FIN COIL WEIGHT DISTRIBUTION BY MODEL (LBS)

| YCAS | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 0090 | 1,405 | 1,191 | 977 | 1,565 | 1,326 | 1,088 | — | — | — | — | — | — | — | — | — | — | 7,552 |
| 0100 | 1,415 | 1,203 | 992 | 1,587 | 1,350 | 1,113 | — | — | — | — | — | — | — | — | — | — | 7,660 |
| 0110 | 1,508 | 1,399 | 1,290 | 1,566 | 1,452 | 1,339 | — | — | — | — | — | — | — | — | — | — | 8,554 |
| 0120 | 1,510 | 1,405 | 1,301 | 1,573 | 1,464 | 1,355 | — | — | — | — | — | — | — | — | — | — | 8,608 |
| 0130 | 1,550 | 1,339 | 1,657 | 678 | 1,573 | 1,111 | 1,707 | 700 | — | — | — | — | — | — | — | — | 10,315 |
| 0140 | 1,576 | 1,356 | 1,692 | 688 | 1,614 | 1,136 | 1,764 | 711 | — | — | — | — | — | — | — | — | 10,537 |
| 0150 | 1,634 | 1,227 | 1,517 | 1,095 | 1,794 | 1,194 | 1,472 | 1,330 | — | — | — | — | — | — | — | — | 11,263 |
| 0160 | 1,637 | 1,210 | 1,538 | 1,109 | 1,796 | 1,163 | 1,460 | 1,334 | — | — | — | — | — | — | — | — | 11,247 |
| 0170 | 1,639 | 1,231 | 1,554 | 1,114 | 1,798 | 1,198 | 1,485 | 1,339 | — | — | — | — | — | — | — | — | 11,358 |
| 0180 | 1,662 | 1,227 | 1,561 | 1,132 | 1,836 | 1,188 | 1,494 | 1,369 | — | — | — | — | — | — | — | — | 11,358 |
| 0200 | 1,856 | 1,358 | 2,077 | 869 | 1,983 | 1,207 | 2,261 | 902 | — | — | — | — | — | — | — | — | 12,513 |
| 0210 | 1,859 | 1,387 | 2,089 | 874 | 1,986 | 1,254 | 2,278 | 907 | — | — | — | — | — | — | — | — | 12,634 |
| 0230 | 1,862 | 1,415 | 2,098 | 878 | 1,989 | 1,303 | 2,289 | 911 | — | — | — | — | — | — | — | — | 12,745 |
| 0250 | 1,209 | 1,821 | 1,964 | 1,051 | 1,038 | 830 | 1,209 | 2,010 | 2,351 | 797 | 2,112 | 943 | — | — | — | — | 17,334 |
| 0270 | 1,225 | 1,837 | 2,015 | 1,082 | 1,039 | 832 | 1,225 | 2,027 | 2,374 | 817 | 2,113 | 945 | — | — | — | — | 17,531 |
| 0300 | 1,254 | 1,924 | 2,094 | 1,227 | 1,183 | 1,017 | 1,254 | 2,069 | 2,511 | 1,030 | 2,316 | 1,017 | — | — | — | — | 18,896 |
| 0330 | 1,295 | 1,966 | 2,137 | 1,269 | 1,186 | 1,022 | 1,295 | 2,112 | 2,554 | 1,072 | 2,320 | 1,022 | — | — | — | — | 19,251 |
| 0360 | 1,323 | 1,866 | 1,792 | 1,064 | 1,001 | 2,098 | 1,727 | 1,224 | 1,323 | 1,866 | 1,792 | 1,064 | 1,001 | 2,098 | 1,727 | 1,224 | 24,191 |
| 0400 | 1,380 | 1,882 | 1,851 | 1,285 | 1,048 | 2,185 | 1,813 | 1,338 | 1,380 | 1,882 | 1,851 | 1,285 | 1,048 | 2,185 | 1,813 | 1,338 | 25,564 |
| 0440 | 1,435 | 1,938 | 1,907 | 1,341 | 1,051 | 2,190 | 1,888 | 1,274 | 1,435 | 1,938 | 1,907 | 1,341 | 1,051 | 2,190 | 1,888 | 1,274 | 26,049 |

