



Product Data

30GTN,GTR Air-Cooled Reciprocating Liquid Chillers with *ComfortLink*TM controls 50/60 Hz

Nominal Capacities: 36 to 410 Tons
127 to 1445 kW

*ComfortLink*TM

Features/Benefits

***ComfortLink*TM control**

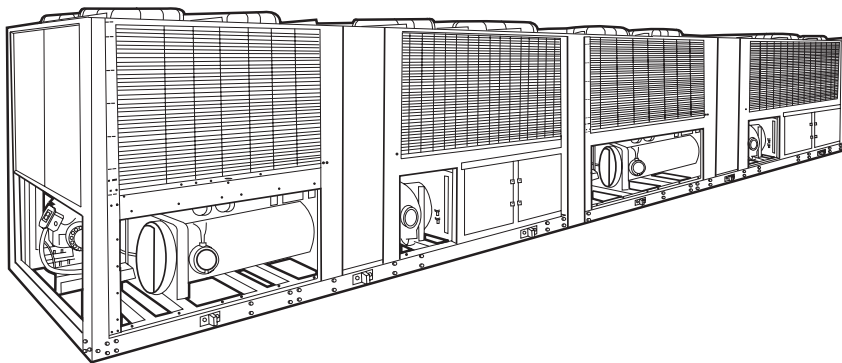
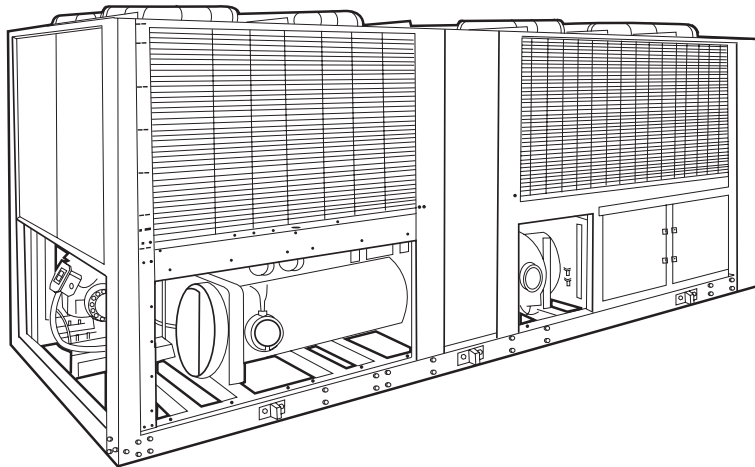
Your link to a world of simple and easy to use air-cooled chillers that offer outstanding performance and value. The 30GTN,GTR liquid chillers employ more than the latest advanced microprocessor controls, they utilize an expandable platform that grows as your needs change. From stand-alone operation to remotely monitored and operated multi-chiller plants, *ComfortLink* controls can keep you plugged in.

ComfortLink controls are fully communicating, and are cable ready for connection to a Carrier Comfort Network (CCN). Occupancy scheduling, temperature and pressure read-outs, and the *ComfortLink* scrolling marquee clear language display compliment the standard features, linking you to a world of carefree comfort. The 30GTN,GTR chillers are built on the legendary performance of the Carrier model 30G FlotronicTM chiller and share many of the same time-proven features and technologies providing easy operation, quick installation and start-ups that save you money!

Superior temperature control equals potential for greater productivity

Whether in the classroom, on the production floor, or in the office, *ComfortLink* controls can help you to adapt to changing weather and business conditions. Accurate temperature control provided by the Carrier *ComfortLink* system helps to maintain higher levels of indoor air quality, thermal comfort, and productivity space.

While many air-cooled chillers use only leaving fluid temperature control, the 30GTN,GTR chillers utilize



Model number nomenclature



30GT N 130 - E C 9 2 3 --

30GT – Air-Cooled Liquid Chiller

Compressor Start

N – Across-The-Line Start with ComfortLink™ Controls

R – Part-Wind Start with ComfortLink Controls

Unit Sizes*

| | | | | | |
|------------|-----|-----|-----|-----|-----|
| 040 | 070 | 110 | 190 | 265 | 330 |
| 045 | 080 | 130 | 210 | 270 | 360 |
| 050 | 090 | 150 | 230 | 290 | 390 |
| 060 | 100 | 170 | 245 | 315 | 420 |

Module Designation (230-420 Unit Sizes Only)*

- A
- B

Convenience Group Options

- – Standard Marquee Display
- E** – Standard Marquee Display with Energy Management Option
- S** – Service Option with Navigator Display

Options

-- -- NOTE: Contact your Carrier representative for details on available factory-installed options.