ALUMINUM FIN COIL WEIGHT DISTRIBUTION BY MODEL (KGS)

| YCAS | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|------|-----|-----|-----|-----|-----|-----|------|-----|------|-----|------|-----|-----|-----|-----|-----|--------|
| 0090 | 637 | 540 | 443 | 710 | 601 | 494 | — | — | — | — | — | — | — | — | — | — | 3,426 |
| 0100 | 642 | 546 | 450 | 720 | 612 | 505 | — | — | — | — | — | — | — | — | — | — | 3,475 |
| 0110 | 684 | 635 | 585 | 710 | 659 | 607 | — | — | — | — | — | — | — | — | — | — | 3,880 |
| 0120 | 685 | 637 | 590 | 714 | 664 | 615 | — | — | — | — | — | — | — | — | — | — | 3,905 |
| 0130 | 703 | 607 | 752 | 308 | 714 | 504 | 774 | 318 | — | — | — | — | — | — | — | — | 4,679 |
| 0140 | 715 | 615 | 767 | 312 | 732 | 515 | 800 | 323 | — | — | — | — | — | — | — | — | 4,780 |
| 0150 | 741 | 557 | 688 | 497 | 814 | 542 | 668 | 603 | — | — | — | — | — | — | — | — | 5,109 |
| 0160 | 743 | 549 | 698 | 503 | 815 | 528 | 662 | 605 | — | — | — | — | — | — | — | — | 5,102 |
| 0170 | 743 | 558 | 705 | 505 | 816 | 543 | 674 | 607 | — | — | — | — | — | — | — | — | 5,152 |
| 0180 | 754 | 557 | 708 | 513 | 833 | 539 | 678 | 621 | — | — | — | — | — | — | — | — | 5,202 |
| 0200 | 842 | 616 | 942 | 394 | 899 | 547 | 1026 | 409 | — | — | — | — | — | — | — | — | 5,676 |
| 0210 | 843 | 629 | 948 | 396 | 901 | 569 | 1033 | 411 | — | — | — | — | — | — | — | — | 5,731 |
| 0230 | 845 | 642 | 952 | 398 | 902 | 591 | 1038 | 413 | — | — | — | — | — | — | — | — | 5,781 |
| 0250 | 548 | 826 | 891 | 477 | 471 | 376 | 548 | 912 | 1066 | 362 | 958 | 428 | — | — | — | — | 7,863 |
| 0270 | 556 | 833 | 914 | 491 | 471 | 377 | 556 | 919 | 1077 | 370 | 958 | 429 | — | — | — | — | 7,952 |
| 0300 | 569 | 873 | 950 | 556 | 537 | 461 | 569 | 939 | 1139 | 467 | 1051 | 461 | — | — | — | — | 8,571 |
| 0330 | 587 | 892 | 969 | 576 | 538 | 464 | 587 | 958 | 1158 | 486 | 1052 | 464 | — | — | — | — | 8,732 |
| 0360 | 600 | 846 | 813 | 483 | 454 | 952 | 783 | 555 | 600 | 846 | 813 | 483 | 454 | 952 | 783 | 555 | 10,973 |
| 0400 | 626 | 854 | 840 | 583 | 476 | 991 | 822 | 607 | 626 | 854 | 840 | 583 | 476 | 991 | 822 | 607 | 11,596 |
| 0440 | 651 | 879 | 865 | 608 | 477 | 993 | 856 | 578 | 651 | 879 | 865 | 608 | 477 | 993 | 856 | 578 | 11,816 |

| ISOLATOR TYPE & SIZE | MAX LOAD | | DEFL. | |
|-------------------------|----------|--------|-------|----|
| | lbs. | kg | in. | mm |
| AWMR-1-53 | 1000 | 453.6 | 2 | 51 |
| AWMR-1-530 | 1150 | 521.6 | 2 | 51 |
| AWMR-1-531 | 1276 | 578.8 | 2 | 51 |
| AWMR-1-532 | 1500 | 680.4 | 2 | 51 |
| AWMR-1-551 | 1676 | 760.2 | 2 | 51 |
| AWMR-1-552 | 1900 | 861.8 | 2 | 51 |
| AWMR-1-553 | 2200 | 997.9 | 2 | 51 |
| AWMR-2-520 | 1300 | 589.7 | 2 | 51 |
| AWMR-2-521 | 1552 | 704.0 | 2 | 51 |
| AWMR-2-53 | 2000 | 907.2 | 2 | 51 |
| AWMR-1-530 | 2300 | 1043.3 | 2 | 51 |
| AWMR-2-531 | 2552 | 1157.6 | 2 | 51 |
| AWMR-2-532 | 3000 | 1360.8 | 2 | 51 |