Packaging

- 1 – Domestic
- 3 – Export

Not Used

V-Ph-Hz

- 1 – 575-3-60
- 2 – 380-3-60†
- 5** – 208/230-3-60
- 6 – 460-3-60
- 9 – 380/415-3-50†

Condenser Coil Options

- – Copper Tube, Aluminum Fins
- C** – Copper Tube, Copper Fins
- H** – Copper Tube, Aluminum Heresite Coated Fins
- J** – Copper Tube, Copper Heresite Coated Fins
- K** – Copper Tube, Pre-Coated Aluminum Fins

LEGEND

EXV — Electronic Expansion Valve

*Refer to Unit Sizes and Modular Combinations below.

†Export only — not for U.S. domestic sale.

UNIT SIZES AND MODULAR COMBINATIONS

| UNIT MODEL 30GTN,GTR | NOMINAL TONS | SECTION A UNIT 30GTN,GTR | SECTION B UNIT 30GTN,GTR |
|-------------------------|-----------------|--------------------------------|--------------------------------|
| 40 | 40 | — | — |
| 45 | 45 | — | — |
| 50 | 50 | — | — |
| 60 | 60 | — | — |
| 70 | 70 | — | — |
| 80 | 80 | — | — |
| 90 | 90 | — | — |
| 100 | 100 | — | — |
| 110 | 110 | — | — |
| 130 | 125 | — | — |
| 150 | 145 | — | — |
| 170 | 160 | — | — |
| 190 | 180 | — | — |
| 210 | 200 | — | — |
| 230 | 220 | 150 | 080 |
| 245 | 230 | 150 | 090 |
| 255 | 240 | 150 | 100 |
| 270 | 260 | 170 | 100 |
| 290 | 280 | 190 | 110 |
| 315 | 300 | 210 | 110 |
| 330 | 325 | 170 | 170 |
| 360 | 350 | 190 | 190/170* |
| 390 | 380 | 210 | 190 |
| 420 | 410 | 210 | 210 |

*60 Hz units/50 Hz units.