| ISOLATOR TYPE & SIZE | MAX LOAD | | DEFL. | | SPRING COLOR |
|-------------------------|----------|--------|-------|------|-----------------|
| | lbs. | kg | in. | mm | |
| CP-2-25 | 900 | 408.2 | 1.22 | 30.9 | Red |
| CP-2-26 | 1200 | 544.3 | 1.17 | 29.7 | Purple |
| CP-2-27 | 1500 | 680.4 | 1.06 | 26.9 | Orange |
| CP-2-28 | 1800 | 816.4 | 1.02 | 25.9 | Green |
| CP-2-31 | 2200 | 997.9 | 0.83 | 21.0 | Gray |
| CP-2-32 | 2600 | 1179.3 | 0.74 | 18.7 | White |
| CP-2-35 | 3000 | 1360.8 | 0.70 | 17.7 | Gold |

ENGLISH UNITS

| | MODEL NUMBER YCAS | | | | | | | | | | |
|---|-------------------|----------|----------|-----------|----------|----------|----------|-----------|----------|----------|-----------|
| | 0180EC | 0200EC | 0210EC | 0230EC | 0250EC | 0270EC | 0300EC | 0330EC | 0360EC | 0400EC | 0440EC |
| General Unit Data | | | | | | | | | | | |
| Unit Capacity at ARI Conditions, Tons | 171.6 | 186.7 | 194.8 | 209.1 | 243.3 | 264.5 | 287.7 | 314.1 | 352.2 | 386.3 | 419.1 |
| Number of Independent Refrig. Circuits | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| Refrig. Charge, R-22, Ckt.-1 / Ckt.-2, lbs. | 190/190 | 220/220 | 220/220 | 220/220 | 154/154 | 154/154 | 187/187 | 203/203 | 187/187 | 212/212 | 229/229 |
| Ckt.-3 / Ckt.-4, lbs. | -/- | -/- | -/- | -/- | 154/- | 172/- | 176/- | 190/- | 187/187 | 198/198 | 216/216 |
| Oil Charge, Ckt.-1 / Ckt.-2, gallons | 5/5 | 5/5 | 5/5 | 5/5 | 5/5 | 5/5 | 5/5 | 5/5 | 5/5 | 5/5 | 5/5 |
| Ckt.-3, Ckt.-4, gallons | -/- | -/- | -/- | -/- | 5/- | 5/- | 5/- | 5/- | 5/5 | 5/5 | 5/5 |
| Shipping Weight: | | | | | | | | | | | |
| Aluminum Fin Coils, lbs. | 10,805 | 11,849 | 11,970 | 12,081 | 15,022 | 15,190 | 16,570 | 16,748 | 21,164 | 22,476 | 22,926 |
| Copper Fin Coils, lbs. | 12,071 | 13,441 | 13,552 | 13,663 | 16,922 | 17,090 | 18,785 | 18,964 | 23,695 | 25,322 | 25,772 |
| Operating Weight: | | | | | | | | | | | |
| Aluminum Fin Coils, lbs. | 11,469 | 12,513 | 12,634 | 12,745 | 17,334 | 17,531 | 18,896 | 19,251 | 24,191 | 25,564 | 26,049 |
| Copper Fin Coils, lbs. | 12,735 | 14,105 | 14,216 | 14,327 | 19,235 | 19,431 | 21,111 | 21,466 | 26,722 | 28,411 | 28,896 |
| Compressors, DXS Semihermetic Twin Screw | | | | | | | | | | | |
| Quantity per Chiller | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| Nominal Ton Size, Ckt.-1 / Ckt.-2 | 85/85 | 95/95 | 105/95 | 105/105 | 78/78 | 78/78 | 95/95 | 105/105 | 95/95 | 95/95 | 105/105 |
| Ckt.-3 / Ckt.-4 | -/- | -/- | -/- | -/- | 78/- | 105/- | 95/- | 105/- | 78/78 | 95/95 | 105/105 |
| Refrigerant Economizer, Ckt.-1 / Ckt.-2 | Yes / Yes | No / No | Yes / No | Yes / Yes | No / No | No / No | No / No | Yes / Yes | No / No | No / No | Yes / Yes |
| Ckt.-3 / Ckt.-4 | -/- | -/- | -/- | -/- | No / - | Yes / - | No / - | Yes / - | No / No | No / No | Yes / Yes |
| Condensers, High Efficiency Fin / Tube with Integral Subcooler | | | | | | | | | | | |
| Total Chiller Coil Face Area, ft ² | 256 | 320 | 320 | 320 | 384 | 384 | 448 | 448 | 512 | 576 | 576 |