60 Hz UNITS, ENGLISH

| 30GTN,GTR UNIT SIZE | 040 | 045 | 050 | 060 | 070 | 080 | 090 | 100 | 110 |
|--|---|-------------|-------------|-------------|---------------------|--------------------|------------------|------------------|------------------|
| SYSTEM MODULES | — | — | — | — | — | — | — | — | — |
| APPROX OPERATING WEIGHT (lb) | | | | | | | | | |
| Cu-Al | 3550 | 3681 | 3856 | 4740 | 5028 | 6630 | 7015 | 8610 | 8660 |
| Cu-Cu | 3838 | 3969 | 4289 | 5157 | 5656 | 7355 | 7740 | 9560 | 9610 |
| REFRIGERANT TYPE | R-22 | | | | | | | | |
| Charge, Total/Over Clear Glass (lb) | | | | | | | | | |
| Ckt A | 39/12 | 40/12 | 48/12 | 52/14 | 70/15 | 78/15 | 78/15 | 98/20 | 98/20 |
| Ckt B | 48/12 | 46/12 | 60/12 | 54/14 | 69/15 | 78/15 | 78/15 | 105/20 | 105/20 |
| COMPRESSORS | Reciprocating, Semi-Hermetic | | | | | | | | |
| Speed (rpm) | | | | | | 1750 | | | |
| 06E* (Qty) Ckt A | (1) 250 | (1) 250 | (1) 265 | (1) 275 | (1) 299 | (1) 250, (1) 275 | (1) 250, (1) 265 | (1) 265, (1) 275 | (1) 265, (1) 299 |
| (Qty) Ckt B | (1) 250 | (1) 265 | (1) 275 | (1) 299 | (1) 299 | (1) 299 | (2) 265 | (1) 265, (1) 275 | (1) 265, (1) 275 |
| Oil Charge (Compressor/pt) | | | | | 250/14.0, 265/19.0, | 275/19.0, 299/19.0 | | | |
| No. Capacity Control Steps | 4 | 4 | 4 | 4 | 4 | 6 | 8 | 8 | 8 |
| Capacity (%) | | | | | | | | | |
| Ckt A | 50.0 | 42.4 | 47.6 | 43.3 | 50.0 | 56.0 | 47.0 | 50.0 | 54.0 |
| Ckt B | 50.0 | 57.6 | 52.4 | 56.7 | 50.0 | 44.0 | 53.0 | 50.0 | 46.0 |
| Minimum Capacity Step (%) | 25.0 | 21.2 | 31.7 | 28.8 | 33.3 | 22.0 | 18.0 | 15.0 | 14.0 |
| CONDENSER FANS | Propeller, Direct Drive | | | | | | | | |
| Standard | | | | | | 1140 | | | |
| Fan Speed (rpm) | | | | | | 4... 30 | | | |
| No. Blades...Dia. (in.) | | | | | | | | | |
| No. Fans...Hp/kW (each) | 4...1/0.746 | 4...1/0.746 | 4...1/0.746 | 6...1/0.746 | 6...1/0.746 | 6...1/0.746 | 6...1/0.746 | 8...1/0.746 | 8...1/0.746 |
| Total Airflow (cfm) | 35,000 | 35,000 | 34,000 | 52,000 | 51,000 | 57,000 | 57,000 | 76,000 | 76,000 |
| High Static | | | | | | 1740 | | | |
| Fan Speed (rpm) | | | | | | 12... 30 | | | |
| No. Blades...Dia. (in.) | | | | | | | | | |
| No. Fans...Hp/kW (each) | 4...5/3.73 | 4...5/3.73 | 4...5/3.73 | 6...5/3.73 | 6...5/3.73 | 6...5/3.73 | 6...5/3.73 | 8...5/3.73 | 8...5/3.73 |
| Total Airflow (cfm)† | 40,000 | 40,000 | 40,000 | 60,000 | 60,000 | 60,000 | 60,000 | 80,000 | 80,000 |
| CONDENSER COILS | 3/8-in. OD Vertical and Horizontal, Plate Fin, Enhanced Copper Tubing | | | | | | | | |
| Fins/in. | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| No. Rows (Ckt A or B) | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| Face Area, Ckt A and B Total (sq ft) | 80.5 | 80.5 | 80.5 | 116.7 | 116.7 | 128.3 | 128.3 | 168.0 | 168.0 |
| Max Working Pressure Refrigerant (psig) | | | | | | 450 | | | |
| COOLER | One... Direct Expansion, Shell and Tube | | | | | | | | |
| Weight (empty, lb) | 485 | 545 | 545 | 620 | 620 | 745 | 745 | 860 | 860 |
| No. Refrigerant Circuits | | | | | | 2 | | | |
| Net Water Volume, includes nozzles (gal.) | 10.9 | 13.5 | 13.5 | 18.0 | 18.0 | 24.5 | 24.5 | 30.3 | 30.3 |
| Max Working Pressure Refrigerant Side (psig) | 278 | 278 | 278 | 278 | 278 | 278 | 278 | 278 | 278 |
| Max Working Pressure Fluid Side (psig) | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| FLUID CONNECTIONS (in.) | Victaulic Type | | | | | | | | |
| Inlet and Outlet | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 |
| Drain (NPT) | | | | | | 3/4 | | | |

LEGEND

- Cu-Al — Copper Tubing — Aluminum Fins Condenser Coil
- Cu-Cu — Copper Tubing — Copper Fins Condenser Coil
- OD — Outside Diameter

*06E250 compressors have 4 cylinders; all others have 6.

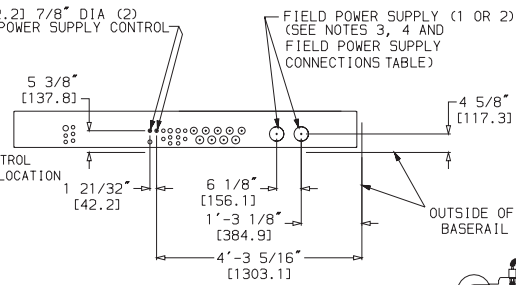
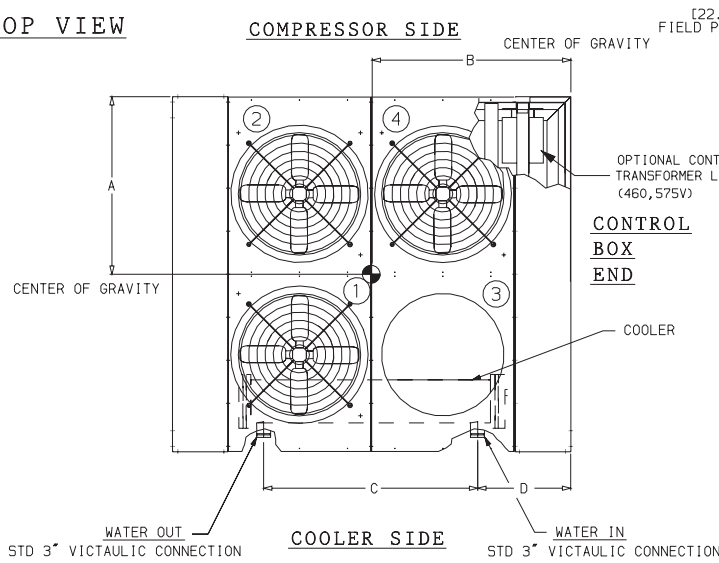
†Based on rated external static pressure of 0.4 or 1.0 in. wg as appropriate.

NOTE: Facing the compressors, Circuit A is on the right and Circuit B is on the left.



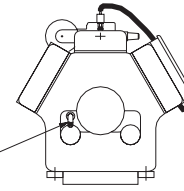


TOP VIEW



VIEW A-A
TOP VIEW OF CONTROL BOX SHELF WITH FIELD POWER SUPPLY CONNECTIONS.

RELIEF VALVE LOCATED ON A1 AND B1 COMPRESSORS



DETAIL B
TYP (2) PLACES

RELIEF VALVES ARE EQUIPPED WITH A 3/8\"/>

| UNIT 30GTN,GTR | DIMENSIONS | | | |
|-------------------|----------------------|------------------------|---------------------|-----------------------|
| | A | B | C | D |
| 040 | 3'-5 1/16" [1059] | 3'-10 13/16" [1189] | 4'-5 1/2" [1359] | 1'-11 1/8" [587.5] |
| 040C | 3'-5 7/8" [1064] | 3'-11" [1194] | 4'-5 1/2" [1359] | 1'-11 1/8" [587.5] |
| 045 | 3'-6 1/16" [1069] | 3'-10 13/16" [1189] | 5'-5 1/2" [1663] | 1'-5 3/8" [436.6] |
| 045C | 3'-6 3/16" [1072] | 3'-11" [1194] | 5'-5 1/2" [1663] | 1'-5 3/8" [436.6] |
| 050 | 3'-5 7/8" [1064] | 3'-11" [1194] | 5'-5 1/2" [1663] | 1'-5 3/8" [436.6] |
| 050C | 3'-6" [1067] | 3'-11 3/16" [1199] | 5'-5 1/2" [1663] | 1'-5 3/8" [436.6] |

NOTES:

- Dimensions in [] are in mm.
- Unit must have clearances for airflow as follows:
Top — Do not restrict in any way.
Ends — [1524 mm] 5 ft
Sides — [1829 mm] 6 ft
- Two 2.00" dia holes would be recommended for parallel conductors on 040 and 045 (208/230 volt) units.
- One 3/8" dia holes would be recommended for single entry power on 050 (208/230 volt) units.
- Mounting holes may be used to mount unit to concrete pad. They are not recommended for spring isolator location.
- If spring isolators are used, a perimeter support channel between the unit and the isolators is recommended.
- When unit has non-fused disconnect option, power side door opens in opposite direction. Non-fused disconnect option available on all voltages.

FIELD POWER SUPPLY CONNECTIONS

| VOLTAGE | UNIT 30GTN,GTR | Hz | DIA | QTY. |
|---------|-------------------|----|------------------|------|
| 208/230 | 040,045 | 60 | 3 5/8" [92.0] | 1 |
| | 050 | 60 | 2 1/2" [63.5] | 2 |
| 460 | 040-050 | 60 | 2 1/2" [63.5] | 1 |
| 575 | 040-050 | 60 | 2 1/2" [63.5] | 1 |
| 380 | 040-050 | 60 | 2 1/2" [63.5] | 1 |
| 346 | 040,045 | 50 | 2 1/2" [63.5] | 1 |
| | 050 | 50 | 3 5/8" [92.0] | 1 |
| 380/415 | 040,045 | 50 | 2 1/2" [63.5] | 1 |
| | 050 | 50 | 3 5/8" [92.0] | 1 |

END VIEW