| Number of Rows | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Fins per Inch | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| Condenser Fans | | | | | | | | | | | |
| Number, Ckt.-1 / Ckt.-2 | 4 / 4 | 5 / 5 | 5 / 5 | 5 / 5 | 4 / 4 | 4 / 4 | 5 / 5 | 5 / 5 | 4 / 4 | 5 / 5 | 5 / 5 |
| Number, Ckt.-3 / Ckt.-4 | -/- | -/- | -/- | -/- | 4 / - | 4 / - | 4 / - | 4 / - | 4 / 4 | 4 / 4 | 4 / 4 |
| Standard Fans | | | | | | | | | | | |
| Fan Motor, HP / kW | 2 / 1.8 | 2 / 1.8 | 2 / 1.8 | 2 / 1.8 | 2 / 1.8 | 2 / 1.8 | 2 / 1.8 | 2 / 1.8 | 2 / 1.8 | 2 / 1.8 | 2 / 1.8 |
| Fan & Motor RPM | 1140 | 1140 | 1140 | 1140 | 1140 | 1140 | 1140 | 1140 | 1140 | 1140 | 1140 |
| Fan Diameter, inches | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 |
| Fan Tip Speed, feet/min. | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 |
| Total Chiller Airflow, CFM | 114,400 | 143,000 | 143,000 | 143,000 | 171,600 | 171,600 | 200,200 | 200,200 | 228,800 | 257,400 | 257,400 |
| Low Noise Fans | | | | | | | | | | | |
| Fan Motor, HP / kW | 2 / 1.53 | 2 / 1.53 | 2 / 1.53 | 2 / 1.53 | 2 / 1.53 | 2 / 1.53 | 2 / 1.53 | 2 / 1.53 | 2 / 1.53 | 2 / 1.53 | 2 / 1.53 |
| Fan & Motor RPM | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 |
| Fan Diameter, inches | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 |
| Fan Tip Speed, feet/min. | 7,792 | 7,792 | 7,792 | 7,792 | 7,792 | 7,792 | 7,792 | 7,792 | 7,792 | 7,792 | 7,792 |
| Total Chiller Airflow, CFM | 112,400 | 140,500 | 140,500 | 140,500 | 168,600 | 168,600 | 196,700 | 196,700 | 224,800 | 252,900 | 252,900 |
| High Static Fans | | | | | | | | | | | |
| Fan Motor, HP / kW | 5 / 3.79 | 5 / 3.79 | 5 / 3.79 | 5 / 3.79 | 5 / 3.79 | 5 / 3.79 | 5 / 3.79 | 5 / 3.79 | 5 / 3.79 | 5 / 3.79 | 5 / 3.79 |
| Fan & Motor RPM | 1,140 | 1,140 | 1,140 | 1,140 | 1,140 | 1,140 | 1,140 | 1,140 | 1,140 | 1,140 | 1,140 |
| Fan Diameter, inches | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 | 35.4 |
| Fan Tip Speed, feet/min. | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 | 10,575 |
| Total Chiller Airflow, CFM (@0.4" additional static) | 114,400 | 143,000 | 143,000 | 143,000 | 171,600 | 171,600 | 200,200 | 200,200 | 228,800 | 257,400 | 257,400 |
| Evaporator, Direct Expansion | | | | | | | | | | | |
| Water Volume, gallons | 79 | 79 | 79 | 79 | 116 | 116 | 94 | 94 | 150 | 135 | 135 |
| Maximum ¹ Water Side Pressure, PSIG | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| Maximum Refrigerant Side Pressure, PSIG | 350 | 350 | 350 | 350 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| Minimum Chilled Water Flow Rate, GPM | 218 | 228 | 246 | 272 | 225 | 225 | 255 | 255 | 300 | 330 | 330 |
| Maximum Chilled Water Flow Rate, GPM | 747 | 747 | 747 | 747 | 800 | 800 | 800 | 800 | 1060 | 1060 | 1060 |
| Water Connections, inches | 8 | 8 | 8 | 8 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

1 Optional 300 PSIG Waterside available